

The background of the entire page is a photograph of the interior of the Texas State Capitol dome. The image shows a grand, circular space with multiple levels of ornate balconies. The architecture is classical, featuring white columns, decorative moldings, and a central arched opening. Several framed portraits of men are mounted on the walls between the balconies. The lighting is bright and even, highlighting the intricate details of the dome's interior.

SUNSET ADVISORY COMMISSION

STAFF REPORT WITH COMMISSION DECISIONS

Texas State Board of Plumbing Examiners

2018–2019
86TH LEGISLATURE

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**TEXAS STATE BOARD OF
PLUMBING EXAMINERS**

**SUNSET STAFF REPORT WITH COMMISSION DECISIONS
2018-2019
86TH LEGISLATURE**

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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— **SUNSET COMMISSION DECISIONS**

SUNSET COMMISSION DECISIONS

Summary

The following material summarizes the Sunset Commission's decisions on the staff recommendations for the Texas State Board of Plumbing Examiners, as well as modifications and new recommendations raised during the public hearing.

Texas has about 58,000 licensed plumbers, but the skyrocketing population growth and recurring severe storms, such as Hurricane Harvey and historic flooding across Central Texas, have driven the demand for plumbing services well beyond the industry's capacity. Difficulty meeting demand for plumbers exacerbates affordable housing shortages and increases costs for construction, repairs, and maintenance, all of which impact the state's citizens and economy. With demand increasing, but supply plateauing, the regulation of plumbing in Texas is in need of serious change. Ultimately, the Sunset Commission concluded the plumbing board's serious, ongoing problems and reticence to change no longer meets the expectations of the state or the growing demands of the industry and recommends transferring the regulation of plumbing to the Texas Department of Licensing and Regulation (TDLR).

As a small agency, the plumbing board struggles to allocate its already stretched staff and resources, and to navigate sometimes restrictive statutory requirements. However, the board and agency leadership have a track record of neglecting known deficiencies. The Sunset Commission found many problems identified through the Sunset review existed long before the storms and were within the board's control to fix. These ongoing problems and frustrations include backlogged exams, with more than 1,400 individuals waiting to take exams; poor customer service, with the agency only able to answer about 62 percent of its calls; and growing complaint caseloads and resolution times, with each investigator handling between 45 to 100 complaints and the average complaint resolution time doubling to almost six and a half months. Statute and board rules also create a litany of constraints on plumbers that make entry into the trade and progression through a career difficult, some of which are statutorily created and others self-imposed or worsened by the agency. Further, the agency's enforcement processes fail to meet standard practices to ensure consistent, documented, and fair application of laws and rules to licensees, or transparency for the public.

Board members and agency leadership have acknowledged some of these persistent problems, but have failed to appropriately address them, and broader problems, like the workforce shortage, have been exacerbated by board inattention and unwillingness to change the status quo. TDLR regulates several other construction trades, including electricians and air conditioning and refrigeration technicians, and can capitalize on that experience to provide more consistent, robust oversight of plumbing in Texas. Oversight by TDLR, along with other Sunset recommendations, would reduce wait times for exams and eliminate unnecessary licensure requirements for plumbers, improve enforcement procedures, address customer service and public safety concerns, and harmonize the regulation of several construction trades to meet the growing needs of the state.

ISSUE 1

The Texas Department of Licensing and Regulation Could More Effectively Regulate Plumbers.

Recommendation 1.1, Adopted as Modified — Transfer the regulation of plumbers to the Texas Department of Licensing and Regulation. Reconstitute the independent plumbing board as an advisory board, but replace one of the two public members with a licensed plumber.

Recommendation 1.2, Adopted — Require the agency to obtain fingerprint background checks for all applicants and licensees.

Recommendation 1.3, Adopted as Modified — Direct the board and TDLR to form a working group by February 1, 2019, to be dissolved no sooner than September 1, 2020, to develop regulatory processes and rules. Direct the working group to meet in-person monthly for no less than six months, and to submit quarterly status reports to the Sunset Commission on the implementation of recommendations. (Management action – nonstatutory)

ISSUE 2

Overregulation and Complex Licensure Requirements Inhibit Entry Into and Growth in the Plumbing Industry.

Recommendation 2.1, Adopted — Eliminate the separate drain cleaner-restricted, drain cleaner, and residential utilities installer registrations.

Recommendation 2.2, Adopted as Modified — Remove statutory requirements for direct supervision and authorize the board to determine supervision requirements for specific tasks in rule. Require an apprentice or tradesman plumber to obtain on-the-job or classroom training before performing tasks under general supervision, and credit any classroom training toward the hours for licensure and any continuing education requirements.

Recommendation 2.3, Adopted as Modified — Remove the statutory requirement for the board to only hire licensed plumbers to administer the written portions of exams, but retain the statutory requirement that a licensed plumber must administer the practical portions of the exams.

Recommendation 2.4, Adopted as Modified — Authorize the board to outsource the creation and administration of its exams, but require a licensed plumber to administer the practical portions of the exams.

Recommendation 2.5, Adopted — Clarify the board's authority to approve continuing education course content and instructors.

Recommendation 2.6, Adopted — Authorize the board to establish license terms in rule.

Recommendation 2.7, Adopted — Remove the separate renewal for endorsements.

Recommendation 2.8, Adopted — Eliminate the responsible master plumber designation and create a plumbing contractor license.

Recommendation 2.9, Adopted — Authorize the agency to issue temporary licenses.

Recommendation 2.10, Adopted as Modified — Rather than eliminating the practical components of exams, direct the agency to establish or partner with third parties to open at least seven testing facilities by September 1, 2019, to administer exams across the state. (Management action – nonstatutory)

Recommendation 2.11, Adopted as Modified — Direct the board to simplify the timeframe for obtaining continuing education by September 1, 2019. (Management action – nonstatutory)

ISSUE 3

Inefficient Enforcement Processes Hinder Effective Public Protection and Fair Treatment of Licensees.

Recommendation 3.1, Adopted — Eliminate statutory qualifications for field investigators.

Recommendation 3.2, Adopted — Repeal the statutory enforcement committee.

Recommendation 3.3, Adopted — Repeal the board’s authority to issue criminal citations.

Recommendation 3.4, Adopted as Modified — Direct the agency to adopt a risk-based approach to investigations in rule by September 1, 2019, focusing on higher risk complaints first before other lower risk activities, such as jobsite compliance checks. (Management action – nonstatutory)

Recommendation 3.5, Adopted as Modified — Direct the agency to use informal settlement conferences in appropriate circumstances and better document its use of this enforcement tool by December 1, 2019. (Management action – nonstatutory)

Recommendation 3.6, Adopted as Modified — Direct the agency to publish disciplinary history online by May 1, 2019. (Management action – nonstatutory)

ADOPTED NEW RECOMMENDATIONS

Out-of-State Applicants

Replace the agency’s provisional license authority with the authority to enter into reciprocity agreements with states that have substantially similar licensure requirements, and also authorize the board to waive certain requirements for out-of-state applicants. Specify that an out-of-state applicant licensed for at least two years may obtain an equivalent license in Texas, as determined by the board, without taking an exam. As a management action, direct the board to establish the qualifications to waive experience and exam requirements for out-of-state applicants.

Unnecessary Licensure Requirement

Direct the agency to eliminate the requirement to have a high school diploma or GED for licensure. (Management action – nonstatutory)

Code Conflicts in Exams

Direct the agency to review all written exams and eliminate or revise questions that could test on only one plumbing code or that implicate a conflict between the International Plumbing Code and Uniform Plumbing Code. (Management action – nonstatutory)

Fiscal Implication Summary

Overall, the Sunset Commission's recommendation to transfer plumbing regulation to TDLR would result in an estimated savings of about \$768,000 in general revenue over the next five fiscal years. The savings would result primarily from capitalizing on TDLR's size and structure, reducing the number of employees needed to regulate the industry, and eliminating administrative costs necessary for an independent agency. The transfer would also result in more efficient and focused administration of plumbing regulation. Other recommendations to streamline and simplify licensure functions would result in efficiencies but would not have a significant fiscal impact.

On September 1, 2020, TDLR would assume responsibility for the plumbing board's functions but would need the plumbing board's separate building and facilities for an additional year to ensure a smooth transition of licensing, examination, and enforcement functions. As such, most savings would be realized after fiscal year 2021. The plumbing board has 31 full-time equivalent positions, all of which would be necessary to administer the plumbing program through fiscal year 2021. After that, TDLR's process improvements, such as outsourcing the exam administration, would reduce the need for three employees who currently perform examinations.

TDLR would need start-up costs for furniture, computers, and office supplies and, after fiscal year 2021, ongoing office rental costs for the 28 employees. Costs to convert the agency's database into TDLR's existing database are anticipated to be \$200,000. An additional \$50,000 in one-time costs would be necessary to make other changes recommended, including changes to the renewal process for endorsements and licenses, replacing the responsible master plumber designation with a contractor license, and eliminating three registration types; \$25,000 would be required each year thereafter to maintain those changes.

Texas State Board of Plumbing Examiners

Fiscal Year	Cost to the General Revenue Fund	Savings to the General Revenue Fund	Change in Number of FTEs From FY 2019
2020	\$200,000	\$8,103	0
2021	\$309,672	\$46,803	0
2022	\$134,200	\$541,735	-3
2023	\$134,200	\$541,735	-3
2024	\$134,200	\$541,735	-3

**SUMMARY OF SUNSET
STAFF RECOMMENDATIONS**

SUMMARY

Plumbing is a cornerstone of a modern civilization but often taken for granted until disasters, such as Hurricane Harvey and the recent historic flooding across Central Texas, reveal our dependency on proper plumbing to protect our health and safety. Currently, Texas has about 58,000 licensed plumbers, but the skyrocketing population growth and recurring severe storms have driven the demand for plumbing services well beyond the industry's capacity. Difficulty meeting demand for plumbers exacerbates affordable housing shortages and increases costs for construction, repairs, and maintenance, all of which impact the state's citizens and economy. With demand increasing, but supply plateauing, the regulation of plumbing in Texas is in need of serious change.

The Sunset review of the Texas State Board of Plumbing Examiners began by observing the agency's response to licensees and consumers trying to recover from Hurricane Harvey's \$125 billion toll. The small agency struggled to allocate its already stretched staff and resources, and to navigate sometimes restrictive statutory requirements. However, Sunset staff found many problems existed long before the storm and were within the board's control to fix, but the board and agency leadership have a track record of neglecting known deficiencies. Ongoing problems and frustrations include backlogged exams, with more than 1,400 individuals waiting to take exams; poor customer service, with the agency only able to answer about 62 percent of its calls; and growing complaint caseloads and resolution times, with each investigator handling between 45 to 100 complaints and the average complaint resolution time doubling to almost six and a half months.

Sunset staff also found a litany of constraints on plumbers that make entry into the trade and progression through a career difficult, some of which are statutorily created and others self-imposed or worsened by the agency. Further, the agency's enforcement processes fail to meet standard practices to ensure consistent, documented, and fair application of laws and rules to licensees, or transparency for the public.

Board members and agency leadership have acknowledged some of these persistent problems, but have failed to appropriately address them, and broader problems, like the workforce shortage, have been exacerbated by board inattention and unwillingness to change the status quo. Ultimately, Sunset staff concluded the agency's reticence to change no longer meets the expectations of the state or the growing demands of the industry and recommends transferring the regulation of plumbing to the Texas Department of Licensing and Regulation (TDLR), which has streamlined and provided more effective oversight for 24 regulatory programs transferred by the Legislature since 2001. TDLR regulates several other construction trades, including electricians and air conditioning

The regulation of plumbing in Texas is in need of serious change.

and refrigeration technicians, and can capitalize on that experience to provide more consistent, robust oversight of plumbing in Texas. The following material summarizes Sunset staff recommendations on the Texas State Board of Plumbing Examiners.

Issues and Recommendations

Issue 1

The Texas Department of Licensing and Regulation Could More Effectively Regulate Plumbers.

Regulation of plumbing continues to be critical for the health and safety of Texans by ensuring installation, repair, and maintenance of plumbing infrastructure is only performed by qualified plumbers and inspectors. However, the independent plumbing board is struggling to meet the demand from licensees and the public. Sunset staff found the board and agency leadership have not responded effectively to problems within their control to fix, and have made changes without considering the bigger picture, misplacing efforts and resources without fully addressing core issues.

Key Recommendation

- Transfer the regulation of plumbers to TDLR, and reconstitute the independent plumbing board as an advisory board.

Issue 2

Overregulation and Complex Licensure Requirements Inhibit Entry Into and Growth in the Plumbing Industry.

Several aspects of the agency's licensing processes create needless barriers to becoming a plumber or advancing in careers. For example, apprentice registrations and supervision requirements for entry-level plumbers put unnecessary burdens on the industry without clear benefit. Further, outdated exams and their administration have resulted in an unprecedented backlog — with wait times of up to eight months — that keeps plumbers from advancing in their careers, and overregulated continuing education increases costs for licensees. Sunset staff also found opportunities to modernize the regulation of plumbing contractors.

Key Recommendations

- Eliminate the responsible master plumber designation and create a plumbing contractor license.
- Eliminate the separate drain cleaner-restricted, drain cleaner, and residential utilities installer registrations.
- Remove statutory requirements for direct supervision and authorize the board to determine supervision requirements for specific tasks in rule.
- Authorize the board to outsource the creation and administration of its exams, and direct the board to revise its exams to eliminate practical components.

Issue 3

Inefficient Enforcement Processes Hinder Effective Public Protection and Fair Treatment of Licensees.

In reviewing the agency's enforcement functions, the review found certain processes do not match model standards or common practices observed through Sunset staff's experience in reviewing regulatory agencies. For example, inefficient and unnecessary aspects of the agency's complaint resolution processes, including a cumbersome statutory enforcement committee, risk fair and timely enforcement action. The agency's unfocused enforcement efforts and a lack of easily accessible disciplinary information further inhibit the agency's ability to protect the public effectively and transparently.

Key Recommendations

- Repeal the statutory enforcement committee.
- Direct the agency to adopt a risk-based approach to investigations in rule, focusing on higher risk complaints first before other lower risk activities, such as jobsite compliance checks.
- Direct the agency to use informal settlement conferences in appropriate circumstances and better document its use of this tool.
- Direct the agency to publish disciplinary histories online.

Fiscal Implication Summary

Overall, the recommendation to transfer plumbing regulation to TDLR would result in an estimated savings of about \$768,000 in general revenue over the next five fiscal years. The savings would result primarily from capitalizing on TDLR's size and structure, reducing the number of employees needed to regulate the industry, and eliminating administrative costs necessary for an independent agency. The transfer would also result in more efficient and focused administration of plumbing regulation. The other recommendations in this report to streamline and simplify licensure functions, including outsourcing exams, and to remove bottlenecks and shore up enforcement processes would result in efficiencies, but would not have a significant fiscal impact. Together, these recommendations would create a more transparent and efficient regulatory program for licensees and Texas.

Issue 1 — TDLR would assume responsibility for the plumbing board's functions on September 1, 2020, but would need the plumbing board's separate building and facilities for an additional year to ensure a smooth transition of licensing, examination, and enforcement functions. As such, most savings would be realized after fiscal year 2021. The plumbing board has 31 full-time equivalent positions, all of which would be necessary to administer the plumbing program through fiscal year 2021. After that, TDLR's process improvements would reduce the need for three employees who currently perform examinations.

TDLR would need start-up costs for furniture, computers, and office supplies and, after fiscal year 2021, ongoing office rental costs for the 28 employees. Costs to convert the agency's database into TDLR's existing database are anticipated to be \$200,000. An additional \$50,000 in one-time costs would be necessary to make other changes recommended in this report, including changes to the renewal process

for endorsements and licenses, replacing the responsible master plumber designation with a contractor license, and eliminating three registration types; \$25,000 would be required each year thereafter to maintain those changes.

Texas State Board of Plumbing Examiners

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AGENCY AT A GLANCE

NOVEMBER 2018

AGENCY AT A GLANCE

Created in 1947, the Texas State Board of Plumbing Examiners' mission is to protect Texas citizens against the health and safety hazards that can result from improperly installed plumbing, gas, and medical gas systems. To fulfill this mission, the agency carries out the following key activities:

- Examines applicants, registers apprentices, and licenses tradesman, journeyman, and master plumbers and plumbing inspectors
- Oversees training courses for continuing education course providers and ensures licensees' compliance with continuing education requirements
- Investigates and resolves complaints, and takes disciplinary action when necessary to enforce the agency's statutes and rules

Key Facts

- **Texas State Board of Plumbing Examiners.** The board consists of nine members appointed by the governor, with the advice and consent of the Senate. As shown in the chart, *Texas State Board of Plumbing Examiners*, seven members of the board are professionals and two represent the public. Members serve staggered six-year terms and oversee the agency's policies and operations. The governor designates the presiding officer of the board, and board members select a secretary from their membership for a two-year term.¹

Texas State Board of Plumbing Examiners

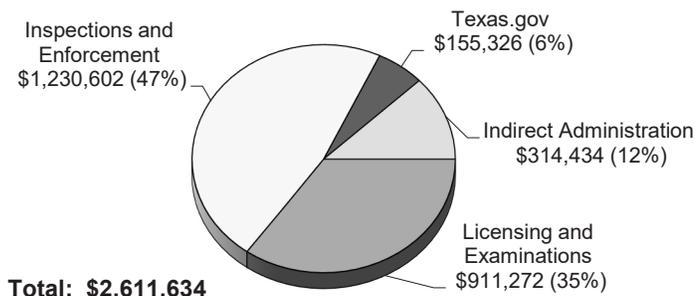
Member	Term	Qualification
Julio Cerda, Chair	2014–2019	Public Member
Rick Guerra, Secretary	2007–2017	Licensed Engineer
Enrique Castro	2007–2017	Master Plumber
Ben R. Friedman	2016–2021	Journeyman Plumber
Janet L. Gallagher	2011–2017	Plumbing Inspector
David Anthony Garza	2014–2019	Commercial Building Contractor
Milton Gutierrez	2016–2021	Public Member
Robert Jalnos	2016–2021	Responsible Master Plumber
Edward Thompson	2008–2019	Home Building Contractor

- **Funding.** The agency received about \$5.2 million in revenue in fiscal year 2017, primarily from licensing and registration fees. The pie chart on the following page, *Texas State Board of Plumbing Examiners Expenditures*, shows how the agency spent its appropriation of about \$2.6 million. The agency transferred more than \$2.5 million in excess of its appropriation to the General Revenue Fund. The chart on the following page, *Flow of Texas State Board of Plumbing Examiners Revenue and Expenditures*, shows the overall impact of agency revenue and expenditures in fiscal year 2017.

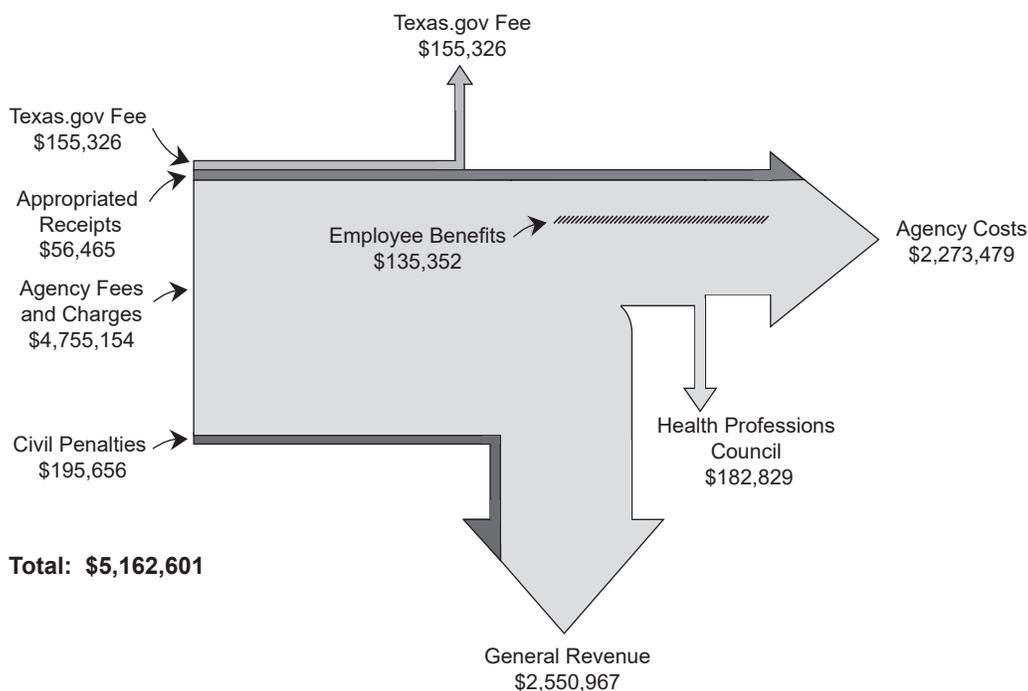
Appendix A describes the agency’s use of historically underutilized businesses in purchasing goods and services for fiscal years 2015 to 2017.

- **Staffing.** The agency was allocated 31 staff positions in fiscal year 2017. Most staff work at the agency’s headquarters in Austin, but the agency has one field investigator in each of nine regions that cover the state. The agency is a member of the Health Professions Council, which provides information technology staffing for the agency and other professional licensing agencies. A comparison of the agency’s workforce composition to the percentage of minorities in the statewide civilian workforce for the past three fiscal years is included in Appendix B.

Texas State Board of Plumbing Examiners Expenditures – FY 2017



Flow of Texas State Board of Plumbing Examiners Revenue and Expenditures – FY 2017



- **Licensing.** The agency issues and renews registrations, licenses, and endorsements for plumbing apprentices, tradesman, journeyman, and master plumbers, as well as plumbing inspectors, as shown in the table on the following page, *Plumbing Licenses*. The traditional career path begins with an apprenticeship, which eventually qualifies the individual to receive a journeyman license. After obtaining additional experience, plumbers can apply for their master license. In 2001, the Legislature created the tradesman plumber-limited license to serve as an optional stepping stone between the apprenticeship and licensure as a journeyman plumber.² Each level of licensure entails classroom training and examinations, in addition to years of on-the-job experience under supervision by a tradesman, journeyman, or master plumber. Additionally, plumbers at each level can obtain different

endorsements that authorize them to perform specific plumbing-related duties, such as installing medical gas piping in hospitals. Appendix C provides more detail on the prerequisites for and work authorized by each license, registration, and endorsement.

- **Examinations.** The agency requires an examination for almost every registration, license, and endorsement. Examinations at the apprentice level are open-book, written exams. Advanced-level exams — those given for tradesman, journeyman, and master plumbers and plumbing inspectors — include at least a written component, but several also include a hands-on, practical component. These advanced exams are conducted primarily at the agency's headquarters in Austin, but a small portion of written exams are also administered in other locations on an ad hoc basis. In fiscal year 2017, the agency conducted more than 2,600 advanced exams, and the overall passage rate for all exams was about 71 percent.
- **Continuing education.** Plumbers, other than apprentices, must acquire six hours of continuing education each year to ensure ongoing competency in the industry, or more if the individual also holds a medical gas endorsement. The agency oversees continuing education compliance for licensees, and approves course content, instructors, and course providers. The agency also approves the instructional materials for continuing education courses. In fiscal year 2017, the agency authorized three publishers to provide instructional materials for plumbers' continuing education.
- **Enforcement.** The agency assigns one field investigator to each of the nine regions across the state to conduct investigations on complaints and ensure compliance with local plumbing ordinances and state laws and rules. In fiscal year 2017, the agency received 936 complaints and conducted 820 investigations. Field investigators also conducted 8,261 compliance checks to ensure individuals on jobsites have the correct license or registration and requisite supervision for the work being performed.³ The table on the following page, *Enforcement Activities*, provides more detail on the agency's enforcement program.

Plumbing Licenses

License Type	Number*
Plumbing Apprentice Registration	26,620
Tradesman Plumber-Limited License	2,360
Journeyman Plumber License	17,862
Master Plumber License	3,512
Responsible Master Plumber (Master License)	6,968
Plumbing Inspector License	1,302
Total	58,624

* Active as of July 26, 2018.

Enforcement Activities – FY 2017

Complaints Received	
From the public	401
From licensees	78
Initiated by agency	457
Total	936
Allegations in Complaints Received	
Insufficient funds to pay board	34
Furnishing false information	45
Plumbing code violation	46
Misrepresentation	67
Unlicensed practice	83
Advertisement issue	89
Evading responsibility	121
Local/Permit violation	140
Criminal convictions	199
Contracting without Responsible Master Plumber	223
Other	28
Total	1,075
Complaints Closed by Disposition*	
Nonjurisdictional	11
Dismissed	330
Voluntary compliance	108
Warning or reprimand	147
Administrative penalty	293
Probation or suspension	3
Revocation	1
Revocation due to conviction	128
Other	112
Total	1,133

* Complaints may originate from prior fiscal year.

¹ All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 1301.157, Texas Occupations Code; 22 T.A.C. Section 361.15 establishes the two-year term limit for the board's secretary.

² Chapter 504 (H.B. 1505), Acts of the 77th Texas Legislature, Regular Session, 2001.

³ Section 1301.203(b), Texas Occupations Code.

ISSUES

ISSUE 1

The Texas Department of Licensing and Regulation Could More Effectively Regulate Plumbers.

Background

The Legislature began regulating plumbing at the local level in 1897 by requiring every city with underground sewers or cesspools to establish a board to examine and supervise plumbers.¹ After finding local control impeded the ability of plumbers to practice throughout the state, the Legislature created the Texas State Board of Plumbing Examiners in 1947 to provide uniform oversight and jurisdiction of plumbers.² The agency now regulates more than 58,000 individuals with a staff of 31 and an annual budget of approximately \$2.6 million.

The agency's mission is to protect Texas citizens against the health and safety hazards that can result from improperly installed plumbing, gas, and medical gas systems. To accomplish this task, the agency oversees the registration of apprentice plumbers and the examination and licensure of tradesman, journeyman, and master plumbers and plumbing inspectors. The agency also takes enforcement actions for violations of statute, board rules, and local plumbing codes and ordinances.

Findings

Texas has a continuing need to regulate the plumbing industry throughout the state.

- **Potential for harm.** The proper installation, maintenance, and repair of plumbing systems and fixtures is vital to a developed civilization. Poor quality plumbing can breed diseases in the water supplied to homes and businesses, such as legionnaires disease or bacterial dysentery. Improperly installed water heaters can cause explosions or fires that result in serious injury or death. Plumbing also encompasses piping for gases in medical settings, like hospitals or dental offices, which can be catastrophic if improperly installed or maintained. Regulation ensures that only qualified individuals perform plumbing work to best protect the public.
- **State-level regulation.** Texas, like most states, regulates plumbing on a statewide level, although six states provide for local regulation of plumbers through counties or municipalities. Prior to the agency's creation in 1947, local jurisdictions in Texas were often reluctant to permit new plumbers who were unfamiliar with that city's particular plumbing system and codes, which fostered a protectionist attitude toward regulation. In creating the agency, the Legislature found the localized system created an uneven distribution of the plumbing workforce throughout Texas, which in turn limited the state's ability to build homes for veterans returning from war.³ Further, the adoption of statewide plumbing codes beginning in 1993, and residential construction codes in 2001, largely standardized plumbing installation, maintenance, and repair standards throughout the state.⁴

Poor quality plumbing can breed diseases.

The plumbing board does not effectively carry out its duties to regulate plumbing and oversee agency operations.

The review found serious deficiencies in the agency's operations and overregulation of the industry.

Every Sunset review is guided by criteria focusing on the efficiency and effectiveness of the agency, and the extent to which the agency achieves its mission.⁵ The primary role of state regulation of occupations is to protect the public health, safety, or welfare, but the regulation should be no more burdensome than necessary to achieve that objective. Given the clear need to regulate plumbing services, Sunset staff asked more specifically whether the agency's regulation of plumbers truly puts public safety first, and if the amount of state control of the industry is appropriate. Unfortunately, the review found serious deficiencies in the agency's operations and overregulation of the industry that limit entry and growth in plumbing profession at a time when the state and nation face a workforce shortage of plumbers. Some of these problems stem from statutory requirements, but many issues arise from lax oversight and direction from the board and agency leadership. Board behavior reflects a misplaced focus on regulation for the benefit of the industry, rather than to protect the public. Despite a noticeably dedicated staff, the agency's long-term struggle to correct major managerial problems and redirect its attention to its primary responsibilities indicate an inability to effectively regulate plumbing.

- **Failure to fix known, persisting deficiencies.** Both the board and agency have a demonstrated track record of neglecting known deficiencies. Since the last Sunset review of the agency in 2002, the Legislature has increased scrutiny of the agency and considered transferring it to the Texas Department of Licensing and Regulation (TDLR) in 2011.⁶ However, many problems identified in 2002 have persisted without demonstrable improvement. Broader problems, like the workforce shortage, have been exacerbated by board inattention and unwillingness to change the status quo. Throughout this Sunset review, stakeholders, applicants, and licensees expressed ongoing frustrations regarding backlogged exams and poor communication, among other issues, which board members and agency leadership have often acknowledged but failed to appropriately address. Meanwhile, the agency has asked the Legislature to expand its mission to include providing more public education and outreach opportunities at community and vocational recruitment events, such as job fairs and career days, without first successfully fulfilling its primary responsibilities.⁷

Applicants must wait five to eight months to take required exams.

Unacceptably long exam wait times. The agency requires applicants for licensure or endorsements to come to its Austin headquarters to take written and practical exams where the agency's four examiners administer exams to about 10 to 30 individuals each day. Demand for exams has been steadily growing — the agency administered 1,950 exams in fiscal year 2012 compared to 2,951 in 2018 — but applicants must now wait five to eight months to test, stalling their ability to work and discouraging career advancement. As of September 2018, more than 1,400 individuals were waiting to take exams. Because exams can take a full day to complete, many applicants must stay in hotels overnight in Austin, adding to the expense and inconvenience.

Despite these unacceptably long wait times, the board and agency have demonstrated an unwillingness and inability to fix this serious problem. The board's subcommittee on exams has not met since 2011, although other subcommittees have been able to meet, and the agency has only discussed the *possibility* of using a single mobile unit to administer practical exams across the state, even though it stopped giving the written portions of the tradesman and journeyman exams outside of Austin for fiscal years 2017 and 2018. The exam backlog limits entry and advancement in the trade, contributing to the workforce shortage of plumbers that impacts labor costs for both home construction and repair, which ultimately results in higher costs for Texas consumers. Further, Sunset staff heard criticisms throughout the review that the exam content is outdated and focuses on narrow aspects of plumbing, and the written exams are only offered in English and Castilian Spanish. In Issue 2, Sunset staff recommends several changes to make the exams more functional and accessible for the modern plumbing workforce.

The exam backlog limits entry and advancement in the trade.

Poor customer service. The agency is overwhelmed by and unable to meet the demands for customer service from its licensee population and the public. In an average month, the agency receives about 4,200 calls but is only able to answer about 62 percent, and about 650 individuals physically come into the agency for help with licensing, payments, and other questions. The agency has recognized and acknowledged its diminishing customer service over the past several years, requiring existing employees to juggle competing demands between their primary job responsibilities and responding to customer service needs. However, the agency has only pursued additional staff positions that would have a peripheral effect on customer service. In at least the past three biennia, the agency has not requested a dedicated customer service position for the licensing department, which receives about 60 percent of customer service calls, but this year requested a customer service position for its enforcement department, which only receives about 8 percent of the calls. Although the Legislature has not approved requests for additional positions in the past three biennia, the agency has not targeted those requests to make the greatest impact on its operations.

The agency can only answer 62 percent of its calls.

Weak data practices. The agency does not leverage technology or data, reducing the effectiveness of its operations. As a member of the Health Professions Council (HPC), the agency relies on a shared database to manage its licensing, examination, and enforcement data. Although the agency has said the database is the biggest obstacle to achieving its regulatory mission, it has not sought additional assistance from HPC to better use the system and fully capitalize on existing features.⁸ Throughout the review, Sunset staff asked for information from both the agency and HPC directly and found that, while the agency inputs data into the system, it fails to strategically use that information. For example, the agency runs quarterly reports to show the number of exams administered, but does not regularly review the change in the number of individuals waiting to take exams over time.

This shortcoming causes the agency to miss an opportunity to see where its limited resources are most needed, such as prioritizing administering journeyman exams over exams for endorsements. Because agency reports were insufficient to provide a full picture of licensing, examination, and enforcement activities, Sunset staff relied heavily on HPC to obtain detailed data necessary for this review and found that information in the agency's reports did not always match the data in its database.

Lax oversight from plumbing board members has allowed problems to fester.

Inadequate solutions for struggling internal operations. An agency's board is responsible not only for adopting rules to allow the agency to carry out its duties, but also for setting the tone of the agency's administration. However, lax oversight from plumbing board members has allowed problems at the agency to fester without correction. For example, the 2002 Sunset review identified a lack of formal, risk-based procedures for responding to complaints, and resulting legislation created a statutory requirement for the board to prioritize its complaint investigations.⁹ While the board adopted a rule that simply states complaint investigations will be prioritized, it did not hold the agency accountable for implementing this rule.¹⁰ The agency still has not identified which complaints warrant a higher priority in a written policy, and investigators are expected to prioritize complaints relying on their own, subjective experiences. Written policies are particularly important for an agency that has dealt with significant turnover and loss of institutional knowledge, and provide consistent, transparent expectations for staff. As discussed in Issue 3, several aspects of the agency's enforcement procedures could benefit from additional direction and clarification.

High staff turnover has significantly impacted this small agency.

Strong leadership is particularly important when an agency experiences significant change at the staff level. Agency staff have regularly reported to the board and others that several of its problems are directly attributable to high staff turnover, but neither the board nor agency leadership have explored a formal succession plan to preserve crucial knowledge and experience at the agency. From September 2015 to July 2018, eight employees retired and 14 others left the agency, ranging between 19 and 29 percent of staff each fiscal year, which has had an amplified impact on the operations of this small agency.¹¹ Past attempts to retain staff by shifting job duties between employees have failed and put the cart before the horse in terms of agency needs.

- **Misguided, burdensome rulemaking.** The plumbing board has chosen to exercise significant control over several non-critical aspects of regulation while other, more direct regulatory functions are showing signs of neglect. In several cases, the board has implemented unnecessarily prescriptive requirements for licensees. For example, statute authorizes the agency to approve continuing education programs and instructors, which is not uncommon for regulatory agencies.¹² However, the rules are so detailed that even the paper weight of the cover page of published course materials is regulated.¹³ Issue 2 discusses the onerous continuing education requirements in more detail.

The agency also focuses its rulemaking and resources on activities that do not directly impact public health and safety, even though the agency's average time for complaint resolution has grown from three months in fiscal year 2008 to more than six months in 2017. Statute requires all contracts for plumbing to include the license number of the responsible master plumber.¹⁴ Board rules, on the other hand, require the license number to be displayed on both sides of all vehicles and specify it cannot be displayed on a magnetic sign.¹⁵ The rules also require the license number to be included in all radio, print, and television advertisements.¹⁶ These prescriptive requirements needlessly burden licensees, particularly small businesses with limited financial resources to comply with board rules. In fiscal year 2017, agency staff generated 42 complaints internally for failure to display license numbers in advertisements or on vehicles, for which it sought 11 administrative penalties and 12 warnings.

The agency only performed background checks for 6 percent of applicants.

- **Limited criminal history checks provide insufficient consumer protection.** The agency also fails to use its existing authority to ensure plumbers with criminal histories are not a threat to consumers. Licensure serves as the state's official endorsement of an individual's fitness to practice. As part of that endorsement, agencies commonly perform a criminal history background check before issuing or renewing a license to protect the public's safety. Further, while some trades or professions may present a lower risk to public safety, plumbers regularly enter consumers' homes and places of business. In those situations, fingerprint-based background checks have become standard, because they provide a more accurate verification of identity and nationwide criminal history information.

Although the agency has authority to perform these more robust fingerprint-based background checks, it has chosen to only perform name-based checks for a few categories of applicants, highlighted in the textbox, *Background Checks*.¹⁷ While the majority of plumbing applicants are technically subject to randomly selected name-based checks, the agency actually checked just 6 percent of all applications in fiscal year 2017. Name-based checks only reveal criminal history in Texas and cannot verify the applicant's identity, making the practice almost useless for out-of-state applicants and insufficient to ensure complete criminal histories. Name-based checks also do not enable the agency to take advantage of instantly updated conviction information available through the Department of Public Safety.

Background Checks

In fiscal year 2017, the agency processed 66,372 applications, of which 1,396 self-disclosed a conviction. The agency performed name-based background checks for

- applicants with felonies;
- known sex offenders;
- out-of-state applicants;
- applicants for reinstatement; and
- randomly for a percent of all other applicants.

In total, the agency only performed 4,187 name-based checks in fiscal year 2017, or 6 percent of all applicants.

The Texas Department of Licensing and Regulation could more effectively regulate plumbers.

Sunset staff recommends significant changes in this report, but even if those solutions were in place, the agency’s limited resources and the demonstrated disinclination to fix long-standing issues lead Sunset staff to determine that TDLR could better license and regulate the plumbing industry in Texas.

Dual Regulation at TDLR*

Total Plumbers	58,624
with Electrician License	1,652
with AC/R License	1,422
with Other License	315
Percent dually regulated	5.8%

* based on name-based comparisons of licensees in each program

TDLR’s primary focus is delivering streamlined, effective administration of 39 regulatory programs for more than 800,000 licensees, providing customer service for licensees and the public, and ensuring public safety through effective regulation.¹⁸ With a staff of 459, TDLR’s efficient administration of 24 programs transferred to the agency since 2001 has benefited not only the state, but has resulted in more than \$16 million cumulative savings for licensees.¹⁹ TDLR also has significant experience regulating related construction trades, including more than 150,000 electrician licensees and 46,000 air conditioning and refrigeration (AC/R) licensees. In fact, TDLR already regulates an estimated 6 percent of plumbers in a different profession, as shown in the table, *Dual Regulation at TDLR*.

TDLR has significant experience regulating construction trades related to plumbing.

TDLR’s history of successfully managing occupational regulatory programs would allow it to resolve many of the problems identified in the plumbing board’s regulations. For example, every licensee at TDLR is subject to a criminal history background check. Although not every licensee undergoes fingerprint background checks, TDLR consistently reviews every new application and renewal for updated criminal history information before approving the license. Focusing on public safety and efficiently resolving complaints are not mutually exclusive. In fiscal year 2017, TDLR had an average complaint resolution time of about 4.7 months and closed 12,405 complaints. TDLR is also able to leverage technology and resources to proactively meet demands for customer service, responding to more than 369,000 calls, 95,000 emails, and 5,000 faxes in fiscal year 2017, whereas the plumbing board struggled to answer two-thirds of the calls it received.²⁰ TDLR’s larger size and functional internal alignment enable it to offer more training and skills development to its employees, and plan for the longevity of the agency and the careers of its employees.

Sunset staff also considered if other state agencies could assume the responsibilities of the plumbing board, but found no likely benefit to transferring some or all functions to those agencies. In fiscal year 2017, the Railroad Commission of Texas registered 3,392 plumbers to work in the transportation, storage, or use of alternative fuels, such as propane. The Texas Commission on Environmental Quality (TCEQ) also regulates some plumbers in related programs, like backflow prevention and septic tank installation. While both the Railroad Commission and TCEQ perform some licensing functions, neither agency’s primary mission relates to occupational regulation. The Railroad Commission regulates oil and natural gas exploration and production, surface mining, pipelines, and alternative

fuels, and TCEQ is focused on other environmental regulations targeting clean air and water and sanitary waste management. Any occupational licensing occurs as a secondary function in support of those larger missions.

Most states rely on an umbrella licensing agency to regulate plumbers.

The vast majority of states rely on umbrella agencies to regulate plumbing, similar to TDLR, and six states delegate regulation to local jurisdictions like counties or cities. Only four states, including Texas, regulate plumbers through independent agencies, as shown in the chart, *Regulation of Plumbing in the United States*.

Regulation of Plumbing in the United States

Independent Agency	AL, LA, ND, TX	4
Umbrella Licensing Agency	AK, AR, AZ, CA, CO, CT, DE, FL, GA, HA, IA, ID, IL, IN, KY, MA, ME, MI, ML, MN, MS, MT, NC, NH, NJ, NM, NV, OH, OK, OR, RI, SC, SD, TN, UT, VA, VT, WA, WI, WV	40
No State Regulation	KS, MO, NE, NY, PA, WY	6

Recommendations

Change in Statute

1.1 Transfer the regulation of plumbers to the Texas Department of Licensing and Regulation, and reconstitute the independent plumbing board as an advisory board.

This recommendation would transfer the regulation of plumbers to TDLR no later than September 1, 2020. TDLR has the tools available to provide robust administrative support services and a stable, knowledgeable foundation to efficiently manage the regulation and increase responsiveness to licensees and consumers. This recommendation would include the following provisions.

- **Reconstitute the independent plumbing board as an advisory board.** Under this provision, the independent plumbing board would be reconstituted as an advisory board under TDLR to provide advice and support in the regulation of plumbers. The plumbing advisory board would retain the composition of the current independent board, and current members would be eligible for appointment. The advisory board would be appointed by the presiding officer of the Texas Commission of Licensing and Regulation with approval by the full commission, in line with the majority of TDLR's advisory bodies, through its regular application and review process.
- **Sunset provision.** This provision would remove the separate Sunset review date from the plumbing board's statute, as the program would be subject to review under TDLR's existing Sunset date, currently set for September 1, 2021.

- **Coordinate to provide for seamless administrative transition.** This provision would require the plumbing board to provide TDLR access to all systems and information needed to effectively absorb the program, including licensing, revenue, and expenditure systems; rights to contracts and agreements; use of online renewal and new application systems; and review and resolution of pending judgments and outstanding expenditures. This provision would also require the plumbing board to facilitate communications on behalf of TDLR with the Health Professions Council as necessary.
- **Legislative issues.** This provision would direct Sunset staff to work with staff from TDLR, the plumbing board, and the Texas Legislative Council in the drafting of bill language to accurately account for any other legal and administrative aspects the transfer entails. To support the transition without any loss of services, the Legislature would need to enact appropriations contingency riders to allow for interagency financial agreements between TDLR and the plumbing board.

1.2 Require the agency to obtain fingerprint background checks for all applicants and licensees.

This recommendation would require the agency to obtain fingerprint-based criminal background checks for all applicants and licensees. Since plumbers enter homes and businesses in the regular course of their work, these more robust criminal history background checks would better ensure the safety of Texans. Placing this requirement in statute would ensure TDLR continues the practice if it assumes the regulation of plumbing. Current licensees and new applicants would have to obtain a fingerprint-based check through the Department of Public Safety's vendor and pay a one-time fee of about \$37. However, given that the agency does not currently perform background checks for the majority of its large licensee population, this recommendation would allow for two, two-year, staggered implementation time frames to first perform name-based checks on all licensees no later than September 1, 2021, and fingerprint-based background checks no later than September 1, 2023. To ensure compliance, the agency would be authorized to administratively suspend a licensee or registrant for failing to comply with the background check requirement.

Management Action

1.3 Direct the agency to work with TDLR to develop regulatory processes and rules.

Under this recommendation, the agency would work with TDLR to review existing practices and rules for opportunities to improve, in conjunction with any other management recommendations adopted by the Sunset Advisory Commission. If the recommendation to transfer the functions of the agency to TDLR is adopted, the agency should work with TDLR while the bill proceeds through the legislative process to identify and implement, as possible, necessary changes in rules and processes to facilitate the transition.

Fiscal Implication

Overall, the recommendation to transfer plumbing regulation to TDLR would result in an estimated savings of about \$768,000 in general revenue over the next five fiscal years. The savings would result primarily from capitalizing on TDLR's size and structure, reducing the number of employees needed to regulate the industry, and eliminating costs necessary for an independent agency. The transfer would also result in more efficient and focused administration of plumbing regulation.

Under Recommendation 1.1, TDLR would assume responsibility for the plumbing board's functions on September 1, 2020, but would need the plumbing board's separate building and facilities for an additional

year to ensure a smooth transition of licensing, examination, and enforcement functions. As such, most savings would be realized after fiscal year 2021. Additionally, the plumbing board has 31 full-time equivalent positions, all of which would be necessary to administer the plumbing program through fiscal year 2021. After that point, TDLR should have implemented process improvements sufficient enough to reduce the needed number of employees to 28.

TDLR would need start-up costs for furniture, computers, and office supplies, and, after fiscal year 2021, ongoing office rental costs for the 28 employees. Costs to convert the agency's database into TDLR's existing database are anticipated to be \$200,000. An additional \$50,000 in one-time costs would be necessary to make other changes recommended in this report, and \$25,000 would be required each year thereafter to maintain those changes. The table, *Comparison of Current Expenditures to Projected Operational Costs*, shows the overall estimated costs to administer the plumbing program independently and at TDLR, and the estimated savings from implementing these recommendations. Like most occupational licensing agencies, the plumbing board's current fee revenue is well in excess of its expenses; the plumbing board generates about \$5.2 million in revenue each year, of which only about \$2.6 million is appropriated for agency operations. The Legislature could consider appropriating some of the excess revenue the plumbing board generates to TDLR until the transfer has been completed. Alternatively, the Legislature could consider covering the start-up costs by authorizing a temporary surcharge or fee increase on licensees, recognizing that TDLR has historically been able to lower fees for licensees once programs have been fully transferred.

Texas State Board of Plumbing Examiners

Fiscal Year	Change in FTEs from FY 2019
2020	0
2021	0
2022	-3
2023	-3
2024	-3

Comparison of Current Expenditures to Projected Operational Costs

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Current Expenditures at Plumbing Board	\$2,660,867	\$2,660,867	\$2,660,867	\$2,660,867	\$2,660,867
Projected Operating Costs at TDLR	\$2,852,764	\$2,923,709	\$2,253,332	\$2,253,332	\$2,253,332
Savings (Costs) to the General Revenue Fund	(\$191,897)	(\$262,842)	\$407,535	\$407,535	\$407,535

Recommendation 1.2 to implement fingerprint-based background checks would not have a fiscal impact to the agency, but would require applicants and licensees to pay \$37 for a fingerprint background check through the Department of Public Safety. The agency would receive criminal history information and instant updates as new information becomes available, and could handle any related workload with current resources.

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- 1 Chapter 163 (S.B. 154), Acts of the 25th Texas Legislature, Regular Session, 1897.
 - 2 Chapter 115 (S.B. 188), Acts of the 50th Texas Legislature, Regular Session, 1947.
 - 3 Ibid. at Section 18.
 - 4 Chapter 100 (S.B. 815), Acts of the 73rd Texas Legislature, Regular Session, 1993 (adopting the first plumbing codes for statewide use); Chapter 791 (H.B. 217), Acts of the 77th Texas Legislature, Regular Session, 2001 (modifying the plumbing codes for statewide use); Chapter 120 (S.B. 365), Acts of the 77th Texas Legislature, Regular Session, 2001 (adopting the International Residential Code).
 - 5 All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 325.011, Texas Government Code.
 - 6 H.B. 2665, 82nd Texas Legislature, Regular Session, 2011; H.B. 3166, introduced version, 82nd Texas Legislature, Regular Session, 2011.
 - 7 Texas State Board of Plumbing Examiners, *Legislative Appropriations Request 86th Regular Session*, accessed September 1, 2018, <http://docs.lbb.state.tx.us/display.aspx?DocType=LAR&agy=456&fy=2020>, 6.
 - 8 Texas State Board of Plumbing Examiners, *Self-Evaluation Report*, <https://www.sunset.texas.gov/public/uploads/files/reports/Plumbing%20Examiners%20Self-Evaluation%20Report.pdf>, 6.
 - 9 Chapter 819 (S.B. 282), Acts of the 78th Texas Legislature, Regular Session, 2003; Section 1301.303(e), Texas Occupations Code.
 - 10 22 T.A.C. Section 367.15(c).
 - 11 Texas State Board of Plumbing Examiners, *Agency Strategic Plan 2019–2023*, accessed September 1, 2018, <https://tsbpe.texas.gov/wp-content/uploads/2018/07/TSBPE-Agency-Strategic-Plan-for-FY-2019–2023.pdf>, 12.
 - 12 Section 1301.404, Texas Occupations Code.
 - 13 22 T.A.C. Section 365.15(e)(3) requires cover material be printed on 80-pound gloss paper.
 - 14 Section 1301.302, Texas Occupations Code.
 - 15 22 T.A.C. Section 367.10.
 - 16 Ibid.
 - 17 Section 411.122(d)(16), Texas Government Code.
 - 18 Texas Department of Licensing and Regulation, *Agency Strategic Plan 2019–2023*, accessed September 1, 2018, https://www.tdlr.texas.gov/StratPlan/2019/tdlr_strategic_plan_2019-2023.pdf.
 - 19 Ibid.
 - 20 Texas Department of Licensing and Regulation, *Consolidation, Efficiency and Streamlined Service*, accessed September 1, 2018, <https://www.tdlr.texas.gov/Agency%20Reports/Consolidation%20Efficiency%20and%20Streamlined%20Govt%20March%202018.pdf>.

ISSUE 2

Overregulation and Complex Licensure Requirements Inhibit Entry Into and Growth in the Plumbing Industry.

Background

The Texas State Board of Plumbing Examiners registers and licenses more than 58,000 apprentices, tradesman, journeyman, and master plumbers, and plumbing inspectors. The agency also issues additional registrations and endorsements at each level that authorize licensees to perform additional tasks or work under less supervision. The table, *Licenses and Endorsements*, shows the total number of plumbers at each level of regulation and the number of individuals who hold specific endorsements or registrations. Appendix C provides additional details about the requirements for each license, registration, and endorsement.

Traditionally, a career in plumbing begins with an apprenticeship for about four years that leads to a journeyman license. After an additional four years, an individual can become a master plumber. Texas also licenses tradesman plumbers as a stepping stone for apprentices to perform residential plumbing services under less supervision as they continue working towards the journeyman license. Master plumbers can qualify to become a responsible master plumber (RMP), authorizing them to contract for plumbing services and supervise other licensees' plumbing work. Applicants must pass an exam for nearly every license, registration, and endorsement, and most plumbers are required to meet continuing education requirements.

Licenses and Endorsements

Type	Number*
Apprentice Plumber	26,620
Drain Cleaner-Restricted	816
Drain Cleaner	339
Residential Utilities Installer	740
Tradesman-Limited Plumber	2,360
Drain Cleaner	429
Journeyman Plumber	17,862
Medical Gas Piping Installation	2,316
Residential Fire Protection Sprinkler Specialist	66
Water Supply Protection Specialist	169
Master Plumber	3,512
Medical Gas Piping Installation	391
Residential fire Protection Sprinkler Specialist	66
Water Supply Protection Specialist	140
Responsible Master Plumber	6,968
Medical Gas Piping Installation	609
Residential Fire Protection Sprinkler Specialist	151
Water Supply Protection Specialist	194
Plumbing Inspector	1,302
Medical Gas Piping Installation	236
Residential Fire Protection Sprinkler Specialist	93
Water Supply Protection Specialist	83
Total	58,624

* As of July 26, 2018.

Findings

Unnecessary registrations and restrictive supervision requirements limit entry-level opportunities in plumbing.

Apprentice plumbers assist in the repair and installation of plumbing under direct supervision. Many plumbers take advantage of formal apprenticeship programs through local unions, associations, or businesses to gain both hands-on and classroom education while employed and earning a living. Other individuals are simply hired to perform a job that requires at least an apprentice registration. Generally, apprentices help dig trenches, install hardware, and fit pipes, but a licensed journeyman or master plumber must be on the jobsite to provide direct supervision of the work. Tradesman plumbers can work on

one- or two-family dwellings under general supervision, but otherwise work under direct supervision, similar to apprentices. For some common tasks, apprentice and tradesman plumbers can obtain additional registrations to work under general, rather than direct, supervision, listed in the textbox, *Additional Registrations*.¹ As compared to direct supervision, general supervision only requires that the RMP approve the design and materials of the project before work begins and the quality of the work once completed. All tradesman plumbers and apprentices who obtain an additional registration must obtain six hours of continuing education each year to maintain the registration.

Additional Registrations

Apprentices can obtain a

- drain cleaner-restricted registration;
- drain cleaner registration; or
- residential utilities installer registration.

Tradesman plumbers can obtain a

- drain cleaner registration.

All work performed by plumbers must be supervised.

- **Highly regulated environment.** Plumbing, particularly at the apprentice and tradesman levels, takes place in a highly controlled environment. The work involved in the additional registrations is typically based on well-established codes and manufacturer standards. Local jurisdictions also often require new plumbing installations and major repairs to be permitted and inspected by a local plumbing inspector for safety and compliance with local plumbing codes. In the absence of local requirements or specific codes or standards, work performed by any plumber in every situation must be conducted under the general supervision of an RMP, even at the journeyman or master level.² For consumers, the responsibility for poor quality work always ultimately falls on the RMP and the company that hired the plumber to do the job, regardless of the supervision provided.
- **Little additional value.** The additional registrations do not expand the scope of work that apprentice and tradesman plumbers can perform. Rather, the registrations allow the plumber to work under less supervision. Ostensibly, the additional requirements for these registrations imply the work entails greater risk to the consumer, but the examination for each registration is simply a 25-question, open book “training affidavit” that individuals submit with their application, which suggests that only minimal competency in reading code is required to perform these tasks. Further, only about 5 percent of apprentices have an additional registration. The stringent experience requirements for the drain cleaner registration — 4,000 hours — are the

same needed to obtain a tradesman license, so there is not much incentive to stay an apprentice at that point. Additional annual fees and continuing education requirements may also deter interest in these registrations.

Antiquated exams and their administration create unnecessary burdens for licensees, contributing to the workforce shortage of plumbers.

Texas, much like the rest of the nation, faces a workforce shortage of plumbers, the impact of which has become most clear following the devastation caused by Hurricane Harvey in 2017. In Texas, about two-thirds of contractors report difficulty filling plumbing positions, which means fewer resources and inflating costs for consumers for plumbing services.³ While every requirement for licensure creates a barrier to licensure, the effect of regulation on consumers emphasizes the need to evaluate whether prerequisites for plumbers are still needed and appropriate.

The agency develops, updates, and administers exams for every license, registration, and endorsement, with the exception of initial apprentice registrations. Examinees come to the agency's headquarters in Austin where four examiners proctor exams for 10 to 30 individuals each day. Most exams contain both a written and practical component, and some practical components have multiple parts. For example, the tradesman and journeyman exams include a written component, as well as a hands-on shop component and a two-story house rough-in, explained in the textbox, *Rough-In*. Sunset staff found the agency's paper-based written exams and practical exam components are inefficient and unnecessary to ensure plumbers' competency.

Rough-In

The plumbing board has several miniature home structures built to scale that examinees use to complete a "rough-in" of plumbing systems for certain exams. Essentially, examinees must design and install a plumbing system for these model residences using scaled pipes and equipment to demonstrate their knowledge of plumbing.

- **Outdated and excessive testing.** Statute requires applicants to demonstrate their competency by passing a uniform, reasonable exam but does not require a practical component.⁴ Further, of the 44 states that regulate plumbers on a statewide level, at least 35 states do not require licensees to prove themselves through a practical examination. Although the practical components may once have been the only means for ensuring plumbers' competency, requirements for training and experience now provide sufficient assurance of examinees' experience. Applicants for the tradesman plumber license must accumulate 4,000 hours of experience; an additional 4,000 hours is required for the journeyman license; and an additional four years of experience is required to become a master plumber.⁵ All of this time on the job must be supervised by a more senior licensee. Further, applicants must attend a training course ranging from 24 to 48 hours before taking several of the exams. By the time applicants sit for an exam, they have already exhibited minimum competency through these extensive training requirements.

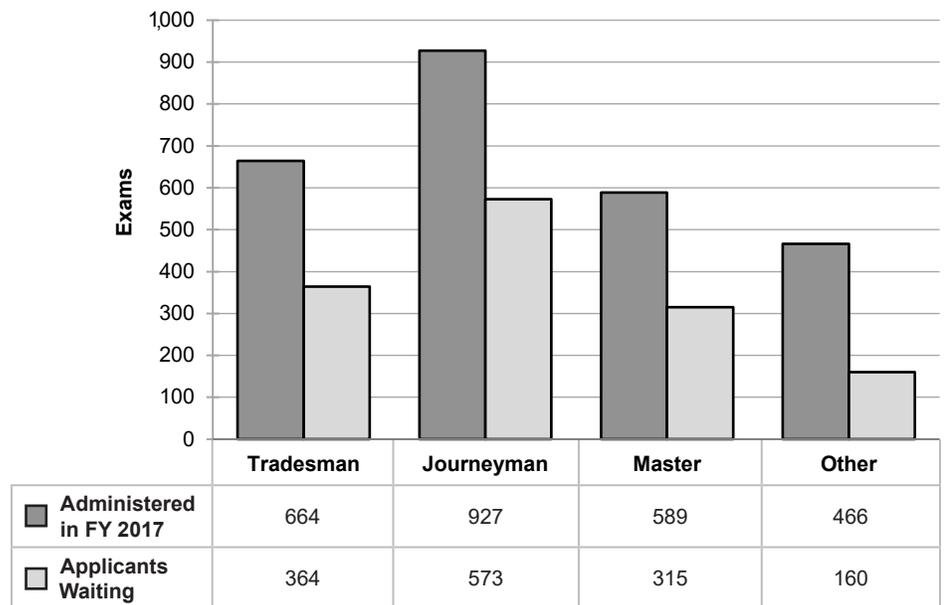
About two-thirds of contractors in Texas report difficulty filling plumbing positions.

Applicants have already demonstrated competency through extensive training.

More than 1,400 individuals are waiting to take exams.

- Inability to meet demand.** Administering a paper-based written exam and outdated practical components creates inefficiencies and makes licensure less accessible in Texas. Although the agency has increased the overall number of exams conducted each year, a growing number of applicants must wait upwards of eight months to take an exam. In particular, exams to advance to the next level of licensure are in high demand, but as shown in the graph, *Texas State Board of Plumbing Examiners Exam Demand*, the agency’s backlog of exam applicants outpaces its capacity to administer these exams. As of September 2018, more than 1,400 individuals were waiting to take exams. Statute also requires the agency to only hire licensed plumbers to administer the exams, which has impacted the ability of the agency to retain employees in its four examiner positions.⁶

Texas State Board of Plumbing Examiners Exam Demand



Backlog as of September 4, 2018

All plumbing applicants must travel to Austin to take exams.

- Limited accessibility.** Texas has the second highest population of plumbers in the nation — shown in the table on the following page, *Top 10 States by Plumbing Population and Test Provider* — and is the second largest state by land mass, but all of its plumbing applicants must travel to Austin to take exams. A limited number of written exams have been offered in other locations in the past, but the agency has only ever offered the practical components in Austin. Most states take advantage of third-party companies that specialize in developing and administering exams to provide testing services for plumbing programs. Many other Texas agencies that regulate related trades also outsource their exams. Third-party providers often have access to sophisticated resources and experts to develop questions appropriate to the skill-level and industry, and are able to offer exams online or in multiple locations. Improved accessibility can reduce travel

costs for examinees and lost earnings, and outsourcing exams can free up limited agency resources to dedicate towards other aspects of regulation.

**Top 10 States by Plumbing
Population and Test Providers**

State	Plumbers*	Test Provider
California	58,835	Third-party
Texas	55,355	State
Florida	31,105	Third-party
New York	30,960	<i>No state regulation</i>
Pennsylvania	21,400	<i>No state regulation</i>
Illinois	20,945	State
North Carolina	17,350	Third-party
Ohio	17,250	Third-party
Virginia	15,590	Third-party
Michigan	14,640	Third-party

* Census data for 2016.

Overly prescriptive continuing education requirements create unjustified burdens for licensees.

All licensed plumbers, and apprentices who hold additional registrations, must attend six hours of continuing education (CE) each year.⁷ Licensees with a medical gas piping installation endorsement must obtain an additional two hours of CE every three years.⁸ The board approves courses, providers, instructors, materials, and the publishers of course materials each year, and field investigators attend a sample of courses to ensure compliance with board rules. In fiscal year 2017, field investigators monitored 31 CE courses.

- **Peculiarly detailed requirements.** Agency rules should be reasonable and clearly related to statutory direction. Statute requires the agency to recognize, approve, and administer CE programs for licensees and approve course content and instructors, similar to other agencies.⁹ But board rules interpret that authority atypically. For example, all six hours of plumbing CE must be obtained through one course offered either in one day, or in two three-hour sessions held within the same seven-day period.¹⁰ No more than 45 students can attend a single course, and only one third-party vendor can offer food or drink at each course.¹¹ All course materials must contain illustrations, a verbatim disclaimer specified by the board, and be printed using full bleed color ink, bound using perfect or metal coils, and printed on specifically weighted paper.¹² The relation these requirements have to the quality of plumbers' education or public safety, if any, is unclear.

*Atypical
continuing
education
requirements
do not relate
to plumbers'
education or
public safety.*

Continuing education rules have essentially created another regulated profession.

**CE Participants
July 2016–June 2017**

Publishers	3
Course providers	15
Instructors	101

Endorsements renew every three years, separately from the license to which they attach.

The board has also used its broad statutory authority to require training to become a course instructor. Instructors must attend a 160-hour training program in educational and communication techniques, split into four 40-hour courses over four consecutive years and hosted by board-approved course providers.¹³ Publishers are also required to hold annual trainings for instructors to learn how to use approved course materials.¹⁴ While the board is statutorily authorized to approve instructors, its rules have essentially created another regulated profession.

- **Limited CE availability increases costs.** Overregulation may limit the number of individuals willing to comply with board rules and provide materials and courses for CE. As shown in the table, *CE Participants*, Texas has just 15 course providers. However, about 33,000 individuals are required to take CE each year, and plumbers wanting to advance their career must take training courses through these same providers. Creating a large demand at the mercy of few providers sets up conditions for artificial price inflation. Course prices vary by provider, but average about \$90 for the six-hour CE course. Exam training courses, which not every provider hosts, can cost upwards of \$650. Most providers are located in major metropolitan areas, so secondary costs like travel and hotels can create additional burdens, especially for plumbers that travel from rural or isolated areas. The board recently allowed all licensees to take correspondence CE courses as of September 1, 2017, rather than physically attend, which historically had only been permitted in limited circumstances. While that option reduces travel costs, licensees must still obtain physical copies of course materials and pay a course fee.

The agency’s nonstandard approach to renewing licenses and endorsements creates administrative inefficiencies and unfair hardships for licensees.

License renewal should be scheduled as efficiently as possible to minimize burdens for the agency and licensees. Currently, statute requires annual renewal of all registrations and licenses, which means the agency processes tens of thousands of renewal applications each year in addition to applications for initial licensure.¹⁵ Authorizing the agency to establish a biennial renewal period for licenses and registrations in rule would create a clearer, less onerous, and more efficient renewal process. Further, endorsements renew every three years, separately from the license to which they attach.¹⁶ Renewing endorsements separately from the license creates an additional administrative burden for the agency and entails a separate cost for licensees.

In addition, applicants for renewal must obtain CE during a “course year” that aligns with the deadline to renew an individual’s license. A CE course year runs from July 1 through June 30 of the following year.¹⁷ The board has adopted rules outlining the time period during which CE must be obtained based on the month in which a license expires, but this system unfairly and arbitrarily burdens some licensees.¹⁸ For example, individuals whose licenses expire in September only have three months in which to obtain CE, whereas

individuals whose licenses expire in July have 13 months. A straightforward requirement to take approved CE courses prior to renewal would be more equitable and simple for licensees without risking their competency.

Regulating business practices through a licensed plumber reduces transparency to the public and accountability for plumbing companies.

Statute prohibits any person from contracting for plumbing without first securing the services of a responsible master plumber (RMP).¹⁹ RMPs are master plumbers who allow a company to use their license to offer and perform plumbing services, and ultimate responsibility for any contracted plumbing work falls to the RMP.²⁰ To become an RMP, a master plumber must first obtain liability insurance of at least \$300,000 and complete a training program.²¹ Companies that employ unlicensed individuals to perform plumbing, or who violate statute or board rules, can be subject to a Class C misdemeanor or civil or administrative action by the agency.²²

- **Business training does not ensure better plumbing.** Master plumbers must complete a 24-hour course to become an RMP, but the course does not focus on proficiency in the trade. Instead, the course focuses on business administration, occupational safety requirements, and customer service. While all contracts for plumbing services technically flow through the RMP's license and are covered by their insurance, the RMP may have little involvement in a company's business management or administration, and the designation to be an RMP does not entitle the licensee to exercise any control over the company.
- **Consumers are potentially at risk if a company loses its RMP.** Because all plumbing work is attached to a specific RMP's license, repairs and other plumbing work may be delayed or cancelled if the RMP leaves, retires, or refuses a contract. In those events, large companies may be able to quickly replace the RMP with another to fulfill a contract, but small businesses may only have one RMP on staff. Similarly, if the RMP forgets to renew his or her insurance or submit an updated certificate of insurance with the agency, all work under that license must immediately cease.
- **A plumbing contractor license could provide better accountability and service to Texans.** Similar trades use a contractor license to regulate businesses that provide certain services.²³ These contractor licensees obtain insurance and take responsibility for all work, which more clearly reflects consumer perception of the industries. Sunset staff found the contractor model created an effective tool to allow out-of-state plumbers to provide assistance under supervision of a Texas licensee during disaster recovery. Further, clear regulatory authority over businesses ensures the agency has an avenue through which to enforce statute and board rules. At least 21 states license plumbing contractors, including Arizona, New Mexico, and Oklahoma, which may present opportunities for reciprocity with nearby states.

Companies that employ unlicensed individuals can be subject to criminal, civil, or administrative action.

The contractor model creates an effective tool during disaster recovery and for enforcement.

The agency does not have standard authority to issue temporary licenses for plumbers.

A temporary license authorizes the holder to practice in Texas before meeting all licensure qualifications. Usually these licenses are only valid for a limited time but offer efficient, ready means for responding to natural disasters and other events that drive immediate but short-term demand for licensees. While other agencies were able to leverage reciprocal agreements and temporary license authority, the lack of similar statute impeded the plumbing board's ability to respond quickly to the disaster recovery efforts after Hurricane Harvey in 2017. Authorizing the agency to issue temporary licenses would provide a much-needed tool to respond to Texans' needs.

Recommendations

These recommendations are formatted to apply to the Texas State Board of Plumbing Examiners as it currently exists, but if the Sunset Commission adopts the recommendation in Issue 1 to transfer the regulation of plumbing to the Texas Department of Licensing and Regulation, Sunset staff would work with the agencies and the Texas Legislative Council to ensure these statutory changes are included in the draft Sunset legislation as needed. Additionally, the agency should begin implementing the recommended management actions as soon as the Sunset Commission takes formal action on them to make needed improvements while the Legislature deliberates the transfer.

Change in Statute

2.1 Eliminate the separate drain cleaner-restricted, drain cleaner, and residential utilities installer registrations.

This recommendation would eliminate the separate drain cleaner-restricted, drain cleaner, and residential utilities installer registrations, and authorize apprentice and tradesman plumbers to perform these tasks. In conjunction with Recommendation 2.2, this recommendation would reduce over-regulation of entry-level positions that may discourage individuals from joining a trade or advancing through their career.

Currently, apprentice plumbers with these additional registrations must obtain continuing education each year, so this recommendation would also authorize, but not require, the board to determine what, if any, continuing education is necessary for apprentice plumbers. In making this determination, the board should seek input from stakeholders, licensees, and other interested parties to ensure it does not create an onerous, expensive requirement for entry-level plumbers.

2.2 Remove statutory requirements for direct supervision and authorize the board to determine supervision requirements for specific tasks in rule.

This recommendation would remove requirements for direct supervision from statute, maintaining the current requirement that all plumbing work occur under general supervision. In its place, the board would be authorized to determine in rule specific guidelines for the type of work that may be performed by apprentice and tradesman plumbers under general supervision and when direct supervision is required. The board could factor in considerations of the individual's experience, training, and education when creating these guidelines. This recommendation would also clarify that the responsible master plumber — or plumbing contractor if Recommendation 2.8 is adopted — is ultimately responsible for the quality and supervision of the work performed.

2.3 Remove the requirement for the board to only hire licensed plumbers to administer exams.

Other than for agency executive directors, statute usually does not specify experience requirements for agency employees to ensure agencies have flexibility to adapt their workforce to changing needs. This recommendation would remove the requirement that the examiner position be a licensed plumber to allow the board to employ individuals as necessary based on its needs. The recommendation would also expand the pool of talent from which the agency can seek examiners to address the growing backlog of applicants waiting to take exams.

2.4 Authorize the board to outsource the creation and administration of its exams.

Under this recommendation, the board would be statutorily authorized to outsource the creation and administration of its exams. This recommendation would also completely remove the statutory requirement to hire a plumbing examiner to administer exams. Most licensing agencies no longer administer their own exams and instead rely on national or regional associations, or third parties, that are able to put exams online. Outsourcing exam administration could provide more accessibility for individuals throughout the state, reducing the cost and inconvenience of coming to Austin to test. If this recommendation is adopted, the Sunset Commission would not need to take action on Recommendation 2.3.

2.5 Clarify the board's authority to approve continuing education course content and instructors.

This recommendation would clarify the board's authority to approve only the course content and instructors for continuing education and exam training courses, removing any ambiguity from statute. The board should revise or eliminate excessive rules for publishers of course materials, course providers, and other parties involved in providing these mandated courses. As part of this recommendation, the board should consider whether its rules requiring the entire six hours of continuing education be provided in one course are overly restrictive or limit the market for educational opportunities.

2.6 Authorize the board to establish license terms in rule.

This recommendation would authorize the board to set the terms for renewing licenses and registrations in rule. A biennial renewal process for plumbers would reduce staff time and resources spent processing these applications without compromising oversight of licensees.

2.7 Remove the separate renewal for endorsements.

Under this recommendation, licensees with endorsements would no longer be required to renew those endorsements every three years separately from their license. Instead, endorsements would be linked to the renewal of the license. Any additional continuing education requirements would be due when the license and endorsements are renewed, creating a clearer, streamlined system for the agency and licensees.

2.8 Eliminate the responsible master plumber designation and create a plumbing contractor license.

This recommendation would in practice replace the designated RMP position with a plumbing contractor licensee. Individuals and businesses seeking to offer plumbing services to the public would be required to obtain a contractor license with the same insurance requirements currently in place for the RMP. However, contractors would not be required to take the 24-hour business course for licensure, which

would create an unnecessary barrier for businesses. Contractor license holders would be subject to the same oversight and administrative authority as other licensees, allowing the board to take enforcement actions if necessary.

As part of this recommendation, contractor licensees would be required to either be or employ a master plumber to provide oversight and supervision of plumbing work, but the contractor would still be liable for all of its employees' work. Like the RMP now, this requirement would not entitle the master plumber to any ownership or control of the business, but it does guarantee that an experienced, qualified plumber ensures the quality of installations, repairs, and other plumbing services.

Individuals who currently hold the RMP designation would be authorized to apply for a plumbing contractor license at no additional cost, or simply retain their master plumber license for work. This recommendation would not take effect until September 1, 2020, to allow the board time to establish any rules necessary to accommodate these changes.

2.9 Authorize the agency to issue temporary licenses.

This recommendation would authorize the agency to issue temporary licenses to applicants, which would enable the agency to respond to emergencies and natural disasters quicker. The board would establish the qualifications for these licenses in rule, but should be mindful of their limited purpose. A temporary license would only be valid for 30 days, ensuring they are not used as a vehicle to circumvent the requirements for full licensure. Plumbers holding temporary licenses would be subject to board oversight, laws, and rules to the same extent as fully licensed plumbers.

Management Action

2.10 Direct the board to revise its exams to eliminate practical components.

Under this recommendation, the board would be directed to revise its exams to eliminate the current practical components. While these methods of examining plumbers may once have been the best means to ensure qualifications, modern resources and technological capabilities make these methods obsolete. The board should consider the availability of expertise from third parties, if it is unable to create a robust, secure, and reliable exam on its own. This recommendation, along with Recommendations 2.3 and 2.4, is intended to modernize the board's exam administration to eliminate outdated hurdles to licensure and meet the growing demand for plumbers in Texas.

2.11 Direct the board to simplify the timeframe for obtaining continuing education.

This recommendation would direct the board to simplify the system for obtaining continuing education during specific periods by aligning that timeframe with the period of renewal for the license or registration. This would ensure each plumber has the same amount of time to obtain continuing education and simplifies the task of verifying continuing education compliance.

Fiscal Implication

Most of these recommendations would streamline and simplify the administration of the agency's licensure functions and would not have a significant fiscal impact. The recommendation to eliminate separate registrations for entry-level plumbers would eliminate the revenue collected from those registrations, but the board could adjust the fees for its apprentice registration and tradesman license to recover these

costs. Similarly, the recommendation to replace the RMP with a plumbing contractor license would eliminate fees associated with the RMP, but the board could set fees for the plumbing contractor license commensurate with those amounts.

The recommendation to authorize temporary licenses would allow the agency to collect fees for those licenses, resulting in an increase in revenue for the state, but the number of licenses that would be issued and the amount of fees collected cannot be estimated at this time. The authority to outsource the exams itself would not result in a fiscal impact, but if the board used that authority, the four examiner positions at the agency would no longer be necessary. Currently the agency expends an estimated \$263,000 in salaries and benefits for its four examiners.

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 1 All citations to Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 1301.3575, Texas Occupations Code.

2 Section 1301.351, Texas Occupations Code; 22 T.A.C. Section 367.5.

3 The Associated General Contractors of America, *2016 Workforce Survey Results: Texas Results*, accessed September 25, 2018, https://www.agc.org/sites/default/files/Files/Communications/2016_Workforce_Survey_Texas.pdf; Mike Copeland, "Talent Shortage Hampering Local Construction Industry," *Waco Tribune-Herald*, November 2, 2017, https://www.wacotrib.com/...ss/talent-shortage-hampering-local-construction-industry/article_a666c8b0-5023-599c-985b-453dcfa9c5a3.html; and Jill Cowan, "How Desperate Can Texas Get for Construction Labor? Look at Houston After Hurricane Harvey," *Dallas Morning News*, August 20, 2018, <https://www.dallasnews.com/business/economy/2018/08/20/desperate-can-texas-get-construction-labor-look-houston-after-hurricane-harvey>.

4 Section 1301.352, Texas Occupations Code.

5 Section 1301.002(4), (5), and (10), Texas Occupations Code.

6 Section 1301.202, Texas Occupations Code.

7 Sections 1301.404–.405, Texas Occupations Code.

8 22 T.A.C. Section 365.21.

9 Sections 1301.354(b) and (c), and 1301.404–.405, Texas Occupations Code.

10 22 T.A.C. Section 365.19(c).

11 22 T.A.C. Section 365.19(f) and (h)(2).

12 22 T.A.C. Section 365.15.

13 22 T.A.C. Section 365.20(b).

14 22 T.A.C. Section 365.18(c).

15 Section 1301.401, Texas Occupations Code.

16 Section 1301.356, Texas Occupations Code; 22 T.A.C. Section 365.5(c).

17 22 T.A.C. Section 365.14.

18 *Ibid.*

19 Section 1301.351, Texas Occupations Code.

20 Section 1301.002(9-a), Texas Occupations Code.

21 Sections 1301.3576 and 1301.552, Texas Occupations Code.

22 Sections 1301.504–.5045, 1301.507, 1301.508, and 1301.701, Texas Occupations Code.

23 Sections 1302.251 (air conditioning and refrigeration contractor) and 1305.159 (electrical contractor), Texas Occupations Code.

ISSUE 3

Inefficient Enforcement Processes Hinder Effective Public Protection and Fair Treatment of Licensees.

Background

The Texas State Board of Plumbing Examiners enforces state laws and rules, as well as local codes and ordinances, by inspecting jobsites for compliance with licensure and supervision requirements; investigating complaints against licensed plumbers and unlicensed practitioners; and as necessary, taking disciplinary action against those who violate the agency's statutes or rules. To conduct inspections, investigations, and other enforcement duties, the agency assigns field investigators to nine regions across the state.

The Sunset Advisory Commission has a long history of evaluating licensing and regulatory agencies, asking not only if the functions of an agency continue to be needed, but also whether the agency is performing those functions in the most effective, fair, and efficient manner. Over the course of more than 40 years, the Sunset Commission has completed more than 110 licensing agency reviews. Sunset staff has documented standards in reviewing licensing programs to guide future reviews of licensing agencies. Staff continues to refine and develop these standards, reflecting additional experience and different or changing needs, circumstances, or practices in licensing agencies. The following material highlights areas where the agency's statute and rules differ from the model standards, and describes the potential benefits of conforming to standard practices.

Findings

Unfocused enforcement efforts and nonstandard statute inhibit the agency's ability to protect the public effectively and transparently.

- Lacking prioritization.** Agencies with the authority to conduct onsite inspections should have clear procedures and rules that promote fair treatment and timely compliance of regulated individuals and focus agency resources on the areas of highest risk to the public. The agency's field investigators conduct unannounced "compliance checks" at active jobsites to verify plumbers have their required licenses and that more experienced plumbers are properly supervising apprentice and tradesman plumbers.¹ The agency expects field investigators to perform random compliance checks at least two days a week, without any rule or policy to guide how to choose certain sites. In fiscal year 2017, the nine field investigators visited 8,261 jobsites but reported violations at only 83. While the possibility of a compliance check could encourage some compliance, finding so few violations calls into question the effectiveness of this approach.

*Only 1 percent
of jobsite
compliance
checks found
violations.*

Field investigators are also responsible for investigating complaints from their assigned regions. However, the agency does not have clear policies or rules to prioritize investigations of complaints that pose the greatest risk to the public, nor does it have policies to prioritize complaint investigations

The agency should prioritize high-risk complaints over less productive jobsite checks.

over jobsite compliance checks. The agency also occasionally pulls several field investigators from other regions to participate in sting operations targeting unlicensed plumbing. Between fiscal years 2015 and 2017, the agency conducted five sting operations, taking weeks to set up and fully execute, but have only resulted in an average of six violations each, many of which have been resolved with just warnings. Investigators have caseloads ranging between 45 to 100 complaints, and as shown in the table, *Field Investigator Activities and Totals*, complaint resolution times have increased. While compliance checks and sting operations have value in the enforcement process, prioritizing complaints with the highest risk, and prioritizing complaint resolution over more proactive yet less productive enforcement efforts, are critical components of an effective enforcement program.

Field Investigator Activities and Totals — FYs 2015–2017

Activities	FY 2015	FY 2016	FY 2017
Jobsite compliance checks	10,493	9,856	8,261
Continuing education seminars and training session conducted	64	79	69
Sting operations	0	2	3
Investigations conducted	917	894	820
Complaints resolved	1,070	1,182	1,031
Average complaint resolution time (months)	5.3	5.2	6.4

Competitive pay and demand in the private sector creates regular investigator turnover.

- **Needless licensure requirement for field investigators.** Most occupational licensing agencies do not require inspectors or investigators to hold a current license in the regulated occupation they are inspecting or investigating. Instead, most agencies train their investigators about the industry and profession and either have a licensee on staff or other means of providing technical expertise for investigations as necessary. Currently, the agency's statute requires field investigators to hold a plumbing license.² Agency staff has stated having licensed plumbers throughout the state as field investigators helps encourage better working relationships between the agency and licensees, and they already know what to look for on plumbing jobsites. However, due to competitive compensation and demand in the private sector for licensed plumbers, the agency has experienced longer than desired vacancies and regular turnover of its field investigators. Further, while previous plumbing experience may potentially help on jobsite compliance checks, that experience is not necessary for other enforcement activities such as investigating alleged advertising violations or lack of required board information on contracts.
- **Lack of comprehensive disciplinary information available to the public.** Generally, licensing agencies should make the full text of final disciplinary actions available to the public online, rather than requiring individuals to request these documents through public information requests. While

the agency's website allows the public to look up a plumber's current license status, the search results do not provide any enforcement history information. Allowing access to non-confidential enforcement action, like final agreed orders, helps consumers make more informed choices when choosing plumbing services.

Inefficient and unnecessary aspects of the agency's complaint resolution processes risk effective, fair, and timely enforcement.

Statutory requirements and agency procedures cannot ensure consistent application, consideration, and documentation of each step and decision made in the complaint resolution process. This approach inhibits the agency's ability to ensure effective, fair, and timely enforcement action.

- **Inefficient enforcement committee.** Statute requires the board to appoint a staff-only enforcement committee to review complaints and applicants with criminal histories.³ For complaint reviews, the enforcement committee has numerous duties set out in rule, including evaluating complaints and reviewing investigative reports, offering informal settlement conferences, recommending imposition of administrative penalties, and issuing cease-and-desist orders.⁴ In fiscal year 2017, the enforcement committee met 42 times, reviewed 825 complaints, and recommended 300 administrative penalties.

Unnecessary staff involvement. Statute should not constrict an agency's enforcement process and make it difficult to act on complaints efficiently. Usually, agencies have an internal procedure to review completed investigations and determine whether violations have occurred, typically overseen by an agency's director of enforcement or executive director. Instead of a streamlined process to review complaints, the agency's enforcement committee — comprised of two field investigators who must drive into Austin, a non-enforcement staff member, an examiner, and the executive director — reviews complaints collectively and votes on their disposition. The director of enforcement and a staff attorney also attend the meetings, but only serve an advisory capacity and do not vote. The agency struggles to schedule regular enforcement committee meetings with everyone present either in person or over the phone because of other obligations, which results in unnecessary delays in the resolution process. The value of having examination and licensing staff on an enforcement committee is also questionable, since it does not provide additional expertise to the investigative process and pulls staff from their already overwhelming workloads. Additionally, the agency's policies are unclear as to when and how staff can administratively dismiss complaints. Adopting a more standard complaint review process, coupled with clear rules and policies, would help ensure timeliness and efficiency in resolving complaints.

Inconsistent use of informal settlement conferences. Agencies should use methods other than just formal hearings to resolve complaints. While the enforcement committee has the authority to offer informal settlement

The agency's website does not provide any enforcement history on licensees.

The enforcement committee creates unnecessary delays in complaint resolution.

conferences (ISCs), it lacks clear policies on when such conferences are offered and does not adequately document their use, risking inconsistent and potentially unfair opportunities to resolve complaints.⁵ While not every complaint is appropriate for informal resolution, clear policies regarding when the agency offers ISCs would ensure fairer treatment of respondents and potentially resolve complaints more expediently than formal hearings at the State Office of Administrative Hearings.

Unclear use and documentation of penalty matrix. Agencies should establish clear guidelines, often called a penalty matrix, to help ensure disciplinary actions relate appropriately to the nature and seriousness of offenses, and are consistently applied. Although the agency's rules envision a consistent application of certain penalties for certain violations, the enforcement committee does not clearly document or include agency precedent when assessing penalties or consider any mitigating or aggravating factors other than prior enforcement history.⁶ Further, adopting and implementing policies that require staff to clearly document penalty assessments would better ensure fair treatment of respondents based on agency precedent, a penalty matrix, and clear consideration of aggravating and mitigating factors.

Lack of clear policies and documentation risk unfair enforcement practices.

- **Outdated and unused authority to combat unlicensed practice.** An agency's enabling legislation should be consistent with the agency's modern operations and not contain uncommon and unused provisions, such as outdated disciplinary tools. In addition to issuing cease-and-desist orders and seeking injunctions, statute authorizes the agency to address unlicensed activity by issuing citations that equate to a Class C misdemeanor, an authority most commonly associated with law enforcement agencies.⁷ Authority to issue a criminal citation for unlicensed activity is considered outdated authority for occupational licensing agencies and is a disciplinary tool that this agency has no record of using since at least 2006. The agency's current authority to issue cease-and-desist orders or seek injunctive relief through the office of the attorney general more effectively addresses unlicensed activity in a manner consistent with the agency's administrative role.

Recommendations

These recommendations are formatted to apply to the Texas State Board of Plumbing Examiners as it currently exists, but if the Sunset Commission adopts the recommendation in Issue 1 to transfer the regulation of plumbing to the Texas Department of Licensing and Regulation, Sunset staff would work with the agencies and the Texas Legislative Council to ensure these statutory changes are included in draft Sunset legislation as needed. Additionally, the agency should begin implementing the recommended management actions as soon as the Sunset Commission takes formal action on them to make needed improvements while the Legislature deliberates the transfer.

Change in Statute

3.1 Eliminate statutory qualifications for field investigators.

This recommendation would repeal statutory requirements for field investigators to hold a plumbing license or have previous plumbing training and experience. Removing prescriptive, limiting job requirements from statute would provide the agency with more flexibility to hire, train, and retain qualified enforcement staff based on its internal needs.

3.2 Repeal the statutory enforcement committee.

This recommendation would eliminate the enforcement committee from statute and shift the authority to review complaints and applications to the agency as a whole. This recommendation would also direct the agency to develop and adopt rules to implement a streamlined approach to staff-level review of complaints. The intent of this recommendation is to remove bottlenecks in the enforcement process and allow the agency to address all complaints in an effective, efficient, consistent, and fair manner. Specifically, the agency should adopt rules and policies regarding:

- Internal review of complaints by the director of enforcement, attorneys, executive director, and full board where appropriate, including clear roles and responsibilities at each stage in the process, as well as when to obtain expertise to determine whether or not a violation occurred.
- A full penalty matrix to guide how to impose penalties and sanctions, using factors such as prior agency precedent and aggravating and mitigating factors.
- A policy clarifying staff's authority to dismiss complaints based on jurisdiction and merit, similar to the current authority of the enforcement committee.

3.3 Repeal the board's authority to issue criminal citations.

This recommendation would remove the board's authority to issue citations while affirming its current authority to issue cease-and-desist orders and seek injunctive relief against unlicensed individuals through the attorney general's office. This recommendation would not affect the ability of a local jurisdiction to issue citations within their current authority, but would remove outdated authority that the agency does not use.

Management Action

3.4 Direct the agency to adopt a risk-based approach to investigations in rule, focusing on higher risk complaints first before other lower risk activities, such as jobsite compliance checks.

This recommendation would direct the agency to develop rules that outline the prioritization of investigations and compliance checks based on risk to public health, safety, or welfare. In establishing these rules, the agency could consider past or repeat violations of respondents, recent complaints, negative media attention, or other indications of increased risk to the public. This recommendation would also direct the agency to update any policies and allocate resources to enact these changes.

3.5 Direct the agency to use informal settlement conferences in appropriate circumstances and better document its use of this enforcement tool.

This recommendation would direct the agency to adopt rules outlining its informal complaint resolution process and require complete documentation of each step in this process. The agency should include in

its rules under which circumstances it will offer or allow a respondent to request an informal settlement conference prior to a hearing at the State Office of Administrative Hearings. Clear rules and procedures, including improved documentation of these informal conferences, would help ensure more appropriate and consistent action by the agency and involvement with the parties to the complaint.

3.6 Direct the agency to publish disciplinary history online.

This recommendation would increase transparency and improve the ability of consumers to make informed decisions about hiring licensed plumbers by providing access to complete disciplinary information. Under this recommendation, the agency would post detailed information regarding non-confidential disciplinary action on its website, including full versions of any finalized agreed orders and disciplinary actions taken against licensees.

Fiscal Implication

Overall, while several recommendations would allow the agency to better allocate staff resources and remove administrative bottlenecks, they would not have a significant fiscal impact to the state. The recommendations focus primarily on removing unnecessary statutory requirements and adopting, clarifying, and implementing policies to create efficiencies.

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¹ All citations to the Texas statutes are as they appear on <http://www.statutes.legis.texas.gov/>. Section 1301.203(b)(1), Texas Occupations Code; 22 T.A.C. Section 367.12.

² Section 1301.203(a)(1), Texas Occupations Code.

³ Section 1301.258(c), Texas Occupations Code.

⁴ 22 T.A.C. Sections 361.13(c) and 367.16.

⁵ Section 1301.5071, Texas Occupations Code; 22 T.A.C. Sections 367.16(e) and 367.20.

⁶ Section 1301.702, Texas Occupations Code; 22 T.A.C. Section 367.17.

⁷ Section 372.0035(h), Texas Health and Safety Code; Sections 1301.502, 1301.504-.5045, and 1301.508, Texas Occupations Code.

APPENDICES

APPENDIX A

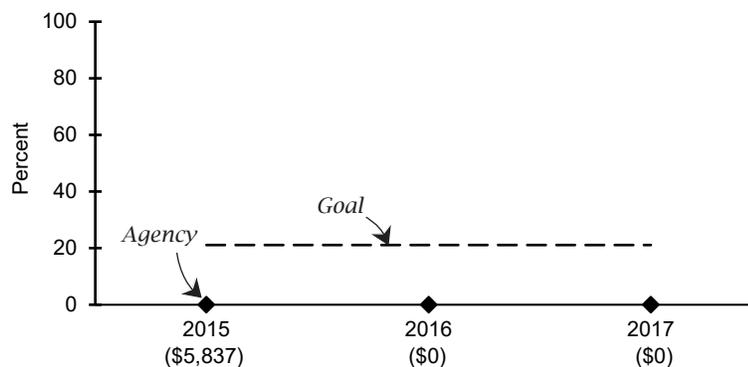
Historically Underutilized Businesses Statistics 2015 to 2017

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.¹

The following material shows trend information for the Texas State Board of Plumbing Examiners' use of HUBs in purchasing goods and services. The agency maintains and reports this information under guidelines in statute.² 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 agency spending with HUBs in each purchasing category from 2015 to 2017. Finally, the number in parentheses under each year shows the total amount the agency spent in each purchasing category.

The Texas State Board of Plumbing Examiners elected to set agency-specific goals for HUB purchasing in the professional services, other services, and commodities categories for fiscal years 2015 to 2017. The agency has not met any of the agency-specific goals over the past three fiscal years, but had mixed success meeting statewide goals.

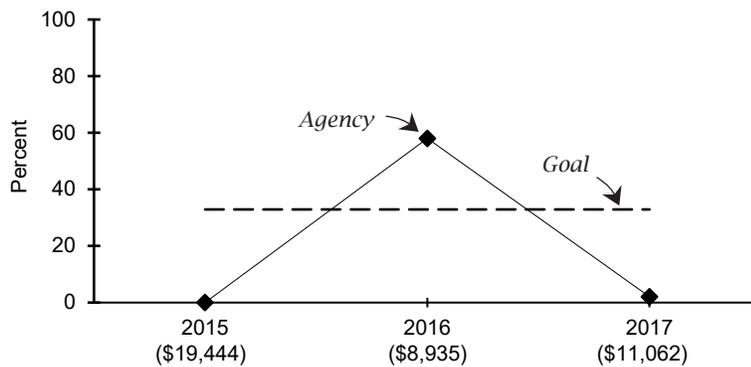
Building Construction



In fiscal year 2015, the agency fell short of the statewide goal for spending in building construction and had no spending in this category for fiscal years 2016 and 2017.

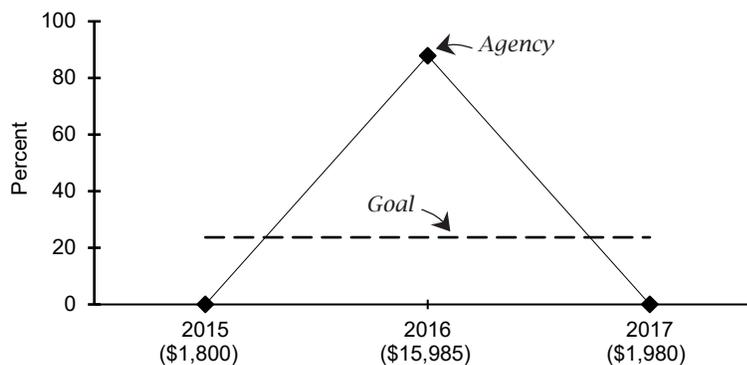
Appendix A

Special Trade



The agency exceeded the statewide goal for special trade purchasing in fiscal year 2016, but fell short of statewide goals in fiscal years 2015 and 2017.

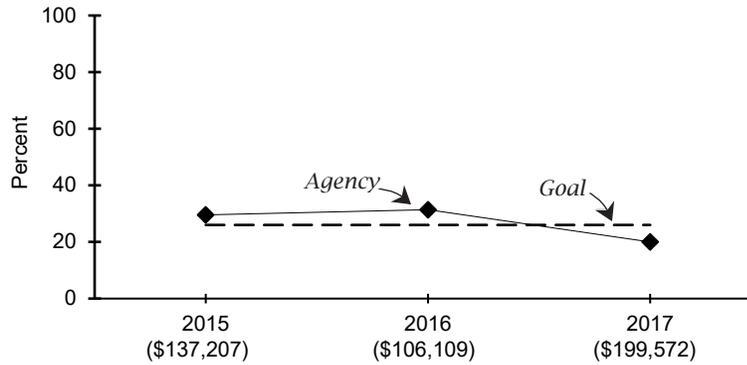
Professional Services



The agency exceeded the statewide goal but fell just short of its agency-specific goal for this category in fiscal year 2016. The agency fell short of statewide and agency-specific goals in fiscal years 2015 and 2017.

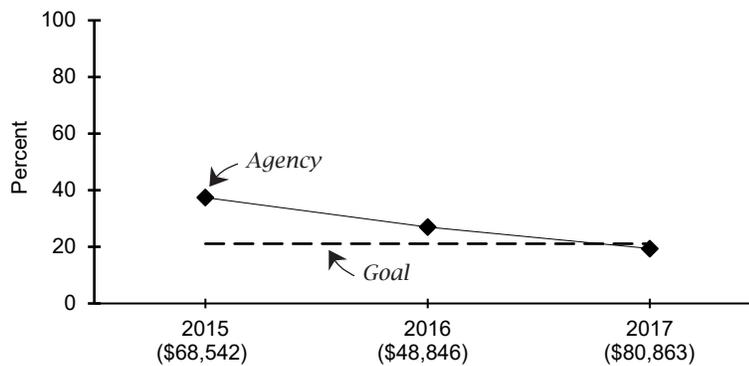
Appendix A

Other Services



The agency exceeded statewide goals for purchasing in the other services category for fiscal years 2015 and 2016, but fell short in fiscal year 2017. The agency fell short of its agency-specific goals in the past three fiscal years.

Commodities



The agency exceeded statewide goals for this category in fiscal years 2015 and 2016, but fell short in fiscal year 2017. The agency did not meet its agency-specific goals for those years.

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.

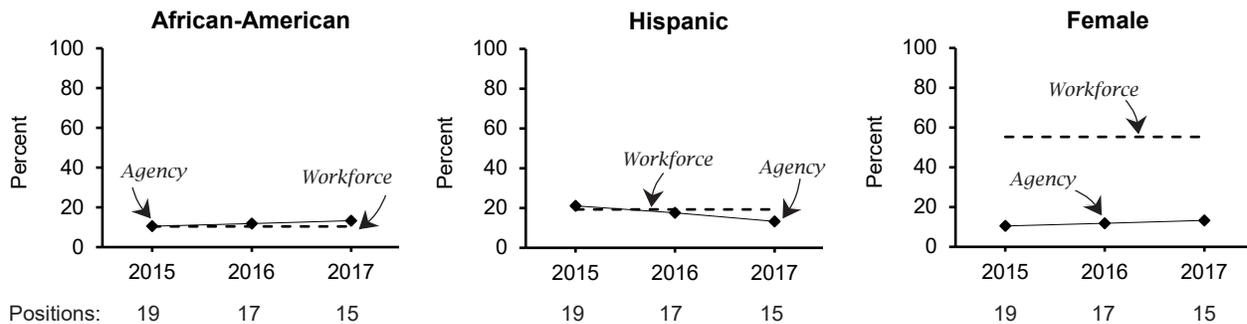
² Chapter 2161, Texas Government Code.

APPENDIX B

Equal Employment Opportunity Statistics 2015 to 2017

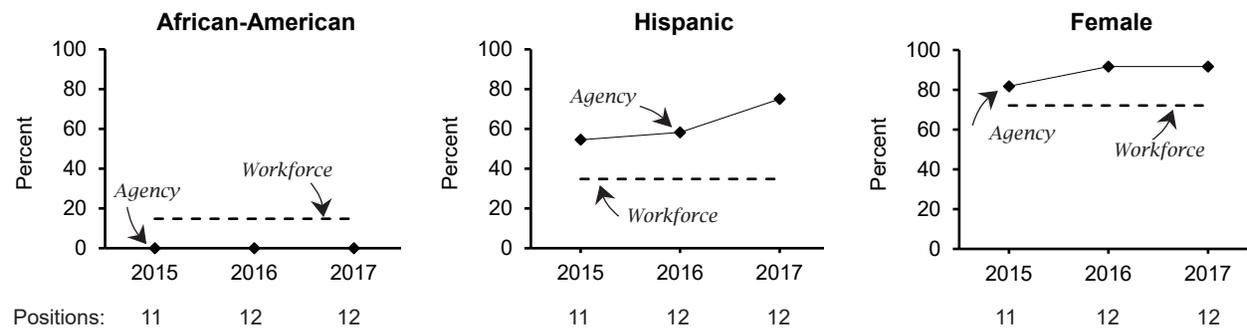
In accordance with the requirements of the Sunset Act, the following material shows trend information for the employment of minorities and females in all applicable categories by the Texas State Board of Plumbing Examiners.¹ The agency maintains and reports this information under guidelines established by the Texas Workforce Commission.² In the charts, the dashed lines represent the percentages of the statewide civilian workforce for African-Americans, Hispanics, and females in each job category.³ These percentages provide a yardstick for measuring agencies' performance in employing persons in each of these groups. The diamond lines represent the agency's actual employment percentages in each job category from 2015 to 2017. The agency had mixed success meeting the civilian workforce percentages in the professional and administrative support categories, particularly for African-American employees from fiscal year 2015 to 2017. The agency does not have positions in technical, service maintenance, or skilled craft job categories. The administration category had too few employees to conduct a meaningful comparison to the overall civilian workforce.

Professional



The agency met or exceeded civilian workforce percentages for African-American employees in the past three fiscal years, but fell far below each year for female employees in this category. The agency exceeded civilian workforce percentages in fiscal year 2015 for Hispanic employees, but fell short in 2016 and 2017.

Administrative Support



The agency exceeded civilian workforce percentages for Hispanic and female employees in the past three fiscal years, but fell short each year for African-American employees.

Appendix B

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

² Section 21.501, Texas Labor Code.

³ Based on the most recent statewide civilian workforce percentages published by the Texas Workforce Commission.

APPENDIX C

License, Registrations, and Endorsements

The following information summarizes the prerequisites for, and scope of work authorized by, each registration, license, and endorsement issued by the Texas State Board of Plumbing Examiners.

License, Registration, or Endorsement	Qualifications	Scope of Work and Supervision Required¹
Plumber Apprentice Registration	<ul style="list-style-type: none"> • At least 16 years old • \$15 fee 	<ul style="list-style-type: none"> • Assists in the installation and maintenance of plumbing • Works under the direct supervision of a licensee on premises
Tradesman Plumber-Limited License	<ul style="list-style-type: none"> • Currently registered as apprentice • 4,000 hours of experience • Complete 24-hour training course • Pass the tradesman plumber exam • \$35 fee 	<ul style="list-style-type: none"> • Works independently on one- or two-family dwellings under the general supervision of a responsible master plumber (RMP) • For all other jobsite settings, installs new infrastructure under the direct supervision of a licensee on premises
Journeyman Plumber License	<ul style="list-style-type: none"> • Diploma or GED • Currently registered as apprentice or licensed as tradesman • 8,000 hours of experience • Complete 48-hour training course • Pass the journeyman plumber exam • \$40 fee 	<ul style="list-style-type: none"> • Installs, changes, repairs, services, or renovates plumbing • Supervises the work of apprentices or tradesman plumbers • Works under the general supervision of an RMP
Master Plumber License	<ul style="list-style-type: none"> • Diploma or GED • Currently licensed as journeyman for four years • Pass the master plumber exam • \$75 fee 	<ul style="list-style-type: none"> • Installs, changes, repairs, services, or renovates plumbing • Supervises the work of apprentices or tradesman plumbers • Designs and plans plumbing installation and services • Works under the general supervision of an RMP

Appendix C

License, Registration, or Endorsement	Qualifications	Scope of Work and Supervision Required ¹
Responsible Master Plumber (RMP) <i>Designation added to a master license</i>	<ul style="list-style-type: none"> • Currently licensed as master plumber • Complete 24-hour training course • Submit proof of commercial liability insurance • \$420 fee 	<ul style="list-style-type: none"> • Advertises and offers plumbing services to the public, enters into plumbing contracts, and obtains plumbing permits • Performs work without supervision • Supervises licensed plumbers and is responsible for overall quality of any work performed under plumbing contracts • Must carry commercial liability insurance
Plumbing Inspector License	<ul style="list-style-type: none"> • Diploma or GED • Either 500 hours training, or currently licensed in Texas as a journeyman or master plumber, a professional engineer, or an architect • Pass the plumbing inspector exam • \$55 fee 	<ul style="list-style-type: none"> • Conducts plumbing inspections without supervision • Must be affiliated with a political subdivision, like a county, to have an active license • May not hold a financial, managerial, or advisory interest in a plumbing company
Residential Utilities Installer Registration	<ul style="list-style-type: none"> • Currently registered as apprentice • 2,000 hours of experience • Pass an exam • \$18 fee 	<ul style="list-style-type: none"> • Installs yard water service piping and building sewers for one- or two-family dwellings
Drain Cleaner-Restricted Registration	<ul style="list-style-type: none"> • Currently registered as apprentice • Pass an exam • \$18 fee 	<ul style="list-style-type: none"> • Clears obstructions in building drain and sewer lines, but only through existing code-approved openings
Drain Cleaner Registration	<ul style="list-style-type: none"> • Currently registered as apprentice or licensed as tradesman plumber • 4,000 hours of experience • Pass an exam • \$18 fee 	<ul style="list-style-type: none"> • Installs cleanouts and removes and resets p-traps to eliminate obstructions in building drains and sewers
Medical Gas Piping Installation Endorsement	<ul style="list-style-type: none"> • Currently licensed as journeyman or master plumber or plumbing inspector • Complete 24-hour training course • Pass an exam • \$14 fee for journeyman • \$55 fee for master • \$27.50 fee for inspector 	<ul style="list-style-type: none"> • Installs and repairs piping used for the transport of gases for medical purposes • Authorizes inspectors to inspect installations of medical gas vacuum piping

Appendix C

License, Registration, or Endorsement	Qualifications	Scope of Work and Supervision Required¹
Water Supply Protection Specialist Endorsement	<ul style="list-style-type: none"> • Currently licensed as journeyman or master plumber or plumbing inspector • Complete 24-hour training course • Pass an exam • \$14 fee for journeyman • \$55 fee for master • \$27.50 fee for inspector 	<ul style="list-style-type: none"> • Works in the treatment, use, and distribution of rainwater to supply a plumbing fixture, appliance, or irrigation system, and inspects integrity of public drinking water systems • Authorizes inspectors to inspect plumbing installed for the treatment, use, and distribution of rainwater
Multipurpose Residential Fire Protection Sprinkler Specialist Endorsement	<ul style="list-style-type: none"> • Currently licensed as journeyman or master plumber or plumbing inspector • Complete 24-hour training course • Pass an exam • \$14 fee for journeyman • \$55 fee for master • \$27.50 fee for inspector 	<ul style="list-style-type: none"> • Installs multipurpose residential fire protection sprinkler systems in one- or two-family dwellings • Authorizes inspectors to inspect installation of residential sprinkler systems

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¹ General supervision entails oversight of the overall quality of plumbing performed, including ensuring the use of proper design and materials and verifying completed work complies with applicable plumbing codes. Direct supervision is provided on-site by a licensed tradesman, journeyman, or master plumber through the project's completion.

APPENDIX D

Staff Review Activities

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

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

- Interviewed members of Texas State Board of Plumbing Examiners
- Toured construction jobsites to view stages of plumbing installation
- Observed exams for tradesman and journeyman plumbers and medical gas piping installation
- Attended a contested case hearing at the State Office of Administrative Hearings
- Conducted an online survey of stakeholders and evaluated responses from licensees, associations, education providers, and members of the public
- Interviewed staff from various government agencies, including the Department of Information Resources, Health Professions Council, Railroad Commission of Texas, Texas Commission on Environmental Quality, Texas Department of Licensing and Regulation, and Texas Workforce Commission

Sunset Staff Review of the *Texas State Board of Plumbing Examiners*

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