Texas Law Review

Articles

Book Reviews

Notes

NOVEMBER 2014 VOL. 93 NO. 1 PAGES 1 TO 274

Texas Law Review (ISSN 0040-4411) is published seven times a year—November, December, February, March, April, May, and June. The annual subscription price is $47.00 except as follows: Texas residents pay $50.88, and foreign subscribers pay $55.00. All publication rights are owned by the Texas Law Review Association. *Texas Law Review* is published under license by The University of Texas at Austin School of Law, P.O. Box 8670, Austin, Texas 78713. Periodicals Postage Paid at Austin, Texas and at additional mailing offices.

POSTMASTER: Send address changes to The University of Texas at Austin School of Law, P.O. Box 8670, Austin, Texas 78713.

Complete sets and single issues are available from WILLIAM S. HEIN & CO., INC., 1285 MAIN ST., BUFFALO, NY 14209-1987. Phone: (800) 828-7571.

Single issues in the current volume may be purchased from the *Texas Law Review* Publications Office for $15.00 per copy, shipping included. Texas residents, please add applicable sales tax.

The *Texas Law Review* is pleased to consider unsolicited manuscripts for publication but regrets that it cannot return them. Please submit a single-spaced manuscript, printed one side only, with footnotes rather than endnotes. Citations should conform with *The Greenbook: Texas Rules of Form* (12th ed. 2010) and *The Bluebook: A Uniform System of Citation* (19th ed. 2010). Except when content suggests otherwise, the *Texas Law Review* follows the guidelines set forth in the *Texas Law Review Manual on Usage & Style* (12th ed. 2011), *The Chicago Manual of Style* (16th ed. 2010), and Bryan A. Garner, *Black's Law Dictionary* (10th ed. 2014).

Editorial Offices: *Texas Law Review*
727 East Dean Keeton Street, Austin, Texas 78705
(512) 232-1280 Fax (512) 471-3282
admin@texaslrev.com
http://www.texaslrev.com

THE UNIVERSITY OF TEXAS SCHOOL OF LAW

ADMINISTRATIVE OFFICERS

WARD FARNSWORTH, B.A., J.D.; *Dean, John Jeffers Research Chair in Law.*
JOHN B. BECKWORTH, B.A., J.D.; *Associate Dean for Administration and Strategic Planning, Lecturer.*
ROBERT M. CHESNEY, B.S., J.D.; *Associate Dean for Academic Affairs, Charles I. Francis Professor in Law.*
WILLIAM E. FORBATH, A.B., B.A., Ph.D., J.D.; *Associate Dean for Research, Lloyd M. Bentsen Chair in Law.*
EDEN E. HARRINGTON, B.A., J.D.; *Associate Dean for Experiential Education, Director of William Wayne Justice Center for Public Interest Law, Clinical Professor.*
ELIZABETH T. BANGS, A.B., J.D.; *Assistant Dean for Student Affairs.*
KIMBERLY L. BIAR, B.B.A., C.P.A.; *Assistant Dean for Financial Affairs.*
MICHAEL G. HARVEY, B.A., B.S.; *Assistant Dean for Technology.*
REBECCA MELTON, B.A., J.D.; *Assistant Dean for Alumni Relations and Development.*
MONICA K. INGRAM, B.A., J.D.; *Assistant Dean for Admissions and Financial Aid.*
DAVID A. MONTOYA, B.A., J.D.; *Assistant Dean for Career Services.*
GREGORY J. SMITH, B.A., J.D.; *Assistant Dean for Continuing Legal Education.*

FACULTY EMERITI

HANS W. BAADE, A.B., J.D., LL.B., LL.M.; *Hugh Lamar Stone Chair Emeritus in Civil Law.*
RICHARD V. BARNDT, B.S.L., LL.B.; *Professor Emeritus.*
JULIUS G. GETMAN, B.A., LL.B., LL.M.; *Earl E. Sheffield Regents Chair Emeritus.*
WILLIAM W. GIBSON, JR., B.A., LL.B.; *Sylvan Lang Professor Emeritus in Law of Trusts.*
ROBERT W. HAMILTON, A.B., J.D.; *Minerva House Drysdale Regents Chair Emeritus.*
DOUGLAS LAYCOCK, B.A., J.D.; *Alice McKean Young Regents Chair Emeritus.*
J.L. LEBOWITZ, A.B., J.D., LL.M.; *Joseph C. Hutcheson Professor Emeritus.*
BASIL S. MARKESINIS, LL.B., Ph.D., D.C.L., LL.D.; *Jamail Regents Chair Emeritus in Law.*
JOHN T. RATLIFF, JR., B.A., LL.B.; *Ben Gardner Sewell Professor Emeritus in Civil Trial Advocacy.*
JAMES M. TREECE, B.S., J.D., M.A.; *Charles I. Francis Professor Emeritus in Law.*

PROFESSORS

JEFFREY B. ABRAMSON, B.A., J.D., Ph.D.; *Professor of Government and Law.*
DAVID E. ADELMAN, B.A., Ph.D., J.D.; *Harry Reasoner Regents Chair in Law.*
DAVID A. ANDERSON, A.B., J.D.; *Fred and Emily Marshall Wulff Centennial Chair in Law.*
MARILYN ARMOUR, B.A., M.S.W., Ph.D.; *Associate Professor of Social Work.*
MARK L. ASCHER, B.A., M.A., J.D., LL.M.; *Joseph D. Jamail Centennial Chair in Law.*
RONEN AVRAHAM, M.B.A., LL.B., LL.M., S.J.D.; *Thomas Shelton Maxey Professor in Law.*
LYNN A. BAKER, B.A., B.A., J.D.; *Frederick M. Baron Chair in Law, Co-Director of Center on Lawyers, Civil Justice, and the Media.*
BARBARA A. BINTLIFF, M.A., J.D.; *Joseph C. Hutcheson Professor in Law, Director of Tarlton Law Library and the Jamail Center for Legal Research.*
LYNN E. BLAIS, A.B., J.D.; *Leroy G. Denman, Jr. Regents Professor in Real Property Law.*
ROBERT G. BONE, B.A., J.D.; *G. Rollie White Teaching Excellence Chair in Law.*
OREN BRACHA, LL.B., S.J.D.; *Howrey LLP and Arnold, White & Durkee Centennial Professor.*
DANIEL M. BRINKS, A.B., J.D., Ph.D.; *Associate Professor, Co-Director of Bernard and Audre Rapoport Center for Human Rights and Justice.*
J. BUDZISZEWSKI, B.A., M.A., Ph.D.; *Professor of Government.*
NORMA V. CANTU, B.A., J.D.; *Professor of Education and Law.*
LOFTUS C. CARSON II, B.S., M. Pub. Affrs., M.B.A., J.D.; *Ronald D. Krist Professor.*
MICHAEL J. CHURGIN, A.B., J.D.; *Raybourne Thompson Centennial Professor.*
JANE M. COHEN, B.A., J.D.; *Edward Clark Centennial Professor.*
FRANK B. CROSS, B.A., J.D.; *Herbert D. Kelleher Centennial Professor of Business Law, Professor of Law.*
WILLIAM H. CUNNINGHAM, B.A., M.B.A., Ph.D.; *Professor of Marketing Administration.*
JENS C. DAMMANN, J.D., LL.M., Dr. Jur., J.S.D.; *William Stamps Farish Professor in Law.*
JOHN DEIGH, B.A., M.A., Ph.D.; *Professor of Philosophy and Law.*
MECHELE DICKERSON, B.A., J.D.; *Arthur L. Moller Chair in Bankruptcy Law and Practice.*
GEORGE E. DIX, B.A., J.D.; *George R. Killam, Jr. Chair of Criminal Law.*
JOHN S. DZIENKOWSKI, B.B.A., J.D.; *Dean John F. Sutton, Jr. Chair in Lawyering and the Legal Process.*
DAVID J. EATON, B.A., M.Sc., M.A., PhD.; *Professor of Public Affairs.*
ZACHARY S. ELKINS, B.A., M.A., Ph.D.; *Associate Professor of Government.*
KAREN L. ENGLE, B.A., J.D.; *Minerva House Drysdale Regents Chair in Law, Founder and Co-Director of Bernard and Audre Rapoport Center for Human Rights and Justice.*
KENNETH FLAMM, A.B., Ph.D.; *Professor of Public Affairs.*
MIRA GANOR, B.A., M.B.A., LL.B., LL.M., J.S.D.; *Professor of Law.*
CHARLES E. GHOLZ, B.S., B.S., Ph.D.; *Associate Professor of Public Affairs.*
JOHN M. GOLDEN, A.B., J.D., Ph.D.; *Loomer Family Professor in Law.*
STEVEN GOODE, B.A., J.D.; *W. James Kronzer Chair in Trial and Appellate Advocacy, University Distinguished Teaching Professor.*
LINO A. GRAGLIA, B.A., LL.B.; *A. W. Walker Centennial Chair in Law.*
BENJAMIN G. GREGG, B.A., M.S., Ph.D.; *Associate Professor of Government.*
CHARLES G. GROAT, B.A., M.S., Ph.D.; *Professor of Public Affairs.*
PATRICIA I. HANSEN, A.B., M.P.A., J.D.; *J. Waddy Bullion Professor.*
HENRY T. C. HU, B.S., M.A., J.D.; *Allan Shivers Chair in the Law of Banking and Finance.*

BOBBY R. INMAN, B.A.; *Professor of Public Affairs.*
GARY J. JACOBSOHN, B.A., M.A., Ph.D.; *Professor of Government and Law.*
DEREK P. JINKS, B.A., M.A., J.D.; *The Marrs McLean Professor in Law.*
STANLEY M. JOHANSON, B.S., LL.B., LL.M.; *James A. Elkins Centennial Chair in Law, University Distinguished Teaching Professor.*
CALVIN H. JOHNSON, B.A., J.D.; *Andrews & Kurth Centennial Professor.*
SUSAN R. KLEIN, B.A., J.D.; *Alice McKean Young Regents Chair in Law.*
JENNIFER E. LAURIN, B.A., J.D.; *Professor of Law.*
SANFORD V. LEVINSON, A.B., Ph.D., J.D.; *W. St. John Garwood and W. St. John Garwood, Jr. Centennial Chair in Law, Professor of Government.*
ANGELA K. LITTWIN, B.A., J.D.; *Professor of Law.*
VIJAY MAHAJAN, M.S.Ch.E., Ph.D.; *Professor of Marketing Administration.*
INGA MARKOVITS, LL.M.; *"The Friends of Joe Jamail" Regents Chair.*
RICHARD S. MARKOVITS, B.A., LL.B., Ph.D.; *John B. Connally Chair.*
THOMAS O. MCGARITY, B.A., J.D.; *Joe R. and Teresa Lozano Long Endowed Chair in Administrative Law.*
STEVEN A. MOORE, B.A., Ph.D.; *Professor of Architecture.*
LINDA S. MULLENIX, B.A., M.Phil., J.D., Ph.D.; *Morris and Rita Atlas Chair in Advocacy.*
STEVEN P. NICHOLS, B.S.M.E., M.S.M.E., J.D., Ph.D.; *Professor of Engineering.*
ROBERT J. PERONI, B.S.C., J.D., LL.M.; *The Fondren Foundation Centennial Chair for Faculty Excellence.*
H. W. PERRY, JR., B.A., M.A., Ph.D.; *Associate Professor of Government and Law.*
LUCAS A. POWE, JR., B.A., J.D.; *Anne Green Regents Chair in Law, Professor of Government.*
WILLIAM C. POWERS, JR., B.A., J.D.; *President of The University of Texas at Austin, Hines H. Baker and Thelma Kelley Baker Chair in Law, University Distinguished Teaching Professor.*
DAVID M. RABBAN, B.A., J.D.; *Dahr Jamail, Randall Hage Jamail and Robert Lee Jamail Regents Chair, University Distinguished Teaching Professor.*
ALAN S. RAU, B.A., LL.B.; *Mark G. and Judy G. Yudof Chair in Law.*
DAVID W. ROBERTSON, B.A., LL.B., LL.M., J.S.D.; *W. Page Keeton Chair in Tort Law, University Distinguished Teaching Professor.*
JOHN A. ROBERTSON, A.B., J.D.; *Vinson & Elkins Chair.*
MARY ROSE, A.B., M.A., Ph.D.; *Associate Professor of Sociology.*
WILLIAM M. SAGE, A.B., M.D., J.D.; *James R. Dougherty Chair for Faculty Excellence.*
LAWRENCE G. SAGER, B.A., LL.B.; *Alice Jane Drysdale Sheffield Regents Chair.*
JOHN J. SAMPSON, B.B.A., LL.B.; *William Benjamin Wynne Professor.*
CHARLES M. SILVER, B.A., M.A., J.D.; *Roy W. and Eugenia C. McDonald Endowed Chair in Civil Procedure, Professor of Government, Co-Director of Center on Lawyers, Civil Justice and the Media.*
ERNEST E. SMITH, B.A., LL.B.; *Rex G. Baker Centennial Chair in Natural Resources Law.*
TARA A. SMITH, B.A., PH.D.; *Professor.*
DAVID B. SPENCE, B.A., J.D., M.A., Ph.D.; *Professor of Business, Government and Society, and Law.*
JAMES C. SPINDLER, B.A., M.A., J.D., Ph.D.; *The Sylvan Lang Professor of Law, Professor of Business.*
JANE STAPLETON, B.S., Ph.D., LL.B., D.C.L., D. Phil.; *Ernest E. Smith Professor.*
JORDAN M. STEIKER, B.A., J.D.; *Judge Robert M. Parker Endowed Chair in Law, Director of Capital Punishment Center.*
MICHAEL F. STURLEY, B.A., J.D.; *Fannie Coplin Regents Chair.*
JEREMY SURI, A.B., M.A. Ph.D.; *Professor of Public Affairs.*
JEFFREY K. TULIS, B.A., M.A., Ph.D.; *Associate Professor of Government.*
GREGORY J. VINCENT, B.A., J.D., Ed.D.; *Professor, Vice President for Diversity and Community Engagement.*
SRIRAM VISHWANATH, B.S., M.S., Ph.D.; *Associate Professor of Electrical and Computer Engineering.*
WENDY E. WAGNER, B.A., M.E.S., J.D.; *Joe A. Worsham Centennial Professor.*
LOUISE WEINBERG, A.B., LL.M, J.D.; *William B. Bates Chair for the Administration of Justice.*
OLIN G. WELLBORN, A.B., J.D.; *William C. Liedtke, Sr. Professor.*
JAY L. WESTBROOK, B.A., J.D.; *Benno C. Schmidt Chair of Business Law.*
ABRAHAM L. WICKELGREN, A.B., J.D., Ph.D.; *Bernard J. Ward Centennial Professor in Law.*
SEAN H. WILLIAMS, B.A., J.D.; *Professor of Law.*
ZIPPORAH B. WISEMAN, B.A., M.A., LL.B.; *Thos. H. Law Centennial Professor.*
PATRICK WOOLLEY, A.B., J.D.; *Beck, Redden & Secrest Professor in Law.*

ASSISTANT PROFESSORS

JOSEPH R. FISHKIN, B.A., M. Phil., J.D., D. Phil.
CARY C. FRANKLIN, B.A., M.St., D. Phil., J.D.
JAMES W. MCCLELLAND, B.S., Ph.D.
SUSAN C. MORSE, A.B., J.D.
TIMOTHY D. WERNER, B.A., M.A., Ph.D.

SENIOR LECTURERS, WRITING LECTURERS, AND CLINICAL PROFESSORS

ALEXANDRA W. ALBRIGHT, B.A., J.D.; *Senior Lecturer.*
WILLIAM P. ALLISON, B.A., J.D.; *Clinical Professor, Director of Criminal Defense Clinic.*
WILLIAM H. BEARDALL, JR., B.A., J.D.; *Clinical Professor, Transnational Worker Rights Clinic.*
NATALIA V. BLINKOVA, B.A., M.A., J.D.; *Lecturer.*
PHILIP C. BOBBITT, A.B., J.D., Ph.D.; *Distinguished Senior Lecturer.*
HUGH L. BRADY, B.A., J.D.; *Clinical Professor, Director of Legislative Lawyering Clinic.*
KAMELA S. BRIDGES, B.A., B.J., J.D.; *Lecturer.*
JOHN C. BUTLER, B.B.A., Ph.D.; *Clinical Associate Professor.*
MARY R. CROUTER, A.B., J.D.; *Clinical Professor, Assistant Director of William Wayne Justice Center for Public Interest Law.*
MICHELE Y. DEITCH, B.A., M.S., J.D.; *Senior Lecturer.*
TIFFANY J. DOWLING, B.A., J.D.; *Clinical Instructor, Director of Actual Innocence Clinic.*
LORI K. DUKE, B.A., J.D.; *Clinical Professor.*
ARIEL E. DULITZKY, J.D., LL.M.; *Clinical Professor, Director of Human Rights Clinic.*

ELANA S. EINHORN, B.A., J.D.; *Lecturer.*
LISA R. ESKOW, A.B., J.D.; *Lecturer.*
TINA V. FERNANDEZ, A.B., J.D.; *Clinical Professor, Director of Pro Bono Programs.*
LAUREN FIELDER, B.A., J.D., LL.M.; *Senior Lecturer, Director of Graduate and International Programs.*
LYNDA E. FROST, B.A., M.Ed., J.D., Ph.D.; *Clinical Associate Professor.*
DENISE L. GILMAN, B.A., J.D.; *Clinical Professor, Co-Director of Immigration Clinic.*
KELLY L. HARAGAN, B.A., J.D.; *Clinical Professor, Director of Environmental Law Clinic.*
BARBARA HINES, B.A., J.D.; *Clinical Professor, Co-Director of Immigration Clinic.*
HARRISON KELLER, B.A., M.A., Ph.D.; *Senior Lecturer, Vice Provost for Higher Education Policy [at the University of Texas at Austin].*
ANDREW KULL, B.A., B.A., M.A., J.D.; *Distinguished Senior Lecturer.*
BRIAN R. LENDECKY, B.B.A., M.P.A.; *Senior Lecturer.*
JEANA A. LUNGWITZ, B.A., J.D.; *Clinical Professor, Director of Domestic Violence Clinic.*
JIM MARCUS, B.A., J.D.; *Clinical Professor.*
FRANCES L. MARTINEZ, B.A., J.D.; *Clinical Professor.*
TRACY W. MCCORMACK, B.A., J.D.; *Senior Lecturer, Director of Advocacy Programs.*
F. SCOTT MCCOWN, B.S., J.D.; *Clinical Professor, Director of Children's Rights Clinic.*
ROBIN B. MEYER, B.A., M.A., J.D.; *Lecturer.*
RANJANA NATARAJAN, B.A., J.D.; *Clinical Professor, Director of Civil Rights Clinic.*
RACHAEL RAWLINS, B.A., M.R.P., J.D.; *Senior Lecturer.*
SEAN J. PETRIE, B.A., J.D.; *Lecturer.*
ELIZA T. PLATTS-MILLS, B.A., J.D.; *Clinical Professor.*
WAYNE SCHIESS, B.A., J.D.; *Senior Lecturer, Director of The David J. Beck Center for Legal Research, Writing and Appellate Advocacy.*
RAOUL D. SCHONEMANN, B.A., J.D. LL.M.; *Clinical Professor.*
PAMELA J. SIGMAN, B.A., J.D.; *Clinical Professor, Director of Juvenile Justice Clinic.*
DAVID S. SOKOLOW, B.A., M.A., J.D., M.B.A.; *Distinguished Senior Lecturer, Director of Student Life.*
LESLIE L. STRAUCH, B.A., J.D.; *Clinical Professor.*
MELINDA E. TAYLOR, B.A., J.D.; *Senior Lecturer, Executive Director of Center for Global Energy, International Arbitration and Environmental Law.*
HEATHER K. WAY, B.A., B.J., J.D.; *Clinical Professor, Director of Entrepreneurship and Community Development Clinic.*
LUCILLE D. WOOD, B.A., J.D.; *Clinical Professor.*
ELIZABETH M. YOUNGDALE, B.A., M.L.I.S., J.D.; *Lecturer.*

ADJUNCT PROFESSORS AND OTHER LECTURERS

ELIZABETH AEBERSOLD, B.A., M.S.
WILLIAM R. ALLENSWORTH, B.A., J.D.
ANDREW W. AUSTIN, B.A., M.Phil., J.D.
MARJORIE I. BACHMAN, B.S., J.D.
CRAIG D. BALL, B.A., J.D.
SHARON C. BAXTER, B.S., J.D.
KARL O. BAYER, B.A., M.S., J.D.
JERRY A. BELL, B.A., J.D.
ALLISON H. BENESCH, B.A., M.S.W., J.D.
CRAIG R. BENNETT, B.S., J.D.
JAMES B. BENNETT, B.B.A., J.D.
MURFF F. BLEDSOE, B.A., J.D.
WILLIAM P. BOWERS, B.B.A., J.D., LL.M.
STACY L. BRAININ, B.A., J.D.
ANTHONY W. BROWN, B.A., J.D.
JAMES E. BROWN, B.S., LL.B., J.D.
TOMMY L. BROYLES, B.A., J.D.
PAUL J. BURKA, B.A., LL.B.
W. AMON BURTON, JR., B.A., M.A., LL.B.
ERIN G. BUSBY, B.A., J.D.
DAVID J. CAMPBELL, B.A., J.D.
AGNES E. CASAS, B.A., J.D.
RUBEN V. CASTANEDA, B.A., J.D.
EDWARD A. CAVAZOS, B.A., J.D.
LINDA BRAY CHANOW, B.A., J.D.
JEFF CIVINS, A.B., M.S., J.D.
ELIZABETH COHEN, B.A., M.S.W., J.D.
KEVIN D. COLLINS, B.A., J.D.
KASIA SOLON CRISTOBAL, B.A., M.S., J.D.
PATRICIA J. CUMMINGS, B.A., J.D.
KEITH B. DAVIS, B.S., J.D.
SCOTT D. DEATHERAGE, B.A., J.D.
DICK DEGUERIN, B.A., LL.B.
ADAM R. DELL, B.A., J.D.
MELONIE M. DEROSE, B.A., J.D.
RICHARD D. DEUTSCH, B.A., B.A., J.D.
STEVEN K. DEWOLF, B.A., J.D, LL.M.
REBECCA H. DIFFEN, B.A., J.D.
ANDREW S. DREIER
CASEY D. DUNCAN, B.A., M.L.I.S., J.D.
PHILIP DURST, B.A., M.A., J.D.
JAY D. ELLWANGER, B.A., J.D.
EDWARD Z. FAIR, B.A., M.S.W., J.D.
ROSS FISCHER, B.A., J.D.
JOHN C. FLEMING, B.A., J.D.
KYLE K. FOX, B.A., J.D.
DAVID C. FREDERICK, B.A., Ph.D., J.D.
GREGORY D. FREED, B.A., J.D.
FRED J. FUCHS, B.A., J.D.
RYAN M. GARCIA, B.G.S., J.D.
GRETTA G. GARDNER, B.A., J.D.
BRYAN A. GARNER, B.A., J.D.
MICHAEL S. GOLDBERG, B.A., J.D.
MICHAEL J. GOLDEN, A.B., J.D.
DAVID M. GONZALEZ, B.A., J.D.
JOHN F. GREENMAN
DAVID HALPERN, B.A., J.D.
ELIZABETH HALUSKA-RAUSCH, B.A., M.A., M.S., Ph.D.
BARBARA HANNON, B.A., M.S., J.D., Ph. D.
CLINT A. HARBOUR, B.A., B.A., J.D., LL.M.
ROBERT L. HARGETT, B.B.A., J.D.
MARY L. HARRELL, B.S., J.D.
CHRISTOPHER S. HARRISON, Ph.D., J.D.
WILLIAM M. HART, B.A., J.D.
JOHN R. HAYS, JR., B.A., J.D.
SUSAN J. HIGHTOWER, B.A., M.A., J.D.
KENNETH E. HOUP, JR., B.A., J.D.
RANDY R. HOWRY, B.J., J.D.
MONTY G. HUMBLE, B.A., J.D.
JENNIFER D. JASPER, B.S., M.A., J.D.

DIRK M. JORDAN, B.A., J.D.
JEFFREY R. JURY, B.A., J.D.
PATRICK O. KEEL, B.A., J.D.
DOUGLAS L. KEENE, B.A., M.Ed., Ph.D.
CHARI L. KELLY, B.A., J.D.
JEAN A. KELLY, B.A., J.D.
ROBERT N. KEPPLE, B.A., J.D.
PAUL S. KIMBOL, B.A., J.D.
MARK L. KINCAID, B.B.A., J.D.
ALICE L. KING, B.A., J.D.
MICHAEL R. KRAWZSENEK, B.S., J.D.
AMI L. LARSON, B.A., J.D.
LARRY LAUDAN, B.A., M.A., Ph.D.
JODI R. LAZAR, B.A., J.D.
KEVIN L. LEAHY, B.A., J.D.
DAVID P. LEIN, B.A., M.P.A., J.D.
ANDRES J. LINETZKY, B.A., LL.M.
JAMES-LLOYD LOFTIS, B.B.A., J.D.
MANUEL LOPEZ, A.B., J.D.
MARIO A. LOYOLA, B.A., J.D.
ANDREW F. MACRAE, B.J., J.D.
ANDREA M. MARSH, B.A., J.D.
HARRY S. MARTIN, A.B., M.L.S., J.D.
LORI R. MASON, B.A., J.D.
PHILIP K. MAXWELL, B.A., J.D.
PETER C. MCCABE, B.A., J.D.
ANN M. MCGEEHAN, B.A., J.D.
BARRY F. MCNEIL, B.A., J.D.
MARGARET M. MENICUCCI, B.A., J.D.
JO ANN MERICA, B.A., J.D.
RANELLE M. MERONEY, B.A., J.D.
ELIZABETH N. MILLER, B.A., J.D.
JONATHAN F. MITCHELL, B.A., J.D.
DARYL L. MOORE, B.A., M.L.A., J.D.
EDWIN G. MORRIS, B.S., J.D.
SARAH J. MUNSON, B.A., J.D.
HENRY C. MYERS, B.S., J.D.
JOHN A. NEAL, B.A., J.D.
MANUEL H. NEWBURGER, B.A., J.D.
HOWARD D. NIRKEN, B.A., M.P.Aff, J.D.
CHRISTINE S. NISHIMURA, B.A., J.D.
DAVID G. NIX, B.S.E., LL.M., J.D.
JOSEPH W. NOEL, B.S.E., J.D., M.S.L.S.
JANE A. O'CONNELL, B.A., M.S., J.D.
PATRICK L. O'DANIEL, B.B.A., J.D.
M. ARIEL PAYAN, B.A., J.D.
MARK L. PERLMUTTER, B.S., J.D.
JONATHAN PRATTER, B.A., M.S.L.I.S., J.D.
VELVA L. PRICE, B.A., J.D.
MARGARET K. REIN, B.A., J.D.
CLARK W. RICHARDS, B.A., LL.M., J.D.
BRIAN C. RIDER, B.A., J.D.
ROBERT M. ROACH, JR., B.A., J.D.
BRIAN J. ROARK, B.A., J.D.
BETTY E. RODRIGUEZ, B.S.W., J.D.
JAMES D. ROWE, B.A., J.D.
MATTHEW C. RYAN, B.A., J.D.
KAREN R. SAGE, B.A., J.D.
MARK A. SANTOS, B.A., J.D.
JAMES J. SCHESKE, B.A., J.D.
MICHAEL J. SCHLESS, B.A., J.D.
SUSAN SCHULTZ, B.S., J.D.
AMY J. SCHUMACHER, B.A., J.D.
SUZANNE SCHWARTZ, B.J., J.D.
RICHARD J. SEGURA, Jr., B.A., J.D.
STACEY ROGERS SHARP, B.S., J.D.
DAVID A. SHEPPARD, B.A., J.D.
HON. ERIC M. SHEPPERD, B.A., J.D.
A. HAAG SHERMAN, B.B.A., J.D., C.P.A.
RONALD J. SIEVERT, B.A., J.D.
AMBROSIO A. SILVA, B.S., J.D.
STUART R. SINGER, A.B., J.D.
HON. BEA A. SMITH, B.A., M.A., J.D.
LYDIA N. SOLIZ, B.B.A., J.D.
STEPHEN M. SONNENBERG, A.B., M.D.
JAMES M. SPELLINGS, Jr., B.S., J.D.
KACIE L. STARR, B.A., J.D.
MATTHEW R. STEINKE, B.A., M.L.I.S., J.D.
MOLLIE E. STEMPER, B.A., J.D.
WILLIAM F. STUTTS, B.A., J.D.
MATTHEW J. SULLIVAN, B.S., J.D.
GRETCHEN S. SWEEN, B.A., M.A., Ph.D., J.D.
JEREMY S. SYLESTINE, B.A., J.D.
BRADLEY P. TEMPLE, B.A., J.D.
SHERINE E. THOMAS, B.A., J.D.
TERRY O. TOTTENHAM, B.S., LL.M., J.D.
CARLOS R. TREVINO
TRISHA TRIGILIO, B.A., J.D.
MICHAEL S. TRUESDALE, B.A., M.A., J.D.
TIMOTHY J. TYLER, B.A., J.D.
SUSAN S. VANCE, B.B.A., J.D.
LANA K. VARNEY, B.A., J.D.
DEBORAH M. WAGNER, B.A., M.Arch., J.D.
CHRISTOPHER M. WEIMER
WARE V. WENDELL, A.B., J.D.
RODERICK E. WETSEL, B.A., J.D.
THEA WHALEN, B.A., J.D.
DARA WHITEHEAD, B.A., M.S.
RANDALL B. WILHITE, B.B.A., J.D.
TIMOTHY A. WILKINS, B.A., M.P.P., J.D.
DAVID G. WILLE, B.S.E.E., M.S.E.E., J.D.
ANDREW M. WILLIAMS, B.A., J.D.
CHRISTINA T. WISDOM, B.A., J.D.
TRAVIS M. WOHLERS
STEPHEN M. WOLFSON, B.A., M.S., J.D.
DENNEY L. WRIGHT, B.B.A., J.D., LL.M.
DANIEL J. YOUNG, B.A., J.D.
EVAN A. YOUNG, A.B., B.A., J.D.
TREVOR YOUNG, B.A., B.A., M.A., J.D., LL.M

VISITING PROFESSORS

OWEN L. ANDERSON, B.A., J.D.
ANTONIO H. BENJAMIN, LL.B., LL.M.
VICTOR FERRERES, J.D., LL.M., J.S.D.
ALON KLEMENT
GRAHAM B. STRONG, B.A., J.D., LL.M.

* * *

Texas Law Review

Volume 93 2014–2015

* * *

Texas Law Review

Volume 93, Number 1, November 2014

ARTICLES

BOOK REVIEWS

NOTES

* * *

Articles

Bankers and Chancellors

William W. Bratton* & Michael L. Wachter**

The Delaware Chancery Court recently squared off against the investment banking world with two rulings that tie Revlon *violations to banker conflicts of interest. Critics charge the court with slamming down fiduciary principles of self-abnegation in a business context where they have no place or, contrariwise, letting culpable banks off the hook with ineffectual slaps on the wrist. This Article addresses this controversy, offering a sustained look at the banker–client advisory relationship. We pose a clear answer to the questions raised: although this is nominally fiduciary territory, both banker–client relationships and the Chancery Court's recent interventions are contractually driven. At the same time, conflicts of interest are wrought into banker–client relationships: the structure of the advisory sector makes them hard to avoid and clients, expecting them, make allowances. Advisor banks emerge in practice as arm's-length counterparties constrained less by rules of law than by a market for reputation. Meanwhile, the boards of directors that engage bankers clearly are fiduciaries in law and fact and company sales processes implicate enhanced scrutiny of their performance under* Revlon. Revlon *scrutiny, however, is less about traditional fiduciary self-abnegation than about diligence in getting the best deal for the shareholders. The Chancery Court's banker cases treat conflicts in a contractual rather than fiduciary frame, standing for the proposition that a client with a* Revlon *duty has no business consenting to a conflict and then passively trusting that the conflicted fiduciary will deal in the best of faith. The client should instead treat the banker like an arm's-length counterparty, assuming self-interested motivation on the banker's part and using contract to protect itself and its shareholders. As a doctrinal and economic matter, the banker cases are about taking contract seriously and getting performance incentives properly aligned and not about traditional fiduciary ethics. They deliver considerably more than a slap on the wrist, having already ushered in a demonstrably stricter regime of conflict management in sell-side boardrooms. They also usher in the Delaware Chancery Court itself as a focal-point player in the market for banker*

---

* Deputy Dean and Nicholas F. Gallicchio Professor of Law; Co-Director, Institute for Law & Economics, University of Pennsylvania Law School. Our thanks to Deborah DeMott, Richard Hynes, Eric Klinger-Wilensky, Casey Kobi, Travis Laster, Tom Lin, Steven Rosenblum, Rob Spatt, Andrew Tuch, participants at the fall 2013 Penn Law ILE Roundtable for their comments on earlier versions, and to our research assistants John Cooper, Nicholas Griffin, and Marisa Kirio.

** William B. Johnson Professor of Law & Economics; Co-Director, Institute for Law & Economics, University of Pennsylvania Law School.

reputation. The constraints of the reputational market emerge as more robust in consequence.

I. Introduction

On Valentine's Day 2011, Delaware's Vice-Chancellor Travis Laster enjoined the shareholder vote on a private equity buyout of Del Monte Foods Company. The ground: the company's board of directors was disabled from acting fairly in approving the merger due to the conflicted position of its investment banker–advisor, Barclays.[1] The injunction lasted only twenty days, and the deal eventually closed.[2] Even so, the ruling rocked the world of mergers and acquisitions (M&A)[3] by casting standard practices into question, most prominently "stapled" financing—an arrangement in which the selling company's banker–advisor also finances the purchase price for the buyer. Uncertainty followed for sell-side companies, their advisors, and their counsel.[4]

---

1. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 839–40 (Del. Ch. 2011).

2. *Id.* at 840.

3. *See, e.g.*, Ashby Jones, *Him Again? Laster Rips Barclays, Holds up Del Monte Sale to PE Group*, WALL ST. J. L. BLOG (Feb. 15, 2011, 4:11 PM), http://blogs.wsj.com/law/2011/02/15/him-again-laster-rips-barclays-holds-up-del-monte-sale-to-pe-group, *archived at* http://perma.cc/4M9Z-AQWL (noting that the decision "casts a harsh light" on typical Wall Street bank M&A advisory practices).

4. *See* David Marcus, *The Case of J. Travis Laster*, DEAL PIPELINE (Apr. 1, 2011, 12:51 PM), http://pipeline.thedeal.com/tdd/ViewArticle.dl?id=10003542734, *archived at* http://perma.cc/MYQ5-Y3Z8 (discussing Vice-Chancellor Laster's boldness, the decision in *Del Monte*, and legal and financial professionals' concerns about the resulting lack of predictability in their work); Vipal Monga, *Make My Day*, DEAL PIPELINE (Feb. 18, 2011, 11:21 AM), http://pipeline.thedeal.com/tdd/ViewBlog.dl?id=38439, *archived at* http://perma.cc/R2YN-H6GZ ("Laster's opinion exposes the taken-for-granted process that occurs in many going-private deals."); Shira Ovide & Gina Chon, *Judge Delays KKR's Del Monte Deal and Slams Barclays*, WALL ST. J. DEAL J. (Feb. 15, 2011, 1:19 PM), http://blogs.wsj.com/deals/2011/02/15/judge-delays-kkrs-del-monte-deal-and-slams-barclays, *archived at* http://perma.cc/32SW-39PD (reporting on Vice-Chancellor Laster's criticism of Barclays for providing what many banks believe is "bread-and-butter" advisory work). Commentary continued for some time. *See, e.g.*, Robert Teitelman, *Strine, El Paso and the Shaming Thing*, DEAL PIPELINE (Mar. 7, 2012, 1:01 PM), http://www.thedeal.com/content/regulatory/strine-el-paso-and-the-shaming-thing.php, *archived at* http://perma.cc/ZC5X-VH72 (describing Vice-Chancellor Laster as suffering "considerable blowback").

A second upset followed just over a year later, when then-Chancellor Leo Strine ruled on a request to enjoin the shareholder vote on the merger of El Paso Corporation into Kinder Morgan, Inc.[5] Investment banker conflicts had poisoned the sell-side well once again and the court excoriated the actors responsible, in particular Goldman Sachs.[6] But this time the injunction was refused, the chancellor declining to obstruct sell-side shareholder access to what might be deemed a good deal.[7] Reaction again was loud. Some praised the chancellor's shaming strategy,[8] while others accused him of surrendering to the investment banking interest in declining to enjoin.[9] Still others thought that any surrender was to the plaintiffs' lawyers[10]: the chancellor had departed from "traditional principles of agency law."[11] It was a case of a judge making a mountain out of a Wall Street molehill.[12] There were even whispers about ulterior motives—many

5. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432, 433, 452 (Del. Ch. 2012).

6. *Id.* at 440–44.

7. The case was not closed, for the breaches of duty were left over for *ex post* litigation over liability and damages. *Id.* at 451–52.

8. *See* Reynolds Holding, *Judges' Words Can Speak as Loudly as Actions*, REUTERS BREAKINGVIEWS (Mar. 20, 2012), http://blogs.reuters.com/breakingviews/2012/03/20/judges-words-can-speak-as-loudly-as-actions, *archived at* http://perma.cc/JU7S-DUEY (describing strong, public shaming techniques like Chancellor Strine's as "useful precedent" in shaping behavior); Steven Davidoff Solomon, *The Losers in the El Paso Corp. Opinion*, DEALBOOK, N.Y. TIMES (Mar. 1, 2012, 1:20 PM), http://dealbook.nytimes.com/2012/03/01/the-losers-in-the-el-paso-corp-opinion/?, *archived at* http://perma.cc/U42H-RGAY (identifying seller CEO Douglas Foshee and the bank as the losers); Teitelman, *supra* note 4.

9. *See* David Weidner, *Is Leo Strine Serious?*, WALL ST. J., Mar. 8, 2012, http://online.wsj.com/article/SB10001424052970203961204577268191951502420.html, *archived at* http://perma.cc/8WPK-3UR2 (arguing that Chancellor Strine colorfully criticized the transaction but ultimately failed to provide a remedy for the shareholders); Stefan Padfield, *A Test Case for Shaming as Sanction?*, THERACETOTHEBOTTOM.ORG (Mar. 10, 2012, 11:26 AM), http://www.theracetothebottom.org/home/a-test-case-for-shaming-as-sanction.html, *archived at* http://perma.cc/R63Q-2VCG (expressing skepticism that the bankers from Goldman would face any real financial or reputational consequences following Chancellor Strine's decision to deny an injunction in *El Paso*); Brian J.M. Quinn, *Is Corporate Law Serious? Maybe . . . Maybe Not*, M&A L. PROF BLOG (Mar. 8, 2012), http://lawprofessors.typepad.com/mergers/2012/03/is-corporate-law-serious.html, *archived at* http://perma.cc/SD7G-EAAN (considering whether leaving decisions up to shareholders, as in the *El Paso* decision, represents a failure of corporate law); Jonathan Weil, *Goldman Raises Conflicts to a High Art*, BLOOMBERG VIEW (Mar. 8, 2012, 7:00 PM), http://www.bloomberg.com/news/2012-03-09/goldman-sachs-raises-conflicts-to-a-high-art-jonathan-weil.html, *archived at* http://perma.cc/TU9N-9JP3 (suggesting that bankers emerged as the real winner).

10. Alison Frankel, *How Plaintiffs' Lawyers Are Winning the Delaware Injunction Game*, ANALYSIS & OPINION, REUTERS (Mar. 7, 2012), http://blogs.reuters.com/alison-frankel/2012/03/07/how-plaintiffs-lawyers-are-winning-the-delaware-injunction-game/, *archived at* http://perma.cc/S3AM-JAGL (noting that filing for preliminary injunctions can help shareholders recover after-the-fact damages, which helps plaintiffs' lawyers recover fees).

11. Robert T. Miller, *Journeys in* Revlon-*Land with a Conflicted Financial Advisor:* Del Monte *and* El Paso 18 (Univ. of Iowa, Legal Studies Research Paper No. 12-24, 2012), *available at* http://ssrn.com/abs=2156488, *archived at* http://perma.cc/QP6T-J3A2.

12. *See* Matt Levine, *Delaware Judge Driven to Possibly Obscene Energy Industry*

see today's Delaware courts in an awkward institutional position, working to retain their leading position as corporate law arbiters even as plaintiffs increasingly choose other venues for litigation of Delaware corporate law claims.[13] Recent Chancery Court decisions can be seen as compensating tilts in the direction of the plaintiffs' bar[14] and these investment banker cases readily take the profile.[15]

Blowback continued a year later still. The Chancery Court's hard looks at Barclays and Goldman had come to be seen as game changers[16]: sell-side boards suddenly had become ultrasensitive to banker conflicts;[17] staples were said to have largely disappeared;[18] and big banks like Goldman

---

Euphemism by Kinder-El Paso Merger, DEALBREAKER (Mar. 1, 2012, 6:47 PM), http://dealbreaker.com/2012/03/delaware-judge-driven-to-possibly-obscene-energy-industry-euphemism-by-kinder-el-paso-merger/, *archived at* http://perma.cc/XP2R-NTN6 ("Strine makes much of the fact that Morgan Stanley only got paid if the merger happened. Welcome to all mergers! That, by the way, is actually a real conflict. But it's hallowed by tradition so whatever."). Inconsistency between the cases' two results also was a topic of discussion. *See, e.g.*, Solomon, *supra* note 8 (recognizing that the decision of the chancellor in *El Paso* was a "different approach than the one adopted" in *Del Monte*).

13. A stack of scholarly studies confirms this. *See* Matthew D. Cain & Steven M. Davidoff, *A Great Game: The Dynamics of State Competition and Litigation*, 100 IOWA L. REV. (forthcoming 2014) (manuscript at 3, 5), *available at* http://ssrn.com/abstract=1984758, *archived at* http://perma.cc/JL94-WF78 (studying 1,117 M&A transactions greater than $100 million from 2005 to 2011 and finding that "Delaware attracts only 44.6% of [state merger] litigation"); Jennifer J. Johnson, *Securities Class Actions in State Court*, 80 U. CIN. L. REV. 349, 361, 369 (2011) (analyzing a dataset of state securities class action filings and finding that "while the number of Delaware securities class actions has increased, the relative percentage of Delaware cases compared to those in other jurisdictions has fallen"); Brian J.M. Quinn, *Shareholder Lawsuits, Status Quo Bias, and Adoption of the Exclusive Forum Provision*, 45 U.C. DAVIS L. REV. 137, 148 (2011) (studying a dataset of 119 mergers and showing that only 7% of mergers that involved litigation were filed solely in Delaware and 40% were filed solely outside of Delaware); John Armour et al., *Is Delaware Losing Its Cases?* 19–20 (Nw. Univ., Law & Econ. Research Paper No. 10-03, 2010), *available at* http://ssrn.com/abstract=1578404, *archived at* http://perma.cc/7KFZ-M8R8 (showing that Delaware courts have been receiving a declining share of suits relating to M&A, as "suits against Delaware targets have become increasingly common in both federal court and in other state courts").

14. *See, e.g.*, Ams. Mining Corp. v. Theriault, 51 A.3d 1213, 1252 (Del. 2012), *aff'g In re* S. Peru Copper Corp. S'holder Derivative Litig., 52 A.3d 761 (Del. Ch. 2011) (affirming a Delaware Chancery Court award of over $2 billion in damages and over $304 million in attorneys' fees); Alison Frankel, *Record $285 ML Fee Award is Strine's Message to Plaintiff's Bar*, ANALYSIS & OPINION, REUTERS (Dec. 21, 2011), http://blogs.reuters.com/alison-frankel/2011/12/21/record-285-ml-fee-award-is-strines-message-to-plaintiffs-bar/, *archived at* http://perma.cc/PYE2-RHHA (noting that Strine's opinion in *Southern Copper* indicated Delaware would continue to reward plaintiff's firms for bringing high-risk suits by ensuring they are "well compensated").

15. We note that any compensating tilts are in turn compensated by Chancery Court decisions that constrain plaintiffs' venue choices. *See, e.g.*, Boilermakers Local 154 Ret. Fund v. Chevron Corp., 73 A.3d 934, 963 (Del. Ch. 2013) (sustaining forum selection bylaws).

16. *See* Liz Hoffman, *Boutique Banks Ride Conflict Fears up M&A League Tables*, LAW360 (Apr. 3, 2013, 9:42 PM), http://www.law360.com/articles/429765/boutique-banks-ride-conflict-fears-up-m-a-league-tables, *archived at* http://perma.cc/VA6L-77RD (noting that the warnings in the Chancery Court's *Del Monte* and *El Paso* opinions had "seeped into deal making").

17. *Id.*

18. *Id.*

and Barclays were losing market share while smaller, conflict-free "boutique" advisory firms rose to the top ten league rankings.[19] The cases had so much affected transactional practice as to prompt talk of overkill,[20] with Delaware judges themselves commenting about possible deal maker overreaction.[21]

But the Chancery Court returned to the fray undaunted in 2014. In *In re Rural Metro Corp. Stockholders Litigation*,[22] Vice-Chancellor Laster ruled against a banker once more, this time after a trial on the merits, confirming the vitality of banker liability on an aiding and abetting theory.[23] Some commentators pushed back yet again, this time warning of crushing damages.[24] Others noted the opinion with approval.[25]

It seems the Chancery Court is damned if it doesn't and damned if it does when it comes to conflicted investment bankers. It is overly lenient and ineffectual in the eyes of some, while in other eyes it is too quick to condemn, a slight raise of the judicial eyebrow seemingly bringing great financial institutions to their knees. At the same time, both sides seem to agree that the hard looks at banker conflicts in *Del Monte*[26] and *El Paso*[27] herald a break with the past.

In fact there is no change in the terms of the law. *Del Monte* and *El Paso* apply longstanding principles without modifying them in any way. The break with the past lies in the very act of application.[28] Important

---

19. *Id.*

20. Liz Hoffman, *Takeaways from Tulane, Where M&A Elite Rub Elbows*, LAW360 (Mar. 25, 2013, 8:57 PM), http://www.law360.com/articles/426325/takeaways-from-tulane-where-m-a-elite-rub-elbows, *archived at* http://perma.cc/J9YL-2FXN.

21. *Id.*

22. 88 A.3d 54 (Del. Ch. 2014).

23. *Id.* at 63.

24. *See, e.g.*, Steven Davidoff Solomon, *Ruling Highlights Unequal Treatment in Penalizing Corporate Wrongdoers*, DEALBOOK, N.Y. TIMES (Mar. 18, 2014, 6:45 PM), http://dealbook.nytimes.com/2014/03/18/ruling-highlights-unequal-treatment-in-penalizing-corporate-wrongdoers/?_php=true&_type=blogs&_r=0, *archived at* http://perma.cc/Y4B9-KWDR (warning of a potential $250 million judgment against an investment bank over a deal for only $5.1 million).

25. *See, e.g.*, Mark Roe, *The Examiners: Mark Roe on the Rural/Metro Ruling*, BANKRUPTCY BEAT, WALL ST. J. (May 2, 2014, 12:12 PM), http://blogs.wsj.com/bankruptcy/2014/05/02/the-examiners-mark-roe-on-the-ruralmetro-ruling/, *archived at* http://perma.cc/NC4L-LS9M (noting that the opinion was "a strong one, not to be criticized by anyone other than conflicted bankers").

26. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813 (Del. Ch. 2011).

27. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432 (Del. Ch. 2012).

28. History holds out only one comparable *Revlon* case: Mills Acquisition Co. v. Macmillan, Inc., 559 A.2d 1261 (Del. 1988). The facts were so extreme as to make it distinguishable. The top executives at Macmillan were attempting to execute a management buyout with KKR. *Id.* at 1264. Since their deal contemplated that they would remain with the company after the merger, the transaction was scrutinized under the duty of loyalty as a self-dealing transaction as well as under *Revlon*. *Id.* at 1280. A rival bidder, Maxwell, complicated things for the executives. As the auction proceeded they tipped their own favored bidder, KKR, about Maxwell's moves. *Id.* at 1275. Macmillan's investment banker, Bruce Wasserstein, fell in with the favoritism, funneling information to KKR that was not shared with Maxwell, *id.* at 1276, and later falsely representing

questions arise in consequence, questions about the relationship between banker–advisors and their corporate clients, questions often asked in the past but never satisfactorily answered. Is this a fiduciary relationship? If the answer is yes, why should banker conflicts be tolerated at all in a world where nobody would proceed with a sale process where the same law firm represented both sides? If banker conflicts jeopardize the interests of sell-side shareholders, it would seem to follow that bankers should be modeled like lawyers and accountants—as professionals whose ethical responsibilities include conflict avoidance. Alternatively, perhaps the relationship is not fiduciary, and if it is not, why should investment banker conflicts have a disabling effect on the good faith actions of independent sell-side directors? If professionalization is unsuited to the bankers' role, then conflicts should be expected and arguably tolerated. Which doctrinal template comes to bear here, fiduciary or contract?

This Article answers these questions, offering the first sustained look at the banker–client advisory relationship in this country's legal literature.[29] We take the two basic legal building blocks—the agency law that channels the banker's relationship with its client and the *Revlon*[30] doctrine that inspects the client's diligence in selling the company—and frame the issues contextually, looking to M&A practice, the structure of the advisory sector, and applicable economic theory, making a further comparative reference to the conflict-of-interest rules governing the lawyers and auditors who also provide services to large corporate clients.

A clear answer to the questions emerges: although this is nominally fiduciary territory, both banker–client relationships and the Chancery

---

to the board that the auction had been fairly conducted. *Id.* at 1277. Applying the rule under the duty of loyalty, the court required that the process must pass entire fairness review. *Id.* at 1280. The court found no justification for the misinformation and discrimination against Macmillan. *Id.* at 1281–82. The banker's failure to disclose the KKR tip to the board was also disabling—when a board is deceived by self-interested actors, it ruled, board decisions are "voidable at the behest of innocent parties to whom a fiduciary duty was owed and breached." *Id.* at 1284.

29. Professor Tuch offers an extensive review of banker–client relationships in Australian law. *See* Andrew Tuch, *Investment Banks as Fiduciaries: Implications for Conflicts of Interest*, 29 MELB. U. L. REV. 478, 479–80 (2005) [hereinafter Tuch, *Investment Banks*] (discussing whether banker–client relationships give rise to a fiduciary duty under Australian law); Andrew Tuch, *Obligations of Financial Advisors in Change-of-Control Transactions: Fiduciary and Other Questions*, 24 COMPANY & SEC. L.J. 488, 489 (2006) (considering whether Australian law compels bankers to avoid conflicts of interest in change-of-control transactions or if "less onerous" conflict-management procedures are sufficient); Andrew Tuch, *The Paradox of Financial Services Regulation: Preserving Client Expectations of Loyalty in an Industry Rife with Conflicts of Interest* 2–3, 15 (Sydney Law Sch., Legal Studies Research Paper No. 08/21, 2008) [hereinafter Tuch, *Paradox*], *available at* http://ssrn.com/abstract=1086480, *archived at* http://perma.cc/4LCH-FEE3 (highlighting the types of conflicts that inherently arise due to the organizational structure of modern investment banks and examining statutory obligations to manage such conflicts under Australian law). Tuch answers the question regarding the application of fiduciary duty affirmatively, analogizing to a number of other relationships under various countries' laws. Tuch, *Investment Banks*, *supra*, at 490–97.

30. Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (Del. 1986).

Court's recent interventions are contractually driven. Banker–advisors are agents and therefore fiduciaries, but they and their clients also make full use of agency law's opt-out permission, opening a wide door to permit conflicted representation. Corporate law lends a hand by cutting off shareholder actions in respect of the agency. Conflicts of interest have become wrought into banker–client relationships; as a result, the structure of the advisory sector makes them hard to avoid and clients, expecting them, make allowances. Advisor banks emerge in practice as arm's-length counterparties constrained less by rules of law than by a market for reputation. The corporate lawyers who work beside the bankers on the same deals make for an interesting contrast: although the legal regime governing lawyer conflicts is not fundamentally different, reputational constraints loom much larger and conflicts are more likely to be avoided.

Meanwhile, the boards of directors that engage bankers clearly *are* fiduciaries in law and fact, and company sales processes implicate enhanced scrutiny of their performance under *Revlon*.[31] *Revlon* scrutiny, however, is not in the first instance about traditional fiduciary self-abnegation. It is instead about diligence in getting the best deal for the shareholders. *Revlon* review takes the court through all aspects of the deal, both the contract itself and the process that creates it.[32] Anything that impairs sell-side incentives is a fair topic for questioning, including banker conflicts.

Del Monte and *El Paso* stand for the proposition that sell-side boards must treat banker contracts in a contractual rather than fiduciary frame. The cases presuppose that bankers and clients have opted to define their relationships contractually and proceed to work out this choice's logical implications in the context of review of the selling board's diligence. Contract follows on contract: a client with a *Revlon* duty has no business consenting to a conflict and then passively trusting that the conflicted fiduciary will deal in the best of faith. The client should instead treat the banker like an arm's-length counterparty, assuming self-interested motivation on the banker's part and using contract to protect itself and its shareholders. Although one can draw a clash of fiduciary and contractual values out of the cases' facts, as a structural matter—both economic and doctrinal—the cases are about taking contract seriously. They show us fiduciary principles operating at a high stage of evolution tailored to the sophisticated context of M&A.

This contractual perspective further explicates the cases' impact. They certainly usher in a stricter regime of conflict management in sell-side boardrooms. But they also usher in the Delaware Chancery Court itself as a

31. *Id.* at 179, 182 (requiring directors to maximize short-term value once they have decided to sell a company for cash).

32. *See id.* at 176 (holding that Delaware law did not permit lock-up agreements if the contracts resulted from a process that was tainted by a breach of fiduciary duty).

focal-point player in the market for banker reputation. The court's fact-finding uncovers hidden information about banker conduct, prompting reputational reassessment. An accompanying negative legal judgment makes the court's interventions doubly unwelcome to the bankers. This is unsurprising, for reputational market constraints emerge as more robust.

Having answered the questions about the cases' legal and normative implications, undercutting the notion that *Del Monte* and *El Paso* impose traditional fiduciary norms on unwilling, sophisticated parties, we turn to the cases' critics and their claims that they do too little to police banker conflicts or, alternatively, too much. We test the Chancery Court's approach of case-by-case intervention under the open-ended *Revlon* standard to the closest available alternatives. We play both sides, asking whether bankers plausibly can be treated either as professionals owing strict fiduciary duties or contract counterparties free to pursue self-interested goals. The inquiry leads to two thought experiments: we consider each of per se prohibition of banker conflicts and safe harbors that make them less vulnerable to challenge. Neither of these clearer alternatives proves feasible or superior. Conflicted bankers, if appropriately managed, can add value to a deal; conflicted bankers, if not appropriately managed, can be a destructive influence even given full disclosure and engagement of a second, unconflicted banker.

We are left launching actors in the M&A world into a rough, litigious sea of uncertainty. But they can navigate it. The primary decision makers here are not courts but independent directors of selling companies, actors with recourse to the best available legal counsel. As such, they are well equipped to make adjustments and cope with banker conflicts in the wake of these Chancery Court interventions. The practice has indeed changed. Stapled financing persists, but not in acquisitions likely to trigger *Revlon* scrutiny. Conflicts remain wrought into banker–client relationships even so. And, while relatively less conflicted boutique investment banks have gained some market share since 2011,[33] they have done so in continuance of a trend going back many years.[34]

Part II looks at what investment bankers do when companies are sold. It first describes the merger-advisory role, in which the banker is the channel for the board's information about both a sale's desirability and the optimal set of terms. Part II goes on to detail two ancillary services, the rendering of fairness opinions and the provision of debt financing.

---

33. David Gelles, *30% of M.&A. Advisory Fees Went to Smaller Firms in 2013*, DEALBOOK, N.Y. TIMES (Jan. 8, 2014, 2:56 PM), http://dealbook.nytimes.com/2014/01/08/a-banner-year-for-boutique-investment-banks/, *archived at* http://perma.cc/UM5S-X9TS.

34. Paul Sharma, *Investment Banking Goes Boutique*, WALL ST. J., Oct. 10, 2010, http://online.wsj.com/news/articles/SB10001424052748704657304575539952433801886, *archived at* http://perma.cc/6EQC-JWET (demonstrating that boutique investment firms' market share gains are part of an existing trend).

Conflicts prove pervasive. Bankers often have ties to acquiring companies and the parties financing their deals, leading to incentives to cater to the other side of the negotiating table. An all-or-nothing success fee gives the banker an incentive to push for any deal at the expense of a good deal. And, as commercial banks have acquired investment banks in the wake of deregulation, sell-side advisors have started showing up as buy-side lenders, importing an added incentive to get the deal closed on the buyer's terms. As the incentive problems are laid out for inspection, it becomes clear that compromised advisors can distort sales processes, injuring sell-side shareholders.

Part III takes a closer look at these conflicts of interest, bringing two frameworks to bear. We first apply economic analysis, which looks toward contractual solutions to problems created by conflicts, primarily price adjustments and reputational constraints on conflicted parties. It also strongly counsels against per se prohibition. We then look at the legal framework, showing that bankers, as agents, owe fiduciary duties to their corporate principals, but with an opening for client consent to agent conflicts—an opening subject to a process rule of backstop, rule of full disclosure, and an overarching requirement of good faith. The law synchronizes neatly with both the relational picture highlighted in the economic analysis and the terms of banker–client engagement contracts. All frameworks converge on the same conclusion: in this relationship, market-based transactions trump traditional fiduciary values and regulatory constraints stem from markets for reputation rather than from bright-line legal rules.

Part IV turns to the hard looks in *Del Monte* and *El Paso*. The cases situate the conflicts problem at a front-and-center spot on the transactional stage, upping the stakes. This follows not from a change in the law but from the facts. The bankers in these cases play the primary advisory role rather than the secondary role of fairness-opinion giver, the role on which the case law has focused heretofore.[35] When a conflict compromises the banker's performance in the primary role of negotiating the deal, *Revlon* questions follow.

Del Monte and *El Paso* raise a difficult law-to-fact issue: whether a *Revlon* violation based on a banker conflict can follow from a showing of an incentive impairment—a "taint" taken alone—or requires a stronger showing of realized negative consequences for the sale process. Our analysis identifies consequences of a "might have been," counterfactual nature in both cases, but also highlights room for argument. *El Paso* is

35. Steven M. Davidoff, *Fairness Opinions*, 55 AM. U. L. REV. 1557, 1560–61 (2006) (noting that after a period of criticism in the 1990s, "Delaware courts continued to place persuasive reliance on fairness opinions").

particularly susceptible to a reading of per se actionability, even as the conflict in question in the case was particularly severe.

The results can be seen to follow from an application of strong fiduciary norms. But we think such a reading misses the point. The Chancery Court takes a relentlessly contractual approach here. To make a taint actionable under *Revlon* is not to slam down an ethical rule. It instead embodies a determination that a banker's incentives undermined a contracting process—an economic judgment with legal consequences.

In Part V we address both those who criticize the Chancery Court for lax treatment and those who describe the cases as fiduciary overkill. At the same time, we ask whether it is feasible to substitute a rule-based approach to banker conflicts, importing certainty to actors in the marketplace. We experiment with two alternative regimes, one stricter and the other more accommodating, both rule based. The stricter approach is per se prohibition of conflicts, posed by analogy to the law governing auditor–client relationships. We show that full prohibition could create as many problems as it solves and in any event is institutionally unsuitable as an outgrowth of *Revlon* review. We then look into an alternative: a narrow prohibition directed only to stapled financing. This proves more robust institutionally but still fails the substantive test: staples are not intrinsically inimical to the shareholder interest. We then turn to a more accommodating approach—a safe harbor for banker conflicts conditioned on full disclosure and engagement of a second, unconflicted banker. We show that the combination has a cleansing effect but not enough of an assurance to guarantee the integrity of the *Revlon* regime.

A conclusion follows.

II. The Business Side

The dispute between investment bankers and Delaware chancellors concerns the bankers' performance as advisors to the boards of selling companies. A cogent evaluation of the dispute's particulars requires contextual grounding. We accordingly preface our legal analysis with a look at the business side. Subpart A focuses on what bankers do, first describing their central advisory function and going on to two ancillary services, provision of fairness opinions and financing. In subpart B we go on to look at the incentive structure of the banker–client relationship, detailing conflicts of interest that potentially skew the performance of the advisory role to the detriment of the interests of target shareholders.

A. Services Rendered

1. Advising on Partner, Price, and Process.—The senior management suite of an operating company is unlikely to be populated with M&A experts. The company's board of directors accordingly needs outside help

when another company proposes a merger or the company's managers themselves inquire into sale possibilities.[36] Either way, the board calls on an investment banker for expert advice about market conditions and alternative modes of sale.[37] Indeed, sale processes often originate in the suggestion of a banker looking to drum up advisory business.[38]

Transaction planning has only just begun with an affirmative answer to the question as to "whether" to sell. There follows a series of further questions with significant value consequences. There can be a "what" question: if the company has multiple divisions, sale of a piece or pieces might yield more than sale of the whole. Then come "how" and "to whom." An open auction might or might not yield more than a process focused on a bilateral negotiation with a single acquirer. A transaction with an operating company in the same line of business (a strategic merger) might or might not yield more than a private equity buyout (a financial merger). Negotiation with a given suitor involves further choices regarding sale process, mode of payment, and the merger agreement's ancillary terms. At the bottom line looms an overarching "how much" question.

The bank helps management answer all the questions, bringing its expertise to bear.[39] Its participation in the sale process starts with a valuation of the selling company, an analysis that provides a basis against which to evaluate the attractiveness of subsequent offers.[40] The valuation also figures into the marketing effort, as the banker works with management to project a promising future performance by the company.[41] The bank then searches for potential bidders, drawing on its knowledge of the target's industry to identify companies whose lines of business hold out

---

36. *Cf.* Henri Servaes & Marc Zenner, *The Role of Investment Banks in Acquisitions*, 9 REV. FIN. STUD. 787, 806 (1996) (explaining that companies look outside for advisors in more complex transactions).

37. *See id.* (highlighting the fact that a firm may rely on an investment bank when the firm does not have the needed expertise).

38. J. Peter Williamson, *Mergers and Acquisitions*, *in* INVESTMENT BANKING HANDBOOK 219, 226–27 (J. Peter Williamson ed., 1988).

39. Alan Morrison and William Wilhelm describe the skills bankers bring to bear as follows:

> [T]he central investment bank activity is the creation of private law in situations where the precise quantification of the parameters of trade is impossible, either as a consequence of their extreme complexity, or because it would involve the disclosure of facts that would undermine the value of the exchange. The skills needed to fulfill this role are hard to pass on at arm's length: they are best learned through day-to-day contact with an expert mentor and once learned, they cannot easily be codified and widely disseminated at arm's length. This type of skill was characterized by Polanyi . . . as *tacit*.

ALAN D. MORRISON & WILLIAM J. WILHELM, JR., INVESTMENT BANKING: INSTITUTIONS, POLITICS, AND LAW 265 (2007).

40. *See* Anup Agrawal et al., *Common Advisors in Mergers and Acquisitions: Determinants and Consequences*, 56 J.L. & ECON. 691, 697 (2013) (listing target valuation as a service provided by investment banks).

41. *Id.*

an appropriate fit. Absent a fit, the banker looks for a buyer to which the target makes sense as a diversification play or, alternatively, for a financial purchaser.[42] The banker compiles a list of potential bidders, dividing them into strategic and financial categories.[43]

Decisions also need to be made about the sale process. Alternatives fall along a range: at one extreme comes a negotiated transaction on an exclusive basis with a single prospect; at the other extreme comes an auction open to all potential purchasers; in between come controlled auction processes centered on bilateral negotiations with multiple suitors.[44] Whatever the choice, the bank is heavily involved in negotiations with potential acquirers.[45]

By way of example, consider the sequence of moves in a controlled auction. The banker circulates a description of an unnamed target.[46] Companies interested in bidding sign confidentiality agreements before getting access to a detailed offering memorandum prepared by the bank.[47] The bank also will facilitate the due diligence processes of serious bidders.[48] Subsequent discussions, which can go forward with more than one bidder, focus on an emerging merger agreement, drafted by counsel with the bank's assistance.[49] The agreement contains terms on price and transaction structure along with several other terms with high value salience: a material-adverse-change clause setting conditions permitting the buyer to exit, a fiduciary out permitting the target to exit in the wake of a higher bid, and a breakup fee to be paid by the target in the event of its exit.[50] Final bids are submitted with the merger agreement on the table.[51] Given a successful bid, the merger agreement is submitted for the approval of the constituent boards of directors.[52] Given board approval, the last step is approval by a majority vote of the target shareholders,[53] with the bank joining counsel in preparing the proxy statement.[54]

The advisory bank is retained and paid pursuant to an engagement letter.[55] Typical advisory fee arrangements include a retainer and a

---

42. WILLIAMSON, *supra* note 38, at 233.

43. GIULIANO IANNOTTA, INVESTMENT BANKING: A GUIDE TO UNDERWRITING AND ADVISORY SERVICES 122 (2010).

44. *Id.* at 122–23.

45. Agrawal et al., *supra* note 40, at 697–98.

46. IANNOTTA, *supra* note 43, at 123.

47. *Id.*

48. Agrawal et al., *supra* note 40, at 697.

49. IANNOTTA, *supra* note 43, at 125; Agrawal, *supra* note 40, at 697.

50. IANNOTTA, *supra* note 43, at 125.

51. *Id.*

52. DEL. CODE ANN. tit. 8, § 251(b) (2011).

53. *Id.* § 251(c).

54. Agrawal et al., *supra* note 40, at 697.

55. Charles W. Calomiris & Donna M. Hitscherich, *Banker Fees and Acquisition Premia for*

"success fee"[56] pegged at a small percentage of the purchase price.[57] On average, around 80% of fees bankers draw from M&A depend on the deals' successful completion.[58]

2. Opining on Price.—In addition to advising on transactional choices, investment bankers formally opine on the fairness of the price—approximately 80% of target boards and 37% of acquirer boards procure such an opinion.[59] The opinion is addressed to the retaining board, which in turn relies on the opinion when approving the merger. Literally, the opinion states that the price is "fair" from a "financial point of view."[60] These are, however, terms of art with tightly circumscribed meanings: the statement confirms only that the price lies within a range of intrinsic values, any of which could be fair.[61] Accordingly, a fair price is not necessarily a best or even a good price.[62] Moreover, the opinion does not define what makes the numbers on the range of intrinsic values the fair set.[63] Nor does the opinion make a recommendation regarding acceptance or rejection of the merger.[64]

Fairness opinions do set out the valuation metrics used in establishing the price range. The bank chooses among a menu of possibilities[65]—discounted cash flow, comparable companies, comparable sale premiums,

---

Targets in Cash Tender Offers: Challenges to the Popular Wisdom on Banker Conflicts 3 (Nat'l Bureau of Econ. Research, Working Paper No. 11333, 2005), *available at* http://www.nber.org/papers/w11333, *archived at* http://perma.cc/PTP8-XSD7.

56. Success fees come in three forms: (1) a constant percentage of the purchase price; (2) a constant dollar amount payable only on the contingency's occurrence; and (3) a rising sliding scale based on the amount of the purchase price. *Id.* at 6.

57. The fee is typically 1%, with the percentage declining as transaction size increases. Agrawal et al., *supra* note 40, at 694.

58. *Id.*

59. Darren J. Kisgen et al., *Are Fairness Opinions Fair? The Case of Mergers and Acquisitions*, 91 J. FIN. ECON. 179, 179 (2009); *cf.* Matthew D. Cain & David J. Denis, *Information Production by Investment Banks: Evidence from Fairness Opinions*, 56 J.L. & ECON. 245, 246–47 (2013) (finding that with a smaller sample, 96% of target boards procure a fairness opinion). Cain and Denis show that these acquiring boards tend to solicit fairness opinions in cases where the merger must be submitted for their shareholders' approval. In their sample only 28% of acquirers solicited an opinion, but 83% did so in cases of joint proxy solicitation. *Id.* at 254–55.

60. Cain & Denis, *supra* note 59, at 249.

61. *Id.*

62. *Id.*

63. Fair value could mean any one of a number of things—the company's stand-alone value without reference to a sale, the yield expected in an open auction of the company, the yield from an arm's-length sale of the company, or something else. Lucian Ayre Bebchuk & Marcel Kahan, *Fairness Opinions: How Fair Are They and What Can Be Done About It?*, 1989 DUKE L.J. 27, 30–32.

64. Calomiris & Hitscherich, *supra* note 55, at 4. Nor does the opinion purport to verify the information base relied on in its analysis, which comes from management. *Id.*

65. Bebchuk & Kahan, *supra* note 63, at 36–37.

or a weighted average of results from more than one approach.[66] The bank also is free to project different sale scenarios—a sale of the whole, a sale of separate pieces, a liquidation, or a weighted average of more than one.[67] The final document, in sum, results from discretionary choices, its conclusion amounting to the banker's subjective opinion based on market parameters.[68]

A fairness opinion may implicate a separate, fixed fee.[69] Assuming that the board's banker–advisor renders the opinion, the rule of thumb ratio between the amount of the banker's success fee and the amount paid for the opinion is ten-to-one.[70] Significantly, nothing requires the selling board to rely on its advisor for the opinion, although so doing yields obvious economies of scope and is the usual practice.[71] The board can engage a different bank for the opinion, paying it a fixed fee.[72] Alternatively, opinions can be solicited from the advisor and one or more other banks, but that happens only in a minority of cases.[73] In around 80% of the cases in which the selling board seeks an opinion, it procures a single opinion from its banker–advisor.[74]

Such is the practice.[75] As we have seen, the banker–advisor's expertise and judgment figure importantly in the sale effort's success.

---

66. Davidoff, *supra* note 35, at 1574–75.

67. *Id.* at 1574 & nn.73–77.

68. *Id.* at 1573–75.

69. Bebchuk & Kahan, *supra* note 63, at 38; Davidoff, *supra* note 35, 1586–87. Fixed fees come in two forms: (1) a retainer paid upon execution and delivery of the engagement letter or in installments during the term of the engagement and (2) a fee paid upon submission of a fairness opinion. Calomiris & Hitscherich, *supra* note 55, at 5–6.

70. Steven J. Cleveland, *An Economic and Behavioral Analysis of Investment Bankers When Delivering Fairness Opinions*, 58 ALA. L. REV. 299, 314 (2006); John S. Rubenstein, Note, *Merger & Acquisition Fairness Opinions: A Critical Look at Judicial Extensions of Liability to Investment Banks*, 93 GEO. L.J. 1723, 1727 (2005).

71. Kisgen et al., *supra* note 59, at 183.

72. *Id.*

73. *Id.* at 180, 199.

74. The percentage in the text is an extrapolation from numbers reported in Kisgen et al., *supra* note 59, at 186–87. Cain & Denis, *supra* note 59, at 254, report that in their sample 96% of targets procured at least one fairness opinion, 8% procured two, and 1% procured three.

75. We note that the Code of Ethics and Standards of Practice for the National Association of Realtors does not ask for much more. Under Standard of Practice 11-1, valuation opinions must contain ten minimum terms:

> (1) identification of the subject property
> (2) date prepared
> (3) defined value or price
> (4) limiting conditions, including statements of purpose(s) and intended user(s)
> (5) any present or contemplated interest, including the possibility of representing the seller/landlord or buyers/tenants
> (6) basis for the opinion, including applicable market data
> (7) if the opinion is not an appraisal, a statement to that effect

From a business perspective, the fairness opinion contributes little extra. Empirical studies search in vain for value added for sell-side shareholders stemming from fairness opinions. The studies find that fairness opinions do not significantly affect either the merger premium or returns on the target company's stock upon the merger's announcement.[76] Nor do fairness opinions make deal completion more likely,[77] although they do add to the base of publicly available information about the value of the target.[78]

Their primary function is legal defense. Investment bankers first figured into the law of M&A in the wake of the Delaware Supreme Court's 1984 decision of *Smith v. Van Gorkom*,[79] the case that famously found a sell-side board of directors liable for a breach of the duty of care.[80] The defendant board's defalcation lay in an inadequate informational base, and the absence of an investment banker fairness opinion on the merger price lay at the core of the empty informational set.[81] Fairness opinions have ever since amounted to a de facto mandate for diligent sell-side boards.[82] The opinion serves two defensive purposes. First, it provides evidence that the selling board informed itself of the intrinsic value of the company's equity. Second, it lays groundwork for an affirmative defense under Delaware's corporate code, which provides that directors are protected when "relying in good faith" on opinions provided by outside experts.[83]

---

(8) disclosure of whether and when a physical inspection of the property's exterior was conducted
(9) disclosure of whether and when a physical inspection of the property's interior was conducted
(10) disclosure of whether the REALTOR® has any conflicts of interest

CODE OF ETHICS AND STANDARDS OF PRACTICE OF THE NATIONAL ASSOCIATION OF REALTORS § 11-1 (2014), *available at* http://www.realtor.org/sites/default/files/publications/2014/Policy/2014-Code-of-Ethics.pdf, *archived at* http://perma.cc/P64E-3B3B.

76. Kisgen et al., *supra* note 59, at 180. *But cf.* Steven M. Davidoff et al., *Fairness Opinions in M&As*, *in* THE ART OF CAPITAL RESTRUCTURING: CREATING SHAREHOLDER VALUE THROUGH MERGERS AND ACQUISITIONS 483, 491 (H. Kent Baker & Halil Kiymaz eds., 2011).

77. Kisgen et al., *supra* note 59, at 180.

78. Cain & Denis, *supra* note 59, at 248. The authors also find a correlation between stock returns around the proxy mailing date and the valuations in the target fairness opinion. *Id.*

79. 488 A.2d 858 (Del. 1985).

80. *Id.* at 890–93.

81. *Id.* at 881.

82. *See* William J. Carney, *Fairness Opinions: How Fair Are They and Why We Should Do Nothing About It*, 70 WASH. U. L.Q. 523, 527 (1992) (describing the *Van Gorkom* case as the "Investment Bankers' Civil Relief Act of 1985"); Daniel R. Fischel, *The Business Judgment Rule and the* Trans Union *Case*, 40 BUS. LAW. 1437, 1453 (1985) (noting that the most immediate effect of the *Van Gorkam* case was that "no firm considering a fundamental corporate change will do so without obtaining a fairness letter").

83. DEL. CODE ANN. tit. 8, § 141(e) (2011); *cf. Van Gorkom*, 488 A.2d at 875 (rejecting the defense when the directors relied on uninformed and inadequate opinions of the company's CEO and CFO).

Fairness opinions serve these defensive objectives well,[84] providing potent if not complete evidence of the sell-side board's fulfillment of its duty of care.[85]

3. Providing Financing.—Strictly speaking, service as a merger advisor and provision of a fairness opinion require appropriate expertise and access to information, capabilities within the competence of small, boutique investment banks.[86] Boutiques with specialties in a given industry tend to thrive when the industry undergoes a wave of concentration by merger.[87] Still, size has advantages and larger banks bring more to the table. A merger advisor from a large bank can look to the bank's other departments for informational assistance. The bank's securities analysts can suggest potential merger partners.[88] The market arbitrage desk can assist in accounting for fluctuations in the advisory client's stock price during the sale process.[89] Risk arbitrageurs and traders can project the market's reactions to different merger consideration packages.[90] Corporate finance departments can assist with debt-financing proposals.[91]

Now let us switch to the buy side. Larger banks advising acquirers have the wherewithal to assist directly with financing, underwriting new issues of securities, or directly lending funds. Of course, nothing forces an acquirer to engage its merger adviser to provide these services. But the coupling is quite common when underwriting is called for—according to one study the acquirer's advisor does the underwriting in 56% of acquisitions involving new issues of securities.[92] The claimed benefits are

---

84. Critics charge that the opinions fall short on the question of greatest concern to the selling shareholders, providing little assurance on the quality of the deal. *See* Dean Roger Dennis & Dennis R. Honabach, *Corporate Governance Theory in the 1990's*, 44 RUTGERS L. REV. 533, 549 (1992) ("By and large, the [fairness] reports are brief, boilerplated documents . . . ."). We do not find the criticisms well-taken. *See infra* note 193.

85. *See, e.g.*, In re Compucom Sys., Inc. Stockholders Litig., No. Civ.A. 499-N, 2005 WL 2481325, at *7 (Del. Ch. Sept. 29, 2005) (finding that a board of directors fulfilled their fiduciary duty of care, in part, by relying on fairness opinions); Crescent/Mach I Partners, L.P. v. Turner, 846 A.2d 963, 985 (Del. Ch. 2000) (rejecting the argument that approval of a fairness opinion potentially tainted by the advisor's conflict of interest deprived defendant directors of the section 141(e) defense).

86. For an account of the evolution of large, complex banks and the consequential appearance of small boutiques, see generally MORRISON & WILHELM, *supra* note 39, at 294–305. They note that size has costs as well as advantages, because it debilitates peer-group monitoring and detaches the professional's interest in his or her own human capital from the reputation of the firm, enervating incentives. *Id.* at 301. For a discussion of the boutique model and its effect on conflicts, see *infra* notes 147–56 and accompanying text.

87. Williamson, *supra* note 38, at 227–28.

88. *Id.* at 225.

89. *Id.* at 225–26.

90. *Id.*

91. *Id.* at 226.

92. Mine Ertugrul & Karthik Kirshnan, *Investment Banks in Dual Roles: Acquirer M&A*

expedited closing and economies of scope in the form of a reduced advisory fee.[93]

Traditionally, underwriting is a core line of business of U.S. investment banks.[94] In contrast, lending was long prohibited by the Glass-Steagall Act,[95] repealed in 1999.[96] As regulatory barriers fell, commercial banks acquired traditional investment banks, resulting in "universal" banks combining commercial banking and lending with functions previously the province of investment banks, including underwriting.[97] Such a banker–advisor can facilitate an acquirer's deal as a lender. But, for present purposes, a different coupling is more salient: as universal banks emerged, merger-advisory services on the *sell side* became coupled with purchase money lending to the *buy side*, so-called stapled financing.[98]

Staples first appeared as part of a larger package deal: the selling corporation puts itself (or a piece of itself) up for auction and offers debt financing to potential purchasers in tandem with the sale—financing to be supplied by the seller's banker–advisor.[99] The financing package is thus "stapled" to the offering memorandum.[100] The impetus for these couplings came from the banks themselves, which held out their lending capacity to lure potential selling companies into accepting their advisory services.[101] Over time, the term "staple" has come to be used more loosely, applying in any case where the seller's banker–advisor participates in financing the buyer's purchase.[102] We will follow the broader usage, noting differences of transactional context as we go.

The best case for stapled financing lies with the original auction structure. To frame the case, assume that a corporation is selling one of a number of divisions in a favorable credit market. Opening the door for bids on the division with a financing offer already on the table arguably makes

---

Advisors as Underwriters, 37 J. FIN. RES. 139, 168 (2014).

93. *Id.* at 179.

94. Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks*, 2002 U. ILL. L. REV. 215, 321.

95. Banking Act of 1933, Pub. L. No. 73-66, §§ 16, 20–21, 32, 48 Stat. 162, 184–85, 188–89, 194 (codified as amended in scattered sections of 12 U.S.C.) (repealed 1999) (restricting commercial banks, from among other things, engaging principally in investment banking activities).

96. Gramm-Leach-Bliley Act, Pub. L. No. 106-102, § 101, 113 Stat. 1338, 1341 (1999).

97. Wilmarth, *supra* note 94, at 319–20.

98. Davidoff, *supra* note 35, at 1588.

99. *Id.*

100. Richard Hall, *Stapled Finance Packages Under Scrutiny*, IFLR (Apr. 1, 2006), http://www.iflr.com/Article/1984558/Stapled-finance-packages-under-scrutiny.html, *archived at* http://perma.cc/TG4E-2PS5.

101. *Id.*

102. For example, the term would be used to describe an investment banking firm's offer to provide buy-side financing, as described in *In re Toys "R" Us, Inc. S'holder Litig.*, 877 A.2d 975, 1005–06 (Del. Ch. 2005).

the deal more attractive despite the ready availability of credit—assured financing lowers the bidders' transaction costs so that more bidders show up.[103] As the stock of the division up for sale is not publicly traded, the bank's financing offer also facilitates establishment of a price floor for bidding: the bidders take the amount of financing on offer and work backward using projected leverage ratios.[104] The bank's presence could also attract private equity bidders to compete with a strategic acquirer and, in so doing, push the strategic bidder to a higher price.[105] Finally, the financing package provides a base point for competing financing offers by other banks.[105] If the stapled bank emerges in the lead, time to closing is reduced because the lender's diligence process already is underway.[107]

The above scenario assumes that credit flows freely, leading to competition among financing banks as well as bidders. The assumption does not diminish the case favoring staples, for it shows off the coupling's advantages even though competition among banks removes any doubt about the availability of financing. Presumably, the case for a staple strengthens further when credit is scarce; lining up the bank at stage one imports beneficial certainty. Other downside scenarios further expand the case for having the bank on both sides of the deal. For example, if credit tightens after the deal is signed but before closing, the sell-side fee yield could induce the bank to stay with the deal rather than exploring opportunities for exit.[108]

Now compare a case where a publicly traded company puts itself up for sale, indifferent as between a strategic or financial purchaser. A financial bidder emerges as the sale process unfolds and the seller's banker–advisor takes a place among the banks providing debt financing to the private equity buyer. This is also a staple under the broad usage. But,

---

103. *See* Jeffrey E. Ross et al., Del Monte*: Staple Remover?*, 12 DEBEVOISE & PLIMPTON PRIVATE EQUITY REP. 1, 17 (2011) (explaining that stapled financing may attract more buyers by reducing the costs associated with securing financing on one's own).

104. *Id.* Note that the price-floor function matters more when the company being sold is not publicly traded, as would be the case when a private equity firm sells one of its portfolio companies or a publicly traded operating company sells a division. Note also that the price-floor argument can be turned around. The amount of financing on offer tips potential bidders to the advisor bank's hidden views on the value of the selling company. IANNOTTA, *supra* note 43, at 124. The staple's availability also can give rise to a negative inference: if the advisor bank is *not* participating in financing then the selling company is worth less than advertised. *Id.*

105. *See* Christopher Foulds, *My Banker's Conflicted and I Couldn't Be Happier: The Curious Durability of Staple Financing*, 34 DEL. J. CORP. L. 519, 528 (2009) (recognizing that stapled financing packages encourage competition between strategic buyers and financial buyers).

106. Ross et al., *supra* note 103, at 17. Presumably, if multiple bidders and banks are attracted, the staple becomes less and less relevant as the process continues. Compare a case where a seller requires the bidders to accept the staple. The element of coercion detracts from the case. But even here there is an argument: the staple reduces variability and makes it easier to compare the bids. Foulds, *supra* note 105, at 528–29.

107. Ross et al., *supra* note 103, at 17.

108. Foulds, *supra* note 105, at 536–37.

because there is no upfront stapled financing offer from the seller's bank, its inclusion in the financing group holds few of the above-described advantages.

The distinction between the original literally stapled deal and other transactions in which the seller's banker–advisor participates in buy-side financing will prove crucial as fact patterns unfold.

B. Banker Conflicts

This subpart draws out conflicts of interest embedded in the banker service practices just described. We explore the conflicts' negative influences on advisory bank incentives, while for the moment deferring legal evaluation. We divide the conflicts into three categories: (1) conflicts arising from past and projected advisory relationships; (2) conflicts created by the terms of the contract of engagement entered into between the advisory bank and client; and (3) conflicts stemming from the bank's performance of multiple functions in the sale process.

1. Relational Conflicts.—Hypothesize an M&A market in which all relationships between targets and advisors and targets and opinion givers are discrete, one-off engagements. The advisor bank parachutes in to work the sale and provides no other services, having no past transactional history with the target or the acquirer; strongly held norms bar it from future dealings with the surviving company. The same goes for the bank opining on fairness, which is separate from the advisor bank. Add a reputational interest on the bank's part in being seen to do an excellent job by third parties, and this hypothetical world yields banks well incented to procure the best deal for the seller and its shareholders.

The hypothetical does not describe the real world of advisory services, which are grounded in relationships rather than discrete engagements.[109] This is only to be expected. For example, the long-term banker–advisor of a selling company has a built-in informational advantage, making it an obvious choice to serve as advisor in a merger. Yet the relationship that creates the advantage can also import conflicts in the form of exterior influences that can negatively affect the judgments and discretionary choices made by banker–advisors and opinion givers. For example, a merger advisor or opinion giver with a preexisting personal relationship with key actors at the seller could cater to their interests.[110] Such catering might privilege the insiders' preferred deal over a more lucrative alternative that makes the shareholders better off. Alternatively, an advising bank

109. *See* Charles D. Ellis, *Attracting Corporate Clients*, *in* INVESTMENT BANKING HANDBOOK 55, 57 (J. Peter Williamson ed., 1988) (stating that CFOs still place considerable importance on established relationships with investment banks).

110. Bebchuk & Kahan, *supra* note 63, at 43.

could act with a view to obtaining or maintaining a lucrative advisory relationship with the managers of the merger's surviving company.[111] Or, in a financial merger, the banker could have a preexisting business relationship with the private equity buyer, along with expectations of participation in future deals. Such influences again threaten to skew the process toward a suboptimal deal pitched to interests other than the selling shareholders'.[112]

The incentive skews having been noted, it also should be noted that the alternative of a discrete advisory engagement does not necessarily eliminate relational conflicts. A seller certainly can jettison a large, full-service advisor with which it has a long relationship and substitute a smaller, more focused boutique bank. But the replacement bank still comes burdened with relational baggage in the form of contacts and past dealings with firms and actors within the industry and in the financing sector. Importantly, the advisor's value stems in part from these very contacts, for the contacts are the sources of the information the advisor brings to the seller's table.

2. Contractually Created Conflicts.—We have seen that on average 80% of the banker–advisor's remuneration is conditioned on successful completion of the deal and pegged to the consideration paid.[113] We also have seen that a second bank brought in only for the purpose of rendering a fairness opinion receives a fixed fee.[114] The contrast is notable: where the opinion giver gets paid even if it renders an unfavorable judgment on the deal, the advisor's payoff lies more in making sure the deal closes than in raising a critical objection to an inadequate price. The performance-based fee gives the advisor an all-or-nothing interest in closing any deal.

To get a sense of the negative possibilities, consider the following hypothetical. Target, Inc. is a company in an industry undergoing consolidation. Its market capitalization is $750 million; a $1 billion sale price would mean a 33 1/3% premium for its shareholders. The company's board of directors feels selling pressure and contacts Unibank to inquire into the desirability of a sale. Under the terms of the engagement, Unibank will receive a flat 0.5% of the purchase price[115] if a sale closes. A $1 billion deal thus nets Unibank $5 million.

As we have seen, Unibank's first job is to the compare the prospective value of an independent Target with the expected yield on a potential

111. *Id.* at 41–42; Calomiris & Hitscherich, *supra* note 55, at 8.

112. *See* Davidoff, *supra* note 35, at 1587 (stating that ongoing relationships and expectations between a bank and corporate management can influence the bank's decision to find that a transaction is fair in order to protect future business).

113. *See supra* notes 56–59 and accompanying text.

114. *See supra* note 72 and accompanying text.

115. *See* Foulds, *supra* note 105, at 525 (noting that the typical fee for advising on a corporate sale is 0.5% of the transaction's value).

merger.[116] The conflict created by the fee becomes operative immediately; any deal looks better than no deal because the former advice yields the bank nothing and the latter advice yields millions.[117] Let us assume that Unibank advises the Target board that a deal makes sense and conducts a search. Two bidders emerge. Bidder 1 offers $1 billion in the form of its own common stock. There is a 100% chance that the deal will close. Bidder 2 offers $1.2 billion in cash, but it will have some problems swinging debt financing. There is only an 80% chance that a deal with Bidder 2 will close. Moreover, if Target enters into serious discussions with Bidder 2, Bidder 1 will walk away.

From the point of view of Target's shareholders, proceeding with Bidder 2 makes sense despite the risk because an 80% chance at $1.2 billion tied to a 20% chance of being left at the current $750 million market cap is worth $1.11 billion, greater than Bidder 1's offer of $1 billion ([$1.2 billion × .80 = $960 million] + [$750 million × .20 = $150 million] = $1.11 billion).[118] Unibank's expectations work differently. Bidder 1 is a $5 million bird in the hand under the performance fee arrangement. Bidder 2 is worth a lesser $4.8 million ([$6 million × .80 = $4.8 million] + [$0 × .20 = $0] = $4.8 million).

The incentive problem would be ameliorated given a fee based on efforts expended rather than a fee contingent on a deal closing. A variable-contingent percentage fee also could improve things. If Unibank were paid 0.5% up to $1 billion and 0.075% for any consideration over $1 billion, pursuit of a risky $1.2 billion deal with Bidder 2 would be worth $6 million to Unibank compared to a $5 million payoff with Bidder 1. But such alternative arrangements are seen only rarely.[119]

Generally, the conflict created by the performance fee skews the advisor bank's incentives in the wrong direction whenever a risky but more valuable alternative crops up, whether in the form of an alternative bidder or a choice over deal terms.[120]

Here again we need to enter a caveat. Advisory fee arrangements have been stable across time.[121] Presumably, the bankers would be just as happy with a different, less conflicted approach, so long as their bottom lines

116. *See supra* text accompanying note 40.

117. We note that the conflict is much ameliorated if Unibank has an existing relationship with Target, for a deal can mean loss of the client to the buyer's investment bank.

118. We are assuming that the sale process is confidential. Given a public announcement, the seller's market capitalization can be expected to be lower than $750 million if no deal is completed.

119. Variable percentage fees are seen with small companies and private companies. Calomiris & Hitscherich, *supra* note 56, at 6.

120. *See* Foulds, *supra* note 105, at 524 (explaining that a bank may skew an auction in favor of obtaining a higher fee, regardless of whether its actions negatively affect shareholders).

121. *See generally* Bebchuk & Kahan, *supra* note 63, at 38–41 (discussing the most common fee structures for banker–advisors).

remained unaffected. The preference for performance fees accordingly lies with the selling companies, which, once having publicly set a sale process into motion, have a manifest interest in assuring that the deal closes. Failed deals implicate disappointed markets and internal costs manifested in significant stock price declines: Target's market cap falls below the $750 million start point when it announces that its sale process has failed.[122]

3. Conflicts Arising from Multiple Functions.—Conflicts can arise when a financial institution performs multiple functions. Hypothesize a bank engaged to advise *X* Corp. in connection with a projected hostile tender offer for the stock of *T* Corp., an advisory relationship that generates confidential information with manifest value in the trading markets for the shares of both *X* and *T*. The bank has an asset management division and a proprietary trading operation. An informational tip from the bank's merger advisor to its investment advisors and stock traders violates its confidentiality agreement with *X*, not to mention the federal securities laws.[123] Thus do confidential advisory services present an obvious compliance problem when provided by a bank with trading and investment departments. Banks address the problem by constructing internal informational barriers.[124]

We turn now to a more complicated case. A bank sells multiple services, and profit maximization through the sale of service *A* implicates subpar performance of service *B*. To take a famous example, in the post-Enron era regulatory intervention occurred against investment banks charged with having produced in their research departments (service *B*) overly optimistic analyses of companies whose good will they wished to cultivate toward the end of securing underwriting business (service *A*).[125]

---

122. A recent study of terminated mergers finds a significantly negative (–4.16%) abnormal return for private targets over a three day event window. *See* Tilan Tang, Bidder Gains in Terminated Deals 10 (June 2014) (unpublished manuscript), *available at* http://ssrn.com/abstract=2503023, *archived at* http://perma.cc/3BG7-PYKC.

123. *Cf.* Tuch, *Investment Banks*, *supra* note 29, at 487 (describing a conflict of interest that arises in the securities trading industry when investment banks draft research reports on public companies they hold or desire to hold as financial advisory clients).

124. *Id.* at 511–12.

125. There resulted the Global Settlement of Conflicts of Interest Between Research and Investment Banking, dated April 28, 2003, between ten large banks and regulators at the Securities and Exchange Commission, the National Association of Security Dealers, the New York State Attorney General, the North American Securities Administrators Association, the New York Stock Exchange, and state securities regulators. Press Release, Fin. Indus. Regulatory Auth., Ten of Nation's Top Investment Firms Settle Enforcement Actions Involving Conflicts of Interest Between Research and Investment Banking (Apr. 28, 2003), http://www.finra.org/Newsroom/NewsReleases/2003/p002909, *archived at* http://perma.cc/9GCU-4V7H. The banks agreed to pay $1.4 billion and reform their conduct of business. *Id.*

With M&A, buy-side lending has emerged as the service *A* that compromises the delivery of sell-side advisory service *B*.[126] A stapled financing package puts the bank on both sides of the negotiating table. In its advisory role it wants a higher price while as a lender to the surviving company it favors a lower price. It simultaneously looks to collect fees in both capacities.

The list of negative possibilities is lengthy. To get a sense of them, return to Target, Inc. and hypothesize that its board of directors is feeling merger pressure but has taken no steps to inquire into sale possibilities. Unibank, a universal bank with both a large lending division and a stable of traditional investment banker–advisors, shows up at Target's door uninvited. Unibank suggests a sale process with its advisory fee at a contingent 0.5%. It also offers to procure financing for up to 90% of the purchase price. Unibank can finance the acquisition either by underwriting bonds or syndicating a loan package (acting as lead lender), collecting fees either way at 1.5% of the loan amount.[127] If Unibank engineers a $1 billion deal and lends 90% of the purchase price, it makes $5 million on its advisory side and $12.15 million on its lending side.[128]

Now assume there are two types of potential acquirers for Target—strategic purchasers and private equity firms. The strategic purchasers are operating companies in the same or related lines of business. They buy using their own stock as consideration or using a mix of own stock and cash. The cash sometimes comes from their own balance sheets and at other times from lenders. The buyout firms, in contrast, finance 90% of the purchase price with borrowed money and have repeat-play relationships with the big banks, including Unibank.

A strategic bidder shows up with a knockout "bear hug" proposal at the start of the process: $1.2 billion in bidder stock for a 60% premium over market but with give ups in the form of negotiation exclusivity and deal protection provisions. This deal nets Unibank $6 million on the advisory

126. The description in the text does not exhaust the universe of potential conflicts from multiple representations. A bank also could (1) advise two sellers in the same industry; (2) advise both the seller and the buyer; (3) advise two or more buyers of a single company or asset; and (4) provide financing to multiple buyers. *See* David B. Miller et al., *M&A Engagement Letters: Protecting Sellers and Buyers*, STRAFFORD 71 (Nov. 21, 2013), http://media.straffordpub.com/products/m-and-a-engagement-letters-protecting-sellers-and-buyers-2013-11-21/presentation.pdf, *archived at* http://perma.cc/QT2P-C48G.

127. *See* Christine Harper & Julia Werdigier, *'Stapled' Loans Create Potential Conflicts for Merger Advisers*, BLOOMBERG (Oct. 23, 2005, 7:15 PM), http://www.bloomberg.com/apps/news?pid=10000006&sid=aNS.Y5u9qCb8&refer=home, *archived at* http://perma.cc/ETF3-5QVV ("The lead arranger of loans for a leveraged buyout can make 1.3 percent to 1.5 percent of a loan's value . . . .").

128. This was more or less the situation in *In re Rural Metro Corp. Stockholders Litig.*, 88 A.3d 54 (Del. Ch. 2014), where a bank whose financing fees were ten times its advisory fees had a strong incentive to promote its financing role at the expense of its advising. *Id.* at 70.

side and $0 on the loan side. Unibank thus has every incentive to advise Target to resist the squeeze and pursue alternatives that implicate cash consideration financed with loans, particularly with private equity buyers. There is nothing intrinsically wrong with that, but Unibank makes more on the private equity alternative whether or not private equity bidders are likely to make lower offers.

The problem is salient even in the absence of the bear hug offer: whatever the value question on the table, the bank will feel pressure from its corporate loan department to answer in favor of a private equity sale. Moreover, as between two private equity bidders, one of which is open to the staple and the other of which will be finding financing elsewhere, the advisor has a clear preference.

Note that a staple can negatively skew banker incentives even when attaching to all bidders. Let us go back to the staple's original version: the bank's advisory department urges a prospective client to sell all or a part of itself, holding out an assured financing package as a sweetener.[129] The prospective client signs on and the bank conducts an open auction in which all bidders plan to make use of the staple. Although the auction is a win-win for the bank, a perverse incentive creeps in nonetheless. As the bidding goes higher the amount to be loaned under the bank's commitment increases as well; as the principal amount increases the loan becomes riskier and its value to the bank goes down accordingly.

Summing up, a staple aggravates the conflict springing from the performance fee by creating a banker preference for a subset of bidders. It further aggravates the conflict by giving the banker a toehold interest on the opposite side of the negotiating table. And, just as the performance fee builds in a bias towards a conservative posture respecting strategic choices, so does a staple reinforce the conservatism—the easier the buyer's deal terms, in particular the lower the price, the less risky the bank's loan and the more valuable to the bank. But a caveat once again must be entered. As noted above, staples can import advantages to sellers, reducing transaction costs, establishing a price floor, and conceivably importing financing otherwise unavailable.[130]

C. Summary

A number of points emerge from this Part's look at investment banker M&A services. First, banker–advisors play a critical role in realizing the best price for target shareholders. To the extent a conflict impairs their service provision, injury is threatened. Second, relational conflicts are inevitable. Third, while some bankers eschew conflicts of interest, many do

129. *See supra* note 101 and accompanying text.

130. *See supra* text accompanying notes 103–107.

not, in some cases seeking them out. Fourth, the bigger the bank the more prone toward conflicts of interest. Fifth, incentive impairments stemming from conflicts are by no means deadweight negatives from the point of view of selling shareholders: some conflicts stem from relationships that generate information of value to selling companies; stapled financing holds out benefits as well as costs. Sixth, bankers and their clients do not use their contracts to minimize conflicts and improve incentives; otherwise the fee would not be performance based.

III. Banker–Client Relationships: Economics and Law

Our review of banker M&A services and industry structure depicts a practice that tolerates banker conflicts, treating them as a piece of a complicated picture of choices and trade-offs. Banks purvey information gleaned relationally, and the source relationships can hold out conflicts. Meanwhile, a sell-side board chooses among a range of vigorously competing banks, some more conflicted than others. A big bank holds out more conflicts but also offers a deeper informational base and a wider range of services including, potentially, financing. Conflicted representation can make cost–benefit sense.

Business people thus see conflicts as problems to be managed. With lawyers, in contrast, conflicts are "red flags" that trigger alarms. When a conflict crops up in a fiduciary relationship, a lawyer's first instinct is to evaluate by reference to "the punctilio of an honor the most sensitive"[131] and counsel avoidance rather than cost–benefit calculation. Corporate law's fiduciary regime protecting the interests of target shareholders triggers a second round of lawyerly concern regarding the conflicts tolerated on the business side.

It looks as if we have set a stage for a classic policy confrontation between economic expediency and fiduciary values embedded in legal mandates. This Part shows that the appearance is deceptive. We begin by examining the banker–client relationship through an economic lens. Unsurprisingly, economic analysis remits the conflicts problem to contractual solution. We then turn to the legal side where the relationship is situated in an agency framework, again unsurprisingly. Bankers, as agents, owe fiduciary duties to their corporate principals, but the law leaves ample room for contractual adjustment accommodating agent conflicts. Now comes the surprise: the accompanying legal process rules synchronize neatly with the features of the relational picture highlighted in the economic analysis.

---

131. Meinhard v. Salmon, 164 N.E. 545, 546 (N.Y. 1928); *cf.* Tuch, *Investment Banks*, *supra* note 29, at 481 (identifying fiduciary duty as requiring complete and unerring loyalty to another's interests).

A. The Economics of Banker Conflicts

Economists define a conflict of interest as a situation in which a party to a transaction can gain by taking actions adversely affecting the counterparty.[132] The definition is capacious, sweeping in actions that lawyers classify as hard bargaining, overreaching, contractual bad faith, and contractual nonperformance, without any need to refer over to fiduciary duty.[133] Where a lawyer inspects the relationship for a duty and proceeds from there, problematizing the conflict if the relationship is fiduciary,[134] an economist views all fact patterns as contractual.[135] Given a conflict, an economist asks how it impacts the parties' incentives and projects their rational, contractual responses.[136]

Here is the basic economic analysis.[137] A rational counterparty, in this case the sell-side board, anticipates the conflict's negative impact and adjusts for it.[138] In the simplest scenario it simply discounts the price until the engagement becomes attractive net of the conflict's costs.[139] The conflicted seller of services will want to forestall discounting and so needs to mitigate the conflict's effect. For an advisory bank, the straightforward way to do this is to build a reputation for adding value to client transactions.[140] Once the bank's future income is staked on the reputation's maintenance,[141] the bank has a strong incentive to make sure that a conflict

---

132. Hamid Mehran & René M. Stulz, *The Economics of Conflicts of Interest in Financial Institutions*, 85 J. FIN. ECON. 267, 268 (2007).

133. *Cf. id.* at 268 & n.4 (describing the legal conception of conflict of interest as conditioned on the existence of a fiduciary duty).

134. Tuch, *Investment Banks*, *supra* note 29, at 481–82.

135. *See* Robert Flannigan, *The Economics of Fiduciary Accountability*, 32 DEL. J. CORP. L. 393, 402 (2007) (observing that an economist's primary interest is in analyzing contractual mechanisms that may alleviate agency problems and other opportunism concerns, such as fiduciary breaches).

136. *See* Mehran & Stulz, *supra* note 132, at 278 (demonstrating how financial institutions will consider whether a conflict of interest actually threatens business performance prior to acting on it).

137. More sophisticated formal analyses incorporate factors such as information asymmetries, signaling, banker capability, and market position, showing how banker reputations evolve across time under dynamic conditions. *See, e.g.*, Zhaohui Chen et al., Traders vs. Relationship Managers: Reputational Conflicts in Full-Service Investment Banks 1–2 (Oct. 20, 2013) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2192098, *archived at* http://perma.cc/54Y5-66JN (modeling banker reputations by type of work performed and their use as a governance mechanism to manage conflicts of interest).

138. Mehran & Stulz, *supra* note 132, at 269.

139. *Id.*

140. *Id.* at 277; *see also* Jonathan Macey, *The Value of Reputation in Corporate Finance and Investment Banking (and the Related Roles of Regulation and Market Efficiency)*, J. APPLIED CORP. FIN., Fall 2010, at 18, 19 ("[D]eveloping and maintaining a reputation for integrity is costly. At the very least, companies must resist the temptation to pursue opportunities for profit that come *at the expense of their customers*. Encouraging, or even just condoning, the pursuit of such opportunities represents a breach of trust with the customer . . . .").

141. The Board of Governors of the Federal Reserve System defines reputational risk as "the

does not impair its performance.[142] Competition within the advisory sector further sharpens the bank's incentives: a bank giving into conflicts and providing bad service loses market share.[143] Banks thus monitor conflicts, promulgating internal policies and enforcing them with control systems.[144]

Two things follow: first, client injury should not be assumed by virtue of a conflict's existence, and second, even given a negative impact, the conflict may have been taken into account in advance and so would imply no relational breach.[145] Restating these points: conflicts should not be barred by per se rules; indeed, given sophisticated parties, we should presume that conflicts have been recognized *ex ante* and adequately dealt with contractually.

Significantly, this analysis does not predict that the services-seller's interest in minimizing the adverse impact of conflicts reduces their incidence to zero. A bank selling advisory services can be expected to invest in containing its incentive to self-serve only so long as so doing is cost beneficial.[146] And, with investment banking services, minimization of conflicts could be quite expensive since it presupposes that the bank divest all lines of business that create them. Such has not been the case, even as minimalist boutique banks do exist.

To get a better sense of differentiation with the sector, we took the advisors listed in Mergerstat's annual merger advisory top fifty from 1996 to 2013[147] and divided the advisors into four categories: (1) investment bank

---

potential that negative publicity regarding an institution's business practices, whether true or not, will cause a decline in the customer base, costly litigation, or revenue reductions." Letter from Richard Spillenkothen, Dir., Bd. of Governors of the Fed. Reserve Sys., Div. of Banking Supervision and Regulation, to the Officer in Charge of Supervision at Each Federal Reserve Bank (May 24, 1996), *available at* www.federalreserve.gov/boarddocs/srletters/1996/sr9614.htm, *archived at* http://perma.cc/5BWW-7J8S.

142. Mehran & Stulz, *supra* note 132, at 278.

143. The collapse of Bankers Trust following the disclosure of customer abuse at its swap desk provides a telling example of "the workings of the reputation market." Macey, *supra* note 140, at 27.

144. *See, e.g.*, GOLDMAN SACHS, REPORT OF THE BUSINESS STANDARDS COMMITTEE 17–18 (2011) (describing various groups within the firm that work to resolve conflicts of interest and listing guiding principles underlying the firm's conflict of interest policies), *available at* http://www.goldmansachs.com/who-we-are/business-standards/committee-report/business-standards-committee-report-pdf.pdf, *archived at* http://perma.cc/4NHB-GJTX.

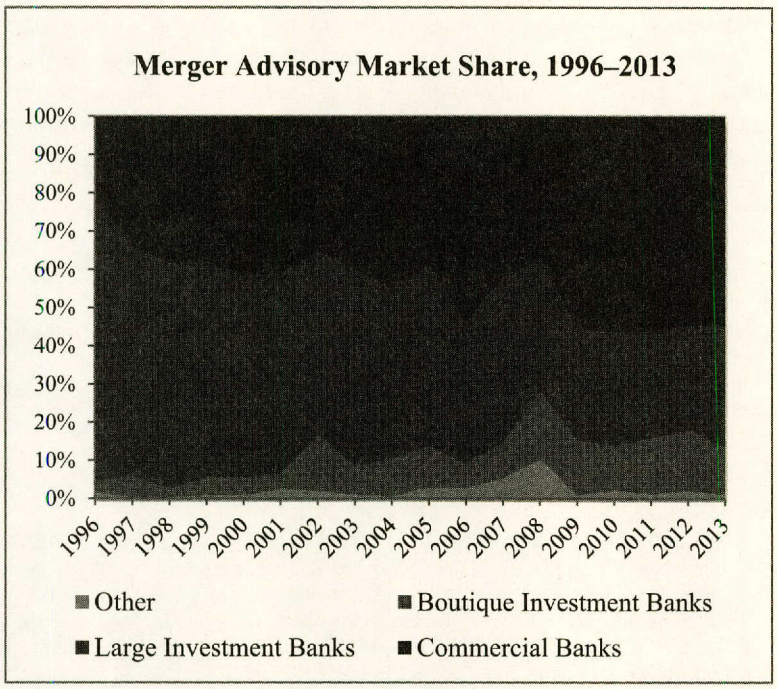
145. *See* Mehran & Stulz, *supra* note 132, at 279 (clarifying that conflicts of interest do not necessarily have adverse impact on services provided by a financial institution if capital markets discount analyst recommendations to adjust for bias).

146. *Id.* at 273.

147. Mergerstat publishes an annual list of the top fifty financial advisors by total deal value. *See* FACTSET MERGERSTAT, 2014 MERGERSTAT REVIEW, at i, x (2014), *available at* http://www.bvresources.com/freedownloads/mergerstatreviewexcerpt2014.pdf, *archived at* http://perma.cc/WY8N-ABPL (stating that Mergerstat has tracked statistics on mergers, acquisitions, and divestitures for over forty-five years, and annually publishes a hardcover report that includes a ranking for financial advisors).

subsidiaries of commercial banks and other large financial companies;[148] (2) large independent investment banks such as Goldman Sachs and Morgan Stanley (irrespective of their categorization as bank holding companies in 2008); (3) boutique investment banks; and (4) advisors not falling into the foregoing three categories (principally private equity and auditing firms). The line between large investment banks and boutique investment banks is drawn by reference to numbers of employees and bankers, underwriting capacity, and the bank's range of activities and breadth of industry coverage.[149] Figure 1 breaks out annual market shares of firms in each category.[150]

Figure 1



148. The "commercial banks" category includes universal banks, institutional lenders, insurance companies, and their subsidiaries. This category does not include investment banks that are only nominally commercial, such as Goldman Sachs & Co.

149. We admit that the line drawing entails judgment calls about quantity and that our approach departs from the practice of financial economists, who divide banks into size categories based solely on market share. *See, e.g.*, Kisgen et al., *supra* note 59, at 188 tbl.2 (using a three-tier ranking system for advisors based on number of acquisitions and market share); P. Raghavendra Rau, *Investment Bank Market Share, Contingent Fee Payments, and Performance of Acquiring Firms*, 56 J. FIN. ECON. 293, 294 (2000) (categorizing banks based on market share).

150. Market shares are calculated based on the total deal volume of the top fifty firms in any given year.

The figure tells a two-part story. On the one hand, large independent investment banks lose market share as large commercial banks acquire them over time. This enhances the potential for conflicts, for commercial bank entry facilitates, inter alia, stapled financing. On the other hand, boutiques steadily gain at the expense of big banks, commercial and independent, taken as a whole.[151] The boutiques' market share increased from 3% in 1996 to 12% in 2013. Boutiques, as monoline shops, are less prone to conflict. They aggressively promote themselves as such.[152]

The Figure also depicts an industry that changes constantly. Boutiques are often founded by bankers who leave big banks to start their own shops.[153] Big banks in turn historically have hired rising stars away from boutiques, maintaining their dominance in the process.[154] That movement was reversed in 2008, when constraints on pay packages made regulated banks vulnerable to poaching by young boutiques holding out bigger bonuses.[155] The back and forth of personnel, taken together with the continued appearance of new boutiques and the volatility of the boutiques' market share, lends the sector a dynamic aspect.

---

151. The figures should not be taken to imply that a particular bank, whether in the commercial or large investment bank category, gained or lost market share during the period in question.

152. Scott Bok, CEO of Greenhill & Co., has described the boutique appeal in the following way:

> I think we're kind of a throwback, really. We're a bunch of senior partners who just like advising companies. We don't have any other products to sell you; we don't want to do your financing, we don't want to do your bond underwriting, we don't write research on you, we don't want to sell you foreign currency, we don't want to sell you our wealth management product. All we want to do is give you the best possible advice.

Jonathan Marino, *Rising Sun*, MERGERS & ACQUISITIONS: DEALMAKER'S J., Jan. 2009, at 52, 53; *see also* MORRISON & WILHELM, *supra* note 39, at 303 & n.18 (suggesting that the focused nature of boutique firms immunizes them from conflicts of interest that may affect larger banks, allowing them to give more impartial advice); Joshua Hamerman, *Greenhill's Export: Pure Advice*, INVESTMENT DEALER'S DIG., May 7, 2010, at 1, 18 (quoting Robert Greenhill, boutique advisory firm Greenhill & Co.'s Chairman, who attributes Greenhill's success to its nonconflicted advisory-only model—a feature that separates it from large banks); Joshua Hamerman, *Tech Qonversation*, MERGERS & ACQUISITIONS: DEALMAKER'S J., Aug. 2009, at 44, 44 (quoting Ian MacLeod of investment boutique Qatalyst Partners, who stresses that the Qatalyst model allows advisors "to focus exclusively on providing independent advice to great technology companies"); *Sagent Advisors Formed to Offer Financial Direction, Guidance on Mergers and Acquisitions*, INS. ADVOC., June 21–28, 2004, at 40, 40 (quoting advisor Herald L. Ritch, who remarks that his boutique advisory firm Sagent can offer pure advice, free of trading, investing, or structural conflicts, which meets a "'growing demand'" in America).

153. For example, one of the earliest and best known boutiques, Wasserstein Perella, was founded by two former employees of Credit Suisse First Boston. MORRISON & WILHELM, *supra* note 39, at 302.

154. *See* Stephen J. Morgan, *The Battle of the Bulge Bracket*, WHARTON MAGAZINE, Jan. 1, 2001, http://magazine.whartontest.com/issues/362.php, *archived at* http://perma.cc/GLW7-YEQW (reporting on a large bulge-bracket bank's purchase of a boutique in order to acquire its talent).

155. Christopher Alessi, *Banking on Boutiques*, INSTITUTIONAL INVESTOR, May 2011, at 62, 64.

To summarize, where lawyers look for taints arising from conflicts, counseling prohibition, economic analysis counsels that taints by themselves are not enough to justify prohibitive intervention because the parties already may have adjusted for the underlying conflict in their contract. The economic question is whether a potential for harm survives the contracting process for later realization at the performance stage. The banking sector is well suited to the economic case, for it sees active competition among a range of service providers with conflicts figuring into product differentiation.

B. Legal Treatment: Agency and Contract

We now compare the legal treatment of banker–client relationships.

This might have been a federal law discussion. Banker–advisor firms are broker–dealers within the Securities Exchange Act of 1934[156] and their advisor–employees must register with the Financial Industry Regulatory Authority (FINRA).[157] Numerous FINRA rules apply to investment bankers,[158] but the rules do not touch specifically on advisor conflicts and client duties.[159] State law regimes of contract, agency, and corporation law govern accordingly. The fit with the economic analysis turns out to be surprisingly good.

1. Fiduciary Characterization: Agency and Advisory Functions.— Viewed through a legal lens, banker–client relationships entail the performance of two functions—representation and advice giving. The legal framework differs with the function.

When the banker represents the client at the negotiating table, it acts as an agent: at common law an agency obtains whenever a party acts for another subject to the other's control.[160] A leading Delaware case on banker liability, *In re Shoe-Town*,[161] tersely confirms the characterization: "[The banker] served as an agent of management."[162] Fiduciary duties of loyalty and care follow from the characterization.

---

156. *See* Andrew F. Tuch, *The Self-Regulation of Investment Bankers* 16–19 (Wash. Univ. Law Sch. Legal Studies Research Paper Series, Paper No. 14-04-04, 2014), *available at* http://ssrn.com/abstract=2432601, *archived at* http://perma.cc/FD6T-FW9E (arguing that "investment bankers are properly designated as broker-dealers").

157. *Id.* at 16–17.

158. *Id.* at 20.

159. *See id.* at 20–23 (generally describing the subject matter covered by FINRA's rules and explaining that such rules are "piecemeal" and mainly directed at regulating firms, as opposed to individual conduct).

160. RESTATEMENT (THIRD) OF AGENCY § 1.01 & cmt. b (2006).

161. *In re* Shoe-Town, Inc. Stockholders Litig., No. 9483, 1990 WL 13475 (Del. Ch. Feb. 12, 1990).

162. *Id.* at *7.

An agent's duty of loyalty includes a duty not to act as an adverse party to the principal.[163] Conflicts of interest can implicate breaches of duty accordingly. But the prohibition is conditional: the bar lifts if the principal consents to a conflict after full disclosure by the agent.[164] This opening for contracting out from fiduciary responsibility is in turn subject to a proviso: the agent's overall conduct is subject to *ex post* review for good faith and fair dealing.[165] The common law thus withholds from the conflicted agent an assurance of absolute immunity from attack even given consent and disclosure. The practical question is how close the agent can get to immunity.

We turn now to service in an advisory capacity. Here the banker and the client interact one-on-one and the banker does not act for the client in dealing with a third party. Strictly speaking, no agency obtains.[166] This matters, because absent an agency there is no ready-made common law template that comes to bear to impose a fiduciary characterization.

It would seem sensible to extend the fiduciary characterization coupled with the agency to the relationship as a whole, tailoring the duty's particulars for the advisory role. An analogy to legal representation provides a template. Ethical principles applicable to lawyers distinguish between representation and advice giving, termed "counseling."[167] The fiduciary prescription against adverse dealing applies to representation,[168] while the lawyer acting in an advisory capacity is required to "exercise independent professional judgment and render candid advice."[169] Conflicts of interest can impair independence just as they can impair representation and so remain problematic.[170] At the same time, the client remains in the same posture of exposure and reliance that supports imposition of fiduciary duty respecting the agency.

We have found no cases that take up the question whether the fiduciary characterization extends to the banker's actions as an advisor, at least so far as concerns the primary clients—the sell-side corporation and its

---

163. RESTATEMENT (THIRD) OF AGENCY § 8.03 (2006).

164. *Id.* § 8.06.

165. *Id.* § 8.06 cmt. d(1). The ethical regime governing lawyers operates similarly. *See infra* text accompanying notes 214–217.

166. *See* RESTATEMENT (THIRD) OF AGENCY § 1.01 cmt. c (2006) (commenting that a service provider who "simply furnishes advice and does not interact with third parties as the representative of the recipient of the advice" is "not acting as an agent").

167. *Compare* MODEL RULES OF PROF'L CONDUCT R. 1.2 (2014) (describing the scope of legal representation), *with id.* R. 2.1 (describing an attorney's advisory role as an aspect of representation).

168. *Id.* R. 1.7.

169. *Id.* R. 2.1.

170. Indeed, we think that the duty to render advice independently is susceptible to a fiduciary characterization, although we are not sure that any outcome determinative consequences would follow therefrom.

board of directors. Such cases as there are concern a secondary issue: whether the selling company's shareholders enjoy the status of fiduciary beneficiaries.

2. Scope: The Status of Shareholders.—Many banker cases turn on the question whether the client's shareholders are direct beneficiaries of its banker's duties. This is unsurprising in view of the prevalence of representative litigation in the wake of merger announcements.

Under Delaware's default rule, bankers owe no duties to shareholders and shareholders accordingly have no direct action against a banker.[171] Significantly, this is not because the banker is classified as a classic arm's-length contract counterparty with the client board. We have already quoted the leading opinion on shareholder duties, *In re Shoe-Town*, for the proposition that the banker is the board's agent.[172] But, in the Delaware court's view, the client board of directors is the only principal in the fact pattern: the banker is not deemed to stand in a relationship of trust with its client's shareholders and thus is not subject to a representative lawsuit for breach of fiduciary duty. We will expand our quotation of *Shoe-Town* to show how this needle is threaded:

> [The banker] served as an agent of management. Its authority was derived by delegation from management. Directors and other governing members of a corporation who are imbued with fiduciary responsibility can be characterized as agents and quasi trustees. It is equally true, however, that those serving as mere agents are generally *not* characterized as trustees and therefore do not stand in a fiduciary relationship with the shareholders. Indeed, it escapes reason to say that an investment bank hired by a management group taking a company private, such as in the present situation, would stand in a relationship with a given corporation and its stockholders similar to the relationship of a trustee to his cestui que trust. In addition, because a fairness opinion or an outside valuation is not an absolute requirement under Delaware law, it makes little sense to strap those investment banks, who are retained, with the duties of a fiduciary.[173]

---

171. *See In re* Shoe-Town, Inc. Stockholders Litig., No. 9483, 1990 WL 13475, at *7 (Del. Ch. Feb. 12, 1990) (explaining that bankers serving only as agents are typically not deemed trustees and thus owe no fiduciary duty to shareholders).

172. *See supra* notes 161–62.

173. *Shoe-Town*, 1990 WL 13475, at *7 (citations omitted); *see also* HA2003 Liquidating Trust v. Credit Suisse Sec. (USA) LLC, 517 F.3d 454, 458 (7th Cir. 2008) (refusing to find that a banker–advisor owed a duty to shareholders outside of its contractual duties and noting that "[the plaintiff] wants us to throw out the detailed contract . . . and to make up a set of duties as if this were tort litigation").

Another leading case on banker duties, the New York Appellate Division's opinion in *Schneider v. Lazard Freres & Co.*,[174] goes the other way.[175] Like *Shoe-Town*, *Schneider* is a 1990 decision in a case involving an allegation of banker negligence in connection with the preparation of a fairness opinion. The court used an agency theory to link the shareholders to the banker: the board's special merger negotiating committee was formed to protect the shareholders and engaged the banker toward that end; the committee acted as the shareholders' agent; the banker accordingly acted as the shareholder agent's agent and so stood sufficiently in privity with them to support a direct action.[176]

The two approaches can be distinguished on a theory of the firm grounds.[177] Delaware hews to the traditional model under which the board owes duties to the corporate entity and does not directly serve the

---

174. 552 N.Y.S.2d 571 (App. Div. 1990).

175. *Id.* at 574–75.

176. *Id.*; *see also* Wells v. Shearson Lehman/Am. Express, Inc., 514 N.Y.S.2d 1, 2 (App. Div. 1987), *rev'd on other grounds*, 526 N.E.2d 8 (N.Y. 1988) (engaging in a similar analysis).

177. Predictably, the Delaware approach has been criticized. The critics would upgrade investment bankers to full fiduciary status with the shareholders as direct beneficiaries. "Gatekeeper" liability would follow along the lines imposed on auditors—applying *ex post* scrutiny for lapses of due care and diligence. *See* Ted J. Fiflis, *Responsibility of Investment Bankers to Shareholders*, 70 WASH. U. L.Q. 497, 513–16, 519–20 (1992) (advocating for such an approach); *cf.* Cameron Cushman, Note, *Liability for Fairness Opinions Under Delaware Law*, 36 J. CORP. L. 635, 649 (2011) (recommending a shareholder cause of action for negligent fairness opinions); Rubenstein, *supra* note 70, at 1724 (same). Contrast those who would prefer to roll back *Smith v. Van Gorkom* and denude the fairness opinion of a central place in the board's demonstration of diligence. *See, e.g.*, Charles M. Elson, *Fairness Opinions: Are They Fair or Should We Care?*, 53 OHIO ST. L.J. 951, 970 (1992) (noting that, because of the variety of valuation approaches used and the influence of interested parties, objective and independent fairness advice is difficult to achieve). Under this line of thinking, valuation opinions should be dismissed completely as intrinsically subjective, *id.* at 970, and useless in most scenarios, *id.* at 1000–03. It follows that a gatekeeper liability regime will never work and the law should not encourage boards to hold out fairness opinions as a basis for shareholder reliance. *See* Carney, *supra* note 82, at 535–36 (rejecting the argument that gatekeeper liability for investment bankers is good public policy). If you need a gatekeeper, free the field of regulatory barriers and let the market for corporate control solve problems through competitive bidding. *See id.* at 538 (suggesting that "[m]arkets may provide the strongest form of protection for minority and public shareholders in takeouts and management buyouts"). But others advocate a more moderate liability-based approach. *See* Dale A. Oesterle, *Fairness Opinions as Magic Pieces of Paper*, 70 WASH. U. L.Q. 541, 557–58 (1992) (recommending that boards of directors should be held liable in shareholders' derivative actions for relying on substandard opinions and that the showing required for proving an aiding and abetting cause of action against an investment banker should be reevaluated).

We reject the analogy to auditors as gatekeepers. Accountants work *ex post* with verifiable numbers. Appraisers of value sometimes do too, but just as often they work with soft future projections. Auditors apply a well articulated body of rules and principles to client accounting treatments and operate under a thick book of best practices. This regulatory encasement provides yardsticks for *ex post* evaluation of auditor performance. There is no comparable body of principles governing the professional activities of bankers, and, failing bankers' formal organization as a profession, none can be expected. The *Shoe-Town* barrier to banker gatekeeper liability makes good sense.

shareholders as an agent.[178] The indirect relationship between the board and the shareholders takes the framework of the common law of trust rather than of agency,[179] with the shareholders emerging as beneficiaries of director trustees rather than as principals. The framing cuts off banker liability—the banker, whatever its tie to the board, certainly has not signed on as anybody's trustee. The New York court, in contrast, is unconcerned about the corporate entity, ignoring it so as to construct a direct agency relationship between the board committee and the shareholders.[180] This facilitates a link over to the banker, who owes the same duties to both principals. The impetus for the treatment lies less in corporate than in tort law.[181]

The *Schneider* approach has not had much traction. In recent cases concerning the characterization and scope of the advisory function, the *Schneider* agency analysis determines no results, to the extent it is mentioned at all.[182] Instead, the cases start where *Shoe-Town* leaves off:

---

178. *See Shoe-Town*, 1990 WL 13475, at *6–7 (refusing to find a fiduciary duty between an investment bank hired by a corporation's management and that corporation's shareholders).

179. This follows from the statutory scheme. Consider the basic allocation of power. The relevant Delaware statute provides that the shareholders elect a board of directors in which management power is vested. DEL. CODE ANN. tit. 8, § 141(a)–(b) (2011). If one takes a contextual look at this dispensation against the general legal background, it might appear that the shareholders possess the ordinary rights of owners of property, with the elected directors serving as their agents under a delegation of authority. But such is not the case. In the corporate law model the shareholders do not delegate authority to the board. The board's powers, in the classic expression, are "'original and undelegated,'" springing from the law's provision of the organizational form and its vesting of authority in the board. People *ex rel.* Manice v. Powell, 94 N.E. 634, 637 (N.Y. 1911) (quoting Hoyt v. Thompson's Ex'rs, 19 N.Y. 207, 216 (1859)). Even as the shareholders elect the board, they have no right to tell it what to do. They can only proceed indirectly by removing it or replacing it at the next annual meeting. tit. 8, § 141(k). Agency relationships work differently. Actual authority must be based on the principal's actual manifestation of assent, and the terms of the delegation can be changed at will. RESTATEMENT (THIRD) OF AGENCY §§ 3.01 & cmt. b, 3.06 & cmt. b (2006). Indeed, the delegation can be revoked at will. *Id.* § 3.06 & cmt. c. Neither are the shareholders the legal corporation's owners. They own shares of stock, and, as shareholders, have the rights specified therein or pursuant to corporate law. If one adds up the foregoing incidents of the legal corporation and then looks for an analog in the common law form file, the affinity lies with the trust. Like a trust, the corporate entity takes title to property. *See* RESTATEMENT (THIRD) OF TRUSTS § 40 & cmt. b (2007) ("[I]t is generally stated and usually true that the trustee has legal title . . . ."). Like a trustee, the board of directors has comprehensive power to manage the property and owes fiduciary duties. *See id.* § 70 (stating that a trustee has the power to manage a trust and in acting on this power stands in a fiduciary relationship with the trust's beneficiaries).

180. *Schneider*, 552 N.Y.S.2d at 574–75.

181. The absence of a corporate law duty does not foreclose the possibility of a shareholder suit on the ground that the shareholders are third-party beneficiaries of the advisory contract. *Compare* Baker v. Goldman Sachs & Co., 656 F. Supp. 2d 226, 235–36 (D. Mass. 2009) (finding a controlling shareholder to be an intended beneficiary of an advisory contract), *with* Joyce v. Morgan Stanley & Co., 538 F.3d 797, 802–03 (7th Cir. 2008) (finding that a banker–advisor did not undertake any contractual duties to shareholders).

182. *See, e.g.*, Young v. Goldman Sachs & Co., No. 08CH28542, 2009 WL 247626 (Ill. Cir. Ct. Jan. 13, 2009) (rejecting a *Schneider* claim on the ground that the engagement letter and

there is no presumption, based on agency law or otherwise, that the banker owes fiduciary duties to the shareholders.[183] Rather, it is up to the shareholders to persuade the court that a relation of trust and confidence arose in the circumstances of the particular engagement.[184] It is an uphill fight, given standard-form engagement letters that negate the trust assertion.[185] But shareholder plaintiffs have been known to reach the summit, given the right relational facts.[186]

3. Contracting Out.—Recall that agency law opens a door for contracting out of fiduciary duty: an agent can deal adversely with its principal by procuring advance consent based on full disclosure subject to an overall limitation of good faith and fair dealing.[187] Banker–client engagement letters seek to take full advantage of the opening. This section surveys the result, first taking up disclosure questions and then turning to provisions that limit banker liability and attempt to negate fiduciary status altogether.

a. Disclosure.—The basic requirements of disclosure and consent make eminent sense in the banker–client context. The conflicted banker has an informational advantage. Contracting between the bank and the client respecting the bank's conflict cannot be expected to succeed until the informational asymmetry has been ameliorated. Disclosure evens the field: the client board has choices in the matter (for example, substituting another banker) and needs to make a considered decision regarding the seriousness of the conflict.

Banker–client engagement letters customarily contain boilerplate disclosures of banker conflicts, with the client's execution and delivery of

---

fairness opinion made it clear that the banker's duty did not extend to shareholders).

183. *See, e.g.*, *Joyce*, 538 F.3d at 802 (finding that no fiduciary duty existed between a banker–advisor and shareholders stemming from a fairness opinion given by the bank to the company's board of directors).

184. *See Baker*, 656 F. Supp. 2d at 236 & n.5 (applying New York and Massachusetts law, which requires that the plaintiff demonstrate a fiduciary relationship was created based on circumstances beyond the terms of the contract); *Joyce*, 538 F.3d at 802 (applying Illinois law and requiring the shareholders to show special circumstances that give rise to an extra contractual duty); Brooks v. Key Trust Co. Nat'l Ass'n, 809 N.Y.S.2d 270, 272–73 (App. Div. 2006) (requiring allegations that, apart from the terms of the contract, the parties created a relationship of higher trust).

185. *See Joyce*, 538 F.3d at 802 (dismissing a fiduciary claim in reliance on an engagement letter defining the corporation as the client only); CIBC Bank & Trust Co. (Cayman) v. Credit Lyonnais, 704 N.Y.S.2d 574, 575 (App. Div. 2000) (dismissing a fiduciary claim that was contradicted by contractual language). For a case in which the standard restriction to the board of directors blocked a claim related to a fairness opinion, see *Young*, 2009 WL 247626, at *6.

186. *See Baker*, 656 F. Supp. 2d at 236–37 (refusing to dismiss a plaintiff shareholder claim alleging special circumstances where the relationship was "muddy").

187. *See supra* text accompanying notes 164–66.

the letter manifesting consent.[188] But the standard provisions are generic, in effect notifying the client that the bank is a big, multifunctional place that holds out potential conflicts.[189]

Disclosure of conflicts specific to a particular transaction must be tailored with a view to later judicial scrutiny. Delaware has an extensive case law on banker-conflict disclosure occasioned by shareholder litigation over the completeness and accuracy of proxy statements distributed in connection with the merger approval process. Fairness opinions must be described in the proxy statement, and, at the plaintiffs' behest, the Delaware courts conduct searching reviews of disclosures of the opinions' contents.[190]

---

188. Here is a sample:

> [Client] acknowledges that [investment bank] is a global, full service securities firm engaged in securities trading and brokerage activities, and providing investment banking, investment management and financial advisory services. In the ordinary course of its trading, brokerage, investment and asset management and financial activities, [investment bank] and its affiliates may hold long or short positions, and may trade or otherwise effect or recommend transactions, for its own account or the accounts of its customers, in debt or equity securities or loans of [client] or any other company that may be involved in the Transaction contemplated by this Engagement Letter. Further, in connection with its merchant banking activities, [investment bank] may have made private investments in [client] or any other company that may be involved in the Transaction contemplated by this Engagement Letter. As a global, full service financial organization, [investment bank] and its affiliates may also provide a broad range of normal course financial products and services to its customers (including, but not limited to investment banking, commercial banking, credit derivative, hedging and foreign exchange products and services), including companies that may be involved in the Transaction contemplated by this Engagement Letter. Furthermore, [client] acknowledges [investment bank] may have fiduciary or other relationships whereby [investment bank] or its affiliates may exercise voting power over securities of various persons, which securities may from time to time include securities of [client] or of potential purchasers or others with interests in respect of the Transaction. [Client] acknowledges that [investment bank] or such affiliates may exercise such powers and otherwise perform its functions in connection with such fiduciary or other relationships without regard to [investment bank's] relationship to [client] hereunder.

Miller et al., *supra* note 126, at 74–75.

189. For an unsuccessful attempt to use a generic disclosure statement to shield a failure to disclose particular facts respecting a conflict, see *In re* Rural Metro Corp., 88 A.3d 54, 105–06 (Del. Ch. 2014).

190. The shareholders must get a fair summary of the work done, including detailed information about key inputs, multiples, discount rates, dates, and the range of values generated. *In re* Cogent, Inc. S'holder Litig., 7 A.3d 487, 511 (Del. Ch. 2010); *In re* Netsmart Techs., Inc. S'holders Litig., 924 A.2d 171, 203–04 (Del. Ch. 2007); *see also* Ehrlich v. Phase Forward Inc., 955 N.E.2d 912, 923 (Mass. App. Ct. 2011) (recognizing the "fair summary" standard). Either a discrepancy between the numbers reported in the proxy statement and those reported to the board, or the failure to report relevant value data supplied to the analyst can result in an injunction against the shareholder vote on the merger. *See, e.g.*, Maric Capital Master Fund, Ltd. v. Plato Learning, Inc., 11 A.3d 1175, 1177–79 (Del. Ch. 2010) (enjoining a vote where the weighted average cost of capital (WACC) used in an opinion had a broader upward range than WACC figures in the boardroom and no disclosure was made regarding internal cash flow projections supplied to the banker). The courts also want the shareholders positioned to understand all factors that might influence the banker's analysis. David P. Simonetti Rollover IRA v. Margolis, No.

An opining banker's conflicts must be disclosed as well. The disclosure requirement is applied against the banker both as regards the board of directors to which the fairness opinion is addressed and as regards the shareholders voting on the merger.[191] Litigation follows over the quality of the proxy statement's disclosures. Scrutiny is strict—failure to disclose and quantify the success contingency in the banker fee arrangement leads to an injunction against the shareholder vote.[192] Any other financial outcomes for the banker following from consummation of the deal also must be disclosed.[193]

3694-VCN, 2008 WL 5048692, at *8 (Del. Ch. June 27, 2008). Class action plaintiffs ask for more disclosure still, including "discussions" of valuation methodologies. Here the courts sensibly balk, asking only for an accurate but literal report. *See In re* 3Com S'holders Litig., No. 5067-CC, 2009 WL 5173804, at *6 (Del. Ch. Dec. 18, 2009) (noting that disclosures do not have to discuss all potential alternatives and recognizing that only accuracy is required); *Netsmart*, 924 A.2d at 204 (same).

191. *See* Blake Rohrbacher & John Mark Zeberkiewicz, *Fair Summary II: An Update on Delaware's Disclosure Regime Regarding Fairness Opinions*, 66 BUS. LAW. 943, 954 (2011) ("Because stockholders need to be aware of a banker's potential conflicts in determining how much weight to place on the fairness opinion, the court has required disclosures in several areas relating to bankers' engagement and their potential interest in the transaction on which they are opining.").

192. *See In re* Atheros Commc'ns, Inc. S'holder Litig., No. 6124-VCN, 2011 WL 864928, at *8–9, *14 (Del. Ch. Mar. 4, 2011) (enjoining the vote, in part, because the specifics of the contingency fee were not disclosed, including the percentage of the fee that was contingent on the success of the deal); La. Mun. Police Emps.' Ret. Sys. v. Crawford, 918 A.2d 1172, 1190–92 (Del. Ch. 2007) (enjoining the vote for failing to disclose the fact that a significant portion of the bankers' fees rested upon initial approval of a particular transaction). *But see* Cnty. of York Emps. Ret. Plan v. Merrill Lynch & Co., No. 4066-VCN, 2008 WL 4824053, at *11 (Del. Ch. Oct. 28, 2008) (finding that the specifics about a contingency need not be disclosed and "that simply stating that an advisor's fees are partially contingent on the consummation of a transaction is appropriate").

193. *See, e.g.*, *David P. Simonetti*, 2008 WL 5048692, at *8–9, *14 (enjoining the vote, in part, for failure to disclose and quantify outcomes relating to warrants and convertible notes from prior transactions).

Strict though the scrutiny may be, critics of the use of contingency fees in fairness-opinion practice remain unsatisfied. They would like to see these conflicts barred. *See* Bebchuk & Kahan, *supra* note 63, at 49–51 (suggesting that fairness opinions written under contingent-fee arrangements should be discounted or a second opinion from a flat-fee banker should be required); Carney, *supra* note 82, at 536–37 (recognizing the existence of proposals to ban success fees). They also note the charge that the opinions are accepted at face value without further scrutiny of their methodologies or assumptions and suggest that opinion practice be revamped so as to afford selling shareholders a stronger, more reliable basis for voting yes. *E.g.*, Davidoff, *supra* note 35, at 1600–01, 1625. "Fairness" remains undefined under Delaware law, *id.* at 1605, making it hard to subject the opinion to collateral attack. The commentators blame the Delaware courts for settling for less. They suggest that the Delaware courts should get their hands dirty at a technical level: the fairness standard should be articulated explicitly, Bebchuk & Kahan, *supra* note 63, at 46–47, and courts should subject fairness opinions to closer evaluation, checking into the relationship between the banker's assumptions and conclusions and demanding more factual detail, *id.* at 47–48. At the same time, the courts should accord fairness opinions less weight in the balance when evaluating board diligence. *Id.* at 52.

We find the criticism unpersuasive. The softness of valuation opinions follows from the softness of valuation as a discipline. Valuation practice could be regularized and hardened,

The disclosure requirement, in short, is not a formality.

b. Liability and Scope Limitations.—Engagement letters contain standard provisions designed to insulate the bank from the duties of care and loyalty. On the care side, the provision limits the bank's liability for actions related to the engagement except in cases of gross negligence or willful misconduct.[194] A parallel provision requires the client to indemnify the bank for liability stemming from the engagement other than any liability resulting from its own willful misconduct, gross negligence,[195] or bad

---

provided an authority emerged to articulate and impose best practices. Perhaps, as Professor Davidoff has suggested, bankers should organize as a profession and discipline themselves, articulating their own valuation and conflict of interest standards under the gaze of market regulators. Davidoff, *supra* note 35, at 1615–16 (recommending the formation of a public–private Investment Banking Authority that would promulgate standards for valuation practice and supervise internal procedures, requirements, and conflicts at the banks).

Some self-regulation does exist in the sector: the banks have internal review committees that supervise the rendering of fairness opinions and the committees in turn operate under procedural requirements imposed by the FINRA. *See* FIN. INDUS. REGULATORY AUTH. MANUAL § 5150 (2008), http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=6832, *archived at* http://perma.cc/6QBN-9PG4 (establishing rules requiring specific disclosures and procedures addressing conflicts in fairness opinions). *But cf.* Michael B. Rizik, Jr. & Matthew M. Wirgau, *Fairness Opinions: No Longer a Laughing Matter*, 25 T.M. COOLEY L. REV. 233, 261 (2008) (noting that the FINRA rules only apply to certain National Association of Securities Dealers "member[s]"). This is minimal compared with requirements imposed on other advisory financial institutions.

But even if fundamental regulatory change is in order, it is unreasonable to look to Delaware courts to affect it. They are institutionally ill-positioned to do so. The missing function is legislative and administrative rather than adjudicative, and the standard-setting process should be informed by insider expertise.

Nor is there any emergency. The main body of criticism of fairness opinions dates from two decades ago, when shareholders were viewed as hapless consumers who innocently relied on whatever a name-brand banker engaged by an entrenched CEO happened to say. That view has changed. The same climate that prompted the criticisms has prompted heightened scrutiny of boardroom processes and decisions both in Delaware courts and in the outside marketplace. William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 677–78 (2010). The board of directors has since evolved as a more robust monitoring institution, populated by increasingly independent directors working together to enhance shareholder value with managers incented by equity compensation plans. *Id.* at 678. Merger volume has reached new records again and again, *id.* at 678–79, and everybody takes a hard look at the deals. Fairness opinions certainly could be more informative. But hapless reliance on them is no longer a piece of the fact pattern, if indeed it ever was.

194. Here is a sample:

> You also agree that no Indemnified Person shall have any liability to you or your affiliates, directors, officers, employees, agents, creditors or stockholders, directly or indirectly, related to or arising out of the agreement or the services performed thereunder, except losses, claims, damages, liabilities and expenses you incur which have been finally judicially determined to have resulted proximately and directly from actions taken or omitted to be taken by such Indemnified Person due to such person's gross negligence or willful misconduct.

Miller et al., *supra* note 126, at 99.

195. *See* Marshall P. Horowitz & Joshua Schneiderman, *Negotiating Investment Banking M&A Engagement Letters: Keeping the Investment Bank Incentivized While Protecting Your*

faith.[196] On the loyalty side, the letter states that services are rendered solely for the use of the client's board of directors[197] and that the bank, as an independent contractor, owes duties arising from the engagement only to the company and to no other person; duties are limited to those expressly created under the engagement and fiduciary duties are disclaimed.[198]

Questions arise respecting these provisions' validity and enforceability The trend lies in favor of the provisions.

The liability limitation language is supported by case law.[199] This is unsurprising, for the language tracks the agency law template for opting

---

Interests, LEXOLOGY (Apr. 12, 2012), http://www.lexology.com/library/detail.aspx?g=84675f88e4c0-492e-8535-954518c0c7f5, *archived at* http://perma.cc/RE8D-RSGD (noting that an investment banker will generally insist on this provision).

196. Here is a sample:

> You are not responsible for any losses, claims, damages, liabilities or expenses to the extent that such loss, claim, damage, liability or expense has been finally judicially determined to have resulted primarily and directly from actions taken or omitted to be taken by such Indemnified Person due to such person's gross negligence, willful misconduct or bad faith . . . .

Miller et al., *supra* note 126, at 93; *see also* Ronald Barusch, *Dealpolitik: Why It's Hard to Successfully Sue Your Banker*, DEAL J., WALL ST. J. (Jan. 25, 2013, 11:22 AM), http://blogs.wsj.com/deals/2013/01/25/dealpolitik-why-its-hard-to-successfully-sue-your-banker/, *archived at* http://perma.cc/V7H6-DLY5 (describing an indemnity clause used by Goldman Sachs that included an exception for bad faith).

197. Here is a sample:

> [Client] acknowledges and agrees that all advice and opinions (written and oral) rendered by [investment bank] are intended solely for the use of the Board of Directors in (and only in) their capacity as such, and may not be used or relied upon by any other person, nor may such advice or opinions be reproduced, summarized, excerpted from or referred to in any public document or given to any other person without the prior written consent of [investment bank].

Miller et al., *supra* note 126, at 16.

198. Here is a sample:

> [Client] acknowledges that it has retained [investment bank] solely to provide the services set forth in this Engagement Letter. In rendering such services, [investment bank] will act as an independent contractor, and [investment bank] owes its duties arising out of this engagement solely to the [client] and to no other person. The [client] acknowledges that nothing in this Engagement Letter is intended to create duties to the [client] beyond those expressly provided for in this Engagement Letter, and [investment bank] and the [client] specifically disclaim the creation of any fiduciary relationship between, or the imposition of any fiduciary duties on, either party.

Miller et al., *supra* note 126, at 18. For an alternative drafting strategy, consider the following clause contained in the engagement letter in a case where the banker had been advising the acquirer in a merger, only later to disengage and represent the target: "[Target] agrees that it will not assert any damage, conflict of interest, or other claim against [the bank], [its] affiliates or such other party arising out of [the bank's] relationship with [the acquirer] on the basis of a conflict of interest or otherwise." Joyce v. Morgan Stanley & Co., 538 F.3d 797, 802 (7th Cir. 2008). The drafter makes no attempt to deny the existence of a duty of loyalty or to contract out from under it. It simply gets the beneficiary to waive any claim arising therefrom.

199. *See, e.g.*, HA2003 Liquidating Trust v. Credit Suisse Sec. (USA) LLC., 517 F.3d 454, 457–59 (7th Cir. 2008) (validating liability limitation language in an engagement letter by refusing to find liability on the part of a bank because its lack of prescience did not constitute

out, including the same exclusion of bad faith conduct.[200] A question does arise concerning the more particular meaning of the good faith concept in the banker–client context. The contractual concept of good faith[201] can be expansive or narrow, implying substantive fairness norms where the relationship entails vulnerability and dependence but limiting the parties to rights expressly set out in the contract given arm's-length dealing among sophisticated parties.[202] There also is a parallel, culpability-based good faith concept developed by the Delaware courts in cases where a corporate charter opts out of the duty of care.[203] Choice of law issues could arise as between the two concepts.[204]

How the variant notions of good faith might synchronize in the banker–client context is anybody's guess, for there are no cases. Our sense is that the culpability-based good faith notion would come to bear as a universal backstop, with courts avoiding resort to either expansive or narrow contract law concepts. This approach neatly echoes the engagement letters' exception for acts of "gross negligence, willful misconduct or bad faith."[205]

We now turn to scope limitations and fiduciary disclaimers. Scope limitations that exclude shareholders from beneficiary status are uncontroversial.[206] They take a cue from *Shoe-Town* and confirm that the particular banker–client relationship occupies the default position regarding shareholders.[207]

"gross negligence").

200. *Compare* Miller et al., *supra* note 126, at 93 (providing a bad faith exclusion), *with* RESTATEMENT (THIRD) OF AGENCY § 8.06 (2006) (setting forth a good faith standard).

201. *See, e.g.*, Kirke La Shelle Co. v. Paul Armstrong Co., 188 N.E. 163, 167 (N.Y. 1933) (observing that there is an implied covenant of good faith and fair dealing in every contract).

202. The leading case is *Broad v. Rockwell Int'l Corp.*, 642 F.2d 929, 957 (5th Cir. Apr. 1981) (en banc).

203. *See In re* Walt Disney Co. Derivative Litig., 906 A.2d 27, 47 n.37, 66–67 (Del. 2006) (defining bad faith as an "intentional dereliction of duty, a conscious disregard for one's responsibilities," falling between "(1) conduct motivated by subjective bad intent and (2) conduct resulting from gross negligence").

204. In a Delaware litigation, the issue could arise under the law of another state, with New York as a likely candidate, depending on the engagement letter's choice of law clause. *See* Louis R. Dienes & Alison M. Pear, *An Annotated Form of Investment Banking Engagement Letter*, 25 CAL. BUS. L. PRAC. 107, 120 (2010) (providing a model engagement letter prepared by California lawyers with an alternative of California or New York law). By hypothesis, since the engagement contract creates the agency, the agency law applied to the engagement should be the law chosen by the contract. But the matter is not free from doubt. *See* Shandler v. DLJ Merch. Banking, Inc., No. 4797-VCS, 2010 WL 2929654, at *19 (Del. Ch. July 26, 2010) (refusing to apply the Ohio choice of law provision in an engagement letter to a claim alleging that a bank aided and abetted the selling board's breach of fiduciary duty on the theory that Delaware has the stronger interest in the matter).

205. *See supra* note 196.

206. *See supra* notes 184–186 and accompanying text.

207. *See* Joyce v. Morgan Stanley & Co., 538 F.3d 797, 802 (7th Cir. 2008) (noting that, absent special circumstances giving rise to an extra-contractual fiduciary duty, investment bank

Across-the-board provisions that disclaim a fiduciary duty to the client corporation and its board of directors present more of a problem, for they raise a theoretical question as to whether or not the common law of agency imports a mandatory fiduciary duty. Corporate law precedents suggest that such disclaimers are ineffective.[208] Contrariwise, a disclaimer of fiduciary duty has been given effect in a banker–client case decided abroad.[209] Meanwhile, the limitations and disclaimers in engagement letters follow the pattern for opting out that now prevails in documentation governing limited partnerships (LPs) and limited liability companies (LLCs).[210] But the comparison to LPs and LLPs also sounds a note of caution. LP and LLC disclaimers have explicit statutory backing,[211] statutes in turn prompted by judicial expressions of doubt concerning the limits of the opting-out envelope.[212] In any event, the LP and LLC opt-out envelope remains subject to a contractual good faith limitation.[213]

Engagement letters, in sum, get the bankers comfortably close to immunity respecting conflicts—given disclosure and consent and subject to

---

owed no such duty to shareholders); Brooks v. Key Trust Co. Nat'l Ass'n, 809 N.Y.S.2d 270, 272–73 (App. Div. 2006) (requiring investor to allege that the parties created a relationship of higher trust than would arise from their contracts alone to sustain a cause of action to lie for breach of a fiduciary duty independent of contractual duties). *But see* Baker v. Goldman Sachs & Co., 656 F. Supp. 2d 226, 236–37 (D. Mass. 2009) (denying motion to dismiss with respect to fiduciary duty claim, because a shareholder made sufficient allegations that special circumstances existed to create an extra-contractual fiduciary relationship when an investment bank allegedly knew about and actively solicited plaintiff's faith and trust).

208. *See* Conway v. Icahn & Co., 16 F.3d 504, 508–09 (2d Cir. 1994) (finding that express waivers did not preclude claims for negligence and breach of fiduciary duty against an entity claiming to be a third-party beneficiary to the contract); Neubauer v. Goldfarb, 133 Cal. Rptr. 2d 218, 223–25 (Ct. App. 2003) (holding that a waiver of fiduciary duty to minority shareholders in a close corporation "is against public policy and a contract provision in a buy-sell agreement purporting to effect such a waiver is void"); *see also* Melvin Aron Eisenberg, *The Limits of Cognition and the Limits of Contract*, 47 STAN. L. REV. 211, 250 (1995) ("The core duty-of-loyalty rules governing corporate fiduciaries cannot be waived, but courts may give effect to highly specific agreements that do not present the dangers of systematic unforeseeability and potential for exploitation." (footnote omitted)).

209. *See Australian Sec. and Invs. Comm'n v Citigroup Global Markets Austl. Pty Ltd (No. 4)* [2007] FCR 963 ("[T]he exclusion of the fiduciary relationship was effective, notwithstanding the fact that Citigroup undertook to provide financial advisory services . . . ."). For discussion of this case, see generally Tuch, *Paradox*, *supra* note 29.

210. *See* Mohsen Manesh, *Contractual Freedom Under Delaware Alternative Entity Law: Evidence from Publicly Traded LPs and LLCs*, 37 J. CORP. L. 555, 557, 576–77 (2012) (surveying similar provisions in the operating agreements of LPs and LLCs).

211. *See* DEL. CODE ANN. tit. 6, § 18-1101(c) (2013) (covering LLCs); *id.* § 17-1101(d) (covering LPs).

212. *See* Gotham Partners, L.P. v. Hallwood Realty Partners, L.P., 817 A.2d 160, 167–68 (Del. 2002) (recognizing that the then-current form of § 17.001(d) merely stated that liability could be expanded or restricted by provisions in the partnership agreement but made no mention of the ability to eliminate such liability); Manesh, *supra* note 210, at 561 (noting that the statutes were amended in response to the *Gotham Partners* case).

213. DEL. CODE ANN. tit. 6, §§ 17-1101(d), 18-1101(c) (2013).

exposure for their own willful misconduct, gross negligence, or bad faith. Significantly, the good faith limitation is repeated in every source of law we have traversed—common law, statute, and negotiated contract.

c. Lawyers Compared.—At this point we make reference to the ethical principles governing lawyers as an indirect source of support for our reading of the law of banker–client relationships. One tends to think of lawyer conflicts as prohibited, but the actual rules follow the template of the common law of agency rather closely. As with agency law, the rules start with a prohibition against conflicted representation[214] but then open a loophole—the representation may proceed provided that the lawyer reasonably believes that competent and diligent representation can be provided and the client's informed consent is procured in writing.[215] The loophole's proviso may be restated as a conditional but irreducible prohibition—if the lawyer cannot reasonably believe that competent and diligent representation can be provided, the client's consent is not operative; the conflict is "nonconsentable."[216] Unsurprisingly, the more sophisticated the client the better the case for consentability, with in-house counsel at a large corporation as the archetypical example of a consentable client.[217]

---

214. DELAWARE LAWYERS' RULES OF PROF'L CONDUCT R. 1.7(a) (2010) ("Except as provided in paragraph (b), a lawyer shall not represent a client if the representation involves a concurrent conflict of interest.").

215. *Id.* R. 1.7(b) ("Notwithstanding the existence of a concurrent conflict of interest under paragraph (a), a lawyer may represent a client if: (1) the lawyer reasonably believes that the lawyer will be able to provide competent and diligent representation to each affected client; . . . and (4) each affected client gives informed consent, confirmed in writing.").

216. *Id.* R. 1.7 cmt. 14 ("[S]ome conflicts are nonconsentable, meaning that the lawyer involved cannot properly ask for such agreement or provide representation on the basis of the client's consent."); *see also* 1 GEOFFREY C. HAZARD, JR. ET AL., THE LAW OF LAWYERING § 11.20 (3rd ed. 2014) (recognizing that similar language under the Model Rules makes certain conflicts nonconsentable). The basic sequence of inquiry in the attorney conflict rules roughly tracks that of corporate law's duty of loyalty—self-dealing transactions between directors and their companies are voidable provided the director discloses fully and gets the consent of the disinterested directors, so long as an unfair transaction still can be voided. In other words: prohibition, followed by permission conditioned on disclosure and consent, followed by a reservation of a core of irreducibly unacceptable situations. The focus of *ex post* review differs, however. With corporate conflicts, the court reviews the decision-making context of the approving board, insisting on consenting independent directors. *See* Benihana of Tokyo, Inc. v. Benihana, Inc., 891 A.2d 150, 173–74 (Del. Ch. 2005), *aff'd*, 906 A.2d 114 (Del. 2006) (requiring an examination of "the interestedness of each of the Voting Directors, as well as the information available to them"). With attorneys the court reviews the attorney's determination to request the client's consent. *See* HAZARD, ET AL., *supra*, § 10.5 ("*[T]he lawyer* must honestly assess the situation and make a reasonable judgment that he or she can still provide competent and diligent representation."). The lawyers' context also holds out some per se rules; for example, representation of both sides in litigation is prohibited without exception. DELAWARE LAWYERS' RULES OF PROF'L CONDUCT R. 1.7(b)(3) (2010); RESTATEMENT (THIRD) OF THE LAW GOVERNING LAWYERS § 122(2)(b) (2000).

217. RESTATEMENT (THIRD) OF THE LAW GOVERNING LAWYERS § 122 cmt. g(iv) (2000) ("Decisions involving clients sophisticated in the use of lawyers, particularly when advised by

Lawyers and bankers thus operate under roughly similar conflicts rules. Yet, in practice, they have very different profiles. Bankers, even as they guard their reputations and monitor client conflicts,[218] take advantage of the law's opt-out envelope and in some cases embrace conflicts.[219] Lawyers who represent large corporations could do the same thing, but in fact do not.[220] They tend to be more risk averse than the bankers,[221] particularly as regards their reputations. They avoid conflicts accordingly, making considerable investments in information flow within their firms to assure that no conflicts occur.[222] The practice of conflict avoidance in turn spawns a set of self-enforcing practitioner norms, norms much more potent in deterring conflicted representation than are the formal rules.[223]

As the economic analysis predicts, what matters here is less the basic legal framework than the actors' particular reputational concerns, concerns that manifest themselves by degree. Even as both bankers and lawyers have a keen interest in protecting their reputations and both invest in conflict avoidance, the respective cost–benefit calculations work differently, with some bankers piling on the conflicts in pursuit of immediate bottom line enhancement. Apparently, in the market for banker services, the conflicts by themselves result in minimal long-term costs in the form of reputational

---

independent counsel, such as by inside legal counsel, rarely hold that a conflict is non-consentable.").

218. *See supra* note 144 and accompanying text.

219. *See, e.g.*, *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 826 (Del. Ch. 2011) (concerning a bank involved on the buy and sell side of each stage of the sales process for self-interested reasons).

220. Thomas B. Mason, *Ethics: Conflicts of Interests for Transactional Attorneys*, ZUCKERMAN SPAEDER LLP, http://www.zuckerman.com/media/site_files/165_ABA%20Business%20Law_EthicsConflicts%20of%20Interest%20for%20Transactional%20Attorneys_Mason.pdf, *archived at* http://perma.cc/7TNA-7G2L.

221. *See, e.g.*, C. Evan Stewart, *New York's New Ethics Rules: What You Don't Know Can Hurt You!*, N.Y. BUS. L.J., Fall 2009, at 80, 81 (describing attorneys as risk averse).

222. *See* Susan P. Shapiro, *Bushwhacking the Ethical High Road: Conflict of Interest in the Practice of Law and Real Life*, 28 LAW & SOC. INQUIRY 87, 135–39, 157–59 (2003) (describing the use of electronic databases and screening methods to share information within a firm to avoid potential conflicts).

223. *See id.* at 125–29 (describing five incentives for self-regulation: (1) disqualification from litigation and its related reputational and financial costs; (2) the loss of fees and future relationships through voluntary withdrawal; (3) intrafirm discord arising from conflicts with other attorneys' clients; (4) losing client trust; and (5) expensive or unobtainable malpractice insurance); *see also* W. Terence Jones, *Ethical Issues for Business Lawyers*, *in* ETHICAL LAWYERING IN MASSACHUSETTS § 12.2 (James S. Bolan & Kenneth Lawrence eds., 3rd ed. 2009) (advising that because "the 'fullness' of full disclosure is always a fact question, it is often advisable to decline representation, regardless of the waiver by the clients").

It thus comes as no surprise that there are no cases about merger proxy-statement disclosures concerning conflicted lawyers. *See* Marc I. Steinberg, *Attorney Conflict Scenarios in the M&A Setting*, 33 SEC. REG. L.J. 310, 311 (2005) (describing a "dearth of judicial case law" on ethical M&A practices and responsibilities).

punishment. Meanwhile, the common law of agency throws up no serious obstacles.

C. Commentary

We emerge with the economists and lawyers in apparent harmony in their treatment of banker–client relationships. The economists remit conflicts to the contracting parties, and the law facilitates the process, asking only for disclosure as the means to the end. The law accepts this subject to a series of overlapping good faith limitations—the agency duty of loyalty's reservation regarding "good faith and fair dealing," the reservation regarding "gross negligence, willful misconduct or bad faith" in the standard banker engagement letter, and the good faith constraint on statutory opting out.[224] There is a notable harmony of approaches across the disparate sources. There is also a residuum of uncertainty arising from distinctions between the agency and advisory functions and contract and corporate law concepts of good faith. Our sense is that the ambiguities matter little, with the answers to all questions lying in the culpability-based notion of good faith developed in corporate law.

The economists assure us that reputational markets contain any conflict of interest problems left over in the wake of contracting.[225] Our comparative reference to legal practice backs up the assurance, showing us that where a market for services places a high value on undivided loyalty, agents avoid conflicts without any need for legal compulsion.

But the body of cases on which this depiction draws is thin. The Delaware opinions referenced in this Part concern fairness opinions rather than the advisory function. Since no one takes fairness opinions especially seriously,[226] it is easy to conclude that disclosure renders a conflict harmless. The same conflict may loom larger if it impairs the banker's performance of an advisory role with inputs on deal structure and bargaining strategy, raising questions about the adequacy of the disclosure palliative.

The next Part shows the Delaware courts taking a harder look at advisory bank conflicts when the conflicts bear on the question whether a sell-side board has performed its *Revlon* duty to make a reasonable deal. Although the possibility of this connection long has inhered in the structure of Delaware fiduciary law, its recent realization in decided cases alters the calculus of M&A practice and brings banker conflicts to the policy front line for the first time. A theoretical question arises: whether the confrontation implies open conflict between economic analysis and fiduciary norms. We will see in Part IV that the answer is no. *Revlon*

224. *See supra* notes 165, 194–96, 213 and accompanying text.

225. *See* discussion *supra* subpart III(A).

226. *See supra* note 193.

scrutiny of banker conflicts accepts the contractual zone opened up by the parties, carrying their choice of contract treatment to its logical conclusion.

IV. Hard Looks in Chancery

We have seen that as between fairness opinions and advisory services, the real stakes for all parties in M&A lie in the latter, where the banker's inputs directly impact the transaction's terms. The banker–advisor is there to help the board get the best deal. *Revlon*, in turn, reviews the board's reasonableness in that pursuit. Put the two together and banker conflicts become a problem. The same conflicts that generate minor questions regarding a fairness opinion can create major problems when they compromise the inputs of an actor at the cutting edge of the sale process.

Two recent Delaware Chancery Court decisions, *In re Del Monte Foods Co.*,[227] and *In re El Paso Corp.*,[228] take hard looks at banker conflicts under *Revlon*. A succeeding case, *In re Rural Metro Corp.*,[229] signals that we should expect no letup in the scrutiny's intensity. The upshot is a radical change in the legal posture of banker–client relationships. But, in effecting this change, *Del Monte* and *El Paso* herald no return to old time fiduciary values. They are not motivated by a norm of self-abnegation that runs against the banker, nor do they purport to eliminate contracting out from the banker–client relationship. The *Revlon* overlay has a transformative effect even so, for the question now is whether banker–client contracting inhibits realization of the best deal. The reframing forces the client, the sell-side board, to go into arm's-length mode in dealing with its banker, no longer acting like a passive, consenting beneficiary preserving a valued relationship. The board should be ready to deal with a banker conflict the same way it deals with every other aspect of the merger, with two-fisted bargaining. *Del Monte* and *El Paso*, far from obliterating contract with fiduciary values, *take contract seriously*. If a banker conflict undermines the reviewing court's confidence in the contracting process, the barrier to invalidation by taint that follows from economic analysis falls away.

A. Change of Context: Bankers under Revlon

Conflicted bankers do become embroiled in shareholder litigation over breached fiduciary duties in merger sale processes, despite the *Shoe-Town* barrier and their full use of the opt-out privilege. *Revlon* plaintiffs sue sell-side boards of directors, seeking to establish unreasonable sale processes.[230] Any mishandling of the board's relationship with its banker can figure into

227. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813 (Del. Ch. 2011).
228. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432 (Del. Ch. 2012).
229. *In re* Rural Metro Corp. Stockholders Litig., 88 A.3d 54 (Del. Ch. 2014).
230. *E.g.*, *Del Monte*, 25 A.3d at 817.

such a showing.[231] Importantly, in the *Revlon* context the banker is a piece of the fact pattern, not a defendant. At the same time, however, a banker conflict can be more problematic than in a fairness opinion case like *Shoe-Town*. Fairness opinion cases look only at the banker and the board *inter se*, with the shareholders figuring in only as proxy statement recipients.[232] That limited view makes it easy for a contract and disclosure to deflect attention from the conflicts and their potential impact. *Revlon* shifts the focus to the shareholders as beneficiaries of the board's trustee duty, potentially denuding disclosure and consent of curative power.

Indeed, it can be noted that *Revlon* inquiries into banker conflicts bear a familial relationship to ethical inquiries respecting lawyer conflicts. The lawyer's inquiry has two prongs: (1) the conflict must be fully disclosed to the client, and (2) the disclosing lawyer must reasonably conclude that he or she can still provide competent and diligent representation.[233] The *ex post* decision maker confirms the client's consent and reviews the quality of the disclosure and the reasonableness of the lawyer's determination, weighing the gravity of the conflict.[234] But for one important distinction, *Revlon* scrutiny of banker conflicts is quite similar. As with the lawyers' rules, agency law requires that the conflict must be fully disclosed to the consenting client, here the board.[235] Under *Revlon*, the *client* comes in as a second fiduciary owing a separate duty. Where in legal ethics the fiduciary must reasonably determine that the representation is unimpaired, in a banker case the *client* board of directors must reasonably determine that the conflict does not impair the sale process.[236] The lawyer's term "consentability" is apt. In addition, *Revlon* scrutiny of bankers reverses *Shoe-Town* in part, for under *Revlon* the shareholders get a cause of action.[237] Although the action goes against the board rather than the banker, the relational effect is similar.

At the bottom line, a banker conflict that puts the sell-side board and its deal into *Revlon* jeopardy is effectively prohibited. This destabilizes the

---

231. *See, e.g., id.* at 818 (finding the board responsible for its banker's actions that led to an unreasonable sale process because the board failed to provide oversight that would have checked their banker's misconduct).

232. *See In re* Shoe-Town, Inc. Stockholders Litig., No. 9483, 1990 WL 13475, at *6–7 (Del. Ch. Feb. 12, 1990) (refusing to find a fiduciary relationship between a fairness-opinion giver and shareholders).

233. *See supra* notes 214–222 and accompanying text.

234. *See supra* note 216.

235. Miller, *supra* note 11, at 10–11 & n.89 (citing RESTATEMENT (THIRD) OF AGENCY § 8.06 (2006)).

236. *See Del Monte*, 25 A.3d at 817 (recognizing the issue as whether the client board breached its fiduciary duty).

237. *Compare* Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 179 (Del. 1986) (holding that a board of directors has a fiduciary duty of care and loyalty to its shareholders when approving a corporate merger), *with In re* Shoe-Town, 1990 WL 13475, at *7 (explaining that bankers serving only as agents owe no fiduciary duty to shareholders).

picture of banker–client relations drawn in Part III without directly altering anything therein. Thus did *Del Monte* and *El Paso* create an appearance of sudden change, for before them there had been only one case in which a banker conflict triggered a *Revlon* violation and then on a fact pattern cluttered with other self-standing violations.[238]

B. An Early Warning

The Chancery Court's hard looks began with a staple. Back in 2005 in a case called *Toys "R" Us*,[239] the Court noted in passing that stapled financing could present a *Revlon* problem.[240]

Toys "R" Us was a straightforward *Revlon* case. The selling board had entered into a merger agreement with a private equity buyer, Kohlberg, Kravis, Roberts (KKR), concluding a long auction process.[241] The plaintiffs made cookie-cutter allegations: the board had failed to pursue alternative strategies to maximize value[242] and had accepted prohibitive deal-protection provisions in the merger agreement.[243] Under *Revlon*, the question was whether the asserted defalcations violated the board's fiduciary duty to pursue the highest reasonable value for the shareholders.[244] The court found the board to have acted reasonably.[245]

Review of the board's reasonableness included a look at the actions of its advisor, Credit Suisse First Boston (First Boston). First Boston passed inspection, but the Chancery Court per (then) Vice-Chancellor Strine, entered a note of disquiet about a staple. First Boston twice asked the board for permission to provide buy-side financing to the bidders, first during the bidding process and second after the signing of the merger agreement—the board denied the first request but granted the second.[246] This displeased the judge:

> That decision was unfortunate, in that it tends to raise eyebrows by creating the appearance of impropriety . . . . Far better . . . if First Boston had never asked for permission, and had taken the position

---

238. The case was *Mills Acquisition Co. v. Macmillan, Inc.*, 559 A.2d 1261 (Del. 1988). For discussion of this case, see *supra* note 28.

239. *In re* Toys "R" Us, Inc. S'holder Litig., 877 A.2d 975 (Del. Ch. 2005).

240. *See id.* at 1005–06 (acknowledging that stapled financing could create "the appearance of impropriety").

241. *Id.* at 987–95.

242. More particularly, a search for a buyer of a division of the company evolved into a process to sell the entire company. The plaintiffs claimed that instead of expediting that process, the board should have restarted the search. *Id.* at 1001.

243. In particular, the board agreed to a 3.75% termination fee in the merger agreement. *Id.* at 1016. The court ruled that the fee was reasonable on the ground that the winning bid was $1.50 per share higher than the next highest bid. *Id.* at 1017–18.

244. *Id.* at 980, 999.

245. *Id.* at 1007.

246. *Id.* at 1005–06.

> that its credibility as a sell-side advisor was too important in this case, and in general, for it to simultaneously play on the buy-side in a deal when it was the seller's financial advisor. . . . [I]t might have been better, in view of First Boston's refusal to refrain, for the board of the Company to have declined the request . . . .[247]

Nonetheless, the court determined that the financing arrangement did not have a causal effect on the board's sale decision and thus did not justify judicial interference.[248]

The appearance of impropriety stemmed from the staple's effect on First Boston's incentives. Without the staple, the banker stood only on the seller's side of the deal, its fee a function of the sale price and successful closing. As we have seen,[249] the staple put the bank, through its corporate lending department, on the buy side of the deal as well. To the extent the terms of the deal went the buyer's way, the value of First Boston's loan would increase. Fortunately, the staple attached only at a late stage, after the terms had been set.[250] The vice-chancellor also explained that it was not his job to "police the appearances of conflict that, upon close scrutiny, do not have a causal influence on a board's process."[251]

Vice-Chancellor Strine thus left a double gestured signal for the market's interpretation. To express concern about an appearance of impropriety is to talk taint, referencing scrupulous legal practice norms and best practices in venues like government employment rather than the law and practice of bankers and clients.[252] Yet the deal passed inspection. We are reminded of Professor Rock's observation that Delaware courts sermonize without imposing liability as a way of encouraging the development of best practices.[253] The sermon implies a threat that the less-than-best practice that passes inspection today will not be accorded future immunity. But the vice-chancellor also held out comfort when distinguishing between appearances and causal influences, implying that a taint does not imply per se invalidity and that an adverse consequence must be shown.[254]

The Vice-Chancellor's signal was duly noted in the M&A world. Some read it to herald the demise of staples.[255] But, according to Richard

---

247. *Id.* at 1006.

248. *Id.*

249. *See supra* text accompanying notes 125–28.

250. *Toys "R" Us*, 877 A.2d at 1006.

251. *Id.*

252. The legal profession's actual ethical rules do not make appearances actionable and accommodate conflicts between sophisticated parties. *See supra* notes 214–217 and accompanying text.

253. Edward B. Rock, *Saints and Sinners: How Does Delaware Corporate Law Work?*, 44 UCLA L. REV. 1009, 1016 (1997).

254. *Toys "R" Us*, 877 A.2d at 1006.

255. Hall, *supra* note 100.

Hall of Cravath, Swain & Moore, "cooler heads" prevailed[256] and staples continued to be used freely in their territory of origin auctions of small units of larger companies.[257] Boards of directors in charge of leveraged buyouts of public companies viewed staples with more suspicion.[258] The practice adjusted accordingly and a staple came to mean the added expense of a second banker–advisor, brought in to ameliorate the effects of the conflict.[259] The conservative advice was that avoiding the added expense meant refusing the staple.[260]

Unfortunately, the practice path charted in the wake of *Toys "R" Us* proved unsafe.[261]

C. Del Monte

In *Del Monte*, a more severe banker conflict triggered a *Revlon* violation. In fact, the bank behaved improperly, deceiving its client board and thereby tainting the sale process, but not so noxiously to violate *Revlon* standing alone. There also was an adverse consequence, albeit one in the subtle form of an opportunity cost: the board passively accepted the banker conflict where it should have gone into arm's-length mode and extracted a giveback.

1. The Case.—The banker, Barclays, involved itself on both sell and buy sides at every stage of a lengthy sale process. Del Monte put itself up for sale only after Barclays, with which it had a long advisory relationship, put it into play.[262] Barclays took the first step on its own motion by shopping the company to private equity firms.[263] Indications of interest came in as a result, and the Del Monte board engaged Barclays as its advisor.[264] At that point Barclays disclosed neither its action in stirring up interest nor its intention to provide buy-side debt financing if a deal

256. *Id.*

257. *Id.*

258. *Id.*

259. *Id.*

260. *Id.*

261. Banker conflicts showed up tangentially in three additional cases prior to *Del Monte*. *See* Ortsman v. Green, No. 2670-N, 2007 WL 702475, at *1 (Del. Ch. Feb. 28, 2007) (ordering expedited discovery in a case involving a sell-side banker–advisor participating in buy-side financing); Khanna v. McMinn, No. 20545-NC, 2006 WL 1388744, at *25 (Del. Ch. May 9, 2006) (upholding a complaint that alleged, in part, that a board of directors violated its fiduciary duty by relying on a fairness opinion given by a banker–advisor that had a financial interest in the success of the transaction); *In re* Prime Hospitality, Inc. S'holders Litig., No. 652-N, 2005 WL 1138738, at *1–2, *13 (Del. Ch. May 4, 2005) (rejecting settlement of a *Revlon* claim in a case involving a "clearly conflicted" banker–advisor).

262. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 819–20 (Del. Ch. 2011).

263. *Id.* at 820.

264. *Id.*

emerged.[265] Bidding ensued, with each bidder signing a two-year confidentiality agreement that included a "no teaming" provision designed to keep the sale process competitive by prohibiting bidders from sharing information with other bidders or financers.[266] As it happened, Del Monte's board rejected the offers that came in.[267]

Barclays kept at it, encouraging two of the bidders, KKR and Vestar, to team up on a second-round bid.[268] There followed a three-way conversation in violation of the confidentiality agreement,[269] a conversation never disclosed to the Del Monte board. KKR submitted a new, nominally higher bid but said nothing about Vestar's involvement.[270] The board agreed to pursue a deal with KKR and re-engaged Barclays.[271] KKR then asked the board to permit Vestar to join in its bid, and the board, still in the dark about earlier goings-on, consented.[272] Around the same time, Barclays and KKR agreed that Barclays's lending side would provide one-third of the financing for the deal, an arrangement to which the Del Monte board subsequently acceded.[273] The board, seeking to ameliorate the negative inference arising from Barclays's conflict, engaged a second financial advisor.[274]

Del Monte and KKR–Vestar finally came to terms in a merger agreement providing for $19 per share cash and a forty-five day "go shop" period during which Del Monte would be free to entertain higher bids.[275] The Del Monte board, ignoring the fact that Barclays had a buy-side interest in the success of the KKR–Vestar bid, engaged Barclays to administer the go-shop process.[276] Goldman Sachs attempted to horn its way in at that point, offering to take over the go shop.[277] But KKR, after being tipped by Barclays, induced Goldman to back off in exchange for 5% of the financing.[278]

Vice-Chancellor Laster added all of this up to find a *Revlon* violation. He enjoined the shareholder vote for twenty days, which he deemed a length of time sufficient to permit a serious topping bidder to come out of

265. *Id.*
266. *Id.* at 821.
267. *Id.* at 822.
268. *Id.* at 823.
269. *Id.*
270. *Id.*
271. *Id.* at 824.
272. *Id.* at 825.
273. *Id.* at 825–26.
274. *Id.* at 826.
275. *Id.* at 826–27.
276. *Id.* at 828.
277. *Id.*
278. *Id.*

the woodwork.[279] *Revlon* reasonableness presupposed process integrity and, under *Toys "R" Us*, an investment banker conflict could taint the process so much that even later full disclosure of all the facts would provide no cure;[280] decisions of a deceived board are voidable, and Barclay's had deceived the Del Monte board.[281] In addition, KKR was potentially liable as an aider and abettor of the board's breach, having knowingly broken its confidentiality agreement, concealed its dealings with Vestar, created a conflict in permitting the staple, and skewed the go shop by drawing off Goldman.[282]

If we stop at this point, it looks like the deception by itself undermines the process, triggering the *Revlon* violation. But the Court went further, noting that the problem lay not just in the board's misapprehension of the facts: The facts misapprehended implicated opportunity costs; the board needed sound advice regarding the costs' minimization but never received it because its advisor had disabled itself from so doing in the course of spinning its deception.[283] Barclays crossed the line by failing to come clean when KKR asked for permission to bring in Vestar, silently watching the board accede without advising the board to extract a giveback that increased value to the shareholders.[284] The same failure occurred when Barclays asked for the board's permission to do the staple.[285] Del Monte and KKR–Vestar had not yet agreed on a price at that point; thus did the staple conflict ripen at an earlier, more vulnerable stage of the process than had been the case in *Toys "R" Us*.[286] The board, said the court, should have gotten something in trade for conceding the staple, but instead addressed the problem by engaging another banker at an additional cost to the shareholders of $3 million.[287] The board went on to abdicate its oversight responsibility when it permitted Barclays, by then tainted by the staple, to run the go-shop process.[288]

The merger eventually closed at the agreed $19 per share with the shareholders' approval and despite the injunction.[289] The litigation later was settled for $89.4 million[290]: Barclays contributing $23.7 million and

279. *Id.* at 840.
280. *Id.* at 832–33.
281. *Id.* at 836.
282. *Id.* at 836–37.
283. *Id.* at 836.
284. *Id.* at 833–34.
285. *Id.* at 834–35.
286. *Id.* at 833, 835.
287. *Id.* at 834–35.
288. *Id.* at 835.
289. *KKR Completes Del Monte Deal*, ZACKS INVESTMENT RES. (Mar. 10, 2011), http://www.zacks.com/stock/news/48858/kkr-complets-del-monte-deal, *archived at* http://perma.cc/VN3W-3JLM.
290. Tom Hals, *Del Monte's $89 Million Shareholder Settlement Approved*, REUTERS, Dec. 1,

Del Monte paying $65.7 million.[291] Around $21 million of Del Monte's payment was in lieu of payment to Barclays of its fee.[292] So, roughly speaking, each party contributed fifty-fifty and Barclays walked away from the deal without a fee.[293] Counsel for the plaintiffs picked up $2.75 million.[294]

2. Taking Contract Seriously

a. Relational Characterization.—The key to understanding the *Del Monte* court's analysis lies in distinguishing taint from consequences. The taint was multisided. Barclays worked the deal from three sides, engaging with the buyer and the financiers as well as the selling board, compounding the problem by concealing its relations with the buyer from the board.[295] The *Revlon* violation follows from the court's identification of negative consequences, albeit all of the "might have been" variety. Barclays's concealment of buy-side arrangements disabled the board from negotiating past the buy-team's interest in a low price to get to the upset prices that might have emerged in a competitive bidding. The board then compounded the problem by choosing Barclays to run the go shop over a willing competitor. Barclays had no interest in finding a higher bidder where another bank would have. Finally, the board should have extracted givebacks in exchange for its consent to Barclays's adverse representation.

The court's identification of an opportunity cost in the form of a missed giveback has doctrinal and policy significance. It builds a bridge between the legal framework encasing banker–client relationships and *Revlon* scrutiny on the shareholders' behalf. If the banker, despite a close relationship to the board, plausibly is to be treated in law as a potential arm's-length counterparty privileged to self deal, then in a *Revlon* context focused on short-term shareholder gain, the board–client should be prepared to go into arm's-length mode when the banker asks for concessions, proactively extracting a quo for every quid. The bank is still contracting out under agency law, but now the contracting out process is scrutinized

---

2011, *available at* http://www.reuters.com/article/2011/12/01/us-delmonte-kkr-settlement-idUSTRE7B02JZ20111201, *archived at* http://perma.cc/HB7P-9VJD.

291. *Update 2-Del Monte, Barclays to Pay $89.4 Mln in Settlement*, REUTERS, Oct. 6, 2011, http://www.reuters.com/article/2011/10/06/delmonte-barclays-settlement-idUSN1E7951XK20111006, *archived at* http://perma.cc/8WP4-Z4HG.

292. *Id.*

293. *Id.*

294. Divided as follows: $1.6 million for uncovering Barclays "surreptitious activities"; $950,000 for procuring later disclosures to the shareholders regarding the banker's fees, opinions, and relationships; and $200,000 for procuring disclosures about executive compensation tied to the deal. *In re* Del Monte Foods Co. S'holders Litig., No. 6027-VCL, 2011 WL 2535256, at *14 (Del. Ch. June 27, 2011).

295. *Id.* at *5.

under *Revlon*. At the same time, by encouraging the board to deal proactively with the banker, the court shows the M&A world how to make itself safe for future banker conflicts; second bankers at the shareholders' expense will not necessarily do.

A stark takeaway message for selling boards is implied: banker conflicts imply an added layer of responsibility. The selling board must, at a minimum, diligently oversee the banker's work and negotiations on a continuous basis.[296] Restating, since bankers can't be trusted to avoid conflicts and keep their incentives properly aligned, their clients have no business relying on them. If it is arm's length the bankers want, treat them accordingly and protect your own beneficiaries. Such an instruction would not be necessary in traditional fiduciary territory.

Once banker and board find themselves in arm's-length territory, a proactive stance regarding conflict identification makes sense. In the fiduciary context the beneficiary sits back and waits for the fiduciary to disclose the conflict, for only disclosed conflicts are permitted and undisclosed conflicts lead to breaches of duty.[297] At arm's length, one puts the question directly and upfront, getting affirmative representations.

b. Dealing with Deception Under Revlon.—*Del Monte* raises a more particular question for selling boards: what practical steps can be taken to avoid being faulted as a deception victim? Given information asymmetries, deception is always a possibility. The answer once again lies in using contractual devices employed in arm's-length relationships, which can make deception harder and more costly to perpetrate. The board should have required the advisor to represent at the time of engagement that it had not dealt in advance with potential bidders or otherwise violated the terms of its previous engagement—that is, the board should have treated the advisor as a party *without* a duty to disclose. The board could in addition have extracted a promise of continued absolute fidelity to the sell-side interest for the duration of the deal,[298] something that should not be necessary given a fiduciary relationship. The board then actively could have monitored the bankers' performance of the promise. Either a subsequent finding of misrepresentation or a failure to perform the promise of fidelity would result in default under the terms of engagement, and a failure of a condition attached to the duty to pay the fee.

Utmost diligence makes deception less likely without importing an absolute guarantee. It would seem to follow that even a highly diligent,

---

296. *See In re* Smurfit-Stone Container Corp. S'holder Litig., No. 6164-VCP, 2011 WL 2028076, at *23–24 (Del. Ch. May 20, 2011) (rejecting a *Revlon* challenge because the board "maintained continuous and diligent oversight" of its financial advisor).

297. *See supra* section III(B)(1).

298. The representation of no violations of the terms of the existing contract should also be procured from a bidder subject to a confidentiality agreement.

disinterested board can walk into a deal that violates *Revlon*. The result seems surprising, for *Revlon* is seen as a rule of heightened diligence.[299] But the result is wrought into the inquiry's structure, which demands a process reasonably calculated to result in best price.[300] A deal founded on deception regarding material facts cannot be deemed to result from such a process as an objective proposition, however diligent the approving board. Under *Revlon*, diligence is not a key that automatically unlocks the door to a business-judgment safe harbor; process and transactional substance can collapse into one another.[301] Significantly, the diligent sell-side board is not thereby left in an untenable position as regards liability for breach of fiduciary duty. As to personal liability, a safe harbor obtains—the statutory shield for good faith reliance on an agent's inputs.[302] Moreover, the litigation's outcome is as a practical matter determined at the injunction stage.

c. Staples.—We finally turn to buy-side financing. *Toys "R" Us* and *Del Monte* ascribe staples with a taint. The taint does not result in per se invalidity, but it does trigger searching scrutiny. More particularly, the selling board now bears a burden to contain and counteract the adverse consequences on the banker's incentives.[303] Short of refusing the staple, the selling board must justify it, getting a buyer concession in return or otherwise identifying a shareholder benefit flowing therefrom.[304] Diligence and reasonableness combine to mandate bargaining backbone.

Uncertainty will persist even with a giveback. Assume a concession in the form of a more liberal go-shop term including a right to solicit higher bids. It still will be hard for the board to see its way 100% clear of the taint: what is the value of a larger go-shop envelope when your advisor has zero interest in scaring up a higher bid? To dispel doubts, the board probably must resort to the expedient of engaging a second advisor and putting it in the driver's seat. Once the second advisor displaces the conflicted advisor

---

299. *See In re* Toys "R" Us, Inc. S'holder Litig., 877 A.2d 975, 1006 (Del. Ch. 2005) (holding that under *Revlon*, "once directors decide to sell the corporation, they should do what any fiduciary (such as a trustee) should do when selling an asset: maximize the sales price for the benefit of those to whom their allegiance is pledged"); *cf.* Omnicare, Inc. v. NCS Healthcare, Inc., 818 A.2d 914, 929 (Del. 2003) (describing the *Revlon* standard as "enhanced judicial scrutiny").

300. Lyondell Chem. Co. v. Ryan, 970 A.2d 235, 239 (Del. 2009).

301. We commend Professor Miller's nuanced discussion of the doctrinal strands that combine to produce this result. Miller, *supra* note 11, at 8–9.

302. DEL. CODE ANN. tit. 8, § 141(e) (2011).

303. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 833 (Del. Ch. 2011).

304. For a case in which the court sustains such a justification, see *In re* Morton's Rest. Grp., Inc. S'holders Litig., 74 A.3d 656, 673 (Del. Ch. 2013). The banker emerged as a potential lender after the bidder reported difficulties in procuring financing. *Id.* The selling board permitted its banker to proceed as lender on the condition that it recused itself from further negotiations, reduced its fee, and still opined on fairness. *Id.* The reduced fee funded engagement of a second banker. *Id.*

from the deal's front line the taint arguably is removed. Significantly, as negative consequences stemming from the sell-side board's allowance of the staple pile up, just saying no at the get-go begins to look like the preferred alternative.

D. El Paso

El Paso turns up the heat several notches. Here the board and the banker made the moves indicated in the conflict-management playbook—the conflict was fully disclosed and the board displaced the compromised banker at the front end of the deal. The court's negative findings cast doubt on the efficacy of standard palliatives and ominously imply that taints from banker conflicts can be disabling per se under *Revlon*.

1. The Case.—El Paso Corp. had two lines of business, an oil exploration and production concern and a pipeline; most of its value stemmed from the latter.[305] Its board, advised by Goldman Sachs, decided to enhance value by spinning off the production business, announcing its decision publicly.[306] At that point Kinder Morgan, Inc. approached El Paso with a bear hug: it proposed to buy the whole company for $25.50 per share and threatened a hostile acquisition if El Paso refused to cut a deal.[307] The board sent the El Paso CEO, Doug Foshee, to negotiate with Kinder Morgan.[308] The board also brought in Morgan Stanley to advise it on the Kinder Morgan negotiation.[309] The reason there was a conflict: Goldman owned 19% of Kinder Morgan (a stake worth $4 billion) and had two representatives on its board;[310] it accordingly had a pointed interest in maximizing the value of Kinder Morgan. But Goldman continued to advise the El Paso board on the possible spin-off.[311] Unsurprisingly, Goldman erected an internal information barrier between the bankers working the spin-off and the bankers in charge of its Kinder Morgan investment.[312] It did not, however, disclose that the lead banker remaining on the spin-off owned $340,000 of Kinder Morgan stock.[313]

305. El Paso's consolidated assets were approximately $24 billion, with the exploration and production business contributing approximately $4.7 billion. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432, 437 n.12 (Del. Ch. 2012).

306. *Id.* at 434–35.

307. *Id.* at 435.

308. *Id.* at 436.

309. *Id.*

310. *Id.* at 434.

311. *Id.* at 435–36.

312. *Id.* at 440.

313. *Id.* at 442.

Foshee and Kinder Morgan soon agreed on a price of $27.55.[314] But Kinder Morgan pulled that offer from the table within a week and substituted a lower one.[315] Foshee caved and agreed to $26.87.[316] A merger agreement was signed within a month.[317] It contained, *inter alia*, a no-shop provision, a superior proposal exception set at 50% of El Paso's assets,[318] matching rights for Kinder Morgan, and a $650 million termination fee representing 3.1% of El Paso's equity value.[319] It also required El Paso to assist Kinder Morgan in concluding a preclosing sale of the exploration division.[320] The premium over El Paso's preannouncement stock price was 47.8%.[321] At no point did the board seek competing bidders or look into possibilities for separate sales of the company's two pieces.[322]

The foregoing, taken alone, might not have gotten the El Paso board into *Revlon* trouble, even as it certainly would have occasioned a close look. But there was more. The board let Foshee do the negotiating and set the merger's terms.[323] It was clear to Foshee that Kinder Morgan would be divesting El Paso's exploration division in order to finance the purchase of the pipeline.[324] Foshee, while negotiating the merger, formulated a plan to put together a management buyout (MBO) of the exploration business from Kinder Morgan after the merger's consummation.[325] He put the proposition to the Kinder Morgan CEO as soon as the ink was dry on the merger agreement.[326] At no point, however, did Foshee reveal the plan to his own board.[327] This deception was bad enough, but Foshee also had misdirected his own incentives: the easier the time he gave Kinder Morgan in the negotiation and the more favorable the deal for Kinder Morgan, the better the prospects for a later Foshee-led MBO of the exploration unit. Arguably, El Paso's own CEO was striving to structure the deal for personal benefit.

There also were problems with Goldman. Before being shunted over to the spin-off, it actively encouraged the El Paso board to placate Kinder Morgan in order to avert a public hostile offer.[328] Nor was it irrelevant on

314. *Id.* at 436.
315. *Id.*
316. *Id.*
317. *Id.*
318. That is, El Paso could accept a better deal for the pipeline separately but not a separate deal on the exploration division.
319. *Id.* at 436–37.
320. *Id.* at 436.
321. *Id.* at 435.
322. *Id.* at 437.
323. *Id.* at 438.
324. *Id.* at 443.
325. *Id.*
326. *Id.*
327. *Id.* at 443–44.
328. *Id.* at 440.

the merger front after Morgan Stanley's appearance. The overall outcome depended on a choice between the spin-off and the Kinder Morgan merger. Goldman fed the board its information about the value of the spin-off, all without having disclosed that the banker in charge held Kinder Morgan stock in his personal account.[329] It also successfully insisted on adherence to the terms of its original engagement, so that it had an exclusive right to advise the board on the spin-off's value, thereby foreclosing the possibility of second-guessing on the spin-off by Morgan Stanley.[330] There was also a spat about fees. Goldman's engagement gave it $25 million if the board went for the spin-off.[331] But, with the spin-off apparently a receding possibility, it demanded, again successfully, a $20 million fee if the board opted for the merger.[332] Meanwhile, Morgan Stanley, at Goldman's insistence, got $35 million if the merger closed but nothing if the board rejected the merger and went for the spin-off.[333] Add this up and Goldman's incentive to push hard for the spin-off was deeply compromised while Morgan Stanley, having been shut out of the spin-off, had every reason to persuade the board to resolve doubts in the merger's favor.

The court ruled that the plaintiffs had a reasonable probability of success on a claim against the board.[334] But the plaintiffs asked the court for an aggressive injunction that avoided the deal protection provisions and allowed El Paso to shop itself further while simultaneously binding Kinder Morgan to complete the merger if no topping bid emerged.[335] That, said the court, was not the deal Kinder Morgan had made.[336] The injunction was refused accordingly.[337]

The merger eventually closed at the agreed price.[338] An unofficial tally indicated that 70% of the El Paso shareholders voted, of whom 98.5% approved.[339] Kinder Morgan and Goldman later settled the litigation. Kinder Morgan paid a $110 million settlement and Goldman waived its fee.[340] Counsel for the plaintiffs walked away with $26 million.[341]

---

329. *Id.* at 441–42.

330. *Id.* at 442.

331. *Id.*

332. *Id.* at 442–43.

333. *Id.* at 442.

334. *Id.* at 444.

335. *Id.* at 449.

336. *Id.* at 449–50.

337. *Id.* at 452.

338. *El Paso (EP) Stockholders Approve Kinder Morgan (KMI) Merger*, ISTOCKANALYST (Mar. 9, 2012, 12:41 PM), http://www.istockanalyst.com/finance/story/5719134/el-paso-ep-stockholders-approve-kinder-morgan-kmi-merger, *archived at* http://perma.cc/57V3-7N4P.

339. Matt Levine, *Shareholders Seem Unfazed by Evildoing in Kinder Morgan–El Paso Deal*, DEALBREAKER (Mar. 5, 2012, 1:49 PM), http://dealbreaker.com/2012/03/shareholders-seem-unfazed-by-evildoing-in-kinder-morgan-el-paso-deal/, *archived at* http://perma.cc/3SX8-99S5.

340. Jef Feeley, *Kinder Morgan's $110 Million El Paso Settlement Approved*, BLOOMBERG

2. Taints and Consequences.—El Paso's result rests on two conflicts: Foshee's as well as Goldman's. Foshee's conflict, taken alone, might or might not have triggered a raised eyebrow without a *Revlon* violation following.[342] Similarly, the Goldman conflict, taken in isolation and absent Foshee's deception, might not have sufficed to tip the *Revlon* scale against the merger. Alternatively, had the board reined in Foshee and taken control of the negotiation process, maybe none of the conflicts would have mattered. There are no answers, given the fact sensitivity of *Revlon* cases.

That said, *El Paso* leaves open questions concerning the banker's conflict, its gravity, and its stand-alone impact. The Goldman taint was clear enough, but what were the negative consequences? Absent consequences, *El Paso* can be read to invalidate the merger based solely on the existence of the conflict, arguably a radical departure in the direction of per se prohibition. The opinion coaxes out the conflict's persistence after the engagement of the second banker and then takes care to highlight negative implications. The facts can be read more benignly. Goldman was shunted to one side at an early stage. It did recommend that El Paso come to the table to deal with Kinder Morgan, but Morgan Stanley replicated that advice. Nobody needed to pay Goldman the slightest attention when it officiously raised its voice about Morgan Stanley's fee, which at all events came in the usual form. The valuation numbers Goldman produced regarding the spin-off were indeed suspect, but they hit the table at a stage at which nobody appears to have been suggesting that the spin-off was a viable alternative.

But nothing compels a benign reading. Indeed, as compared to the other conflicts of interest described in this Article, those of Goldman in *El Paso* were the most serious. We have seen banker incentives to get the best deal impaired for a variety of reasons—the banker might be cultivating future business with the target's own managers, the acquiring company, or the bank financing the deal, or the banker might be promoting a substandard deal in order to assure a success fee or a loan origination fee. The stakes in *El Paso* were larger and more immediate because Goldman *owned* a chunk of the acquirer.

Let us consult the dollar figures. Goldman's 19.1% of Kinder Morgan was worth $3,625,474,851 the day before the public announcement of the merger.[343] Goldman's stakes in the merger negotiation stood at

---

(Dec. 4, 2012, 12:07 AM), http://www.bloomberg.com/news/2012-12-03/kinder-morgan-s-110-million-el-paso-settlement-approved.html, *archived at* http://perma.cc/7PSW-NJ9P.

341. *Id.*

342. We put off to one side the question whether Foshee breached his own duty to El Paso.

343. According to Kinder Morgan's 2012 proxy statement, Goldman owns 134,826,138 shares. Kinder Morgan, Inc., Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Schedule 14A) (March 30, 2012). The stock closed at $26.89 on October 14, 2011. *Kinder Morgan, Inc. Historical Stock Prices*, YAHOO! FIN., http://finance.yahoo

$147,193,376 per dollar paid in or out in greater or lesser consideration paid for El Paso.[344] Of course, a dollar in or out tells one only so much, for profit is not safely assumed for merger acquirers—many mergers are priced so generously for the seller as to result in a loss or a wash for the acquirer.[345] But that result seems unlikely here, and not only because Goldman held two Kinder Morgan board seats and was highly incented to choke off any overpriced deal. The stock market liked the merger. Kinder Morgan stock rose from $26.89 at the preannouncement close to $28.19 on the next trading day, an announcement day gain for Goldman of $175,273,979.[346] The stock hit $30.11 a week and a half later and went on to a peak of $39.85 in April 2012 before settling back down to $32.42 by the time the merger closed on May 25, 2012.[347] Plainly, Goldman's buy-side interest in a $200 million-plus gain on its $4 billion investment in Kinder Morgan dwarfed the $25 million held out by its advisory engagement with El Paso, a figure that arguably should be reduced to $5 million due to the $20 million paid to Goldman in the event the merger closed. This was enough money to turn the head of any member of the firm, an incentive skew impervious to the presence of internal barriers blocking day-to-day information regarding transactional progress.

A "might have been" consequence follows. The El Paso board faced a choice between sale and spin-off, with Goldman working the spin-off. How could any Goldman banker reasonably be expected to offer uninfluenced advice? Once Kinder Morgan showed up, *any* input from Goldman on any aspect of El Paso's strategic choices was highly suspect. It follows that the fact that the Goldman banker left on the deal, as a Kinder Morgan stockholder, stood to gain or lose $13,656 for every dollar more or less paid by Kinder Morgan for El Paso,[348] is not the critical fact. While this is real money for many, it could not be expected to turn the head of a Goldman

---

.com/q/hp?s=KMI&a=09&b=15&c=2011&d=09&e=17&f=2011&g=d, *archived at* http://perma.cc/4GYD-T3Y7.

344. Per Professor Miller's figures, Miller, *supra* note 11, at 15, El Paso had 771,852,913 shares outstanding and Kinder Morgan had 707,001,570. The cost factor is thus 1.0917273 per Kinder Morgan share, multiplied by 134,826,138 shares held by Goldman.

345. *See infra* notes 429–432 and accompanying text.

346. According to Yahoo! Finance, Kinder Morgan common shares closed at $26.89 on October 14, 2011 and $28.19 on October 17, 2011—the next, post-announcement trading day. Since Goldman owned 134,826,138 shares of Kinder Morgan, this $1.30 post-announcement rise in stock price resulted in a $175,273,979 gain for Goldman. *See supra* note 342.

347. *Kinder Morgan, Inc. Historical Stock Prices*, NASDAQ, http://www.nasdaq.com/symbol/kmi/historical, *archived at* http://perma.cc/KG6Q-HZ68 (selecting "4 years" from the "Select Timeframe" dropdown menu; then see stock prices for October 25, 2011, April 5, 2012, and May 25, 2012, respectively).

348. Miller, *supra* note 11, at 15 ("[E]ach additional $0.25 that Kinder Morgan paid per El Paso share cost . . . [the banker] about $3,414, or . . . for each $0.25 per El Paso share that . . . [the banker] might . . . depress the deal price, he would personally profit by about $3,414.").

banker. Contrariwise, a $200 million-plus gain for the firm certainly would have mattered. Forceful advocacy of a spin-off would have amounted to disloyalty to the banker's employer.

Ideally, Goldman should have been shut out entirely. Had Goldman seen itself as a fiduciary to El Paso, that result presumably would have followed: a conscientious fiduciary can be expected to withdraw voluntarily and immediately when put in this position.[349] Chancellor Strine, in short, was not exaggerating.

So which is it, taint or consequence? The answer depends on one's reading of the facts. If the spin-off was history—a dead-end valuation exercise conducted for compliance purposes—then the Goldman taint triggers the *Revlon* violation on a stand-alone basis (or, at least when taken in tandem with Foshee's deception). On this reading, *El Paso* starts to look like best practices rule making: appearances of conflict by themselves can be disabling. If the spin-off analysis is seen as central to the sale process, then a serious question arises regarding Goldman's incentives: had an unconflicted banker been working the spin-off maybe it would have emerged as the more attractive outcome, killing the merger. While a "might have been," this is enough to count as a consequence. And the conflict was very severe: had the El Paso board been completely asleep at the switch and permitted Goldman to continue as sole merger advisor, an open and shut *Revlon* violation would have followed without a showing of particular negative consequences. We doubt that anyone would disagree with that.

On balance, *El Paso* does not embrace a rule of per se invalidation. It instead stands for the proposition that consequences can be counterfactual, sensitive to the gravity of the conflict, and tied to the reviewing court's confidence in the overall sale process. When the court concludes that the banker's incentives undermined the contracting process, it makes an economic judgment with legal consequences. This approach was always implicit in the *Revlon* framework.

3. Still Taking Contract Seriously.—As with *Del Monte*, one takeaway for a conscientious board is that consenting to a conflict means going into arm's-length mode and overseeing proactively, monitoring the advisor's activities and using contract to facilitate oversight and position the board to take appropriate action. *Del Monte* and *El Paso*, read together, teach an additional lesson: multiple conflicts have negative synergies under *Revlon*. *Del Monte* combined a staple with surreptitious bid partnering, arguably in

349. *See* Oldham v. Dendrite Int'l, Inc., No. SOM-C-12017-07, 2007 WL 1453482 (N.J. Super. Ct. Ch. Div. May 1, 2007) (acknowledging that defendant's former counsel had "commendably resigned" due to the potential for a conflict in the merger process). Law firms have been known to resign peremptorily due to investment banker conflicts. *See supra* notes 220–23 and accompanying text.

bad faith on the banker's part.[350] *El Paso* combined a keen but marginalized buy-side conflict with the standard performance fee impairment and then threw in a lead negotiator with a private agenda.[351] What might pass in isolation becomes more and more of a problem as the number of agents with adverse interests multiplies.

El Paso adds a kicker. Consent combined with proactivity is not necessarily enough; extreme steps may be necessary. The El Paso board did keep Goldman off the merger and bring in a second banker.[352] It turned out that it should have done more, whether tailoring Morgan Stanley's fee to the occasion or, better, promptly escorting Goldman out of the building. This can be viewed as a consequence of an application of strong fiduciary norms—the taint proves disabling per se. But we think a contractual characterization is more cogent. When you take contract seriously, there comes a point at which you should stop trusting people, cut off the relationship, and walk away.

E. Aiding and Abetting

Bankers can be brought into *Revlon* cases on a derivative liability basis on the theory that they aided and abetted the board's breach in chief. The theory is doctrinally sound,[353] and also holds as regards an acquiring company.[354] The plaintiff must meet a scienter requirement, proving not only the existence and breach of a fiduciary relationship but the defendant's

---

350. *See supra* text accompanying notes 262–77.

351. *See supra* text accompanying notes 305–32.

352. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432, 440 (Del. Ch. 2012).

353. The substance, that the defendant aided and abetted negligence, finds support in tort law precedent. *See* Anderson v. Airco, Inc., No. 02C-12-091HDR, 2004 WL 2827887, at *5 (Del. Super. Ct. Nov. 30, 2004) ("[A]iding-abetting liability is elastic enough to admit a common, negligent course of action."); RESTATEMENT (SECOND) OF TORTS § 876 (1979) (establishing liability for a tortious act in concert given (a) a common design; (b) knowledge and substantial assistance; or (c) substantial assistance and a self-standing breach of duty); Nathan Isaac Combs, Note, *Civil Aiding and Abetting Liability*, 58 VAND. L. REV. 241, 258–59 (2005) (analyzing the difference between civil conspiracy and the tort of aiding and abetting). Some courts have found liability for aiding and abetting criminal negligence, but the doctrine is not settled. The operative concept, complicity, is open-ended. *See* MODEL PENAL CODE § 2.06 (1962) (providing for accomplice liability if a person promotes or facilitates an offense by (i) soliciting its commission; (ii) aiding or attempting to aid in its planning or commission; or (iii) failing to perform a legal duty to prevent commission); Daniel G. Moriarty, *Dumb and Dumber: Reckless Encouragement to Reckless Wrongdoers*, 34 S. ILL. U. L.J. 647, 659–62 (2010) (explaining the various ways courts have expanded accomplice liability to extend to reckless and negligent crimes and torts).

354. *See In re* Ness Techs., Inc. S'holders Litig., No. 6569-VCN, 2011 WL 3444573, at *1 (Del. Ch. Aug. 3, 2011) (involving a claim that a board of directors breached its fiduciary duty to shareholders with the aid of the acquiring company); *In re* Smurfit-Stone Container Corp. S'holder Litig., No. 6164-VCP, 2011 WL 2028076, at *24 (Del. Ch. May 20, 2011) (same); *In re* Cogent, Inc. S'holder Litig., 7 A.3d 487, 496 (Del. Ch. 2010); *In re* Dollar Thrifty S'holder Litig., 14 A.3d 573, 594–95 (Del. Ch. 2010) (same); La. Mun. Police Emps.' Ret. Sys. v. Crawford, 918 A.2d 1172, 1184 (Del. Ch. 2007) (same).

knowing participation in the breach.[355] These claims accordingly are thought to be hard to prove.[356] They have been pursued only rarely: prior to 2014, bankers have shown up as *Revlon* defendants in an aiding and abetting capacity in only a handful of reported cases, *Shoe-Town* and *El Paso* among them.[357]

Vice-Chancellor Laster's recent opinion in *In re Rural Metro Corporation*[358] highlights the theory's potential to generate big-ticket liability in the right case. And *Rural Metro* was the right case, with facts contrasting notably with those of *Del Monte* and *El Paso*. Here a banker searching for a buy-side financing score effected a textbook skew of a sale process. The banker, RBC Capital Markets, had its eye on financing opportunities in two deals, both its client Rural Metro's and that of a same-industry player's sale process already underway.[359] RBC figured that pushing Rural Metro's sale at the same time as the competitor's could lead to its inclusion in both financing groups.[360] Unfortunately, it did not disclose the play to the client, even as it eschewed any search for strategic buyers.[361] The strategy promptly blew up when confidentiality agreements in the other deal caused its bidders to refrain from bidding for Rural Metro.[362] Rural Metro's sale process went forward even so, with few bidders participating.[363] A disappointing bid finally was approved by the Rural Metro board.[364] RBC all the while was secretly communicating with the bidder, tipping it to goings-on in the Rural Metro boardroom as RBC tried to secure a place in the financing group.[365] RBC also was adjusting the numbers in its valuation of Rural Metro downward for the purpose of making the low-ball bid look attractive in its fairness opinion.[366] The

355. Allied Capital Corp. v. GC–Sun Holdings, L.P., 910 A.2d 1020, 1039 (Del. Ch. 2006).

356. *See* Binks v. DSL.net, Inc., No. 2823-VCN, 2010 WL 1713629, at *10 (Del. Ch. Apr. 29, 2010) ("The standard for an aiding and abetting claim is a stringent one, one that turns on proof of scienter of the alleged abettor."); *Allied Capital*, 910 A.2d at 1039 ("[T]he test for stating an aiding and abetting claim is a stringent one . . . .").

357. *See In re* Celera Corp. S'holder Litig., No. 6304-VCP., 2012 WL 1020471, at *28 (Del. Ch. Mar. 23, 2012), *aff'd in part, rev'd in part*, 59 A.3d 418 (Del. 2012) (raising an aiding and abetting claim against Credit Suisse); *In re El Paso Corp.*, 41 A.3d at 432, 448 (Goldman Sachs); *In re* Shoe-Town, Inc. Stockholders Litig., No. 9483, 1990 WL 13475, at *7 (Del. Ch. Feb. 12, 1990) (Shearson Lehman).

358. *In re* Rural Metro Corp. S'holders Litig., 88 A.3d 54 (Del. Ch. 2014).

359. *Id.* at 91–92.

360. *Id.* at 91.

361. *Id.*

362. *Id.* at 70.

363. *Id.* at 71.

364. *Id.* at 78–79.

365. *Id.* at 95.

366. *Id.* at 95–96.

successful bidder, licking its lips, never did include RBC in the financing group.[367]

This case, unlike *Del Monte* and *El Paso*, raises no issue as between taint and consequence. On these facts the court did not need to hypothesize "might have been" counterfactual scenarios to show the negative dollars and cents implications for the sale process of the banker's conflict. Nor was scienter on the banker's part a problem, so purposive had been its course of conduct.

The case still got a lot of publicity as a clear-cut demonstration of aiding and abetting's liability potential.[368] The banker, which walked away with only a $5 million fee, now is potentially on the hook for damages based on the value of the company as a whole.[369] The case also highlights a plaintiff-friendly quirk in Delaware law. The directors whose breach was being aided had already settled.[370] They would, had the matter been litigated, have enjoyed the protection of a § 102(b)(7) liability shield[371] so that money damages required a showing not just of an unreasonable sale process but of bad faith. The court, following the logic of existing applications of § 102(b)(7), declined to extend the protection of the board's shield to RBC.[372] The bank was thus liable for damages based on a showing of an unreasonable sale process, a showing that would have been inadequate to support liability against the directors whose breach it aided and abetted.

There is something unsporting about the treatment differential. Indeed, one gets the sense that the shareholder plaintiffs have finally found a way around *Shoe-Town*, nailing the banker directly and emerging as de facto fiduciary beneficiaries of a deep-pocket defendant. The court adds to this sense when it describes the treatment as a species of gatekeeper liability, justified for its deterrent rather than compensatory properties[373]—much like the fraud-on-the-market litigation mill operated by the federal courts under SEC Rule 10b-5.[374]

---

367. *Id.* at 78–79.

368. *See* E-mail from Eric Klinger-Wilensky, Morris, Nichols, Arsht & Tunnell LLP, to authors (June 25, 2014) (on file with authors) (explaining that, from a practitioner's perspective, banker engagement letters have evolved in the post-*Rural Metro* world).

369. *Rural Metro*, 88 A.3d at 69, 107–09. RBC may be able to reduce its liability on a contribution theory. *Id.* at 109.

370. *Id.* at 79.

371. DEL. CODE ANN. tit. 8, § 102(b)(7) (2011); *Rural Metro*, 88 A.3d at 85–86.

372. *Rural Metro*, 88 A.3d at 86.

373. *Id.* at 88.

374. *See* William W. Bratton & Michael L. Wachter, *The Political Economy of Fraud on the Market*, 160 U. PA. L. REV. 69, 100–18 (2011) (showing that fraud-on-the-market cannot be justified as a compensatory tort and that its proponents fall back on a deterrent justification, undermining their own case).

These implications, while unfortunate, are only just that. *Rural Metro* holds out no structural change in the law of banker–client relations. The facts are egregious and the derivative liability theory is well-established. The takeaway for sell-side boards is unchanged from *Del Monte* and *El Paso*—the board should treat a conflicted banker at arm's length and monitor closely. The banker–client contracting pattern remains undisturbed, even impliedly. As we have seen, exculpatory provisions exclude bad faith actions,[375] and knowing participation in a breach of a client's fiduciary breach surely falls within anyone's concept of bad faith.

F. Law, Economics, and Consequences

Part III's economic analysis of banker–client relationships[376] held out two strong warnings. First, the existence of a conflict that negatively affects incentives does not by itself impair a transaction because the bank, constrained by reputational concerns, does not necessarily act on the conflict. Second, even if the conflict negatively impacts the bank's performance, the possibility may have been priced in *ex ante*. *Del Monte* and *El Paso* traverse neither warning. The first warning amounts to a plea for fact sensitivity and avoidance of per se barriers. *Revlon* inquiry is all about fact sensitivity; it imports no general interdiction against conflicted bankers.[377] Questions can be asked about the gravity of the negative consequences on which the cases rely. But we think counterfactual possibilities should count as consequences, particularly given the preliminary, preclosing process context of *Revlon* litigation. As to the second warning, *ex ante* pricing only solves all problems given complete information. Once the complete information assumption is relaxed, opportunism becomes a distinct possibility, and information asymmetries are wrought into advisory relationships. In any event, there is no evidence of fee discounting in trade for conflicts on the facts of these cases—in fact, that is what Vice-Chancellor Laster was asking for in *Del Monte*.[378]

The only residual economic objection would lie in market disruption: the parties contracted and the court pulverized the contracts. Moreover, a market for reputation shapes banker–client relationships;[379] judicial intervention pretermits the market's operation. Both points are accurate, but unpersuasive when mooted as objections. To make the contracts inviolate is to shut down *Revlon* scrutiny altogether: this is judicial review of a contracting process, justified due to the possibility of skews due to agency

375. *See supra* notes 194–195 and accompanying text.

376. *See supra* text accompanying notes 132–146.

377. *See* Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 185 (Del. 1986) (emphasizing the particular factual circumstances giving rise to director breach of fiduciary duties).

378. *In re* Del Monte Foods Co. S'holders Litig., 25 A.3d 813, 844 (Del. Ch. 2011).

379. *See supra* subsection III(B)(3)(c).

costs. There is no way to cabin off the banker–client contract from the others in the cluster. It also bears noting that in both cases the court intervened with minimal damage to the contract in chief, the merger agreement.[380]

Indeed, the Chancery Court here acts less as a disrupter of the reputation market than as an important participant therein. Conflicted actors suffer negative reputational consequences only to the extent that facts probative of opportunistic conduct become public. Private litigation opens up otherwise black boxes, with the Chancery Court taking the lead role in highlighting hidden facts.

The blowback in the wake of the *Del Monte* and *El Paso* decisions makes sense accordingly. The opinions register as strong negatives in the market for banker reputation, not only as regards their bottom line judgments but as regards facts revealed. And, as we have seen, reputation matters critically in the economics of financial service provision.[381] Protests are only to be expected. One can ascribe the protests' motivation to honor impugned. But we prefer to look to threats to future cash flows.

An interesting question arises as to whether these threats actually flowed through to the banks' bottom lines. Observers have noted that unconflicted boutique banks have been showing up high in the league rankings in recent quarters, attributing market-shifting impact to the Chancery Court.[382] We ran a check on this, drawing on the Thomsen One quarterly top 25 league ranking for U.S. deals, and separating the banks on the list among large commercial banks, large independent banks, and boutiques.[383]

380. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432, 452 (Del. Ch. 2012) (denying a motion for a preliminary injunction and leaving the merger decision to the shareholders); *Del Monte*, 25 A.3d at 844–45 (enjoining vote on the merger for only twenty days).

381. *See supra* notes 132–44 and accompanying text.

382. *See supra* notes 16–19 and accompanying text.

383. *See supra* text accompanying notes 148–150 and Figure 1.

Figure 2

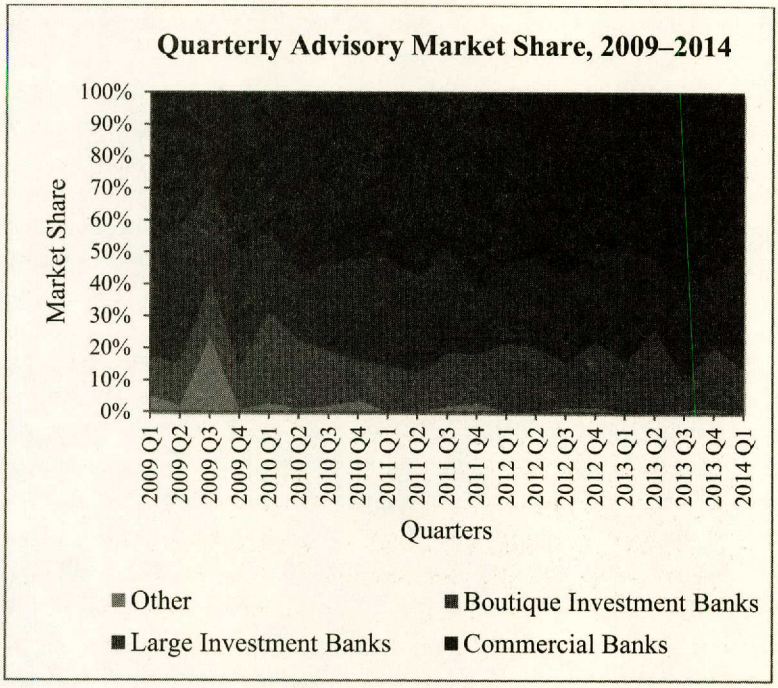


Figure 2 depicts the results. Clearly, the boutique sector has been doing well since *Del Monte* was decided in the first quarter of 2011. No doubt many factors have contributed to this, most importantly secular trends in the merger market and movement of key personnel away from big banks.[384] Seller aversion to conflicts also should be cited—one study offers suggestive evidence of increasing client sensitivity to conflicts going back decades.[385] At the same time, the market share pattern remains volatile, and the recent figures show no clear-cut trend in the boutiques' favor.[386] So

384. Alessi, *supra* note 155,at 64.

385. *See* Agrawal et al., *supra* note 40, at 692–94 (studying mergers in which seller and buyer share a common advisor and showing growing evidence that companies have avoided sharing advisors since the 1990s).

386. The first quarter 2014 numbers in Figure 2 reflect the attribution of boutique status to Paul J. Taubman, a retired Morgan Stanley banker who was the sole advisor in the Comcast acquisition of Time Warner Cable. *See generally* Marcus Baram, *Paul J. Taubman, The Merger King Behind the Massive Comcast-Time Warner Cable Deal*, INT'L BUS. TIMES (Feb. 13, 2014, 1:34 PM), http://www.ibtimes.com/paul-j-taubman-merger-king-behind-massive-comcast-time-warner-cable-deal-1555284, *archived at* http://perma.cc/EX98-75X3 (reporting that Taubman has served as an independent advisor in "some of the biggest deals in recent years" since being pushed out of Morgan Stanley in 2012). Had Taubman been classified as "other," the boutiques' market share trend would be pointing downward. *See Mergers & Acquisitions Review: Financial Advisors, First Quarter 2014*, THOMSON REUTERS 8 (2014), http://dmi.thomsonreuters.com/Content/Files/1Q2014_Global_MandA_Financial_Advisory_Review.pdf, *archived at* http://perma

while it is not unreasonable to put the Chancery Court's reputational inputs on the list of influences, the market share figures provide no basis for attributing *Del Monte* and *El Paso* with game-changing structural impact.

It also has been commented that stapled financing disappeared after *Del Monte*.[387] We checked on this point too. A study of mergers closed between 1998 and 2005 provides a base point, identifying either a seller–advisor staple or past financing relationship in 13% of the deals.[388] To see whether anything has changed, we compared private equity buyouts with a consideration over $100 million that closed in 2006 (at the height of the buyout frenzy), with those that closed in 2012 (the year beginning ten months after the *Del Monte* decision). We found staples for 7% of the 2006 deals and 12.5% of the 2012 deals.[389]

While the raw numbers signal no departure from the past pattern, closer inspection reveals a significant narrowing of usage. Of the twelve staples we identified in 2012, only one involved the sale of a publicly traded company.[390] The rest remained in the territory of the original staple, attached to sales of portfolio companies by private equity firms or of subsidiaries by operating companies. There arises a strong implication of judicial impact: *Revlon* creates a litigation threat only when public companies are bought out and as to these deals staples have almost disappeared.[391]

It seems that actors in M&A continue to find staples advantageous, but only in their original, narrow usage where the justifications are strongest. Outside that territory, significant legal risks now attend their use. So, even as *Del Monte* and *El Paso* have triggered no radical restructuring of the banking sector, they have changed the practice, reducing the salience of conflicts stemming from multiple service provision.

Does this amount to overkill? Significantly, the one public company staple showing up in the class of 2012 was tested in the Delaware Chancery.[392] It passed because the selling board qualified it within the parameters outlined in *Del Monte*: the purchaser really did need financing from its advisor, which withdrew from an advisory role and took a pay cut that funded the engagement of a second bank.[393] To us this amounts to

---

.cc/V923-FXW2 (showing that Taubman is individually ranked in eighth place in Thomson Reuters' Top 25 league ranking for U.S. deals for the first quarter of 2014).

387. *See supra* note 18 and accompanying text.

388. Cain & Denis, *supra* note 59, at 15.

389. We used the S&P Capital IQ database. More particularly, in 2006, 12 out of 172 transactions had the seller's advisor in the buyer's finance group; in 2012 it was 13 out of 104.

390. This was the sale of Morton's Restaurant Group, Inc. to Landry's, Inc. *In re* Morton's Rest. Grp., Inc. S'holders Litig., 74 A.3d 656, 660, 673 (Del. Ch. 2013).

391. At the same time, the staple's price-floor function imports more of a benefit when the target is not publicly traded. *See supra* note 104 and accompanying text.

392. *Morton's*, 74 A.3d at 660, 673.

393. *Id.* at 673. We note that the standard of review in *Morton's* was bad faith. *Id.*

ordinary course adjustment rebounding to the selling shareholders' benefit, not overkill. It also contravenes the charges of the critics on the opposite side: these cases are anything but toothless.

V. Regulatory Alternatives: Per Se Prohibition and Safe Harbors

Del Monte and *El Paso* amount to an external shock to actors in the M&A world. The cases trigger reconsideration of standard practices. Solutions must be decided upon under uncertainty. When conservative advice follows, expectations are disrupted. But failure to follow inconvenient conservative advice creates risks. At the same time, the cases leave a lot of observers unsatisfied: some want more in the way of policing from the Chancery, while others think *Revlon* jurisprudence has gotten out of hand.[394]

In this Part we ask whether there might be a better way—a regulatory course imparting greater certainty while simultaneously leaving shareholder interests unimpaired. We experiment with two alternative paths, one stricter and the other more accommodating, both rule based.

The stricter path, charted in subpart A, is per se prohibition of conflicts, posed by analogy to the law governing auditor–client relationships. We start by considering a broad-brush ban. This proves neither feasible nor desirable. We accordingly narrow the scope and consider a prohibition applied only to stapled financing. This proves feasible without being clearly superior to case-by-case review under the open-ended *Revlon* standard.

The more accommodating path, charted in subpart B, narrows the range of *Revlon* exposure by dredging a safe harbor for conflicted banker engagements. We draw on the case law respecting fairness opinions and the practice response to *Toys "R" Us* to propose a two-step qualification for safety: full disclosure by the conflicted banker to the board and the shareholders coupled with engagement of a second, unconflicted banker. In most cases this combination should assure a reasonable sale process, but not in all. The matter accordingly comes down to a trade-off: enhanced relational clarity for selling boards and their bankers versus *Revlon* scrutiny covering the entire range of process impairments. Many would choose the former, particularly in light of the perception of a litigation explosion in the M&A field. We choose the latter, pointing out that the zone of safety would turn out to be surprisingly small. We also find ourselves untroubled by uncertainty in this context. In our view, counsel can handle these problems.

394. *See supra* notes 8–12 and accompanying text.

A. Per Se Prohibition

Unlike bankers, auditors are organized as a profession and owe well-articulated duties to their clients.[395] But very much like bankers, profit-seeking auditors have in the past embraced conflicted representation.[396] Eventually, however, Congress and the Securities and Exchange Commission (SEC) intervened to forbid the conflicts, articulating a list of per se prohibitions.[397] This subpart takes a look at the evolution of the auditor rules and considers the possibility of per se prohibition of investment banker conflicts by analogy.

1. Auditor Duties and Prohibition.—Like lawyers, auditors owe specially tailored duties to their clients. Unlike lawyers and more like bankers, they have proved insensitive to their reputations regarding conflicted representation. As a result, they stumbled into a regulatory crisis, emerging under specially tailored conflict prohibitions.

Auditors are held to a standard of care and, unlike bankers, are subject to direct shareholder actions for negligent misrepresentation.[398] They also follow exhaustively articulated professional standards when conducting audits.[399] Among other things, the auditor must remain "independent."[400] Independence in turn derives much of its meaning from a long list of prohibited relationships.[401]

Prior to 2000, the prohibited list did not include most non-audit consulting services.[402] In the 1990s the big accounting firms aggressively took advantage of this, developing large consulting arms that provided

---

395. *See generally* William W. Bratton, *Shareholder Value and Auditor Independence*, 53 DUKE L.J. 439 (2003) (arguing for a legal positivist approach to auditors' duties and rejecting the principal–agent paradigm).

396. *See, e.g.*, *id.* at 441–42 (discussing the Enron scandal and the accompanying failure of Enron's auditors).

397. *See* Strengthening the Commission's Requirements Regarding Auditor Independence, 68 Fed. Reg. 6006, 6007 (Feb. 5, 2003) (to be codified at 17 C.F.R. pts. 210, 240, 249, 274) (promulgating regulations following the enactment of the Sarbanes-Oxley Act aimed at reducing auditor conflict).

398. As with bankers under New York law, the theory is that the shareholders are in "near privity" to the contract between the auditor and the corporate entity. *See* Credit Alliance Corp. v. Arthur Andersen & Co., 483 N.E.2d 110, 119 (N.Y. 1985) (requiring "the existence of a relationship between the parties sufficiently approaching privity").

399. The standards are articulated by the Public Company Accounting Oversight Board. REFERENCES IN AUDITORS' REPORT TO THE STANDARDS OF THE PUBLIC COMPANY ACCOUNTING OVERSIGHT BOARD, Auditing Standard No. 1 (Pub. Co. Accounting Oversight Bd. 2003), *available at* http://pcaobus.org/Rules/Rulemaking/Docket010/2003-12-17_Release_2003-025.pdf, *archived at* http://perma.cc/Y4PK-8QBT.

400. AUDITOR INDEPENDENCE, R. 3520 (Pub. Co. Accounting Oversight Bd. 2006), *available at* http://pcaobus.org/Rules/PCAOBRules/Documents/Section_3.pdf, *archived at* http://perma.cc/SZK5-6S6Z.

401. *See* 15 U.S.C. § 78j-1(g)–(h) (2012) (listing these relationships).

402. 17 C.F.R. § 210.2-01(c)(4) (1999).

advisory services to audit clients.[403] By 2000 audit firm revenues derived from non-audit advisory services grew to 50% of total revenues where twenty years earlier non-audit fees had constituted only 13% of total revenues.[404]

There resulted a softening in auditors' positions regarding questionable accounting treatments employed by their clients.[405] Consider the audit of a company's internal control and monitoring systems. An auditor is unlikely to question the effectiveness of a compliance system sold by another division of his or her own firm. Yet, during the 1990s, auditing firms routinely sold compliance systems to their clients—for instance, Arthur Andersen, the audit firm that signed off on Enron's fraudulent financials of the late 1990s, had sold Enron its compliance system in 1993.[406]

The conflict bound up in auditor consulting closely resembles that bound up in a banker staple. The unconflicted banker is supposed to work hard to maximize value for the selling company's shareholders. As we have seen, a banker that stands to make more money as a lender to the acquiring company has an incentive to draw back and take a more accommodating posture.[407] Compare an unconflicted auditor, who is charged to maintain a posture of independence regarding its audit client[408] so as to position itself to impose Generally Accepted Accounting Principles (GAAP) despite the protests of the client's managers. An auditing firm that stands to make substantial money through ancillary consulting fees will lose this independent edge: better to keep the client's managers happy by passing on dubious accounting treatments than to alienate it by refusing a favorable opinion on its financials and thus lose consulting business.

Auditor consulting became a policy problem as the 1990s came to a close. The audit firms stoutly defended themselves and lobbied against new regulation.[409] The SEC, after much gnashing of teeth, in 2000 promulgated

---

403. John C. Coffee, Jr., *What Caused Enron? A Capsule Social and Economic History of the 1990s*, 89 CORNELL L. REV. 269, 291 (2004).

404. John C. Coffee, Jr., *The Acquiescent Gatekeeper: Reputational Intermediaries, Auditor Independence and the Governance of Accounting* 27 (Columbia Law Sch. Ctr. for Law & Econ. Studies, Working Paper No. 191, 2001).

405. William W. Bratton, *Enron, Sarbanes-Oxley and Accounting: Rules Versus Principles Versus Rents*, 48 VILL. L. REV. 1023, 1030 (2003). For a similar discussion of auditor conflicts, see *id.*

406. *See* Thaddeus Herrick & Alexei Barrionuevo, *Were Enron, Anderson Too Close to Allow Auditor to Do Its Job?*, WALL ST. J., Jan. 21, 2002, http://online.wsj.com/article/0,,SB1011565452932132000,00.html, *archived at* http://perma.cc/P3GZ-NEED (explaining that Enron became especially close with Arthur Andersen after it took over Enron's internal audit in 1993).

407. *See supra* text accompanying note 126.

408. CODIFICATION OF ACCOUNTING STANDARDS AND PROCEDURES, Statement on Auditing Standards No. 1, § 220.02 (Am. Inst. of Certified Pub. Accountants 1972).

409. RICK ANTLE ET AL., AM. INST. CERTIFIED PUB. ACCOUNTANTS, AN ECONOMIC ANALYSIS OF AUDITOR INDEPENDENCE FOR A MULTI-CLIENT, MULTI-SERVICE PUBLIC ACCOUNTING FIRM 24–25 (1997), *available at* http://ssrn.com/abstract=1466963, *archived at*

a rule that much lengthened the list of prohibited services, adding bookkeeping, financial information systems design, appraisal or valuation services, actuarial services, fairness opinions, and management functions.[410]

The new prohibitions came too late to forestall disaster. Enron, with its combination of sham transactions and antecedent (and lucrative) auditor consultation in the transactions' structure,[411] demonstrated that consulting relationships indeed contribute to catastrophic audit failures. In 2002 Congress embedded the substance of the SEC's rule in the Sarbanes-Oxley Act.[412]

2. Per Se Possibilities.—The per se approach taken to auditor conflicts by the SEC and Sarbanes-Oxley is a regulatory alternative open in any case where an advisory conflict holds out the possibility of negatively impacting a third-party interest.[413] Does a justification for outright prohibition of banker conflicts follow by analogy?

a. Broad-Brush Prohibition.—Broad-brush prohibition of banker conflicts holds out a few attractions. It would clear the scene of "appearance[s] of impropriety,"[414] thereby enabling (arguably) more reasonable sale processes. The selling board of directors would altogether avoid the cumbersome and risky business of managing conflicts. All it would need to do is engage an unconflicted banker, or, in cases of post-engagement conflicts, terminate the relationship and substitute an unconflicted banker.

On reflection, however, absolute prohibition would not work well. There are four categories of concern: structural, shareholder-oriented, institutional, and policy based.

i. Structural.—As we saw in Part II, M&A is not a world of randomly selected, one-time buyers and sellers.[415] Banks, even boutique banks, are repeat players.[416] So are buy-side private equity firms and the banks that

---

http://perma.cc/F9DX-W9MM (arguing that providing consulting services is not a threat to auditor independence).

410. 17 C.F.R. § 210.2-01(b) (2014).

411. Herrick & Barrionuevo, *supra* note 406.

412. Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 201, 116 Stat. 745, 771 (2002) (codified as amended at 15 U.S.C. § 78j-1 (2012)). The section also requires preapproval by the reporting company's audit committee for any non-audit services not on the prohibited list. *Id.* § 201(h).

413. *See generally* Bratton, *supra* note 405 (arguing that, in the context of auditor conflicts, formal rules rather than agency-based duties should govern).

414. *In re* Toys "R" Us, Inc. S'holder Litig., 877 A.2d 975, 1006 (Del. Ch. 2005).

415. *See supra* text accompanying notes 109–110.

416. *See supra* text accompanying note 110.

finance cash deals.[417] Thus, even absent a staple, the bank representing a seller in a private equity buyout easily can have loans outstanding to companies owned by the private equity buyer and can be assumed to be making more loans to the buyer's investees in the future. Relationships develop as these institutions deal with one another repeatedly. It follows that a rule of absolute prohibition could have unintended, disruptive effects. A selling firm could have difficulty finding a completely unconflicted advisor with the wherewithal for the job. The Delaware courts recognize the problem: prior relationships between banker–advisors and private equity firms on the buy-side do not by themselves undermine a sale process.[418]

There is an argument in response: a broad-brush ban would precipitate beneficial industry restructuring—numbers of boutique firms limiting themselves to advising potential merger partners would grow to meet the resulting demand. The prediction is credible. We have seen that the sector is fluid and that talented bankers follow the bonuses.[419] Indeed, boutique market share has been growing in recent years.[420]

But industry structure holds out a rebuttal argument for the big banks, based on their ability to provide a full range of market information.[421] Some selling companies will make business judgments that they need real time input regarding market conditions in addition to the strategic advice on offer from a couple of experts who have hung out a shingle. To get an advisor with an infrastructure to provide this input, a large repeat player must be engaged. On this view of the world, recourse to a full service bank may be unavoidable given a large, complex transaction. We should accordingly leave boards of directors with a zone of discretion for managing conflicts.

It also bears noting that the system not only tolerates conflicts but goes out of its way to create them. The standard performance fee creates a conflict by incentivizing the banker to favor a less risky low price over a more risky higher price,[422] and alternative fee structures could ameliorate the problem. Commentators have been criticizing the practice for more than two decades.[423] Yet the fee arrangements remain unchanged, presumably because the clients prefer them.

---

417. *See supra* text accompanying note 110.

418. *See In re* Dollar Thrifty S'holder Litig., 14 A.3d 573, 581–82 (Del. Ch. 2010) (stating that a prior relationship between a banker–advisor and a private equity firm on the acquiring side is simply "one of the facts of business life").

419. *See supra* text accompanying notes 154–155.

420. *See supra* text accompanying note 152 and Figure 1.

421. *See supra* notes 88–91 and accompanying text.

422. *See* Kisgen et al., *supra* note 59, at 185 (noting that contingent fees can prompt advisors to push for bad deals).

423. *See supra* note 193.

Auditing conflicts can be distinguished at this point: self-interested managers have every reason to create auditor conflicts so as to compromise independence toward the end of increasing management's discretion regarding accounting treatments.[424] There is no comparable perverse incentive in sale contexts, at least absent a particular self-interested tie to the buyer on the sell-side board.

ii. Shareholder Benefits.—Shareholder interests may be best served by a full-service bank with built-in conflicts. Merger-advisory services are about information and a bank with which management has a long-term relationship knows more about the company. That edge easily can trump dangers stemming from personal relationships from sell-side managers.

Even buy-side relationships may fall short of disabling when all costs and benefits are tallied. Hypothesize a strategic merger with a same-industry buyer. There happens to be one banker who knows the industry better than any other, a banker with unique knowledge and skills who for many years has advised many companies in the industry on mergers and other strategic choices. This banker comes to the selling company having advised the purchasing company in the past and has a present expectation of providing the purchaser with future services—a clear conflict. Yet the selling company may be better off with the conflicted banker on its team, both to secure the best informed advice and to prevent the best informed advisor from joining the opposing team. Arguably, the selling board reasonably can manage the conflict, engaging a second bank to provide the fairness opinion and disclosing the conflict to its shareholders.

In sum, expected shareholder benefits can figure importantly and reasonably into the calculations of sell-side boards that tolerate banker conflicts. A heavy presumption against per se regulatory intervention follows.

iii. Institutional.—Even if we were to determine that a broad-brush prohibition makes cost–benefit sense, the Delaware Chancery Court is not the lawmaker equipped to lay down the mandate. The exercise is legislative: terms need to be defined and lines need to be drawn; formal regulations drafted by experts are the best means to that end.

Assuming that regulations are desirable, what body should do the formulating? By analogy to other professions, a self-regulatory organization should generate rules on conflicts along with best practice guidelines for advisors and givers of fairness opinions—a banker's equivalent of the American Institute of Certified Public Accountants or the American Bar

424. *See* Bratton, *supra* note 395, at 442 (describing the problem as one of managers "cross[ing] the auditors' palms with silver in exchange for a free hand to manage bottom-line numbers").

Association. But there is no organization that functions in this way.[425] But, where lawyers and auditors long ago organized as guilds, chilling competition and regulating themselves into the bargain, investment banks have refrained from doing so.[426] Perhaps selling boards and their shareholders would be better off if investment banks had evolved differently; perhaps FINRA should lower the boom on the banks and mandate professional organization. Such an intervention implies a fundamental change of approach, fundamental enough to make it unreasonable to look to Delaware corporate law as the leading edge of change.

iv. Policy.—Fundamental reform follows from recognition of a fundamental structural problem. It is not at all clear to us that banker conflicts have this salience. One study looks to see if acquisition premiums are sensitive to investment banker fee structures.[427] It finds no evidence that fee structure drives premiums—the drivers instead are target and transaction characteristics, with which the fees do vary.[428]

Nor does anyone make a broader claim that sale processes are so skewed against seller shareholders as to cause them to be systematic losers. Merger premiums are substantial, so substantial as usually to arrogate the merger gain to the target shareholders. Studies of announcement period price effects bear out this assertion with a stark allocational picture.[429]

---

425. For a proposal of an Investment Banking Authority that would issue guidelines and standards, see Davidoff, *supra* note 35, at 1615–19.

426. *See* John C. Coffee, *Limited Options*, LEGAL AFFAIRS, Nov.–Dec. 2003, http://www.legalaffairs.org/issues/November-December-2003/review_coffee_novdec03.msp, *archived at* http://perma.cc/ZNZ6-R6SB ("Accountants . . . and attorneys all belong to self-regulating professions. Much like medieval guilds, [these] professions regulate themselves protectively," but "time will tell . . . whether professional independence is even a realistic goal for the 'sell-side' analyst").

427. Calomiris & Hitscherich, *supra* note 55, at 9–10.

428. *Id.* There are a number of other studies of bankers and fees. Results are inconclusive. *See* Helen M. Bowers & Robert E. Miller, *Choice of Investment Banker and Shareholders' Wealth of Firms Involved in Acquisitions*, 19 J. FIN. MGMT., Winter 1990, at 34, 37, 39 (addressing the relationship between acquisition fees and shareholder wealth in an empirical study analyzing whether the choice of investment banker affects shareholder wealth); William C. Hunter & Mary Beth Walker, *An Empirical Examination of Investment Banking Merger Fee Contracts*, 56 S. ECON. J. 1117, 1118 (1990) (finding a positive relationship between banker fees and social gain in merger transactions); Rau, *supra* note 149, at 322 (studying incentive fee structures and finding that the difference in fee structures relates to market share); Anthony Saunders & Anand Srinivasan, *Investment Banking Relationships and Merger Fees* 3 (NYU Stern Sch. Bus. Research Series, Working Paper No. S-FI-01-07, 2001), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1298849, *archived at* http://perma.cc/V9F2-Y5GH (determining that buy-side firms pay higher advisory fees to advisors they have long-term relationships with without experiencing significantly better results).

429. Studies of fairness opinions add an intriguing fact—while sell-side fairness opinions have no effect on premium or announcement period return, in the one-third of cases where the buyer gets a fairness opinion, premiums are 4.3% lower but buyer announcement period returns are also 2.3% lower. Kisgen et al., *supra* note 59, at 180.

While target shares go up a consistent 16% during the three days surrounding announcement, bidder shares go down—the average was −0.3% in the 1970s, −0.4% in the 1980s, and −1.0% in the 1990s.[430] Over a time window of several months, target shares average an increase of 23.8%, while bidder shares on average go down around 4%.[431] The figures imply consistent losses to bidder shareholders.[432]

The policy implication is straightforward: *Revlon* has been working well for the sell side.

Summary.—The four grounds of objection cumulate to rebut the proposition that broad-brush prohibition of banker conflicts would materi-ally improve the platform on which companies are sold.

---

430. Gregor Andrade et al., *New Evidence and Perspectives on Mergers*, J. ECON. PERSP. 103, 110 tbl.3 (2001).

431. *Id.* The decline was –4.5% in the 1970s, –3.1% in the 1980s, and –3.9% in the 1990s. *Id.* There is a literature that sorts for the characteristics of bidder firms with low abnormal returns. Sara B. Moeller et al., *Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave*, 60 J. FIN. 757, 770 (2005), summarizes its results as follows: abnormal returns are lower for (1) low leverage firms; (2) low Tobin's *q* firms; (3) firms with large cash holdings; (4) firms with low managerial ownership of shares; and (5) large capitalization firms. Lower abnormal returns are also associated with certain transactions: (1) public firm targets; (2) target opposition; (3) conglomerate results; (4) competitive bidding; and (5) stock consideration. *Id.* at 770–71.

432. A reference to portfolio theory makes the results less disturbing. Most bidder shareholders own their shares in diversified portfolios. They thus stand on both sides of the deal and so are indifferent to the division of gain as between bidder and target. Robert G. Hansen & John R. Lott, Jr., *Externalities and Corporate Objectives in a World with Diversified Shareholders/Consumers*, 31 J. FIN. & QUANTITATIVE ANALYSIS 43, 59 (1996). So long as the combined result for the bidder and the target nets out positive, everything is fine. And such was the case until the late 1990s: from 1973 to 1998, the combined three-day-window result averaged a positive 1.8%; from 1973 to 1979, the average was 1.5%; from 1980 to 1989, the average was 2.6%; and from 1990 to 1998 the figure was 1.4%. Andrade et al., *supra* note 430.

Unfortunately, a cluster of mergers in the late 1990s reversed the 1.8% long-term positive. Sarah Moeller, Frederik Schlingemann, and René Stulz marshal some shocking three-day announcement returns. They show that from 1980 to 1990, bidder firms' shares lost an aggregate $4 billion, and from 1990 to 1997 they gained $24 billion. Moeller et al, *supra* note 431, at 758–59. From 1998 to 2001, however, they lost $240 billion, bringing down the 1990 to 2001 result to a $216 billion bidder loss. *Id.* The 1998 to 2001 numbers are so bad that they make for a negative combined result of $134 billion for bidders and targets in the period. *Id.* The negative dominoes fall from there. Where in the 1980s combined returns were a positive $12 billion, from 1991 to 2001 the combined loss was $90 billion. *Id.* at 763. That nets out to a $78 billion loss for 1980 to 2001.

These disastrous results stem from 87 deals out of a total of 4,136 in the authors' sample. *Id.* at 765. The large-loss deals were more likely to be hostile tender offers and more likely to be in the same industry, but neither result is statistically significant. *Id.* at 771. The most prominent common feature among the bidding firms is prior acquisition behavior. They are serial acquirers with high market valuations that in the past had made value-enhancing acquisitions. *Id.* at 777. Moeller, Schingemann, and Stulz suggest that the pattern of success causes an increase in the managers' zone of discretion. *Id.* The managers then push the acquisition pattern too far and the market withdraws its support. *Id.* at 777–78.

b. Narrow and Tailored Prohibition.—Let us suppose that Vice-Chancellor Strine had been tougher in *Toys "R" Us*—that instead of disavowing any intent to make a "bright-line statement"[433] in the case he had gone ahead and done so, holding that targets seeking to pass *Revlon* inspection must avoid staples.

A narrowly framed staple remover would avoid many of the problems that beset the broad-brush prohibition hypothesized above. Definitional problems would be minimal and the case for judicial competence would be stronger. Interference with pricing arrangements and other market practices also would be minimal. Such a prohibition still would cut against the grain of *Revlon* jurisprudence. In its earliest iterations, *Revlon* was thought to have a bright-line aspect, requiring an open auction.[434] The Delaware courts smoothed that rule-like aspect out over time, calling only for the realization of the "highest value reasonably attainable" without specific directives as to the means to the end.[435] *Revlon* is very much a standard.

A staple-remover also triggers questions concerning the sell-side shareholder interest. We have seen that staples have defenders and that the arguments in favor work well as regards the auction of a privately-held company.[436] But a shareholder-beneficial staple is easily hypothesized even outside of that narrow auction framework. This time Target, Inc.'s managers take a look at their industry and decide that the time has come to sell. They engage Unibank, their longtime banker–advisor, and sit down with it and work out an upset price. Unibank shops the company with little success on the strategic side. But a financial bidder meets the upset price and, with a little negotiation, exceeds it. Credit is tight and the buyer has trouble putting together a banking syndicate. It becomes clear during the negotiation process that Unibank's participation will be necessary.

---

433. *In re* Toys "R" Us, Inc. S'holder Litig., 877 A.2d 975, 1006 n.46 (Del. Ch. 2005).

434. *See* Barkan v. Amsted Indus., Inc., 567 A.2d 1279, 1286 (Del. 1989). Rejecting this bright-line approach, the Supreme Court of Delaware stated in *Barkan v. Amsted Industries*:

> This Court has found that certain fact patterns demand certain responses from the directors. Notably, in *Revlon* we held that when several suitors are actively bidding for control of a corporation, the directors may not use defensive tactics that destroy the auction process. When it becomes clear that the auction will result in a change of corporate control, the board must act in a neutral manner to encourage the highest possible price for shareholders. However, *Revlon* does not demand that every change in the control of a Delaware corporation be preceded by a heated bidding contest. *Revlon* is merely one of an unbroken line of cases that seek to prevent the conflicts of interest that arise in the field of mergers and acquisitions by demanding that directors act with scrupulous concern for fairness to shareholders.

Id. (citations omitted).

435. Mills Acquisition Co. v. Macmillan, Inc., 559 A.2d 1261, 1288 (Del. 1988); *see also Barkan*, 567 A.2d at 1286 ("[T]here is no single blueprint that a board must follow to fulfill its duties. A stereotypical approach to the sale and acquisition of corporate control is not to be expected in the face of the evolving techniques and financing devices employed in today's corporate environment.").

436. *See supra* notes 99–107 and accompanying text.

Unibank, as Target's longtime advisor, knows more about its internal operations than any third party. Its participation in the bank syndicate imports outcome-determinative informational credibility.[437] A per se rule against staples kills a good deal.

3. Summary.—We began this section asking why banker conflicts are tolerated where auditor conflicts are not. The answer lies in accumulated experience. Severe auditor conflicts were once tolerated even though the context was professionalized and auditors owed clear fiduciary duties to their clients. Discomfort among federal regulators grew as the conflicts became more severe. Ultimately, audit failure combined with financial disaster to lead to hardwired prohibitions in Sarbanes-Oxley. Banker conflicts in merger negotiations present much less of a threat to investor interests than did the auditor conflicts of the 1990s. The value of the service rendered does not depend on independence. Any taints or skews are transaction specific. With auditing, in contrast, the stakes go to the informational integrity of the entire stock market. Mergers, moreover, particularly activate boards of directors. The board, which normally sits back and monitors, moves to the forefront of day-to-day decision making, better enabling it to manage advisor conflicts effectively. Finally, banker conflicts have been subject to scrutiny in the Delaware courts since the day *Revlon* was decided. This backstop, case-by-case supervision makes it unlikely that these relational compromises will lead to a systemic breakdown in governance processes, as happened with auditor conflicts.

B. Safe Harbor

Subpart A took up the claim that *Del Monte* and *El Paso* stop too short in their policing of banker conflicts, looking into the possibility of a fresh, prohibitive approach. As it happened, none of the per se alternatives posed emerged as obviously superior to *Revlon* scrutiny. This subpart takes up the other side of criticism of *Del Monte* and *El Paso*—the claim of regulatory boundaries overstepped, looking for a bright-line rule that might qualify conflicted representation. We couple the disclosure rule with the solution derived in practice to qualify staples in the wake of *Toys "R" Us*,[438] positing that full disclosure to the selling board and the shareholders taken together with engagement of a second, unconflicted banker circumstantially guarantees a clean deal. The proposition is sensible. But whether the circumstantial guarantee suffices to justify the creation of a safe harbor to

437. *Cf.* Linda Allen et al., *The Role of Bank Advisors in Mergers and Acquisitions*, 36 J. MONEY CREDIT & BANKING 197, 200 (2004) (empirically confirming a positive "certification effect" in cases where a commercial bank served as merger advisor).

438. *See supra* notes 255–260 and accompanying text.

immunize banker–client relationships from later *Revlon* disruption still presents a difficult question. We conclude that it does not.

1. The Case in Favor.—We use the term "safe harbor" loosely, for in our standards-based regime of corporate fiduciary law, no conflicted transaction can be shielded with 100% certainty. That said, safe harbors are not unknown in corporate fiduciary law—a famous one obtains in respect of director and officer self-dealing transactions. In Delaware, majority disinterested-director approval based on full disclosure blocks *ex post* judicial scrutiny for fairness and triggers the protection of the business judgment shield.[439] By analogy, full disclosure of banker conflicts to sell-side boards and shareholders could have a similar effect with *Revlon* scrutiny. To the extent that a conflict could still impair the sale process, engagement of a second banker holds out additional comfort, with the two together operating as a safe harbor.

Full disclosure and second banker engagement already provide substantial insulation on the narrow question whether a banker conflict undercuts a fairness opinion.[440] We only carry this usage to its logical conclusion in the following affirmative restatement: full disclosure plus independent director approval plus resort to a second banker together block a *Revlon* claim grounded in tainted banker influence.

A question arises at the outset. Why include the third leg of second banker engagement, and why not impart safety based on a basic agency law approach: full disclosure and informed consent subject to a bad faith backstop? The parties are sophisticated and the bad faith backstop leaves a considerable stretch of conflicted territory remaining outside the ring of safety. The *Del Monte* fact pattern, for example, gets no protection here; when the banker deceives the client disclosure is anything but full and bad faith is clear.

The second banker does address an important problem. The conflicted advisor deals with counterparties outside of the board's purview and recommends actions from a position of informational superiority. This stretches the consenting board's monitoring capabilities to the limit. It is not hard to posit a situation where the conflict impairs the process despite full disclosure and consent. The buy-side ownership interest in *El Paso* arguably presents such a case. Second banker engagement addresses the problem: the board retains what it values in the conflicted banker's participation while assuring a flow of unconflicted advice, easing the monitoring burden. A second banker requirement makes the safe harbor

439. DEL. CODE ANN. tit. 8, § 144(a) (2011); *see also* Benihana of Tokyo, Inc. v. Benihana, Inc., 891 A.2d 150, 173–75 (Del. Ch. 2005), *aff'd*, 906 A.2d 114 (Del. 2006) (applying the "safe harbor" provision of § 144(a) and noting that one director's interest in the transaction "would not vitiate the presumptions of the business judgment rule").

440. *See supra* notes 188–93 and accompanying text.

less capacious while providing a stronger assurance that the conflict will be mediated successfully. As such it adds robustness to the proposal.

The safe harbor also would impart added certainty to sell-side actors, and it would have the advantage of being optional—a board not wishing to engage a second banker could take a pass, accepting the risk of subsequent *Revlon* litigation. A safe harbor would also make it harder for plaintiffs, an attractive result in an era when the fact of a sale by itself makes a court challenge highly probable.[441] The trend toward merger litigation makes *Del Monte* and *El Paso* look inopportunely timed, dumping grist at a shabby litigation mill. It arguably is time to cut back on the size of the playing field.

2. Contrary Concerns.—The utility of the safe harbor just posited suffers from significant practical limitations. First, any effect on the overall burden of *Revlon* litigation would be nominal, for a safe harbor concerning banker conflicts would not shut the *Revlon* door. It would only foreclose one line of scrutiny within a wider inquiry and then only after a determination that full disclosure actually had been made, a conclusion likely to be subject to plaintiff challenge. Second, there would be a problem of specification. Second banker engagement implies mediation: the board must decide what tasks go to the new banker and what tasks remain with the old one. *El Paso* presented a case where a problem persisted despite such a division of labor.[442] To hold out review of the specification denudes the safe harbor of value. If a plaintiff attacks the appropriateness of the deployment of the two bankers as well as the disclosure, then the defending board ends up in substantially the same position as in a world without a safe harbor. Of course, the safe harbor's value could be preserved with a blunt approach: so long as a second banker comes on board, safety is achieved no matter how the board deploys the two bankers. But this is a large concession, so large as to make one wonder whether the substantive cost of a safe harbor outweighs the benefits. Third, there is a question regarding out-of-pocket cost, second banker engagement being an expensive expedient. Maybe the shareholders would be better off in the long run under a stricter regime that pushes boards in the direction of engagement severance.

Finally, there is a question regarding the magnitude of the certainty enhancement. Banker conflicts crop up as troublesome facts in the course of a broader inquiry into the sale process. A safe harbor in effect tells the inquirer that the fact no longer should be deemed troublesome. The resulting effect on the inquiry as a whole is hard to project. Presumably, a

441. In 2005, 39.3% of closed deals in Professors Cain and Davidoff's dataset experienced state law litigation; by 2011, the figure rose to 92.1%. Cain & Davidoff, *supra* note 13, at 3.

442. *In re* El Paso Corp. S'holder Litig., 41 A.3d 432, 434 (Del. Ch. 2012).

safe harbor would cut off a claim based exclusively on a banker conflict taint and alleging that the banker's compromised incentives by themselves made the sale process unreasonable without alleging any more particular negative effects. A showing of particular effects would present a line-drawing problem. Assume for example, a safe-harbored conflict along with independent facts showing that the banker skewed a competitive sale process toward a favored bidder. The skew, although a consequence of the conflict, presumably would remain a legitimate topic of inquiry, problematizing the banker's performance and incentives despite safe harbor protection.

There is also a question concerning the allocation of the burden of uncertainty. Boards of directors already possess a straightforward expedient with which to deal with severe banker conflicts—prohibition. They look to counsel to determine whether the conflict requires that drastic step.[443] If, once advised of litigation risk, the board chooses to continue with a conflicted banker because it values the relationship net of the conflict, the burden falls again on counsel, this time for a persuasive articulation of reasons and advice on appropriate contractual adjustments. Were a safe harbor to diminish this stress, counsel would be the primary beneficiary.

It is not at all clear to us that the corporate lawyers who give this advice need this solicitude. This is a variant of the standards versus rules debate,[444] with *Revlon* as the judicially administered, open-ended standard and the proposed safe harbor as a modifying rule. Standards assure that the regime of scrutiny covers all fact patterns at the cost of a high compliance burden on regulated parties. Rules relieve the burden by holding out specific instructions at the cost of regulatory arbitrage in the form of compliant conduct that subverts the regulatory objective.[445] The case for rules strengthens as the volume of regulated traffic increases and proximity of scrutiny decreases, as with GAAP and federal securities disclosure requirements.[446] In these situations, precise instructions save costs, and rules as a practical matter may be the only effective mode of regulation. Bankers and boards present the opposite situation. In public company governance, sale processes are the exception not the rule;[447] multiple parties

443. *Cf.* HAZARD ET AL., *supra* note 216, § 11.20 (reflecting that, when an attorney's own conflict is at issue, such conflict may be so severe as to be "non-consentable").

444. *See generally*, Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557, 559–60 (1992) (describing the standards-versus-rules debate as one emphasizing whether law is given substance *ex post* or *ex ante*, respectively).

445. *Cf.* William W. Bratton, *Rules, Principles, and the Accounting Crisis in the United States*, 5 EUR. BUS. ORG. L. REV. 7, 30–33 (2004) (detailing the benefits of rules in the accounting context).

446. *Cf. id.* at 30 (arguing that "[t]he case for rules strengthens materially in an imperfect institutional framework, such as that prevailing respecting the audit function in the US").

447. *See* Christina M. Sautter, *Promises Made to be Broken? Standstill Agreements in Change*

weigh in carefully on important decisions and given a challenge, scrutiny will be close. There is no analogy to wholesale matters like GAAP and federal securities compliance. In other words, merger sale process is the archetypical case for a standard. In a one-off, big-money context, claims of a need for guidance or safety should be deeply discounted.

3. Conclusion.—We doubt that our hypothesized safe harbor makes cost–benefit sense. To dredge a safe harbor is to value litigation certainty over the risk of sale process infirmity. We would not make that choice, absent a showing that indiscriminate filings by the plaintiffs' bar have driven the cost of *Revlon* scrutiny to unacceptable heights. We do not read recent litigation statistics to signal a law reform as anything approaching such an emergency.

C. Commentary

Our double-barreled search for alternative approaches returns us to the starting point: judicial scrutiny under the open-ended *Revlon* standard. If our analysis is persuasive, it implies the conclusion that there is no clearly superior alternative to *Revlon* scrutiny despite the attendant risks and uncertainties.

VI. Conclusion

Robert Kindler, a banker at Morgan Stanley, has been quoted as saying, "We are all totally conflicted—get used to it."[448] What is he telling us? He could be making a structural point: because the banking sector is concentrated, conflicts are inevitable and accordingly must be tolerated and their management left to the client's discretion. He could be making a relational point: because banker–advisors are not really fiduciaries, conflicts are permitted and accordingly should be tolerated and managed. He could be making both points. Whatever Mr. Kindler's more particular communicative motivation, he makes one thing absolutely clear: bankers themselves are untroubled by conflicts and have no incentive to ameliorate any resulting problems through self-regulation.

With *Del Monte* and *El Paso* the Delaware Chancery Court "gets used to it." But, contrary to Mr. Kindler's implication, familiarity does not result in acceptance. Importantly, the court's treatment of banker conflicts does not follow from a revitalization of the dormant, fiduciary side of the

---

of Control Transactions, 37 DEL. J. CORP. L. 929, 942–43 (2013) (recognizing that "not every sale requires a full-blown auction process" and corporate boards can opt for more limited negotiated sales rather than public auctions).

448. Andrew Ross Sorkin, *When a Bank Works Both Sides*, N.Y. TIMES, Apr. 8, 2007, http://www.nytimes.com/2007/04/08business/yourmoney/08deal.html, *archived at* http://perma.cc/SA36-QFQ9.

banker–client relationship. The banker fiduciary duty has not awakened, reared its head, and started roaring about honor and self-sacrifice. *Revlon* is about the board's unquestioned, unwaivable fiduciary duty to the shareholders. Whether or not the banker should or should not have done something is irrelevant. The question is whether the board, in contracting mode, should have permitted or contained it. There is no clash between contractual and fiduciary values; this is all on the contractual side.

But, even as these cases apply the law without changing its terms, the M&A world looked very different before than it does after. Before, the law of banker–client relationships amounted to a field open to contracting out subject to minimal *ex post* scrutiny. After, there is a cognizable potential for reasonableness review. Before, shareholders had no tractable cause of action against a banker. After, a shareholder action under *Revlon* can effect forfeiture of the banker's fee and contribute to an attractive return to a class action attorney, while a robust aiding and abetting claim can hold out a money judgment jackpot.

Why, if the possibility for intervention against banker conflicts lay inherent in the structure of *Revlon* inquiry, did it take so long for intervention to occur? Perhaps the delay was just an accident of history—no case happened to come along. But maybe more has been going on. Relational standards may have declined over time, with cognizable conflicts finally showing up amidst the stress of a severe recession. Evidence of increasing bank concentration taken together with the reactive rise of the boutique sector[449] support this reading. Perhaps the Chancery Court became more sensitive to banker incentive problems, influenced by the widespread skepticism about practices at big banks triggered by the financial crisis.[450] If so, the change is a legitimate one: like a banker, the Chancery Court has a reputation to protect.

In any event, changes which loom large in the *Revlon* context look less than fundamental when we take a step back and look at M&A as a whole. The Chancery Court's interventions are discreet and occur as a phase of the deal-making process. The challenged mergers still closed and actors on Wall Street labor under no per se conflicts prohibition. Primary decision making is still remitted to the board of directors of the banker's client. The cases simply shift the cost–benefit calculus against the bankers. And, even as the cases also enhance the authority of the lawyers in the sell-side team's internal discussions, the decision remains a business rather than legal judgment, in this case exercised by independent directors.

---

449. *See supra* notes 86–87 and accompanying text.

450. We note that the spike in boutique market share in the down market of 2008 has been attributed to reputational reverses at commercial banks in the wake of the financial crisis. Jessica Silver-Greenberg, *Boutique Banks to Cash In*, BLOOMBERG BUSINESSWEEK, Sept. 23, 2008, http://www.businessweek.com/stories/2008-09-23/boutique-banks-to-cash-inbusinessweek-business-news-stock-market-and-financial-advice, *archived at* http://perma.cc/X396-2WXK.

Perhaps banker–client relationships should be considered de novo with a view to articulation of best practices, whether at the instance of bankers undertaking formal organization as a profession or the existing self-regulatory organization, FINRA, imposing client duties on bankers as an incident of market regulation. Such a fundamental relational restructuring could not be undertaken effectively by the Delaware courts. To the extent the Chancery Court's minimalist but high profile interventions forestall such fundamental reform initiatives by diminishing the volume and magnitude of banker conflicts, the bankers owe the court a word of thanks.

Regulating the Internet of Things: First Steps Toward Managing Discrimination, Privacy, Security, and Consent

Scott R. Peppet*

The consumer "Internet of Things" is suddenly reality, not science fiction. Electronic sensors are now ubiquitous in our smartphones, cars, homes, electric systems, health-care devices, fitness monitors, and workplaces. These connected, sensor-based devices create new types and unprecedented quantities of detailed, high-quality information about our everyday actions, habits, personalities, and preferences. Much of this undoubtedly increases social welfare. For example, insurers can price automobile coverage more accurately by using sensors to measure exactly how you drive (e.g., Progressive's Snapshot system), which should theoretically lower the overall cost of insurance. But the Internet of Things raises new and difficult questions as well. This Article shows that four inherent aspects of sensor-based technologies—the compounding effects of what computer scientists call "sensor fusion," the near impossibility of truly de-identifying sensor data, the likelihood that Internet of Things devices will be inherently prone to security flaws, and the difficulty of meaningful consumer consent in this context—create very real discrimination, privacy, security, and consent problems. As connected, sensor-based devices tell us more and more about ourselves and each other, what discrimination—racial, economic, or otherwise—will that permit, and how should we constrain socially obnoxious manifestations? As the Internet of Things generates ever more massive and nuanced datasets about consumer behavior, how to protect privacy? How to deal with the reality that sensors are particularly vulnerable to security risks? How should the law treat—and how much should policy depend upon—consumer consent in a context in which true informed choice may be impossible? This Article is the first legal work to describe the new connected world we are creating, address these four interrelated problems, and propose concrete first steps for a regulatory approach to the Internet of Things.

* Professor of Law, University of Colorado School of Law. I am grateful to the faculty of the University of Colorado Law School for their input, and particularly to Paul Ohm and Harry Surden for their thoughts. I also thank the participants at the Federal Trade Commission's Internet of Things Workshop (November 19, 2013), who gave helpful comments on many of these ideas. Finally, thank you to my research assistants Carey DeGenero and Brian Petz for their help.

> [E]very animate and inanimate object on Earth will soon be *generating data*, including our homes, our cars, and yes, even our bodies.[1]
>
> —Anthony D. Williams, in *The Human Face of Big Data* (2012)

> Very soon, we will see inside ourselves like never before, with wearable, even internal[,] sensors that monitor even our most intimate biological processes. It is likely to happen even before we figure out the etiquette and laws around sharing this knowledge.[2]
>
> —Quentin Hardy, *The New York Times* (2012)

> [A]ll data is credit data, we just don't know how to use it yet. . . . Data matters. More data is always better.[3]
>
> —Douglas Merrill, Google's former CIO & CEO of ZestFinance

Introduction

The Breathometer is a small, black plastic device that plugs into the headphone jack of an Android or iPhone smartphone.[4] Retailing for $49, the unit contains an ethanol sensor to estimate blood alcohol content from the breath.[5] The company's website advertises that the device will give you

---

1. RICK SMOLAN & JENNIFER ERWITT, THE HUMAN FACE OF BIG DATA (2012) (paraphrasing Anthony D. Williams, *Science's Big Data Revolution Yields Lessons for All Open Data Innovators*, ANTHONYDWILLIAMS (Mar. 30, 2011), http://anthonydwilliams.com/2011/03/30/sciences-big-data-revolution-yields-lessons-for-all-open-data-innovators/, *archived at* http://perma.cc/6JP-P2WE).

2. Quentin Hardy, *Big Data in Your Blood*, BITS, N.Y. TIMES (Sept. 7, 2012, 10:37 AM), http://bits.blogs.nytimes.com/2012/09/07/big-data-in-your-blood/?_php=true&_type=blogs&_r=0, *archived at* http://perma.cc/45EZ-9LY5.

3. Quentin Hardy, *Just the Facts. Yes, All of Them.*, N.Y. TIMES, Mar. 24, 2012, http://www.nytimes.com/2012/03/25/business/factuals-gil-elbaz-wants-to-gather-the-data-universe.html?pagewanted=all, *archived at* http://perma.cc/665S-7YWX; *see also How We Do It*, ZESTFINANCE, http://www.zestfinance.com/how-we-do-it.html, *archived at* http://perma.cc/WY59-9EFW (touting the firm's philosophy that "All Data is Credit Data").

4. BREATHOMETER™, http://www.breathometer.com, *archived at* http://perma.cc/E88P-2JTT.

5. *Frequently Asked Questions*, BREATHOMETER™, https://www.breathometer.com/help/faq, *archived at* http://perma.cc/HJL8-6VE8.

"the power to make smarter decisions when drinking."[6] The device works only in conjunction with the downloadable Breathometer application (app), which both displays the results of any given test and shows a user's longitudinal test history.

The Breathometer is representative of a huge array of new consumer devices promising to measure, record, and analyze different aspects of daily life that have exploded onto the market in the last twelve to eighteen months.[7] For example, a Fitbit bracelet or Nike+ FuelBand can track the steps you take in a day, calories burned, and minutes asleep; a Basis sports watch will track your heart rate; a Withings cuff will graph your blood pressure on your mobile phone or tablet; an iBGStar iPhone add-on will monitor your blood glucose levels; a Scanadu Scout will measure your temperature, heart rate, and hemoglobin levels; an Adidas miCoach Smart Ball will track your soccer performance;[8] a UVeBand or JUNE bracelet will monitor your daily exposure to ultraviolet rays and notify your smartphone if you need to reapply sunscreen;[9] a Helmet by LifeBEAM will track your heart rate, blood flow, and oxygen saturation as you cycle; a Mimo Baby Monitor "onesie" shirt will monitor your baby's sleep habits, temperature, and breathing patterns; a W/Me bracelet from Phyode will track changes in your autonomic nervous system to detect mental state (e.g., passive, excitable, pessimistic, anxious, balanced) and ability to cope with stress;[10] and a Melon or Muse headband can measure brain activity to track your ability to focus.[11] Other devices—such as the popular Nest Thermostat; SmartThings' home-automation system; the Automatic Link driving and automobile monitor; GE's new line of connected ovens, refrigerators, and other appliances; and Belkin's WeMo home electricity and water-usage tracker—can in combination measure your driving habits, kitchen-appliance use, home electricity and water consumption, and even work productivity.[12]

---

6. *See* BREATHOMETER™, *supra* note 4.

7. For a more thorough description of each of these devices, please see *infra* subparts I(A)–(E).

8. *MiCoach Smart Ball*, ADIDAS, http://micoach.adidas.com/smartball/, *archived at* http://perma.cc/W9A7-5GG9.

9. *How to Use the UveBand*, UVEBAND, http://suntimellc.com/?page_id=12, *archived at* http://perma.cc/6UR6-5AAM; JUNE, NETATMO, https://www.netatmo.com/en-US/product/june, *archived at* http://perma.cc/K4BS-SVYC.

10. *W/Me*, PHYODE, http://www.phyode.com/health-wristband.html, *archived at* http://perma.cc/VV34-LA47.

11. MELON, http://www.thinkmelon.com/, *archived at* http://perma.cc/68DN-J3K8; *Frequently Asked Questions*, MUSE™, http://www.choosemuse.com/pages/faq#general, *archived at* http://perma.cc/KRA5-8DH9.

12. *See infra* subparts I(A)–(E).

Together these devices create the Internet of Things,[13] or what some have more recently called the "Internet of Everything."[14] Conservative estimates suggest that over 200 billion connected sensor devices will be in use by 2020,[15] with a market size of roughly $2.7 trillion to $6.2 trillion per year by 2025.[16] These devices promise important efficiency, social, and individual benefits through quantification and monitoring of previously immeasurable qualities. But the Internet of Things also raises a host of difficult questions. Who owns the data these sensors generate? How can such data be used? Are such devices, and the data they produce, secure? And are consumers aware of the legal implications that such data create—such as the possible use of such data by an adversary in court, an insurance company when denying a claim, an employer determining whether to hire, or a bank extending credit?

Return to the Breathometer example. When you purchase a Breathometer—as I did recently for purposes of researching this Article—it arrives in a small, stylish black box featuring an image of the device and the motto "Drink Smart. Be Safe." Opening the packaging reveals both the device and a small user's manual that explains how to download the Breathometer app, create an account with the company through that app, and plug the Breathometer into one's smartphone. Nowhere in that manual's seventeen pages is there mention of a privacy policy that might apply to the data generated by the device. Nor is there an explanation of what data the

---

13. The term is generally attributed to Kevin Ashton. Thomas Goetz, *Harnessing the Power of Feedback Loops*, WIRED, June 19, 2011, http://www.wired.com/2011/06/ff_feedbackloop/, *archived at* http://perma.cc/H9D3-V6D3; *see* Kevin Ashton, *That 'Internet of Things' Thing*, RFID J., June 22, 2009, http://www.rfidjournal.com/articles/pdf?4986, *archived at* http://perma.cc/B4CW-M29Z (claiming that the first use of the term "Internet of Things" was in a 1999 presentation by Ashton). *See generally* NEIL GERSHENFELD, WHEN THINGS START TO THINK (1999) (addressing the general concept of merging the digital world with the physical world); Melanie Swan, *Sensor Mania! The Internet of Things, Wearable Computing, Objective Metrics, and the Quantified Self 2.0*, 1 J. SENSOR & ACTUATOR NETWORKS 217 (2012) (exploring various ways of defining and characterizing the Internet of Things and assessing its features, limitations, and future).

14. The phrase "Internet of Everything" seems to originate with Cisco's CEO John Chambers. *See* Robert Pearl, *Cisco CEO John Chambers: American Health Care Is at a Tipping Point*, FORBES (Aug. 28, 2014, 1:00 PM), http://www.forbes.com/sites/robertpearl/2014/08/28/cisco-ceo-john-chambers-american-health-care-is-at-a-tipping-point/, *archived at* http://perma.cc/XET3-D37A (quoting Chambers that the "Internet of Everything" brings "people, process, data and things" together in order to make "connections more relevant and valuable than ever before"); *cf. Frequently Asked Questions, The Internet of Everything: Cisco IoE Value Index Study*, CISCO, http://internetofeverything.cisco.com/sites/default/files/docs/en/ioe-value-index_FAQs.pdf, *archived at* http://perma.cc/Y4LQ-633J (reiterating Cisco's definition of the Internet of Everything as "the networked connection of people, process, data, and things").

15. Tim Bajarin, *The Next Big Thing for Tech: The Internet of Everything*, TIME, Jan. 13, 2014, http://time.com/539/the-next-big-thing-for-tech-the-internet-of-everything, *archived at* http://perma.cc/79RK-BDCY.

16. JAMES MANYIKA ET AL., MCKINSEY & CO., DISRUPTIVE TECHNOLOGIES: ADVANCES THAT WILL TRANSFORM LIFE, BUSINESS, AND THE GLOBAL ECONOMY 51 (2013).

device generates (e.g., "just" blood alcohol content or also other sensor information?); where such data are stored (e.g., in one's phone or on the company's servers in the cloud?); whether such data can be deleted and how; or how the company might use such data (e.g., will the company sell it; could it be subpoenaed through a court process?). When installing the Breathometer app through the Apple App Store, no mention is made of any privacy policy. No pop-up with such a policy appears when the user creates an account through the app or starts using the device. In short, the data-related aspects of the device are completely absent from the user experience. Only by visiting the company's website, scrolling to the very bottom, and clicking the small link for "Privacy Policy" can one learn that one's blood-alcohol test results are being stored indefinitely in the cloud, cannot be deleted by the user, may be disclosed in a court proceeding if necessary, and may be used to tailor advertisements at the company's discretion.[17]

Given the many potentially troubling uses for breathalyzer data—think employment decisions; criminal liability implications; and health, life, or car-insurance ramifications—one might expect data-related disclosures to dominate the Breathometer user's purchasing and activation experience. Instead, the consumer is essentially led to the incorrect assumption that this small black device is merely a good like any other—akin to a stapler or ballpoint pen—rather than a data source and cloud-based data repository.[18]

Even Internet of Things devices far more innocuous than the Breathometer can generate data that present difficult issues. Sensor data capture incredibly rich nuance about who we are, how we behave, what our tastes are, and even our intentions. Once filtered through "Big Data" analytics,[19] these data are the grist for drawing revealing and often unexpected inferences about our habits, predilections, and personalities. I can tell a lot about you if I know that you often leave your oven on when you leave the house, fail to water your plants, don't exercise, or drive recklessly.[20] As Federal Trade Commission (FTC) Commissioner Julie Brill recently stated:

> On the Internet of Things, consumers are going to start having devices, whether it's their car, or some other tool that they have, that's

---

17. *Privacy Policy*, BREATHOMETER™ [hereinafter *Privacy Policy*, BREATHOMETER™], http://www.breathometer.com/legal/privacy-policy, *archived at* http://perma.cc/T7BW-S7R3.

18. *See* ADRIAN MCEWEN & HAKIM CASSIMALLY, DESIGNING THE INTERNET OF THINGS 294 (2014) ("[M]any 'things' have little in their external form that suggests they are connected to the Internet. When you grab an Internet-connected scarf from the coat rack or sit on an Internet-connected chair, should you have some obvious sign that data will be transmitted or an action triggered?"); *Privacy Policy*, BREATHOMETER™, *supra* note 17 (emphasizing that mere use of a Breathometer operates as acceptance of the privacy policy).

19. *See generally* Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239 (2013) (explaining how advances in data analytics that broaden the scope of information available to third parties have accompanied the increase in the number of individuals, devices, and sensors connected by digital networks).

20. *See infra* Part I.

> connected and sending information to a number of different entities, and the consumer might not even realize that they have a connected device or that the thing that they're using is collecting information about them.[21]

These are the real challenges of the Internet of Things: what information do these devices collect, how might that information be used, and what—if any—real choice do consumers have about such data?

To date, the law has left these questions unanswered. Consider a second preliminary example. Roughly ninety percent of new automobiles in the United States contain an Event Data Recorder (EDR) or "black box."[22] By federal law, such devices must store a vehicle's speed, how far the accelerator pedal is pressed, whether the brake is applied, whether the driver is using a seat belt, crash details, and other information, including, in some cases, the driver's steering input and occupant sizes and seat positions.[23] Such data can convict unsafe drivers[24] and help regulators improve safety,[25] but many policy questions remain unanswered or only partially addressed. Can an insurance company, for example, require an insured *ex ante* to grant access to EDR data in the insured's policy or condition *ex ante* claim payment on such access? The National Highway Traffic Safety Administration (NHTSA) has left who owns EDR data—the car owner, the manufacturer, or the insurer—to the states,[26] but only fourteen states have addressed the

---

21. Julie Brill, Comm'r, Fed. Trade Comm'n, Keynote Address at the Silicon Flatirons Conference: The New Frontiers of Privacy Harm (Jan. 17, 2014), *available at* http://youtu.be/VXEyKGw8wXg, *archived at* http://perma.cc/F335-E987.

22. *See* Press Release, Nat'l Highway Traffic Safety Admin., U.S. DOT Proposes Broader Use of Event Data Recorders to Help Improve Vehicle Safety (Dec. 7, 2012), *available at* http://www.nhtsa.gov/About+NHTSA/Press+Releases/U.S.+DOT+Proposes+Broader+Use+of+Event+Data+Recorders+to+Help+Improve+Vehicle+Safety, *archived at* http://perma.cc/963A-F72E ("NHTSA estimates that approximately 96 percent of model year 2013 passenger cars and light-duty vehicles are already equipped with EDR capability."). The NHTSA's 2012 estimate represented a nearly 30% increase from the estimated number of EDRs in new-model cars in 2004. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., FINAL REGULATORY EVALUATION: EVENT DATA RECORDERS (EDRS), at III-2 tbl.III-1 (2006) (estimating that 64.3% of new cars sold in 2004 came equipped with EDRs).

23. Event Data Recorders Rule, 49 C.F.R. § 563.7 (2013).

24. *See* Matos v. Florida, 899 So. 2d 403, 407 (Fla. Dist. Ct. App. 2005) (holding that data from certain EDRs are admissible when used as tools for automotive accident reconstruction).

25. *See* NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DOCKET NO. NHTSA-1999-5218-0009, EVENT DATA RECORDERS: SUMMARY OF FINDINGS BY THE NHTSA EDR WORKING GROUP 67 (2001), *available at* http://www.regulations.gov/#!documentDetail;D=NHTSA-1999-5218-0009, *archived at* http://perma.cc/X5SK-2SDK (finding that EDR data may be used for various real-world safety applications, including collision avoidance, occupant protection, and roadside safety monitoring).

26. Event Data Recorders, 71 Fed. Reg. 50,998, 51,030 (Aug. 28, 2006) (to be codified at 49 C.F.R. pt. 563).

issue.[27] Four states currently forbid insurance companies from requiring that an insured consent to future disclosure of EDR data or from requiring access to EDR data as a condition of settling an insurance claim.[28] One state—Virginia—also forbids an insurer from adjusting rates solely based on an insured's refusal to provide EDR data.[29] Should other states follow? Should Congress give federal guidance on such uses of EDR data? Is such fine-grained information invasive of privacy—particularly given that consumers cannot easily turn off or "opt out" of its collection? And as more sophisticated car sensors reveal even more sensitive information—where we drive, when we drive, how we drive—that permits deeper inferences about us—how reckless, impulsive, or quick to anger we are—how will we regulate the use of such data? For example, should a bank be able to deny your mortgage application because your EDR data reveal you as an irresponsible driver and, thus, a bad credit risk? Should a potential employer be able to factor in a report based upon your driving data when deciding whether to hire you?

In beginning to answer these questions, this Article makes three claims about the Internet of Things—all new to the legal literature, all important, and all timely.

First, the sensor devices that together make up the Internet of Things are not a science-fiction future but a present reality. Internet of Things devices have proliferated before we have had a chance to consider whether and how best to regulate them. Sales of fitness trackers such as Fitbit and Nike+ FuelBand topped $300 million last year, and consumer sensor devices dominated the January 2014 International Consumer Electronics Show.[30] The hype is real: such devices are revolutionizing personal health, home security and automation, business analytics, and many other fields of human activity. The scant legal work addressing such devices has largely assumed, however, that the Internet of Things is still in its infancy in a research laboratory, not yet ready for commercial deployment at scale.[31] To counter this misperception and lay the foundation for considering the current legal problems created by the Internet of Things, Part I presents a typology of consumer sensors and provides examples of the myriad ways in which existing Internet of Things devices generate data about our environment and our lives.

---

27. *Privacy of Data from Event Data Recorders: State Statutes*, NAT'L CONF. ST. LEGISLATURES, http://www.ncsl.org/research/telecommunications-and-information-technology/privacy-of-data-from-event-data-recorders.aspx, *archived at* http://perma.cc/7XRZ-TNZ7.

28. *See infra* note 397.

29. *See infra* note 398.

30. Jonah Comstock, *In-depth: The MobiHealthNews CES 2014 Wrap-Up*, MOBIHEALTHNEWS (Jan. 17, 2014), http://mobihealthnews.com/28689/in-depth-the-mobihealthnews-ces-2014-wrap-up/, *archived at* http://perma.cc/F9A6-APYN.

31. *See, e.g.*, Jerry Kang et al., *Self-Surveillance Privacy*, 97 IOWA L. REV. 809, 815–17 (2012) (describing the use of self-surveillance devices and sensors but focusing primarily on laboratory and experimental contexts rather than commercial context).

Second, the Internet of Things suffers from four unique technical challenges that in turn create four legal problems concerning discrimination, privacy, security, and consent. This is the heart of the Article's argument, and it is the four-pronged focus of Part II.

First, subpart II(A) explores the ways in which the Internet of Things may create new forms of discrimination—including both racial or protected class discrimination and economic discrimination—by revealing so much information about consumers. Computer scientists have long known that the phenomenon of "sensor fusion" dictates that the information from two disconnected sensing devices can, when combined, create greater information than that of either device in isolation.[32] Just as two eyes generate depth of field that neither eye alone can perceive, two Internet of Things sensors may reveal unexpected inferences. For example, a fitness monitor's separate measurements of heart rate and respiration can in combination reveal not only a user's exercise routine, but also cocaine, heroin, tobacco, and alcohol use, each of which produces unique biometric signatures.[33] Sensor fusion means that on the Internet of Things, "every thing may reveal everything." By this I mean that each type of consumer sensor (e.g., personal health monitor, automobile black box, or smart grid meter) can be used for many purposes beyond that particular sensor's original use or context, particularly in combination with data from other Internet of Things devices. Soon we may discover that we can infer whether you are a good credit risk or likely to be a good employee from driving data, fitness data, home energy use, or your smartphone's sensor data.

This makes each Internet of Things device—however seemingly small or inconsequential—important as a policy matter, because any device's data may be used in far-removed contexts to make decisions about insurance, employment, credit, housing, or other sensitive economic issues. Most troubling, this creates the possibility of new forms of racial, gender, or other discrimination against those in protected classes if Internet of Things data can be used as hidden proxies for such characteristics. In addition, such data may lead to new forms of economic discrimination as lenders, employers, insurers, and other economic actors use Internet of Things data to sort and treat differently unwary consumers. Subpart II(A) explores the problem of discrimination created by the Internet of Things, and the ways in which both traditional discrimination law and privacy statutes, such as the Fair Credit

32. *See infra* notes 226–29 and accompanying text.

33. *See generally, e.g.*, Annamalai Natarajan et al., *Detecting Cocaine Use with Wearable Electrocardiogram Sensors*, *in* UBICOMP'13: PROCEEDINGS OF THE 2013 ACM INTERNATIONAL JOINT CONFERENCE ON PERVASIVE AND UBIQUITOUS COMPUTING 123, 123 (2013) (hypothesizing that cocaine use can reliably be detected using electrocardiogram (ECG) sensor data and supporting this hypothesis through a clinical study conducted using ECG readings from a commercially available device, the Zephyr BioHarness 3).

Reporting Act (FCRA),[34] are currently unprepared to address these new challenges.

Subpart II(B) considers the privacy problems of these new technologies. The technical challenge here is that Internet of Things sensor data are particularly difficult to de-identify or anonymize. The sensors in Internet of Things devices often have entirely unique "fingerprints"—each digital camera, for example, has its own signature imperfections and irregularities.[35] Moreover, even when identifying characteristics such as name, address, or telephone number are removed from Internet of Things datasets, such sensor data are particularly vulnerable to re-identification. A recent MIT study showed, for example, that it is far easier than expected to re-identify "anonymized" cell-phone users, and other computer-science work has likewise shown that Internet of Things sensor devices are particularly prone to such attacks.[36] Unfortunately, privacy law is not prepared to deal with this threat of easy re-identification of Internet of Things information and instead relies on the outdated assumption that one can usefully distinguish between "personally identifiable information" and de-identified sensor or biometric data. Subpart II(B) shows that this may no longer be viable on the Internet of Things.

Subpart II(C) then turns to the unique data-security problems posed by the Internet of Things. The technical challenge is simple: many Internet of Things products have not been engineered to protect data security. These devices are often created by consumer-goods manufacturers, not computer software or hardware firms. As a result, data security may not be top of mind for current Internet of Things manufacturers. In addition, the small form factor and low power and computational capacity of many of these Internet of Things devices makes adding encryption or other security measures difficult. Recent attacks—such as a November 2013 attack that took control of over 100,000 Internet of Things web cameras, appliances, and other devices[37]—highlight the problem. Data-security researchers have found vulnerabilities in Fitbit fitness trackers, Internet-connected insulin pumps, automobile sensors, and other products.[38] Unfortunately, both current FTC enforcement practices and state data-breach notification laws are unprepared to address Internet of Things security problems. In particular, were Fitbit, Nike+ FuelBand, Nest Thermostat, or any other Internet of Things manufacturers to have users' sensitive sensor data stolen, *no* existing state data-

34. Fair Credit Reporting Act, 15 U.S.C. § 1681 (2012).

35. *See infra* note 268.

36. *See infra* notes 271–74 and accompanying text.

37. *See infra* notes 291–92 and accompanying text.

38. *See infra* section II(C)(1).

breach notification law would currently require public disclosure or remedy of such a breach.[39]

Next, subpart II(D) considers the ways in which consumer protection law is also unprepared for the Internet of Things. In particular, I present the first survey in the legal literature of Internet of Things privacy policies and show the ways in which such policies currently fail consumers.[40] Internet of Things devices generally have no screen or keyboard, and thus giving consumers data and privacy information and an opportunity to consent is particularly challenging. Current Internet of Things products often fail to notify consumers about how to find their relevant privacy policy, and once found, such policies are often confusing, incomplete, and misleading. My review shows that such policies rarely clarify who owns sensor data, exactly what biometric or other sensor data a device collects, how such data are protected, and how such information can be sold or used. Both state and federal consumer protection law has not yet addressed these problems or the general issues that the Internet of Things creates for consumer consent.

Part II's focus on these four problems of discrimination, privacy, security, and consent concludes with a fairly dismal warning to regulators, legislators, privacy and consumer advocates, and corporate counsel: current discrimination, privacy, data security, and consumer protection law is unprepared for the Internet of Things, leaving consumers exposed in a host of ways as they begin to use these new devices. Absent regulatory action to reassure and protect consumers, the potential benefits of the Internet of Things may be eclipsed by these four serious problems.

Third, state and federal legislators and regulators should take four preliminary steps to begin to guide the Internet of Things. This argument—in Part III—is the Article's most difficult. I could easily prescribe a comprehensive new federal statute or the creation of a new oversight agency, but such approaches are simply implausible given current political realities. Vague prescriptions—such as calling for greater consumer procedural protections or due process—would also sound good without offering much immediate or practical progress. Yet real, operational prescriptions are challenging, in part because my goal in Part II is to provide a comprehensive map of the four major problems generated by the Internet of Things rather than focus on merely one aspect such as security or consent. Put simply, if Part II's description of the challenges we face is broad and accurate enough, proposing realistic prescriptions in Part III is necessarily daunting.

Nevertheless, Part III begins to lay out a regulatory blueprint for the Internet of Things. I take four prescriptive positions. First, new forms of discrimination will best be addressed through substantive restrictions on certain uses of data, not through promises to consumers of procedural due

39. *See infra* section II(C)(2).

40. *See infra* subpart II(D) and Appendix.

process. I therefore propose extending certain state laws that inhibit use of sensor data in certain contexts, such as statutes prohibiting insurers from conditioning insurance on access to automobile EDR data.[41] Although this approach is at odds with much information-privacy scholarship, I nevertheless argue that use constraints are necessary to prevent obnoxious discrimination on the Internet of Things. Second, biometric and other sensitive sensor data created by the Internet of Things should be considered potential personally identifiable information, even in supposedly de-identified forms. I show how regulators and corporate counsel should therefore reconsider the collection, storage, and use of such data.[42] Third, we should at least protect sensor-data security by broadening state data-breach notification laws to include such data within their scope and create substantive security guidelines for Internet of Things devices. Although regulators may currently lack legislative authority to strictly enforce such guidelines, they nevertheless can use their "soft" regulatory power to create industry consensus on best practices for Internet of Things security.[43] Finally, we should rigorously pursue Internet of Things firms for promulgating incomplete, confusing, and sometimes deceptive privacy policies, and provide regulatory guidance on best practices for securing meaningful consumer consent in this difficult context.[44] Having shown in Part II the many ways in which notice and choice is currently failing on the Internet of Things, I suggest several concrete privacy-policy changes for regulators and corporate counsel to take up.

I do not pretend that these steps will solve every problem created by the Internet of Things. I aim to begin a conversation that is already overdue. Although some privacy scholarship has mentioned the proliferation of sensors,[45] none has systematically explored both the problems and opportunities the Internet of Things creates.[46] Some have explored particular

41. *See infra* section III(A)(1).

42. *See infra* section III(A)(2).

43. *See infra* section III(A)(3).

44. *See infra* section III(A)(4).

45. *See, e.g.*, A. Michael Froomkin, *The Death of Privacy?*, 52 STAN. L. REV. 1461, 1475–76 (2000) (predicting that no place on earth will be free from surveillance and monitoring as sensors and databases continue to proliferate); Kevin Werbach, *Sensors and Sensibilities*, 28 CARDOZO L. REV. 2321, 2322–24 (2007) (focusing primarily on cameras and surveillance rather than other, commercially available sensors). Much scholarship focused on other privacy issues at least mentions sensors. *See, e.g.*, Neil M. Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934, 1936, 1940 (2013) (discussing government surveillance and the effects thereof on democratic society but also emphasizing that the Internet of Things will increasingly subject "previously unobservable activity to electronic measurement, observation, and control").

46. *See, e.g.*, Jerry Kang & Dana Cuff, *Pervasive Computing: Embedding the Public Sphere*, 62 WASH. & LEE L. REV. 93, 94–95 (2005) (endeavoring to examine the costs and benefits of pervasive computing—the ubiquitous overlay of computing elements onto physical and material environments—and doubting whether these costs and benefits have previously been adequately considered); Kang et al., *supra* note 31, at 812 (opining that the potential benefits of self-

contexts but not the complexity of the Internet of Things.[47] In a recent article, I highlighted the increased use of such sensor data without offering analysis of how to address its proliferation.[48] Even computer science is just beginning to focus on the problems created by widespread use of consumer sensor devices,[49] as are regulators—the FTC recently held its first workshop on the Internet of Things to solicit input on the privacy problems sensors create and how to address such issues.[50] This Article begins to fill this gap.

Before we begin, let me highlight four things I am *not* focused upon here. First, I am not talking about industrial or commercial sensors deployed in factories, warehouses, ports, or other workspaces that are designed to keep track of machinery and production. This is an important part of the Internet of Things, but this Article focuses primarily on consumer devices. Second, I am not talking in general about ambient sensor devices used in an environment to capture information about the use of that space, such as temperature sensors. Such ambient informatics also create difficult privacy and regulatory issues, but those are beyond our scope here. Third, I am not

---

surveillance data may be outweighed by "substantial privacy costs"); Jonathan Zittrain, *Privacy 2.0*, 2008 U. CHI. LEGAL F. 65, 65, 72 (2008) (emphasizing that existing analytical methods for addressing privacy threats do not adequately address the new species of threats created by the "generative Net"). Some forthcoming scholarship is beginning to focus more granularly on the Internet of Things. *See generally, e.g.*, John Gudgel, Objects of Concern? Risks, Rewards and Regulation in the "Internet of Things" (Apr. 29, 2014) (unpublished manuscript), http://ssrn.com/abstract=2430780, *archived at* http://perma.cc/CYU9-LFTK (addressing the costs and benefits of the Internet of Things, analyzing the policy implications thereof, and advocating for a flexible regulatory approach).

47. *See, e.g.*, Cheryl Dancey Balough, *Privacy Implications of Smart Meters*, 86 CHI.-KENT L. REV. 161, 165–74 (2013) (exploring the threats to privacy posed by smart grids and the communication of data between smart meters and electric utilities); Kevin L. Doran, *Privacy and Smart Grid: When Progress and Privacy Collide*, 41 U. TOL. L. REV. 909, 911–12 (2010) (examining the smart grid and related privacy concerns in regard to the Fourth Amendment and third-party doctrine); Karin Mika, *The Benefit of Adopting Comprehensive Standards of Monitoring Employee Technology Use in the Workplace*, CORNELL HR REV., Sept. 22, 2012, at 1, 1–2, http://www.cornellhrreview.org/wp-content/uploads/2012/09/Mika-Employer-Monitoring-2012.pdf, *archived at* http://perma.cc/934F-L8AF (considering electronic monitoring in an employer–employee relationship and proposing that employers devise effective policies that balance their interests against their employees' privacy interests); Patrick R. Mueller, Comment, *Every Time You Brake, Every Turn You Make—I'll Be Watching You: Protecting Driver Privacy in Event Data Recorder Information*, 2006 WIS. L. REV. 135, 138–39 (discussing event data recorders in vehicles and the lack of privacy protections for individuals and proposing a legislative solution).

48. *See* Scott R. Peppet, *Unraveling Privacy: The Personal Prospectus and the Threat of a Full-Disclosure Future*, 105 NW. U. L. REV. 1153, 1167–73 (2011) (providing examples of digital monitoring of data in "health care, equipment tracking, and employee monitoring").

49. *See, e.g.*, Andrew Raij et al., *Privacy Risks Emerging from the Adoption of Innocuous Wearable Sensors in the Mobile Environment*, *in* CHI 2011: PROCEEDINGS OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 11, 11 (2011) ("[L]ittle work has investigated the new privacy concerns that emerge from the disclosure of measurements collected by wearable sensors.").

50. *Internet of Things–Privacy and Security in a Connected World*, FED. TRADE COMMISSION, http://www.ftc.gov/news-events/events-calendar/2013/11/internet-things-privacy-security-connected-world, *archived at* http://perma.cc/GW2Y-2LEY.

talking about the government's use of sensor data and the constitutional issues that arise from such use. Future work will have to address how to deal with a governmental subpoena of Fitbit or whether the National Security Agency can or does track consumer sensor data.[51] Fourth, I am not talking about the privacy concerns that a sensor I am wearing might create for *you* as you interact with me. My sensor might sense and record your behavior, as when a cell phone's microphone records my speech but also yours, thus creating a privacy concern for you. Instead, here I focus on the issues raised for users themselves. Each of these other problems is a worthwhile topic for future work.

I. The Internet of Things

Microelectromechanical systems (MEMS) sensors translate physical phenomenon, such as movement, heat, pressure, or location, into digital information.[52] MEMS were developed in the 1980s, but in the last few years the cost of such sensors has dropped from twenty-five dollars to less than a dollar per unit.[53] These sensors are thus no longer the stuff of experimental laboratories; they are incorporated into consumer products available at scale. Some estimate that by 2025 over one *trillion* sensor-based devices will be connected to the Internet or each other.[54]

Part I aims to describe the Internet of Things technologies currently available to consumers. It overviews five types of Internet of Things devices: health and fitness sensors, automobile black boxes, home monitors and smart grid sensors, devices designed specifically for employee monitoring, and software applications that make use of the sensors within today's smartphones. Together, these consumer products fundamentally change our knowledge of self, other, and environment.

A. Health & Fitness Sensors

There are five basic types of personal health monitors, in order from least physically invasive to most invasive: (1) countertop devices (such as a blood-pressure monitor or weight scale); (2) wearable sensors (such as an

---

51. *See* Laura K. Donohue, *Technological Leap, Statutory Gap, and Constitutional Abyss: Remote Biometric Identification Comes of Age*, 97 MINN. L. REV. 407, 556 (2012) (criticizing the inadequacy of current statutory and jurisprudential frameworks for evaluating government biometric-identification initiatives).

52. A sensor is defined as "a device that receives a stimulus and responds with an electrical signal." JACOB FRADEN, HANDBOOK OF MODERN SENSORS 2 (4th ed. 2010) (emphasis omitted).

53. Alexander Wolfe, *Little MEMS Sensors Make Big Data Sing*, ORACLE *VOICE*, FORBES (June 10, 2013, 10:26 AM), http://www.forbes.com/sites/oracle/2013/06/10/little-mems-sensors-make-big-data-sing/2/, *archived at* http://perma.cc/7S6E-HQL7.

54. Bill Wasik, *In the Programmable World, All Our Objects Will Act as One*, WIRED, May 14, 2013, http://www.wired.com/2013/05/internet-of-things-2/all/, *archived at* http://perma.cc/8EM3-VKP9.

arm or wrist band); (3) intimate contact sensors (such as a patch or electronic tattoo); (4) ingestible sensors (such as an electronic pill); and (5) implantable sensors (such as a heart or blood health monitor).[55] Each is already deployed commercially, and the market for health and wellness sensors has exploded in the last twelve to eighteen months. Mobile health-care and medical app downloads are forecast to reach 142 million in 2016, up from 44 million in 2012,[56] creating a market worth $26 billion by 2017.[57] Almost 30 million wireless, wearable health devices—such as Fitbit or Nike+ FuelBand—were sold in 2012, and that figure was expected to increase to 48 million in 2013.[58]

1. Countertop Devices.—Countertop devices include weight scales, blood-pressure monitors, and other products meant to be used occasionally to track some aspect of health or fitness. The Aria and Withings scales, for example, are Wi-Fi-enabled smart scales that can track weight, body fat percentage, and Body Mass Index.[59] Each can automatically send you your weight-loss progress.[60] Withings similarly manufactures a blood-pressure cuff that synchronizes with a smartphone.[61] The software application accompanying the device graphs your blood pressure over time and can e-mail results to you or your physician.[62] Similarly, the iBGStar blood glucose monitor connects to an iPhone to track blood sugar levels over time,[63] and

55. *See* D. Konstantas, *An Overview of Wearable and Implantable Medical Sensors*, *in* IMIA YEARBOOK OF MEDICAL INFORMATICS 2007: BIOMEDICAL INFORMATICS FOR SUSTAINABLE HEALTH SYSTEMS 66, 67–69 (A. Geissbuhler et al. eds., 2007) (describing sensor-filled clothing, patch sensors, and implantable sensors); George Skidmore, *Ingestible, Implantable, or Intimate Contact: How Will You Take Your Microscale Body Sensors?*, SINGULARITYHUB (May 13, 2013, 8:43 AM), http://singularityhub.com/2013/05/13/ingestible-implantable-or-intimate-contact-how-will-you-take-your-microscale-body-sensors/, *archived at* http://perma.cc/6SCJ-H986 (cataloging the various uses and methodologies of implantable, ingestible, and intimate contact sensors).

56. Press Release, Juniper Research, Mobile Healthcare and Medical App Downloads to Reach 44 Million Next Year, Rising to 142 Million in 2016 (Nov. 29, 2011), *available at* http://www.juniperresearch.com/viewpressrelease.php?pr=275, *archived at* http://perma.cc/B92A-WLDP.

57. Ralf-Gordon Jahns, *The Market for mHealth App Services Will Reach $26 Billion by 2017*, RESEARCH2GUIDANCE (Mar. 7, 2013), http://research2guidance.com/the-market-for-mhealth-app-services-will-reach-26-billion-by-2017/, *archived at* http://perma.cc/4ZZJ-E3VX.

58. Michael Yang, *For the Wearable Tech Market to Thrive, It Needs to Get in Better Shape*, GIGAOM (May 4, 2013, 12:00 PM), https://gigaom.com/2013/05/04/for-the-wearable-tech-market-to-thrive-it-needs-to-get-in-better-shape/, *archived at* http://perma.cc/3VJV-KCJJ (citing *Sports and Wellness Drive mHealth Device Shipments to Nearly 30 Million in 2012*, ABIRESEARCH, Dec. 7, 2012, https://www.abiresearch.com/press/sports-and-wellness-drive-mhealth-device-shipments, *archived at* http://perma.cc/6CUE-D3XG).

59. *Fitbit Aria*, FITBIT, http://www.fitbit.com/aria, *archived at* http://perma.cc/9ZVJ-F8SD; *Smart Body Analyzer*, WITHINGS, http://www.withings.com/us/smart-body-analyzer.html, *archived at* http://perma.cc/DA4A-J6D3.

60. *Fitbit Aria*, *supra* note 59; *Smart Body Analyzer*, *supra* note 59.

61. *Wireless Blood Pressure Monitor*, WITHINGS, http://www.withings.com/us/blood-pressure-monitor.html, *archived at* http://perma.cc/874Z-8H65.

62. *Id.*

63. *About iBGStar®*, iBGSTAR®, http://www.ibgstar.us/what-is-ibgstar.aspx, *archived at* http://perma.cc/8P4H-VNAB.

Johnson & Johnson's OneTouch Verio sensor can upload such data to an iPhone wirelessly over BlueTooth.[64] Likewise, the Propeller Health sensor-based asthma inhaler tracks the time and place you use your asthma medication and wirelessly sends that information to your smart-phone.[65] The accompanying application allows you to view your sensor data and create an asthma diary.[66]

Countertop devices are a fast growing and rapidly advancing product sector. For example, the Scanadu Scout is a small countertop device that a user briefly holds up to the forehead to take measurements.[67] It tracks vital signs such as heart rate, body temperature, oximetry (the oxygen in arterial blood), respiratory rate, blood pressure, electrocardiography (ECG), and emotional stress levels.[68] Such comprehensive home measurement was unthinkable even two years ago. Even more dramatic, Scanadu is developing a home urinalysis device—called the Scanadu Scanaflo—that measures "glucose, protein, leukocytes, nitrates, blood, bilirubin, urobilinogen, specific gravity, and pH in urine."[69] It can also test for pregnancy.[70] Again, such analysis is entirely novel for the home consumer market.

Sensor-laden countertop consumer products are becoming more diverse and creative as manufacturers invent new ways to capture data from the objects and environments with which we interact. Podimetrics has developed a sensor-driven floor mat that helps diabetic patients detect foot ulcers.[71] AdhereTech makes an Internet-enabled pill bottle that tracks how many pills remain in a prescription and how often a pill is removed, allowing the company to remind patients to take a pill on schedule.[72] The HAPIfork is a sensor-filled fork that monitors how much and how fast you eat.[73] In addition

---

64. *OneTouch® Verio® Sync™*, ONETOUCH®, http://www.onetouch.com/veriosync, *archived at* http://perma.cc/JXC6-PC8Y.

65. *Better Manage Your Asthma and COPD*, PROPELLER HEALTH, http://propellerhealth.com/solutions/patients/, *archived at* http://perma.cc/6AK6-YLG9.

66. *Id.*

67. *Scanadu Scout™*, SCANADU, https://www.scanadu.com/scout/, *archived at* http://perma.cc/LBG6-DZ53.

68. Nathan Hurst, *Scanadu Builds a $149 Personal Tricorder for Non-Trekkies*, WIRED, June 6, 2013, http://www.wired.com/2013/06/scanadu-scout/, *archived at* http://perma.cc/3KVC-D3RN.

69. Press Release, Scanadu, Scanadu Packs More Features Into Scanadu Scout™; Unveils Design For ScanaFlo™ (May 22, 2013), *available at* https://www.scanadu.com/pr/scanadu-packs-more-features-into-scanadu-scout-unveils-design-for-scanaflo/, *archived at* http://perma.cc/ST55-SX6Z.

70. *Id.*

71. Alice Waugh, *Idea Draws on Engineering and Business to Help Diabetics*, MIT NEWS (Jan. 20, 2012), http://newsoffice.mit.edu/2012/podimetrics-lgo-0120, *archived at* http://perma.cc/766-KCWF; *see also* PODIMETRICS, https://www.podimetrics.com/, *archived at* http://perma.cc/UA6R-29SD.

72. *Smart Wireless Pill Bottles*, ADHERETECH, http://www.adheretech.com, *archived at* http://perma.cc/Y3D3-YT4U.

73. *HAPIfork*, HAPI.COM, http://www.hapi.com/product/hapifork, *archived at* http://perma.cc/

to uploading its data to a computer or smartphone app, the fork's indicator lights will flash to warn you that you are eating too quickly.[74] Finally, after your meal you can brush with the Beam Brush, which wirelessly connects to a user's smartphone to record the date, time, and duration of "brushing events."[75]

2. Wearable Sensors.—Wearable sensors have also proliferated in the last eighteen months. As indicated, consumers have purchased tens of millions of these devices in the last few years.[76] Many—such as the Fitbit, Nike+ FuelBand, and BodyMedia FIT Armband—are electronic pedometers that track number of steps taken each day, distance walked, and calories burned.[77] Some wearable fitness devices also track other information, such as minutes asleep and quality of sleep,[78] heart rate, perspiration, skin temperature,[79] and even breathing patterns.[80] The FINIS Swimsense tracks what swim stroke you are doing as well as distance swum, speed, and calories burned.[81] Not all inhabit the wrist or arm: Valencell PerformTekfitness devices pack a variety of sensors into a set of earbud headphones,[82] the Pulse is a ring that tracks heart rate,[83] and the Lumo Back posture sensor is a strap worn around the lower back.[84]

Various companies have developed bio-tracking clothing with sensors embedded in the fabric.[85] Such sensor-laden clothing has both fitness and

---

W3S3-7KBK.

74. *Id.*

75. Eliza Strickland, *Review: Beam Toothbrush*, IEEE SPECTRUM, Jan. 30, 2013, http://spectrum.ieee.org/geek-life/tools-toys/review-beam-toothbrush, *archived at* http://perma.cc/AD62-P5H6.

76. *See supra* note 58 and accompanying text.

77. *The Fitbit Philosophy*, FITBIT, http://www.fitbit.com/story, *archived at* http://perma.cc/4ZFW-Y7VE; *Nike+ FuelBand SE*, NIKE, http://www.nike.com/us/en_us/c/nikeplus-fuelband, *archived at* http://perma.cc/ZZJ6-MEYM; *The Science*, BODYMEDIA®, http://www.bodymedia.com/the_science.html, *archived at* http://perma.cc/4PJ-TKJQ.

78. *Fitbit Flex*, FITBIT, http://www.fitbit.com/flex, *archived at* http://perma.cc/GBD2-ESFY.

79. *Peak™*, BASIS, https://www.mybasis.com/, *archived at* http://perma.cc/4LKF-XU5X.

80. SPIRE, www.spire.io, *archived at* http://perma.cc/K474-N6YY.

81. *Swimsense® Performance Monitor*, FINIS, http://www.finisinc.com/swimsense.html, *archived at* http://perma.cc/DDJ8-3343.

82. VALENCELL, http://www.performtek.com/, *archived at* http://perma.cc/JKF3-FLQV.

83. *Pulse*, ELECTRICFOXY, http://www.electricfoxy.com/pulse, *archived at* http://perma.cc/626L-F9XT.

84. *Lumo Back*, LUMO, http://www.lumoback.com/lumoback/, *archived at* http://perma.cc/7M6F-SNLC.

85. *E.g.*, AIQ SMART CLOTHING, http://www.aiqsmartclothing.com, *archived at* http://perma.cc/PS2V-BVSX (advertising development of smart-clothing products that integrate technology and textiles); Elizabeth Woyke, *AT&T Plans to Sell Health-Tracking Clothing*, FORBES (Oct. 28, 2011, 2:23 PM), http://www.forbes.com/sites/elizabethwoyke/2011/10/28/att-plans-to-sell-health-tracking-clothing/, *archived at* http://perma.cc/S7V7-HUD5 (describing clothing developed by AT&T that will track "heart rate, body temperature and other vital signs").

medical applications; some is designed to measure athletic activity. The Electricfoxy Move shirt, for example, contains four embedded stretch-and-bend sensors to monitor movement and provide real-time feedback about yoga poses, Pilates stretches, golf swings, or dance moves.[86] Nike+ sensor-filled shoes can measure running and walking data as well as the height achieved during a basketball dunk.[87] Other products have medical applications. The iTBra, for example, contains integrated sensors in the bra's support cups that monitor slight variations in skin temperature that can provide very early indications of breast cancer.[88] Finally, Sensoria's Fitness smart socks can track not just how far or fast you run, but your running form and technique in order to avoid or diagnose injuries.[89]

Wearable fitness sensors are moving well beyond mere pedometry. The Amiigo wristband, for example, can detect different types of physical activity (e.g., jumping jacks, bicep curls, or jogging) and measure the number of repetitions performed or distances covered.[90] The LIT tracker can measure paddles made in a canoe, jumps made during a basketball game, G-forces incurred during a ski jump, or effort expended surfing.[91] The Atlas tracker can measure heart rate and activity levels for almost any exercise, including swimming (it can distinguish between different strokes); running; weight lifting; pushups; sit-ups; and rock climbing.[92]

3. Intimate Contact Sensors.—Related to wearables but sufficiently distinct to deserve special treatment, intimate contact sensors are devices embedded in bandages, medical tape, patches, or tattoos worn on the skin. Sometimes called "epidermal electronics," these sensors are currently more medical in nature than fitness-oriented. For example, in November 2012, the Food and Drug Administration (FDA) approved the Raiing Wireless

86. *Move*, ELECTRICFOXY, http://www.electricfoxy.com/move/, *archived at* http://perma.cc/G4E-6ANP.

87. *Nike+ Basketball*, NIKE, https://secure-nikeplus.nike.com/plus/products/basketball, *archived at* http://perma.cc/TZ9A-2WCK.

88. CYRCADIA HEALTH, http://cyrcadiahealth.com/, *archived at* http://perma.cc/EG6E-MUYA.

89. *Sensoria Fitness Socks*, SENSORIA FITNESS, http://store.sensoriafitness.com/sensoria-fitness-anklet-and-one-pair-of-socks, *archived at* http://perma.cc/NN48-LV9X.

90. *Can Amiigo Track My _____ ?*, AMIIGO, http://updates.amiigo.co/post/84680379473/can-amiigo-track-my, *archived at* http://perma.cc/M8W7-C4YZ.

91. Zach Honig, *NZN Labs Launches Lit, a Social-Enhanced Fitness Tracker for Adventurous Types*, ENGADGET (Apr. 2, 2013, 3:00 PM), http://www.engadget.com/2013/04/02/lit-fitness-tracker/, *archived at* http://perma.cc/759S-9D4N; *see also LIT: An Activity Tracker Ready for Action*, INDIEGOGO, https://www.indiegogo.com/projects/lit-an-activity-tracker-ready-for-action, *archived at* http://perma.cc/ND8D-N38V.

92. ATLAS, http://atlaswearables.com, *archived at* http://perma.cc/3T8E-LTN2; *see also* Brandon Ambrosino, *With Atlas, JHU Alum Poised to Make Big Splash in Wearable Fitness Tracker Market*, HUB, JOHN HOPKINS U. (Jan. 27, 2014), http://hub.jhu.edu/2014/01/27/interview-atlas-peter-li, *archived at* http://perma.cc/7WA8-EVAY (emphasizing that the Atlas can identify and track specific exercises as opposed to general activity).

Thermometer, a peel-and-stick contact thermometer sensor that transmits real-time body temperature to a user's smartphone.[93] Similarly, MC10's Biostamp is a tiny, flexible prototype device that can be worn like a small Band-Aid.[94] It measures and transmits heart rate, brain activity, body temperature, hydration levels, and exposure to ultraviolet radiation.[95] Sano Intelligence is developing a patch to monitor the blood stream.[96] This sensor-filled transdermal patch can record glucose levels, kidney function, potassium levels, and electrolyte balance.[97] The Metria patch by Avery Dennison is a remote medical monitoring device that measures temperature, sleep, heart rate, steps taken, and respiration rates.[98]

4. Ingestible & Implantable Sensors.—Although they may sound overly like science fiction, ingestible and implantable sensors are also becoming a reality. Ingestible sensors include "smart pills," which contain tiny sensors designed to monitor inside the body. Given Imaging, for example, makes the PillCam—a pill-sized camera used to detect bleeding and other problems in the gastrointestinal tract[99]—as well as SmartPill—an ingestible capsule that measures pressure, pH levels, and temperature as it travels through the body.[100] More bizarre, perhaps, in July 2012 the FDA approved the Proteus Feedback System, a pill containing a digestible computer chip.[101] The sensor is powered by the body's stomach fluids and thus needs no battery or antenna.[102] A patch worn on the skin then captures data

---

93. Jonah Comstock, *FDA Clears iPhone-Enabled Body Thermometer*, MOBIHEALTHNEWS (Nov. 16, 2012), http://mobihealthnews.com/19110/fda-clears-iphone-enabled-body-thermometer/, *archived at* http://perma.cc/4NAA-MW2K; *see also iThermonitor*, RAIING, http://www.raiing.com/iThermonitor/, *archived at* http://perma.cc/6E7U-QWRS.

94. Sam Grobart, *MC10's BioStamp: The New Frontier of Medical Diagnostics*, BLOOMBERG BUSINESSWEEK, June 13, 2013, http://www.businessweek.com/articles/2013-06-13/mc10s-biostamp-the-new-frontier-of-medical-diagnostics, *archived at* http://perma.cc/7MHL-ZZDD; *see also Company Overview*, MC10, http://www.mc10inc.com/press-kit/, *archived at* http://perma.cc/A2P9-E6GQ.

95. Grobart, *supra* note 94.

96. Ariel Schwartz, *No More Needles: A Crazy New Patch Will Constantly Monitor Your Blood*, CO.EXIST, FAST COMPANY (June 19, 2012, 8:00 AM), http://www.fastcoexist.com/1680025/no-more-needles-a-crazy-new-patch-will-constantly-monitor-your-blood, *archived at* http://perma.cc/M7D2-YTY7.

97. *Id.*

98. *Metria™ Informed Health*, AVERY DENNISON, http://www.averydennison.com/en/home/technologies/creative-showcase/metria-wearable-sensor.html, *archived at* http://perma.cc/A5W7-R93J.

99. *PillCam Capsule Endoscopy*, GIVEN IMAGING, http://www.givenimaging.com/en-us/Innovative-Solutions/Capsule-Endoscopy/Pages/default.aspx, *archived at* http://perma.cc/TC97-3NZP.

100. *Motility Monitoring*, GIVEN IMAGING, http://givenimaging.com/en-us/Innovative-Solutions/Motility/SmartPill/Pages/default.aspx, *archived at* http://perma.cc/L8UJ-ZS4M.

101. *Digital Health Feedback System*, PROTEUS DIGITAL HEALTH, http://www.proteus.com/technology/digital-health-feedback-system/, *archived at* http://perma.cc/5UZR-7HGV.

102. *Id.*

from the pill to track whether and when the pill was ingested, which it then sends on wirelessly to the user's smartphone.[103] The goal is to embed such sensors into various types of medicines to monitor prescription compliance.

Implantable medical sensors are already being prescribed to monitor blood glucose, blood pressure, and heart function,[104] and newer implantable sensors are being developed to detect organ transplant rejection.[105] One compelling example is a sensor that is implanted in a patient's tooth and that can differentiate between eating, speaking, coughing, smoking, drinking, and breathing.[106] The device is fitted between two teeth or mounted on dentures or braces and can transmit information wirelessly to one's dentist to assess dental disease or unhealthy habits.[107]

Ingestible and implantable health and fitness sensors are at the cutting edge of current technology, but some estimate that within a decade up to a third of the U.S. population will have either a temporary or permanent implantable device inside their body.[108]

B. Automobile Sensors

Sensors have also become pervasive in the automotive context. Consider three types of automobile sensors that collect enormous amounts of data about drivers: EDRs, consumer automobile sensor products, and auto-insurance telematics devices.

1. Event Data Recorders.—The NHTSA estimates that over 96% of 2013 vehicles—and most cars sold in the United States in the last twenty years—contain EDRs.[109] The NHTSA requires that EDRs collect fifteen types of sensor-based information about a car's condition, including braking status, vehicle speed, accelerator position, engine revolutions per minute, safety-belt usage, air-bag deployment, and number and timing of crash

---

103. *Id.*

104. *E.g.*, *Getting an Insertable Cardiac Monitor*, MEDTRONIC, http://www.medtronic.com/patients/fainting/getting-a-device/index.htm, *archived at* http://perma.cc/8REJ-DL5Y (providing medical information on, and testimonials about, subdermal cardiac monitors).

105. *Transplant Rejection Sensor Paves Way for Body-Integrated Electronics*, ENGINEER, July 11, 2013, http://www.theengineer.co.uk/medical-and-healthcare/news/transplant-rejection-sensor-paves-way-for-body-integrated-electronics/1016483.article, *archived at* http://perma.cc/8W3-4W3R.

106. Ross Brooks, *Tooth-Embedded Sensor Relays Eating Habits to the Dentist*, PSFK (July 30, 2013), http://www.psfk.com/2013/07/tooth-sensor-track-eating-habits.html, *archived at* http://perma.cc/EVM4-FV6D.

107. *Id.*

108. Cadie Thompson, *The Future of Medicine Means Part Human, Part Computer*, CNBC (Dec. 24, 2013, 8:00 AM), http://www.cnbc.com/id/101293979, *archived at* http://perma.cc/VQV3-VD82.

109. *See supra* note 22 and accompanying text.

events.[110] The NHTSA requires that EDRs store such information for thirty seconds after a triggering impact, thus providing a composite picture of a car's status during any crash or incident.[111] The NHTSA places no limits on the types of data that can be collected, nor does it specify who owns these data or whether such data can be retained and used by third parties.[112] A manufacturer can thus choose to include additional types of information, such as driver steering input, antilock-brake activity, seat positions for driver and passenger, occupant size or position, vehicle location, phone or radio use, navigation-system use, or other aspects of the car's condition.

2. Consumer Automobile Sensors.—In addition to EDRs, various consumer devices allow a driver to access her car's digital information via a smartphone. The leading example is the Automatic Link—a small Bluetooth device that connects to a car's OBD-II port.[113] Described as a "FitBit for your car," the Automatic syncs information to a smartphone to monitor both the car's health and the user's driving habits.[114] The Automatic tracks such variables as whether the driver brakes suddenly, is speeding, or accelerates rapidly—all in the name of helping the driver improve fuel efficiency.[115] It also tracks and records location so as to provide feedback on how much driving you do per week, where, and when.[116] All such information is stored in the cloud on Automatic's servers.[117] The system can be set to automatically call for help in the event of a crash and to e-mail you when your engine needs maintenance.[118]

Much of the same functionality can be had just from the sensors already in a driver's smartphone. Zendrive, for example, is an iPhone application that helps drivers track their driving, providing feedback on driving technique, tips to avoid traffic, and information on nearby attractions.[119]

---

110. 49 C.F.R. §§ 563.6–.7 (2013).

111. *See id.* § 563.11(a).

112. *See id.* (disclosing that some parties, such as law enforcement, may use EDR data, but making no mention regarding who owns EDR data).

113. AUTOMATIC™, https://www.automatic.com/, *archived at* http://perma.cc/4NMD-6NZR.

114. Jamie Todd Rubin, *Testing Automatic Link, the FitBit for Your Car*, DAILY BEAST (July 8, 2014), http://www.thedailybeast.com/articles/2014/07/08/testing-automatic-link-the-fitbit-for-your-car.html, *archived at* http://perma.cc/KRN7-AEVX.

115. AUTOMATIC™, *supra* note 113.

116. *Id.*

117. *Legal Information*, AUTOMATIC™, https://www.automatic.com/legal/, *archived at* http://perma.cc/324H-FFG3.

118. AUTOMATIC™, *supra* note 113. The Dash is a similar device. DASH, http://dash.by, *archived at* http://perma.cc/4F43-CN2E. Similarly, the Mojio is a prototype Internet-connected car monitoring sensor that can alert a user if their car has been damaged, stolen, towed, or needs service. MOJIO, http://www.moj.io, *archived at* http://perma.cc/S7FG-68B4.

119. *Zendrive Seed Funding*, ZENDRIVE BLOG (Aug. 29, 2013), http://zendriveblog.tumblr.com/post/59408227794/zendrive-seed-funding-08-29-13-at-facebook-and, *archived at* http://per

Likewise, DriveScribe is an app designed to help parents and insurers monitor teenage driving habits through the sensor data created by a driver's smartphone.[120] The app can be set to block texting and calling on the teenager's phone while driving, as well as to send an e-mail or text message to a parent with updates on the teenager's driving performance.[121] It records the time, length, and location of every trip; average speed and speed at any point during the trip; and descriptions of any moving violations (e.g., speeding or other detectable infractions, such as failing to obey a stop sign).[122]

These consumer devices differ in important ways from the EDR already in most vehicles. First, an EDR typically can record and store only a few seconds of data—enough to assist with crash diagnostics, but not enough to track a vehicle's location or a driver's performance over time. Consumer smartphone-connected (or smartphone-based) apps record much more information and store it longitudinally. Second, an EDR stores its limited information in the car on the device itself. Consumer driving monitors and smartphone apps transmit such information to the device's manufacturer and often store such information in the cloud. Third, obviously the notice involved to consumers differs. Many consumers may be unaware that their vehicle contains an EDR, which may be mentioned only in the owner's manual.[123] Presumably consumers are aware, however, when they install a consumer sensor device in their car or a car-tracking app on their smartphone.

3. Auto-Insurance Telematics Devices.—Finally, a third type of automobile sensor device has become increasingly popular: insurance telematics devices. These products are given to consumers by automobile insurers to track consumer driving behavior and offer discounts on insurance premiums based on driving behavior.[124]

---

ma.cc/5MHH-TX2Q; *see also* ZENDRIVE, http://www.zendrive.com, *archived at* http://perma.cc/XR63-ZYN3.

120. DRIVESCRIBE, http://www.drivescribe.com, *archived at* http://perma.cc/6NMV-F4CM.

121. *Keeping Teens Safe*, DRIVESCRIBE, http://drivescribe.com/parents, *archived at* http://perma.cc/VC5C-MKLC.

122. *Driver Performance*, DRIVESCRIBE, http://drivescribe.com/driver-performance/, *archived at* http://perma.cc/3AFU-FK26.

123. 49 C.F.R. § 563.11(a) (2013).

124. Bill Kenealy, *Wireless Sensors Provide Underwriters with Expanded Data*, BUS. INS. (Jan. 13, 2013, 6:00 AM), http://www.businessinsurance.com/article/20130113/NEWS04/301139980, *archived at* http://perma.cc/7ES8-TB2Y (emphasizing that insurance telematics devices allow automobile insurers to tailor rates to individual policyholders based on their individual behavior rather than generalized assumptions). These categories have begun to blur. In September 2014, Progressive announced a partnership with Zubie, the manufacturer of a consumer automobile tracking device, whereby Zubie customers will be able to see how Progressive would insure them based on data Zubie has collected. Stacey Higginbothham, *Connected Car Company Zubie Signs*

The most well-known telematics device in the United States is probably the Progressive Snapshot.[125] Progressive provides the Snapshot device to insureds, who connect it to their vehicles. The Snapshot device collects information on vehicle speed, time of day, miles driven, and frequency of hard braking.[126] It does not collect information on driver identity.[127] After thirty days of data collection, the data are used to calculate a "Snapshot score" for that vehicle (or driver), which is then used as one factor in determining the applicable insurance premium.[128] Snapshot then continues to collect data for another five months to set the ongoing renewal discount for that policy.[129] According to Progressive's privacy policy, Snapshot data are not used to resolve insurance claims without the user's consent.[130]

Snapshot and other usage-based devices have grown in popularity, but enrollment remains low as a percentage of the total insurance industry. Overall, roughly three percent of insureds use a telematics device, although roughly ten percent of Progressive's customer portfolio uses Snapshot.[131] Insurance executives continue to look for marketing approaches to reassure consumers about privacy concerns.[132] Some have expressed concern that manufacturers of consumer automobile telematics systems may not be disclosing sufficient information about the data collected or the ways such data are used.[133] However, industry generally minimizes concerns about privacy, equity, and discrimination. Instead, industry commentators tout the benefits of more accurate pricing[134]—and even of the changes that

---

Deal with Progressive, GIGAOM (Sept. 4, 2014, 6:30 AM), https://gigaom.com/2014/09/04/connected-car-company-zubie-signs-deal-with-progressive/, *archived at* http://perma.cc/5RWV-PLSR.

125. *Snapshot®*, PROGRESSIVE, http://www.progressive.com/auto/snapshot/, *archived at* http://perma.cc/U6PP-H5YV.

126. *Terms & Conditions for Snapshot®*, PROGRESSIVE, http://www.progressive.com/auto/snapshot-terms-conditions/, *archived at* http://perma.cc/V2ZV-ZWA6.

127. *See id.*

128. *Id.*

129. *Snapshot® Common Questions*, PROGRESSIVE, http://www.progressive.com/auto/snapshot-common-questions/, *archived at* http://perma.cc/C9JN-5NH3.

130. *Snapshot® Privacy Statement*, PROGRESSIVE, http://www.progressive.com/auto/snapshot-privacy-statement/, *archived at* http://perma.cc/K7ZM-2SRN.

131. Becky Yerak, *Motorists Tap the Brakes on Installing Data Devices for Insurance Companies*, CHI. TRIB., Sept. 15, 2013, http://articles.chicagotribune.com/2013-09-15/classified/ct-biz-0915—telematics-insure-20130915_1_insurance-companies-insurance-telematics-progressive-snapshot, *archived at* http://perma.cc/72WC-SS64.

132. *See id.* (stressing that actual adoption of automobile telematics devices is contingent on educating consumers about the boundaries and limits of data collection and disclosure).

133. *See generally* Francesca Svarcas, *Turning a New Leaf: A Privacy Analysis of Carwings Electric Vehicle Data Collection and Transmission*, 29 SANTA CLARA COMPUTER & HIGH TECH. L.J. 165 (2012) (scrutinizing Nissan's privacy practices regarding the telematics systems in Nissan LEAF vehicles).

134. *See, e.g.*, Lilia Filipova-Neumann & Peter Welzel, *Reducing Asymmetric Information in Insurance Markets: Cars with Black Boxes*, 27 TELEMATICS & INFORMATICS 394, 402 (2010) (concluding that the use of black box data to obtain "perfect information" on individual drivers would alleviate informational asymmetry and, with some restrictions, could result in a Pareto

individuals might make to their behavior because of increased monitoring.[135] Insurance-industry commentators speculate that the telematics revolution may spread from car insurance to health and life insurance.[136]

C. *Home & Electricity Sensors*

Internet of Things devices have entered the home as well. Consider two applications: the "smart home" of connected Internet of Things devices and the "smart grid" of sensor-based electricity monitors.

1. The Smart Home.—The phrase "Internet of Things" often conjures up images of a home full of connected, sensor-laden devices. As discussed above, sensor devices go far beyond such smart home appliances. Nevertheless, such home electronics are indeed one aspect of the proliferation of sensors.

There are many new consumer sensor devices available for home use. The most well-known may be the Nest thermostat. The Nest thermostat—recently acquired by Google in the first major Internet of Things acquisition[137]—tracks your behavior at home to set temperature more efficiently.[138] The thermostat accepts and records direct user input (e.g., to increase or decrease temperature) but also contains sensors to sense motion in a room, ambient light, room temperature, and humidity.[139] All such information is stored on Nest's cloud servers and can be accessed and controlled via a user's smartphone or other Internet-connected computer.[140]

---

improvement of overall welfare); Yuanshan Lee, *Applications of Sensing Technologies for the Insurance Industry*, *in* BUSINESS ASPECTS OF THE INTERNET OF THINGS 8, 8–9 (Florian Michahelles ed., 2008) (analyzing how the implementation of sensor-based technology could result in more accurate and personalized pay-as-you-drive premiums based on actual mileage rather than generalized mileage proxies).

135. *See* Anthony O'Donnell, *Will Data Proliferation Foster Insurer/Customer Collaboration on Underwriting?*, INS. & TECH., INFORMATIONWEEK (Nov. 19, 2010, 9:17 AM), http://www.insurancetech.com/business-intelligence/228300215, *archived at* http://perma.cc/9CVH-2UVG ("This new kind of data-driven transactional environment could also provide the incentive for individuals to act more virtuously.").

136. *See id.* ("Perhaps life and health insurance customers may similarly be motivated to enter into a kind of information transparency partnership whereby they enjoy better rates for demonstrating less risky behavior.").

137. Rolfe Winkler & Daisuke Wakabayashi, *Google to Buy Nest Labs for $3.2 Billion*, WALL ST. J., Jan. 13, 2014, http://online.wsj.com/news/articles/SB10001424052702303595404579318952802236612, *archived at* http://perma.cc/5T7W-2DNG.

138. *Life with Nest Thermostat*, NEST, https://nest.com/thermostat/life-with-nest-thermostat/, *archived at* http://perma.cc/L94A-Y63V.

139. *Explore Your Nest*, NEST, https://nest.com/thermostat/inside-and-out/#explore-your-nest, *archived at* http://perma.cc/QTX5-RRNM.

140. *What Does Nest Do with Private Data?*, NEST, http://support.nest.com/article/What-does-Nest-do-with-private-data, *archived at* http://perma.cc/K58S-RKVF.

Nest also makes a smoke and carbon monoxide detector with similar features.[141]

Beyond thermostats and smoke detectors, a variety of home appliances are increasingly Internet connected. The GE Brillion home oven, for example, reports its temperature, sends alerts, and can be turned on or controlled from a GE smartphone app.[142] More broadly, the DropTag sensor can detect if a package has been dropped or shaken during shipping;[143] a Twine sensor device can detect floods, leaks, opened doors, temperature, and other events in your home;[144] a Wattvision will record home energy-use patterns;[145] and a Wimoto Growmote will text you if your plants need watering.[146] Various firms are working to integrate such disparate sources of information onto software and hardware platforms. SmartThings, for example, consists of a processing hub that can connect to a variety of different home sensors, such as an open/shut sensor (to monitor doors and windows); a vibration sensor (to monitor knocking on the front door); a temperature sensor (to control a thermostat); a motion sensor; and a power-outlet monitor (to turn outlets on and off remotely).[147] Similarly, Belkin is developing a network of home devices to monitor home electricity and water usage and to allow consumer control over power outlets and home devices;[148] Sense has created the Mother line of motion and other sensors to track many aspects of daily life, including sleep, fitness, medication compliance, water usage, home temperature, and home security;[149] Revolv is a smart home hub designed to work with multiple brands of connected appliances;[150] and Quirky markets a line of smart home products designed by GE and other manufacturers to work

141. *Life With Nest Protect*, NEST, https://nest.com/smoke-co-alarm/life-with-nest-protect/, *archived at* http://perma.cc/5A8Y-MTFR.

142. *GE Brillion™ Connected Home FAQs*, GE APPLIANCES, http://www.geappliances.com/connected-home-smart-appliances/brillion-appliances-faqs.htm, *archived at* http://perma.cc/DN5S-UPTN.

143. Press Release, Cambridge Consultants, Delivering Peace of Mind (Feb. 6, 2013), *available at* http://www.cambridgeconsultants.com/news/pr/release/116/en, *archived at* http://perma.cc/Q3P3-D7SB.

144. *Twine*, SUPERMECHANICAL, http://www.supermechanical.com/twine/, *archived at* http://perma.cc/CVX8-S8MR.

145. *How It Works*, WATTVISION, http://www.wattvision.com/info/how_it_works, *archived at* http://perma.cc/3DY2-RYWV.

146. WIMOTO, http://www.wimoto.com, *archived at* http://perma.cc/YLY8-XWVT.

147. *SmartThings Hub*, SMARTTHINGS, https://shop.smartthings.com/#!/products/smartthings-hub, *archived at* http://perma.cc/323Z-SXHX; *see Things Shop*, SMARTTHINGS, https://shop.smartthings.com/#!/products, *archived at* http://perma.cc/U5RM-DQYC (listing various sensors and devices that may be connected to the SmartThings Hub and controlled by the app).

148. Press Release, HydroPoint Data Sys., Inc., HydroPoint Partners with Belkin to Introduce 360° Smart Water Management (Apr. 30, 2013), *available at* http://www.hydropoint.com/hydropoint-partners-with-belkin-to-introduce-360-smart-water-management/, *archived at* http://perma.cc/TV3R-WAPY.

149. *Mother*, SEN.SE, https://sen.se/store/mother/, *archived at* http://perma.cc/6EJ6-UVFQ.

150. REVOLV, http://revolv.com, *archived at* http://perma.cc/GNA2-WNLA.

together.[151] All of these consumer products aim to provide users with information about and control over home appliances. Along the way, they generate, transmit, and store a great deal of information about both a home and those within it.

2. The Smart Grid.—The home is increasingly monitored via sensors in a second way as well: the smart electricity grid. According to the U.S. Energy Information Administration, more than 36 million smart electricity meters were installed in the United States as of August 2012, covering roughly 25% of the U.S. electric market.[152] The smart grid such meters create promises huge energy efficiencies.[153]

At the same time, smart grid data provide an intimate look into one's home. Electricity usage can reveal when a person is or is not home; how often they cook, clean, shower, or watch television; how often they go on vacation; and how often they use exercise equipment. Computer-science research has even shown that one can determine—with 96% accuracy—exactly what program or movie someone is watching on television just by monitoring electrical signals emanating from the person's house.[154]

One can infer a great deal from such data, such as how affluent a person is, how diligent a person is about cleanliness or exercise, and even how depressed or sleep-deprived a person may be:

> For example: the homeowner tends to arrive home shortly after the bars close; the individual is a restless sleeper and is sleep deprived; the occupant leaves late for work; the homeowner often leaves appliances on while at work; the occupant rarely washes his/her clothes; the person leaves their children home alone; the occupant exercises infrequently.[155]

---

151. *Quirky + GE*, QUIRKY, https://www.quirky.com/shop/quirky-ge, *archived at* http://perma.cc/UW78-DUR3; *see* Steve Lohr, *Quirky to Create a Smart-Home Products Company*, N.Y. TIMES, June 22, 2014, http://www.nytimes.com/2014/06/23/technology/quirky-hopes-wink-will-speed-adoption-of-smart-home-products.html?_r=0, *archived at* http://perma.cc/5FZV-5HSC (detailing how Quirky has partnered with General Electric and other manufacturing firms to help ease these companies' entry into the smart home market).

152. *Smart Meter Deployments Continue to Rise*, TODAY IN ENERGY, U.S. ENERGY INFO. ADMIN. (Nov. 1, 2012), http://www.eia.gov/todayinenergy/detail.cfm?id=8590, *archived at* http://perma.cc/A87C-3MXN.

153. *See id.* (explaining how smart meters can provide real time prices to customers based on time-of-day options so that customers can shift their energy use to a time of day when demand and prices are lower).

154. *See* Miro Enev et al., *Televisions, Video Privacy, and Powerline Electromagnetic Interference*, *in* CCS'11: PROCEEDINGS OF THE 18TH ACM CONFERENCE ON COMPUTER & COMMUNICATIONS SECURITY 537, 538 (2011) (explaining how the authors matched fifteen-minute electromagnetic intereference measurements to a database of "1200 movie minutes 96% of the time").

155. Ann Cavoukian et al., *SmartPrivacy for the Smart Grid: Embedding Privacy into the Design of Electricity Conservation*, 3 IDENTITY INFO. SOC'Y 275, 284 (2010).

As with other forms of sensor data, such information could be of interest to insurance companies, employers, creditors, and law enforcement.[156] And it is very hard to opt out of the smart grid, because utility companies roll smart meters out to an entire geographic area.[157]

The European Data Protection Supervisor has warned that such monitors could lead to "massive collection of personal data" without much protection.[158] Similarly, the National Institute of Standards and Technology recently warned that:

> Personal energy consumption data . . . may reveal lifestyle information that could be of value to many entities, including vendors of a wide range of products and services. Vendors may purchase attribute lists for targeted sales and marketing campaigns that may not be welcomed . . . . Such profiling could extend to . . . employment selection, rental applications, and other situations that may not be welcomed by those targets.[159]

Nevertheless, only a few states have addressed how smart grid data can be used, how it should be secured, and what sorts of consent consumers should be required to provide for its use.[160] The California Public Utilities Commission and the National Institute of Standards and Technology collaborated on a report detailing the potential privacy problems with smart grid technology.[161] One state has required utility companies to secure a homeowner's express consent before installing a smart grid device,[162] and five states have enacted legislation allowing consumers to opt out of using smart grid technology.[163] Several states have also limited a utility company's ability to sell or share smart grid data with third parties.[164] To date, however, such regulation of the smart grid is inconsistent and scattered.

---

156. CYBER SECURITY WORKING GRP., NAT'L INST. OF STANDARDS AND TECH., NISTIR 7628, GUIDELINES FOR SMART GRID CYBER SECURITY: VOL. 2, PRIVACY AND THE SMART GRID 28 (Aug. 2010) [hereinafter PRIVACY AND THE SMART GRID].

157. *See* Balough, *supra* note 47, at 175 (explaining that utilities may cease servicing traditional meters altogether as new smart meters are issued across a utility provider's area of service).

158. *Executive Summary of the Opinion of the European Data Protection Supervisor on the Commission Recommendation on Preparations for the Roll-Out of Smart Metering Systems*, 2012 O.J. (C 335) 13, 14, *available at* http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012XX1101(06)&qid=1413041613906&from=EN, *archived at* http://perma.cc/M8QG-86N8.

159. PRIVACY AND THE SMART GRID, *supra* note 156, at 28.

160. *See id.* at 10 (reporting that most state utility commissions have not promulgated privacy policies regarding smart grid data collection).

161. *Id.* at 35–37.

162. N.H. REV. STAT. ANN. § 374:62(II)(a) (Supp. 2013).

163. *Id.* § 374:62(III); VT. STAT. ANN. tit. 30, § 2811(b)(2)–(3) (Supp. 2013); H.R. 4315, 97th Leg., Reg. Sess. (Mich. 2013); H.R. 5027, 2013 Gen. Assemb., Reg. Sess. (R.I. 2013); S. 7184, 235th Leg., Reg. Sess. (N.Y. 2012).

164. *See, e.g.*, CAL. PUB. UTIL. CODE § 8380(b), (e) (West 2013) (prohibiting utility companies from sharing a customer's electric or gas consumption to a third party unless the identifying information is removed or the customer consents); OKLA. STAT. ANN. tit. 17, §§ 710.4, 710.7 (West

D. Employee Sensors

Beyond the body, car, or home, sensors are also being deployed in the workplace, allowing new forms of employee monitoring and control. As in other contexts, workplace sensors create new streams of data about where employees are during the workday, what they are doing, how long their tasks take, and whether they comply with employment rules.

Consider a simple example. HyGreen is a hand-hygiene monitoring system to record all hand-hygiene events in a hospital and remind health-care workers to wash their hands.[165] The system consists of sink-top sensors that detect soap dispensing and hand washing. When a hand-hygiene event is recognized, the sensors read the employee's identification badge and wirelessly transmit a record of the employee's identity and the time and location of the hand-washing event.[166] If the employee has not washed her hands and approaches a patient's bed, another sensor on the bed registers that the employee is approaching and sends the employee's identification badge a warning signal, causing the badge to vibrate to remind the employee to wash.[167] The system tracks and stores all hand washing by employees around the clock.[168]

This is a direct and fairly obvious use of sensors to monitor employees and shape their behavior. Location and movement tracking is another relatively simple use. As one commentator recently noted:

> As Big Data becomes a fixture of office life, companies are turning to tracking devices to gather real-time information on how teams of employees work and interact. Sensors, worn on lanyards or placed on office furniture, record how often staffers get up from their desks, consult other teams and hold meetings.[169]

Supp. 2014) (prescribing standards to govern the access to and use of usage data from smart grid and smart meter technologies); H.R. 11-1191, 68th Gen. Assemb., 1st Reg. Sess. (Colo. 2011) (prohibiting clearinghouses from selling or providing customer consumer data or personally identifiable information without consent).

165. *Hand Hygiene Recording and Reminding System*, HYGREEN®, http://www.hygreen.com/, *archived at* http://perma.cc/5WK8-AZYM.

166. *HyGreen and Hand Hygiene: How It Works*, HYGREEN®, http://www.hygreen.com/HandHygieneMonitor/How.asp, *archived at* http://perma.cc/HU5B-5W9L.

167. *Id.*

168. Other hand-washing systems exist as well. *See, e.g.*, *MedSense*™, GENERAL SENSING, http://www.generalsensing.com, *archived at* http://perma.cc/4Y6H-ALRF (providing a hand-hygiene compliance and monitoring system similar to the HyGreen); *See What i^{M} Is All About*, INTELLIGENT^{M}, http://www.intelligentm.com, *archived at* http://perma.cc/FYQ4-T2FJ (offering a wristband providing similar functions to the MedSense and HyGreen). *See generally* Anemona Hartocollis, *With Money at Risk, Hospitals Push Staff to Wash Hands*, N.Y. TIMES, May 28, 2013, http://www.nytimes.com/2013/05/29/nyregion/hospitals-struggle-to-get-workers-to-wash-their-hands.html, *archived at* http://perma.cc/YL3Y-ZJ5S (chronicling the efforts of hospitals to improve hygiene compliance through the use of technology).

169. Rachel Emma Silverman, *Tracking Sensors Invade the Workplace*, WALL ST. J., Mar. 7, 2013, http://online.wsj.com/news/articles/SB10001424127887324034804578344303429080678, *archived at* http://perma.cc/9X3V-PMKR.

The Bank of America, for example, has used sensor badges to record call-center employees' movements and tone of voice throughout the day.[170]

Other examples of such relatively simple sensor systems include fleet tracking of company trucks or automobiles. For example, Cloud Your Car makes a small device that plugs into a car's cigarette lighter and contains a GPS tracker, cell connectivity, and a variety of accelerometer sensors.[171] It is designed to help business owners track their fleet of vehicles, as well as monitor employee driving behavior.[172] An employer can, for example, monitor fleet status and locations in real time, review route histories, and track employees' driving rankings and scores.[173] Similarly, GreenRoad manufactures fleet-tracking sensors designed to reduce accident, fuel, insurance, and maintenance costs by providing real-time driving and location information to employers.[174]

Sensors are being used to track more nuanced and abstract aspects of employee behavior as well. For example, Sociometric Solutions has deployed tracking devices for Bank of America, Steelcase, and Cubist Pharmaceuticals.[175] Employees wear a sensor-laden identification badge that contains a microphone, a Bluetooth transmitter, a motion sensor, and an infrared beam.[176] The microphone is not used to record the content of conversations, but instead to assess the tone of voice being used.[177] The higher the pitch or the faster the speech, the more excited or passionate the speaker.[178] Similarly, the infrared beam is used to determine how one user is positioned vis-à-vis another wearing a similar badge.[179] Those who generally have others facing them when speaking are inferred to be more dominant personalities.[180]

Such sensors allow for some amazing inferences. Combined with e-mail traffic data and survey results, one company found that more socially

---

170. *Id.*

171. *Fleet Management for Small Businesses*, CLOUD YOUR CAR, https://www.cloudyourcar.com/product/?lang=None, *archived at* http://perma.cc/A5EB-JFHU.

172. *Id.*

173. *Id.*

174. *GreenRoad Features*, GREENROAD™, http://greenroad.com/tour/features/, *archived at* http://perma.cc/US4Q-ECRP.

175. Vivian Giang, *Companies Are Putting Sensors on Employees to Track Their Every Move*, BUS. INSIDER (Mar. 14, 2013, 6:23 PM), http://www.businessinsider.com/tracking-employees-with-productivity-sensors-2013-3, *archived at* http://perma.cc/A9BM-AM8V.

176. *Id.* Hitachi has also developed a similar employee ID badge, the Hitachi Business Microscope, containing various sensors for nuanced monitoring of employee interactions and productivity. H. James Wilson, *Wearable Gadgets Transform How Companies Do Business*, WALL ST. J., Oct. 20, 2013, http://online.wsj.com/news/articles/SB10001424052702303796404579099203059125112, *archived at* http://perma.cc/X337-N3H9.

177. Giang, *supra* note 175.

178. *Id.*

179. *Id.*

180. *Id.*

engaged employees performed better, as opposed to employees that spent more time alone in their offices.[181] As a result, the employer set a daily afternoon coffee break—to encourage social interaction.[182] This relatively benign example may not cause alarm. Such data, however, are extremely telling: the CEO of Sociometric Solutions says that he can "divine from a worker's patterns of movement whether that employee is likely to leave the company, or score a promotion."[183] As MIT Professor Alex Pentland put it: "[w]e've been able to foretell, for example, which teams will win a business plan contest, solely on the basis of data collected from team members wearing badges at a cocktail reception."[184]

There has been relatively little discussion in the legal or business literatures about such sensor-based employee monitoring.[185] Some fear that consent in the employment context is difficult to assess and rarely truly consensual.[186] This potentially becomes more problematic as employers demand access to more intimate information about their employees. The British grocery store chain Tesco, for example, has required employees to wear armbands that measure their productivity.[187] These Motorola devices track how quickly employees unload and scan goods in Tesco's warehouse, as well as how often employees take breaks.[188]

E. Smartphone Sensors

Finally, the most ubiquitous new sensor technologies are those embedded in smartphones. Such phones now generally contain a compass (to detect physical orientation); accelerometer (to track the phone's movement in space); ambient light monitor (to adjust screen brightness); proximity sensor (to detect whether the phone is near your face); and gyroscope (to detect the phone's orientation vertically or horizontally), as

---

181. *See* Alex "Sandy" Pentland, *The New Science of Building Great Teams*, HARV. BUS. REV., Apr. 2012, at 60, 62 (concluding that communication patterns are "the most important predictor of a team's success").

182. *Id.*

183. Silverman, *supra* note 169.

184. Pentland, *supra* note 181, at 63.

185. *See, e.g.*, Mika, *supra* note 47, at 2 ("[A]n employer can monitor virtually everything and almost anything can be done with it."); Paul M. Secunda, *Privatizing Workplace Privacy*, 88 NOTRE DAME L. REV. 277, 281–82 (2012) (arguing that public-sector employees should enjoy greater privacy rights than private-sector employees).

186. *See, e.g.*, Adam D. Moore, *Employee Monitoring and Computer Technology: Evaluative Surveillance v. Privacy*, 10 BUS. ETHICS Q. 697, 701–02 (2000) (discussing how circumstances, such as job scarcity and high unemployment, create an environment wherein employees agree to employer monitoring more out of fear of adverse consequences than actual consent).

187. Claire Suddath, *Tesco Monitors Employees with Motorola Armbands*, BLOOMBERG BUSINESSWEEK, Feb. 13, 2013, http://www.businessweek.com/articles/2013-02-13/tesco-monitors-employees-with-motorola-arm-bands, *archived at* http://perma.cc/6J4K-697V.

188. *Id.*

well as GPS, a sensitive microphone, and multiple cameras.[189] Research is underway to further enhance smartphones to detect ultraviolet radiation levels (to help prevent skin cancer);[190] pollution levels (to help monitor one's environment);[191] and various indicators of health, activity, and well-being,[192] including sensors that can monitor blood alcohol levels and body fat.[193]

A great deal of information can be gleaned from a typical smartphone. For example, the RunKeeper and Strava applications use an iPhone's sensors and GPS to track running and cycling routes, speeds, and history.[194] The Instant Heart Rate app uses a smartphone's camera to detect a user's fingertip pulse.[195] The Argus and Moves apps track a user's fitness by using a phone's sensors to monitor steps taken, cycling distances, and calories expended, just like a dedicated fitness monitor such as Fitbit.[196]

More personal, perhaps, researchers are beginning to show that existing smartphone sensors can be used to infer a user's mood;[197] stress levels;[198]

---

189. David Nield, *Making Sense of Sensors: What You Don't Know Your Phone Knows About You*, TECHRADAR (Apr. 30, 2014), http://www.techradar.com/us/news/phone-and-communications/mobile-phones/sensory-overload-how-your-smartphone-is-becoming-part-of-you-1210244/1, *archived at* http://perma.cc/Z6EF-DGX7.

190. *See* Thomas Fahrni et al., *Sundroid: Solar Radiation Awareness with Smartphones*, *in* UBICOMP'11: PROCEEDINGS OF THE 2011 ACM CONFERENCE ON UBIQUITOUS COMPUTING 365, 367–70 (2011) (designing a "wearable system to measure solar radiation" using a smartphone and external sensor).

191. *See* DAVID HASENFRATZ ET AL., PARTICIPATORY AIR POLLUTION MONITORING USING SMARTPHONES (2012), *available at* http://research.microsoft.com/en-us/um/beijing/events/ms_ipsn12/papers/msipsn-hasenfratz.pdf, *archived at* http://perma.cc/JL22-Q7VM (designing a measurement system for participatory air-quality monitoring using a smartphone and external sensor).

192. *See* Sean T. Doherty & Paul Oh, *A Multi-Sensor Monitoring System of Human Physiology and Daily Activities*, 18 TELEMEDICINE AND E-HEALTH 185, 185 (2012) (combining smartphone GPS sensors with other physiological sensors to study "the effects of human geographies . . . on human physiology at a very fine spatial/temporal scale").

193. Andrew Ku, *Smartphones Spotted with Breathalyzer, Body Fat Sensors*, TOM'S HARDWARE (Mar. 2, 2012, 3:00 AM), http://www.tomshardware.com/news/NTTidocomo-smartphone-breathalyzer-weather-health,14863.html, *archived at* http://perma.cc/L63Q-QGW6.

194. *Features*, STRAVA, http://www.strava.com/features, *archived at* http://perma.cc/3P82-G3JM; RUNKEEPER, http://www.runkeeper.com, *archived at* http://perma.cc/48RD-7QSA.

195. *Instant Heart Rate*, AZUMIO, http://www.azumio.com/apps/heart-rate/, *archived at* http://perma.cc/DM6R-4WS3.

196. Roy Furchgott, *The Argus App Can Help to Keep You Fit*, N.Y. TIMES, July 23, 2013, http://www.nytimes.com/2013/07/25/technology/personaltech/the-argus-app-can-help-to-keep-you-fit.html?_r=0, *archived at* http://perma.cc/Q2DM-5FLY; MOVES, http://www.moves-app.com/, *archived at* http://perma.cc/7SXX-ZBVF.

197. Robert LiKamWa et al., *MoodScope: Building a Mood Sensor from Smartphone Usage Patterns*, *in* MOBISYS'13: PROCEEDINGS OF THE 11TH ANNUAL INTERNATIONAL CONFERENCE ON MOBILE SYSTEMS, APPLICATIONS, AND SERVICES 389, 400 (2013); *see also* ROBERT LIKAMWA ET AL., CAN YOUR SMARTPHONE INFER YOUR MOOD? 1 (2011), http://research.microsoft.com/en-us/um/redmond/events/phonesense2011/papers/MoodSense.pdf, *archived at* http://perma.cc/7K2E-Q36T (concluding that smartphone usage patterns reliably can be used to infer a user's mood).

198. *See* Amir Muaremi et al., *Towards Measuring Stress with Smartphones and Wearable Devices During Workday and Sleep*, 3 BIONANOSCIENCE 172, 174–78 (2013) (describing a process

personality type;[199] bipolar disorder;[200] demographics (e.g., gender, marital status, job status, age);[201] smoking habits;[202] overall well-being;[203] progression of Parkinson's disease;[204] sleep patterns;[205] happiness;[206] levels of exercise;[207] and types of physical activity or movement.[208] As evidence mounts of the many different inferences that smartphone sensors can support, researchers are beginning to imagine future phones that will be able to couple such sensor data with other information to understand even more about a user. One computer scientist has predicted that such next-generation devices

---

to infer a user's stress level using data collected from a wearable sensor, the smartphone's internal sensors, and a person's usage of the smartphone).

199. *See* Gokul Chittaranjan et al., *Who's Who with Big-Five: Analyzing and Classifying Personality Traits with Smartphones*, *in* ISWC 2011: 15TH ANNUAL INTERNATIONAL SYMPOSIUM ON WEARABLE COMPUTERS 29, 30 (2011) ("The personality of a user might also determine the kind of functionality that the individual is disposed to use on the phone.").

200. Agnes Grünerbl et al., *Towards Smart Phone Based Monitoring of Bipolar Disorder*, *in* MHEALTHSYS 2012: PROCEEDINGS OF THE SECOND ACM WORKSHOP ON MOBILE SYSTEMS, APPLICATIONS, AND SERVICES FOR HEALTHCARE, at art. 3 (2012).

201. *E.g.*, Erheng Zhong et al., *User Demographics Prediction Based on Mobile Data*, 9 PERVASIVE & MOBILE COMPUTING 823, 823–24 (2013) (discussing how demographic information may be predicted based on usage and sensor data gleaned from the user's smartphone).

202. *See* F. Joseph McClernon & Romit Roy Choudhury, *I Am Your Smartphone, and I Know You Are About to Smoke: The Application of Mobile Sensing and Computing Approaches to Smoking Research and Treatment*, 15 NICOTINE & TOBACCO RES. 1651, 1652 (2013) ("[M]any of the conditions antecedent to smoking exhibit a 'fingerprint' on multiple sensing dimensions, and hence can be detected by smartphones.").

203. *See* Nicholas D. Lane et al., *BeWell: Sensing Sleep, Physical Activities and Social Interactions to Promote Wellbeing*, 19 MOBILE NETWORKS & APPLICATIONS 345, 347–49 (2014) (describing how the BeWell+ app monitors everyday activity and calculates a user's "wellbeing scores" based on data gathered from the smartphone's sensors).

204. *See* Sinziana Mazilu et al., *Online Detection of Freezing of Gait with Smartphones and Machine Learning Techniques*, *in* 2012 6TH INTERNATIONAL CONFERENCE ON PERVASIVE COMPUTING TECHNOLOGIES FOR HEALTHCARE AND WORKSHOPS 123, 123–24 (2012) (proposing the use of smartphones' internal sensors to correct, alert, and treat a user's freezing of gait caused by Parkinson's Disease).

205. Zhenyu Chen et al., *Unobtrusive Sleep Monitoring Using Smartphones*, *in* 2013 7TH INTERNATIONAL CONFERENCE ON PERVASIVE COMPUTING TECHNOLOGIES FOR HEALTHCARE AND WORKSHOPS 145, 145 (2013).

206. *See* Andrey Bogomolov et al., *Happiness Recognition from Mobile Phone Data*, *in* SOCIALCOM 2013: ASE/IEEE INTERNATIONAL CONFERENCE ON SOCIAL COMPUTING 790, 790 (2013) (proposing the use of smartphone usage patterns, such as social interactions, to measure happiness rather than self-reported surveys).

207. *See* Muhammad Shoaib et al., *Towards Physical Activity Recognition Using Smartphone Sensors*, *in* UIC-ATC 2013: PROCEEDINGS OF 2013 IEEE 10TH INTERNATIONAL CONFERENCE ON UBIQUITOUS INTELLIGENCE & COMPUTING AND 2013 IEEE 10TH INTERNATIONAL CONFERENCE ON AUTONOMIC & TRUSTED COMPUTING 80, 80 (2013) (analyzing how a smartphone's accelerometer, gyroscope, and magnetometer can be used to collect data about a user's physical activities).

208. Alvina Anjum & Muhammad U. Ilyas, *Activity Recognition Using Smartphone Sensors*, *in* 2013 IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE (CCNC) 914, 918–19 (2013).

will be "cognitive phones."[209] Such a phone might be able to combine sensor-based indications of stress, for example, with information from one's calendar about what meeting or appointment caused the stress, information from other sensors about one's health, and location information about where you were at the time the stress occurred. Imagine that "the phone's calendar overlays a simple color code representing your stress levels so you can visually understand at a glance what events, people, and places in the past—and thus likely in the future—aren't good for your mental health."[210] As futuristic as this may sound, such devices are actually possible by combining different aspects of today's technology.

II. Four Problems

Part I provided a taxonomy of types of consumer devices—personal health monitors, automobile black boxes, home and appliance monitors, employee monitors, and smartphones—already contributing to the Internet of Things. These devices are currently generating reams of data about their users' activities, habits, preferences, personalities, and characteristics. Those data are intensely valuable. At the same time, the Internet of Things presents new and difficult issues. Put most simply, this much new, high-quality data cannot enter the economy without the potential for misuse. To reap the benefits of the Internet of Things, we must deal proactively with its likely harms.

This Part explores four problems: (1) the reality that Big Data analysis of the Internet of Things will likely lead to unexpected inferences that cross contexts in potentially unacceptable and discriminatory ways; (2) the near impossibility of perfectly de-identifying Internet of Things data to protect privacy; (3) the vulnerability of these consumer devices to hacking and other security breaches; and (4) the weakness of consumer sensor privacy policies and of notice and choice in this context in which small, often screenless devices may generate a great deal of invisible data. For each issue—discrimination, privacy, security, and consent—I consider not only the technical problems inherent in the Internet of Things but the ways in which existing law is unprepared to address those problems.

A. Discrimination

The first Internet of Things problem is the Achilles' heel of widespread sensor deployment: Internet of Things data will allow us to sort consumers more precisely than ever before, but such sorting can easily turn from relatively benign differentiation into new and invidious types of unwanted discrimination. This subpart explores both the technical and legal problems

209. Andew Campbell & Tanzeem Choudhury, *From Smart to Cognitive Phones*, IEEE PERVASIVE COMPUTING, July–Sept. 2012, at 7, 11.

210. *Id.*

of discrimination on the Internet of Things. The technical problem is simple: coupled with Big Data or machine learning analysis, massive amounts of sensor data from Internet of Things devices can give rise to unexpected inferences about individual consumers. Employers, insurers, lenders, and others may then make economically important decisions based on those inferences, without consumers or regulators having much understanding of that process. This could lead to new forms of illegal discrimination against those in protected classes such as race, age, or gender. More likely, it may create troublesome but hidden forms of economic discrimination based on Internet of Things data. Currently, both traditional discrimination law and information privacy law, such as the FCRA, are unprepared for such new forms of discriminatory decision making.

1. The Technical Problem: Sensor Fusion & Big Data Analytics May Mean That Everything Reveals Everything.—Consider an example. Imagine that a consumer uses a Fitbit fitness-tracking bracelet to monitor her fitness regime and overall health. In addition, she has an Internet-connected Aria scale—owned by Fitbit—that she uses to track her weight-loss progress. She has used these devices for several months, storing and viewing her information on Fitbit's web site. Our hypothetical consumer now decides to apply for a job—or a mortgage, loan, or insurance policy. During the application process her prospective employer interviews her and runs her through various tests, simulations, and other exercises to discern her experience, knowledge base, and ability to work well with others. As a final step in the hiring process, the employer asks for access to our candidate's Fitbit records from the previous three months.

Although this may seem outrageous, employers increasingly analyze various data about potential employees to discern who will be most productive, effective, or congenial. As one commentator recently put it: "[T]his . . . is the single biggest [Big Data] opportunity in business. If we can apply science to improving the selection, management, and alignment of people, the returns can be tremendous."[211] Such "talent analytics"[212] could increasingly incorporate sensor data from the Internet of Things. Employers have become more comfortable with using such devices as part of wellness programs.[213] Virgin Pulse, for example, offers a turnkey "pay-for-

211. Josh Bersin, *Big Data in Human Resources: Talent Analytics Comes of Age*, FORBES (Feb. 17, 2013, 8:00 PM), http://www.forbes.com/sites/joshbersin/2013/02/17/bigdata-in-human-resources-talent-analytics-comes-of-age/, *archived at* http://perma.cc/4R2A-LSMF.

212. *Id.*; *cf. Our Expertise*, EVOLV, http://www.evolv.net/expertise/, *archived at* http://perma.cc/E2T7-ZT3D (offering a human-resources predictive-analytics service to companies wishing to use big data to improve workforce hiring and productivity).

213. *See* Partrick J. Skerrett, *The Potential of Remote Health Monitoring at Work*, HBR BLOG NETWORK, HARV. BUS. REV. (Dec. 9, 2009, 2:34 PM), http://blogs.hbr.org/health-and-well-being/2009/12/the-potential-of-remote-health.html, *archived at* http://perma.cc/KX47-8CPN (tracking the positive trend of employers using Internet of Things data to track employees' health).

prevention" program to employers that integrates incentives with electronic pedometers, heart-rate monitors, and biometric tracking.[214] Some employers have also become more comfortable demanding such information from employees. In March 2013, for example, CVS Pharmacy announced that employees must submit information about their weight, body fat composition, and other personal health metrics on a monthly basis or pay a monthly fine.[215] It is not a big step to imagine employers incorporating such data into hiring as well.

Fitbit data could reveal a great deal to an employer. Impulsivity and the inability to delay gratification—both of which might be inferred from one's exercise habits—correlate with alcohol and drug abuse,[216] disordered eating behavior,[217] cigarette smoking,[218] higher credit-card debt,[219] and lower credit scores.[220] Lack of sleep—which a Fitbit tracks—has been linked to poor psychological well-being, health problems, poor cognitive performance, and negative emotions such as anger, depression, sadness, and fear.[221] Such information could tip the scales for or against our hypothetical candidate.

---

214. *See Our Wellness Solution*, VIRGIN PULSE, https://www.virginpulse.com/our-solution/our-wellness-solution, *archived at* http://perma.cc/P4WN-4SBZ (advertising a wellness program to companies that pairs wearable devices and mobile applications to track and improve employee health with a customizable incentives program).

215. Steve Osunsami, *CVS Pharmacy Wants Workers' Health Information, or They'll Pay a Fine*, ABC NEWS (Mar. 20, 2013, 7:43 AM), http://abcnews.go.com/blogs/health/2013/03/20/cvs-pharmacy-wants-workers-health-information-or-theyll-pay-a-fine, *archived at* http://perma.cc/VZ65-VNT8.

216. C.W. Lejuez et al., *Behavioral and Biological Indicators of Impulsivity in the Development of Alcohol Use, Problems, and Disorders*, 34 ALCOHOLISM: CLINICAL & EXPERIMENTAL RES. 1334, 1335 (2010).

217. Adrian Meule et al., *Enhanced Behavioral Inhibition in Restrained Eaters*, 12 EATING BEHAVIORS 152, 152–53 (2011).

218. *See* Nathasha R. Moallem & Lara A. Ray, *Dimensions of Impulsivity Among Heavy Drinkers, Smokers, and Heavy Drinking Smokers: Singular and Combined Effects*, 37 ADDICTIVE BEHAVIORS 871, 871 (2012) ("There has been much evidence that heavy drinkers . . . and smokers . . . have increased delay reward discounting, that is, impulsively choosing a smaller, immediate reward over a larger, delayed reward . . . ." (citations omitted)).

219. *See* Stephan Meier & Charles Sprenger, *Present-Biased Preferences and Credit Card Borrowing*, 2 AMER. ECON. J.: APPLIED ECONOMICS 193, 193, 195 (2010) (finding that individuals with a strong desire for immediate consumption consistently exhibit greater credit-card borrowing and have higher credit balances).

220. *See* Stephan Meier & Charles Sprenger, *Impatience and Credit Behavior: Evidence from a Field Experiment* 21 (Research Ctr. for Behavioral Econ. and Decision-Making, Fed. Reserve Bank of Bos., Paper No. 07-3, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=982398, *archived at* http://perma.cc/ZM9Q-LYTK ("[C]onfirming that more impatient individuals have lower credit scores . . . .").

221. *See, e.g.*, Seth Maxon, *How Sleep Deprivation Decays the Mind and Body*, ATLANTIC, Dec. 30, 2013, http://www.theatlantic.com/health/archive/2013/12/how-sleep-deprivation-decays-the-mind-and-body/282395/?single_page=true, *archived at* http://perma.cc/MQB5-U24S (discussing multiple studies documenting the adverse effects of sleep deprivation on physical and mental health); *Sleep, Performance, and Public Safety*, HEALTHYSLEEP, HARV. MED. SCH., http://healthysleep.med.harvard.edu/healthy/matters/consequences/sleep-performance-and-public-

The real issue, however, is not merely that an employer or other decision maker might demand access to such data. The technical problem created by the Internet of Things is that sensor data tend to combine in unexpected ways, giving rise to powerful inferences from seemingly innocuous data sources. Put simply, in a world of connected sensors, "everything may reveal everything." Sensor data are so rich, accurate, and fine-grained that data from any given sensor context may be valuable in a variety of—and perhaps all—other economic or information contexts.

Thus, an employer might not have to demand access to a candidate's Fitbit data. Individuals' driving data—from their EDR, after-market consumer automobile monitor, or insurance telematics device—could likewise give rise to powerful inferences about their personality and habits. Her electricity usage might similarly reveal much about her daily life, how late she typically arrived at home, and other traits that could be of interest. Her smartphone data could also be extremely revealing. As just one example of a surprising inference, research has shown that conversational patterns—listening, speaking, and quiet states—can be inferred from various types of sensors, including respiratory rates[222] and accelerometer data like that generated by a smartphone.[223] As discussed in subpart I(D), employers can learn a great deal about employees from such conversational information, even without recording audio of any kind.[224]

With so many potential data sources providing relevant information about a potential employee, an employer could turn to any number of commercial partners for information about that employee. One's mobile phone carrier, electric utility company, and auto insurer might have such useful information, as would the makers of the myriad Internet of Things products reviewed in Part I. The Internet has given rise to a massive infrastructure of data brokers that accumulate and track information about individuals. How long before they begin to incorporate the incredibly rich and revealing data from the Internet of Things?

The extent to which "everything reveals everything" is an empirical question, and one that my colleague Paul Ohm and I have begun to

---

safety, *archived at* http://perma.cc/D3KE-EXQ7 ("Sleep deprivation negatively impacts our mood, our ability to focus, and our ability to access higher-level cognitive functions.").

222. *See* Md. Mahbubur Rahman et al., *mConverse: Inferring Conversation Episodes from Respiratory Measurements Collected in the Field*, *in* WIRELESS HEALTH 2011, at art. 10 (2011) ("[T]his is the first work to show that inference of listening state is possible from respiration measurements.").

223. *See* Aleksandar Matic et al., *Speech Activity Detection Using Accelerometer*, *in* 34TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE MEDICINE AND BIOLOGY SOCIETY 2112, 2112 (2012) (measuring laryngeal vibrations with an accelerometer as a means of detecting speech patterns).

224. *Cf. id.* at 2114–15 (concluding that accelerometer data can provide information about a person's social activity without raising the privacy concerns associated with recording conversations).

investigate experimentally.[225] It may be that some natural constraints remain between information types or uses and that certain sensor data do *not* correlate with or predict certain economically valuable traits. Fitness may not predict creditworthiness; driving habits may not predict employability. We don't know for sure. There is reason to expect, however, that everything may reveal everything *enough* to justify real concern. Consider two arguments for this prediction.

First, computer scientists have long discussed the phenomenon of "sensor fusion." Sensor fusion is the combining of sensor data from different sources to create a resulting set of information that is better than if the information is used separately.[226] A classic example is the creation of stereoscopic vision—including depth information—by combining the images of two offset cameras. A new piece of information—about depth—can be inferred from the combination of two other pieces of data, neither of which independently contains that new information.

The principle of sensor fusion means that data gleaned from various small sensors can be combined to draw much more complex inferences than one might expect. Data from an accelerometer and a gyroscope—both of which measure simple movements—can be combined to infer a person's level of relaxation (based on whether their movements are steady and even or shaky and tense).[227] If one adds heart-rate sensor data, one can readily infer stress levels and emotions, because research has shown that heart-rate variations from physical exercise have a different pattern than increases due to excitation or emotion.[228] Similarly, one might infer emotion or mental state from a variety of other daily activities, such as the way a consumer holds a cell phone, how smoothly a person types a text message, or how shaky a person's hands are while holding their phone.[229] Again, sensor fusion allows

225. *See generally* Scott Peppet & Paul Ohm, The Discriminatory Inferences Project (June 6, 2014) (unpublished manuscript) (on file with author). That research was presented at the Seventh Annual Privacy Law Scholars Conference. *June 2014 Privacy Law Scholars Conference*, BERKELEYLAW, http://www.law.berkeley.edu/plsc.htm, *archived at* http://perma.cc/G2S9-MZRR.

226. *See, e.g.*, David L. Hall & James Llinas, *An Introduction to Multisensor Data Fusion*, 85 PROC. IEEE 6, 6 (1997) ("In addition to the statistical advantage gained by combining same-source data . . . , the use of multiple types of sensors may increase the accuracy with which a quantity can be observed and characterized."). Sensor fusion is a subset of the general idea of data fusion, by which data from different sources is combined to draw new, more powerful inferences. *See id.* at 14–17 (proposing three alternative data-fusion architectures that incorporate multisensory data in different ways); Richard Beckwith, *Designing for Ubiquity: The Perception of Privacy*, IEEE PERVASIVE COMPUTING, Apr.–June 2003, at 40, 43 ("Data from various sensors can be merged to yield second-order data . . . . It's difficult to imagine various uses for fused data when you don't even consider that a fusion could take place.").

227. KAIVAN KARIMI, THE ROLE OF SENSOR FUSION AND REMOTE EMOTIVE COMPUTING (REC) IN THE INTERNET OF THINGS 6–7 (2013), *available at* http://cache.freescale.com/files/32bit/doc/white_paper/SENFEIOTLFWP.pdf, *archived at* http://perma.cc/FP82-HK55.

228. *Id.* at 6.

229. *Id.* at 7.

such complex and unexpected inferences to be drawn from seemingly simple data sources. As consumers use devices with more and different types of sensors—from fitness trackers to automobiles, ovens to workplace identification badges—these sensor data will fuse to reveal more and different things about individuals' behaviors, habits, and future intentions.

Second, Internet of Things data are ripe for Big Data or machine learning analysis:

> Networked body-worn sensors and those embedded in mobile devices we carry (e.g., smartphones) can collect a variety of measurements about physical and physiological states, such as acceleration, respiration, and ECG. By applying sophisticated machine learning algorithms to these data, rich inferences can be made about the physiological, psychological, and behavioral states and activities of people. Example inferences include dietary habits, psychosocial stress, addictive behaviors (e.g., drinking), exposures to pollutants, social context, and movement patterns. . . .
>
> . . . Seemingly innocuous data shared for one purpose can be used to infer private activities and behaviors that the individual did not intend to share.[230]

Commercial firms are already applying Big Data techniques to Internet of Things data to produce such inferences.

Consider, for example, the credit industry. I have explored elsewhere the evolution of credit scoring in the Internet age,[231] but suffice to say that lenders continually expand the types of information they incorporate into credit assessments. Most recently, some lenders have included data from social networks, such as Facebook and LinkedIn, to gauge credit risk.[232] Neo Finance, for example, targets auto-loan borrowers and uses social networks to gauge a borrower's credit risk,[233] as does Lenddo, a microlender in Hong Kong that uses social-network density to make credit decisions.[234] Similarly,

---

230. Raij et al., *supra* note 49, at 11 (citations omitted).

231. *See* Peppet, *supra* note 48, 1163–64 (examining how credit companies, among other institutions, increasingly use the Internet to mine and aggregate data, profile consumers, and assess credit risk).

232. *See* Evelyn M. Rusli, *Bad Credit? Start Tweeting: Startups are Rethinking How to Measure Creditworthiness Beyond FICO*, WALL ST. J., Apr. 1, 2013, http://online.wsj.com/news/articles/SB10001424127887324883604578396852612756398, *archived at* http://perma.cc/5MJ5-TGDX (listing social-media factors considered by some lending companies); Evgeny Morozov, *Your Social Networking Credit Score*, SLATE (Jan. 30, 2013, 8:30 AM), http://www.slate.com/articles/technology/future_tense/2013/01/wonga_lenddo_lendup_big_data_and_social_networking_banking.html, *archived at* http://perma.cc/W5TW-4NXD (giving examples of various algorithms that use one's connections on social media as a factor in determining credit risk or worthiness).

233. Rusli, *supra* note 232 (detailing how Neo Finance analyzes customers' LinkedIn profiles when making loan decisions); *About*, NEO, https://neoverify.com/about, *archived at* http://perma.cc/U7LQ-3GNN.

234. *What Is Lenddo?*, LENDDO, https://www.lenddo.com/pages/what_is_lenddo/about, *archived at* http://perma.cc/7A2X-KTTC.

the start-up Kreditech examines over fifteen thousand data points to create an alternative to FICO scores. These include location data; social data (e.g., likes, friends, locations, posts); e-commerce shopping behavior; and device data (e.g., apps installed, operating systems installed).[235] Kreditech focuses on consumers in emerging markets where traditional credit scores do not exist.[236]

In keeping with this search for more nuanced and predictive data sources, lenders are beginning to experiment with incorporating Internet of Things sensor data into such decisions. Cell-phone data are an obvious first place to start. For example, Safaricom, Kenya's largest cell-phone operator, studies its mobile phone users to establish their trustworthiness. Based on how often its customers top up their airtime, for example, it may then decide to extend them credit.[237] Similarly, Cignifi uses the length, time of day, and location of cell calls to infer the lifestyle of smartphone users—and hence the reliability of those users—for loan applicants in the developing world.[238]

Sensor fusion and Big Data analysis combine to create the possibility that everything reveals everything on the Internet of Things. Although a consumer may use a Fitbit solely for wellness-related purposes, such data could easily help an insurer draw inferences about that consumer to set premiums more accurately (e.g., amount of exercise may influence health or life insurance, or amount and quality of sleep may influence auto insurance); aid a lender in assessing the consumer's creditworthiness (e.g., conscientious exercisers may be better credit risks); help an employer determine whom to hire (e.g., those with healthy personal habits may turn out to be more diligent employees); or even help a retailer price discriminate (e.g., those wearing a Fitbit may have higher incomes than those without). To the extent that context-violative data use breaks privacy norms—as Helen Nissenbaum and others have argued—consumer sensors will disrupt consumers'

235. *The KrediTechnology*, KREDITECH, http://www.kreditech.com/#kreditechnology, *archived at* http://perma.cc/K265-9JR6. Similarly, Wonga, based in London, examines between 6,000 and 8,000 data points about potential customers. William Shaw, *Cash Machine: Could Wonga Transform Personal Finance?*, WIRED, May 5, 2011, http://www.wired.co.uk/magazine/archive/2011/06/features/wonga, *archived at* http://perma.cc/6R2M-HZKE.

236. *The KrediTechnology*, *supra* note 235.

237. *See* ALICE T. LIU & MICHAEL K. MITHIKA, USAID, MOBILE BANKING–THE KEY TO BUILDING CREDIT HISTORY FOR THE POOR? 3 (2009), *available at* http://www.gsma.com/mobilefordevelopment/wpcontent/uploads/2012/03/mobile_banking_key_to_building_credit_history1.pdf, *archived at* http://perma.cc/6W9-L3PT (analyzing how M-PESA, Safaricom's mobile payment and mobile banking system, extends credit to users without formal banking or credit histories on the basis of mobile transactions and payment histories).

238. *How It Works*, CIGNIFI™, http://cignifi.com/en-us/technology, *archived at* http://perma.cc/G2WA-7PBW.

expectations.[239] This is Big Data at an entirely new scale, brought about by the proliferation of little sensors.[240]

2. The Legal Problem: Antidiscrimination and Credit Reporting Law Is Unprepared.—There are two main legal implications of the possibility that everything may begin to reveal everything. First, will the Internet of Things lead to new forms of discrimination against protected classes, such as race? Second, will the Internet of Things lead to troubling forms of economic discrimination or sorting?

a. Racial & Other Protected Class Discrimination.—If the Internet of Things creates many new data sources from which unexpected inferences can be drawn, and if those inferences are used by economic actors to make decisions, one can immediately see the possibility of seemingly innocuous data being used as a surrogate for racial or other forms of illegal discrimination. One might not know a credit applicant's race, but one might be able to guess that race based on where and how a person drives, where and how that person lives, or a variety of other habits, behaviors, and characteristics revealed by analysis of data from a myriad of Internet of Things devices. Similarly, it would not be surprising if various sensor devices—a Fitbit, heart-rate tracker, or driving sensor, for example—could easily discern a user's age, gender, or disabilities. If sensor fusion leads to a world in which "everything reveals everything," then many different types of devices may reveal sensitive personal characteristics. As a result, the Internet of Things may make possible new forms of obnoxious discrimination.

This is a novel problem and one that legal scholars are just beginning to recognize.[241] I am not convinced that the most blatant and obnoxious forms

---

239. Heather Patterson & Helen Nissenbaum, Context-Dependent Expectations of Privacy in Self-Generated Mobile Health Data 43–45 (June 6, 2013) (unpublished manuscript) (on file with author). That paper was presented at the Sixth Annual Privacy Law Scholars Conference. *June 2013 Privacy Law Scholars Conference*, BERKELEYLAW, http://www.law.berkeley.edu/14524.htm, *archived at* http://perma.cc/QDP2-SVDL.

240. *See generally* VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, BIG DATA: A REVOLUTION THAT WILL CHANGE HOW WE LIVE, WORK, AND THINK (2013) (exploring the growing predictive, analytic, and commercial role of large-scale data use in society).

241. *See, e.g.*, Omer Tene & Jules Polonetsky, *Judged by the Tin Man: Individual Rights in the Age of Big Data*, 11 J. ON TELECOMM. & HIGH TECH. L. 351, 358 (2013) (explaining that detecting discrimination based on Internet of Things data may be difficult since such discrimination may be based upon a large number of facially neutral factors). Some have argued that increased information about consumers may *dampen* discrimination against those in protected classes. Lior Strahilevitz is most known for taking this optimistic view that increased data flows will *curb* racial discrimination by allowing individuals and firms to discriminate for economically relevant reasons rather than using race, age, gender, or other protected classes as a discriminatory proxy. *See* Lior Jacob Strahilevitz, *Privacy Versus Antidiscrimination*, 75 U. CHI. L. REV. 363, 380 (2008) (supporting the publication of previously private information in an effort to discourage employers from using more subtle and unfavorable statistical discrimination techniques to avoid undesirable employees); Lior Jacob Strahilevitz, *Toward A Positive Theory of Privacy Law*, 126 HARV. L. REV.

of animus-based discrimination are likely to turn to Internet of Things data—if a decision maker wants to discriminate based on race, age, or gender, they likely can do so without the aid of such Internet of Things informational proxies. Nevertheless, the problem is worth considering because traditional antidiscrimination law is in some ways unprepared for these new forms of data.

Racial and other forms of discrimination are obviously illegal under Title VII.[242] Title I of the Americans with Disabilities Act (ADA) forbids discrimination against those with disabilities,[243] and the Genetic Information Nondiscrimination Act (GINA) bars discrimination based on genetic inheritance.[244] These traditional antidiscrimination laws leave room, however, for new forms of discrimination based on Internet of Things data. For example, nothing prevents discrimination based on a potential employee's health status, so long as the employee does not suffer from what the ADA would consider a disability.[245] Similarly, antidiscrimination law does not prevent economic sorting based on our personalities, habits, and character traits.[246] Employers are free not to hire those with personality traits they don't like; insurers are free to avoid insuring—or charge more to—those with risk preferences they find too expensive to insure; lenders are free to differentiate between borrowers with traits that suggest trustworthiness versus questionable character.[247]

As analysis reveals more and more correlations between Internet of Things data, however, this exception or loophole in antidiscrimination law may collapse under its own weight. A decision at least facially based on

---

2010, 2029 (2013) [hereinafter Strahilevitz, *Positive Theory*] ("[I] have argued that protecting privacy seems to thwart price and service discrimination while fostering statistical discrimination on the basis of race and gender . . . ."). *But see* Anita L. Allen, *Privacy Law: Positive Theory and Normative Practice*, 126 HARV. L. REV. F. 241, 245–46 (2013) (countering that even if increased information benefits some African Americans, such heavy surveillance might also create disproportionate burdens for African Americans as a group).

242. *See* 42 U.S.C. § 2000e–2(a) (2012) (prohibiting an employer from discriminating against prospective or current employees on the basis of "race, color, religion, sex, or national origin").

243. *Id.* § 12112(a).

244. *Id.* § 2000ff–4(a).

245. *See* Jessica L. Roberts, *Healthism and the Law of Employment Discrimination*, 99 IOWA L. REV. 571, 595–97 (2014) (analyzing whether being overweight or obese would qualify as an impairment protected under the ADA).

246. *See* Strahilevitz, *Postive Theory*, *supra* note 241, at 2024 ("Maybe the law's tolerance for personality discrimination ought to be questioned, but American antidiscrimination law presently does not regard that kind of question as close."). There is some debate about whether an employer conducting a personality test on a potential employee triggers the ADA's prohibition on pre-job-offer medical examinations. *See* Gregory R. Vetter, Comment, *Is a Personality Test a Pre-Job-Offer Medical Examination Under the ADA?*, 93 NW. U. L. REV. 597, 598–99 (1999) (noting that courts have inconsistently ruled on whether personality tests qualify as prohibited medical examinations under the ADA).

247. *See* Roberts, *supra* note 245, at 604–05 (comparing trait-based and conduct-based discrimination and explaining why the ADA covers the former but not the latter).

conduct—such as not to hire a particular employee because of her lack of exercise discipline—may systematically bias an employer against a certain group if that group does not or cannot engage in that conduct as much as others. Moreover, seemingly voluntary "conduct" may shade into an immutable trait depending on our understanding of genetic predisposition. Nicotine addiction and obesity, for example, may be less voluntary than biologically determined.[248] The level of detail provided by Internet of Things data will allow such fine-grained differentiation that it may easily begin to resemble illegal forms of discrimination. Currently, traditional antidiscrimination law has not yet considered these problems.

b. Economic Discrimination.—Even without the problem of race, age, or gender discrimination, using Internet of Things data to discriminate between—or "sort"—consumers is also potentially controversial. If widespread consumer sensor use leads to a world in which everything reveals everything, this will permit insurers, employers, lenders, and other economic actors to distinguish more finely between potential insureds, employees, and borrowers. From the perspective of economics, this may be beneficial. Put simply, more data will allow firms to separate pooling equilibria in insurance, lending, and employment markets, leading to efficiencies and increased social welfare.[249] From a legal or policy perspective, however, economic sorting is just not that simple. The public and its legislators tend to react strongly to forms of economic discrimination that economists view as relatively benign. For example, price discrimination—charging one consumer more for a good than another because of inferences about the first person's willingness or ability to pay—may be economically neutral or even efficient, but consumers react strongly against it.[250]

As indicated, traditional antidiscrimination law does not forbid differentiating between individuals on the basis of their behavior, personality, or conduct. That said, some constraints do exist on the use of Internet of Things data streams for such inferences and purposes. Most important, the FCRA

---

248. *See id.* at 614–15 (identifying research studies suggesting that obesity and nicotine addiction may not be exclusively voluntary traits).

249. *See* Strahilevitz, *Positive Theory*, *supra* note 241, at 2021 (illustrating how companies determine a person's credit risk or potential purchase decisions based on seemingly unrelated factors, such as whether the person has purchased felt pads for furniture).

250. *See, e.g.*, Alessandro Acquisti & Hal R. Varian, *Conditioning Prices on Purchase History*, 24 MARKETING SCI. 367, 367–68, 380 (2005) (discussing ways consumers seek to avoid a company tracking their purchase or behavioral history but concluding that, as transactions become increasingly computerized, the use of customers' behavioral or purchase data may increase consumer welfare); Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 996, 1026–27 (2014) (postulating that some consumers would incur additional transaction costs just to avoid disclosing behavioral or personal data to companies). *But see* Ariel Porat & Lior Jacob Strahilevitz, *Personalizing Default Rules and Disclosure with Big Data*, 112 MICH. L. REV. 1417, 1456 (2014) (suggesting that the effect of price discrimination on consumer welfare may be more ambiguous than indicated by some scholars).

establishes consumers' rights vis-à-vis credit reports.[251] Under the FCRA, "consumer reporting agenc[ies]" (CRAs) are entities that engage in "assembling or evaluating consumer credit information or other information on consumers for the purpose of furnishing consumer reports to third parties . . . ."[252] A consumer report is any report

> of any information by a consumer reporting agency bearing on a consumer's credit worthiness, credit standing, credit capacity, character, general reputation, personal characteristics, or mode of living which is used or expected to be used . . . for the purpose of serving as a factor in establishing the consumer's eligibility for—
>
> (A) credit or insurance . . . ; [or]
>
> (B) employment purposes . . . .[253]

The FTC has warned mobile-application developers that if they provide information to employers about an individual's criminal history, for example, they may be providing consumer reports and thus regulated by the FCRA.[254] By analogy, if a consumer sensor company such as Fitbit began to sell their data to prospective employers or insurance companies, the FTC could take the position that Fitbit had become a CRA under the FCRA. If a company such as Fitbit were classified as a CRA, consumers would have the right to dispute the accuracy of any information provided by such a CRA.[255] If Internet of Things manufacturers were *not* deemed CRAs, but instead deemed to be providing information *to* CRAs—such as established credit-reporting firms or data aggregators—the FCRA would forbid Internet of Things firms from knowingly reporting inaccurate information and would

---

251. Fair Credit Reporting Act, 15 U.S.C. § 1681 (2012).

252. *Id.* § 1681a(f).

253. *Id.* § 1681a(d)(1).

254. On January 25, 2012, the FTC sent warning letters to three marketers of mobile applications (Everify, InfoPay, and Intelligator) that provided criminal background checks to employers. Letter from Maneesha Mithal, Assoc. Dir., Fed. Trade Comm'n, to Alon Cohen, Everify, Inc. (Jan. 25, 2012), http://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-warns-marketers-mobile-apps-may-violate-fair-credit-reporting-act/120207everifyletter.pdf, *archived at* http://perma.cc/7BXC-W68A; Letter from Maneesha Mithal, Assoc. Dir., Fed. Trade Comm'n, to Daniel Dechamps, InfoPay, Inc. (Jan. 25, 2012), http://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-warns-marketers-mobile-apps-may-violate-fair-credit-reporting-act/120207infopayletter.pdf, *archived at* http://perma.cc/F3PV-Z8VW; Letter from Maneesha Mithal, Assoc. Dir., Fed. Trade Comm'n, to Amine Mamoun, Intelligator, Inc. (Jan. 25, 2012), http://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-warns-marketers-mobile-apps-may-violate-fair-credit-reporting-act/120207intelligatorletter.pdf, *archived at* http://perma.cc/Y5BJ-CJU2.

255. *See* 15 U.S.C. § 1681i(a)(1)(A) (providing that a consumer may dispute the accuracy of any item of information in a consumer reporting agency's file and requiring an agency to conduct a "reasonable reinvestigation" to determine the accuracy of and potentially correct the contested information).

require that such firms correct and update incomplete or incorrect information.[256]

Although this somewhat constrains the use of Internet of Things data streams, the FCRA's reach is limited. First and foremost, a lender, insurer, or employer doing its *own* analysis of sensor data would not trigger the FCRA's CRA-related requirements.[257] Thus, Internet of Things data could be requested from applicants or gathered by such firms with impunity, as in the introductory example to this section.

Further, the FCRA does not apply if data are used to tailor *offers* made through sophisticated electronic marketing techniques.[258] For example, if a data aggregator sells a consumer's profile—including a profile based on Internet of Things sensor data—to a credit-card company at the moment that the consumer accesses the credit-card company's website, and that profile is used to tailor what the consumer sees on the website (e.g., displaying one or another credit card based on assumptions about that consumer), that tailored offer does not trigger the FCRA's provisions.[259]

Finally, the FCRA is designed to ensure *accuracy* in credit reports. The FCRA gives consumers the right to check and challenge the accuracy of information found in such reports so that credit, insurance, and employment determinations are fair.[260] Accuracy, however, is really not the problem with Internet of Things sensor data. One's Fitbit, driving, or smart home sensor data are inherently accurate—there is little to challenge. What is more questionable are the inferences *drawn* from such data. The FCRA does not reach those inferences, however. It applies to the underlying "inputs" into a credit, insurance, or employment determination, not the reasoning that a bank, insurer, or employer then makes based on those inputs.[261] Thus, the FCRA provides consumers with little remedy if Internet of Things data were to be incorporated into credit-reporting processes.

---

256. *See id.* §1681s–2(a)(1)(A)–(B) (providing that a person may not knowingly provide any inaccurate consumer information to a consumer reporting agency).

257. *See* Julie Brill, Comm'r, Fed. Trade Comm'n, Keynote Address at the 23d Computers Freedom and Privacy Conference: Reclaim Your Name 4 (June 26, 2013), *available at* http://www.ftc.gov/sites/default/files/documents/public_statements/reclaim-your-name/130626computersfreedom.pdf, *archived at* http://perma.cc/J3HA-U2HN (describing "new-fangled lending institutions" that use in-house credit reports derived from Big Data analyses, which practice "falls right on—or just beyond—the boundaries of FCRA"); *see also* Nate Cullerton, Note, *Behavioral Credit Scoring*, 101 GEO. L.J. 807, 827 (2013) ("[T]he FCRA appears not to apply at all to credit determinations made 'in house' by credit issuers if they are not based on a credit report.").

258. *See* Brill, *supra* note 257, at 4 ("It can be argued that e-scores don't yet fall under FCRA because they are used for marketing and not for determinations on ultimate eligibility.").

259. Cullerton, *supra* note 257, at 827 (arguing that such offers do not trigger the FCRA so long as the data are not used to make an "actual lending decision").

260. 15 U.S.C. § 1681i(a)(1)(A).

261. *See id.* § 1681s–2(a)(1)(A)–(B), (2) (prohibiting anyone from knowingly providing inaccurate information to CRAs and creating a duty to correct inaccurate information already provided to a CRA).

In summary, both traditional antidiscrimination law and data-use-related legislation such as the FCRA are unprepared to address the problem that, on the Internet of Things, everything may reveal everything.

B. *Privacy*

Discrimination based on sensor data is a potential problem so long as individualized inferences can be drawn from sensor data: if *your* Fitbit or automotive or smartphone data are used to draw inferences about *you*. One solution would be to simply aggregate and anonymize all such data, refusing to release information about particular individuals. Many manufacturers of consumer sensor devices take this approach, promising users that their data will only be shared with others in de-identified, anonymous ways.[262] Does this solve the problem of discrimination and protect consumers' privacy?

1. The Technical Problem: Sensor Data Are Particularly Difficult to De-Identify.—Unfortunately not. Return to our Fitbit example. Even were Fitbit to de-identify its information by removing a user's name, address, and other obviously identifying information from the dataset before it shared that information with others, it would be relatively easy to *re*-identify that dataset. The reason is straightforward: each of us has a unique gait. This means that if I knew something about an individual Fitbit user's gait or style of walking, I could use that information to identify that individual among the millions of anonymized Fitbit users' data. I would then have access to all of that user's *other* Fitbit data, which would now be re-associated with her. As Ira Hunt, Chief Technology Officer of the Central Intelligence Agency, put it: "[S]imply by looking at the data [from a Fitbit] they can find out . . . with pretty good accuracy what your gender is, whether you're tall or you're short, whether you're heavy or light, . . . [and] you can be 100% . . . identified by simply your gait—how you walk."[263]

In the last five years, legal scholars have become increasingly wary of the extent to which large datasets can ever be truly anonymized. My colleague Paul Ohm has argued that advances in computer science increasingly make it possible to attack and re-identify supposedly "anonymized" databases, rendering futile many attempts to protect privacy with anonymity.[264]

---

262. *E.g.*, *Fitbit Privacy Policy*, FITBIT, http://www.fitbit.com/privacy#DataSharedWithThirdParties, *archived at* http://perma.cc/MG2N-6DWX ("We only share data about you when it is necessary to provide our services, when the data is de-identified and aggregated, or when you direct us to share it.").

263. Ira Hunt, Chief Tech. Officer, Cent. Intelligence Agency, Address at Gigaom Structure Data 2013: The CIA's Grand Challenges with Big Data (Mar. 20, 2013), *available at* http://gigaom.com/2013/03/20/even-the-cia-is-struggling-to-deal-with-the-volume-of-real-time-social-data/2, *archived at* http://perma.cc/Q8DG-S2PL.

264. *See* Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1703–04 (2010) (asserting that promises of data privacy through de-identification are "illusory" in light of advances in re-identification and that "[d]ata can

Without delving into the burgeoning literature on de-identification generally, the point here is that *sensor* datasets are particularly vulnerable.[265]

Anonymization or de-identification becomes exceedingly difficult in sparse datasets: datasets in which an individual can be distinguished from other individuals by only a few attributes.[266] Sensor datasets are particularly prone to sparsity.[267] The reason is simple: sensor data capture such a rich picture of an individual, with so many related activities, that each individual in a sensor-based dataset is reasonably unique.[268] For example, if a health sensor captures an individual's movements throughout the day, it is quite easy to infer what types of transportation that individual used (e.g., car, bike, or subway). That unique pattern of transportation uses, however, means that if I have access to that anonymized dataset containing your complete sensor information, and if I simultaneously know a few specific dates and times that you rode the subway or a bike, for example, I can probably determine which of the many users in that dataset you are—and therefore know *all* of your movement information for all dates and times.[269]

Preliminary research suggests that robust anonymization of Internet of Things data is extremely difficult to achieve, or, put differently, that re-identification is far easier than expected:

> [R]esearchers are discovering location-oriented sensors are not the only source of concern and finding other sensors modalities can also introduce a variety of new privacy threats . . . . [S]ensors, such as accelerometers, gyroscopes, magnetometers, or barometers, which at first glance may appear innocuous, can lead to significant new challenges to user anonymization.[270]

---

be either useful or perfectly anonymous but never both") (emphasis omitted). *But see* Jane Yakowitz, *Tragedy of the Data Commons*, 25 HARV. J.L. & TECH. 1, 3–4 (2011) (countering that Ohm misinterpreted prior literature and research and overstated the "futility of anonymization").

265. *See* Raij et al., *supra* note 49, at 13 ("[E]xisting anonymization techniques alone cannot be used to protect individuals sharing personal sensor data.").

266. *See generally* Nicholas D. Lane et al., *On the Feasibility of User De-Anonymization from Shared Mobile Sensor Data*, *in* PHONESENSE '12: PROCEEDINGS OF THE THIRD INTERNATIONAL WORKSHOP ON SENSING APPLICATIONS ON MOBILE PHONES, at art. 3 (2012) (studying how methods for leveraging sparse datasets could be used to de-identify shared mobile sensor data gleaned from smartphones).

267. *See id.* (studying mobile sensor datasets, which are prone to sparsity because mobile sensors measure a mixture of "infrequently occurring events" over an extended period of time).

268. In addition to the fact that sensor data tend to be sparse, sensors themselves are also unique. An individual sensor may produce a unique fingerprint of "noise" that can then identify that sensor. For example, digital cameras can be individually identified from the patterns of sensor noise that they generate. Jan Lukáš et al., *Digital Camera Identification from Sensor Pattern Noise*, 1 IEEE TRANSACTIONS ON INFO. FORENSICS & SECUR. 205, 205 (2006).

269. *See* Lane et al., *supra* note 266 (explaining how mobile sensors will capture everyday user activities, such as commuting, which are affected by "high-level user characteristics and restraints" and increase the likelihood for relationships to exist between otherwise unrelated activities).

270. Lane et al., *supra* note 266 (citations omitted); *see also* Mudhakar Srivatsa & Mike Hicks, *Deanonymizing Mobility Traces: Using Social Networks as a Side-Channel*, *in* CCS'12: THE

For example, researchers at MIT recently analyzed data on 1.5 million cell-phone users in Europe over fifteen months and found that it was relatively easy to extract complete location information about a single person from an anonymized dataset containing more than a million people.[271] In a stunning illustration of the problem, they showed that to do so required only locating that single user within several hundred yards of a cell-phone transmitter sometime over the course of an hour on four occasions in one year.[272] With four such known data points, the researchers could identify ninety-five percent of the users in the dataset.[273] As one commentator on this landmark study put it: for sensor-based datasets, "it's very hard to preserve anonymity."[274]

Consider another example. Many smartphone owners are concerned about the misuse of their location data, which is often considered quite sensitive. In addition to GPS location sensors, however, most smartphones contain an accelerometer that measures the ways in which the smartphone is moving through space. Research shows that the data emitted by an accelerometer from one smartphone can often be correlated with similar data from a second phone to reveal that the two phones are producing sufficiently similar motion signatures to support the inference that they are in the same location.[275] In addition, if a smartphone user is driving her car, the patterns of acceleration and motion created by the car moving over the roadway are unique as to any other location.[276] As the authors of the study revealing this finding put it: "[T]he idiosyncrasies of roadways create globally unique constraints. . . . [T]he accelerometer can be used to infer a location with no initial location information."[277] So long as one phone (with a known location) has travelled the same roads as the previously "hidden" phone (with unknown location), the latter can be located.

PROCEEDINGS OF THE 2012 ACM CONFERENCE ON COMPUTER AND COMMUNICATIONS SECURITY 628, 628 (2012) (examining how one's social network may be used to deanonymize personally identifying information).

271. Yves-Alexandre de Montjoye et al., *Unique in the Crowd: The Privacy Bounds of Human Mobility*, SCI. REP., Mar. 25, 2013, at 4, 4; *see also* Sébastien Gambs et al., *De-Anonymization Attack on Geolocated Datasets*, 80 J. COMP. & SYS. SCI. 1597, 1597 (2014) (describing how a mobility-trace dataset potentially can be used to infer an individual's points of interest; past, current, and future movements; and social network).

272. Montjoye et al., *supra* note 271, at 2 & fig.1.

273. *Id.* at 2.

274. Larry Hardesty, *How Hard Is It to "De-Anonymize" Cellphone Data?*, MIT NEWS (Mar. 27, 2013), http://newsoffice.mit.edu/2013/how-hard-it-de-anonymize-cellphone-data, *archived at* http://perma.cc/76PS-8SXH.

275. Jun Han et al., *ACComplice: Location Inference Using Accelerometers on Smartphones*, *in* 2012 FOURTH INTERNATIONAL CONFERENCE ON COMMUNICATION SYSTEMS AND NETWORKS (COMSNETS 2012), at art. 25 (2012).

276. *Id.*

277. *Id.*

2. The Legal Problem: Privacy Law Is Unprepared.—The inherent sparsity of Internet of Things data means that protecting privacy through anonymization is particularly unlikely to succeed. The legal implications are dramatic. Ohm has catalogued the huge number of privacy laws that rely on anonymization.[278] Many distinguish "personally identifiable information" (PII)—usually defined as name, address, social-security number, or telephone number—from other data that is presumed not to reveal identity.[279] The threat of re-identification of sparse sensor-based datasets makes questionable this distinction between PII and other data.

Information-privacy scholarship has begun to debate how to address the threat of re-identification. Ohm proposes abandoning the idea of PII completely;[280] Paul Schwartz and Daniel Solove have recently resisted this approach, arguing instead that we should redefine PII along a continuum between identified information, identifiable information, and non-identifiable information.[281] The "identified" category pertains to information that is clearly associated with an individual.[282] The "non-identifiable" pertains to information that carries only a very "remote risk" of connection to an individual.[283] In the middle are data streams for which there is a non-trivial possibility of future re-identification.[284] Schwartz and Solove argue that the law should treat differently information in these three categories. For merely identifiable information that has not yet been associated with an individual, "[f]ull notice, access, and correction rights should *not* be granted."[285] In addition, "limits on information use, data minimalization, and restrictions on information disclosure should not be applied across the board to identifiable information."[286] Data security, however, should be protected when dealing with identifiable information.[287]

Others have adopted a similar approach.[288] According to the FTC, three considerations are most relevant: "as long as (1) a given data set is not reasonably identifiable, (2) the company publicly commits not to re-identify it, and (3) the company requires any downstream users of the data to keep it in de-identified form, that data will fall outside the scope of the [FTC's

278. *See* Ohm, *supra* note 264, at 1740–41 (emphasizing that nearly every U.S. privacy statute relies on the presumptive validity of anonymization).

279. *Id.* at 1740–42.

280. *Id.* at 1742.

281. Paul M. Schwartz & Daniel J. Solove, *The PII Problem: Privacy and a New Concept of Personally Identifiable Information*, 86 N.Y.U. L. REV. 1814, 1877 (2011).

282. *Id.*

283. *Id.* at 1878.

284. *Id.*

285. *Id.* at 1880.

286. *Id.*

287. *Id.* at 1881.

288. *See* Tene & Polonetsky, *supra* note 19, ¶ 48 (criticizing the dichotomous approach for leading to an "arms race between de-identifiers and re-identifiers").

proposed] framework."[289] The FTC is trying to distinguish, in short, between data that are "reasonably identifiable" and data that are not, as well as between firms that are taking reasonable steps to prevent re-identification.

Although Schwartz and Solove—and the FTC—are trying to use this new, third category of identifiable information to prevent the complete conceptual collapse of all data into the category of PII, that collapse may be inevitable in the Internet of Things context. If sensor datasets are so sparse that easy re-identification is the norm, then *most* Internet of Things data may be "reasonably identifiable." The FTC's standard—and the Schwartz and Solove solution—may mean that in the end all biometric and sensor-based Internet of Things data need to be treated as PII. That, however, would require a radical re-working of current law and practice. As we will see below, Internet of Things firms currently try to treat sensor data as "non-personal."[290] Corporate counsel, regulators, and legislators have not yet faced the reality that Internet of Things sensor data may all be identifiable. In short, privacy law—both on the books and on the ground—is unprepared for the threats created by the Internet of Things.

C. *Security*

Internet of Things devices suffer from a third problem: they are prone to security vulnerabilities for reasons that may not be simple to remedy. More importantly, data security laws—particularly state data-breach notification statutes—are unprepared for and don't apply to such security problems. To return to our example, if Fitbit's servers were hacked today, the company would have no legal obligation to inform the public and no legal consequence would likely attach.

1. The Technical Problem: Internet of Things Devices May Be Inherently Prone to Security Flaws.—The Internet of Things has recently begun to attract negative attention because of increasing concerns over data security. In November 2013, security firm Symantec discovered a new Internet worm that targeted small Internet of Things devices—particularly home routers, smart televisions, and Internet-connected security cameras—in addition to traditional computers.[291] In the first large-scale Internet of Things security breach, experts estimate that the attack compromised over one-hundred-thousand devices—including smart televisions, wireless

289. FED. TRADE COMM'N, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE: RECOMMENDATIONS FOR BUSINESSES AND POLICYMAKERS 22 (2012).

290. *See supra* subsection II(D)(1)(b).

291. Kaoru Hayashi, *Linux Worm Targeting Hidden Devices*, SYMANTEC (Nov. 27, 2013, 11:53 AM), http://www.symantec.com/connect/blogs/linux-worm-targeting-hidden-devices, *archived at* http://perma.cc/UL7S-9BWJ.

speaker systems, and refrigerators—and used them to send out malicious e-mails.[292]

Although attention to such issues is on the rise, computer-security experts have known for years that small, sensor-based Internet of Things devices are prone to security problems.[293] A team from Florida International University showed that the Fitbit fitness tracker could be vulnerable to a variety of security attacks, and that simple tools could capture data from any Fitbit within 15 feet.[294] The device simply was not engineered with data security in mind.[295] In July 2014, Symantec released the results of a study of fitness trackers showing "security risks in a large number of self-tracking devices and applications."[296]

More dire, insulin pumps have been shown to be vulnerable to hacking. Jay Radcliffe, a security researcher with diabetes, has demonstrated that these medical devices can be remotely accessed and controlled by a hacker nearby the device's user.[297] Similarly, many insulin pumps communicate wirelessly to a small monitor that patients use to check insulin levels.[298] Radcliffe has shown that these monitors are also easily accessed, leading to the possibility that a malicious hacker could cause a monitor to display inaccurate information, causing a diabetic patient to mis-administer insulin doses.[299] Other medical devices have also proven insecure.[300]

---

292. Press Release, Proofpoint, Proofpoint Uncovers Internet of Things (IoT) Cyberattack (Jan. 16, 2014), http://www.proofpoint.com/about-us/press-releases/01162014.php, *archived at* http://perma.cc/M78W-VELZ.

293. For a useful interview related to this question, see Gigoam Internet of Things Show, *Securing the Internet of Things is Like Securing our Borders. Impossible*, SOUNDCLOUD (May 29, 2013), https://soundcloud.com/gigaom-internet-of-things/securing-the-internet-of, *archived at* http://perma.cc/J6V-WFEU and Daniela Hernandez, *World's Health Data Patiently Awaits Inevitable Hack*, WIRED, Mar. 25, 2013, http://www.wired.com/2013/03/our-health-information/, *archived at* http://perma.cc/JCU6-4EB5 (noting that security breaches related to healthcare information have increased and predicting that healthcare data repositories will be hacked in the future).

294. Mahmudur Rahman et al., Fit and Vulnerable: Attacks and Defenses for a Health Monitoring Device 1 (Apr. 20, 2013) (unpublished manuscript), *available at* http://arxiv.org/abs/1304.5672, *archived at* http://perma.cc/8W4D-6DBA.

295. *Cf.* Hunt, *supra* note 263 ("You guys know the Fitbit, right? It's just a simple 3-axis accelerometer. [The CIA] like[s] these things because they don't have any – well, I won't go into that . . . .").

296. *How Safe Is Your Quantified Self? Tracking, Monitoring, and Wearable Tech*, SYMANTEC (July 30, 2014, 2:27:53 PM), http://www.symantec.com/connect/blogs/how-safe-your-quantified-self-tracking-monitoring-and-wearable-tech, *archived at* http://perma.cc/4N7Y-PKJU.

297. Jordan Robertson, *Insulin Pumps, Monitors Vulnerable to Hacking*, YAHOO! NEWS (Aug. 5, 2011, 12:04 PM), http://news.yahoo.com/insulin-pumps-monitors-vulnerable-hacking-100605899.html, *archived at* http://perma.cc/RJ64-2GNW.

298. *Id.*

299. *Id.*

300. *Home, Hacked Home*, ECONOMIST, July 12, 2014, http://www.economist.com/news/special-report/21606420-perils-connected-devices-home-hacked-home, *archived at* http://perma.cc/WW5Y-BDHM (noting various examples of medical equipment with security vulnerabilities).

As a final example, in August 2013, a Houston couple heard the voice of a strange man cursing in their two-year-old daughter's bedroom.[301] When they entered the room, the voice started cursing them instead.[302] The expletives were coming from their Internet-connected and camera-equipped baby monitor, which had been hacked.[303] Many other webcam devices have also been found vulnerable: in September 2013, the FTC took its first action against an Internet of Things firm when it penalized TRENDnet—a web-enabled camera manufacturer—for promising customers that its cameras were secure when they were not.[304]

These examples illustrate the larger technical problem: Internet of Things devices may be inherently vulnerable for several reasons. First, these products are often manufactured by traditional consumer-goods makers rather than computer hardware or software firms. The engineers involved may therefore be relatively inexperienced with data-security issues, and the firms involved may place insufficient priority on security concerns.[305]

Second, consumer sensor devices often have a very compact form factor. The goal is to make a small health monitor that fits on your wrist or a health monitor that resides in the sole of your shoe. Small form factors, however, do not necessarily lend themselves to adding the processing power needed for robust security measures such as encryption.[306] In addition, small devices may not have sufficient battery life to support the extra processing required for more robust data security.

Finally, these devices are often not designed to be retooled once released into the market. A computer or smartphone contains a complex operating

---

301. Alana Abramson, *Baby Monitor Hacking Alarms Houston Parents*, ABCNEWS (Aug. 13, 2013, 12:43 PM), http://abcnews.go.com/blogs/headlines/2013/08/baby-monitor-hacking-alarms-houston-parents/, *archived at* http://perma.cc/UZ27-ZSUP.

302. *Id.*

303. *Id.*; *see also Home, Hacked Home*, *supra* note 300 (describing an Ohio couple's similar incident).

304. *See* TRENDnet, Inc.; Analysis of Proposed Consent Order to Aid Public Comment, 78 Fed. Reg. 55,717, 55,718–19 (Sept. 11, 2013) (describing the complaint against, and subsequent consent order with, TRENDnet); Press Release, Fed. Trade Comm'n, Marketer of Internet-Connected Home Security Video Cameras Settles FTC Charges It Failed to Protect Consumers' Privacy (Sept. 4, 2013), *available at* http://www.ftc.gov/news-events/press-releases/2013/09/marketer-internet-connected-home-security-video-cameras-settles, *archived at* http://perma.cc/BYD4-HSSE.

305. *See* Brian Fung, *Here's the Scariest Part About the Internet of Things*, SWITCH, WASH. POST (Nov. 19, 2013), http://www.washingtonpost.com/blogs/the-switch/wp/2013/11/19/heres-the-scariest-part-about-the-internet-of-things/, *archived at* http://perma.cc/9ME3-2CAE ("Although the folks who make dishwashers may be fantastic engineers, or even great computer programmers, it doesn't necessarily imply they're equipped to protect Internet users from the outset.").

306. *See* Stacey Higginbotham, *The Internet of Things Needs a New Security Model. Which One Will Win?*, GIGAOM (Jan. 22, 2014, 8:26 AM), http://gigaom.com/2014/01/22/the-internet-of-things-needs-a-new-security-model-which-one-will-win/, *archived at* http://perma.cc/9BXA-LA48 (explaining that because many connected devices have little computational power, security must be lightweight and tasks such as encryption are impossible).

system that can be constantly updated to fix security problems, therefore providing a manufacturer with ongoing opportunities to secure the device against new threats. A consumer sensor device, however, is often less malleable and robust. Internet of Things products may thus not be patchable or easy to update.[307]

For all of these reasons, the Internet of Things may be inherently prone to security flaws. The risks go beyond spam. In addition to using these devices as remote servers, there are also endless possibilities for hacking into sensor-based devices for malicious purposes. As computer-security expert Ross Anderson recently asked: "What happens if someone writes some malware that takes over air conditioners, and then turns them on and off remotely? . . . You could bring down a power grid if you wanted to."[308] One could also, of course, spy on an individual's sensor devices, steal an individual's data, or otherwise compromise an individual's privacy. These problems have led some computer security experts to conclude that "without strong security foundations, attacks and malfunctions in the [Internet of Things] will outweigh any of its benefits."[309]

2. The Legal Problem: Data Security Law Is Unprepared.—Data security law is unprepared for these Internet of Things security problems. Data security in the United States is generally regulated through one of two mechanisms: FTC enforcement or state data-breach notification laws. Neither is clearly applicable to breaches of Internet of Things data. Put differently, if your biometric data were stolen from a company's servers, it is contestable whether any state or federal regulator would have the authority to respond.

First, consider the FTC's authority. Because there is no general federal data-security statute,[310] the FTC has used its general authority under the Federal Trade Commission Act (FTC Act) to penalize companies for security lapses.[311] The FTC Act states that "unfair or deceptive acts or practices in or affecting commerce" are unlawful.[312] The FTC has used both the unfair and

307. Michael Eisen, *The Internet of Things is Wildly Insecure—And Often Unpatchable*, WIRED, Jan. 6, 2014, http://www.wired.com/2014/01/theres-no-good-way-to-patch-the-internet-of-things-and-thats-a-huge-problem/, *archived at* http://perma.cc/X7H7-UBA5.

308. *Spam in the Fridge: When the Internet of Things Misbehaves*, ECONOMIST, Jan. 25, 2014, http://www.economist.com/news/science-and-technology/21594955-when-internet-things-misbehaves-spam-fridge, *archived at* http://perma.cc/HNG6-W8W4.

309. Rodrigo Roman et al., *Securing the Internet of Things*, COMPUTER, Sept. 2011, at 51, 51.

310. Certain information types, such as health and financial data, are subject to heightened Federal data-security requirements, but no statute sets forth general data-security measures. *See, e.g.*, Paul M. Schwartz & Edward J. Janger, *Notification of Data Security Breaches*, 105 MICH. L. REV. 913, 922 (2007) ("There is no explicit data security regulation for firms that carry out back-office and other administrative operations involving personal information.").

311. 15 U.S.C. § 45(a)(2) (2012).

312. *Id.* § 45(a)(1).

deceptive prongs of the FTC Act to regulate privacy and security, generally through consent orders with offending firms.[313] In "deception" cases—such as the 2013 TRENDnet webcam action described above[314]—the FTC demonstrated that a company violated its own statements to consumers. This is a powerful but somewhat limited grounds for enforcement in security cases because it depends on the company having made overly strong security-related promises to the public.

The FTC has therefore also brought "unfairness" cases to attack poor security practices.[315] In unfairness cases, the FTC must show that a firm injured consumers in ways that violate public policy.[316] This is most easy in contexts with federal statutory requirements about data security, such as finance and health care. Outside of those delimited contexts, the FTC's authority is less solid. Both commentators and firms have questioned the scope of the FTC's jurisdiction in such cases.[317] Most recently, the Wyndham Hotel Group litigated that jurisdiction after the FTC alleged that Wyndham had unreasonably exposed consumer information through lax security measures.[318] Although the FTC prevailed in that challenge,[319] there is no question that the FTC's authority in this area would be considerably strengthened by legislative action to establish data-security requirements.

As a second option, therefore, consider the possible treatment of Internet of Things security violations under state data-breach notification statutes. At the very least, one might assume that breaches of potentially sensitive—and difficult to anonymize—sensor data would be made public under such laws, just as theft of credit card data or other personal information requires public disclosure. At the moment, however, that is not the case. Forty-six states have enacted data-breach notification laws.[320] All of those cover "personal

313. *E.g.*, FTC v. Accusearch Inc., 570 F.3d 1187, 1190–91 (10th Cir. 2009) (bringing an unfair-practices claim against Accusearch); *In re* GeoCities, 127 F.T.C. 94, 96 (1999) (alleging deceptive practices by GeoCities).

314. *See supra* note 304 and accompanying text.

315. *E.g.*, *In re* DSW Inc., 141 F.T.C. 117, 119–20 (2006); *In re* BJ's Wholesale Club, Inc., 140 F.T.C. 465, 468 (2005).

316. 15 U.S.C. § 45(n).

317. *See generally* Gerard M. Stegmaier & Wendell Bartnick, *Psychics, Russian Roulette, and Data Security: The FTC's Hidden Data-Security Requirements*, 20 GEO. MASON L. REV. 673 (2013) (arguing that the FTC's practices may violate the fair notice doctrine). *But see* Andrew Serwin, *The Federal Trade Commission and Privacy: Defining Enforcement and Encouraging the Adoption of Best Practices*, 48 SAN DIEGO L. REV. 809, 812 (2011) (asserting that the FTC's privacy enforcement effort correlates with the FTC's deception and unfairness authority).

318. *See* Stegmaier & Bartnick, *supra* note 317, at 695–97.

319. *See* FTC v. Wyndham Worldwide Co., No. 13–1887(ES), 2014 WL 1349019, at *6–9 (D. N.J. Apr. 7, 2014) (holding that the FTC had authority to bring an enforcement action over data-security practices).

320. ALASKA STAT. § 45.48.010 (2012); ARIZ. REV. STAT. ANN. § 44-7501 (2013); ARK. CODE ANN. § 4-110-105 (2011); CAL. CIV. CODE §§ 1798.29, 1798.82 (West Supp. 2014); COLO. REV. STAT. ANN. § 6-1-716 (West Supp. 2013); CONN. GEN. STAT. ANN. § 36a-701b (West Supp. 2014); DEL. CODE ANN. tit. 6, § 12B-102 (2013); FLA. STAT. ANN. § 817.5681 (West 2006); GA.

information,"[321] which is generally defined in such statutes as an individual's first and last name, plus one or more of the individual's Social Security number, driver's license number, or bank or credit card account information.[322] Thus, for the vast majority of states, a security breach that resulted in the theft of records containing users' names and associated biometric or sensor data would *not* trigger state data-breach notification requirements. A breach that only stole sensor data without users' names would also fail to trigger such laws.

A few anomalous jurisdictions have enacted data-breach notification laws that could be interpreted broadly to protect sensor data, but only with some creativity. The approaches of those jurisdictions can be separated into two groups. The first group includes Arkansas, California, Missouri, and Puerto Rico, which all include "medical information" in their definition of "personal information."[323] Missouri defines "medical information" to mean "any information regarding an individual's medical history, mental or physical condition, or medical treatment or diagnosis by a health care professional."[324] Thus, if breached sensor data related to "mental or physical

---

CODE ANN. § 10-1-912 (2009); HAW. REV. STAT. ANN. §§ 487N-1 to -7 (LexisNexis 2012); IDAHO CODE ANN. § 28-51-105 (2013); 815 ILL. COMP. STAT. ANN. 530/10 to 530/12 (West 2008); IND. CODE ANN. §§ 24-4.9-3-1 to -3-2 (West Supp. 2013); IOWA CODE ANN. § 715C.2 (West Supp. 2014); KAN. STAT. ANN. § 50-7a02 (Supp. 2013); LA. REV. STAT. ANN. § 51.3074 (2012); ME. REV. STAT. ANN. tit. 10, § 1348 (Supp. 2013); MD. CODE ANN., LAB. & EMPL. §§ 14-3501 to -3508 (LexisNexis 2013); MASS. GEN. LAWS ANN. ch. 93H, §§ 1–6 (West Supp. 2014); MICH. COMP. LAWS ANN. § 445.72 (West 2011); MINN. STAT. ANN. § 325E.61 (West 2011); MISS. CODE ANN. § 75-24-29 (Supp. 2013); MO. ANN. STAT. § 407.1500 (West 2011); MONT. CODE ANN. § 30-14-1704 (2013); NEB. REV. STAT. § 87-803 (2008); NEV. REV. STAT. § 603A.220 (2013); N.H. REV. STAT. ANN. § 359-C:20 (2009); N.J. STAT. ANN. § 56:8-163 (West 2012); N.Y. GEN. BUS. LAW § 899-aa (McKinney 2012); N.C. GEN. STAT. § 75-65 (2013); N.D. CENT. CODE §§ 51-30-02 to -30-03 (Supp. 2013); OHIO REV. CODE ANN. §§ 1347.12, 1349.19 (West Supp. 2014); OKLA. STAT. tit. 74, § 3113.1 (2011); OR. REV. STAT. § 646A.604 (2013); 73 PA. CONS. STAT. ANN. §§ 2301–2308, 2329 (West Supp. 2014); R.I. GEN. LAWS § 11-49.2-3 (Supp. 2013); S.C. CODE ANN. § 39-1-90 (Supp. 2013); TENN. CODE ANN. § 47-18-2107 (2013); TEX. BUS. & COM. CODE ANN. § 521.053 (West Supp. 2014); UTAH CODE ANN. § 13-44-202 (LexisNexis 2013); VT. STAT. ANN. tit. 9, § 2435 (Supp. 2013); VA. CODE ANN. § 18.2-186.6 (2014); *id.* § 32.1-127.1:05 (2011); WASH. REV. CODE ANN. § 19.255.010 (West 2013); *id.* § 42.56.590 (West Supp. 2014); W. VA. CODE ANN. §§ 46-2A-101 to -2A-05 (LexisNexis Supp. 2014); WIS. STAT. ANN. § 134.98 (West 2009); WYO. STAT. ANN. § 40-12-502 (2013).

321. New York's statute covers "private information." N.Y. GEN. BUS. LAW § 899-aa(b) (McKinney 2012). Vermont's covers "personally identifiable information." VT. STAT. ANN. tit. 9, § 2430(5) (Supp. 2013). The Texas statute covers "sensitive personal information." TEX. BUS. & COM. CODE ANN. § 521.002(a)(2) (West Supp. 2014).

322. *See State Data Breach Statute Form*, BAKER HOSTETLER 1 (2014), http://www.bakerlaw.com/files/Uploads/Documents/Data%20Breach%20documents/State_Data_Breach_Statute_Form.pdf, *archived at* http://perma.cc/8536-TESS (providing a general definition "based on the definition commonly used by most states").

323. ARK. CODE ANN. § 4-110-103(7)(D) (2011); CAL. CIV. CODE §§ 1798.29(e)(4), .82(e)(4) (West Supp. 2014); MO. ANN. STAT. § 407.1500(9)(e) (West 2011); P.R. LAWS ANN. tit. 10, § 4051(a)(5) (2012).

324. MO. ANN. STAT. § 407.1500(6) (West 2011).

condition"—for example, personal-fitness tracking data—Missouri's statute might reach the breach. Arkansas and California define "medical information" more narrowly to mean only information "regarding the individual's medical history or medical treatment or diagnosis by a health care professional."[325] These two state statutes seem to have followed the definitions included in the Health Insurance Portability and Accountability Act (HIPAA), which defines "health information" as "any information, including genetic information, . . . that (1) [i]s created or received by a health care provider, health plan, . . . and . . . (2) [r]elates to the . . . physical or mental health or condition of an individual."[326] HIPAA's definition would most likely *not* encompass fitness- or health-related—let alone other—potentially sensitive sensor data.

The second group that differs from the norm includes Iowa, Nebraska, Texas, and Wisconsin, all of which include an individual's "unique biometric data" in their definitions of "personal information."[327] Both Nebraska and Wisconsin define "unique biometric data" to include fingerprint, voice print, and retina or iris image, as well as any "other unique physical representation."[328] This phrase might be interpreted to include at least some fitness or health-related sensor data. Texas goes further. Its statute is triggered by any breach of "[s]ensitive personal information," which includes "information that identifies an individual and relates to: (i) the physical or mental health or condition of the individual."[329] This quite clearly would protect at least fitness-related sensor data.

Thus, in a small minority of states, health- or fitness-related sensor data—such as data produced by a Breathometer, Fitbit, Nike+ FuelBand, blood-glucose monitor, blood-pressure monitor, or other device—could arguably be protected by the state's data-breach notification law. In most, theft or breach of such data would not trigger public notification. Moreover, *none* of these state statutes would be triggered by data-security breaches into datasets containing other types of sensor data discussed in Part I. Driving-related data, for example, would nowhere be covered; location, accelerometer, or other data from a smartphone would nowhere be covered; smart grid data or data streaming out of Internet of Things home appliances would nowhere be covered. Put most simply, current data-security-breach

325. ARK. CODE ANN. § 4-110-103(5) (2011); CAL. CIV. CODE § 1798.81.5(d)(2) (West Supp. 2014).

326. 45 C.F.R. § 160.103 (2013); *see* P.R. LAWS ANN. tit. 10, § 4051(a)(5) (2012) (including "[m]edical information protected by the HIPAA" within the definition of "personal information file").

327. IOWA CODE ANN. § 715C.1(11)(e) (West 2013); NEB. REV. STAT. § 87-802(5)(e) (2008); TEX. BUS. & COM. CODE ANN. § 521.002(a)(1)(C) (West Supp. 2014); WIS. STAT. ANN. § 134.98(1)(b)(5) (West 2009).

328. NEB. REV. STAT. § 87-802(5) (2008); WIS. STAT. ANN. § 134.98(1)(b)(5) (West 2009).

329. TEX. BUS. & COM. CODE ANN. § 521.002(a)(2)(B)(i) (West Supp. 2014).

notification laws are ill prepared to alert the public of security problems on the Internet of Things.

D. Consent

Discrimination, privacy, and security concerns about the Internet of Things underscore the new and unique ways in which connected sensor devices could harm consumer welfare. At the same time, the quick and massive growth in this market shows consumer desire for these technologies. Consumer consent offers one way to reconcile these competing realities: if consumers understand and consent to the data flows generated by their Fitbits, car monitors, smart home devices, and smartphones, perhaps there is no reason to worry. Unfortunately, consent is unlikely to provide such reassurance. Internet of Things devices complicate consent just as they complicate discrimination, privacy, and security. Moreover, consumer protection law related to privacy-policy disclosures is currently unprepared to deal with these issues.

1. The Technical Problem: Sensor Devices Confuse Notice and Choice.—Notice and choice, in other words, consumer consent, has been the dominant approach to regulating the Internet for the last decade. Regulators, legislators, and scholars have largely depended on the assumption that so long as firms provide accurate information to consumers and consumers have an opportunity to choose or reject those firms' web services, most data-related issues can be self-regulated.[330] Unfortunately, these already-stretched assumptions apply uncomfortably in the context of the consumer goods at the heart of the Internet of Things.

a. The Difficulties with Finding Internet of Things Privacy Policies.— Internet of Things devices are often small, screenless, and lacking an input mechanism such as a keyboard or touch screen. A fitness tracker, for example, may have small lights and perhaps a tiny display, but no means to confront a user with a privacy policy or secure consent.[331] Likewise, a home electricity or water sensor, connected oven or other appliance, automobile tracking device, or other Internet of Things object will not have input and output capabilities. The basic mechanism of notice and choice—to display

330. *See generally* Lorrie Faith Cranor, *Necessary but Not Sufficient: Standardized Mechanisms for Privacy Notice and Choice*, 10 J. ON TELECOMM. & HIGH TECH. L. 273 (2012) (evaluating the effectiveness of the self-regulatory, notice-and-choice approach to privacy laws in the United States).

331. *See, e.g.*, *Nike+ FuelBand SE*, *supra* note 77.

and seek agreement to a privacy policy—can therefore be awkward in this context because the devices in question do not facilitate consent.

This inherently complicates notice and choice for the Internet of Things. If an Internet user visits a web page, the privacy policy is available on that page. Although this does not perfectly protect consumer welfare, it at least provides a consumer with the option to review privacy- and data-related terms at the locus and time of use. Internet of Things devices, however, are currently betwixt and between. A device most likely has no means to display a privacy notice.[332] As a result, such information must be conveyed to consumers elsewhere: in the box with the device, on the manufacturer's website, or in an associated mobile application.

At the moment, Internet of Things manufacturers overwhelmingly seem to prefer to only provide privacy- and data-related information in website privacy policies. The Appendix shows the results of my survey of twenty popular Internet of Things consumer devices, including Fitbit and Nike+ Fuelband fitness trackers, the Nest Thermostat, the Breathometer, and others.[333] For many of the surveyed devices, I actually purchased the object in order to inspect the packaging and examine the consumer's experience of opening and activating the device. For others, I was able to download or secure from the manufacturer the relevant material included in the device packaging—generally the consumer user or "quick start" guides.

As indicated in the Appendix, *none* of the twenty devices included privacy- or data-related information in the box. None even referred in the packaging materials or user guides to the existence of a privacy policy on the manufacturer's website. This is reasonably surprising, given that many of these devices are for sale in traditional brick-and-mortar stores and not only through the manufacturer's website, making it possible for a consumer to purchase such a device with no notice that it is subject to a privacy policy.

Internet of Things manufacturers may currently depend on website posting of privacy policies for at least two reasons. First, they may be accustomed to including such information on a website and may not have considered that a consumer purchasing an object experiences that purchase somewhat differently than a user browsing the Internet. Second, they may believe that because Internet of Things devices generally require pairing with a smartphone app or Internet account through the manufacturer's web service, the consumer will receive adequate notice and provide adequate consent when downloading that app or activating their online account.

This belief would be unjustified. The Appendix shows that for several of the products reviewed it was extremely difficult to even locate a relevant privacy policy. Consider just one example. iHealth manufactures various

---

332. *See, e.g.*, *How It Works*, MIMO, http://mimobaby.com/#HowItWorks, *archived at* http://perma.cc/E6NC-WNFN.

333. *See infra* Appendix.

health and fitness devices, including an activity and sleep tracker, a pulse oximeter, a blood-pressure wrist monitor, and a wireless body-analysis scale.[334] All of these work together through the iHealth smartphone or tablet app.[335] The privacy policy on the iHealth website, however, applies only to use of that website—not to use of iHealth products or the iHealth mobile app.[336] This suggests that iHealth assumes users will confront a second product-related privacy notice when activating the mobile app to use their products. At installation, that app presents users with a software license agreement, which states that by using the app users may upload personal information, including vital signs and other biometric data.[337] The agreement also states that "[o]ur use of Personal Data [and] VITALS [biometric data] . . . is outlined in our Privacy Policy."[338] At no point, however, is a user confronted with that product-related policy, or told where it can be located. Were a user to look on the iHealth website, he would find only the policy posted there that applies to use of the website, not to use of iHealth products. Within the mobile iHealth app, the only mention of privacy is found under the Settings function in a tab labeled "Copyright." That Copyright tab actually includes the application's Terms of Use, which again references a privacy policy that governs product use and sensor data but provides no information on where to find that policy. In short, even an interested consumer seeking privacy information about iHealth products and sensor data is led in an unending circle of confusion. This is a horrendous example of how not to provide consumers with clear notice and choice about privacy information.

The Appendix lists other examples nearly as confusing. Some policies seem to apply to both website use and sensor-device use. Other policies limit their application to website use, not sensor-device use, but provide no means to locate a device-related privacy policy. This leaves unanswered whether *any* privacy-related policy applies to the data generated by these devices.[339]

---

334. *About Us*, iHEALTH®, http://www.ihealthlabs.com/about-us/, *archived at* http://perma.cc/5KY5-U953.

335. *Id.*

336. *See Privacy Policy*, iHEALTH®, http://www.ihealthlabs.com/about-us/privacy-policy/, *archived at* http://perma.cc/47CK-9XJP (setting forth the privacy policy governing information collected from visitors, users, and customers of iHealth's website but not discussing privacy policies regarding data gleaned from iHealth devices).

337. *See* iHEALTH, TERMS AND CONDITIONS: SOFTWARE END USER LICENSE AGREEMENT (on file with author) (stating that by using the iHealth app services, users may upload personal data information such as name, e-mail, height, weight, age, and "Vitals" information contained in the monitoring hardware purchased from iHealth).

338. *Id.*

339. In at least one case, the website privacy policy stated that a second sensor device policy existed, but that second policy was only accessible through a separate website. *Privacy Policy*, PROPELLER HEALTH, http://propellerhealth.com/privacy/, *archived at* http://perma.cc/6SBE-BJE5; *Propeller User Agreement*, PROPELLER, https://my.propellerhealth.com/terms-of-service, *archived at* http://perma.cc/697K-TQVU.

In still other cases, two privacy policies vie for users' attention: one for website use, one for sensor device use. In some ways this is a better approach, because it provides clear notice that the sensor device comes with a unique set of data-related and privacy issues. At the same time, this doubles the cognitive and attentional load on consumers, who already fail to read even one privacy policy. This approach may also create confusion if consumers see the website policy and fail to realize that a second policy exists related to their sensor data.

In addition to the problem of *finding* a relevant privacy policy, the Appendix shows that even when one locates a policy that applies to use of these products and the sensor data they generate, many current Internet of Things privacy policies provide little real guidance to consumers. My review of these twenty products and their privacy policies reveals two major problems.

b. The Ambiguity of Current Internet of Things Privacy-Policy Language.—First, these policies are often confusing about whether sensor or biometric data count as "personal information" and thus unclear about how such data can be shared with or sold to third parties.[340] Some of these policies define "personal information" (or "personally identifiable information") in a very traditional manner, as including only name, address, e-mail address, or telephone number.[341] For such policies, sensor data would not be given the heightened protections afforded to personally identifiable information.

Other policies are significantly less clear. Some include language that might be interpreted to include sensor data. Breathometer's privacy policy, for example, defines "personal information" as "information that directly identifies you, or that can directly identify you, such as your name, shipping and/or billing address, e-mail address, phone number, and/or credit card information."[342] Although this would generally suggest that sensor data are not included, a computer scientist or regulator that understands the problem of re-identification might interpret this to mean that test results *were* included as personal information. The Breathometer privacy policy adds to the confusion. In a section titled "Personal Information We Affirmatively Collect From You," the policy states that "[u]ser-generated content (such as BAC Test results) may include Personal Information."[343] This further

340. This problem extends beyond Internet of Things policies. *See* Jay P. Kesan et al., *Information Privacy and Data Control in Cloud Computing: Consumers, Privacy Preferences, and Market Efficiency*, 70 WASH. & LEE L. REV. 341, 458 (2013) (providing an empirical review of terms of service and privacy policies for cloud computing services and concluding that such policies rarely provide much detail on firms' obligations to consumers).

341. *See infra* Appendix.

342. *Privacy Policy*, BREATHOMETER™, *supra* note 17.

343. *Id.*

confuses whether the company will treat sensor readings from a Breathometer as personal information under the policy.

Similarly, the Nest Thermostat's privacy policy defines "Personally Identifiable Information" as "data that can be reasonably linked to a specific individual or household."[344] Given the threat of re-identification of Internet of Things sensor data, it is entirely unclear whether the policy's drafters consider Nest Thermostat data to be personally identifiable. This same issue arises in the Belkin WeMo home automation system privacy policy. That policy defines personal information as "any information that can be used to identify you."[345] One might therefore believe this to include sensor data if such data is easily re-identified. The policy then goes on, however, to state that "Non-Personal Information" includes "usage data relating to . . . Belkin Products."[346] In other words, the policy creates conflict between its definition of "personal information" and "non-personal information."

This definitional wrangling matters. Most privacy policies permit manufacturers to share or sell non-personal information far more broadly than personal information. The LifeBEAM Helmet privacy policy, for example, allows non-personal information to be collected, used, transferred, and disclosed for any purpose, but states that "LifeBEAM does not disclose personally-identifying information."[347] In addition, certain other terms in these privacy policies apply only to personal information. For example, the Breathometer policy contractually provides for user notification in the event of a security breach that compromises personal information.[348] Because the policy leaves unclear whether sensor data are personal information, it is unclear whether a user should expect notification in the event that sensor data were breached. Similarly, the Mimo Baby Monitor policy gives broad access, correction, and deletion rights to users for "Personal Information" but makes no mention of how such rights apply to other information.[349]

In short, these Internet of Things privacy policies are often quite unclear about whether collected sensor data count as "personal information"—and therefore ambiguous as to what rights and obligations apply to such data.

c. The Glaring Omissions from Internet of Things Privacy Policies.— Second, the privacy policies for these devices often do not address several

344. *Privacy Statement*, NEST, https://nest.com/legal/privacy-statement/, *archived at* http://perma.cc/V5JC-GGT4.

345. *Belkin Privacy Policy*, BELKIN, http://www.belkin.com/us/privacypolicy/, *archived at* http://perma.cc/8VFG-T3CF.

346. *Id.*

347. *LifeBEAM Privacy Policy*, LIFEBEAM, http://www.life-beam.com/privacy, *archived at* http://perma.cc/6ET2-J284.

348. *See Privacy Policy*, BREATHOMETER™, *supra* note 17.

349. *Privacy Policy*, MIMO, http://mimobaby.com/legal/#PrivacyPolicy, *archived at* http://perma.cc/64RN-6K7D.

important issues relevant to consumers. For example, privacy policies for consumer sensor devices often do not mention ownership of sensor data. Of the twenty products covered by the Appendix, only four discussed data ownership explicitly. Of those that did clarify ownership of sensor data, three indicated that the *manufacturer*, not the consumer, owned the sensor data in question.[350] The BodyMedia Armband's policy, for example, states that "[a]ll data collected including, but not limited to, food-logs, weight, body-fat-percentage, sensor-data, time recordings, and physiological data . . . are and shall remain the sole and exclusive property of BodyMedia."[351] The previous version of the Basis Sports Watch policy similarly stated that "[a]ll Biometric Data shall remain the sole and exclusive property of BASIS Science, Inc."[352] It is only some consolation that at least ownership is clear in these few cases.

Similarly, these policies often do not specify exactly what data the device collects or which types of sensors the device employs. Of the twenty products reviewed, only three provided clear information on exactly what sensors the product included or what sensor data the product collected.[353] A few more provided some information on data collected without complete detail. For example, the privacy policy relevant to the Automatic Link automobile monitor describes that the device collects location information, information on "how you drive," error codes from the car's computer, and information from both the car's sensors and the device's sensors.[354] The policy does not give detail about what car or device sensors are used or what exactly the device records about "how you drive." Moreover, the Appendix shows that many of these Internet of Things privacy policies provided *no* information on what sensor data their device generated.

These policies are likewise inconsistent in the access, modification, and deletion rights they give consumers. Most of the twenty policies I reviewed said nothing about such rights. None provided an easy mechanism for *exportation* of raw sensor data. And many were quite confusing about what

---

350. These four devices are the BodyMedia Armband, iHealth Blood Pressure Monitor, Basis Peak sports watch, and Muse headband; the Muse headband is the only device for which the policy indicated the user owned the biometric or sensor data. *See infra* Appendix. Basis recently updated the privacy policy on September 29, 2014, removing the data-ownership language. *See Basis Privacy Policy*, BASIS, http://www.mybasis.com/legal/privacy/, *archived at* http://perma.cc/5GYH-Q3JP.

351. *Privacy Policy*, BODYMEDIA®, http://www.bodymedia.com/Support-Help/Policies/Privacy-Policy, *archived at* http://perma.cc/M8HF-5EWV.

352. The new version of the privacy policy removed that ownership language; the only ownership language in the new policy states that the user "will be notified via email of any . . . change in ownership or control of personal information" arising from a "business transition" undertaken by Basis. *Basis Privacy Policy*, *supra* note 350.

353. These devices are the Basis Peak sports watch, Mimo Baby Monitor, and Nest Thermostat or Smoke Detector. *See infra* Appendix.

354. *Legal Information: Privacy Policy*, AUTOMATIC™, http://www.automatic.com/legal/#privacy, *archived at* http://perma.cc/R6BR-23PA.

access, modification, and deletion rights a consumer had. These privacy policies sometimes gave users such rights for personal information but not for other (non-personal) information.[355] As discussed, it is often unclear whether sensor or biometric data count as "personal information," and therefore unclear whether users have modification and deletion rights vis-à-vis those data.[356]

Finally, none of these policies explained how much sensor data were processed on the device itself versus transmitted to and processed on the company's servers remotely. Only three detailed whether encryption techniques were used to protect sensor-gathered data or what techniques were specifically employed.[357] None detailed the security measures built into the device itself to prevent security breach.

In short, these policies seem to have been shaped by the needs and expectations relevant to the normal Internet, not the Internet of Things. Not surprisingly, at the dawn of the Internet of Things, there may not yet have been much real consideration of the special issues that Internet of Things privacy policies should address.[358]

2. The Legal Problem: Consumer Protection Law Is Unprepared.—As discussed above, the FTC's mandate is to police deceptive and unfair trade practices.[359] In the privacy-policy context, this includes taking action against firms that violate their posted privacy policies,[360] as well as providing soft guidance to firms on what constitutes adequate notice in a privacy policy.[361]

---

355. *See supra* note 349 and accompanying text.

356. *See supra* subsection II(D)(1)(b).

357. The Basis Peak sports watch and Mimo Baby Monitor privacy policies state that biometric data are not encrypted; the Nest Thermostat states that data are encrypted. *See infra* Appendix.

358. There has been some academic work on Internet of Things privacy policies, but nothing in mainstream legal scholarship. *See, e.g.*, R.I. Singh et al., *Evaluating the Readability of Privacy Policies in Mobile Environments*, 3 INT'L J. MOBILE HUM. COMPUTER INTERACTION 55, 55–56 (2011) (exploring the differences between viewing privacy policies on a desktop and on a mobile device); Sebastian Speiser et al., *Web Technologies and Privacy Policies for the Smart Grid*, *in* IECON 2013: PROCEEDINGS OF THE 39TH ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY 4809, 4811–12 (2013) (examining privacy policies and proposing a new architecture for "privacy aware" policy frameworks in the context of smart grids).

359. *See supra* notes 310–14 and accompanying text.

360. *E.g.*, *In re* GeoCities, 127 F.T.C. 94, 122–32 (1999) (ordering various remedial actions to be taken by GeoCities based on allegations that GeoCities had misrepresented its privacy policy).

361. *See* FED. TRADE COMM'N, PRIVACY ONLINE: FAIR INFORMATION PRACTICES IN THE ELECTRONIC MARKETPLACE 27–28 (2000), *available at* http://www.ftc.gov/sites/default/files/documents/reports/privacy-online-fair-information-practices-electronic-marketplace-federal-trade-commission-report/privacy2000.pdf, *archived at* http://perma.cc/4YEU-TPJX (recommending prominently displayed links to privacy policies on a website's home page and anywhere that personal information is collected). Various commentators have called for more substantive or legislative guidance on what terms should be included in online privacy policies. *See* Kesan et al., *supra* note 340, at 460 ("We recommend a new legal regime that would emphasize empowering consumers by setting a baseline of protection to ensure that a consumer has control over her own data.").

Although the FTC held its first public workshop on the Internet of Things in November 2013,[362] it has yet to release guidelines or policy recommendations specifically related to privacy policies on the Internet of Things. Manufacturers therefore have no tailored guidance from the FTC about what constitutes adequate notice in Internet of Things privacy policies.

California's Office of Privacy Protection has taken the lead among states in setting out recommended practices on privacy policies.[363] California's Online Privacy Protection Act (COPPA)[364] requires a firm operating a "commercial Web site or online service" that collects personally identifiable information to "conspicuously post" a privacy policy, either on the website or, in the case of an "online service," through "any other reasonably accessible means of making the privacy policy available for consumers of the online service."[365] The policy must identify the categories of PII collected and types of third parties with whom the company shares information.[366] If the firm provides consumers a mechanism to access or correct PII, the policy must explain that process.[367] In 2008, the California Office of Privacy Protection issued nonbinding guidelines for compliance with these requirements. These guidelines urge firms to include in their privacy policies information on how they collect personal information, what kinds of personal information they collect, how they use and share such information with others, and how they protect data security.[368] In addition, California has recently promulgated guidelines for how best to adapt privacy policies to the smaller screens of mobile phones.[369]

Internet of Things firms clearly trigger COPPA's requirement to have a privacy policy, either because they maintain a website or because they operate an "online service." They must thus disclose the types of PII collected and the categories of third parties with whom they share that PII.[370] This is precisely what we see in existing policies, as discussed above.[371] Because neither the FTC nor California—nor any other relevant legislative or regulatory actor—has set forth requirements specifically applicable to the Internet of Things context, firms are undoubtedly using these baseline website requirements as a minimal safe harbor. They are promulgating

362. *See supra* note 50 and accompanying text.

363. CA. OFFICE OF PRIVACY PROT., RECOMMENDED PRACTICES ON CALIFORNIA INFORMATION-SHARING DISCLOSURES AND PRIVACY POLICY STATEMENTS (2008).

364. CAL. BUS. & PROF. CODE §§ 22575–22579 (West 2008).

365. *Id.* §§ 22575(a), 22577(b)(1), (5).

366. *Id.* § 22575(b)(1).

367. *Id.* § 22575(b)(2).

368. CA. OFFICE OF PRIVACY PROT., *supra* note 363, at 12–14.

369. CA. DEP'T OF JUSTICE, PRIVACY ON THE GO: RECOMMENDATIONS FOR THE MOBILE ECOSYSTEM, at i, 9–13 (2013).

370. *See supra* note 366 and accompanying text.

371. *See supra* subsection II(D)(1)(b).

privacy policies that meet legal requirements created for the Internet, not the Internet of Things.

In short, consumer protection law is essentially unprepared for the Internet of Things. Clearly, firms cannot post deceptive privacy policies for Internet of Things devices, but that is relatively little comfort. Neither the FTC nor California has provided substantive guidance on information disclosure for Internet of Things devices. California's privacy policy law has not been revised since 2008, long before the Internet of Things began to take shape. Not surprisingly, then, notice and choice is off to a rocky start in the Internet of Things context.

III. Four (Messy & Imperfect) First Steps

Let us review the argument to this point. The Internet of Things is developing rapidly as connected sensor-based consumer devices proliferate. Millions of health and fitness, automotive, home, employment, and smartphone devices are now in use, collecting data on consumers' behaviors. These sensor-based data are so granular and high quality that they permit often profound and unexpected inferences about personality, character, preferences, and even intentions. The Internet of Things thus gives rise to difficult discrimination problems, both because seemingly innocuous sensor data might be used as proxies in illegal racial, age, or gender discrimination and because highly tailored economic sorting is itself controversial. In addition, Internet of Things data are difficult to anonymize and secure, creating privacy problems. Finally, notice and choice is an ill-fitting solution to these problems, both because Internet of Things devices may not provide consumers with inherent notice that data rights are implicated in their use and because sensor-device firms seem stuck in a notice paradigm designed for websites rather than connected consumer goods. Currently, discrimination, privacy, security, and consumer welfare law are all unprepared to handle the legal implications of these new technologies.

This Part does not propose a grand solution to these problems. I do not call for a new federal statute or urge the creation of a new regulatory agency. Such solutions would be elegant but implausible, at least at the moment. Scholars have argued for such comprehensive privacy reforms for the last decade,[372] and Congress has ignored them. The futility of such large-scale projects thus leads me to suggest smaller and more eclectic first steps that have some chance of actual effect.

I do not attempt to impose a theoretically consistent approach on these four first steps. One might, for example, demand procedural due process for

372. *See, e.g.*, Daniel J. Solove & Chris Jay Hoofnagle, *A Model Regime of Privacy Protection*, 2006 U. ILL. L. REV. 357, 358 (proposing a "Model Regime" to correct legislative inadequacies in consumer privacy protections).

consumers[373] or argue for state (as opposed to federal) or federal (as opposed to state) intervention. I walk a different line, making use of both procedural and more substantive solutions, as well as both federal and state reforms. My purpose is not to propose a course that is perfectly consistent, but instead one that can be realistic and pragmatic. I therefore suggest four messy and imperfect first steps toward regulating the Internet of Things: (1) broadening existing use constraints—such as some state law on automobile EDRs—to dampen discrimination; (2) redefining "personally identifiable information" to include biometric and other forms of sensor data; (3) protecting security by expanding state data-breach notification laws to include security violations related to the Internet of Things; and (4) improving consent by providing guidance on how notice and choice should function in the context of the Internet of Things.

My goal is to provoke regulatory and scholarly discussion, as well as to provide initial guidance to corporate counsel advising Internet of Things firms at this early stage. In this, I borrow from recent work by Kenneth Bamberger and Dierdre Mulligan, who have argued persuasively that chief privacy officers and corporate counsel need such guidance on how to uphold consumer expectations.[374] If privacy regulation focuses exclusively on procedural mechanisms for ensuring notice and choice, corporate decision makers will likewise focus on such procedural moves. They will tweak their privacy policies, enlarge their fonts, and add more bells and whistles to such policies to try to satisfy regulators. But such hoop jumping may have little real impact on consumer welfare. Providing substantive guidance to corporations, however, may lead corporate decision makers down a different path. If legislators, regulators, and the privacy community make clear their substantive expectations for the Internet of Things, corporations will likely use such norms as guidance for what consumers expect and demand. This is the "privacy-protective power of substantive consumer expectations overlaid onto procedural protections."[375]

My goal in this Part is to suggest ways in which regulators, legislators, and privacy advocates can begin to provide such substantive guidance to the firms creating the Internet of Things. The Part concludes with a public choice argument for urgency—suggesting that we can and must move quickly to set

373. *See* Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 126–27 (2014) (arguing that opportunities for consumers to air their privacy grievances before a "neutral data arbiter" would comport with core values of procedural due process).

374. *See* Kenneth A. Bamberger & Deirdre K. Mulligan, *Privacy on the Books and on the Ground*, 63 STAN. L. REV. 247, 298 (2011) ("[D]ecisions at the corporate level might provide the best way to avoid privacy harms. . . . [P]roviding a substantive metric to guide such systemic decisions recognizes the fact that the values embedded in technology systems and practices shape the range of privacy-protective choices individuals can and do make . . . ." (footnote omitted)).

375. *Id.* at 300.

guidelines and ground rules before economic interests in the Internet of Things ecosystem become overly entrenched and immovable.

A. A Regulatory Blueprint for the Internet of Things

1. Dampening Discrimination with Use Constraints.—Use constraints—or "don't use" rules[376]—are common across the law. Fifth Amendment jurisprudence prohibits a jury from drawing negative inferences from a defendant's failure to testify;[377] the FCRA bars consumer reporting agencies from including bankruptcies more than ten years old in consumer credit reports;[378] and the GINA bars the use of genetic information by health insurers.[379] Such rules

> rest on a social judgment that even if transacting parties both wish to reveal and use a particular piece of information, its use should be forbidden because of some social harm, such as discriminating against those with genetic disorders, that is greater than the social benefits, such as the allocative and contractual efficiency created by allowing freedom of contract.[380]

As a first regulatory step, we should constrain certain uses of Internet of Things data if such uses threaten consumer expectations. This approach is substantive rather than procedural, and sectoral rather than comprehensive.[381] The advantages of such an approach include that one can tailor such constraints to each particular context and prioritize those contexts that present the most risk of consumer harm. In addition, one can sometimes mobilize legislators and regulators that become concerned about discriminatory uses of information in a particular context and galvanized about that type of use, but who might not adopt more widespread, systemic reforms.

---

376. *See* Peppet, *supra* note 48, at 1199 (discussing how "don't use" rules constrain the decision-making process by restricting information).

377. *E.g.*, Mitchell v. United States, 526 U.S. 314, 328 (1999) (holding that the rule against negative inferences applies equally to sentencing hearings as to criminal trials); Carter v. Kentucky, 450 U.S. 288, 305 (1981) (reaffirming precedent requiring judges to charge juries with "no-inference" instructions when requested by a party asserting Fifth Amendment privileges in a criminal case).

378. *See* 15 U.S.C. § 1681c(a)(1) (2012).

379. *See* 29 U.S.C. § 1182(a)(1) (2012) ("[A] health insurance issuer . . . may not establish rules for eligibility . . . based on . . . [g]enetic information.").

380. Peppet, *supra* note 48, at 1200.

381. In contrast, for example, consider a recent proposal by Tene and Polonetsky calling for increased decisional transparency—requiring organizations that *use* data to disclose how they do so and for what purposes. *See* Tene & Polonetsky, *supra* note 19, ¶ 86 ("[W]e propose that organizations reveal not only the existence of their databases but also the *criteria* used in their decision-making processes . . . .").

Consider two broad categories of—and justifications for—use constraints: constraints on cross-context use of data and constraints on forced data revelation even within a given context.

a. Cross-Context Use Constraints.—First, borrowing from Helen Nissenbaum's work on the importance of restraining cross-context data flows to protect consumer privacy,[382] privacy advocates should focus on keeping Internet of Things data use from violating contextual boundaries. Some choices will be easy. Racial, gender, age, and other forms of already illegal discrimination are likely to generate immediate and sympathetic responses. If an employer, insurer, or other economic actor were to begin using Internet of Things data as a proxy for race or other protected characteristics, legislators and regulators are sure to react.

Beyond racial and other forms of illegal discrimination, there is some reason for optimism, however, that use constraints are possible to dampen economic discrimination based on cross-context use of Internet of Things data. State legislatures—far more so than Congress—have enacted a variety of use constraints that protect consumers' information. For example, although relatively little attention has been paid in the legal literature to the use of diverse sources of information in credit scoring,[383] there has been some debate over whether lenders should be permitted to access social media—Facebook, LinkedIn, Twitter—to factor one's social context into credit determinations.[384] Similarly, controversy erupted a few years ago when it was publicized that auto insurers were factoring FICO credit scores into auto insurance rate setting.[385] Consumer groups protested that this cross-context use of information was unfair and opaque to consumers.[386] Finally, several states, including California, Connecticut, Hawaii, Illinois, Maryland,

382. *See* HELEN NISSENBAUM, PRIVACY IN CONTEXT: TECHNOLOGY, POLICY, AND THE INTEGRITY OF SOCIAL LIFE 2–4 (2010) (constructing a privacy framework centered on "contextual integrity" that seeks to incorporate constraints from various sources, such as social norms, policy, law, and technical design).

383. *See* Cullerton, *supra* note 257, at 808 ("Although much scholarly attention has been paid to the privacy implications of online data mining and aggregation, . . . for use in targeted behavioral advertising, relatively little attention has been focused on the adoption of these techniques by lenders." (footnote omitted)). *See generally* Lea Shepard, *Toward a Stronger Financial History Antidiscrimination Norm*, 53 B.C. L. REV. 1695, 1700–05 (2012) (detailing the information included in consumer reports and credit reports).

384. *See, e.g.*, *Stat Oil: Lenders Are Turning to Social Media to Assess Borrowers*, ECONOMIST, Feb. 9, 2013, http://www.economist.com/news/finance-and-economics/21571468-lenders-are-turning-social-media-assess-borrowers-stat-oil, *archived at* http://perma.cc/KE7J-3LF4 (warning about potential concerns with considering social media in lending decisions).

385. *See* Herb Weisbaum, *Insurance Firms Blasted for Credit Score Rules*, NBCNEWS (Jan. 27, 2010, 5:02 PM), http://www.nbcnews.com/id/35103647/ns/business-consumer_news/t/insurance-firms-blasted-credit-score-rules/#.VAzDthbfXww, *archived at* http://perma.cc/3ZTL-FPUK (providing an overview of how credit scores are used in the insurance industry and describing the backlash to that practice).

386. *Id.*

Oregon, and Washington, have passed laws limiting employers' consideration of credit reports,[387] even though research has shown that credit scores correlate with traits such as impulsivity, self-control or impatience, and trustworthiness.[388] Such traits are relevant to employers—but inferences drawn from one context can be disturbing if used in another.[389]

Similarly, state legislators may be galvanized to take action on the use of data emerging from the many Internet of Things devices that track and measure two of our most privacy-sensitive contexts: the body and the home. Although fitness, health, appliance use, and home habit data may be economically valuable in employment, insurance, and credit decisions, it is also likely that the public will react strongly to discrimination based on such sensitive information.

Advocates, regulators, and legislators might therefore consider these two domains as worthy candidates for cross-context use constraints. First, the explosion of fitness and health monitoring devices is no doubt highly beneficial to public health and worth encouraging. At the same time, data from these Internet of Things devices should not be usable by insurers to set health, life, car, or other premiums. Nor should these data migrate into employment decisions, credit decisions, housing decisions, or other areas of public life. To aid the development of the Internet of Things—and reap the potential public-health benefits these devices can create—we should reassure the public that their health data will not be used to draw unexpected inferences or incorporated into economic decision making. A woman tracking her fertility should not fear that a potential employer could access such information and deny her employment; a senior employee monitoring his fitness regime should not worry that his irregular heart rate or lack of exercise will lead to demotion or termination; a potential homeowner seeking a new mortgage should not be concerned that in order to apply for a loan she will have to reveal her fitness data to a bank as an indicator of character, diligence, or personality.

Second, Internet of Things devices in the home should be similarly protected. As indicated, it is relatively easy to draw powerful inferences about a person's character from the intimate details of her home life.[390]

---

387. CAL. LAB. CODE § 1024.5(a) (West Supp. 2014); CONN. GEN. STAT. ANN. § 31-51tt (West Supp. 2014); HAW. REV. STAT. ANN. § 378-2(8) (2010); 820 ILL. COMP. STAT. ANN. 70/10 (West Supp. 2014); MD. CODE ANN., LAB. & EMPL. § 3-711(b) (LexisNexis Supp. 2013); OR. REV. STAT. § 659A.320 (2013); WASH. REV. CODE ANN. § 19.182.020 (West 2013).

388. Shweta Arya et al., *Anatomy of the Credit Score*, 95 J. ECON. BEHAV. & ORG. 175, 176–77 (2013).

389. *See* Ruth Desmond, Comment, *Consumer Credit Reports and Privacy in the Employment Context: The Fair Credit Reporting Act and the Equal Employment for All Act*, 44 U.S.F. L. REV. 907, 911–12 (2010) (lamenting that the availability of credit reports, which often give incomplete and out-of-context information, allows employers to "draw potentially misleading conclusions about a person's history and behavior").

390. *See supra* subpart I(C).

Whether and how often a person comes home late at night, how regularly she cooks for herself, how often she uses her vacuum to clean her home, with what frequency she leaves her oven on or her garage door open as she leaves the house, whether she turns on her security system at night—all of these intimate facts could be the basis for unending inference. Currently there is little to prevent a lender, employer, insurer, or other economic actor from seeking or demanding access to such information. Given the personal nature of such data, however, this seems like a ripe area for cross-context use constraints to prevent such invasive practices.

Some will undoubtedly object to this call for cross-context use constraints, arguing that the economic benefits of using such data to tailor economic decisions outweigh any social costs. I disagree. Just because everything may reveal everything on the Internet of Things, it does not follow that all uses of all data necessarily benefit social welfare.[391] If any contexts demand respect and autonomy, the body and the home seem likely candidates. Moreover, for the Internet of Things to flourish, consumers must be reassured that overly aggressive, cross-context uses of data will be controlled. Early research suggests, for example, that consumers have been slow to adopt car-insurance telematics devices out of fear that their driving data will leak into other contexts such as employment.[392] Research on personal fitness monitors reveals similar fears.[393] Reasonable constraints on cross-context data use will likely facilitate, not inhibit, the development of the Internet of Things.

b. Constraints on Forced Disclosure Even Within a Given Context.— As a second category, legislators should consider use constraints *within* a given context to prevent forced disclosure of sensitive Internet of Things data. Whereas cross-context use constraints derive their legitimacy from privacy theory that shows that context-violating data use threatens consumer expectations and welfare, this second type of within-context use constraints is grounded in the assumption that consumers should not be forced to reveal certain information through economic or other pressure.

To understand this second type of use constraint and how it differs from cross-context constraints, return to the example of automobile EDRs. Privacy advocacy groups have argued for use constraints in this context. The Electronic Privacy Information Center (EPIC), for example, has urged the

391. *See supra* notes 249–50 and accompanying text.

392. *See* Johannes Paefgen et al., *Resolving the Misalignment Between Consumer Privacy Concerns and Ubiquitous IS Design: The Case of Usage-Based Insurance*, *in* ICIS 2012: PROCEEDINGS OF THE 33RD INTERNATIONAL CONFERENCE ON INFORMATION SYSTEMS 1, 2 (2012) ("[T]he slow diffusion rate of [usage-based motor insurance] has been attributed to [privacy concerns] among potential customers . . . .").

393. *See infra* section III(A)(4).

NHTSA to limit use of EDR data.[394] In particular, EPIC has argued that insurers should be forbidden from requiring access to EDR data as a condition of insurability, using EDR data for premium assessment, or conditioning the payment of a claim on the use of such data.[395] Likewise, several states have passed laws limiting EDR data use.[396] Four states currently forbid insurance companies from requiring that an insured consent to future disclosure of EDR data or from requiring access to EDR data as a condition of settling an insurance claim.[397] One state—Virginia—also forbids an insurer from adjusting rates solely based on an insured's refusal to provide EDR data.[398]

These statutes illustrate how use constraints can substantively limit data use *within* a given context. They enact the judgment that insurers should not use economic pressure to force consumers to reveal automobile sensor data. Other states should consider enacting these restrictions on EDR data.

In addition, however, state legislatures should broaden these statutes. Most of these state statutes currently would not cover the data generated by consumer driving and automobile monitors, such as the Automatic Link sensor device described in Part I.[399] Several states, including Arkansas, California, Colorado, Nevada, New Hampshire, and Texas, limit their EDR statutes to factory- or manufacturer-installed data recorders.[400] These statutes thus do not apply to a consumer-installed after-market device. Other states, including Connecticut, Oregon, and Utah, limit their statutory protections

394. Comment of the Elec. Privacy Info. Ctr. et al., to the Nat'l Highway Traffic Safety Admin., Docket No. NHTSA-2012-0177, at 2 (Feb. 11, 2013), *available at* http://epic.org/privacy/edrs/EPIC-Coal-NHTSA-EDR-Cmts.pdf, *archived at* http://perma.cc/H6EK-BAKY (responding to Federal Motor Vehicle Saftey Standards; Event Data Recorders, 49 Fed. Reg. 74,144 (Dec. 13, 2012)).

395. *Id.* at 12.

396. Fifteen states have passed laws related to EDR data. ARK. CODE ANN. § 23-112-107 (2014); CAL. VEH. CODE § 9951 (West Supp. 2014); COLO. REV. STAT. ANN. § 12-6-402 (2010); CONN. GEN. STAT. ANN. § 14-164aa (West Supp. 2014); ME. REV. STAT. ANN. tit. 29-A, §§ 1971–1973 (Supp. 2013); NEV. REV. STAT. § 484D.485 (2013); N.H. REV. STAT. ANN. § 357-G:1 (2009); N.Y. VEH. & TRAF. LAW § 416-b (McKinney 2011); N.D. CENT. CODE § 51-07-28 (2007); OR. REV. STAT. §§ 105.925, .928, .932, .935, .938, .942, .945 (2013); TEX. TRANSP. CODE ANN. § 547.615(c), (d) (West 2011); UTAH CODE ANN. § 41-1a-1503 (LexisNexis Supp. 2013); VA. CODE ANN. §§ 38.2-2212(C.1)(s), -2213.1, 46.2-1088.6, -1532.2 (2007); WASH. REV. CODE ANN. § 46.35.030 (West 2012); H.R. 56, 147th Gen. Assemb., Reg. Sess. (Del. 2014); *see Privacy of Data from Event Data Recorders: State Statutes*, *supra* note 27 (elaborating and distinguishing the substance of these states' statutes).

397. ARK. CODE ANN. § 23-112-107(e)(3)–(4) (2014); N.D. CENT. CODE § 51-07-28(6) (2007); OR. REV. STAT. § 105.932 (2013); VA. CODE ANN. § 38.2-2212(C.1)(s) (2007).

398. VA. CODE ANN. § 38.2-2213.1 (2007).

399. *See supra* notes 113–18 and accompanying text.

400. ARK. CODE ANN. § 23-112-107(a)(2) (2014); CAL. VEH. CODE § 9951(b) (West Supp. 2014); COLO. REV. STAT. ANN. § 12-6-401(2) (2010); NEV. REV. STAT. § 484D.485(6) (2013); N.H. REV. STAT. ANN. § 357-G:1(II) (2009); TEX. TRANSP. CODE ANN. § 547.615(a)(2) (West 2011).

only to devices that record vehicle data just prior to or after a crash event.[401] Again, this would—somewhat ironically—exclude Internet of Things devices such as the Automatic Link that record far *more* information around-the-clock.

Two states—Virginia and Washington—have enacted broader EDR statutes that would protect Internet of Things data from compelled use by an insurer. Virginia and Washington define a "recording device" broadly as "an electronic system . . . that primarily . . . preserves or records . . . data collected by sensors . . . within the vehicle."[402] If other states adopt new EDR statutes—or states with existing but limited EDR statutes consider revision—they should extend their statutory protections to data collected by after-market consumer Internet of Things devices, not merely manufacturer-installed crash-related EDRs. Doing so will ensure that consumers can experiment with the Internet of Things without fear that an insurance company will compel revelation of their data.

In addition, however, states considering new or revised EDR statutes should take seriously the threat that everything reveals everything. Use constraints could restrict the use of automobile and driving data for employment, credit, and housing decisions, as well as for insurance decisions outside of the car-insurance context (e.g., health or life insurance), when the decision in question does not directly relate to driving. Thus, if an employer wanted access to driving data from its fleet of vehicles in order to improve fleet efficiency or oversee its drivers' safety, such directly related uses should be permitted. But if an employer sought access to an employee's personal Internet of Things data to make hiring or other employment decisions, a state EDR statute should prevent forced revelation of such information.

By this point it might seem overly detailed to consider this one example—automobile EDR data—so carefully. I predict, however, that the control of Internet of Things data will have to happen in this fine-grained way. Each context, device, or type of data will need to be considered. The opportunities for and risks of discrimination based on that data will have to be weighed. And legislators will have to decide whether allowing such sensor data to leak into unexpected and sensitive contexts harms consumer welfare.

Various contexts are ripe for consideration. One can easily imagine health and life insurers demanding or seeking access to fitness and health

401. CONN. GEN. STAT. ANN. § 14-164aa(a)(1) (West Supp. 2014); OR. REV. STAT. § 105.925(1) (2013) (adopting the definition in 49 C.F.R. § 563.5(b) as of January 1, 2008); UTAH CODE ANN. § 41-1a-1502(2) (LexisNexis Supp. 2013) (adopting the definition in 49 C.F.R. § 563.5(b) as of May 14, 2013); *see also* 49 C.F.R. § 563.5(b) (2007) (defining EDR as a device recording "during the time period just prior to a crash event . . . or during a crash event"); *id.* § 563.5(b) (2013) (same).

402. VA. CODE ANN. § 46.2-1088.6(A)(6) (2007); WASH. REV. CODE ANN. § 46.35.010(2) (West 2012).

sensor data, or home insurers demanding access to home-monitoring system data. As such data become more detailed, sensitive, and revealing, states might consider prohibiting insurers from conditioning coverage on their revelation. The Nest Protect, for example, not only alerts a consumer about smoke alarms, but also contains motion sensors that track how and when users inhabit different parts of their homes.[403] Although such information might be useful to a home insurer to investigate a fire or casualty claim, it seems invasive to permit insurers to demand such detailed information as a condition of insurance.

Similarly, legislators might consider within-context constraints on employers who demand disclosure of personal Internet of Things data streams. The Lumo Back posture sensor, for example, is a strap that one wears around one's midsection.[404] It constantly monitors one's posture and can aid in recovery from back injuries.[405] One can imagine an employer becoming quite interested in such data if it were prosecuting a worker's compensation claim or investigating an employee's work habits in a factory or warehouse. Forcing disclosure of such information, however, will likely kill consumer interest in such devices over time. Reasonable within-context use constraints might dampen these problems.

Some will no doubt object that within-context use constraints are overly paternalistic and will prevent certain consumers from making use of their Internet of Things data to distinguish themselves in the market as good, trustworthy, diligent economic actors. I have argued elsewhere that forced disclosure is and will likely become increasingly problematic as biometric and other sensors proliferate.[406] There is no reason to repeat that long and somewhat complex argument here. For now, I will simply conclude that Internet of Things devices are likely to create a variety of within-context forced-disclosure examples that may provoke legislative reaction.

Of course, in the end my judgment is irrelevant: legislators—particularly state legislators—will have to weigh consumer welfare and determine whether such use constraints seem justified. At the moment these issues of discrimination are not even on the regulatory radar screen. Hopefully this proposal to employ use constraints to dampen discrimination based on the Internet of Things will begin that conversation.

---

403. *See Nest Support*, NEST, https://support.nest.com/article/Learn-more-about-the-Nest-Protect-sensors, *archived at* http://perma.cc/JT6H-772W (describing the Nest Protect's ultrasonic and occupancy sensors that detect movement and proximity).

404. *Lumo Back*, *supra* note 84.

405. *The Science of LUMOback*, LUMO, http://www.lumoback.com/learn/the-science-of-lumo back, *archived at* http://perma.cc/NUK6-JDPY.

406. *See* Peppet, *supra* note 48, at 1159 ("[I]n a signaling economy, the stigma of nondisclosure may be worse than the potential discriminatory consequences of full disclosure.").

2. Protecting Privacy by Redefining Personally Identifiable Information in This Context.—A second plausible initial step is to focus attention on how the terms "personal information" or "personally identifiable information" are used in relation to Internet of Things data. As indicated in Part II, both academic commentators and the FTC have already begun to move from a binary definition—where information is or is not PII—to a more nuanced approach in which regulation becomes more strict as information becomes more *likely* to identify or be identified with an individual.[407] Neither scholars nor regulators, however, have focused on the particular issues for PII raised by the Internet of Things.[408] This has left the door open for Internet of Things firms to define "personal information" and "personally identifiable information" in a variety of ways in privacy policies and terms of use, as indicated by the privacy-policy survey discussed in Part II.[409]

As a first step, regulators should issue guidance to Internet of Things firms about how to define and treat personally identifiable information in their privacy policies, on their websites generally, and in their security practices. Part II asserted that sensor data are particularly difficult to anonymize successfully, and at least the computer-science research to date seems to support this conclusion.[410] If every person's gait can be uniquely identified by their Fitbit data, then Fitbit data are essentially impossible to de-identify.[411] If every road is unique and therefore a smartphone traveling in a vehicle over any given road emits a unique accelerometer data stream, then accelerometer data are essentially impossible to de-identify.[412] If one can be picked out from 1.5 million anonymized cell-phone location streams based on just a very small number of known locations over a year-long period, then cell-phone location data are essentially impossible to de-identify.[413] If electricity usage can reveal not only that you are watching television but what movie you are viewing, then electricity data are essentially impossible to de-identify.[414]

Internet of Things firms currently act—particularly in their privacy policies—as if "personal information" includes only fields such as name, address, and telephone number.[415] This allows them to use less stringent security to protect sensor data from attack, as well as to release aggregated de-identified sensor data streams to partners or other third parties under the

407. *See supra* section II(B)(2).
408. *See supra* section II(B)(2).
409. *See supra* section II(D)(1) and *infra* Appendix.
410. *E.g.*, Lane et al., *supra* note 266; Hardesty, *supra* note 274.
411. *See supra* section II(B)(1).
412. *See supra* notes 275–77 and accompanying text.
413. *See supra* notes 271–74 and accompanying text.
414. *See supra* note 154 and accompanying text.
415. *See supra* subsection II(D)(1)(b) and *infra* Appendix.

assumption that such information cannot be easily re-identified.[416] But if Internet of Things sensor data are so sparse as to make re-identification fairly simple, such practices are exposing very sensitive consumer information.

At the very least, corporate and privacy counsel for Internet of Things firms should focus on these definitions of PII and consider seriously the possibility that they are currently misleading the public. Several of the privacy policies surveyed, for example, make statements that the firm takes steps to make re-identification of aggregated consumer data impossible.[417] Counsel should investigate whether such promises can actually be upheld, given the ways in which computer-science research has shown sensor data are vulnerable to re-identification.[418]

In addition, regulators—particularly the FTC and California's Office of Privacy Protection—should convene discussions with corporate counsel, computer scientists, academics, and privacy advocates to come up with guidance for the definition of PII in the Internet of Things context. For some types of Internet of Things devices, it may remain plausible to distinguish "personal information" from sensor information. Whether an Internet-connected lightbulb is on or off may not reveal much about a user's identity. But for many—perhaps most—Internet of Things firms, the current approach to defining the concept of PII seems ill-conceived.

3. Protecting Security by Expanding Data-Breach Notification Laws.—Third, regulators, corporate counsel, privacy advocates, and others should focus on data security for the Internet of Things. At the very least, regulators can promulgate soft guidelines on best practices for securing these devices. California already issues such nonbinding guidelines for Internet data generally;[419] it and other states should extend such guidance to the Internet of Things context. Data should be encrypted whenever possible; firmware should be updatable to allow for future measures to address security flaws; and data should be collected, transmitted, and stored only as necessary to make the device function.[420] By giving guidance to Internet of Things

416. *See supra* section II(B)(1).

417. *See supra* section II(D)(1) and *infra* Appendix.

418. *See supra* notes 264–70 and accompanying text.

419. CA. OFFICE OF PRIVACY PROT., RECOMMENDED PRACTICES ON NOTICE OF SECURITY BREACH INVOLVING PERSONAL INFORMATION 8–14 (2012).

420. For example, in response to certain security flaws identified in November 2013, Belkin issued a firmware update for its WeMo home-automation devices. The patch prevented XML injection attacks, added SSL encryption and validation to the WeMo system, and password protected certain port interfaces to prevent malicious firmware attacks. Belkin distributed these updates through its smartphone apps. *See Belkin Fixes WeMo Security Holes, Updates Firmware and App*, NETWORKWORLD (Feb. 19, 2014, 7:16 AM), http://www.networkworld.com/article/2226374/microsoft-subnetelkin-fixes-wemo-security-holes—u/microsoft-subnet/belkin-fixes-wemo-security-holes—updates-firmware-and-app.html, *archived at* http://perma.cc/F4LW-7CSR.

firms, regulators can generate interest in and discussion of what constitutes industry standard in this new area.

Beyond that, however, states should extend their data-breach notification laws to reach Internet of Things sensor data. Public disclosure of data breaches serves a reputational sanction function and allows the public to mitigate the harm from data theft.[421] It is essentially a market mechanism to address data security, rather than an administrative one.[422] Coupled with substantive guidance from regulators on data-security best practices for the Internet of Things, data-breach notification can play a powerful role in disciplining device manufacturers.[423] Research has shown that data-breach notification requirements are important to firms and corporate counsel, who take the reputational consequences of such notice seriously.[424]

To extend data-breach notification law to the Internet of Things will require revision of the definitions in existing state statutes. As indicated in Part II, only a few such statutes even arguably apply currently to breach of Internet of Things sensor data.[425] To remedy this, states can take one of two approaches.

First, a state could simply alter the definition of "personal information" in their data-breach statute to include name plus biometric or other sensor-based data such as, but not necessarily limited to, information from fitness and health sensor devices; automobile sensors; home appliance, electricity, and other sensors; and smartphone sensors. This approach would continue the current practice of applying data-breach notification statutes only to *already-identified* datasets—in other words, datasets that include name or other clearly identifying information. As this is the dominant current approach to state data-breach notification laws, it seems likely that were states to consider extending such laws to Internet of Things sensor data, they would continue to require theft of name plus sensitive sensor information.

A second approach would abandon the "name plus" formula, instead triggering data-breach notification if even de-identified datasets were breached. As indicated, most state laws do not currently extend to de-

421. Paul M. Schwartz & Edward J. Janger, *Notification of Data Security Breaches*, 105 MICH. L. REV. 913, 917–18 (2007).

422. *Compare* Mark Burdon, *Contextualizing the Tensions and Weaknesses of Information Privacy and Data Breach Notification Laws*, 27 SANTA CLARA COMPUTER & HIGH TECH. L.J. 63, 66 (2011) (highlighting how data-protection laws help mitigate the market tension between "consumer protection and corporate compliance cost minimization"), *with* Nathan Alexander Sales, *Regulating Cyber-Security*, 107 NW. U. L. REV. 1503, 1545 (2013) (describing core aspects of an administrative law approach to cyber security).

423. *See* Burdon, *supra* note 422, at 126–27 (stressing that data-breach notification laws are not ends in themselves, but rather often point to problems and catalyze development of solutions).

424. *See* Bamberger & Mulligan, *supra* note 374, at 275 ("[E]very single respondent mentioned . . . the enactment of state data breach notification statutes[] as an important driver of privacy in corporations." (footnote omitted)).

425. *See supra* notes 323–26 and accompanying text.

identified datasets.[426] If a state legislature is going to take up revision of their data-breach notification law, however, they might consider the continued wisdom of this limitation. As discussed in the previous section, easy re-identification of Internet of Things data suggests that even de-identified sensor datasets should be protected by data-breach notification statutes. Thus, a state could abandon the name plus approach and trigger notification if de-identified sensor data were stolen.

Either reform would significantly improve on the status quo. Currently, consumers have no way to know whether Internet of Things firms are under attack or if their potentially sensitive information has been stolen. As consumers behavior is increasingly measured, quantified, analyzed, and stored by the Internet of Things, it is reasonable that one's weight, heart rate, fertility cycles, driving abilities, and personal habits at home should be protected as much as one's credit card or Social Security number. Such statutory amendment would bring the Internet of Things on par with the way in which we treat other types of sensitive information.

4. Improving Consent by Guiding Internet of Things Consumer Disclosures.—Finally, a fourth initial step would be to provide guidance on how to secure consumer consent to privacy practices on the Internet of Things. Such guidance must come, again, from the FTC, California's Office of Privacy Protection, similar state regulatory bodies, and privacy advocacy groups.

As an initial caveat, I do not want to place too much emphasis on consent as a solution to discrimination, privacy, and security problems. Most regulatory approaches to information privacy suffer from the delusion that consent can sanitize questionable privacy practices. Daniel Solove has called this the "privacy self-management" approach—the belief that providing consumers with sufficient information and control will allow them to "decide for themselves how to weigh the costs and benefits of the collection, use, or disclosure of their information."[427] Unfortunately, privacy self-management fails for a variety of reasons, as Solove and others have shown.[428] Consumers are uninformed, cognitively overwhelmed, and structurally ill-equipped to manage the vast information and myriad decisions that privacy self-management requires.[429]

---

426. *See supra* notes 320–29 and accompanying text.

427. Daniel J. Solove, *Introduction: Privacy Self-Management and the Consent Dilemma*, 126 HARV. L. REV. 1880, 1880 (2013).

428. *See* Ryan Calo, Essay, *Code, Nudge, or Notice?*, 99 IOWA L. REV. 773, 788–89 (2014) (reviewing the arguments for and against notice requirements).

429. *See id.* at 789 ("Consumers and citizens do not benefit from more information as expected.").

With that caveat in place, however, focusing on Internet of Things privacy policies is still worthwhile for two reasons. First, consumers and consumer advocates should at least have some *chance* of using privacy policies to assess the implications of product choices. Acknowledging the limitations of consumer use of notice and choice does not justify allowing firms to confuse consumers with poor privacy policies. Second, privacy policies are one of the few regulatory tools currently available.[430] As discussed, the FTC's authority to constrain deceptive practices is a relatively stable ground for regulatory action.[431] Thus, it is worth focusing at least some attention on the ways in which consumer protection law can address Internet of Things privacy policies.

Regulatory guidance must be grounded in protecting consumer expectations in this context. Relatively little empirical research has been done to date exploring those expectations for the Internet of Things.[432] Preliminary research about this new class of devices, however, does reveal certain basic consumer concerns. For example, Pedrag Klasnja and his coauthors studied twenty-eight subjects using fitness trackers over several months.[433] They found that study participants' privacy concerns varied depending on (1) what types of sensors the tracker employed (e.g., accelerometers, GPS, or audio recordings); (2) the length of time data were retained (e.g., kept indefinitely or discarded quickly); (3) the contexts in which the participants used the sensors (e.g., work or home); (4) the perceived value to the participants of the sensor-enabled applications; and (5) whether data were stored on the users' device, on a website, or in the cloud.[434] Similarly, in a recent study of Fitbit, Withings scales, and other health-related sensor devices, Debjanee Barua and her coauthors found that users want to be able to have a copy of the data such devices produce.[435] This is the simplest level of control over one's data—the ability to inspect, manipulate, and store your own information.[436] As the authors note, however, even this basic level of control is not supported by current

430. *See* M. Ryan Calo, *Against Notice Skepticism in Privacy (and Elsewhere)*, 87 NOTRE DAME L. REV. 1027, 1028 (2012) ("In the context of digital privacy, notice is among the only affirmative obligations websites face.").

431. *See supra* notes 310–14 and accompanying text.

432. *See, e.g.*, Debjanee Barua et al., *Viewing and Controlling Personal Sensor Data: What Do Users Want?*, *in* PERSUASIVE 2013: PROCEEDINGS OF THE 8TH INTERNATIONAL CONFERENCE ON PERSUASIVE TECHNOLOGY 15, 15–16 (Shlomo Berkovsky & Jill Freyne eds., 2013) (using self-reported questionnaires to study people's concerns and reactions to data gathered by sensors and applications).

433. Predrag Klasnja et al., *Exploring Privacy Concerns About Personal Sensing*, *in* PERVASIVE 2009: PROCEEDINGS OF THE 7TH INTERNATIONAL CONFERENCE ON PERSUASIVE COMPUTING 176, 177 (Hideyuki Tokuda et al. eds., 2009).

434. *Id.* at 179–81.

435. Barua et al., *supra* note 432, at 22.

436. *See* Tene & Polonetsky, *supra* note 19, ¶ 64 (explaining how sharing data with consumers allows them to study their own data and draw their own conclusions).

consumer products: "With the state of present sensors, this is a problem. Typically, each sensor, and its associated data, is under the control of its manufacturer. . . . [T]his does not make it feasible for most people to get a copy of their own data."[437]

Finally, in one of the most interesting studies to date, Heather Patterson and well-known privacy scholar Helen Nissenbaum focused on user expectations of privacy regarding Fitbit and other fitness data.[438] Their study builds on the basic finding that Americans are generally concerned about health-related data being used outside of the medical context: 77% are concerned about such information being used for marketing, 56% are concerned about employer access, and 53% worry about insurer access.[439] Patterson and Nissenbaum found that participants were concerned about the potential for discrimination in hiring and insurance,[440] overly personal marketing efforts based on Fitbit data,[441] and data security.[442] Patterson and Nissenbaum conclude that "[s]elf-tracking services should . . . be concrete about information disclosures, explaining to users the conditions under which *particular* third parties, including employers, insurance companies, and commercial researchers, may obtain access to their data, and giving users the explicit right to opt out of these disclosures."[443]

Together, these studies suggest that Internet of Things consumers want answers to such seemingly basic questions as:

- What exact information does the device collect about itself or its user, using what sorts of sensors?
- Is that information stored on the device itself, on the user's smartphone (assuming the device interacts with the user's phone), on the manufacturer's servers in the cloud, or all of the above?
- Is that information encrypted and how?
- If the information is stored in a de-identified form, does the manufacturer maintain the ability to re-identify the information (for example, in response to a subpoena)?
- Can the user gain access to the raw sensor data in order to export it to another service or device?

---

437. Barua et al., *supra* note 432, at 24–25.

438. Patterson & Nissenbaum, *supra* note 239, at 3.

439. *Id.* at 11 & n.91; *see also* MARKLE FOUND., SURVEY FINDS AMERICANS WANT ELECTRONIC PERSONAL HEALTH INFORMATION TO IMPROVE OWN HEALTH CARE 1, 3 (2006), http://www.markle.org/downloadable_assets/research_doc_120706.pdf, *archived at* http://perma.cc/AAW5-BCW4.

440. Patterson & Nissenbaum, *supra* note 239, at 26–27.

441. *Id.* at 28.

442. *Id.*

443. *Id.* at 46.

- Can the user view, edit, or delete sensor data from the manufacturer's servers, if it is kept there?
- According to the device manufacturer, who owns the data in question?
- Who exactly will the manufacturer or service share the data with, and will the user have any right to opt out of such disclosures?

Such information would provide consumers with the information needed to make informed choices about such connected devices. Unfortunately, subpart II(D) showed that current industry practice provides nothing near this level of disclosure.[444] Instead, existing Internet of Things privacy policies tend to leave unanswered most or all of these basic questions.

I suggest four basic reforms to current practice, beyond the redefinition of "personally identifiable information" already discussed above.[445] First, regulators should seek industry consensus on best practices for *where* and *when* to give consumers notice about privacy and data issues. Firms should either include the relevant product-related privacy policy in the box with a consumer Internet of Things device or should provide clear information with the product about how a user can find that policy. In addition, firms should clarify whether website policies apply only to website use or also to data generated by product use. If the latter, that merged policy should clearly and directly address the sensor data generated by an Internet of Things device and clarify any distinctions in how such data are handled (as compared to data generated by website use).

Second, Internet of Things privacy policies should commit firms to the principle that consumers own the sensor data generated by their bodies, cars, homes, smartphones, and other devices. As a corollary to this commitment, firms should be encouraged to give users clear access, modification, and deletion rights vis-à-vis sensor data. As indicated in Part II, none of the surveyed privacy policies provided for user ownership of sensor data, and only a very few even addressed access rights to sensor data specifically.[446] Although firms currently sometimes give consumers the right to change "personal information," lack of clarity about whether sensor data qualifies as personal information currently makes those rights relatively weak vis-à-vis sensor data.

Third, Internet of Things privacy policies should specify what sensors are used in a device, exactly what data those sensors create, for what purposes those data are used, and how (and for how long) those data are stored. Consumers should be told whether sensor data are kept on the device or in

444. *See supra* subpart II(D) and *infra* Appendix.

445. *See supra* section III(A)(2).

446. *See supra* section II(D)(1).

the cloud, and should be given clear notice that cloud storage means that the data is both more vulnerable to security breach and available for subpoena or other discovery. If sensor data are stored in the cloud, firms should disclose whether such data are stored in encrypted or de-identified form.

Finally, Internet of Things firms should commit not to share even aggregated, de-identified sensor data that poses reasonable risk of re-identification. This is a corollary of my argument in section III(A)(2) for re-defining personally identifiable information in this context, but deserves separate mention. Sensor data are so sensitive and revealing that consumers should be reassured that they will not leak into the public sphere. I would urge regulators and privacy advocates to encourage Internet of Things firms to adopt a simple principle: when in doubt, assume that sensor data can be re-identified. Such firms would do well to build their business models around the assumption that they cannot share even aggregated, de-identified sensor data without significant reputational, market, and regulatory risk.

These basic reforms to Internet of Things privacy policies are meant to begin a conversation between regulators, consumer advocates, privacy scholars, and corporate counsel. This is a new and evolving field full of new and evolving products. My review of the status quo reveals that reform is necessary to minimize consumer confusion and make Internet of Things privacy policies at least plausibly useful. But this conversation will take time and consensus building between regulators and market players. As the next and final subpart shows, however, the conversation must begin with some urgency.

B. Seize the Moment: Why Public Choice Problems Demand Urgency

This brings us to our final topic: the public choice problems inherent in addressing the Internet of Things and the resulting need for urgency. The informational privacy field has long lamented the difficulties of enacting legislative privacy reforms.[447] Congress has largely ignored academic and even regulatory proposals over the last decade. What chance, then, is there for managing these problems of discrimination, privacy, security, and consent in the Internet of Things context?

There are two reasons for hope. First, sensor-based tracking tends to garner strong responses from the public and its representatives. Various states raced to forbid employers from requiring employees to implant subcutaneous RFID tags even before employers tried.[448] Several states have addressed GPS locational tracking, which galvanizes public reaction.[449] And,

---

447. *See, e.g.*, Paul M. Schwartz, *Preemption and Privacy*, 118 YALE L.J. 902, 917 (2009) ("Congress remains unable to agree on a data breach notification bill – a perfect illustration, . . . of the slow trajectory of federal privacy legislation.").

448. Peppet, *supra* note 48, at 1202.

449. *Id.* at 1169–70.

as indicated, some states have focused on automobile EDR data and various cross-context use constraints to control sensor data use.[450] In short, sensors tend to scare people—the potential harms they present are perhaps more salient than the more vague or generalized harms of Internet tracking. As a result, reformers may find it easier to mobilize support for shaping the Internet of Things than for cabining Internet or web data generally.

Second, the Internet of Things is relatively new, and therefore industry has perhaps not yet hardened its views on how these data streams should be managed. Lior Strahilevitz has recently noted the importance of identifying winners and losers in privacy contests and of analyzing the public choice issues that thus arise.[451] I have likewise tried to focus informational privacy scholars on these issues.[452] As firms find ways to profit from Internet of Things information, those firms will increasingly push for sparse regulation of such data uses. As the Internet of Things moves from start-ups to large, established Internet players—witness Google's recent acquisition of the Nest Thermostat[453]—those players will have more power to resist shaping of the industry. For now, however, most of the consumer products reviewed in this Article are the work of small, relatively new entrants to this emerging market. Advocates, regulators, and corporate counsel have an opportunity to guide such firms towards best practices. And even as larger firms create Internet of Things products or acquire such devices from start-ups, the newness of this field is likely to temporarily permit some collaboration between those seeking increased regulation and those building the Internet of Things.

This suggests a need for urgency. Not only are consumers currently vulnerable to the discrimination, privacy, security, and consent problems outlined here, but it may become harder over time to address such issues. In technological and political circles it may be convenient to prescribe a "wait and see—let the market evolve" stance, but the reality is that as time passes it will likely become more difficult, not easier, for consumer advocates, regulators, and legislators to act. The Internet of Things is here. It would be wise to respond as quickly as possible to its inherent challenges.

Conclusion

This Article has mapped the sensor devices at the heart of the consumer Internet of Things, explored the four main problems such devices create, and put forth plausible first steps towards constraining those problems. Although

450. *See supra* section III(A)(1).

451. Strahilevitz, *supra* note 241, at 2010.

452. *See* Peppet, *supra* note 48, at 1201–03 (discussing public choice problems inherent in regulating privacy).

453. *See supra* note 137 and accompanying text.

my argument's scope is broad, I have tried to show detailed examples of regulatory solutions that have a chance of succeeding in this new arena. As with many such efforts, I am humble in my expectations, hoping mostly to provoke debate and serious consideration of how best to regulate the emerging Internet of Things.

Appendix
Internet of Things Privacy Policies

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Health & Fitness									
Fitbit fitness monitors and Aria Wi-Fi Smart Scale[454]	No	Both	No	No: Sensor information is available on various different pages of website, including on specifications page.[455]	No: One can infer cloud storage but it is not described.	No: Policy mentions "technical and administrative security controls" are used, but does not describe in detail.	No: Policy explains that only aggregated data can be shared with third parties, but does not discuss whether data are stored anonymized.	Unclear whether sensor data are "personal information" under the policy. Personal information can be shared for only limited reasons; Other information can be shared if aggregated and de-identified.	Unclear: User can delete data; however, "Fitbit may continue to use your de-identified data."

454. *Fitbit Privacy Policy*, FITBIT, http://www.fitbit.com/privacy, *archived at* http://perma.cc/ZQ3Q-VNPK.
455. *E.g.*, *Aria Specs*, FITBIT, http://www.fitbit.com/aria/specs, *archived at* http://perma.cc/VCG3-MP2K.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Nike+ FuelBand[456]	No	Both	No	No. Sensor information is available on various different pages of website, including on the specifications page.[457]	No	Somewhat: Policy states that encryption is used for security purposes but implies only credit card information is encrypted.	No	No	Yes, but Nike has the right to keep a copy.

456. *Nike Privacy Policy*, NIKE, http://help-en-us.nike.com/app/answers/detail/article/privacy-policy/a_id/16378/p/3897, *archived at* http://perma.cc/9XZF-VV2T.
457. *E.g.*, *Nike+ Fuelband SE*, NIKE, http://store.nike.com/us/en_us/pd/fuelband-se/pid-924485/pgid-924484, *archived at* http://perma.cc/5JUS-9STF.

Body Media Armband[458]	No	Confusing: Policy states that it applies to website use, but also includes provisions related to sensor data.	Yes: Body Media owns all sensor data.	Somewhat: privacy policy explains that armband data does *not* include location, medical vital signs, or voice data. Does not explain what data are collected. Website includes a page detailing four types of sensor measurements.[459]	No: One can infer cloud storage but it is not described.	Credit card information is encrypted.	Yes: Policy states that armband data is anonymized.	Yes: Limits sale or sharing of personal information, but may sell "non-personally identifiable" information.	No
Withings Blood Pressure Cuff & Weight Scale[460]	No	Both	No	Somewhat: privacy policy explains that arterial pressure or weight data are collected; does not detail sensor types.	No	No	No	Yes: User must consent to sharing of "personal data," which is defined to include sensor data.	Yes

458. *Privacy Policy*, BODYMEDIA, http://www.bodymedia.com/Support-Help/Policies/Privacy-Policy, *archived at* http://perma.cc/9NMT-7EJC.
459. *The Science*, BODYMEDIA, http://www.bodymedia.com/the_science.html, *archived at* http://perma.cc/F99L-YCC2.
460. *Privacy Rules*, WITHINGS, http://www.withings.com/us/privacy-terms, *archived at* http://perma.cc/RBJ4-UN3U.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
iHealth Blood Pressure Monitor[461]	No[462]	Two separate policies: one for website and one for products. The latter is referenced in the mobile app Terms of Use, but currently unavailable.	Yes: iHealth owns all sensor data (according to mobile app Terms of Use).	N/A	No, but website indicates data is stored in the cloud.	N/A	N/A	N/A	N/A

461. *Privacy Policy*, IHEALTH®, *supra* note 336; IHEALTH, TERMS AND CONDITIONS, supra note 337.

462. IHEALTH™, WIRELESS BLOOD PRESSURE MONITOR (BP5): OWNER'S MANUAL, *available at* http://www.ihealthlabs.com/files/8514/0192/1706/wireless_bloodpressure_UserManual.pdf, *archived at* http://perma.cc/S268-3FDN; IHEALTH™, WIRELESS BLOOD PRESSURE MONITOR (BP5): QUICK START GUIDE, *available at* http://www.ihealthlabs.com/files/1414/0192/1699/wireless_bloodpressure_QSG.pdf, *archived at* http://perma.cc/ZF2N-MWEH.

Wahoo TICKR Heart Rate Monitor[463]	N/A	Privacy policy only seems to apply to data collected through website.							
BasisPeak Sports Watch[464]	N/A	Both	Somewhat: The policy only mentions that person will be notified if there is a "change in ownership or control" of the data because of a business transition by Basis.	Yes	Yes: Data is initially stored on the device, and stored in the cloud once the device is synched.	No	No	Yes: Basis does not sell or share "personal information to third parties for promotional purposes," but may sell or share "aggregated, de-identified data . . . for marketing purposes or with research organizations."	Yes: Users may contact Basis to request to delete data.

463. *Privacy Policy*, WAHOO FITNESS, http://www.wahoofitness.com/privacy-policy-cookie-restriction-mode, *archived at* http://perma.cc/S5QT-N2QL.
464. *Basis Privacy Policy*, *supra* note 350.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Breathometer[465]	No	Both	No	Yes: Privacy Policy states that BAC tests and location data are collected.	No: One can infer cloud storage but it is not described.	No	No	Yes: Will not sell personal information, but may share non-personally identifiable information.	Yes: Can review but not correct or delete.
JUNE UV Monitor bracelet[466]	N/A	Both	No	No: Sensor information is available on various different pages of website, including on the specifications page.[467]	No: One can infer cloud storage but it is not described.	No	No	Limits sharing somewhat; permits marketing and broadly permits sharing of de-identified data.	Yes: User has access, correction and deletion rights under French law.

465. *Privacy Policy*, BREATHOMETER™, *supra* note 17.
466. *Privacy Policy*, NETATMO, https://www.netatmo.com/en-US/site/terms#div_privacy1, *archived at* http://perma.cc/TB3X-RPFU.
467. *June Specifications*, NETATMO, https://www.netatmo.com/en-US/product/specifications/june, *archived at* http://perma.cc/4468-YWLW.

LifeBEAM Helmet[468]	No	Both	No	No: Sensor information is available on various different pages of website, including on the product page.[469]	No	No	No	Yes: May broadly share non-personal information, but may not sell "potentially personally-identifying and personally-identifying information."	No
Mimo Baby Monitor[470]	N/A	Website and smartphone app. Unclear whether it applies to product data.	No	Policy states that sensors collect biometric information, including skin temperature, body position, and breathing rate; audio; and ambient temperature.	Terms of service explains data are transferred to firm's servers.	Policy states explicitly that sensor data are not encrypted.	No	Limits sharing to aggregate information.	Unclear: User has access, correction and deletion rights for "personal information."
Phyode W/Me bracelet[471]	No[472]	No privacy policy available (although website indicates that one exists).							

468. *LifeBEAM Privacy Policy*, LIFEBEAM, *supra* note 347.
469. *LifeBEAM Helmet*, LIFEBEAM, http://www.life-beam.com/product/helmet/, *archived at* http://perma.cc/5N5U-XV69.
470. *Privacy Policy*, MIMO, *supra* note 349; *Terms of Service*, MIMO, http://mimobaby.com/legal/#TermsOfService, *archived at* http://perma.cc/782Q-GVF4.
471. *Terms of Service*, PHYODE, http://www.phyode.com/terms.html, *archived at* http://perma.cc/G2WS-DMA7.
472. PHYODE, W/ME USER'S MANUAL, *available at* http://www.phyode.com/images/WMe%20Wristband%20User%20Guide.pdf, *archived at* http://perma.cc/EL7Y-5AC8.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Muse headband[473]	No	Both	Yes: User owns biometric or sensor data.	No: Policy mentions some specific examples but otherwise only refers to "[d]ata collected by sensors."	Yes: Policy explains that some data are stored on the local device and in the cloud.	No	Yes: Policy explains that sensor data are stored in an anonymized form.	Unclear: Policy states that sensor data are highly sensitive and implies it will not be shared.	Yes: User can remove or delete biometric or sensor data.

473. *Legal: Privacy Policy*, MUSE™, http://www.choosemuse.com/pages/privacy, *archived at* http://perma.cc/JFR8-UX94.

Propeller Asthma Inhaler Sensor[474]	N/A	Both	Yes: User owns, or has necessary permission to use, "User Content," including data.	Yes: Sensor collects "data regarding inhaler usage."	Yes: Data are collected by app and then stored in the cloud.	No	No	Yes: Propeller Health is a "business associate" under HIPAA and "may not use or disclose your protected health information" without user consent.	No
Automobile									
CarChip[475]	No	Both	No	No	User manual explains that data are stored on user's computer.	No	No	Unclear whether sensor data are personal information; limits sharing of personal information; allows broad sharing of non-personal information.	No: Users can access and correct personal information but no mention of sensor data.

474. *Propeller User Agreement*, *supra* note 339.

475. *Davis Instruments Corp. Privacy Policy*, DAVIS, http://www.davisnet.com/about/policies/privacy/, *archived at* http://perma.cc/7PRD-E868.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Automatic Link driving monitor[476]	N/A	Both	No	Somewhat: It explains types of data collected, including from both the car and device's sensors, but does not specify which exact sensors.	Yes: Policy states that data is stored in the device, in the app, and in its "cloud servers."	No	No	Limits sharing of personal information but not of sensor data.	Yes: User has deletion rights for all data, including sensor data.
BMW iPhone Power Meter App[477]	No policy readily available on iTunes app store or BMW website.								

476. *Legal Information: Privacy Policy*, AUTOMATIC™, *supra* note 354.

477. *BMW M Power Meter*, BMW, http://www.bmw.com/com/en/newvehicles/mseries/x5m/2009/g_meter.html, *archived at* http://perma.cc/8GLD-FZAF (describing the app).

Home & Electric Grid									
Nest Thermostat or Protect[478]		Two separate policies: one for website, one for products.	No	Yes: Policy explains types of information and provides examples.	Yes: Policy states that data are both stored on device and regularly uploaded to Nest "cloud servers."	Yes: Policy states that all data are encrypted.	No	Yes: Limits sharing of personally identifiable information; allows sharing of aggregated and anonymous information.	Somewhat: Allows deletion of personally identifiable information but unclear as to sensor data.
SmartThings home automation sensor system[479]	No: Although available at time of signup for account on mobile app.	Both	No: However, the separate Terms of Service document clarifies that users own sensor data.	Somewhat: Policy provides an example that a home temperature unit would automatically report temperature and location.	Yes: Policy explains that data are automatically stored on servers.	No	No	Only allows sharing of sensor data in de-identified, or de-identified and aggregated form.	Somewhat: User can delete only certain types of information provided by the user.

478. *Privacy Statement*, NEST, *supra* note 344.

479. *Privacy*, SMARTTHINGS, http://www.smartthings.com/privacy/, *archived at* http://perma.cc/FPK9-TBHQ; *Terms of Use*, SMARTTHINGS, http://www.smartthings.com/terms/, archived at http://perma.cc/7BHM-NMFL.

Product	Does Product Manual or Quick Start Guide in Packaging Discuss Data, Privacy, or Security?	Privacy Policy: Does Policy . . .							
		Apply to Website Use, Sensor Product Use and Data, or Both?	Discuss Sensor-Data Ownership?	Disclose Sensor Types or Exactly What Sensor Data Are Collected?	Explain Whether Data Are Stored on Device, Smartphone, or Cloud?	Explain Whether Sensor Data Are Encrypted?	Explain Whether Sensor Data Are Stored in De-Identified State, and Whether Firm Has Ability to Re-Identify?	Limit Sensor-Data Use or Resale?	Provide for User to Change or Delete Sensor Data?
Belkin Wemo Home Automation system[480]	No	Both	No	Somewhat: Policy does not describe sensor types but indicates types of information collected, including usage data, technical information, and environmental data.	Policy indicates that data may be stored in the cloud.	No.	Somewhat: Policy states that usage data are generally anonymized, although it does not indicate whether Belkin stores usage data in an identified form as well.	Limits sale or sharing of Personal Information but defines usage/ sensor data as non-personal information. Permits sharing of aggregated, anonymized non-personal information. Forbids downstream partners from re-identifying data.	Somewhat: Allows access to and deletion of personal information but silent as to sensor data (which it defines as non-personal).

480. *Belkin Privacy Policy*, *supra* note 345.

Book Reviews

Sorting the Neighborhood

SAVING THE NEIGHBORHOOD: RACIALLY RESTRICTIVE COVENANTS, LAW, AND SOCIAL NORMS. By Richard R. W. Brooks & Carol M. Rose. Cambridge, Massachusetts: Harvard University Press, 2013. 304 pages. $49.95.

Reviewed by A. Mechele Dickerson*

Introduction

Saving the Neighborhood provides a rich historical account of the methods white homeowners used to keep black homeowners out of their neighborhoods. The book primarily focuses on racially restrictive property covenants (racial covenants or RCs), i.e., private contracts where property owners agreed not to sell, lease, or give their homes to nonwhites. White homeowners used racial covenants to exclude blacks because they believed that black neighbors would harm their property values. The only way to save their white neighborhoods, they concluded, was to keep the neighborhoods racially pure. Although *Saving the Neighborhood*'s discussion of legally unenforceable racial covenants is largely backwards looking, the story of RCs provides an insight into why blacks and Latinos continue to have lower homeownership rates than whites and why the racial wealth gap continues to widen. Indeed, to this day, the legacy of RCs shapes blacks' and Latinos' economic opportunities.

Part I of this Book Review discusses *Saving the Neighborhood* and briefly describes how white homeowners and their allies relied on racially discriminatory public zoning laws and private covenants to exclude nonwhites from white neighborhoods. Part II then discusses the benefits and burdens that blacks and Latinos currently receive in housing and lending markets. The experiences blacks and Latinos face, which I refer to as the perils of "home buying while black or brown," have always differed from the experiences whites have encountered when they sought to buy homes.[1] For example, Part II explains that whites have always resisted living near blacks and have avoided living in racially integrated neighborhoods. In

* Arthur L. Moller Chair in Bankruptcy Law and Practice, The University of Texas School of Law. My thanks to Mark Neuman-Lee for research and editorial assistance.

1. I discuss many of the themes raised in this Review in greater detail in MECHELE DICKERSON, HOMEOWNERSHIP AND AMERICA'S FINANCIAL UNDERCLASS: FLAWED PREMISES, BROKEN PROMISES, NEW PRESCRIPTIONS (2014).

addition, while public zoning laws and RCs can no longer be used to keep blacks out of white neighborhoods, blacks are still discriminated against in housing markets because realtors continue to steer blacks and Latinos away from white neighborhoods.

Part II explains that, despite fair lending laws, banks still discriminate against blacks and Latinos when they apply for mortgages. For example, studies conducted during the recent housing bubble and crash show that blacks and Latinos were disproportionately steered to higher cost mortgage products. In addition, while race-restrictive public zoning laws are illegal, class-based public zoning laws are legal, and these exclusionary laws shut certain disfavored homeowners—typically blacks, Latinos, and lower income Americans—out of certain neighborhoods. In short, as was true when RCs were legal, property owners who harbor racial biases against nonwhite home buyers receive help from other market actors in their quest to avoid living near blacks or Latinos in racially mixed neighborhoods.

Part III then shows that many neighborhoods that were kept segregated by RCs continue to be racially segregated and are increasingly segregated by income. In turn, these economically and racially segregated neighborhoods have now created K–12 public schools that are sorted both by race and by income. The Review concludes by showing how sorting neighborhoods and schools by race and income has had, and will continue to have, devastating economic consequences for black and Latino overall wealth, income, and college attainment rates.

I. Saving the Neighborhood

Saving the Neighborhood examines court cases, real estate filings, and other historical documents to show that racial covenants were a "formal legal norm" that reinforced the "social norms of racial exclusion."[2] The book, at times, uses economic game theories (including Hawk/Dove, Prisoner's Dilemma, and Stag Hunt) to help explain how and why whites tried to exclude blacks from their neighborhoods.[3] While these theories are sometimes useful in explaining why homeowners chose to use one method of exclusion over another, the book's main strength is the persuasively nuanced story it tells about the rise and fall of RCs.

The book starts by describing life for blacks in the rural post-Civil War South and then documents the hostilities they encountered when they migrated to northern and urban cities.[4] When blacks tried to move into white neighborhoods, landowners and white politicians initially relied on nuisance laws and race-restrictive public zoning laws to exclude them and

2. RICHARD R. W. BROOKS & CAROL M. ROSE, SAVING THE NEIGHBORHOOD: RACIALLY RESTRICTIVE COVENANTS, LAW, AND SOCIAL NORMS 114 (2013).

3. *Id.* at 14–18.

4. *Id.* at 21–31.

other residents perceived to be threats to white neighborhoods.[5] These attempts initially succeeded, but ultimately were thwarted when the United States Supreme Court held in its 1917 decision in *Buchanan v. Warley*[6] that public zoning laws that sorted neighborhoods by race were unconstitutional.[7] The authors note that some local leaders attempted to circumvent *Buchanan* by enacting substitute zoning laws that would continue to keep blacks out of their neighborhoods.[8] When federal courts also struck down these substitute laws, many white homeowners and their allies turned to private RCs.[9]

A. Homeowners and Racial Covenants

The bulk of the book is devoted to describing the various methods whites used to exclude blacks from their neighborhoods and how their methods changed over time. The authors emphasize that not all white homeowners sought to exclude blacks from their neighborhoods and that some blacks were able to buy covenanted properties in white neighborhoods and live peaceably with their neighbors without incident.[10] In addition, the book explains that not all whites who wanted to live in all-white neighborhoods relied solely on RCs to keep blacks out. For example, white homeowners who knew and trusted their neighbors or who lived in communities that were socially cohesive often used threats or violence to scare blacks away from their neighborhoods.[11]

White homeowners who lived in communities where the neighbors did not know each other (and might not have agreed to participate in acts of violence), especially homeowners who lived in middle-class communities, generally preferred to use formal, legal methods to keep their neighborhoods racially segregated.[12] As the authors note, RCs let the homeowners discriminate against and intimidate potential black owners and then hide "behind a facade of legal civility."[13] Essentially, "[r]acial covenants were supposed to do what the brick throwers did, while keeping the brick throwers at bay."[14]

---

5. *Id.* at 31–35, 38–40.

6. 245 U.S. 60 (1917).

7. *Id.* at 82.

8. For example, replacement zoning laws would allow blacks to live in white neighborhoods only if they received the explicit consent of the white neighbors. BROOKS & ROSE, *supra* note 2, at 45.

9. *Id.* at 46.

10. *See id.* at 194–95 (noting that some white neighbors were willing to live in integrated neighborhoods up to a "tipping point").

11. *Id.* at 4.

12. *Id.* at 4, 25–26.

13. *Id.* at 17.

14. *Id.* at 162.

Saving the Neighborhood explains that both public zoning laws and RCs used race as a "simple if inaccurate surrogate category"[15] to guard against any actual or perceived threat to white property owners' home values. White homeowners equated "black" with "undesirable" and used public and private laws (including RCs) to fence out undesirable residents whose presence they believed would cause housing values to drop. While some whites were willing to live near black neighbors, as long as there were not too many of them, most white homeowners did not take the time to sort potential black neighbors into undesirable (to be excluded) and desirable (to be welcomed). White homeowners who used RCs to enforce the social norm of racial exclusion did not want *any* black neighbors. These homeowners wanted the total exclusion of black neighbors because they feared that, even if the first black neighbor shared their socioeconomic class, undesirable black neighbors would inevitably follow the first (acceptable) black neighbor.[16] The only way to keep the undesirables out, they concluded, was to exclude all blacks.

The book provides a detailed description of how RCs operated in places like Chicago,[17] Baltimore's Roland Park,[18] and the Kansas City Country Club District,[19] and it explains how the NAACP and other entities the authors characterize as "norm breakers" frequently challenged the often sloppily drafted RCs.[20] *Saving the Neighborhood* also describes the numerous legal challenges and roadblocks white homeowners faced when they attempted to use RCs to exclude blacks. Those problems included hostilities to an owner's ability to use his property found in the common law,[21] the rule against perpetuities,[22] the legal requirement that covenants run with the land,[23] and the collective action problems that arise when attempting to get multiple parties to agree to act in concert.[24]

After the Supreme Court ruled RCs legally unenforceable in *Shelley v. Kraemer*[25] and it was clear that white homeowners could not use RCs to exclude blacks, some white homeowners and their collaborators simply ignored the ruling.[26] Others sought alternative ways to maintain racially segregated neighborhoods when they could not legally fence out blacks.

---

15. *Id.* at 26.
16. *Id.* at 192–93.
17. *Id.* at 119–24.
18. *Id.* at 103.
19. *Id.* at 104.
20. *Id.* at 124–39.
21. *Id.* at 56–57.
22. *Id.* at 72–78.
23. *Id.* at 78–83.
24. *Id.* at 100–02.
25. 334 U.S. 1, 20–21 (1948).
26. *Id.* at 169–72.

Some homeowners resorted to using extralegal, informal methods like threats or violence. Indeed, many black homeowners—often at the not so subtle suggestion of local law enforcement or city officials—moved after their white neighbors "threatened to bomb or burn their homes, or after they were 'welcomed' to the neighborhood by a burning cross."[27] Instead of "protect[ing] the black homeowners or prosecut[ing] the white neighbors, local officials sometimes offered to purchase the homes blacks bought . . . , pay their moving expenses, and help them find suitable housing (in a segregated neighborhood)," if they agreed to move.[28] To bolster this "offer," white political leaders and law enforcement officers sometimes warned black homeowners that their families might not receive police protection if they stayed in white neighborhoods.[29]

Some white homeowners used more subtle ways to signal that their new black neighbors were undesirable, like placing "For Sale" signs in their front lawns as soon as their neighbors moved in.[30] Similarly, when blacks moved into neighborhoods, homeowners (including some black neighbors) would seek ways to use "benevolent quotas" to keep the neighborhood stably integrated.[31] Moreover, as *Saving the Neighborhood* notes, even after RCs became unenforceable, they remained in deeds. While few black buyers may even have seen the RCs in their deeds, the presence of these noxious (albeit unenforceable) covenants served as a public signal that blacks had not been welcome—and perhaps were still not welcome—in certain neighborhoods.[32] When those informal methods *still* failed to keep blacks out of their neighborhoods, many whites simply fled the integrating neighborhood for all-white suburbs.[33]

B. Norm Entrepreneurs

In addition to showing how whites used RCs to exclude blacks, *Saving the Neighborhood* documents how entities the authors characterize as

---

27. DICKERSON, *supra* note 1, at 156.

28. *Id.*

29. *Id.*; *see also* LEEANN LANDS, THE CULTURE OF PROPERTY: RACE, CLASS, AND HOUSING LANDSCAPES IN ATLANTA, 1880–1950, at 182–84 (2009) (summarizing the situation in Atlanta and throughout the nation in which white leaders refused to integrate their neighborhoods and white homeowner violence against black residents resulted in no charges by the police); STEPHEN GRANT MEYER, AS LONG AS THEY DON'T MOVE NEXT DOOR: SEGREGATION AND RACIAL CONFLICT IN AMERICAN NEIGHBORHOODS 106–11 (1999) (describing the housing situation in Birmingham in which political leaders stated the city was not ready for integration and the police would not be able to help reduce the violence against black homeowners).

30. BROOKS & ROSE, *supra* note 2, at 199.

31. For example, the authors note that some *black* owners put up "Not For Sale" signs to ward off black buyers because they feared their white neighbors would flee if too many blacks moved in the neighborhood. *Id.* at 201–02.

32. *Id.* at 189.

33. *Id.* at 133.

"norm entrepreneurs" (including realtors, developers, lenders, the United States Government, local elected officials, and judges) actively promoted RCs and collaborated with white homeowners to prevent blacks from buying homes in white neighborhoods.[34] Realtors were perhaps the most active norm entrepreneurs, and maintaining racially segregated neighborhoods was a core element of the Realtors' Code of Ethics.[35] To make sure their members embraced neighborhood segregation, the realtor code admonished realtors not to engage in acts that would be "instrumental in introducing into a neighborhood a character of property or occupancy, members of any race or nationality, or any individuals whose presence will clearly be detrimental to property values in that neighborhood."[36]

While the authors do not discuss "redlining" in depth, realtors during this period relied on a racist coding system to justify the need to keep blacks out of white neighborhoods. Generally speaking, redlining divided neighborhoods into colors based on their perceived desirability, stability, and security, and the homeowners' race was used to categorize and rate a neighborhood's safety or desirability.[37] The term redlining arose because all-black neighborhoods received the lowest ranking (red) while upper-income white neighborhoods were shaded blue on the maps.[38]

This quasi-scientific, ostensibly objective appraisal method was used to bolster claims that black neighborhoods were unstable and that black neighbors were dangerous and undesirable.[39] Redlining was used to validate white homeowners' biases against blacks and allowed builders, realtors, lenders, and other norm entrepreneurs to assert an arguably rational basis to justify discriminating against blacks. Members of the National Association of Real Estate Boards "were required to embrace redlining and adhere to these racist policies as a condition of membership,"[40] though the authors report that some realtors professed not to have personal biases against blacks.

Specifically, *Saving the Neighborhood* reveals that some realtors purported to support RCs and steer black clients away from white neighborhoods only because they believed that their black customers would prefer to avoid living in those neighborhoods.[41] Notwithstanding these

34. *Id.* at 102–12.

35. *Id.* at 102, 105–06.

36. CODE OF ETHICS art. 34 (Nat'l Ass'n Real Estate Bds. 1928)

37. DICKERSON, *supra* note 1, at 146.

38. MEIZHU LUI ET AL., THE COLOR OF WEALTH: THE STORY BEHIND THE U.S. RACIAL WEALTH DIVIDE 95 (2006).

39. *See* DICKERSON, *supra* note 1, at 147 (pointing out that there was no empirical data to support the theory of the coding system—that black-owned homes would depreciate the value of white-owned homes).

40. *Id.* at 146.

41. BROOKS & ROSE, *supra* note 2, at 184.

paternalistic protestations of good will, steering was in the broker's financial interest. That is, regardless of their views of the social norm of racial exclusion, realtors benefited from RCs and from steering because white buyers were willing to pay a premium for homes in all-white neighborhoods.[42] Moreover, realtors and developers understood that it was not in their economic interest to alienate their white clients by refusing to express support for RCs or by selling homes in white neighborhoods to black buyers.[43]

For years, the U.S. Government also acted as a norm entrepreneur. Housing and lending policies made it easier for whites to keep their homes during the Depression and to buy homes cheaply after the Depression.[44] These same federal policies, though, made it harder for blacks to buy homes and made it virtually impossible for them to buy high-appreciating homes in white neighborhoods using a low-cost mortgage product. For example, Federal Housing Administration (FHA) policies helped further the social norm of racial exclusion by using redlining to ensure that only the "right kinds of persons" could be approved for low-cost, long-term, government-insured mortgage loans to purchase homes—especially high-appreciating suburban homes.[45] In addition, the FHA's underwriting manual, largely developed by the same private realtors who had engaged in racial steering, encouraged developers to include RCs in newly built subdivisions.[46]

The FHA used redlining as the basis for their overall lending policies towards black homeowners.[47] Deeming black borrowers and nonwhite neighborhoods to be unstable and dangerous facilitated the gradual decline of urban and largely black neighborhoods by stigmatizing and devaluing the homes blacks owned in those neighborhoods. Moreover, FHA policies gave whites a strong economic incentive to flee urban neighborhoods and buy newer homes in all-white suburban neighborhoods.[48] Blacks, of course, could not easily flee urban neighborhoods as redlining and RCs prevented them from buying suburban homes using low-cost, government-insured mortgages.[49]

In addition to helping whites flee urban neighborhoods and simultaneously devaluing the homes in those areas, federal urban renewal (often referred to as "slum removal") programs decreased the availability of homes in urban areas.[50] The stated goal of these programs was to clear

42. *Id.* at 184–85.
43. *Id.*
44. DICKERSON, *supra* note 1, at 146–49.
45. BROOKS & ROSE, *supra* note 2, at 110.
46. *Id.* at 109.
47. DICKERSON, *supra* note 1, at 147–48.
48. *Id.* at 152.
49. *Id.*
50. *Id.* at 152–53.

slums and blighted areas by destroying substandard housing. Whites who were uprooted from blighted urban housing could move to the suburbs.[51] Blacks could not, and few efforts were made to help displaced black residents find better housing.[52] Instead, the black residents whose homes were destroyed were often relocated to other deteriorating homes in inner cities (assuming they could obtain a mortgage loan) or they were packed into public housing.[53]

C. Norm Breakers

While norm entrepreneurs helped keep neighborhoods racially segregated, the authors point out that they helped embolden norm breakers like civil rights organizations and idealistic black Americans who were determined to fight housing segregation.[54] The authors maintain that one group of norm breakers, blockbusting realtors, helped weaken RCs even though these norm breakers engaged in opportunistic schemes that preyed on the racial biases and fears of white homeowners.

In a typical scheme, blockbusters informed white owners that "blacks had bought (or were rumored to be buying) homes in [their] neighborhood."[55] The realtors hoped—and assumed—that the white homeowners would panic and quickly sell their homes to avoid the risk of living near black neighbors.[56] The realtor would then capitalize on the white homeowners' panicked desperation by purchasing the homes at rock-bottom prices.[57] The initial panic and flight would often trigger other panic sales, giving the blockbuster yet more opportunities to purchase homes at less than fair market value.[58] In the last part of blockbusting, the realtor–speculator sold the homes to black buyers, who were willing to pay inflated prices to escape from deteriorating urban neighborhoods.[59]

Blockbusters were by no means benevolent norm breakers. Blockbusters bore little risk of facing social wrath and financial retribution from white homeowners since they did not depend on repeat business and they were usually outsiders who did not live anywhere near the white neighborhoods they were helping to integrate.[60] For the most part, they were

---

51. *Id.* at 153.

52. *Id.*

53. *Id.*

54. For example, the book discusses how the family of the playwright Lorraine Hansberry integrated a Chicago neighborhood and how their ordeal was depicted in the play *Raisin in the Sun*. BROOKS & ROSE, *supra* note 2, at 125–28.

55. DICKERSON, *supra* note 1, at 157.

56. *Id.*

57. *Id.*

58. *Id.*

59. *Id.*

60. BROOKS & ROSE, *supra* note 2, at 189–90.

opportunistic speculators who manipulated both the white home sellers (who sold low) and the black home buyers (who paid too much). Despite blockbusters' base profit-making motives, the authors do not condemn their tactics largely because their behavior, though distasteful, did help some blacks buy homes (some covenanted) in all-white neighborhoods.[61]

Blockbusting and RCs are no longer legal, and federal laws and policies ban discrimination in the sale, rental, and financing of dwellings.[62] Still, these historical relics of state-condoned racism continued to guide the actions of real estate professionals, lenders, and white sellers. To this day, black and Latino renters and homeowners are burdened with the residual effects of redlining, RCs, and other forms of government-sanctioned discrimination.[63] Moreover, as was true during the time periods discussed in *Saving the Neighborhood*, there is still de facto racial segregation in many U.S. neighborhoods, and white homeowners and private-market actors have continued to engage in coordinated efforts to exclude blacks from white neighborhoods.

II. The Perils of Home Buying While Black or Brown

Well into the 2000s, realtors continued to steer blacks and Latinos away from white and higher appreciating neighborhoods. Similarly, mortgage lenders continued to discriminate against black and Latino borrowers, and banks continued to view black and Latino neighborhoods less favorably than white neighborhoods. While public zoning regulations cannot lawfully sort neighborhoods by race, public and private laws and regulations are now used to sort neighborhoods by income and the people who live in lower income neighborhoods continue to face roadblocks when they try to buy homes. Likewise, just as white homeowners did when RCs, redlining, and blockbusting were legal, whites continue to flee neighborhoods when blacks move in.

A. Realtor Steering

While blacks cannot legally be steered to economically declining urban neighborhoods, real estate agents continue to steer black and Latino home buyers to less wealthy and to racially integrated neighborhoods while

---

61. *See id.* at 135 ("In its own way, blockbusting was a kind of norm entrepreneurship—or more accurately, an entrepreneurship in norm busting, breaking down white neighbors' resistance to minority entrance.").

62. *Id.* at 207–10.

63. *See, e.g.*, Editorial, *The Death of Michael Brown: Racial History Behind the Ferguson Protests*, N.Y. TIMES, Aug. 12, 2014, http://www.nytimes.com/2014/08/13/opinion/racial-history-behind-the-ferguson-protests.html?_r=0, *archived at* http://perma.cc/9FPX-K36E (arguing that the death of an eighteen-year-old black student in Ferguson, Missouri can be explained by understanding how RCs and exclusionary zoning kept blacks out of suburban areas and trapped blacks in the inner city).

steering whites away from those neighborhoods.[64] Studies further disclosed that "blacks and Latinos who visited real estate offices received significantly less favorable treatment than white customers with comparable income and employment profiles . . . were shown fewer units, and generally received misleading information about available housing."[65] Steering primarily harms black and Latino renters by preventing them from buying homes in the most desirable neighborhoods with the highest potential for price appreciation. However, steering also imposes costs on existing black homeowners who may be trying to sell the homes they own in nonwhite neighborhoods.

Steering white buyers away from nonwhite or racially integrated neighborhoods creates a smaller pool of potential purchasers for homes in those neighborhoods because whites have always had higher homeownership rates than blacks.[66] That is, while overall homeownership rates have ranged from 64% to 69% since 1980, homeownership rates have always varied dramatically by race, and there has consistently been a racial homeownership gap.[67] Black and Latino homeownership rates increased fairly consistently since the 1970s and their rates rose faster during the housing boom than homeownership rates for white households.[68] Despite these recent gains, "the homeownership gap between whites and other racial or ethnic minority groups has stubbornly hovered around 25%" for decades.[69]

Just as redlining stigmatized and devalued homes in black neighborhoods, steering potential white buyers away from black neighborhoods stigmatizes the homes in those neighborhoods and signals that the neighborhood is undesirable.[70] Due to the legacy of RCs and redlining, many Americans continue to believe that "white neighborhoods are better

64. DICKERSON, *supra* note 1, at 150.

65. *Id.* at 150; *see also* MARGERY AUSTIN TURNER ET AL., U.S. DEP'T OF HOUS. & URBAN DEV., HOUSING DISCRIMINATION AGAINST RACIAL AND ETHNIC MINORITIES 2012, at 39 (2013) (concluding that minorities are shown fewer rental units than whites, and blacks and Latinos are given higher rental rates than whites); Adrian G. Carpusor & William E. Loges, *Rental Discrimination and Ethnicity in Names*, 36 J. APPLIED SOC. PSYCHOL. 934, 948–49 (2006) (finding that landlords discriminated against potential tenants with "African American-sounding name[s]"); Ingrid Gould Ellen, *Continuing Isolation: Segregation in America Today*, *in* SEGREGATION: THE RISING COSTS FOR AMERICA 261, 265–66, 273 (James H. Carr & Nandinee K. Kutty eds., 2008) (surveying empirical evidence on discrimination by real estate agents against blacks and Latinos); Mary J. Fischer & Douglas S. Massey, *The Ecology of Racial Discrimination*, 3 CITY & COMMUNITY 221, 238 (2004) (studying the discrimination of blacks in the Philadelphia rental market and determining that it could "reduc[e] the degree of black housing access to extremely low levels").

66. DICKERSON, *supra* note 1, at 151.

67. *Id.* at 180.

68. *Id.* at 184–85.

69. *Id.* at 185.

70. *Id.* at 190.

and safer than non-white neighborhoods."[71] Research shows that the racial composition of a neighborhood is capitalized into the market value of homes so that comparable homes are valued differently depending on the racial makeup of the neighbors.[72] Specifically, even after controlling for multiple variables (including household income, housing type or structure, geographical region, owner age and class, and the price range of the homes), homes in nonwhite (and urban) neighborhoods are valued less and have lower appreciation rates than homes comparable in size and amenities in white (and suburban) neighborhoods.[73]

B. Lender (Mis)Conduct

1. Mortgage Steering.—Because blacks and Latinos have lower overall household income and lower credit scores, some fail to qualify for low-cost loans issued by traditional lenders for legitimate credit reasons.[74] However, others use high-cost loans because they live in neighborhoods that are flush with nontraditional financial institutions (like mortgage brokers, payday lenders, and title pawn lenders) that are often predatory.[75] In contrast, black and Latino neighborhoods are generally underserved by traditional lenders. In fact, because so many traditional lenders closed (or refused to open) bank branches in minority and lower income neighborhoods, Congress passed the Community Reinvestment Act of 1977 (CRA) to try to increase the presence of traditional financial institutions in nonwhite neighborhoods.[76]

---

71. *Id.*

72. *Id.* at 187–88.

73. *See* MELVIN L. OLIVER & THOMAS M. SHAPIRO, BLACK WEALTH/WHITE WEALTH: A NEW PERSPECTIVE ON RACIAL INEQUALITY 147–50 (1997) (reporting that in a study of homes in Atlanta, comparable homes of blacks were 28% less valuable after controlling for racial differences); Hayward Derrick Horton & Melvin E. Thomas, *Race, Class, and Family Structure: Differences in Housing Values for Black and White Homeowners*, 68 SOC. INQUIRY 115, 117–18, 120 (1998) (surveying studies that find black disadvantage in home values after controlling for demographic variables, such as race, age, and income).

74. For example, because lenders tightened their lending standards after the housing collapse, many lower and middle income home buyers are still finding it difficult to obtain financing to buy homes in inner cities. *See, e.g.*, Caroline Bauman, *Families Buying Inner-City Homes Find Ways Around Financial Barriers*, KAN. CITY STAR, Aug. 4, 2014, http://www.kansascity.com/news/business/personal-finance/article1017953.html, *archived at* http://perma.cc/KX7V-6BV5 (dis-cussing borrowers who cannot qualify for mortgage loans to buy moderately priced homes in inner cities and are financing their home purchases with loans from friends and family).

75. *See* DICKERSON, *supra* note 1, at 173–75 (discussing the lack of access to traditional lending facilities and the resulting prevalence of high-cost loans in minority communities); Jacob S. Rugh & Douglas S. Massey, *Racial Segregation and the American Foreclosure Crisis*, 75 AM. SOC. REV. 629, 630–31 (2010) (arguing that "high levels of segregation create a natural market for subprime lending," in part due to the fact that predatory lending facilities, such as pawn shops and payday lenders, dominate in minority communities).

76. DICKERSON, *supra* note 1, at 173.

Under the CRA, banking regulators consider whether banks are serving the credit needs of borrowers who live in low- and moderate-income neighborhoods by examining the total number and dollar amount of loans banks approve for low- and moderate-income Americans.[77] While the CRA makes banks' lending decisions more transparent and regulators publicly rate the banks' performance, it does not establish minimum standards banks must satisfy.[78] Thus, the CRA—while useful—cannot be used to force banks to approve more low-cost mortgage loans for blacks and Latinos.

To make it easier to detect whether banks are engaging in discriminatory lending practices, Congress enacted the Home Mortgage Disclosure Act of 1975 (HMDA).[79] HMDA requires lenders to describe and disclose the geographic locations of the mortgage loans they have approved during the reporting period.[80] HMDA's reporting requirement does not specifically address redlining or mandate that mortgage lenders approve loans for black or Latino borrowers. HMDA data do show, however, if lenders are providing credit to poor, minority, and urban neighborhoods and also disclose the race and income of the applicants for high-cost loans.[81] Many had hoped HMDA's reporting requirements would persuade lenders to offer low-cost credit to blacks and Latinos in a non-discriminatory fashion.[82] Sadly, this has not happened.

Analyses of HMDA data indicate that banks have continued to engage in discriminatory mortgage lending practices and that these practices were rampant during the housing boom.[83] Unlike the redlining practices discussed in *Saving the Neighborhood*, though, lenders during the housing bubble and bust did not refuse to loan money to blacks nor did they avoid approving mortgages in racially mixed areas.[84] Instead, lenders flooded nonwhite neighborhoods with high-cost and high-risk loans, a practice known as reverse redlining.[85]

---

77. *Id.*

78. *Id.*

79. *Id.* at 164.

80. *Id.*

81. *Id.* at 164–65.

82. *Id.* at 165.

83. *See id.* (stating that HMDA data revealed that blacks and Latinos received a disproportionate number of subprime loans during the housing boom).

84. *Id.*

85. *Id.* Recent lawsuits confirm that banks continue to engage in both traditional and reverse redlining. For example, the New York Attorney General has initiated an investigation into banks' lending practices and has filed its first suit as a result of the investigation against Evans Bank, accusing the company of redlining. Jessica Silver-Greenberg, *New York Accuses Evans Bank of Redlining*, DEALBOOK, N.Y. TIMES (Sept. 2, 2014, 12:01 AM), http://dealbook.nytimes.com/2014

The HMDA data reveal that many lenders pushed buyers of *all* races into higher-cost mortgages during the housing boom.[86] However, blacks and Latinos were significantly more likely than whites to receive a high-cost subprime loan.[87] Moreover, just as *Saving the Neighborhood* shows that whites and norm entrepreneurs used RCs to keep *all* blacks (whether higher or lower income) out of white neighborhoods, lenders reverse redlined both higher and lower income black and Latino neighborhoods.[88] Even worse, data show that there was a higher density of subprime loans in *higher income black* neighborhoods than in *lower income white* neighborhoods.[89]

In addition to analyses of HMDA data, research involving white, black, and Latino paired testers revealed how blacks and Latinos are discriminated against in mortgage lending markets. For example, white testers were offered better loan terms and features in paired-testing studies than minority testers even though minority testers were assigned higher credit scores, slightly higher incomes, and more extensive employment records than white testers.[90] A recent $335 million settlement involving Countrywide Financial Corporation and the Civil Rights Division of the U.S. Department of Justice (DOJ) also reveals lender discrimination against black and Latino home buyers.[91] This settlement was reached after the DOJ reviewed 2.5 million loan applications and found that Countrywide unlawfully steered blacks and Latinos to higher cost, subprime mortgages

---

/09/02/new-york-set-to-accuse-evans-bank-of-redlining/?_php=true&_type=blogs&_r=0, *archived at* http://perma.cc/BYE9-TC4G. Other cities, including Providence, Rhode Island and Los Angeles, also have accused banks of traditional and reverse redlining. *Id.*

86. G. THOMAS KINGSLEY & KATHRYN L.S. PETTIT, URBAN INST., HIGH-COST AND INVESTOR MORTGAGES 8 fig.4 (2009) (showing, through HMDA data, that all races received high-cost loans from 2004 to 2006); *cf.* Rick Brooks & Ruth Simon, *Subprime Debacle Traps Even Very Credit-Worthy*, WALL ST. J., Dec. 3, 2007, http://online.wsj.com/news/articles/SB119662974358911035, *archived at* http://perma.cc/7KUR-JBUP (reporting that borrowers with higher credit scores were also targeted for subprime loans).

87. DEBBIE GRUENSTEIN BOCIAN ET AL., CTR. FOR RESPONSIBLE LENDING, LOST GROUND, 2011: DISPARITIES IN MORTGAGE LENDING AND FORECLOSURES 11 (2011); KINGSLEY & PETTIT, *supra* note 86, at 7–8 & fig.4.

88. *See* KINGSLEY & PETTIT, *supra* note 86, at 7–8 & fig.8 (showing that black and Latino neighborhoods across all income levels had higher subprime densities than white neighborhoods).

89. *Id.* at 8 fig.8.

90. *See also* NAT'L FAIR HOUS. ALLIANCE, THE CRISIS OF HOUSING SEGREGATION: 2007 FAIR HOUSING TRENDS REPORT 5–6 (2007) (reporting "significant racial steering" in paired-testing studies of twelve metropolitan areas).

91. Press Release, U.S. Dep't of Justice, Justice Department Reaches $335 Million Settlement to Resolve Allegations of Lending Discrimination by Countrywide Financial Corporation (Dec. 21, 2011), *available at* http://www.justice.gov/opa/pr/2011/December/11-ag-1694.html, *archived at* http://perma.cc/S7TY-P2PB.

but steered white borrowers with similar credit profiles to lower cost, prime interest rate loans.[92]

Finally, recent lawsuits filed by major U.S. cities disclose the ongoing presence of racial discrimination in the mortgage-loan market.[93] The cities sued lenders and asserted that reverse redlining increased the foreclosure rates of homeowners in minority neighborhoods in their localities. The cities maintained that these lending practices led to smaller tax collection revenue because of the properties' lower tax-assessed values.[94] One major lender, Wells Fargo, settled and agreed to invest more than $400 million to help generate economic development in urban cities.[95]

During the Wells Fargo litigation, plaintiffs produced affidavits that revealed that Wells Fargo loan officers were encouraged to misrepresent the risks associated with higher cost and higher risk subprime loans to black and Latino borrowers.[96] These affidavits also reveal that virulent racial discrimination is ongoing in U.S. mortgage lending markets. That is, the affidavits show that Wells Fargo loan officers did more than merely steer blacks and Latinos to higher priced loans and misrepresent the risks associated with those loans. Loan officers referred to black borrowers as "mud people" who did not pay their bills.[97] They characterized black neighborhoods as slums and called those neighborhoods the "hood[]."[98] They called the subprime loans that they were pushing on borrowers in black neighborhoods "ghetto loans."[99] Their racially abhorrent conduct rivaled, and may even have surpassed, some of the racist behavior of realtors the authors detail in *Saving the Neighborhood.*

---

92. Thomas E. Perez, Assistant Attorney Gen., U.S. Dep't of Justice, Address at the Countrywide Financial Corporation Settlement Announcement (Dec. 21, 2011), *available at* http://www.justice.gov/crt/opa/pr/speeches/2011/crt-speech-111221.html, *archived at* http://perma.cc/3SK6-3PEW.

93. *See* Jonathan Stempel, *Los Angeles Sues JPMorgan, Alleges Discriminatory Lending*, REUTER, May 30, 2014, http://www.reuters.com/article/2014/05/30/jpmorganchase-losangeles-lawsuit-idUSL1N0OG1MI20140530, *archived at* http://perma.cc/VE6G-2QCZ (listing suits by Los Angeles, Memphis, Baltimore, Cleveland, Cook County, and Providence against banks for discriminatory lending practices).

94. *E.g.*, Andrew Martin, *Judge Allows Redlining Suits to Proceed*, N.Y. TIMES, May 5, 2011, http://www.nytimes.com/2011/05/06/business/06redlining.html, *archived at* http://perma.cc/8BKL-V5N2; Stempel, *supra* note 93.

95. James O'Toole, *Wells Fargo Pledges $432.5M in Lending, Payments to Settle Lawsuit*, CNN MONEY (May 31, 2012, 4:32 PM), http://money.cnn.com/2012/05/30/news/companies/wells-fargo-memphis/, *archived at* http://perma.cc/7LT4-S5ZR.

96. *See, e.g.*, Declaration of Elizabeth M. Jacobson at 10–11, Mayor & City Council of Balt. v. Wells Fargo Bank, 677 F. Supp. 2d 847 (D. Md. 2010) (No. 1:08-cv-00062-BEL) (admitting to misrepresenting information about subprime loans and targeting African-American communities).

97. Declaration of Tony Paschal at 4, Mayor & City Council of Balt. v. Wells Fargo Bank, 677 F. Supp. 2d 847 (D. Md. 2010) (No. 1:08-cv-00062-BEL).

98. *Id.* at 4, 7.

99. *Id.* at 4.

2. Neighborhood Neglect.—In addition to increasing black and Latino home-buying costs by steering them toward higher priced mortgage loans, a recent report exposed significant disparities in how entities that manage Real Estate Owned (REO) assets treat the properties they own:

> The report found that foreclosed properties in predominately black and Latino neighborhoods were far more likely than properties in predominately white areas to be left in disrepair and to have visible maintenance problems, including chipped paint, broken or boarded-up windows and fences, trash strewn on the property, and overgrown (or dead) lawns.[100]

Likewise, REO homes in those neighborhoods were less likely to be locked,[101] and this lack of security encourages thefts and also encourages people to engage in criminal activities inside the unoccupied and unprotected home. Additionally, the report shows that "foreclosed properties in black and Latino neighborhoods were less likely to have 'For Sale' signs in the yards than homes in white neighborhoods."[102]

A lender's failure to properly maintain and market houses in black and Latino neighborhoods increases the likelihood that the houses will remain vacant longer than houses that are advertised and aggressively marketed.[103] Houses with substandard maintenance are also more likely to be purchased by an investor in a distress sale at a discounted price.[104] Investors who buy "as is" homes in distressed sales are then more likely to use the homes as rental property—especially in weak housing markets.[105] Additionally, because appraisers consider the value of surrounding homes when they determine a house's fair market value, the existence of foreclosed properties, poorly maintained REO homes, or rental properties in a neighborhood decreases the market value of *all* homes in the neighborhood.[106] As a result, when lenders neglect REO homes, all homeowners suffer even if they have been responsible, have properly maintained their homes, have dutifully paid their mortgage loans, and are at no risk of defaulting on their mortgage loans and losing their homes.[107]

---

100. DICKERSON, *supra* note 1, at 199; *see also* NAT'L FAIR HOUS. ALLIANCE, THE BANKS ARE BACK—OUR NEIGHBORHOODS ARE NOT: DISCRIMINATION IN THE MAINTENANCE AND MARKETING OF REO PROPERTIES 2 (2012) (finding that REO properties in primarily black and Latino communities are disproportionately neglected compared to REO properties in white communities).

101. NAT'L FAIR HOUS. ALLIANCE, *supra* note 100, at 2.

102. DICKERSON, *supra* note 1, at 200; *see also* NAT'L FAIR HOUS. ALLIANCE, *supra* note 100, at 2.

103. NAT'L FAIR HOUS. ALLIANCE, *supra* note 100, at 2.

104. DICKERSON, *supra* note 1, at 200.

105. *Id.*

106. *Id.* at 93–94.

107. *Id.* at 93.

C. *White Flight*

Because of the enactment and enforcement of fair housing laws that banned housing discrimination in the housing and mortgage markets, by the 1970s blacks began to integrate formerly all-white neighborhoods.[108] Research has shown, however, that "neither blacks nor whites prefer to live in a neighborhood if their race is in the overwhelming minority, in part because they do not want their children to attend schools that have few children of the same race."[109] Racial minorities are more willing to live in neighborhoods where they are in the minority than whites, who prefer to live in mostly all-white neighborhoods.[110] Opinion polls and surveys fairly consistently show that most Americans value communities that are racially, ethnically, and politically mixed;[111] prefer to live in an integrated neighborhood; and want their children to attend integrated schools.[112]

Despite this professed desire to live in racially integrated communities, white owners consistently view non-white neighborhoods less favorably than white neighborhoods, and they flee neighborhoods if they become too brown or black.[113] U.S. cities largely remain segregated even as the United States becomes more racially and ethnically diverse. Indeed, white liberals who had willingly joined marches in the 1960s to fight for the rights of blacks to have equal treatment in jobs and in schools often became ambivalent (or downright hostile) when blacks tried to move into their neighborhoods.[114] In fact, when school districts were placed under desegregation orders or plans, white parents in the 1960s and 1970s—like white households in the 1940s and 1950s—fled cities for the suburbs.[115]

As was true for white homeowners during the time periods discussed in *Saving the Neighborhood*, whites flee integrating neighborhoods and often refuse to buy homes in nonwhite neighborhoods for a variety of reasons. Some whites may simply dislike blacks and Latinos and prefer not

---

108. *Id.* at 158–59.

109. *Id.* at 159.

110. *Id.*

111. *Id.*

112. *Id.* at 160.

113. *Id.*; *see also* James H. Carr & Nandinee K. Kutty, *The New Imperative for Equality*, *in* SEGREGATION: THE RISING COSTS FOR AMERICA, *supra* note 66, at 1, 9, 28 (pointing out that although opinion polls show greater racial tolerance by whites, schools and neighborhoods reflect higher levels of segregation).

114. DICKERSON, *supra* note 1, at 158–59; *see also* JOHN KUCSERA & GARY ORFIELD, CIVIL RIGHTS PROJECT, NEW YORK STATE'S EXTREME SCHOOL SEGREGATION: INEQUALITY, INACTION AND A DAMAGED FUTURE, at iii (2014) (observing that while New York liberals "were on the front lines of the struggle to desegregate [schools in] the South. . . . [b]y the time the urban desegregation issue was seriously raised in the North in the mid-1970s, there was little will to do anything serious about the issues in most of the state").

115. DICKERSON, *supra* note 1, at 188.

to be or live anywhere near them.[116] Others may not have such openly racist views, but may choose to avoid moving into (or remaining in) a racially mixed neighborhood if they think other white neighbors will refuse to move into (or remain in) the racially integrated neighborhood.[117] Echoing the sentiment many whites expressed when they fought to enforce RCs, white homeowners, particularly upper and middle income homeowners, flee integrating neighborhoods because they fear that, even if the first black neighbor shared their socioeconomic status, lower income minority neighbors (or their lower income friends and family) will soon follow.[118]

White flight also may occur because of negative, race-based stereotypes and race-based assumptions whites may have about what *might* happen if nonwhites lived in their neighborhoods.[119] Indeed, *Saving the Neighborhood* shows how blockbusting effectively capitalized on white owners' race-based fears by convincing white owners that property values would decrease, crime would increase, and their white neighbors would flee when blacks invaded their neighborhoods.[120] Whether they act consciously or not, white home buyers are willing to pay a premium to avoid living in neighborhoods with too many blacks or Latinos. Research shows whites forego buying homes in neighborhoods that meet their requirements (in terms of price, number of rooms, good schools, low crime rates, etc.) if the neighborhood is not predominately white.[121]

Despite the legacy of RCs, the level of neighborhood segregation has declined since the 1950s, and more than 50% of the growth in the suburban population in the last three decades has been because of an increase in the minority population.[122] Though larger percentages of blacks and Latinos now live in suburban areas, blacks and Latinos at all income levels continue

116. *Id.* at 161.

117. *Id.* at 161–62.

118. *Id.* at 162–63; *see supra* note 16 and accompanying text.

119. *See* Kyle Crowder & Scott J. South, *Spatial Dynamics of White Flight: The Effects of Local and Extralocal Racial Conditions on Neighborhood Out-Migration*, 73 AM. SOC. REV. 792, 794 (2008) (explaining that white flight is associated with minority population changes due to white concerns about the "future trajectory of an area").

120. BROOKS & ROSE, *supra* note 2, at 135, 190.

121. Gregory D. Squires, *Demobilization of the Individualistic Bias: Housing Market Discrimination as a Contributor to Labor Market and Economic Inequality*, 609 ANNALS AM. ACAD. POL. & SOC. SCI. 200, 206 (2007).

122. DICKERSON, *supra* note 1, at 158, 160; *see also* Sean F. Reardon & John T. Yun, *Suburban Racial Change and Suburban School Segregation, 1987–95*, 74 SOC. EDUC. 79, 80 (2001) (describing minority populations as the drivers of suburban growth since the 1980s). Suburban communities are now more diverse than they have ever been. Within the fifty largest metropolitan areas, the percentage of suburbanites living in predominately white suburbs fell from 51% in 2000 to 39% in 2010. MYRON ORFIELD & THOMAS LUCE, INST. ON METRO. OPPORTUNITY, AMERICA'S RACIALLY DIVERSE SUBURBS: OPPORTUNITIES AND CHALLENGES 8 (2012).

to live in largely nonwhite neighborhoods (< 35% white) while the average white person lives in a neighborhood that is at least 75% white.[123] While the suburbs are now significantly more diverse than they were when whites used RCs to exclude black neighbors or when they fled inner cities to escape blacks in the 1960s, these suburban neighborhoods are not stably integrated and white flight persists.[124]

Resegregation has been the norm for U.S. neighborhoods for at least three decades. Since the 1980s, the suburban areas with the most rapid increases of minority residents also had the most rapid increases in segregation.[125] In addition, as the inner ring of suburban areas increased in diversity, whites fled to outer rings and rural areas.[126] Neighborhoods that had stable (or declining) nonwhite racial populations typically had the slowest increases in segregation.[127] Once whites leave an area, they generally will not return unless the area becomes part of a gentrification process that is pushing out lower income and nonwhite residents.[128] Stated differently, whites return to predominately nonwhite areas only when it appears that the neighborhood will soon become "less brown, black, and poor."[129]

D. Exclusionary Zoning

Exclusionary land use laws and private homeowner agreements now sort neighborhoods almost as effectively as racially restrictive public zoning ordinances and RCs did.[130] Generally speaking, private homeowner agreements impose restrictions on how owners can use their property and can dictate how owners must maintain their homes.[131] Similarly, exclusionary zoning laws exclude mobile homes, multifamily units, and high-density public housing projects from some single-family neighborhoods or exclude lower income households by imposing large lot or minimum floor sizes.[132]

---

123. JOHN R. LOGAN & BRIAN J. STULTS, THE PERSISTENCE OF SEGREGATION IN THE METROPOLIS: NEW FINDINGS FROM THE 2010 CENSUS 2–3 (2011).

124. *See* Erica Frankenberg & Gary Orfield, *Why Racial Change in the Suburbs Matters*, *in* THE RESEGREGATION OF SUBURBAN SCHOOLS: A HIDDEN CRISIS IN AMERICAN EDUCATION 1, 9 (Erica Frankenberg & Gary Orfield eds., 2012) (describing how some suburban communities are "vulnerable to demographic change" and "white, middle-class flight").

125. Reardon & Yun, *supra* note 122, at 92.

126. *Id.* at 94.

127. *Id.* at 92.

128. DICKERSON, *supra* note 1, at 161.

129. *Id.*

130. *See* JONATHAN ROTHWELL, BROOKINGS INST., HOUSING COSTS, ZONING, AND ACCESS TO HIGH-SCORING SCHOOLS 21 (2012) ("Just as explicitly race-based policies like covenants and discriminatory lending and real estate standards contravened market forces to keep blacks out of white neighborhoods, zoning today keeps poor people out of rich neighborhoods . . . .").

131. DICKERSON, *supra* note 1, at 55–56.

132. *Id.* at 186.

Whether by design or not, research shows that exclusionary zoning laws increase housing prices and create low-density neighborhoods whose residents are typically homeowners (not renters).[133] In addition, the homeowners who are most successful at fencing out multifamily housing or nondesirable public projects live in higher income, suburban white neighborhoods.[134] In contrast, lower income residents, blacks, and Latinos are most likely to be fenced out.[135] While public zoning laws and private property agreements cannot lawfully sort neighborhoods by race, these ostensibly race-neutral laws nonetheless sort neighborhoods by income.[136] That is, limiting the development of smaller and less expensive homes in high-income neighborhoods exacerbates existing segregation (both racial and economic) in neighborhoods by segregating neighborhoods by income. And, as discussed in more detail in subpart III(B), sorting neighborhoods by income contributes to and exacerbates existing educational achievement disparities in neighborhood schools.[137]

III. Sorting by Race and Income

A. Racially and Economically Segregated Neighborhoods

In the United States, income segregation almost always results in racial segregation. As a result, regulations, agreements, and private actions that result in neighborhoods being sorted by income help perpetuate the racially segregated U.S. neighborhoods that RCs, redlining, and steering created decades ago. Economic sorting in neighborhoods has increased significantly since the 1970s. In addition, poverty rates somewhat increased in this country over the last twenty years, and the income and wealth inequality gaps grew after the 2007–2009 recession.[138] One significant consequence of neighborhood sorting by income is that poverty is now more highly concentrated in neighborhoods,[139] and blacks and Latinos

133. ROTHWELL, *supra* note 130, at 19.

134. DICKERSON, *supra* note 1, at 186.

135. *Id.*

136. *Id.*

137. *See infra* subpart III(B).

138. *See infra* note 176 and accompanying text.

139. ELIZABETH KNEEBONE, BROOKINGS INST., THE GROWTH AND SPREAD OF CONCENTRATED POVERTY, 2000 TO 2008-2012 (2014) (examining how poverty has become increasingly concentrated by neighborhood in the past decade); *see also* KENDRA BISCHOFF & SEAN F. REARDON, RESIDENTIAL SEGREGATION BY INCOME, 1970–2009, at 1–2 (2013) (showing that income segregation in large cities has increased rapidly in the past decade, especially among black and Hispanic families); RICHARD FRY & PAUL TAYLOR, PEW RESEARCH CTR., THE RISE OF RESIDENTIAL SEGREGATION BY INCOME 1 (2012) (finding that residential segregation by income has increased in twenty-seven out of thirty of the largest metropolitan areas in the United States over the past thirty years).

increasingly live in nonwhite neighborhoods that have higher percentages of lower income residents than white neighborhoods.

Since 2000, more than 20% of blacks *overall* have lived in high-poverty neighborhoods, and more than 40% of *poor* blacks live in high-poverty neighborhoods.[140] In contrast, only 15% of poor whites live in high-poverty neighborhoods.[141] Similarly, middle-income black and Latino households who earn more than $75,000 are more likely to live in neighborhoods with lower income residents than white households who earn *less than $40,000*.[142] In fact, the biggest change in U.S. neighborhoods since the 1960s has not been the decrease or increase in neighborhood racial segregation. The biggest change has been the moats that separate poor and rich neighborhoods.

There has been a significant decrease in the number of mixed-income neighborhoods and a corresponding increase in the proportion of neighborhoods that are wealthy or very poor. For example, in 1970 the majority of U.S. families (65%) lived in neighborhoods that were middle income.[143] By 2009, though, only 42% of families lived in middle-income neighborhoods.[144] Similarly, while only 7% of families lived in affluent neighborhoods in 1970, that number had more than doubled (15%) by 2009.[145] Poor families are also more likely to be clustered in poor neighborhoods as the proportion of families living in poor neighborhoods more than doubled from 8% in 1970 to 18% in 2009.[146]

B. K–12 Public Schools

Sorting lower income residents into the same neighborhood has both compositional (e.g., higher poverty rates, more single-parent households) and spatial (e.g., lower quality of schools, higher crime or pollution rates) effects. Because so many neighborhoods are sorted by income, K–12 public schools have now become more economically segregated. Just as poor families are clustered together and away from middle and upper income families, lower income students are increasingly concentrated in schools with other lower income students.[147] Moreover, because economic

---

140. ROLF PENDALL ET AL., JOINT CTR. FOR POLITICAL AND ECON. STUDIES, A LOST DECADE: NEIGHBORHOOD POVERTY & THE URBAN CRISIS OF THE 2000S, at 2–3 (2011). A high-poverty neighborhood is one where at least 30% of the residents live below the poverty line. *Id.* at 2.

141. *Id.* at 3.

142. JOHN R. LOGAN, SEPARATE AND UNEQUAL: THE NEIGHBORHOOD GAP FOR BLACKS, HISPANICS AND ASIANS IN METROPOLITAN AMERICA 5 (2011).

143. BISCHOFF & REARDON, *supra* note 139, at 11.

144. *Id.*

145. *Id.* at 11–12.

146. *Id.* at 12.

147. ROTHWELL, *supra* note 130, at 9.

sorting and racial sorting typically exist in tandem in the United States, recent data reveal that blacks are again attending schools that are mostly nonwhite, just as they did before school desegregation efforts began in the 1960s.[148]

Just as most people indicate that they value racially and ethnically mixed communities, white parents maintain that they want their children to attend racially diverse schools.[149] Achieving this goal should be easy, since white children are projected to be less than half of the students who are enrolled in public schools in the United States in 2016.[150] Declining white birth rates and rising black and Latino birth rates have resulted in a more diverse population of school-age children.[151] Still, while white students constitute 50% of the overall student population, the typical white student attends a school where 75% of the student body is white.[152] For example, 80% of Latino students and 74% of black students attend schools that have fewer than 50% white students, and 43% of Latinos and 38% of blacks attend schools that have *less than 10%* white students.[153]

Fortunately, many of the educational disparities that existed in the days of separate and unequal de jure school segregation have been erased. All students (white, black, and Latino) have lower dropout and higher high school completion rates than they had 40 years ago.[154] Despite higher graduation rates and lower dropout rates overall, student achievement rates for blacks and Latinos are lower, and their dropout rates are higher, than overall or white dropout rates.[155] That news is disconcerting, but not

148. DICKERSON, *supra* note 1, at 208.

149. There has always been a gap between how much integration whites say they want, and the actions they take to live in (or avoid) integrated neighborhoods. KUCSERA & ORFIELD, *supra* note 114, at 18 & n.53 (noting social psychological research about parents who purport to value integrated schools and the stubborn persistence of racially segregated schools).

150. THOMAS D. SNYDER & SALLY A. DILLOW, U.S. DEP'T OF EDUC., DIGEST OF EDUCATION STATISTICS 2012, at 85 tbl.44 (2013).

151. Sabrina Tavernise, *Whites Account for Under Half of Births in U.S.*, N.Y. TIMES, May 17, 2012, http://www.nytimes.com/2012/05/17/us/whites-account-for-under-half-of-births-in-us.html, *archived at* http://perma.cc/E7V-JK7U.

152. GARY ORFIELD ET AL., CIVIL RIGHTS PROJECT, E PLURIBUS . . . SEPARATION: DEEPENING DOUBLE SEGREGATION FOR MORE STUDENTS 10 (2012).

153. *Id.* at 9. Ironically, New York—rather than one of the Jim Crow southern states—now has the most segregated schools in this country. KUCSERA & ORFIELD, *supra* note 114, at vi.

154. SNYDER & DILLOW, *supra* note 150, at 195 tbl.128.

155. DICKERSON, *supra* note 1, at 209–10; *see also* JOHN MICHAEL LEE JR. & TAFAYA RANSOM, COLLEGEBOARD ADVOCACY & POLICY CTR., THE EDUCATIONAL EXPERIENCE OF YOUNG MEN OF COLOR: A REVIEW OF RESEARCH, PATHWAYS AND PROGRESS 18 fig.7 (2011) (displaying dropout rates by race); ALAN VANNEMAN ET AL., U.S. DEP'T OF EDUC., NAT'L CTR. FOR EDUC. STATISTICS, ACHIEVEMENT GAPS: HOW BLACK AND WHITE STUDENTS IN PUBLIC SCHOOLS PERFORM IN MATHEMATICS AND READING ON THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS iii (2009).

particularly surprising since household income is one of the strongest predictors for student academic achievement.[156]

For the last 20 years, schools have become more economically segregated with increasing numbers of black and Latino students attending schools with high concentrations of poverty. Unlike the mostly mixed income (albeit racially segregated) schools blacks attended before the 1960s, black children now attend schools with poor (and mostly nonwhite) children. Specifically, black and (especially) Latino students are significantly more likely than whites to attend K–12 public schools that have the highest concentration of poverty, i.e., schools where more than 75% of students are eligible for free or reduced-price lunches.[157] Thus, while a slight majority of the students in the schools blacks and Latinos attended in the early 2000s were lower income, by 2010 the typical black or Latino student attended a school where almost two-thirds of the student body was lower income.[158] In contrast, the typical white student in 2010 continued to attend a predominately middle income or higher income school, as only 37% of his or her classmates were low income.[159]

Economic sorting has created schools in black and Latino neighborhoods that rank lower on outcome-based assessments; have fewer curricular and extracurricular offerings; provide a more limited range of educational resources (such as fewer books and limited or older technology); have higher teacher, principal, and superintendent turnover rates; and have less experienced and certified teachers compared to students who attend predominately white, wealthier schools.[160] Students who attend schools that have concentrated poverty perform significantly worse academically than students who attend middle income or higher income schools.[161] In contrast,

---

156. Sean F. Reardon, *The Widening Academic Achievement Gap Between the Rich and the Poor: New Evidence and Possible Explanations*, *in* WITHER OPPORTUNITY?: RISING INEQUALITY, SCHOOLS, AND CHILDREN'S LIFE CHANCES 91, 92 (Greg J. Duncan & Richard J. Murnane eds., 2011) ("The socioeconomic status of a child's parents has always been one of the strongest predictors of a child's academic achievement and educational attainment.").

157. SNYDER & DILLOW, *supra* note 150, at 179 tbl.112.

158. GARY ORFIELD ET AL., *supra* note 152, at 26 tbl.8.

159. *Id.*

160. DICKERSON, *supra* note 1, at 212; *see also* GARY ORFIELD ET AL., *supra* note 152, at 6 (listing the effects of segregation on educational opportunities, such as "less qualified teachers, high levels of teacher turnover, less successful peer groups and inadequate facilities and learning materials"); IVORY A. TOLDSON & CHANCE W. LEWIS, CHALLENGE THE STATUS QUO: ACADEMIC SUCCESS AMONG SCHOOL-AGE AFRICAN-AMERICAN MALES 26–27 (2012) (finding that black and Latino students in high-poverty schools are more likely to have "novice teachers"); Sean P. Corcoran & William N. Evans, *The Role of Inequality in Teacher Quality*, *in* STEADY GAINS AND STALLED PROGRESS: INEQUALITY AND THE BLACK-WHITE TEST SCORE GAP 212 (Katherine Magnuson & Jane Waldfogel eds., 2008) ("[T]eachers teaching black students were consistently less likely to be state certified, more likely to hold emergency or temporary certification, and had fewer years of experience working at the same school.").

161. DICKERSON, *supra* note 1, at 209.

students who attend schools that are low poverty (and more than 50% white) consistently score higher overall on standardized tests and are significantly more likely to graduate from high school than students who attend schools that are high poverty (and more than 50% black or Latino).[162] Research shows that lower income students who attend schools with middle and higher income students score significantly higher on standardized tests and have higher high school graduation and college-attendance rates than lower income students who remain in racially and economically segregated schools.[163]

Because neighborhoods and schools are largely sorted by race and income, black and Latino students' overall educational achievement (including high school graduation and dropout rates) are "positively correlated with the achievement rates of students who attend the highest poverty schools."[164] Indeed, the concentration of poverty in the student's school predicts an individual student's achievement rates more than race or the student's own socioeconomic status.[165]

IV. Economic Consequences of Neighborhood Sorting

A. Home Values

As *Saving the Neighborhood* notes, RCs, steering, and other discriminatory housing and lending policies redlined, stigmatized, and deemed racially mixed neighborhoods to be unsafe and uninsurable. Because those policies also devalued the homes in those neighborhoods and many of those neighborhoods remain racially segregated, RCs and other racially discriminatory housing policies continue to depress the home

---

162. *See* KUCSERA & ORFIELD, *supra* note 114, at 28–29 (describing lower educational achievement, e.g., graduation rates and test scores for students in "high poverty, high minority" settings). For example, the average low-income student attends a school that scores just above the 42nd percentile of students while the average mid- and high-income student attends a school that scores just above the 60th percentile. ROTHWELL, *supra* note 130, at 8.

163. *See* ORFIELD ET AL., *supra* note 152, at 12 (finding that students in low income, segregated schools drop out at higher rates and are less likely to be successful in college); ROTHWELL, *supra* note 130, at 10 (showing that "low-income students who are enrolled with higher-scoring middle/high-income peers do better on state exams").

164. DICKERSON, *supra* note 1, at 209.

165. *Id.*; *see also* GARY ORFIELD ET AL., *supra* note 152, at 76 (noting that "[r]ecent research has argued that concentrated poverty is even more related to educational inequality than racial segregation"). For example, some studies find that most of the SAT test score gap between black and white students is attributable to living in racially and economically segregated neighborhoods. *E.g.*, ROTHWELL, *supra* note 130, at 3. Attending schools and living in neighborhoods with concentrated poverty also deprive students of social leverage (i.e., access to information, clout, or influence) and social support (i.e., access to financial or emotional help, like getting a ride or borrowing small sums in an emergency). *See* Xavier de Souza Briggs, *Brown Kids in White Suburbs: Housing Mobility and the Many Faces of Social Capital*, 9 HOUSING POL'Y DEBATE 177, 178 (1998) (defining social leverage and social support).

values for blacks and Latinos. And, because of ongoing neighborhood sorting by income, even if blacks and Latinos can purchase homes using low-cost mortgage products, their homes will have lower market values relative to the homes a typical white homeowner buys if their neighborhood schools are lower quality.

Generally speaking, neighborhoods that consist of smaller homes, multifamily homes, and renter-occupied housing are more likely to be zoned for lower scoring schools.[166] In contrast, high-scoring, highly rated schools are typically located near neighborhoods that have large, single-family homes that are owner (not renter) occupied. Whether because of their size, amenities, or general location, homes located in attendance zones for high-scoring and highly rated schools are consistently valued higher in housing markets and they have higher appreciation rates than homes in neighborhoods with lower quality schools.[167] Indeed, recent research shows that the median value for homes in neighborhoods near high-scoring schools is more than $200,000 higher than homes near low-scoring schools.[168]

Parents—especially higher income white parents—are willing to pay a premium for homes that are zoned for high-quality public schools[169] and they will flee from neighborhoods when they perceive that the schools are declining in quality. Often the perception that a school's quality is declining is formed once the racial composition of the school shifts from white to nonwhite. Of course, the fact that a public school is racially diverse or is in a school district that is under a desegregation order or plan should not affect the value of the homes zoned for that school. Yet, studies consistently show that white home buyers will pay a premium to avoid these schools and are willing to pay more to buy homes in neighborhoods that have less diverse schools.[170] Given the premium that white owners are willing to pay to have their children attend high-ranking schools that are racially homogeneous, it is not surprising that recent data indicate that it would be more economically feasible for poor families to send their children to parochial or relatively inexpensive private schools than to buy a home in a neighborhood with high-scoring schools.[171]

Neither elected officials nor the parents whose children attend the most desirable public schools are willing to seriously challenge the current

166. *See* ROTHWELL, *supra* note 130, at 14–15 (acknowledging that housing prices near high-performing schools are higher and less rental units are available).

167. DICKERSON, *supra* note 1, at 126.

168. ROTHWELL, *supra* note 130, at 14.

169. *Id.* at 4.

170. DICKERSON, *supra* note 1, at 190; Deborah L. McKoy & Jeffrey M. Vincent, *Housing and Education: The Inextricable Link*, *in* SEGREGATION: THE RISING COSTS FOR AMERICA, *supra* note 65, at 124, 128.

171. ROTHWELL, *supra* note 130, at 21.

school assignment model that assigns children to schools based on their respective mailing addresses. A member of the George W. Bush Administration candidly captured the sentiment of many white parents in observing why suburban residents fail to support the "school choice" movement: "[S]chool choice is popular in the national headquarters of the Republican Party but is unpopular among the Republican rank-and-file voters who have moved away from the inner city in part so that their children will not have to attend schools that are racially or socio-economically integrated."[172]

As long as street addresses determine school attendance zones, but neighborhoods remain economically and racially segregated, schools will continue to be sorted by income and race, and the children who attend schools in lower income neighborhoods will continue to receive fewer educational benefits relative to the benefits that students who attend high-scoring schools receive.

B. Racial Wealth Gap

Students who attend high-poverty schools have lower educational achievement rates, and this educational achievement gap ultimately creates household income and wealth inequality gaps.[173] Neighborhood sorting by income is now exacerbating the racial wealth gap that has always existed in the United States. Throughout the history of this country, white household wealth always significantly exceeded black and Latino household wealth.[174] White households have always owned significantly more real property and financial assets than black and Latino households.[175] While the gap is smaller for higher income households and for some college graduates, there has always been a racial gap at all income levels, and that gap grew after the recent recession.[176]

The racial wealth gap exists, in part, because white households generally receive larger inheritances than black or Latino households.[177] But, even the inheritance gap is largely the result of housing and mortgage market discrimination. That is, RCs and other legal norms that prevented blacks and Latinos from buying higher appreciating homes at low cost[178]

---

172. PETER W. COOKSON JR., SCHOOL CHOICE: THE STRUGGLE FOR THE SOUL OF AMERICAN EDUCATION 68 (1994).

173. *Id.* at 13–14.

174. DICKERSON, *supra* note 1, at 247.

175. *Id.* Financial assets include certificates of deposit, savings, bonds, and stocks (either owned directly or in a mutual fund or retirement accounts). *Id.*

176. *Id.* at 247, 250; *see also* RAKESH KOCHHAR ET AL., PEW RESEARCH CTR., TWENTY-TO-ONE: WEALTH GAPS RISE TO RECORD HIGHS BETWEEN WHITES, BLACKS AND HISPANICS 13–14 (2011) (summarizing the decline in minority household wealth as a result of the Great Recession).

177. DICKERSON, *supra* note 1, at 248.

178. *See supra* subpart II(A).

made it harder for blacks to bequeath wealth to their heirs. This wealth loss helped perpetuate and widen a racial inheritance gap that started well before the Civil War. The racial inheritance and wealth gaps are linked to housing and will never close as long as blacks and Latinos remain overinvested in housing.

Housing equity constitutes almost 60% of black overall wealth, approximately 65% of overall Latino wealth, but only 44% of white household wealth.[179] Being overinvested in housing is especially problematic for blacks and Latinos because their homes have lower overall market values than the homes whites own. As noted earlier, whites (who have higher homeownership rates) resist buying homes in black and Latino neighborhoods, and the decreased demand for those homes depresses the market value of those homes. In addition to being overinvested in housing and owning homes that are less valued in U.S. housing markets, blacks and Latinos have higher overall purchase costs than whites.

Initially, government-sanctioned redlining made it virtually impossible for blacks to buy homes with low-cost, longer term FHA-insured loans.[180] RCs then made it hard for blacks to buy higher appreciating homes in white neighborhoods, especially since the FHA encouraged developers to include RCs in their new housing developments, and the FHA would not guarantee a private mortgage for a black renter who attempted to purchase a covenanted property.[181] Similarly, it was virtually impossible for banks to approve non-FHA loans with terms as favorable as FHA-insured loans until the 1970s, which meant that banks had no economic incentive to provide low-cost mortgage financing to borrowers who could not qualify for an FHA loan.[182]

Because of these private and public efforts to enforce the social norm of racial exclusion, it was difficult for black households to buy *any* home with a low-cost, government-insured mortgage or to buy higher appreciating suburban homes in the 1950s and 1960s when housing prices in the United States were soaring.[183] In contrast, whites had lower overall home-buying costs because they could buy homes with FHA-insured loans that were longer term, self-amortizing, and had lower interest rates.[184] Indeed, research indicates that the amount blacks paid for the homes they bought in the 1970s may have been twice what they would have paid if they

179. KOCHHAR ET AL., *supra* note 176, at 24–25 & tbl.

180. *See supra* subpart I(B).

181. *See supra* notes 34–37 and accompanying text.

182. DICKERSON, *supra* note 1, at 148.

183. *Id.* at 191.

184. *Id.*

(or their parents) could have purchased the home with the type of government-insured loan that whites were offered in the 1950s.[185]

Even today, though, black and Latino home buyers pay more than similarly situated whites when they buy houses. A recent report found that home-buying costs for whites are lower than black and Latino home-buying costs, observing that blacks and Latinos pay a statistically significant premium for the houses in the markets studied in the report.[186] While it was unclear *why* these nonwhite buyers were charged more for houses than white buyers with similar economic profiles, nonwhite buyers paid a premium *regardless of the race of the sellers*.[187]

Because they are overinvested in housing and pay more to buy houses that are not as highly valued in housing markets, black, Latino, and lower and middle income Americans are at a measurably higher risk of losing the wealth they have managed to accumulate if there is a housing crisis.[188] These risks were realized during the recent recession when black and Latino households suffered devastating losses. During the recession, the value of homes that minorities owned fell by 20%, while the value of white homes fell by 13%.[189] Because minorities used high-cost mortgages to buy homes during the housing bubble, they often had little equity in those homes. In fact, the amount of equity minorities had in their homes at the beginning of the recession was 26.8% lower than comparable white households.[190]

Despite relatively larger increases in black and Latino homeownership rates during the housing boom than whites,[191] blacks and Latinos suffered a net loss of ownership because they had disproportionately higher mortgage debt loads (often because they were steered to higher cost mortgage loans when they could have qualified for lower cost loans)[192] and disproportionately higher foreclosure rates.[193] For example, at the beginning of the recession, minority homeowners had mortgage debt that was more than

185. John F. Kain & John M. Quigley, *Housing Market Discrimination, Home-ownership, and Savings Behavior*, 62 AM. ECON. REV. 263, 273 (1972).

186. Patrick Bayer et al., *Estimating Racial Price Differentials in the Housing Market* 18–19 (Nat'l Bureau of Econ. Research, Working Paper No. 18069, 2012), *available at* http:www.nber.org/papers/w18069, *archived at* http://perma.cc/6S3P-7JZL.

187. *Id.*

188. *See* KOCHHAR ET AL., *supra* note 176, at 5 (finding that Hispanics derived nearly two-thirds of their net worth from home equity in 2005 and that the net worth of Hispanic households dropped 66% during the 2008 housing crisis, while black households derived 59% of their net worth from home equity in 2005 and their net worth dropped 53% in 2008).

189. JOINT CTR. FOR HOUS. STUDIES, HARVARD UNIV., THE STATE OF THE NATION'S HOUSING 2011, at 16 (2011).

190. *Id.*

191. DICKERSON, *supra* note 1, at 184–85.

192. *Id.* at 192.

193. BOCIAN ET AL., *supra* note 87, at 4; DICKERSON, *supra* note 1, at 191–92.

13% higher than comparable white-homeowner mortgage debt.[194] The combination of higher mortgage debt, lower overall home values, lower household income, and higher unemployment rates caused minorities to have higher mortgage default and foreclosure rates relative to whites with comparable economic profiles.[195]

While the recent recession wiped out years of accumulated household wealth for all households except the very highest earners, the economic downturn had a particularly devastating effect on black and Latino wealth. While "[a]verage white household wealth dropped 16 percent to $113,149 (in 2009) from $134,992 (in 2005) . . . average black household wealth dropped more than 50 percent to $5,677 (from $12,124 in 2005) and Latino household wealth dropped a whopping 66 percent to $6,325 (from $18,359 in 2005)."[196] In fact, higher foreclosure rates and plummeting home values have essentially eliminated the wealth gains that blacks and Latinos made since the 1980s. Black and Latino overall household-wealth levels are now lower than they have been in twenty-five years.[197]

Conclusion

Saving the Neighborhood explains how and why realtors, developers, lenders, and the U.S. Government collaborated with white homeowners to create and enforce racially restrictive covenants. While RCs are no longer legally enforceable, white homeowners who are biased (either explicitly or implicitly) against blacks or Latinos still try to find ways to avoid living in racially integrated neighborhoods. For the most part, RCs now live only in historical documents and in a few remaining deeds in land-records offices. Unfortunately, the vestiges of years of state-condoned housing and mortgage-market discrimination linger on and continue to detrimentally affect the educational opportunities and the financial well-being of black and Latino Americans.

194. JOINT CTR. FOR HOUS. STUDIES, *supra* note 189, at 16.

195. DICKERSON, *supra* note 1, at 192–93.

196. *Id.* at 250; *see also* KOCHHAR ET AL., *supra* note 176, at 1.

197. KOCHHAR ET AL., *supra* note 176, at 29.

Liberals, Litigants, and the Disappearance of Consensus About the Religion Clauses

THE RISE AND DECLINE OF AMERICAN RELIGIOUS FREEDOM. By Steven D. Smith. Cambridge, Massachusetts: Harvard University Press, 2014. 240 pages. $39.95.

Reviewed by Mark Tushnet*

I feel compelled to say at the outset that there's a lot in the first chapters of *The Rise and Decline of American Religious Freedom* that I found quite offputting.[1] Once I got over my annoyance, I found much in the remainder provocative—right and wrong in almost equal measure. The meat of the book comes in Chapters 3 and 4, on the supposed existence and equally supposed dissolution of an American consensus on religious freedom in a religiously pluralist society. To give the argument that follows in telegraphic form: Smith seems right to me in identifying a certain kind of consensus about both the substance of religious freedom and the way the American polity embedded that consensus in institutions of government; a consensus that existed roughly for the century between 1850 and 1950. But, it seems to me that he overlooks cogent arguments, building upon his own insights, that the dissolution of consensus is more apparent than real and that the culprit, if there be one, is litigation rather than, as he too often suggests, a secular elite indifferent to claims of religious freedom.

Smith describes two competing "positions or 'models'" of religious freedom in the nineteenth century,[2] when it became more difficult (though not impossible) to see the United States as a Protestant nation rather than a Christian one.[3] He calls these the "providentialist" and the "secularist" views and associates them with John Adams and Thomas Jefferson respectively.[4] It would be a mistake, I think, to try to spell out in detail what these views were. They were, and are, not a set of beliefs or arguments that can be reduced to propositional forms. Rather, they are more like attitudes or general orientations to the human history and the social world.[5] So, roughly,

---

* William Nelson Cromwell Professor of Law, Harvard Law School. I thank Paul Horwitz and Nelson Tebbe for their comments on a draft of this Review.

1. To avoid distracting readers from my main areas of agreement and disagreement with Smith, with the indulgence of the *Texas Law Review* editors I've described what put me off in an Appendix to this Review.

2. STEVEN D. SMITH, THE RISE AND DECLINE OF AMERICAN RELIGIOUS FREEDOM 87 (2014).

3. *See id.* at 84–85 (stating that the term "'Christian nation'" evolved from meaning Protestant to secularly neutral during the time period).

4. *Id.* at 94.

5. Of course, one can generate a "providentialist thesis" or a "secularist thesis" (for

the providentialist view is that religion—formerly the god of Protestantism, then the god of Christianity, and later God (singular) alone—has an important place in ordering and stabilizing society (and the United States in particular), leading people to live lives at peace with each other.[6] The secularist view, in contrast, is that people can get along just fine, thank you, without too much adverting to religion as such; religion is fine for people who want to pursue it, but society as such can be stable and people can get along peacefully simply by attending to nonreligious goals on which virtually all can agree at a level of abstraction high enough to secure agreement but low enough to generate real, alternative policy choices.[7]

Describing and seemingly endorsing the views of religion scholar John Witte, Smith writes, "these two models have competed with each other throughout the country's history, with Adams's model predominating through the mid-twentieth century and Jefferson's view achieving ascendancy thereafter."[8] The theme of competition is important here. Smith writes, this time clearly in his own voice, "the visions have competed, but they have also collaborated, ... [T]he American political tradition might be understood as the product of the ongoing competition and collaboration between the providentialist and secularist interpretations of the Republic."[9]

Competition *and* collaboration: That is the constitutional settlement achieved in the nineteenth century. But, as Smith points out, that settlement was inscribed in what he calls the "soft constitution" or what others more commonly call the "small-c constitution."[10] The small-c constitution consists of a set of more or less taken for granted presuppositions of our collective political life that provide the underpinnings for more formalized expressions of both policy (in statutes) and occasionally judicial decisions (in litigated cases).[11] Quoting Larry Kramer, Smith writes that the soft constitution provides "a framework for argument."[12] Note: A framework for argument, not arguments themselves. That is, as Smith emphasizes, the guiding principle, expressed in practice rather than in express constitutional theory,

---

contemporaries, John Rawls's work exemplifies the latter, see *id.* at 83), but such theses are not the kinds of things that help people orient their thinking in daily life. Attitudes are.

6. *Id.* at 89–91.

7. *Id.* at 93. In comments on a draft of this Review, Paul Horwitz pointed out that some of Smith's troubles with secularism may arise from the *general* scope of contemporary regulatory authority. Though that scope may be unavoidably large today, Horwitz notes that it might be odd to tax the small-government Jefferson for a troubling secularism.

8. SMITH, *supra* note 2, at 87.

9. *Id.* at 94.

10. *See id.* at 96, 108 (distinguishing between "the Constitution" and "the constitution" and describing the commitments each embrace).

11. *See id.* at 96–99 (defining the small-c constitution as a "body of constructive understandings, practices, and commitments" and identifying examples of legislation and cases these understandings affected).

12. *Id.* at 95 (emphasis omitted).

is one of contestation, not of resolution.[13] The result is that religious liberty was left undefined substantively: The Constitution and the constitution "embrac[ed] what nearly all Americans agreed on (namely, religious freedom) while leaving firmly open what Americans did not agree on (namely, exactly what religious freedom in this country meant or entailed)."[14] And a further result: "A historical survey by legal scholars John Jeffries and James Ryan describes the political atmosphere of mid-twentieth-century America in terms that systematically mix the providentialist and secularist views."[15] Smith leaves open the question of whether this mixture occurs at the individual level, where each of us sometimes feels the pull of providentialism and sometimes that of secularism, or on the level of social practice, where we would notice providentialism prevailing in some domains at the same moment that secularism prevails in other domains.

All of this seems to me quite insightful and powerful. One might quibble a bit with the irenic picture Smith paints—or, to switch the metaphor, the tune Smith plays seems attractive even as he inserts quite a few discordant notes with his observations about anti-Catholic riots, persecution of Mormons, and the like.[16] Still, emphasizing the small-c constitution and the existence of social practices that center on regular contestation without final resolution seems to me both right and an important contribution to our understanding of the constitutional status of religious liberty in the United States.

But then, according to Smith, in the twentieth century everything fell to pieces. Here, I treat Smith's argument about the modern era as an extension of his historical analysis, focusing on his account of why things went wrong and offering an alternative account. One way to get into the alternative account is to observe that we can read Smith's account of the modern era as a jeremiad by a partisan of providentialism.[17] Or, in Smith's terms, his book is simply an intervention in the ongoing contestation between providentialism and secularism. As such an intervention, the book takes the reasonable position—reasonable, that is, from the perspective of a providentialist—that what's gone wrong is that secularism has prevailed. In particular, secularist elites came to dominate the constitutional discourse over religious freedom.[18] So, for example, he writes: "The modern Supreme Court

13. *Id.* at 101–02.

14. *Id.* at 104.

15. *Id.* at 107.

16. *E.g.*, *id.* at 103. For a similar critical observation, see Paul Horwitz, *More "Vitiating Paradoxes": A Response to Steven D. Smith—and* Smith, 42 PEPP. L. REV. (forthcoming 2014) (manuscript at 113–14), *available at* http://ssrn.com/abstract=2427776, *archived at* http://perma.cc/JWQ8-7RVR.

17. There's not much analytically that can be said about jeremiads except to analyze their rhetoric and the like, some of which I do in the Appendix.

18. SMITH, *supra* note 2, at 122.

seemingly failed to understand" the settlement reached in the principle of regular contestation.[19] "[B]y elevating the secularist interpretation to the status of hard Constitutional orthodoxy, the Court placed the Constitution itself squarely on the side of political secularism and relegated the providentialist interpretation to the status of a constitutional heresy."[20]

Perhaps so. But, there's a rather serious problem here. Smith's account of the nineteenth-century settlement was diachronic: One could see a pattern of contestation when one observed relatively long periods of time and space. Specifically, in some places and at some times, one could see at the least the possibility of secularism prevailing even though, on Smith's account, in most of the nation and most of the time providentialism prevailed.[21] But, not surprisingly, Smith's perspective on the present is synchronic: He is examining a specific slice of time in which—as far as we can tell from the perspective of someone who sees ever-present contestation—secularism happens to have prevailed for the moment.[22] Who knows, though, what the future holds?[23]

Smith is rather clearly a glass-is-half-empty kind of guy: pessimistic about the prospect that what he sees as current trends will continue, leading to a death spiral for providentialism. Yet, his historical account—of sequential displacement of providentialism and secularism—counsels against such pessimism, at least in the absence of a story about the mechanism of decline. But, as far as I can tell, Smith doesn't provide such a story. The most I can get is that secularism is something like a contagion: The more prevalent it is in the society, the more likely that the contagion will spread. That leads me to wonder why providentialism isn't contagious too. And, after all, what we're talking about here are *ideas* that help people understand the lives they are living in the world they inhabit. If secularism makes more sense of that world to increasing numbers of people, and providentialism seems increasingly out of touch with their lives—or, I hasten to add, if people find that providentialism makes more sense of their world—it's not clear to me what the problem is (from the perspective of a detached observer).

---

19. *Id.* at 123.

20. *Id.*

21. Sometimes I got the sense that Smith thinks that providentialism prevailed throughout, with secularism always and everywhere subordinated. That, though, seems to me inconsistent with the core idea of contestation: What kind of contest is it in which everyone knows who the winner and loser will always be?

22. Smith's response to Horwitz, Steven D. Smith, *Situating Ourselves in History*, 42 PEPP. L. REV. (forthcoming 2014) (on file with author), acknowledges this—"Win a few, lose a few," he writes, *id.* (manuscript at 4)—even as he insists on the possibility that we face a potentially irreversible decline in the availability of the providentialist view.

23. To quote Monty Python, "Nobody expects the Spanish Inquisition." *Monty Python's Flying Circus: The Spanish Inquisition* (BBC television broadcast Sept. 22, 1970).

Smith does acknowledge uncertainty about the future, in his discussion of the possibility of a compromise achieved through serial displacement of secularism by providentialism and providentialism by secularism. He is wary about the possibility, because, he writes, "It is hard to admire this kind of compromise—namely, one that results from flagrant inconsistency in adhering to announced doctrines."[24] This is a strikingly court-focused concern. In my capacity as a citizen—or as an observer of historical trends and patterns—doctrinal inconsistency is a perhaps interesting feature (bug?) of the displacement of the soft constitution by the hard one. It's not obvious to me that admiration, and its inverse disdain, are attitudes of any interest when looking at things overall.

The court focus of Smith's concerns about the present is somewhat surprising in light of his insistence on the importance of the soft constitution in the nineteenth century. I would have thought that the first matter of interest would be why and how did the soft, unlitigated constitution get replaced by the hard, litigated Constitution?[25] The consequences of that replacement are quite broad, I think, covering much more than the domain of religious freedom. And, the culprit in Smith's story may be the replacement of the small-c, unlitigated constitution with the large-C, litigated one, not the views of secularism or providentialism held by elite judges.

The litigated Constitution produces court cases with plaintiffs and defendants, some of whom win and others of whom lose.[26] Litigation is of course a forum for contestation but not, in the first instance, for repeated and ongoing contestation.[27] In every litigated case in which providentialist and secularist views are offered to the court, one or the other is going to prevail. And—again, at least in the short run with respect to the case at hand—it's difficult to see how a victory is consistent with the nineteenth-century principle of repeated contestation.

There's a second way in which litigation itself distorts the diachronic principle of contestation. Litigation occurs, necessarily, at one point in

---

24. SMITH, *supra* note 2, at 158.

25. Nelson Tebbe pointed out to me in comments on a draft of this Review that some scholars treat the large-C Constitution as including both an unlitigated component and a litigated one. Sanford Levinson, for example, calls the unlitigated component of the large-C Constitution its "hard wired" provisions. *E.g.*, SANFORD LEVINSON, OUR UNDEMOCRATIC CONSTITUTION: WHERE THE CONSTITUTION GOES WRONG (AND HOW WE THE PEOPLE CAN CORRECT IT) 29 (2006). In this Review I focus, as Smith does, on the litigated component of the large-C Constitution.

26. There are hints that Smith sees this, but those hints do not play a large role in his argument. *See, e.g.*, SMITH, *supra* note 2, at 126 ("[I]t seems likely that religious citizens, at least *when in litigating posture*, are sometimes less than forthcoming about their deeper reasons.") (emphasis added).

27. "Not in the first instance" because no single lawsuit resolves any legal question for all time. Losers can raise variants of the losing claims that will have to be addressed on the merits, and doing so may take long enough that cultural and political changes make victories possible that seemed impossible when the first case was decided.

historical time. And, at that point, the courts are going to be staffed by people who favor either the providentialist or the secularist view. Lawyers who want to win their cases will strategically shape their arguments to appeal to the judges they have to face. And, when—as everyone appears to concede is true today—most judges are secularists, even lawyers whose clients hold deep providentialist views will offer secular arguments.[28] It's hardly surprising that sometimes those arguments are unpersuasive on the merits and that they are sometimes greeted either implicitly or explicitly with suspicions of bad faith, so to speak.[29] Under the circumstances, when those who actually hold providentialist views don't present them to the court but instead dress their arguments up as consistent with secularism, the lawyers might win their cases but providentialism isn't going to come out on top. That's a problem with the litigating posture taken by the lawyers.

A lawyer for a providentialist client might respond, "Wait a minute. What do you expect me to do? My client wants me to win the case, and given the assumptions the judges are—to be sure—forcing on me, the best way to win is to make secularist arguments." In some ways, though, that simply confirms my point. The structure of litigation at any specific point in time generates litigating advantages for those who assert secularist or providentialist views—which is to say, the problem Smith identifies arises from litigation itself.

Here's another way to see the point I'm making. In the nineteenth century, providentialists and secularists conducted their arguments in the court of public opinion, where there's no one who will award a decisive victory to either side at any particular moment. Even a victory in the Legislature or the Executive Branch is not—and is probably understood not to be—decisive because it can be reversed by an ordinary legislative or executive action after the next election.[30] Today, the arguments take place in court, where there is an authoritative decision maker. In court, strategic calculations generate one-sided arguments to appeal to those decision makers, and the arguments seem to undermine the principle of repeated and ongoing contestation.[31]

---

28. For a useful example, see Jenna Reinbold, *Sacred Institutions and Secular Law: The Faltering Voice of Religion in the Courtroom Debate over Same-Sex Marriage*, 56 J. CHURCH & ST. 248, 252–55 (2014).

29. To repeat a quotation from Smith, this time with the emphasis placed differently: "[I]t seems likely that religious citizens, at least when in litigating posture, are *sometimes less than forthcoming* about their deeper reasons." SMITH, *supra* note 2, at 126 (emphasis added).

30. Consider, for example, the regular displacement of executive orders dealing with abortion as Republican and Democratic presidents take office. Rob Stein & Michael Shear, *Funding Restored to Groups that Perform Abortions, Other Care*, WASH. POST, Jan. 24, 2009, http://www.washingtonpost.com/wp-dyn/content/article/2009/01/23/AR2009012302814.html, *archived at* http://perma.cc/K5UX-422S. I thank Nelson Tebbe for raising this question with me.

31. I think it worth observing that nothing actually forces lawyers for providentialist clients to make purely secularist arguments. The arguments the lawyers for Jehovah's Witnesses made to the

The difficulty Smith identifies, then, may arise more from the structure of litigation—and so from making issues of religious freedom part of the hard Constitution—than from the "demands of twentieth-century liberal theorists and activists."[32] Could anything be done about that?

Robert Burt offers one path: Develop a judicial rhetoric that resolves a case without awarding a decisive victory to either side.[33] I think this is an exceptionally difficult path to pursue, and Burt's specific examples are not, to my mind, encouraging. The core difficulty, I suspect, is psychological: Judges don't like to display the kind of uncertainty that a Burt-inspired rhetoric might convey. Further, a rhetoric of sympathy for the losers seems to me likely to come across as smarmy and insincere.[34]

The other path is to direct "cases"—really, problems of religious freedom—away from the courts.[35] Doing that in a pluralist society is probably impossible. Somebody, somewhere, is going to sue over anything. We have some techniques to screen cases out of court, most notably standing doctrine, and Smith does mention Ernest Brown's view that the Supreme Court should have denied standing to raise an Establishment Clause claim in the school-prayer cases.[36] That would get us something but not enough. As

---

Supreme Court in the 1930s and 1940s were relentlessly biblical; the Court, not the Witnesses' lawyers, translated those arguments into terms the Justices were more comfortable with. *Compare, e.g.*, Appellant's Brief at 26–29, Lovell v. City of Griffin, 303 U.S. 444 (1938) (No. 391) (arguing that an ordinance prohibiting the unlicensed distribution of materials applies only to commercial transactions because otherwise the ordinance would conflict with the law of God as recorded in the Bible), *with* Lovell v. City of Griffin, 303 U.S. 444, 451–52 (1938) (reasoning that the ordinance was invalid because "it strikes at the very foundation of the freedom of the press"). Of course, it's hardly accidental that the principal lawyer for the Witnesses, "Judge" Joseph Rutherford, was himself a leading figure in the denomination's religious organization. William Shepard McAninch, *A Catalyst for the Evolution of Constitutional Law: Jehovah's Witnesses in the Supreme Court*, 55 U. CIN. L. REV. 997, 1007 (1987). It's as if Pope Francis were to argue a case in the U.S. Supreme Court about the constitutional rights of Roman Catholics.

32. SMITH, *supra* note 2, at 110.

33. *See* ROBERT A. BURT, THE CONSTITUTION IN CONFLICT 353–54 (1992) (describing the destructive impact that occurs when the Court declares "that one party has won and the other has lost").

34. For example, that's how I react to almost every effort by Justice Kennedy to achieve rhetorical effect and to Chief Justice Roberts's expressions of sympathy for the Snyder family in *Snyder v. Phelps*, 131 S. Ct. 1207, 1220 (2011) ("Speech is powerful. It can stir people to action, move them to tears of both joy and sorrow, and—as it did here—inflict great pain. On the facts before us, we cannot react to that pain by punishing the speaker.").

35. I once suggested that we should develop a "culture of mutual forbearance" in which we would all "forbear from taking" actions "that generated intense hostility"; among such actions (in the article's context) were filing lawsuits. Mark Tushnet, *The Constitution of Religion*, 18 CONN. L. REV. 701, 738 (1986). I thought that I acknowledged that the chances of this happening were slim, but on re-reading the article, I discovered that I was more optimistic then and did not actually say what I thought I said.

36. *See* SMITH, *supra* note 2, at 132 (stating that "Brown wished that the Court had avoided decision on the merits"); *id.* at 210 n.93 ("I have argued elsewhere that a better way of returning to a 'softer' constitutionalism would be through tightening up standing requirements, as recent decisions have done (usually arousing the ire of constitutional scholars)."). For Brown's discussion

Smith observes, Brown suggested that the Court should have resolved the school-prayer cases under the Free Exercise Clause.[37] One would have to transform standing doctrine quite dramatically so that claimants of free exercise rights would lack standing.[38] And, though other justiciability doctrines might screen out a handful of cases, too many would remain.

A final possibility may be worth noting: a policy decision made within the Supreme Court to deny review on *every* religion-clause case presented to it. That wouldn't keep the cases out of the courts entirely, of course: some would proceed in state courts, others in the federal district courts and courts of appeal. But, Supreme Court abstention, based on prudence rather than law (as the certiorari process probably permits), might have some advantages. It might lower the amount of public attention religious-freedom controversies receive and so lower the stakes of those controversies. And, it might somewhat awkwardly reproduce the pattern of geographic diversity that emerged from—and perhaps contributed to—the nineteenth-century principle of contestation and competition.

It's not going to happen, though. The Justices like the attention they get. And, as providentialists and secularists themselves (what else could they be?), they are going to want to weigh in. Jeremiads like Smith's from both sides will undoubtedly continue.[39]

---

of the Court's handling of standing in school-prayer cases, see generally Ernest J. Brown, *Quis Custodiet Ipsos Custodes?—The School-Prayer Cases*, 1963 SUP. CT. REV. 1.

37. *Id.* at 132.

38. *See* Horwitz, *supra* note 16, at 117 (observing that denying justiciability to free exercise claims would require "looking at such claims more skeptically at the threshold level than we currently do").

39. Jeremiads like Smith's from both sides were not uncommon in the nineteenth century when, Smith tells us, all was well with religious freedom. *See* Steven D. Smith, *Constitutional Divide: The Transformative Significance of the School Prayer Decisions*, 38 PEPP. L. REV. 945, 986 (2011) (describing the frequent arguments and criticisms made by both providentialists and secularists in the nineteenth century); *supra* text accompanying notes 8–17. The authors of those jeremiads would have disagreed with Smith's portrayal of their era, just as authors of secularist jeremiads will disagree with his portrayal of ours.

Appendix

I have described *The Rise and Decline of American Religious Freedom* as a jeremiad. It is also something akin to an extended essay in a journal of opinion—*First Things*, for example.[40] Such journals are typically read by two groups of people: those whose "priors," as a Bayesian would say,[41] are already in favor of the author's position, and those whose priors are opposed to that position and who want to find out what people on the other side are thinking. That readership gives the extended opinion essay characteristics different from those in standard academic works.

Smith writes in an accessible and sometimes breezy—sometimes too breezy—style.[42] The breeziness sometimes verges on snark.[43] Godwin's law—that this sort of exposition inevitably invokes Hitler as exemplifying the tendencies exhibited on the other side—makes its appearance.[44] The rhetoric is often oppositional, which sometimes gets out of hand.[45]

The style of the extended opinion essay also induces what would be described as distortions were they to appear in a fully academic work. Smith sets up his argument by contrasting a "standard" and a "revised" narrative of American religious liberty.[46] The standard narrative has these themes: "Americans as Enlightened innovators"; "[t]he monumental, meaning-full First Amendment"; "[t]he long, dark interlude"; "[t]he modern (court-led) realization"; and "[t]he conservative religious retreat from constitutional principles."[47] The revised narrative has these: "American religious freedom as a (mostly Christian, marginally pagan) retrieval and consolidation"; "[t]he unpretentious, unpremeditated First Amendment"; "[t]he golden age of American religious freedom"; "[d]issolution and denial"; and "[r]eligious

---

40. *About*, FIRST THINGS, http://www.firstthings.com/about/, *archived at* http://perma.cc/6YQS-DGQ9.

41. For a description of Bayesian decision theory and "priors," see RICHARD A. POSNER, HOW JUDGES THINK 65–67 (2008).

42. For an example of the latter, see SMITH, *supra* note 2, at 96–97 ("Was it a condition of participation in this conversation that one's name begin with *J*?").

43. *See, e.g.*, *id.* at 68 ("[M]ost scholars and judges today have concluded that the Fourteenth Amendment *did* extend the original rights . . . to the states. That is a convenient and congenial conclusion, obviously, *but even so* it may be correct.") (second emphasis added).

44. Comparing the approaches of different governments to religious freedoms, Professor Smith observes:

> Largely in disregard of the historical facts, critics like Jonathan Kirsch may suggest that Constantine's government was "totalitarian," but the secular totalitarianisms of modern times make Constantine . . . look like [a] paragon[] of restraint and civility. And we need not go so far as to consider such horrific examples as the Third Reich . . . .

Id. at 45 (footnotes omitted).

45. For example, Smith begins a paragraph about "proponents of the 'godless Constitution'" with the word "[c]onversely," but after quite a few readings of the preceding paragraphs I simply can't figure out to what that paragraph is being juxtaposed. *Id.* at 105–06.

46. *Id.* at 1–11.

47. *Id.* at 1–4.

freedom in jeopardy."[48] Yet, as Smith acknowledges, academics have known that the so-called standard story has "already been subjected to severe criticism, and . . . has long been less than fully credible."[49] The same might be said of the revised version, and Smith acknowledges that as well: "[T]here are important similarities in the stories. . . . A fully adequate account, if such were possible, would no doubt draw on both stories—and on others as well."[50] So, the device used to frame the extended opinion essay is actually pretty much wrong: Each of the themes said to distinguish the stories has been present throughout the history of American religious freedom. But, the genre appears to require setting up oppositions rather than convergences.

In discussing the "unpretentious First Amendment," Smith offers an originalist account. Fair enough for readers of an extended opinion essay, but one might want a warning label pointing out that Smith's version of originalism—in general, it is expected applications originalism[51]—has basically been abandoned by academics who have tried to make originalism a coherent account of constitutional meaning.[52] The essay would actually be stronger from an academic point of view, I think, were Smith to draw on more sophisticated (still conservative) originalisms, and in particular on the distinction between interpretation and construction, which would allow him to use his revised narrative as a source of constitutional interpretation, not simply as the background for the current state of things. Here too the genre's limits appear: Readers of extended opinion essays are not up on debates within originalism, and the essay would be less effective with that audience were it to get much below the surface of everyday, lay originalism.

Finally, I have to mention what seems to me a serious lapse in judgment in which accuracy has pretty clearly been subordinated to rhetorical effectiveness. Smith discusses *Christian Legal Society v. Martinez*,[53] in which the Supreme Court upheld against a First Amendment challenge a public law school's policy requiring that student organizations accept as members "all comers."[54] That the policy was an all-comers one was central to the majority's analysis of the constitutional issue. Smith's exposition is quite misleading. He accurately says that the Court interpreted the Constitution to permit "viewpoint neutrality in application."[55] Then he gives

48. *Id.* at 7–8, 10–11.

49. *Id.* at 11.

50. *Id.* at 12–13.

51. *See, e.g., id.* at 63–65 (describing actions taken immediately after the Amendment's adoption and criticizing those whose analyses fail to take those actions seriously enough in formulating the Amendment's implicit principles).

52. *E.g.*, JACK M. BALKIN, LIVING ORIGINALISM 7–8 (2011) (criticizing the principle of original expected application as "unrealistic and impractical").

53. 130 S. Ct. 2971 (2010).

54. *Id.* at 2978.

55. SMITH, *supra* note 2, at 160.

readers Justice Alito's analysis of what Smith acknowledges was a different policy. The quotation describes a policy, which the law school had previously had but abandoned during the course of the litigation, that is expressly *not* viewpoint neutral in application: "[T]he policy singled out one category of expressive associations for disfavored treatment: groups formed to express a religious message. Only religious groups were required to admit students who did not share their views. An environmentalist group was not required to admit students who rejected global warming."[56] Smith says that this quotation "point[s] out the implications of this approach," where the referent of "this" is "viewpoint neutrality in application."[57] It doesn't. It's reasonably clear that Justice Alito didn't believe for a minute that the law school actually enforced an all-comers policy against environmental and nonreligious groups (and my guess is that he was right to be skeptical), but the lawyers for the Christian Legal Society had made a strategic decision to stipulate that the law school did adhere to an all-comers policy.[58] Given the procedural posture of the case, it's pretty shoddy to use an example of the implications of an approach, the constitutionality of which the Court did not address, as the basis for criticizing the Court's actual holding.

56. *Id.* (quoting *Christian Legal Soc'y*, 130 S. Ct. at 3010 (Alito, J., dissenting)).

57. *Id.*

58. *See Christian Legal Soc'y*, 130 S. Ct. at 2982–84 (finding that the parties were bound by their joint stipulation that the all-comers policy was imposed on all organizations).

* * *

Notes

It Takes a Class: An Alternative Model of Public Defense*

> Fifty years after *Gideon v. Wainwright*, what The Bronx Defenders realized was that its clients were facing a whole new host of problems that demanded an entirely new model of public defense.[1]
>
> —Robin Steinberg, Executive Director, The Bronx Defenders

Introduction

In August 2011, Jaenean Ligon sent her seventeen-year-old son, J.G., to the store to purchase ketchup for dinner.[2] On his way home, five police officers stopped J.G. outside the front door of his private apartment building and asked him a series of questions, including why he was entering the building, where he was coming from, and what was in his bag.[3] J.G. replied that he lived inside and that his bag contained ketchup.[4] Apparently unsatisfied with these answers, an officer began to frisk J.G., "shaking" his pockets and even sticking a hand inside his left pocket.[5] After frisking him, the officers demanded that J.G. produce identification.[6] The officers persisted, making J.G. indicate the exact apartment in which he lived.[7] J.G. told them the number, and the officers rang the bell to the apartment.[8] When Ms. Ligon answered the intercom, an officer told her to come downstairs to identify her son.[9] Ms. Ligon, thinking that J.G. was seriously injured or dead, ran downstairs.[10] Upon seeing her son alive and well, surrounded by the five

---

* I would like to express my immense gratitude to Professor Jennifer Laurin for her thoughtful guidance throughout the writing process. Thank you to the editorial staff of the *Texas Law Review*, particularly Sandra Andersson, Marissa Cohn, Kelsey Pfleger, Steven Seybold, and Kate Ergenbright. Finally, I have to thank my parents for their love and support. All errors are my own.

1. Robin Steinberg, *Heeding* Gideon*'s Call in the Twenty-First Century: Holistic Defense and the New Public Defense Paradigm*, 70 WASH. & LEE L. REV. 961, 963 (2013).
2. Ligon v. City of New York, 925 F. Supp. 2d 478, 503 (S.D.N.Y. 2013); Complaint at 8, *Ligon*, 925 F. Supp. 2d 478 (No. 12 Civ. 2274).
3. *Ligon*, 925 F. Supp. 2d at 503.
4. Complaint, *supra* note 2, at 8.
5. *Ligon*, 925 F. Supp. 2d at 503.
6. *Id.*
7. *Id.*
8. *Id.*
9. *Id.* at 504.
10. *Id.*

officers, Ms. Ligon began to cry.[11] One officer laughed, asked if J.G. was her child, and handed her the ketchup.[12]

If J.G.'s story represented an isolated incident, it would be easy to dismiss. A single unreasonable stop-and-frisk by police officers, while an injustice to the individual victim, hardly indicts an entire system. Yet, according to the plaintiffs in *Ligon v. City of New York*,[13] a class action lawsuit that challenged part of the New York Police Department's (NYPD) stop-and-frisk program, J.G.'s story was hardly unique. Rather, his stop represented merely one example of a widespread pattern and practice of unconstitutional stops made by New York City police officers outside of private apartment buildings in the Bronx.

On January 8, 2013, Shira Scheindlin, a federal district judge for the Southern District of New York, granted the *Ligon* plaintiffs' request for a preliminary injunction, finding that they had shown "a clear likelihood of proving that [the NYPD] ha[s] displayed deliberate indifference toward a widespread practice of unconstitutional trespass stops . . . outside TAP buildings in the Bronx."[14] In reaching this finding, Scheindlin noted that while it may be difficult to draw the line between constitutional and unconstitutional stops, the NYPD had "systematically crossed" this line in making trespass stops outside private apartment buildings in the Bronx.[15] The injunction represented a significant blow to the decades-spanning NYPD practices commonly referred to as "stop-and-frisk."

Among the plaintiffs' representatives were the usual civil rights organizations, such as the New York Civil Liberties Union (NYCLU) and LatinoJustice PRLDEF.[16] Yet, there was a third organization representing the plaintiffs whose presence in the class action civil suit might seem odd: The Bronx Defenders (BxD), a nonprofit public defender office located in the South Bronx.[17] At first blush, BxD's involvement in *Ligon* seems a far cry from the traditional view that public defenders exist to provide effective assistance of counsel to a defendant in criminal court.[18]

This Note will examine BxD's role in the *Ligon* litigation, uncover the roots of its involvement, and analyze how its unique institutional knowledge

---

11. *Id.*

12. Complaint, *supra* note 2, at 9.

13. 925 F. Supp. 2d 478 (S.D.N.Y. 2013).

14. *Id.* at 485. The February 14, 2013 opinion amended the original opinion published on January 8, 2013. *Id.* at 545 n.461; Ligon v. City of New York, No. 12 Civ. 2274, 2013 WL 71800 (S.D.N.Y. Jan. 8, 2013), *amended by* 925 F. Supp. 2d. 478 (S.D.N.Y. 2013).

15. *Ligon*, 925 F. Supp. 2d at 486.

16. Complaint, *supra* note 2, at 52.

17. *Id.*

18. Cait Clarke, *Problem-Solving Defenders in the Community: Expanding the Conceptual and Institutional Boundaries of Providing Counsel to the Poor*, 14 GEO. J. LEGAL ETHICS 401, 458 (2001).

and capacity contributed to the plaintiffs' success. Ultimately, this Note seeks to use BxD's role in this class action civil suit as a case study to begin to examine broader issues of whether such work represents a positive, replicable model of public defenders pursuing impact litigation, or whether it represents a perversion and overreach of the institutional role of the public defender.

Part I discusses stop-and-frisk practices in New York City and the legal backdrop for the litigation challenging these practices. This Part includes an overview of both the constitutional standards regulating stop-and-frisks and of § 1983 municipal liability claims, including an analysis of common challenges plaintiffs face in bringing these claims. It then examines the specific § 1983 challenge brought by the *Ligon* plaintiffs. Part II looks at the institutional role of public defenders. This Part includes a brief history of public defense in the United States, a description of current organizational models, and a basic introduction to the incredible obstacles public defenders face today. Part III examines BxD's role in the stop-and-frisk litigation. This Part begins by explaining the particular institutional design and philosophy of BxD. It then seeks to trace the origins of BxD's involvement in *Ligon* and explore the unique ways in which BxD, as a public defender organization, contributed to the plaintiffs' success. Part IV inquires whether the pursuit of class action civil litigation is possible—or even desirable—for public defender offices nationwide. Ultimately, a complete analysis of the potential implications and replicability of the model presented by BxD's involvement in *Ligon* is beyond the scope of this Note, but I aim to create a starting point for future inquiry. Part V examines some of the ethical implications that may arise when public defenders expand their practice to include class action civil litigation.

I. Stop-and-Frisk in New York City

The plaintiffs in *Ligon* challenged one particular facet of the City of New York's stop-and-frisk practices: a program called Operation Clean Halls (OCH), also known as the Trespass Affidavit Program (TAP), which allows police to patrol inside and around any private residential apartment building enrolled in the program.[19] Specifically, the plaintiffs' request for preliminary injunction alleged that the NYPD had a "widespread practice of stopping, questioning, and searching those they encounter in Clean Halls Buildings without any suspicion of unlawful behavior, and arresting them or issuing summonses without probable cause."[20] *Ligon*, together with *Floyd v. City of New York*[21] and *Davis v. City of New York*,[22] formed a triumvirate of cases

19. *Ligon*, 925 F. Supp. 2d at 484–85.
20. Complaint, *supra* note 2, at 7.
21. 959 F. Supp. 2d 540 (S.D.N.Y. 2013).
22. 902 F. Supp. 2d 405 (S.D.N.Y. 2012).

challenging New York's stop-and-frisk practices. *Floyd*, the broadest in scope, challenged these practices in general.[23] The *Davis* litigation represented the public-building counterpart to *Ligon*,[24] challenging the NYPD's practices at public housing run by the New York City Housing Authority, the city agency in charge of the public housing developments in the five boroughs.[25] While all three cases were brought before the same judge and presented similar issues—indeed, Judge Scheindlin wrote a separate remedial opinion that encompassed the rulings in both *Ligon* and *Floyd*[26]—this Note will focus exclusively on *Ligon* as that was the only case in which BxD served as plaintiffs' counsel.[27]

A. Operation Clean Halls and "Broken Windows" Policing

The NYPD launched OCH, the target of the *Ligon* litigation, in 1991 under Mayor David Dinkins.[28] According to the Manhattan District Attorney's Office, OCH was developed to "combat drug dealing in the public areas of [apartment] buildings."[29] The district attorney (DA) describes the program as follows:

> The Trespass Affidavit Program, staffed by our Community Affairs Unit, gives communities an opportunity to change these conditions. When the Community Affairs Unit receives confidential complaints about drug trafficking activity in a particular building, it contacts landlords and registers them in TAP. Landlords must then post signs throughout their building reading "Tenants and Their Guests ONLY," provide the police with a complete list of tenants and keys to their building, and permit police officers to conduct "vertical patrols" in the building. When necessary, officers may make arrests for criminal trespassing.[30]

The program is an example of the "broken windows" theory of policing embraced by the NYPD in the mid-1990s to combat the crack epidemic and

---

23. *Ligon*, 925 F. Supp. 2d at 483 n.1.

24. *Id.*

25. *About NYCHA*, N.Y.C. HOUSING AUTHORITY, http://www.nyc.gov/html/nycha/html/about/about.shtml, *archived at* http://perma.cc/CW8L-JS59.

26. Floyd v. City of New York, 959 F. Supp. 2d 668 (S.D.N.Y. 2013).

27. *See* Floyd v. City of New York, 959 F. Supp. 2d 540, 553 (S.D.N.Y. 2013) (listing plaintiffs' counsel with no mention of BxD); *Davis*, 902 F. Supp. 2d at 408 (same).

28. Complaint, *supra* note 2, at 6; *see also* Julie Terkowitz, *In New York, a 20-Year-Old Policy Suddenly Prompts a Lawsuit*, ATLANTIC, May 1, 2012, http://www.theatlantic.com/national/archive/2012/05/in-new-york-a-20-year-old-policy-suddenly-prompts-a-lawsuit/256584, *archived at* http://perma.cc/83CZ-8GAH (discussing the origins of Operation Clean Halls).

29. *Trespass Affidavit Program*, N.Y. COUNTY DISTRICT ATTORNEY'S OFF., http://manhattanda.com/trespass-affidavit-program, *archived at* http://perma.cc/V7DA-MYAF.

30. *Id.*

spiking crime rates.[31] First advanced by George L. Kelling and James Q. Wilson in a 1982 essay in *The Atlantic Monthly*, the broken windows theory posits that policing that focuses on "order maintenance" in public areas provides a crucial link in crime prevention.[32] Achieving this order maintenance in turn requires aggressive police regulation of low-level misdemeanors such as panhandling, public intoxication, and trespassing.[33]

In 1994, New York City's newly elected mayor, Rudolph Giuliani, and his police commissioner, William Bratton, introduced CompStat, "a data-driven management model" that facilitates the identification of patterns and problems and allows the police to target resources into particular problem areas.[34] CompStat allowed the NYPD to collect and analyze crime data on a daily basis and concentrate officers in areas where crime patterns emerged.[35] When the officers arrived in these "targeted" neighborhoods, they brought the strategies of broken windows policing with them. Thanks to CompStat, high-crime areas, such as the South Bronx, became ground zero for the NYPD's broken windows experiment.[36]

Even while acknowledging the "merciless" nature of the NYPD's policing in these neighborhoods,[37] many have hailed broken windows policing as an almost unmitigated success.[38] And, if crime rates were the

---

31. *See* Terkowitz, *supra* note 28 (citing the drug-fueled crime wave engulfing New York City when the program was enacted).

32. James Q. Wilson & George L. Kelling, *Broken Windows: The Police and Neighborhood Safety*, ATLANTIC MONTHLY, Mar. 1982, at 29, 31, *available at* http://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465, *archived at* http://perma.cc/3Q5L-WU4U. For background on Kelling and Wilson's theory, as well as an analysis of the legal issues raised by the policy, see generally Debra Livingston, *Police Discretion and the Quality of Life in Public Places: Courts, Communities, and the New Policing*, 97 COLUM. L. REV. 551, 578–91 (1997).

33. *See, e.g.*, Editorial, *Broken Windows, Broken Lives*, N.Y. TIMES, July 25, 2014, http://www.nytimes.com/2014/07/26/opinion/broken-windows-broken-lives.html, *archived at* http://perma.cc/M98W-D943 (describing the broken windows theory as "the strategy of relentlessly attacking petty offenses").

34. *What Is CompStat?*, U. MD., http://www.CompStat.umd.edu/what_is_cs.php, *archived at* http://perma.cc/FUX2-5KTC; *see also* Sewell Chan, *Why Did Crime Fall in New York City?*, CITY ROOM, N.Y. TIMES (Aug. 13, 2007, 2:10 PM), http://cityroom.blogs.nytimes.com/2007/08/13/why-did-crime-fall-in-new-york-city/, *archived at* http://perma.cc/P8TX-8XS6 (discussing Compstat and whether the system reduced New York City's crime rate).

35. JENNIFER TRONE, JOHN JAY COLL. OF CRIMINAL JUSTICE, CTR. ON RACE, CRIME, & JUSTICE, THE NEW YORK POLICE DEPARTMENT'S STOP AND FRISK POLICIES: ARE THEY EFFECTIVE? FAIR? APPROPRIATE? 4 (2010), *available at* http://www.jjay.cuny.edu/forum/SQF_forum_summaryFINALJUNE28.pdf, *archived at* http://perma.cc/BNE4-6GRV.

36. Steinberg, *supra* note 1, at 965 (asserting that the "acceptance of the 'broken windows theory' has . . . led to overpolicing of inner-city communities"); *see also* Stephanie Francis Ward, *Has 'Stop and Frisk' Been Stopped?*, ABA JOURNAL, Mar. 1, 2014, http://www.abajournal.com/magazine/article/has_stop_and_frisk_been_stopped/, *archived at* http://perma.cc/MY6S-KT3A (discussing the use of CompStat in New York City and its role in stop-and-frisk).

37. Ward, *supra* note 36.

38. *E.g.*, Louis Anemone, Op-Ed, *Experience Shows That "Broken Windows" Policing Works*, N.Y. TIMES, Aug. 14, 2014, http://www.nytimes.com/roomfordebate/2014/07/27/is-broken-win

only metric used in making this assessment—as opposed to constitutional police practices or civil rights violations—then, at first, it would appear hard to dispute. Since 1990, the murder rate in New York City has dropped more than 85%, rapes by more than 50%, and burglaries and robberies by more than 80% each.[39] Such staggering crime reduction has served in large part to insulate from, or at least provide a seductive defense to, challenges against the aggressive policing methods endorsed first by the Giuliani and later the Bloomberg administration.[40]

Yet, recent studies, such as one by David Greenberg, a sociologist at New York University, have seriously questioned any causal link between the introduction of broken windows policing practices—like the trespass arrests at issue in *Ligon*—and crime reduction.[41] In fact, Greenberg's study shows a slight "uptick" in misdemeanors from 1988 to 2001, the exact crimes supposedly targeted by this approach.[42] Academics are not the only ones challenging broken windows' efficacy: the Editorial Board of *The New York Times* has called for the de Blasio administration to reconsider these tactics, arguing that their use "ha[s] pointlessly burdened thousands of young people, most of them black and Hispanic, with criminal records."[43]

In 2012 when *Ligon* was filed, there were almost 4,000 buildings in Manhattan registered as Clean Halls buildings; in parts of the Bronx, "virtually every private apartment building is enrolled."[44] The *Ligon* complaint explains that enrollment in OCH is accomplished "simply by virtue of an executed 'Clean Halls Affidavit'—a boilerplate form."[45] While the DA's description of OCH cites arrests "[w]hen necessary,"[46] the *Ligon* complaint alleged that the NYPD had a "widespread practice of stopping, questioning, and searching" both tenants and nontenants in Clean Halls Buildings without

---

dows-a-broken-policy-for-police/experience-shows-that-broken-windows-policing-works, *archived at* http://perma.cc/V88E-4Y2E; Ward, *supra* note 36.

39. Ward, *supra* note 36.

40. Sam Roberts, *Author of 'Broken Windows' Policing Defends His Theory*, N.Y. TIMES, Aug. 10, 2014, http://www.nytimes.com/2014/08/11/nyregion/author-of-broken-windows-policing-defends-his-theory.html, *archived at* http://perma.cc/35MG-7U5X.

41. Press Release, N.Y. Univ., 1990s Drop in NYC Crime Not Due to CompStat, Misdemeanor Arrests, Study Finds (Feb. 4, 2013), *available at* http://www.nyu.edu/about/news-publications/news/2013/02/04/1990s-drop-in-nyc-crime-not-due-to-compstat-misdemeanor-arrests-study-finds.html, *archived at* http://perma.cc/GWT9-T5P5.

42. *Id.*

43. Editorial, *supra* note 33. The theory received significant negative media attention this summer. Several commentators blamed the constant, aggressive police enforcement championed by broken windows proponents for the recent, tragic deaths of Eric Garner in Staten Island and Michael Brown in Ferguson, Missouri. Elijah Anderson, *What Caused the Ferguson Riot Exists in So Many Other Cities, Too*, POSTEVERYTHING, WASH. POST (Aug. 13, 2014), http://www.washingtonpost.com/posteverything/wp/2014/08/13/what-caused-the-ferguson-riot-exists-in-so-many-other-cities-too/, *archived at* http://perma.cc/5P4E-JR2A; Editorial, *supra* note 33.

44. Complaint, *supra* note 2, at 6–7.

45. *Id.* at 7.

46. *See supra* text accompanying note 30.

reasonable suspicion of unlawful behavior, and arresting them for trespass without probable cause.[47] Indeed, the complaint depicts the NYPD as subjecting residents to unreasonable stop-and-frisks both upon exiting their apartments and "in the lobbies, vestibules, stairways, hallways, and other public areas" of their apartment complexes.[48] It further notes that residents "are frequently stopped and forced to produce identification while engaged in completely innocuous activities like checking their mail or taking out their garbage."[49]

Based on these NYPD practices, the plaintiffs brought a claim under 42 U.S.C. § 1983, alleging violations of their Fourth Amendment rights by the City of New York and its employees.[50] Before examining the *Ligon* plaintiffs' specific § 1983 claim and the court's disposition of it, it is important to sketch the substantive and procedural background for their civil action.

B. *The Fourth Amendment Through* Terry*'s Eyes: The Constitutional Standards for Stop-and-Frisks*

The Fourth Amendment, applied to the states via the Fourteenth,[51] protects against unreasonable searches and seizures.[52] For an arrest to be valid under the Fourth Amendment, the police officer must have probable cause.[53] In *Terry v. Ohio*,[54] however, the Supreme Court announced a more relaxed legal standard for *stops* made by police officers.[55] Under *Terry*, police officers can stop and briefly detain someone "for investigative purposes if the officer has a reasonable suspicion supported by articulable facts that criminal activity 'may be afoot,' even if the officer lacks probable cause."[56] Thus, the Court announced the less demanding standard of "reasonable suspicion" to justify stops made by police officers.

---

47. Complaint, *supra* note 2, at 7.

48. *Id.* at 2.

49. *Id.*

50. *Id.* at 48. The plaintiffs also brought First Amendment, Fourteenth Amendment (substantive due process), Fair Housing Act, and New York State constitutional claims. *Id.* at 48–49. Because the court only granted the preliminary injunction on the Fourth Amendment claims, these are the claims I will address in my Note. Ligon v. City of New York, 925 F. Supp. 2d 478, 484–86 (S.D.N.Y. 2013).

51. Maryland v. Pringle, 540 U.S. 366, 369 (2003).

52. U.S. CONST. amend. IV.

53. Beck v. Ohio, 379 U.S. 89, 91 (1964).

54. 392 U.S. 1 (1968).

55. *See id.* at 26–27 (determining that because a reasonable apprehension of danger might occur before an officer has adequate facts to justify an arrest, the issue in a search for weapons is more appropriately whether a "reasonably prudent man in the circumstances would be warranted in the belief that his safety or that of others was in danger").

56. United States v. Sokolow, 490 U.S. 1, 7 (1989) (quoting *Terry*, 392 U.S. at 30).

For a stop to meet the constitutional standards of *Terry*, a police officer must be able to articulate specific facts indicating possible criminal activity.[57] To frisk the person, those facts must lead to a reasonable belief that the person could be armed and dangerous.[58] The frisk can only consist of a patdown of the person's outer clothing for the purpose of discovering a weapon.[59]

While *Terry* stops require only the less demanding standard of reasonable suspicion—as opposed to probable cause for arrests—stop-and-frisks "may not be conducted based on groundless hunches."[60] A *Terry* stop occurs outdoors when a reasonable person does not feel free to disregard the police officer.[61] The key element of the inquiry is whether the "circumstances of the encounter are so intimidating as to demonstrate that a reasonable person would have believed he was not free to leave if he had not responded."[62] In assessing whether reasonable suspicion existed for a given stop, courts look to the totality of the circumstances surrounding the stop.[63] This reasonableness inquiry is undertaken from the perspective of the officer, and allows officers to draw from their law-enforcement training and experience in making their determinations.[64] In other words, reasonableness is judged objectively from the perspective of a reasonable officer on the ground, "rather than with the 20/20 vision of hindsight."[65]

In *Ligon*, the plaintiffs argued that the NYPD's trespass stops outside of OCH buildings were frequently made without reasonable suspicion and, as a result, violated the Fourth Amendment.[66] The plaintiffs did not argue that the City of New York or the NYPD had an explicit or formally adopted policy of stopping individuals for trespass outside of OCH buildings without reasonable suspicion.[67] Rather, the plaintiffs asserted that the NYPD had a "pattern and practice" of making trespass stops outside of OCH buildings without reasonable suspicion and that the City of New York had shown

57. *Terry*, 392 U.S. at 21.

58. Sibron v. New York, 392 U.S. 40, 64 (1968).

59. DELORES JONES-BROWN ET AL., JOHN JAY COLL. OF CRIMINAL JUSTICE, CTR. ON RACE, CRIME & JUSTICE, STOP, QUESTION & FRISK POLICING PRACTICES IN NEW YORK CITY: A PRIMER 2 (2010), *available at* http://www.jjay.cuny.edu/web_images/PRIMER_electronic_version.pdf, *archived at* http://perma.cc/BA4L-YQ9B.

60. *Id.*; *see also Terry*, 392 U.S. at 22 (stating that stops are appropriate when there is a "legitimate investigative function").

61. Ligon v. City of New York, 925 F. Supp. 2d 478, 490 (S.D.N.Y. 2013).

62. INS v. Delgado, 466 U.S. 210, 216 (1984).

63. *Ligon*, 925 F. Supp. 2d at 489.

64. Jennifer Pelic, United States v. Arvizu*: Investigatory Stops and the Fourth Amendment*, 93 J. CRIM. L. & CRIMINOLOGY 1033, 1056 (2003).

65. Graham v. Connor, 490 U.S. 386, 396 (1989).

66. 925 F. Supp. 2d at 485.

67. *Id.* at 523.

deliberate indifference to these practices through its failure to train and supervise its employees.[68]

C. Terry *Stops Under New York State Law*

Section 140 of New York's Criminal Procedure Law codifies *Terry*'s stop-and-frisk ruling,[69] giving police officers limited authority to stop people in public places for questioning "when the attendant circumstances provide an articulable basis to suspect involvement in criminal activity."[70] While the New York State Legislature enacted these provisions of its Criminal Procedure Law in response to *Terry*,[71] both the New York State Constitution and the New York state courts' interpretation of New York law provide greater protection against unreasonable stops, searches, and seizures than that provided by *Terry*.[72] Indeed, a report on New York City police practices by the U.S. Commission on Civil Rights comments that "the New York courts have considerably broadened the scope of conduct that constitutes an impermissible search or seizure."[73]

D. *The Statutory Framework: § 1983 and Municipal Liability*

42 U.S.C. § 1983 is the vehicle for redressing constitutional and federal statutory violations.[74] In *Monell v. Department of Social Services of the City of New York*,[75] the Supreme Court held that municipalities, unlike states, may

---

68. *Id.*

69. N.Y. CRIM. PROC. LAW § 140.50 (McKinney 2004). As to stops, the statute reads in relevant part:

> [A] police officer may stop a person in a public place . . . when he reasonably suspects that such person is committing, has committed or is about to commit either (a) a felony or (b) a misdemeanor defined in the penal law, and may demand of him his name, address and an explanation of his conduct.

Id. § 140.50(1). As to frisks, the statute provides that "[w]hen upon stopping a person . . . a police officer . . . reasonably suspects that he is in danger of physical injury, he may search such person for a deadly weapon." *Id.* § 140.50(3).

70. U.S. COMM'N ON CIVIL RIGHTS, POLICE PRACTICES AND CIVIL RIGHTS IN NEW YORK CITY 89 (2000), *available at* http://www.usccr.gov/pubs/nypolice/ch5.htm, *archived at* http://perma.cc/D3AL-F3D3.

71. *See* N.Y.C. BAR ASS'N, REPORT ON THE NYPD'S STOP-AND-FRISK POLICY 3 (2013) ("Stop-and-frisk policies in New York date from the Supreme Court case of *Terry v. Ohio* . . . .").

72. U.S. COMM'N ON CIVIL RIGHTS, *supra* note 70, at 89–91; *see also* N.Y.C. ASS'N, *supra* note 71, at 6 ("Over the past 40 years, the New York Court of Appeals has taken an independent approach to search-and-seizure law, providing broader protection to its citizens against unreasonable police intrusions . . . .").

73. U.S. COMM'N ON CIVIL RIGHTS, *supra* note 70, at 90.

74. KAREN M. BLUM & KATHRYN R. URBONYA, FED. JUDICIAL CTR., SECTION 1983 LITIGATION 1 (1998), *available at* http://www.fjc.gov/public/pdf.nsf/lookup/Sect1983.pdf/$file/Sect1983.pdf, *archived at* http://perma.cc/5PQ3-XLE8.

75. 436 U.S. 658 (1978).

be liable for damages as well as declaratory and injunctive relief for certain violations of constitutional rights.[76]

While *Monell* does not provide for vicarious liability—i.e., a municipality cannot be held liable simply for employing a tortfeasor[77]—it bestows "personhood" on the municipality itself, thereby allowing a party to sue for the municipality's own acts.[78] To hold a municipality liable under § 1983, a party must show either that the "action that is alleged to be unconstitutional implements or executes a policy statement, ordinance, regulation, or decision officially adopted and promulgated by that body's officers" or that the constitutional deprivation was the result of governmental custom, "even though such a custom has not received formal approval through the body's official decisionmaking channels."[79]

One way to establish *Monell* liability is through a claim that the municipality has failed to supervise or train its employees.[80] The Supreme Court has called this theory of culpability the "most tenuous."[81] To support a "failure to train" claim, the plaintiffs must be able to show "deliberate indifference" on the part of high-level officials.[82] The Supreme Court has recognized two ways in which a plaintiff may prove deliberate indifference. The first method—the obviousness method—allows a plaintiff to establish deliberate indifference "by demonstrating a failure to train officials in a specific area where there is an obvious need for training . . . to avoid violations of citizens' constitutional rights."[83] The second method—the actual or constructive knowledge method—provides that if plaintiffs can show that "city policymakers are on actual or constructive notice that a particular omission in their training program causes city employees to violate citizens' constitutional rights" then "the city may be deemed deliberately indifferent if the policymakers choose to retain that program."[84]

The Supreme Court's decision in *City of Canton v. Harris*[85] theoretically allowed a single incident to serve as the basis for municipal liability under

---

76. *Id.* at 690–91.

77. *Id.* at 691.

78. *Id.* at 690 ("Our analysis of the legislative history of the Civil Rights Act of 1871 compels the conclusion that Congress *did* intend municipalities and other local government units to be included among those persons to whom § 1983 applies.").

79. *Id.* at 690–91.

80. BLUM & URBONYA, *supra* note 74, at 58–59.

81. Connick v. Thompson, 131 S. Ct. 1350, 1359 (2011) (citing City of Oklahoma City v. Tuttle, 471 U.S. 808, 822–23 (1985)).

82. City of Canton v. Harris, 489 U.S. 378, 388 (1989) (holding that "the inadequacy of police training may serve as the basis for § 1983 liability only where the failure to train amounts to deliberate indifference to the rights of persons with whom the police come into contact").

83. BLUM & URBONYA, *supra* note 74, at 61.

84. *Connick*, 131 S. Ct. at 1360.

85. 489 U.S. 378 (1989).

the obviousness approach.[86] The classic "single incident" example, posed by the Court as a hypothetical in *City of Canton*, is a city that outfits its police force with firearms without providing training on the constitutional limitations on the use of deadly force.[87] In such a case, the city could be held liable even in the absence of proof of a pattern of violations—i.e., based on a single incident—because a failure to train in these circumstances would predictably and inevitably lead to constitutional violations.[88]

Subsequent cases, however, have revealed that the Court views *City of Canton*'s single-incident liability theory as just that: a theory that rarely, if ever, applies in reality. Most recently, the Court rejected a plaintiff's single-incident § 1983 claim arguing that the New Orleans DA's Office failed to train prosecutors about their *Brady*[89] obligations.[90] The Court insisted that *Brady* training "does not fall within the narrow range of *Canton*'s hypothesized single-incident liability."[91]

The Court's practical rejection of single-incident liability indicates that, under either theory, plaintiffs will usually have to demonstrate a pattern of equivalent constitutional violations by untrained employees to prove deliberate indifference in support of a failure to train claim.[92] Thus, in their complaint, the *Ligon* plaintiffs alleged that the NYPD had a pattern and practice of conducting unlawful stops, searches, and arrests that amounted to deliberate indifference on the part of the city in failing to train its employees.[93]

E. Common Challenges in § 1983 Municipal Liability Litigation

Before wading into the evidence that the *Ligon* plaintiffs produced to support their § 1983 claim, it is important to examine some of the more common challenges involved in these suits. *Monell*'s holding—that municipalities, unlike states, could be sued as persons under § 1983[94]—enabled plaintiffs seeking relief from local governments to, at least

86. *See Connick*, 131 S. Ct. at 1361 ("The [*Canton*] Court sought not to foreclose the possibility, however rare, that the unconstitutional consequences of failing to train could be so patently obvious that a city could be liable under § 1983 without proof of a pre-existing pattern of violations.").

87. *City of Canton*, 489 U.S. at 390 n.10.

88. *Id.* at 390 & n.10.

89. Brady v. Maryland, 373 U.S. 83 (1963).

90. *Connick*, 131 S. Ct. at 1361.

91. *Id.*

92. *See Connick*, 131 S. Ct. at 1366 (concluding that failure to train prosecutors in their *Brady* obligations "[did] not fall within the narrow range 'single-incident' liability hypothesized in *Canton*"); Karen Blum et al., *Municipal Liability and Liability of Supervisors: Litigation Significance of Recent Trends and Developments*, 29 TOURO L. REV. 93, 105 (2012) (stating that the Court's *Connick* decision makes clear that a pattern of constitutional violations is required to prove liability).

93. Complaint, *supra* note 2, at 30, 38, 40.

94. Monell v. Dep't of Soc. Servs., 436 U.S. 658, 690 (1978).

theoretically, have their day in court. Yet, many commentators have recognized the almost illusory nature of this path to redress.[95] For example, David Rudovsky has argued that the Supreme Court "has erected culpability and causation requirements that make it quite difficult to establish local government liability."[96]

Because *Monell* rejected the theory of respondeat superior as a means of attaching municipal liability, plaintiffs must prove that they suffered a constitutional deprivation pursuant to a local government's official policy.[97] Proving the existence of an official policy can be fairly straightforward, namely, where a local government has enacted an ordinance that is unconstitutional either on its face or as applied,[98] as was the case in *Monell* itself.[99] In today's post-*Monell* landscape, however, it is rare that plaintiffs will be seeking to challenge an official policy of this sort.[100]

Plaintiffs can also bring *Monell* claims challenging an unwritten or informally adopted local-government custom or practice as unconstitutional, or alleging that the local government's failure to train or supervise its employees led to the constitutional deprivation.[101] These types of claims are both more common than "explicit policy" challenges[102] and much harder to prove.[103] As Pamela Karlan notes: "While the Supreme Court has recognized the theoretical availability of 'failure to train claims,' in practice, such claims are seldom successful."[104]

There are several reasons why these claims rarely succeed. First, the Supreme Court has established a heightened level of proof of culpability, requiring that the need for training be "so obvious" and the lack of training "so likely" to result in a constitutional violation that the city policy makers'

---

95. *See, e.g.*, Barbara E. Armacost, *Organizational Culture and Police Misconduct*, 72 GEO. WASH. L. REV. 453, 472 (2004) (noting that individual instances of governmental misconduct must be distinctive and similar enough that they can clearly be traced back to a failure in training, but that such clear-cut cases rarely arise); Pamela S. Karlan, *The Paradoxical Structure of Constitutional Litigation*, 75 FORDHAM L. REV. 1913, 1921 (2007) (noting that failure to train claims are rarely successful); David Rudovsky, *Running in Place: The Paradox of Expanding Rights and Restricted Remedies*, 2005 U. ILL. L. REV. 1199, 1231 (noting that the Court's failure to recognize the reality of the organizational culture of local governments has resulted in precedents that create strong barriers to plaintiffs successfully suing local governments under § 1983).

96. Rudovsky, *supra* note 95, at 1231.

97. *Monell*, 436 U.S. at 694.

98. Karlan, *supra* note 95, at 1920.

99. *Monell*, 436 U.S. at 660–61.

100. Armacost, *supra* note 95, at 471; *see also* Karen M. Blum, *Making Out the* Monell *Claim Under Section 1983*, 25 TOURO L. REV. 829, 830 ("There are not many newly written policies that are unconstitutional on their face . . . .").

101. Blum, *supra* note 100, at 829–30.

102. *See supra* note 100 and accompanying text.

103. *See* Karlan, *supra* note 95, at 1920 (noting that "there are many areas where it is exceptionally difficult to show that the challenged action involves an unwritten policy").

104. *Id.* at 1921 (footnote omitted).

inaction amounts to deliberate indifference.[105] Furthermore, in the context of police misconduct, as Barbara Armacost has explained, the doctrinal causation standard requires plaintiffs to demonstrate a pattern of unconstitutional conduct that is so similar and typical that the fact finder can conclude that "the misconduct resulted from an identifiable defect in the training program, rather than from some other factor such as the individual characteristics of the wrongdoers."[106] Thus, it is not enough to establish that a particular officer was insufficiently trained, nor that an otherwise satisfactory training program was unsatisfactorily administered, nor that the injury-causing conduct could have been avoided by more or better training.[107] Rather, the plaintiff must be able to show that a deficiency *inherent in the training program* caused the injury.[108]

The stringent culpability and causation requirements that constrain failure to train claims present significant evidentiary burdens for plaintiffs. To show that a failure to train amounts to deliberate indifference, plaintiffs may either argue that the need to train was itself obvious, or, if a pattern of constitutional violations occurs, plaintiffs may argue that the city policy makers had constructive notice of the need to train.[109] *Connick v. Thompson*,[110] the recent Supreme Court decision mentioned earlier, emphasized that proving deliberate indifference will turn on notice, stating that "[w]ithout notice that a course of training is deficient in a particular respect, decisionmakers can hardly be said to have deliberately chosen a training program that will cause violations of constitutional rights."[111] In *Connick*, the plaintiff produced evidence of four convictions that were overturned due to *Brady* violations to prove that the DA had notice that his office's *Brady* training was inadequate.[112] The Court, however, held this showing insufficient to constitute notice on the part of the DA.[113] While the outlines of the notice requirement are not yet clear, it *is* clear that the

105. City of Canton v. Harris, 489 U.S. 378, 390 (1989); *see also* Rudovsky, *supra* note 95, at 1233 (arguing that the Supreme Court has insisted on a "high level of proof of culpability" to impose liability under a failure to train claim).

106. Armacost, *supra* note 95, at 472.

107. *City of Canton*, 489 U.S. at 390–91.

108. *Id.* at 391.

109. Blum, *supra* note 100, at 843.

110. 131 S. Ct. 1350 (2011).

111. *Id.* at 1360.

112. *Id.*

113. *Id.* While the violations in the four overturned convictions all fell under the general umbrella of *Brady*, the Court took issue with the fact that the convictions presented different types of *Brady* violations from that in the plaintiff's case. *Id.* The Court saw this difference in type as cutting against the plaintiff's argument that the DA was on notice. *Id.*

requirement presents another potential stumbling block to a successful § 1983 suit.[114]

In general, the issue of notice only arises if the plaintiff can prove a pattern of similar constitutional violations.[115] It is extremely difficult, however, for a single plaintiff, or even multiple plaintiffs, to amass proof of similar constitutional violations or deprivations sufficient to constitute a pattern to support a failure to train claim. Indeed, Karlan discusses these barriers to a successful suit, explaining that "plaintiffs may be unlikely to have sufficient information to plead, let alone to prove without substantial discovery, such a de facto policy."[116] Armacost elaborates on this point, specifically in the context of police-misconduct failure to train claims, explaining that "the sheer volume of factual evidence that is necessary to make out such a pattern [of repeated instances of police misconduct] makes failure to train cases very expensive to litigate."[117]

While Armacost was analyzing failure to train suits in the context of police brutality, her point likely rings even truer in the context of lower level police misconduct such as stop-and-frisks. The event itself—the unreasonable stop or search—is not newsworthy; without media coverage, there is no public record of these incidents.[118] Furthermore, the damages are negligible; the injury likely more dignitary than physical; and the victim, in turn, less sympathetic. By contrast, cases of actual police brutality or uses of lethal force are more likely to receive media attention, which helps inform the public and build the evidentiary record necessary to establish a pattern of incidents.[119] In these cases, the damages are more concrete (loss of life or physical injury) and the victim perhaps more sympathetic (because the injury suffered is more significant). As a result, civil rights groups will likely receive more support (or pressure) to litigate these claims. Put another way, lower level police misconduct claims are less incendiary, so fewer groups may be willing or financially able to come to the rescue.

Finally, plaintiffs may face particular barriers when they seek injunctive or declaratory relief for their § 1983 claim—which the plaintiffs in *Ligon* did. Rudovsky has catalogued the justiciability prerequisites that a plaintiff must

---

114. *See* Blum et al., *supra* note 92, at 107 (discussing what would potentially constitute a showing of notice and suggesting that the standard may require demonstrating a "significant pattern of similar violations signifying the need to train").

115. *Connick*, 131 S. Ct. at 1360 (citing Bd. of the Cnty. Comm'rs v. Brown, 520 U.S. 397, 409 (1997)).

116. Karlan, *supra* note 95, at 1920–21; *see also* Armacost, *supra* note 95, at 472 (noting the extensive discovery required for failure to train suits).

117. Armacost, *supra* note 95, at 472.

118. Beyond administrative forms that are required to be completed when a person is stopped and frisked. *See infra* note 140 and accompanying text.

119. *See, e.g.*, *The Rodney King Case: Part 1, How TV News Covered the Arrest, the Trial, and the Verdict*, MEDIA MONITOR, Mar. 1993, at 1, 6 (discussing television media coverage of the Los Angeles police beating of Rodney King and the repeated airings of the videotape of the beatings).

meet as including "standing, ripeness, and case or controversy."[120] Standing is often the most difficult requirement for plaintiffs to satisfy, largely due to the Supreme Court's restrictive ruling in *City of Los Angeles v. Lyons*.[121] In *Lyons*, the Court held that a plaintiff must be able to show a "real or immediate threat that [he] will be wronged again . . . ."[122] Thus, under *Lyons*, past injury is irrelevant—standing is only satisfied if the plaintiff can show it is likely he will suffer future injury.[123] As Rudovsky notes, this future injury requirement has "substantially erode[d]" plaintiffs' ability to secure injunctions in § 1983 suits.[124]

To summarize, failure to train claims present significant doctrinal and evidentiary hurdles, as well as discrete barriers to equitable relief that will often prevent plaintiffs from winning § 1983 suits. How then, were the *Ligon* plaintiffs able to overcome these hurdles and obtain their preliminary injunction? The next subpart begins to answer this question by looking specifically at the evidence they presented in court. As a later subpart reveals, BxD played a large part in altering the anti-plaintiff calculus of the typical failure to train suit, thereby paving the way for the suit's success.

F. Section 1983 in Action in Ligon

To establish that the NYPD had a widespread practice of unconstitutional trespass stops outside OCH buildings in the Bronx—a necessary prerequisite to support a finding that the City's failure to train amounted to deliberate indifference—the plaintiffs presented three categories of evidence at the preliminary injunction hearings.[125] First, they provided the testimony of Jeanette Rucker, an assistant district attorney (ADA) at the Bronx DA's office. On the stand, Rucker expressed concerns, "corroborated by 'decline to prosecute' forms from [her] office," that the police were conducting unlawful trespass stops and arrests at OCH buildings.[126] She testified that her concerns about these potentially unlawful arrests began in 2007.[127] After examining the relevant law, Rucker determined that her office's stance on the requirements for a lawful stop was incorrect.[128] Starting in 2011, ADA Rucker sent memos to police commanders and officials informing them that "contrary to previous statements, observing someone exiting a Clean Halls building is not by itself a sufficient

120. Rudovsky, *supra* note 95, at 1236.

121. 461 U.S. 95 (1983).

122. *Id.* at 111.

123. *See* DeShawn E. v. Safir, 156 F.3d 340, 344–45 (2d Cir. 1988) (distinguishing *Lyons* and finding standing because there was a "likelihood of recurring injury" to the plaintiffs).

124. Rudovsky, *supra* note 95, at 1236.

125. Ligon v. City of New York, 925 F. Supp. 2d 478, 492 (S.D.N.Y. 2013).

126. *Id.*

127. *Id.*

128. *Id.* at 493.

justification for a stop."[129] In other words, simple entry, or entry and exit, from an OCH building was not sufficient evidence for a police officer to "reasonably suspect"—the legal standard required by § 140.50[130]—that the person was committing, had committed, or was about to commit criminal trespass. By 2012, the Bronx DA's office had instituted a new policy with respect to these stops: they would decline to prosecute them unless an interview with the arresting officer confirmed that the stop was warranted.[131] When the DA office's interview with the officer revealed that the stop was indeed unwarranted, the office produced "decline to prosecute" affidavits.[132]

In her decision, Judge Scheindlin found that "ADA Rucker credibly testified that NYPD officers have treated proximity to a TAP building as a factor contributing to reasonable suspicion, and have frequently made trespass stops outside TAP buildings for no reason other than that the officer had seen someone enter and exit or exit the building."[133] Judge Scheindlin also emphasized that Rucker's testimony was "corroborated" both by the details of the decline to prosecute forms and "by the hundreds of UF-250[]" forms where officers wrote "Clean Halls" as the reason for the stop.[134]

The second category of evidence the plaintiffs presented was the testimony of their encounters with the police outside of OCH buildings.[135] The named plaintiffs' testimony as to their stops was so similar that Judge Scheindlin summarized the circumstances in a generic narrative:

> A person approaches or exits a Clean Halls building in the Bronx; the police suddenly materialize, stop the person, demand identification, and question the person about where he or she is coming from and what he or she is doing; attempts at explanation are met with hostility; especially if the person is a young black man, he is frisked, which often involves an invasive search of his pockets; in some cases the officers then detain the person in a police van in order to carry out an extended interrogation about the person's knowledge of drugs and weapons; and in some cases the stop escalates into an arrest for trespass, with all of the indignities, inconveniences, and serious risks that follow . . . even when the charges are quickly dropped.[136]

---

129. *Id.*

130. *See supra* note 69.

131. Joseph Goldstein, *Prosecutor Deals Blow to Stop-and-Frisk Tactic*, N.Y. TIMES, Sept. 25, 2012, http://www.nytimes.com/2012/09/26/nyregion/in-the-bronx-resistance-to-prosecuting-stop-and-frisk-arrests.html?adxnnl=1&pagewanted=all&adxnnlx=1398564264vRIJ2pWnrZjUNN7QQEH4fw, *archived at* http://perma.cc/HV7C-HMDR.

132. *Ligon*, 925 F. Supp. 2d at 494.

133. *Id.* at 524.

134. *Id.* For my discussion of UF-250 forms in more detail, see *infra* notes 140–45 and accompanying text.

135. *Ligon*, 925 F. Supp. 2d at 492.

136. *Id.* at 496.

J.G.'s stop, discussed above, demonstrates how the performance of quotidian activities could provide the basis for an invasive police stop under the NYPD's stop-and-frisk regime. Through the testimony of the named plaintiffs, the *Ligon* litigation sought to prove that J.G. was far from the only victim. Rather, he was one of thousands or even more—and with those numbers, the constitutional violations become harder to ignore.[137]

Finally, the plaintiffs offered expert testimony from Dr. Jeffrey Fagan, a professor of law and public health at Columbia University, regarding the number and character of trespass stops outside of OCH buildings.[138] Dr. Fagan conducted a statistical analysis of data contained on forms filled out by police officers in the Bronx in 2011.[139] NYPD policy requires police officers to fill out these forms, known as the UF-250, when "(1) a person is stopped by use of force, (2) a person stopped is frisked or frisked and searched, (3) a person is arrested, or (4) a person stopped refuses to identify him or herself."[140] The form requires the officer to record basic information, such as:

> [T]he time, date, place, and precinct where the stop occurred; the name, address, age, gender, race, and physical description of the person stopped; factors that caused the officer to reasonably suspect the person stopped; the suspected crime that gave rise to the stop; the duration of the stop; [and] whether the person stopped was frisked, searched or arrested . . . .[141]

In his detailed empirical analysis of the NYPD's UF-250 database, Dr. Fagan found that of the 1,663 trespass stops outside OCH buildings in the Bronx in 2011, 1,044 were unlawful.[142] While the defendants[143] and others[144] attacked the accuracy of his analysis, the court determined that the report was sufficiently reliable, especially when combined with the other testimony, to prove that "a very large number of constitutional violations took

---

137. While the personal narratives of police encounters that the plaintiffs testified to in *Ligon* are striking, the NYPD's own statistics on criminal trespass may be even more so. Just 7.7% of reported trespass stops resulted in arrests and only 4.9% in the issuance of a summons. Complaint, *supra* note 2, at 32. Weapons were discovered in only 0.2% of trespass stops and contraband in only 1.8%. *Id.* Recall that under *Terry*, reasonable suspicion that a suspect is *armed and dangerous* is required before an officer can frisk an individual. Terry v. Ohio, 392 U.S. 1, 27 (1968). When 99.8% of frisks result in no weapon being found, the NYPD's definition of "reasonable" starts to look rather *un*reasonable.

138. *Ligon*, 925 F. Supp. 2d at 492; Report of Plaintiff's Expert Dr. Jeffrey Fagan at 1, *Ligon*, 925 F. Supp. 2d 478 (No. 12-02274) (listing Dr. Fagan's qualifications).

139. *Ligon*, 925 F. Supp. 2d at 510.

140. U.S. COMM'N ON CIVIL RIGHTS, *supra* note 70, at 91.

141. *Id.*

142. *Ligon*, 925 F. Supp. 2d at 531.

143. *Id.* at 530–31.

144. Heather Mac Donald, Op.-Ed., *Courts v. Cops*, WALL ST. J., Jan. 24, 2013, http://online.wsj.com/news/articles/SB10001424127887324039504578259960385659952, *archived at* http://perma.cc/9YLJ-SPD7.

place outside TAP buildings in the Bronx in 2011."[145] The court concluded, in turn, that the plaintiffs showed a "clear likelihood" of demonstrating that the City of New York and the NYPD "displayed deliberate indifference toward the violation of the constitutional rights of hundreds and more likely thousands of individuals prior to 2012."[146]

To complete the showing for *Monell* liability, the court found that city policy makers had "actual notice by 2011, and constructive notice prior to then," of the NYPD's pattern and practice of unconstitutional trespass stops outside of OCH buildings in the Bronx.[147] In support of this notice finding, Judge Scheindlin cited the testimony of Inspector Kerry Sweet, executive officer of NYPD's Legal Bureau,[148] who acknowledged that, by 2010, officers were "unlawfully approaching people entering or inside TAP buildings to question them about their presence."[149] In addition, the court noted that starting in at least 2011, the police commissioner's special counsel had attended meetings where the problematic stop-and-frisks were discussed; that ADA Rucker had sent memos on behalf of the Bronx DA's office to NYPD officials "clarifying the unconstitutionality of stopping people merely for entering or exiting a TAP building"; and that the NYPD had received copies of decline to prosecute forms from the Bronx DA.[150]

The court also rejected the defendants' claims that the NYPD had taken steps to address the constitutional violations occurring outside OCH buildings by providing training on proper stop-and-frisk procedures.[151] The court found that the evidence presented by defendants related only to general reforms to stop-and-frisk.[152] To rebut the plaintiffs' claim that the city displayed deliberate indifference to ongoing constitutional violations by the NYPD, defendants needed to show that the NYPD took "meaningful action to address the *specific* and narrow problem at issue in this case: the problem of unconstitutional trespass stops *outside* TAP buildings in the Bronx."[153]

Based on these findings, Judge Scheindlin determined that the plaintiffs demonstrated a "clear likelihood of proving deliberate indifference under any of the prevailing ways of framing that standard."[154] Thus, the court granted

145. *Ligon*, 925 F. Supp. 2d at 531.
146. *Id.*
147. *Id.* at 532.
148. *Id.* at 517.
149. *Id.* at 531.
150. *Id.* at 531–32.
151. *Id.* at 533.
152. *Id.* at 533–34.
153. *Id.* at 533.
154. *Id.* at 532.

plaintiffs' preliminary injunction, dealing a serious blow to decades-spanning, unconstitutional stop-and-frisk practices in New York City.[155]

While the outgoing Bloomberg administration immediately pursued an appeal of the decision,[156] it was for naught. On January 30, 2014, New York's newly elected mayor, Bill de Blasio, announced that the City would settle the suit by agreeing to the series of reforms that Judge Scheindlin set forth in her remedial opinion for *Ligon* and *Floyd*.[157] In what many probably saw as the height of irony, Mayor de Blasio made his announcement alongside his new police commissioner, William Bratton, the original proponent of NYPD's broken windows policing and champion of CompStat during Commissioner Bratton's first term as New York's police chief in the early 1990s.[158]

Before the settlement could go forward, however, five New York City police unions filed a motion to intervene in the case to try to continue the appeal process initiated by the Bloomberg administration.[159] On July 30, 2014, the District Court ruled that the unions lacked standing to pursue the appeal.[160] Barring reversal in the Second Circuit[161]—which at least one person close to the proceedings deems unlikely[162]—this ruling should finally allow the settlement to proceed.

Subsequent Parts of this Note will examine how BxD became involved in the litigation and how its role as a public defender office helped build a successful case. Before looking specifically at BxD as an institution, however, I will briefly trace the history of public defense to place the BxD model in context.

---

155. Some procedural drama ensued after Judge Scheindlin issued her opinion. Because the details are not relevant to this Note, I do not discuss them. For an account of the post-decision events, see John Riley, *Judge Shira Scheindlin Pulled from Case as Appeals Court Blocks Stop-and-Frisk*, NEWSDAY, Oct. 31, 2013, http://www.newsday.com/news/new-york/judge-shira-scheindlin-pulled-from-case-as-appeals-court-blocks-stop-and-frisk-1.6356324, *archived at* http://perma.cc/WZ82-7KZ4.

156. Christopher Mathias, *Bloomberg Decries 'Dangerous' Stop-and-Frisk Ruling, Promises Appeal*, HUFFINGTON POST (Aug. 12, 2013, 6:03 PM), http://www.huffingtonpost.com/2013/08/12/bloomberg-stop-and-frisk_n_3744102.html, *archived at* http://perma.cc/7NLD-DBNZ.

157. Benjamin Weiser & Joseph Goldstein, *Mayor Says New York City Will Settle Suits on Stop-and-Frisk Tactics*, N.Y. TIMES, Jan. 30, 2014, http://www.nytimes.com/2014/01/31/nyregion/de-blasio-stop-and-frisk.html, *archived at* http://perma.cc/YFT7-B4NU.

158. *Id.*; *see supra* notes 34–36 and accompanying text.

159. Floyd v. City of New York, No. 08 Civ. 1034, 12 Civ. 2264, 2014 WL 3765729, at *1 (S.D.N.Y. July 30, 2014).

160. *Id.*

161. Notice of Appeal at 1, Floyd v. City of New York, No. 08 Civ. 1034, 2014 WL 3765729 (S.D.N.Y. Aug. 7, 2014).

162. Telephone Interview with Molly Kovel, Legal Dir., Civil Action Practice, The Bronx Defenders (Oct. 23, 2014).

II. Public Defense: Origins, Models, and Crisis

A. Origins of the Public Defender

The Supreme Court's landmark 1963 decision *Gideon v. Wainwright*[163] institutionalized indigent public defense in the United States.[164] *Gideon* applied the Sixth Amendment's right to counsel provision[165] to the states, holding that an indigent defendant in a state criminal prosecution has the right to have counsel appointed to him and paid for by the state.[166] Following *Gideon*, the Court continued to expand the right to counsel to: juveniles in delinquency proceedings,[167] defendants charged with misdemeanors who face potential jail time,[168] custodial investigation,[169] post-indictment lineups,[170] and direct appeals,[171] to mention some of the more significant expansions.

While the rights expanded by *Gideon* and its progeny were major victories for criminal defendants, these Supreme Court decisions were largely unfunded mandates. Before *Gideon*, indigent defense services were provided, if at all, largely through voluntary pro bono arrangements with private counsel.[172] *Gideon* cemented the right to counsel in state proceedings, but neither that case nor its descendants dictated any particular means of organization or funding for public defense.[173] Indeed, it was not until late 2000 that the Department of Justice (DOJ) endorsed any national standards for the provision of indigent defense representation.[174] As a result, states, counties, and localities were left to their own devices in designing their public defender systems.

---

163. 372 U.S. 335 (1963).

164. For an interesting account of the first proposal for a public defender by Clara Foltz, a pioneering female attorney, see generally Barbara Allen Babcock, *Inventing the Public Defender*, 43 AM. CRIM. L. REV. 1267 (2006).

165. U.S. CONST. amend. VI.

166. *Gideon*, 372 U.S. at 344–45.

167. *In re* Gault, 387 U.S. 1, 41 (1967).

168. Argersinger v. Hamlin, 407 U.S. 25, 40 (1972).

169. Miranda v. Arizona, 384 U.S. 436, 467 (1966).

170. United States v. Wade, 388 U.S. 218, 236–37 (1967).

171. Douglas v. California, 372 U.S. 353, 357–58 (1963).

172. Kim Taylor-Thompson, *Individual Actor v. Institutional Player: Alternating Visions of the Public Defender*, 84 GEO. L.J. 2419, 2424 n.16 (1996) ("[T]wo years before the decision in Gideon v. Wainright, 372 U.S. 335 (1963), only 32 states compensated counsel in noncapital cases and 1182 counties left indigent defendants unrepresented or appointed counsel without paying their fees or expenses." (citing NAT'L LEGAL AID & DEFENDER ASS'N, THE OTHER FACE OF JUSTICE 13 (1973))).

173. Clarke, *supra* note 18, at 419.

174. BUREAU OF JUSTICE ASSISTANCE, U.S. DEP'T OF JUSTICE, COMPENDIUM OF STANDARDS FOR INDIGENT DEFENSE SYSTEMS (2000), *available at* http://permanent.access.gpo.gov/lps13150/www.ojp.usdoj.gov/indigentdefense/compendium/pdf.htm, *archived at* http://perma.cc/J6Y-4T3E.

B. *Public Defense Models*

Unsurprisingly, the lack of guidance, standards, and uniform funding streams has led to haphazard and varied methods of indigent defense representation across the country.[175] Three main models of indigent defense services, however, have emerged post-*Gideon*.[176] First, there is the statewide or local public defender office staffed with full-time attorneys.[177] These offices may be either actual arms of the state—akin to a DA's office—or private or quasi-private nonprofit organizations largely funded by the state.[178] The second common model is case assignment to private counsel.[179] In this model, local judges will often select attorneys from the private bar to represent indigent clients.[180] A final model is the "contract system" where a state or local entity contracts with an attorney, firm, nonprofit, or combination thereof, to provide services for a certain number of cases subject to a pre-arranged fee agreement.[181] Many states use a combination of these three models.[182]

Regardless of the particular model, public defenders' primary purpose is generally seen as carrying out *Gideon*'s mandate to provide effective assistance of counsel to a criminal defendant at trial.[183] As a result, many, if not most, public defender offices are staffed exclusively by attorneys, and

175. Taylor-Thompson, *supra* note 172, at 2426 (noting the lack of a "coherent system of indigent defense" in *Gideon*'s wake).

176. LYNN LANGTON & DONALD J. FAROLE, JR., U.S. DEP'T OF JUSTICE, BUREAU OF JUSTICE STATISTICS, PUBLIC DEFENDER OFFICES, 2007-STATISTICAL TABLES 2 (2009), *available at* http://www.bjs.gov/content/pub/pdf/pdo07st.pdf, *archived at* http://perma.cc/QK7V-2XJW.

177. Clarke, *supra* note 18, at 420.

178. *Id.* The Bronx Defenders represent this quasi-private body: it is an independent nonprofit organization that receives a significant portion of its funding from contracts with the City of New York; clients are appointed in the same manner as a state-run public defender office. *See* Steinberg, *supra* note 1, at 984–85 (stating that the Bronx Defenders have no control over what cases they are assigned); *Bronx Defenders*, NAT'L CENTER FOR CHARITABLE STAT., http://nccsdataweb.urban.org/orgs/profile/133931074, *archived at* http://perma.cc/5KZG-4CQL (classifying BxD as a 501(c)(3) organization). It is important to note, however, that BxD lawyers who work on impact litigation projects are funded entirely apart from BxD's government contracts. *See infra* note 275.

179. Clarke, *supra* note 18, at 420.

180. *Id.*

181. *Id.* Clarke mentions that in this model, contracts are often awarded to the lowest bidder, promoting significant ethical issues. *Id.*

182. STANDING COMM. ON LEGAL AID AND INDIGENT DEFENDANTS, AM. BAR ASS'N, *GIDEON*'S BROKEN PROMISE: AMERICA'S CONTINUING QUEST FOR EQUAL JUSTICE 2 (2004) [hereinafter *GIDEON*'S BROKEN PROMISE], *available at* http://www.americanbar.org/content/dam/aba/administrative/legal_aid_indigent_defendants/ls_sclaid_def_bp_right_to_counsel_in_criminal_proceedings.authcheckdam.pdf, *archived at* http://perma.cc/ST3M-KQNS.

183. Clarke, *supra* note 18, at 458; *cf.* Steinberg, *supra* note 1, at 971–72 (arguing that *Gideon* funneled attention into indigent criminal defense at the expense of civil legal services).

focus on shepherding the defendant through trial, or more likely, the plea bargaining process.[184]

C. *The Crisis in Public Defense*

It might seem intuitive that *Gideon*'s constitutional mandate would have greatly improved the lot of criminal defendants in this country, at least in the sense that all defendants would receive effective representation in criminal proceedings. Yet today, more than fifty years after *Gideon*, it is widely acknowledged that indigent public defense remains in a state of crisis.[185] In 2004, the American Bar Association's (ABA's) Standing Committee on Legal Aid and Indigent Defendants released a report entitled Gideon*'s Broken Promise*, providing a comprehensive overview of the state of indigent defense in the United States.[186] Among the many dispiriting findings was that "literally thousands of [indigent criminal defendants] routinely are denied, either entirely or in part, meaningful legal representation."[187] In addition, the committee found that funding for indigent defense services was "shamefully inadequate."[188] It decried the system for lacking basic oversight and "fundamental fairness" and "plac[ing] poor persons at constant risk of wrongful conviction."[189]

The Justice Department has likewise acknowledged this crisis, observing that "[d]espite the right to counsel guaranteed in the Sixth Amendment of the U.S. Constitution, in many places economically disadvantaged defendants still are not represented or are under-represented."[190] It identifies three main issues as impairing the provision of effective indigent defense: "Heavy caseloads, insufficient resources, and inadequate oversight . . . ."[191]

This failure to provide counsel or to provide effective assistance of counsel has dire consequences for criminal defendants—ranging from

---

184. *See, e.g.*, Steinberg, *supra* note 1, at 971 (noting that "[p]ublic defender offices typically do not offer civil legal services or social services in-house, and few have partnerships with agencies that do").

185. *GIDEON*'S BROKEN PROMISE, *supra* note 182, at 8; *see also* Note, Gideon*'s Promise Unfulfilled: The Need for Litigated Reform of Indigent Defense*, 113 HARV. L. REV. 2062, 2062 (2000) (noting that states have "largely, and often outrageously, failed to meet the Court's constitutional command"); Editorial, *Federal Oversight on Public Defense*, N.Y. TIMES, Sept. 7, 2013, http://www.nytimes.com/2013/09/08/opinion/sunday/federal-oversight-on-public-defense.html?_r=0, *archived at* http://perma.cc/LW6N-BGU2 ("[T]he right to effective counsel remains an empty promise in too many parts of the country.").

186. *GIDEON*'S BROKEN PROMISE, *supra* note 182, at iv–v.

187. *Id.* at 7.

188. *Id.* at v.

189. *Id.*

190. OFFICE OF JUSTICE PROGRAMS, U.S. DEP'T OF JUSTICE, FACT SHEET: INDIGENT DEFENSE (2011), http://ojp.gov/newsroom/factsheets/ojpfs_indigentdefense.html, *archived at* http://perma.cc/7WEB-UCXB.

191. *Id.*

defendants receiving convictions for more serious crimes or harsher sentences to flat-out wrongful convictions.[192] Furthermore, defendants suffer "collateral consequences" as a result of a conviction that could or should have been avoided.[193] Direct consequences of a criminal conviction generally refer to the penal effects of conviction, such as jail time, probation, or sanctions.[194] Collateral consequences represent the "byproduct" effects of criminal convictions. As one commentator has explained: "[T]hey include numerous disabilities that are either tied to particular criminal convictions or attach to convictions in general. Some of these consequences relate to housing, public benefits, various forms of employment, and deportation."[195]

To make matters worse, as Robin Steinberg, Executive Director of BxD, points out "[t]he past fifty years have seen a dramatic shift in our country's approach to crime, which has had disastrous consequences for inner-city areas."[196] Steinberg argues that the adoption of the broken windows theory of policing discussed above[197] has resulted in overpolicing of inner-city areas and an increase in arrests of people who had not previously run afoul of the law.[198] And, because a criminal conviction today often entails more collateral consequences than ever before—from denial of voting rights to termination of parental rights to employment obstacles—a conviction can have catastrophic effects on the rest of an individual's life.[199] Thus, in many communities, the need for competent public defense services has only increased in the years since *Gideon*.

Unfortunately, as demand for public defense has grown, funding and support for public defense has not. Multiple civil rights groups, such as the American Civil Liberties Union and the Southern Center for Human Rights, have brought class action suits against counties and states for underfunding and understaffing their public defender offices.[200] At least one scholar

192. Darryl K. Brown, Essay, *Rationing Criminal Defense Entitlements: An Argument from Institutional Design*, 104 COLUM. L. REV. 801, 804–05 (2004).

193. *See* Steinberg, *supra* note 1, at 966–67 (identifying disenfranchisement, loss of parental rights, and increased occupational bars as potential collateral consequences of criminal proceedings).

194. Jenny Roberts, *Ignorance is Effectively Bliss: Collateral Consequences, Silence, and Misinformation in the Guilty-Plea Process*, 95 IOWA L. REV. 119, 124 (2009).

195. Michael Pinard, *Broadening the Holistic Mindset: Incorporating Collateral Consequences and Reentry into Criminal Defense Lawyering*, 31 FORDHAM URB. L.J. 1067, 1069 (2004).

196. Steinberg, *supra* note 1, at 965.

197. *See supra* subpart I(A).

198. Steinberg, *supra* note 1, at 965.

199. *Id.* at 966–68.

200. Paula Reed Ward, *ACLU Sues Luzerne County Over Public Defender Funding*, PITTSBURGH POST-GAZETTE, Apr. 10, 2012, http://www.post-gazette.com/news/state/2012/04/10/ACLU-sues-Luzerne-County-over-public-defender-funding/stories/201204100237, *archived at* http://perma.cc/6DBW-V625; Adam Ragusea, *Human Rights Group Sues State over Lack of Public Defenders*, GPB (Jan. 9, 2014, 11:21 AM), http://www.gpb.org/news/2014/01/09/human-rights-group-sues-state-over-lack-of-public-defenders-0, *archived at* http://perma.cc/3UYZ-Q57D.

believes that the "underfunding of criminal defense is, in effect, a permanent feature of American criminal justice."[201]

So, what are public defenders supposed to do in the face of increased demand for their underfunded services? Darryl K. Brown has argued that public defenders should "ration" their criminal defense services in response to insufficient funding, giving priority to factual innocence and to defendants "who have the most at stake or are likely to gain the greatest life benefit."[202] Some public defender organizations, however, have adopted the opposite approach: they have decided that the best way to meet the crisis in indigent defense is to put their limited resources to work in innovative ways that enable them to provide *more* services to their clients.[203]

BxD represents the latter approach to the public defense crisis—it is an institution that, from its inception, committed to providing a different version of public defense to clients suffering from the pervasive effects of a flawed criminal justice system. The next Part starts by explaining BxD's particular institutional model of public defense. It then proceeds to explore how its capacity as a public defender organization contributed to the success of *Ligon*.

III. The Bronx Defenders and Its Role in *Ligon*

A. Holistic Defense

Steinberg founded BxD in 1997 with seven staff members.[204] Even at its humble beginnings, BxD embraced a lofty mission: "[T]o change the way low-income people were represented in the criminal justice system . . . ."[205] Today, BxD has over 250 "advocates," including civil and criminal attorneys, social workers, investigators, benefits specialists, community organizers, and parent advocates.[206]

To speak of BxD is to speak of "holistic defense."[207] While other organizations may couch their model of public defense in similar terms, for BxD holistic defense is a term of art. In a law review article presenting the model, Steinberg acknowledges the influence of "community-oriented" and "client-centered" models promoted by other prominent public defense organizations, such as Neighborhood Defender Service of Harlem or the

---

201. Brown, *supra* note 192, at 808.

202. *Id.* at 816–19.

203. *See infra* subpart III(A).

204. *Our Mission and Story*, BRONX DEFENDERS, http://www.bronxdefenders.org/who-we-are, *archived at* http://perma.cc/Z7LF-ARX7.

205. *Id.*

206. *Id.*

207. The organization's website proclaims: "Holistic Defense is a new model of public defense, pioneered by The Bronx Defenders . . . ." *Holistic Defense, Defined*, BRONX DEFENDERS, http://www.bronxdefenders.org/holistic-defense/, *archived at* http://perma.cc/69H7-JL9W.

Southern Public Defender Training Center.[208] She takes pains, however, to distinguish these models, writing that "[u]nlike these approaches, holistic defense not only redefines what public defense is, but it offers an entirely new model of practice."[209]

So, what exactly is holistic defense? According to BxD:

> The key insight of Holistic Defense is that to be truly effective advocates for clients, defenders must broaden the scope of their representation to address both the collateral consequences of criminal justice involvement as well as the underlying issues that play a part in driving clients into the criminal justice system.[210]

Steinberg and her team found that for many clients, the "life outcomes and civil legal consequences of a criminal case" were of more pressing concern than the criminal case or charge itself.[211] Because of how the modern criminal justice system is set up, the devastating consequences that result from a criminal conviction, or even just a criminal charge, may include deportation; loss of public housing, benefits, or both; and having children removed from the home.[212]

BxD developed the holistic defense model to address these problems and, in turn, more fully serve its clients. Holistic defense is structured around four "Pillars": (1) "seamless access to legal and nonlegal services"; (2) "dynamic, interdisciplinary communication"; (3) "advocates with an interdisciplinary skill set"; and (4) "a robust understanding of, and connection to, the community served."[213] For the purposes of this Note, it is important to note that BxD defines Pillar Four's "connection to the community served" as including policy work to create large-scale change.[214]

While its approach to public defense may be unique, BxD operates much like a state-run public defender office in that it is a true institutional provider. BxD's clients come from a daily community intake process and from arraignments, which its attorneys staff in eight-hour shifts eight times a week.[215] Just like most other public defender offices, BxD does not control the number or types of cases it receives during intakes and arraignments: it must take "all cases that come through the system."[216] As such, it handles over 30,000 cases per year; in 2012 alone, it provided representation to almost fifty percent of individuals charged with crimes in the Bronx and to

208. Steinberg, *supra* note 1, at 974–75, 977–78.
209. *Id.* at 974.
210. *Holistic Defense, Defined*, *supra* note 207.
211. Steinberg, *supra* note 1, at 963.
212. *Id.*
213. *Id.* at 963–64; *Holistic Defense, Defined*, *supra* note 207.
214. Steinberg, *supra* note 1, at 964.
215. *Id.* at 984.
216. *Id.* at 984–85.

over eighty percent of low-income parents brought up on charges of abuse or neglect in Bronx Family Court.[217]

For BxD, *Gideon*'s mandate to provide "effective assistance of counsel" requires addressing both the direct and collateral consequences of the criminal justice system, and holistic defense provides the means to achieve that end.[218] BxD believes its role as a public defender office requires addressing the "real-life consequences of criminal justice involvement" that not only stem from but may even predate a criminal case.[219] Thus, it is willing to take measures and develop programs that go significantly beyond the original conception of the public defender as an effective advocate for an indigent defendant in a criminal trial.[220]

B. Holistic Defense and Impact Litigation

This ethos results in BxD inserting itself into some unusual arenas, as perhaps best manifested by the *Ligon* litigation. Initiating class action civil litigation such as *Ligon* seems, at least at first, pretty far afield from the institutional capacity of a public defender. Indeed, the Sixth Amendment provision whence *Gideon* derived its holding applies only to defendants in criminal cases.[221] In *Ligon*, however, we see a public defender organization representing a class of *plaintiffs* in a *civil* case. It seems unlikely that even the most liberal interpreter of the Court's opinion in *Gideon* could have predicted this turn of events. Upon closer examination, however, it becomes apparent that the *Ligon* litigation represents a natural—and perhaps necessary—application of BxD's holistic public defense model.

C. The Impetus for The Bronx Defenders' Involvement in Ligon

As mentioned above, clients come to BxD in one of two ways: they are assigned to BxD during arraignments, or they participate in BxD's community intake.[222] BxD views both intake and arraignment as opportunities to strengthen its ties to the community it serves.[223] BxD's commitment and connection to its community, captured by Pillar Four of the holistic defense model, serves some key purposes. It enables BxD to "argue for more individually tailored case dispositions, get clients the social services

---

217. *Id.* at 985.

218. *Holistic Defense, Defined*, *supra* note 207.

219. Steinberg, *supra* note 1, at 1017.

220. *See Civil Action Practice*, BRONX DEFENDERS, http://www.bronxdefenders.org/our-work/civil-action-practice/, *archived at* http://perma.cc/FG4Q-VPB5 (describing the Civil Action Practice, one of the various programs and initiatives offered by BxD).

221. U.S. CONST. amend. VI.

222. Steinberg, *supra* note 1, at 984.

223. *See, e.g.*, *Our Work: Criminal Defense Practice*, BRONX DEFENDERS http://bronxdefenders.org/our-work, *archived at* http://perma.cc/R6QH-WG4T (explaining that BxD attorneys take time to get to know their clients and their needs in order to provide individualized representation).

support they need faster, and collaborate with residents to create long-term change through policy initiatives and local organizing."[224] This community involvement also serves another purpose: it provides "a unique mechanism for gathering information about systemic problems in the community."[225]

BxD's institutional ability to gather and collect data is part of what led to the *Ligon* action; it is also what made BxD particularly well-positioned to serve as the plaintiffs' counsel. As Kate Rubin, managing director of BxD's Civil Action Practice, explained to this Note's author in an interview, *Ligon*'s origins can be traced to what BxD's lawyers were witnessing during arraignments and community intake.[226] Each arraignment shift, BxD was getting clients who had been stopped or arrested for trespassing in OCH buildings.[227] The circumstances varied slightly from case to case—sometimes the client had been arrested for trespassing even though he was at the building to visit a friend or family; other times, the client actually lived in the building but did not have identification—but the unreasonableness of the stops was consistent.[228]

One of the named plaintiffs came to BxD during community intake.[229] He had arrived at his fiancée's building for a visit.[230] He rang her buzzer, and as she was on her way down to let him in, he was arrested for trespassing.[231] These unjustified stops and arrests caused harm in and of themselves, but once BxD got involved, the charges were often dropped or the case settled.[232] For BxD, the more serious concern was the collateral consequences its clients suffered as a result of these arrests, which included clients losing their jobs and having their benefits suspended.[233] Both the hard data BxD was collecting from arraignments and community intake and the anecdotal stories BxD was hearing from members of the community confirmed that these trespass stops and arrests were serious problems for BxD's client population.[234]

Yet, a potential systemic injustice, even one that is supported by hard data, is not an automatic green light to pursue class action civil litigation. As Kate Rubin explained, litigation is the last resort.[235] Normally, when it sees

224. Steinberg, *supra* note 1, at 997.

225. *Id.* at 1002.

226. Telephone Interview with Kate Rubin, Managing Dir., Civil Action Practice, The Bronx Defenders (Mar. 28, 2014).

227. *Id.*

228. *Id.*

229. *Id.*

230. *Id.*

231. *Id.*

232. *Id.*

233. *Id.*

234. *Id.*

235. *Id.*

that large swaths of its clients are dealing with a similar legal issue, BxD will approach the institutional actor and try to achieve some administrative reform.[236] BxD normally attempts to arrange a meeting with the offending actor where they can present the issue and discuss possible solutions to see if the actor is willing to change the policy.[237] This preferred practice reflects the negative realities of pursuing litigation—namely that it is extremely costly and time-consuming.[238] As a result, BxD prefers to negotiate with the relevant actors out of court when possible.[239]

In the OCH trespass situation, however, BxD knew negotiation or administrative reform were not viable options.[240] The problematic practice had been going on for too long, and it was "completely clear" that the police commissioner, with the full support of the mayor at the time, was not willing to negotiate.[241] Groups like the NYCLU—who BxD would join as co-counsel in *Ligon*—had been challenging the City's stop-and-frisk policies for years, making only minimal headway.[242] In other words, in the case of trespass arrests outside of OCH buildings in the South Bronx, BxD and the other attorneys agreed that the last resort of litigation became the best option to try and tackle a problem faced by a plurality of their clients. Chris Fabricant, an attorney who worked with BxD in *Ligon*, explained the situation as follows: "At bottom, a public defender's role is to represent one client. Individual direct representation has to be the priority. But when you start to see systemic problems manifest in the tens of thousands, you have to consider other options, and that's where impact litigation comes in."[243] For this particular situation, the calculus for how to best provide individual, direct representation indicated that different measures had to be taken.

D. *The Unique Institutional Capacity of the Bronx Defenders and Success in* Ligon

Judge Scheindlin's finding that the *Ligon* plaintiffs demonstrated a clear likelihood of proving deliberate indifference on the part of New York City officials rested largely on three categories of evidence: (1) the named plaintiffs' testimony; (2) expert witness Dr. Fagan's analysis; and (3) ADA Rucker's testimony, supported by "decline to prosecute" forms.[244] This

236. *Id.*

237. *Id.*

238. U.S. GEN. ACCOUNTING OFFICE, GAO/GGD-97-71, INTERNAL REVENUE SERVICE: IRS INITIATIVES TO RESOLVE DISPUTES OVER TAX LIABILITIES 1 (1997).

239. Telephone Interview with Kate Rubin, *supra* note 226.

240. *Id.*

241. *Id.*

242. *Id.*

243. Telephone Interview with Chris Fabricant, Dir. of Strategic Litig., The Innocence Project (Mar. 31, 2014).

244. Ligon v. City of New York, 925 F. Supp. 2d 478, 492 (S.D.N.Y. 2013).

subpart will explain how BxD played an integral role in developing each category of evidence.

1. The Bronx Defenders and Selecting the Named Plaintiffs.— Successful class action suits depend in large part on identifying the most appropriate named plaintiffs to represent the class.[245] The need to carefully select named plaintiffs applies with perhaps special force in the context of § 1983 municipal liability claims where the standing and causation requirements for proving liability are so stringent.[246] Recall that the threshold for standing imposed by *Lyons* requires the plaintiff to demonstrate a real threat of future harm, and the doctrinal standard for causation requires the plaintiffs to present a pattern of equivalent unconstitutional conduct.[247]

BxD, thanks to its close ties to its community and the data it collects as part of its daily practice, was particularly well positioned to identify the "perfect" named plaintiffs. As public defenders, BxD's attorneys interact with the potential named-plaintiff population on a daily basis—through arraignments, community intake, or other regularly conducted public outreach. Molly Kovel, legal director of the Civil Action Practice of BxD, explained that, as compared to civil rights organizations, BxD has the "best access" to the relevant client population.[248] Not only does BxD have unparalleled access to the potential named-plaintiff population, it also has a preexisting relationship with many of these individuals, or at least a preexisting reputation in the community as an institution that is working on behalf of these clients.[249] Both Kovel and Rubin cited the goodwill that BxD has built in the community as a factor that made it easier for them to get clients to agree to be part of the litigation.[250]

Furthermore, the client data that BxD regularly collects and maintains helped to identify which clients would best satisfy the statutory and constitutional requirements for liability in the § 1983 action.[251] For each client that BxD takes on, it collects basic personal information (name,

245. *See* Theodore Eisenberg & Geoffrey P. Miller, *Incentive Awards to Class Action Plaintiffs: An Empirical Study*, 53 UCLA L. REV. 1303, 1304–06 (2006) (describing the importance of the named plaintiff in a class action and the burdens carried by the named plaintiff).

246. *See* Bd. of the Cnty. Comm'rs v. Brown, 520 U.S. 397, 410 (1997) ("To prevent municipal liability for a hiring decision from collapsing into *respondeat superior* liability, a court must carefully test the link between the policymaker's inadequate decision and the particular injury alleged."); O'Shea v. Littleton, 414 U.S. 488, 494 (1974) ("[I]f none of the named plaintiffs purporting to represent a class establishes the requisite of a case or controversy with the defendants, none may seek relief on behalf of himself or any other member of the class.").

247. *See supra* subpart I(E).

248. Telephone Interview with Molly Kovel, Legal Dir., Civil Action Practice, The Bronx Defenders (Apr. 18, 2014).

249. *Id.*

250. *Id.*; Telephone Interview with Kate Rubin, *supra* note 226.

251. Telephone Interview with Molly Kovel, *supra* note 248.

address, etc.) and creates a case file containing all the details of that client's current charge (and any previous charges) as well as the eventual case disposition.[252] For a client who was stopped or arrested for trespass, this would include all the circumstances of the stop or arrest as well as the legal basis for the eventual outcome.[253] If a client had been stopped, arrested, or both multiple times, this information would likewise appear in BxD's system.[254]

When it came time to identify potential named plaintiffs for *Ligon*, BxD and NYCLU attorneys were able to search BxD's database specifically for trespass cases that had been dismissed and discern similar fact patterns.[255] Recall that establishing liability in a failure to train § 1983 action requires the plaintiffs to demonstrate a pattern of similar constitutional violations. BxD's knowledge of its community, combined with its client data, provided the means through which this pattern could be discovered. In other words, its access to a "wealth of clients" and ability to sift through precise data on these clients' cases helped combat the significant evidentiary hurdles that plaintiffs usually face in § 1983 suits.[256] As an added benefit, BxD's familiarity with the Bronx court system allowed its lawyers to navigate it quickly and effectively when they needed to identify a potential plaintiff's criminal history.[257]

Because of their familiarity with the local court system, procedures, and record keeping, BxD's lawyers brought a special expertise to interpreting both their own data and the data the plaintiffs eventually received from the NYPD stop-and-frisk database. As Kovel explained: "Even a seasoned civil rights lawyer with decades of experience litigating police cases, doesn't necessarily get the intricacies of the New York criminal records databases the way a public defender does. I can interpret [this data] in a way that makes a unique contribution to the case."[258] As discussed above, BxD's wealth of access to individuals by virtue of its role as a public defender office, and its maintenance of an extensive database cataloging the details of its clients' cases, made it easier to amass the substantial evidence necessary to demonstrate a pattern of similar constitutional violations that is necessary to support a failure to train claim.[259] In addition, its expertise in analyzing its data allowed BxD to pinpoint the clients who were most likely to be able to satisfy the standing requirement of a § 1983 failure to train claim, in that it could identify clients who had been unlawfully stopped or arrested multiple

252. *Id.*
253. *Id.*
254. *Id.*
255. *Id.*
256. *See* text accompanying notes 101–11.
257. Telephone Interview with Molly Kovel, *supra* note 248.
258. *Id.*
259. *See supra* note 254 and accompanying text.

times and were more likely to be stopped in the future. Kovel emphasized that BxD's ability to identify the relevant data and interpret the "subtle differences" therein made a major contribution to discovery by enabling BxD to phrase deposition questions and draft subpoenas to better support its case.[260]

2. The Bronx Defenders' Contribution to Dr. Fagan's Analysis.—The BxD lawyers' familiarity with reviewing and interpreting police records, by virtue of their daily work with these records as public defenders, helped make sense of the data Dr. Fagan used in his statistical analysis of NYPD's trespass stops. Indeed, Fabricant pointed out that BxD played a key role in collecting and filtering much of the information in the police department's stop-and-frisk database on which Dr. Fagan relied.[261] Kovel explained how McGregor Smyth, former Managing Attorney of BxD's Civil Action Practice, was able to comb through the records in the databases provided by the city and "prep" much of the data for Dr. Fagan's use.[262] Kovel was not entirely clear on what this preparation entailed but indicated that it involved using BxD's familiarity with the records police keep to help interpret it and identify relevant patterns.[263]

3. The Bronx Defenders and ADA Rucker.—The Bronx Defenders's relationship with ADA Rucker also played a significant part in developing her testimony. In discussing what led to the Bronx DA's office awareness of a problem in many OCH trespass cases, Judge Scheindlin credited ADA Rucker's receipt of "a steady stream of complaints about trespass arrests from . . . the Bronx Defenders."[264] Kovel believed that the mutual respect between ADA Rucker and BxD, earned through years of working in the same community and courthouses, factored into Rucker's willingness to investigate the claims and cases BxD brought to her office's attention.[265] If BxD played a less integral role in the South Bronx community, its complaints may not have been taken as seriously by its prosecutorial counterpart. But as public defenders, BxD maintains a constant presence in the community and interacts with the DA's office on a daily basis. A civil rights organization that is less grounded in the community would have neither the same access

260. Telephone Interview with Molly Kovel, *supra* note 248.

261. Telephone Interview with Chris Fabricant, *supra* note 243.

262. Telephone Interview with Molly Kovel, *supra* note 248. Indeed, it is perhaps hard to understate Smyth's role in guiding BxD through the *Ligon* litigation. As Kovel wrote in an e-mail to me: "There is no question that [BxD] would not have been as involved in *Ligon* as we were if [Smyth] had not paved the way by creating our strong relationships with other civil rights attorneys in the city." E-mail from Molly Kovel, Legal Dir., Civil Action Practice, The Bronx Defenders, to author (Sept. 22, 2014, 9:59 CST) (on file with author).

263. Telephone Interview with Molly Kovel, *supra* note 248.

264. Ligon v. City of New York, 925 F. Supp. 2d 478, 492 (S.D.N.Y. 2013).

265. Telephone Interview with Molly Kovel, *supra* note 248.

to nor relationships with (1) the persons suffering rights violations and (2) the government entity capable of stopping them. For these reasons, BxD was well positioned to take up the cause.

4. The Benefits to The Bronx Defenders in Pursuing Impact Litigation.—Interestingly, Rubin also pointed out benefits that accrue to the public defender office by pursuing impact litigation such as the class action suit in *Ligon*.[266] She argued that when a public defender acts to sue a government actor that is harming the community, it gives the public defender added legitimacy by showing the community that the public defender is not just a "cog in the wheel" of the government apparatus.[267] Relatedly, Rubin acknowledged that it is important to BxD's mission that community members see it as a force for change—leading the charge in a high-profile lawsuit against the harmful government actor helps burnish this image.[268] In addition, involvement in such a high-profile case helps BxD fundraise; when awareness of the organization and its successful initiatives builds, more individuals and institutions are inclined to donate.[269] This fact provides a counterweight to the argument that pursuing impact litigation is a drain on a public defender office's resources. Finally, Rubin argued that engaging in high-profile complex litigation helps an office like BxD recruit and retain top attorneys who might otherwise be reluctant to take a serious pay cut to work in the trenches of public defense.[270]

IV. Replication

The success of the *Ligon* litigation, combined with the benefits to the public defender organization itself, might lead one to believe that BxD would not only be looking to actively pursue similar cases, but would also incorporate impact litigation into the training conducted by its resource center, The Center for Holistic Defense, which trains other public defender offices across the country.[271] Indeed, BxD has recently hired a Director of Impact Litigation, signaling that *Ligon*-type litigation has received a permanent place in its practice.[272]

---

266. Telephone Interview with Kate Rubin, *supra* note 226.

267. *Id.*

268. *Id.*

269. *Id.*

270. *Id.*

271. *See Training & Technical Assistance*, BRONX DEFENDERS, http://www.bronxdefenders.org/holistic-defense/training-technical-assistance/, *archived at* http://perma.cc/TA2K-9N7N (describing the training programs offered by The Center for Holistic Defense to other individual offices and defender systems).

272. *Johanna Steinberg: Director of Impact Litigation*, BRONX DEFENDERS, http://www.bronxdefenders.org/staff/johanna-steinberg/, *archived at* http://perma.cc/JVR3-Q582.

Other significant players in the public defense world have likewise recognized the opportunity presented by impact litigation. Stephen B. Bright, President of the Southern Center for Human Rights and a lecturer at Yale Law School, writes that to make the right to counsel a reality, public defense organizations must commit to "new ways of seeking that goal, such as greater use of impact litigation."[273]

Yet, when asked whether impact litigation is something that should be a part of many, if not all, public defender organizations, both Rubin and Fabricant were circumspect. While Rubin said that she believed this type of litigation is a "great model" for public defender organizations, she vigorously maintained that this type of practice was by no means a necessary condition for a successful public defender office.[274] She mentioned that public defenders that are more closely connected to—i.e., entirely funded by—the state or city may not be as free to bite the hand that feeds them as BxD was in *Ligon* due to its status as an independent nonprofit.[275] She also cited the long history of activist litigation against the City of New York in making it an environment where a public defender could sue the government and its agents without much risk of retaliation—circumstances that might not hold true in other locales.[276] For his part, Fabricant deemed impact litigation the "nuclear option" and discussed political fixes as a superior alternative when available.[277] He said the decision whether or not to incorporate impact litigation into a public defense practice would have to be both organization and case specific.[278]

While neither Rubin nor Fabricant thought much of the argument that pursuing impact litigation impedes the primary function of the public defender office—whether measured in resource or time depletion—these trade-offs might present a real problem for other organizations that are less well staffed and well funded than BxD. The ABA's report on indigent defense described it as a system that is, in general, "bereft of the funding and resources necessary to afford even the most basic tools essential for an effective defense."[279] If most indigent defense providers are struggling to provide the basics and stay afloat under "crushing workloads,"[280] then it becomes harder to imagine a reality where many of these providers can find the time or money to pursue impact litigation.

---

273. Stephen B. Bright, Gideon*'s Reality: After Four Decades, Where Are We?*, CRIM. JUST., Summer 2003, at 4, 5.

274. Telephone Interview with Kate Rubin, *supra* note 226.

275. *Id.* Indeed, BxD funds the lawyers who work on impact litigation through grants, fellowships, and donations—entirely separate from its government contracts. *Id.*

276. *Id.*

277. Telephone Interview with Chris Fabricant, *supra* note 243.

278. *Id.*

279. *GIDEON*'S BROKEN PROMISE, *supra* note 182, at 7.

280. *Id.*

Furthermore, there may be significant resistance to pursuing impact litigation from public defender offices themselves. The Bronx Defenders and its holistic approach to public defense still represents the exception rather than the rule of public defense organizations. The idea of embracing a broad institutional mission as a public defender office still meets with resistance in some corners of the public defense community. As Kim Taylor-Thompson explains: "[P]ublic defenders typically resist any effort to characterize their role as institutionalized, rather than individualized."[281] She further notes that the individualized conception of the public defender is "deeply ingrained" to the extent that many see a prominent institutional vision as "unimaginable and at worst dangerous."[282] These concerns may be rooted in a perhaps unfounded belief that the primal mission of the public defender—to serve as a zealous advocate for an individual client—necessarily conflicts with submitting to any larger institutional goals. While BxD believes that its clients are better served by its broader institutional goals and the work toward those goals, others may see this work as merely time spent not working for its individual clients.

Yet, thanks in no small part to the work of BxD—both through its successes as an organization and through its training efforts with the Center for Holistic Defense—this resistance is thinning in many places. In 2009, the DOJ signaled its support for holistic defense in the form of a $250,000 grant to help fund BxD's Center for Holistic Defense.[283] Today, the DOJ's Bureau of Justice Assistance continues to provide significant funding for the Center.[284] David Carroll, Director of Research for the National Legal Aid and Defender Association, has gone as far as stating that "[t]here is a unanimous view in the public defense community that holistic-based representation . . . is the direction in which most people would want to go."[285] As awareness of the holistic model of representation has grown, more actors are willing to experiment with the model.

Still, receptiveness to the model is not the same as widespread adoption. Even some supporters of the holistic defense model doubt its replicability. The chief public defender in Knoxville, Tennessee, whose office has

281. Taylor-Thompson, *supra* note 172, at 2421.

282. *Id.*

283. Cara Tabachnick, *Can the 'Holistic Approach' Solve the Crisis in Public Defense?*, CRIME REP. (Mar. 8, 2011, 9:04 AM), http://www.thecrimereport.org/news/inside-criminal-justice/2011-03-can-the-holistic-approach-solve-the-crisis-in-public, *archived at* http://perma.cc/Q9DT-FQMU.

284. *Indigent Defense Grants, Training and Technical Assistance*, U.S. DEP'T OF JUSTICE, http://www.justice.gov/atj/gideon/g-tta.html, *archived at* http://perma.cc/4ZD9-36RR; *see also* Tracey Kaplan, *'Holistic' Criminal Defense Gains Footing in Bay Area*, SAN JOSE MERCURY NEWS, Mar. 21, 2014, http://www.mercurynews.com/crime-courts/ci_25396518/holistic-criminal-defense-gains-footing-bay-area, *archived at* http://perma.cc/6U2Z-RVL4 (discussing BxD's holistic approach and how the "Department of Justice is supporting efforts to spread the approach nationwide").

285. Tabachnick, *supra* note 283.

expanded its vision by hiring social workers, has stated: "Can the Bronx Defenders' model be replicated across the country? . . . I don't see it happening."[286]

Thus, the takeaway from BxD's experience in pursuing *Ligon* is not so cut-and-dry. *Ligon*'s success does not imply that all or even most public defenders should begin to incorporate class action civil litigation into their daily practice. Rather, the lesson appears to be more measured: in certain circumstances (widespread, systemic problems faced by a plurality of a client base), when other options (negotiating, meeting, policy advocacy) are off the table (due to an entrenched policy and intractable, stubborn opposition), class action civil litigation may be the best way for a public defender organization to provide effective assistance of counsel for its indigent clients and fulfill *Gideon*'s promise.

V. Ethical Implications

In addition to issues of replicability, impact litigation brought by public defenders raises some thorny ethical questions. The main issue that may arise is potential conflicts; namely, conflicts of interest between an attorney's responsibilities to an individual client and to the class at large. The Model Rules of Professional Conduct make clear that a lawyer's primary responsibility is to represent the interests of her client.[287] Indeed, a "material limitation" conflict arises whenever there is just a "significant risk" that a lawyer's representation of one client affects her responsibilities to any other client.[288] In the typical case, a public defender has an individual client and can pursue that client's discrete interests. When public defenders engage in impact litigation they are now juggling the interest of multiple clients, not to mention the cause itself.

Chris Fabricant has addressed these ethical concerns in a related context. Leading up to his work in *Ligon*, Fabricant ran a criminal defense clinic at Pace Law School in New York City.[289] As a reaction to systemic civil rights violations by the NYPD, Fabricant transformed his clinic from an individual direct-representation model to a "combined advocacy" model, focusing on strategic representation of clients arrested for trespass in New York City's public housing as a means of leveraging its misdemeanor docket for broader

286. Kaplan, *supra* note 284.

287. MODEL RULES OF PROF'L CONDUCT R. 1.3 cmt. 1 (2014) ("A lawyer should . . . take whatever lawful and ethical measures are required to vindicate a client's cause or endeavor. A lawyer must also act with commitment and dedication to the interests of the client and with zeal in advocacy upon the client's behalf.").

288. *Id.* R. 1.7(a)(2).

289. M. Chris Fabricant, *Rethinking Criminal Defense Clinics in "Zero-Tolerance" Policing Regimes*, 36 N.Y.U. REV. L. & SOC. CHANGE 351, 351 n.† (2012).

social justice ends.[290] Fabricant summarized the ethical issues involved in pursuing impact litigation in this context as follows: "We pursued the litigation . . . because the client was innocent of the trespassing charges, but we were also trying to generate spokespeople for the cause and plaintiffs for the class action suit. This ulterior objective created a potential conflict of interest."[291] While Fabricant believed that the clinic's larger social goals were for the most part "entirely consistent" with the client's individual goals, he acknowledged the potential for a "material limitation" conflict, which arises when a "political agenda merely threatens client-centered representation."[292]

Other scholars have likewise recognized the potential for ethical conflict when public defenders pursue an institutional role. Taylor-Thompson argues that "[n]o matter how well-intentioned they may be, defender offices operating under an institutional vision run the danger of making decisions that are wholly different than those their clients would have reached."[293] Yet, she argues that a public defender office with an institutional vision has "merit" and even suggests that ethics codes should be amended to better fit the practice of public defense with a broader institutional mission.[294] Margareth Etienne similarly points out that "a strict reading of the ethics rules would deem [cause] lawyering strategies [for public defenders] improper."[295] She deems these same rules, however, "woefully out of touch with the realities of cause-centered criminal defense work," and further notes that "[t]he criminal justice system would come to a standstill if lawyers regularly withdrew from cases in which they harbored ulterior motives of social change."[296]

Yet, a change in the ethics code may not be necessary to avoid conflict in impact litigation pursued by public defenders. As Kate Rubin stressed, the starting point for any public defender should always be: what is in the best interest of the individual client?[297] And, public defense organizations should only pursue impact litigation in the rare cases where it supplies the answer to that question. In other words, ethical conflicts can be avoided if public defenders only engage in impact litigation when it is necessary to serve the individual needs of their clients. Furthermore, as Fabricant explained, public defenders can counter ethical dilemmas by maintaining transparency with

290. *Id.* at 353. These cases formed part of the class action litigation in *Davis v. City of New York*. *See supra* note 22.

291. Fabricant, *supra* note 289, at 379 (footnotes omitted).

292. *Id.* at 379–80.

293. Taylor-Thompson, *supra* note 172, at 2469.

294. *Id.* at 2464–69.

295. Margareth Etienne, *The Ethics of Cause Lawyering: An Empirical Examination of Criminal Defense Lawyers as Cause Lawyers*, 95 J. CRIM. L. & CRIMINOLOGY 1195, 1253 (2005).

296. *Id.* at 1256.

297. Telephone Interview with Kate Rubin, *supra* note 226.

their clients.[298] If a public defender were to decide that the best way to vindicate a client's rights was by aggregating his claims in a class action lawsuit, then the public defender must explain that rationale to the client, inform him of the process, and receive his approval. BxD believes that by maintaining a constant open dialogue with its clients and the community at large, it can assess when the more extreme course of class action civil litigation is in the best interests of its individual clients.

Thus, public defender offices that want to pursue impact litigation need not shy away for fear of ethical conflicts if they approach the litigation for the right reasons and in a considered manner. Impact litigation should rarely, if ever, be the starting point for any public defender office. Rather, public defenders must start by asking what is the best way to provide individual representation to a particular client, which will require in-depth communication with the client as well as knowledge of the situation in the client's community. When a large part of a public defender's client population is suffering the same problems as a result of systemic issues, such as police misconduct, then the individual needs may coalesce into group needs, as was the case in the *Ligon* litigation. And when this happens, impact litigation, such as a class action civil suit, may be the best way to provide effective assistance of counsel to the indigent criminal defendant.

Conclusion

In Steinberg's origin story of The Bronx Defenders, she speaks of eight people meeting in a storefront office in the South Bronx, determined to redefine the representation of low-income individuals in the criminal justice system. BxD's role as co-counsel in the litigation that declared a significant part of New York City's stop-and-frisk practices unconstitutional provides compelling evidence that it has achieved its original goal.

BxD's role in *Ligon* reflects the unique capacities that public defenders can bring to civil rights litigation; namely, a legitimate connection to the besieged community and unequaled access to and understanding of the client population. The success of the *Ligon* litigation should encourage other public defender offices to consider the ways in which they can think outside the box and use their limited resources to provide effective assistance of counsel to their indigent clients.

Yet, BxD's role in *Ligon* also reveals that the question of whether a public defender office should actually pursue a class action civil litigation suit is a highly contextual one. The answer to this question will depend, among many factors, on the particular issue facing the community, the institutional actor that is causing the problem, and the makeup of the individual public defender office. Before devoting time and energy to this

298. Telephone Interview with Chris Fabricant, *supra* note 243.

type of litigation, a public defender office must take a long, hard look at what is in the best interests of its individual clients and whether the office is equipped to provide it.

Still, in the world of indigent defense services—where there is never enough money or time to go around—The Bronx Defenders' successful participation in *Ligon* presents a powerful model that public defenders can employ to advocate for broader systemic changes for their clients.

—Katherine E. Kinsey

Employing Virtual Reality Technology at Trial: New Issues Posed by Rapid Technological Advances and Their Effects on Jurors' Search for "The Truth"*

There is no truth. There is only perception.[1]

—Gustave Flaubert

I. Introduction

In a visual society where a picture is worth a thousand words and "seeing is believing," trial lawyers have rapidly adapted to technological advances which allow them to show, rather than merely tell, the jury their case theory. Demonstrative evidence has evolved from black and white photographs to computer-generated animations re-creating the events in question. Today, technology has enabled programmers to create virtual reality environments, which allow users to fully immerse themselves in an alternate world. With the proliferation of immersive virtual environments (IVEs) in areas such as video games[2] and job training,[3] it won't be long until lawyers seek to employ the new technology in the courtroom. However, by combining the most salient features of previous forms of demonstrative evidence, such as the crime-scene view and computer animations, the use of IVEs pose an exponentially greater risk of unfair prejudice, which must be closely monitored by the courts.

This Note argues that IVEs are not merely "another point along a line of technological progression, from scene viewing to photography to video

---

* I would like to extend my thanks to Professor Tracy McCormack for her guidance, encouragement, and insightful comments throughout the writing process and to the editors of the *Texas Law Review* for their excellent work in editing this Note. In addition, I would like to thank Annmarie Chiarello, Elizabeth O'Donnell, and Anna Svensson for acting as my sounding boards throughout this process and for their friendship and support. Finally, and most importantly, I want to thank my Mom, Dad, and Erin. I could not have achieved any of my successes without your constant love and encouragement.

1. In the original French, "Il n'y a pas de Vrai! Il n'y a que des manières de voir." Letter from Gustave Flaubert to Léon Hennique (Feb. 2–3, 1880), *in* CORRESPONDENCE 369, 370 (Louis Conrad ed., 1930).

2. *See* Chris Suellentrop, *Virtual Reality Is Here. Can We Play with It?: Oculus Rift and Morpheus Take Games to a New Dimension*, N.Y. TIMES, Mar. 23, 2014, http://www.nytimes.com/2014/03/24/arts/video-games/oculus-rift-and-morpheus-take-games-to-a-new-dimension.html?_r=0, *archived at* http://perma.cc/M3C6-WHTV (detailing prototypes and other developments in the video game industry utilizing virtual reality technology).

3. *See* Michael Downes et al., *Virtual Environments for Training Critical Skills in Laparoscopic Surgery*, *in* 50 MEDICINE MEETS VIRTUAL REALITY 316, 316 (James D. Westwood et al. eds., 1998) (discussing the use of IVEs in surgical training simulations).

evidence to virtual evidence,"[4] but rather, that they are fundamentally different from previous forms of demonstrative evidence. As such, the use of IVEs at trial must be scrutinized much more carefully by the courts, especially in criminal trials, because of their unique risk of unfair prejudice. Part II of this Note gives a brief history of the evolution of demonstrative evidence. Part III examines what IVEs are and explains how they differ in significant respects from computer animations. Part IV considers two additional issues that may arise from using IVEs in the context of a criminal trial. Finally, Part V concludes by recommending that courts proceed cautiously in admitting IVEs, especially in criminal trials, because of their inherently prejudicial nature.

II. The History of Demonstrative Evidence

Demonstrative evidence is a category of nontestimonial evidence that is offered to illustrate the facts or opinions testified to by a witness.[5] Common types of demonstrative evidence include photographs, maps, models, diagrams, and computer animations.[6] Often referred to as a "demonstrative aid," this evidence is offered on the relevance theory that it will help the trier of fact to better understand the witness's testimony.[7] At least in theory, "demonstrative aids do not have independent probative value for determining substantive issues in the case."[8] Therefore, counsel must only establish that the item is a fair and accurate representation of the witness's testimony.[9] Like all other evidence, the demonstrative aid must also be relevant,[10] and its probative value must not be substantially outweighed by the risk of unfair prejudice.[11]

The use of demonstrative evidence at trial is hardly a new phenomenon. In 1859, the United States Supreme Court issued the first known decision admitting photographic evidence in a jury trial.[12] In 1946, Melvin Belli revolutionized the use of demonstrative evidence when he presented an artificial limb to the jury during his representation of an amputee victim.[13] After the judge set aside the first trial verdict awarding

4. Carrie Leonetti & Jeremy Bailenson, *High-Tech View: The Use of Immersive Virtual Environments in Jury Trials*, 93 MARQ. L. REV. 1073, 1118 (2010).

5. 2 MCCORMICK ON EVIDENCE § 214, at 18 (Kenneth S. Broun ed., 7th ed. 2013).

6. *Id.* §§ 214–215, at 18, 28–29.

7. *Id.* § 214, at 18–19.

8. *Id.* § 214, at 19.

9. *Id.* § 214, at 19–20.

10. FED. R. EVID. 402.

11. *Id.* R. 403.

12. Luco v. United States, 64 U.S. 515 (1859); Vincenzo A. Sainato, *Evidentiary Presentations and Forensic Technologies in the Courtroom: The Director's Cut*, 2009 J. INST. JUST. & INT'L STUD. 38, 39 (2009).

13. Melvin M. Belli, Sr., *Demonstrative Evidence*, 10 WYO. L.J. 15, 20–21 (1955).

the victim $65,000 in damages, Belli retried the case and obtained a verdict of $100,000, which was sustained.[14] When asked why the different result had occurred, Belli replied:

> On the second trial, I employed demonstrative evidence and I convinced both jury *and* judge. . . .
>
> The first trial judge . . . had never seen an artificial limb. When I came into court on the second trial it occurred to me, "I am asking this jury to give my client something. I must show them, if possible, just exactly what it is. I can't show them an intangible commodity: pain and suffering and tears."[15]

By invoking the sense of sight and touch alongside the verbal testimony of the witness, Belli persuaded the jury—unlike any lawyer before—by bringing the case to life.

As technology progressed over the latter half of the 20th century, so did the sophistication of the demonstrative evidence allowed at trial. Throughout the 1970s and 1980s, lawyers teamed up with graphic artists as well as other professionals to create vivid three-dimensional models and diagrams.[16] With advances in videotape technology came filmed displays, which often included physical re-creations of actual events, "day-in-the-life" films, and illustrations of expert opinions.[17] By 1990, computer animations began appearing in courtrooms across the country.[18] In 1992, a California trial court admitted a computer animation for the first time in a murder prosecution, leading the defense counsel to lambast the video's accuracy.[19]

In the past two decades, the decreasing cost of computer-generated evidence has enabled parties to employ cutting edge technology at trial with increasing frequency. Although IVEs are not yet routinely used in actual trials, the technology was successfully employed in a 2002 mock trial conducted by the National Center for State Courts through its "Courtroom 21 Project."[20] The mock trial concerned a criminal prosecution against a stent manufacturer for manslaughter after the stent allegedly caused a man's

---

14. *Id.* at 21.

15. *Id.*

16. Robert D. Brain & Daniel J. Broderick, *Demonstrative Evidence: The Next Generation*, LITIGATION, Summer 1991, at 21, 21–22.

17. *Id.* at 22.

18. *Id.*

19. Marc A. Ellenbogen, Note, *Lights, Camera, Action: Computer-Animated Evidence Gets Its Day in Court*, 34 B.C. L. REV. 1087, 1097–98 (1993) (rehashing the defense counsel's argument that the video could not "effectively recreate the human gestures . . . necessary for determining intent, motive, malice and 'the level of complicity' in homicide").

20. Edie Greene & Kirk Heilbrun, WRIGHTSMAN'S PSYCHOLOGY AND THE LEGAL SYSTEM 194 (8th ed. 2014).

death.[21] The defense argued that the surgeon implanted the stent in the wrong location, and therefore, the manufacturer was not responsible.[22] In support of this argument, the defense presented testimony of a nurse wearing a virtual reality headset and specialized goggles.[23] With a three-dimensional view of the operating room, the nurse described the surgery and the stent's placement.[24] In response, the prosecution argued that the nurse could not actually see where the doctor implemented the stent.[25] The jurors observed the virtual reenactment on laptops and were able to decide for themselves, given what appeared on their screens, what the nurse observed,[26] ultimately ruling in favor of the defendants.[27] Although the mock trial involved immersing a witness in an IVE, the day is also quickly approaching where the idea of transporting a jury to experience the disputed events firsthand no longer sounds like a plot out of a futuristic science fiction movie. As Justice Alito astutely noted, "[courts] should not jump to the conclusion that new technology is fundamentally the same as some older thing with which we are familiar."[28] Rather, in anticipation of this technological progression, courts must be ready to recognize the critical differences between IVEs and prior forms of demonstrative evidence in order to correctly assess the admissibility of IVEs at trial.

III. Virtual Reality and Immersive Virtual Environments

A. What Is Virtual Reality?

While the term virtual reality lacks a precise universal definition, it has been described as "a medium composed of interactive computer simulations that sense the *participant*'s position and actions and replace or augment the feedback to one or more senses, giving the feeling of being mentally immersed or present in the simulation (a virtual world)."[29] Virtual reality environments—often referred to as IVEs—allow users to immerse themselves, both physically and mentally, in an artificially created world.[30] This may be accomplished through the use of a head-mounted display

21. *Id.*
22. *Id.*
23. *Id.*
24. *Id.*
25. *Id.*
26. *Id.*
27. David Horrigan, *Operating in Virtual Reality*, L. TECH. NEWS, May 20, 2002, http://ltn-archive.hotresponse.com/may02/technology_on_trial_p21.html, *archived at* http://perma.cc/U77Y-YHD9.
28. Brown v. Entm't Merchs. Ass'n, 131 S. Ct. 2729, 2742 (2011) (Alito, J., concurring).
29. WILLIAM R. SHERMAN & ALAN B. CRAIG, UNDERSTANDING VIRTUAL REALITY: INTERFACE, APPLICATION, AND DESIGN 13 (2003).
30. *Id.* at 9.

(HMD) worn by the user, which can block out all views of the outside world in favor of the computer-generated environment depicted.[31] By attaching a tracking sensor to the user's head, the HMD communicates to the computer system exactly where the user is looking and accordingly updates the visual image displayed to reflect that vantage point.[32] Advanced virtual reality systems often track the movement of many of the major bodily joints,[33] providing the user with an even greater level of sensory feedback. This technology increases the realistic nature of the IVE by allowing the user to explore and interact with the alternate environment. Taken together, the elements of physical and mental immersion, sensory feedback, and interactivity give rise to the "essential phenomenological feature" of IVEs: presence.[34]

B. The Persuasive and Prejudicial Effects of Presence

Presence has been described as the perceived reality and sense of "being there" in the virtual environment.[35] It is this quality that distinguishes IVEs from computer animations.[36] By capturing the sense of presence, IVEs successfully combine the reality experienced during a crime-scene visit with the comprehensive visual re-creation of a computer animation to create a new form of demonstrative evidence whose persuasive power greatly exceeds the sum of its parts. However, the feature of presence also substantially increases the risk that IVEs will cause unfair prejudice to the non-introducing party (in comparison to computer animations).

Computer animations have proven to be a useful tool of persuasion in the courtroom because people have a natural tendency to accept what they see as true.[37] Furthermore, jurors are significantly more likely to remember information presented visually rather than orally.[38] IVE re-creations also harness this persuasive visual power, but go an additional step further by engaging all of a juror's senses and completely immersing the juror in an alternate environment. This complete immersion, or sense of presence,

---

31. *Id.* at 14.

32. *Id.*

33. *Id.* at 10.

34. Neal Feigenson, *Too Real? The Future of Virtual Reality Evidence*, 28 L. & POL'Y 271, 273 (2006).

35. *Id.*

36. Jeremy N. Bailenson et al., *Courtroom Applications of Virtual Environments, Immersive Virtual Environments, and Collaborative Virtual Environments*, 28 L. & POL'Y 249, 263 (2006).

37. Mary C. Kelly & Jack N. Bernstein, Comment, *Virtual Reality: The Reality of Getting It Admitted*, 13 J. MARSHALL J. COMPUTER & INFO. L. 145, 161 (1994).

38. *Id.* (citing a recent ABA study that concluded jurors retain 100% more information when it is presented visually rather than orally and a staggering 650% more when a visual presentation accompanies oral testimony).

allows jurors to directly *experience* a party's version of the events,[39] rather than merely seeing it on a two-dimensional display. Since direct experience is shown to be more persuasive than mediated experience—such as observing a two-dimensional computer animation—IVEs are significantly more likely to persuade jurors that the events actually occurred as depicted, or rather, as they experienced them in the IVE.[40]

While the sense of presence and direct experience felt in an IVE makes the technology extremely persuasive, these characteristics also greatly increase the risk of unfair prejudice to the non-introducing party. First, jurors completely immersed within an IVE will be less aware of contradictory real-world facts and will be more reluctant to critically question the facts and assumptions presented in the IVE. Second, there is a high probability that jurors will commit inferential error by giving too much weight to the vivid evidence, finding it more probative than it actually is.

In their 2000 study, Melanie Green and Timothy Brock explored the effects of "transportation"—defined as absorption into a story—on the persuasive impact of narratives.[41] Although Green and Brock did not discuss IVEs, their discussion about immersion into a story, whether told verbally or read in writing, directly parallels a juror's transportation and immersion into an IVE, as exemplified by the juror's sense of presence. Green and Brock found that when people are immersed in a story, they "may be less aware of real-world facts that contradict assertions made in the narrative."[42] This is more likely to occur when a party employs IVE technology, versus a computer animation, because the IVE completely cuts off the juror's contact with the real world.[43] By completely immersing jurors in the artificial environment, jurors are left, for the time being, with the IVE as their only form of reference. In contrast, when a juror views a computer animation reconstructing the events in question, the juror is not transported to the crime scene. Jurors remain aware that they are still sitting in the courtroom and connected to the real world, from which they may be more able to ascertain facts that contradict the animation.

---

39. Feigenson, *supra* note 34, at 273.

40. *See* Dan Grigorovici, *Persuasive Effects of Presence in Immersive Virtual Environments*, *in* BEING THERE: CONCEPTS, EFFECTS AND MEASUREMENTS OF USER PRESENCE IN SYNTHETIC ENVIRONMENTS 191, 196 (G. Riva et al. eds., 2003) (positing that the closer a mediated experience gets to approximating a real environment the more likely the experiencer is to react to the environment as if it were real); Kelly & Bernstein, *supra* note 37, at 161–62 (noting the much stronger impact virtual reality has on the ability of a juror to pay attention to and remember information, as compared with computer animation).

41. Melanie C. Green & Timothy C. Brock, *The Role of Transportation in the Persuasiveness of Public Narratives*, 79 J. PERSONALITY & SOC. PSYCHOL. 701, 701 (2000).

42. *Id.* at 702.

43. *See* Bailenson et al., *supra* note 36, at 251 (explaining that the "sensory information of the [virtual environment] is more psychologically prominent than the sensory information of the physical world," causing the user to "become enveloped by the synthetic information").

Green and Brock also posited that "transported individuals are so absorbed in the story that they would likely be reluctant to stop and critically analyze propositions presented therein."[44] Similarly, a juror may be less likely to recognize and critically analyze contradictory facts and assumptions within an IVE. Complete immersion allows jurors to feel like they are experiencing the events in question firsthand;[45] this decreases juror skepticism over whether the events could have actually occurred that way. Additionally, many of the facts and assumptions included in the IVE are not explicitly stated but rather illustrated through the event's reconstruction.[46] This implicit incorporation makes it even less likely that jurors will even be able to recognize many of the assumptions made in the IVE reconstruction, let alone critically question their accuracy.

Further, IVEs are likely to be unfairly prejudicial because jurors will tend to find IVE evidence to be more probative than it actually is because of its realistic and vivid qualities.[47] Professor Victor Gold has described evidence as being unfairly prejudicial "when it detracts from the accuracy of fact-finding by inducing the jury to commit an inferential error."[48] The jury commits inferential error when it "decides that evidence is more or less probative of a fact or event than it is."[49] This error becomes unfairly prejudicial "when opposing counsel is unable to expose the error or otherwise negate its harmful effects."[50]

Judgmental heuristics—cognitive processes that reduce complex inferential tasks to simpler judgmental operations—may cause people to commit inferential error.[51] In the context of IVEs, the availability heuristic—"a cognitive procedure designed to simplify the process of choosing data used in making a decision"[52]—is particularly relevant. When people are required to judge the likelihood of particular events, the heuristic dictates that they will be influenced most heavily by the data that is "most available to [their] perceptions, memory and imagination."[53] The problem arises when factors that are independent of probative value, such as the

---

44. Green & Brock, *supra* note 41, at 703.

45. Kelly & Bernstein, *supra* note 37, at 167.

46. *See* David S. Santee, *More than Words: Rethinking the Role of Modern Demonstrative Evidence*, 52 SANTA CLARA L. REV. 105, 130–32 (2012) (describing the use of a computer-generated animation to "illustrate not only the opinion of an expert but also the party's theory of the case").

47. Leonetti & Bailenson, *supra* note 4, at 1076–77.

48. David B. Hennes, *Manufacturing Evidence for Trial: The Prejudicial Implications of Videotaped Crime Scene Reenactments*, 142 U. PA. L. REV. 2125, 2161 (1994).

49. Victor J. Gold, *Federal Rule of Evidence 403: Observations on the Nature of Unfairly Prejudicial Evidence*, 58 WASH. L. REV. 497, 506 (1983).

50. Hennes, *supra* note 48, at 2163–64.

51. *Id.* at 2164–65.

52. Gold, *supra* note 49, at 516.

53. *Id.*

evidence's salience and vividness, cause the information conveyed to become more easily "available" to an individual.[54]

Although vivid evidence itself does not necessarily cause unfair prejudice, dangers arise "when that evidence's vividness exceeds its objective probative value,"[55] which is precisely the case with IVE re-creations. As demonstrative evidence, IVE re-creations have no independent probative value to the case, because the evidence is "purely illustrative in nature," at least in theory.[56] However, due to the vividness and realistic nature of IVEs, there is a substantial probability that the availability heuristic "will cause cognitive overreliance upon that piece of evidence and will cause unfair prejudice to occur."[57] Therefore, when jurors enter an IVE and directly experience a comprehensive re-creation of the events in question, they are likely to give this evidence too much weight in deliberations, not because of its inherent probative value, but because it is the most easily available evidence. Although IVEs are persuasive and attention catching, the risks of unfair prejudice posed by IVEs have the potential to greatly outweigh any probative value of the evidence, especially in a criminal trial.

IV. The Use of Immersive Virtual Environments in Criminal Trials

In the context of a criminal trial, a party's use of an IVE reconstruction of the events in question raises several additional issues. First, I will explore the implications of admitting IVEs on the non-introducing party's right of cross-examination. Second, I will explain the increased potential for unfair prejudice when only one party has the financial resources to employ the technology, and how courts have dealt with monetary disparities between parties. Finally, I will discuss the potential impact of IVE technology on a defendant's choice of whether or not to testify at trial.

A. Immersive Virtual Environments and the Right of Cross-Examination

Common law jurisdictions have long recognized the absolute necessity of cross-examination as the ultimate safeguard for testing the value of human statements.[58] As noted by Professor Wigmore, cross-examination "is beyond any doubt the greatest legal engine ever invented for the discovery of truth."[59] The importance of this mechanism is magnified in a criminal trial where defendants are ensured the right to confront those who

54. Hennes, *supra* note 48, at 2168–69.

55. *Id.* at 2171.

56. *Id.* at 2178.

57. *Id.* at 2172.

58. 5 JOHN HENRY WIGMORE, EVIDENCE IN TRIALS AT COMMON LAW § 1367 (James H. Chadbourn rev. ed. 1974).

59. *Id.*

testify against them.[60] The admission of IVEs does not per se deprive the non-introducing party of the right of cross-examination because counsel remains free to cross-examine the witness whose testimony accompanied the demonstrative evidence.[61] However, practically speaking, the IVE "becomes a [testifying] witness" beyond the scope of an effective cross-examination for several reasons.[62]

First, an IVE is likely to be introduced through the testimony of an expert witness, who need not rely on personal knowledge of the facts and data underlying his opinion.[63] Therefore, to the extent that information was obtained from out-of-court witness statements, cross-examining the expert does little to test the credibility of the underlying information. Second, although deemed demonstrative evidence, an expert's reference to an IVE effectively communicates nonverbal testimony to the jury.[64] Because the standard to admit demonstrative evidence is lower than that of substantive testimonial evidence, a party may be able to introduce otherwise inadmissible evidence through an IVE.[65] If the subsequent cross-examination of the expert is limited to verbal testimony—for example, due to the non-introducing party's inability to procure an alternative visual representation—it will be largely ineffective in countering the persuasive impact of the IVE.[66] Thus, when presented in court to a jury, IVEs "become[] nothing less than a testifying witness that abrogates the opposing party's right to cross examination."[67]

1. Cross-Examining the Expert Witness.—A party would likely seek to admit an IVE as demonstrative evidence through the testimony of an expert witness, presumably the person who created the IVE.[68] The expert would then take the jury through the IVE, which illustrated the expert's opinion by re-creating the critical events in question at trial.[69] Afterwards, opposing counsel would have the opportunity to cross-examine the expert as to the facts and data underlying his opinion, thus satisfying, in theory, the right of cross-examination.

---

60. U.S. CONST. amend. VI; U.S. CONST. amend. XIV, § 1.

61. *Cf.* Kelly & Bernstein, *supra* note 37, at 170–73 (discussing the necessity of witness testimony to authenticate a VR demonstration).

62. Michael J. Kelly, *Computer Generated Evidence as a Witness Beyond Cross-Examination*, 17 J. PRODUCTS & TOXICS LIABILITY 95, 95 (1995).

63. FED. R. EVID. 702–03.

64. Santee, *supra* note 46, at 134–35.

65. *Id.* at 136.

66. *Id.* at 141.

67. Kelly, *supra* note 62, at 96.

68. *See* Leonetti & Bailenson, *supra* note 4, at 1098–99 ("An expert witness is needed to explain . . . the array of sophisticated methodological and interpretive techniques and assumptions that were involved in the creation of the IVE.").

69. *Id.* at 1099.

In reality, the ability to cross-examine the expert does little to test the validity of the facts and data underlying his opinion as illustrated by the IVE. Under the Federal Rules of Evidence, expert witnesses are not required to have personal knowledge of the facts and data underlying their opinions.[70] As a result, the expert witness who creates the IVE may rely on an assortment of information, including real evidence, photographs, crime-scene visits, and interviews with relevant parties.[71] Critically, where the expert relies in part on witness interviews to create the IVE, opposing counsel's ability to cross-examine the expert is largely ineffective with respect to evaluating the credibility of those witnesses. Although opposing counsel may point out that the expert has no personal knowledge of the underlying information and may inquire about the witness interviews, jurors are nevertheless unable to observe the witnesses' demeanors on the stand.[72] While opposing counsel is typically free to call those witnesses and question them during its case in chief, commentators have long opined that the impact of such an examination is largely diminished relative to the impact of cross-examining the original witness. As Wigmore eloquently stated:

> The difference between getting the same fact from other witnesses and from cross-examination is the difference between slow-burning sulphurous gunpowder and quick-flashing dynamite; each does its appointed work, but the one bursts along the weakest line only, the other rends in all directions.—Cross-examination, then, will do things that cannot be done by questioning other witnesses.[73]

In addition to the already diminished impact of subsequently calling and questioning another witness, certain witnesses—such as those asserting a privilege—may not be examined at all if later called by opposing counsel.[74]

With respect to visual re-creations, it may not be clear "that a cross-examination will overcome the images etched in the jurors' minds."[75] Furthermore, because of IVEs' complex nature, cross-examination alone will often be insufficient to enable the non-introducing party to educate the

---

70. FED. R. EVID. 702–03.

71. *See id.* R. 703 ("An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed.").

72. *Cf.* Broad. Music, Inc. v. Havana Madrid Rest. Corp., 175 F.2d 77, 80 (2d Cir. 1949) ("The liar's story may seem uncontradicted to one who merely reads it, yet it may be 'contradicted' in the trial court by his manner, his intonations, his grimaces, his gestures, and the like . . . .").

73. WIGMORE, *supra* note 58, § 1368 (footnote omitted).

74. *See, e.g.*, MCCORMICK ON EVIDENCE, *supra* note 5, § 78 (explaining the circumstances in which spouses can assert spousal privilege and avoid testifying against one another).

75. Carlo D'Angelo, *The Snoop Doggy Dogg Trial: A Look at How Computer Animation Will Impact Litigation in the Next Century*, 32 U.S.F. L. REV. 561, 580 (1998).

jury on the limitations of the expert testimony concerning IVEs.[76] Non-introducing parties—public defenders in particular—are likely to lack experience in the advanced IVE technology.[77] Therefore, unless counsel can effectively prepare, which "frequently requires the advice of a[n] . . . expert,"[78] it is unlikely that the cross-examination will be effective in combating the highly persuasive IVE evidence.

2. Cross-Examining Nonverbal Testimony.—In theory, IVEs, as well as other forms of demonstrative evidence, are not admitted as substantive evidence but rather as illustrations of other admitted evidence.[79] In reality, an IVE communicates to the jury nonverbal testimony of the expert; but as demonstrative evidence, an IVE is not subject to the heightened admissibility standards governing testimonial evidence.[80] While an expert's testimony must be based upon "sufficient facts or data,"[81] an IVE accompanying the expert's testimony need only be a "'fair and accurate' representation of the evidence it purports to explain."[82] However, demonstrative evidence does not simply "explain[], illustrate[], or clarify evidence that may have been admitted": "Every time a witness uses demonstrative evidence, the witness communicates something in addition to what the witness has said, if for no other reason than providing an alternative means of communication."[83]

The problematic consequences of this lower evidentiary burden become especially apparent in the context of IVEs. In constructing the IVE, an expert must inevitably make certain assumptions because "[n]o matter how much evidence exists, there is never enough to fill in every detail necessary to complete the [reconstruction]."[84] Some assumptions may be arbitrary yet harmless; others, however, involve resolving disputed facts that cannot be determined by expert opinion.[85] By graphically

76. *See* Edward J. Imwinkelried, *Impoverishing the Trier of Fact: Excluding the Proponent's Expert Testimony Due to the Opponent's Inability to Afford Rebuttal Evidence*, 40 CONN. L. REV. 317, 343 (2007) (explaining why cross-examination alone may be inadequate to apprise the jury of deficiencies in an expert's testimony on complex issues).

77. *See* BUREAU OF JUSTICE ASSISTANCE, U.S. DEP'T OF JUSTICE, NCJ 179003, INDIGENT DEFENSE AND TECHNOLOGY: A PROGRESS REPORT 2 (1999), *available at* https://www.ncjrs.gov/pdffiles1/bja/179003.pdf, *archived at* http://perma.cc/Y2M-RPGY ("Public defenders' ability to use technology effectively is being hampered by disparities in resources and technological expertise.").

78. Paul C. Giannelli, Ake v. Oklahoma*: The Right to Expert Assistance in a Post-*Daubert*, Post-DNA World*, 89 CORNELL L. REV. 1305, 1376 (2004).

79. Santee, *supra* note 46, at 124.

80. *See supra* notes 64–65 and accompanying text.

81. FED. R. EVID. 702.

82. Santee, *supra* note 46, at 125.

83. *Id.* at 123.

84. *Id.* at 135.

85. *Id.*

incorporating assumptions into the IVE that are not otherwise based upon sufficient facts or data, the expert effectively communicates to the jury nonverbal testimony that the expert would not be permitted to directly testify to.[86]

This problem was exemplified in the context of a computer-generated animation in *Commonwealth v. Serge*.[87] In *Serge*, the defendant was charged with first-degree murder after shooting and killing his wife.[88] The defendant argued that "he had acted in self-defense after his wife attacked him with a knife."[89] The Commonwealth maintained that the killing was intentional and that the defendant, using knowledge gained from his time spent as a police officer, moved his wife's body after the shooting and planted a knife on the floor to support his story.[90] At trial, the prosecution was allowed to introduce a computer animation through an expert witness that demonstrated the Commonwealth's theory.[91] The animation was based on both forensic and physical evidence.[92] Consistent with this theory, although unsupported by evidence, the computer animation portrayed the victim without a knife at the time of the shooting, yet showed a knife on the floor next to her after she had fallen to the ground.[93] If asked whether he believed that the victim was armed, the expert would not have been allowed to answer the question with verbal testimony; the expert had "neither personal knowledge nor sufficient facts or data [on which] to form a scientific opinion on the subject."[94] However, the court still allowed the animation depicting this fact to be presented in conjunction with the expert's testimony at trial.[95] While the prosecution remained free to argue its theory of self-defense, it should not have been allowed to do so through the animation depicting the expert's opinion.

Even if the expert's nonverbal testimony would be otherwise admissible, the problem remains that a purely verbal cross-examination of the expert's nonverbal testimony is, by comparison, largely ineffective in combating the visual persuasiveness of the opposing party's version of events.[96] In *Racz v. R.T. Merryman Trucking, Inc.*,[97] a district court judge correctly recognized this problem and refused to admit the defendant's

86. *Id.* at 135–36.
87. 896 A.2d 1170 (Pa. 2006).
88. *Id.* at 1173.
89. *Id.* at 1175.
90. *Id.*
91. *Id.*
92. *Id.*
93. Santee, *supra* note 46, at 136.
94. *Id.*
95. *Serge*, 896 A.2d at 1187.
96. *See supra* note 66 and accompanying text.
97. No. 92-3404, 1994 WL 124857 (E.D. Pa. Apr. 4, 1994).

computer animation, concluding that the danger of unfair prejudice outweighed any relevance the animation might have had.[98] The primary question presented in the case was "whether the back wheels of the tractor-trailer driven by [the] defendant's employee entered the [adjacent] passing lane while [the] plaintiff's decedent was passing the truck, prompting her to swerve to avoid a collision."[99] The defendant sought to admit a computer animation based on the opinions of the defendant's accident reconstruction expert.[100] The expert concluded that the wheels of the tractor trailer did not enter the car's lane. In refusing to admit the computer animation, the court reasoned that:

> The apparent decision of the accident reconstructionist to discount the testimony of a witness who reported seeing the trailer portion of the truck encroach into the decedent's lane of travel is magnified and given enhanced credibility when such decision becomes part of the data upon which an animated visual representation is based. It would be an inordinately difficult task for the plaintiff to counter, by cross-examination or otherwise, the impression that a computerized depiction of the accident is necessarily more accurate than an oral description of how the accident occurred.[101]

Thus, "[u]nless the animation could be altered based on testimony elicited on cross-examination, the plaintiff [would be] unable to show the jury its version of how the accident occurred," leaving it with no means of effectively rebutting the defendant's depiction of events.[102]

Although the dispute in *Racz* concerned a computer animation, the concerns voiced by the court apply with even greater force to IVEs. As previously discussed, IVEs are likely to be significantly more persuasive than computer animations due to their additional feature of presence.[103] If countering a computer animation of the accident would be an "inordinately difficult task," it logically follows that countering what the jurors perceived to be their own direct experience of the events in question would be nearly impossible. Thus, the non-introducing party would face an even greater challenge trying to cross-examine an IVE through mere oral testimony.

B. The Effect of Monetary Disparity Between Parties on the Prejudicial Impact of Immersive Virtual Environments

Although the *Racz* court did not address the plaintiff's ability to procure his own visual representation of the events, the court's decision to

98. *Id.* at *5.
99. *Id.* at *1.
100. *Id.* at *5.
101. *Id.*
102. Santee, *supra* note 46, at 143.
103. *See supra* subpart III(B).

exclude the defendant's animation necessarily took into account the fact that only one party possessed the highly persuasive technology.[104] In criminal cases, where monetary disparities frequently arise between the prosecution and indigent defendants, the danger that a defendant will be unable to employ advanced technology in response to the prosecution's use of an IVE is especially great. A study conducted by the National Bureau of Justice Statistics reveals that over 80% of felony defendants in the nation's largest seventy-five counties were represented by public defenders or court-appointed counsel.[105] It is no secret that public defenders are consistently underfunded and strapped for resources.[106] In such situations, commentators have accurately pointed out the "inherent unfairness" that exists "when the state is permitted to use such powerful evidence against a defendant who cannot afford to do the same."[107]

While our judicial system does not prohibit a party from employing an expensive legal team and expert witnesses based upon more limited resources of the other party,[108] several judges have indicated a willingness to consider the parties' relative monetary positions in determining whether or not to admit a computer-generated animation.[109] In an informal survey of U.S. district court and magistrate judges in three California districts, fifteen judges responded to the question of "whether a disparity in resources should be considered when deciding the admissibility or use of computer-generated presentations."[110] Seven of the judges indicated that they would consider the economic circumstances of the parties.[111] One judge even indicated that he or she would require some sort of shared use of the technology underwritten by the side with the greater resources.[112]

---

104. *See Racz*, 1994 WL 124857, at *5 (acknowledging that it would be an "inordinately difficult task" for the plaintiff to overcome the defense's animation through cross-examination); *accord* Commonwealth v. Serge, 896 A.2d 1170, 1185 (Pa. 2006) (concluding that "the relative monetary positions of the parties are relevant for the trial court to consider when ruling on whether or not to admit a [computer-generated animation] into evidence").

105. CAROLINE WOLF HARLOW, U.S. DEP'T OF JUSTICE, BUREAU OF JUSTICE STATISTICS, DEFENSE COUNSEL IN CRIMINAL CASES 1 (2000).

106. *E.g.*, STANDING COMM. ON LEGAL AID & INDIGENT DEFENDANTS, AM. BAR ASS'N, *GIDEON*'S BROKEN PROMISE: AMERICA'S CONTINUING QUEST FOR EQUAL JUSTICE 7–11 (2004), *available at* http://www.americanbar.org/content/dam/aba/administrative/legal_aid_indigent_defendants/ls_sclaid_def_bp_right_to_counsel_in_criminal_proceedings.authcheckdam.pdf, *archived at* http://perma.cc/8SCC-KG9F.

107. D'Angelo, *supra* note 75, at 581.

108. Bailenson et al., *supra* note 36, at 258.

109. Victor G. Savikas & David L. Silverman, *Making the Poverty Objection: Parties Without Fancy Exhibits Could Claim Unfair Prejudice, But Not All Judges Would Agree*, NAT'L L.J., July 26, 1999, at C1.

110. *Id.*

111. *Id.*

112. *Id.*

Additionally, the Pennsylvania Supreme Court indicated in *Serge* that the "relative monetary positions" of the parties is a relevant factor in determining whether or not to admit a computer-generated animation.[113] The court explained, in dicta, that "the trial court sitting with all facts before it, including the monetary disparity of the parties, must determine if the potentially powerful effect of the [computer-generated animation] and the inability of a defendant to counter with his or her own . . . should lead to its preclusion."[114] Thus, the court suggested that in an extreme case a proponent's otherwise admissible expert testimony may be excluded on the ground that the opponent could not afford adequate rebuttal evidence.[115] Monetary disparity between the parties is not itself a basis for exclusion under Federal Rule of Evidence 403, which permits a court to exclude otherwise relevant evidence "if its probative value is substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence."[116] However, the *Serge* court's dictum certainly opened the door to the possibility that such disparity could factor into the Rule 403 balancing test.

C. *The Impact of Immersive Virtual Environment Technology on the Defendant's Decision of Whether to Testify*

Finally, whether introduced by the defense or prosecution, a party's decision to employ IVE technology has significant implications on a defendant's decision about whether or not to testify at trial. First, if introduced by the defense, an IVE provides a defendant with a mechanism to communicate his version of the relevant events to the jury, without testifying at trial and thereby exposing himself to cross-examination. Second, if introduced by the prosecution, the persuasive power of the IVE essentially forces the defendant to testify in rebuttal by effectively and impermissibly shifting the burden of proof.

1. Introduction by a Defendant.—By introducing an IVE, a defendant not only communicates his version of the relevant events to the jury, but also enables the jury to experience the events themselves; the defendant does this all without testifying at trial, thus avoiding cross-examination.[117]

113. Commonwealth v. Serge, 896 A.2d 1170, 1185 (Pa. 2006).
114. *Id.*
115. Imwinkelried, *supra* note 76, at 320.
116. FED. R. EVID. 403.
117. Leonetti & Bailenson, *supra* note 4, at 1116–17.

As previously discussed in section IV(A)(1), a party may introduce an IVE as demonstrative evidence through the testimony of an expert witness, likely the person who created the IVE.[118] The expert's opinion of how the events in question occurred, as illustrated by the IVE re-creation, may be based upon interviews with the defendant, and the prosecution may cross-examine the expert as to that information.[119] However, for the same reasons advanced in section IV(A)(1), cross-examining the expert witness will be largely ineffective in testing the credibility of defendant's statements.[120]

This inadequacy is further magnified by the fact that, although the prosecution may technically subpoena the defendant, it cannot force the defendant to testify due to the defendant's Fifth Amendment privilege against self-incrimination.[121] Ordinarily, the prosecution remains free to subpoena any person interviewed by the expert[122]—assuming that the expert based his opinion at least in part upon that interview—to testify at trial. Once on the stand, the prosecution would be free to examine the witness and test the credibility of his statements directly. Although this option is inconvenient and unlikely to have the same persuasive impact on the jury as the IVE,[123] it may provide for a partial solution. However, even this partial solution is not available to the prosecution with regard to an expert who, in forming his opinion, relies in part upon an interview with the defendant. Unlike other witnesses, the defendant may assert his Fifth Amendment right and refuse to testify without concern about disobeying the subpoena and being held in contempt. The result is that the expert shields the defendant from examination while acting as a conduit for the defendant's testimony.[124]

2. Introduction by the Prosecution.—If introduced by the prosecution, an IVE's overwhelmingly persuasive nature essentially establishes a presumption as to how the events in question occurred, which effectively and impermissibly shifts the burden of proof to the defendant. An IVE allows jurors to directly experience a party's re-creation of events by placing the jurors into the scene itself. Because direct experience is significantly more persuasive than mediated, indirect experience (such as hearing witness testimony about the events or viewing a two-dimensional computer animation) jurors are more likely to accept the prosecution's

118. *See supra* text accompanying note 68.

119. *See supra* notes 69–71 and accompanying text.

120. *See supra* section IV(A)(1).

121. U.S. CONST. amend. V.

122. *Cf.* FED. R. CIV. P. 45 (detailing requirements for subpoenas in federal cases).

123. *See supra* notes 72–74 and accompanying text.

124. This problem may similarly arise when an expert relies on interviews with other parties whom the prosecution cannot compel to testify, such as spouses asserting a spousal privilege. *See supra* note 74 and accompanying text.

version of events, as depicted by the IVE, as the truth about what actually happened.[125] Thus, the IVE re-creation effectively allows the prosecution to establish a presumption as to how the events in question occurred. This is problematic because, in a criminal trial, the Due Process Clause of the Fifth and Fourteenth Amendments protect the accused against conviction by requiring the prosecution to bear the burden of proving each and every element of the crime "beyond a reasonable doubt."[126] The presumption established by the highly persuasive IVE effectively shifts the burden of proof to the defendant by providing the jury with a comprehensive "default" version of how the events in question occurred, leaving the defendant to prove that the events occurred otherwise.

In addition to shifting the burden of proof, the inability to meaningfully cross-examine the IVE[127] effectively forces the defendant to testify in rebuttal. This is especially likely to occur in situations where the defendant is the sole (potential) witness with knowledge of the critical events, but lacks the resources to procure his own IVE in response to the prosecution. For example, in *Serge* the prosecution successfully introduced a computer animation depicting the victim empty-handed when shot, yet showing a knife on the floor next to her after.[128] The only person with firsthand knowledge of whether or not the victim was armed was the defendant.[129] By allowing the prosecution to introduce a computer animation depicting its theory of the case, unsupported by any witness or expert testimony, the court not only impermissibly shifted the burden of proof to the defendant but also effectively forced the defendant to testify. The defense could not cross-examine the prosecution's expert, nor any other witness, as to whether the victim possessed a knife, and absent the defendant's ability to produce his own IVE re-creation, the defendant was the only potential witness with knowledge of what had occurred. Thus, in order to rebut the prosecution's highly persuasive IVE re-creation of the events, the defendant had to testify.

V. Conclusion

Technology has advanced at an astonishing rate in the last fifty years, enabling trial lawyers to present their cases with increased clarity and persuasiveness. Recently, developments in virtual reality technology have allowed lawyers to combine the most persuasive aspects of previous forms of demonstrative evidence to create an immersive virtual environment, a fundamentally different form of demonstrative evidence whose persuasive

125. *See* Feigenson, *supra* note 34, at 281.
126. *In re* Winship, 397 U.S. 358, 364 (1970).
127. *See supra* subpart IV(A).
128. *See supra* note 93 and accompanying text.
129. Santee, *supra* note 46, at 132.

power exceeds the sum of its parts. Although the birth of this new class of evidence does not necessarily warrant the creation of new evidentiary rules, it is imperative that judges understand the exponentially greater risk of unfair prejudice posed by IVEs due to their ability to allow jurors to directly experience the events in question firsthand. Especially in the context of a criminal trial, judges must closely examine the underlying accuracy of IVEs and carefully weigh the risks of this new technology against any potential benefit under Rule 403. While the future of trial courts' treatment of IVE evidence is unknown, lawyers will undoubtedly embrace such technology with greater frequency, and courts must be prepared to respond to the changing landscape of demonstrative evidence brought before them.

—Caitlin O. Young

JAMAIL CENTER FOR LEGAL RESEARCH
TARLTON LAW LIBRARY
THE UNIVERSITY OF TEXAS SCHOOL OF LAW

The Tarlton Law Library Oral History Series features interviews with outstanding alumni and faculty of The University of Texas School of Law.

Oral History Series

No. 1 - *Joseph D. Jamail, Jr.* 2005. $20
No. 2 - *Harry M. Reasoner* 2005. $20
No. 3 - *Robert O. Dawson* 2006. $20
No. 4 - *J. Leon Lebowitz* 2006. $20
No. 5 - *Hans W. Baade* 2006. $20
No. 6 - *James DeAnda* 2006. $20
No. 7 - *Russell J. Weintraub* 2007. $20
No. 8 - *Oscar H. Mauzy* 2007. $20
No. 9 - *Roy M. Mersky* 2008. $25

Forthcoming:

Gloria Bradford, Patrick Hazel, James W. McCartney, Michael Sharlot, Ernest E. Smith, John F. Sutton, Jr.

Other Oral Histories Published by the Jamail Center for Legal Research

Robert W. Calvert (Texas Supreme Court Trilogy, Vol. 1). 1998. $20

Joe R. Greenhill, Sr. (Texas Supreme Court Trilogy, Vol. 2). 1998. $20

Gus M. Hodges (Tarlton Law Library Legal History Series, No. 3). 2002. $20

Corwin Johnson (Tarlton Law Library Legal History Series, No. 4). 2003. $20

W. Page Keeton (Tarlton Legal Bibliography Series, No. 36). 1992. $25

Jack Pope (Texas Supreme Court Trilogy, Vol. 3). 1998. $20

Order online at http://tarlton.law.utexas.edu/ click on Publications
or contact Publications Coordinator,
Tarlton Law Library, UT School of Law,
727 E. Dean Keeton St., Austin, TX 78705

phone (512) 471-6228; *fax* (512) 471-0243;
email tarltonbooks@law.utexas.edu

Statement of Ownership, Management, and Circulation

Title of Publication: Texas Law Review. Publication No. 0040-4411. Date of Filing: 10/22/2014. Frequency of Issue: monthly in February, March, April, May, June, November, and December. No. of Issues Published Annually: Seven (7). Annual Subscription Price: $47.00. Complete Mailing Address of Known Office of Publication: The University of Texas School of Law Publications, 727 E. Dean Keeton St., Austin, TX 78705-3299. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher: The University of Texas at Austin School of Law Publications, Inc., 727 E. Dean Keeton St., Austin, TX 78705-3299. Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor. Publisher: The University of Texas School of Law, 727 E. Dean Keeton St., Austin, TX 78705-3299. Editors: Kate Ergenbright, Editor in Chief, Texas Law Review, 727 E. Dean Keeton St., Austin, TX 78705-3299. Steven Seybold, Managing Editor, Texas Law Review, 727 E. Dean Keeton St., Austin, TX 78705-3299. Owner: Texas Law Review Association, 727 E. Dean Keeton St., Austin, TX 78705-3299. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities: None. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.

Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
Total No. Copies (Net press run)	745	740
Mailed Outside-County Paid Subscriptions Stated on Form 3541	507	484
Mailed In-County Paid Subscriptions Stated on Form 3541	0	0
Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS.	10	10
Paid Distribution by Other Classes of Mail Through the USPS (e.g. First-Class)	0	0
Total Paid Distribution	517	494
Free Nominal Rate Outside-County Copies Included on PS Form 3541	0	0
Free or Nominal Rate In-County Copies Included on PS Form 3541	0	0
Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g. First-Class)	0	0
Free or Nominal Rate Distribution Outside the Mail (Carriers and other means)	20	36
Total Free or Nominal Rate Distribution	20	36
Total Distribution	537	530
Copies Not Distributed	208	210
TOTAL	745	740
Percent Paid	96.27%	93.20%
Paid Electronic Copies	0	
Total Paid Print Copies + Paid Electronic Copies	517	494
Total Print Distribution + Paid Electronic Copies	537	530
Percent Paid (Both Print & Electronic Copies)	96.27%	93.20%


TEXAS
TLR
LAW REVIEW