

Workforce Plan, Fiscal Years 2019–2023

This document is also provided separately to the State Auditor’s Office.

Key Factors Facing the Agency

During the next five years, the TCEQ expects challenges as it fulfills its mission and goals. Key economic and environmental factors affecting the agency’s workforce include an aging workforce; retention of qualified, experienced employees; and turnover. Economic conditions and high unemployment have previously kept the TCEQ’s turnover rate relatively low. Typically, during these climates, working for governmental agencies is perceived as more attractive and applicant pools increase. The competition to recruit and retain highly skilled employees remains a priority. By 2023, 37.7 percent of the TCEQ’s workforce will be eligible to retire. To address these factors, the agency must continuously adapt and focus on implementing attractive recruitment and retention strategies to differentiate itself in the increasingly competitive job market.

The ability to compete for highly skilled applicants, particularly in hard-to-fill occupations, will continue to prove critical in our efforts to maintain a diverse and qualified workforce necessary for the agency to carry out its mission. The attractive benefits and retirement

package afforded state employees was altered in 2015 in an effort to address funding shortfalls. These changes will affect our ability to recruit applicants and retain staff.

The TCEQ does not expect significant changes in its mission, strategies, or goals over the next five years, but it does recognize the need to adapt readily to any changes required by legislation. Any new state and federal requirements will be demanding, considering budget and FTE constraints, and will likely point to a need to rely more heavily on program changes, process redesign, and technological advancements.

Retirement and Attrition

The departure of employees due to retirement and other reasons is, and will continue to be, a critical issue facing the TCEQ. Within the next five years, 37.7 percent of the TCEQ’s workforce will be eligible to retire, with 20 percent eligible to retire by the end of fiscal 2018.

The TCEQ remains well below the state average of 18.5 percent in turnover for fiscal 2017. The TCEQ experienced turnover at 11.8 percent in fiscal 2017, with voluntary separations, excluding retirement, making up 50.2 percent of total separations. This potential loss of organizational experience and institutional knowledge poses a significant need for continued careful succession planning for key positions and leadership roles.

An ongoing focus on organizational development and training will also be required. Training and mentoring emerged as the primary strategy identified by agency offices to address skill gaps due to retirements, with hiring solutions ranking second.

Table F.1 demonstrates the projected increases in the number of employees eligible to retire from fiscal 2018 through fiscal 2023. The TCEQ estimates that approximately 929 employees (37.7 percent) will become eligible to retire by the end of fiscal 2023. Retirement of the agency’s workforce at this level could significantly affect the agency’s ability to deliver programs and accomplish its mission.

Table F.1. Projection of TCEQ Employees Eligible for Retirement, FYs 2018–2023

Fiscal Year	Projected Retirements	Percent of Total Agency Headcount (2,570)
2018	515	20.0
2019	599	23.3
2020	674	26.2
2021	755	29.4
2022	847	33.0
2023	929	37.7

Data Source: Texas Uniform Statewide Accounting System, as of 9/8/17.

New and Changing Requirements and Initiatives

New federal and state requirements, as well as internal initiatives, will continue to have an agency-wide impact. Offices may be required to change and modify, eliminate, or add programs, processes, and procedures. Also, to provide more timely data, the agency's use of technology to report and receive information is expanding.

Among other expected program changes, mandates, and initiatives are the following:

- **Accessibility Requirements.** Agency roles and responsibilities under Section 508 are aligned with WCAG 2.0 and will require more time and expertise when creating documents, webpages, and learning content.
- **Central Accounting and Payroll/Personnel System (CAPPS).** The statewide Enterprise Resource Planning project will involve adopting a common statewide system supporting financial, human-resource, payroll, and timekeeping functions.
- **Educational Outreach.** Promoting and providing educational information on Texas' successes in environmental protection encourages all Texans to help keep our air and water clean, conserve water and energy, and reduce waste.
- **Communicating with Elected Officials.** Agency staff strives to effectively communicate technical and complex environmental-quality and natural-resource issues of the agency to the state's leadership, elected officials, stakeholders, and the media. Developing effective working relationships with new members of the state legislature during a time of significant turnover in officeholders is vital to the TCEQ and its executive management, as is providing timely and accurate analysis of legislation affecting the agency.
- **Government Performance and Result Act.** This involves expansion of staff duties resulting from new federal-grant commitments and performance measures through the Government Performance and Result Act, without corresponding increases to the agency's authorized full-time equivalent (FTE) count.
- **Emergency Planning and Community Right-to-Know Act.** The agency will work to maintain a balance between the public's access to information through the Emergency Planning and Community Right-to-Know Act and protection of confidential information due to homeland-security concerns for the Tier II Chemical Reporting Program.
- **Population Growth.** Areas of the state experiencing tremendous growth leads to an increased regulatory universe in the form of business, water, and wastewater infrastructure; waste generation; and air emissions, in addition to urban areas encroaching on previously rural areas. Increased issues and complexity of issues associated with heavy-growth areas create challenges in providing adequate responses to citizen complaints; investigations to determine compliance with applicable air, waste, and water regulations; and education of regulated entities.
- **Increased Regulatory Oversight.** The agency will have investigation needs for an expanding regulatory universe and added complexity of these investigations without corresponding increases to the agency's FTE count. Examples include the following:

 - New roles and duties required to implement the Tier II Chemical Reporting Program.
 - Expanded roles and duties for the revised total chloroform rules (RTCR).
 - Increased issues associated with oil and gas activities that affect air (emission events and complaints, and comprehensive inspections), water (demand on water systems for both public drinking water and wastewater treatment), waste disposal methods, and other on-demand activities.
 - Continued implementation of the investigation-frequency requirements of the PST Energy Act.
 - Aggregate Production Operations (APOs) compliance activities continue to challenge investigation resources.

- Proposed liquefied natural gas plants, if approved, will require additional regulatory oversight in the air, water, and waste programs in the Border and Permian Basin Area.
 - For the Central Texas Area, economic changes have resulted in increased and complex construction activity in the areas covered by the Edwards Aquifer Program.
 - Increased water availability issues related to increasing drought conditions.
- **Updates to Federal Guidance in Relation to Staff Knowledge.** Changes in overall federal guidance related to the Environmental Protection Agency (EPA) and other agencies with ties to the TCEQ will necessitate staff members gaining additional knowledge to understand the changes, and subsequently, be able to audit the subject.
- **Expanding Federal and State Requirements and Initiatives.** The EPA is seeking changes to rules implementing the Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) as well as revising guidelines for implementation of those and other programs. Specific challenges include:
- Expanding and more complex workloads with changing federal and state rules, regulations, and guidance, such as the Revised Total Coliform Rule, pending revisions to the Lead and Copper rules, Small MS4 Remand Rule, and the Dental Amalgam Rule.
 - Providing extensive guidance, technical assistance, and templates to help permittees and stakeholders understand changing, more complex rules.
 - Additional and more complex computer tools required by state and federal regulations such as the eReporting rule, Safe Drinking Water Information System, and the Surface Water Rights Database.
 - Keeping up with new and innovative technologies to assist facilities to identify, reduce, or remove contaminants.
- Aging and deteriorating drinking water and wastewater infrastructure, which adds to the workload due to increased numbers of complaints, requests for technical assistance, and media requests.
 - Drought conditions may continue to affect water resources and increase the cost of water to consumers, which in turn leads to an increase in the number of consumer-assistance requests received from the public; an increase in technical-assistance requests; an increase in the need for emergency approvals, including bond approvals; requests for emergency authorizations and exceptions that require staff to perform expedited technical and engineering reviews; and an increase in review of plans and specifications for innovative technology projects such as direct potable reuse.
 - Working with the EPA to resolve ongoing permitting issues such as temperature, wet-weather operations, and bacteria at industrial facilities.
 - Increased requirements for managing contracts and purchasing.
 - Increased reporting requirements for grants.
 - Implementing new programs, such as aquifer storage and recovery and enforcement of reporting violations of water use and conservation plans.
 - Demand for shorter processing timeframes for permits and authorizations, including change of ownership or water-rights permits, wastewater permits, and review of drinking-water plans and specifications.
 - Water-rights applications becoming more complex due to limited water availability and an increasing demand for water rights.
- **Reduced Funding for Water Programs.** Continued impacts to federal and state budgets have resulted in reduced funding for water programs, including changes to the grant structure and constraints on the use of grant funds.

- **New EPA Standards and Regulations.** The EPA continues to promulgate more stringent air quality standards and rules such as new Maximum Achievable Control Technology (MACT) requirements and lowering National Ambient Air Quality Standards (NAAQS). The new standards and regulations result in significant workload increases, specifically in processing air permit authorizations and the Tax Relief for Pollution-Control Property (Prop 2) Program. It will be necessary for the TCEQ to increase its proactive planning and ensure that employees are provided guidance on how to implement all new federal requirements. The agency will continue to provide feedback and available data that demonstrates any undue regulatory burden associated with the EPA's new and revised air quality standards and rules.
- **State Implementation Plan (SIP).** SIP revision development and coordinating is becoming more complex and the technical requirements are expanding, requiring an intimate knowledge of agency procedures and federal regulations, as well as computing and analytical abilities. This, combined with the constant changes in the air-quality field due to new regulations and new technologies, creates a high need for experienced, knowledgeable staff.

The EPA reviews all NAAQS criteria pollutants on a five-year cycle. It is possible that changes to the NAAQS may result in additional Texas counties being designated as nonattainment within the 2019–2023 timeframe. Each nonattainment area will require SIP revision development, along with potential control strategies specific to the pollutant.

For example, with the recent changes in the ozone standard, two SIP revisions for the 2015 8-hour ozone standard due in 2019/2020, and potentially multiple SIP re-designation requests or revisions for the 2008 ozone standard resulting from recent court rulings will affect the SIP. Also, transport and infrastructure SIP revisions

specific to each revised criteria pollutant will also be due within three years of promulgation of the revised NAAQS.

In addition to these SIP revisions, Texas is expected to continue to develop maintenance plans for certain criteria pollutants to show how an area will maintain its attainment status. The EPA's current review schedule for criteria pollutants is: primary nitrogen dioxide (NO₂) in 2018, primary sulfur dioxide in 2019, particulate matter (PM) in 2022, and secondary NO₂ and secondary SO₂ in 2022. The schedule for the next review of lead, carbon monoxide, and ozone is not known at this time.

- **Regional Haze SIP.** The agency will also be developing a Regional Haze SIP for the Guadalupe Mountains and Big Bend national parks for visibility protection. In Texas, the pollutants influencing visibility are primarily NO_x, SO₂, and PM. Regional Haze program requirements include a SIP to be due in 2021, 2028, and every 10 years thereafter, through 2064, and progress-report letters to the EPA in 2023 and every five years thereafter, to demonstrate progress toward the visibility goal.
- **Emissions Banking and Trading.** Emissions Banking and Trading will continue to be a workforce issue with existing and new nonattainment areas and the need for additional emission-reduction credits for offsets. There has been an increased interest in area- and mobile-source credit generation that will increase the demands placed on employees.
- **Texas Emission Reduction Plan (TERP) Program.** The workload demands for TERP continue to increase due to the additional 1,000 to 1,500 contracts that enter the monitoring portion of the program each biennium. These contracts are added to the over 10,000 contracts that are currently being monitored by the program.
- **Volkswagen State Environmental Mitigation Trust.** Gov. Greg Abbott has selected the TCEQ as the lead agency responsible for the administration

of funds received from the trust. The agency will administer the grant program distributing a minimum of \$209 million for projects that reduce NO_x in the environment. In general, the trust funds must be spent within ten years.

- **National Ambient Air Quality Standards.** As national ambient air quality standards are revised, accompanying revisions to federal requirements for air monitoring related to those standards could dictate changes in the number of monitors, monitoring locations, or monitoring methods across Texas' network. This could result in an increase to division workloads related to deployments, maintenance, operations, data verification, etc.
- **Expedited Permitting Program.** Implemented in November 2014, this program allows applicants to request an expedited review of an application filed under 30 TAC, chapters 106, 116, or 122. The challenge for the TCEQ is the limited number of experienced technical employees. The air program requires additional resources through employee overtime or contract labor to review projects designated as expedited.
- **Recycling Programs.** There is renewed legislative and external-stakeholder interest in market-development activities for recyclable materials. This includes new statutory manufacturer stewardship or recycling programs for products such as other electronics, paint, and alkaline batteries. We are also seeing a potential statutory expansion of current television and computer-equipment recycling programs in response to market changes.
- **RCRA Funding Reduction.** The EPA is continuing the 14-percent reduction in funding for Texas' Resource Conservation and Recovery Act (RCRA) programs, from \$8.5 million in 2015 to \$7.28 million in 2020.
- **Scrap Tire Program.** The Scrap Tire Program will continue to evaluate possible disposal and recycling avenues for scrap tires located across the state with the funding available.

- **Expiration of Dry Cleaner Remediation Program.** The agency will prepare for the expiration of the Dry Cleaner Remediation Program in 2021.
- **Low-level Radioactive Waste Facility.** The agency will coordinate and communicate with on-site resident inspectors at the state's low-level radioactive waste disposal facility.
- **On-site Sewage Facilities and Landscape Irrigation Programs.** The agency will do increased outreach to the regulatory communities about the On-site Sewage Facilities and Landscape Irrigation programs to support current and proposed regulatory requirements.

Information Technology

To maintain and enhance the agency's level of service, respond to increasing customer demands and expectations, and implement legislative changes, the TCEQ must prepare for several issues in the area of information technology (IT). They include:

- **Critical Technology Upgrade.** The agency is committed to major projects that will require expansive software and database skills. A primary focus will be the Critical Technology Upgrade (CTU) project—legacy applications core to the agency's mission will be upgraded with a contemporary platform over multiple biennia.
- **DIR/DCS Technology Requirements.** As a mandated Data Center Services (DCS) customer, the agency is required to maintain a posture of no more than one release prior to the current version for software. Additionally, the agency faces increased cost if server hardware is not "refreshed" at the designated interval. When software is upgraded or hardware is refreshed, application developers must test application code and remediate it as needed. While this practice is recommended for security reasons, it increases the maintenance overhead for application-development staff. As staff prioritizes time to maintain compliance with DCS standards, less time is available to modify or

build applications to meet the program areas' business needs.

- **Information Security.** Increasingly, legislation addresses policies and practices regarding information security. House Bill 8, 85th Legislative Session, mandates bi-annual security-risk assessments and elevated vulnerability testing for applications that process personally identifiable or confidential information. Retaining staff with the necessary expertise is an ongoing challenge in a field with high demand and escalating pay.
- **Increasing Technological Demands.** The agency is faced with demands applicable to internal and external stakeholders or users with expectations to maintain and improve online access and navigation to more information through increasing and varied access points, such as mobile devices, collaboration tools, and social media. This involves continued site restructuring and the use of analytics, metadata, and usability studies to adequately support emerging web-design and organization trends.
- **Increased Need for Digital Content.** There is a need to deliver more digital content for use on TCEQ websites—training, public education, and other informational content. Content must be produced in HD (high-definition), as SD (standard definition) fades away. Time spent on meeting accessibility requirements for video content will increase as the agency's video production increases.
- **IT Components for New Regulatory Programs.** New regulatory programs routinely require IT components to be developed and supported; the agency is providing more data and expanding the use of technology for reporting information and receiving authorizations. To implement the flow of electronic information between the regulated community and the public, business processes must be analyzed and documented. The agency's program areas will need to develop proficiency in analysis and design to facilitate implementation. The

challenge will be to ensure that staff is capable of building and using these tools effectively and efficiently.

- **Database Management.** Modifying, maintaining, expanding, and/or automating existing database, reporting, and storage capabilities, as well as new initiatives to allow greater public access to agency records, will require large commitments in funding and manpower resources.
- **Information Technology Skill Sets.** Keeping the skill levels of employees up to speed with constantly changing web and related technology, including advocating for increased skill sets around the agency, remains a challenge.
- **Environmental Compliance Technology.** In response to an increased demand for real-time data, additional staff will require training on applicable technology in the areas of environmental and compliance monitoring.
- **Online Access and Navigation.** Maintaining and improving online access and navigation (both internal and external) allows for quick dissemination of information to large groups, both in "real time" and customized, through increasing and varied access points, such as mobile devices, collaboration tools, and social media. This includes restructuring to adequately support content management.
- **Database Integration.** The TCEQ's Authorization and Remediation Tracking System (ARTS) database, CCEDs, Central Registry, and PARIS are being tapped to flow data electronically to the EPA National Environmental Information Enterprise Network (NEIEN). The EPA is seeking changes to rules implementing the Safe Drinking Water Act (SDWA) and Clean Water Act (CWA), as well as revising guidelines for the implementation of those programs.
- **Improvement and Transparency in Data Management.** There is a need for continued improvement and transparency in the agency's capabilities in electronic reporting,

data handling, and data management, including continued maintenance and enhancement of the Consolidated Compliance and Enforcement Data System (CCEDS).

- **Implementing IT Goals.** Skills are needed to implement the four primary IT goals in the Information Strategic Plan:
 - Improve internal and external access to information.
 - Promote effective and efficient service delivery.
 - Enable strategic management of information.
 - Support a high-performing, next-generation workforce.
- Equipment, technology, and training resources are not sufficient to maintain competencies and improve efficiencies. The agency will continue to monitor funding and examine program efficiencies, monitor and manage staff workloads, and evaluate the need for projects as funding reductions affect the agency.

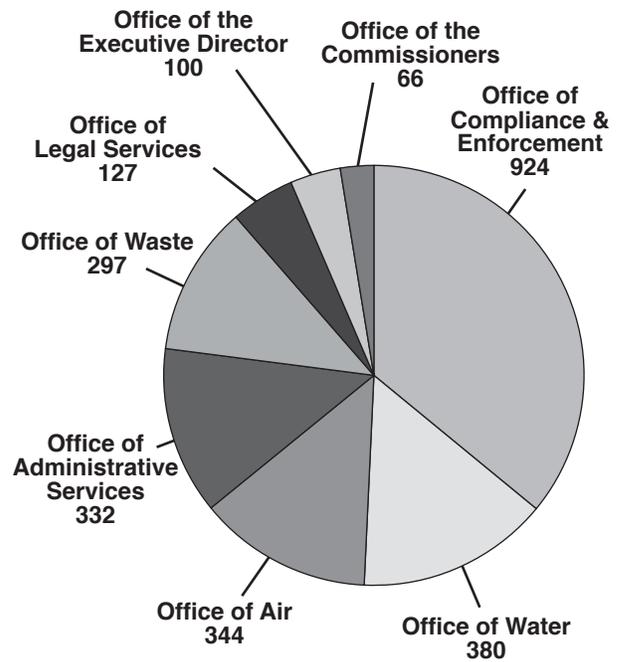
Current Workforce Profile (Supply Analysis)

In fiscal 2017, the TCEQ employed a cumulative total of 2,570 employees, which includes 301 separated employees. The following chart (Figure F.1) summarizes the agency workforce by office. The totals indicate an actual head count of employees, not full-time equivalents (FTEs), and do not include contractors or temporary personnel.

Location of Employees

As of Aug. 31, 2017, 756 employees—or 29.4 percent of the total workforce—were located throughout the 16 regional offices (see Figure F.2). In an effort to facilitate delivery of the agency’s services at the point of contact and to increase efficiencies, 119 of these employees (4.6% of the total workforce) were matrix-managed staff who worked in regional offices, but were supervised from the Central Office.

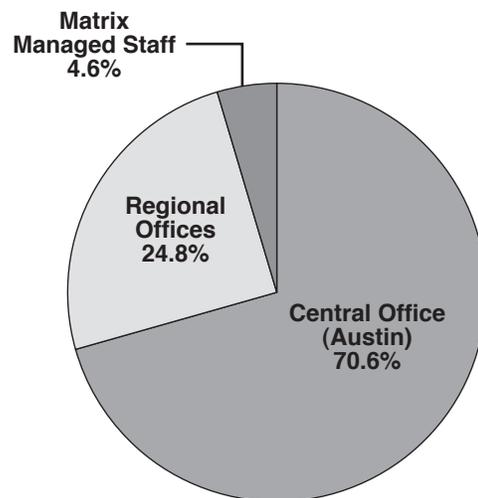
Figure F.1.
TCEQ Employees by Office, FY 2017



Note: Data includes separations.

Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.2.
TCEQ Employees by Location, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Workforce Demographics

Figures F.3 and F.4 illustrate the agency’s workforce during fiscal 2017. Blacks and Hispanics constituted 28.3 percent of the agency’s workforce, with other ethnic groups representing over 7 percent. The available Texas labor force for Blacks is 11.8 percent; for Hispanics, it’s 36.8 percent. This reveals an under-utilization of over 18 percent for Hispanics.

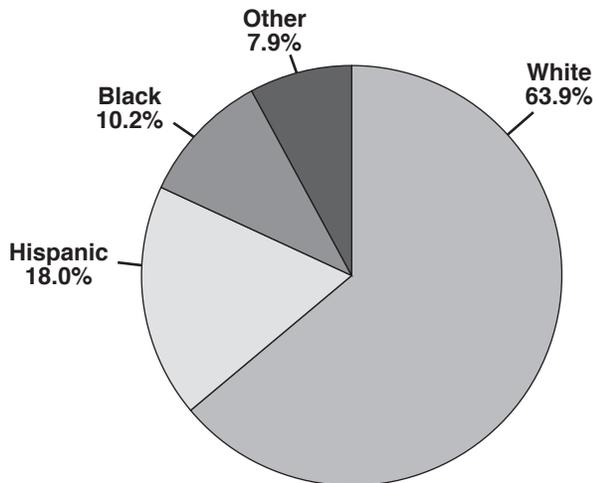
In fiscal 2017, the TCEQ workforce was 47.7 percent male and 52.3 percent female. These percentages indicate a small change from the last reporting period of fiscal 2015 (males, 47.5%; females, 52.5%). The available Texas labor force for males is 55 percent; for females, it’s 45 percent. This is a 7.5 percent under- and over-utilization, respectively, in these categories.

The TCEQ Workforce Compared to the Available Texas Civilian Labor Force

The TCEQ workforce comprises four employee job categories, as established by the Equal Employment Opportunity Commission (EEOC). These categories are: Official/Administrator, Professional, Technical, and Administrative Support.

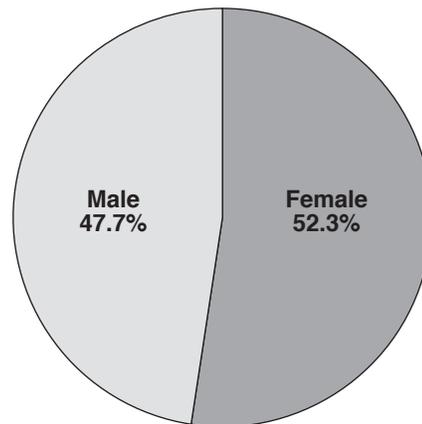
Table F.2 and figures F.5, F.6, and F.7 compare the agency workforce as of Aug. 31, 2017, to the available statewide civilian labor force as reported in the 2015–2016 *Equal Employment Opportunity and Minority Hiring Practices Report*, a publication of the Civil Rights Division of the Texas Workforce Commission. This table reflects the percentages of Blacks, Hispanics, and females within the available statewide labor force (SLF) and the TCEQ workforce. Although minorities

Figure F.3.
TCEQ Employees by Ethnicity, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.4.
TCEQ Employees by Gender, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Table F.2. TCEQ Workforce Compared to Available Statewide Labor Force, 8/31/17

EEOC Job Category	Black		Hispanic		Female	
	SLF	TCEQ	SLF	TCEQ	SLF	TCEQ
Official/Administrator	7.4%	7.7%	22.1%	11.6%	37.4%	42.5%
Professional	10.4%	7.2%	19.3%	16.6%	55.3%	47.4%
Technical	14.4%	11.1%	27.2%	18.5%	55.3%	22.2%
Administrative Support	14.8%	22.4%	34.8%	27.1%	72.1%	82.4%

Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

and females are generally well represented at the TCEQ, the agency’s ability to mirror the available statewide labor force remains difficult.

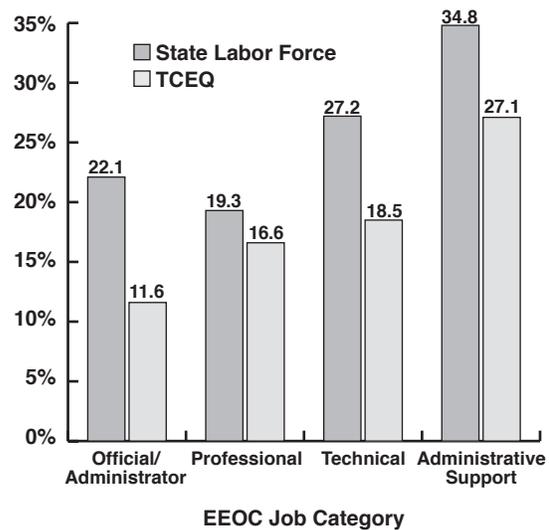
Compared to fiscal 2015, the SLF percentages increased for Blacks in the Technical, Administrative Support, and Official/Administrator job categories. While the SLF percentages increased for Blacks in the Technical category, the TCEQ continues to experience difficulty in mirroring the SLF. Consistent with the SLF decrease in the Professional category, the TCEQ’s representation of Blacks in this category also decreased and the agency continues to be under-represented.

While the Hispanic SLF percentages increased, the TCEQ remains under-represented in all job categories for Hispanics.

The female SLF percentages increased significantly in the Technical job category; however, the agency remains under-represented by 33 percent. Females within the agency are under-represented in the Professional job category, and are well represented in the Administrative Support and Official/Administrator job categories. The agency continues to strive to

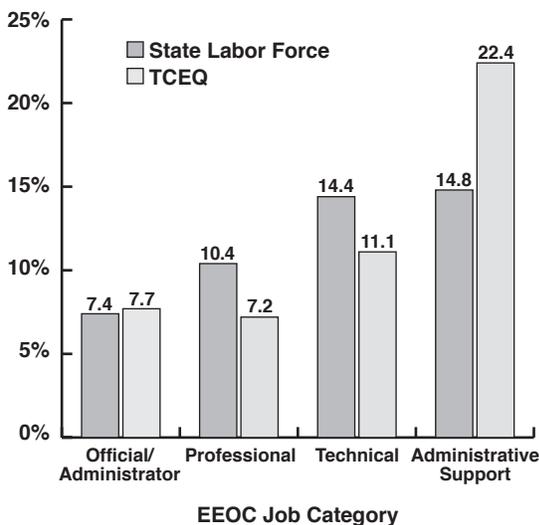
employ a labor force representative of the available Texas workforce.

Figure F.6.
TCEQ Hispanic Workforce Compared to Available Statewide Hispanic Labor Force, FY 2017



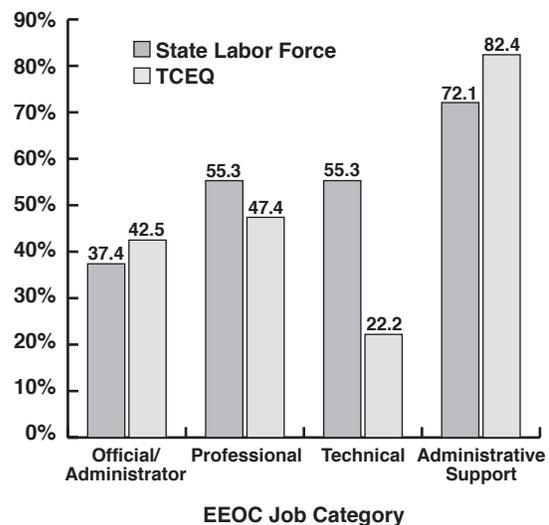
Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.5.
TCEQ Black Workforce Compared to Available Statewide Black Labor Force, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.7.
TCEQ Female Workforce Compared to Available Statewide Female Labor Force, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Workforce Qualifications

The TCEQ employs a highly qualified workforce in a variety of program areas, performing complex and diverse duties. Strong employee competencies are critical to meet program objectives and goals.

Over 18 percent of the TCEQ’s job classifications require a bachelor’s degree (see Figure F.8). Another 47 percent require a degree; however, related experience may substitute for this requirement. The remaining positions do not require a degree—they constitute 35 percent of the agency’s workforce.

Workforce Profile by Job Classification

Although over 75 percent of the agency’s employees are categorized as Officials/Administrators and Professionals, the work fulfilled by TCEQ employees is diverse, requiring the use of over 300 job classifications and sub-specifications. Figure F.9 represents the ten most frequently used job classification series in fiscal 2017.

In fiscal 2017, the TCEQ supplemented its workforce with 24 contracted staff to provide vital program support, manage workloads, and perform

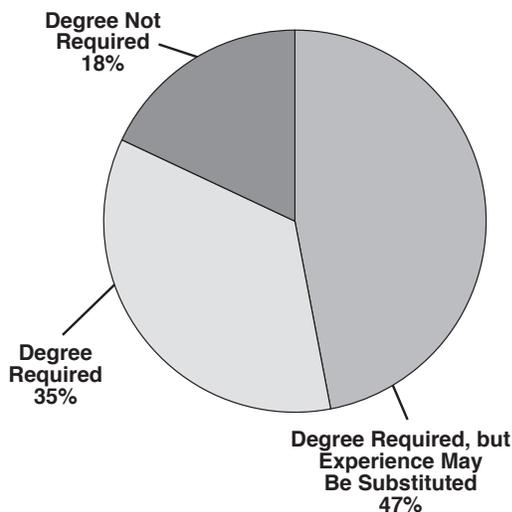
various information technology functions as a means of meeting agency goals and objectives.

Employee Turnover

TCEQ turnover consistently remains below statewide turnover. In fiscal 2017, for example, the statewide turnover rate was 18.5 percent, in comparison to the TCEQ’s turnover rate of 11.8 percent (see Figure F.10). This can be attributed to the agency’s recruitment and retention efforts.

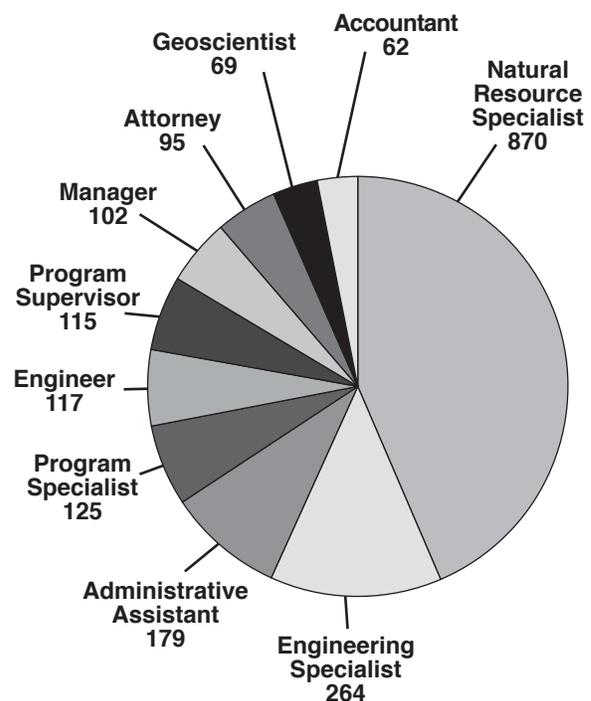
Recruitment and retention of qualified staff is critical to the ability of the agency to effectively carry out its objectives. It is imperative that quality replacements be found, trained, and retained. Certified and licensed staff are highly marketable outside of the agency, which results in turnover and lower

Figure F.8.
Education Requirements of TCEQ Employees, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.9.
TCEQ Employees by Job Classification Series, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

experience levels in the remaining staff. Ensuring that agency salaries are competitive with other state agencies using similar skill sets continues to be a challenge.

See Figures F.11 and F.12 for additional information about the average tenure of the TCEQ workforce.

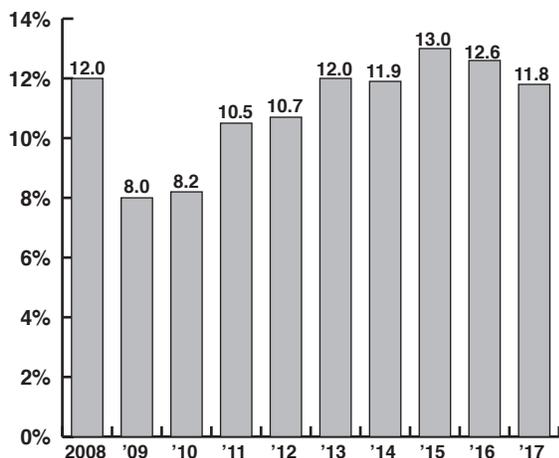
Future Workforce Profile (Demand Analysis)

The TCEQ carries out its mission through broad and diverse activities. These activities require that employees demonstrate a high level of proficiency in a variety of critical skills, also referred to as competencies. Table F.3 is a listing of sets of critical “competencies” that have been identified as the skill sets necessary to accomplish the agency’s mission.

The agency continues to emphasize and support workforce and succession planning. This process involves building a viable talent pool that contributes to the current and future success of the agency, including the need for experienced employees to mentor and impart knowledge to their potential successors. Such initiatives will enable the agency to

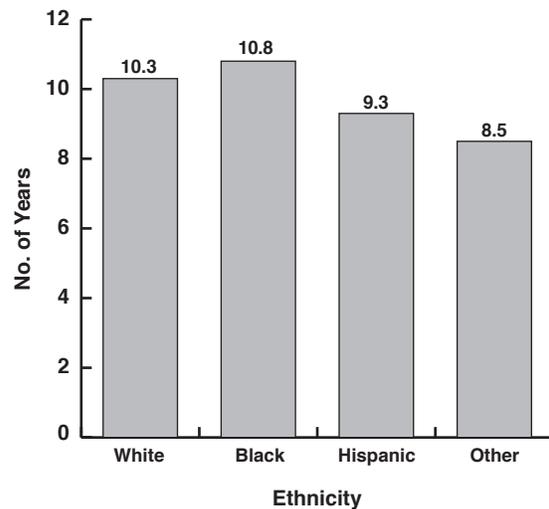
identify the skills, knowledge, and abilities needed to maintain our organizational excellence and to strengthen the skills of up-and-coming staff.

Figure F.10.
TCEQ Employee Turnover Rate, FYs 2008–2017



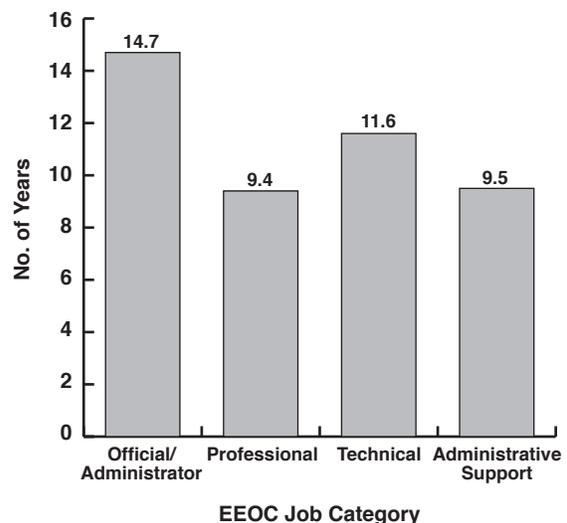
Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.11.
TCEQ Employee Average Tenure by Race, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Figure F.12.
TCEQ Employee Average Tenure by EEOC Job Category, FY 2017



Data Source: Texas Uniform Statewide Accounting System, as of 8/31/17.

Table F.3. Critical Workforce Competencies within the TCEQ Offices

Administrative Support	Project Management
Computer skills Mail processing Record keeping	Coordination Managing multiple priorities Organizing Planning Quality analysis and process improvement
Communication	Technical Knowledge <i>(may be unique to a certain program area)</i>
Customer service Cultural awareness Marketing and public relations Teamwork Translating technical information into layperson’s terms Oral – public speaking and presentation Written – composition and editing	Agency policies, procedures, and programs Auditing skills Litigation skills Local, state, and federal laws, rules, and regulations Inventory management Policy analysis and development Regulation analysis and development Research Specialized technical knowledge Statistical analysis Technical analysis
Financial Management	
Contract management Financial administration Grant management	
Information Development & Management	
Accessibility Computer-assisted tools Database development, management, and integration Electronic reporting Graphic design Software proficiency Web development and maintenance	
Management/Leadership	
Building effective teams Delegation Facilitation Interpersonal skills Managerial courage Mentoring Performance management Strategic planning	
Problem Solving	
Analysis Critical thinking Decision making Innovation	



The agency strives to compete in the marketplace for certain disciplines, such as science and engineering. The predominant occupations used at the TCEQ—such as environmental engineer, scientist, and geoscientist—require STEM (science, technology, engineering, and math) degrees.

The Texas Workforce Investment Council reported that job growth in STEM occupations through 2024 is promising: approximately 80 percent of the fastest-growing occupations are in STEM fields. According to the U.S. Department of Commerce, employment in STEM occupations grew much faster than employment in non-STEM occupations over the last decade (24.4 percent versus 4.0 percent, respectively), and STEM occupations are projected to grow by 8.9 percent from 2014 to 2024, compared to 6.4 percent growth for non-STEM occupations.

STEM occupations command higher wages, earning 29 percent more than their non-STEM counterparts. This makes it difficult to recruit and retain staff in the STEM job fields. The occupations with the fastest growth in upcoming years—such as

statisticians, software developers, and mathematicians—all call for degrees in STEM fields.

The ability to recruit people with information-technology skills will also be essential. The Bureau of Labor Statistics states that seven out of the 10 largest STEM occupations are related to computers. The largest group of STEM jobs is within the computer and math fields, which account for close to half (49 percent) of all STEM employment. Information-security analysts are projected to have faster-than-average job growth, at 36.5 percent, with computer-systems analysts, software developers, and web developers maintaining a high profile as fast-growing occupations in Texas and elsewhere.

Gap Analysis

Each office within the TCEQ analyzed the anticipated need for each competency and the possible risk associated with the skill being unavailable over the next five years. Competencies that are “at risk” are indicated in Table F.4, prioritized by “low,” “medium,” or “high,” reserving the “high” designation for those gaps that will require action to address them.



Table F.4. Competency Checklist and Gap Analysis

LEGEND									
CO – Office of the Commissioners ED – Office of the Executive Director	OAS – Office of Administrative Services OCE – Office of Compliance & Enforcement	OLS – Office of Legal Services OA – Office of Air	OOW – Office of Waste OW – Office of Water						
Skill Category	Skill	CO	ED	OAS	OCE	OLS	OA	OOW	OW
Administrative Support	Computer skills			High					
	Mail processing								
	Record keeping								
	Other: Document reproduction services (OAS)								
Communication	Customer service								
	Cultural awareness								
	Marketing and public relations								
	Teamwork								
	Translating technical information into layperson’s terms			Med			Med		
	Oral: Public speaking and presentation			Med					
	Written: Composition and editing			Med					
	Other: Public participation, publications (OA)						Med		
Financial Management	Contract management						Med		High
	Financial administration				High		Med		High
	Grant management				High		Med		High
Information Development & Management	Accessibility			High					
	Computer-assisted tools	Med		Med			Med		High
	Database development, management, and integration	High		High	High		High		High
	Electronic reporting			Med	High		Med		Med
	Graphic design				Low				
	Software proficiency			Med			Med		High
	Web development and maintenance			Med					Med
	Other: Crystal Report development (OAS)			Med					
Management/ Leadership	Building effective teams			Med					
	Delegation								
	Facilitation			Med					
	Interpersonal skills								
	Managerial courage	High		Low					
	Mentoring	High		High	High		Med		
	Performance management						Med		
	Strategic planning			Med			Med		Med

continued on next page

Table F.4. Competency Checklist and Gap Analysis (continued)

Skill Category	Skill	CO	ED	OAS	OCE	OLS	OA	OOW	OW
Problem Solving	Analysis			High			Med		Low
	Critical thinking			Med	Med		High		Med
	Decision making			Med	Med		Med		High
	Innovation	Low		Low			High		Med
Project Management	Coordination			Med					
	Managing multiple priorities			Med					Med
	Organizing			Med					
	Planning			Med					
	Quality analysis and process improvement	Low		Med	High		High		Med
Technical Knowledge (may be unique to a certain program area)	Agency policies, procedures, and programs	Med			Med		Med		Med
	Auditing skills	High		Med	Med				Med
	Litigation skills								
	Local, state, and federal laws, rules, and regulations				Med		Med		Med
	Inventory management								
	Policy analysis and development				Low		Med		High
	Regulation analysis and development			Low	Med		Med		High
	Research						Med		
	Specialized technical knowledge	High		High	High		High	High	High

Strategy Development

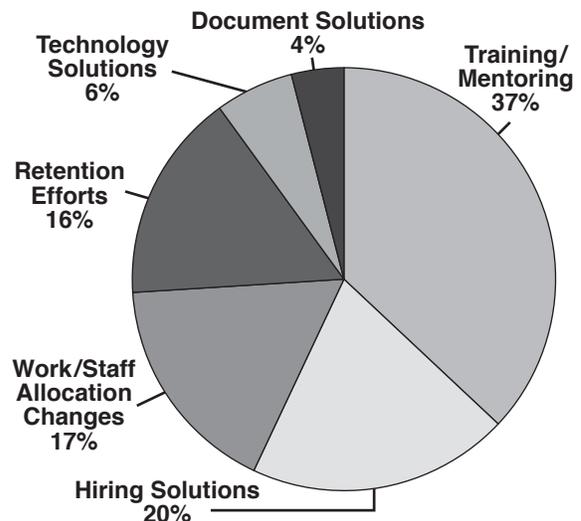
The TCEQ anticipates implementing key strategies, which are discussed in the following sections, to address expected skill gaps. Figure F.13 displays the strategies that were identified by agency offices.

As in past assessments, Training and Mentoring will be the primary focus, followed by Hiring Solutions, to ensure that the TCEQ aligns appropriate personnel with the necessary skill sets to fulfill the agency’s core functions. The use of strategies as indicated below reflects the fact that there is a critical need to continue developing current staff skills, while also developing future workforce skills.

Some of the specific strategies mentioned by agency offices are:

- Increase recruiting efforts to attract qualified engineers and water chemists and scientists.

Figure F.13. TCEQ Strategies to Address Skill Gaps



Data Source: Office Workforce Plan, TCEQ, March 2018.

- Ensure that agency salaries are competitive with other government agencies that have similar positions (i.e., city, county, state, and federal agencies).
- Obtain the equipment, technology, and training necessary to maintain a competent workforce within budgetary constraints.
- Participate in recruiting and training efforts as turnover of staff due to retirement and economic issues creates loss of knowledge and skills in critical program areas.
- Provide opportunities for management and technical experts to mentor, train, or facilitate on a regular basis.
- Recruit and retain staff with critical skill sets to ensure quality control in managing data functions and modifying processes to meet demands.
- Develop viable options to recruit, obtain access to, contract with, or train staff in critical-needs areas.
- Seek transition positions to allow new junior, interim, or training positions until full technical positions become available through attrition or retirement.
- Continue to document processes and procedures for core functions and produce guidance documents to record the protocol used for specialized decision-making.
- Develop tools (checklists, flow diagrams, guidance documents, desktop tools) to assist staff and the regulated community.
- Assign staff to special projects to increase their knowledge base.
- Assign backups to positions where medium and high gaps are identified and include these responsibilities on the backup's performance plan.
- Hold peer-review meetings to discuss common areas of concern and to ensure consistency in the processing of approvals, applications, permits, and authorizations.

Training and Mentoring

It is evident that mentoring, job shadowing, on-the-job training, and cross-training will continue to be critical to maintaining institutional knowledge and technical

expertise as well as to developing and enhancing critical workforce competencies. This will allow less-tenured staff to work with senior subject-matter experts, with the goal of developing and sharpening specific skills. It is also vital that the TCEQ provide quality training and professional-development opportunities that focus on agency and division critical skills, competencies, and technical requirements for all employees. Staff should be afforded the opportunity and encouraged to attend training that promotes professional development.

As agency resources are limited, the Human Resources and Staff Services (HRSS) Division is asked to enhance technical and leadership training, while maximizing training dollars. As an attempt to accommodate budget constraints, the agency utilizes internally developed classes and online training, as well as subject-matter-expert (SME) offerings that are free to the agency, whenever possible. In addition, the agency has increased the use of video conferencing (VTC) when appropriate, to save travel funds.

Hiring Solutions

While the agency has limitations on FTE levels, offices may address these constraints by realignment, the elimination of unnecessary programs, and documenting and streamlining business processes to maintain a consistent level of regulatory oversight and customer service. Offices will pursue hiring above the entry level for jobs that are hard to fill due to the competitive market base. In addition, the continuation of internship programs has proven to be a successful avenue for hiring employees that have an interest and experience in environmental work.

The TCEQ has a commitment to employing a qualified and diverse workforce. The recruitment program maintains a strong diversity focus and is committed to building a quality workforce. Recruitment events are regularly planned to target qualified ethnic minority and female candidates. The increased recruitment efforts necessitate a continued presence at events, while operating within limited agency resources.

The TCEQ will continue to analyze hiring practices and determine opportunities for enhanced

workforce diversity through usage of the Express Hire Program at diversity-focused events and predominantly minority colleges and universities. This program allows hiring supervisors to identify and hire qualified applicants for job vacancies on the spot at recruiting events. A final review of the applicant's qualifications, along with other hiring requirements, is conducted later.

Hiring supervisors also have the benefit of utilizing the agency's Transitions Hiring Program, which provides a diverse applicant pool to expedite hiring for entry-level positions requiring a degree. Recruiters actively recruit at colleges and universities and at professional events throughout the state. Hiring supervisors have access to a pool of graduating or recently graduated college students from diverse backgrounds for professional entry-level positions.

Retention Efforts

Retention of qualified staff remains a continuing challenge in a competitive market. Offices plan to retain individuals who possess essential competencies by providing opportunities for increased responsibility (promotions) and salary enhancements to recognize and reward exceptional performance. The TCEQ will also continue to provide developmental opportunities for employees to focus on critical skills, competencies, and technical requirements needed by the agency. It is vital to develop employees to offset potential losses in staff with technical expertise, institutional knowledge, and management experience.

Other retention strategies will include the continued use of recognition, administrative-leave awards, and flextime or other alternative work-hour schedules to support a more flexible and mobile workforce. In addition, HRSS administers employee programs to

promote the health, well-being, and education of employees, and to promote a sense of community throughout the TCEQ. Further, HRSS is launching a new Onboarding Program and is taking measures to facilitate the internal movement of staff with the intent of securing the agency's hiring investment.

Work and Staff Allocation Changes

Managers continue to review workforce needs and available skill sets to ensure that adequate staff are assigned to meet the business needs of the agency. Offices indicate that the strategies most utilized in this area will be to assign backups for key positions, include these backup responsibilities in their performance plans, restructure jobs, revise functional job descriptions, and, in some instances, involve entry- and journey-level positions in senior decision making. Managers may also pursue process redesign to improve efficiencies and reduce the risk associated with a potential loss of specialized skill sets.

Documentation and Technology Solutions

Managers understand the need for documenting processes and procedures to ensure that tools are available for training purposes and continuity of operations. Documenting processes and procedures also provides a basis for streamlining core functions and can be used for specialized decision-making. Development of tools (checklists, flow diagrams, guidance documents, desktop tools) that can be used by both staff and the regulated community will also streamline and communicate processes and answer frequently asked questions.