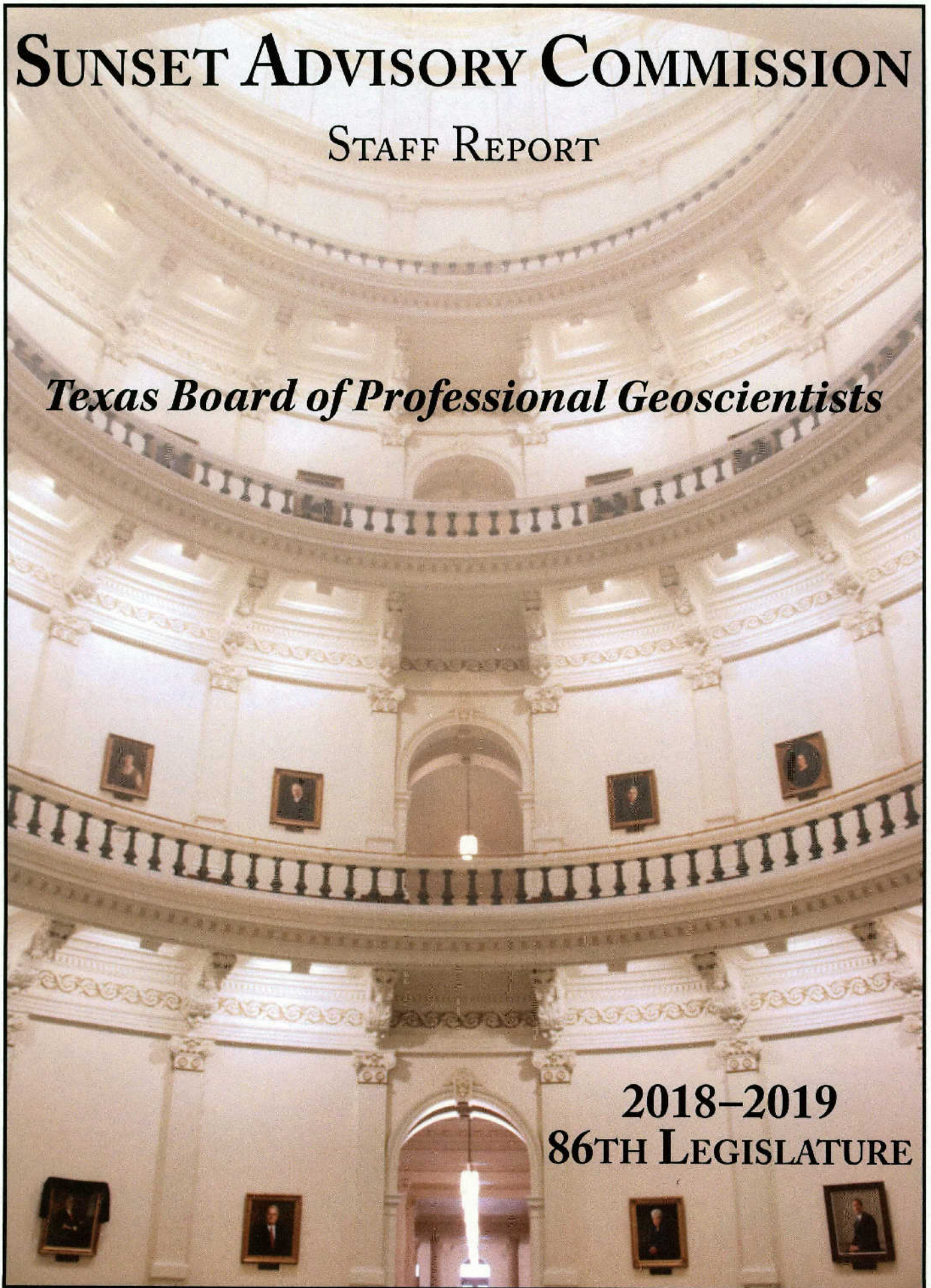


# SUNSET ADVISORY COMMISSION

## STAFF REPORT

### *Texas Board of Professional Geoscientists*

2018–2019  
86TH LEGISLATURE





# SUNSET ADVISORY COMMISSION

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*Cover Photo: The Texas Capitol rotunda houses the Texas Governors and Presidents Portrait Gallery. The gallery includes portraits of every government leader in Texas' history, including several presidents when Texas won its independence from Mexico and became a republic. Photo Credit: Janet Wood*

**TEXAS BOARD OF  
PROFESSIONAL GEOSCIENTISTS**

**SUNSET STAFF REPORT  
2018-2019  
86TH LEGISLATURE**

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## HOW TO READ SUNSET REPORTS

Each Sunset report is issued *three times*, at each of the three key phases of the Sunset process, to compile all recommendations and actions into one, up-to-date document. Only the most recent version is posted to the website. **(The version in bold is the version you are reading.)**

### 1. SUNSET STAFF EVALUATION PHASE

Sunset staff performs extensive research and analysis to evaluate the need for, performance of, and improvements to the agency under review.

**FIRST VERSION: The *Sunset Staff Report* identifies problem areas and makes specific recommendations for positive change, either to the laws governing an agency or in the form of management directives to agency leadership.**

### 2. SUNSET COMMISSION DELIBERATION PHASE

The Sunset Commission conducts a public hearing to take testimony on the staff report and the agency overall. Later, the commission meets again to vote on which changes to recommend to the full Legislature.

**SECOND VERSION: The *Sunset Staff Report with Commission Decisions*, issued after the decision meeting, documents the Sunset Commission's decisions on the original staff recommendations and any new issues raised during the hearing, forming the basis of the Sunset bills.**

### 3. LEGISLATIVE ACTION PHASE

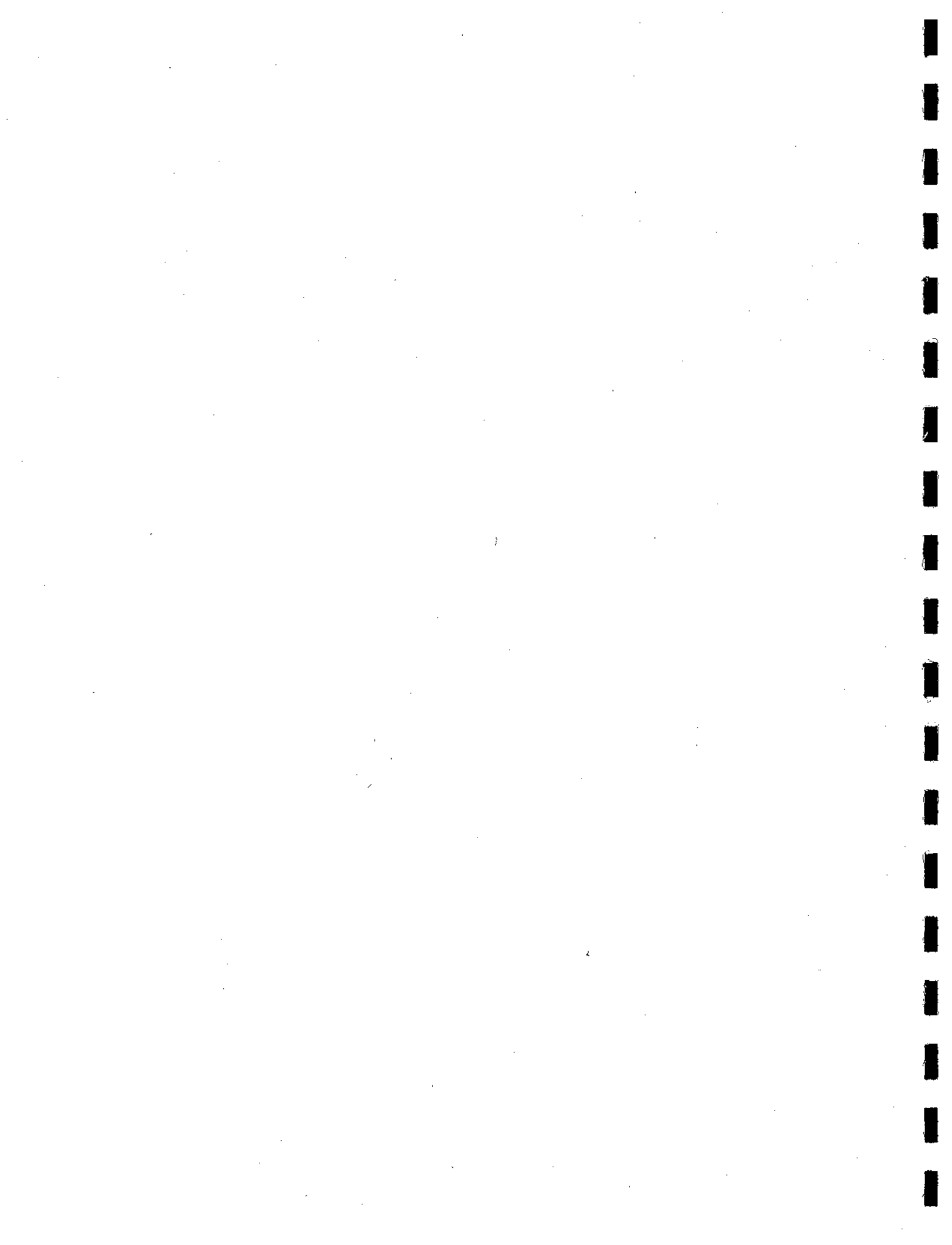
The full Legislature considers bills containing the Sunset Commission's recommendations on each agency and makes final determinations.

**THIRD VERSION: The *Sunset Staff Report with Final Results*, published after the end of the legislative session, documents the ultimate outcome of the Sunset process for each agency, including the actions taken by the Legislature on each Sunset recommendation and any new provisions added to the Sunset bill.**

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**SUMMARY OF SUNSET STAFF  
RECOMMENDATIONS**





# SUMMARY

As discussed within this report, Sunset staff recommends abolishing the Texas Board of Professional Geoscientists. This recommendation in no way diminishes the importance of geoscience; instead, it speaks to an assessment of the need for the state to regulate practitioners of geoscience. The entire purpose of Sunset is to question the need for and effectiveness of state regulation and the agencies that perform this regulation.

The Sunset Act specifically requires this evaluation as well as an even more rigorous evaluation of occupational licensing agencies and whether or not they serve a meaningful public interest through the least restrictive form of regulation necessary to protect the public. When an occupational licensing agency cannot be justified by a clear threat to the health, safety, and welfare of the public, Sunset staff has a duty to report this finding to its Commission and the Legislature in an effort to reduce state regulation and focus state resources where public protection is paramount.

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*State regulation of  
geoscience is unnecessary  
to protect the public.*

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In its first and only review of the board, Sunset staff found that professional geoscientists provide valuable assessments and research related to groundwater, subsurface concerns, and other areas. However, a historical lack of meaningful enforcement action, no measurable impact on public protection, and more direct oversight of geoscientists' work provided by other state agencies' render ongoing state regulation of geoscientists unnecessary to protect the public.

The practice of geology and geoscience was unregulated by the state until 2001 when the Legislature created the board. History shows no catastrophic event or public harm as the impetus for creating this regulation, nor any documented demand from the public or consumer protection groups for it, and Sunset staff found no examples or evidence of significant public harm directly attributable to unqualified or unlicensed geoscientists, either before or after the board's creation.

The need for this regulation is even further diminished by the fact that effectively half of the practicing geoscientists in Texas are exempt from regulation, essentially making the professional geoscientist license optional for many current licensees and practitioners. Additionally, the board grandfathered about 78 percent of current licensees into the profession without licensees passing the rigorous exam requirements to obtain a license, undermining the promise of competence that typically comes from licensing agencies.

While the board is generally well managed, it struggles to remain relevant, especially with regard to enforcement. The board itself initiates 89 percent of complaints, mostly for low-risk, administrative violations. The board has never received a complaint that posed significant harm or risk to the public even though it has worked with other agencies and political subdivisions to ensure

they funnel any potential violations of the Texas Geoscience Practice Act and Code of Professional Ethics — anything pertaining to the practice of geoscience in Texas — to the board. However, the board rarely receives complaint referrals from other entities, and has never received any from two of the largest state agencies it partners with, the Railroad Commission of Texas and Texas Commission on Environmental Quality. Moreover, these two agencies provide more regular and direct oversight of geoscience work than the board by providing technical reviews of permits applications, monitoring reports, and remediation, which will not change if the board is abolished.

The following material highlights Sunset staff’s key recommendation for the Texas Board of Professional Geoscientists.

## Issue and Recommendation

### Issue 1

#### State Regulation of Geoscientists Provides No Measurable Public Benefit and Should Be Discontinued.

#### Key Recommendation

- Abolish the Texas Board of Professional Geoscientists and repeal the Texas Geoscience Practice Act.

## Fiscal Implication Summary

Overall, the recommendation to abolish the Texas Board of Professional Geoscientists would result in an estimated negative impact to the state of about \$265,641 in fiscal year 2020 and a reduction of 5.5 employees. Abolishing the board would result in a loss of any excess revenue collected by the board that is currently deposited into the General Revenue Fund. The board collected \$944,422 in fees and enforcement penalties for fiscal year 2017 and spent \$567,083 on operations that same year, plus \$142,958 in employee benefits and indirect costs, resulting in excess revenue of \$234,381.

Additionally, on September 1, 2019, the board would no longer exist and practicing geoscientists would no longer pay licensing or registration fees, leaving the board without a steady funding stream. The board would need a small amount of appropriations during the wind-down period to process any remaining transactions or requests received before September 1, 2019. The board would only operate for five months into fiscal year 2020 and would only need appropriations of \$31,260 for salary and benefits for one administrative staff. The table shows the overall impact of this recommendation.

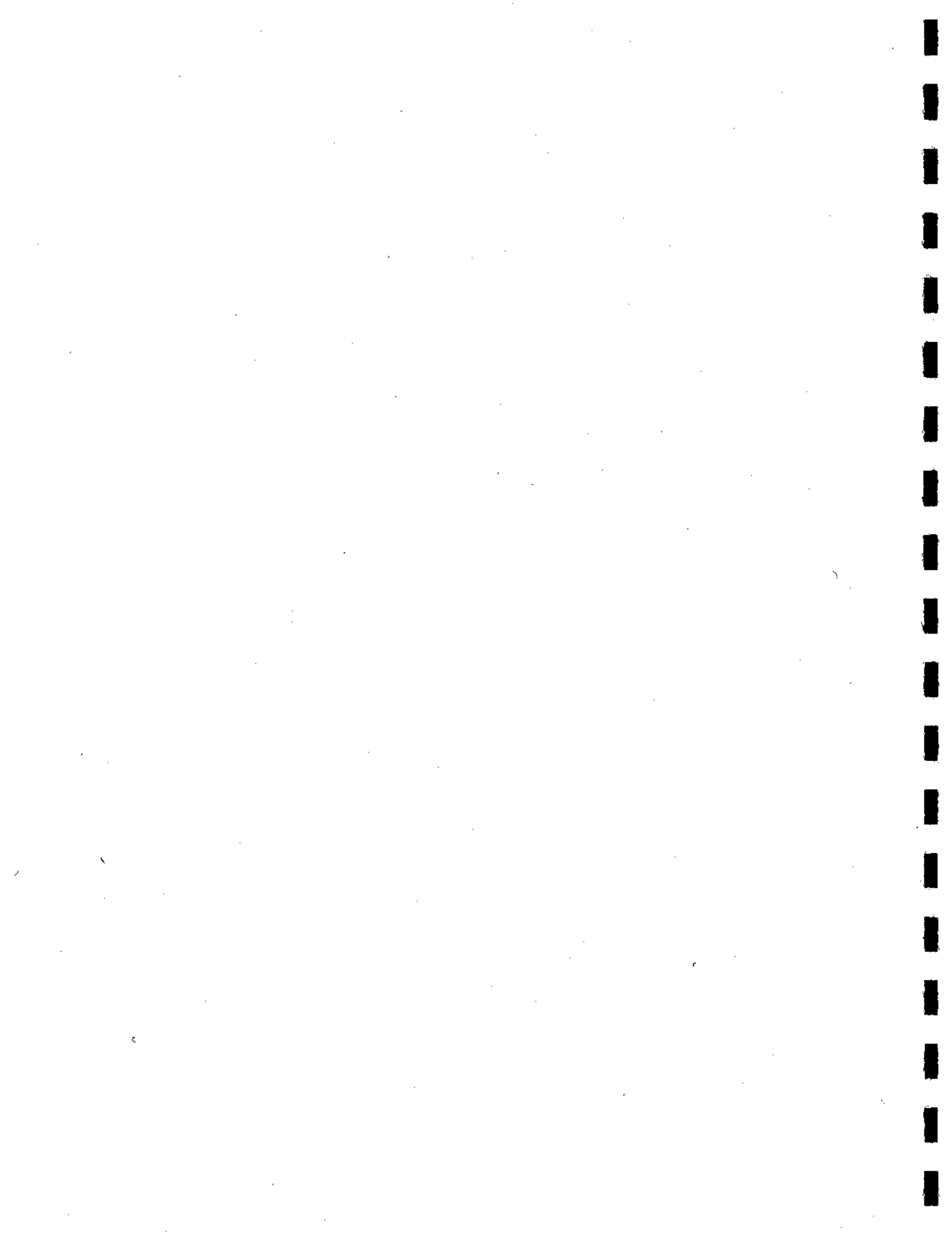
**Texas Board of Professional Geoscientists**

Fiscal Year	Cost to the General Revenue Fund	Loss to General Revenue Fund	Change in Number of FTEs From FY 2019
2020	\$31,260	\$234,381	-5.5
2021	\$0	\$234,381	-6.5
2022	\$0	\$234,381	-6.5
2023	\$0	\$234,381	-6.5
2024	\$0	\$234,381	-6.5



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**AGENCY AT A GLANCE**





# AGENCY AT A GLANCE

The Legislature established the Texas Board of Professional Geoscientists in 2001, but the board did not receive appropriations and become fully active until September 1, 2003.<sup>1</sup> The board's mission is to protect public health, safety, welfare, and the state's natural resources by ensuring only qualified persons carry out the public practice of geoscience.<sup>2</sup> The board's key duties include

- licensing qualified geoscientists, and registering geoscientists-in-training and geoscience firms;
- investigating and resolving complaints, and taking disciplinary action when necessary to enforce the board's statute and rules; and
- conducting outreach to and education events for the public and regulated community, and informing other state agencies about the geoscience statute and rules and how to report violations to the board.

Geoscience is a broad field that statute defines as "the science of the earth and its origin and history, the investigation of the earth's environment and its constituent soils, rocks, minerals, fossil fuels, solids, and fluids, and the study of the natural and introduced agents, forces, and processes that cause changes in and on the earth."<sup>3</sup> The textbox, *Tasks Performed by Geoscientists*, provides examples of common geoscience activities.

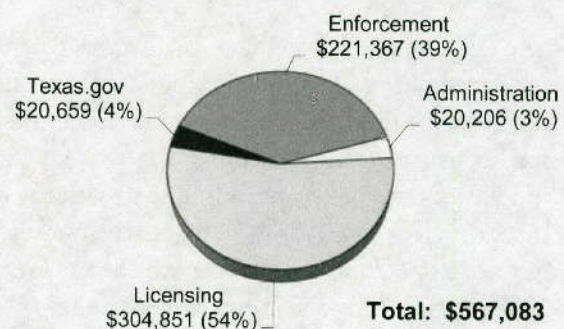
## Tasks Performed by Geoscientists

- Conducting environmental site assessments
- Evaluating property and mineral rights
- Evaluating soils as part of new construction or for potential wastewater contamination
- Investigating and analyzing natural hazards, such as landslides or coastal erosion
- Mapping, interpreting, and monitoring fault movement
- Performing groundwater reserve estimates and locating new groundwater sources

## Key Facts

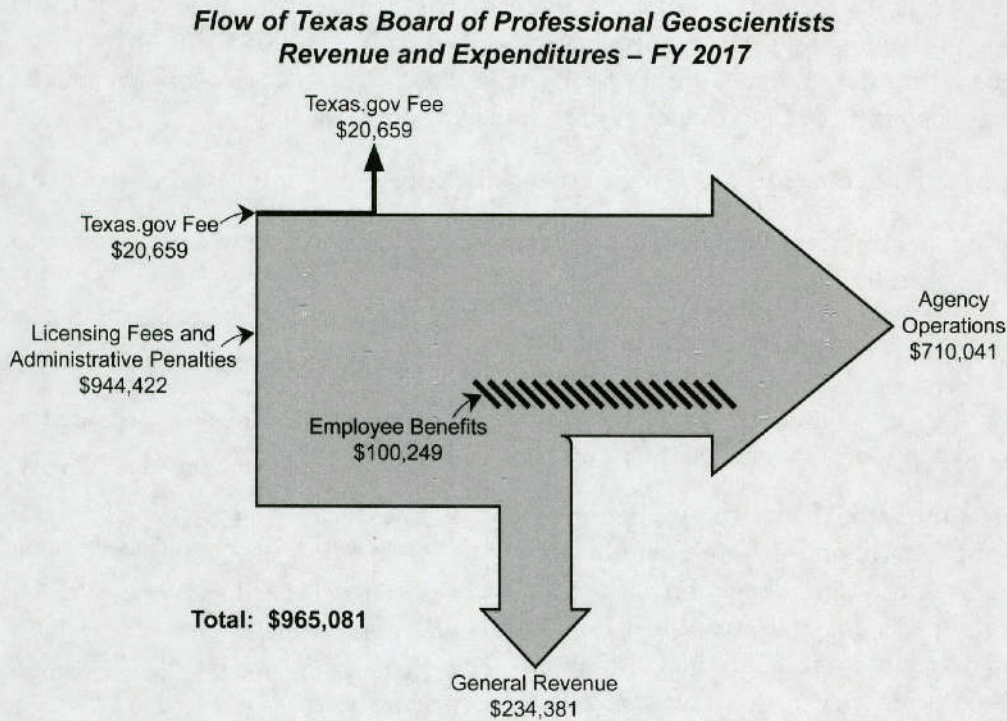
- **Texas Board of Professional Geoscientists.** The board consists of nine members appointed by the governor with the advice and consent of the Senate. Board members serve staggered six-year terms, but may not serve more than two consecutive full terms.<sup>4</sup> Six members must be licensed geoscientists and three members represent the public. The board does not use any advisory committees and instead the board chair appoints members to committees, consisting only of board members.
- **Funding.** In fiscal year 2017, the board reported expenditures of \$567,083. The pie chart, *Texas Board of Professional Geoscientists Expenditures*, breaks out the board's spending by major program areas. The majority of the board's expenditures go toward licensing and enforcement functions, totaling \$526,218 in fiscal year 2017. Historically, the board generates revenue through licensing fees in excess of what is necessary to cover appropriations, and the board deposits all revenue into the General Revenue Fund. As shown in the chart, *Flow of Texas Board of Professional*

**Texas Board of Professional Geoscientists Expenditures – FY 2017**





*Geoscientists Revenue and Expenditures*, in fiscal year 2017 the board generated revenue of \$944,422, primarily from professional geoscientist licensing fees, and deposited excess revenue of \$234,381 in the General Revenue Fund. Appendix A describes the board’s use of state-certified historically underutilized businesses in purchasing goods and services for fiscal years 2015–2017.



- **Staffing.** In fiscal year 2017, the board employed six staff, all of whom work in Austin. The board devotes one staff position to licensing functions and two staff positions to enforcement functions. The three remaining staff members perform administrative and financial duties. The board contracts with the Health Professions Council for limited information technology support services. Because of the board’s small size, Sunset staff did not prepare an analysis comparing the board’s workforce composition to the overall civilian labor force.
- **Licensing and examination.** The board determines eligibility and processes applications and annual renewals for professional geoscientists, geoscience firms, and geoscientists-in-training. The board issues professional geoscientist licenses in three disciplines of geoscience: geology, geophysics, and soil science. Statute exempts 10 geoscience activities from licensure or registration requirements, including work related to academic research, development and exploration of oil and gas resources, teaching, and work performed by a federal officer or employee.<sup>5</sup>

The table on the following page, *Texas Board of Professional Geoscientists Licenses and Fees*, provides the total number of licensees and registrants for fiscal year 2017, as well as the amount of each associated licensure or renewal fee. Between 2001 and 2003, the board grandfathered in 6,684 geoscientists for licensure without meeting the written exam requirement, and as of April 2018, 3,036 of those individuals still held a current license with the board. The board primarily uses examinations developed by national organizations to assess the qualifications of applicants seeking licensure and registration, but developed and administers the Texas Geophysics Examination for candidates seeking licensure in the geophysics discipline of geoscience.



**Texas Board of Professional Geoscientists  
Licenses and Fees — FY 2017**

License Type	Number	Initial Application Fee	Annual Renewal Fee
Professional Geoscientist	Geology: 3,488 Geophysics: 431 Soil Science: 110	\$255	\$223*
Geoscientist-in-Training	138	\$25	\$25
Geoscience Firm	334	\$300	\$300
<b>Total</b>	<b>4,501</b>	<b>N/A</b>	<b>N/A</b>

\*The board offers a discounted renewal fee of \$112 for licensees aged 65 and above.

Professional geoscientists. A person must hold a license from the board to engage in the public practice of geoscience, use the term “licensed professional geoscientist,” or use the initials “PG.”<sup>6</sup> The textbox, *Professional Geoscientist Licensure Requirements*, lists the experience, education, and exam requirements an applicant must meet to obtain a license. Professional geoscientist licensees must obtain 15 hours of continuing education annually, including one hour of professional ethics. In fiscal year 2017, the board licensed 4,029 professional geoscientists.

**Professional Geoscientist  
Licensure Requirements**

- Graduate with a four-year degree with 30 semester hours or 45 quarter hours of credit in a discipline of geoscience
- Pass an examination covering the fundamentals and practice of geoscience
- Demonstrate five years of qualifying work experience
- Provide five reference statements, three of which are from professional geoscientists
- Self-report criminal history

Geoscientists-in-training. A person who is interested in developing as a geoscience professional may voluntarily register with the board as a geoscientist-in-training while obtaining the five years of experience necessary to qualify for full licensure. To register, an applicant must meet the same academic requirements as a professional geoscientist and successfully pass an exam covering the fundamentals of geoscience in one of the three disciplines offered by the board. Geoscientists-in-training must obtain eight hours of continuing education annually. In fiscal year 2017, the board registered 138 geoscientists-in-training.

Geoscience firms. The board requires firms or corporations that perform non-exempt geoscience work in the state to be registered.<sup>7</sup> To register with the board, a firm must identify a professional geoscientist who takes responsible charge by performing or supervising all geoscience work, and who signs and seals all geoscience reports and documents that the firm produces. The board registered 334 firms in fiscal year 2017.

- **Compliance and enforcement.** The board regulates the public practice of geoscience by investigating complaints against both licensed and unlicensed individuals and firms and, if necessary, taking enforcement action against those who violate the Texas Geoscience Practice Act or board rules. The board may sanction licensees by public or private reprimand, administrative penalties, probation, suspension, or revocation. Statute limits the amount of each administrative penalty to \$100 per violation, per day a violation occurs.<sup>8</sup> Additional actions the board may take include placing conditions on a license, issuing a cease-and-desist order, issuing a nondisciplinary advisement letter, and requiring peer review, remedial education, or restitution.



The most common complaints the board investigates regard unlicensed or unregistered practice and failure to comply with continuing education requirements. The table, *Texas Board of Professional Geoscientists Enforcement Data*, breaks down complaints received and closed in the past five fiscal years. In fiscal year 2017, the board closed 78 complaints through 46 compliance letters, 16 default board orders, nine agreed orders, and seven dismissals, and averaged 118 days to resolve each complaint. The board reports collecting \$3,000 in administrative penalties in fiscal year 2017.

**Texas Board of Professional Geoscientists Enforcement Data  
FYs 2013–2017**

	Complaints Dismissed						Complaints Generating Board-Ordered Sanctions*						
	Total Complaints Resolved	Total Complaints Dismissed	Total Board Orders	No Violation Found	Nonjurisdictional	Letter of Advisement	Administrative Penalty	Additional Continuing Education	Reprimand	Cease and Desist	Restricted License	Revocation or Probation	Total Sanctions
Unlicensed Practice or Unregistered Firm	138	118	20	14	4	100	13	0	6	9	0	0	28
Noncompliance With Continuing Education Requirements	96	41	55	11	1	29	49	29	29	0	0	0	107
Competence	6	4	2	4	0	0	0	0	1	0	1	2	4
Failure to Seal Documents	4	2	2	1	1	0	5	0	2	0	0	0	7
Record Keeping	1	1	0	0	0	1	0	0	0	0	0	0	0
Failure to Respond to Board Inquiry	1	0	1	0	0	0	0	0	0	0	0	0	0
Rule Violation While Taking Licensing Exam	1	0	1	0	0	0	0	0	1	0	0	0	1
<b>Total</b>	<b>247</b>	<b>166</b>	<b>81</b>	<b>30</b>	<b>6</b>	<b>130</b>	<b>67</b>	<b>29</b>	<b>39</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>147</b>

\* A board order frequently contains multiple sanctions, such as requiring both an administrative penalty and additional continuing education.

- **Outreach to agencies and related professions.** Since 2013, state law requires the board to coordinate with each state agency that interacts with or oversees the services of a geoscientist or other agencies at the board’s discretion to educate agency employees about the board’s jurisdiction and complaint procedures.<sup>9</sup> The board maintains agreements to facilitate cooperation, perform training, and outline complaint-reporting procedures with the following six agencies: Texas Board of Architectural Examiners, Texas Board of Professional Engineers, Texas Commission on Environmental Quality, Texas Board of Professional Land Surveying, Railroad Commission of Texas, and the Texas Water Development Board.

The board also conducts outreach and training events to educate licensees, professional associations, political subdivisions, and the public about the profession and the laws governing geoscience in Texas. The board conducted 16 outreach and training events throughout the state during fiscal years 2015–17.

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<sup>1</sup> Chapter 99 (S.B. 405), Acts of the 77th Texas Legislature, Regular Session, 2001.

<sup>2</sup> All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 1002.002(7), Texas Occupations Code defines public practice of geoscience as “the practice for the public of geoscientific services or work, including consulting, investigating, evaluating, analyzing, planning, mapping, and inspecting geoscientific work and the responsible supervision of those tasks.” Section 1002.002(6), Texas Occupations Code defines practice for the public as “providing professional geoscientific services for a governmental entity in this state, to comply with a rule established by this state or a political subdivision of this state, or for the public or a firm or corporation in this state if the practitioner assumes the ultimate liability for the work product, and does not include services provided for the express use of a firm or corporation by an employee or consultant if the firm or corporation assumes the ultimate liability for the work product.”

<sup>3</sup> Section 1002.002(3), Texas Occupations Code.

<sup>4</sup> Section 1002.054(b), Texas Occupations Code.

<sup>5</sup> Section 1002.252, Texas Occupations Code.

<sup>6</sup> Section 1002.251, Texas Occupations Code.

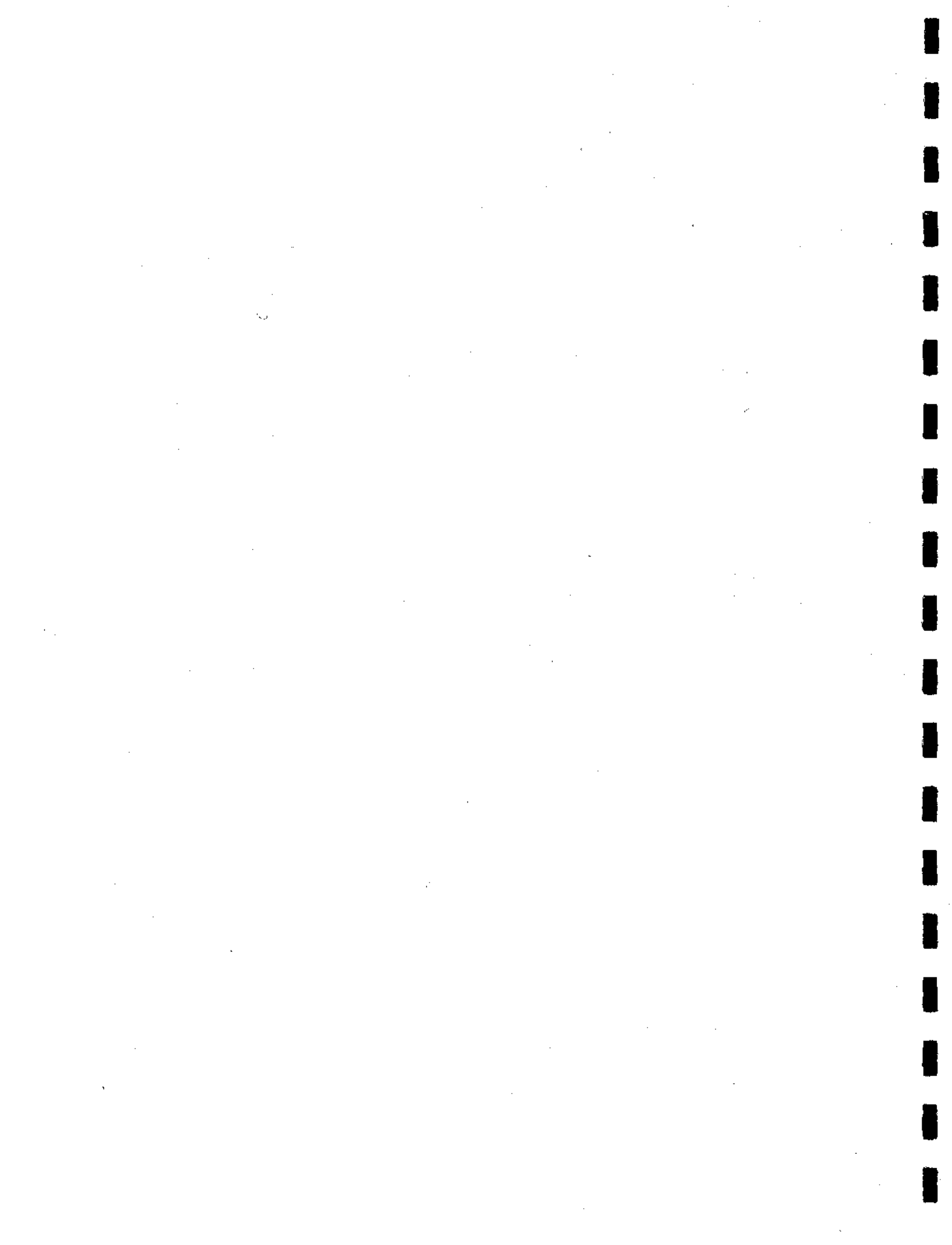
<sup>7</sup> 22 T.A.C. Section 851.30.

<sup>8</sup> Section 1002.452(b), Texas Occupations Code.

<sup>9</sup> Chapter 733 (S.B. 138), Acts of the 83rd Texas Legislature, Regular Session, 2013.



ISSUE





# ISSUE 1

## *State Regulation of Geoscientists Provides No Measurable Public Benefit and Should Be Discontinued.*

### Background

The Legislature created the Texas Board of Professional Geoscientists in 2001 as a standalone state agency, but the board did not receive appropriations and become fully active until September 1, 2003.<sup>1</sup> The board's mission is to protect public health, safety, welfare, and the state's natural resources through the regulation of the public practice of geoscience. The board licenses a portion of the state's professional geoscientists and recognizes three disciplines: geology, geophysics, and soil science. Statute exempts several significant categories of geoscience from licensure, such as those related to oil and gas exploration and development. The board also registers geoscientists-in-training and requires firms offering geoscience services to register with the board. The table, *License and Registration Totals*, provides information from the most recent completed fiscal year. The board has six staff and operated on a budget of about \$567,000 in fiscal year 2017.

Professional geoscientists provide an array of services such as analysis, assessments, consulting, evaluations, inspections, investigations, mapping, and planning, and take responsibility for supervising such tasks. Most commonly, professional geoscientists work with other licensed professionals, such as engineers, to produce aspects of reports submitted to other state and federal agencies related to groundwater monitoring and development, remediation (clean-up sites), and evaluating soils for structural design of buildings, roads, bridges, and agricultural use.

The Sunset Advisory Commission has a historic role in evaluating licensing and regulatory functions of state agencies, as the increase of occupational licensing programs served as an impetus behind the creation of the commission in 1977. Since then, the Sunset Commission has completed more than 110 licensing agency reviews, guided by the Sunset Act's mandate to address the need for these agencies and possible reorganization to merge duplicative functions. In 2013, the Legislature re-emphasized the need for a rigorous assessment of state licensing by adding specific criteria for reviews of occupational and professional programs, as summarized in the textbox, *Sunset Occupational Licensing Questions*.<sup>2</sup>

#### **License and Registration Totals — FY 2017**

Professional Geoscientist	Geology: 3,488 Geophysics: 431 Soil Science: 110 <b>Total: 4,029</b>
Geoscientist-in-Training	138
Geoscience Firm	334
<b>Total</b>	<b>4,501</b>

#### **Sunset Occupational Licensing Questions**

- Does the occupational licensing program serve a meaningful public interest and provide the least restrictive form of regulation needed to protect the public interest?
- Could the program's regulatory objective be achieved through market forces, private certification and accreditation programs, or enforcement of other law?
- Are the skill and training requirements for a license consistent with a public interest, or do they impede applicants, particularly those with moderate or low incomes, from entering the occupation?
- What is the impact of the regulation on competition, consumer choice, and the cost of services?

Typically, in these types of Sunset reviews, the consideration of the need for occupational regulation has rested on the state's legitimate interest in the way certain jobs are performed. The state establishes qualifications to determine who can perform these jobs and the standards by which they must be performed, and then enforces these standards. Such significant intrusions into the workplace must be justified by a clear threat to the health, safety, or welfare of the public. Because the nature of Sunset reviews is to determine the need for agencies and programs, the burden on Sunset staff has always been on proving the need for the regulation. The assessment of need has occurred through a detailed analysis of the potential harm in discernable terms of death, injury, or illness, and in more subjective terms of well-being, such as financial or economic loss. With these and other criteria in mind, Sunset staff reviewed the board's regulation of geoscience and concluded the regulation does not protect the public and is not needed.

## Findings

### **The board's regulation does not provide meaningful public protection.**

Throughout the review, Sunset staff met with and surveyed numerous state agencies and stakeholders, conducted Texas case law research dating back to the 1920s, and examined historical documents but received no examples of significant harm to the public directly attributable to unqualified or substandard geoscience work by a geoscientist before or after the board's creation in 2001. All examples of harm provided were hypothetical in nature and often involved something that licensure could not have prevented, such as flash floods and sinkholes. The board's regulation simply does not protect the public, and in fact, public protection does not appear to be the primary impetus behind the regulation.

- **Public protection not the primary reason to initiate regulation.** The board's legislative history starting in 1993 presents at least eight years of an array of arguments from geologists and professional associations pushing for regulation of geology and geoscience, and other professions pushing against regulation — all without any measurable demand from the public or consumer groups for regulation. Historically, public protection has not been the primary argument in support of regulating geoscientists. Instead, the focus has been on legitimizing the geoscience profession, such as having authority to take responsible charge of and place a professional seal on work submitted to other licensed professionals, state agencies, and political subdivisions, which would help financially benefit the profession.

After the first geoscience regulation bills failed in 1993, a bulletin published by a professional association in October of that year summarizes the efforts of the "Task Force for the Registration of Geologists and Geophysicists," and quite plainly states "What we are dealing with here is a true right-to-work issue, folks. So, if you hope to be able to practice your geologic profession in Texas without being subservient to a registered engineer — or even to be able to practice at all — better wake up!"<sup>3</sup> The bulletin also noted that the bills died from not only engineering lobbying efforts, but also lack of engagement from the profession.

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*Legitimizing  
the geoscience  
profession,  
as opposed to  
public safety,  
drove creation  
of the board.*

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Twenty-five years later, stakeholders make nearly verbatim arguments, with public protection not listed as a primary reason for licensure, or sometimes not even mentioned at all. For example, the textbox, “*Why Be a Licensed Professional Geoscientist*,” lists the reasons for licensure from a professional geoscience association in Texas with no mention of helping to ensure public health, safety, or welfare.<sup>4</sup>

- **Far-reaching exemptions mean much geoscience remains unregulated, without a negative effect on the public.** As a best practice, any statutory exemptions from licensure or regulation should be carefully evaluated to ensure they have a clear and reasonable basis, and do not impair the health, safety, or welfare of the public. As a result of years of negotiations and compromises with other professions and industries, 10 broad areas of geoscience are exempt from regulation, with the most common exemptions listed in the textbox, *Exempted Geoscience Practice Areas*.<sup>5</sup> Exempted practitioners enjoy freedom from the board’s jurisdiction and other license requirements, such as annual licensing fees, continuing education, and obligation to abide by the board’s statute and Code of Professional Ethics.

According to the Bureau of Labor Statistics, Texas employed 7,780 geoscientists in 2017, while the board licensed just 4,029 geoscientists that year — meaning that almost half of the practicing geoscientists in Texas are unregulated by the board.<sup>6</sup> While some of these unlicensed geoscientists could simply be practicing illegally without a license, the broad exemptions, particularly for the oil and gas industry, likely account for the large percentage of unregulated geoscientists. While most licensed professions have some exemptions, allowing such a large portion of geoscientists to avoid oversight indicates little need or demand for regulation to protect the public.

- **The public is not the primary consumer of most direct geoscience services.** When a profession has a direct impact on the public, members of the public will typically file complaints with the regulating agency for unqualified or substandard services provided by licensees. Moreover, effective regulation should be able to provide measurable impacts to public protection. However, regulation of geoscience through the board has little to no measurable impact on public protection because the public is not the direct consumer of regulated geoscience services. In the past five

#### **“Why Be a Licensed Professional Geoscientist”**

- Project sign-offs (pre-regulation, certified geoscience reports, surveys, and maps required the signature and seal of a professional engineer)
- Professional credibility and recognition
- Procurement of employment
- Greater potential for employment advancement
- Potentially higher than average salary compared to non-licensed geoscientists
- Qualification as expert witness in courts of law
- Licensure by reciprocity with other states

#### **Exempted Geoscience Practice Areas**

- Licensed engineers performing work that is both engineering and geoscientific in nature
- Work performed exclusively in the exploration and development of energy resources (oil and gas, mainly), base metals, or minerals if done in and for the benefit of private industry
- Teaching
- Research done for academic institutions, political subdivisions, and other levels of government
- Certain persons evaluating specific on-site locations for sewage disposal systems
- Geoscientific work performed by an employee or subordinate of a licensed professional geoscientist

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*The public is not the primary consumer of geoscience services.*

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fiscal years, the board received 30 outside complaints, only three of which were clearly from the public. While geoscientists contribute their services to public works projects throughout Texas, such as water and wastewater treatment facilities, landfills, and polluted site clean-ups, general members of the public are not typically the consumers of direct geoscience services. Most commonly, geoscientists provide services to governmental entities, private firms seeking permits or contracts from governmental entities, or private firms for commercial or residential development.

### **The board takes no significant enforcement action.**

The hallmark of a strong regulatory program is swift and effective punishment of those who violate the laws and rules that govern the regulated profession. However, the board's enforcement activity is minimal, with the board self-initiating most of its complaints, particularly regarding minor violations, and never having received complaints regarding dangerous geoscience practice.

- **No substantiated complaints alleging unsafe or incompetent practice.** From fiscal years 2013 to 2017, the board received 261 complaints, with only three complaints related to competency to practice, as detailed in the table, *Complaints by Allegation*. The board has never received a complaint that it prioritized as posing a significant harm or risk to the public. Of the three competency complaints, the board dismissed two as groundless and revoked a license in the third. However, the third complaint alleged a licensee embezzled money from a professional society, a violation not related directly to actual geoscience practice, but enforceable under the board's rule for dishonest practice.<sup>7</sup> The board ordered revocation of the license, but probated the revocation on the condition that the licensee repay the stolen funds.

***Complaints by Allegation — FYs 2013–2017***

<b>Allegation</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total</b>
Unlicensed Practice or Unregistered Firm	29	19	22	28	43	141
Noncompliance with Continuing Education Requirements	12	22	28	27	15	104
Failure to Seal Documents	1	0	0	4	3	8
Competence	0	0	3	0	0	3
Abetting Unlicensed/Unregistered Practice	2	1	0	0	0	3
Rule Violation While Taking Licensing Exam	0	1	0	0	0	1
Other Rule Violations	0	0	0	0	1	1
<b>Total</b>	<b>44</b>	<b>43</b>	<b>53</b>	<b>59</b>	<b>62</b>	<b>261</b>

- **Board self-initiates most complaints.** Over the past five fiscal years, the board initiated at least 89 percent of its 261 complaints, most of which allege lower-risk, administrative violations, such as failure to comply with continuing education requirements, and unlicensed practice or unregistered firms. The board classifies the continuing education complaints at the lowest priority level, which indicates no public harm or risk implications.

A person or entity never licensed with the board would typically raise concerns about qualifications to practice; however, a person or entity practicing with an expired annual license has already proven their qualifications to practice, and would typically pose a much lower risk to the public. In fiscal year 2017, 39 of the 62 total complaints — almost two-thirds — allege public practice with an expired license, and only one complaint filed against an unlicensed individual. The board did not classify or prioritize any of these complaints as posing significant harm or high risk to the public, indicating the low level of public harm associated with the profession. This low priority was further supported by the fact that within the 39 complaints alleging practice with an expired license, the board found that many were not actually practicing, but simply failed to remove their professional title from the internet.

- **Minimal enforcement referrals from other state agencies.** In 2013, the Legislature passed Senate Bill 138, which requires the board to not only educate other state agencies interacting with or overseeing professional geoscientists about the board in general and how to file a complaint, but also to require other agencies to report a potential violation of the Texas Geoscience Practice Act to the board — all in an effort to drive enforcement activity in the profession directly to the board.<sup>8</sup> Since 2013, the board completed outreach presentations and entered into agreements with six other state agencies, listed in the textbox, *S.B. 138 Partner Agencies*. The six agreements specifically lay out the jurisdiction over the practice of geoscience by each agency to protect the public from unqualified or substandard geoscience services and require each partner agency to report potential geoscience practice violations to the board. However, in the five years since these agreements have been in effect, the board reported receiving no complaints from these partner agencies. The board did receive three complaints from the Texas Department of Transportation, an agency with which the board has no agreement. The three complaints alleged violations related to unregistered firm practice and failure to seal a geoscience report by a licensee. The board dismissed one complaint against a firm, and issued board orders against the remaining firm and licensee with public reprimands and administrative penalties.

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*The board self-initiated at least 89 percent of its complaints, almost all of which involved low-risk administrative violations.*

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#### **S.B. 138 Partner Agencies**

- Texas Board of Architectural Examiners
- Texas Board of Professional Engineers
- Texas Commission on Environmental Quality
- Texas Board of Professional Land Surveying
- Railroad Commission of Texas
- Texas Water Development Board

**Even though a large majority of current licensees were grandfathered into the profession without full assurance of minimum competency, no substantiated competency complaints exist.**

The board’s enabling legislation included a grandfathering provision that granted a license to applicants meeting the board’s education, experience, and reference letter requirements, but did not require a passing score from any state or national exam until September 1, 2003.<sup>9</sup> As of April 2018, 78 percent of current licensees were grandfathered under this provision. Despite the grandfathering provision and the board’s perceived risks regarding competency to practice, the board has not substantiated a complaint directly related to competency.

*78 percent of current licensees have not passed any exams because they were grandfathered into the profession.*

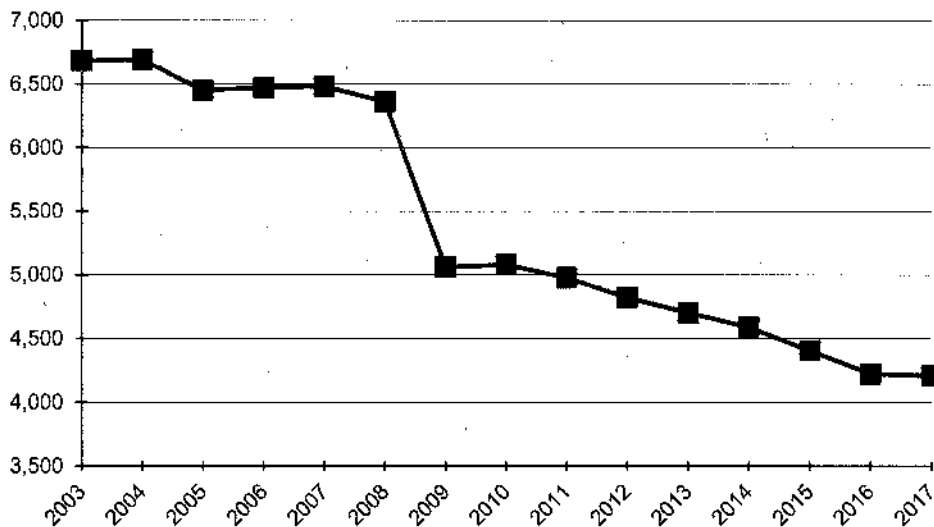
While grandfathering provisions are not unusual in establishing regulatory programs, they tend to undermine the promise of competence assumed when engaging a licensed professional. Since the grandfathering period ended, the board requires applicants for a professional geoscience license to pass both the fundamentals and practice exams for any of three recognized disciplines. In particular, the board administers the fundamentals and practice exams from the National Association of State Boards of Geology (ASBOG), and considers the ASBOG exams as one the most important and effective ways to ensure an applicant is minimally qualified and competent to practice geoscience. However, only approximately 20 percent of current licensees have passed these exams.

**The licensee population is steadily declining.**

Outside of expected fluctuations in any regulated population, typically, when there is an ongoing need or demand for regulation, the population does not steadily decline each year. Since 2003, the licensee population has declined an average of 190 licensees per fiscal year, as depicted in the chart, *Licensee Totals*.

*The licensee population has declined an average of 190 licensees each year since the board’s inception.*

**Licensee Totals — FYs 2003–2017**





When the Legislature created the board in 2001, the fiscal notes estimated about 10,000 professionals would apply for licensure during the grandfathering period, an estimate never realized in the board's 17-year existence.<sup>10</sup> Over the past five fiscal years, on average, the board issued just 84 new licenses per fiscal year. While the board does not track reasons for the steady decline in licensees, two ongoing trends exist anecdotally: grandfathered licensees realizing they no longer need the license to practice or never needed a license in the first place, and an aging or retiring population. In response to the aging or retiring population trend, the board reported 67 percent of the 4,029 licensees as age 55 and older for fiscal year 2017 — indicating this aging population will only continue to add to the decline in licensees in the years to come.

### **Other state agencies provide more direct and robust evaluation of geoscience work than the board.**

The Texas Commission on Environmental Quality and the Railroad Commission of Texas evaluate much of the regulated geoscience work submitted by licensed geoscientists and registered geoscience firms for permit applications, groundwater quality testing, site evaluations, soil testing, and participation in site remediation (clean-ups). If the geoscience in these reports or evaluations fails to meet the respective standards of the two large state agencies, agency staff work directly with the submitting entity or professional to correct deficient geoscience work, and typically do not require additional action, such as referring the matter to the board. The two agencies have never officially reported potential violations of the Texas Geoscience Practice Act or board rules to the board, per S.B. 138 requirements. While these two agencies do not have actual enforcement authority over a professional geoscience license, their direct oversight of geoscience work helps ensure the quality of geoscience work more effectively than the board can.

### **Less restrictive means exist to ensure safe practice of geoscience.**

When evaluating a regulatory program, Sunset considers whether the current regulation is the least stringent means to provide acceptable and necessary public protection. The textbox, *Levels of Regulation*, ranks the three categories of regulation from most stringent to least stringent. Sunset also evaluates whether private market forces, industry certification or accreditation, or other existing laws can achieve the regulatory objective of the existing program.

- **Most restrictive way to regulate profession.** Texas does not regulate most other science-based professions such as biologists, chemists, or physicists, through licensure or standalone agencies, though they all perform important work. Before the board's creation in 2001, Texas geoscientists and geologists were completely unregulated,

#### ***Levels of Regulation***

- Licensing is the most stringent regulatory approach and involves regulation of the practice of the profession, and often the title as well.
- Certification is a middle-ground approach and requires that practitioners meet certain minimum qualifications before using a certain title; however, other non-certified people may perform similar work but are only subject to agency enforcement if they use the title.
- Registration is the lowest level of regulation and generally requires a person to register with a state agency for the purposes of keeping a roster, with very few minimal requirements.

yet no significant harm to the public or natural resources directly attributable to unqualified geoscience work by geoscientists or geologists before or after full licensure regulation was identified. Certification or registration would also provide no clear public protection that is worth the insertion of state regulation.

- **Many local, state, and national professional organizations qualify membership.** Professional associations offer certification to geoscientists who meet certain qualifications that are similar to or, in some cases, more stringent than current state requirements. For example, the American Institute of Professional Geologists requires its certified professional geologists to have a bachelor's degree and eight to 10 years of experience, which Alaska also recognizes in lieu of a state license.<sup>11</sup> Moreover, in addition to holding a professional license, many geologists or geoscientists also belong to professional associations in a specific discipline of geology or geoscience, such as engineering or petroleum geology. Businesses or government entities wishing to engage the services of a geoscientist could rely on these certifications for some assurance of qualification and experience, in addition to standard evaluation of résumés, educational backgrounds, professional references, and verifiable work experience.

### **Just over half of the states regulate the practice of geoscience or geology, while all states regulate engineers and architects.**

Texas is one of 29 states that regulate the practice of geoscience or geology, and three additional states regulate only the use of the title “geoscientist” or “geologist” but not the practice of geoscience.<sup>12</sup> Further, Texas is one of only 10 states regulating soil scientists, and one of two states regulating geophysics.<sup>13</sup> In comparison, all 50 states regulate professions such as engineering and architecture, indicating a nationwide consensus that these professions, unlike geoscience, present enough risk to the public to merit state oversight.

## **Recommendations**

### ***Change in Statute***

#### **1.1 Abolish the Texas Board of Professional Geoscientists and repeal the Texas Geoscience Practice Act.**

This recommendation would eliminate the licensing and registration requirements for geoscientists and geoscience firms, and the geoscientist-in-training voluntary registration. This recommendation would also eliminate the board's other remaining functions related to enforcement and outreach. This recommendation would not repeal or eliminate the technical reviews, oversight, and existing standards of geoscientific work submitted to or conducted by the Texas Commission on Environmental Quality and the Railroad Commission of Texas, or any other political subdivision.

Under this recommendation, the board would continue for an additional five months past its Sunset date, giving the board until February 1, 2020, to complete the wind-down process. On this date, all rules adopted by the board will also expire. As of September 1, 2019, all functions related to issuing new licenses, registrations, and renewals would cease, as well as any new enforcement activity.

Unless the governor designates another appropriate agency, the following property and records should be delivered to the specified agencies by February 1, 2020:

- Records of the board regarding licensing, enforcement, and outreach not already archived should transfer to the Texas Commission on Environmental Quality
- Records of the board containing financial and employment information, as well as any ongoing contracts that could not be terminated within the wind-down period, should transfer to the Texas Comptroller of Public Accounts
- Any records regarding uncollected fines or fees still owed to the state after the wind-down period should transfer to the office of the attorney general to proceed with collections, if necessary
- Any tangible property, such as computers, telephones, printers, office supplies, and furniture should transfer to the Texas Facilities Commission

As a part of this recommendation, statute would need revisions to strike all references to the Texas Board of Professional Geoscientists, Texas Geoscience Practice Act, and “licensed professional geoscientist,” that specify the State of Texas as the license issuer.

### ***Management Action***

#### **1.2 In response to the board’s abolishment, board staff should begin the wind-down process before the effective date of the legislation.**

If the Legislature abolishes the board, board staff should develop a transition plan as soon as legislation abolishing the board passes to ensure conservation of general revenue funds. While board staff could accomplish several of the wind-down provisions before September 1, 2019, the board’s transition plan should provide for completion no later than February 1, 2020, for any outstanding wind-down tasks. The transition plan should include

- a timetable with specific steps and deadlines needed to carry out the abolishment in compliance with the effective date of the bill and transition language included in the bill;
- a method for ending all licensing, enforcement, and outreach programs, and specifically
  - cease issuing licenses and registrations,
  - attempt to finalize all pending enforcement cases, including any that may be at the State Office of Administrative Hearings,
  - continue to collect any outstanding administrative penalties still owed as of September 1, 2019, and
  - close out or terminate any remaining contracts for fiscal year 2020;
- a method for storing all critical financial, program, and personnel records;
- closure of the board’s office; and
- any other steps needed to complete the termination of agency functions.

Additionally, wind-down activities may also include providing information to national exam entities, such as the National Association of State Boards of Geology or the Council of Soil Science Examiners;

and providing information on current licensees to other states' regulatory agencies, should existing professional geoscientists wish to hold a license through reciprocity or comity.

This recommendation would help ensure that the board's abolishment concludes in accordance with state law and has a minimal impact on those in the geoscience industry and the other agencies with direct oversight of professional geoscience work.

### ***Change in Appropriation***

#### **1.3 The House Appropriations and Senate Finance Committees should consider limiting the board's fiscal year 2020 appropriation to costs and salary for one full-time equivalent administrative employee to complete wind-down activities.**

This recommendation expresses the will of the Sunset Commission that these committees consider limiting the board's appropriation from the General Revenue Fund to \$31,260 for salary and benefits for one full-time equivalent administrative employee to complete wind-down activities during the five-month period. Any unobligated and unexpended appropriations should lapse as of February 1, 2020, and no appropriation would be required for the remainder of the 2020–21 biennium.

### **Fiscal Implication**

Abolishing the board would result in an estimated negative fiscal impact to the state of about \$265,641 in fiscal year 2020 and a reduction of 5.5 full-time equivalent employees. The board reported collecting \$944,422 in fees and enforcement penalties for fiscal year 2017 and spent \$567,083 on operations that same year, plus an additional \$142,958 in employee benefits and indirect costs, resulting in excess revenue of \$234,381. On September 1, 2019, the board would no longer exist and practicing geoscientists would no longer pay licensing or registration fees, leaving the board without a steady funding stream. The board would need a small amount of appropriations during the wind-down period to process any remaining transactions or requests received before September 1, 2019, such as providing information on current licensees to other regulatory states under current reciprocity agreements, should licensees seek licensure out of state. The board would only operate for five months into fiscal year 2020 and would only need appropriations of \$31,260 for salary and benefits for one administrative staff, as enforcement and licensing would no longer be needed.

#### ***Texas Board of Professional Geoscientists***

<b>Fiscal Year</b>	<b>Cost to the General Revenue Fund</b>	<b>Loss to General Revenue Fund</b>	<b>Change in Number of FTEs from FY 2019</b>
2020	\$31,260	\$234,381	-5.5
2021	\$0	\$234,381	-6.5
2022	\$0	\$234,381	-6.5
2023	\$0	\$234,381	-6.5
2024	\$0	\$234,381	-6.5

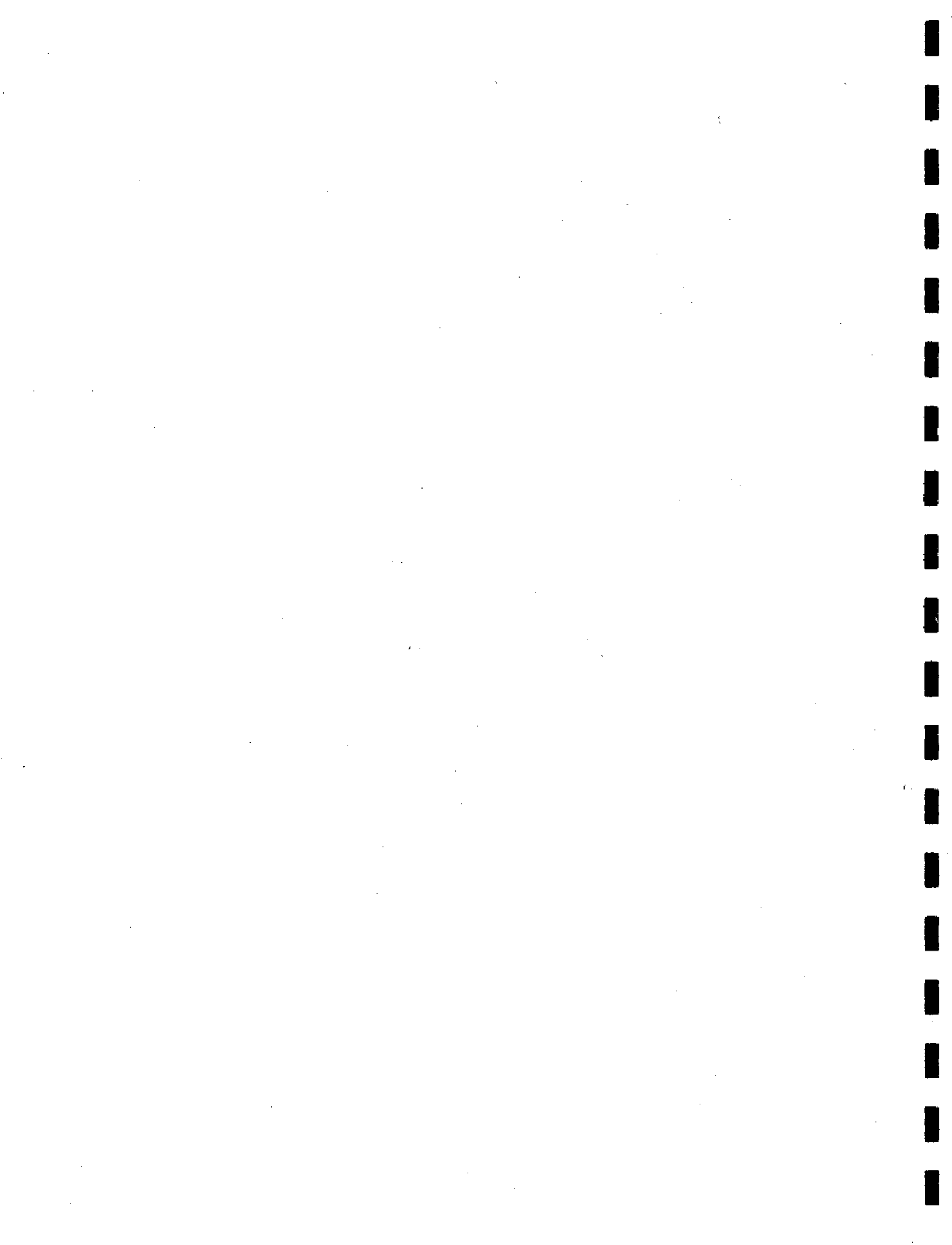


- 1 Chapter 99 (S.B. 405), Acts of the 77th Texas Legislature, Regular Session, 2001.
- 2 All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 325.0115, Texas Government Code.
- 3 H.B. 1221, 73rd Texas Legislature, Regular Session, 1993; S.B. 1462, 73rd Texas Legislature, Regular Session, 1993; Houston Geological Society, "Registration Update," *Bulletin*, Volume 36, no. 2 (October 1993): 8, 45-47, 53, [https://www.hgs.org/sites/default/files/bulletins/October\\_1993.pdf](https://www.hgs.org/sites/default/files/bulletins/October_1993.pdf).
- 4 "About Us," Texas Association of Professional Geoscientists, last accessed June 1, 2018, <http://tapgonline.org/aboutus.html>.
- 5 Section 1002.252, Texas Occupations Code.
- 6 "Occupational Employment and Wages, May 2017: 19-2042 Geoscientists, Except Hydrologists and Geographers," United States Department of Labor, Bureau of Labor Statistics, last modified March 30, 2018, <https://www.bls.gov/oes/current/oes192042.htm#st>.
- 7 22 T.A.C. Section 851.104(a).
- 8 Chapter 733 (S.B. 138), Acts of the 83rd Texas Legislature, Regular Session, 2013; Legislative Budget Board, *Texas State Government Effectiveness and Efficiency*, "Strengthen the Board of Professional Geoscientists' Ability to Investigate Violations," (Austin: Texas Legislative Budget Board, January 2013), 390-394.
- 9 S.B. 405, 2001.
- 10 *Fiscal Note*, S.B. 405, 77th Texas Legislature, Regular Session, 2001.
- 11 "Regulation of Professional Geologists," Alaska Department of Commerce, Community, and Economic Development: Division of Corporations, Businesses, and Professional Licensing, last accessed May 24, 2018, <https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/ProfessionalGeologists.aspx>; Chapter 142, SLA, 1980, Section 2 enacted AS 08.02.011, Alaska Statute.
- 12 "Member Boards (clickable map)," National Association of State Boards of Geology, last accessed May 24, 2018, [http://asbog.org/state\\_boards.html](http://asbog.org/state_boards.html).
- 13 "State Soil Science Licensing and Legislation," Soil Science Society of America, last accessed July 13, 2018, <https://www.soils.org/certifications/already-certified/licensing>; "California," National Association of State Boards of Geology, last updated May 24, 2018, <http://asbog.org/states/ca.pdf>; "Texas," National Association of State Boards of Geology, last accessed May 24, 2018, <http://asbog.org/states/tx.pdf>.



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# APPENDICES



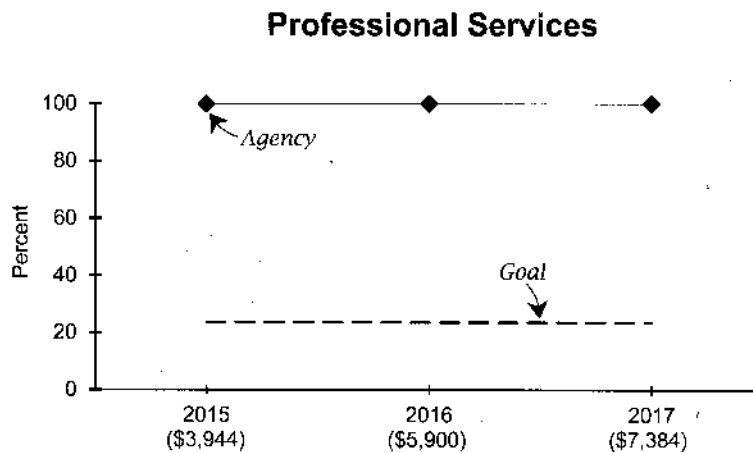
# APPENDIX A

## Historically Underutilized Businesses Statistics 2015 to 2017

The Legislature has encouraged state agencies to increase their use of historically underutilized businesses (HUBs) to promote full and equal opportunities for all businesses in state procurement. The Legislature also requires the Sunset Commission to consider agencies' compliance with laws and rules regarding HUB use in its reviews.<sup>1</sup>

The following material shows trend information for the Texas Board of Professional Geoscientists' use of HUBs in purchasing goods and services. The board maintains and reports this information under guidelines in statute.<sup>2</sup> In the charts, the dashed lines represent the goal for HUB purchasing in each category, as established by the comptroller's office. The diamond lines represent the percentage of board spending with HUBs in each purchasing category from 2015 to 2017. Finally, the number in parentheses under each year shows the total amount the board spent in each purchasing category.

The board well exceeded statewide purchasing goals for professional services in fiscal years 2015–2017, but fell short of such goals in other areas. The board reports no spending in the past three fiscal years in the heavy construction, building construction, and special trade categories. The board has neither biennial appropriations nor contracts large enough to mandate other HUB-related requirements such as creating HUB subcontracting plans for large contracts, appointing a HUB coordinator, creating a HUB forum program, and developing a mentor-protégé program.

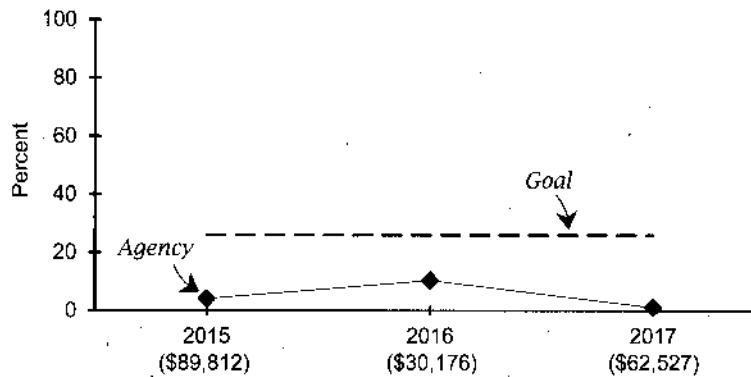


The board far exceeded the statewide purchasing goal for professional services in the past three fiscal years.



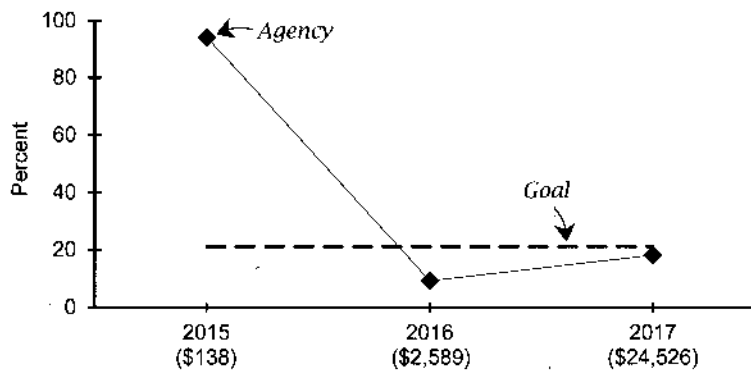
## Appendix A

### Other Services



The board fell short of meeting the statewide purchasing goal for other services in each of the past three fiscal years, with the lowest spending in 2017.

### Commodities



The board exceeded the statewide purchasing goal for commodities in fiscal year 2015, but fell short in fiscal years 2016 and 2017.

1 All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 325.011(9)(B), Texas Government Code.  
 2 Chapter 2161, Texas Government Code.

# APPENDIX B

## ***Staff Review Activities***

During the review of the Texas Board of Professional Geoscientists, Sunset staff engaged in the following activities that are standard to all Sunset reviews. Sunset staff worked extensively with board personnel; attended board and committee meetings; conducted interviews and solicited written comments from interest groups and the public; reviewed board documents and reports, state statutes, previous legislation, and literature; researched the organization and functions of similar agencies in other states; and performed background and comparative research.

In addition, Sunset staff performed the following activities unique to this board:

- Conducted case law research and an extensive review of the legislative origins of the board
- Conducted and evaluated responses from a stakeholder survey
- Interviewed staff from the agencies with which the board maintains interagency complaint-reporting agreements: the Texas Board of Architectural Examiners, Texas Board of Professional Engineers, Texas Commission on Environmental Quality, Texas Board of Professional Land Surveying, Railroad Commission of Texas, and the Texas Water Development Board
- Observed an informal settlement conference and a complaint review team meeting considering enforcement actions
- Evaluated municipal code to understand geoscience work at a local level
- Interviewed staff from the Health Professions Council, Department of Information Resources, Legislative Budget Board, Texas Department of Licensing and Regulation, office of the attorney general, and the Texas State Auditor's Office



# Sunset Staff Review of the *Texas Board of Professional Geoscientists*

————— *Report Prepared By* —————

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