SHAPING OUR FUTURE

A Strategic Framework for Texas

TEXAS 2036

Table of Contents

A Letter to the People of Texas

Dear Fellow Texan —

Texas is special, a place like no other. It is a land of epic proportions and extreme contrasts. A land hemmed by seas and rivers, mountains and deserts, forests and plains. A land of lush scenery and austere beauty. A land of blizzards and heat, rain and drought. It is a land of abundance and scarcity. It is a land unique unto itself.

Texans are special, too; a unique people characterized throughout a rich history by an independent, pragmatic, determined, persistent, and generous attitude, and a confidence in themselves and what they can accomplish. We are adaptable, willing to rise together to confront a challenge, and united in our shared sense of Texas pride. This is as evident today as it has ever been as we come together as a state and a nation to confront an invisible enemy — a global pandemic — COVID-19.

Generations of Texans have held a sincere optimism that Texas's future will be even brighter than its past, a compelling belief that has drawn millions of people to our state. As we move past the immediate crisis, and mourn those we have lost, we must look toward the future with a renewed sense of resolve and a determination to learn from the lessons COVID-19 has taught us. We must not shirk from the acute disparities this pandemic has surfaced, but face them head-on and develop innovative new ways to solve age-old problems this crisis has magnified. Just as we have done time and again throughout our history, from the Spanish Flu to Hurricane Harvey, we must confront the weaknesses and inequities this pandemic has revealed in both our health and education systems, and allow the challenges to strengthen us, making us more resilient and prepared to face the future. In 2036, just 16 short years from now, Texas will celebrate its bicentennial: 200 years of growth, change, perseverance through adversity, and achievement, the likes of which has rarely been seen. As we look to the third century of Texas, it's time to take stock of where we have been as a state, where we are today, and where we want to go in the future.

Our organization, Texas 2036, was born out of a love for Texas and a recognition that vigilance is required to ensure we enjoy a future that sustains

and expands opportunity for all Texans. We, like generations of Texans before us who wrought by hard and deliberate work the prosperity and quality of life many of us enjoy today, must look ahead to what the future could be, build upon our legacy of success, and overcome challenges that lie beyond the horizon in pursuit of a bold vision.

Texas is well prepared to pursue a bold vision for the future. Texas's economy, which if we were a country would be the 10th largest in the world, continues to grow, buffeted but never defeated. Texas leads the nation in exports, and has for the past 17 years in a row. Texas is the nation's leading producer of both carbon-based and alternative energy, and we made the United States energy independent for the first time in decades. A leading producer of agricultural products, Texans feed and supply ourselves and our nation. And throughout Texas, businesses — from the Fortune 500 to recent startups — are serving consumers and clients across the country and around the world, financing trade and innovation, building nanotechnology and skyscrapers, and pursuing the next frontiers across industries, from space exploration to cellular biology. This has resulted in Texas leading the country in job creation and economic growth.

However, the challenges we face are not insignificant. Our population is big and growing quickly. Today, Texas, with 29 million residents, is the second-most populous state in the nation, and nearly 10 million more Texans are expected to live here by 2036. We are diverse and becoming more so, and we are becoming both younger and older at the same time. Our growth has, and will continue to be, primarily in our urban areas, yet rural Texas is more populous than 18 U.S. states. This population growth is a double-edged sword: necessary for sustaining our economic growth and yet straining our state's infrastructure and services. Texas has struggled to effectively educate all students to be active participants in an increasingly global economy. Health expenditures are ballooning while Texas ranks in the bottom half of U.S. states on many health-measures. We must prepare for a radical shift in how people and goods are moved, as alternative types of mobility become commonplace. We must ensure utilization of our natural resources that balances economic value with stewardship for future generations. We must better protect our most vulnerable populations. And we must think differently about how this $250 billion enterprise we call the State of Texas best allocates resources to provide the greatest opportunity for the greatest

number of Texans.

In pursuit of a vibrant future for Texas, we offer this Strategic Framework, rooted in a commitment to tackle the most pressing issues our state faces in the best way we know how: the "Texas way." We take pride in our state's business-friendly climate and competitive tax structure. We cherish individuals' rights, responsibilities, independence, and autonomy. We believe the private, public, and philanthropic sectors must all work together to make Texas better — we don't and can't look to government to do it all. We believe that policy solutions work best when state and local governments are pulling in the same direction, when top-down meets bottom-up. We believe in facts over ideology, action over accusation, solutions over stalemates.

This Strategic Framework is focused on seven policy pillars representing the most significant drivers of Texans' prosperity and quality of life: prosperity and well-being, education and workforce, health, infrastructure, natural resources, justice and safety, and government performance. In this Framework, we lay out 36 ambitious but achievable goals for the future of Texas across these pillars and undergird them with more than 160 indicators that can help evaluate Texas's progress toward these goals. Collectively, the goals represent an interconnected set of priorities that can guide the way forward. This wide-lens perspective sets Texas 2036 apart as an organization. We are not focused on a single issue or silo, but rather on looking at the numerous interconnections between our policy areas.

The numerous, detailed indicators speak to the very heart of Texas 2036. We are informed by the facts — we do not shirk from what the data tells us. Texas 2036 has assembled hundreds of datasets to inform and shape this work, and fealty to data is an important differentiator of our work. Comprehensive and relevant data can break down party lines to unify Texans seeking pragmatic solutions. Today, we have sufficient data to help us plan for the future; in the coming years, we will work with state and local governments and other stakeholders to improve the quality of data available for policymakers, ensuring decisions are being made with the most meaningful and telling information.

Our commitment to data also led us to develop a set of peer states against which Texas can compare itself. This cohort serves as an external barometer

of Texas's standing and progress, setting out an assessment of how we are faring against those states with which we most often compete for business and talent.

While much research, data analysis, input from experts, constructive criticism, and healthy debate has gone into the development of this Framework, it is not static. Rather, we see the Framework as the starting point for a robust conversation across Texas about the future of our great state. We are eager to hear from you, our fellow Texans, about how we can strengthen our work and partner together to help create a better future for Texas. And, given that the vast majority of work and analysis represented in this framework was completed before the onset of the COVID-19 pandemic, updates and reassessments will be necessary given the rapid changes that have occurred over the last two months.

A document of this scope would not have been possible without the contributions and collaboration of many across the state and nation. First and foremost, Texas 2036 would like to thank our financial supporters, many of whom have championed our efforts from the very beginning, for making this effort possible. We are grateful for their generosity and for their ongoing commitment to the state's long-term well-being. Texas 2036 would also like to thank the numerous consultants, experts, members of the Texas 2036 policy advisory committees, and state and business leaders who engaged with Texas 2036 during the development of this report, in particular the Boston Consulting Group for their contributions to the framework's structure, peer states, goals, and indicators.

We know this work is audacious, but if anyone can do it, Texans can. We have resources, time, pragmatic policy makers, a responsible business sector, a vibrant philanthropic community, and tremendous size, scale, and location on our side. And, most importantly, we have each other — Texans intent to leave Texas better than they found it for those who will come after them.

Let's get to work.

Tom Luce,
FOUNDER AND CHAIRMAN OF THE BOARD
TEXAS 2036

Margaret Spellings,
PRESIDENT AND CHIEF EXECUTIVE OFFICER
TEXAS 2036

Influences Shaping the Future of Texas

After substantial research and analysis, Texas 2036 has developed a broad focus on the most important factors that continue to shape Texas today and the trends that may influence its future. As proud as Texans are, we are all aware after the coronavirus pandemic that the world is interconnected and Texas is subject to broader forces beyond its control. The Strategic Framework can inform policy discussions and solutions, keeping in mind these powerful drivers of change:

Geography and a Changing Global Economy

Texans have a strong shared identity across dramatically different regions. In water supply and agriculture, or in health care and education, needs are very different in East Texas and West Texas, or in the Panhandle and the Valley. These very different regions all need access to world markets, but it is harder for "one size fits all" solutions to work in Texas, given the tremendous variety among the places Texans live and work.

- Urban and Rural. About 90% of Texans live in urban areas today and that trend will continue through 2036.[00-01] At the same time, Texas's rural counties provide invaluable energy, water supplies, agriculture production, and exports to fuel our state economy. Our interdependency will shape state policies and programs to reflect and respond to these unique needs.

- A Vibrant and Vital Border. The Texas/Mexico border is an extraordinary asset as well as a challenge, but there is no question that it is key to Texas's economic growth and export success. The coordination of state and national policies on border issues — trade, transport, energy, immigration, water, and environment — is critical and will continue to require Texas's leadership.

- A Long and Valuable Coastline. Texas is a global maritime powerhouse. Refineries, fishing, shipping, cruises, and tourism are driven by Texas's central location on the Gulf of Mexico. From the Sabine River at Texas's border with Louisiana to the Rio Grande at the Mexican border, Texas's coastal counties (including Harris County) accounted for 33.4% of total Texas real gross product in 2014.[00-02]

- An Interconnected Economy. Trade agreements and technology have made it far more efficient for businesses to cross borders and coordinate international supply chains. Thanks in large part to free-trade agreements and abundant, low-cost energy, Texas has become the nation's export powerhouse and one of the most globalized states in the nation.[00-03] In 2018, exports accounted for 17.8% of the state's GDP and supported an estimated 910,000 jobs.[00-04] Texas depends on world markets, with 35% ($109.7 billion) of the state's total goods exports going to Mexico in 2018 — Canada and China are our next-biggest trading partners.[00-05] But uncertainty and changes in trade policies could have a disproportionate negative effect on Texas.

Demographics.

Population growth helps drive economic growth. By this measure, Texas is successful. It is the second most-populous state in the country[00-06] and has five of the 15 fastest-growing cities in the nation.[00-07] By 2036, Texas is expected to add nearly 10 million people, increasing our state population to 38 million.[00-08] Shifts within the Texas population will have major impacts on state government services such as education and infrastructure.

- Population diversity. Recent projections indicate that Texas's Hispanic and African American populations will both increase more than 40% by 2036, and the state's Asian population will be its fastest growing, more than doubling in size.[00-09] The Anglo population is projected to steadily increase, although at a slower rate than other groups.[00-10] This increasingly diverse population will bring new skills, ideas and perspectives, helping the state retain talent, promote competitiveness and increase economic growth.
- Poverty. Economic growth has not equally benefited all Texans. Even though the overall poverty rate in Texas has largely held steady, the share of Texas students deemed low-income in our school system (i.e. qualifying for free and reduced-price lunch) has increased from 35% in 1988 to 61% today.[00-11]
- Aging population. By 2036, the population of Texans 65 years of age and older is projected to grow by 78%, while the overall population will grow by less than half that (33%).[00-12] Since older Texans use more health care than younger Texans, an increasing over-65 population will create pressures on the state budget and on Texas families.
- Slowing migration. Domestic and international migration into Texas provides an important boost for the state's economy — nearly half of the state's workers are non-native Texans.[00-13] And the higher educational attainment rates of these Texas transplants have created a better-educated workforce.[00-14] Texas has especially benefited from international migration to fill high-skill jobs in fields such as science, technology, and health care. However, migration of all kinds is beginning to slow, making it increasingly important to prepare Texas students to meet our workforce needs.

Separation of Powers.

Under our nation's federal system, states have significant authority to impact the 36 goals outlined in this framework, but state governments do not operate in a vacuum. Federal laws and regulations often limit state efforts and can restrict innovation by the states. Changing federal regulations may also limit Texas's ability to help the nation achieve and sustain energy independence.

And while this framework focuses primarily on state-level goals, much of the day-to-day government activity impacting Texans occurs in local communities, spearheaded by city and county officials, as well as local school boards. Aligning all levels of government to address these goals will ensure that Texas is best able to tackle the problems it faces today and will face in its third century.

Adaptability and Resilience.

Texas cherishes tradition but has excelled at change throughout its history. With a modest economic start in cotton and cattle, the Texas economy has vaulted into leadership in fields such as medical research, telecommunications, energy production, and space exploration, among many others. Each of these key industries is facing competitive pressures to adapt and change, and so must Texas.

Making sure our infrastructure, business climate, and workforce skills are ready for unprecedented types of change is well within our state's ability, with the right focus and preparation.

- Climate. More frequent extreme weather events will pose a threat to Texans' safety and affect the state's water supply, production of food and fiber, resiliency of infrastructure, and more — all of which have an impact on the state's budget. While Texas weather has always had wild day-to-day extremes, potential long-term changes to the state's climate increase the risk and intensity of weather events exponentially. In the past decade, Texas has experienced everything from its worst one-year drought on record (2011)[00-15] to its wettest year (2015)[00-16] to the greatest single-storm rainfall in the nation's history (2017).[00-17] Texas also has more billion-dollar weather disasters than any other state.[00-18]
- Technology. Advancements in technology — from big data and advanced analytics to artificial intelligence to robotics — have the potential to stimulate economic growth and greatly improve Texans' quality of life. However, these advancements also have the potential to disrupt industry and transform the labor market, meaning government needs to adapt at the speed of technological change.
- Job displacement. Our economic health may hinge on how quickly Texas can adapt to the automation age, as technological advancements increasingly automate routine, low-skilled jobs. The state is projected to have 19% job growth by 2030, the most of any state and more than double the national average.[00-19] But Texas could also experience a 23% job displacement rate, which translates into 3.6 million job displacements.[00-20] More than one-in-four displacements are likely to affect workers with less than a bachelor's degree.[00-21]
- Connected living. Texans are increasingly integrating technology and connectivity into their daily lives, affecting everything from shopping and entertainment to health and wellness to education and work. This can especially benefit rural areas, where digital technologies can improve access through online learning, telemedicine, remote work, and more. However, this also brings challenges, including an increased need for digital literacy skills and access to high-speed internet — particularly in rural areas. And it will be important for policymakers to keep pace with the regulatory, privacy, and other concerns in an area primarily driven by the private sector.[00-22]

Peer States

For Texas to be the best place to live, work, and do business, we need to understand how we are doing today. The Strategic Framework measures Texas's performance against all 49 states and also compares Texas to a competitive peer state group consisting of California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Ohio, Pennsylvania, Virginia, and Washington.

We identified these peer states through an index of 15 metrics across three key categories:

- Which states are our primary competitors for business?
- Which states are our primary competitors for talent?
- Which states are similar in size to Texas?

Competitors for business were identified by factors such as overall economic growth;[00-23] the number of businesses (including Fortune 500 headquarters,[00-24] Inc. magazine's 5000 fastest-growing companies,[00-25] new small businesses,[00-26] and venture capital investments[00-27]); and rankings on national indices assessing how attractive states are to businesses.[00-28],[00-29]

Competitors for talent were identified by factors such as overall increase in the talent pool[00-30] (including net migration gain[00-31]); rankings on a national index[00-32] assessing quality of life (measuring factors such as cost of living, education, health, crime, commute times, weather, and cultural and recreational opportunities); and measures of per capita personal income.[00-33]

States similar in size to Texas were identified using both the size of the economy,[00-34] the size of the population,[00-35] and the number of major metropolitan areas.[00-36]

Peer States

Ultimately, 11 states and Texas were at the top of this index.[00-37]:

The Peer States

	Peer States
	Texas
	Other states
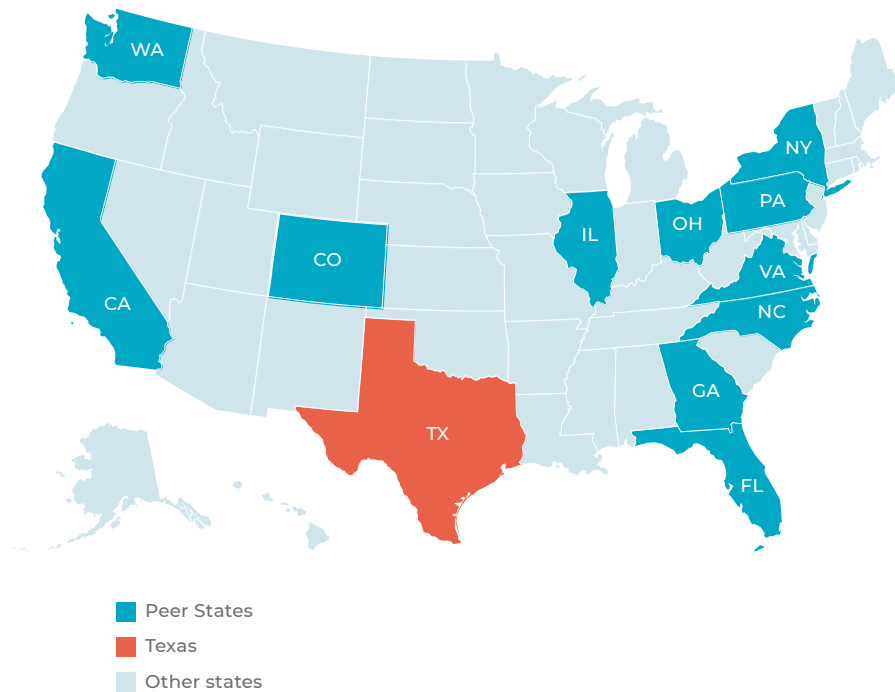
Texas and these 11 peer states account for 58% of the total U.S. population[00-38] and 62% of the nation's GDP.[00-39]

Throughout the report, where the data is available, we have included benchmarks that indicate where Texas currently ranks among all states and these peers. We have also based many of the Strategic Framework targets on where we believe Texans want to be relative to our peers in the future.

We believe there is a significant opportunity for Texas and its peer states to partner on collecting and disseminating data, and to convene for discussions about common challenges and innovative policies and practices. These actions will allow all states and the nation to move forward on these important goals.

State of the Data

Texas 2036 is committed to help build the strongest future for Texas through research grounded in clear, valuable data. This report refers to 57 indicators used to measure our progress; our Data Lab has many other data sets. But we note that the current data has several important limitations.

Data is not always collected regularly. In some cases, the best data we want to use does not exist. In others, it is not reported regularly — which makes it challenging to measure progress consistently. Additionally, some data is inaccessible or not in a format that can be easily analyzed.

Additional data and indicators will be necessary as Texas progresses through the 21st century. As Texas approaches 2036, external influences impacting the state will necessitate additional datasets and indicator adjustments to ensure we are appropriately measuring progress.

Benchmarking against peer states is sometimes difficult due to a lack of comparable data methods. Understanding Texas's performance relative to our peer states is important. But comparable data is not available for some indicators, either because no standardized methodology exists or because the data isn't separated out by state.

The indicators we decided to use represent the best data currently available. As better data is developed, we will update our indicators. Six goals in the strategic framework currently lack certain key indicators; those will be developed over time as better data becomes available.

- **Workforce Needs:** Texans meet the state's current and future workforce needs[a].
- **Availability of Health Care:** Texans have access to basic health care.
- **Wisely Manage State Spending:** Texas strategically manages state expenditures to deliver the best value to taxpayers.
- **Proven, Modern Methods in Data:** Texas government uses data-driven and proven modern methods to drive towards shared goal.
- **Customer Service:** Texas people and businesses can access public services they want and need through user friendly methods and devices.
- **Aligned Accountability:** Texas officials at all levels collaborate well.

Education and Workforce Data

Standards set by the state may be overestimating progress. When comparing student outcomes on state assessments versus national assessments, the Texas Education Agency (TEA) shows much higher student performance than its national counterparts. The State of Texas Assessments of Academic Readiness (STAAR) assessment estimates 45% of third graders are reading on grade level[00-40], versus

30% of fourth graders in the National Assessment of Educational Progress (NAEP) assessment.[00-41] Similarly, the TEA's College Ready indicator suggests 50% of high school graduates are ready for postsecondary education.[00-42] That figure is much lower on national assessments such as the ACT, SAT, AP™, and IB™ exams.[00-43], [00-44], [00-45] We have included a discussion on both sets of indicators to address these issues.

Comparable data is not collected across peer states. On some measures, methodologies differ by state. For example, many states have an indicator to measure postsecondary readiness but differ on how they define it. On other measures, data is not being collected. For example, while postsecondary completion may be tracked for all students at an institution, few states distinguish between residents and non-residents. Given such limitations, we are using Texas-specific indicators in the near term but believe there would be value in aligning measures across states.

The data we want is not always available — at least not today. Seamless longitudinal data is needed to understand the educational performance of all participants — students, teachers, and institutions — but isn't widely available. And although organizations such as the Bureau of Labor Statistics and the Texas Workforce Commission publish projections, data is available only at the occupation level, not the skill level. Available data also may not reflect the complexities of the changing labor market. Similarly, data collected by the TEA on postsecondary credentials covers only certificates, two-year degrees, and four-year degrees, even though employers are increasingly issuing their own credentials. Texas 2036 can help highlight the need to make these important datasets more comprehensive and readily available.

Data on Texas teachers is limited. Teachers are the single largest in-school factor contributing to student achievement.[00-46] However, limited publicly available data exists on important topics such as the quality of teacher preparation programs and teacher pay practices. Better data would help Texas to attract, develop, and retain high-quality teachers — which is critical to improving student achievement.

Health Data

Because of privacy concerns, it is difficult to evaluate health care system value. Data exchange is an important source of value creation in the health care system.[00-47] The past decade has seen a consistent push for nationwide interoperability — the ability to exchange, access, and edit data — as a way of promoting value in the health care system. At the same time, concerns about health data privacy are increasing. Health Insurance Portability and Accountability Act (HIPAA) regulations allow for electronic data sharing but also add needed barriers that protect patient privacy. [00-48] However, these regulations also make it harder for health care organizations to use data efficiently. And these kinds of rules appear likely to get stricter in the future.[00-49]

There is currently little public access to data on health care costs at a state level, a critical piece of the value equation. The Center for Medicare and Medicaid Services (CMS), which publishes its state health care spending estimates every five years, is forced to rely on a combination of survey data and billing rates to make projections. We have based our estimates of future health care cost growth on this CMS dataset. Hopefully, in the future, better data sharing and increased price transparency will make it possible for CMS and other market participants to measure these costs more directly.

Publicly available data has not kept pace with innovations in health care delivery. Telemedicine and other means of health care are improving access to care for Texans across the state. With the spread of COVID-19 and subsequent mass quarantines, innovative forms of delivery have become widely adopted by providers and patients. Yet Texas does not adequately track access to and participation in such innovative forms of care, meaning we know little about the state's changing health care landscape.

Infrastructure Data

Digital connectivity indicators could be improved with a more nuanced methodology. The current Federal Communications Commission data likely overestimates the population with broadband coverage, according to a 2018 Microsoft report.[00-50] The data uses census blocks as the unit of measurement, which assumes the entire census block has access to broadband service if at least one customer does. Additionally, the broadband subscription data from the American Community Survey does not capture speeds received by respondents.[00-51] As a result, we cannot currently determine how many users are subscribed to broadband at the federal minimum threshold of 25/3 Mbps. Filling the data gap is critical to tracking progress, and external organizations are working to improve these existing measures.

Data on the economic dimensions of hazard readiness is not currently readily available. While the current National Health Security Preparedness Index rigorously measures preparedness and response regarding human protection, data for addressing the economic dimensions of resiliency are not currently available.

Natural Resources Data

Data on water quality may be incomplete or underreported. The Environmental Protection Agency has stated that the existing data may not reflect all monitoring done at the state level.[00-52] Furthermore, not all water systems reported data or received site visits. Some water systems in Texas fail to conductmonitoring or submit required samples to laboratories.[00-53] Even so, the federal Enforcement and Compliance History Online database represents the most complete and detailed dataset publicly available.

Justice and Safety Data

There are many organizations supporting vulnerable and at-risk Texans across the public, private, and non-profit sectors. Better data-sharing pratices would allow organizations to better serve the needs of Texans in crisis. Due to technological limitations, data privacy restrictions, and the lack of integrated and interoperable data systems among these service providers, this data is not readily accessible.

Across the country, data on the criminal justice process and outcomes is full of gaps. This is partly due to the sheer numbers, with thousands of counties — each often with multiple agencies — storing data in their own siloed databases. To make matters worse, standard definitions of key concepts do not exist in Texas or across the nation, which makes data classification and access extremely challenging.[00-54] As a result, it is difficult to evaluate justice system performance in any kind of comprehensive manner.

To address some of these data gaps, the Texas Criminal Justice Coalition has begun posting data on court dispositions in Dallas and Harris counties to an online dashboard. This tool, which highlights racial and gender disparities as well as the tendencies of specific judges, allows public stakeholders and policy makers to explore bail and sentencing trends in detail.[00-55] But this is just a first step. We need the same level of rigor in tracking and analyzing data throughout the criminal justice system.

Texas 2036 has relied on imperfect recidivism measures to compare justice system performance across peer states.[00-56] Hopefully, more robust data tracking will enable a more comprehensive evaluation of justice system performance in the future.

Government Performance Data

There are data problems across government functions. Some datasets are not linked longitudinally or across service populations. Moreover, datasets often include self-reported agency data without quality checks. These drawbacks limit the ability of policy makers and public stakeholders to assess public services.

In many cases, significant data gaps emerge because legacy technology systems cannot interact smoothly with new business and data formats. [00-57] In this report, we have proposed introducing proprietary assessments to evaluate the performance of government functions in the absence of reliable data. We will encourage the state to update outdated technology and build robust data collection systems so Texans in the future can rely on more current and useful information.

Weak analytic capabilities further limit Texas's ability to make good decisions based on the most current facts. In a 2018 survey of 78 state agencies, only 13 of them (under 17%) reported employing staff whose primary duty was data management,

a number that is unchanged from 2016.[00-58] A mature data management and governance program depends on dedicated and highly-invested staff, which is something few state agencies report having.[00-59]

The point of better data analysis in government is to be sure our public spending is addressing the highest service priorities in a cost-effective way. Many operational goals are focused more on spending totals, numbers of cases, and personnel rather than value measured in the quality and timeliness of service to Texans. To collect and analyze the right data, we need to agree on what the most important shared goals are. Texas 2036 has proposed several "value of service" measures that will rely on clearer priorities and better data and planning.

COVID-19 Pandemic and Data Collection

The COVID 19 pandemic has disrupted, among many other things, Texas's ability to collect valid and reliable data. For example, the annual STAAR exams that are administered to Texas public school students were suspended for the 2019-20 school year.[00-60] Without this critical data, we cannot determine student learning, best practices, achievement gaps, and other critical points of understanding that drive instruction and policymaking.

The 2020 U.S. Census is another source of vital data at risk of being affected. While the Census will be completed (largely through online and mail submissions), some communities could be at greater risk of miscounts. With billions of dollars in federal funding at stake from Census findings, accuracy matters. In Texas, an undercount of 1% could result in a loss of $300 million in federal funding.[00-61]

Executive Summary

The Texas 2036 Strategic Framework is the result of more than two years of research and analysis, focusing on the most important issues facing the state — issues that will shape Texas's future quality of life and shared economic prosperity. The Framework articulates a vision for the future of Texas:

Through our bicentennial and beyond, Texas is a land of opportunity, prosperity, and well-being for all generations of Texans.

This vision for Texas is built on seven broad policy pillars and 36 aspirational goals. While the policy pillars and goals comprise a wide range of topics, this Framework is not meant to be a comprehensive plan for Texas. Nor should it necessarily be seen as a final product; rather, the Strategic Framework is designed to spark conversations across the state about what matters most to Texans and how we can effectively work together to build a bright future for our state.

Understanding the Strategic Framework:

The Strategic Framework rests on 36 important goals in a broad Prosperity and Well-Being section and six more specific policy pillars. Together, they comprise a set of priorities for Texas to address to sustain and expand prosperity in the future. We identified goals that are:

- Critical: Addressing the biggest challenges for Texas and the issues that matter most to Texans
- High impact: Driving impact in opportunity, prosperity, and well-being for all generations of Texans
- Ambitious: Bold in envisioning an even better Texas
- Unifying: Bringing Texans together to support a stronger future for Texas
- Enduring: Remaining relevant in 2036 and beyond, adapting to changing contexts

Each policy pillar has an introductory section, followed by sections addressing each of the individual goals. The seven policy pillars and 36 goals are:

Prosperity and Well-Being: Two broad goals aim to ensure that Texas is the best place to live, work, and do business. These goals cut across the other six policy pillars.

1. Economic Growth: Texas spurs economic growth through an innovative and business-friendly climate.
2. Quality of Life: Texas is the best place to live and work.

Education & Workforce: Texans have the knowledge and skills needed to succeed in the 21st century:

3. Early Childhood: Texas children get a strong early start to succeed in school and life.
4. K-12: Texas students graduate high school ready for postsecondary success.
5. Postsecondary Education: Texas students earn a postsecondary credential to access the jobs of today and tomorrow.
6. Jobs: Texans have the knowledge and skills to access careers enabling economic security.
7. Workforce Needs: Texans meet the state's current and future workforce needs.

Health: Texans are able to live healthy lives through an efficient and effective health system.

8. Availability of Health Care: Texans have access to basic health care.
9. Affordability of Health Care: Texans are able to afford the basic health care they need.
10. Population Health: Texans live long, healthy, and productive lives.
11. Public Health: Texans and their communities are empowered to adopt healthy lifestyles.
12. Return on Health Care Investment: Texas has a high-value health care system that optimizes costs and delivers results.

Infrastructure: Texas ensures people, goods, information, and energy can move within and across our borders.

13. Mobility of Individuals: Texans can travel to their destinations effectively and efficiently.
14. Mobility of Goods: Texas enables economic growth by moving goods efficiently.
15. Transportation Safety: Texas maintains a safe transportation infrastructure.
16. Digital Connectivity: Texans can digitally participate in economic opportunities and essential services.
17. Energy Distribution: Texas maintains a sufficient, reliable, and cost-competitive energy infrastructure.
18. Crisis Readiness: Texas is ready to address the human, economic, and environmental consequences of natural disasters and hazards.

Natural Resources: Texas manages natural resources to promote quality of life, economic advantage, and environmental stewardship.

19. Quality of Air: Texans have clean air.
20. Sufficient Water: Texans can rely on a sufficient water supply.
21. Quality of Water: Texans have clean water.
22. Parks and Wildlife: Texas enhances and protects its state parks, public and private open spaces, and wildlife.
23. Agricultural Production: Texas leads in agricultural production with responsible natural resource stewardship.

24. <u>Energy Production</u>: Texas leads in energy production with responsible natural resource stewardship.

Justice & Safety: Texas ensures the safety and fair treatment of Texans.

25. <u>Public Safety</u>: Texans are protected from threats to their well-being and property.
26. <u>Protection for the Vulnerable</u>: Texas protects the vulnerable from traumatic experiences.
27. <u>Safety Net</u>: Texans have access to resources to meet basic needs when they are in crisis.
28. <u>Justice System</u>: Texans are served effectively, efficiently, and impartially by the justice system.

Government Performance: Texans are well served by accountable government at all levels.
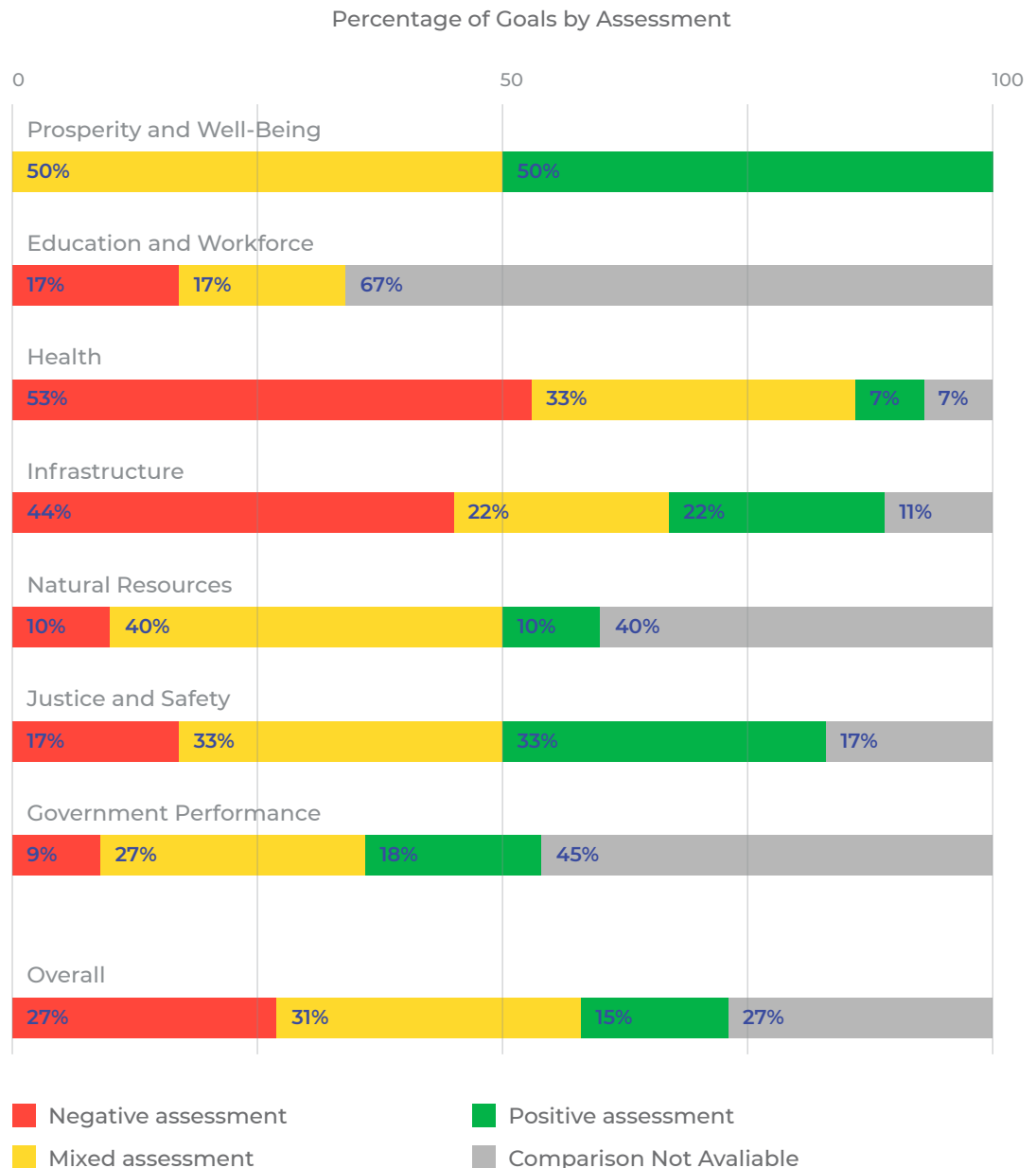
29. <u>Confidence in Government</u>: Texans have confidence in the public institutions that serve them.
30. <u>Civic Engagement:</u> Texans actively participate in governing their communities.
31. Broad, Stable Revenue Base: Texas people and businesses contribute taxes and fees to meet strategic needs and remain competitive as we grow and change.
32. <u>Wisely Managed State Spending</u>: Texas strategically manages state expenditures to deliver the best value to taxpayers.
33. <u>Talent in Government</u>: Texas government attracts and retains the critical talent to deliver excellent service and get results.
34. <u>Proven, Modern Methods in Data</u>: Texas government uses data-driven and proven, modern methods to drive toward shared goals.
35. <u>Customer Service</u>: Texas people and businesses can access public services they want and need through user-friendly methods and devices.
36. <u>Aligned Accountability</u>: Texas officials at all levels collaborate well.

Within each of the 36 goals, the document is divided into subsections, including:

- **Texas Today and Tomorrow:** An overview of the current data on how the state is performing on the relevant goal and where the state can aspire toward in the future.
- **Context:** Background information that may aid a reader with limited experience on the topic.
- **Assessment:** Includes indicators to help track progress over time. These indicators may change as better data is identified.
- **Connections:** Identifies many of the interconnections between the 36 goals. Making progress in achieving one goal may assist in progress toward another goal.

Summary of Findings: While not every goal and indicator should be seen as equally important, they do reveal uneven success across key policy areas and help identify both areas for pride and areas for improvement. In the cross-cutting Prosperity and Well-Being goals – economic growth and quality of life – Texas ranks highly

compared to peer states. Economic success in Texas has been supported by strong infrastructure, abundant natural resources (especially energy), and a state government that has maintained a relatively broad, stable revenue base and has wisely managed its spending, among other things. These strengths should continue to serve Texas into the future.

Percentage of Goals by Assessment

Category	Negative	Mixed	Positive	Comparison Not Available
Prosperity and Well-Being		50%	50%	
Education and Workforce	17%	17%		67%
Health	53%	33%	7%	7%
Infrastructure	44%	22%	22%	11%
Natural Resources	10%	40%	10%	40%
Justice and Safety	17%	33%	33%	17%
Government Performance	9%	27%	18%	45%
Overall	27%	31%	15%	27%

- 🟥 Negative assessment
- 🟩 Positive assessment
- 🟨 Mixed assessment
- ⬜ Comparison Not Avaliable

Indicators also reveal major challenges facing Texas. As our economy modernizes, it will increasingly depend on a talented, healthy workforce. Yet Texas lags behind peer states in its most important goals related to human capital. While the Legislature has recently acted to pass House Bill 3, the impacts of educational reform are not immediate and may be undercut by significant absences tied to the COVID-19 pandemic. Today, Texas is among the lowest-performing peer states in metrics such as fourth-grade reading proficiency and educational attainment. In Health, poor outcomes are paired with health care that is unaffordable and difficult to access for

many Texans.

While these challenges are concerning, the overall picture is far from hopeless. With strong economic fundamentals and a growing and vibrant population, Texas is still very much in control of its fate. By identifying and addressing our most pressing challenges now, our state can live up to its full potential — a land of opportunity, prosperity, and well-being for all generations of Texans.

Note on Timing: Much of the work that informed this document occurred prior to the societal and economic disruption caused by the COVID-19 pandemic. Indicators and explanatory text reflect the most up-to-date information available at the time the document was compiled in early 2020, though changes may have occurred in subsequent months. This Strategic Framework will adapt and evolve over future years, just as the state will adjust due to positive reforms achieved by lawmakers.

Pillar 01

Prosperity & Well-Being

Through our bicentennial and beyond, Texas is the land of opportunity, prosperity, and well-being for all generations of Texans.

Goal: ECONOMIC GROWTH

GDP growth

Goal: QUALITY OF LIFE

Quality of life Index

How to read

Baseline

- Not compared across states
- On target
- Approaching target
- Off target
- 12 Peer rank

Trend

- Not yet tracked
- Improving
- Flat
- Worsening
- Mixed

Focus

Economic growth is key to ensuring prosperity for all generations of Texans. Texans have enjoyed decades of economic growth and increased income. This has been made possible by many different attributes, including the talented workforce our state educates and attracts, a supportive infrastructure, and a business-friendly environment. Continuing such successes into 2036 will ensure Texans of all generations have the opportunity to prosper.

Quality of life is key to ensuring well-being for all generations of Texans. Texas is projected to add nearly 10 million people by 2036. This diverse population, like previous generations, will be drawn by a low cost of living, abundant natural resources, and a wide array of cultures. A rising quality of life will complement the economic benefits Texans enjoy.

These two broad goals — a prosperous, growing economy and a strong quality of life shared widely among Texans — are tied to progress in all six of our major policy pillars. To achieve these two overarching goals, our state will need to make significant advances in each of the policy pillars discussed in this report.

Goals and Targets for Texas 2036

Goal #01 - Economic Growth: Texas spurs economic growth through an innovative and business-friendly climate.

*   **Target:** Texas ranks first among peer states for economic growth.
*   **Baseline:** Texas ranks first in the nation and among peer states for economic growth with 4.4%.

Goal #02 - Quality of Life: Texas is the best place to live and work.

*   **Target:** Texas ranks first among peer states for quality of life.
*   **Baseline:** Texas ranks #15 in the nation and #6 among peer states for quality of life.

Context

By adapting to dramatic economic changes for almost 200 years, Texas has increased job growth, wages, exports, and its general productivity.[01-1] But the future economy of Texas will increasingly depend on knowledge-based companies and talented people. During times of rapid change, states will need to be dynamic to recover from dramatic disruptions. Texas encourages students to aim for postsecondary and

continuing lifetime education to improve its workforce. To nurture entrepreneurship, Texas also has programs in place to support business startups and expand high-tech industries. Our universities are home to more scientific and medical research than ever before and will continue to do more to help Texas build and expand its innovation economy.

Trends

Texas's population is growing and becoming more diverse. Overall, population growth and diversity is a key ingredient to continued economic growth and improving the state's quality of life. Texas is doing well in this regard. Texas is the second-most populous state in the U.S. and has five out of 10 of the fastest growing cities in the U.S. By 2036, Texas is expected to add nearly 10 million people, increasing our state population to 38 million.

GOAL 1
Economic growth

Texas spurs economic growth through an innovative and business-friendly climate

Texas Today and Tomorrow

Texas has consistently been among the top-ranked states in the nation for GDP growth in recent years. Texas also ranks second in the nation for the size of its economy, with a state GDP of nearly $1.9 trillion in 2019.[01-03] If Texas were a nation, it would be the 10th largest economy in the world.[01-04] The latest economic forecasts indicate the Texas economy could more than double in size by 2036, to more than $4.3 trillion.[01-05]

Texas's economic growth has been driven by an innovative and business-friendly climate. Multiple indices rate the state among the "Best States for Business."[01-06] Texas also consistently ranks in the Top 3 among its peer states in attracting new business as measured by a number of indicators — from Fortune 500 headquarters[01-07], to fastest-growing private companies[01-08], to new small businesses[01-09], to venture capital investments.[01-10]

Remaining very competitive for business expansion and relocations will continue to be important for the state as it works to add quality jobs and spur economic growth and prosperity.

GDP growth: Annual percent change in real GDP[01-11]

1

4.4% in 2019 [01-11] [01-12]

Improving [01-13]

Target

By 2036, Texas will rank first among peer states in annual percentage change in real GDP.

Indicator Background

Gross domestic product represents the total combined value of goods and services produced by the state's economy. This indicator uses data from the U.S. Department of Commerce's Bureau of Economic Analysis to compare real gross domestic product growth among peer states on an annual basis.
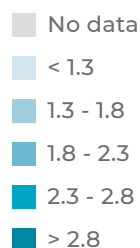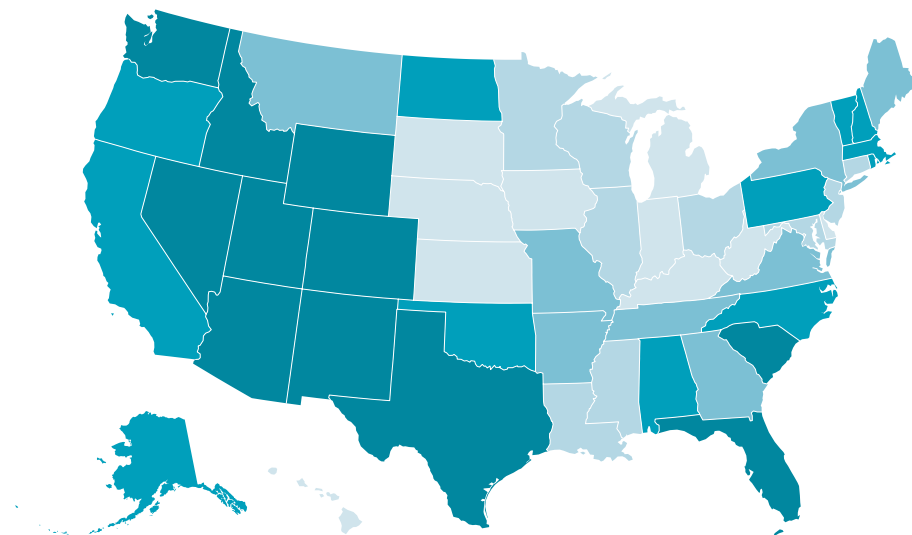
Target Background

Texas has shown considerable strength in economic growth categories for much of the past decade and should seek to maintain its economic leadership among peer states.

Benchmark

Texas ranks #1 in the nation and #1 among peer states[01-14].

Annual percent change in real GDP

	No data
	< 1.3
	1.3 - 1.8
	1.8 - 2.3
	2.3 - 2.8
	> 2.8

<u>Other Indicators Texas 2036 is monitoring:</u>

Best for Business: Ranking on Forbes "Best States for Business" Index

Fortune 500: Number of Fortune 500 headquarters

Inc. 5000: Number of Inc. 5000 headquarters

New Small Businesses: Number of new small businesses

Venture Capital: Amount of venture capital investment in emerging companies

New Economy: Ranking on Information Technology and Innovation Foundation State New Economy

GOAL 2
Quality of life
Texas is the best place to live and work

Texas Today and Tomorrow

An attractive quality of life enhances the well-being of all generations of Texans. Quality of life includes economic opportunity and much more: a low cost of living; affordable housing; short commute times; quality education and health systems; low crime rates; good weather; and vibrant cultural and recreational opportunities.

Quality of life is an important factor in attracting and retaining talent. Since 2010, Texas has ranked second among states in the net number of domestic migrants.[01-15] More than 50% of migrants come here for jobs; another 20% choose Texas for other reasons, such as affordable land and housing.[01-16] Migration into Texas has been slowing since 2015,[01-17] however, and it will be increasingly important for the state to compete on quality of life — not just to attract new Texans, but for the four out of five native Texans who continue to live and work in the state.[01-18]

6

Texas ranked #15 in the nation in 2019 [01-20]

Mixed [01-21]

Quality of Life Index: Quality of Life ranking on Forbes "Best States for Business" Index

Target
By 2036, Texas will rank first among peer states.

Indicator Background
Forbes annually publishes a "Best States for Business" Index that uses a multifactor analysis to identify the nation's best business climate. Among the factors considered is a quality-of-life ranking based on many of the same metrics that are key to other goals in this framework. Specifically, the Forbes methodology includes: cost of living, school test performance, crime rates, climate, university rankings, cultural and recreational opportunities, commute times, and health rankings.[01-19]

Target Background
Progress on all 36 goals in this framework will help ensure Texas is the best place to work, live, and raise a family.

Benchmark
Texas ranked #6 among peers in 2019. The top-ranked peer state, Virginia, is ranked #1 nationally[01-22].

Quality of Life ranking on Forbes 'Best States for Business' index - 2019

Peer States	
1	Virginia
2	Ohio
11	Illinois
12	Pennsylvania
14	New York
15	Texas
16	North Carolina
18	Florida
21	Colorado
23	Georgia
27	California
30	Washington
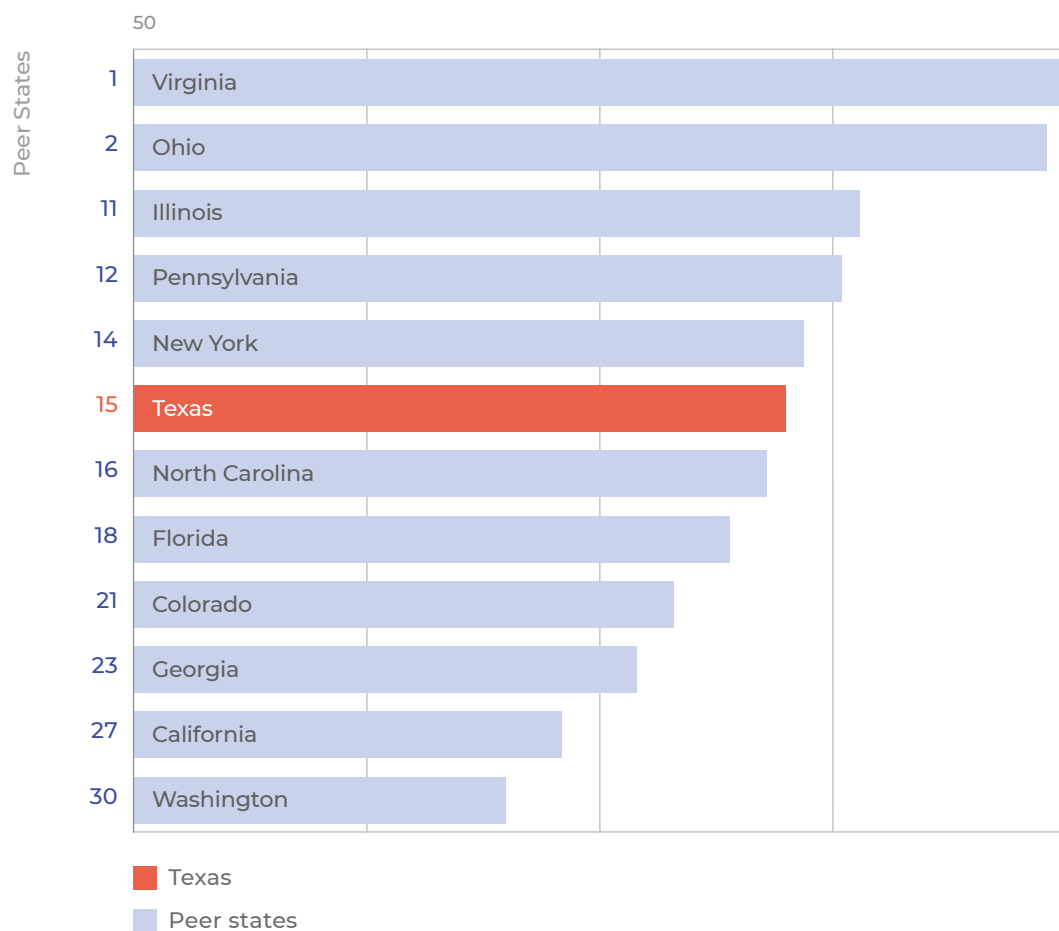
Texas
Peer states

Other Indicators Texas 2036 is monitoring:

Per capita income: Real per capita personal income and real per capita income growth

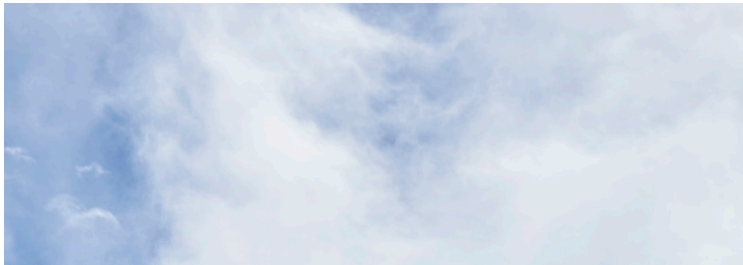**Income inequality:** Gini index of income inequality

Cost of living: Regional price parity

Housing affordability: Cost burden rates for household renters and household owners

Arts Vibrancy: Ranking on Arts Vibrancy Index

Well-Being: Ranking on Gallup National Health and Well-Being Index

Net Migration Gain: Net domestic migration gain or loss

Pillar 02

Education & Workforce

Texans have the knowledge and skills needed to succeed in the 21st century.

Goal: EARLY LEARNING

Third-grade reading

Fourth-grade reading

Goal: K-12

Postsecondary ready graduates

Goal: POSTSECONDARY EDUCATION

Postsecondary completion

Goal: JOBS

Living wages

Focus

The Texas economy increasingly depends on a highly educated workforce. By 2036, 71% of jobs in Texas will require a postsecondary credential.[02-01] But only 32% of high school graduates earn a postsecondary credential within six years of graduating from high school.[02-02] When compared with peer states, Texas comes in last in the percentage of its population with a postsecondary credential.[02-03]

Texas also needs a stronger, more skilled workforce to be considered the best place to do business, both nationally and internationally. When searching for a location for its second headquarters, Amazon listed a highly educated labor pool as a critical requirement. Other companies will certainly do the same. Today, migrants from other states and countries are 1.5 times more likely than native Texans to have a bachelor's degree, and Texas has relied on these migrants to meet workforce needs. [02-04] But with migration slowing in recent years, it is increasingly important that today's Texans are more highly educated.[02-05]

The education system is a direct pipeline to a highly skilled workforce. Early learning prepares students for success in elementary, middle, and high school education, which in turn prepares them for success in postsecondary education; and then postsecondary prepares students for success in the workforce. Yet Texas is falling behind at every stage of the pipeline. Texas ranks last among peer states in early literacy[02-06] and only half of Texas students are graduating from high school ready for postsecondary education.[02-07] Persistent achievement gaps exist throughout Texas's educational pipeline based on student income, race, geography, and language proficiency.

A highly educated workforce is also critical to ensuring all Texans the opportunity to have careers that bring economic security. Workers with a postsecondary credential are four times as likely to hold a good job (median earnings of $65,000 per year) as workers with no more than a high school diploma.[02-08] Yet barely two out of five Texans have that level of education.[02-09]

A strong public education system undergirds a strong society. With a growing and increasingly diverse population, Texas relies on its public schools to prepare students not only to be effective workers, but also to be engaged, productive members of society. Through civics, history, and other topics, students learn shared values as well as how participation and good citizenship strengthen our democracy.

A strong education system today ensures a strong workforce, a prosperous economy, and a civically engaged population tomorrow.

Goals and Targets for Texas in 2036

Goal #3 - Early learning: Texas children get a strong early start.
- **Target:** 75% of third-graders read on grade level and Texas ranks in the top three among its group of 12 peer states by 2036.
- **Baseline:** 45% read on grade level, and Texas ranks 12th among peer states.

Goal #4 - K-12: Texas students graduate high school ready for postsecondary success.
- **Target:** 75% of high school graduates are prepared for postsecondary education by 2036.
- **Baseline:** 50% of high school graduates are ready for postsecondary education.

Goal #5 - Postsecondary Education: Texas students earn a postsecondary credential to access the jobs of today and tomorrow.
- **Target:** 75% of high school graduates earn a postsecondary degree or credential within six years of high school graduation by 2036.
- **Baseline:** 32% of high school graduates earn a postsecondary degree or credential within six years of high school graduation.

Goal #6 - Jobs: Texans have the knowledge and skills to access careers enabling economic security.
- **Target:** Texas ranks in the top three among peer states for households that earn a living wage by 2036.
- **Baseline:** Texas ranks sixth among peer states, with 58% of Texas households earning a living wage.

Goal #7 Workforce needs: Texans meet the state's current and future workforce needs, minimizing the gap between supply and demand by 2036, especially in key sectors. No indicator has been selected. While organizations such as the Texas Workforce Commission and the Bureau of Labor Statistics produce public workforce projections, data does not reliably reflect the changing labor market and is available only at the occupation level, not the skill level.

Context

Approximately 5.4 million students attend Texas public schools, with 94% enrolled in independent school districts and 6% in public charter schools.[02-10] The state has 1,200 independent and charter school districts. While most districts are small and rural,[02-11] the 10 largest districts combined enroll more than 1 million students.[02-12] Approximately 52% of Texas public school students are Hispanic, 27% are white, and 13% are black; 61% of students are economically disadvantaged, meaning they qualify for a free or reduced-price lunch, and 20% are English-language learners, meaning they have a different primary language and are in the process of learning English.[02-13]

Texas public schools employ more than 700,000 people, over half of whom are full-time teachers.[02-14] Texas state's teachers are overwhelmingly white (59%) and female

(76%).[02-15] On average, our teachers have over a decade of teaching experience and earn roughly $53,000 per year.[02-16]

Texas public schools are overseen by local school boards and charter governing bodies, which have authority over priorities, policies, and budgets. The Texas Education Agency provides system-wide oversight, including funding distribution, educator preparation standards, curriculum standards, student assessments, and school accountability. In 2018, Texas public schools received more than $63 billion in funding. The majority of funding comes from local property taxes and state revenue, while federal funding accounts for roughly 10%. Funding is distributed to districts through formulas based on enrollment and other factors.[02-17] In 2018, total per-pupil funding from all sources was approximately $11,700.[02-18]

Approximately 1.7 million students attend Texas public higher education institutions, with 48% of students enrolled in four-year institutions and 52% enrolled in two-year institutions.[02-19] 52% of students are economically disadvantaged, meaning they have received a Pell grant at one point.[02-20]

Texas public higher education institutions are overseen by governing boards. Appointed by the governor at four-year universities and locally elected at two-year colleges, these boards have authority over institutional priorities and budgets. The Texas Higher Education Coordinating Board provides system-wide oversight through statewide planning, data collection and analysis and the distribution of some funding. The Texas legislature appropriated $21.9 billion in funding to public higher education institutions for the 2020-2021 biennium, with a combination of state funds, federal funds, institutional funds, and tuition and fees.[02-21]

The Texas civilian labor force includes over 14 million workers.[02-22] The Texas Workforce Commission collects and disseminates workforce data, including analysis of labor market trends and shifts in occupations and industries in the state. Together with 28 local workforce development boards, the Commission also oversees a wide array of services to both employers and job seekers, including job training, adult education programs, and employer-based learning programs. In addition, the Commission provides annual grants for workforce training and retraining through a partnership with businesses, public community and technical colleges, and economic development organizations.[02-23] This program has trained more than 385,000 workers over the past 20 years.[02-24]

Trends

In recent decades, Texas has depended on domestic and international migration to meet its workforce needs; nearly half of the state's workers are not native Texans. [02-25] Migrants into Texas are 1.5 times as likely as native Texans to hold a bachelor's degree or higher and have been critical in meeting workforce needs.[02-26] But overall migration has slowed in recent years, declining by more than 30% between 2015 and 2017.[02-27] **If this trend continues, there won't be enough new Texans to offset the lower educational attainment rates of native Texans, making the need to invest in**

our education system even greater.

Student demographics in Texas have shifted significantly over the past two decades. Today, more than half of Texas students are Hispanic; 3-in-5 are economically disadvantaged; and 1-in-5 is an English-language learner.[02-28] Texas traditionally has had a stratified education system where some student groups achieve nationally competitive results while others - particularly students of color and those from low-income families - fall behind. **In order to help Texas students meet the state's future workforce needs, we need to better address these achievement gaps.**

GOAL 3
Early learning

Texas children get a strong early start to succeed in school and life.

Texas Today and Tomorrow

Reading proficiency in early grades — from pre-kindergarten to third-grade — is a powerful predictor of later student success. Research shows that students are four times more likely to drop out of school if they are not reading on grade level in third-grade.[02-29] Without strong foundational literacy skills, students cannot obtain the knowledge and skills needed to successfully complete their education, let alone their careers.

Building these foundational literacy skills starts early. Quality early childhood education programs such as pre-kindergarten improve language and literacy skills and close early achievement gaps among student groups.[02-30] Investments in quality pre-K can also have major economic benefits: One study estimates that every dollar invested in pre-K can create an economic impact return as high as $12.90.[02-31]

Today, only 45% of third-graders read on grade level.[02-32] If Texas is to meet its future workforce needs, we need to address persistent achievement gaps between student groups. Only 35% of economically disadvantaged third-graders scored on grade level level, compared to 61% of non-economically disadvantaged students. Significant achievement gaps also exist by race: 33% of black students, 39% of Hispanic students, and 56% of White students meet third grade reading standards. And only 39% of English-language learners met grade level, below the statewide overall rate of 45%.[02-33]

Higher early learning levels are also necessary for Texas to be competitive with peers. Over the past decade, reading proficiency rates have improved across the U.S., but not in Texas. Between 2005 and 2019, Texas dropped from 36th to 46th among states in fourth-grade reading proficiency rates on the national assessment.[02-34] Today, Texas is ranked last among its peer states.[02-35] And by student demographic, Texas still lags its peer states, ranking 10th out of 12 in reading proficiency rates for Hispanic students, 11th for black students, and 12th for economically disadvantaged students.[02-36]

Context

Early learning spans from birth through third grade and is delivered by early childcare providers, public and private pre-kindergarten programs for three- and four-year-olds, and K-12 schools. Multiple agencies provide oversight: the Texas Health and Human Services Commission regulates early childcare providers, the Texas Workforce Commission subsidizes and oversees childcare for low-income families, and the Texas Ed-

ucation Agency manages public pre-kindergarten through third grade. Capacity of quality early childcare centers, as well as the number of seats in public pre-kindergarten programs, has been a system-wide challenge.

In 2019, the Texas Legislature passed major school finance reform legislation (HB-3), which includes reforms to improve student outcomes, increase funding and equity, and support teachers, among others. The legislation provides $735 million for early literacy[02-37] and mandates full-day pre-K for all eligible four-year olds, kindergarten readiness reading diagnostics, and training in reading instruction for kindergarten through third-grade teachers teachers. The legislation also requires districts to set annual targets for improving third-grade reading outcomes.

45% in 2019[02-40]

Flat[02-41]

Third-grade reading: Percentage of students at or above Meets Grade Level on the STAAR Grade 3 reading assessment

Target

By 2036, 75% of students will be at or above Meets Grade Level in third-grade reading.

Indicator Background

The STAAR exam is a standardized test administered annually to each Texas student in grades 3-12. Because earlier grades are not tested, the third-grade STAAR receives focus because it is the first standardized snapshot of whether a student is academically on pace. This indicator shows the percentage of students reading at or above grade level in Texas third-grade classrooms, which corresponds to the STAAR tiers of "Meets Grade Level" and "Masters Grade Level." [02-38]

Target Background

By 2036, experts anticipate that 71% of careers will require a postsecondary credential.[02-39] To ensure our students are going to be able to meet the 71% postsecondary goal, 75% of third-graders will need to be reading on grade level by 2036.

Benchmark

Because the STAAR exam is a Texas-specific test, this indicator is not compared to peer states. Instead, Texas is compared against itself over time.

Percentage of Texas 3rd graders who scored "Meets Grade Level" or higher on the STAAR reading assessment, 2018-19

45%	All Students	
35%	Economically disadvantage	
61%	Non-Economically disadvantage	
33%	Black	
39%	Hispanic	
56%	White	

- All students
- Income
- Race
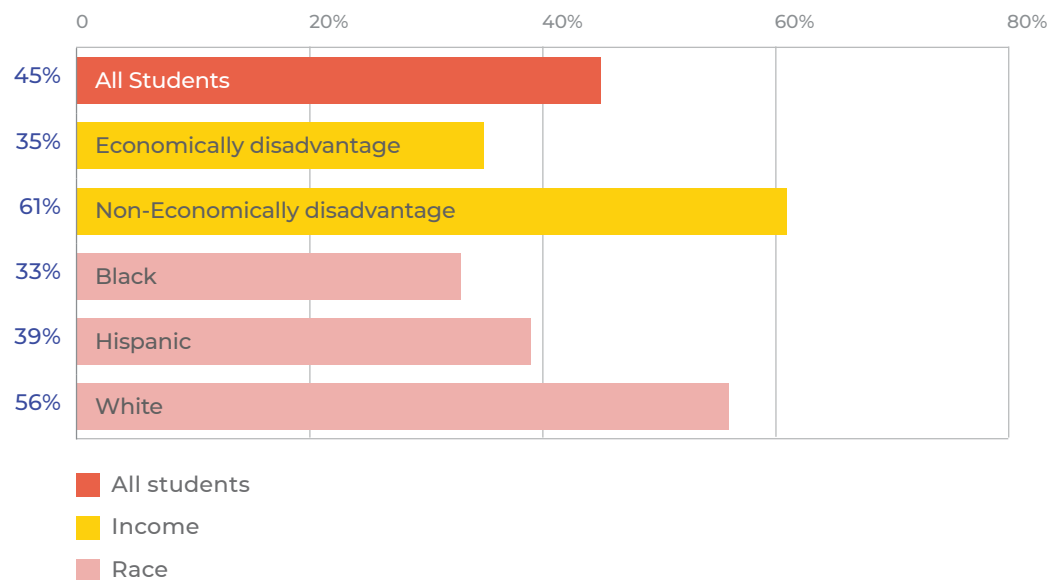
12

30% in 2019[02-44]

Flat[02-45]

Fourth-Grade Reading: Percentage of students at or above Proficient on the NAEP Grade 4 reading assessment

Target
By 2036, Texas will rank in the top three among its group of 12 peer states.

Indicator Background
The NAEP exam is a standardized test administered biennially to a subset of students in each state as well as Washington, D.C. and Department of Defense Education Activity (DoDEA) schools. Because it is the largest nationally representative assessment of student performance in the U.S., it provides valuable context on how Texas students perform relative to their peers in other states. This indicator shows the percentage of students reading at or above grade level in Texas fourth-grade classrooms, which corresponds to the NAEP tiers of "At Proficiency" and "Above Proficiency." [02-42]

Target Background
With proven links between early literacy and important later outcomes such as high school graduation rates,[02-43] it is critical that Texas is a leader among peer states in this indicator.

Benchmark
#12 (peers); Top 3 baseline at 38% or higher[02-46]

Percentage of 4th graders who scored "At or Above Proficiency" on the NAEP reading assessment

Legend:
- Worst - Texas
- Best - Pennsylvania
- Peer states
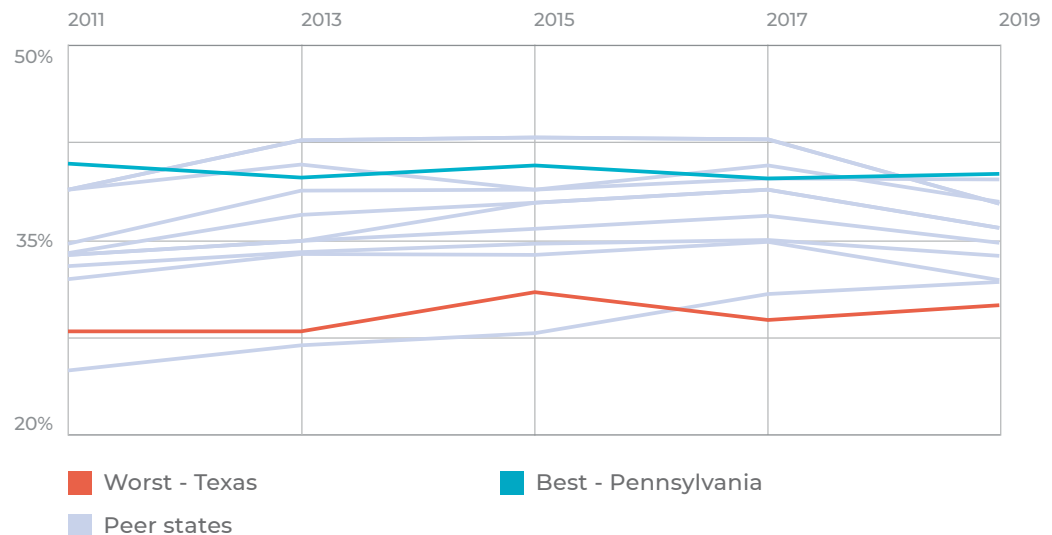
Other Indicators Texas 2036 is monitoring:

Kindergarten Readiness: Percentage of public pre-K students ready for kindergarten

Enrollment in Public Pre-K: Percentage of eligible 3- and 4-year-olds enrolled in public pre-K

Capacity of Quality Early Childcare Centers: Number of seats in quality accredited childcare centers

GOAL 4
K-12

Texas students graduate high school ready for postsecondary success.

Texas Today and Tomorrow

With more and more jobs requiring postsecondary credentials, Texas high school students need to graduate prepared for postsecondary education. Research shows that students who score at a certain level on the SAT, ACT, Advanced Placement (AP), and International Baccalaureate (IB) exams are more likely to be ready for college and, not surprisingly, exhibit higher postsecondary completion rates.[02-47]

Today, 90% of Texas students graduate high school[02-48], but only 50% of these graduates meet the College Ready requirements set by the Texas Education Agency.[02-49] And even fewer students meet college ready benchmarks on national assessments: less than one-third of graduates meet required scores on the SAT or ACT,[02-50] and only one fifth meet required scores on AP or IB exams.[02-51] These numbers are proof that Texas' K-12 education system is not helping enough students to be ready for the challenges ahead of them in advancing their education.

In addition, wide gaps exist in college readiness by student income and race. Only 39% of economically disadvantaged high school graduates are college-ready, compared to 61% of non-economically disadvantaged peers.[02-52] By race, 32% of black students and 44% of Hispanic students graduate postsecondary-ready, compared to 61% of white students.[02-53]

K-12 education — including opportunities to participate in rigorous postsecondary-level coursework — is critical to prepare all students for personal success in whatever field they choose, and to produce a highly educated workforce for Texas.

Context

Texas has approximately 350,000 high school graduates every year.[02-54] To be ready for more demanding levels of education, these graduates need to meet at least one of the College Ready indicators set by the Texas Education Agency (TEA)[02-55], such as: meeting college ready criteria on the TSI, SAT, or ACT assessments, high scores on AP or IB exams in any subject area, earning 9 or more hours of dual course credit or earning an associate degree prior to graduation from high school. Currently, the majority of Texas high school graduates demonstrate college readiness primarily by meeting the Texas Success Initiative (TSI) criteria, a minimum standard.[02-56] However, the major school finance reform legislation (HB 3) passed by the Texas Legislature in 2019 requires the TEA to utilize a more rigorous indicator of college readiness when

allocating outcomes-based bonus funding to districts, relying upon TSI, SAT, and ACT scores paired with postsecondary enrollment.

Texas has made significant progress in participation in college credit-bearing cours-es: enrollment in AP courses has increased by 36%, and enrollment in dual credit has increased by 41% in the past five years.[02-57],[02-58] Still, only 23% of ninth- through 12th-graders in Texas enroll in AP courses, and only 20% enroll in dual credit.[02-59] [02-60] Participation in these programs also does not always result in college credit; only 50% of students who took an AP exam scored high enough to earn credit,[02-61] and dual credits awarded in high school do not always transfer to colleges and universities.

Texas has led the nation in developing and expanding some innovative high school models, such as Early College High Schools and P-TECH campuses, which provide students (especially economically disadvantaged, black, and Hispanic students) the opportunity to earn up to 60 hours of postsecondary credit or an associate degree while in high school. However, these models only serve a fraction of Texas high school students.[02-62]

50% in 2018[02-66]

Improving[02-67]

Postsecondary Ready Graduates: Percentage of annual graduates demonstrating college readiness

Target
By 2036, 75% of Texas high school graduates will be postsecondary ready.

Indicator Background
The postsecondary readiness indicator is tracked by the Texas Education Agency as "College Readiness."[02-63]. This indicator is updated annually based on the percentage of high school graduates in Texas who have demonstrated college readiness in one of a number of ways, including meeting college ready standards on the SAT (480 on Mathematics and 530 on Evidence-Based Reading), the ACT (23 composite score), or the TSIA (351 on Reading and 350 on Mathematics). Other pathways include meeting college-ready standards on an AP exam (3 or higher) or the IB exam (4 or higher), earning nine or more hours in dual credit in any subject, earning an associate degree while in high school, or completing an OnRamps course and receiving at least three hours of college or university credit. With the passage of major school finance legislation (HB 3) in 2019, the Texas Education Agency will begin utilizing a more rigorous college, Career, and Military Readiness indicator that pairs SAT, ACT, and TSIA performance with direct postsecondary enrollment and employment rates. [02-64]. Texas 2036 will use this new indicator when it is adopted.

Target Background
By 2036, experts anticipate that 71% of careers will require a postsecondary credential.[02-65] To ensure our student pipeline is on track to meet the 71% postsecondary goal, 75% of high school graduates will need to be postsecondary ready by 2036.

Benchmark
This indicator is not currently assessed against peer states due to varying methodologies by state.

Percentage of Texas high school graduates who met TEA College Ready criteria,
high school graduating class of 2017 - 2018

No data
< 37%
37% - 45%
45% - 53%
>53%
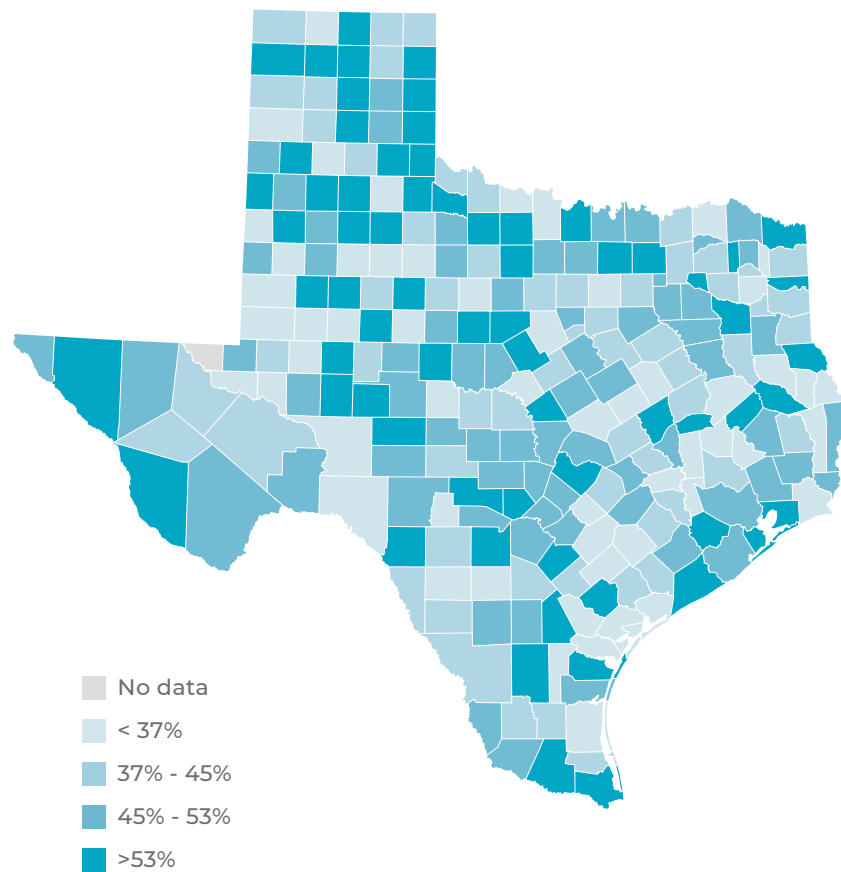
Other Indicators Texas 2036 is monitoring:

College, Career, or Military Ready Graduates: Percentage of annual graduates demonstrating college, career, or military readiness

High School Graduation: Percentage of students graduating from high school within four years

STAAR Performance: Percentage of students at or above Meets Grade Level on the STAAR assessments for all grades, all subjects

Eighth-Grade Math: Percentage of students at or above Proficient on the NAEP Grade 8 math assessment

EDUCATION & WORKFORCE

GOAL 5
Postsecondary Education

Texas students earn a postsecondary credential to access the jobs of today and tomorrow.

Texas Today and Tomorrow

Postsecondary education is increasingly important for Texas students to access jobs; today, 80% of good jobs, meaning those with median earnings of $65,000 per year, require a postsecondary credential,[02-68] and by 2036, 71% of all jobs will require at least some postsecondary experience.[02-69]

Texas needs to ensure its students are earning postsecondary credentials. Given the fact that migration is slowing, the state can no longer rely so heavily on importing highly educated workers to meet its workforce needs.

Although 72% of Texas high school graduates enroll in a higher education institution within six years of graduating from high school,[02-70] only 32% actually complete their programs and obtain a postsecondary credential within that time frame. [02-71] Gaps between postsecondary enrollment and completion rates are even more pronounced for disadvantaged student groups in Texas. For example, while 63% of economically disadvantaged students enroll in postsecondary schools or programs, only 20% earn a degree or credential within six years of high school.[02-72] Similar completion disparities exist by student race, indicating that Texas's education system is not preparing all students for success in postsecondary programs.

It is important for Texas high school graduates to not only be ready for postsecondary education, but to also pursue and obtain certificates and degrees. Completion is critical if we are to have a highly educated workforce.

Context

Postsecondary credentials include Level 1 and Level 2 certificates[02-73], as well as two-year and four-year degrees. Currently, 75% of Texas high school graduates completing a postsecondary credential within six years of graduating from high school earn four-year degrees.[02-74] Twenty percent complete two-year degrees and 5% obtain certificates.[02-75]

The increasing costs of higher education institutions may be a barrier to earning a postsecondary credential; since 2003, net tuition and fees at public universities in Texas have increased by 90% in inflation-adjusted dollars.[02-76] About one in two students graduates with debt, with an average of nearly $27,000 in loans to pay back.[02-77] At both the state and local levels, there have been efforts to rein in the rising cost of

postsecondary education for students. For example, the Toward EXcellence, Access, and Success (TEXAS) Grant Program provides aid predominately for high-performing, low-income Texas students, while the Dallas County Promise is a local effort to make community college free for students in Dallas County.[02-78], [02-79]

30% in 2019[02-44]

Flat[02-45]

Postsecondary completion: Percentage of Texas high school graduates who earned a certificate or degree from a higher education institution within six years of high school graduation

Target
By 2036, 75% of Texas high school graduates will earn a certificate or degree from an institution of higher education.

Indicator Background
This indicator is released on an annual basis by the Texas Education Agency. It is a compilation of postsecondary completion data provided by the Texas Higher Education Coordinating Board and the National Student Clearinghouse. It tracks whether students earn a degree or credential in a timely manner and includes institutions that are two-year and four-year, in-state and out-of-state, as well as public and private.

Target Background
By 2036, experts anticipate that 71% of careers will require a postsecondary credential.[02-80] To ensure our student pipeline is on track to meet the 71% postsecondary goal, 75% of high school graduates will need to be postsecondary ready by 2036. Because this indicator tracks high school graduates only, the target overshoots workforce educational attainment estimates to account for students who do not graduate high school.

Benchmark
This indicator is not currently assessed against peer states due to varying methodologies by state.

Postsecondary attainment within 6 years of high school graduation by type

Year	4-Year Degree	2-Year Degree	Certificate
2008	23%	6%	2%
2009	25%	6%	2%
2010	24%	6%	2%
2011	24%	6%	2%

Percent of Texas High School Graduates

- 4-Year Degree
- 2-Year Degree
- Certificate
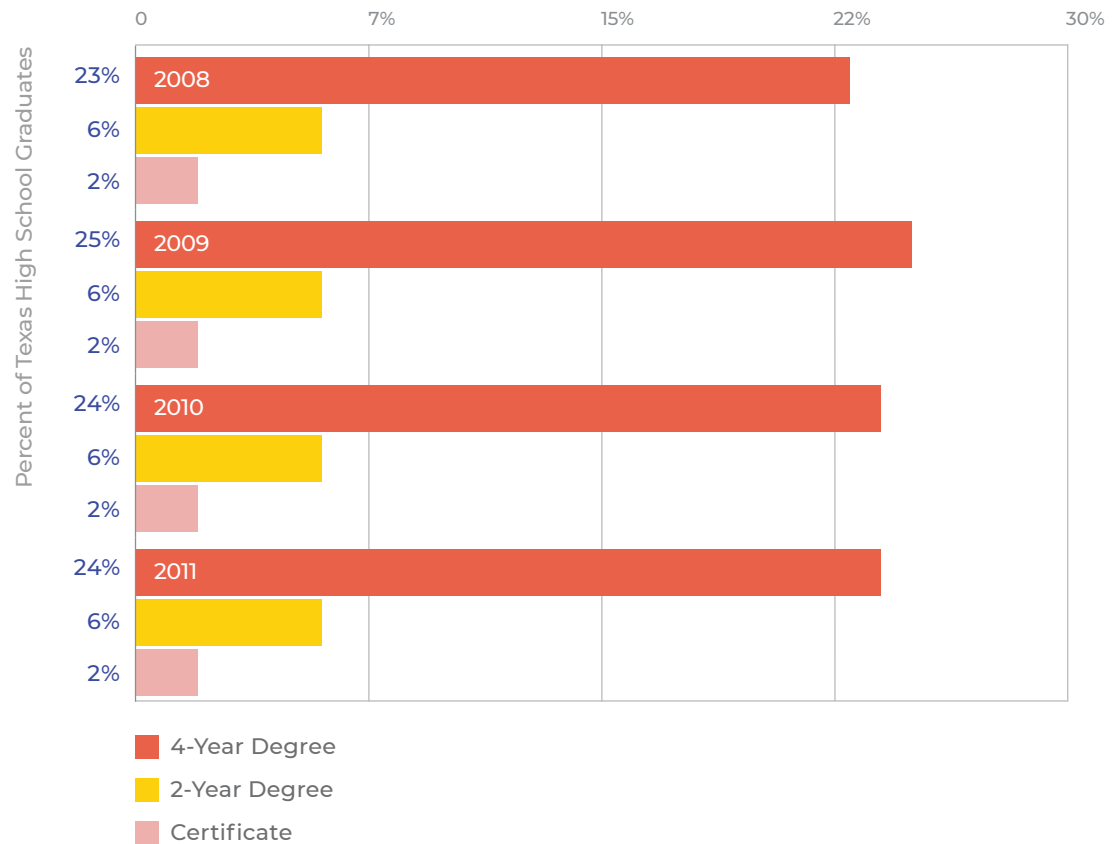
Other Indicators Texas 2036 is monitoring:

Postsecondary enrollment: Percentage of high school graduates who enrolled in a Texas public higher education institution the fall semester following high school graduation

Postsecondary persistence: Percentage of high school graduates who enrolled in a Texas public higher education institution the fall semester following high school graduation and returned for a second year

First-year earnings of postsecondary graduates: Average first-year earnings of graduates who earned a certificate or degree from a Texas public higher education institution

Earnings of postsecondary graduates age 25 to 30: Median earnings of high school graduates who earned an associate or bachelor's degree from a Texas public higher education institution

GOAL 6
Jobs

Texans have the knowledge and skills to access careers enabling economic security.

Texas Today and Tomorrow

Texans who want living-wage jobs (in Texas, an average of $53,000 for a family of four)[02-83] are smart to plan for a postsecondary degree or credential because they provide significant wage premiums. On average, workers with a certificate earn a 20% premium over workers with a high school diploma.[02-84] Those with an associate's degree earn more than a 40% wage premium.[02-85] And for workers with a bachelor's degree, the premium jumps to more than 80%.[02-86] Clearly, a postsecondary education is the key path to economic security, and ultimately, upward mobility in the future economy of Texas..

Across the United States, mid-wage ($34,000+) and high-wage ($102,000+) workers typically have higher levels of educational attainment. More than 50% of mid- or high-wage workers have an associate or bachelor's degree (versus 23% of low-wage workers); one in two low-wage workers has a high school diploma or less.[02-87]

Our education system also needs to support reskilling and upskilling for today's working Texans as more and more routine, low-skilled jobs are automated. In the future, Texans will need to become lifelong learners who engage with the education system multiple times throughout their careers to keep their skills fresh as the job market evolves.

Postsecondary education — including reskilling and upskilling — is important to ensure all Texans have the knowledge and skills needed to access mid- or high-wage jobs.

6

58% of Texas households earn above a living wage[02-89]

Flat

Living Wages: Percentage of Texas households that earn above a living wage

Target
By 2036, Texas will rank in the Top three among peer states

Indicator Background
The United Way's ALICE (Asset Limited, Income Constrained, Employed) Project estimates the percentage of households across the United States that do and do not earn enough to afford basic necessities such as housing, food, transportation, child care, and health care. This indicator takes into account regional differences in the cost of living, as well as the differing demands of various family sizes and structures to give nuanced estimates of living wage thresholds. In Texas, the average ALICE (living wage) threshold for a family of four with one child and one toddler is $52,956. The ALICE Project is an original analysis by the United Way using U.S. Census American Community Survey Public Use Microdata Samples (2016 data) as source data.[02-88]

Target Background
The percentage of Texas households that earn a living wage has a high impact on overall economic growth and quality of life. The ability of Texans to afford basic necessities without relying on government support can mean higher tax revenues and lower expenditures, as well as higher productivity and a better quality of life.

Benchmark
#6 (peers); Top three baseline at 60% or higher[02-90]

Percentage of Texas households that earn above a living wage, 2015 - 2016

No data
< 1516:1
1516:1 - 2456:1
2456:1 - 3691:1
> 3691:1
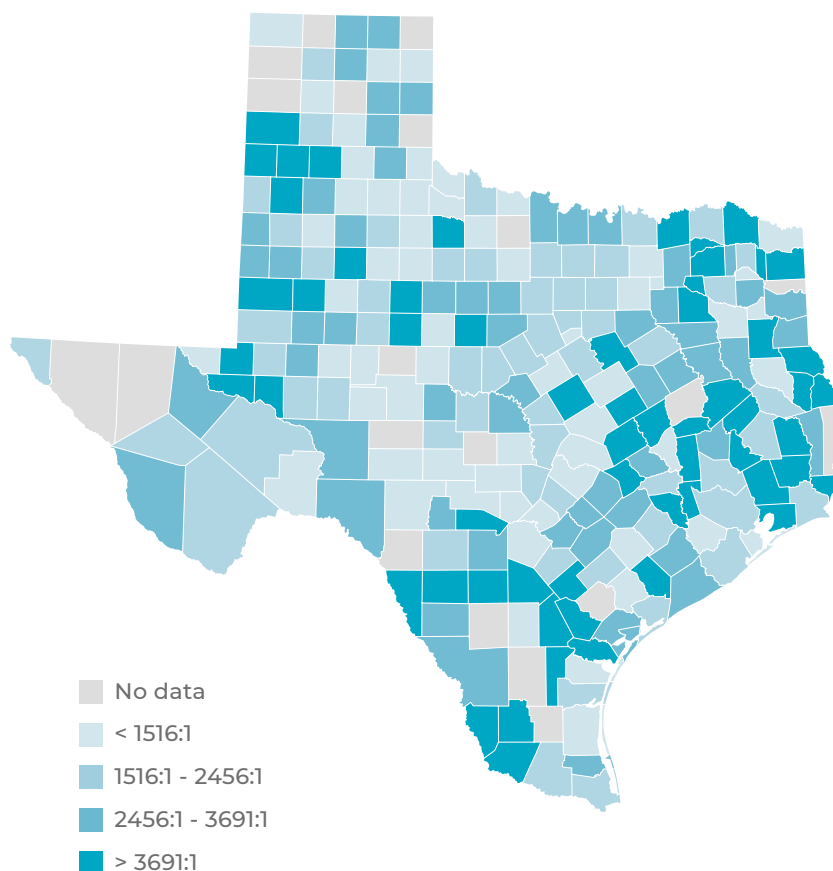
Postsecondary attainment (age 25 to 64): Percentage of population age 25 to 64 with a postsecondary credential

Postsecondary attainment (age 25 to 34): Percentage of population age 25 to 34 with a postsecondary credential

Connections

With improved access to careers enabling economic security, Texans will be less likely to need a safety net (goal #27). And fewer people needing a safety net means safety net programs will be less of a financial burden on the state.

There are proven links between a person's job status and his or her health (#10 Population Health). Controlling for other factors, one study indicates that a 10-point rise in unemployment leads to a loss of roughly a year and a half of life expectancy. [02-91] Unemployment is also strongly associated with substance abuse and depression, among other things. [02-92], [02-93]

GOAL 7
Workforce Needs

Texans meet the state's current and future workforce needs.

Texas Today and Tomorrow

Meeting the state's workforce needs is critical to ensuring continued economic growth. But there is currently a mismatch between the Texas workforce and employer needs. This gap between supply and demand is projected to grow, leading to labor shortages and labor surpluses in key sectors. With the Texas population expected to grow by nearly 10 million people by 2036,[02-94] the state will need to add 8 million new jobs to support strong economic growth[02-95] — the majority of which will require advanced skills and education.

This is a complex challenge, thanks to a number of important trends that are increasing the demand for highly skilled labor. The labor market is transforming as technological advancements – such as big data and advanced analytics, artificial intelligence, and robotics – increasingly automate routine, low-skilled jobs and require large-scale reskilling and upskilling of the labor force. In addition, while urbanization is creating labor shortages in rural areas, increasing industrial concentration in major metropolitan areas is boosting demand for local sources of specialized labor. Meanwhile, slowing migration, an aging population, and other demographic shifts are shrinking the labor supply overall.

Addressing the gap between supply and demand — especially in key sectors — is critical to ensure the state's workforce can fuel strong economic growth.

Assessment

Indicator
Indicator under development

Target
Current and future workforce gaps are being met in each region of Texas.

In partnership with state agencies and other stakeholders, Texas 2036 will work to ensure Texas has useful, valid, and reliable data in this critical area.

Indicator Background
Today, data on workforce needs in Texas is limited. An ideal workforce indicator would measure and project short-term and long-term gaps in the labor market with a particular focus on skill gaps.

Target Background
As soon as a meaningful data metric is identified, Texas 2036 will encourage a strategy to become a leader among peer states.

Connections

Texas must ensure it has the labor supply and quality necessary to maintain its economic leadership (Goal #1).

Source:

Pillar 03
Health

Texans are able to live healthy lives through an efficient and effective health system.

Goal: AVAILABILITY OF HEALTH CARE

Availability of primary care providers
🔴 ▲

Availability of mental health care providers
🔴 ▲

Persons with usual source of health care
🔴 ▲

Telemedicine
⚪ ▲

Goal: AFFORDABILITY OF HEALTH CARE

Texans unable to get care due to medical cost
🔴 ▲

Uninsured rate
🔴 ◈

Goal: POPULATION HEALTH

Life expectancy
🟡 ◇

Mortability amenable to health care
🔴 ◇

Low birthweight
🟡 ▼

Goal: PUBLIC HEALTH

Childhood immunizations
🟡 ▼

Adult vaccination
🟡 ◈

Obesity
🔴 ◈

Smoking
🟢 ◇

Goal: RETURN ON HEALTH CARE INVESTEMENT

Preventable hospital admissions
🔴 ◈

Health care expenditure growth
🟡 ▼

Focus

Physical and mental health directly affect our productivity and quality of life. The opportunity to enjoy good health is based on many factors, including access to and affordability of basic health care,[03-01] as well as the quality of health services provided.

Because of rising health care costs and relatively poor health outcomes, good health remains one of Texas' most profound challenges.

Because of rising health care costs and relatively poor health outcomes, good health remains one of Texas' most profound challenges.

Health care costs in Texas continue to rise at unsustainable levels. Total per capita health care expenditures in Texas — including public and private spending — have risen an average of more than 4% annually over the last 10 years for which data is available[03-02], outstripping state population growth[03-03] and state GDP growth.[03-04] Services for aging and disabled Texans also play a role: these costs already account for up to 25% of direct state health expenditures,[03-05] and will continue to grow as the population ages. For many Texans – even those with insurance – increases in price have made care unaffordable;[03-06] and for the 18% of Texans lacking insurance,[03-07] additional hurdles exist.

At the same time, health care access and outcomes for Texans remain poor. Measuring the ratio of providers to population, Texas ranks 45th in primary care doctors and 49th in mental health providers, with little change in the past decade.[03-08] Texas continues to rank among the bottom half of states in key health measures such as diabetes and obesity.[03-09] Meanwhile, practices with a low cost but a high return, like child immunizations, are slow to gain traction.[03-10] As a result, Texas is ranked tenth among 12 indentified peer states for preventable deaths.

It is important for the Texas health ecosystem that patients and purchasers of health care be empowered to control the cost of health services, and that institutions have

Goals and Targets for Texas in 2036

incentives to make high-value investments that will improve health outcomes.

Goal #8 - Availability of health care: Texans have access to basic health care.
- **Target:** Texas ranks in the top three among 12 peer states for availability and regular use of health care providers.
- **Baseline:** Today, Texas is ranked last among peer states in both categories.

Goal #9 - Affordability of health care: Texans are able to afford the basic health care they need.

- **Target:** Texas ranks in the top three among peer states for health care affordability.
- **Baseline:** Texas is ranked #11 among peer states for its high level of adults who could not see a doctor in the past year because of cost.

Goal #10 - Population health: Texans live long, healthy, and productive lives

- **Target:** Texas ranks in the top three among peer states for long-term health outcomes, including life expectancy and preventable death.
- **Baseline:** Life expectancy in Texas is currently comparable with the national average, but there are disparities in long-term health outcomes across population segments.

Goal #11 - Public health: Texans and Texas communities are empowered to adopt healthy lifestyles.

- **Target:** Texas ranks in the top six among peer states for health behaviors that impact long-term outcomes.
- **Baseline:** While Texas is middle of the pack on some public health outcomes, the state ranks last in obesity.

Goal #12 - Return on Health Care Investment: TTexas has a high-value health care system that manages costs and delivers results.

- **Target:** Texas ranks in the top three among peer states for health system costs and value.
- **Baseline:** Texas is currently ranked tenth among peer states for health system value based on preventable hospital admissions.

Context

Public and private health care programs and service providers are all part of an interconnected care delivery system. This health care network includes hospitals, primary care practices, medical equipment manufacturers, long-term care providers, mental health providers, and other health care providers (such as dentists and specialists). It also includes state agencies, health insurance companies, and prescription drug companies. Federal law influences the health care system, in part through regulatory control over much of the private health insurance market and administration of federally funded programs like Medicare. The state's role in this health network is primarily that of administrator and regulator.

In 2014, total health care spending on the Texas health system — including both publicly and privately funded services — was approximately $190 billion, or about $14,000 per person.[03-11] The state directly spent about $42 billion on health and human services in 2019; this accounts for over 40% of the overall state budget.[03-12] Historically, roughly 50% of direct state health expenditures are subsidized by federal funds.[03-13]

The state funds and administers more than 200 health care programs and services, primarily through the Health and Human Services Commission (HHSC). The largest of

these programs is Medicaid, which accounts for about 81% of the state's direct health and human services expenditures. The Children's Health Insurance Program (CHIP) accounts for only about .5% of the state's direct health and human services expenditures.[03-14] Medicaid serves more than 4 million low-income Texas children, parents, or adults with disabilities.[03-15] Almost all Medicaid enrollees receive coverage through health insurance companies that have contracts with the state, rather than from the state directly. CHIP is a joint federal and state program administered by HHSC for children whose parents make too much to qualify for Medicaid, but not enough to afford private insurance. Unlike Medicaid, CHIP operates similarly to private insurance in that program participants need to pay copays and premiums.[03-16]

As a regulator, the state oversees most providers in the health care system, including doctors, nurses, pharmacists, dentists, home health providers, hospitals, nursing homes, and group homes for individuals with disabilities.[03-17] The Texas Department of Insurance also regulates select health insurance plans to ensure fair competition in the industry and the fair treatment of patients.[03-18]

Trends

The Texas population is aging. Between 2019 and 2036, the population 65 years old and over is projected to grow by more than 70%. [03-19] Most older adults have multiple chronic health conditions: 63% of Medicare beneficiaries aged 65 to 74 have multiple chronic conditions, and for those in the 75 to 84 age bracket, the number jumps to 78%.[03-20] Texas is already experiencing a shortage of primary care physicians in every region of the state. **The state's changing demographics will exacerbate demand.**

Population aging has accounted for about 12% of growth in overall health system spending in recent years.[03-21] As Texas's population ages, state-funded health care programs like Medicaid are expected to see costs rise. The Texas Medicaid budget currently comprises about 27% of the state budget.[03-22] While seniors and people with disabilities are only 24% of the Medicaid population, 61% of Texas Medicaid dollars are spent on these groups.[03-23] This asymmetry is likely to become more pronounced as the aging population increases.

GOAL 8
Avaliability of Health Care
Texans have access to basic health care.

Texas Today and Tomorrow

Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, and reducing unnecessary disability and premature death for all Texans. [03-24]

In 2017, the demand for primary care physicians in Texas was 9% higher than supply; by 2030, this number is projected to increase to 13%. The demand for psychiatrists exceeds supply by 49%; this large gap is projected to remain about the same through 2030.[03-25] **Texas needs intervention to increase access to health care so the system can meet demand.**

Rural areas experience health care provider shortages more often than urban areas do. Texas ranks last in the nation for rural access to care.[03-26] More than 100,000 Texans live in one of the 32 counties with no primary care doctor.[03-27] Across rural counties,[03-28] the population-to-provider ratio for primary care is 2,653:1, versus 1,611:1 in urban counties.[03-29] Twelve percent of Texans — more than 3 million people — live more than 50 miles from a trauma center capable of providing care for the most serious injuries.[03-30] Exacerbating the problem, rural areas are experiencing more and more hospital closures. In the last 10 years, almost 20% of the nation's 113 rural hospital closures took place in Texas.[03-31]

Additionally, Texans experience disparities in health care access related to race and income. Only 61% of Hispanic adults reported having a usual care provider in 2018, versus 71% of black adults and 77% of white adults.[03-32] Only 58% of low-income adults reported having a usual care provider in 2018, versus 68% of Texans overall. [03-33]

12

1,640:1 in 2017[03-34]

Improving[03-35]

Availability of primary care providers: Ratio of population to primary care providers

Target
By 2036, Texas will have one of the Top three best ratios among its group of 12 peer states.

Indicator Background
While there are many ways for Texans to access health care beyond traditional primary care relationships – including telemedicine and nurse practitioners – the ratio of primary care providers for a population is routinely used as a benchmark for access to medical services.
This data set includes medical doctors and osteopaths but excludes nurse practitioners.

Target Background
With the recent attention focused by the legislature in addressing graduate medical education and the recent and planned openings of new Texas medical schools, the state is already taking significant steps to help address this gap that may pay dividends over upcoming years.

Benchmark
#12 (peers)[03-36]; Top 3 baseline at 1,220:1 or lower

Percentage of Texas households that earn above a living wage, 2015 - 2016

No data

< 1516:1

1516:1 - 2456:1

2456:1 - 3691:1

> 3691:1
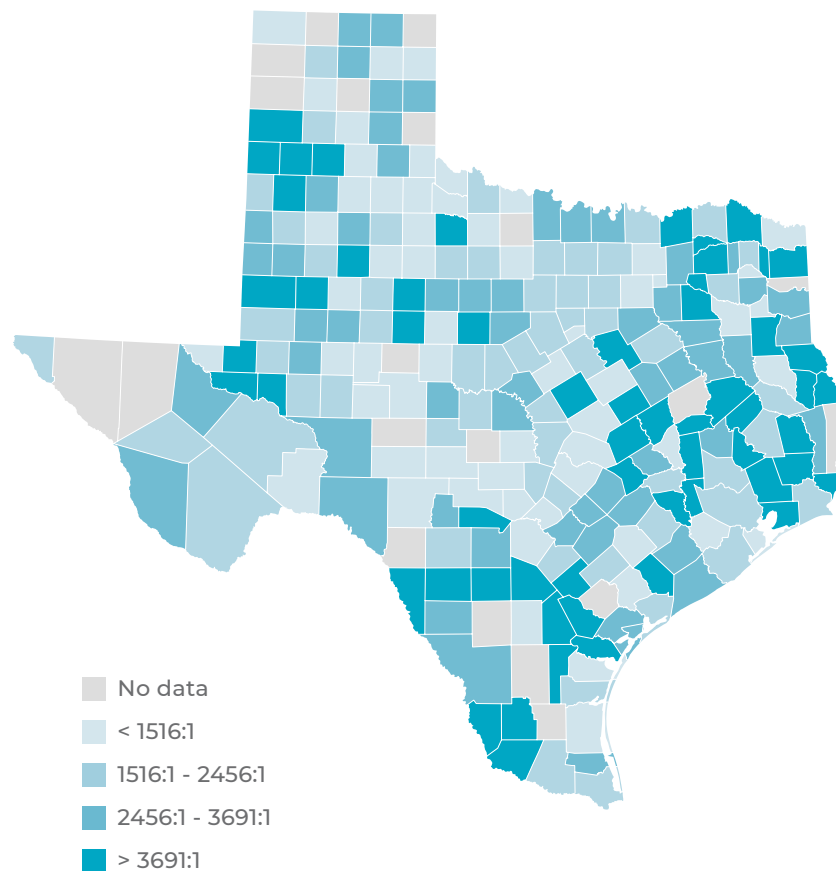
12

880:1 in 2019[03-37]

Improving[03-38]

Availability of mental health care providers: Ratio of population to mental health providers

Target
By 2036, Texas will have one of the six best ratios among peer states.

Indicator Background
This indicator measures the ratio between the overall population of Texas and the number of individual mental health providers, including family therapists and mental health profession-als who treat drug and alcohol abuse. While this ratio does not reflect the fact that certain regions of Texas have greater access to men-tal health providers than other regions, it does provide a high-level picture of access to mental health providers in Texas. It also does not reflect

that technological and regulatory reforms may allow for more innovative and efficient means of delivering services.

Target Background
Access to mental health providers has a high impact on economic growth and quality of life. Because mental health can affect physical health outcomes as well as educational attain-ment and earnings, Texas should rank among the six best peer states in access to mental health providers.

Benchmark
#12 (peers);[03-39] Top 6 baseline at 410:1 or lower

Ratio of population to mental health providers

270:1	Washington
280:1	California
280:1	Colorado
350:1	New York
410:1	North Carolina
410:1	Ohio
440:1	Illinois
480:1	Pennsylvania
570:1	Virginia
620:1	Florida
730:1	Georgia
880:1	Texas

■ Texas
■ Peer states
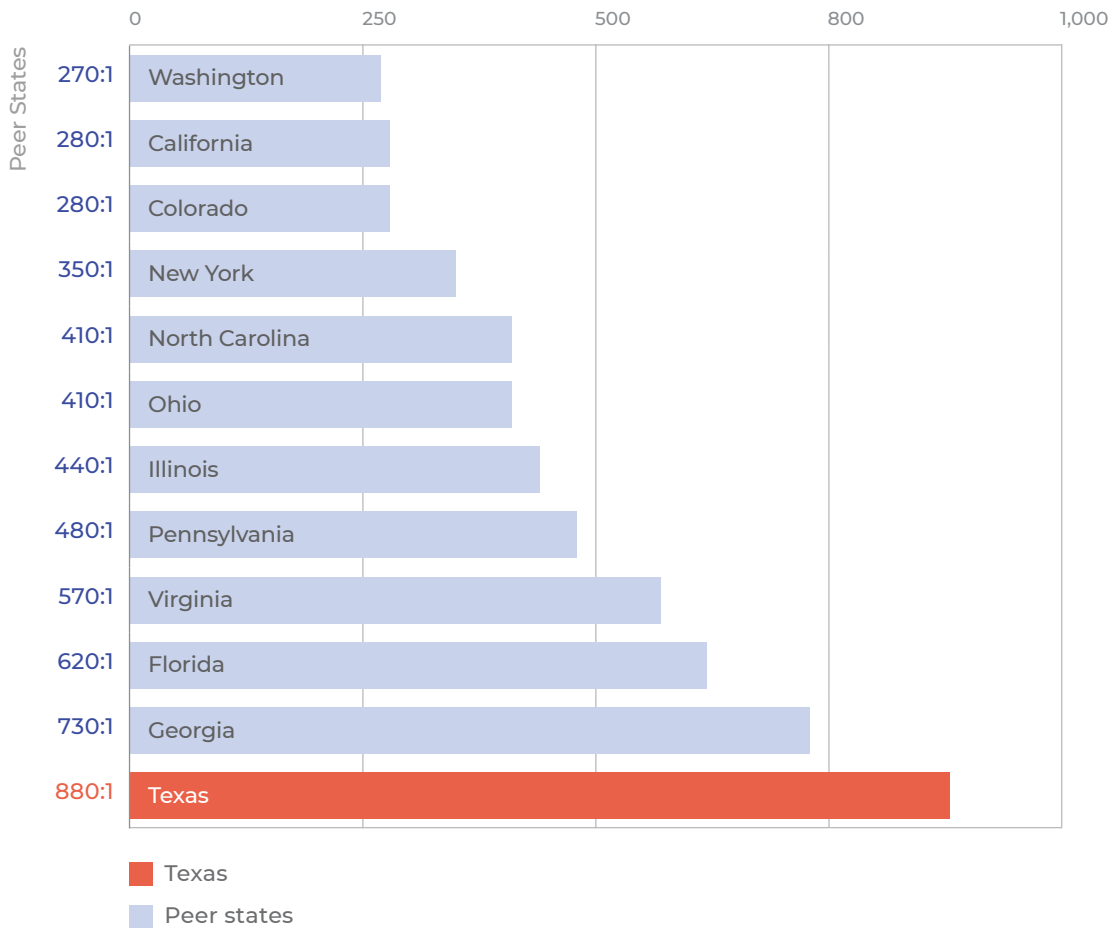
12

68% in 2018[03-41]

Flat[03-42]

Persons with usual source of health care: Percentage of adults who report having a usual source of health care, such as a primary care physician, to help ensure that care is coordinated and accessible when needed[03-40]

Target
By 2036, Texas will rank in the top three among its peer states.

Indicator Background
A usual source of care is a doctor's office, clinic, health center, or other place that a person would go if they are sick or in need of advice about their health. Having a usual source of care can indicate that health care is accessible and affordable to a person. One major advantage to a usual source of care is that medical professionals in this environment usually have access to patients' medical records, allowing for more informed health care analysis. When additional metrics are identified, patient and provider access to medical records will also be tracked.

Target Background
Having a usual source of care can encourage people to seek care for medical issues before those issues become serious and costly. This can have a high impact on health care quality and affordability, as well as economic productivity and growth. For these reasons, Texas should rank among the top three peer states in the percentage of its population with a usual source of health care.

Benchmark
#12 (peers);[03-43] Top 3 baseline at 80% or higher

Percentage of adults who report having a usual source of health care, such as a primary care physician

Peer States		
85%	Pennsylvania	
82%	Illinois	
80%	New York	
80%	Ohio	
78%	North Carolina	
78%	Virginia	
77%	National average	
76%	Washington	
75%	California	
74%	Colorado	
74%	Florida	
72%	Georgia	
68%	Texas	
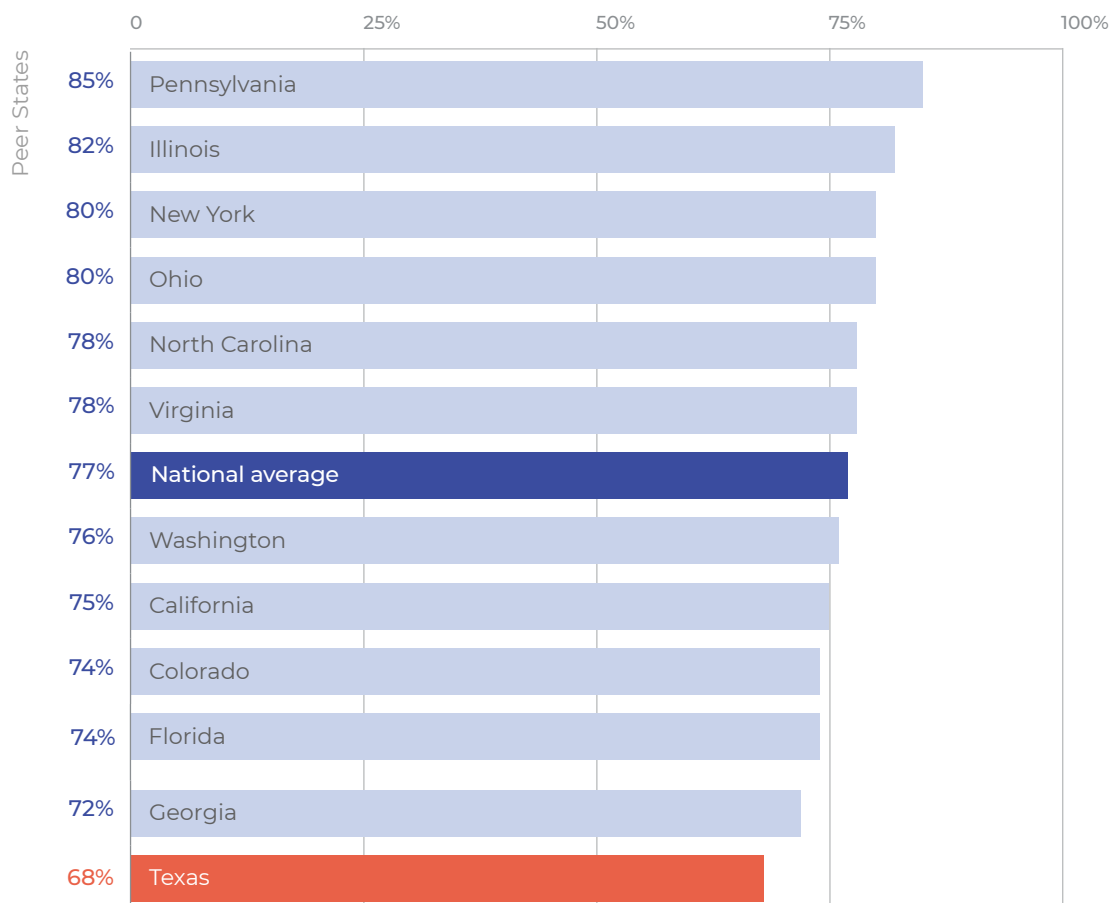
Telemedicine: Texas 2036 is currently seeking to identify an indicator to track telemedicine access

Target

Texas, regardless of geography, age, or income, have access to telemedicine resources.

Indicator Background

Telemedicine has the potential to bridge access to care gaps by leveraging technology and lower-cost service delivery models. Telemedicine has also played a role in allowing for medical consultation during the COVID-19 outbreak while minimizing contagion risk. However, access to telemedicine may be limited by technological, knowledge, and affordability gaps.

Target Background

As soon as a meaningful assessment has been identified, Texas 2036 will encourage a strategy to become a leader among peer states in telemedicine services.

Other Indicators Texas 2036 is monitoring:

Availability of dental health care providers: Ratio of population to dental health providers in a county

Distance to trauma center: Percentage of population living more than 50 miles from a Level 1 or Level 2 trauma center

Connections

The lack of access to internet services (goal #16) that enable telemedicine is an additional barrier to health care access. This barrier is particularly relevant in rural areas, where distance to health care providers is often greater than in urban areas.

Availability of health care providers also can be a key component in disaster response and hazard readiness planning (goal #18).

GOAL 9
Affordability of Health Care
Texasare able to afford the basic health care they need.

Texas Today and Tomorrow

High prices put health care out of reach for many Texans. Fifty-five percent of Texas households report difficulty affording health care costs, and even more households — 60% — report postponing or skipping care (including medical treatments, diagnostics, dental care, and pharmacy) within the last year due to cost.[03-44] Seventeen percent of Texans reported that there was a time in the past year when they personally needed to see a doctor but could not because of cost.[03-45] For those that received care, 39% reported that their family had difficulties paying the subsequent medical bills.[03-46]

Affordability is increasingly a barrier to health care access. Rising prices of health care account for three-quarters of overall health expenditure increases.[03-47] Between 2016 and 2018, the average annual family premium for people with employer-sponsored insurance rose about 5% per year.[03-48] Out-of-pocket medical costs — premiums plus deductibles — have reached about 14% of the median state income in Texas (ninth among peer states).[03-49] In addition to paying more for care, patients across the country are paying more for prescription drugs and medical supplies. The consumer price index for medical commodities[03-50] consistently grows by more than 2% per year.[03-51] Health care costs continue to increase, in part, because the health care market does not operate like other consumer markets. Market participants routinely lack knowledge of the price implications for their decisions and will often pay more when comparable services are available at a lower cost.

Although health insurance can help mitigate the burden of rising health prices on individuals in the short term, about 5 million Texans (18%) do not have health insurance.[03-52] Texas has the highest rate of uninsured in the nation and almost twice the national average. Uninsured people are less likely to receive prevention and screening services and care to manage chronic disease, which could lead to more costly care in the future.[03-53] This impacts not only the individual, but also the entire health system: Texas hospitals reported almost $4.5 billion in uncompensated care for uninsured patients in 2016.[03-54]

Yet even for Texans with health insurance, affordability remains a major problem. According to the Episcopal Health Foundation, "4 in 10 (43%) of the nonelderly insured say it is difficult for their family to afford health care. Just over one-third (35%) report that they or a household member had problems paying medical bills in the past 12 months, and more than half (56%) have delayed or skipped any health care in the past 12 months because of cost."[03-55] Consistent health care affordability pressures face large proportions of Texans, whether or not they have insurance:

	All Texans (Under 65)[03-56]	Insured Texans (Under 65)
Texas households reporting difficulty affording health care costs	55%	43%
Texas households reporting skipping or postponing care [03-57] due to cost	60%	56%

Insurance can help mitigate the impact of high health care costs for families, but a higher insured rate alone will not solve the affordability problems facing Texas families.

Context

Most Texans utilize health insurance to help pay for health care. Texans gain access to health insurance in different ways. Almost half have employer-sponsored insurance that is tied to their jobs. About 27% of Texans receive health insurance through a government program, such as Medicare, Medicaid, or CHIP.[03-58] Another 6% buy insurance individually (the remainder are uninsured).[03-59]

Texas has the most uninsured children in the country.[03-60] There are several reasons for this. Texas has the highest rate of uninsured adults in the country, and children are less likely to be insured if their parents are not insured.[03-61] In addition, Texas has a high proportion of Hispanic children; Hispanic Texans are less likely to be insured (29% uninsured) than white Texans (12% uninsured).[03-62] More than half of the uninsured children in Texas are eligible for public programs but are not enrolled.

Although people may get health insurance from different sources, federal subsidies help fund insurance for almost everyone in the U.S., including those with private and employer-sponsored insurance. In 2018, federal insurance subsidies for Americans under 65 were estimated at $685 billion.[03-63] This included tax breaks for employer-sponsored insurance that covered up to 30% of total costs, and subsidies for insurance purchased on the individual marketplace that cover about 50% of costs.[03-64] Under the Affordable Care Act, 37 states — including eight of Texas's peer states — have expanded Medicaid to cover a larger portion of their low-income populations.[03-65] Texas, Florida, Georgia, and North Carolina have not expanded Medicaid.

The federal government, in an attempt to utilize market forces to drive down the cost of shoppable health services, has issued multiple executive orders that seek to increase transparency of medical prices.[03-66] These executive orders have led to rulemaking at the U.S. Department of Health and Human Services to require disclosure of previously-confidential pricing information.[03-67] Recognizing the role that informed consumers can have in reducing health care costs, the Texas Legislature in 2019 called for the Teacher Retirement System and the Employees Retirement System to offer shared

savings incentives programs for their health insurance plans.[03-68] Shared savings plans utilize price transparency to incentivize health consumers to voluntarily choose lower-cost, comparable-quality providers for shoppable medical events. When price savings are achieved, the consumer shares that savings with the health plan.

11

17% in 2018[03-70]

Improving[03-71]

Texans unable to get care due to medical cost:
Percentage of adults who report needing to see a doctor in past year but could not due to cost[03-69]

Target
By 2036, Texas will have one of the three lowest percentages among its group of 12 peer states.

Indicator Background
Affordability and access to care all boil down to whether individuals can actually obtain health care when it is needed. This indicator tracks the percentage of Texans when reported that they did not see a doctor, despite medical need, because they could not afford to do so.

Target Background
While Texas is currently behind 10 of its peer states in this area, the gap to enter the top three is not insurmountable. Texas will face additional challenges compared to peer states due to its large undocumented population, which may require policymakers to seek innovative solutions. Texas must reduce this figure to 11% or lower to rank among the Top three leading peer states in the percentage of its population unable to get care due to medical cost

Benchmark
Texas is #11 among peer states;[03-72] Top 3 baseline at 11% or lower.

Percentage of adults who report needing to see a doctor in past year but could not due to cost

Peer States

9%	Pennsylvania	
10%	Ohio	
11%	Washington	
11%	New York	
12%	California	
12%	Colorado	
12%	Illinois	
13%	Virginia	
13%	National average	
15%	North Carolina	
16%	Florida	
17%	Texas	
18%	Georgia	

- Texas
- Peer states
- National average
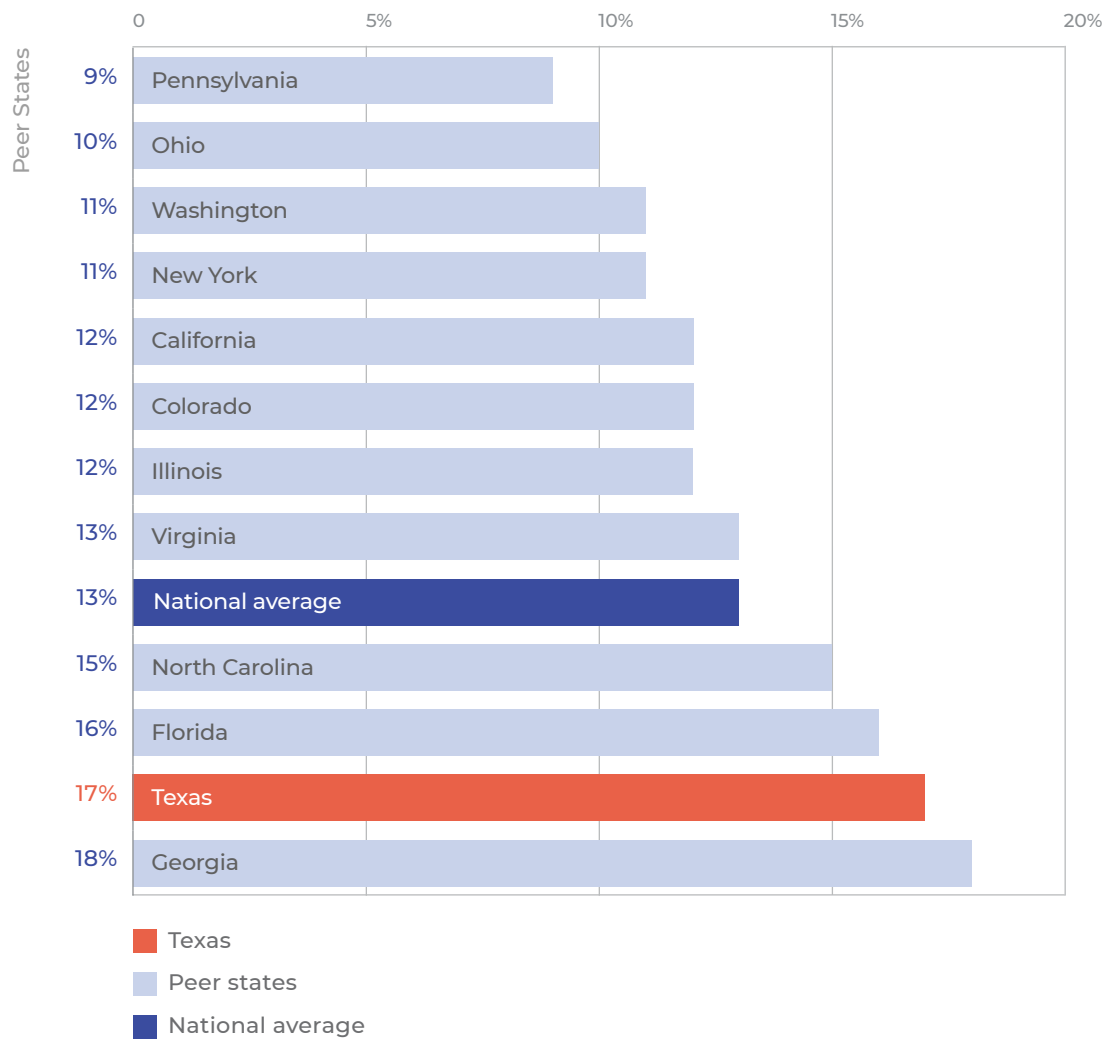
12

17.7% in 2018[03-73]

Mixed

Uninsured rate: Percentage of population without health insurance

Target
By 2036, Texas will have one of the six lowest uninsured rates among its peer states.

Indicator Background
While having insurance alone does not entirely insulate families from high medical costs, uninsured Texans will often avoid necessary medical care at times when early intervention could reduce the ultimate cost of restoring their health. When care is eventually obtained, it may cost the patient significantly more without the backstop of insurance, or costs may be passed along to society in general.

Target Background
Texas is the only state among peer states that saw an increase in the uninsured rate in recent years. The uninsured rate in Texas declined significantly from 2008 (23.4%) to 2016 (16.6%) but increased in 2017 and again in 2018. For Texas to outperform its peer states, it would need to not only reverse this trend but significantly reduce its overall uninsured rate.

Benchmark
#12 (peers);[03-74] Top 6 baseline at 7.5% or lower

Percentage of population without health insurance

Worst - Texas

Best - Pennsylvania

Peer states
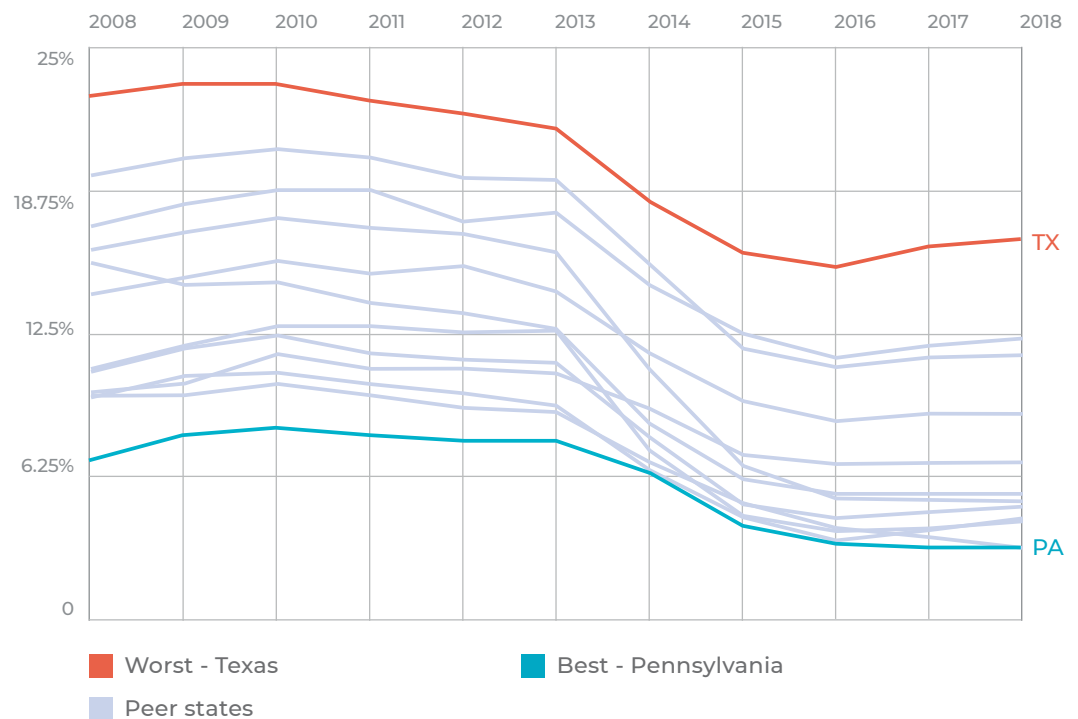
Other Indicators Texas 2036 is monitoring:

Out-of-pocket health care spending: Premiums plus deductibles as percentage of income.
Controlling health care costs will allow the state to better manage taxpayer dollars and

Connections

invest in other priorities (goal #32).
Many different factors — not just the health care we receive at a doctor's office or

GOAL 10
Population Health
Texans live long, healthy, and productive lives.

Texas Today and Tomorrow

hospital — shape Texans' health. While the large majority of state health spending is directed toward clinical interventions,[03-75] these services only account for about 20% of individuals' health outcomes.[03-76] Community and behavioral factors account for around 70% of individuals' health outcomes.[03-77] Such factors include education level, employment, income, and community safety, in addition to behaviors addressed through traditional public health services such as obesity and smoking.

Population health complements the efforts of public health agencies by addressing a broader range of factors shown to impact the health of different populations, such as housing, transportation, and access to healthy foods.

The Texas population's health risk is growing. More than 8% of babies born in Texas have low birthweight, which is an important indicator of maternal health and predictor of a child's future health.[03-78] One in five adult Texans report having a chronic disease (e.g., diabetes, heart disease, or asthma),[03-79] and chronic diseases cause 60% to 70% of deaths in Texas.[03-80]

High risk populations in Texas often fall into gaps of quality service that result in poor health outcomes. **Texas is ranked tenth among its group of 12 peer states for preventable deaths. [03-81]**

By focusing resources on people at higher risk, Texas can ultimately improve life expectancy and long-term health outcomes. Average life expectancy in the U.S. increased by 3.3 years from 1990 to 2010 (to 78.6 years) but has been flat since 2010. [03-82] Average national life expectancy is expected to grow to 81.4 by 2030, but then decline to 79.8 by 2040.[03-83] Texas will need to buck the national trend in order to extend life expectancy and improve population health.

To ensure Texans have longer, healthier lives, Texas will also have to address disparities based on race. There were 166 deaths from treatable conditions reported per 100,000 among the black population in 2017, versus only 90 among white and 86 among Hispanic populations.[03-84]

8

79.1 in 2016-2018[03-85]

Flat[03-86]

Life expectancy: Number of years from birth a person is expected to live

Target
By 2036, Texas will rank in the top three among its group of 12 peer states.

Indicator Background
This indicator measures the number of years from birth to life that a person can expect to live, according to current age-specific death rates of the Texas population. It provides a rough, high-level view of the overall health of our state's population.

Target Background
Life expectancy has a high impact on economic growth and quality of life in Texas, especially with regard to premature deaths. Our population's overall health, as loosely indicated by life expectancy, is linked to individual productivity and other critical outcomes. Texas should place among the top three peer states in life expectancy

Benchmark
#8 (peers);[03-87] Top 3 baseline at 80.5 or higher

Number of years from birth a person is expected to live

Life expectancy in years

Peer States		Life expectancy
81.6	California	
81.3	New York	
80.5	Colorado	
80.4	Washington	
80	Florida	
79.5	Virginia	
79.3	Illinois	
79.1	Texas	
78.3	Pennsylvania	
78	North Carolina	
77.8	Georgia	
76.9	Ohio	
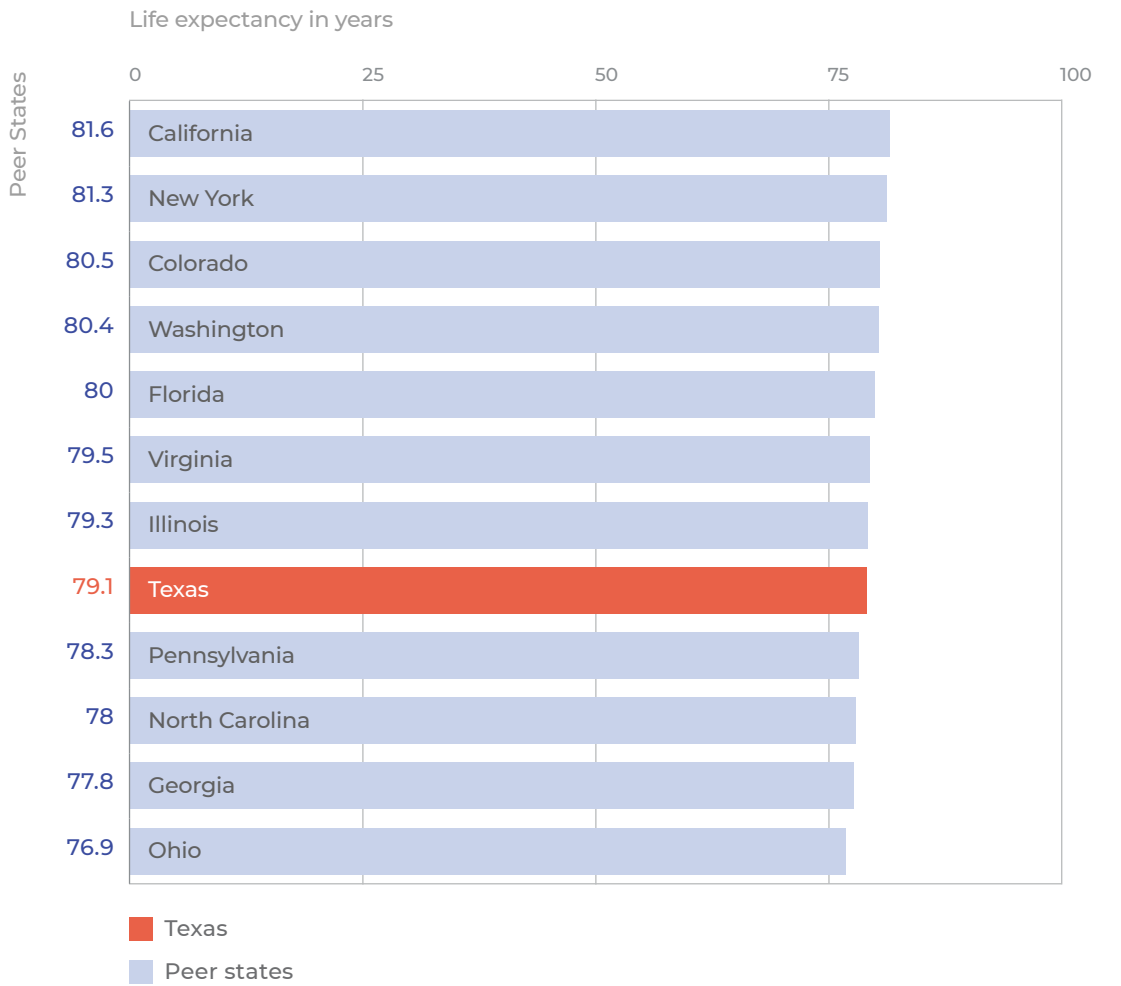
■ Texas
■ Peer states

10

95 in 2017[03-90]

Flat[03-91]

Mortality amenable to health care: Premature death from treatable medical conditions, deaths per 100,000 people[03-88]

Target
By 2036, Texas will rank among the three lowest states in its peer group.

Indicator Background
Mortality amenable to health care measures the rates of death that can be considered preventable by timely and effective health care. Common examples include deaths related to diabetes, respiratory diseases such as pneumonia, and maternal and perinatal mortality.[03-89]

Target Background
The rate of deaths considered preventable provides meaningful insight into the ability of Texas' health care system to identify and treat health problems in an effective and timely manner. Texas should place among the top three leading peer states in mortality amenable to health care by 2036.

Benchmark
#10 (peers);[03-92] Top 3 baseline at 71 or lower

Premature death from treatable medical conditions, deaths per 100,000 people
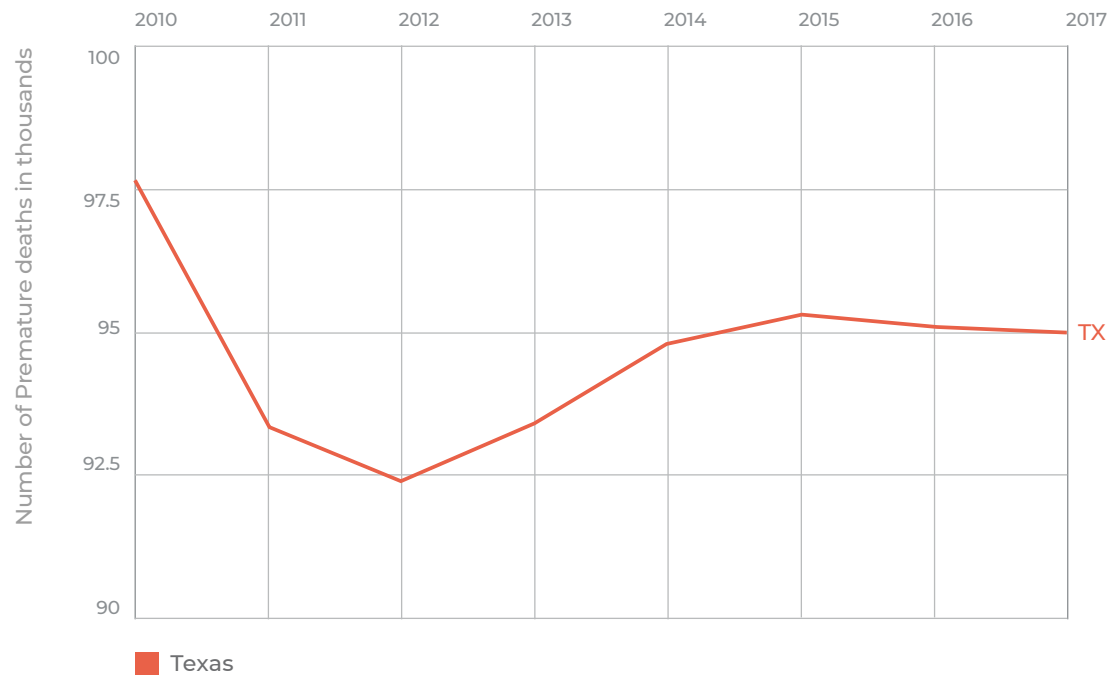
Texas

5

8.4% in 2017[03-97]

Worsening[03-98]

Low birthweight: Percentage of infants weighing less than 5.5 lbs. at birth

Target
By 2036, Texas will rank among the three lowest in its group of peer states.

Indicator Background
This indicator measures the percentage of infants in Texas who weigh less than 5 pounds, 8 ounces (2,500 grams) at birth. Infants with low birthweights often have a hard time eating, gaining weight, and fighting infections.[03-93] They are often at increased risk of health complications in infancy and beyond.

Target Background
Low birthweight is linked to numerous health challenges in infancy and later years; it has a significant impact on Texas's economic growth and quality of life. Low birth weight increases the likelihood of chronic conditions such as asthma and obesity,[94] mental health disorders,[95] and lower academic outcomes in elementary and middle school.[96] Texas should place among the three leading peer states in its rate of low birthweight.

Benchmark
#5 (peers);[03-99] Top 3 baseline at 8.1% or lower

Percentage of infants weighting less than 5.5 lbs. at birth

Other Indicators Texas 2036 is monitoring:

Physically unhealthy days: Average number of physically unhealthy days within the last 30 days reported by adults

Mentally unhealthy days: Average number of mentally unhealthy days within the last 30 days reported by adults

Infant mortality: Number of infant deaths (before age one) per 1,000 live births

Incidence of chronic disease: Percentage of population who report having one or more of the following chronic conditions: diabetes, cardiovascular disease, and asthma

Mental health: Percentage of adults diagnosed with a depressive disorder including depression, major depression, dysthymia, or minor depression

Social factors addressed by safety net services (goal #27), including hunger and hous-

Connections

ing, are key social determinants of health; therefore, safety net interventions should yield improved population health outcomes.

Population health — specifically low birth weight — can have significant effects on educational attainment (goal #5) and jobs (goal #6). Low birth rate has been found to negatively affect academic outcomes[100] and decrease the likelihood of job promotion in adulthood[101], among other things.

GOAL 11
Public Health

Texans and their communities are empowered to adopt healthy lifestyles.

Texas Today and Tomorrow

Public health refers to efforts within communities to empower healthy lifestyles through education, policy, and behavioral interventions. **Targeted investments in public health programs could yield large returns in improved outcomes.**

While doctors often treat people once they are sick, **public health seeks to prevent people from getting sick in the first place.** Public health strategies include immunizations, infectious disease control, smoking cessation programs, healthy eating and exercise campaigns, food safety, and clean water programs.

A core function of public health is to **minimize the transmission of infectious diseases.** Local, state and federal health departments must seamlessly coordinate efforts to screen for diseases, conduct surveillance, and provide laboratory and epidemiology services to ensure effective infectious disease control. Infectious diseases do not stop at city and state borders.

9

68% in 2017[03-104]

Worsening[03-105]

Childhood Immunizations: Percentage of children between 19 and 35 months old who receive recommended vaccines

Target

By 2036, Texas will rank in the top six among its group of 12 peer states.

Indicator Background

This indicator measures the percentage of children between 19 and 35-months-old who received recommended vaccines, including diphtheria, tetanus and acellular pertussis (DTaP); measles, mumps and rubella (MMR); polio; Haemophilus; influenza type b (HiB); hepatitis B; varicella; and pneumococcal conjugate vaccines.[03-102] These vaccines administered during childhood play a critical role in public health by preventing the spread of devastating diseases, both in vulnerable children and the population at large.[03-99]

Target Background

The spread of infectious diseases can have devastating consequences on the state's economic growth and quality of life. As seen with the spread of COVID-19, disease can quickly overwhelm health care systems and lead to prolonged quarantines and economic slowdowns. In order to better protect vulnerable populations from infectious disease, Texas should rank in the Top six among peer states.

Benchmark

#9 (peers); Top 6 baseline at 70%[03-106]

Percentage of children between 19 and 35 months old who receive recommended vaccines

Peer States		
77%	Virginia	
76%	Florida	
75%	Illinois	
71%	Colorado	
71%	North Carolina	
70%	Pennsylvania	
70%	Washington	
69%	California	
68%	Texas	
68%	New York	
66%	Ohio	
66%	Georgia	

Texas

Peer states

Adult Vaccination: Percentage of adults who receive a flu vaccine annually
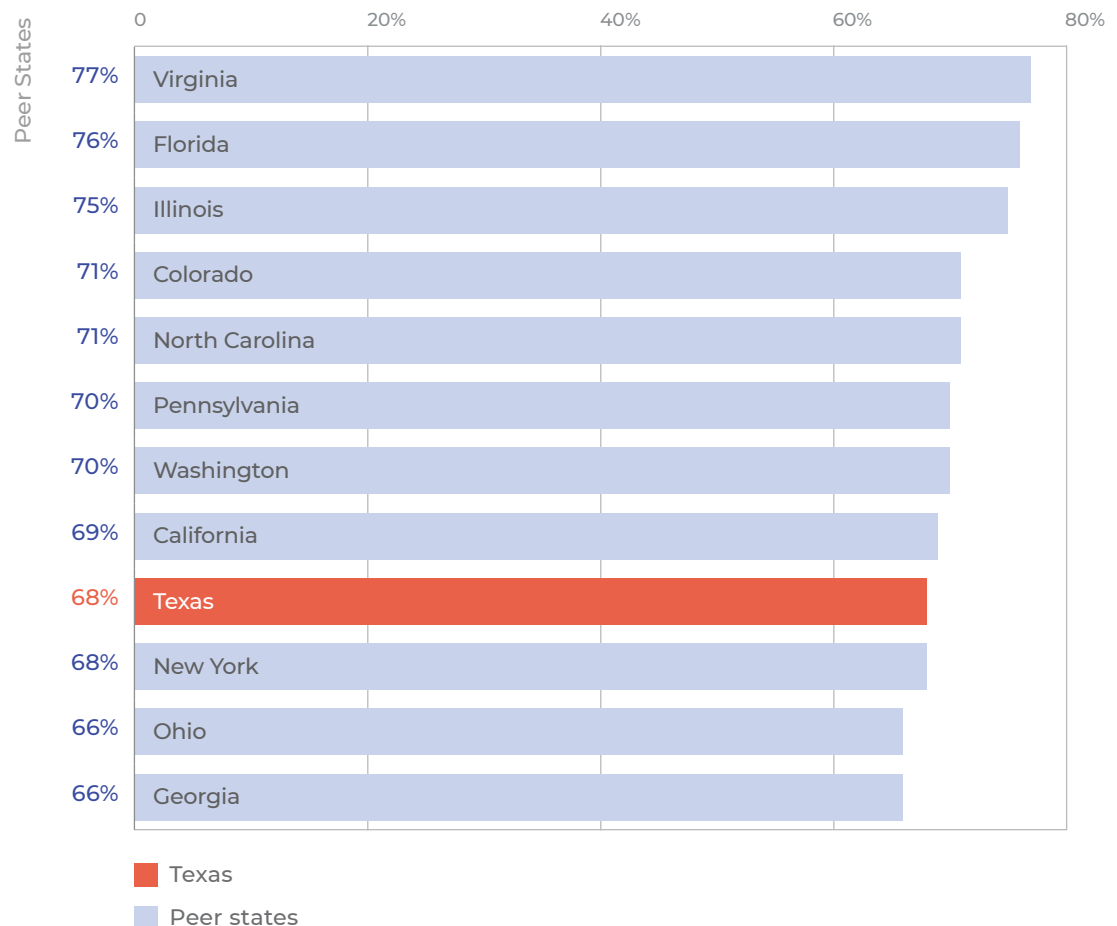
8

43.2% for the 2018-2019 season[03-110]

Mixed (Increase from prior year - 37.6% - but below 2014-15, when Texas reached 50.1%)
[03-111]

Target
By 2036, Texas will rank in the top six among its peer group.

Indicator Background
This indicator uses data from the Centers for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) to measure the percentage of adults who reported that they received the flu vaccine within the past 12 months. Routine vaccination, a low-cost and time-efficient intervention, can help prevent much costlier and more significant medical interventions. According to the CDC, "vaccination is the primary way to prevent sickness and death caused by flu."[03-107]

Target Background
The CDC estimates that if the United States were to increase its flu vaccination rate by five percentage points, there would be 785,000 fewer illnesses and 11,000 fewer hospitalizations.[03-108] Reaching 70% coverage would prevent an additional 39,000 hospitalizations.[03-109] For Texas to enter the top 6 among peer states, it will need to increase its adult vaccination rate by 4.4%.

Benchmark
Texas ranks #8 among peer states. The top peer state, North Carolina, has a 52% rate; the #6 peer state, Ohio, has a 47.6% rate.[03-112] Nationally, 45.3% of adults received a flu shot for the 2018-19 flu season.[03-113]

Percentage of adults who receive a flu vaccine annually

Peer States	Value
North Carolina	52%
Washington	51.1%
Virginia	50.6%
Pennsylvania	50.3%
Colorado	48.1%
Ohio	47.6%
New York	47.3%
National average	45.3%
Texas	43.2%
California	42.9%
Illinois	41.3%
Georgia	39.3%
Florida	37.6%
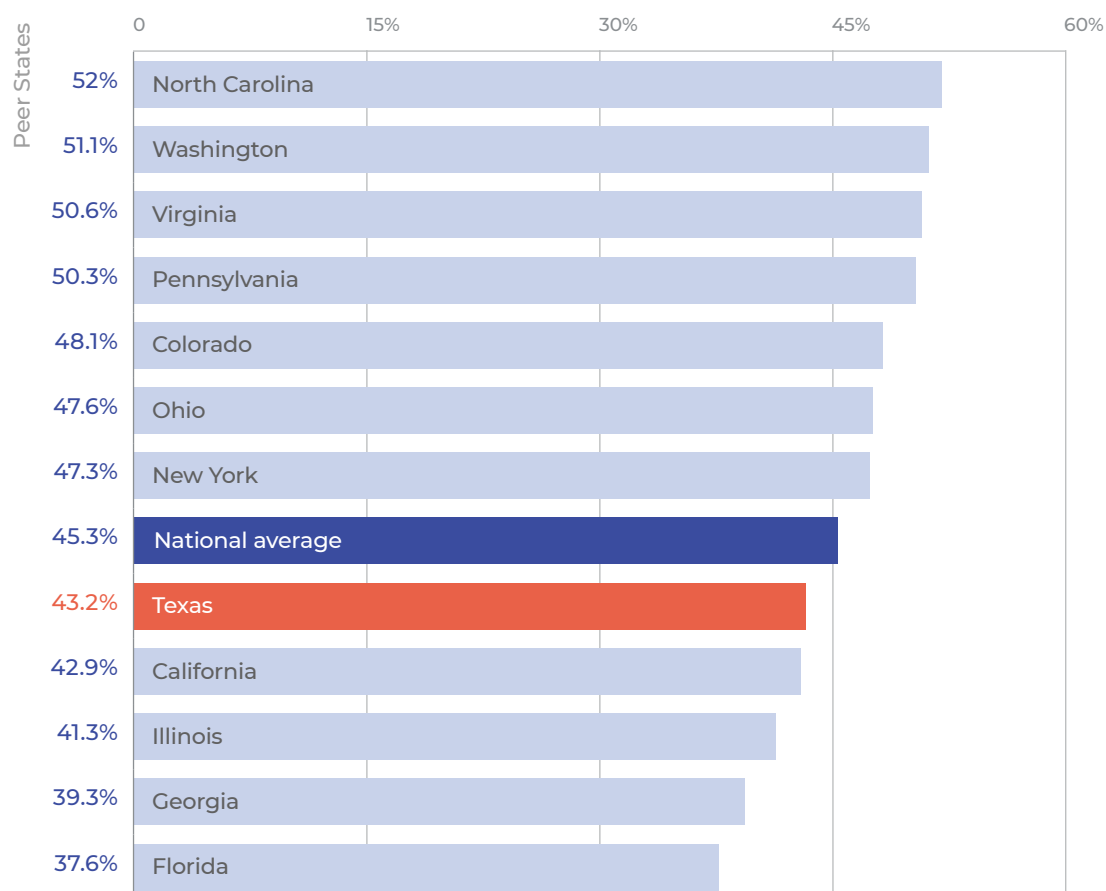
12

35% in 2018 (adults)[03-118], 32% in 2017 (children)[03-119]

Worsening (adults)[03-120], Improving (children)[03-121]

Obesity: Percentage of adults[03-114] and children[03-115] who are obese

Target
By 2036, Texas will rank among the six lowest states in its peer group.

Indicator Background
Obesity is defined as having a body mass index of 30.0 or higher based on reported height or weight.[03-112] For a male adult who is six feet tall, 221 pounds is the obesity threshold. For children, alternative body mass indexes are used that take into account the child's age and gender – obesity is defined as the 95th percentile in weight or higher. Obesity has a wide range of health risks associated with it, including heart disease and stroke, high blood pressure, diabetes, cancer, and other serious conditions.[03-113]

Target Background
Due to the many serious obesity-related health complications, Texas's high rates of adult and child obesity contribute to poor public health outcomes and burden our health care system. Texas should rank in the top six among its 12-state peer group for the lowest adult and child obesity rates, which would lessen the harmful health and economic consequences of obesity.

Benchmark
For adults Texas is #12 among peer states[03-122] – the top six baseline at 31% or lower. For children, Texas is #11 among peer states[03-123] with a top six baseline at 31% or lower.

Percentage of adults who are obese (BMI 30.0 - 99.8)

Percentage of obese adults

Peer States		
23%	Colorado	
26%	California	
28%	New York	
29%	Washington	
30%	Virginia	
31%	Florida	
31%	National average	
31%	Pennsylvania	
32%	Illinois	
33%	Georgia	
33%	North Carolina	
34%	Ohio	
35%	Texas	

- Texas
- Peer states
- National average
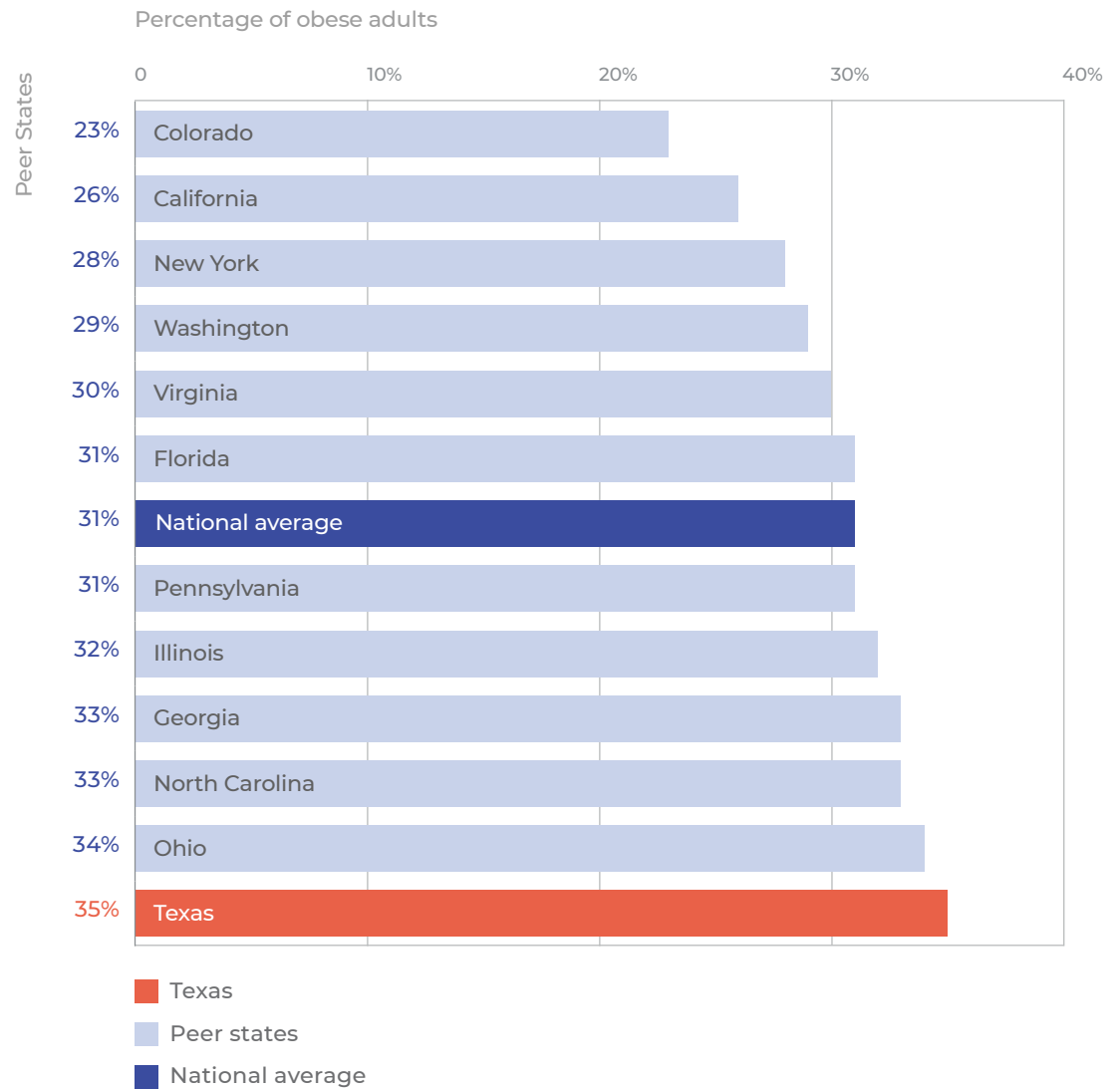
4

14.3% in 2018[03-127]

Flat[03-128]

Smoking: Percentage of adults who are smokers[03-124]

Target
By 2036, Texas will remain among the six low-est-ranked states in its peer group.

Indicator Background
This indicator reports on the percentage of adults who have smoked at least 100 cigarettes in their lifetime and currently smoke daily or some days. Smoking cigarettes is a significant challenge to public health, as it increases the risk of heart disease, stroke, and lung can-cer, among other health problems.[03-125] Sec-ond-hand smoke and smoking while pregnant also carry serious risks for non-smokers.[03-126]

Target Background
Smoking poses major challenges to both the state's public health and its health care system. Smoking leads to chronic conditions that are debilitating and costly, decreasing productivity, quality of life, and other important outcomes. TTexas should rank in the top six among states in this metric in order to lessen the many devas-tating consequences of smoking for our popu-lation.

Benchmark
#4 (peers);[03-129] Top 6 baseline at 14.5% or lower

Percentage of adults who are smokers

Peer States	Percentage
11.2% California	
12% Washington	
12.8% New York	
14.4% Texas	
14.5% Colorado	
14.5% Florida	
14.9% Virginia	
15.5% Illinois	
16.1% Georgia	
16.1% National average	
17% Pennsylvania	
17.4% North Carolina	
20.5% Ohio	

■ Texas
■ Peer states
■ National average
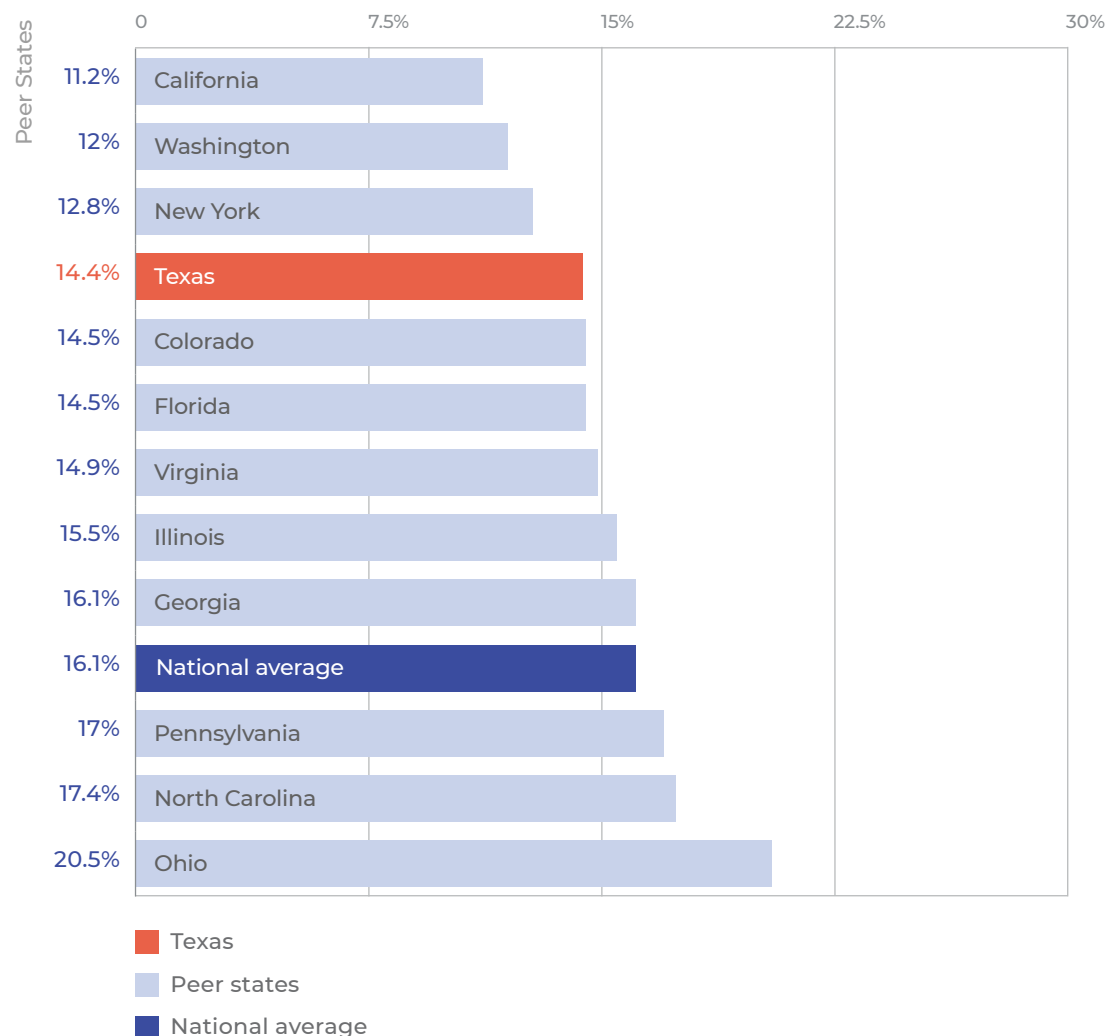
Other Indicators Texas 2036 is monitoring:

Public health expenditure: State budget allocation for public health per capita

Physical inactivity: Percentage of adults who reported no physical activity

Drug deaths: Number of deaths due to drug injury per 100,000 population

Excessive drinking: Percentage of adults who reported either binge or chronic drinking

Teen births: Number of births per 1,000 females ages 15 to 19

GOAL 12
Return on Health Care Investement

Texas has a high-value health system that manages cost and delivers results.

Texas Today and Tomorrow

Rising health care costs are taking a toll on Texas families, employers, and taxpayers. Total per capita health care expenditures in Texas — including public and private spending — are growing by 4% annually.[03-130] While patient utilization of servuces and products is increasing, most of the annual growth in health costs is driven by higher prices for medical services.[03-131] Prices for prescription drugs and medical supplies also are increasing,[03-132] and hospital care remains expensive. Texas is ranked sixth among peer states for hospital costs.[03-133] **While estimates vary, many experts believe that at least a third of all medical expenditures provide no tangible health benefits to patients.[03-134]**

The nation's current health care system pays for the quantity of care provided, regardless of the outcome the care achieved. This system incentivizes and financially rewards a higher volume of care delivered, such as the number of visits or procedures. **A "pay for quality" system, by contrast, provides reimbursements based on the outcome of the care provided.[03-135]** This system would incentivize activities such as care coordination, collaboration among providers, and investments in technology like electronic medical records, all which could improve patient care.[03-136]

In Texas, a large majority of state health spending is directed toward costly clinical interventions that seek to remedy health issues,[03-137] rather than community-based or population-driven interventions that focus on preventing those issues. Preventative care like immunizations, cancer screenings, and regular primary care visits minimize emergency care — and the high attendant costs — down the road. Texas is currently ranked tenth among peer states for preventable hospital admissions.[03-138]

To achieve the best health outcomes for the cost, the health care system may need to upgrade its data sharing infrastructure to better coordinate care across providers, allowing for better informed health care decisions by doctors and patients. Additionally, the state will need to leverage the power of price transparency, empowering health care consumers to help drive down both system-wide and individual costs. Price – a key data point in any financial transaction – is at the center of rising health care costs,[03-139] yet **market participants often are unaware of any price implications when making choices about health care.**

Context

In 2017, the U.S. Centers for Medicare & Medicaid Services approved a new five year, approximately $25 billion Medicaid 1115 Waiver for Texas.[03-140] In addition to covering uncompensated care for patients without insurance, this waiver sets in place requirements to reform health care delivery through incentive payments.[03-141] For example, some funds are reserved for preventative care like primary care visits. Other models compensate providers based on the population served or results achieved, rather than specific services provided.

Value-driven health care also requires better coordination between a patient's primary and specialty care doctors, which is enabled by technological platforms and data sharing protocols.

The past decade has seen a consistent push for nationwide interoperability — the ability to exchange, access, and edit data — as a way of promoting value in the health care system. The 21st Century Cures Act of 2016 called for enhanced health IT interoperability requirements, incentive programs to spur increased electronic health records and health IT adoption, and accountability measures for when meaningful use requirements were not met.[03-142],[03-143]

10

7.2 in 2016[03-147]

Mixed[03-148]

Preventable hospital admissions: Potentially avoidable hospital admissions among adults per 1,000 insurance enrollees

Target
By 2036, Texas will rank among the top three states in its 12-state peer group.

Indicator Background
This indicator tracks hospital admissions among adults with employee-sponsored insurance that were deemed preventable because patients were discharged for ambulatory care-sensitive conditions (ACSCs). According to the Department of Health and Human Services, "ACSCs are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease."[03-144] Examples include diabetes, asthma, and appendicitis (which can be treated with fewer complications prior to perforation).[03-145] Data limitations currently only allow this indicator to include populations with employee-sponsored insurance, so it does not track those individuals on public insurance or the uninsured population.
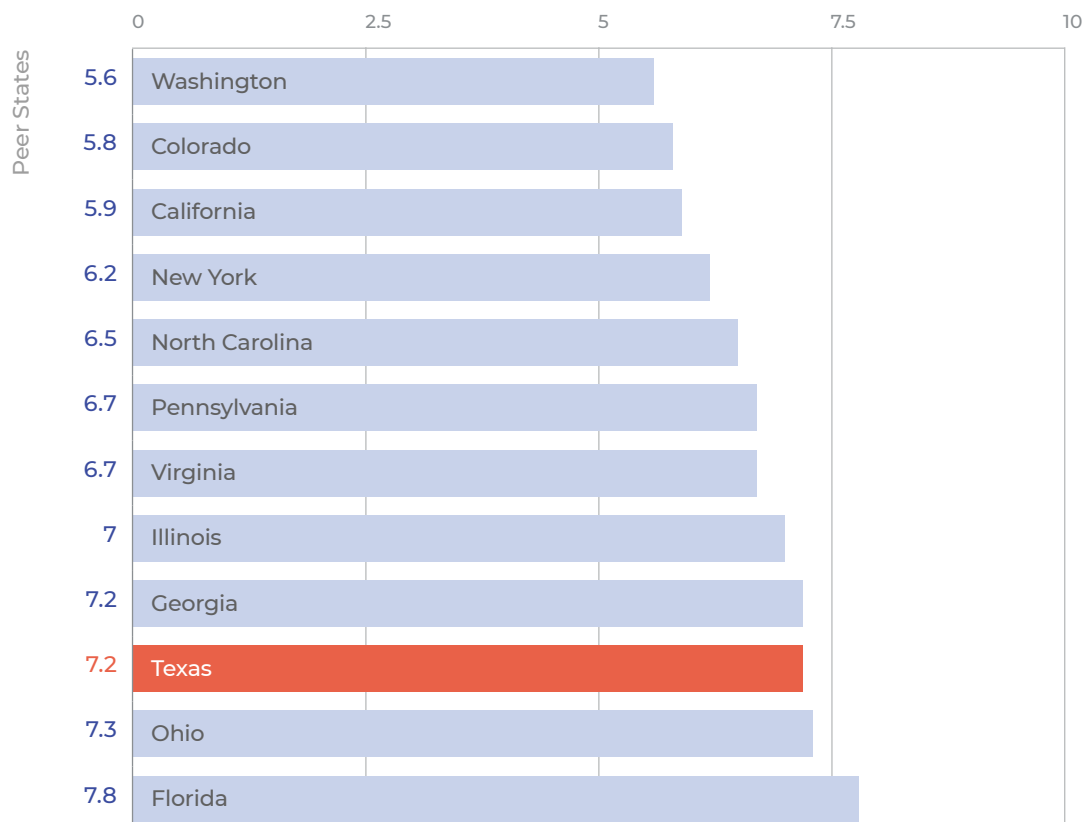
Target Background
To reduce system-wide costs, Texas should strive to be a leader in the prevention of otherwise-avoidable hospital admissions. Due to data limitations, this indicator only tracks adults with employer-sponsored insurance (47% of Texans). [03-146] While the indicator covers less than half of Texans, the tracked population is also the one that faces the fewest barriers to improvement if successful strategies are pursued.

Benchmark
#10 (peers),[03-149] Top 3 baseline at 5.9 or lower

Potentially avoidable hospital admissions among adults per 1,000 insurance enrollees

Peer States	Value
Washington	5.6
Colorado	5.8
California	5.9
New York	6.2
North Carolina	6.5
Pennsylvania	6.7
Virginia	6.7
Illinois	7
Georgia	7.2
Texas	7.2
Ohio	7.3
Florida	7.8

9

5.1% annual growth in 2014[03-150]

Worsening[03-151]

Health care expenditure growth: Annual percentage increase in per person health care expenditures

Target
By 2036, Texas will rank among the top three states in its peer group.

Indicator Background
This indicator utilizes data from the Center for Medicare and Medicaid Services to track personal health care expenditures, including both medical care and medical products. While this data is updated with a significant lag (with the most recent year available being 2014), it offers a comprehensive look at health care expenditures across many sectors of the medical field.
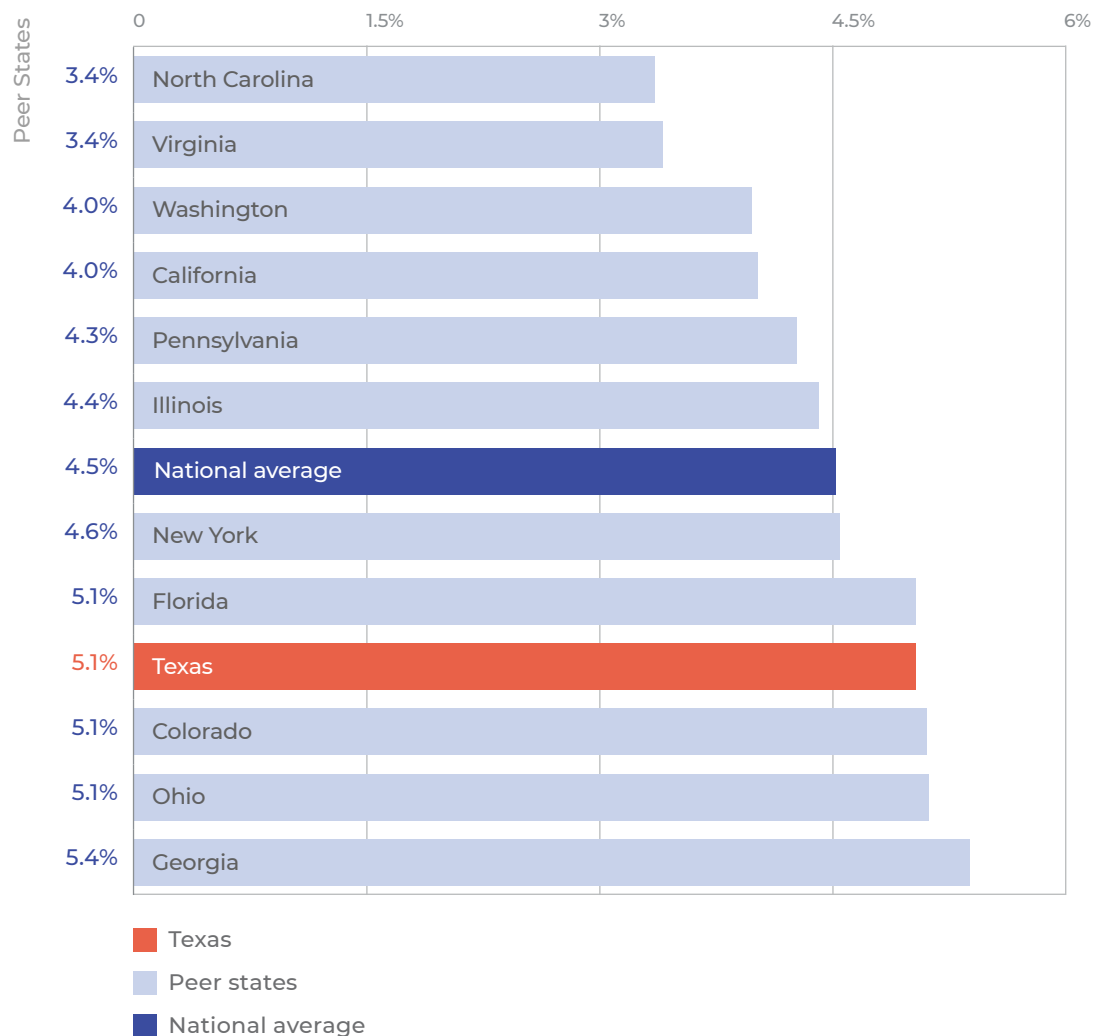
Target Background
As Texas seeks to make health care more affordable, both for Texans and for state government, controlling growth in per capita health care expenditures will increase in importance. Focusing on lower-cost early interventions — rather than high-cost late interventions — should allow the state to reduce its annual expenditure growth rate and deliver better health care value to Texans. To enter the top three among peer states, Texas will need to reduce its annual expenditure growth to less than 4%.

Benchmark
#38th overall in 2014 and #9 among peer states.

Percentage increase in per person health care expenditures, 2013 - 2014

Peer States		
3.4%	North Carolina	
3.4%	Virginia	
4.0%	Washington	
4.0%	California	
4.3%	Pennsylvania	
4.4%	Illinois	
4.5%	National average	
4.6%	New York	
5.1%	Florida	
5.1%	Texas	
5.1%	Colorado	
5.1%	Ohio	
5.4%	Georgia	

Legend:
- Texas
- Peer states
- National average

<u>Other Indicators Texas 2036 is monitoring:</u>

Health screenings for seniors: Percentage of adults ages 65 to 75 who reported receiving colorectal cancer screening within the recommended time period.

Connected system: Percentage of primary care providers that have demonstrated meaningful use of health IT.

Share of budget: Percentage of Texas state budget allocated to health and human services.

State budget impact: Medicaid expenditures as percentage of state budget.

Direct state spend per capita: State's direct expenditures on health care per capita.

Hospital expenses per inpatient day: Estimated expenses incurred by hospital to provide one day of inpatient care.

Consumer price index for medical commodities: Includes medicinal drugs and medical equipment and supplies.

Connections

The rapidly-increasing costs experienced by state health care programs have limited the amount of available revenue to fund all other government priorities, including public education (goals #3 and #4).

Controlling health care costs will allow the state to better manage taxpayer dollars (goal #32).

Pillar 04
Infrastructure

Texas ensures people, goods, information, and energy can move within and across our borders.

Goal: MOBILITY OF INDIVIDUALS

Cost of congestion

🟡 ◆

Commute choice

🔴 ◇

Goal: MOBILITY OF GOODS

Total freight movement

🟢 ◆

Goal: TRANSPORTATION SAFETY

Traffic fatality rate

🔴 ◆

Goal: DIGITAL CONNECTIVITY

Broadband coverage

🔴 ◇

Broadband subscription

🔴 ◆

Goal: ENERGY DISTRIBUTION

Electricity sufficiency

Electricity prices

Focus

Reliable and varied infrastructure is the backbone of the Texas economy — it includes roads, bridges, railways, mass transit systems, seaports, airports, pipelines, and data and electricity transmission networks. With our state's population increasing nearly 40% by 2036, existing infrastructure will be sorely tested.[04-01]

Millions of working Texans and 1.2 trillion ton-miles of freight depend on Texas's transportation infrastructure, its roads in particular.[04-02], [04-03] Congestion of people and goods costs Texas an estimated $20.6 billion annually in wasted productivity and fuel.[04-04], [04-05] A diverse, multimodal transit network, including our seaports and airports, is essential for connecting Texas to economic growth and opportunity. Modern, well-maintained infrastructure also benefits public safety. Texas ranks 11th in its group of 12 peer states for annual traffic fatality rates, with 3,639 deaths.[04-06]

Digital infrastructure enables movement of information and access to essential opportunities and critical services. Texas ranks in the bottom half among its peer states on fixed broadband subscriptions and access — that relative lack of broadband access has an estimated negative economic impact of $5.1 billion. [04-07] [04-08]

Robust, reliable energy infrastructure is needed to power the economy and supply businesses and individuals with electricity. Reliable access to electricity requires Texas to have sufficient electricity reserves at times of peak demand. Texas's reserve margin for electricity dropped to 8.6% during the summer of 2019, and it is projected to be 10.6% for summer 2020.[04-09]

Well-maintained infrastructure allows Texas communities to better prepare for natural disasters and crises. Natural disasters and extreme weather events are increasing in frequency and severity. From 2012 to 2017 extreme weather events have resulted in 1,076 injuries, 362 deaths, and $105 billion in property and crop damage.[04-10] The risks of infectious diseases and emerging hazards like cyber-incidents are also rising.

Goals and Targets for Texas in 2036

Goal #13 - Mobility of individuals: Texans can travel to their destinations effectively and efficiently
- **Target:** Texas reduces its cost of congestion to $922 per commuter and ranks in the top six among peer states for the highest use of sustainable transit modes by 2036.
- **Baseline:** Texas's cost of congestion is $981 per commuter, and the state ranks 10th for sustainable transit modes among peer states.

<u>Goal #14 - Mobility of goods:</u> Texas enables economic growth by moving goods efficiently.

- **Target:** Texas maintains its ranking as the top state among its peers for highest total goods moved by 2036.
- **Baseline:** Texas ranks first in total goods moved among peer states.

<u>Goal #15 - Transportation safety:</u> Texas maintains a safe transportation infrastructure,

- **Target:** Texas ranks in the top nine among peer states for lowest traffic fatality rates by 2036.
- **Baseline:** Texas ranks 11th among peer states for the lowest traffic fatality rates with 1.29 fatalities per 100M VMT in 2018; equal to 3,639 fatalities.

<u>Goal #16 - Digital connectivity:</u> Texans can digitally participate in economic opportunities and essential services.

- **Target:** All Texans have broadband access, and Texas's broadband subscription rate ranks in the top six among peer states by 2036.
- **Baseline:** 93% of Texans have broadband access, and Texas ranks last among peer states for broadband subscriptions.

<u>Goal #17 - Energy distribution:</u> Texas maintains a sufficient, reliable, and cost-competitive energy infrastructure.

- **Target:** Texas has a 13.75% reserve margin for electricity and remains in the top six among peer states for lowest electricity prices by 2036.
- **Baseline:** Texas has an 11% reserve margin and ranks second in electricity prices among peer states.

<u>Goal #18 - Crisis readiness:</u> Texas is ready to address the human, economic, and environmental consequences of natural disasters and hazards

- **Target:** Texas remains in the top nine among peer states for highest emergency preparedness by 2036.
- **Baseline:** Texas ranks ninth among peer states for emergency preparedness.

Context

Texas is home to an enormous, multi-system infrastructure network, including 314,000 miles of public roads, 10,539 miles of railroad track, 21 total ports, and 469,737 miles of pipelines [04-11], [04-12]. For building and maintaining everything other than state-funded roads, local and private entities play a major role.[04-13] More than 70% of Texas's public roadway miles, all urban and rural mass transit systems, commercial airports, and seaports are managed by local governments.[04-14], [04-15] Railways, pipelines, broadband networks, and electricity grid infrastructure are privately owned and operated. Resiliency and hazard infrastructure is primarily funded at the federal level, but execution during hazard events is provided by state and local governments. Alignment and partnerships among these stakeholder groups will be critical for meeting Texas's infrastructure challenges over the long term.

Trends

Demographic changes will create infrastructure challenges for both urban and rural areas. Texas cities are growing at a rapid pace, increasing demands on transportation, digital, and energy infrastructure. By 2036, Texas is expected to add nearly 10 million people, increasing our state population to 38 million, with 90% of population growth occurring in urban areas.[04-16] Urban areas are expected to face higher congestion and safety hazards on Texas roadways, while rural areas may face population and tax base declines — limiting their ability to invest in local infrastructure.

More extreme climate effects are driving the need for effective and resilient infrastructure of all types. By 2036, the frequency of urban flooding is projected to increase 30%-50% due to more extreme rainfall patterns.[04-17] Severe coastal flooding is expected to become the costliest hazard to Texas, accounting for an estimated 34% of all weather-related losses through 2023 at an estimated $5.6 billion.[04-18] At the same time, higher temperatures and more frequent extreme heat will expand the areas at-risk of wildfires eastward.[04-19] Texas's infrastructure needs to be able to support communities and remain reliable through more frequent and severe hazards.

GOAL 13
Mobility of Individuals
Texans can travel to their destinations effectively and efficiently

Texas Today and Tomorrow

Congestion is a natural byproduct of economic growth, but it negatively impacts economic productivity if not managed correctly. In 2017, Texans in urban areas wasted $14.2 billion in fuel costs and lost time − equivalent to $981, or 54 hours, annually for each commuter.[04-20] If current trends continue, each Texan would waste another 63 hours in traffic annually by 2025, raising the per capita cost of congestion to $1,113, a 13% increase.[04-21]

Congestion is worsened by Texans' high use of single occupancy vehicles. Today, more than 80% of working Texans — 11 million individuals — commute alone in a vehicle, higher than the national average of 76% [04-22], [04-23]. Statewide, the use of public transportation as a mode to work is on the decline and lags the national average, accounting for about 1% of commuter trips in Texas compared to 5% nationally [04-24], [04-25]. Encouraging Texans to shift to more sustainable modes of transit, such as carpooling, public and mass transit, cycling, and telecommuting, is essential for easing congestion.

Context

The Texas Department of Transportation (TxDOT) is responsible for constructing, operating, and maintaining the state's transportation infrastructure. In recent years, Texas made great strides in terms of transportation funding by passing two propositions in 2014 and 2015 dedicating new sources of tax revenues to transportation. Over the next decade, Texans will invest $131 billion in statewide infrastructure, with a total economic benefit of an about $373 billion. Currently, TxDOT's funding totals more than $15 billion per year.[04-26] Roughly one-third comes from traditional State Highway Fund sources, including gas taxes and vehicle registration fees.[04-27] Another 30% comes from oil and gas severance taxes and sales and use taxes, and 37% comes from the federal government.[04-28]

Highway construction costs have increased significantly faster than consumer inflation[04-29], and technological disruption in the mobility industry is bringing both opportunities and challenges. Texas is a leading state for testing and deployment of autonomous vehicles, drones, and other new technologies. These innovations offer potential solutions to congestion through new transportation options, safer vehicles, and more efficient traffic management, but they also can have unintended side effects. For example, the rise of ride-sharing applications has contributed to congestion by increasing the total number of car trips.[04-30],[04-31]

Changing consumer preferences, including demand for mixed-use developments and housing located closer to jobs, are affecting commuting patterns. Texas's cities have grown, as suburbs of major metropolitan areas have seen an influx of new residents. [04-32] However, adults under age 35 strongly prefer living in urban neighborhoods due to the availability of amenities and access to transit.[04-33] In response to this demand, there are now a growing number of in-town developments and "walkable neighbor-hood" projects, with the potential to affect future congestion patterns by enabling walking, cycling, and mass transit as modes of transportation.

$981 per auto commuter in 2017

Worsening[04-37]

Cost of congestion: Annual cost of time lost and fuel spent from passenger car delays, per auto commuter

Target

By 2036, cost of congestion per commuter will be $922.

Indicator Background

Transportation infrastructure connects Texans to jobs, family, and commerce. Increased road congestion, mainly occurring in the urban areas, negatively impacts this movement reducing economic growth and quality of life.[04-34] The cost of congestion indicator, calculated by the Texas A&M Transportation Institute, estimates the amount of money urban Texans waste by being stuck in traffic each year.[04-35]
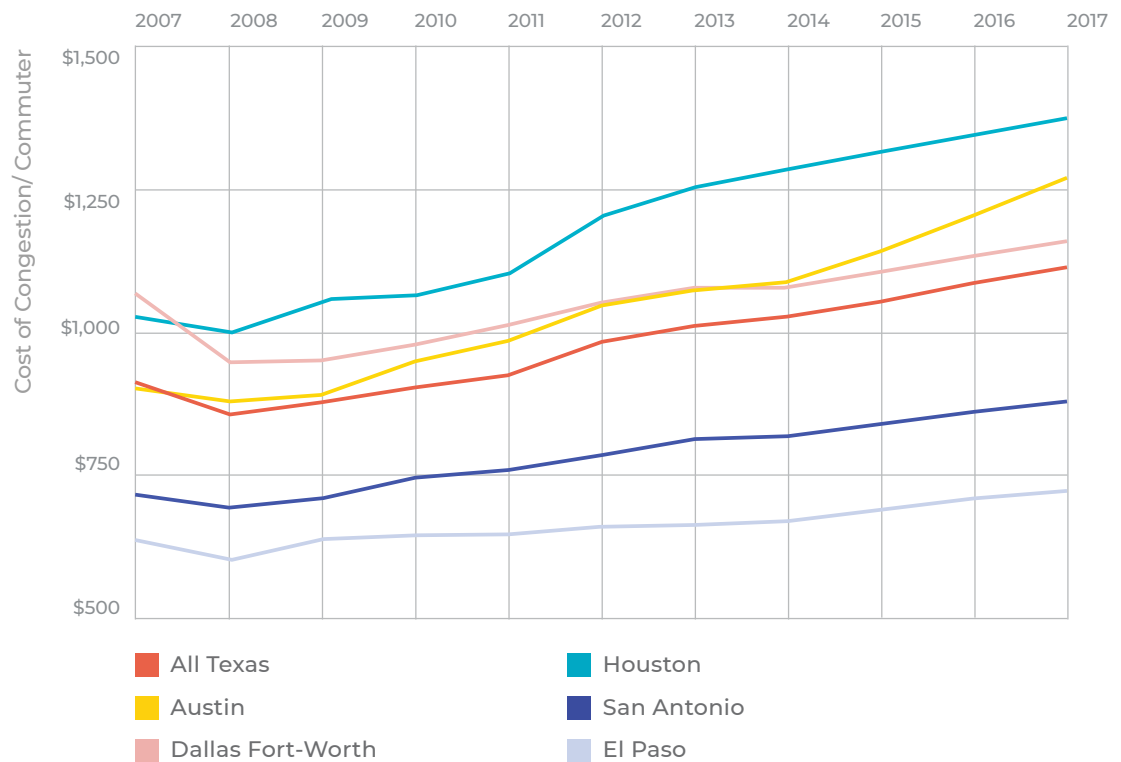
Target Background

Experts project congestion will worsen in Texas by 13% in 2025.[04-36] Management of this issue is essential for global competitiveness and quality of life. Texas lags behind its peer states and would need to rank in the top 6 lowest congested states among peers states to remain competitive among this group.

Benchmark

This indicator is not currently assessed against peer states. Benchmarking omitted due to demographic, industry, and urbanization differences across states.

Annual cost of time lost and fuel spent from passenger car delays, per auto commuter

Note: Due to changes in data collection for "All Texas data" the chart does not equate to actual cost of congestion for this data segment, but is provided here for comparison between metro areas and the state as a whole

Legend:
- All Texas
- Austin
- Dallas Fort-Worth
- Houston
- San Antonio
- El Paso

10

19% in 2018

Flat[04-39]

Commute choice: Percentage of workers using any mode to access work besides single occupancy vehicles[04-38]

Target
By 2036, Texas will rank among the six highest in its group of 12 peer states.

Indicator Background
Reducing the amount of single occupancy travel is essential to easing congestion. The commute choice indicator measures the percentage of workers using any mode to access work except a single occupancy mode. Options include buses, subways, commuter rail, light rail, ferryboats, bicycle, walking, and telecommuting as non-single occupancy modes, but excludes taxicabs and motorcycles.
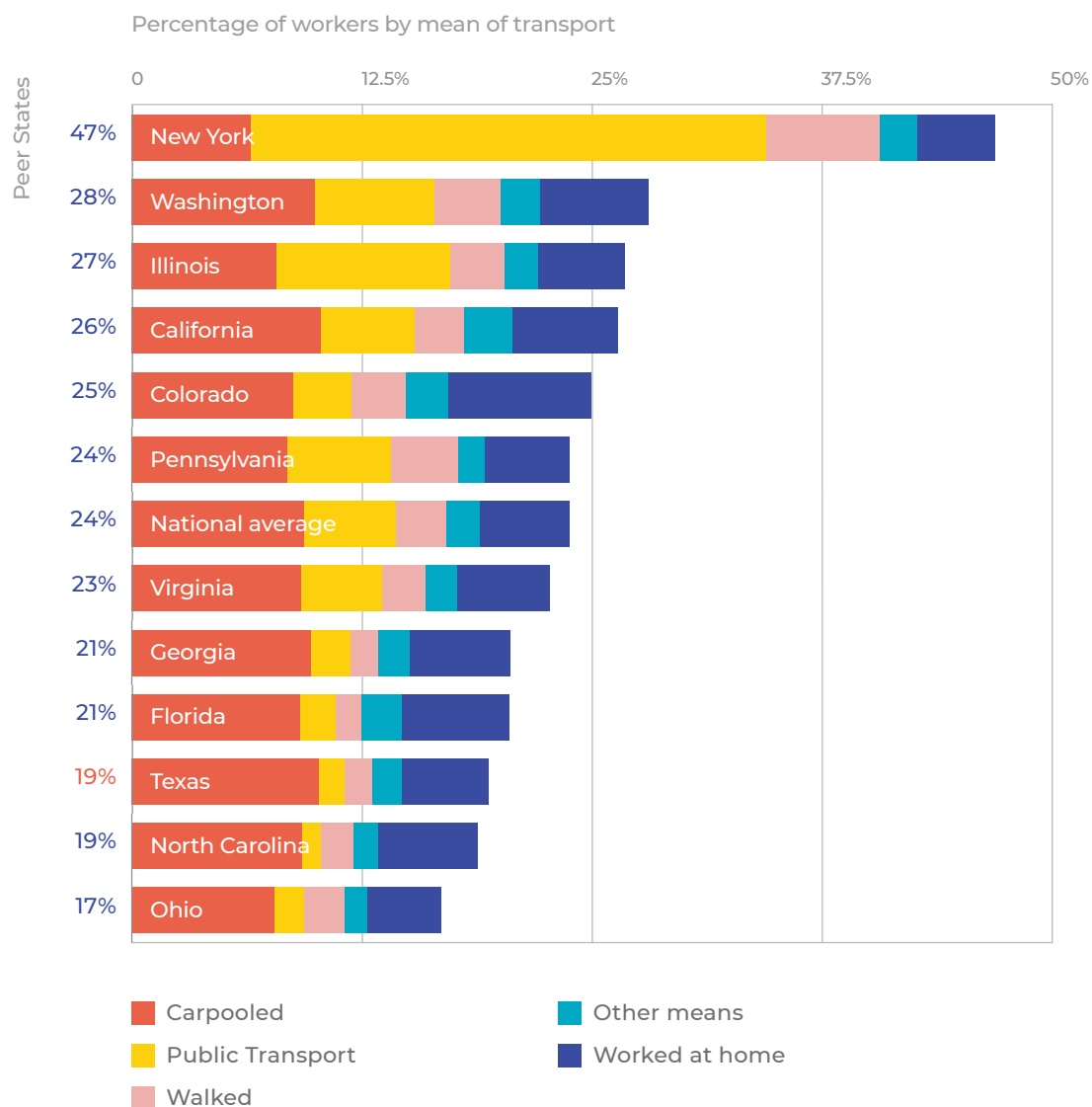
Target Background
Congestion is worsening in Texas, and reduction of single occupancy mode usage is essential for managing this issue to achieve goal 31 − Texans travel to their destinations effectively and efficiently. Texas lags behind its peer states and would need to rank in the top six among peer states to remain competitive among this group.

Benchmark
#10 (peers); Top 6 baseline at 24% or higher[04-40]

Percentage of workers using any mode to access work besides single occupancy vehicles

Percentage of workers by mean of transport

Peer States		
47%	New York	
28%	Washington	
27%	Illinois	
26%	California	
25%	Colorado	
24%	Pennsylvania	
24%	National average	
23%	Virginia	
21%	Georgia	
21%	Florida	
19%	Texas	
19%	North Carolina	
17%	Ohio	

Legend:
- Carpooled
- Public Transport
- Walked
- Other means
- Worked at home

Other Indicators Texas 2036 is monitoring:

Traffic severity: Measured using Travel Time Index, comparing peak congestion period travel time to free-flow travel time

Commute times: Average time taken for an individual to travel from home to work, excluding telecommuting

Transportation Affordability Index: Transportation costs in an area as a percentage of area median household income

Vehicle-less commuting: Percentage of workers who access work by walking and biking

Telecommuting: Percentage of workers who access work by telecommuting

Connections

Congestion worsens air quality (goal #19). Emissions from transportation, including from idle vehicles in traffic, are responsible for 50% to 80% of nitrogen oxide emissions that end up as ozone pollution.[04-41]

Reducing congestion among individual commuters will make mobility of goods (goal #14) more efficient. Trucks often contribute to and are hindered by the same congestion that passenger vehicles experience.

GOAL 14
Mobility of Goods
Texas enables economic growth by moving goods efficiently.

Texas Today and Tomorrow

Texas's effective and multimodal freight transportation system is the foundation of its booming trade economy. Texas has been the nation's top exporting state for 15 consecutive years in terms of the value of goods exported.[04-42] In 2018, Texas moved 1.2 trillion ton-miles of freight, nearly 60% more than the second-ranked peer state (California).[04-43] The ability to move goods to market effectively is key to continued economic success, as total freight movement in ton-miles is projected to grow by nearly 24% through 2036.[04-44]

While total freight movement is expected to grow, Texas's freight infrastructure is already experiencing limitations. Most of the growth in freight movement will be trucking, currently concentrated in the congested "Texas Triangle" region – the megaregion of Houston, Dallas-Fort Worth, and Austin-San Antonio connected by I-10, I-35, and I-45, where 70% Texans live.[04-45] Texas already has more trucking freight bottlenecks than any state in the nation, with 13 of the nation's top 100 bottlenecks.[04-46]

Context

The Texas Department of Transportation (TxDOT) is most directly involved in trucking freight. The agency manages the freeways and highways located in the state, while providing planning and coordination for road construction and maintenance. While TxDOT plays a minor role in safety regulations and other guidelines for commercial airports and railways, the state provides almost no direct support for non-road freight modes. Of the 2,594 projects identified in the 2018 Freight Mobility Plan, costing an estimated $66 billion, 91% are planned highway projects.[04-47] The majority of railways are privately owned and operated, and seaports and airports are operated under local jurisdiction.

Exports play a major role in the Texas economy and are heavily supported by freight infrastructure. Texas has 29 official U.S. ports of entry — the most of any state — which are officially designated areas at U.S. land borders, seaports, and airports where international goods and passengers enter the country.[04-48] Goods exports accounted for 18% of Texas's GDP in 2018; $316 billion in goods were exported, the most from any state.[04-49] Oil and gas are the biggest export products, growing to 23% of state exports since oil export restrictions were lifted in 2015.[04-50] Texas's freight infrastructure is of national importance, as 80% of all U.S. crude shipments pass through pipelines and eventually ports in the Texas Gulf Coast.[04-51]

1

1.2 trillion ton-miles in 2018

Improving[04-56]

Total freight movement: Total freight moving through Texas annually by all transportation modes, in ton-miles [04-52]

Target
By 2036, Texas will continue to rank first among its group of 12 peer states.

Indicator Background
The movement of the millions of tons of freight from, into, and within Texas directly supports economic prosperity, commerce, and quality of life.[04-53] The total freight movement indicator captures both the distance and volume of freight moved on Texas's infrastructure and accounts for various modes of transportation, such as pipeline, rail, truck, water, air, and others. One ton-mile is equivalent to one ton of freight transported one mile.
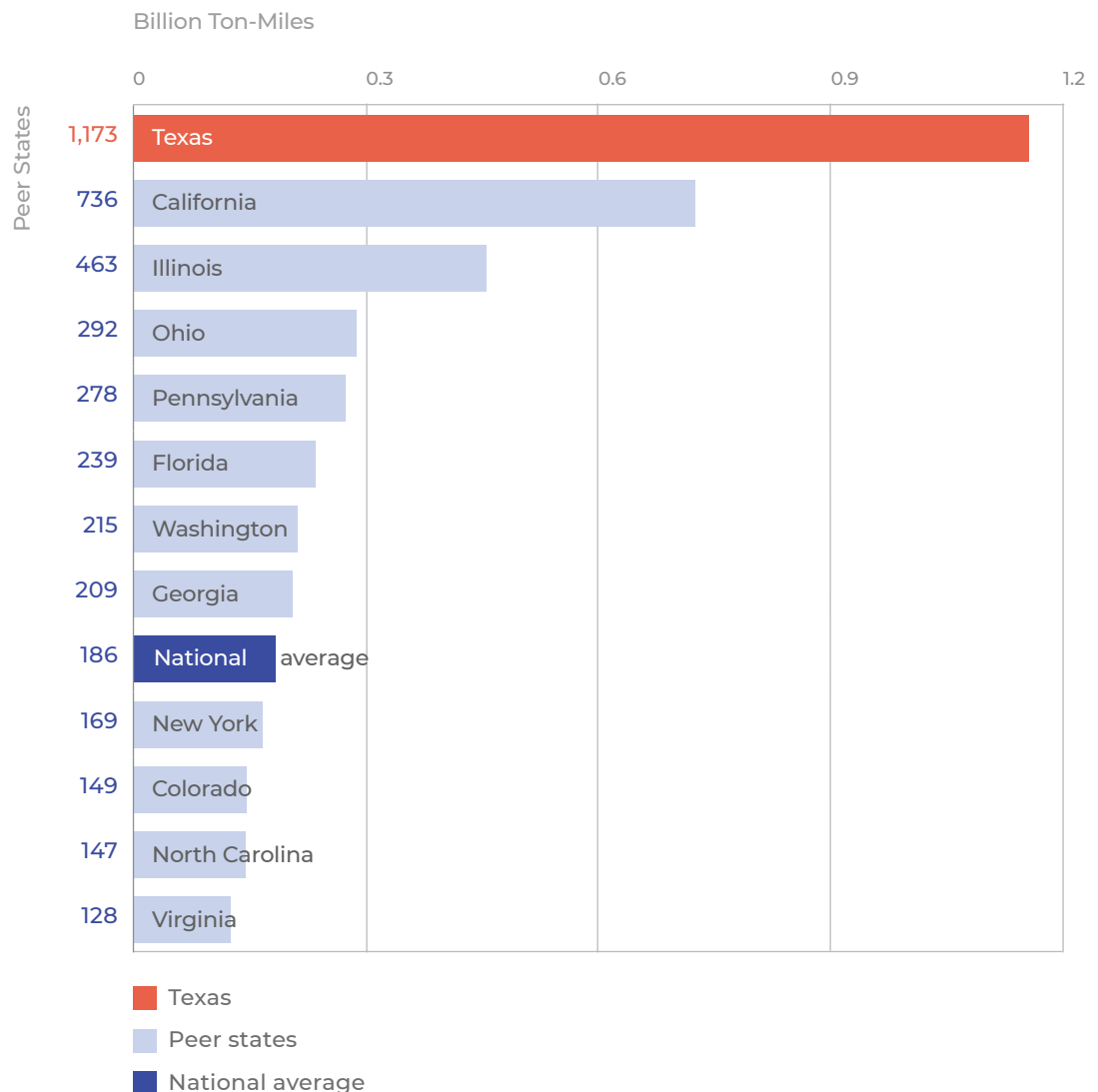
Target Background
Texas must continue ranking as the top state for freight movement to sustain Texas's economic growth and quality of life. The industry supports nearly 2.2 million jobs and accounts for $215 billion in gross state product. [04-54] Projections indicate freight movement in Texas will increase by 24% though 2036.[55] The state's freight infrastructure will need to innovate to continue effective and efficient movement.

Benchmark
#1 (peers) [04-57]

Total freight moving through Texas annually by all transportation modes, in ton-miles

Billion Ton-Miles

Peer States	Billion Ton-Miles
1,173	Texas
736	California
463	Illinois
292	Ohio
278	Pennsylvania
239	Florida
215	Washington
209	Georgia
186	National average
169	New York
149	Colorado
147	North Carolina
128	Virginia

- Texas
- Peer states
- National average

INFRASTRUCTURE

Other Indicators Texas 2036 is monitoring:

Port efficiency: Measured using container dwell time, the average amount of time a container sits idle in a port

Road efficiency: Measured using Level of Service, grading from "A" to "F" of traffic operating conditions on the Texas Highway Freight Network

PTI-95: Measuring the amount of time shippers should budget to be on-time for 19 out of 20 trips.

Connections

Congestion worsens air quality (goal #19). Emissions from transportation, including from idle vehicles in traffic, are responsible for 50% to 80% of nitrogen oxide emissions that end up as ozone pollution.[04-58]

Reducing congestion for commercial trucking will make transit for individuals (goal #13) more efficient. Trucks often contribute to and are hindered by the same congestion that passenger vehicles experience.

GOAL 15
Transportation Safety
Texas maintains a safe trasportation infrastructure

Texas Today and Tomorrow

In 2018 alone, 3,639 fatalities occurred on Texas roads.[04-59] For more than 19 years straight, at least one person has died on a Texas road every day, with 10 people dying on the average day.[04-60] Although fatalities and the fatality rate have declined recently, the total number of deaths is nearly 19% higher than in 2010.[04-61] Traffic fatalities in rural areas account for a disproportionate 55% of the state's traffic fatalities.[04-62]

Unsafe roads are costly. The estimated economic loss of all motor vehicle crashes in Texas was $38.4 billion in 2018.[04-63] While human error is the leading cause of fatalities, unsafe road conditions are a major contributor. Texas has 314,000 miles of public roads and over 54,000 state bridges, far more than any other state — and nearly 24% of these public roads are in poor condition.[04-64], [04-65], [04-66] Texas' booming oil, natural gas, and wind power industries have had a significant impact on safety in rural regions of West and South Texas, where roads and bridges were originally designed for lighter loads and lower traffic volume.[04-67]

Context

Texas has state and federally funded traffic safety programs that focus on improving safety on the state's roadways. The Texas Department of Public Safety and the Texas Department of Transportation are responsible for promoting the safety and protection of the public on the state's highway system.[04-68],[04-69] In May 2019, the Texas Transportation Commission officially adopted a target of zero traffic fatalities by 2050 and a 50% reduction from current levels by 2035.[04-70]

11

1.29 per 100M VMT in 2018; equal to 3,639 fatalities

Improving[04-72]

Traffic fatality rate: Number of fatalities on roads involving at least one motor vehicle, including pedestrians and cyclists per 100 million vehicle miles traveled (VMT)[04-71]

Target
By 2036, Texas will rank in the Top 9 lowest among peer states.

Indicator Background
Safety on Texas roadways must be a priority for all — too many people are losing their lives on Texas roadways. The traffic fatality rate indicator measures the number of fatalities on roads per 100 million miles traveled.
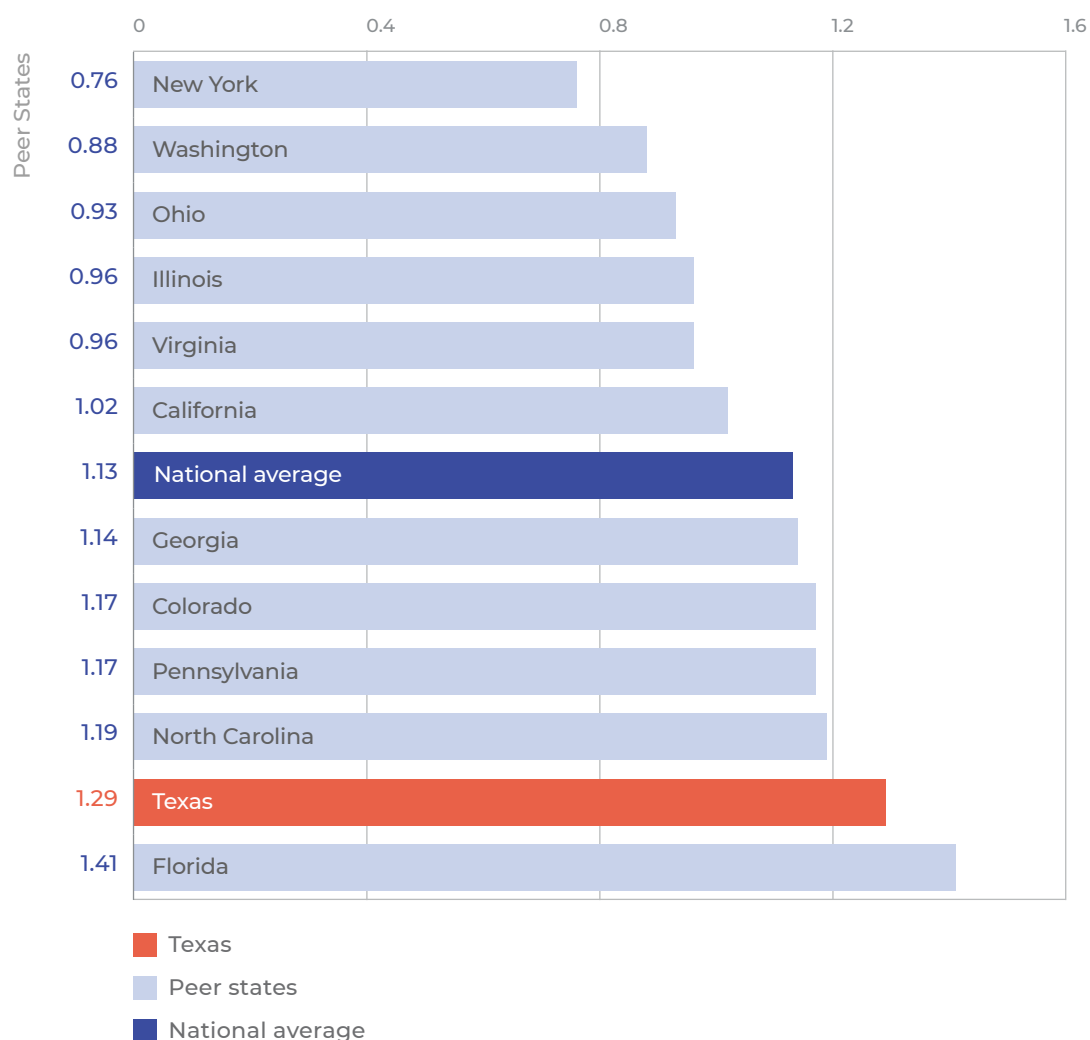
Target Background
Texas faces a difficult challenge in reducing its traffic fatality rate, due to Texans' reliance on single occupancy vehicles and the number of miles traveled. By improving its ranking among peer states, the state can help ensure a better quality of life for all Texans.

Benchmark
#11 (peers); Top 9 baseline at 1.17 fatalities per 100M VMT or lower[04-73]

Number of fatalities on roads involving at least one motor vehicle, including pedestrians and cyclists, per 100 million vehicle miles traveled, 2017 - 2018

Peer States	Value
New York	0.76
Washington	0.88
Ohio	0.93
Illinois	0.96
Virginia	0.96
California	1.02
National average	1.13
Georgia	1.14
Colorado	1.17
Pennsylvania	1.17
North Carolina	1.19
Texas	1.29
Florida	1.41

- Texas
- Peer states
- National average

<u>Other Indicators Texas 2036 is monitoring:</u>

Bridge condition: Percentage of bridges on national highway system rated in "good" or "fair" condition

Railway accidents: Number of combined passenger and freight railway accidents

GOAL 16
Digital Connectivity

Texans can digitally participate economic opportunities and essential services

Texas Today and Tomorrow

Broadband — or high-speed internet connection — is necessary for global competitiveness in the 21st century. Internet connectivity enables individuals to run businesses, find jobs, telecommute, and connect to commerce. Some identify it as the farm-to-market road of the 21st century. Without complete connectivity Texas'z economy cannot tap its full potential. Connected Nation estimates disconnected Texas households cost the state more than $5.1 billion in unrealized economic potential.[04-74]

Broadband is critical infrastructure, essential for Texans to access important services and public information. The social distancing response to COVID-19 has demonstrated the importance of high-speed internet in today's world. Connected Texans had limited challenges adjusting to new public health and safety orders. But, disconnected Texas faced significant changes accessing health care, education, and other necessary services that broadband can help deliver.[04-75]

Millions of Texans lack access to sufficient internet service, and Texas ranks last among peer states in broadband subscription, threatening our long-term competitiveness. At least 7% of all Texans currently do not have access to fixed broadband internet at the Federal Communications Commission (FCC) minimum benchmark speed.[04-76] Rural areas are disproportionately affected, with more than 31% of rural Texans lacking broadband access.[04-77] The biggest barrier to coverage is often the high "last mile" cost of connecting dispersed homes and businesses in rural areas to a central broadband provider. Four major Texas cities — El Paso, Laredo, Dallas, and Brownsville — rank as some of the the "worst connected" cities in the nation.[04-78] Thirty-five percent or more of households in these four cities lack fixed broadband subscriptions.[04-79] Existing income disparities are reflected in broadband subscription patterns: only 46% of Texas households earning less than $20,000 annually subscribe to fixed broadband, compared to 82% of households earning more than $75,000.[04-80]

Context

The Federal Communications Commission (FCC) defines broadband internet as advanced telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications.[04-81] Currently, the FCC sets the official minimum benchmark for fixed broadband service as speeds of at least 25 Mbps for downloads and 3 Mbps for uploads. [04-82]
The official FCC minimum benchmark has increased over time as new digital technology relies on higher bandwidth usage – 1 Gbps, equal to 1,000 Mbps, is an emerging

standard among stakeholders, while fifth-generation (5G) technologies promise to deliver up to 20 Gbps. [04-83]

FCC data reporting may greatly underestimate how wide the digital divide really is. According to a Microsoft study, 13.7 million Texans do not currently have access to 25/3 Mbps broadband speeds, compared to the 2.1million estimated by the FCC.[04-84], [04-85]

Broadband access is primarily driven by market forces. In Texas, the Public Utility Commission (PUC) has limited general authority over the telecommunications industry, which is largely deregulated at the state level.

10

92.7% in 2017

Flat[04-87]

Broadband coverage: Percentage of population with access to fixed broadband at FCC minimum standard (currently 25/3 Mbps or higher)[04-86]

Target
By 2036, all Texans have broadband coverage at the minimum federal standard.
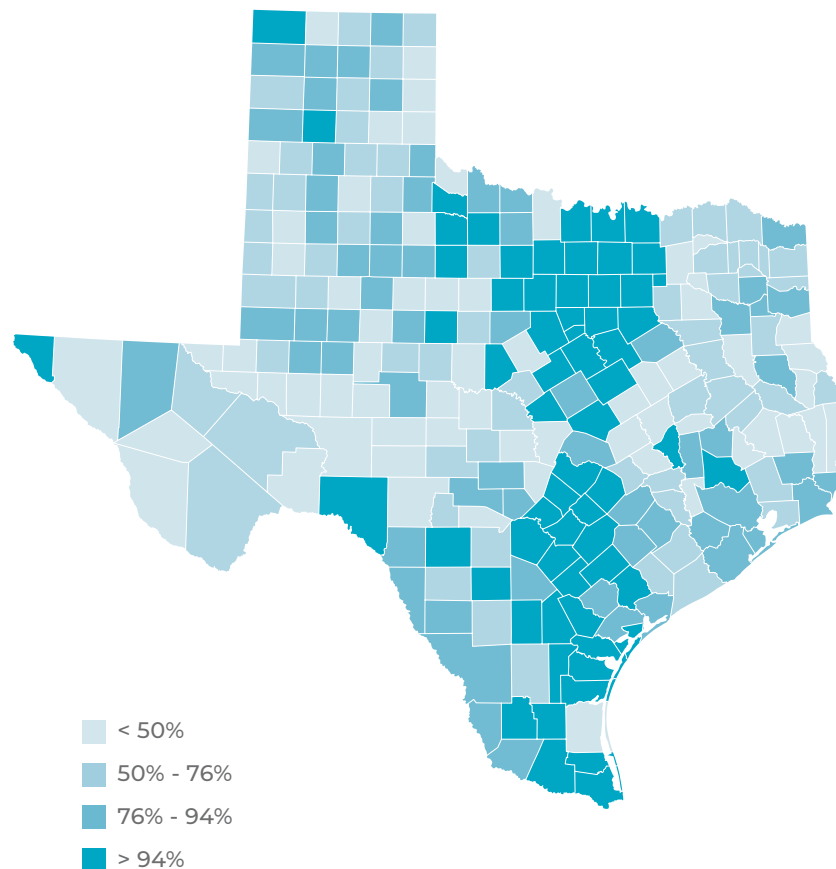
Indicator Background
Broadband connectivity provides Texans access to economic opportunities, critical services, and communications that contribute to quality of life in the 21st century. The broadband coverage indicator measures the percentage of the population with access to fixed broadband. Although the FCC data overstates connectivity, this dataset offers the opportunity to compare across states and is continuously updated by the federal government.

Target Background
To ensure continued economic prosperity and quality of life, all Texans must have access to broadband by 2036.

Benchmark
#10 (peers)[04-88]

Percentage of population with access to fixed broadband at FCC minimum standard (currently 25/3 Mbps or higher) - 2017

< 50%

50% - 76%

76% - 94%

> 94%

12

66% in 2018

Improving[04-90]

Broadband subscription: Percentage of households with subscription to fixed broadband service of any speed[04-89]

Target

By 2036, Texas will rank among the six highest in its 12-state peer group.

Indicator Background

Broadband connectivity provides Texans access to economic opportunities, critical services, and communications that contribute to quality of life in the 21st century. The broadband subscription indicator measures the percentage of the population with subscriptions to fixed broadband. Although the FCC data overstates connectivity, this dataset offers the opportunity to compare across states and is continuously updated by the federal government.

Target Background

In order for Texas to remain economically competitive and help ensure a good quality of life for all Texans by 2036, Texas must rank among the top six peer states for highest broadband subscription rates.

Benchmark

#12 (peers); Top 6 baseline at 71% or higher[04-91]

Percentage of households with subscription to fixed broadband service of any speed - 2018

No data
< 39%
39% - 46%
46% - 55%
> 55%
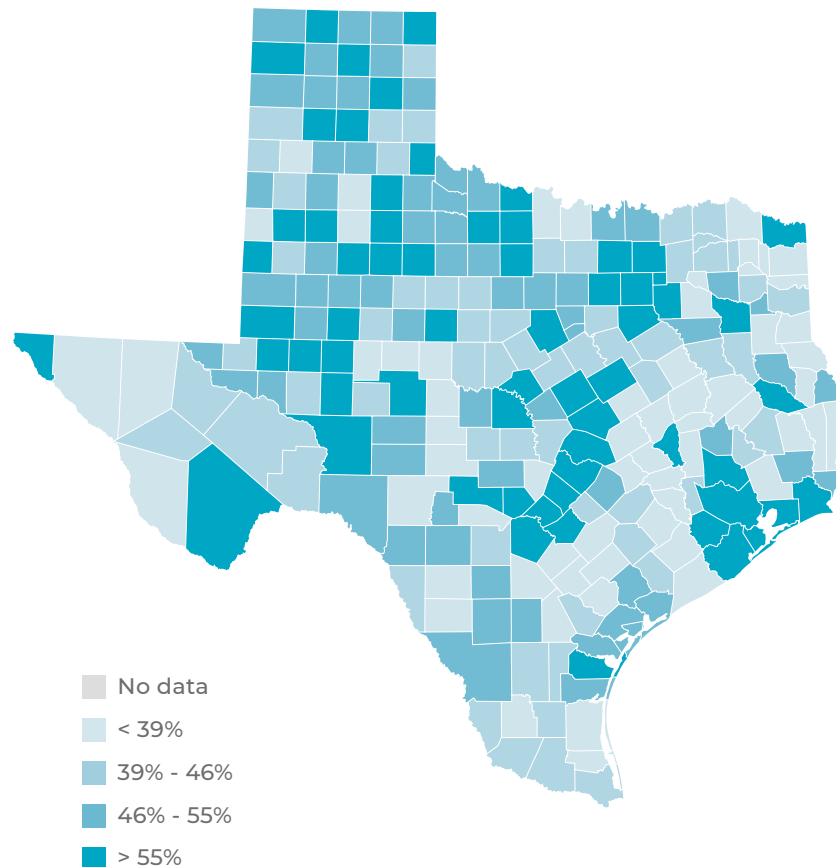
<u>Other Indicators Texas 2036 is monitoring:</u>

Choice in providers: Percentage of population with access to only one fixed broadband provider

Access at community anchor institutions: Percentage of community anchor institutions (e.g., schools, libraries, and hospitals) served by fixed broadband of at least 1 Gbps

Access in schools: Percentage of students attending public schools with at least 1Mbps of bandwidth per student

Connections

Online learning, both to obtain formal credentials and for on-the-job training, will be critical to help individuals gain in-demand skills and meet workforce needs (goal #5 and #6).

Increased broadband penetration could improve health care availability (goal #8) through telemedicine, especially in rural communities.

Broadband access enables greater access to telehealth and teleworking opportunities during public health crises, allowing additional options during public health emergencies (goal #18).

GOAL 17
Energy Distribution

Texas maintains a sufficient, reliable, and cost-competitive energy infrastructure.

Texas Today and Tomorrow

The reserve margin is the extra electricity supply in excess of demand that is needed to protect the reliability of Texas's electric grid. The Electricity Reliability Council of Texas (ERCOT) has a reserve margin target of 13.75%.[04-92] As coal plants retired in 2019, this margin dropped to 8.6% for the summer of 2019 before increasing to 10.6% for 2020.[04-93] Peak summer electricity demand in 2019 caused wholesale prices to temporarily reach historic highs, putting individuals and businesses at risk of power outages.[04-94] In addition, rural areas have faced serious constraints in energy distribution. The Panhandle and West Texas saw the highest grid congestion costs in the last two years due to limited, aging infrastructure and increased economic activity.[04-95]

The low cost of electricity helps attract businesses and individuals to the state. Texas's electric prices have been among the lowest in the nation and stable for many years.[04-96] Industrial users, including the major petroleum refining, chemical manufacturing, and high-tech manufacturing sectors, consume half of all electricity generated. [04-97] Recently, Facebook, Google, and other large technology companies announced plans to invest hundreds of millions of dollars to build power-intensive data centers in the state — cheap electricity costs were cited as the most significant selection factor. [04-98], [04-99], [04-100]

Context

Texas is the only one of the lower 48 states with its own electric grid, which serves 90% of the state's electric load (equivalent to 25 million customers).[04-101] West Texas, the Panhandle, and portions of East Texas are not served by ERCOT.[04-102] The Texas electricity market is composed of municipal owned utilities, electric cooperatives primarily servicing rural Texas, and a number of retail electric providers. Unlike other states that have a single provider regulated as a public utility, the Texas electricity market is largely deregulated with multiple retail electric providers competing against each other. Deregulation allows many consumers to choose their retail electric provider, which purchases electricity from generators and aims to set the most competitive and attractive rates for consumers.[04-103] To facilitate the deregulated market, ERCOT operates Texas's electric grid and manages the flow of electricity. ERCOT is overseen by the Public Utility Commission of Texas as a membership-based non-profit with representation from independent generators, retail electric providers, and investor-owned utilities.[04-104] Austin and San Antonio, among other jurisdictions, stand apart as ERCOT territories that lack market competition. Rather than allowing for customer choice, these areas operate under monopolies controlled by municipally owned utilities.

11% predicted for 2020

Flat[04-106]

Electricity sufficiency: Percentage difference between the forecast total generation available and the forecast peak demand in the following year[04-105]

Target
By 2036, Texas will meet ERCOT's standard reserve margin target for electricity of 13.75%.

Indicator Background
Reserve margins ensure sufficient power is available to meet future demands in case of unexpectedly high usage or low generation. Texans expect their lights and air conditioners to turn on when they flip the switch. ERCOT sometimes experiences challenges maintaining the supply of electricity, especially during summer months, so the agency sets a reserve margin needed to ensure sufficient power is available for Texans and businesses. The electric sufficiency indicator measures the percentage difference between the forecast total generation available and the forecast peak demand.
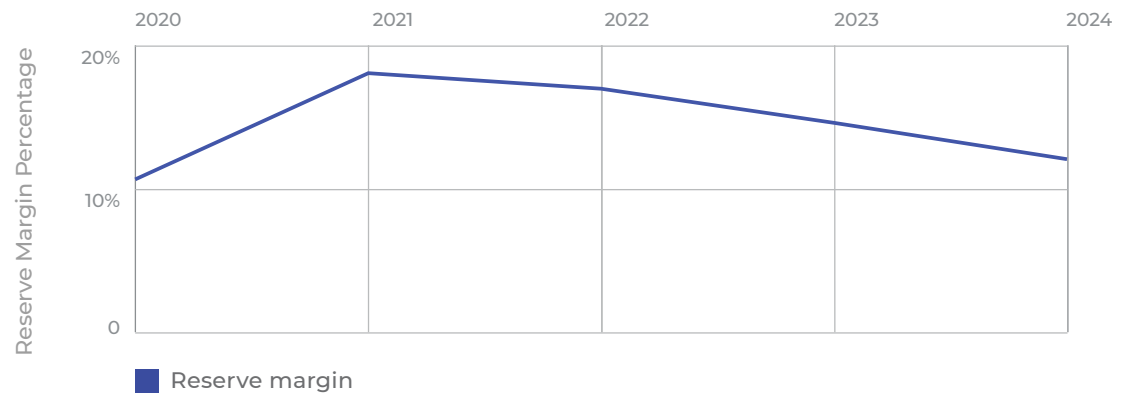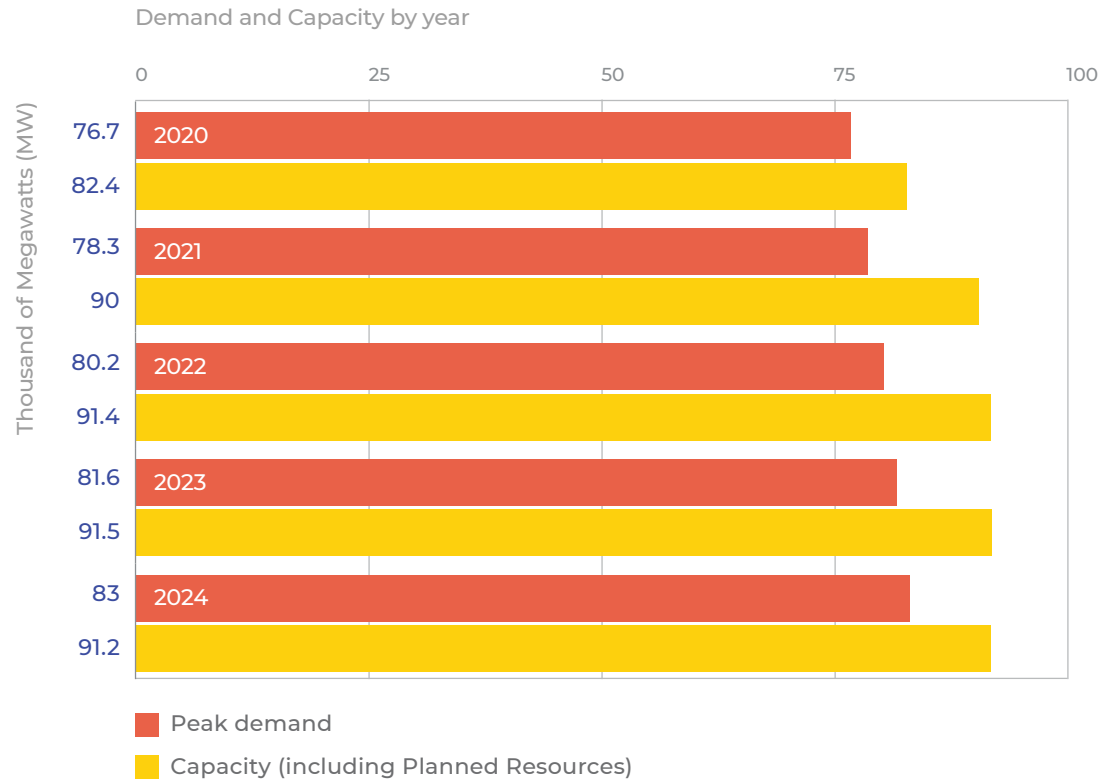
Target Background
The ERCOT Board of Directors set 13.75% as the reserve margin, a level that should ensure Texans' electric needs are covered in the case of unexpectedly high demand or generation plant outages.

Benchmark
No peer-state benchmark exists. Texas will be compared against itself, because it is the only state in the lower 48 states with its own power grid.

Percentage difference between the forecast total generation available and the forecast peak demand in the following year

Demand and Capacity by year

Thousand of Megawatts (MW)		
76.7	2020	
82.4		
78.3	2021	
90		
80.2	2022	
91.4		
81.6	2023	
91.5		
83	2024	
91.2		

■ Peak demand
■ Capacity (including Planned Resources)

Reserve Margin Percentage

■ Reserve margin

2

8.5 cents/kilowatt
hours (kWh) in 2018

Flat[04-109]

Electricity prices: Average price paid for electricity across all end user sectors[04-107]

Target
By 2036, Texas will remain among the six lowest in its 12-state peer group.

Indicator Background
Texas retail electric prices have been among the lowest in the nation and stable for many years, adding to Texas's quality of life and business-friendly environment.[04-108] The electric prices indicator measures the average price paid for electricity across all end-user sectors, including residential, commercial, industrial, and transportation sectors.

Target Background
Increasingly hot summers add to electricity demand and wholesale price peaks. In order for the state to preserve its quality of life and business-friendly environment, Texas must remain in the top six among peer states for electricity affordability.

Benchmark
#2 (peers); Top 6 baseline at 9.6 cents/kWh or lower[04-110]

Average price paid for electricity across all end user sectors

Legend:
- Texas
- Peer states
- Best - Washington
- Worst - California
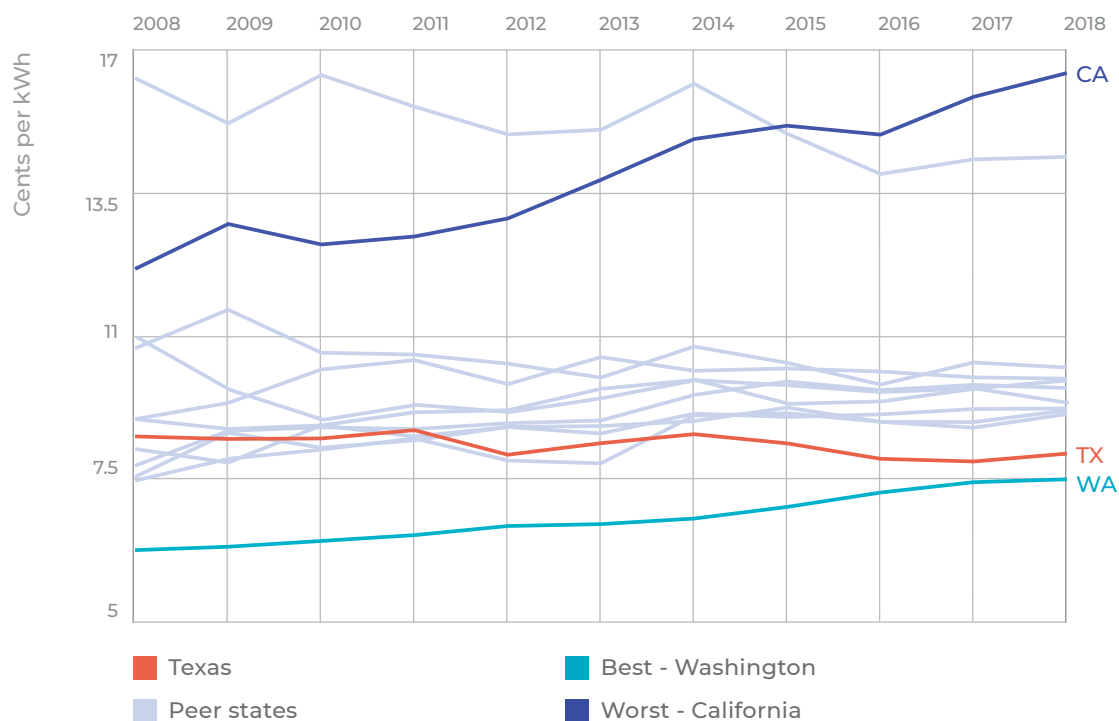
Other Indicators Texas 2036 is monitoring:

Grid congestion cost: Additional costs of moving power due to physical limitations of transmission infrastructure

GOAL 18
Crisis Readiness

Texas is ready to address the human, economic, and environmental consequences of natural disasters and hazards.

Texas Today and Tomorrow

Texas is at high risk for natural and manmade disasters. Since 2000, Texas has seen nearly 80 weather and climate disasters with losses exceeding $1 billion each, the most high-cost disasters in the U.S.[04-111] Nearly every major city in Texas is vulnerable to flooding because of their proximity to Gulf Coast hurricanes or "Flash Flood Alley."[04-112] Hurricane Harvey alone inflicted $125 billion in damages and necessitated the evacuation of over 780,000 Texans.[04-113]

Pandemics and emerging diseases have also disproportionately impacted Texas this decade. After successfully containing Ebola in the Dallas area in 2014, Texas is currently addressing the global uncertainties caused by the outbreak of COVID-19. The growth of urban populations in Texas has increased the risk and potential consequences of pandemics and other manmade hazards. Simultaneously, rural communities can sometimes better manage the impact of disease and other hazards with a more dispersed population, but they often lack financial resources or hospital infrastructure to effectively prepare for and respond to such hazards.[04-114]

Texas' infrastructure systems are key to minimizing adverse outcomes when communities face hazards. Resiliency requires preparedness across all forms of infrastructure. For example, resiliency against floods depends on well-maintained dam infrastructure and fortified buildings. Rapid communication of information to the public, and coordination of emergency response teams, requires available digital infrastructure. Resiliency against pandemics requires coordination across all levels of the government and into the private sector to prevent loss of life, maintain hospital capacity, and ensure functioning supply chains for the public.

Investment in preparedness and resilience provides significant savings down the road. A report produced by the Texas General Land Office on the response to Hurricane Harvey found that "for every dollar invested in disaster mitigation, fortification of buildings, and resilience, four dollars are saved in the reduced need for hurricane response and recovery funding."[04-115] Similar analysis, after the COVID-19 crisis subsides, can provide additional insight into pandemic preparedness.

Context

Although on-the-ground response to hazards is managed at the state and local levels, the federal government plays the largest role in providing funding for hazard response. To receive disaster funding in the majority of cases, the federal government needs to issue a disaster declaration. State and local funding matches are also required.[04-116]

In the aftermath of Hurricane Harvey, Texas lawmakers passed several bills addressing disaster resiliency. These bills called for official regional and state flood plans to be developed and managed by the Texas Water Development Board.[04-117] Additionally, lawmakers created the Texas Infrastructure Resiliency Fund and the Flood Infrastructure Funds to provide disaster relief and assist communities with flood-control projects.[04-118]

New non-weather hazards have emerged due to rapid changes in technology and demographics. Texas's critical communications, electricity, and industrial infrastructure are highly digitized and interconnected, making them potential targets for cyber-threats.[04-119] Because Texas has some of the busiest hubs for international trade and travel in the United States, history has shown that our state is also uniquely susceptible to emerging and re-emerging infectious diseases.[04-120]

9

6.5 out of 10 [04-123]
(2019)

Improving[04-124]

Emergency preparedness: State preparedness for, response to, and recovery from large-scale emergencies, as measured by the National Health Security Preparedness Index (NHSPI) [04-121],[04-122]

Target
By 2036, Texas will remain among the top six highest in its 12-state peer group.

Indicator Background
In order for the state to protect the safety, quality of life, and economic prosperity of all Texans, Texas must ensure that it can appropriately respond to and recover from any significant emergency event. The emergency preparedness indicator measures the state's preparedness for, response to, and recovery from large-scale emergencies using a confidence interval scale of 1 through 10, with 10 being the best.
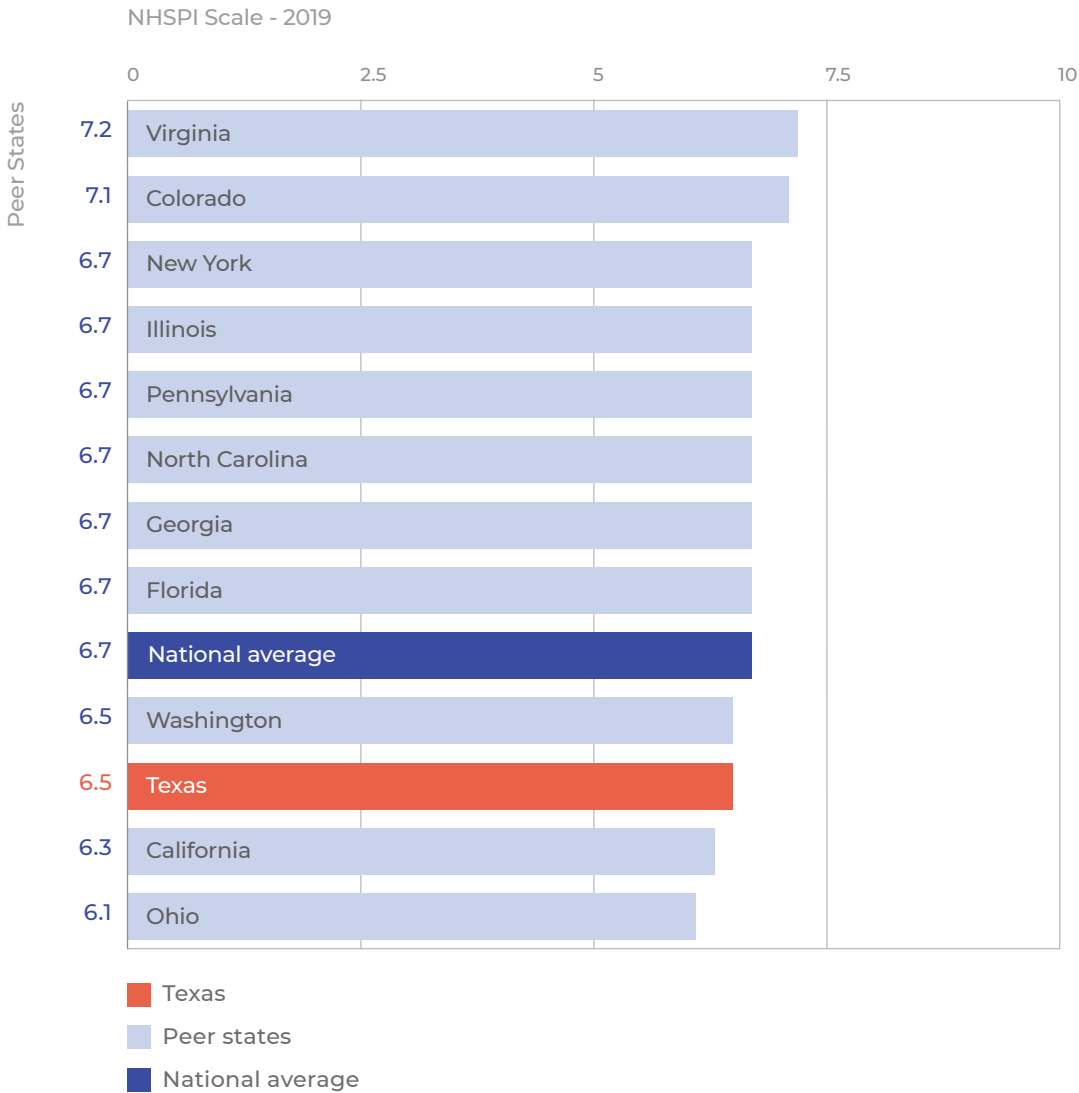
Target Background
Texas has shown resilience and grit through significant large-scale emergencies in the past. Texas' current confidence interval is 6.5, ranking the state in the Top 9 of its peer group. Texas must improve on this ranking to help preserve the safety, quality of life, and economic prosperity of all Texans.

Benchmark
#9 (peers); Top 6 baseline at 6.7 or higher[04-125]

State preparedness for, response to, and recovery from large-scale emergencies, as measured by the National Health Security Preparedness Index

NHSPI Scale - 2019

Peer States	NHSPI Scale
Virginia 7.2	
Colorado 7.1	
New York 6.7	
Illinois 6.7	
Pennsylvania 6.7	
North Carolina 6.7	
Georgia 6.7	
Florida 6.7	
National average 6.7	
Washington 6.5	
Texas 6.5	
California 6.3	
Ohio 6.1	

Legend:
- Texas
- Peer states
- National average

Other Indicators Texas 2036 is monitoring:

Projected risk: Estimated risk and impact to communities for various natural disaster types

Natural disaster resiliency: Percentage of counties that are less resilient, compared to U.S. regional averages measured by the Climate Resilience Screening Index

Influenza and pneumonia mortality: Number of deaths in Texas where the underlying or contributing cause is reported as influenza and/or pneumonia
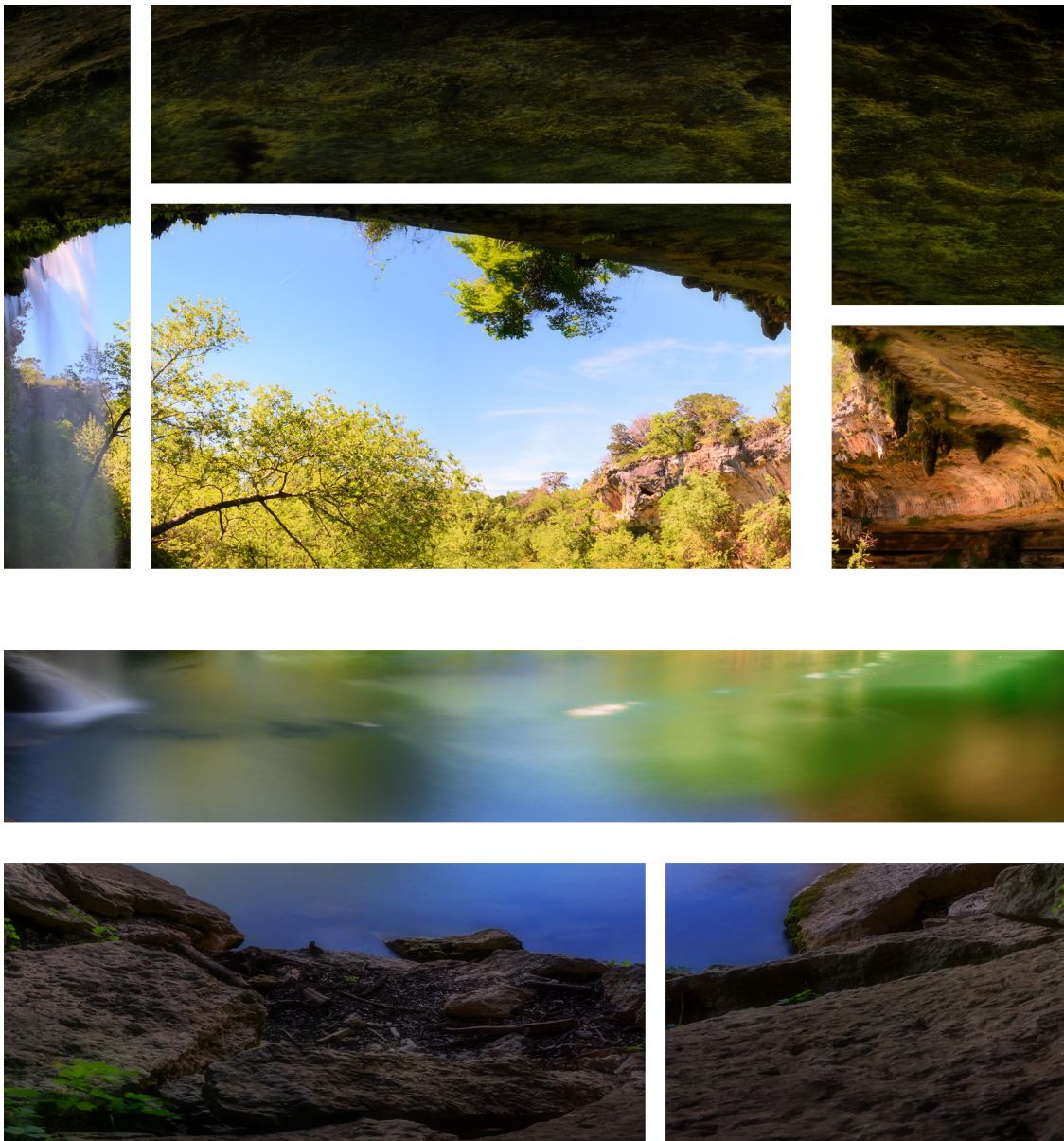
Pillar 05
Natural Resources

Texas manages natural resources to promote quality-of-life, economic advantage, and environmental stewardship.

Goal: QUALITY OF AIR

Air quality nonattainment

Goal: SUFFICIENT WATER

Water shortage

Goal: QUALITY OF WATER

Drinking water attainment

Goal: PARKS AND WILDLIFE

Preserved acres

Park utilization

Goal: AGRICULTURAL PRODUCTION

Agricultural output per capita

Agricultural water efficiency

Goal: ENERGY DISTRIBUTION

Traditional energy production

Renewable energy production

Carbon intensity

How to read

Baseline

Not compared to peer states

On target

Approaching target

Off target

12 Peer rank

Trend

None

Improving

Flat

Worsening

Mixed

Focus

Millions of Texans currently lack clean air and water. Sixty percent of all Texans live in areas that fail to meet federal air standards.[05-1] These individuals, especially children and the elderly, are at increased risk of chronic lung and breathing quality problems. [05-2] Over 400 public water systems, most in rural areas, are designated as serious violators of federal water quality standards.[05-3] These communities have water contaminated with chemicals, heavy metals, and microbes that are public health risks.[05-4]

Texas industries and municipalities risk water shortages. Statewide, unmet water needs currently exceed 4.8 million acre-feet per year, and demand is growing.[05-5], [05-6] Unless these water needs are addressed, Texas could experience $73 billion in lost economic value annually.[05-7] Growing water shortages — the difference between supply and demand during a drought — will limit the future viability of Texas agriculture, as major groundwater resources are being depleted faster than they can be replenished.

Texas's open spaces and wildlife need to be preserved for future generations to enjoy. For the last 15 years, more than 80% of Texans have affirmed that "unless we protect Texas's natural areas, we will lose the very things that make Texas a special place in which to live."[05-8] As urban development accelerates with population growth, preservation will become even more urgent.

Abundant natural resources have allowed Texas to prosper, but continued success depends on balancing economic growth with stewardship of air, water, and land. Texas's agricultural and energy production contributes billions to state GDP and provides jobs for more than one in seven Texans.[05-9], [05-10] The state's future success requires a balance between leading in these industries and ensuring Texans have sufficient and clean water, healthy air, and the ability to enjoy the land and wildlife.

Goals and Targets for Texas in 2036

Goal #19 - Quality of air: Texans have clean air.
- **Target:** All Texans live in areas that meet federal air quality standards by 2036.
- **Baseline:** 60% of Texans live in counties that fail to meet federal air quality standards.

Goal #20 - Sufficient water: Texans can rely on a sufficient water supply.
- **Target:** Texas reduces its water shortage by 40% in 2036 (2.3 million additional acre-feet of water per year).
- **Baseline:** Texas's water shortage is 5.6 million acre-feet per year.

Goal #21 - Quality of water: Texans have clean water.
- **Target:** 100% of Texas water systems are in regular compliance with drinking water standards by 2036.
- **Baseline:** 97% of Texas water systems meet drinking water standards.

Goal #22 - Parks and wildlife: Texas protects and enhances its state parks, public and private open spaces, and wildlife.
- **Target:** Texas maintains current ratios of 68 acres of preserved lands per 1,000 Texans and 306 park visits per 1,000 Texans in 2036.
- **Baseline:** Texas has 68 acres of preserved lands per 1,000 Texans and 306 park visits per 1,000 Texans.

Goal #23 - Agricultural production: Texas leads in agricultural production with responsible natural resource stewardship.
- **Target:** Texas ranks in the top six highest in agricultural output per capita among its group of 12 peer states while maintaining water use of 0.55 acre-feet per acre by 2036.
- **Baseline:** Texas is ranked eighth in agricultural output per capita among peer states and has water use of 0.55 acre-feet per acre.

Goal #24 - Energy production: Texas leads in energy production with responsible natural resource stewardship
- **Target:** Texas leads peer states in traditional and renewable energy production and ranks in the top three for lowest carbon intensity by 2036
- **Baseline:** Texas is ranked first among peer states for traditional energy production, third for renewable energy production, and fourth in carbon intensity among peer states

Context

Responsibility for Texas's natural resources is divided among all levels of government as well as private actors who hold water, mineral, and land rights.

The majority of standard-setting takes place at the national level, through federal legislation and regulatory agencies. The Environmental Protection Agency sets national standards for air and water quality and has a reduced role in quality monitoring. [05-11], [05-12] The U.S. Congress regularly passes new farm bills, which define guidelines and eligibility for risk management, disaster assistance, and conservation programs that provide support for farmers.[05-13]

State-level agencies are responsible for monitoring, permitting, and enforcing standards for natural resources. The Texas Commission on Environmental Quality has regulatory oversight over air emissions, water use, and water quality.[05-14] The Texas Water Development Board assists Texas communities with financing water infrastructure, coordinates the state water planning process, and monitors water-related data. [05-14] The Texas Railroad Commission regulates mineral activity, including permitting and reporting for oil and gas production.[05-15]

The Legislature appropriated roughly $9 billion for the 2020-21 biennium for natural resources agencies.[05-17] Federal sources made up about 70% of these funds. [05-18] Outside of its legislative appropriations, the Texas Water Development Board has provided $29.2 billion in financing for water infrastructure projects since the agency's inception in 1957.[05-19]

In Texas, private owners play a significant role in natural resource management. Eighty-three percent of land in Texas is classified as privately-owned working land, and under state law, groundwater and mineral rights can be transferred separately from the surface rights.[05-20],[05-21] Development of water, land, and mineral rights for economic benefit usually requires approval from state agencies and is subject to reg-

Trends

ulation.

Population growth is a major driver of increasing water need and worsening air quality. Municipal water use is projected to be the fastest-growing segment of water demand as the population of Texas increases. Municipal demand may increase 23% by 2040, requiring an additional 1.2 million acre-feet of water per year.[05-22] Additionally, with roughly 90% of Texas's population growth projected to occur in urban areas, improving air quality in those areas will be a significant challenge.[05-23] Greater transportation emissions from traffic congestion and the use of traditional vehicles will play a large factor in increasing air pollution.

Climate effects will increase the challenge of meeting air quality, water supply, and water quality goals. The number of 100-degree days is expected to double, reaching 24 per year by 2036.[05-24] Since ozone is emitted faster from industrial and transportation sources at higher temperatures, air pollution is likely to worsen. The water supply will come under strain if extreme heat increases evaporation of surface water supplies, reduces regular rainfall, and produces drier soils – thus requiring more water for crop irrigation.[05-25] Finally, increased flooding associated with hurricanes will likely introduce foreign contaminants into water supplies.[05-26]

GOAL 19
Quality of Air
Texans have clean air.

Texas Today and Tomorrow

Sixty percent of all Texans live in one of Sixty percent of all Texans live in one of twenty-five counties that fail to meet federal air standards — these are called non-attainment areas. [05-27] This population has increased 8% since 2016, when stricter federal standards and population growth caused additional counties to be designated as nonattainment areas.[05-28] At least 12 counties in Texas have failed to meet air quality standards since 1992.[05-29] The economic implications are significant: a nonattainment county faces additional federal review and other requirements for transportation projects and emission sources (such as industrial plants), which can significantly affect local and state economies.[05-30]

Of the 25 major metropolitan areas with the most-polluted air, Texas has three: Houston, Dallas-Fort Worth, and El Paso.[05-31] This poses serious health risks to residents in those areas. The two major pollutants in Texas, ozone and particulate matter, can exacerbate asthma and cause chronic lung issues, especially among vulnerable populations like children and the elderly.[05-32] An estimated 710,000 Texas children — 10% — have at one point been diagnosed with asthma.[05-33]

Context

The Texas Commission on Environmental Quality (TCEQ) monitors air quality throughout Texas and ensures compliance with minimum federal standards for six air pollutants: carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, and particulate matter.[05-34] The Environmental Protection Agency (EPA) periodically revises these federal standards, most recently in 2015.[05-35] The TCEQ also develops the State Implementation Plan (SIP), Texas's federally required plan for ensuring air meets health standards. The SIP details how nonattainment counties should reduce emissions and improve air quality. The EPA provides deadlines for attainment that range from three to 20 years, based on how severe air pollution is in a county.[05-36] Most Texas counties have a deadline to be compliant with federal air quality standards by 2021.[05-37]

7

60% in 2018

Worsening[05-39]

Air quality nonattainment: Percentage of population living in areas that do not meet attainment standards for all pollutants under current National Ambient Air Quality Standards (NAAQS)[05-38]

Target

By 2036, no Texans will live in nonattainment areas.

Indicator Background

Air pollution poses serious health risks to the public and significantly reduces quality-of-life for all Texans. The air quality nonattainment indicator measures the percentage of Texas's population living in nonattainment areas that have pollution levels higher than acceptable federal standards. Nonattainment areas are designated by the EPA based on air quality monitoring data; one nonattainment area may consist of multiple adjacent counties failing to meet federal standards.

Target Background

Living in areas with air quality that meets acceptable federal standards contributes to Texans' quality-of-life. The state must ensure that no Texan lives in a nonattainment area by 2036 to ensure no Texan's health is disproportionately impacted by air pollution.

Benchmark

#7 (peers)[05-40]

Population living in areas that do not meet attainment standards for all pollutants under current National Ambient Air Quality Standards (NAAQS)

< 118,000

118,000 - 350,000

350,000 - 1,715,000

> 1,715,000
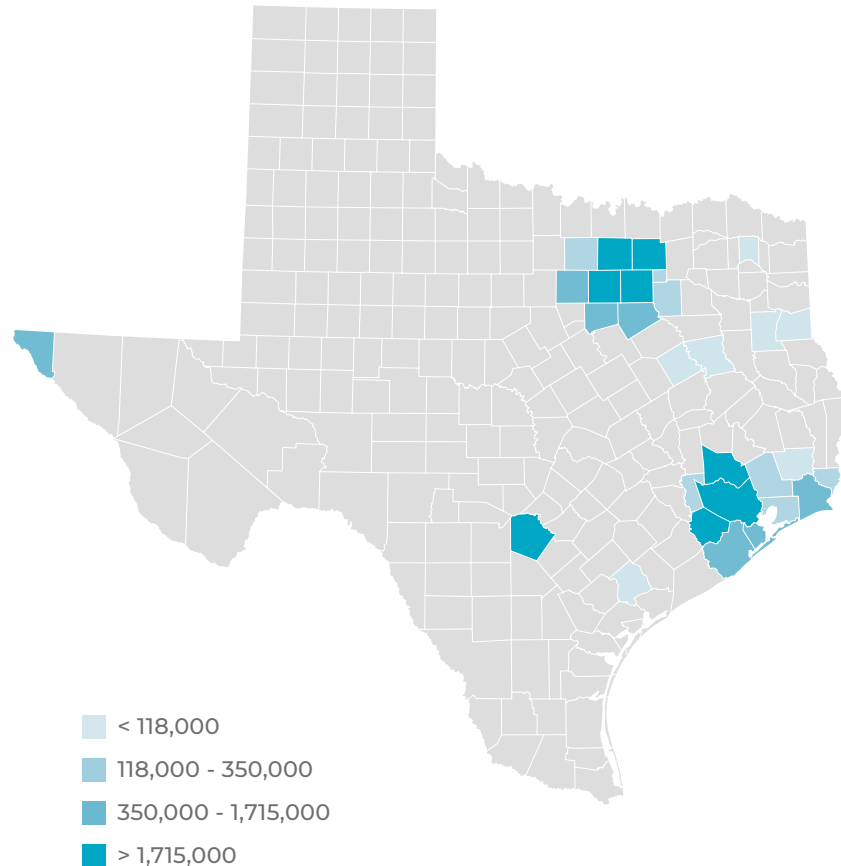
<u>Other Indicators Texas 2036 is monitoring:</u>

Air quality warnings: Number of days out of total reported days with an Air Quality Index (AQI) rating from "Unhealthy for Certain Groups" to "Hazardous."

Particle pollution: Percentage of population living in counties with annual particulate matter (PM) 2.5 values greater than the national standard.

Ozone pollution: Percentage of population living in counties with 8-hour ozone values greater than the national standard.

Connections

High levels of ozone pollutants, the most common cause for nonattainment in Texas urban areas, are generated from motor vehicle exhaust. Reducing congestion and use of single-occupancy vehicles (Goal #13) on Texas roads would materially improve urban air quality.[05-41]

Poor air quality can harm overall population health and cause more serious harm to those with chronic health conditions (Goal #11).

GOAL 20
Sufficient Water

Texans can rely on a sufficient water supply.

Texas Today and Tomorrow

Due to urban population growth, municipalities face a high risk of potential water shortages. Municipal water use represents 28% of all water use in Texas today, the second largest segment after irrigation.[05-42] But demand for municipal water may increase as much as 23% by 2040, meaning municipalities will use an additional 1.2 million acre-feet of water annually.[05-43] This growth will not be met by Texas's current water supplies. Municipal water demand is projected to exceed supply by 1.5 million acre-feet in 2040, leaving communities vulnerable to water shortages during droughts.[05-44] These water shortages are impacting communities even before 2040: during the last major drought, from 2011 to 2015, 110 cities or water systems came within six months of running out of water.[05-45]

The size of Texas's unmet water needs in a drought is widening, leading to greater economic losses during a water shortage. The statewide water need doubled between 2000 and 2020 due to increased economic activity and population growth.[05-46] In 2020, the state's projected water shortage, should a drought of record occur, is 4.8 million acre-feet.[05-47] Oil and gas production, agriculture, and energy generation constitute 70% of all water used in Texas.[05-48] Additionally, due to intense use of groundwater for irrigation, groundwater supplies are projected to decrease by four percentage points each decade.[05-49] If water needs are not met, Texas could experience an estimated $73 billion in economic losses annually.[05-50]

Climate effects are decreasing water supply and increasing drought severity, but our water planning is not keeping up. Texas could see increased evaporation and faster depletion of surface-water supplies in the future, but water planning processes may not account for changing environmental conditions.[05-51] According to the state climatologist, climate effects may affect the water supply by as much as 15% in the next 50 years, creating greater potential shortages that are not accounted for in the state water plan.[05-52]

Context

Every five years, the state creates a State Water Plan to ensure that Texas has adequate water supplies in times of drought.[05-53] The 77-month drought of the 1950s is used as the benchmark for water planning, representing the worst-case scenario when water demands are highest and supplies are lowest.[05-54] Sixteen regional water planning groups develop water management strategies to ensure available water supplies meet local demands over a 50-year time horizon. The state resolves any conflicts between regional water plans before compiling a State Water Plan.[05-55]

The State Water Plan provides detailed estimates of water use patterns for each of the next five decades. The estimated water demand represents how much water each category of users is expected to use. Estimated water supplies represent how much water is physically and legally available to be produced and delivered during drought-of-record conditions. Water shortages occur when the existing water supply is less than the projected future water demand.[05-56]

Texas has a complex water law system, due to separate legal treatments of surface water and groundwater rights. Generally, groundwater is the private property of the landowner that the water lies beneath.[05-57] The owner is allowed to pump as much groundwater as they can capture, regardless of the effects on neighboring wells.[05-58] However, 98 Groundwater Conservation Districts exist across Texas to manage groundwater use through local water withdrawal rules.[05-59]

Surface water, by contrast, is owned by the state and managed by the Texas Commission on Environmental Quality, which issues use permits to private users, businesses, and municipalities.[05-60] During times of shortage, the owner with the earliest permit date is entitled to receive all of their water before holders of permits with later dates.[05-61]

5.6 million acre feet.

Worsening[05-64]

Water shortage: The gap between projected supply and projected demand of water under drought-of-record conditions in 2030 [05-62]

Target

Texas will reduce its statewide water shortage by 40% of current projected levels. [05-63]

Indicator Background

Water is essential to human, animal, and plant life. Water shortages threaten Texas's economic productivity and quality-of-life. The State's Water Plan measures Texas's water shortage — the difference between the projected water supply and projected demand under significant drought conditions — in 10-year increments. The most recent plan projects the state will have a statewide water shortage of 5.6 million acre-feet in 2030 should a significant drought occur. The water shortage indicator uses data from the State Water Plan to measure the state's water shortage and uses 2030 as a proxy for 2036.

Target Background

The 2030 statewide water shortage is projected at 5.6 million acre-feet. The average water shortage across all 16 planning regions is 350,000 acre-feet, with five regions exceeding this amount. Reducing the average shortage in these five regions to the current average shortage for all 16 regions would, in turn, reduce the projected statewide water shortage by 40%. These five regions include some of the state's largest municipalities and agriculture industries. Improving conservation practices statewide will ensure Texas maintains its quality-of-life and economic prosperity into 2036.

Benchmark

This indicator is not currently assessed against peer states. Benchmarking omitted due to demographics, industries, and methodology differences for water use across states.

The gap between projected supply and projected demand of water under drought-of-record conditions in 2030 (acre-feet per year)

- < 111
- 111 - 1960
- 1960 - 11,480
- > 11,480
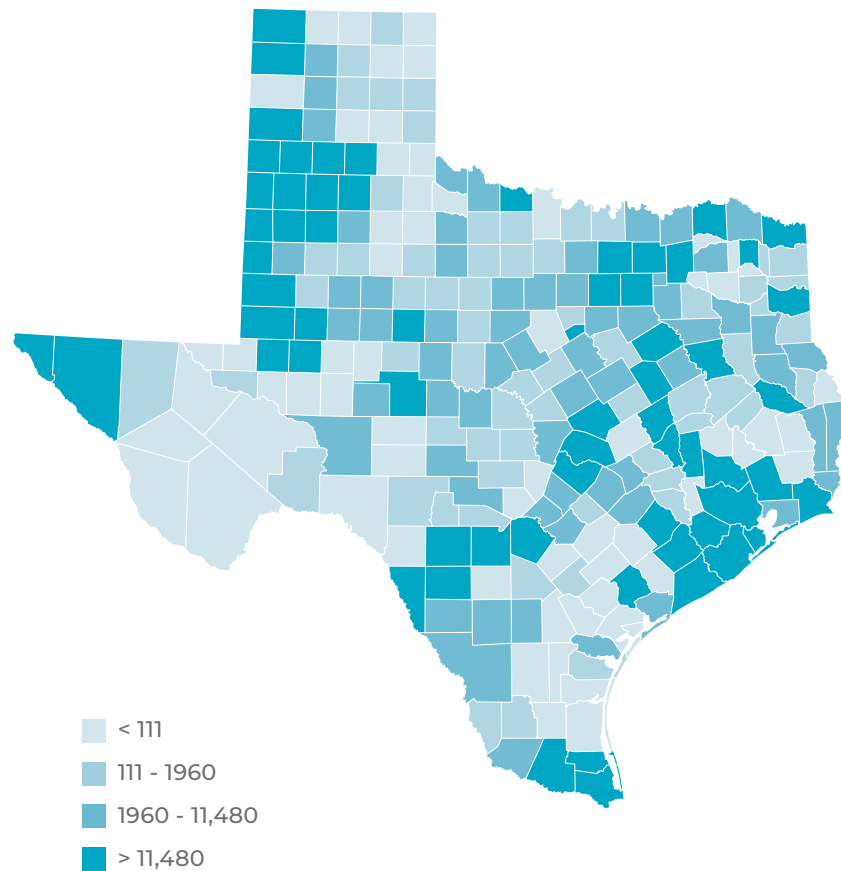
Other Indicators Texas 2036 is monitoring:

Daily water use per person: Amount of residential water used per day, per capita, delivered through Texas water utilities

Connections

Municipal water loss due to leakage

Texas's agricultural production (Goal #23) generates enormous value for the state but is highly water-intensive. Irrigation makes up 50% of water use in Texas today.[05-65] Fast-depleting water resources require growers and researchers to find innovative, sustainable solutions for reducing water use.

GOAL 21
Quality of Water
Texans have clean water

Texas Today and Tomorrow

While most Texans have access to clean drinking water, more than 400 public water systems across the state have been designated "serious violators" by the Environmental Protection Agency (EPA). [05-66] Serious violator water systems have chronic uncorrected violations, usually across multiple health-based standards. Chronic exposure to contaminated water can lead to severe health consequences. Drinking water contaminated with microbes can cause fevers, kidney failure, and infectious diseases. [05-67] Exposure to chemicals like lead, copper, and radionuclides (radiation hazards) in water can cause birth defects, nervous system effects, gastrointestinal illness, and increased risk of cancer.[05-68]

The number of serious violators has declined since 2013, but small public water systems, challenged by limited resources, are falling behind in efforts to maintain water quality. [05-69] Of the 7,000 public water systems, in Texas, 60% are designated as "very small" public water systems serving populations of 500 people or less.[05-70] These systems are disproportionately located in rural communities. Nearly 10% of these systems are serious violators, more than twice the national average.[05-71] These small public water systems are often insufficiently monitored — only 20% receive site inspection visits annually, half the national average.[05-72] Consequently, many rural communities have potentially undetected violations.

Context

The Clean Water Act and the Safe Drinking Water Act establish minimum federal water quality standards, which Texas adopts and enforces. [05-73], [05-74] The state partners with local water districts to monitor and test the quality of drinking water and water bodies to ensure levels of contaminants do not exceed the maximum levels defined in federal standards.[05-75], [05-76] To determine serious violator status, the EPA assigns either one, five, or ten points to each uncorrected violation based on its severity. Any public water system scoring eleven points or more is designated a serious violator. [05-77]

12

93% in 2018

Improving[05-79]

Drinking water attainment: Percentage of public water systems (PWS) not identified as a Serious Violator based on uncorrected violations[05-78]

Target
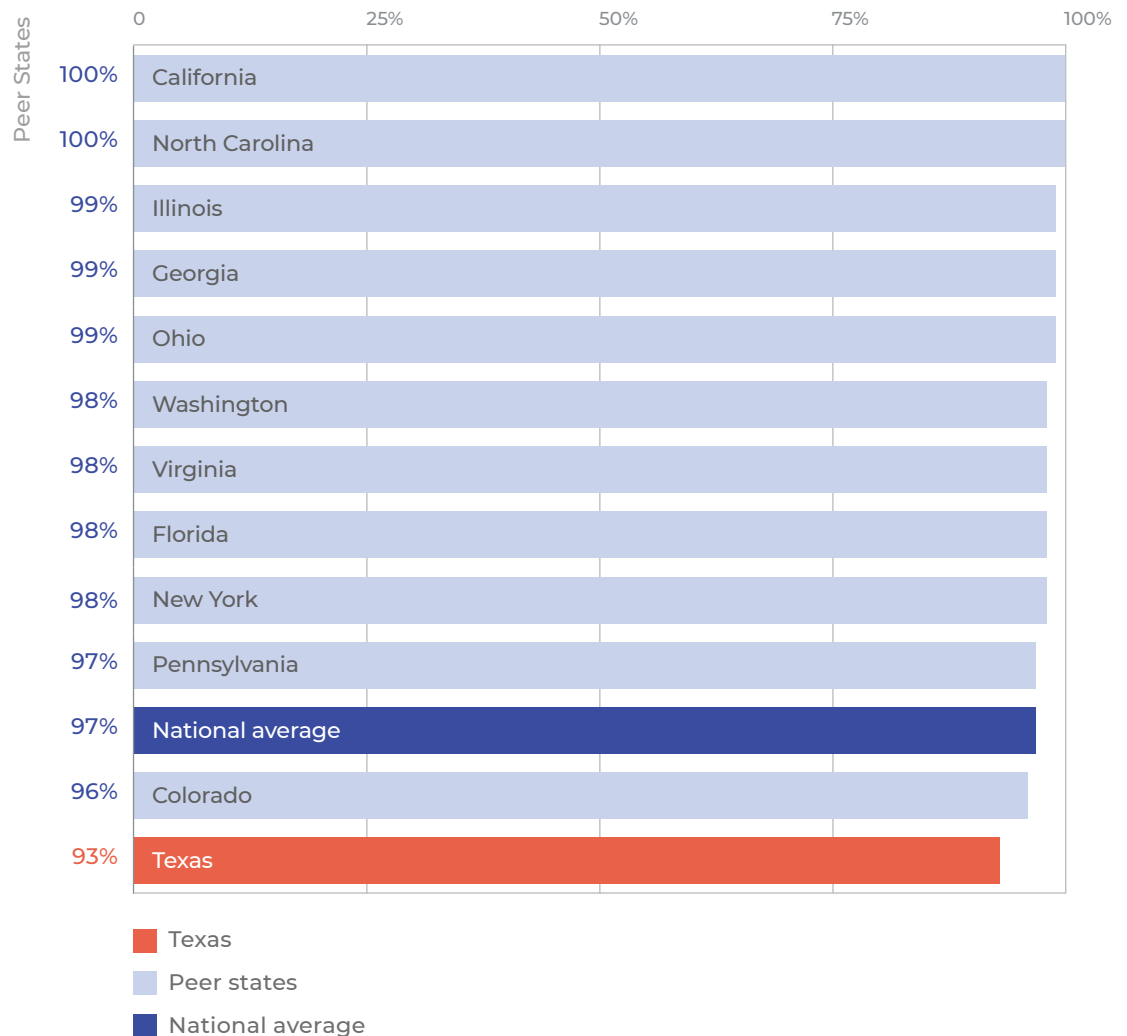By 2036, 100% of Texas water systems will not be identified as serious violators.

Indicator Background
Safe drinking water is a basic necessity for all Texans to prevent the spread of disease and other contaminants. Under the authority of the Safe Drinking Water Act, the EPA sets standards and oversees implementation of the drinking water program. The drinking water attainment indicator uses data from the EPA and shows the percentage of public water systems not identified as serious violators.

Target Background
Safe drinking water is a basic necessity that needs to be available to all Texans. Therefore, 100% of Texas water systems will not be identified as serious violators by 2036.

Benchmark
#12 (peers)[05-80]

Percentage of public water systems (PWS) not identified as a Serious Violator based on uncorrected violations - 2018

Peer States		
100%	California	
100%	North Carolina	
99%	Illinois	
99%	Georgia	
99%	Ohio	
98%	Washington	
98%	Virginia	
98%	Florida	
98%	New York	
97%	Pennsylvania	
97%	National average	
96%	Colorado	
93%	Texas	

- Texas
- Peer states
- National average

Other Indicators Texas 2036 is monitoring:

Non-compliant water systems: Percentage of public water systems not in compliance with major testing, monitoring, and reporting procedures.

Surface water quality: Percentage of surface water bodies inspected found to have major impairments.

Connections

Poor water quality can negatively impact population health (goal #11) and, in some circumstances, negatively impact academic performance for students (goals #3 and #4).

GOAL 22
Parks and Wildlife

Texas enhances and protects its state parks, public and private open spaces, and wildlife.

Texas Today and Tomorrow

Parks, open spaces, and wildlife provide significant ecological and economic benefits to communities while improving Texans' quality-of-life. Natural lands filter air and water pollutants, and they minimize the impact of disasters through flood mitigation.[05-81],[05-82] They also provide unique cultural and recreational opportunities, which are listed as a factor in quality-of-life indices. [05-83] Wildlife activities provide economic benefits to Texas communities. In 2019, the state spent $442.5 million on parks and wildlife recreation.[05-84]

Acreage of public and private protected lands has grown, but not as fast as Texas's rapid population growth and urban development. Maintaining the current ratio of 75.5 protected acres per 1,000 Texans in 2036 may require an estimated 718,096 additional acres of preserve lands.[05-85], [05-86] Historically, protected lands have not kept pace with population growth. [05-87] However, the rapid growth of private conservation easements, through which landowners enter voluntary legal agreements to protect natural features of their land, shows promise as a means of protecting open spaces. [05-88]

Visitor capacity at state parks cannot keep up with rapidly growing demand. Nearly 80% of state parks were established more than 30 years ago.[05-89] Now in need of significant maintenance and additional capacity, some of Texas's most popular state parks, including Enchanted Rock, Balmorhea, and McKinney Falls, are forced to turn away visitors.[05-90] To ensure future generations can enjoy Texas's natural heritage, cumulative park capacity may need to support a projected 2.9 million additional visits each year by 2036.[05-91]

Context

The Texas Parks and Wildlife Department is responsible for maintaining nearly 1.5 million acres in Texas's Public Land System.[05-92] The department operates 95 state parks, as well as wildlife management areas used for research and conservation. The department also manages wildlife by issuing hunting and fishing licenses. [05-93] Since at least 83% of land in Texas is privately owned, individual landowners too play a large role in preserving open spaces.[05-94] Conservation easements, a voluntary legal agreement through which landowners sell or donate partial rights regarding land development to qualified land trusts, are growing in popularity. Major land trusts in Texas are run by federal and state agencies or private organizations like The Nature Conservancy.[05-95]

Preserved acres: Number of acres preserved in the Public Land System or through easements, per 1,000 Texans[05-96],[05-97],[05-98]

75.5 acres per 1,000 Texans in 2018

Worsening[05-99]

Target
By 2036, Texas maintains the current ratio of 75.5 acres of preserve lands per 1,000 Texans.

Indicator Background
The presence ofatural lands, both publicly and privately owned, provides many economic and quality-of-life benefits. The preserved acres indicator uses data from the Texas Parks and Wildlife Department and the National Conservation Easement Database to measure the number of acres of land preserved for every 1,000 Texans.
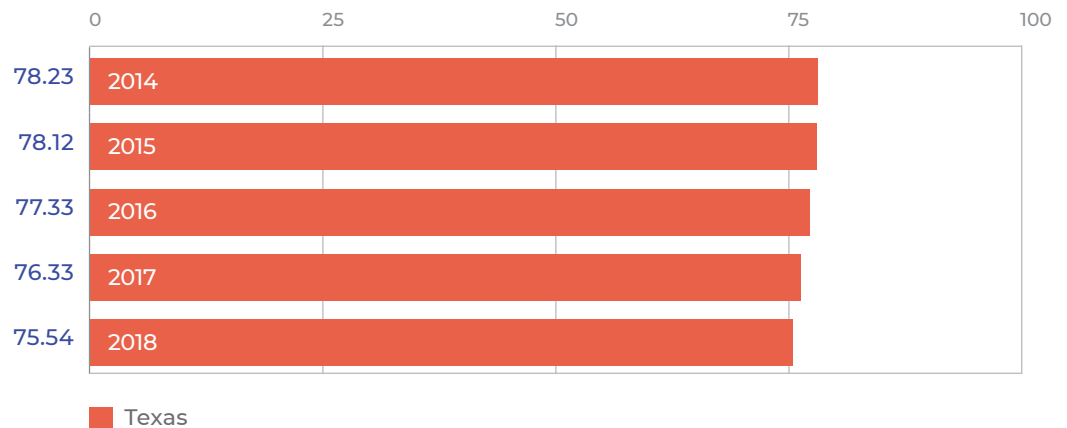
Target Background
Maintaining Texas's current ratio of 68 acres of preserved lands per 1,000 Texans is the best way to protect the economic and quality-of-life benefits of natural lands as Texas's population grows.

Benchmark
This indicator is not currently assessed against peer states

Number of acres preserved in the Public Land System or through easements, per 1,000 Texans

Year	Value
2014	78.23
2015	78.12
2016	77.33
2017	76.33
2018	75.54

Texas

Park utilization: Number of visits to Texas state parks per 1,000 Texans[05-100],[05-101]

306 visits per 1,000
Texans in 2018

Improving[05-102]

Target

By 2036, Texas maintains the current ratio of 306 visits to state parks, per 1,000 Texans.

Indicator Background

Visits to state parks are increasing each year, and popular parks and those near major urban areas cannot keep up with growing demand. The park utilization indicator measures the number of total visits to Texas state parks per 1,000 Texans.

Target Background

Experts project park capacity in Texas may need to support 2.9 million additional visits each year by 2036. To ensure future generations can enjoy Texas's natural heritage, Texas will need to add park capacity to maintain the current ratio of 306 visits to state parks per 1,000 Texans.

Benchmark

This indicator is not currently assessed against peer states

Number of visits to Texas state parls per 1,000 Texans
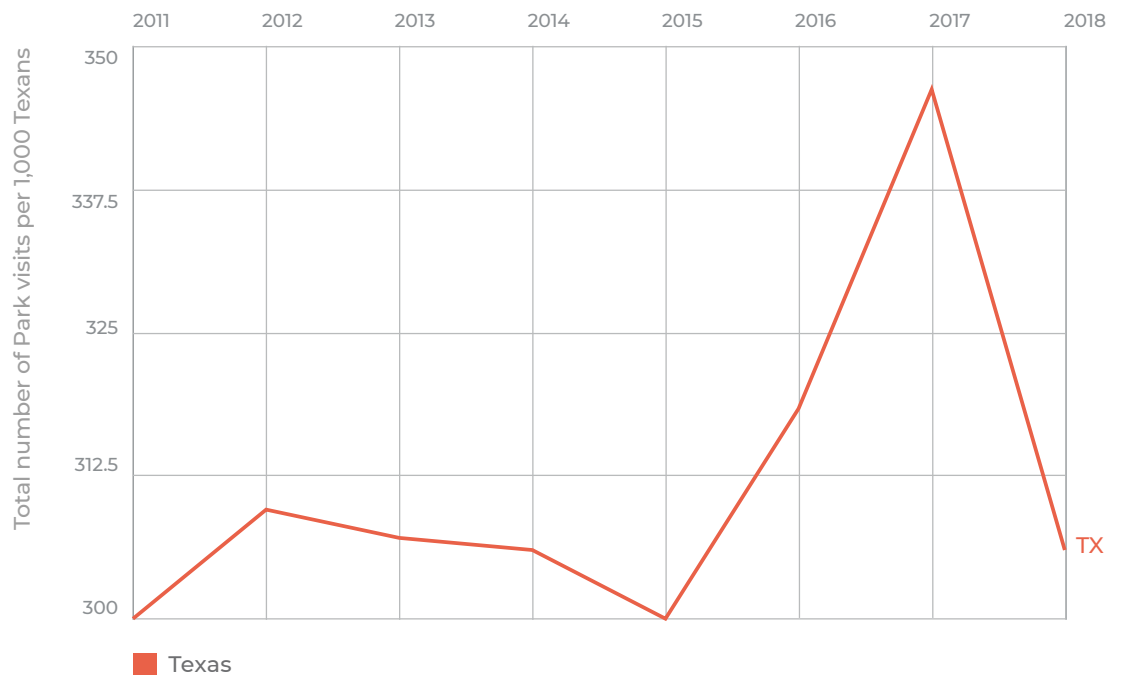
Texas

Other Indicators Texas 2036 is monitoring:

Wildlife Management Plans with private landowners: Percentage of total land acreage in Texas with approved Wildlife Management Plans with private landowners

Hunting and fishing licenses: Number of official hunting licenses and fishing licenses purchased through the Texas Department of Parks and Wildlife

Connections

Parks enable individuals to pursue healthy lifestyles (goals #11 and #12) while benefiting quality-of-life (goal #2). Parks can also serve as a driver for rural economic development (goal #1) and a potential resource in addressing rural broadband accessibility (goal #16).

GOAL 23
Agricultural Production

Texas leads in agricultural production with responsible natural resource stewardship.

Texas Today and Tomorrow

Agriculture is integral to the Texas economy, with the state producing $20.6 billion in value from crops and livestock in 2018.[05-103] Texas is the nation's leading producer of cattle and cotton; other major products include corn and grains.[05-104] Agriculture is a significant contributor to Texans' livelihoods: nearly one-in-seven working Texans holds an agriculture-related job.[05-105] In regions like the High Plains, agriculture accounts for as much as 40% of the local economy.[05-106]

Texas needs to maintain sustainable water use in agriculture to support economic growth in 2036. Half of all water in Texas today is used for irrigation purposes.[05-107] Widely grown products like cotton, rice, and soybeans are listed as some of the most water-intensive crops, requiring up to 13,200 liters of water to produce one pound of output.[05-108] As a result, High Plains agriculture is highly dependent on the Ogallala Aquifer, where water levels are already depleted by 30% and could be reduced by another 39% within 50 years.[05-109] Yet agriculture water use efficiency has been steadily improving in the last decade, as farmers, policymakers, and researchers developed innovative conservation solutions and alternatives to irrigation. [05-110] Continued efforts in water efficiency are needed to ensure agriculture can be a sustainable source of economic growth for future generations of Texans.

Context

Texas has more farms and ranches than any other state, covering 127 million acres. [05-111] Cattle ranches make up the majority of the total annual value of commodities produced in Texas, at $12.3 billion.[05-112] The Texas Department of Agriculture works with all agricultural industries and landowners to promote production, consumer protection, economic development, and healthy living.[05-113]

8

$731 in 2018

Flat[05-116]

Agricultural output per capita: Market value in dollars of all sold crop, livestock, and animal products produced in Texas, divided by state population [05-114]

Target
By 2036, Texas will rank among the top six in its 12-state peer group.

Indicator Background
Agriculture plays an important role in Texas's economy, as nearly one-in-seven working Texans holds an agriculture-related job. [05-115] The agricultural output per capita indicator measures the market value, in dollars per capita of all sold crops, livestock, and animal products produced in-state.
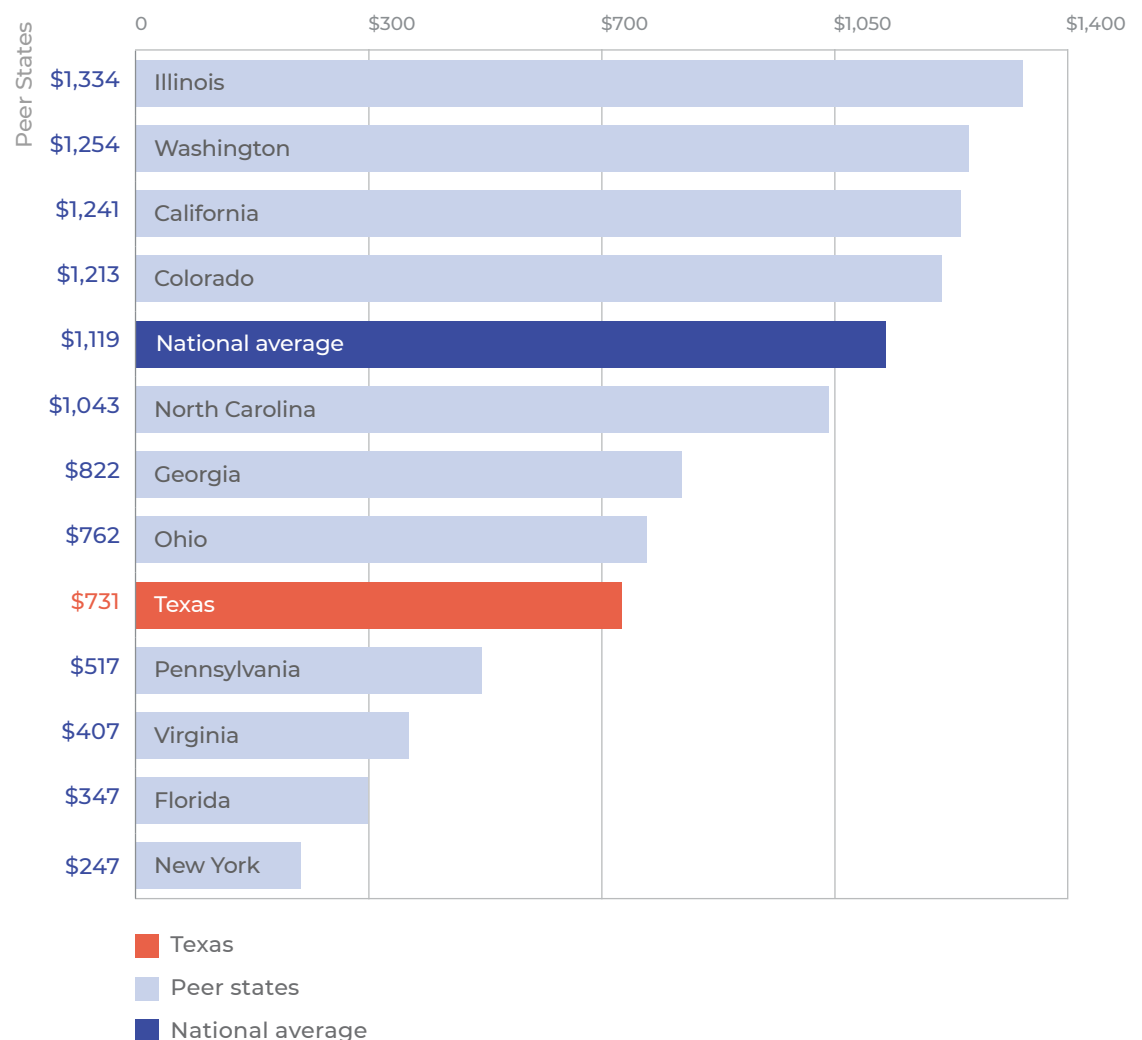
Target Background
The strength of Texas agriculture is key to Texas's continuing global competitiveness. It is vitally important that Texas maintains its leadership and remains in the top six among peer states for the highest agricultural output per capita by 2036.

Benchmark
#8 (peers); Top 6 baseline at $822 or higher[05-116]

Per capita market value of all sold crop, livestock, and animal products produced by state, 2017 - 2018

Peer States		
$1,334	Illinois	
$1,254	Washington	
$1,241	California	
$1,213	Colorado	
$1,119	National average	
$1,043	North Carolina	
$822	Georgia	
$762	Ohio	
$731	Texas	
$517	Pennsylvania	
$407	Virginia	
$347	Florida	
$247	New York	

Legend:
- Texas
- Peer states
- National average

0.55 acre-feet of water per acre of cropland in 2018

Improving[05-120]

Agriculture water efficiency: Amount of water used for irrigation per acre of cropland in Texas [05-118], [05-119]

Target
By 2036, Texas maintains the current ratio of 0.55 acre-feet of water per acre of cropland.

Indicator Background
Texas will continue to lead in innovative water conservation practices to reduce its water shortage risk (see goal #20). The agriculture industry will be a key contributor. The agriculture water efficiency indicator measures the amount of water used for irrigation, per acre of cropland.
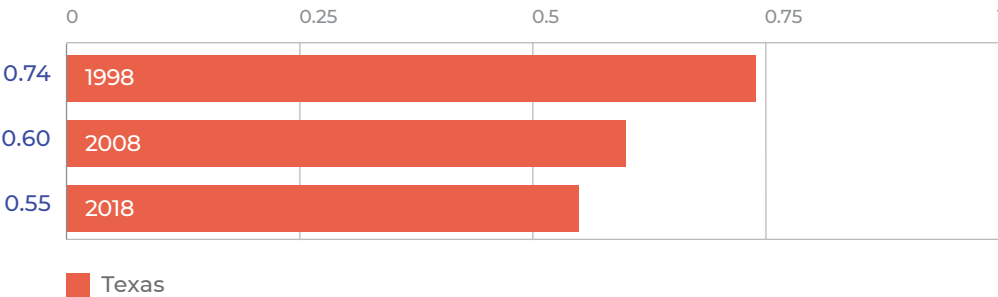
Target Background
In order to reduce Texas's projected water shortage, Texas will need to maintain the current ratio of 0.55 acre-feet of water per acre of cropland by 2036.

Benchmark
This indicator is not currently assessed against peer states

Acre-feet of water used for for irrigation per acre of cropland in Texas

| | 0 | 0.25 | 0.5 | 0.75 | 1 |

0.74	1998
0.60	2008
0.55	2018

■ Texas

Other Indicators Texas 2036 is monitoring:

Share of national agricultural output: Value of agricultural output from Texas as a percentage of total U.S. agricultural output

Farm profitability: Net farm income measured by revenue less expenses from production in the current year

Water intensity of livestock: Average amount of ground and surface water used for livestock, per head of livestock

Connections

By 2036, irrigation is projected to account for 50% of the state's potential water shortages (goal #20), a gap equal to 3.6 billion acre-feet of water per year.[05-121] Given this enormous quantity, efficiency in agriculture is key to reducing Texas's unmet water needs.

GOAL 24
Energy Distribution

Texas leads in energy production with responsible natural resource stewardship.

Texas Today and Tomorrow

Energy production is and will continue to be central to Texas's economy. The oil and gas sector contributed an estimated $229 billion, or 12% of total state GDP, to Texas in 2019.[05-122], [05-123] It provides the state with more than $16 billion in state and local taxes and royalties.[05-124] Riding the boom in Permian Basin activity, energy production helped Texas lead the nation in GDP growth for most of 2019.[05-125], [05-126] While the oil and gas industry often faces disruption due to swings in commodity values, Texas has the largest proven natural gas and oil reserves in the nation, and the energy sector will continue to support Texas's future innovation and growth. [05-127]

Renewables will play a critical role in the future of Texas's energy industry. Due to an abundance of land and robust energy infrastructure, Texas has become one of the top three states in renewable energy production.[05-128] Texas leads the nation in wind generation and in 2019 produced 28% of all wind-generated electricity in the country. [05-129] Despite leadership in wind, Texas produces less renewable energy overall than Washington, which leads the nation due to abundant hydroelectric sources, and California, which is ranked second due to its abundant solar and hydroelectric generation. [05-130]

Responsible natural resource stewardship ensures both continued economic prosperity and quality-of-life for Texans. Texas is ranked fourth among its 12 peer states in carbon intensity of the energy supply, which is the amount of carbon generated per unit of energy produced. However, Texas is the largest emitter of carbon in absolute measures.[05-131] Major Fortune 500 businesses and peer states are increasingly committed to low-carbon and net-zero economies, and Texas needs to remain competitive on renewable energy to attract major employers.[05-132] Additionally, rapid growth in Permian Basin exploration requires regulators to ensure Texas adequately monitors air and water conditions surrounding oil and gas fields.

Context

Texas has robust production of both traditional and renewable energy. It is responsible for 41% of the nation's crude oil production and 24% of natural gas production.[05-133] Early investments in transmission infrastructure — the Competitive Renewable Energy Zone (CREZ) initiative — from 2005 to 2013 have connected remote wind and solar farms in rural Texas to urban demand centers.[05-134] As a result, nearly 30% of Texas's electricity is carbon-free today.[05-135] In 2020, Texas is projected to produce more electricity from wind than from coal, with wind power continuing to be the state's fastest

growing generation source.[05-136] Solar power, while representing less than 1% of the generation today, is growing very rapidly and capacity is expected to increase 500% by 2024.[05-137]

1

16,780 trillion BTU in 2017

Flat[05-139]

Traditional energy production: Amount of energy from oil, natural gas, coal, and nuclear energy extracted from the ground or generated in-state [05-138]

Target
By 2036, Texas continues to rank first among its group of 12 peer states in traditional energy production.

Indicator Background
Both traditional and renewable energy sources are commonly measured by the amount of BTUs they produce: a British Thermal Unit (BTU) is the amount of energy required to raise the temperature of one pound of water by one degree Fahrenheit. Using this standard measure to track energy produced in Texas from oil, natural gas, coal, and nuclear energy highlights the major impact these industries have on the state's economy, global competitiveness, and revenues.
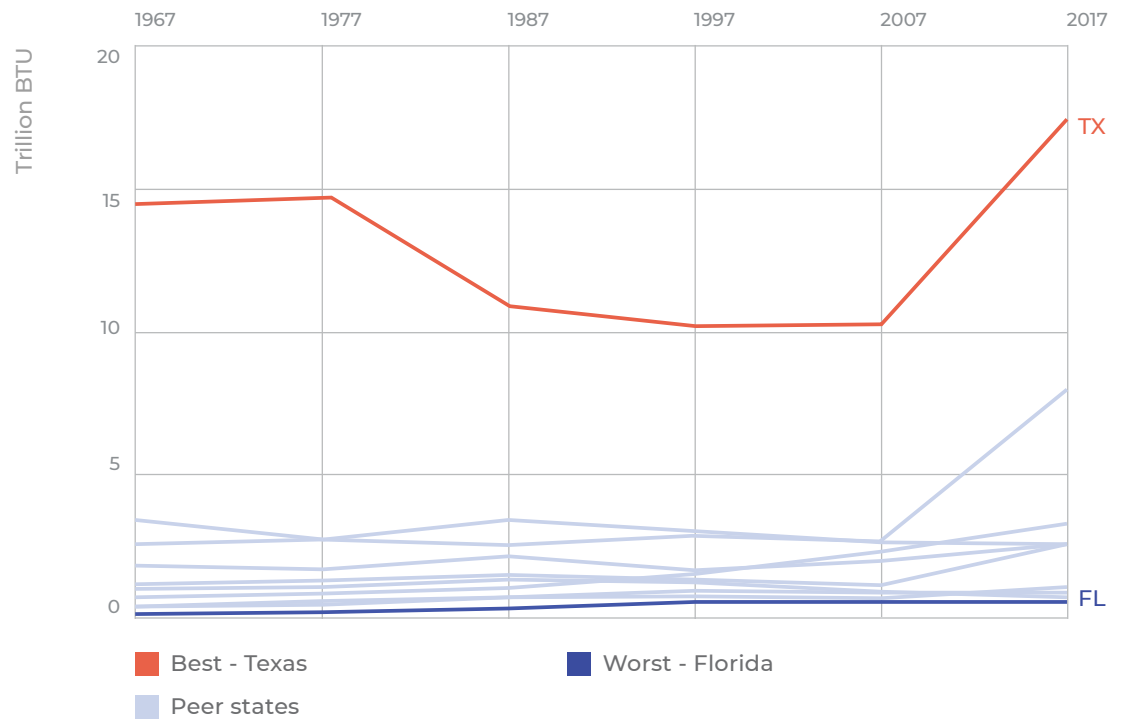
Target Background
Texas-based companies and investors have pioneered new techniques to adapt to changes in the world economy — they will continue to do so, taking advantage of the state's vast natural resources. New technologies and an entrepreneurial spirit will enable Texas to continue ranking first among peer states in traditional energy production and remain economically competitive on a global scale.

Benchmark
#1 (peers)

Amount of energy from oil, natural gas, coal, and nuclear energy extracted from the ground or generated in-state

NATURAL RESOURCES

3

786 trillion BTU in 2017

Improving[05-141]

Renewable energy production: Amount of energy generated from renewable sources in-state [05-140]

Target
By 2036, Texas ranks first among peer states.

Indicator Background
Renewables will play a critical role in the future of Texas's energy industry as innovation and technology advances. Texas leads the nation for wind generation, but produces less renewable energy overall than other peer states, due largely to limited hydroelectric generation.. The renewable energy production indicator measures the energy content generated from renewable sources in Texas.
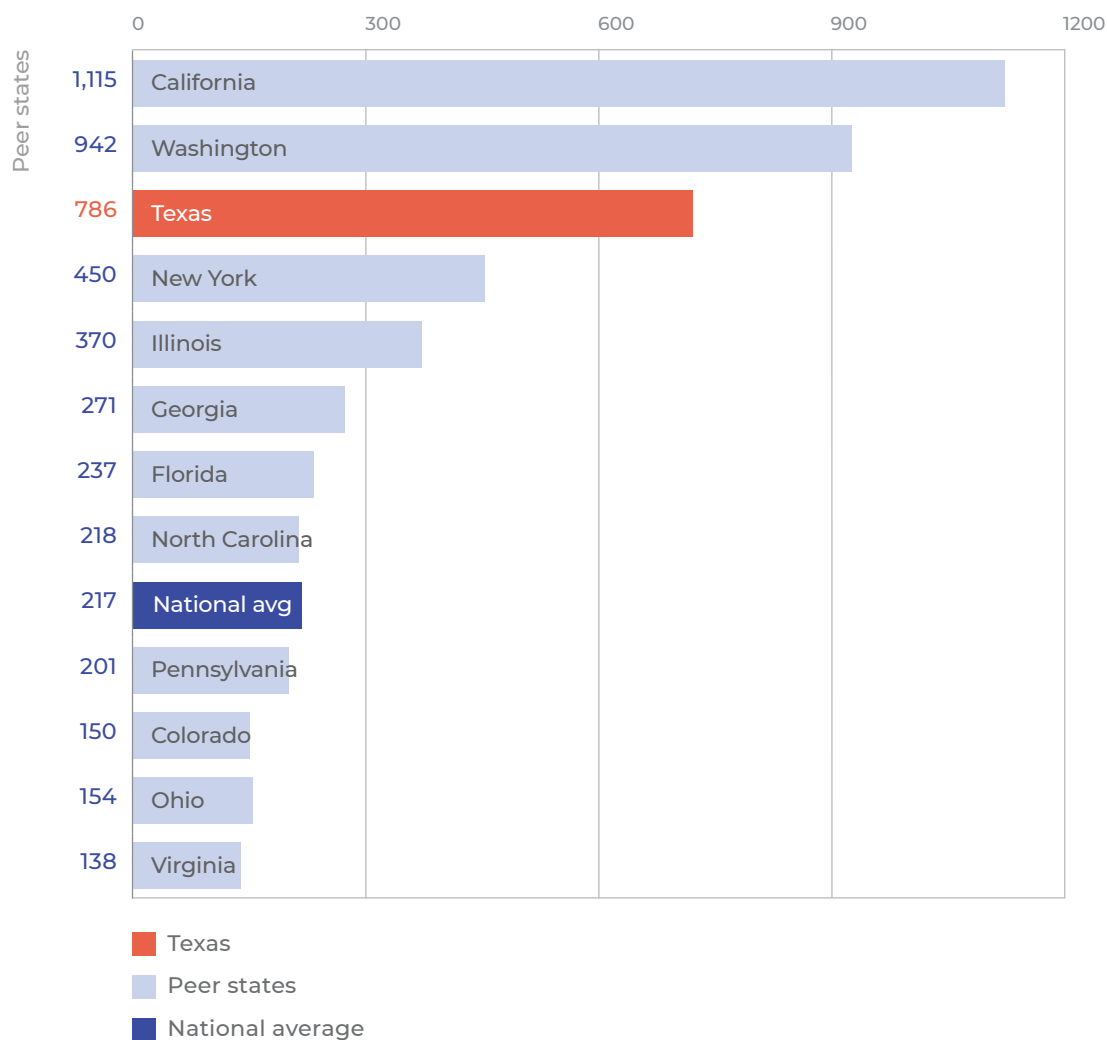
Target Background
Texas has opportunities to continue to expand its wind and solar energy production and can strive to rank first among peer states in renewable energy production.

Benchmark
#3 (peers); Top state baseline at 1,115 trillion BTU or higher[05-142]

Per capita market value of all sold crop, livestock, and animal products produced by state, 2017 - 2018

Peer states		Value
1,115	California	
942	Washington	
786	Texas	
450	New York	
370	Illinois	
271	Georgia	
237	Florida	
218	North Carolina	
217	National avg	
201	Pennsylvania	
150	Colorado	
154	Ohio	
138	Virginia	

- Texas
- Peer states
- National average

4

50 kg of carbon/million BTU in 2016

Flat[05-144]

Carbon intensity: Quantity of carbon produced in-state from generating one unit of energy[05-143]

Target

By 2036, Texas ranks among the three highest in its group of peer states.

Indicator Background

Major Fortune 500 businesses and peer states are increasingly committed to low-carbon and net-zero economies. Responsible natural resource stewardship ensures both continued economic prosperity and quality of life for Texans. The carbon intensity indicator measures the quantity of carbon produced in-state from generating one unit of energy.

Target Background

In order to remain attractive to businesses and provide a good quality of life to Texans, Texas will decrease its carbon production and rank among the three states in its peer group producing the least amount of carbon.

Benchmark

#4 (peers); Top 3 baseline at 48 kg / MMBTU or lower[05-145]

Quantity of carbon produced in-state from generating one unit of energy
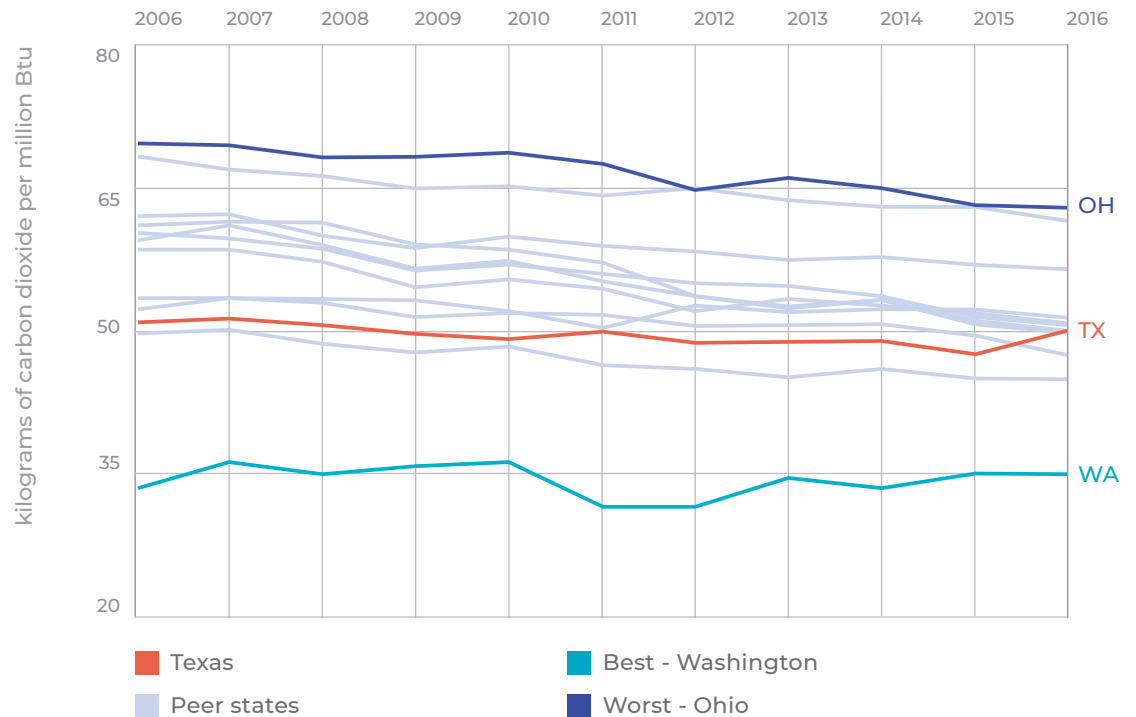
Other Indicators Texas 2036 is monitoring:

Share of oil and gas production: Total oil and gas production in Texas, as a percentage of total U.S. production

Share of oil and gas exports: Percentage of total U.S. oil and gas exports originating from Texas

Share of renewable production: Total renewable energy produced in-state, as a percentage of total U.S. production

Methane emissions: Gas disposed through venting and flaring per unit of oil and gas produced

Texas governments rely heavily on oil and gas revenues and royalties, which contribute to the Permanent School Fund (which funds goals #3 and #4), Permanent Uni-

Connections

versity Fund (which funds goal #5), State Highway Fund (which funds goals #13 and #14), and Economic Stabilization Fund (which ensures state funds are available in a downturn, goal #31).

Many local governments also benefit from significant property taxes paid for plants and equipment. The jobs and production associated with the industry have powered the state's economic growth (goal #1).
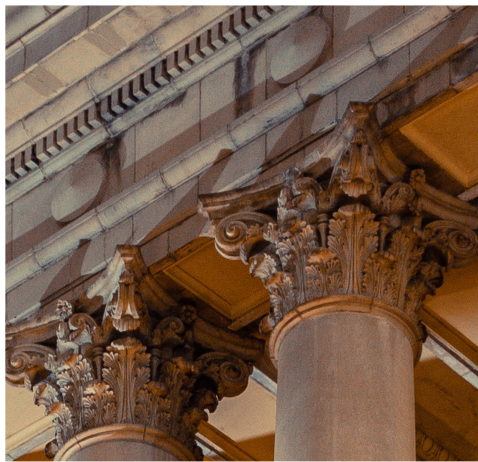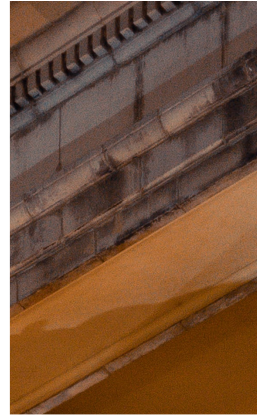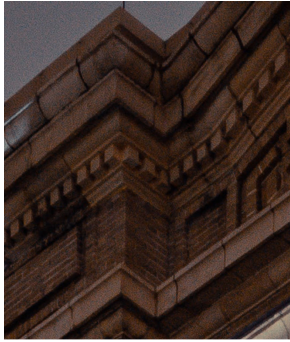
Pillar 6
Justice & Safety

Texas ensures the safety and fair treatment of Texans.

Goal: PUBLIC SAFETY

Violent crime rate

🔴 ◇

Property crime rate

🟢 ◇

Goal: PROTECTION FOR THE VULNURABLE

Adverse Childhood Experiences

🟢 ◇

Goal: SAFETY NET

Drinking water attainment

🔴 ◇

Goal: PARKS AND WILDLIFE

Supplemental poverty rate

🟡 ◇

Focus

Over the past few decades, Texas has enjoyed tremendous economic growth and prosperity, but not all Texans have the same access to opportunity and quality of life. With our state's future prosperity increasingly dependent on the talents of our population, it is important that the state do more to help all Texans succeed. A number of often-interrelated factors hold many people back, including unsafe neighborhoods, food and housing insecurity, and traumatic experiences. By investing early in evidence-based programs that focus on such factors, Texas can reduce lost potential and future costs to society, taxpayers, and individuals. We can better protect our communities and begin to break long cycles of poverty and incarceration. State leaders should collaborate across justice and safety net systems to ensure all partners — state agencies, local governments, and private sector entities — spend tax dollars most effectively.

Texas's civil and criminal justice systems face different pressures, and both should strive for data-informed improvements. While the Texas criminal justice system has three-year recidivism rates better than the national average, these numbers — 63% in 2018 for state jails and 46% for state prisons[06-01] — still show room for significant improvement. Likewise, the civil court system is perceived by the business community as one of the nation's least fair and reasonable, ranking 38th in the nation in a recent U.S. Chamber of Commerce survey.[06-02]

As a state, we are far stronger when all Texans participate to the best of their abilities. By working to uphold an effective, efficient, and impartial justice system, and by offering people in crisis resources to meet basic needs, Texas can expand access to opportunity and sustain prosperity into the future.

Goals and Targets for Texas in 2036

Goal #25 - Public safety: Texans are protected from threats to their well-being and property, with Texas ranking among the nine lowest in its 12-state peer group for violent crimes rates, and remaining among the nine lowest states for property crime rates. Texas is currently ranked in the bottom half for both violent crime and property crime rates.

Goal #26 - Protection for the vulnerable: Texas protects the vulnerable from traumatic experiences, maintaining our ranking among the nine lowest peer states for incidence of adverse childhood experiences and domestic violence.

Goal #27 - Safety net: Texans have access to resources to meet basic needs when they are in crisis, with Texas ranking among the three lowest peer states for the population below the supplemental poverty line. Texas is currently ranked ninth.

Goal #28 - Justice system: Texans are served effectively, efficiently, and impartially by the justice system, with Texas maintaining recidivism below the national average and ranking among the top three peer states for its lawsuit climate. Texas is currently

Context

ranked seventh in legal climate among peer states.

Federal, state, and local governments all play roles in providing resources and services for Texans in need. The federal government funds the Temporary Assistance for Needy Families (TANF) grant, of which Texas receives $860 million annually;[06-03] the Supplemental Nutrition Assistance Program (SNAP), which provides $4.8 billion;[06-04] and the Women, Infants, and Children (WIC) grant, which provides $478 million.[06-05] The Texas Health and Human Services Commission (HHSC), with a $38.0 billion annual operating budget, oversees large programs such as TANF and SNAP and operates more than 200 other programs (including Texas's Medicaid managed care system). [06-06] The Department of Family and Protective Services (DFPS) manages programs that protect children, the elderly, and adults with disabilities in Texas from abuse and neglect, and it partners with community-based programs for prevention and early intervention of juvenile delinquency and child abuse and neglect.[06-07]

Texas's criminal justice system is highly decentralized. Two hundred fifty four different county justice systems are responsible for promoting community safety and adjudicating cases.[06-08] These systems need to balance the goals of advancing public safety and appropriately punishing crime, and of rehabilitating and upholding the constitutional rights of individuals with justice system involvement.[06-09] In Texas, as in most states, local jurisdictions fund and oversee most law enforcement activity, prosecution of cases, and the court system. Texas has 465 district courts serving as the primary trial courts for serious criminal and civil issues. More than 2,000 additional county and municipal courts handle less serious matters such as traffic citations and divorces. In 2018, Texas courts handled 8.6 million cases, 23 times the number of all federal court cases that year.[06-10]

For the 2020-2021 biennium, the legislature appropriated $12.5 billion for public safety and criminal justice, plus another $934 million to support the judiciary; together, these funds constitute 5% of the state budget.[06-11] These figures do not include significant local expenditures on various components of the system.

Two state agencies provide oversight for corrections. The Texas Department of Criminal Justice (TDCJ) operates 106 state correctional facilities (including 89 prisons for those convicted of violent offenses[06-12] and 17 state jails for less serious convictions [06-13]), which held approximately 136,000 people in 2018.[06-14] The TDCJ spends $2.9 billion each year to incarcerate adults.[06-15] It also provides funding for 123 adult probation departments overseen by local judicial boards. In 2018, local judges ordered nearly 370,000 Texans to community supervision.[06-16]

The Texas Juvenile Justice Department (TJJD) works in partnership with counties and

local juvenile boards to administer services for the more than 40,000 juveniles who are arrested or referred each year.[06-17] TJJD runs five secure state institutions for juveniles and oversees 86 locally operated secure facilities, with a budget of roughly

GOAL 25
Public Safety

Texans are protected from threats to their well-being and property.

Texas Today and Tomorrow

$330 million.[06-18]

Texas is currently experiencing relatively low rates of crime, but crime remains a significant problem. The violent crime rate, which measures murders, rapes, robberies and aggravated assaults, peaked in the early 1990s and has since declined by almost half.[06-19] Over the past decade, the property crime rate, including arson, burglary, larceny, and motor vehicle theft and damage, has also been in decline.[06-20]

But the violent crime rate remains higher than the national average, with 411 crimes per 100,000 people, compared to 381 nationally. [06-21] And crime has a disproportionate effect on certain populations. Low-income households are more than twice as likely as high-income households to be victimized by violent crime.[06-22]

Two factors — organized crime and human trafficking — could pose a greater threat to the safety of Texas communities in the future. With more than 100,000 gang members in Texas at any one time and high levels of gang-related violence in some cities, gang violence represents a major threat to public safety in Texas.[06-23] Human trafficking is also an increasingly serious concern: in 2016, there were thought to be 300,000 victims of human trafficking in Texas, with nearly 80,000 of them children.[06-24] But these are only estimates because most of these crimes go unreported. In 2016, only 280 arrests were made for human trafficking; across the country, less than 30% of arrests have led to convictions.[06-25]

11

411 violent crimes per 100,000 residents in 2019[06-27]

Improving[06-28]

Violent crime rate: Number of violent crimes (i.e., murder, rape, robbery, and aggravated assault) reported per 100,000 people

Target
By 2036, Texas will rank among the nine lowest states in Texas' peer group of 12 states.

Indicator Background
Violent crime in Texas has been on a generally downward slope since 1993, dropping by more than 50% during this time. Despite the state's progress, the Texas violent crime rate has consistently exceeded national averages over the past two decades.[06-26]

Target Background
Texas has significantly improved its crime rate over recent decades, but peer states have also improved over the same period. By 2036, Texas should seek to improve at a faster rate than its peer states and move into the top nine.

Benchmark
Texas is ranked #11 among peers states[06-29]. The current baseline to enter the top 9 is 397 or lower.

Number of violent crimes (i.e., murder, rape, robbery, and aggravated assault) reported per 100,000 people

Peer States		
200	Virginia	
280	Ohio	
306	Pennsylvania	
312	Washington	
327	Georgia	
351	New York	
378	North Carolina	
381	National average	
385	Florida	
397	Colorado	
404	Illinois	
411	Texas	
447	California	

■ Texas
■ Peer states
■ National average

7
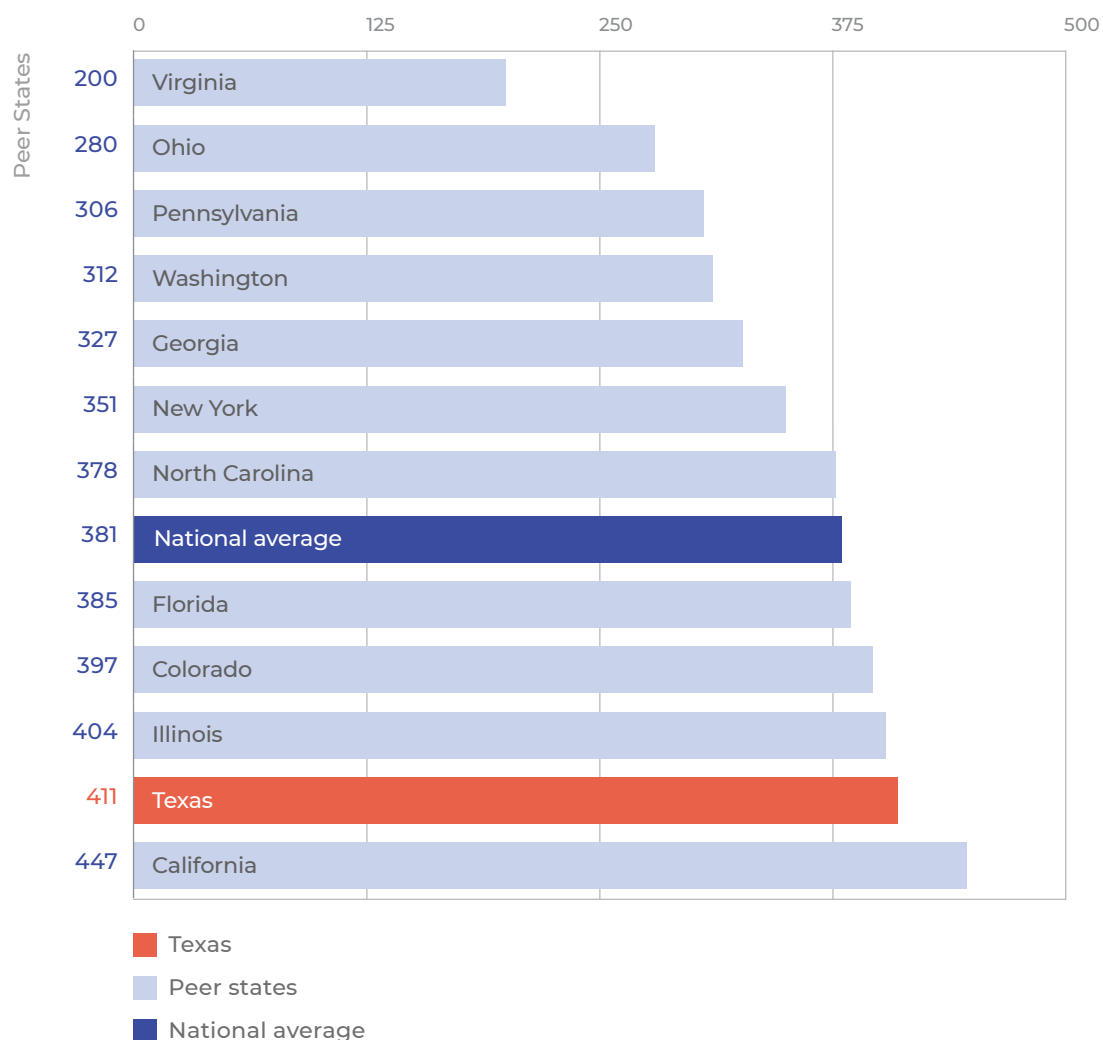
2,367 per 100,000 residents in 2018[06-33]

Improving[06-34]

Property crime rate: Number of property crimes (i.e., arson, burglary, larceny, motor vehicle theft and damage) reported per 100,000 people

Target
By 2036, Texas will remain among the nine lowest states in its peer group.

Indicator Background
In the FBI's Uniform Crime Reporting (UCR) data, property crimes include burglary, larceny-theft, motor vehicle theft, and arson.[06-30] According to the FBI, the theft offenses in this category involve "the taking of money or property, but there is no force or threat of force against the victims."[06-31] Arson data, while defined as a property crime, may involve victims being subjected to force.[06-32]
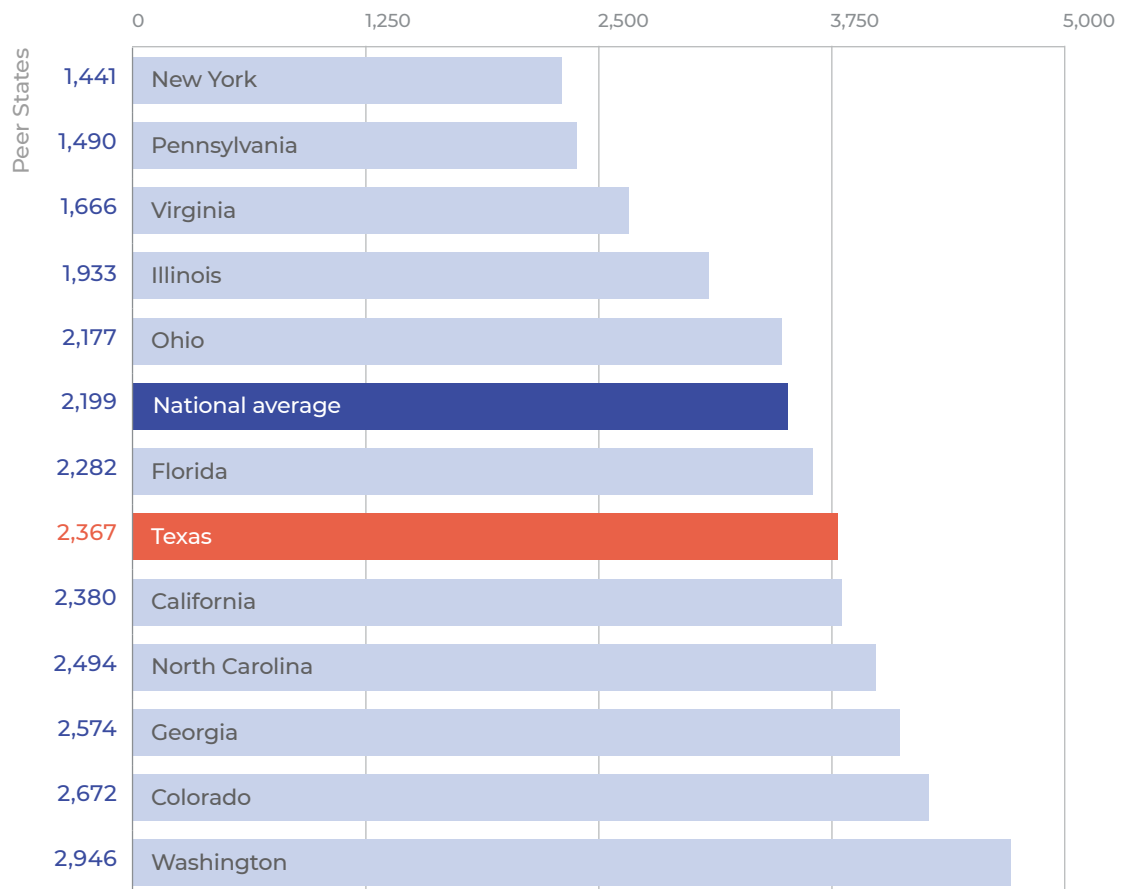
Target Background
Texas has decreased property crime at a faster rate than any other peer state (approximately 5% decrease annually over past ten years, versus approximately 3% average across peer states), moving from last place to middle of the pack. After years of positive momentum, Texas should avoid regression.

Benchmark
Texas was ranked #7 among peer states for 2018.[06-35] The ninth ranked state, North Carolina, had a property crime rate of 2,494 per 100,000 residents.

Number of property crimes (i.e., arson, burglary, larceny, motor vehicle theft and damage) reported per 100,000 people

Peer States	Value
New York	1,441
Pennsylvania	1,490
Virginia	1,666
Illinois	1,933
Ohio	2,177
National average	2,199
Florida	2,282
Texas	2,367
California	2,380
North Carolina	2,494
Georgia	2,574
Colorado	2,672
Washington	2,946

Connections
Low crime rates are a key component of quality of life metrics (goal #2).

GOAL 26
Protection for the Vulnerable

Texas protects the vulnerable from traumatic experiences.

Texas Today and Tomorrow

Vulnerable populations include victims of domestic violence[06-36], children being tracked by the Texas Department of Family and Protective Services (DFPS)[06-37] or juvenile justice system[06-38], veterans[06-39], refugees[06-40], and the homeless.[06-41] At any given time, these populations are estimated to total almost 2 million people, or 6% of the Texas population.[06-42] Vulnerable populations may need to access state and local systems for support when dealing with traumatic experiences, such as physical, sexual, psychological, or emotional abuse.

Domestic violence is widespread in the U.S. and Texas. Nationwide, one-in-three women and one-in-four men have experienced some form of physical domestic violence.[06-43] In Texas, 87 domestic violence assistance organizations serve over 7,000 people per day[06-44], but this represents just 15% to 20% of the victims of domestic violence overall.[06-45] The Center for Disease Control and Prevention (CDC) estimates that an individual's lifetime economic cost of domestic violence — including medical services, lost productivity, criminal justice costs, and other costs — is $103,767 for women and $23,414 for men.[06-46]

There is significant overlap between domestic violence and child abuse victims. Studies show that men who frequently assault their wives are also likely to abuse their children.[06-47]

It is especially urgent to improve support for at-risk children. Research shows that certain potentially traumatic events in childhood, called "adverse childhood experiences" (ACEs),[06-48] can have a significant negative impact on a variety of outcomes later in life — including physical and emotional health, educational attainment, and employment.[06-49] ACEs include experiencing violence or abuse, witnessing violence in the home or community, and living in a household with someone experiencing substance abuse, mental health challenges, or parent separation.[06-50] Multiple ACEs dramatically increase the odds of negative health and economic outcomes later on.[06-51] In Texas, one-in-five children have experienced at least two ACEs.[06-52] A recent CDC study estimates that preventing adverse childhood experiences could eliminate 1.9 million cases of coronary heart disease, 2.5 million incidences of being overweight or obese, 21 million cases of depression, and 1.5 million incidences of high school non-completion.[06-53]

Context

Support for overcoming trauma comes largely from private and philanthropic sources. Total philanthropic donations for human services organizations in the U.S. — including food banks, homeless shelters, youth services, and family and legal services — came to nearly $52 billion in 2019.[06-54]

Through the Family Violence Prevention and Services Act, every state has a formally designated, federally funded domestic violence coalition, like the Texas Council on Family Violence (TCFV). Dedicated to preventing family violence, TCFV partners with government, private industry, non-profit and faith-based communities, and other stakeholders to shape public policy and improve the services available to victims.[06-55]

State policy makers can also support vulnerable populations directly through regulations on background checks, legal protections for victims and reporters of abuse, and custody requirements.

6

19.9% in 2018[06-57]

Flat[06-58]

Adverse Childhood Experiences: Percentage of children under age 17 who have experienced two or more ACEs

Target

By 2036, Texas will remain among the nine lowest states in its 12-state peer group.

Indicator Background

Adverse Childhood Experiences include economic hardship; divorce or separation of parents; living with someone with a substance abuse problem; being a victim of or witness to neighborhood violence; living with someone who is mentally ill, suicidal, or severely depressed; witnessing domestic violence; having a parent who has served time in jail; and suffering the death of a parent. ACEs have a wide range of negative consequences on important

outcomes later in life, including health, educational attainment, employment, and earnings. [06-56]
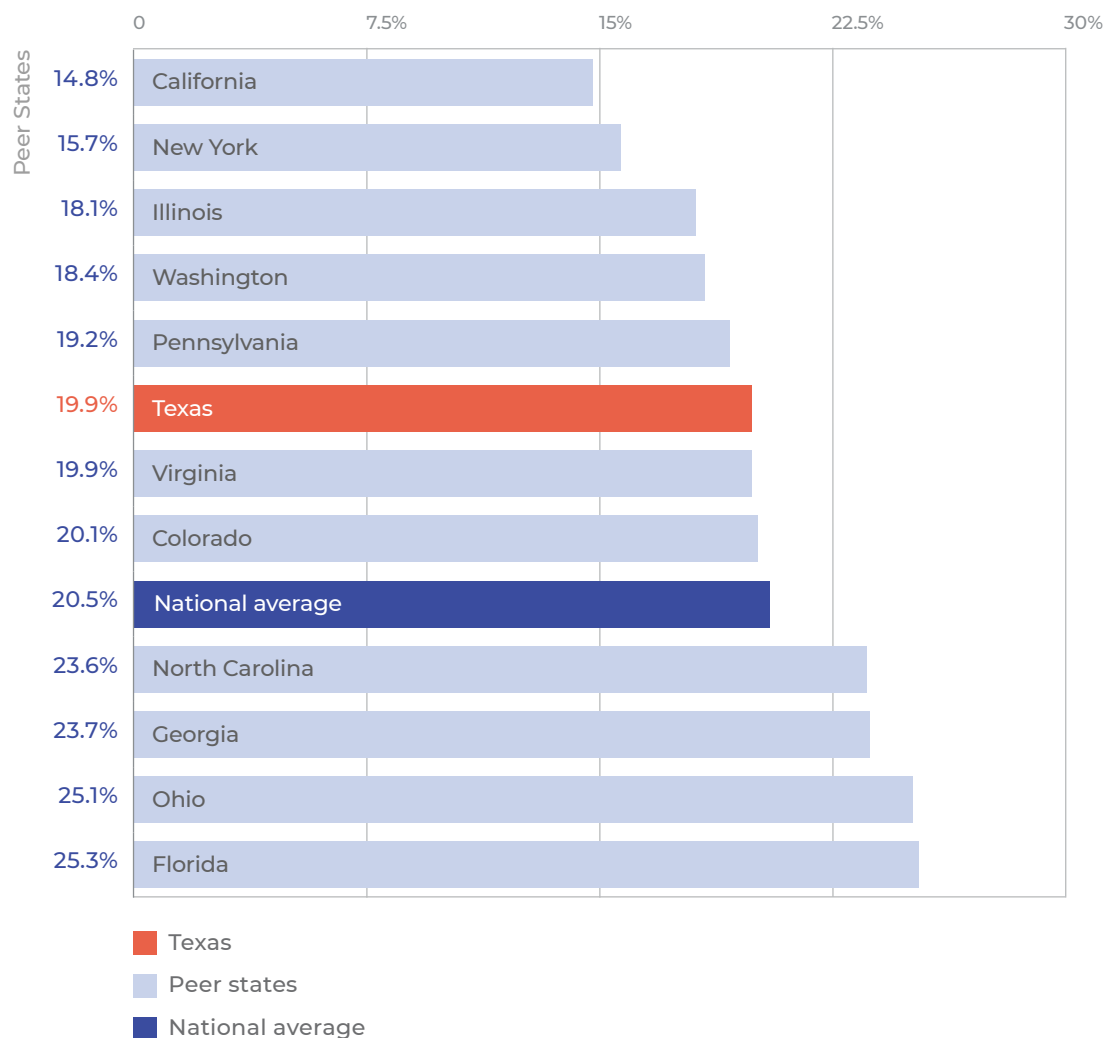
Target Background

Because ACEs have such serious and wide-ranging effects on important life outcomes, it is important that Texas works to prevent such experiences. The share of Texas children who have experienced two or more ACEs should remain among the nine lowest percentages in Texas's peer group of states by 2036.

Benchmark

#6 (peers)[06-59]; Top 9 baseline at 23.6% or lower

Percentage of children under age 17 who have experienced two or more ACEs

Peer States		
14.8%	California	
15.7%	New York	
18.1%	Illinois	
18.4%	Washington	
19.2%	Pennsylvania	
19.9%	Texas	
19.9%	Virginia	
20.1%	Colorado	
20.5%	National average	
23.6%	North Carolina	
23.7%	Georgia	
25.1%	Ohio	
25.3%	Florida	

Legend:
- Texas
- Peer states
- National average

Other Indicators Texas 2036 is monitoring:

Child maltreatment: Injury or death of population less than age 18 due to maltreatment per 100,000 population

Domestic violence: Incidents of domestic violence

Domestic violence assistance programs: Average number of people served per day by domestic violence assistance organizations, per 100,000 population[06-60]

Connections

Adverse childhood experiences can negatively influence a student's educational attainment (goals #3, #4, and #5) and employment (goal #6). Other factors addressing vulnerable populations can be directly linked to health outcomes (goal #10).

GOAL 27
Safety Net

Texans have access to resources to meet basic needs when they are in crisis

Texas Today and Tomorrow

Safety net benefits — which include food stamps, housing vouchers, tax exemptions, and cash assistance — are intended to serve Texans in times of crisis. They fill in gaps in basic needs such as food, housing, and utilities so that people can get back on their feet.

A large number of Texans struggle to make ends meet. An estimated 42% of households statewide earn less than the cost of living.[06-61] Fourteen percent of households live below the supplemental poverty line — in other words, the combination of income and safety net services is still not sufficient to cover basic needs such as food, clothing, shelter, and utilities.[06-62] Nearly half of Texas renters are burdened by housing costs, meaning they spend more than 30% of their income on housing.[06-63] Nearly 4.3 million people (15% of Texas's population) lack a sufficient quantity of affordable food. [06-64]

Poverty does not affect all Texas communities equally. About 20% of black and Hispanic Texans live below the poverty line, compared to about 10% of white and Asian Texans.[06-65] On average, rural Texans have lower incomes than Texans as a whole, making around $40,0000 in 2018 compared to roughly $50,000 statewide.[06-66]

Poverty in childhood can be especially devastating. About 20% of Texas children live in poverty, which is higher than the national rate (16%).[06-67] Hispanic and black children are three times more likely to live in poverty than white children.[06-68] The challenges and instability associated with child poverty can lead to low educational attainment, difficulty obtaining steady employment later in life, poor health outcomes, and criminal behavior in adolescence and adulthood.[06-69],[06-70],[06-71]

9

14.2% for 2016-2018[06-73]

Worsening[06-74]

Supplemental poverty rate: Percentage of population below the supplemental poverty line[06-72]

Target
By 2036, Texas will rank among the three lowest states in its 12-state peer group.

Indicator Background
Beginning in 2011, the U.S. Census Bureau began publishing the Supplemental Poverty Measure, a poverty metric designed to account for government assistance to low-income families. This indicator sets poverty thresholds based on the estimated costs of basic necessities such as food, shelter, clothing, and utilities, and it varies by geography, family size and structure. This metric provides a more comprehensive and nuanced understanding of poverty around Texas and across the nation.
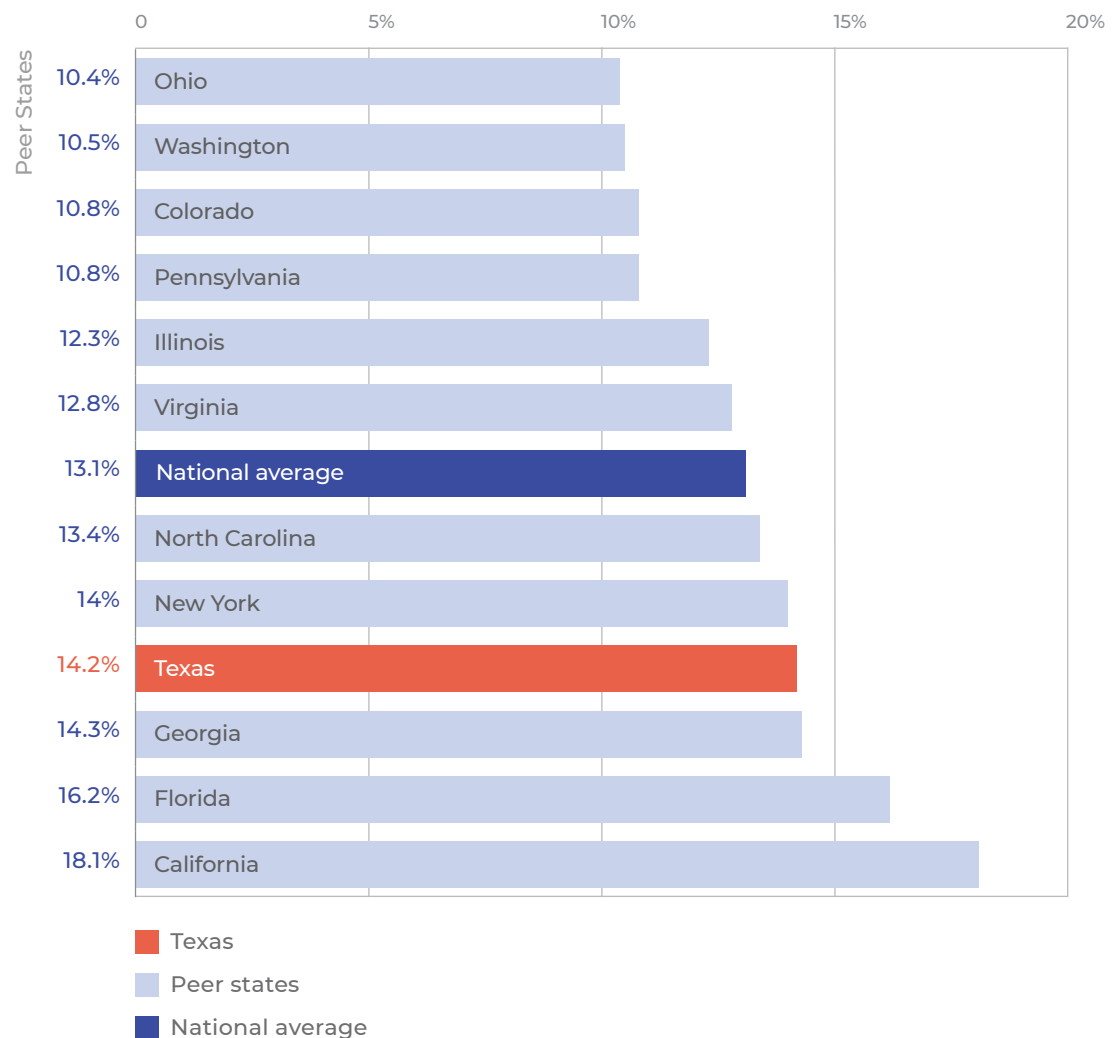
Target Background
Because the challenges associated with poverty have significant effects on a range of critical life outcomes, it is essential that Texas work to reduce its supplemental poverty rate. In order to lessen these serious consequences, Texas should have one of the three lowest supplemental poverty rates among its peer states by 2036.

Benchmark
#9 (peers);[06-75] Top 3 baseline at 10.8% or lower

Percentage of population below the supplemental poverty line

Peer States		
10.4%	Ohio	
10.5%	Washington	
10.8%	Colorado	
10.8%	Pennsylvania	
12.3%	Illinois	
12.8%	Virginia	
13.1%	National average	
13.4%	North Carolina	
14%	New York	
14.2%	Texas	
14.3%	Georgia	
16.2%	Florida	
18.1%	California	

Legend:
- Texas
- Peer states
- National average

Other Indicators Texas 2036 is monitoring:

Housing cost burden: Percentage of households paying more than 50% of their income for housing

Homeless population: Number of people homeless, per 10,000 population

Food insecurity: Percentage of households with limited or uncertain access to food

Access to healthy food: Percentage of population living in food deserts

Connections

Estimates of the cost of child poverty to the U.S. economy in 2018 range from 4% to 5.4% of GDP.[06-76] Providing more effective safety net services in Texas could make a big difference, whether in the form of higher educational attainment (goal #5), or the elimination of barriers to employment (goal #6).

GOAL 28
Justice System

Texans are served effectively, efficiently, and impartially by the justice system.

Texas Today and Tomorrow

By traditional measures, Texas has reduced its incarceration rate[06-77] significantly in the past two decades.[06-78] However, we continue to have the sixth highest rate of incarceration in state and federal facilities in the nation, and the highest among Texas's 12 peer states.[06-79] Incarceration in county jails has increased over that time, driven by increasing numbers of pre-trial detainees.[06-80] County jail admission rates are higher in rural counties than in urban areas.[06-81] Racial disparities exist across all correctional facilities, with incarceration rates for black Texans more than three times higher than for white Texans.[06-82]

Texas's criminal justice reform efforts have reduced incarceration rates but have not improved outcomes for the thousands of people who still cycle through the system each year. The rate of recidivism — which reflects the percentage of formerly incarcerated individuals who are rearrested within three years of release — is the metric most often used for gauging the effectiveness of prisons as a rehabilitation program. Recidivism rates have remained persistently high for those who commit less serious crimes (63% for state jails) and adjudicated youth (75% for state facilities). Many substance abuse rehabilitation, job training, and peer counseling programs have been designed to reduce recidivism among individuals who commit lower-level crimes. But because of inadequate resources and poor implementation, these programs often do not perform to expectations.

The quality of a state's civil court system can directly impact whether businesses choose to locate and/or grow in that jurisdiction.[06-83] In the Forbes "Best States for Business" survey, one of the underlying data inputs for a state's regulatory environment is the quality of its legal climate.[06-84] By this metric, Texas is among the nation's worst — 38th overall — with particular concerns identified regarding trial judge impartiality (44th) and trial judge competence (41st). Jefferson County, home of Beaumont, was rated as the nation's fifth worst legal jurisdiction.[06-85]

During the 2019 Legislative Session, the Legislature passed HB 3040, which created the Texas Commission on Judicial Selection. This Commission is charged with preparing a report to the legislature by December 2020 addressing "the fairness, effectiveness, and desirability of selecting a judicial officer through partisan elections" and "the fairness, effectiveness, and desirability of judicial selection methods proposed or adopted by other states[.]"[06-86]

Context

The state's incarceration rate quadrupled from 1978 to 2003, due to escalating crime rates and "tough on crime" policy responses. In 1980, a landmark federal court ruling declared overcrowding in Texas prisons to be "cruel and unusual punishment." The state spent $3 billion on 100,000 new prison beds but still faced overcrowding issues. In 1993, Texas began enacting reforms to divert people convicted of lower-level drug and property crimes from long prison terms. Combined with declining crime, these reforms allowed the state to close eight adult and eight juvenile facilities over the ensuing 25 years.[06-87]

For the 2015 released cohort, three-year recidivism was 62.8% for state jail and 45.4% for state prison[06-90]

Flat[06-91]

Recidivism: Percentage of individuals released from incarceration who are rearrested within three years

Target
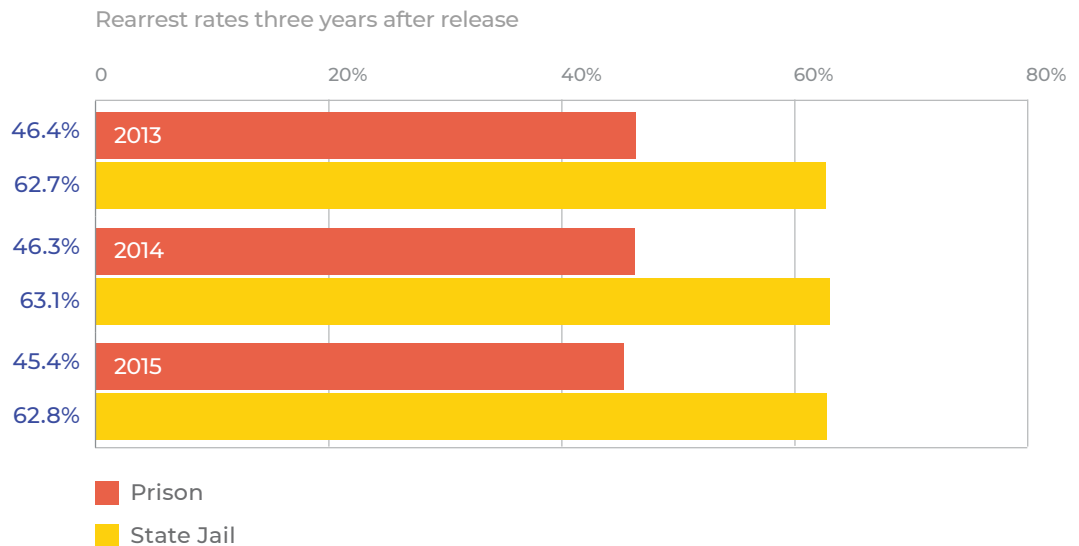By 2036, Texas will remain below the national average.

Indicator Background
This indicator utilizes the Legislative Budget Board's analysis of the 3-year rearrest rate for the cohort released in 2015 as its benchmark. The LBB's rearrest data includes adults and juveniles who were rearrested for "a Class A or B misdemeanor or any type of felony within three years of release or within three years of the start of supervision. Referrals to juvenile probation departments for the same types of offenses also were analyzed and included in the rearrest rates for juvenile populations."[06-88]

Target Background
Because states define recidivism in a non-uniform way, this target seeks to ensure that Texas remains better than the national average for recidivism.

Benchmark
The national average three-year recidivism rate is 68.4%.[06-89]

Percentage of individuals released from incarceration who are rearrested within three years

Rearrest rates three years after release

46.4%	2013	
62.7%		
46.3%	2014	
63.1%		
45.4%	2015	
62.8%		

■ Prison
■ State Jail

7

Texas was ranked 38th in the nation in 2019.

Improving[06-93]

State Lawsuit Climate: Ranking of state civil courts systems in lawsuit climate survey

Target

By 2036, Texas will be in the top three among its 12-state peer group and in the top half among all states.

Indicator Background

The U.S. Chamber's Institute for Legal Reform conducts a survey of in-house general counsel, senior litigators or attorneys, and other senior executives of large companies to identify those jurisdictions with the best and worst legal climates. Because lawsuit climates impact business decisions, this metric is used by Forbes in tabulating the best states for business.[06-92]
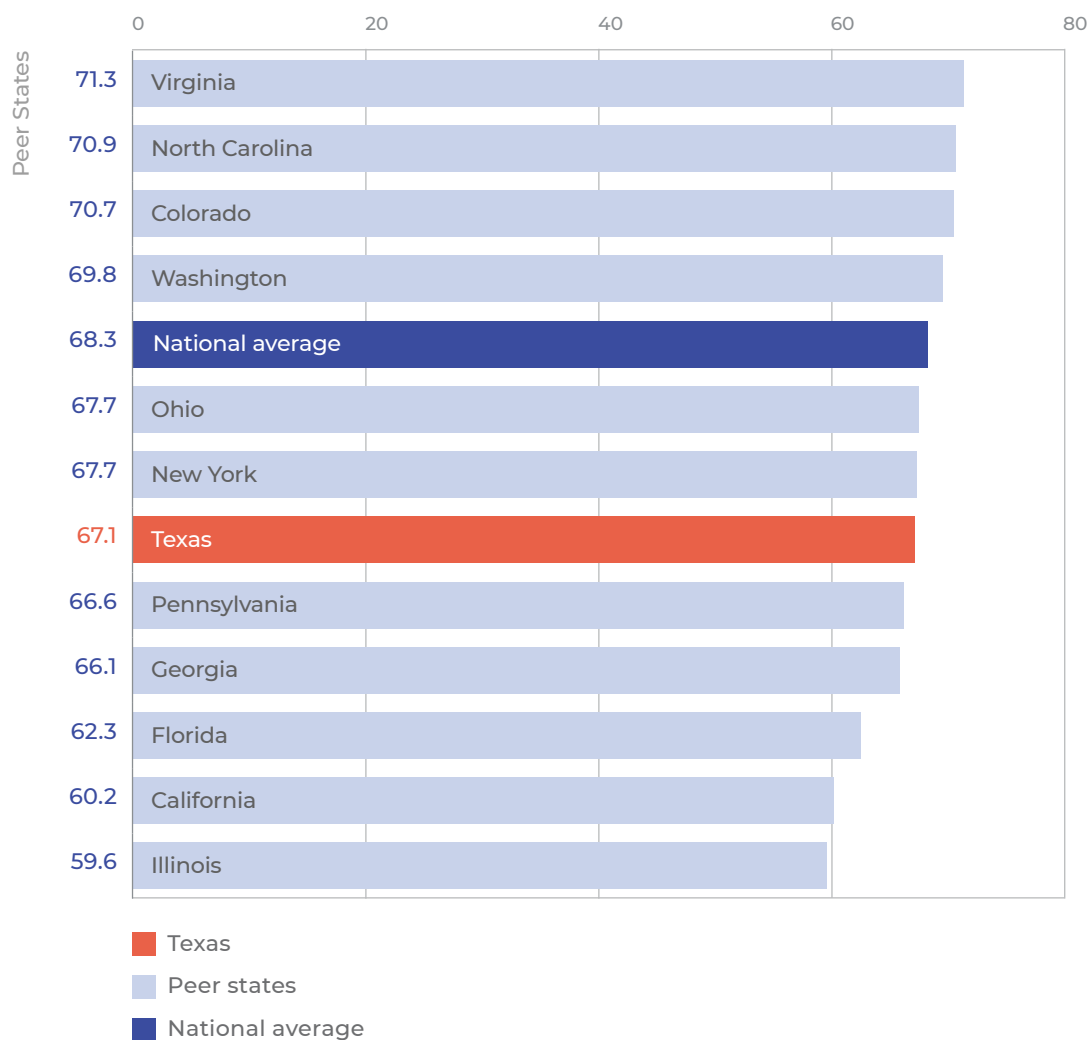
Target Background

To ensure Texas retains its standing among the best places to do business in the nation, improving the state's court systems — and creating the necessary regulatory framework to support them — can provide a differentiator against peer states. To be among the top three peer states, Texas would need to pass the current #3, Colorado (#21 nationally). Virginia (#12 nationally) leads all peer states, followed by North Carolina (#16 nationally).

Benchmark

#7 (peers)

Scaled scores of state civil court systems in lawsuit climate survey

Peer States	Score
Virginia	71.3
North Carolina	70.9
Colorado	70.7
Washington	69.8
National average	68.3
Ohio	67.7
New York	67.7
Texas	67.1
Pennsylvania	66.6
Georgia	66.1
Florida	62.3
California	60.2
Illinois	59.6

■ Texas
■ Peer states
■ National average

Other Indicators Texas 2036 is monitoring:

Incarceration rate: The number of sentenced prisoners under the jurisdiction of state or federal correctional authorities, per 100,000 people

Collateral consequences: Count of legal restrictions that limit people with criminal records from accessing employment, occupational licensing, housing, voting, and education

Criminal justice spending: Criminal justice expenditures per capita[06-94]

Prison spending: Average cost per inmate

Share of budget: Corrections expenditures as percentage of total state general funds expenditures

Prison diversions: Percentage of TDCJ budget allocated to prison diversions

Pillar 07

Government Performance

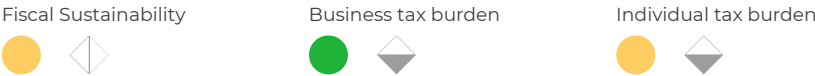**Texans are well-served by accountable governments at all levels.**

How to read

Baseline

⚪ Not compared across states

🟢 On target

🟡 Approaching target

🔴 Off target

⑫ Peer rank

Trend

◇ Not yet tracked

◸ Improving

◇ Flat

◹ Worsening

◈ Mixed

Goal: CONFIDENCE IN GOVERNMENT

Confidence

🟢 ◇

Goal: CIVIC ENGAGEMENT

Voter participation

🔴 ◸

Goal: BROAD, STABLE REVENUE BASE

Fiscal Sustainability	Business tax burden	Individual tax burden
🟡 ◇	🟢 ◹	🟡 ◹

Goal: WISELY MANAGED STATE SPENDING

Value of state services	Long-term liabilities
⚪ ◇	🟡 ◸

Goal: TALENT IN GOVERNMENT

Retention

⚪ ◸

Goal: PROVEN MODERN METHODS IN DATA & ANALYTICS, IT, AND CONTRACTING/PURCHASING

Transformation progress

⚪ ◇

Goal: CUSTOMER SERVICE

User satisfaction

⚪ ◹

Goal: ALIGNED ACCOUNTABILITY

results through teamwork

⚪ ◹

Focus

High-quality, cost-effective public services drive economic growth, improve the quality of life for Texans, and build trust in government. Many talented Texans and innovative Texas-based companies are transforming industries and customer services in every area of 21st century life; state and local governments can also adopt these lessons to dramatically improve the ways government serves Texans.

Not every budget will be handed large surpluses. To the needs for more water, schools, health care, and other vital services, Texas needs to ensure its revenue structure remains broad and provides stability for wise investments in the state's future. Residents and businesses need to be able to foresee their share of service costs and plan their futures. Public expenditures need to be matched with long-term needs and unfunded liabilities addressed responsibly. State and local elected officials need encouragement and support from all Texans to make some of these hard decisions.

A higher priority is needed for state-of-the-art technologies, better data, and talented and skilled workers to spur greater innovation in state government. It's hard for these programs to compete in the budget process with pressing immediate needs — such as education and health care funding — but state leaders can greatly improve customer services and accountability by investing in talent and funding proven modern methods for better planning, data and analytics, information technology, and purchasing.

Texas will need to rely on partnerships more than ever — between state and local entities, non-profits, and the private sector. Teamwork is driving much of the innovation in the private sector. and governments can use these methods as well.

Goals and Targets for Texas in 2036

Goal #29 - Confidence in government: Texans have confidence in the public institutions that serve them.
- **Target:** Texas maintains its ranking in the top nine among peer states with the highest levels of confidence.
- **Baseline:** Texas ranks second among peer states with the highest levels of confidence.

Goal #30 - Civic engagement: Texans actively participate in governing their communities.
- **Target:** Texas ranks in the top nine among peer states for voter participation.
- **Baseline:** Texas ranks twelfth among peer states for voter participation.

Goals #31 - Broad, stable revenue base: Texas's people and businesses contribute taxes and fees to meet strategic needs and remain competitive as we grow and change.
- **Target:** Texas ranks in the top three among peer states for fiscal sustainability, top sixth among peer states for the lowest business tax burden, and top three among peer states for the lowest individual tax burden.
- **Baseline:** Texas ranks fifth among peer states for fiscal sustainability, sixth among peer states for the lowest business tax burden, and fifth among peer states for the lowest individual tax burden.

Goal #32 - Wisely managed state spending: Texas strategically manages state expenditures to deliver the best value to taxpayers.
- **Target:** Texas will raise its standing among peer states in a Taxpayer Return on Investment Index and will rank in the top three among peer states for the lowest long-term liability as a percentage of total personal income.
- **Baseline:** Taxpayer Return on Investment Index is in development. Texas ranks ninth among peer states for the lowest long-term liability as a percentage of total personal income.

Goals #33 - Talent in government: Texas government attracts and retains the talent critical to deliver excellent service and get results.
- **Target:** Texas improves its voluntary turnover rate.
- **Baseline:** Texas's voluntary turnover rate was 12.4% in 2019.

Goal #34 - Proven modern methods in data and analytics, information technology (IT), and procurement: Texas government uses data-driven and proven modern methods to drive toward shared goals.
- **Target:** Texas 2036 will utilize a rubric-based self-assessment across key functions of state administration to track modernization progress, and Texas will achieve progress in all critical milestones and be competitive with peer states.
- **Baseline:** Transformation progress indicator is in development.

Goal #35 - Customer service: Texas people and businesses can access the public services they want and need through user-friendly methods and devices.
- **Target:** Texas will make progress in improving digital customer service and will be among the top peer states in quality and satisfaction.
- **Baseline:** User satisfaction indicator is in development.

Goals #36 Aligned accountability: Texas officials at all levels collaborate well.
- **Target:** Texas governments have clear roles and shared responsibilities for serving Texans, regularly performing rubric-based self-assessments to monitor progress toward achieving this goal.
- **Baseline:** Results through teamwork indicator is in development.

Context

Texas's executive agencies are highly decentralized. The Governor doesn't have as much direct authority as in most other states.[07-01] Nor is there a cabinet of major agency heads as at the federal level and in many other states. Of the six top constitutional officers in Texas, only the Secretary of State is appointed by the Governor. Some major agencies have an elected board (for example, the Railroad Commission and the State Board of Education) or a single elected official (Attorney General, Comptroller). Texas state government has an additional 200 boards and commissions, appointed by the Governor, that operate or oversee the majority of state services. These board appointments are critically important because they, rather than the Governor, hire the chief executives who run these agencies.

The Texas Legislature has significant authority, even though its members —150 Representatives and 31 Senators — meet every other year for only 140 days. Every two years, the Texas Legislature is required to pass a balanced budget.[07-02] The 2020-21 State of Texas budget totals $248.3 billion.[07-03] The Legislature has professionally staffed oversight agencies — Legislative Budget Board, State Auditor's Office, and Sunset Advisory Commission — and a range of standing committees with wide powers to fund, investigate, evaluate, and audit the performance of state government.

GOAL 29
Confidence in Government

Texans have confidence in the public institutions that serve them.

Texas Today and Tomorrow

In 2018, Americans reported the lowest confidence ratings in the federal government in four decades, with only 12% of people saying they had a great deal of confidence in the U.S. government.[07-04] Texans view their state government more favorably: in 2019, 43% said that things in our state are on track (ranking second among 12 peer states on this measure).[07-05] In one poll, 38% of Texans approved of the Texas Legislature's 2019 session, [07-06] while in another, 51% approved of the Governor.[07-07] As the state focuses on data-driven solutions that improve the lives of all Texans and empower economic growth, confidence in state government should become even stronger.

2

43% of Texans said the State is on the right track in 2018-2019[07-08]

Flat[07-09]

Confidence: Percentage of Texans who believe that "things in my state are on track"

Target
In 2036, Texas will remain among the nine highest in its group of 12 peer states.

Indicator Background
This is a well-recognised and widely-used survey question in national, state, and local opinion research. It is a neutral way (without political, personal, or specific issue references) to gauge general comfort with the overall direction of government leadership and services.
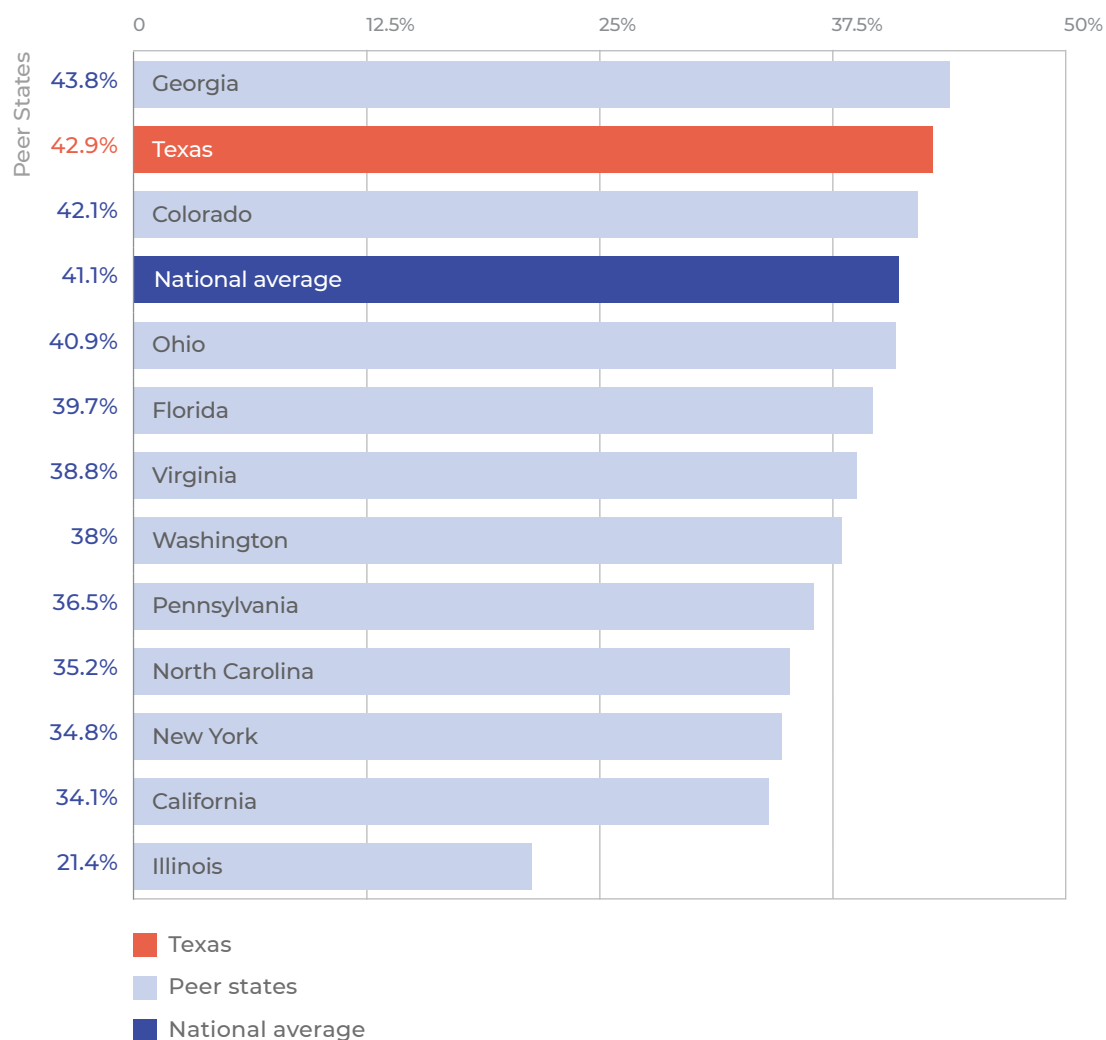
Target Background
Many factors, including the health of the local economy, can influence this survey measure, but Texas ranks highly among peer states today and will seek to maintain public support regardless of economic circumstances.

Benchmark
#2 (peers);[07-10] Top 9 baseline at 35% or higher

Percentage of state residents who believe that "things in my state are on track"

Peer States	Percentage
Georgia	43.8%
Texas	42.9%
Colorado	42.1%
National average	41.1%
Ohio	40.9%
Florida	39.7%
Virginia	38.8%
Washington	38%
Pennsylvania	36.5%
North Carolina	35.2%
New York	34.8%
California	34.1%
Illinois	21.4%

Legend:
- Texas
- Peer states
- National average

GOAL 30
Civic Engagement

Texans actively participate in governing their communities.

Texas Today and Tomorrow

Texas consistently ranks near the bottom nationally in electoral participation. In the 2016 presidential election, only 55% of Texas citizens aged 18 and over voted — one of the lowest turnouts of any state in the nation.[07-11] Voter participation is historically even lower in non-presidential years. In 2018, Texas had a significant increase in turn-out for the midterm elections, with the sixth largest mid-term jump among all states,[07-12] showing that civic engagement can be increased. Even with this increase, Texas still placed in the bottom 10 states in the nation, with just a 48% turnout among citizens aged 18 and over.[07-13]

On other measures of civic engagement, Texas also lags other states. Twenty eight percent of Texas's residents volunteer, ranking 37th in the nation.[07-14] However, Texans donated over $295 million in campaign contributions to federal candidates, PACs, and parties, which is the fourth-highest total in the nation;[07-15] a subset of Texans, at least, is highly engaged in the political process.

Texas government needs the active participation of its residents to ensure the state is held accountable for the priorities that are most important to Texans.

12

55.4% in November 2016; 48.4% in November 2018[07-17]

Improving[07-18]

Voter participation: Percentage of voting-age citizens who vote in major elections[07-16]

Target

By 2036, Texas will rank in the top nine among peer states.

Indicator Background

This indicator tracks Census Bureau estimates for the percentage of voting-age citizens in each state who cast ballots in federal elections. Because presidential election years usually exceed midterm election turnouts, both are tracked.

Target Background

For Texas to reach the top nine among peer states, it would need to exceed 52.4% turnout in a midterm election and 59.5% turnout in a presidential election.

Benchmark

Texas is #12 among its peer states both for presidential-year and midterm election turnout.

Percentage of voting-age citizens who vote in major elections
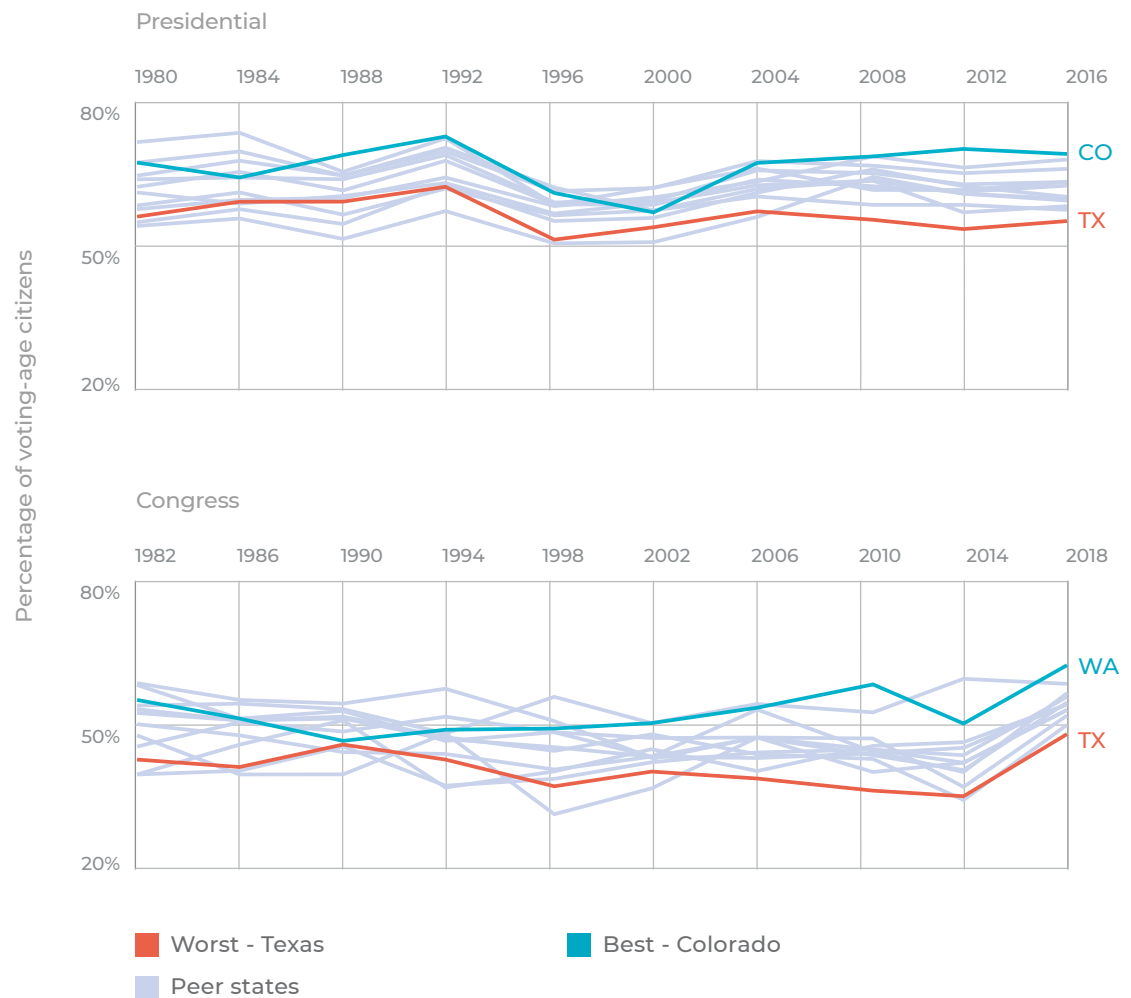
Other Indicators Texas 2036 is monitoring:

Volunteerism: Percent of adults who volunteer

GOAL 31
Broad, Stable Revenue Base

Texas people and businesses contribute taxes and fees to meet strategic needs and remain competitive as we grow and change.

Texas Today and Tomorrow

State and local revenues have grown in Texas due to our robust economy, but Texas does not rank at the top of its peers in fiscal stability and sustainability. Texas ranks fifth among its 12 peers and 22nd among all states on an index of fiscal sustainability measures, including revenue volatility and sustainability in the face of rising obligations.[07-19] Left unaddressed, revenue gaps and volatility will create growing pressure on state budget writers for short-term solutions, deferring critical long-term needs. State taxes and fees need to be broad-based so we can maintain low tax rates and still cover the cost of adequate government services as our economy and population grow.

Texas's tax structure was designed in a different time, and the changing economy highlights weaknesses in the diversity of our revenue streams. More than half of the state's tax revenue is collected from businesses,[07-20] which pay 8.3% of their pretax gross operating surpluses in taxes.[07-21] The energy and manufacturing industries contribute the relatively largest amounts, which make Texas vulnerable to the economic volatility these sectors experience.[07-22] Many service industries are excluded from collecting sales tax on their services, even though they are growing fast. In the most recent state budget period, this sales tax omission reduced state revenues by an estimated $17 billion over two years.[07-23]

Growth in tax exemptions threatens the state's fiscal sustainability. Tax exemptions have grown in value by 57% between 2011 and 2019.[07-24] Hundreds of tax exemptions — including the services excluded from taxes, as described above — will add up to $76 billion in foregone revenue by 2024.[07-25] Even though some exemptions assist worthwhile causes, Texas should frequently evaluate the return on investment of these exemptions to ensure the state is best prioritizing scarce public dollars.

The Texas Economic Stabilization Fund, also known as the Rainy Day Fund, exists to help ensure fiscal stability when downturns in the economy result in revenue losses. While a supermajority vote of the Legislature is required to access the Economic Stabilization Fund, this fund has no spending priorities or restrictions.[07-26] In practice, it has been tapped inconsistently since its creation and has often been used to address state priorities other than covering budget shortfalls.[07-27] Priorities need to be clearer if the Economic Stabilization Fund is going to be an effective tool to limit future tax increases and address true emergency budget shortfalls.

5

#22 in 2016[07-29]

Flat[07-30]

Fiscal Sustainability: Ranking on Fiscal Sustainability Index[07-28]

Target
By 2036, Texas will rank in the top three among its 12 peer states.

Indicator Background
There are several well-designed national benchmark studies of state government finance. Bond rating agencies, national magazines, and academic think tanks conduct periodic assessments of state expenditures, revenues, and obligations. Some focus on budget and accounting procedures, while others track levels of spending and taxes per person. The fiscal health dashboard that most closely mirrors priorities reflected in this Strategic Framework has been produced for the past five years by the Mercatus Center at George Mason University in Virginia. Mercatus has indicated that it may

not continue this report card, but ity will share its data and procedures with Texas 2036 or a research partner who will carry this report forward on Texas's behalf.

Target Background
Texas ranks above the midpoint of all 50 states and our peers in 2016. This is an important performance area in which a strong and stable state government will be better situated to maintain our competitive economic position and support needed service improvements across all goals. This target assumes Texas will increase its ranking among peer states to be among the top three by 2036.

Benchmark
#5 (peers);[07-31] top three baseline at #13 or lower

Ranking on Fiscal Sustainability Index
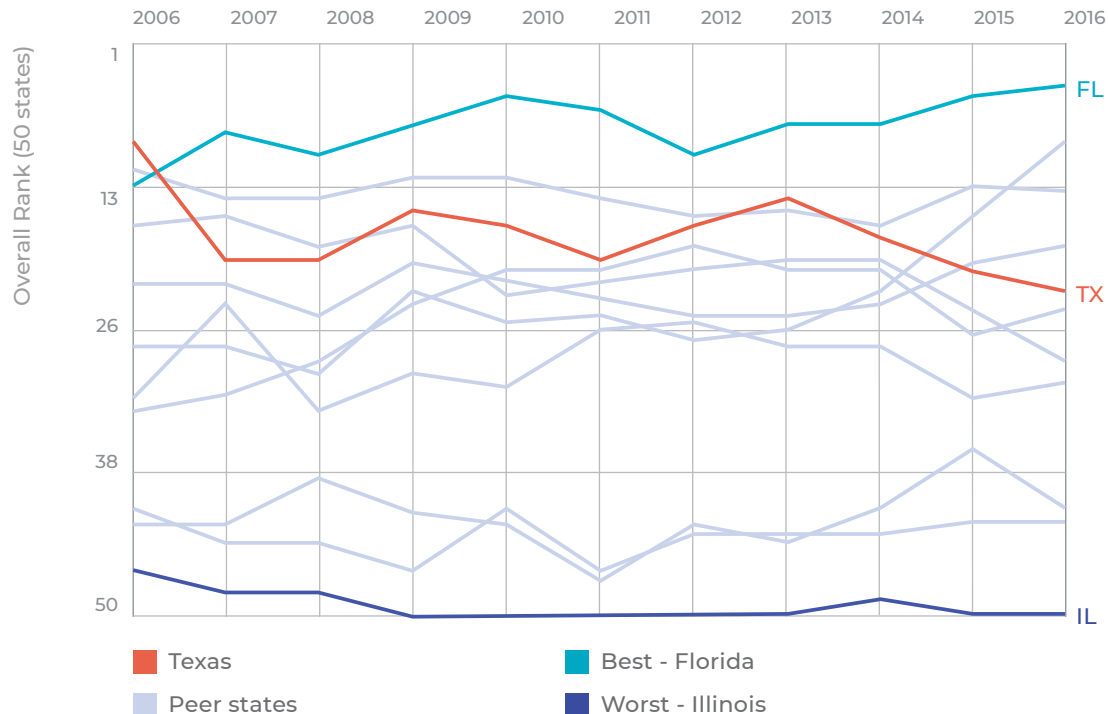
6

8.3% in 2018 rankings
(which use 2016 data)
[07-32]

Worsening[07-33]

Business tax burden: Combined state and local taxes paid by business as percent of pre-tax gross operating margin

Target

By 2036, Texas will continue to have one of the six lowest tax burdens among peer states.

Indicator Background

A favorable business climate is improved by avoiding excessive tax burdens. The Anderson Economic Group tracks business tax burdens across the states utilizing a pre-tax gross operating margin calculation that roughly approximates how much of a company's profits are paid in state and local taxes.
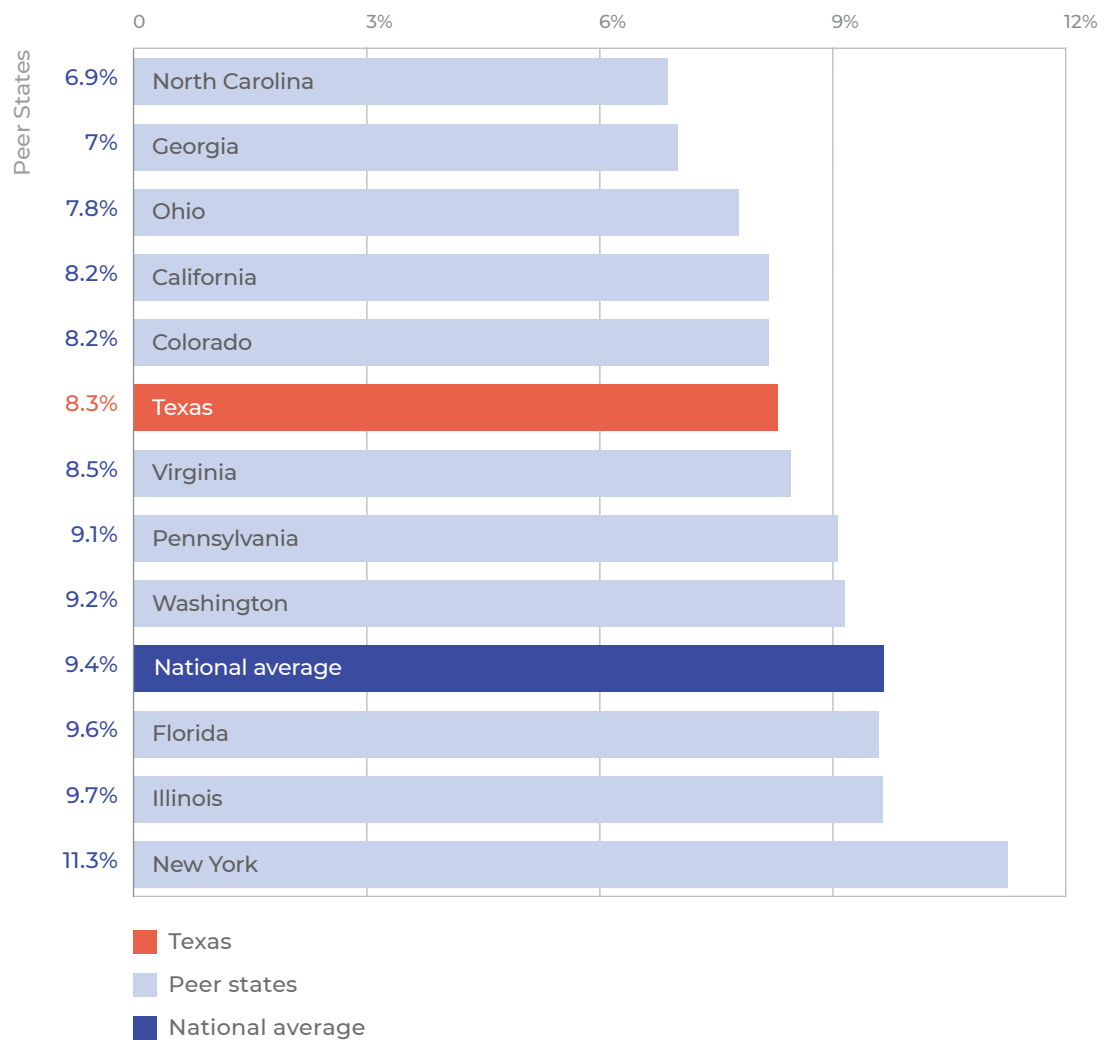
Target Background

While Texas is squarely in the middle of its peer states in overall business tax burden, it leads among those states that have no personal income tax. Washington ranks ninth among peer states with a 9.2% business tax burden, and Florida ranks 10th among peer states with a 9.6% business tax burden.

Benchmark

Texas is ranked sixth among its peers and 18th among all states[07-34]

Combined state and local taxes paid by business as percent of pre-tax gross operating margin

Peer States		
6.9%	North Carolina	
7%	Georgia	
7.8%	Ohio	
8.2%	California	
8.2%	Colorado	
8.3%	Texas	
8.5%	Virginia	
9.1%	Pennsylvania	
9.2%	Washington	
9.4%	National average	
9.6%	Florida	
9.7%	Illinois	
11.3%	New York	

- Texas
- Peer states
- National average

4

8.8% in 2017[07-35]

Worsening[07-36]

Individual tax burden: Combined state and local taxes paid by individuals as percent of income

Target
By 2036, Texas will have one of the three lowest tax burdens among peer states.

Indicator Background
The proportion of state and local taxes varies greatly from state to state and most measurements therefore combine the two sources of tax obligations. Many services, such as education and health care, are shared by state and local governments; the share paid by each may vary from year to year without a corresponding change in the amount owed by taxpayers. Income is more appropriate than headcount because it reflects ability to pay and the success of the underlying economy. The Urban-Brookings Tax Policy Center publishes a consistent and credible report annually, drawn from US Census State and Local Government Finance reports.
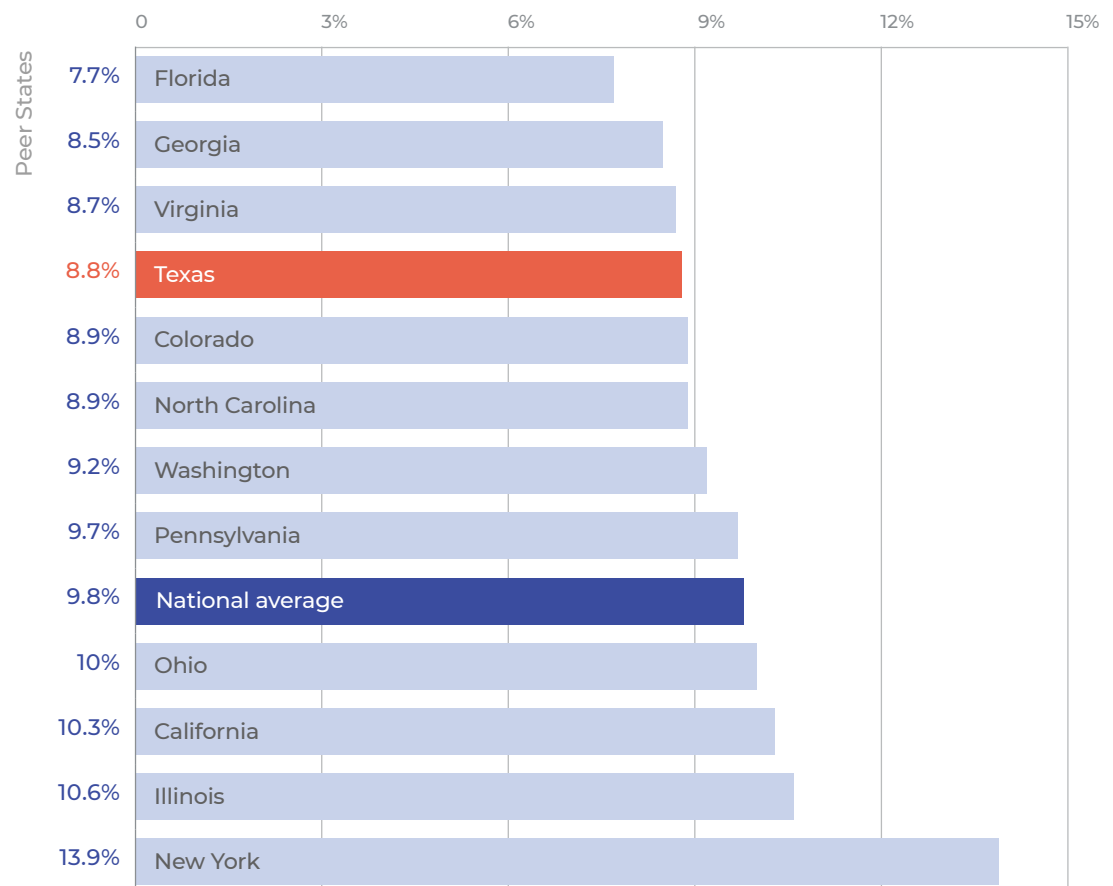
Target Background
Without a personal income tax, Texas has relied more than most states on sales and property taxes. Dramatic increases in property values have made the property tax less comfortable for many Texans as property taxes have increased. As a result, this measure of individual tax burden has been moving in the wrong direction. This target does not assume a particular solution but projects that Texas will address its tax structure in some ways to remain competitive and attractive and rank in the top three among peer states.

Benchmark
#4 (peers);[07-37] top three baseline at 8.7% or lower

Combined state and local taxes paid by individuals as percent of income - 2017

Peer States		
7.7%	Florida	
8.5%	Georgia	
8.7%	Virginia	
8.8%	Texas	
8.9%	Colorado	
8.9%	North Carolina	
9.2%	Washington	
9.7%	Pennsylvania	
9.8%	National average	
10%	Ohio	
10.3%	California	
10.6%	Illinois	
13.9%	New York	

<u>Other Indicators Texas 2036 is monitoring:</u>

Tax revenue volatility: Standard deviation of yearly percent change in total tax revenue, excluding the effect of known tax policy changes

Tax exemptions: Revenue foregone annually due to exemptions as percent of total revenue

Connections

Sustaining a broad, stable revenue base and minimizing tax burdens requires close collaboration with local entities, (goal #36) which are assigned most of their responsibilities and authorized most of their revenues by state law. High-growth cities and school districts, as well as geographically dispersed rural governments, face unique challenges, and it is hard to address their needs without careful attention and a more permanent commitment to the structure of property and sales taxes.

GOAL 32
Wisely Managed State Spending

Texas strategically manages state expenditures to deliver the best value to taxpayers.

Texas Today and Tomorrow

While the state has been a careful steward of tax resources, costs to deliver critical services are rising and will require increased prioritization and commitment to conservative budgeting practices. Optimizing taxpayer value requires both controlling costs that inevitably rise each budget cycle while also finding efficiencies in areas where technology and population growth allow. The state must also consider its long-term liabilities and future needs: pension commitments require attention to be sustainable, and facilities and information technology infrastructure require capital investment to support more direct online services to Texans and better data reporting and analysis.

The Texas Constitution restricts the state's spending to available revenue estimated by the Comptroller, requiring the state to "pay as you go" within a balanced budget.[07-38] To balance the budget, lawmakers have, at times, failed to address some of the state's long-term needs and obligations. Unfunded pension obligations, other post-employment benefit obligations, and deferred maintenance of facilities and information technology have grown to over $12.0 billion.[07-39],[07-40] Even in plentiful times, many of these unfunded obligations and needs have been allowed to grow. Should Texas's economic growth and corresponding tax revenue growth slow down in future years, it will be harder for Texas to fill gaps caused by deferred payments or under-budgeting in prior years.

The best measure of wise public spending is whether Texas takes care of its obligations and delivers necessary services effectively and with the lowest possible expenditure. The complexities of our growing state budget and various two-year "fixes" do not allow the public to have a clear picture of our overall future obligations or current service results, compared to past years or to other states. To be more transparent and accountable to the public, Texas needs a better yardstick of the value added by tax-funded government programs. Texas 2036 will create a Public Return on Investment Index (Taxpayer ROI), comparing our taxes collected to the quality of our services, to track whether state spending produces satisfactory results.

Value of State Services: Texas provides valuable services in relation to revenues collected

-

-

Target

By 2036, Texas will raise its standing among peer states in a Taxpayer Return on Investment Index, accounting for the quality of public services delivered for the combined state and local taxes per capita.[07-41]

Indicator Background

There are many national rankings of state services that compare the quality and effectiveness of services among all 50 states. And there are numerous scorecards that measure taxation of individuals and businesses in every state. Texas 2036 will combine these two types of data — service effectiveness and taxation — to create a ratio that can track the ways public funds are used and compare Texas's progress over time and against our peers.

Target Background

Establishing a new kind of value ratio between the cost and quality of public services will allow a more specific performance goal to be set. Above-average ratios of value may exist for high-tax, high-service states as well as lower-tax, lower-service ones. Whatever the initial Texas ratio turns out to be, the target will be to steadily improve our standing among competitive peer states for the value added cost-effectively by our public services.

Long-Term Liabilities: Tax-supported debt and net pension liabilities as a percentage of total state personal income[07-42]

9

7.1% in 2018[07-43]

Improving[07-44]

Target

By 2036, Texas will have one of the three lowest liabilities among its group of 12 peer states.

Indicator Background

In addition to balancing the budget each year, state governments must also ensure their long-term liabilities are adequately managed for future generations. The long-term fiscal sustainability indicator uses data from Fitch Ratings to measure the tax-supported debt and net pension liabilities relative to total state personal income, an economic measure representing the resource base from which liabilities will ultimately be repaid.
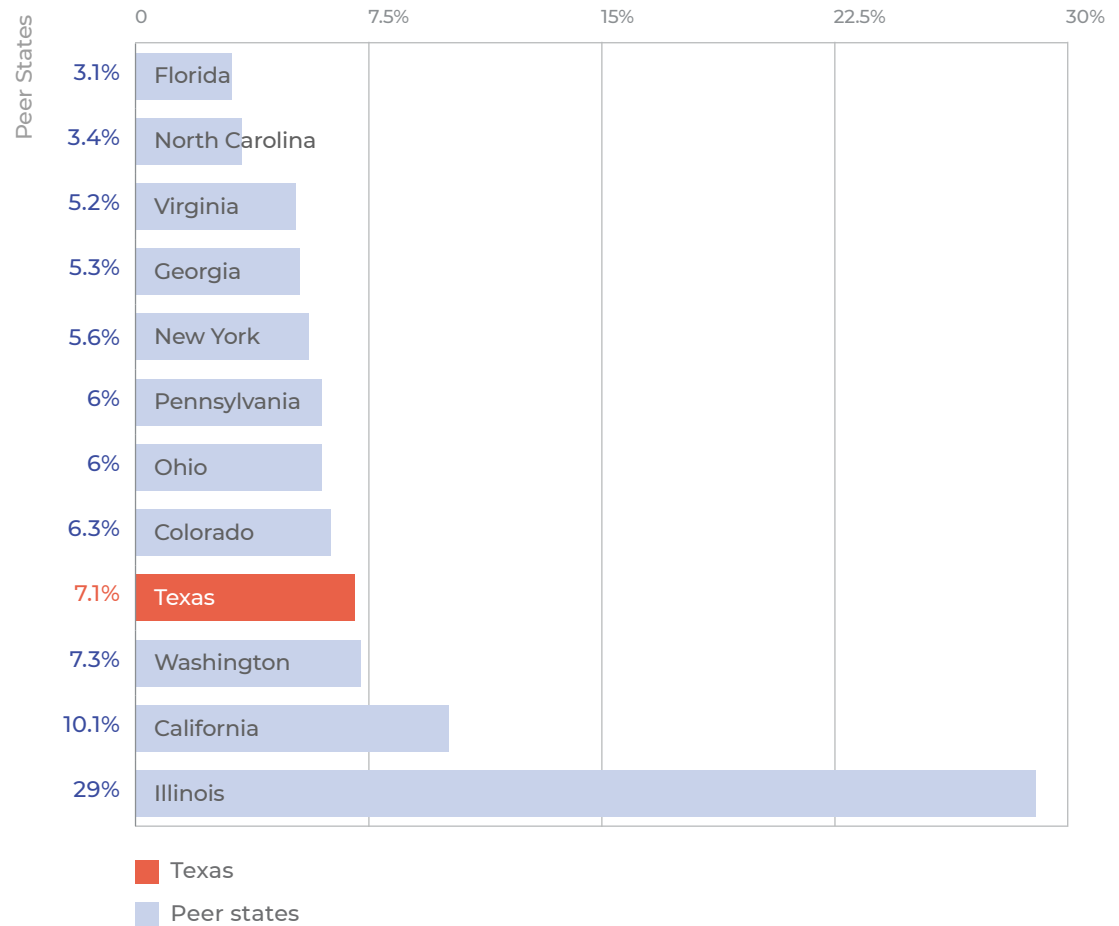
Target Background

Long-term burden is a key rating driver in overall evaluation of credit quality for many rating agencies. Texas must improve its long-term burden to rank in the top three among peer states to ensure its future economic competitiveness and quality of life.

Benchmark

#9 (peers); top three baseline at 5.2%[07-45]

Tax-supported debt and adjusted net pension liabilities as a percentage of total state personal income - 2018

Peer States	
3.1%	Florida
3.4%	North Carolina
5.2%	Virginia
5.3%	Georgia
5.6%	New York
6%	Pennsylvania
6%	Ohio
6.3%	Colorado
7.1%	Texas
7.3%	Washington
10.1%	California
29%	Illinois

■ Texas
■ Peer states

Other Indicators Texas 2036 is monitoring:

Budget Flexibility: Percentage of state budget not pre-committed

Budget maneuvers: Non-recurring revenue (includes Rainy Day Fund, single-use accounts, etc.) as percent of state budget expenditures

Deferred investments: Cost of deferred infrastructure maintenance

Connections

This goal is explicitly connected with goals that focus on controlling spending, including health (goal #12) and justice expenditures (goal #28).

This goal is also directly connected to state government's operational functions (goal #34). While there is agency-level strategic planning as a part of the state budget process, room for significant improvement exists in leveraging data across agencies to solve larger problems for the state in a more coordinated and cost-effective manner.

GOAL 33
Talent in Government

Texas government attracts and retains the needed talent to deliver excellent service and get results.

Texas Today and Tomorrow

The Texas workforce needs more highly trained teachers and health care providers, as discussed in other Goals. But all of state government needs talented workers to meet the demands and expectations of our growing and evolving state.

Texas needs highly skilled leaders and employees to improve services with team-work and technology. State agencies employ just over 150,000 people.[07-46] Despite a 57% growth in population and a 237% growth in budget, the number of state employees is roughly the same today as in 1993.[07-47] Technology has supported this increase in productivity, but more investment in the skills of state employees is needed to keep up with change and growth.

At this time, there is not meaningful data tracking state workforce quality. Instead, the best available data records voluntary turnover of state employees. State employee turnover (voluntary and involuntary) reached a 10-year high in fiscal year 2019, peaking at 20.3%.[07-48] Voluntary turnover, excluding retirements, increased from 11.4% in fiscal year 2018 to 12.4% in fiscal year 2019.[07-49] The State Auditor's office attributes the increased voluntary turnover in large part to employees seeking better pay and benefits at a time when the state's unemployment rate hit historical lows.[07-50] The turnover rate among employees under the age of 30 was nearly double the state average, and more than half of all departures had not been with the state for five years.[07-51]

Texas has underinvested in developing talented staff. By the standards of other large organizations, Texas is notable for the absence of valuable resources to support recruiting across all agencies, for uneven management development practices, and highly variable working conditions and policies. It will be particularly important to improve the management and talent available to transform planning, data analytics, IT, and procurement. **This will require best-in-class HR strategies and systems to attract and train needed talent. In some sectors, efforts should be made to retain and develop expertise; in others, like IT, a more frequent exchange of knowledge with the private sector may allow for more routine refreshes at times of rapid technological change.**

The skills required for state jobs need to better reflect the increasing importance of data analytics, contract management, and customer service technologies. And more sophisticated training programs are needed to raise the skills of existing employees, improve morale and working conditions, and create promotional opportunities.

Retention: Turnover rate of state employees[07-52]

12.4% in 2019[07-53]

Worsening[07-54]

Target

By 2036, Texas will improve its voluntary retention of state employees.

Indicator Background

At this time, there is no readily available measure of the quality of the state's workforce. The best available data tracks whether the state is able to retain its current workforce against private sector competition. This indicator tracks voluntary turnover, for reasons other than retirement, for state agency employees.

Target Background

While some voluntary turnover is good, especially in fields like IT where sharing knowledge back and forth with the private sector can improve state operations, generally the state should seek to have pay and benefits that allow it to develop and retain high-performing employees. Because no comparable benchmark data exists at this time, the target is simply improvement from the 2019 base year. Broader qualitative measures of state workforce skills and leadership will be valuable and should be included when available.

Benchmark

Limited data prevents a good comparison among peer states.

Other Indicators Texas 2036 is monitoring:

HR - sourcing: Number of applicants per job

HR - spending per employee: Aggregated state HR spending divided by total number of state employees

Connections

This goal is explicitly connected to those goals that will require the state to lead changes in service improvements and data collection. It is particularly important in improving the state's core administrative functions (Goal #34).

GOAL 34

Proven Modern Methods in Data & Analytics, IT, and Contracting/Purchasing

Texas government uses data-driven and proven modern methods to drive toward shared goals.

Texas Today and Tomorrow

Texas needs an effective mechanism to bring officials together around long-term goals. Texas adopted a performance-based budgeting process that directly links the state budget to goals and performance measures outlined in the strategic plans of more than 200 agencies.[07-55] Texas remains one of only three states that use this as the primary budget strategy.[07-56] However, with so many goals and performance measures mostly measured on a two-year basis, there is no clear way to prioritize these goals or to ensure resources are devoted to the most problematic performance areas. Without aligned priorities and accountability measures, there is a risk that agencies continue to work in functional silos, lacking a more unified strategic direction. This may serve the immediate needs of the two-year budget process, but Texas needs broader planning to achieve major goals.

The collection, use, analysis, and reporting of data is critical to informed decision making. Only a third of the state's agencies have adequate data analysis capacity.[07-57] A lack of dedicated employees with the right skill sets has made it difficult to address this challenge.[07-58] Texas needs quality data and rigorous analytics across agencies to enable strategic investment.

Many areas of the state government use antiquated legacy IT systems that prevent efficient operations and management. An additional issue is Texas's decentralized approach to managing technology, which makes state agencies largely responsible for managing their own technology budget and needs.[07-59] The state's technology agency, the Department of Information Resources, primarily provides coordination, standards, and statewide contracts for agencies to use in shared services, many of which are voluntary.[07-60] Texas needs a coordinated IT strategy to drive modernization internally for agencies and externally for the public.

Current procurement practices are too driven by outdated order processing methods that need to become more strategic. Between 2008 and 2018, total state spending on goods and services rose by 168% to $59.9 billion, but three-fourths of this spending was performed through emergency or exceptional purchases, not managed contracts.[07-61] Effective state procurement depends on the ability to leverage volume for certain commodities and innovative use of technology and better strategies for other new and complex services. Many agencies do not have a full-time purchasing

staff or access to highly skilled central purchasing assistance to negotiate better contracts. Texas needs to improve and expand centralized procurement practices to take full advantage of better strategies and greater scale of state purchases.

Transformation Progress: Texas 2036 will utilize a rubric-based self-assessment across key functions of state administration to track modernization progress

Target

By 2036, Texas will achieve progress in all critical milestones and be competitive with peer states.

Indicator Background

Both information technology and contracting produce volumes of data, but much of it focuses on budget and equipment inputs, not customer service outcomes. Budget resources are tracked, contract overruns are reported, and volumes of transactions processed are compiled. Some of this input data is used for national report cards on equipment modernization. There are a few efforts underway to develop highly strategic report cards on state government modernization that will be focused on application of the most effective technologies and processes, customer satisfaction drivers, and transparent performance measurement. Texas 2036 will seek broad support in state government and industry to develop agreement around actionable performance steps that use high-quality best practices as guideposts.

Target Background

As soon as a meaningful assessment can be developed, Texas 2036 will encourage a strategy to become a leader among peer states.

Other Indicators Texas 2036 is monitoring:

Planning: Percentage of targets submitted by state government agencies met on time

Procurement: Percentage of contract spending under pre-negotiated contracts for agencies statewide

IT - legacy debt: Percentage of legacy systems in state government

IT - spending per employee: Aggregated state IT spending, divided by total number of state employees

Data analytics: Percentage of state agencies with data analytics capabilities

Connections

Improved technological capabilities will greatly assist the state government in tackling most of the goals in this document, and wisely managing state spending (goal #32) will be necessary to achieve this goal.

GOAL 35
Customer Service

Texas people and businesses can access the public services they want and need with user-friendly methods and devices.

Texas Today and Tomorrow

Texas needs to reshape how it delivers government services. Texans have become accustomed to instant and responsive user experiences in other areas of their lives, and the traditional bureaucratic methods of government are often out-of-touch. Texans don't just want to wait in shorter lines — they want to renew licenses and obtain valuable information online and on their phones. This is a different issue than simply upgrading the technology platforms where state government keeps data. It represents a new priority: to use digital data in ways that save time for Texans, provide faster and better information, and serve the needs of residents as the top priority. Texas needs a modern digital infrastructure that automates processes, reduces duplication, and delivers services using the very best of new technologies.

As an early step, the Texas.gov website now offers more than 1,000 online services to Texans. To take one example: while only 900,000 tax filers with the Texas Comptroller's Office filed online in 2007, program improvements enabled over 5.4 million returns to be filed electronically in 2017.[07-62] Moving forward, Texas has many more opportunities to transform its customer services, using user-friendly methods to save Texans time and increase satisfaction.

User satisfaction: Percentage of population using government services who indicate they are satisfied with digital services

Target
By 2036, Texas will make progress in improving digital customer service and will be among the top peer states in quality and satisfaction.[07-63]

Indicator Background
National magazines and professional associations are developing assessments of innovative digital applications that reduce the time and cost of accessing some government services. These reports are compilations of progress rather than detailed benchmarks, but Texas has made progress in some of these early surveys of best practices. This target assumes that an effective measurement of progress can be developed in the near future but does not exist at this time. Texas 2036 will encourage the state to engage all interested peer states in an effort to adopt a common set of high-priority standards for digital customer services.

Target Background
Texas will make progress on all aspects of digital customer service and be among the top peer states when a national measure is established.

Other Indicators Texas 2036 is monitoring:

Govtech index: State ranking on Govtech Digital States Survey

Digital take-up rate: Percentage of government interactions with users happening online

Cost to serve: IT spend for digital services/number of users

Connections

This goal is connected to the value of state services and spending (Goal #32) and the respect and engagement from Texas residents who are served by state government (Goals #29, 30).

GOAL 36
Aligned Accountability
Texas officials at all levels collaborate well.

Texas Today and Tomorrow

State and local governments often find it difficult to jointly plan and deliver key services to Texans. There are many reasons for this, including political polarization and jurisdictional overlap. State officials are accused of meddling in local affairs, while local officials are charged with encroaching on areas that historically belonged to the state. [07-64] Local governments sometimes represent that they are on the hook for services for which they have inadequate funding,[07-65] while the state struggles to define and monitor services and laws which should be applied uniformly across Texas.

Planning and delivery of many services has been done well in various regional collaborations and user groups. These can be good models to use to improve statewide collaboration efforts. Texas needs to invest its energy and leadership skills in renewing an updated model for collaboration across all levels of government.

Results through teamwork: Texas maintains a model partnership between state and local governments to plan, fund, and deliver effective services jointly as needed

Target
By 2036, Texas governments have clear roles and shared responsibilities for serving Texans, regularly performing rubric-based self-assessments to monitor progress toward achieving this goal.

Indicator Background
There is no defined set of practices that clearly establishes how state and local governments interact. There are written constitutional and statutory rules and court decisions, as well as informal traditions. Every state is different, and what works in one state may not apply in many others. In addition, the pace of change is creating new pressures on Texas laws and customs. A careful discussion will be needed, with considerable support from state and local officials, to define better ways to work together. Accountability for better teamwork can come into play only after some effort is put into an updated set of guidelines for collaboration. Almost every major service need discussed in this Framework anticipates that Texas will find ways to avoid the gridlock that often stymies action at the national level. Texas has the opportunity to make teamwork an exception to national norms.

Target Background
Until discussions produce a roadmap, it is not clear what the best measure of improvement in intergovernmental teamwork will be. The results may surface in public confidence surveys, voter participation, or productive legislative sessions. An appropriate target can be set after a broad participatory process to define areas of needed improvement.

Connections

Successful collaboration between the state government and local entities impacts many of Texas 2036's strategic goals. The state provides the legal framework and some funding for educational services but relies on local school boards for implementation (goals #3 and #4). The state regulates water rights and authorizes water districts to implement services in state water plans (goals #20 & #21). The civil and criminal legal system is framed in the state constitution and statutes, and state courts interact with county and municipal courts (goal #28). The state provides major transportation funding and builds and maintains parts of transportation networks, but local governments plan the interconnections with city and county roads and transit services (goal #13). In emergency responses — whether to floods, tornadoes, chemical spills, or health pandemics — state, city, county, and education institutions plan for coordinated services and work closely together (Goal #18).

Cross-Cutting Theme: Rural

Rural communities are vital to Texas's economic health, providing food, fiber, energy, and talent. Texas's rural population of 3 million people is larger than the population of 18 states.[08-1] From West to East Texas, from the Panhandle to the Valley, Texas's rural communities are home to 10% of all Texans, as well as key industries such as agriculture and energy production.[08-2] In 2018, oil and gas production contributed $162 billion — or 9% of Texas's GDP — to the state, with the two largest production fields located in rural Texas.[08-3] Texas agriculture production, providing a critical portion of the U.S. food supply, contributed $25.3 billion to the Texas economy in 2018.[08-4] Rural communities also frequently demonstrate the entrepreneurial values and economic drive that have made Texas successful. Rural small businesses make up 24% of all business in the state of Texas, contributing more than 20% of the state's economic output.[08-5] **Nonetheless, Texans in rural communities face unique challenges; overcoming them will be critical to achieving many of the goals outlined in this Strategic Framework.**

Students in rural communities have less access to postsecondary education. Over half of the independent school districts in Texas are located in rural areas, enrolling nearly 840,000 students — the most rural students in the nation.[08-6] However, these students do not always have access to the advanced coursework they need to be postsecondary-ready; nearly 60% of rural districts do not offer Advanced Placement courses.[08-7] Similarly, rural students have additional challenges accessing higher education institutions; for example, in West Texas, the average distance from a high school to a higher education institution is 39 miles — but in some areas, that distance can be as much as 141 miles.[08-8]

Health outcomes are worse in rural areas in spite of higher per-capita spending. Texas spends more on Medicare costs per person in rural areas than it does statewide, but it ranks last among peer states in rural access to care.[08-9],[08-10] Sixty three Texas counties have no hospitals, and 35 have no primary care physicians.[08-11] Health behaviors leading to obesity — and obesity itself — are more common in rural regions versus urban areas.[08-12] For these reasons, health outcomes are poor, with rural Texans dying of heart disease and stroke at rates far higher than Texans overall.[08-13]

Lack of broadband internet access prevents rural areas from tapping into critical services and economic opportunities. Broadband access is central to improving health, education, and economic outcomes in rural areas, delivering telemedicine, online learning, and remote work services. Nearly one-third of all rural Texans do not have internet access at adequate speeds (as defined by the Federal Communications Commission), compared to just 3% of Texans in urban areas.[08-14] These disconnected households cost the state an estimated $5.1 billion in lost potential economic activity.[08-15]

Rural areas often lack the infrastructure and resources they need. Rural roads see a greater proportion of traffic fatalities and are more likely to be in poor condition than in the rest of the state.[08-16] Small water systems, which often serve rural areas, are more likely to have violations and are less likely to have adequate monitoring.[08-17] And limited investment in water management projects reduces the available water supply that can be used for agriculture.[08-18]

Summary of goals included in cross-cutting theme

Early learning: Texas children get a strong early start to succeed in school and life.

K-12: Texas students graduate high school ready for postsecondary success.

Postsecondary: Texas students earn a postsecondary credential to access the jobs of today and tomorrow.

Availability of health care: Texans have access to basic health care.

Population health: Texans live long, healthy, and productive lives.

Public health: Texans and their communities are empowered to adopt healthy lifestyles.

Safety: Texas maintains a safe transportation infrastructure.

Digital connectivity: Texans can digitally participate in economic opportunities and essential services.

Hazard readiness: Texas is ready to address the human, economic, and environmental consequences of natural disasters and hazards.

Sufficient water: Texans can rely on a sufficient water supply.

Quality of water: Texans have clean water.

Agricultural production: Texas leads in agricultural production with responsible natural resource stewardship.

Energy production: Texas leads in energy production with responsible natural resource stewardship.

Safety net: Texans have access to resources to meet basic needs when they are in crisis.

Cross-Cutting Theme: Children

Texas's Texas depends on the success of its children. There are currently 7.4 million children in Texas — 26% of the state population.[08-19] Nearly 50% of the state's children are Hispanic, while 40% of all Texans are; this difference reflects a major ongoing demographic shift.[08-20]

Too few children are prepared for the jobs of the future, which will require a highly educated workforce. By 2036, 71% of jobs will require a postsecondary credential,[08-21] but Texas children are not being equipped to access these economic opportunities. Only 50% of high school students are postsecondary-ready,[08-22] and only 32% actually go on to complete a postsecondary credential within six years of graduation.[08-23]

Children face unique health challenges. Texas has the highest rate of uninsured children in the country. [08-24] Over the last 20 years, the state has seen an increase in the number of newborns with low birthweight, which is a predictor of poor health outcomes later in life.[08-25] Texas is ranked 11th among 12 peer states for childhood obesity, although that rate has been decreasing.[08-26] Additionally, one-in-ten Texas children has asthma, which is exacerbated by issues with air quality.[08-27]

Lifetime opportunities for many Texas children are limited by poverty, trauma, and other adverse experiences that lead to major challenges in adulthood. Nearly 20% of Texas children live in poverty,[08-28] with gaps in basic needs such as food and housing. Additionally, one-in-five children have experienced traumas that are likely to lead to chronic health issues, mental illness, and job instability later in life. [08-29] [08-30]

Prudent state budget practices will necessitate that lawmakers pursue strategies with the highest returns on taxpayer investment. **Investing in children can save the state significant costs in the long run.** On average, a person with a Bachelor's degree earns roughly $1 million more ($2.3 million) in their lifetime than someone with just a high school diploma ($1.3 million).[08-31] Healthy, educated children become productive, taxpaying adults.

Summary of goals included in cross-cutting theme

<u>Early learning:</u> Texas children get a strong early start to succeed in school and life.

<u>K-12:</u> Texas students graduate high school ready for postsecondary success.

<u>Postsecondary:</u> Texas students earn a postsecondary credential to access the jobs of today and tomorrow.

<u>Availability of health care:</u> Texans have access to basic health care.

<u>Population health:</u> Texans live long, healthy, and productive lives.

Public health: Texans and their communities are empowered to adopt healthy lifestyles.

Quality of air: Texans have clean air.

Protection for the vulnerable: Texas protects the vulnerable from traumatic experiences.

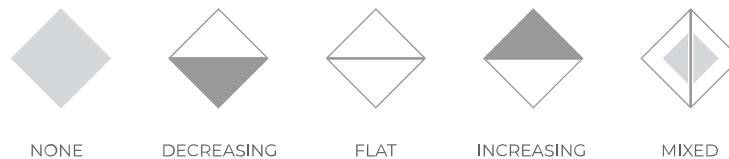Safety net: Texans have access to resources to meet basic needs when they are in crisis.

Wisely managed state spending: Texas strategically manages state expenditures to deliver the best value to taxpayers.
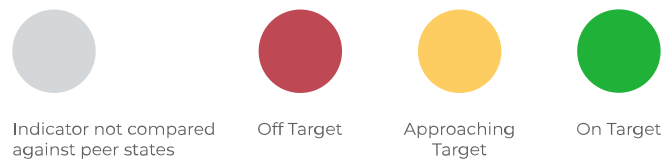
Reading the Data Visualizations

This framework draws from numerous sources, each of which has its own way of collecting and reporting data. In order to provide a more cohesive presentation of the data and information in this report, Texas 2036 developed standards and processes for presenting data and information. This section provides a summary of how to read the indicator glyphs and visual models used in this document.

Indicator Glyphs

TREND

NONE	DECREASING	FLAT	INCREASING	MIXED

BASELINE

Indicator not compared against peer states	Off Target	Approaching Target	On Target

Each indicator has some overall information that is summarized in a small table; the main take aways are:

- Baseline: Absolute value of the indicator based on most recent data point
- Target: Optimal and desired value for the indicator
- Benchmark: Value against which the actual value is compared
- Trend: Percentage change of the indicator over 2+ most recent data point

The Baseline colors are a synthetization of the relation between Goals and the comparison of Texas and its peer states; the colors are defined following this table:

Baseline Assessment

Target Rank for Texas among Peer States		On Target	Approaching Target	Off Target
	First	**Rank: 1**	**Rank: 2 - 7**	**Rank: 8 - 12**
	Top 3	**Rank: 1 - 3**	**Rank: 4 - 9**	**Rank: 10 - 12**
	Top 6	**Rank: 1 - 6**	**Rank: 7 - 9**	**Rank: 10 - 12**
	Top 9	**Rank: 1 - 9**	**-**	**Rank: 10 - 12**

Charts

CHART

▬ BEST PERFORMER	BEST
▬ MID PERFORMERS | PEER STATES	
▬ WORST PERFORMER	
▬ TEXAS	WORST
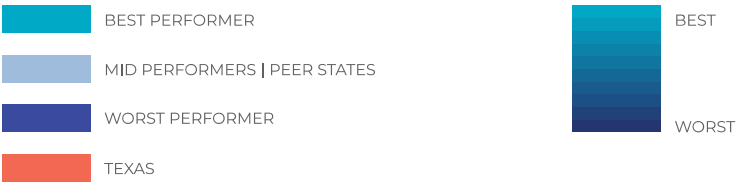
The **Bar chart** displays information as a categorical aggregate; the compared values are different but are hierarchically equivalent. In particular, the bar charts enables us to compare different indicators that share the same context and same category or location.

CATEGORY | value |

Other States   **Texas**   **Texas**

14.077	FL	
13.731	NY	
5.137	WA	
4.315	OH	
4.174	CO	
4.066	TX	
3.297	CA	
2.871	VA	
2.527	PA	
2.345	NC	
1.962	GA	
1.789	IL	

0   3000   6000   9000   12000   15000

45%	2016
43%	
44%	2017
46%	
48%	2018
54%	
37%	2019
39%	

0   10   20   30   40   50   60

The **Line chart** displays information as a time series, where single data points are simply connected by a line. It's particularly useful to show changes over short and long periods; given different needs, different aggregations can be displayed and the ticks of the axis could be distanced by different amount of time.

When smaller changes exist, it's better to use line graphs than bar graphs. Line graphs can also be used to compare changes over the same period of time for more than one group.
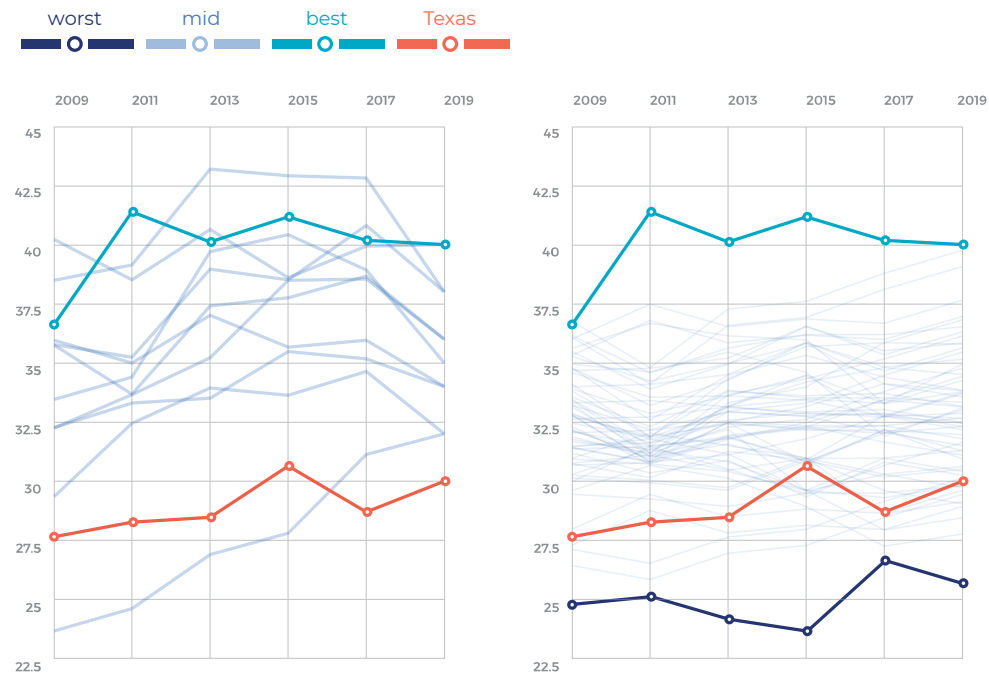
Cartography directly recall existing geographical patterns in the reader and gives them instant knowledge; **Choropleths** are very useful to show big picture information while relying on the user's knowledge about the plotted location various social and economical background.
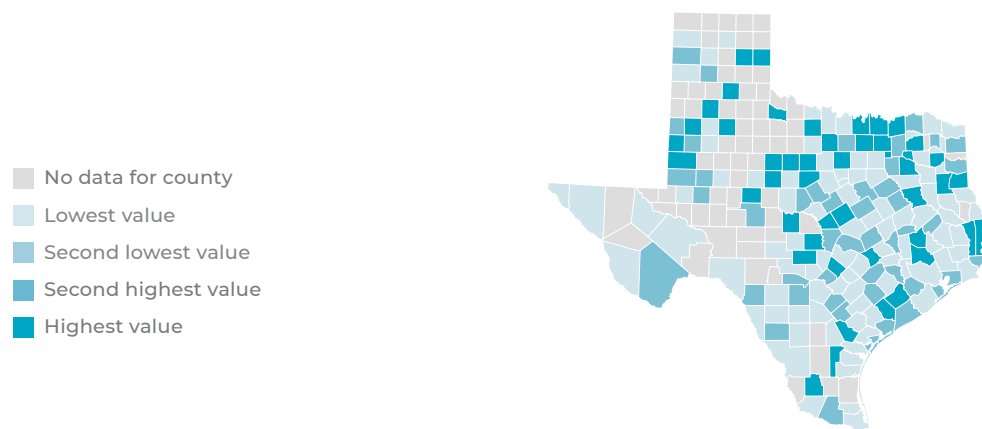
Notes & Sources

Introduction

[00-1] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[00-2] The Perryman Group, The Economic Importance of Texas' Coastal Counties: An Analysis of the Dependence of Texas and its Regions on Business Operations in the Tier 1 Windstorm Insurance Coverage Area, January 2015. https://www.perrymangroup.com/publications/report/the-economic-importance-of-texas-coastal-counties/

[00-3] Bernard L. Weinstein, "How Texas became the heart of NAFTA and now has the most at stake," TribTalk, April 27, 2018. https://www.tribtalk.org/2018/04/27/how-texas-became-the-heart-of-nafta-and-now-has-the-most-at-stake/.

[00-4] Office of the United States Trade Representative, "Texas Trade Facts." https://ustr.gov/map/state-benefits/tx.

[00-5] Ibid.

[00-6] U.S Census Bureau, National and State Population Estimates, 2019. https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html.

[00-7] San Antonio (#4), Fort Worth (#3), Austin (#6), Frisco (#10), McKinney (#13). U.S. Census Bureau, Fastest-Growing Cities Primarily in the South and West, May 2019, Table 2, The 15 Cities With the Largest Numeric Increase Between July 1, 2017 and July 1, 2018. https://www.census.gov/newsroom/press-releases/2019/subcounty-population-estimates.html

[00-8] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[00-9] Based on percentage change from 2018 to 2036. Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[00-10] White population projected to increase by approximately 9% between 2018 and 2036. Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[00-11] Free and reduced-price lunch thresholds equal 185% of the federal poverty line. Texas Education Agency Policy Planning and Research Division, Enrollment Trends in Texas Public Schools, 1998. https://tea.texas.gov/sites/default/files/Spec_PRR_11_1998.pdf. Texas Education Agency, Texas Academic Performance Report, 2018-19 State Student Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[00-12] Based on percentage change from 2018 to 2036. Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[00-13] Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[00-14] Ibid.

[00-15] The Texas Tribune, State Climatalogist: Drought Officially Worst on Record, August 2011. https://www.texastribune.org/2011/08/04/state-climatologist-drought-officially-worst-recor/.

[00-16] Texas A&M Agrilife Research, Monthly Rainfall (1968-2020). https://etweather.tamu.edu/rainhistory/.

[00-17] The Washington Post, 60 Inches of Rain Fell From Hurricane Harvey in Texas, Shattering U.S. Storm Record, September 2017. https://www.washingtonpost.com/news/capital-weather-gang/wp/2017/08/29/harvey-marks-the-most-extreme-rain-event-in-u-s-history/.

[00-18] National Oceanic and Atmospheric Administration, Billion-Dollar Weather and Climate Disasters. https://www.ncdc.noaa.gov/billions/mapping.

[00-19] McKinsey Global Institute, The Future of Work in America, July 2019, and Texas (Dallas and Houston) Fact Pack. https://www.mckinsey.com/featured-insights/future-of-work/americas-future-of-work.

[00-20] Ibid.

[00-21] Ibid.

[00-22] Institute for the Future, Future of Connected Living, 2019. http://www.iftf.org/fileadmin/user_upload/downloads/ourwork/

[00-23] Based on annual percentage change in Real Gross Domestic Product (GDP). U.S. Bureau of Economic Analysis, Gross Domestic Product by State, Table 1. Percentage Change in Real Gross Domestic Product by State, Third Quarter 2019. https://www.bea.gov/data/gdp/gdp-state.

[00-24] Ranking of the 500 largest companies in the U.S. based on revenue. Fortune 500, 2019. https://fortune.com/fortune500/.

[00-25] Ranking of the 5,000 fastest-growing privately-held companies in the U.S. based on percentage revenue growth from 2015 to 2018. Inc. 5000, 2019. https://www.inc.com/inc5000/2019/top-private-companies-2019-inc5000.html.

[00-26] Small businesses defined as firms with less than 500 employees. U.S. Small Business Administration, State Rankings by Small Business Economic Indicators: 50 states and DC, Number of New Establishments, 2018. https://www.sba.gov/advocacy/2018-small-business-profiles-states-and-territories.

[00-27] Includes equity financings into emerging private companies by venture capital firms, corporate venture groups, and angel investors, based on summing amounts for Q1, Q2, Q3, and Q4 in 2019. PwC/CB Insights MoneyTree Report, Regional Aggregate Data, Investments by State, 2019. https://www.pwc.com/us/en/industries/technology/moneytree.html.

[00-28] Selected index includes Forbes "Best States for Business," which ranks states on 41 metrics across six categories: business costs, labor supply, regulatory environment, economic climate, growth prospects, and quality of life; Forbes "Best States for Business", 2019. https://www.forbes.com/best-states-for-business/list/.

[00-29] Selected index includes Information Technology & Innovation Foundation (ITIF) State New Economy Index, which ranks states on 25 metrics across five categories: knowledge jobs, globalization, economic dynamism, digital economy, innovation capacity. Information Technology & Innovation Foundation (ITIF) State New Economy Index, 2017. https://itif.org/publications/2017/11/06/2017-state-new-economy-index.

[00-30] Based on percentage change in population age 25 to 64 from 2016 to 2018. 2018 American Community Survey 1-Year Estimates, Annual Estimates of Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States. https://data.census.gov/cedsci/.

[00-31] Based on net domestic migration gain, calculated as total gain in population from other states minus total loss in population to other states for people who lived in a different residence a year ago. 2018 American Community Survey 1-Year Estimates, State-to-State Migration Flows, Table 1. Current State of Residence with Different State of Residence 1 Year Ago. https://www.census.gov/data/tables/time-series/demo/geographic-mobility/state-to-state-migration.html.

[00-32] Based on Quality of Life ranking. Forbes "Best States for Business," 2019. https://www.forbes.com/best-states-for-business/list/

[00-33] Based on real per capita income and real per capita income growth, with income adjusted for differences in cost of living based on regional price parities and inflation. U.S. Bureau of Economic Analysis, Real Personal Income for States, 2017, Table 2. Real Per Capita Personal Income by State, 2016-2017. https://www.bea.gov/data/income-saving/real-personal-income-states-and-metropolitan-areas.

[00-34] Based on Current Dollar Gross Domestic Product (GDP). U.S. Bureau of Economic Analysis, Gross Domestic Product by State, Third Quarter 2019, Table 3. Current-Dollar Gross Domestic Product by State, Third Quarter 2019. https://www.bea.gov/data/gdp/gdp-state.

[00-35] U.S Census Bureau, National and State Population Estimates, 2019. https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html[00-a].

[00-36] Based on number of Metropolitan Statistical Areas (MSAs) with populations greater than 200,000. U.S. Census Bureau, Metropolitan and Micropolitan Statistical Area Population totals, 2018. https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-metro-and-micro-statistical-areas.html.

[00-37] Overall rank calculated as unweighted average of scores for three categories:Competing for Business (based on unweighted average of

rankings on seven factors), Competing for Talent (based on unweighted average of rankings on five factors), and Similar Size (based on unweighted average of rankings on three factors).

[00-38] Based on sum of 2019 population estimates for selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington). U.S Census Bureau, National and State Population Estimates, 2019. https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html.

[00-39] Based on sum of Q3 2019 Current Dollar GDP for selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington). U.S. Bureau of Economic Analysis, Gross Domestic Product by State, Third Quarter 2019, Table 3. Current-Dollar Gross Domestic Product by State, Third Quarter 2019. https://www.bea.gov/data/gdp/gdp-state.

[40] Percentage at Meets Grade Level or Above, Grade 3 Reading. Texas Education Agency, Texas Academic Performance Report, 2018-19 State STAAR Performance. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[41] Percentage At or Above Proficient, Grade 4 Reading. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2011, 2013, 2015, 2017, 2019. https://www.nationsreportcard.gov/.

[42] Percentage of annual graduates of Class of 2018 that met at least one of the College Ready indicators. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[43] For example, only 28% of 2018 annual graduates met the criterion scores on the ACT or SAT, and only 20% met the criterion scores on an AP or IB exam in any subject

[44] Percentage of annual graduates of Class of 2018 at or above criterion on SAT/ACT (scored at or above the criterion score of 480 on the SAT evidence-based reading and writing or 19 on ACT English section and 23 composite and 530 on SAT mathematics or 19 on ACT Mathematics section and 23 on the ACT composite). Texas Education Agency, Texas Academic Performance Report, 2018-19 State CCMR-Related Indicators: SAT/ACT Results (Annual Graduates). https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[45] Percentage of annual graduates of Class of 2018 that met the College Ready indicator AP/IB Met Criteria in Any Subject[g] (score of 3 or higher on AP, 4 or higher on IB). Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[46] RAND Corporation, "Teachers Matter: Understanding Teachers' Impact on Student Achievement," 2019. https://www.rand.org/education-and-labor/projects/measuring-teacher-effectiveness/teachers-matter.html

[47] Xtelligent Healthcare Media, Health IT Security: Benefits, Challenges of Secure Healthcare Data Sharing, October 2017. https://healthitsecurity.com/features/benefits-challenges-of-secure-healthcare-data-sharing.

[48] Additionally, the HITECH Act, enacted by Congress in 2009, widened the scope of HIPAA's data protection requirements to facilitate the adoption of electronic health records. It increased the legal liability for non-compliance and strengthened the enforcement rights of the Office of Civil Rights.

[49] Datavant, Executive Summary: Evolution of Health Data Regulation, April 2019. https://medium.com/datavant/executive-summary-evolution-of-health-data-regulation-faa5fbb4dc3c.

[50] Microsoft Airband: An update on connecting rural America. Microsoft Power BI visualization, United States broadband availability and usage analysis for Texas. https://news.microsoft.com/rural-broadband/.

[51] United States Census Bureau, American Community Survey and Puerto Rico Community Survey, 2018 Subject Definitions. https://www2.census.gov/programs-surveys/acs/tech_docs/subject_definitions/2018_ACSSubjectDefinitions.pdf?#; https://data.census.gov/cedsci/table?q=broadband&g=0400000US4&tid=ACSST1Y2018.S2801.

[52] Environmental Protection Agency, Enforcement and Compliance History Online. Analyze Trends: Drinking Water Dashboard, About the Data. https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=Texas&view=activity&criteria=basic&yearview=FY.

[53] Texas Legislative Budget Board Staff, Improve Viability of Small Public Water Systems, 2019. http://www.lbb.state.tx.us/Documents/Publications/Staff_Report/2019/5464_Water_Systems.pdf.

[54] Amy Bach, "Missing: Criminal Justice Data," (Op-Ed), New York Times, March 21, 2018. https://www.nytimes.com/2018/03/21/opinion/missing-criminal-justice-data.html?action=click&pgtype=Homepage&clickSource=story-heading&module=opinion-c-col-right-region&region=opinion-c-col-right-region&WT.nav=opinion-c-col-right-region.

[55] Texas Criminal Justice Coalition, Criminal Court Data Dashboard. https://tcjcdashboard.org/.

[56] Texas 2036 Data Lab, Texas Recidivism Rates (Re-Arrests and Re-incarceration) For Adults. https://datalab.texas2036.org/LBBAI2019/texas-recidivism-rates-re-arrests-and-re-incarceration-for-adults

[57] Texas Comptroller of Public Accounts. Fiscal Notes. State Agencies and Legacy Systems. 2017. https://docs.google.com/document/d/1hmNGW5wuTEG1KsvUiVk7oxyF--SDUhshPcnFNN5mXaY/edit .

[58] Department of Information Resources, Biennial Performance Report, 2018. https://pubext.dir.texas.gov/portal/internal/resources/DocumentLibrary/2018%20Biennial%20Performance%20Report%20and%20Report%20on%20State%20Technology%20Expenditures.pdf.

[59] 2016 DIR 2016 Biennial Performance Report

[60] Texas Education Agency, "Cancellation of STAAR Testing for the Remainder of the School Year," March 2020. https://tea.texas.gov/about-tea/news-and-multimedia/correspondence/taa-letters/cancellation-of-staar-testing-for-the-remainder-of-the-school-year

[61] Texas Demographic Center, "Census 2020: Making Texas Count." https://demographics.texas.gov/Data/Decennial/2020/

Pillar 01 - Prosperity and Well-Being

[01-1] San Antonio Express-News - November 10, 2019 "Texas GDP growth top among U.S. states: Texas had the fastest-growing economy among U.S. states in the second quarter of this year, according to data released by the Bureau of Economic Analysis." https://www.expressnews.com/business/article/Texas-GDP-growth-top-among-U-S-states-14820697.php

[01-2] Narrative reflects the data at the time of this printing. Significant changes to the market have occured. Please visit the Texas 2036 Data Lab to see the most current data. [01-add url]

[01-3] Based on Current Dollar GDP. U.S. Bureau of Economic Analysis, Gross Domestic Product by State, Third Quarter 2019, Table 3. Current-Dollar Gross Domestic Product by State, Third Quarter 2019. https://www.bea.gov/data/gdp/gdp-state.

[01-4] Texas Economic Development Corporation. https://businessintexas.com/why-texas/economic-strength.

[01-5] Based on projection for 2036 in Current Dollar GDP. Texas Comptroller, Fall 2019 Economic Forecast, Calendar Years 1990-2046. https://comptroller.texas.gov/transparency/reports/forecasts/fall2019/summary-calendar.php.

[01-6] Ranked second among peer states in Forbes "Best States for Business" Index (North Carolina is ranked first). Forbes "Best States for Business", 2019. https://www.forbes.com/best-states-for-business/list/.

[01-7] Ranked third among peer states for number of Fortune 500 headquarters with 49 (New York is ranked first and California second). Fortune 500, 2019. https://fortune.com/fortune500/.

[01-8] Ranked second among peer states for number of Inc. 5000 fastest-growing privately held companies headquarters with 465 (California is ranked first). Inc. 5000 rankings, 2019. https://www.inc.com/inc5000/2019/top-private-companies-2019-inc5000.html.

[01-9] Ranked third among peer states for number of new establishments with less than 500 employees with 18,500 (California is ranked first and Florida second). U.S. Small Business Administration, State Rankings by Small Business Economic Indicators: 50 states and DC, Number of New Establishments, 2018. https://www.sba.gov/advocacy/2018-small-business-profiles-states-and-territories.

[01-10] Ranked third among peer states for amount of venture capital investment with $2,980M (California is first and New York second). Based on sum of amounts for Q1, Q2, Q3, and Q4 in 2019. PwC/CB Insights MoneyTree

Report, Regional Aggregate Data, Investments by State, 2019. https://www.pwc.com/us/en/industries/technology/moneytree.html.

[01-11]The assessment reflects the most current data at the time of this printing and may not reflect the current market trends. Please visit the Texas 2036 Data Lab to see the most current data. [01-add url]

[01-12] U.S. Bureau of Economic Analysis, SAGDP1 Gross Domestic Product (GDP) summary, Real GDP, annual by state (growth from 2018 to 2019). https://www.bea.gov/data/gdp/gdp-state.

[01-13] In 2018, Texas was #3 among peer states and #6 in the nation with 4% real GDP growth; Washington led among peer states and the nation with 5.8% growth. In 2017, Texas was #6 among peer states and #12 in the nation with 2.9% real GDP growth; Washington led among peer states and the nation with 5.2% growth.

[01-14] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington). U.S. Bureau of Economic Analysis, SAGDP1 Gross Domestic Product (GDP) summary, Real GDP, annual by state (growth from 2017 to 2018) https://www.bea.gov/data/gdp/gdp-state.

[01-15] Ranked second in the nation for net domestic migration gain (Florida is ranked first). Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[01-16] Based on responses to Current Population Survey on reasons to move, with 53% citing employment-related reasons, 24% citing family-related reasons, and 20% citing housing-related or other reasons. Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[01-17] Based on total number of domestic migrants from 2015 to 2017. The Dallas Morning News, Import talent or grow your own? As the flow of migrants slows, Texas needs both, 2018. https://www.dallasnews.com/opinion/editorials/2018/05/07/import-talent-or-grow-your-own-as-the-flow-of-migrants-slows-texas-needs-both/.

[01-18] Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[01-19] "The Best States For Business 2018: Behind The Numbers," Forbes, November 2018. https://www.forbes.com/sites/kurtbadenhausen/2018/11/28/the-best-states-for-business-2018-behind-the-numbers/

[01-20] Based on Quality-of-Life ranking on Forbes "Best States for Business" Index, which includes factors such as cost of living, education, health, crime, commute times, weather, cultural and recreational opportunities. Forbes "Best States for Business," 2019. https://www.forbes.com/best-states-for-business/list/.

[01-21] Ranked thirtieth in 2017 and ninth in 2018.

[01-22] Peer states ranked above Texas include Virginia (ranked first), Ohio (second), Colorado (sixth), Illinois (eleventh), Pennsylvania (twelfth), New York (fourteenth).

Pillar 02 - Education & Workforce

[02-1] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[02-2] Percentage of Class of 2011 high school graduates who earned a certificate or degree from a higher education institution within six years of high school graduation; includes Level 1 and Level 2 certificates, two-year degrees, and four-year degrees. Texas Education Agency, Texas Academic Performance Report, 2017-18 State Postsecondary Outcomes Summary. https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_debug=0&single=N&batch=N&app=PUBLIC&ptype=H&_program=perfrept.perfmast.sas&level=state&search=distnum&namenum=&prgopt=2019/tapr/ps_outcomes_sum.sas.

[02-3] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington) for percentage of population age 25 to 64 with a postsecondary credential. Lumina Foundation, A Stronger Nation, State-by-State Educational Attainment, 2019. http://strongernation.luminafoundation.org/report/2020/#nation.

[02-4] Based on comparison of educational attainment of bachelor's degrees between native population and domestic and international migrants.

[02-4] Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, "Gone to Texas: Migration Vital to Growth in Lone Star State," Chart 4. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[02-5] Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, "Gone to Texas: Migration Vital to Growth in Lone Star State." https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[02-6] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington) on percentage of students at or above Proficient on the NAEP Grade 4 reading assessment. U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2019. https://www.nationsreportcard.gov/.

[02-7] Percentage of annual graduates of Class of 2018 that met at least one of the College Ready indicators. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-8]Workers with a postsecondary degree or credential account for 80% of good jobs in the United States; workers with a high school diploma or less account for 20% of good jobs. Georgetown University Center on Education and the Workforce, "Three Educational Pathways to Good Jobs," 2018. https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/3ways-FR.pdf.

[02-9] Based on percent of population age 25 to 64 with a postsecondary credential. Lumina Foundation, A Stronger Nation, State-by-State Educational Attainment, 2019. http://strongernation.luminafoundation.org/report/2020/#nation.

[02-10] Texas Education Agency, Texas Academic Performance Report, 2018-19 State Student Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-11] Ibid.

[02-12] Ibid.

[02-13] Ibid.

[02-14] Texas Education Agency, Texas Academic Performance Report, 2018-19 State Staff Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-15] Ibid.

[02-16] Ibid.

[02-17] Based on total revenue from all funds. Texas Education Agency, Public Education Information Management System , 2017-18 Actual Financial Data. https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_program=sfadhoc.actual_report_2018.sas&_service=appserv&_debug=0&who_box=&who_list=_STATE.

[02-18] Ibid.

[02-19] Texas Higher Education Coordinating Board, 2019 Texas Public Higher Education Almanac, Statewide Enrollment at Two-Year and Four-Year Institutions, p. 12. https://reportcenter.thecb.state.tx.us/agency-publication/almanac/2019-texas-public-higher-education-almanac/.

[02-20]Based on percentage of students categorized as ever received Pell and within one or two years of graduation. Texas Higher Education Coordinating Board, 2019 Texas Public Higher Education Almanac, Enrollment of Economically Disadvantaged Students. https://reportcenter.thecb.state.tx.us/agency-publication/almanac/2019-texas-public-higher-education-almanac/

[02-21] Texas Legislative Budget Board, Updated 2018-19 and 2020-21 Appropriations Tables, September 2019, p.3, Article III, Higher Education. https://www.lbb.state.tx.us/Documents/Appropriations_Bills/86/Conference_Bills/5872_S12_Bill_Summary.pdf

[02-22] Texas Workforce Commission, Texas Labor Market Information, Texas Labor Market Highlights — December 2019. https://texaslmi.com/.

[02-23] Refers to Skills Development Fund. Texas Workforce Commission, Texas Workforce Consolidated Report to the 86th Legislature, December 2019. https://twc.texas.gov/files/twc/2019-twc-consolidated-annual-report-twc.pdf.

[02-24] Ibid.

[02-25] Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[02-26] Based on comparison of educational attainment of bachelor's degrees between native population and domestic migrants. Federal Reserve Bank of Dallas, Southwest Economy, Q1 2018, Gone to Texas: Migration Vital to Growth in Lone Star State, Chart 4. https://www.dallasfed.org/~/media/documents/research/swe/2018/swe1801b.pdf.

[02-27] Based on total number of domestic and international migrants from 2015 to 2017. The Dallas Morning News, "Import talent or grow your own? As the flow of migrants slows, Texas needs both," 2018. Analysis is in light of the Federal Reserve Bank of Dallas "Gone to Texas: Migration Vital to Growth in Lone Star State" and uses U.S. Census American Communities Survey data. https://www.dallasnews.com/opinion/editorials/2018/05/07/import-talent-or-grow-your-own-as-the-flow-of-migrants-slows-texas-needs-both/.

[02-28] 52.6% Hispanic, 60.6% economically disadvantaged, 19.5% English Learners. Texas Education Agency, Texas Academic Performance Report, 2018-19 State Student Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-29] The Annie E. Casey Foundation, Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation, 2012. https://www.aecf.org/resources/double-jeopardy/.

[02-30] E. Tucker-Drob, "Preschools reduce early academic-achievement gaps: A longitudinal twin approach," Psychological Science, 23(3), 310-319. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543777/

[02-31] Belfield, Nores, Barnett, and Schweinhart, "The High/Scope Perry Preschool Program: Cost-Benefit Analysis Using Data from the Age-40 Follow-Up," 2004. http://jhr.uwpress.org/content/XLI/1/162.abstract#cited-by.

[02-32] Percentage of students at or above Meets Grade Level on the STAAR Grade 3 reading assessment. Texas Education Agency, Texas Academic Performance Report, 2018-19 State STAAR Performance. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-33] Ibid.

[02-34] U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2011, 2013, 2015, 2017, and 2019. https://www.nationsreportcard.gov/.

[02-35] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2019. https://www.nationsreportcard.gov/.

[02-36] Ibid.

[02-37]Estimated statewide Early Childhood Reading Allotment total for 2020-21 school year. The Commit Partnership, "The Impact of HB3 on Early Childhood Education," 2019. https://commitpartnership.org/blog/the-impact-of-hb-3-on-early-childhood-education.

[02-38] Texas Education Agency, Texas Academic Performance Report, 2018-19 State STAAR Performance. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-39] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[02-40] Texas Education Agency, Texas Academic Performance Report, 2018-19 State STAAR Performance. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-41] 45% in 2017, 43% in 2018.

[02-42] U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2011, 2013, 2015, 2017, 2019. https://www.nationsreportcard.gov/.

[02-43] The Annie E. Casey Foundation, Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation, 2012. https://www.aecf.org/resources/double-jeopardy/.

[02-44] U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2011, 2013, 2015, 2017, 2019. https://www.nationsreportcard.gov/.

[02-45] 28% in 2009, 28% in 2011, 28% in 2013, 31% in 2015, and 29% in 2017.

[02-46] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington); Top 3 peer states include tie for first between Colorado and Pennsylvania (40%) and tie for third, between Florida and Virginia (38%). U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), Grade 4 Reading Assessment, 2019. https://www.nationsreportcard.gov/.

[02-47] ACT Research and Policy, Readiness Matters: The Impact of College Readiness on College Persistence and Degree Completion, February 2013. https://www.act.org/content/dam/act/unsecured/documents/Readiness-Matters.pdf. College Board, AP Student Success at the College Level, 2016. https://aphighered.collegeboard.org/sites/default/files/ap-student-success-college-recent-research.pdf.

[02-48] Based on 4-year longitudinal rate for Class of 2018. Texas Education Agency, Texas Academic Performance Report, 2018-19 State Attendance, Graduation, and Dropout Rates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-49] Percentage of annual graduates of Class of 2018 that met at least one of the College Ready indicators. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-50] 28.3% for Class of 2018; percentage of annual graduates at or above criterion on SAT/ACT (480 on the mathematics section of the SAT and 530 on the evidence-based reading section; , composite score of 23 on ACT). Texas Education Agency, Texas Academic Performance Report, 2018-19 State CCMR-Related Indicators: SAT/ACT Results (Annual Graduates). https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-51] 20.4% for Class of 2018; percentage of annual graduates of Class of 2018 that met the College Ready indicator of AP/IB Met Criteria in Any Subject (score of 3 or higher on AP, 4 or higher on IB). Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-52] Percentage of annual graduates of Class of 2018 that met at least one of the College Ready indicators. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-53] Ibid.

[02-54] Texas Education Agency, Texas Academic Performance Report, 2018-19 State Student Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-55] College-ready indicators include meeting Texas Success Initiative (TSI) criteria in both ELA and mathematics based on meeting college ready criteria on TSI assessment, SAT, ACT, or successfully completing and earning credit for a college prep course in both ELA and mathematics; meeting criterion score on AP (score of 3 or higher) or IB (score of 4 or higher) examination in any subject area; completing and earning dual course credit for at least three credit hours in ELA or mathematics or at least nine credit hours in any subject; completing an OnRamps dual enrollment course and qualifying for at least three hours of university or college credit in any subject area; earning an associate degree prior to graduation from high school.

[02-56] 42.1% of annual graduates in 2018 met TSI criteria for both subjects. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0.

[02-57] Based on AP Examination Participation of students in Grades 9-12 from 2013-14 to 2017-18. Texas Education Agency, Advanced Placement and

International Baccalaureate Examination Results in Texas Public Schools, 2017-18, Tables 9 and 11. https://tea.texas.gov/sites/default/files/ap_ib_texas_2017-18.pdf.

[02-58] Texas Higher Education Coordinating Board, Dual Credit and Total Enrollment, Fall Semesters, 2017-18. http://www.txhighereddata.org/index.cfm?objectId=AEE9A640-D971-11E8-BB650050560100A9.

[02-59] Based on AP Examination Participation of students in Grades 9-12 compared to total students. Texas Education Agency, Advanced Placement and International Baccalaureate Examination Results in Texas Public Schools, 2017-18, Tables 9 and 11. https://tea.texas.gov/sites/default/files/ap_ib_texas_2017-18.pdf

[02-60] Fall of 2018 total dual credit enrollment (152,569 students) taken as a percentage of total 9th-12th graders enrolled in Texas Higher Education Coordinating Board, Dual Credit and Total Enrollment, Fall Semesters, 2017-18. http://www.txhighereddata.org/index.cfm?objectId=AEE9A640-D971-11E8-BB650050560100A9.

[02-61] Based on AP Examination Performance of students in Grades 9-12 for examinations with scores of 3-5. Texas Education Agency, Advanced Placement and International Baccalaureate Examination Results in Texas Public Schools, 2017-18, Tables 9 and 11. https://tea.texas.gov/sites/default/files/ap_ib_texas_2017-18.pdf

[02-62] For example, in 2017-18, Early College High Schools and T-STEM campuses served 126,333 students, approximately 8% of students in Grades 9-12. Texas Education Agency, TEA Update on ECHS: Journey Toward Continuous Improvement, Presentation at CCRSM. Leadership Summit, 2019. https://tea.texas.gov/sites/default/files/%28Leadership%20Summit%29%20CCRSM%20Model-specific%20presentations_ECHS%206.17.19%20Final.pdf.

[02-63] Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-64] Texas Education Agency, "HB 3 in 30: College, Career, and Military Readiness Outcomes Bonus and Exam Reimbursements," August 2019, p. 9. https://tea.texas.gov/sites/default/files/HB3%20Video%20Series_CCMR_OutcomesBonus_v12.pdf.

[02-65] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[02-66] Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-67] 47% in 2017.

[02-68] Georgetown University Center on Education and the Workforce, Three Educational Pathways to Good Jobs, 2018. https://cew.georgetown.edu/cew-reports/3pathways/.

[02-69] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[02-70] Percentage of Class of 2011 high school graduates who earned a certificate or degree from a higher education institution within six years of high school graduation; includes Level 1 and Level 2 certificates, two-year degrees, and four-year degrees. Texas Education Agency, Texas Academic Performance Report, 2017-18 State Postsecondary Outcomes Summary. https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_debug=0&single=N&batch=N&app=PUBLIC&ptype=H&_program=perfrept.perfmast.sas&level=state&search=distnum&namenum=&prgopt=2019/tapr/ps_outcomes_sum.sas.

[02-71] Ibid

[02-72] Ibid.

[02-73] Level 1 certificates awarded for programs of at least 15 semester credit hours, Level 2 for at least 30 semester credit hours; examples of certificates include Heating, Air Conditioning, and Refrigeration; Manufacturing Technology; Business Administration.

[02-74] Percent of Class of 2011 high school graduates who earned a certificate or degree from a higher education institution within six years of high school graduation; includes Level 1 and Level 2 certificates, two-year degrees, and four-year degrees. Texas Education Agency, Texas Academic Performance Report, 2017-18 State Postsecondary Outcomes Summary. https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_debug=0&single=N&batch=N&app=PUBLIC&ptype=H&_program=perfrept.perfmast.sas&level=state&search=distnum&namenum=&prgopt=2019/tapr/ps_outcomes_sum.sas.

[02-75] Ibid.

[02-76] Based on Public University Net Tuition and Fees (Adjusted) from 2003 to 2018. Texas Higher Education Coordinating Board, 2019 Texas Public Higher Education Almanac, Student Debt Profile. https://reportcenter.thecb.state.tx.us/agency-publication/almanac/2019-texas-public-higher-education-almanac/.

[02-77] Based on profile of 2012 public higher education cohort. Texas Higher Education Coordinating Board, 2019 Texas Public Higher Education Almanac, Student Debt Profile. https://reportcenter.thecb.state.tx.us/agency-publication/almanac/2019-texas-public-higher-education-almanac/.

[02-78] Texas Higher Education Coordinating Board, 2016-17 Guidelines : TEXAS Grant." http://www.thecb.state.tx.us/DocID/PDF/7896.PDF

[02-79] Dallas County Promise. http://dallascountypromise.org/.

[02-80] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[02-81] Percent of Class of 2011 high school graduates who earned a certificate or degree from a Texas public higher education institution within six years of high school graduation; includes Level 1 and Level 2 certificates, two-year degrees, and four-year degrees. Texas Education Agency, Texas Academic Performance Report, 2017-18 State Postsecondary Outcomes Summary. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[02-82] 33% for Class of 2009, 32% for Class of 2010, 32% for Class of 2011.

[02-83] United Way ALICE (Asset Limited, Income Constrained, Employed) Project, Texas State Level Details, 2018 report. On average, a family of four in Texas with one child and one toddler must earn at least $52,956 to pass the ALICE living wage threshold (can afford basics like housing, food, child care, and health care). Analysis done by the United Way on U.S. Census American Community Survey Public Use Microdata Samples (2016). https://www.unitedforalice.org/texas.

[02-84] Based on comparison of annual earnings for workers with a certificate, associate degree, or bachelor's degree and workers with a high school diploma. Georgetown University Center on Education and the Workforce, Certificates: Gateway to Gainful Employment and College Degrees, 2012. https://cew.georgetown.edu/wp-content/uploads/2014/11/Certificates.FullReport.061812.pdf.

[02-85] Ibid.

[02-86] Ibid.

[02-87] National estimate. Brookings Institution, Meet the Low-Wage Workforce, 2019. https://www.brookings.edu/research/meet-the-low-wage-workforce/

[02-88] United Way ALICE (Asset Limited, Income Constrained, Employed) Project, Texas State Level Details, 2018 report. On average, a family of four in Texas with one child and one toddler must earn at least $52,956 to pass the ALICE living wage threshold (can afford basics like housing, food, child care, and health care). Analysis done by the United Way on U.S. Census American Community Survey Public Use Microdata Samples (2016). https://www.unitedforalice.org/texas.

[02-89] Ibid.

[02-90] Based on comparison to selected peer states (Texas, California, Colorado, Florida, Georgia, Illinois, New York, North Carolina, Pennsylvania, Ohio, Virginia, and Washington); Top 3 peer states include a tie between Washington (64%) and Illinois (64%) and Pennsylvania (60%). Based on United Way ALICE Project data (most recent for each state). https://www.unitedforalice.org/national-comparison.

[02-91] Associated Press Health and Science Department, "AP analysis: Unemployment, income affect life expectancy," 2018. https://apnews.com/66ac44186b6249709501f07a7eab36da

[02-92] Alex Hollingsworth & Christopher J. Ruhm & Kosali Simon, "Macroeconomic conditions and opioid abuse," Journal of Health Economics, 2017. https://www.sciencedirect.com/science/article/abs/pii/S0167629617303387?via%3Dihub

[02-93] Gallup, "In U.S., Depression Rates Higher for Long-Term Unemployed," 2014. https://news.gallup.com/poll/171044/depression-rates-higher-among-long-term-unemployed.aspx

[02-94] Texas Demographic Center, Texas Population Projections Program.

Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[02-95] Assumes same labor force participation rates and migration rates similar to 2000-2010.

Pillar 03 - Health

[03-1] Basic health care includes emergency services, hospitalization, outpatient care, laboratory and radiology services, prescription drugs, rehabilitative services and devices, pregnancy, maternity, and newborn care, and treatment of mental illness and/or substance abuse (including counseling), as well as preventative services (e.g. screening tests, immunizations, and pediatric oral and vision care). U.S. Centers for Medicare & Medicaid Services; National Prevention Strategy, Office of the Surgeon General, 2011 (https://www.hhs.gov/sites/default/files/disease-prevention-wellness-report.pdf).

[03-2] Centers for Medicare & Medicaid Services, National Health Expenditure Data: Health Expenditures by State of Residence, 1991 to 2014. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.

[03-3] Texas Department of State Health Services, Texas Population Projection, 2014. https://www.dshs.state.tx.us/chs/popdat/ST2014.shtm.

[03-4] U.S. Bureau of Economic Analysis, Gross Domestic Product by State, 2004 to 2014. https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1.

[03-5] Texas Comptroller of Public Accounts, Texas Health Care Spending Report, 2015. https://comptroller.texas.gov/about/media-center/news/2017/170131-health-care-spending.php.

[03-6] Kaiser Family Foundation, "Texans' Experiences with Health Care Affordability and Access," July 2018. http://files.kff.org/attachment/Report-Texans-Experiences-with-Health-Care-Affordability-and-Access

[03-7] U.S. Census Bureau, Health Insurance Coverage in the United States, 2018. https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf

[03-8] United Health Foundation, America's Health Rankings, 2018. https://www.americashealthrankings.org/explore/annual/measure/PCP/state/TX

[03-9] United Health Foundation, America's Health Rankings, 2018; https://www.americashealthrankings.org/explore/annual/measure/Diabetes/state/TX; https://www.americashealthrankings.org/explore/annual/measure/Obesity/state/TX.

[03-10]https://www.americashealthrankings.org/explore/annual/measure/Immunize/state/TX.

[03-11] 2014 is the last year for which CMS has published health expenditures. Centers for Medicare & Medicaid Services, National Health Expenditure Data: Health Expenditures by State of Residence, 1991 to 2014. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.

[03-12] Texas Comptroller of Public Accounts, Texas Health Care Spending Report, 2015. https://comptroller.texas.gov/about/media-center/news/2017/170131-health-care-spending.php.

[03-13] Ibid.

[03-14] Health and Human Services Commission, Medicaid Overview Presentation to the Texas House Appropriations Committee, February 6, 2019. https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2019/leg-presentations/mcs-house-appropriations-feb-6-2019.pdf.

[03-15] Medicaid uses the same qualification for disability as the Social Security Administration; adults with disabilities include individuals with medical conditions that significantly limit their ability to do basic work — such as lifting, standing, walking, sitting, and remembering — for at least 12 months. Texas Health and Human Services Commission, The Texas Medicaid and CHIP Reference Guide, 2018. https://hhs.texas.gov/services/health/medicaid-chip/about-medicaid-chip/reference-guide.

[03-16] Ibid.

[03-17]The regulatory function of the state is distributed across several

different agencies depending on the type of provider. http://www.tmb.state.tx.us/page/practice-acts; http://tsbde.texas.gov/licensing/; https://www.bon.texas.gov/about_mission_and_values.asp; http://tsbde.texas.gov/licensing/; https://www.pharmacy.texas.gov/about/mission.asp; https://hhs.texas.gov/doing-business-hhs/licensing-credentialing-regulation

[03-18] Texas Department of Insurance, About Us, 2020.

[03-19] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments. https://demographics.texas.gov/data/TPEPP/Projections/Index.

https://demographics.texas.gov/Data/TPEPP/Projections/

[03-20] The Center for Disease Control, At a glance: Healthy Aging, 2015.

[03-21] Dieleman JL, Squires E, Bui AL, et al. Factors Associated With Increases in US Health Care Spending, 1996-2013. JAMA, 2017. https://jamanetwork.com/journals/jama/fullarticle/2661579.

[03-22] Texas Legislative Budget Board, Summary of Conference Committee Report 2020 – 2021 Biennium. https://www.lbb.state.tx.us/Documents/Appropriations_Bills/86/Conference_Bills/5872_S12_Bill_Summary.pdf

[03-23] Texas Comptroller of Public Accounts, Texas Health Care Spending Report, 2015. https://comptroller.texas.gov/about/media-center/news/2017/170131-health-care-spending.php.

[03-24] U.S. Department of Health and Human Services, Healthy People 2020. https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

[03-25] Texas Department of State Health Services, Texas Projections of Supply and Demand for Primary Care Physicians and Psychiatrists, 2017 to 2030. https://www.dshs.texas.gov/chs/hprc/

[03-26] Rural access measure includes the number of people with access to providers as well as insurance. Hall Institute for Rural and Community Health (Texas Tech University Health Sciences Center), Rural Health Quarterly: U.S. Rural Health Report Card, 2018-2019. http://ruralhealthquarterly.com/home/2019/04/10/2018-u-s-rural-health-report-card/.

[03-27] Texas 2036 analysis of Texas Department of State Health Services Data, Primary Care Physicians, 2019.

[03-28] Approach based on U.S. Census designation of counties without metro-area ("non-metro counties) as "rural," versus counties with metro area as "urban;" list of non-metro counties provided by The Federal Office of Rural Health Policy (FORHP).

[03-29] Robert Wood Johnson Foundation and University of Wisconsin Public Health Institute, County Health Rankings, Population to primary care provider ratio, 2019. https://www.countyhealthrankings.org/app/texas/2019/measure/factors/4/map.

[03-30] Level I and Level II trauma centers are verified by the American College of Surgeons to be able to provide care for any injury; these centers are more advanced than Level III and Level IV trauma centers, which are only verified to assess and stabilize patients with very serious injuries prior to transfer to a more advanced center. Texas State Health Plan, 2019 - 2020 Update.

[03-31] Bolin, Jane et al. "Rural Hospital Closings Reach Crisis Stage." The Conversation. September 30, 2019. http://library.cqpress.com/cqresearcher/document.php?id=cqresrre2019121300.

[03-32] The Commonwealth Fund analysis of CDC Behavioral Risk Factor Surveillance System public data, Health System Data Center, Adults with a usual source of care, 2018. https://datacenter.commonwealthfund.org/topics/adults-usual-source-care.

[03-33] Low-income defined as 0%-199% of federal poverty level income. Ibid.

[03-34] Robert Wood Johnson Foundation and University of Wisconsin Public Health Institute, County Health Rankings, Population to primary care provider ratio, 2020. https://www.countyhealthrankings.org/app/texas/2020/measure/factors/4/map; Based on analysis of The Area Health Resource File, a collection of data from more than 50 sources, including: the American Medical Association, American Hospital Association, US Census Bureau, Centers for Medicare & Medicaid Services, Bureau of Labor Statistics, and National Center for Health Statistics. And the Physician Masterfile, maintained by The American Medical Association, which contains information on nearly all the Doctors of Medicine and Doctors of Osteopathic Medicine in the nation.

[03-35] The ratio has improved from 1,660:1 in 2016 and 1,670:1 in 2014-15.

[03-36] Currently, peer states ranked in the Top 3 include Washington (1,180), Colorado (1,220), and New York (1,220).

[03-37] Robert Wood Johnson Foundation and University of Wisconsin Public Health Institute, County Health Rankings, Population to mental health care provider ratio, 2020. https://www.countyhealthrankings.org/app/texas/2020/measure/factors/62/map.

[03-38] From 2017 to 2019, all peer states significantly improved the population to mental health care provider ratio, likely due to increasing awareness of and demand for mental health care; in Texas, the ratio decreased by approximately 13%.

[03-39] Currently, peer states ranked in the Top 3 are, in descending order, Washington (270:1), California (280:1), Colorado (280:1), New York (350:1), North Carolina (410:1), and Ohio (410:1).).

[03-40] Commonwealth Fund analysis of CDC Behavioral Risk Factor Surveillance System public data, Health System Data Center, Adults with a usual source of care, 2018. https://datacenter.commonwealthfund.org/topics/adults-usual-source-care.

[03-41] Ibid.

[03-42] Baseline has remained between 67% to 69% since 2011. Ibid.

[03-43] Currently, peer states ranked in the Top 3 are, in descending order, Pennsylvania (85%), Illinois (82%), and New York (80%).

[03-44] Episcopal Health Foundation, "Texans' Experiences with Affordability of and Access to Health Care," June 2019. https://www.episcopalhealth.org/wp-content/uploads/2020/01/Texans_Experiences_with_Health_Care_Affordability_and_Access_2019_FINALjune.pdf

[03-45] Commonwealth Fund analysis of CDC Behavioral Risk Factor Surveillance System, Health System Data Center, Adults who went without care because of cost, 2018. https://datacenter.commonwealthfund.org/topics/adults-who-went-without-care-because-cost.

[03-46] Episcopal Health Foundation, "Texans' Experiences with Affordability of and Access to Health Care," June 2019. https://www.episcopalhealth.org/wp-content/uploads/2020/01/Texans_Experiences_with_Health_Care_Affordability_and_Access_2019_FINALjune.pdf

[03-47] Health Care Cost Institute, 2018 Health Care Cost and Utilization Report. https://healthcostinstitute.org/annual-reports/2020-02-13-18-20-19

[03-48] Kaiser Family Foundation presentation of data from the Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. Medical Expenditure Panel Survey (MEPS)- Insurance Component, https://www.kff.org/other/state-indicator/family-coverage/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D.

[03-49] The Commonwealth Fund, Health System Data Center, Employee total potential out of pocket medical costs as percentage of state median income, 2018. https://datacenter.commonwealthfund.org/topics/employee-total-potential-out-pocket-medical-costs-share-state-median-income.

[03-50] The Bureau of Labor Statistics defined medical commodities as medicinal drugs, medical equipment, and medical equipment and supplies (e.g., brace, inhaler, wheelchair, at home medical tests, needles); this excludes personal care products like anti-aging produce, feminine hygiene products, and sports equipment.

[03-51] U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: Medical Care Commodities in U.S. City Average, retrieved from FRED, Federal Reserve Bank of St. Louis, 2020. https://fred.stlouisfed.org/series/CUUR0000SAM1#0; corroborated by multiple sources.

[03-52]U.S. Census Bureau, Health Insurance Coverage in the United States, 2018. https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf

[03-53] Institute of Medicine, America's Uninsured Crisis: Consequences for Health and Health Care, February 2009. http://www.nationalacademies.org/.

[03-54] Health and Human Services Commission, Texas Hospital Uncompensated Care Report, December 2018. https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2018/rider-10-hospital-uncompensated-care-report-dec-2018.pdf.

[03-55] Episcopal Health Foundation, "Texans' Experiences with Affordability of and Access to Health Care," June 2019. https://www.episcopalhealth.org/wp-content/uploads/2020/01/Texans_Experiences_with_Health_Care_Affordability_and_Access_2019_FINALjune.pdf

[03-56] Episcopal Health Foundation, "Texans' Experiences with Affordability of and Access to Health Care," June 2019. https://www.episcopalhealth.org/wp-content/uploads/2020/01/Texans_Experiences_with_Health_Care_Affordability_and_Access_2019_FINALjune.pdf

[03-57] "Care" in this context includes the aggregated totals of: "Skipped dental care or checkups" (43% for all Texan households), "Put off or postponed getting health care they needed" (41% for all Texas households), "Skipped a recommended medical test or treatment" (33% for all Texas households), "Not filled a prescription for a medicine" (31%), "Cut pills in half or skipped doses of medicine" (22%), and "Had problems getting mental health care" (15% of all Texas households).

[03-58] Kaiser Family Foundation analysis U.S. Census Bureau Data. State Health Facts, Health Insurance Coverage of the total population, 2018. https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D.

[03-59] Ibid.

[03-60] Alker, Joan and Lauren Roygardner. "The Number of Uninsured Children Is on the Rise". Georgetown University Health Policy Institute Center for Children and Families. October 2019. https://ccf.georgetown.edu/wp-content/uploads/2019/10/Uninsured-Kids-Report.pdf.

[03-61] Ibid.

[03-62] United State Census Bureau. Health Insurance Coverage in the United States, 2018. https://www.census.gov/library/publications/2019/demo/p60-267.html.

[03-63] Congressional Budget Office, Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2018 to 2028, May 23, 2018. https://www.cbo.gov/publication/53826.

[03-64] Community Health Choice, Community Concepts for an Informed Health Care Conversation, June 2018. https://www.communityhealthchoice.org/media/2190/community-concepts-vol-3.pdf

[03-65] Kaiser Family Foundation, Status of State Medicaid Expansion Decisions, Accessed June 14, 2019. https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/.

[03-66] See, e.g., Executive Order 13813 (October 2017) and Executive Order 13877 (June 2019).

[03-67] Department of Health and Human Services, "Trump Administration Announces Historic Price Transparency Requirements to Increase Competition and Lower Healthcare Costs for All Americans," November 2019. https://www.hhs.gov/about/news/2019/11/15/trump-administration-announces-historic-price-transparency-and-lower-healthcare-costs-for-all-americans.html

[03-68] TRS Rider 20 and ERS Rider 16. Texas General Appropriations Act, Fiscal Years 2020-2021.

[03-69] Question text: "Was there a time in the past twelve months when you needed to see a doctor but could not because of cost?" The "Behavioral Risk Factor Surveillance System" survey is conducted annually via telephone with a sample of approximately 400,000 U.S. residents.

[03-70] Commonwealth Fund analysis of CDC Behavioral Risk Factor Surveillance System, Health System Data Center, Adults who went without care because of cost, 2018. https://datacenter.commonwealthfund.org/topics/adults-who-went-without-care-because-cost.

[03-71] The percentage of Texans reporting that they skipped medical care due to cost has dropped significantly since 2011 (23%); this number generally correlates with and slightly lags the rate of uninsured.

[03-72]

* Currently, peer states ranked in the Top 3 include Pennsylvania (9%), Ohio (10%), and New York (11%), in that order.

[03-73] U.S. Census, Health Insurance Coverage in the United States, 2018. https://www.census.gov/library/publications/2019/demo/p60-267.html

[03-74] Currently, peer states ranked in the Top 6 are, in descending order, New York (5.4%), Pennsylvania (5.5%), Washington (6.4%), Ohio (6.5%), Illinois (7.0%), and California (7.2%).

[03-75] Texas Comptroller of Public Accounts, Texas Health Care Spending Report, 2015. https://comptroller.texas.gov/about/media-center/news/2017/170131-health-care-spending.php

[03-76]According to the Robert Wood Johnson Foundation population health

model.

[03-77] According to the Robert Wood Johnson Foundation population health model; remaining 10% determined by physical environment (i.e., water quality, air quality).

[03-78] United Health Foundation, America's Health Rankings, Low birthweight, 2017. https://www.americashealthrankings.org/explore/annual/measure/birthweight/state/TX

[03-79] SHADAC analysis of CDC Behavioral Risk Factor Surveillance System public data, State Health Compare, SHADAC, University of Minnesota. http://statehealthcompare.shadac.org/map/51/prevalence-of-diabetes-cvd-and-asthma-in-adults-by-total-2011-to-2018#a/25/82

[03-80] Center for Disease Control and Prevention, Chronic Diseases in America, October 2019. https://www.cdc.gov/chronicdisease/resources/infographic/chronic-diseases.htm.

[03-81] Commonwealth Fund analysis of CDC National Vital Statistics System Restricted Use Mortality Microdata, Health System Data Center, Mortality amenable to healthcare, 2017. https://datacenter.commonwealthfund.org/topics/mortality-amenable-health-care.

[03-82] The Lancet, Future life expectancy in 35 industrialized countries: projections with a Bayesian model ensemble, February 2017. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)32381-9/fulltext.

[03-83] Ibid.

[03-84] Commonwealth Fund analysis of CDC National Vital Statistics System Restricted Use Mortality Microdata, Health System Data Center, Mortality amenable to healthcare, 2017. https://datacenter.commonwealthfund.org/topics/mortality-amenable-health-care.

[03-85] Robert Wood Johnson Foundation and University of Wisconsin Public Health Institute analysis of CDC National Vital Statistics System US Small-area Life Expectancy Estimates Project (USALEEP), County Health Rankings, Life expectancy, 2017. https://www.countyhealthrankings.org/app/texas/2019/measure/outcomes/147/data.

[03-86] Very little change from 2013 life expectancy at birth in Texas (78.3).

[03-87] Currently, peer states ranked in the Top 3 are California (81.6), New York (81.3), and Colorado (80.5), in that order.

[03-88] "Premature death" is considered to be death before age 75. Causes considered at least partially treatable or preventable with timely and appropriate medical care: for children (age 0 to 14)— intestinal infection, whooping cough, measles and respiratory disease; for adults (until age 74) — tuberculosis, tetanus, diphtheria, septicemia, polio, multiple types of cancer, epilepsy, diabetes, heart disease, influenza, pneumonia, appendicitis, abdominal hernia, gallstones, kidney disease, and any death due to malpractice or during a medical care, including surgery and birth (for both mother and child).

[03-89] Pan American Health Organization / World Health Organization, "Causes of Death Considered Amenable to Health Care." https://www.paho.org/hq/dmdocuments/2013/annex-basic-indicators-2013.pdf.pdf.

[03-90] Commonwealth Fund analysis of CDC National Vital Statistics System Restricted Use Mortality Microdata, Health System Data Center, Mortality amenable to healthcare, 2017. https://datacenter.commonwealthfund.org/topics/mortality-amenable-health-care.

[03-91] Number of premature deaths from treatable medical conditions per 100,000 population dropped from 98 in 2009 to 92 in 2011; over 2011 to 2017, the rate increased from 92 to 95, and has been stable at 95 since 2013.

[03-92] Currently, peer states ranked in the Top 3 are Colorado (62), Washington (63), and California (71), in that order.

[03-93] Stanford Children's Health, "Low Birth Weight." https://www.stanfordchildrens.org/en/topic/default?id=low-birthweight-90-P02382.

[03-94] Hack M, Schluchter M, Andreias L, Margevicius S, Taylor HG, Drotar D, & Cuttler L. (2011). Change in prevalence of chronic conditions between childhood and adolescence among extremely low-birth-weight children. JAMA, 306(4), 394-401. https://www.ncbi.nlm.nih.gov/pubmed/21791688.

[03-95] Ryan J. Van Lieshout, Michael H. Boyle, Saroj Saigal, Katherine Morrison and Louis A. Schmidt, "Mental Health of Extremely Low Birth Weight Survivors in Their 30s," Pediatrics, February 2015. https://pediatrics.aappublications.org/content/early/2015/02/04/peds.2014-3143.

[03-96] David Figlio & Jonathan Guryan & Krzysztof Karbownik & Jeffrey Roth, 2014. "The Effects of Poor Neonatal Health on Children's Cognitive

Development," American Economic Review, American Economic Association, vol. 104(12), pages 3921-55, December. https://www.nber.org/papers/w18846.

[03-97] In 2017, 8.1% of births in Texas had low birth-weights, compared to 8.4% in 2019. United Health Foundation, America's Health Rankings, Low birthweight, 2017. https://www.americashealthrankings.org/explore/annual/measure/birthweight/state/TX

[03-98] Rate of babies born in Texas under 5.5 lbs. has been steadily increasing since the early 1990's.

[03-99] Currently, peer states ranked in the Top 3 are, in descending order, Washington (6.6%), California (6.9%), and New York (8.1%).

[03-100] David Figlio & Jonathan Guryan & Krzysztof Karbownik & Jeffrey Roth, 2014. "The Effects of Poor Neonatal Health on Children's Cognitive Development," American Economic Review, American Economic Association, vol. 104(12), pages 3921-55, December. https://www.nber.org/papers/w18846.

[03-101] Elovainio, M., Ferrie, J. E., Singh-Manoux, A., Shipley, M., Batty, G. D., Head, J., Hamer, M., Jokela, M., Virtanen, M., Brunner, E., Marmot, M. G., & Kivimäki, M. (2011). Socioeconomic differences in cardiometabolic factors: social causation or health-related selection? Evidence from the Whitehall II Cohort Study, 1991-2004. American journal of epidemiology, 174(7), 779–789. https://doi.org/10.1093/aje/kwr149.

[03-102] America's Health Rankings, "Trend: Immunizations - Children in Texas," 2019. Analysis uses data from the 2017 CDC National Immunization Survey for Children. https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/Immunize/state/TX.

[03-103] Centers for Disease Control, "Why Are Childhood Vaccines So Important?" 2018. https://www.cdc.gov/vaccines/vac-gen/howvpd.htm.

[03-104] America's Health Rankings, "Trend: Immunizations - Children in Texas," 2019. Analysis uses data from the 2017 CDC National Immunization Survey for Children. https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/Immunize/state/TX.

[03-105] Texas' rate of child immunizations declined from 71% in 2016 to 68% in 2017.

[03-106] Virginia (77%) leads the Top 6 rankings for child immunizations, followed by Florida (76%), Illinois (75%), Colorado (71%), North Carolina (71%), and Pennsylvania (70%)

[03-107] Centers for Disease Control and Prevention, "Flu Vaccination Coverage, United States, 2018–19 Influenza Season." https://www.cdc.gov/flu/fluvaxview/coverage-1819estimates.htm

[03-108] Hughes, M.M., et al., Projected Population Benefit of Increased Effectiveness and Coverage of Influenza Vaccination on Influenza Burden – United States. Clin Infect Dis, 2019. https://www.ncbi.nlm.nih.gov/pubmed/31344229

[03-109] Hughes, M.M., et al., Projected Population Benefit of Increased Effectiveness and Coverage of Influenza Vaccination on Influenza Burden – United States. Clin Infect Dis, 2019. https://www.ncbi.nlm.nih.gov/pubmed/31344229

[03-110] Centers for Disease Control and Prevention, "Flu Vaccination Coverage, United States, 2018–19 Influenza Season." https://www.cdc.gov/flu/fluvaxview/coverage-1819estimates.htm

[03-111] Centers for Disease Control and Prevention, "2010-11 through 2018-19 Influenza Seasons Vaccination Coverage Trend Report." https://www.cdc.gov/flu/fluvaxview/reportshtml/trends/index.html

[03-112] Centers for Disease Control and Prevention, "Flu Vaccination Coverage, United States, 2018–19 Influenza Season." https://www.cdc.gov/flu/fluvaxview/coverage-1819estimates.htm

[03-113] Centers for Disease Control and Prevention, "Flu Vaccination Coverage, United States, 2018–19 Influenza Season." https://www.cdc.gov/flu/fluvaxview/coverage-1819estimates.htm

[03-114] For adults, obesity is defined as body mass index of 30.0 or higher based on reported height and weight.

[03-115] Defined by source as "percent of children ages 10 to 17 who are overweight or obese for their age based upon reported height and weight."

[03-116] Centers for Disease Control, "Body Mass Index (BMI)," 2015. https://www.cdc.gov/healthyweight/assessing/bmi/index.html.

[03-117] Centers for Disease Control, "The Health Effects of Overweight and Obesity," 2020. https://www.cdc.gov/healthyweight/effects/index.html.

[03-118] United Health Foundation analysis of CDC Behavioral Risk Factor Surveillance System, America's Health Rankings, Obesity, 2018. https://www.americashealthrankings.org/explore/annual/measure/Obesity/state/TX.

[03-119] United Health Foundation analysis of National Survey of Children's Health 2016-2017, America's Health Rankings, Overweight or obesity – Youth, 2017. https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/youth_overweight/state/TX

[03-120] Obesity rate among adults is increasing across all peer states (approximately 2% annually on average from 2012 to 2017); if current growth trends continue, Texas could achieve its target by reversing trajectory and maintaining the current adult obesity rate.

[03-121] Childhood obesity rate is flat on average across peer states, with 7 of 12 peer states seeing improvement in childhood obesity from 2012 to 2017.

[03-122] Colorado at 23% leads the Top 6 rankings for adult obesity, followed by California (26%), New York (28%), Washington (29%), Virginia (30%), and Florida (31%).

[03-123] Washington at 25% leads the Top 6 rankings for childhood obesity, followed by Colorado (28%), Virginia (28%), Pennsylvania (30%), Illinois (31%), and California and North Carolina (both 31%).

[03-124] Reported smoking at least 100 cigarettes in their lifetime and currently smoke daily or some days.

[03-125] Centers for Disease Control, "Health Effects of Cigarette Smoking," 2018. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm.

[03-126] Ibid.

[03-127] United Health Foundation analysis of CDC Behavioral Risk Factor Surveillance System, America's Health Rankings, Smoking, 2018. https://www.americashealthrankings.org/explore/annual/measure/Smoking/state/TX.

[03-128] Rate of smoking in Texas decreased by just 2% annually from 2013 to 2018, while leading peer states decreased by more than 5% annually.

[03-129] The Top 6 rankings for smoking are, in descending order, California (11%), Washington (12%), New York (13%), Texas (14%), Colorado (15%), and Florida (15%).

[03-130] Centers for Medicare & Medicaid Services, National Health Expenditure Data: Health Expenditures by State of Residence, 1991 to 2014. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.

[03-131] Health Care Cost Institute, 2018 Health Care Cost and Utilization Report. https://healthcostinstitute.org/annual-reports/2020-02-13-18-20-19

[03-132] U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: Medical Care Commodities in U.S. City Average, retrieved from FRED, Federal Reserve Bank of St. Louis, 2020. https://fred.stlouisfed.org/series/CUUR0000SAM1#0.

[03-133] Kaiser Family Foundation analysis of 1999 - 2018 AHA Annual Survey, State Health Facts, Hospital Adjusted Expenses per Inpatient Day. https://www.kff.org/health-costs/state-indicator/expenses-per-inpatient-day/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Expenses%20per%20Inpatient%20Day%22,%22sort%22:%22desc%22%7D

[03-134] James Capeta, "Toward Meaningful Price Transparency in Health Care," American Enterprise Institute, June 2019.

[03-135] Alternative Payment Model Framework and Progress Tracking (APM FPT) Work Group, Final White Paper, January 2016. https://hcp-lan.org/workproducts/apm-whitepaper.pdf

[03-136] Alternative Payment Model Framework and Progress Tracking (APM FPT) Work Group, Final White Paper, January 2016. https://hcp-lan.org/workproducts/apm-whitepaper.pdf

[03-137] Texas Comptroller of Public Accounts, Texas Health Care Spending Report, 2015. https://comptroller.texas.gov/about/media-center/news/2017/170131-health-care-spending.php.

[03-138] Commonwealth Fund analysis of Truven MarketScan, Health System Data Center, Preventable hospitalizations, 2016. https://datacenter.commonwealthfund.org/topics/preventable-hospitalizations-ages-18-64.

[03-139] "After adjusting for inflation, prices accounted for three-quarters of spending growth between 2014 and 2018, contributing $453 to spending per person over the five-year period," Health Care Cost Institute, 2018 Health Care Cost and Utilization Report. https://healthcostinstitute.org/annual-reports/2020-02-13-18-20-19

[03-140] Texas Hospital Association, Milestones for Texas's New Medicaid 1115 Waiver; https://www.tha.org/waiver

[03-141] Ibid.

[03-142] Criteria for meaningful use focus on electronically capturing health information in a coded format, using that information to track key clinical conditions, communicating that information for care coordination purposes, and initiating the reporting of clinical quality measures and public health information.

[03-143] Xtelligent Healthcare Medical, EHR Intelligence: President Obama Signs 21st Century Cures Act into Law, December 2016. https://ehrintelligence.com/news/president-obama-signs-21st-century-cures-act-into-law.

[03-144] Department of Health and Human Services, Agency for Healthcare Research and Quality, "Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions," October 2001. https://www.ahrq.gov/downloads/pub/ahrqqi/pqiguide.pdf

[03-145] Department of Health and Human Services, Agency for Healthcare Research and Quality, "Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions," October 2001. https://www.ahrq.gov/downloads/pub/ahrqqi/pqiguide.pdf

[03-146] Texas Medical Association, "Quick Statistics on the Uninsured in Texas and the U.S.," 2018 data. https://www.texmed.org/template.aspx?id=5519

[03-147] Commonwealth Fund analysis of Truven MarketScan, Health System Data Center, Preventable hospitalizations, 2016. https://datacenter.commonwealthfund.org/topics/preventable-hospitalizations-ages-18-64.

[03-148] There was an increase in preventable hospital admissions among employer-sponsored plan enrollees (the general adult population) from 2015 to 2016, but a significant decrease among enrollees in Medicare (i.e., people 65 and older) over the past ten years.

[03-149] Currently, peer states ranked in the Top 3 are Washington (5.6), Colorado (5.8), and California (5.9), in that order.

[03-150] Centers for Medicare & Medicaid Services, National Health Expenditure Data: Health Expenditures by State of Residence, 1991 to 2014. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsStateHealthAccountsResidence.

[03-151] The 5.1% annual increase in 2014 exceeded the 1.6% increase in 2013 and the 3.6% increase in 2012.

Pillar 04 - Infrastructure

[04-1] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[04-2] Bureau of Labor Statistics, Texas Labor Force Data — Employment for December 2019. https://www.bls.gov/eag/eag.tx.htm.

[04-3] Bureau of Transportation Statistics, Freight Analysis Framework, 2018. Weight/Value for shipments Within, From, and To State by Mode. https://faf.ornl.gov/fafweb/FUT.aspx

[04-4] Texas A&M Transportation Institute, 2019 Urban Mobility Report Base Statistics. Cost of congestion for Texas calculated by adding total congestion costs of each urban area in Texas in 2017, https://mobility.tamu.edu/umr/report/.

[04-5] American Transportation Research Institute, Cost of Congestion to the Trucking Industry: 2018 Update, Table 3: Top Ten States by Total Cost of Congestion http://truckingresearch.org/wp-content/uploads/2018/10/ATRI-Cost-of-Congestion-to-the-Trucking-Industry-2018-Update-10-2018.pdf.

[04-6] Insurance Institute for Highway Safety, Fatality Facts 2018, State by State. Deaths and Deaths per 100 million vehicle miles traveled https://www.iihs.org/topics/fatality-statistics/detail/state-by-state.

[04-7] United States Census Bureau, 2018 American Community Survey, Types of Computers and Internet Subscriptions. Percentage of people with broadband, e.g., cable, fiber optic, or DSL. https://data.census.gov/cedsci/table?q=broadband&g=0400000US4&tid=ACSST1Y2018.S2801.

[04-8] Connected Nation, Rural Broadband: A Texas Tour, 2018, p.94. https://connectednation.org/wp-content/uploads/2018/11/The-Future-of-Rural-Texas-2018_5-Rural-Broadband.pdf.

[04-9] Electric Reliability Council of Texas, News Release, December 5, 2019 http://www.ercot.com/news/releases/show/195806.

[04-10] National Health Security Preparedness Index, 2019 Texas State Profile. Texas Health Security Hazards 2012-2017. https://nhspi.org/wp-content/uploads/2019/05/StateProfiles2019_TX.pdf.

[04-11] Texas Department of Transportation, Texas Transportation Plan 2050, Highway Preservation http://ftp.dot.state.tx.us/pub/txdot-info/tpp/2050/fact-sheet-highway-preservation.pdf

[04-12] Railroad Commission of Texas, Texas Pipeline System Mileage, 2019 https://www.rrc.state.tx.us/pipeline-safety/reports/texas-pipeline-system-mileage/

[04-13] Texas Sunset Advisory Commission, Texas Department of Transportation Staff Report with Final Results (June 2017, Appendix F. https://www.sunset.texas.gov/public/uploads/files/reports/Texas%20Department%20of%20Transportation%20Staff%20Report%20with%20Final%20Results_06-21-17%20%20.pdf

[04-14] Texas Department of Transportation, Texas Transportation Plan 2050, Highway Preservation. Share of Public Road Ownership. County, Town, Township, Municipal. http://ftp.dot.state.tx.us/pub/txdot-info/tpp/2050/fact-sheet-highway-preservation.pdf

[04-15] Texas Sunset Advisory Commission, Texas Department of Transportation Staff Report with Final Results (June 2017, Appendix F. https://www.sunset.texas.gov/public/uploads/files/reports/Texas%20Department%20of%20Transportation%20Staff%20Report%20with%20Final%20Results_06-21-17%20%20.pdf

[04-16] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[04-17] Office of the State Climatologist. Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036. Urban Flooding. https://3hr27o3s9nj8m84dw4489i31-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/ClimateReport-1900to2036-1.pdf

[04-18] Texas General Land Office, 2019 Texas Coastal Resiliency Master Plan, p. 21. https://coastalstudy.texas.gov/resources/files/2019-coastal-master-plan.pdf.

[04-19] Office of the State Climatologist. Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036. Wildfires. https://3hr27o3s9nj8m84dw4489i31-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/ClimateReport-1900to2036-1.pdf

[04-20] Texas A&M Transportation Institute Analysis of Texas A&M Transportation Institute, 2019 Urban Mobility Report Base Statistics. https://mobility.tamu.edu/umr/report/.

[04-21] Texas A&M Transportation Institute Analysis of Texas A&M Transportation Institute, 2019 Urban Mobility Report Base Statistics. https://mobility.tamu.edu/umr/report/.

[04-22] United States Census Bureau, 2018 American Community Survey, Journey to Work — Means of Transportation to Work by Selected Characteristics. https://data.census.gov/cedsci/table?q=journey%20to%20work&tid=ACSST1Y2018.S0802&vintage=2018.

[04-23] United States Census Bureau, 2018 American Community Survey, Journey to Work — Means of Transportation to Work by Selected Characteristics For Workplace Geography .https://data.census.gov/cedsci/table?q=journey%20to%20work&tid=ACSST1Y2018.S0804&vintage=2018&g=0400000US48&hidePreview=true

[04-24] United States Census Bureau, 2018 American Community Survey, Journey to Work — Means of Transportation to Work by Selected Characteristics. https://data.census.gov/cedsci/table?q=journey%20to%20work&tid=ACSST1Y2018.S0802&vintage=2018.

[04-25] United States Census Bureau, 2018 American Community Survey, Journey to Work — Means of Transportation to Work by Selected Characteristics For Workplace Geography .https://data.census.gov/cedsci/table?q=journey%20to%20work&tid=ACSST1Y2018.S0804&vintage=2018&g=0400000US48&hidePreview=true

[04-26] Texas Department of Transportation, Texas Transportation Funding for Fiscal years 2020-21, Figure 4, http://ftp.dot.state.tx.us/pub/txdot-info/fin/funding-brochure2020.pdf

[04-27] Texas Department of Transportation, Texas Transportation Funding for Fiscal years 2020-21, Figure 4, http://ftp.dot.state.tx.us/pub/txdot-info/fin/funding-brochure2020.pdf

[04-28] Texas Department of Transportation, Texas Transportation Funding for Fiscal years 2020-21, Figure 4, (Non-traditional funding sources include oil and gas severance taxes and sales and use taxes) http://ftp.dot.state.tx.us/pub/txdot-info/fin/funding-brochure2020.pdf

[04-29] Comptroller of Public Accounts, Fiscal Notes, Road Finance, 2016, https://comptroller.texas.gov/economy/fiscal-notes/2016/may/road-finance.php

[04-30] Schaller Consulting, "The New Automobility: Lyft, Uber, and the Future of American Cities." July 25, 2018, http://www.schallerconsult.com/rideservices/automobility.pdf.

[04-31] Fehr & Peers, Estimated Percent of Total Driving by Lyft and Uber in Six Major US Regions, September 2018. https://drive.google.com/file/d/1FIUskVkj9lsAnWJQ6kLhAhNoVLjfFdx3/view.

[04-32] Texas Tribune, Suburbs of Houston and Dallas top list of fastest-growing cities in U.S., May 25, 2017. https://www.texastribune.org/2017/05/25/texas-suburbs-are-once-again-among-fastest-growing-cities/.

[04-33] CityLab, Young People's Love of Cities Isn't a Passing Fad, May 28, 2019. https://www.citylab.com/life/2019/05/urban-living-housing-choices-millennials-move-to-research/590347/.

[04-34] Texan Transportation Institute, Urban Mobility Report, Cost of Congestion data, 2019. https://mobility.tamu.edu/umr/report/.

[04-35]Fuel costs are based on daily fuel price data published by the American Automobile Association. State-level baseline, trends, and benchmarks calculated by summing the congestion costs of all urban areas within a state and dividing by total auto commuters of all urban areas within a state. Texan Transportation Institute, Urban Mobility Report, Cost of Congestion data, 2019. https://mobility.tamu.edu/umr/report/.

[04-36] Texas 2030 Committee report, It's About Time: Investing in Transportation to Keep Texas Economically Competitive, https://texas2030committee.tamu.edu/documents/final_03-2011_report.pdf

[04-37] The cost of congestion increased year over year from 2014 ($986) to 2017 ($1,065).

[04-38] United State Census Bureau, 2018 American Community Survey, Journey to Work — Means of Transportation to Work by Selected Characteristics. https://data.census.gov/cedsci/table?tid=ACSST1Y2018.S0802&vintage=2018.

[04-39] Workers using non-single occupancy vehicles decreased by only 0.2ppt from 2016 to 2018.

[04-40] Rankings of the Top 6 are first New York (46%), second, Washington (27%), third, Illinois (26%), fourth, California (25%), fifth, Colorado (24%), and sixth Pennsylvania (23%).

[04-41] Texas Commission on Environmental Quality, Texas Emission Sources, updated in 2019. https://www.tceq.texas.gov/airquality/areasource/texas-emissions-graphical-representation.

[04-42] Texas Department of Transportation, Texas Freight Mobility Plan 2018, p.3. http://ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/2018/summary.pdf.

[04-43] Texas 2036 Analysis of Bureau of Transportation Statistics, Freight Analysis Framework, 2018. Weight/Value for shipments Within, From, and To State by Mode. Ton-miles. https://faf.ornl.gov/fafweb/FUT.aspx.

[04-44] Texas 2036 Analysis of Bureau of Transportation Statistics, Freight Analysis Framework, 2018. Weight/Value for shipments Within, From, and To State by Mode. Ton-miles. and 2045. Weight/Value for shipments Within, From, and To State by Mode. Ton-miles. https://faf.ornl.gov/fafweb/FUT.aspx. Based on constant annual growth rate needed to meet Bureau of Transportation Statistics 2045 projected values.

[04-45] Texas Department of Transportation, Texas Freight Mobility Plan 2018, Sections 4 to 7. http://ftp.dot.state.tx.us/pub/txdot/movetexas-freight/studies/freight-mobility/2018/plan.pdf.

[04-46] American Transportation Research Institute, 2019 Top 100 Truck Bottlenecks. https://truckingresearch.org/2019/02/06/atri-2019-truck-bottlenecks/#.XHcryZNKhTY.

[04-47] Texas Department of Transportation, Texas Freight Mobility Plan 2018, p.17. http://ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/2018/summary.pdf.

[04-48] Office of the Governor, Economic Development and Tourism, 2015. https://gov.texas.gov/uploads/files/business/portsintexas.pdf.

[04-49] Office of the United State Trade Representative, State Benefits of Trade: Texas. https://ustr.gov/map/state-benefits/tx.

[04-50] Federal Reserve Bank of Dallas, Your Texas Economy, January 2020. https://www.dallasfed.org/-/media/Documents/research/econdata/texaseconomy.pdf.

[04-51] Houston Chronicle, Houston leads the way as Texas ships 80% of nation's crude exports, March 19,2019. https://www.chron.com/business/energy/article/Houston-leads-as-Texas-ships-out-80-of-nation-s-13696641.php.

[04-52] Freight transit modes include air, multiple modes & mail, pipeline, rail, truck, water, and other modes; one ton-mile equivalent to one ton of freight transported one mile. Bureau of Transportation Statistics, Freight Analysis Framework, 2018. Weight/Value for shipments Within, From, and To State by Mode. https://faf.ornl.gov/fafweb/FUT.aspx.

[04-53] Texas Freight Mobility Plan 2019, Texas Department of Transportation, Texas Freight Transportation Overview, http://ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/2018/plan.pdf

[04-54] Texas Freight Mobility Plan 2019, Texas Department of Transportation, Economy, http://ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/2018/plan.pdf

[04-55] Texas 2036 Analysis of Bureau of Transportation Statistics, Freight Analysis Framework, 2018. Weight/Value for shipments Within, From, and To State by Mode. Ton-miles. and 2045. Weight/Value for shipments Within, From, and To State by Mode. Ton-miles. https://faf.ornl.gov/fafweb/FUT.aspx. Based on constant annual growth rate needed to meet Bureau of Transportation Statistics 2045 projected values.

[04-56] Total freight movement has increased year-over-year since 2016 and is up from 1.03T ton-miles in 2013.

[04-57] The Top 3 rankings are, in descending order, Texas (1.2T), California (0.7T), and Illinois (0.5T).

[04-58] Texas Commission on Environmental Quality, Texas Emission Sources, updated in 2019. https://www.tceq.texas.gov/airquality/areasource/texas-emissions-graphical-representation.

[04-59] Texas Department of Transportation, Texas Motor Vehicle Traffic Crash Facts Calendar Year 2018. https://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2018/01.pdf.

[04-60] Texas Department of Transportation, November 2019 Press Release — End the Streak. https://www.txdot.gov/inside-txdot/media-center/psas/end-streak.html.

[04-61] Texas 2036 Analysis of 2018 fatalities (3,639) and 2010 Fatalities (3,060); Texas Department of Transportation, Texas Motor Vehicle Traffic Crash Facts Calendar Year 2018. https://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2018/01.pdf.; Texas Department of Transportation, Texas Motor Vehicle Traffic Crash Facts Calendar Year 2011. http://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2011/01.pdf.

[04-62] Texas Department of Transportation, Texas Motor Vehicle Traffic Crash Facts Calendar Year 2018. https://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2018/01.pdf.

[04-63] Texas Department of Transportation, Comparison of Motor Vehicle Traffic Deaths, Vehicle Miles, Death Rates, and Economic Loss 2003-2018. Estimated economic loss of all motor vehicle crashes. http://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2018/a.pdf.

[04-64] American Society of Civil Engineers, 2017 Infrastructure Report Card for Texas — Key Facts. https://www.infrastructurereportcard.org/state-item/texas/.

[04-65] Texas Department of Transportation, Texas Transportation Plan 2050, Freight, http://ftp.dot.state.tx.us/pub/txdot-info/tpp/2050/fact-sheet-freight.pdf

[04-66] Texas Department of Transportation, Highway Preservation, Texas Bridge Quick Facts, http://ftp.dot.state.tx.us/pub/txdot-info/tpp/2050/fact-sheet-highway-preservation.pdf.

[04-67] Texas Department of Transportation, 2017 Educational Series, "Energy Sector." https://ftp.dot.state.tx.us/pub/txdot-info/sla/education_series/energy-sector.pdf.

[04-68] Road and Bridge Safety and Travel Information, 2019-2020 Education Series. https://ftp.dot.state.tx.us/pub/txdot-info/sla/education_series/safety.pdf.

[04-69] Texas Department of Safety, Overview Texas Highway Patrol Division, https://www.dps.texas.gov/tle/index.htm

[04-70] Texas Department of Transportation, May 2019 press release: TxDOT Embraces Goal To End Deaths On Texas Roads By 2050. https://www.txdot.gov/inside-txdot/media-center/statewide-news/012-2019.html.

[04-71] Insurance Institute for Highway Safety, Fatality Facts 2018, State by State. https://www.iihs.org/topics/fatality-statistics/detail/state-by-state.

[04-72] Motor vehicle fatality rate has decreased year over year from 2016 (1.40) to 2017 (1.37) to 2018 (1.29).

[04-73] The Top 9 rankings are, in descending order, New York (0.76), Washington (0.88), Ohio (0.93), Virginia (0.96), Illinois (0.96), California (1.02), Georgia (1.14), Pennsylvania (1.17), and Colorado (1.17).

[04-74] Connected Nation, Rural Broadband: A Texas Tour, 2018, p.94. https://connectednation.org/wp-content/uploads/2018/11/The-Future-of-Rural-Texas-2018_5-Rural-Broadband.pdf.

[04-75] Texas Tribune. Analysis: A digital divide with dire consequences for Texas. April 1, 2020. https://www.texastribune.org/2020/04/01/digital-divide-dire-consequences-texas/

[04-76] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. Based on Form 477 data. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf.

[04-77] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. Based on Form 477 data. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf.

[04-78] National Digital Inclusion Alliance, Worst Connected Cities 2018. https://www.digitalinclusion.org/worst-connected-2018/.

[04-79] INational Digital Inclusion Alliance, Worst Connected Cities 2018. Households without cable, DSL, or fiber. https://www.digitalinclusion.org/worst-connected-2018/.

[04-80] Texas 2036 calculations from Public Use Microdata Sample, using proportion of "Yes" respondents over total survey responses to the item "Broadband (high speed) Internet service such as cable, fiber optic, or DSL service." Responses classified as "n/a" included in total respondents, and respondents who did not report household income not included in count. United State Census Bureau, 2018 American Community Survey, Percentage of Households with Subscription to Any Broadband Service. https://www2.census.gov/programs-surveys/acs/data/pums/2018/?#.

[04-81] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf.

[04-82] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf.

[04-83] Cisco, What is 5G? https://www.cisco.com/c/en/us/solutions/what-is-5g.html

[04-84] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf

[04-85] Microsoft Airband: An update on connecting rural America. Microsoft Power BI visualization, United States broadband availability and usage analysis for Texas. https://news.microsoft.com/rural-broadband/.

[04-86] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. Based on Form 477 data. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf.

[04-87] Broadband coverage has increased from 2014 levels (89%), but has remained flat from 2016 levels (93%).

[04-88] The top 6 rankings are, in descending order, New York (98%), Washington (97%), California (97%), Florida (96%), Pennsylvania (95%), and North Carolina (95%).

[04-89] Measured using percentage of respondents indicating they have

"broadband such as cable, fiber optic or DSL." United State Census Bureau, 2018 American Community Survey, Percentage of Households with Subscription to Any Broadband Service. https://data.census.gov/cedsci/table?tid=ACSST1Y2018.S2801&vintage=2018.

[04-90] Broadband subscription has increased year over year since 2015 (62.7%).

[04-91] Rankings are, in descending order, Washington (77%), second, Colorado (76%), third, California (75%), fourth, New York (73%), fifth, Pennsylvania (72%), and sixth, Florida (71%).

[04-92] Electricity Reliability Council of Texas, Resource Adequacy, Planning Reserve Margin Analysis. http://www.ercot.com/gridinfo/resource.

[04-93] ERCOT, News Release, ERCOT's reserve margin climbs 2% for summer 2020 http://www.ercot.com/news/releases/show/195806

[04-94] Reuters, Texas power prices nearly triple to record high as heat bakes state, August 16, 2019. https://www.reuters.com/article/us-texas-power-demand/texas-power-prices-nearly-triple-to-record-high-as-heat-bakes-state-idUSKCN1V61CG.

[04-95] Electricity Reliability Council of Texas, Report on Existing and Potential Electric System Constraints and Needs, December 2018, pp. iii - iv. http://www.ercot.com/content/wcm/lists/144927/2018_Constraints_and_Needs_Report.pdf.

[04-96] United State Energy Information Administration, State Electricity Profiles, Data for 2017. Average retail price (cents/kWh). See also archives. https://www.eia.gov/electricity/state/archive/2017/.

[04-97] United State Energy Information Administration, Texas State Profile and Energy Estimates, Texas Energy Consumption by End-Use Sector, 2017. https://www.eia.gov/state/?sid=TX#tabs-2.

[04-98] Google, June 2019 press release, Coming soon to the Lone Star State: more office space and a data center. https://www.blog.google/inside-google/company-announcements/texas-expansion-more-office-space-and-data-center/.

[04-99] Dallas Business Journal, Facebook files for $267M building permit in Fort Worth for next phase (Video). May 2, 2017. https://www.bizjournals.com/dallas/news/2017/05/02/facebook-files-for-267m-building-permit-in-fort.html.

[04-100] Site Selection, Power Priorities, A new survey sheds light on the next energy frontiers for data center operators. https://siteselection.com/theEnergyReport/2014/dec/data-centers.cfm.

[04-101] Electricity Reliability Council of Texas, Quick Facts, January 2019. http://www.ercot.com/content/wcm/lists/172484/ERCOT_Quick_Facts_01.17.19.pdf

[04-102] Public Utility Commission of Texas, 2019 Scope of Competition in Electricity Markets in Texas Report. Figure 3. Map of Regional Transmission Organizations in Texas. https://www.puc.texas.gov/industry/electric/reports/scope/2019/2019scope_elec.pdf

[04-103] Houston Chronicle, Texas's deregulated electricity market, explained. June 8, 2016. https://www.houstonchronicle.com/local/explainer/article/texas-electric-deregulation-ERCOT-TCAP-7971360.php.

[04-104] Electricity Reliability Council of Texas, Quick Facts, January 2019. http://www.ercot.com/content/wcm/lists/172484/ERCOT_Quick_Facts_01.17.19.pdf.

[04-105] Calculated as firm peak load divided by total capacity, and uses peak demand times reported by the Electric Reliability Council of Texas (ERCOT) seasonally. Cannot benchmark against peer states due to independent Texas grid, versus other peers supported by regional grids spanning multiple states. ERCOT December Capacity, Demand, and Reserves Report, 2017-19. http://www.ercot.com/gridinfo/resource.

[04-106] The ERCOT reserve margin has slightly declined from 13% in 2014 but is expected to improve in 2020.

[04-107] Energy Information Administration, Average Price of Electricity to Ultimate Customers by End-Use Sector, 2017-19.

https://www.eia.gov/electricity/state/archive/2017/.

[04-108] U.S. Energy Information Administration, Rankings: Average Retail Price of Electricity to Residential Sector, July 2019 https://www.eia.gov/state/rankings/?sid=TX#series/31; McKinsey Analysis for Texas 2036 (2018).

[04-109] Average price per kWh decreased by less than 1% from 2016 to 2017, and increased by 1% 2017 to 2018.

[04-110] Rankings are first, Washington (8.00), second, Texas (8.48), third, North Carolina (9.25), fourth, Virginia (9.48), fifth, Illinois (9.60), and sixth, Georgia (9.60).

[04-111] National Oceanic and Atmospheric Administration, 2000-2019 Billion Dollar Weather and Climate Disasters, 2019. https://www.ncdc.noaa.gov/billions/mapping/freq/2000-2019.

[04-112] Federal Emergency Management Agency, May 2018 press release, All Texans are at risk for floods. https://www.fema.gov/news-release/2018/05/08/all-texans-are-risk-floods.

[04-113] Eye of the Storm: Report of the Governor's Commission to Rebuild Texas, 2018, https://www.rebuildtexas.today/wp-content/uploads/sites/52/2018/12/12-11-18-EYE-OF-THE-STORM-digital.pdf.

[04-114] National Rural Health Association, Emergency Preparedness for Rural Communities, 2019. https://www.ruralhealthweb.org/NRHA/media/Emerge_NRHA/Advocacy/Policy%20documents/2019-NRHA-Policy-Paper-Emergency-Preparedness-for-Rural-Communities.pdf.

[04-115] Texas General Land Office, Hurricane Harvey: Texas at Risk, p.8. https://recovery.texas.gov/files/hud-requirements-reports/hurricane-harvey/texas-at-risk-report.pdf.

[04-116] Texas Legislative Budget Board, Legislative Budget Board Staff Reports, January 2017. Overview of Disaster Planning and Recovery, p.126. https://www.lbb.state.tx.us/Documents/Publications/Staff_Report/3729_LBB_Staff_Reports.pdf.

[04-117] The Texas Tribune, Texas House passes bill to spend more than $3 billion to help pay for flood control projects, May 16, 2019. https://www.texastribune.org/2019/05/16/texas-house-passes-bills-to-help-pay-for-flood-projects-statewide/.

[04-118] The Texas Tribune, Texas House passes bill to spend more than $3 billion to help pay for flood control projects, May 16, 2019. https://www.texastribune.org/2019/05/16/texas-house-passes-bills-to-help-pay-for-flood-projects-statewide/.

[04-119] The State of Texas, Texas Homeland Security Strategic Plan, 2015-2020. https://www.dps.texas.gov/director_staff/txHomelandSecStratPlan2015-2020.pdf.

[04-120] The State of Texas, Texas Homeland Security Strategic Plan, 2015-2020. Public Health Threats. Phttps://www.dps.texas.gov/director_staff/txHomelandSecStratPlan2015-2020.pdf.

[04-121] Index uses 140 measures grouped in to 6 domains (detection and monitoring, community planning and engagement, information and incident management, healthcare delivery, countermeasure management, environmental and occupational health) against multiple threats (e.g., cybersecurity incidents, resurgent and newly emerging infectious diseases, political instability, violence, and terrorism risks, and growing antibiotic resistance). National Health Security Preparedness Index, 2017-2019. https://nhspi.org/.

[04-122] Updated data sets will be considered in the aftermath of the COVID-19 pandemic.

[04-123] The normalization method employed in the 2019 Index uses the maximum state value to define the upper boundary or "frontier" of preparedness for each measure; NHSPI defines "optimal" preparedness based on observed state values rather than based on a theoretical maximum value.

[04-124] Overall preparedness score has increased 12.3% since 2013, from 5.8.

[04-125] Rankings are first, Virginia (7.2), second, Colorado (7.1), third, New York (6.9), Florida, Georgia, Pennsylvania, North Carolina, and Illinois (6.7) tied for eighth, and Texas and Washington (6.5) tied for ninth.

Pillar 05 - Natural Resources

[05-1] Environmental Protection Agency, Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria. Pollutants, 2020. Based on county attainment status in 2018. Population of Texas counties from United States Census Bureau estimates for 2018. https://www3.epa.gov/airquality/greenbook/anayo_tx.html.

[05-2] Environmental Protection Agency, "Particle Pollution and Your Patients' Health, Particle Pollution Exposure." https://www.epa.gov/pmcourse/particle-pollution-exposure.

[05-3] Environmental Protection Agency, Enforcement and Compliance History Online. Analyze Trends: Drinking Water Dashboard, Serious Violators in 2019. https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=Texas&view=activity&criteria=basic&yearview=FY.

[05-4] Environmental Protection Agency, Report on the Environment: Drinking Water. https://www.epa.gov/report-environment/drinking-water.

[05-5] Texas Water Development Board, 2017 State Water Plan, Figure ES.4 - Projected annual water needs in Texas (millions of acre-feet). http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-6] Acre-feet is a common measure of water. One acre-foot is the amount of water it would take to flood one acre to the depth of one foot.

[05-7] Texas Water Development Board, 2017 State Water Plan, p.3. http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-8] Texas Parks and Wildlife Foundation, Texas statewide voter opinion survey (summary), December 2014 conducted by Hill Research Consultants. https://www.tpwf.org/wp-content/uploads/2018/06/2014handout.pdf.

[05-9] American Farm Bureau Federation, Feeding the Economy: Agricultural Jobs by State, 2019. https://www.fb.org/market-intel/feeding-the-economy-agricultural-jobs-by-state.

[05-10] Federal Reserve Bank of St. Louis, Gross Domestic Product by Industry: Private Industries: Mining: Oil and Gas Extraction for Texas, 2019. https://fred.stlouisfed.org/series/TXOILGASNGSP.

[05-11] Title XIV of The Public Health Service Act: Safety of Public Water Systems (Safe Drinking Water Act). https://legcounsel.house.gov/Comps/Safe%20Drinking%20Water%20Act-(Title%20Xiv%20Of%20Public%20Health%20Service%20Act).pdf.

[05-12] Environmental Protection Agency, Clean Act Overview: Roles of Government Partnerships to Reduce Air Pollution. https://www.epa.gov/clean-air-act-overview/government-partnerships-reduce-air-pollution.

[05-13] Congressional Research Service, "What is the Farm Bill?" 2019. https://fas.org/sgp/crs/misc/RS22131.pdf.

[05-14] Texas Commission on Environmental Quality, Annual Report on Performance Measures Fiscal Year 2019. https://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/055-19.pdf.

[05-15] Texas Water Development Board, About the Texas Water Development Board. http://www.twdb.texas.gov/about/index.asp#twdb-history.

[05-16] Texas Administrative Code (TAC) Title 16. Economic Regulation Part 1. Railroad Commission of Texas. https://www.rrc.state.tx.us/general-counsel/rules/current-rules/.

[05-17] Texas Legislative Budget Board, "Updated 2018-19 Base and 2020-21 Appropriations Tables, by Article, All Funds," September 2019. https://www.lbb.state.tx.us/Documents/Publications/Other/Adjusted_MOF_Tables.pdf

[05-18] Ibid.

[05-19] Texas Water Development Board, "Total Funding Commitments." s of February 29, 2020; http://www.twdb.texas.gov/newsmedia/funding_commitments/index.asp.

[05-20] Texas A&M Natural Resources Institute, Texas Land Trends, Conservation Easements in Texas, January 2019. https://txlandtrends.org/media/xbnbzauu/conservationeasementsintexas.pdf.

[05-21] Ibid.

[05-22] Texas Water Development Board, 2017 Texas State Water Plan, Demands by Usage Type State-wide Summary. https://2017.texasstatewaterplan.org/statewide.

[05-23] Texas Demographic Center, Urban Texas, August 2017. https://demographics.texas.gov/Resources/publications/2017/2017_08_21_UrbanTexas.pdf

[05-24] Office of the State Climatologist. Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036. https://3hr27o3s9nj8m84dw4489i31-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/ClimateReport-1900to2036-1.pdf

[05-25] Ibid.

[05-26] University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources, "Floodwater and stormwater can contaminate your water well," October 2017 press release. https://water.unl.edu/article/drinking-water-wells/floodwater-and-stormwaters-can-contaminate-your-water-well.

[05-27] Environmental Protection Agency, Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, 2020. Based on county attainment status in 2018. Population of Texas counties from United States Census Bureau estimates for 2018. https://www3.epa.gov/airquality/greenbook/anayo_tx.html.

[05-28] Ibid. Based on county attainment status in 2016. Population of Texas counties from United States Census Bureau estimates for 2016.

[05-29] Environmental Protection Agency, Texas Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, 2020. https://www3.epa.gov/airquality/greenbook/anayo_tx.html.

[05-30] Capital Area Council of Governments, "Fact Sheet — EPA's New Ozone Standard and How it Affects Central Texas," 2015, p.7. http://www.austintexas.gov/edims/document.cfm?id=241675.

[05-31] American Lung Association, "State of the Air 2019. Most Polluted Cities by Ozone." https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/most-polluted-cities.html.

[05-32] Environmental Protection Agency, "Ground-level Ozone Pollution, Health Effects of Ozone Pollution." https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

[05-33] Child and Adolescent Health Measurement Initiative, National Survey of Children's Health, 2017-2018. https://www.childhealthdata.org/browse/survey/results?q=6862&r=45.

[05-34] Environmental Protection Agency, Criteria Air Pollutants, NAAQS Table. https://www.epa.gov/criteria-air-pollutants/naaqs-table.

[05-35] Congressional Research Service, Implementing EPA's 2015 Ozone Air Quality Standards, 2018, p.2. https://fas.org/sgp/crs/misc/R43092.pdf.

[05-36] Texas Commission on Environmental Quality, State Implementation Plan: Introduction. https://www.tceq.texas.gov/airquality/sip/sipintro.html.

[05-37] Texas Health and Safety Code, Sec. 386.001. https://statutes.capitol.texas.gov/Docs/HS/htm/HS.386.htm.

[05-38] Nonattainment areas designated by EPA based on air quality monitoring data, recommendations submitted by the states and tribes, and other technical information; one nonattainment area may consist of multiple adjacent counties failing to meet NAAQS standards. Environmental Protection Agency, Criteria Pollutant Nonattainment Summary Report, 2019. https://www3.epa.gov/airquality/greenbook/ancl3.html.

[05-39] Percentage of population living in nonattainment zones increased by 8ppt, up from 2016 to 2018.

[05-40] Rankings are first Washington (0.0%), second, North Carolina (0.0%), third, Florida (10.5%), fourth, Virginia (29.6%), fifth, Georgia (39.1%), and sixth, Ohio (54.6%).

[05-41] Texas Commission on Environmental Quality, Texas Emission Sources, updated in 2019. https://www.tceq.texas.gov/airquality/areasource/texas-emissions-graphical-representation.

[05-42] Texas Water Development Board, 2017 Texas State Water Plan, Demands by Usage Type State-wide Summary. https://2017.texasstatewaterplan.org/statewide.

[05-43] Ibid.

[05-44] Texas Water Development Board, 2017 Texas State Water Plan, Needs (Potential Shortages) by Usage Type State-wide Summary. https://2017.texasstatewaterplan.org/statewide.

[05-45] Commission on Environmental Quality, Information Request, April 2019.

[05-46] Texas Water Development Board, Water for Texas, Texas State Water Plan 2017. Water Need: 4.8 million AFY in 2020

https://www.twdb.texas.gov/waterplanning/swp/2017/index.asp

Texas Water Development Board, Water for Texas, Texas State Water

Plan 2002. Water Need: 2.4 million AFY in 2000 http://www.twdb. texas.gov/publications/State_Water_Plan/2002/WaterforTexas2002. pdf?d=5874.000000068918.

[05-47] Texas Water Development Board, 2017 Texas State Water Plan, Needs (Potential Shortages) by Usage Type State-wide Summary. https://2017. texasstatewaterplan.org/statewide.

[05-48] Texas Water Development Board, 2017 Texas State Water Plan. Figure ES.4 - Projected annual water needs in Texas https://2017.texasstatewaterplan. org/statewide.

[05-49] Texas Water Development Board, 2017 State Water Plan, Figure 6.7 – Texas's annual groundwater availability and existing groundwater supplies (acre-feet). http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-50] Texas Water Development Board, 2017 Texas State Water Plan, based on the drought of record, p. 11. http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-51] Office of the State Climatologist. Assessment of Historic and Future Trends of Extreme Weather in Texas, 1900-2036.

[05-52] Texas Tribune, Water Planners Focus on a More Populous Texas, but Not a Hotter One, July 14, 2014. https://www.texastribune.org/2014/07/14/state-only-planning-bigger-texas-not-hotter-one/.

[05-53] Texas Water Development Board, 2017 State Water Plan, How do we plan? http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-54] Texas Water Development Board, 2017 State Water Plan, Drought and drought response in Texas.

http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-55] Texas Water Development Board, 2017 State Water Plan, How do we plan? http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf.

[05-56] Ibid.

[05-57] Ibid.

[05-58] Texas A&M AgriLife Extension, Basics of Texas Water Law, 2018. https://agrilife.org/texasaglaw/files/2018/01/Basics-of-Texas-Water-Law.pdf.

[05-59] Ibid.

[05-60] Ibid.

[05-61] Ibid.

[05-62] Texas Water Development Board, State Water Plan, 2007, 2012, and 2017. http://www.twdb.texas.gov/waterplanning/swp/index.asp.

[05-63] Target based on reducing the gap in all Planning Regions larger than the mean to the 2030-2040 mean gap of 350K acre-feet of water per year; equivalent to 2.3M additional acre-feet of water available per year.

[05-64] Gap in annual water needs widened from 3.7 million to 4.8 million acre-feet from 2010 to 2020, equivalent to a 30% increase over 10 years.

[05-65] Texas Water Development Board, 2017 Texas State Water Plan site. Demands by Usage Type (acre-feet/year). https://2017.texasstatewaterplan. org/statewide.

[05-66] Environmental Protection Agency, Enforcement and Compliance History Online. Analyze Trends: Drinking Water Dashboard, Serious Violators in 2019. https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=Texas&view=activity&criteria=basic&yearview=FY.

[05-67] Environmental Protection Agency, Report on the Environment, Drinking Water. https://www.epa.gov/report-environment/drinking-water#effects.

[05-68] Ibid.

[05-69] Environmental Protection Agency, Enforcement and Compliance History Online. Analyze Trends: Drinking Water Dashboard, Serious Violators. https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=Texas&view=activity&criteria=basic&yearview=FY.

[05-70] Ibid. The EPA classifies systems serving a population of 25 to 500

as "very small," 501-3,300 as "small," 3,301 to 10,000 as "medium," 10,001 to 100,000 as "large," and more than 100,000 as "very large."

[05-71] Texas Legislative Budget Board Staff, Improve Viability of Small Public Water Systems, 2019. http://www.lbb.state.tx.us/Documents/Publications/Staff_Report/2019/5464_Water_Systems.pdf.

[05-72] Ibid.

[05-73] Federal Water Pollution Control Act as Amended by the Clean Water Act of 1973, Title III. https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf

[05-74] Title XIV of The Public Health Service Act: Safety of Public Water Systems (Safe Drinking Water Act). https://legcounsel.house.gov/Comps/Safe%20Drinking%20Water%20Act-(Title%20Xiv%20Of%20Public%20Health%20Service%20Act).pdf.

[05-75] Contaminants include fecal coliform bacteria, E. coli, turbidity, nitrate, nitrite, chlorine dioxide, inorganic chemicals, organic chemicals, disinfection byproducts, radionuclides, and disinfectants exceeding maximum contaminant levels (MCL) defined by the EPA.

[05-76] Texas Commission on Environmental Quality, State of Texas Public Drinking Water Program 2018 Annual Compliance Report. https://www.tceq. texas.gov/assets/public/permitting/watersupply/pdw/EPA_ACR_2018_FINAL. pdf.

[05-77] Environmental Protection Agency, Enforcement and Compliance History Online, Detailed Facility Report Data Dictionary, SDWA Serious Violator Definition. https://echo.epa.gov/help/reports/dfr-data-dictionary#sdwaviol.

[05-78] Public water systems defined as providing water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves at least 25 people for at least 60 days each year. EPA Enforcement and Compliance History Online, Safe Drinking Water Act (SDWA) Dashboard, 2016-2018. https://echo.epa.gov/trends/comparative-maps-dashboards/drinking-water-dashboard?state=Texas&view=activity&criteria=basic&yearview=FY.

[05-79] Percentage of public water systems not in serious violation increased by 3 percentage points from 2016 (90%).

[05-80] Rankings are: first, North Carolina (100%), #2 California (100%), third, Georgia (99%), fourth, Ohio (99%), fifth, Illinois (99%), sixth New York (98%), seventh, Virginia (98%), eighth, Washington (98%), ninth, Florida (98%), tenth, Pennsylvania (97%), eleventh, Colorado (96%), and twelfth, Texas (93%).

[05-81] Lovasi, G.S., J.W. Quinn, K.M. Neckermann, M.S. Perzanowski, and A. Rundle, "Children Living in Areas with More Street Trees Have Lower Prevalence of Asthma," Journal of Epidemiology and Community Health 62 (2008): 647-649. https://www.ncbi.nlm.nih.gov/pubmed/18450765.

[05-82] Woodland Trust, "The role of trees and woodland in flood protection," 2014. . https://www.woodlandtrust.org.uk/media/1794/stemming-the-flow-trees-in-flood-protection.pdf.

[05-83] Forbes, How We Ranked The Best States For Business 2019. https://www.forbes.com/sites/samanthasharf/2019/12/19/how-we-rank-the-best-states-for-business-2019/#785b2a9c118b.

[05-84] Texas Parks and Wildlife Department. Fiscal Year 2020 Operating Budget. https://tpwd.texas.gov/publications/pwdpubs/media/FY20-Operating-Budget.pdf.

[05-85] Based on population estimate by Texas Demographic Center of 38,296,865 individuals in 2036. Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[05-86] Texas Parks and Wildlife Department, Self-Evaluation Report, August 2019. Infrastructure Division — Land Conservation Program, Exhibit 12: Program Statistics and Performance Measures — Fiscal Year 2018. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_sunset_self_evaluation_report_2019.pdf.

[05-87] Texas Parks and Wildlife Department, Texas Parks and Wildlife for the 21st Century, 2001. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_21st_century.pdf.

[05-88] Texas A&M Natural Resources Institute, Texas Land Trends, Conservation Easements in Texas, January 2019. http://txlandtrends.org/media/1030/conservationeasementsintexas.pdf.

[05-89] Texas Observer, Parks in Peril, December 17, 2018. https://www.

texasobserver.org/is-texas-overcrowded-underfunded-state-parks-system-being-loved-to-death/.

[05-90] Ibid.

[05-91] Texas Demographic Center, Texas Population Projections Program. Population Projections for the State of Texas in 1-year increments, 2036 value. https://demographics.texas.gov/data/TPEPP/Projections/Index.

[05-92] Texas Parks and Wildlife Department, Self-Evaluation Report, August 2019. Infrastructure Division — Land Conservation Program, p. 4. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_sunset_self_evaluation_report_2019.pdf.

[05-93] Texas Parks and Wildlife Department, Self-Evaluation Report, August 2019. Infrastructure Division – Land Conservation Program, Exhibit 12: Program Statistics and Performance Measures – Fiscal Year 2018. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_sunset_self_evaluation_report_2019.pdf.

[05-94] Texas A&M Natural Resources Institute, Texas Land Trends, Conservation Easements in Texas, January 2019. https://txlandtrends.org/media/xbnbzauu/conservationeasementsintexas.pdf.

[05-95] National Conservation Easement Database, Profile: Easement Holders by State, Texas. https://www.conservationeasement.us/state-profiles/.

[05-96] Benchmarking omitted due to benchmarking due to differences in geography and land policies and lack of central reporting among states. Texas Parks and Wildlife Department, Self-Evaluation Report, August 2019. Infrastructure Division – Land Conservation Program, Exhibit 12: Program Statistics and Performance Measures – Fiscal Year 2018. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_sunset_self_evaluation_report_2019.pdf.

[05-97] Texas Parks and Wildlife Department, Operating Budget, Fiscal Year 2018. https://tpwd.texas.gov/publications/pwdpubs/media/FY18-Operating-Budget.pdf.

[05-98] National Conservation Easement Database, Acres Under Easement by Year, 2016-2018. https://www.conservationeasement.us/state-profiles/.

[05-99] Preserved acres have decreased from 69.2 acres per 1,000 Texans in 2016.

[05-100] Benchmarking omitted due to differences in geography and land policies and lack of central reporting among states. National Association of State Park Directors, Statistical Report of State Park Operations: 2013-2014. https://www.stateparks.org/wp-content/uploads/2015/08/NASPD-AIX-2013-14-Data-Report-revised-version-may2015.pdf.

[05-101] Texas Parks and Wildlife Department, Self-Evaluation Report, August 2019. State Parks Division

Exhibit 12: Program Statistics and Performance Measures – Fiscal Year 2018. https://tpwd.texas.gov/publications/nonpwdpubs/media/tpwd_sunset_self_evaluation_report_2019.pdf.

[05-102] Visitation to state parks has increased from 251 per 1,000 Texans in 2014.

[05-103] United States Department of Agriculture, Economic Research Service, Value added to the U.S. economy by the agricultural sector, 2011-2020F. https://data.ers.usda.gov/reports.aspx?ID=17830.

[05-104] Texas A&M AgriLife Extension, Facts About Texas Agriculture, 2018. https://agecoext.tamu.edu/wp-content/uploads/2018/09/AgFacts2018-FullReport.pdf.

[05-105] Ibid.

[05-106] Sustainable Agriculture Research and Education, Profile: As the Ogallala Aquifer Dwindles, Long-Term Research Seeks a New Future. https://www.sare.org/Learning-Center/SARE-Biennial-Reports/30-Years-of-SARE/Text-Version/Water/Seeking-a-New-Future-for-Farming-in-the-High-Plains.

[05-107] Texas Water Development Board, 2017 Texas State Water Plan site. Demands by Usage Type (acre-feet/year). https://2017.texasstatewaterplan.org/statewide.

[05-108] World Wildlife Fund, Thirsty Crops: Our food and clothes: eating up nature and wearing out the environment? January 2013. https://www.worldwildlife.org/publications/thirsty-crops-our-food-and-clothes-eating-up-nature-and-wearing-out-the-environment.

[05-109] Kansas State University Research and Extension, Ogallala Aquifer. https://www.sunflower.k-state.edu/agronomy/irrigation/ogallala_aquifer.

html.

[05-110] United State Department of Agriculture, February 21, 2017 press release, Innovative Irrigation Saves Water, Boosts Yields in Ogallala Aquifer Region. https://www.usda.gov/media/blog/2016/02/24/innovative-irrigation-saves-water-boosts-yields-ogallala-aquifer-region.

[05-111] Texas Department of Agriculture. Texas Ag Stats. 2017.

https://www.texasagriculture.gov/About/TexasAgStats.aspx

[05-112] Texas Department of Agriculture. Texas Ag Stats. 2017.

https://www.texasagriculture.gov/About/TexasAgStats.aspx

[05-113] Texas Department of Agriculture. Agency information.

https://www.texasagriculture.gov/Home/AgencyInformation.aspx

[05-114] Equivalent to total value of crop production plus total value of animal and products production, but does not include other farm-related income, including forest products, imputed rental value of farm dwellings, machine hire and custom work. United States Department of Agriculture, Economic Research Service, Value added to the U.S. economy by the agricultural sector, 2011-2020F. https://data.ers.usda.gov/reports.aspx?ID=17830.

[05-115] Ibid.

[05-116] Output per capita was $725 in 2016, increased to $758 in 2017, and decreased to $731 in 2018.

[05-117] Rankings include first, Illinois ($1,334), second, Washington ($1,254), third, California ($1,241), fourth, Colorado ($1,213), fifth, North Carolina ($1,043), and sixth, Georgia ($822).

[05-118] Benchmarking omitted due to significant variance in precipitation, water rights, and water supply among states. U.S. Department of Agriculture, Irrigation and Water Management Survey, 2003, 2008, 2013, 2018. Table 7. Irrigation by Estimated Quantity of Water Applied. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/

Farm_and_Ranch_Irrigation_Survey/index.php.

[05-119] U.S. Department of Agriculture, Irrigation and Water Management Survey, 2003, 2008, 2013, 2018. Table 3. Land Use on Farms with Irrigation. https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/

Farm_and_Ranch_Irrigation_Survey/index.php.

[05-120] Agriculture water efficiency has increased from 0.60 acre-feet of water per acre of cropland in 2008 to 0.55 in 2018.

[05-121] Texas Water Development Board, 2017 Texas State Water Plan, Needs (Potential Shortages) by Usage Type State-wide Summary. https://2017.texasstatewaterplan.org/statewide.

[05-122] Bureau of Economic Analysis, Gross Domestic Product by State, Third Quarter 2019, Current-Dollar Gross Domestic Product (GDP) by State and Region, 2018:Q1-2019:Q3. https://www.bea.gov/system/files/2020-01/qgdpstate0120_2.pdf.

[05-123] Texas Comptroller of Public Accounts, Fall 2019 Economic Forecast, Mining (Oil and Gas) Gross State Product in 2019. https://comptroller.texas.gov/transparency/reports/forecasts/fall2019/rgsp-calendar.php.

[05-124] Texas Oil and Gas Association, January 14, 2020 press release, New Record: Texas Oil and Gas Industry Paid $16.3 Billion in Taxes and State Royalties in 2019, Most in Texas History. https://www.txoga.org/new-record-texas-oil-and-gas-industry-paid-16-3-billion-in-taxes-and-state-royalties-in-2019-most-in-texas-history/.

[05-125] Bureau of Economic Analysis, January 2020 press release. Gross Domestic Product by State, Third Quarter 2019. https://www.bea.gov/news/2020/gross-domestic-product-state-third-quarter-2019.

[05-126] Bureau of Economic Analysis, November 2019 press release. Gross Domestic Product by State, Second Quarter 2019. https://www.bea.gov/news/2019/gross-domestic-product-state-second-quarter-2019.

[05-127] United States Energy Information Administration, U.S. Crude Oil and Natural Gas Proved Reserves, Year-end 2018. https://www.eia.gov/naturalgas/crudeoilreserves/pdf/usreserves.pdf.

[05-128] United States Energy Information Administration, State Profiles and Energy Estimates, State Energy Data System (SEDS): 1960-2017 (complete). Primary energy production in BTU. https://www.eia.gov/state/seds/seds-data-complete.php?sid=US.

[05-129] United States Energy Information Administration, Texas State Energy Profile, Supply & Distribution. https://www.eia.gov/state/print.php?sid=TX.

[05-130] United States Energy Information Administration, State Profiles and Energy Estimates, State Energy Data System (SEDS): 1960-2017 (complete). Primary energy production in BTU. https://www.eia.gov/state/seds/seds-data-complete.php?sid=US.

[05-131] United States Energy Information Administration, Energy-Related Carbon Dioxide Emissions by State, 2005-2016. https://www.eia.gov/environment/emissions/state/analysis/.

[05-132] Reuters, "Big companies commit to slash emissions ahead of U.N. climate summit," September 21, 2019. https://www.reuters.com/article/us-climate-change-un-business/big-companies-commit-to-slash-emissions-ahead-of-u-n-climate-summit-idUSKBN1W7028.

[05-133] United States Energy Information Administration, Texas State Energy Profile, Supply & Distribution. https://www.eia.gov/state/print.php?sid=TX.

[05-134] The Texas Tribune, $7 Billion Wind Power Project Nears Finish, October 14. 2013. https://www.texastribune.org/2013/10/14/7-billion-crez-project-nears-finish-aiding-wind-po/.

[05-135] Electric Reliability Council of Texas, Fact Sheet February 2020. 2020 Generating Capacity. http://www.ercot.com/content/wcm/lists/197391/ERCOT_Fact_Sheet_2.6.20.pdf.

[05-136] Utility Dive, Texas wind poised to outstrip coal generation with 87 TWh in 2020, report projects. September 23. 2019. https://www.utilitydive.com/news/texas-wind-poised-to-outstrip-coal-generation-with-87-twh-in-2020-report-p/563481/.

[05-137] Electric Reliability Council of Texas, December Capacity, Demand, and Reserves Report, 2019. http://www.ercot.com/news/releases/show/195806.

[05-138] Oil production includes crude oil, natural gas liquids (NGLs), and additive; gas production calculated as gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed. Measured in British Thermal Units (BTU), where 1 BTU is heat required to raise the temperature of one pound of water by one degree Fahrenheit. United States Energy Information Administration, State Profiles and Energy Estimates, State Energy Data System (SEDS): 1960-2017 (complete). Primary energy production in BTU. https://www.eia.gov/state/seds/seds-data-complete.php?sid=US.

[05-139] 2017 production has increased from 2012, but declined from 2015.

[05-140] Ibid. Includes biomass, geothermal, hydroelectric, solar thermal and photovoltaic, and wind.

[05-141] Renewable energy production has consistently increased year-over-year from 2012 value of 453T BTU.

[05-142] Rankings include first, California (1,115), second, Washington (942), and third, Texas (786).

[05-143] Carbon is attributed to the state where fuels are combusted, not necessarily the state where energy is consumed. United States Energy Information Administration, Carbon Intensity by State, 2005-16. https://www.eia.gov/environment/emissions/state/analysis/pdf/table8.pdf.

[05-144] Carbon intensity has remained between 48 and 50 kg/MMBTU annually since 2012.

[05-145] Rankings are first, Washington (35.3), second, New York (45.5), and third, Illinois (47.7).

Pillar 06 -Justice & Safety

[06-1] 2018 data reflects average of 3-year re-arrest rate for cohorts released in 2013, 2014, and 2015; Texas Legislative Budget Board Staff Report, Statewide Criminal and Juvenile Justice Recidivism and Revocation Rates, 2019. http://www.lbb.state.tx.us/documents/publications/policy_report/4914_recidivism_revocation_rates_jan2019.pdf.

[06-2] U.S. Chamber Institute for Legal Reform, Ranking the States: A Survey of the Fairness and Reasonableness of State Liability Systems, 2019. https://www.instituteforlegalreform.com/uploads/pdfs/2019_Harris_Poll_State_Lawsuit_Climate_Ranking_the_States.pdf.

[06-3] U.S. Department of Health and Human Services Administration for Children and Families, TANF and MOE Spending and Transfers by Activity,

2018. https://www.acf.hhs.gov/sites/default/files/ofa/fy2018_tanf_and_moe_state_piecharts_b508.pdf.

[06-4] U.S. Department of Agriculture, Food and Nutrition Service, "SNAP Data Tables," FY 2019. https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap.

[06-5] US Department of Agriculture Food and Nutrition Services, WIC Program Grant Levels by Fiscal Year, 2019. https://www.fns.usda.gov/wic/wic-program-grant-levels-fy

[06-6] Texas Health and Human Services Commission, Operating Budget, Fiscal Year 2020. https://hhs.texas.gov/sites/default/files/documents/about-hhs/budget-planning/2020-operating-budget.pdf.

[06-7] Texas Department of Family and Protective Services, Annual Report, 2019. https://www.dfps.state.tx.us/About_DFPS/Annual_Report/2019/default.asp

[06-8] Office of Court Administration, "Annual Statistical Report for the Texas Judiciary, Fiscal Year 2019," p. iv. https://www.txcourts.gov/media/1445760/fy-19-annual-statistical-report.pdf.

[06-9] Texas Politics Project, Texas Politics, 4th Edition (2018). Soomo Learning. (Printed version), "Chapter 7: The Justice System," p. 222-223.

[06-10] Court cases from Chief Justice Nathan L. Hecht, "The State of the Judiciary in Texas," An Address to . the 86th Legislature, February 6, 2019. https://www.txcourts.gov/media/1443500/soj2019.pdf. Accessed May 2, 2019.

[06-11] Legislative Budget Board, "Updated 2018-19 Base and 2020-21 Appropriations Tables, by Article (September 2019), All Funds," 2019. https://www.lbb.state.tx.us/Documents/Publications/Other/Adjusted_MOF_Tables.pdf.

[06-12] State prison sentences assigned for third-degree felonies or higher (e.g., murder, rape, kidnapping, arson, fraud, aggravated assault, child molestation, transmission of pornography).

[06-13] State jail sentences assigned for fourth-degree felonies (e.g., involuntary manslaughter, burglary, larceny, resisting arrest); sentences are less than 2 years.

[06-14] Texas Board of Criminal Justice, Operating Budget for Fiscal Year 2020, https://www.tdcj.texas.gov/documents/bfd/FY2020_Operating_Budget_LBB.pdf

[06-15] Texas Department of Criminal Justice, Agency Operating Budget 2020. https://www.tdcj.texas.gov/documents/bfd/FY2020_Operating_Budget.pdf.

[06-16] Texas Department of Criminal Justice, "Community Supervision in Texas," 2018. https://www.tdcj.texas.gov/documents/cjad/CJAD_Community_Supervision_in_TX_Fact_Sheet.pdf.

[06-17] Texas Juvenile Justice Department, "Community Juvenile Justice Appropriations, Riders and Special Diversion Programs," 2019. https://www.tjjd.texas.gov/index.php/doc-library/send/338-reports-to-the-governor-and-legislative-budget-board/2285-tjjd-annual-report-to-the-governor-and-legislative-budget-board-2019.

[06-18] Texas Juvenile Justice Department, Operating Budget, 2020. http://www.tjjd.texas.gov/index.php/doc-library/send/613-operating-budget/2280-tjjd-operating-budget-2020.

[06-19] United Health Foundation analysis of FBI Uniform Crime Reporting statistics, America's Health Rankings, Violent Crime by State, 2019. https://www.americashealthrankings.org/explore/annual/measure/Crime/state/TX

[06-20] Statista analysis of FBI Uniform Crime Reporting statistics, Property crime rate per 100,000 inhabitants in the United States in 2018, by state. https://www.statista.com/statistics/232575/property-crime-rate-in-the-us-by-state/

[06-21] United Health Foundation analysis of FBI Uniform Crime Reporting statistics, America's Health Rankings, Violent Crime by State, 2019. https://www.americashealthrankings.org/explore/annual/measure/Crime/state/TX

[06-22] U.S. Department of Justice, Criminal Victimization, 2018. https://www.bjs.gov/content/pub/pdf/cv18.pdf#page=10

[06-23] Texas Department of Public Safety, "Texas Gang Threat Assessment, 2018." https://www.dps.texas.gov/director_staff/media_and_communications/2018/txGangThreatAssessment201811.pdf

[06-24] Institute on Domestic Violence and Sexual Assault, Human Trafficking by the Numbers: The Initial Benchmark of Prevalence and Economic Impact

for Texas, 2016.

https://ic2.utexas.edu/pubs/human-trafficking-by-the-numbers-the-initial-benchmark-of-prevalence-and-economic-impact-for-texas/

[06-25] Office of the Attorney General, Human Trafficking Prevention Task Force, 2018. https://www.texasattorneygeneral.gov/sites/default/files/files/divisions/criminal-justice/HumanTraffickingReport-2018.pdf

[06-26] United Health Foundation analysis of FBI Uniform Crime Reporting statistics, America's Health Rankings, Violent Crime by State, 2019. https://www.americashealthrankings.org/explore/annual/measure/Crime/state/TX

[06-27] United Health Foundation analysis of FBI Uniform Crime Reporting statistics, America's Health Rankings, Violent Crime by State, 2019. https://www.americashealthrankings.org/explore/annual/measure/Crime/state/TX

[06-28] Minor increase from 400 in 2013; violent crime rate is decreasing on average 1.4% across peer states, and Texas has not exceeded this average improvement to gain ground on peers, historically ranking in the bottom quartile among peer states for about three of every four years.

[06-29] Top 9 rankings for violent crime are first, Ohio (280), second, Washington (290), third, Pennsylvania (306), fourth, Virginia (312), fifth, Georgia (327), sixth, New York (351), seventh, North Carolina (378), eighth, Florida (385), and ninth, Colorado (397).

[06-30] Federal Bureau of Investigation, Criminal Justice Information Services Division, 2018 Crime in the United States: Property Crime. https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/property-crime

[06-31] Federal Bureau of Investigation, Criminal Justice Information Services Division, 2018 Crime in the United States: Property Crime. https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/property-crime

[06-32] Federal Bureau of Investigation, Criminal Justice Information Services Division, 2018 Crime in the United States: Property Crime. https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/property-crime

[06-33] Federal Bureau of Investigation Uniform Crime Reporting, 2018. https://crime-data-explorer.fr.cloud.gov/explorer/state/texas/crime.

[06-34] Decrease from 3,250 in 2013;

[06-35] Top 9 rankings for property crime are first, New York (1,441), second, Pennsylvania (1,490), third, Virginia (1,666), fourth, Illinois. (1,933), fifth, Ohio (2,177), sixth Florida (2,282), seventh, Texas (2,370), eighth, California (2,380), and ninth, North Carolina (2,494).

[06-36] Domestic violence includes but is not limited to: physical abuse, sexual abuse, verbal abuse, emotional abuse, reproductive coercion, digital abuse, or financial abuse

[06-37] DFPS cites 51,417 children in conservatorship in 2019, and 74,092 children served through family preservation services; Department of Family and Protective Services, DFPS Data Book, https://www.dfps.state.tx.us/About_DFPS/Data_Book/Child_Protective_Services/Family_Preservation/Children_Served.asp

[06-38] TJJD cites 50,000 cases per year; Texas Department of Juvenile Justice, The Juvenile Justice System in Texas. http://www.tjjd.texas.gov/index.php/juvenile-system#the-numbers

[06-39] Texas Workforce Investment Council cites 1,496,724 living in Texas in 2016; Texas Workforce Investment Council, Veterans in Texas: a demographic study; 2016. https://gov.texas.gov/uploads/files/organization/twic/Veterans_in_Texas_2016_Update.pdf

[06-40] 88,300 refugees have settled in Texas since 2002; Pew Research Center, Key Facts about Refugees to the U.S., 2019. https://www.pewresearch.org/fact-tank/2019/10/07/key-facts-about-refugees-to-the-u-s/

[06-41] Homeless population in Texas was 25,310 in 2018; US Department of Housing and Urban Development, point-in-time counts, 2018. https://www.hudexchange.info/resource/5783/2018-ahar-part-1-pit-estimates-of-homelessness-in-the-us/

[06-42] Calculation, based on assumptions for each segment defined as "vulnerable populations" (see notes 20-24)

[06-43] CDC, "National Intimate Partner and Sexual Violence Survey," 2010. https://www.cdc.gov/violenceprevention/pdf/nisvs_report2010-a.pdf.

[06-44] National Network to End Domestic Violence, National Census of Domestic Violence Services, 2018. https://nnedv.org/resources-library/13th-annual-census-washington-report/

[06-45] Bureau of Justice Statistics, Criminal Victimization Report, 2018. https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6686

[06-46] Peterson, Cora et al. "Lifetime Economic Burden of Intimate Partner Violence Among U.S. Adults." American journal of preventive medicine vol. 55,4 (2018): 433-444. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6161830/.

[06-47] Futures Without Violence, Children and Domestic Violence Public Policy. https://www.futureswithoutviolence.org/children-and-domestic-violence-public-policy/

[06-48] ACEs include economic hardship; divorce or separation of parents; living with someone with a substance abuse problem; a victim or witness of neighborhood violence; living with someone who is mentally ill, suicidal, or severely depressed; witnessing domestic violence; a parent who has served time in jail; and the death of a parent.

[06-49] Vincent Felitti et. al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults," American Journal of Preventative Medicine, 1998. https://www.ncbi.nlm.nih.gov/pubmed/9635069

[06-50] Centers for Disease Control and Prevention, "Adverse Childhood Experiences (ACEs)". https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/index.html

[06-51] Vincent Felitti et. al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults," American Journal of Preventative Medicine, 1998. https://www.ncbi.nlm.nih.gov/pubmed/9635069

[06-52] Survey conducted by U.S. Census Bureau via mail and web-based survey, with parents responding on behalf of their children; Child and Adolescent Health Measurement Initiative (CAHMI), National Survey of Children's Health, 2016-2017. https://www.childhealthdata.org/browse/survey/results?q=5545&r=1

[06-53]Merrick MT, Ford DC, Ports KA, et. Al. Vital Signs: Estimated Proposition of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention — 25 States, 2015-2017. MMWR Morb Mortal Wkly Rep 2019; 68:999-1005. https://www.cdc.gov/mmwr/volumes/68/wr/mm6844e1.htm?s_cid=mm6844e1_w

[06-54] Giving USA, The Annual Report on Philanthropy for theYear 2018. https://givingusa.org/giving-usa-2019-americans-gave-427-71-billion-to-charity-in-2018-amid-complex-year-for-charitable-giving/

[06-55] U.S. Department of Health and Human Services Family and Youth Services Bureau, State Domestic Violence Coalitions. https://www.acf.hhs.gov/fysb/programs/family-violence-prevention-services/programs/state-dv

[06-56] Vincent Felitti et. al., "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults," American Journal of Preventative Medicine, 1998. https://www.ncbi.nlm.nih.gov/pubmed/9635069

[06-57] Child and Adolescent Health Measurement Initiative (CAHMI), National Survey of Children's Health, 2016-2017. https://www.childhealthdata.org/browse/survey/results?q=5545&r=1

[06-58] Percentage of children experiencing two or more ACEs has had minor decrease over the prior three years from 23% in 2016.

[06-59] Top 9 rankings for ACEs are first, California (15%), second, New York (16%), third, Illinois (18%), fourth, Washington (18%), fifth, Pennsylvania (19%), sixth, Texas (20%), seventh, Virginia (20%), eighth, Colorado (20%), and ninth, North Carolina (24%).

[06-60] Total victims served per day adjusted to account for survey response rates; assumed constant volume per organization within each state

[06-61] United Ways of Texas, "ALICE: A Study of Financial Hardship in Texas," 2016. https://www.uwtexas.org/sites/uwtexas.org/files/18UW_ALICE_Report_FullReport-Texas-12.18.18Final_w%20Entergy%20logo.pdf.

[06-62] U.S. Census, Supplemental Poverty Measure, https://www.census.gov/topics/income-poverty/supplemental-poverty-measure.html.

[06-63] Joint Center for Housing Studies of Harvard University, State-Cost Burden Rates for Renters and Buyers: 2017, Data Download, 2019 (most recent available). https://www.jchs.harvard.edu/state-nations-housing-2019.

[06-64] Annie E. Casey Foundation, Kids Count Data Center, Texas Food Insecurity (all ages), 2016, Poverty in Texas, 2019. https://datacenter.kidscount.org/.

[06-65] U.S. Census, American Communities Survey, 5-Year Estimates, 2017. https://data.census.gov/cedsci/table?q=S1701%3A%20 POVERTY%20STATUS%20IN%20THE%20PAST%2012%20 MONTHS&g=0400000US48&hidePreview=true&tid=ACSST1Y2017. S1701&y=2017.

[06-66] Rural Health Information Hub analysis of data from USDA Economic Research Center, Social Determinants of Health for Rural Texas. https://www. ruralhealthinfo.org/states/texas

[06-67] United States Census Bureau, 1 year poverty estimates, 2018. https:// www.census.gov/data/tables/2019/demo/income-poverty/p60-266.html

[06-68] Ura, Alexa and Elbert Wang. "Poverty in Texas Drops to Lowest Levels in More Than a Decade". Texas Tribune. September 13, 2018 (analysis using U.S. Census ACE data).. https://www.texastribune.org/2018/09/13/texas-poverty-census-2017-lowest-levels-decade/

[06-69] National Academies of Science, Engineering, and Medicine. Roadmap to Reducing Child Poverty. https://www.nap.edu/catalog/25246/a-roadmap-to-reducing-child-poverty

[06-70] Duffee, James H. et. Al. "Poverty and Child Health in the United States." Pediatrics. April 2016. https://pediatrics.aappublications.org/content/137/4/e20160339

[06-71] Chaudry, Ajay and Wimer, Christopher. "Poverty Is Not Just An Indicator: The Relationship Between Income, Poverty, and Child Well-being." Academic Pediatrics. April 2016, Volume 16, Issue 3. https://www.academicpedsjnl.net/article/S1876-2859(15)00383-6/fulltext#sec1

[06-72] Supplemental poverty rate calculated based on households' sum of cash income, plus noncash benefits that resource units can use to meet their food, clothing, shelter, and utilities needs, minus taxes (or plus tax credits), minus work expenses, medical expenses, and child support paid to another household; thresholds differ by geographic region depending on cost of living

[06-73] U.S. Census, The Supplemental Poverty Measure, 2018. https://www.census.gov/data/tables/2019/demo/income-poverty/p60-268.html

[06-74] In 2016, supplemental poverty rate in Texas was not statistically different from the national average, but by 2018 it was statistically significantly below the national average

[06-75] Currently, peer states ranked in the Top 3 include first Ohio (10.4%), #2 Washington (10.5%), and third, Colorado (10.8%)

[06-76] National Academies of Science, Engineering, and Medicine. Roadmap to Reducing Child Poverty. https://www.nap.edu/catalog/25246/a-roadmap-to-reducing-child-poverty.

[06-77] "Incarceration rate" refers to the number of people incarcerated in state and federal facilities per 100,000 residents, excludes county jails; in Texas, about 550 people per 100,000 population are currently incarcerated in state and federal facilities

[06-78] Brennan Center for Justice at NYU School of Law, Changes in State Imprisonment, 2006 -2014. https://www.brennancenter.org/sites/default/files/analysis/UpdateChangesinStateImprisonment.pdf; Prison Policy Initiative, Texas Profile, https://www.prisonpolicy.org/profiles/TX.html.

[06-79] Sentencing Project analysis of U.S. Bureau of Justice Statistics data, State-by-State Data; State Rankings - State Imprisonment Rate, 2017. https://www.sentencingproject.org/the-facts/#rankings?dataset-option=SIR.

[06-80] Vera Institute, Incarceration Trends in Texas, https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-texas.pdf.Prison Policy Initiative, Texas Profile, https://www.prisonpolicy.org/profiles/TX.html.

[06-81] Vera Institute, Incarceration Trends in Texas, https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-texas.pdf.

[06-82] Sentencing Project analysis of U.S. Bureau of Justice Statistics data, State-by-State Data; State Rankings - State Imprisonment Rate, 2017. https://www.sentencingproject.org/the-facts/#rankings?dataset-option=SIR; Prison Policy Initiative, Texas Profile, https://www.prisonpolicy.org/profiles/TX.html.

[06-83] 89% of survey respondents reported that a state's legal climate impacted important business decisions. U.S. Chamber Institute for Legal Reform, Ranking the States: A Survey of the Fairness and Reasonableness of State Liability Systems, 2019. https://www.instituteforlegalreform.com/uploads/pdfs/2019_Harris_Poll_State_Lawsuit_Climate_Ranking_the_States. pdf

[06-84] Kurt Badenhausen, "The Best States For Business 2018: Behind The Numbers," Forbes, November 2018. https://www.forbes.com/sites/

kurtbadenhausen/2018/11/28/the-best-states-for-business-2018-behind-the-numbers/#3bceffd22bae

[06-85] Jefferson County places behind only Chicago/Cook County, Los Angeles, San Francisco, and New York City. U.S. Chamber Institute for Legal Reform, Ranking the States: A Survey of the Fairness and Reasonableness of State Liability Systems, 2019. https://www.instituteforlegalreform.com/uploads/pdfs/2019_Harris_Poll_State_Lawsuit_Climate_Ranking_the_States. pdf

[06-86] Texas Commission on Judicial Selection, available at https://www.txcourts.gov/tcjs/ (accessed March 28, 2020)

[06-87] Meadows Mental Health Policy Institute analysis prepared for Texas 2036, Adult Incarceration in Texas, February 22, 2019.

[06-88] Texas Legislative Budget Board Staff Report, Statewide Criminal and Juvenile Justice Recidivism and Revocation Rates, 2019. http://www.lbb.state.tx.us/documents/publications/policy_report/4914_recidivism_revocation_rates_jan2019.pdf.

[06-89] Bureau of Justice Statistics, 2018 Update on Prisoner Recidivism: A 9-Year Follow-up Period (2005-2014). https://www.bjs.gov/content/pub/pdf/18upr9yfup0514.pdf.

[06-90] Texas Legislative Budget Board Staff Report, Statewide Criminal and Juvenile Justice Recidivism and Revocation Rates, 2019. http://www.lbb.state.tx.us/documents/publications/policy_report/4914_recidivism_revocation_rates_jan2019.pdf.

[06-91] State jail recidivism has increased slightly from 62.7% for the 2013 cohort to 62.8% for the 2015 cohort. Prison recidivism has dropped slightly from 46.4% for the 2013 cohort to 45.5% for the 2015 cohort. .

[06-92] U.S. Chamber of Commerce, Institute for Legal Reform, "2019 Lawsuit Climate Survey," 2019. https://www.instituteforlegalreform.com/uploads/sites/1/2019_Lawsuit_Climate_Survey_-_Ranking_the_States.pdf.

[06-93] Texas was ranked #39 in 2017 and #40 in 2015.

[06-94] Criminal justice spend includes police, judicial and legal, and corrections spend across state, county, and municipal levels.

Pillar 07 -Government Performance

[07-1] Anthony Champagne and Edward J. Harpham, Governing Texas: Chapter8 – The Texas Executive, First Edition (W.W. Norton & Company, Inc., Ebook), http://www.wwnorton.com/college/polisci/governingtexas/ch/08/outline.aspx.

[07-2] Texas Constitution, Article 3 Section 49a. https://statutes.capitol.texas.gov/Docs/CN/htm/CN.3.htm#3.49a.

[07-3] Texas Legislature, General Appropriations Act for the 2020-21 Biennium, 2019. https://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2020_2021.pdf.

[07-4] Ingraham, Christopher. The Washington Post, "Attorney General Barr's memo comes at a time of deep distrust in the executive branch," March 25, 2019. https://www.washingtonpost.com/business/2019/03/25/attorney-general-barrs-memo-comes-time-deep-distrust-executive-branch/?noredirect=on&utm_term=.cb230983ae89.

[07-5] Reuters Polling, "Right or Wrong Direction: Things in Your State." https://polling.reuters.com/#!response/CP1B/type/smallest/filters/DQSTATE:44/dates/20150401-20160430/collapsed/false

[07-6]Ramsay, Ross. Texas Tribune, "What do Texas voters want? Meat and potatoes, apparently. And cleaner elections," June 21, 2019. https://www.texastribune.org/2019/06/21/texas-voters-split-trump-fear-elections-are-rigged-poll-says/.

[07-7]Texas Politics Project, Greg Abbott approval, June 2019. https://texaspolitics.utexas.edu/set/greg-abbott-approval-june-2019.

[07-8] Reuters Polling, "Right or Wrong Direction: Things in Your State." https://polling.reuters.com/#!response/CP1B/type/smallest/filters/DQSTATE:44/dates/20150401-20160430/collapsed/false.

[07-9] Percent of Texans agreeing that our state is "on track" has remained consistent since 2015 to 2016 (44.2%).

[07-10] Top 9 rankings for confidence in government include first Georgia (44%), second, Texas (43%), third, Colorado (42%), fourth, Ohio (41%), fifth, Florida (40%), sixth, Virginia (39%), seventh, Washington (38%), eighth,

Pennsylvania (37%), and ninth, North Carolina (35%).

[07-11] Texas ranked #46 among states in 2016 turnout from citizens aged 18 and above. U.S. Census Current Population Survey, Voting and Registration, https://www.census.gov/topics/public-sector/voting.html.

[07-12]Wang, Elbert. Texas Tribune, "Texas saw the nation's sixth-highest voter turnout increase, but still lagged behind most other states," December 7, 2018. https://www.texastribune.org/2018/12/07/texas-voter-turnout-sixth-highest-increase-2018-midterms/

[07-13] Texas ranked #45 among states in 2018 turnout from citizens aged 18 and above. U.S. Census Current Population Survey, Voting and Registration, https://www.census.gov/topics/public-sector/voting.html.

[07-14] Corporation for National and Community Service, Volunteering in America — State Profiles, 2018. https://www.nationalservice.gov/serve/via/states/texas.

[07-15] Center for Responsive Politics, OpenSecrets.org Election Overview: Totals by state (based on FEC data published June 2019). https://www.opensecrets.org/overview/statetotals.php.

[07-16] Number of voters divided by number of voting-age residents, including non-citizens.

[07-17] U.S. Census Current Population Survey, Voting and Registration, https://www.census.gov/topics/public-sector/voting.html.

[07-18] Minor increase in major election turnout from 53.8% in 2012 to 55.4% in 2016, significant increase in midterm election turnout from 34.6% in 2014 to 48.4% in 2018.

[07-19] George Mason University Mercatus Center, Ranking the states by fiscal conditions, 2018 edition. https://www.mercatus.org/system/files/norcross-fiscal-rankings-2018-mercatus-research-v1.pdf.

[07-20] Ibid.

[07-21] Anderson Economic Group, State Business Tax Burden Rankings, 2018. https://www.andersoneconomicgroup.com/wp-content/uploads/AEGBusinessTaxBurdenStudy_2018_FINAL.pdf.

[07-22] Industry sector contributions reported by school district property taxes only, taken as indicative of all business taxes based on assumptions majority of property taxes are represented by school district taxes and property taxes are an indicative share of all business taxes; Texas Comptroller of Public Accounts, Tax Exemptions and Tax Incidence Report, November 2018. https://comptroller.texas.gov/transparency/reports/tax-exemptions-and-incidence/.

[07-23] Ibid.

[07-24] Ibid.

[07-25] Ibid.

[07-26] Texas Constitution, Article 3 Section 49-g. https://statutes.capitol.texas.gov/Docs/CN/htm/CN.3.htm#3.49-g

[07-27] Texas Legislative Budget Board, Economic Stabilization Fund Overview, April 2018. https://www.lbb.state.tx.us/Documents/Publications/Info_Graphic/5192_ESF.pdf

[07-28] Fiscal Sustainability Index based Mercatus Center State Fiscal Ranking, reflects a government's ability to sustain current and planned spending with projected revenue; ranking is based on 1) cash solvency — enough cash to cover short term bills; 2) budget solvency — enough budgeted revenue to cover projected spending within the year (versus deficit); 3) long-run solvency — ability to meet long-term obligations (e.g., pensions); 4) service level solvency — expenses and liabilities per capita versus taxes and fees per capita; 5) trust-fund solvency — debts and unfunded pensions and healthcare liabilities.

[07-29] George Mason University Mercatus Center, Ranking the states by fiscal conditions, 2018 edition. https://www.mercatus.org/system/files/norcross-fiscal-rankings-2018-mercatus-research-v1.pdf

[07-30] Ranked 20th in the nation in 2012.

[07-31] Currently, peer states ranked in the Top 3 include, in descending order, Florida, North Carolina, and Virginia.

[07-32] Anderson Economic Group, State Business Tax Burden Rankings, 2018. https://www.andersoneconomicgroup.com/wp-content/uploads/AEGBusinessTaxBurdenStudy_2018_FINAL.pdf

[07-33] Texas was ranked 16th nationally with an 8.2% business tax rate in 2017 rankings (which used 2015 data)

[07-34] Currently, peer states ranked in the top three include #1 North Carolina (6.9%), #2 Georgia (7.0%), and #3 Ohio (7.8%)

[07-35] Tax Policy Center, Urban Institute & Brookings Institute, State and Local Tax Revenue as a Percentage of Personal Income, 1977 to 2017, https://www.taxpolicycenter.org/statistics/state-and-local-tax-revenue-percentage-personal-income

[07-36] Ranked fourth among peer states with a 8.71% tax burden in 2016

[07-37] Currently, peer states ranked in the top three are Florida (7.7%), Georgia (8.5%), and Virginia (8.7%) respectively

[07-38] Texas Constitution, Article 3 Section 49a. https://statutes.capitol.texas.gov/Docs/CN/htm/CN.3.htm#3.49a

[07-39] Teacher Retirement System of Texas, Actuarial Valuation Report, August 31, 2019. https://www.trs.texas.gov/TRS%20Documents/actuarial_valuation_pension_fund_2019.pdf

[07-40] Texas Legislative Budget Board, Capital Needs: 2020-21 Funding Overview, January 2019. https://www.lbb.state.tx.us/Documents/Publications/Presentation/5670_capi.pdf

[07-41] Wallethub index calculates public services ranking based on 30 indicators across policy areas—Education, Health, Safety, Economy, and Infrastructure & Pollution; data from Brookings Institution Tax Policy Center with analysis by Wallethub

[07-42] Fitch Ratings, 2018 State Pension Update. Rising Accrued Benefits and Flat Assets Push Pensions Higher. Special Report. 2018. Appendix: 2018 State Tax-Supported Debt and Fitch-Adjusted Pensions. https://www.nasra.org/Files/Topical%20Reports/Credit%20Effects/Fitch%201811.pdf

[07-43] Fitch Ratings, 2018 State Pension Update. Rising Accrued Benefits and Flat Assets Push Pensions Higher. Special Report. 2018. Appendix: 2018 State Tax-Supported Debt and Fitch-Adjusted Pensions. https://www.nasra.org/Files/Topical%20Reports/Credit%20Effects/Fitch%201811.pdf

[07-44] Improved from #30 in the nation in 2017 to #28 in the nation in 2018. However, Long-term burden increased by 1 percentage point from 2017 to 2018.

Finch Ratings, 2017 State Pension Update. Pensions Driving State Liability Burdens. Special Report. 2017. Appendix: 2017 State Debt and Fitch-Adjusted Pensions.

http://sentpressrelease.com/pressrelease/attachment/250/0c08f8ae-acd1-4750-9bb0-78c63b70d379/2db2a7e9-4aff-4b4e-a536-78064af2a62d?fileDisplayName=Pensions%20Driving%20State%20Liability%20Burdens.pdf

[07-45] Currently, peer states ranked in the Top 3 are FL (3.1%), NC (3.4%), and VA (5.2%),

[07-46] Texas State Auditor's Office. Annual Report on Classified Employee Turnover for Fiscal Year 2019. http://www.sao.texas.gov/reports/main/20-703.pdf

[07-47] Texas Comptroller of Public Accounts, Fiscal Notes, Budget Drivers The Forces Driving State Spending, November 2018, https://comptroller.texas.gov/economy/fiscal-notes/2018/november/.

[07-48] Texas State Auditor's Office. Annual Report on Classified Employee Turnover for Fiscal Year 2019. http://www.sao.texas.gov/reports/main/20-703.pdfA Summary Report on Full-time Equivalent State Employees for Fiscal Year 2019. http://www.sao.texas.gov/SAOReports/ReportNumber?id=20-702

[07-49] Texas State Auditor's Office. Annual Report on Classified Employee Turnover for Fiscal Year 2019. http://www.sao.texas.gov/reports/main/20-703.pdfA Summary Report on Full-time Equivalent State Employees for Fiscal Year 2019. http://www.sao.texas.gov/SAOReports/ReportNumber?id=20-702

[07-50] Texas State Auditor's Office. Annual Report on Classified Employee Turnover for Fiscal Year 2019. http://www.sao.texas.gov/reports/main/20-703.pdfA Summary Report on Full-time Equivalent State Employees for Fiscal Year 2019. http://www.sao.texas.gov/SAOReports/ReportNumber?id=20-702

[07-51] Texas State Auditor's Office. Annual Report on Classified Employee Turnover for Fiscal Year 2019. http://www.sao.texas.gov/reports/main/20-703.pdfA Summary Report on Full-time Equivalent State Employees for Fiscal Year 2019. http://www.sao.texas.gov/SAOReports/ReportNumber?id=20-702

[07-52] Includes classified, regular, full- and part-time employees, does not

include elected officials or appointed officials

[07-53] Ibid.

[07-54] Steadily increasing from 17.5% turnover in 2014

[07-55] State and Local Finance Initiative. Sustainable Budgeting in the States. November 2017.

https://www.urban.org/sites/default/files/publication/93461/sustainable-budgeting-in-the-states_2.pdf

[07-56] National Association of State Budget Officials, Budget Processes in the States, 2015

https://www.nasbo.org/reports-data/budget-processes-in-the-states

[07-57] Texas Department of Information Resources, Biennial Performance Report 2018. https://pubext.dir.texas.gov/portal/internal/resources/DocumentLibrary/2018%20Biennial%20Performance%20Report%20and%20Report%20on%20State%20Technology%20Expenditures.pdf

[07-58] 2018 Texas Digital Storage Study, Department of Information Resources, Texas State Library and Archives Commission; https://pubext.dir.texas.gov/portal/internal/resources/DocumentLibrary/2018%20Texas%20Digital%20Storage%20Study.pdf

[07-59] Legislative Budget Board, Legislative Appropriations Request Instructions,https://www.lbb.state.tx.us/Documents/Instructions/LAR/Legislative%20Appropriations%20Detailed%20Instructions%20for%20State%20Agencies,%20Institutions%20and%20Agencies%20of%20Higher%20Education.pdf

[07-60] Texas Department of Information Resources, Agency Strategic Plan, Agency Overview, https://pubext.dir.texas.gov/portal/internal/resources/DocumentLibrary/Agency%20Strategic%20Plan%202019-2023.pdf

[07-61] Texas 2036 Spend Analysis, in collaboration with Civic Initiatives

[07-62] Government Technology magazine, Digital States Survey, 2018. https://www.govtech.com/computing/Digital-States-2018.html

[07-63] If Texas Department of Information Resources does not already track user satisfaction with online services, Texas 2036 will recommend critical milestones to develop a measurement tool for this purpose

[07-64] U.S. News, In the Lone Star State Cities Feel the Heat, December 2018. https://www.usnews.com/news/best-states/articles/2018-12-27/cities-versus-state-a-battle-for-control-in-the-texas-legislature

[07-65] Gatehouse News, The Seven Big Issues of the 2019 Texas Legislature. https://gatehousenews.com/legislative-preview-2019/seven-big-issues-2019-texas-legislature/

Cross-cutting Themes: Rural and Children

[08-1] U.S. Census Bureau, State Population Totals and Components of Change: 2010-2019. https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html

[08-2] Rural Health Information Hub, Texas, 2019. https://www.ruralhealthinfo.org/states/texas

[08-3] Bureau of Economic Analysis, GDP by State, Texas, Top Five State Industries as a percentage of Total GDP, 2018. https://apps.bea.gov/regional/bearfacts/statebf.cfm

[08-4] United States Department of Agriculture, Economic Research Service, Value added to the U.S. economy by the agricultural sector, 2011-2020F. https://data.ers.usda.gov/reports.aspx?ID=17830

[08-5] Texas Office of the Governor, 2019 Study of the Challenges and opportunities of developing small businesses in rural Texas, https://gov.texas.gov/uploads/files/business/Texas_Rural_Study.pdf

[08-6] Based on NCES definitions of rural areas provided by the Texas Education Agency district type data; Texas Education Agency, Texas Academic Performance Report, 2018-19 State Student Information. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[08-7] Texas Education Agency, AP Access and Student Success in Texas, November 2017. https://tea.texas.gov/sites/default/files/AP_SBOE_Long_Range_Planning.pdf

[08-8] Greater Texas Foundation, Issue Brief: Rural Students, April 2017. https://www.greatertexasfoundation.org/wp-content/uploads/2017/12/Brief-Rural.pdf

[08-9] Internal analysis from Center for Medicare and Medicaid Services Geographic Variation County Tables.

[08-10] Hall Institute for Rural and Community Health (Texas Tech University Health Sciences Center), Rural Health Quarterly: U.S. Rural Health Report Card, 2018. http://ruralhealthquarterly.com/home/2019/04/10/2018-u-s-rural-health-report-card/

[08-11] Texas Department of Agriculture, Texas Rural Health and Economic Development Advisory Council, Rural Policy Plan December 2018. https://www.texasagriculture.gov/Portals/0/Publications/ER/2018%20Rural%20Policy%20Plan%20Report.pdf

[08-12] Texas Department of State Health Services, Prevalence of Obesity among Adults by Demographic Characteristics, Risk Factors, Other Conditions, and Place of Residence, 2016. https://www.dshs.texas.gov/Obesity/Data/

[08-13] Rural Health Quarterly. U.S. Rural Health Report Card, 2017, http://ruralhealthquarterly.com/home/wp-content/uploads/2017/12/RHQ.1.4_U.S.-Rural-Health-Report-Card.pdf

[08-14] Federal Communications Commission, Broadband Deployment and Progress Reports, 2019. Based on Form 477 data. https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf

[08-15] Connected Nation, Rural Broadband: A Texas Tour, 2018, p.94. https://connectednation.org/wp-content/uploads/2018/11/The-Future-of-Rural-Texas-2018_5-Rural-Broadband.pdf

[08-16] Texas Department of Transportation, Texas Motor Vehicle Traffic Crash Facts, Calendar Year 2018. http://ftp.dot.state.tx.us/pub/txdot-info/trf/crash_statistics/2018/01.pdf

[08-17] Texas Legislative Budget Board Staff, Improve Viability of Small Public Water Systems, 2019. http://www.lbb.state.tx.us/Documents/Publications/Staff_Report/2019/5464_Water_Systems.pdf

[08-18] Texas Water Development Board, 2017 Texas State Water Plan, Needs (Potential Shortages) by Usage Type State-wide Summary. https://2017.texasstatewaterplan.org/statewide.

[08-19] United States Census Bureau, Quickfacts, Texas Population Estimates. https://www.census.gov/quickfacts/TX.

[08-20] Ibid.

[08-21] Georgetown University Center on Education and the Workforce, Custom Projection for Texas 2036, March 2020.

[08-22] Percentage of annual graduates in the Class of 2018 that met at least one of the College Ready indicators. Texas Education Agency, Texas Academic Performance Report, 2018-19 State College, Career, and Military Readiness (CCMR): College Ready Graduates. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[08-23] Percentage of Class of 2011 high school graduates who earned a certificate or degree from a Texas public higher education institution within 6 years of high school graduation; includes Level 1 and Level 2 certificates, two-year degrees, and four-year degrees. Texas Education Agency, Texas Academic Performance Report, 2017-18 State Postsecondary Outcomes Summary. https://tea.texas.gov/student-testing-and-accountability/accountability/state-accountability/performance-reporting/texas-0

[08-24] Alker, Joan and Lauren Roygardner. "The Number of Uninsured Children Is on the Rise". Georgetown University Health Policy Institute Center for Children and Families. October 2019. https://ccf.georgetown.edu/wp-content/uploads/2019/10/Uninsured-Kids-Report.pdf

[08-25] America's Health Rankings, Annual Report 2018. https://www.americashealthrankings.org/explore/annual/measure/birthweight/state/TX;

https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives.

[08-26] National Survey of Children's Health 2016-2017, via America's Health Rankings, Annual Report 2018. https://www.americashealthrankings.org/explore/health-of-women-and-children/measure/youth_overweight/state/TX.

[08-27] D Magazine, Asthma's Impact On North Texas, May 12, 2017. https://www.dmagazine.com/healthcare-business/2017/05/20021/

[08-28] Ura, Alexa and Elbert Wang. "Poverty in Texas Drops to Lowest Levels in More Than a Decade". Texas Tribune. September 13, 2018. https://www.texastribune.org/2018/09/13/texas-poverty-census-2017-lowest-levels-decade/.

[08-29] Trauma based on two or more "adverse childhood experiences" (ACEs). Definition of ACEs include economic hardship; divorce or separation of parents; living with someone with a substance abuse problem; a victim or witness of neighborhood violence; living with someone who is mentally ill, suicidal, or severely depressed; witnessing domestic violence; a parent who has served time in jail; being judged unfairly due to race or ethnicity; and death of a parent.

[08-30] Survey conducted by U.S. Census Bureau via mail and web-based survey, with parents responding on behalf of their children; Child and Adolescent Health Measurement Initiative (CAHMI), National Survey of Children's Health, 2016-2017. https://www.childhealthdata.org/browse/survey/results?q=5545&r=1.

[08-31] Georgetown University Center on Education and the Workforce, "The College Payoff: Education, Occupations, Lifetime Earnings," 2011, Figure 1. https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/collegepayoff-completed.pdf.

TX 20 ★ 36

Rather than yield the future to a course of events imposed from outside, we are confident that Texans will choose to rely on a great, long-standing asset: the determination to shape their own destinies.

- Preface, Texas 2000 Commission Report

texas2036.org