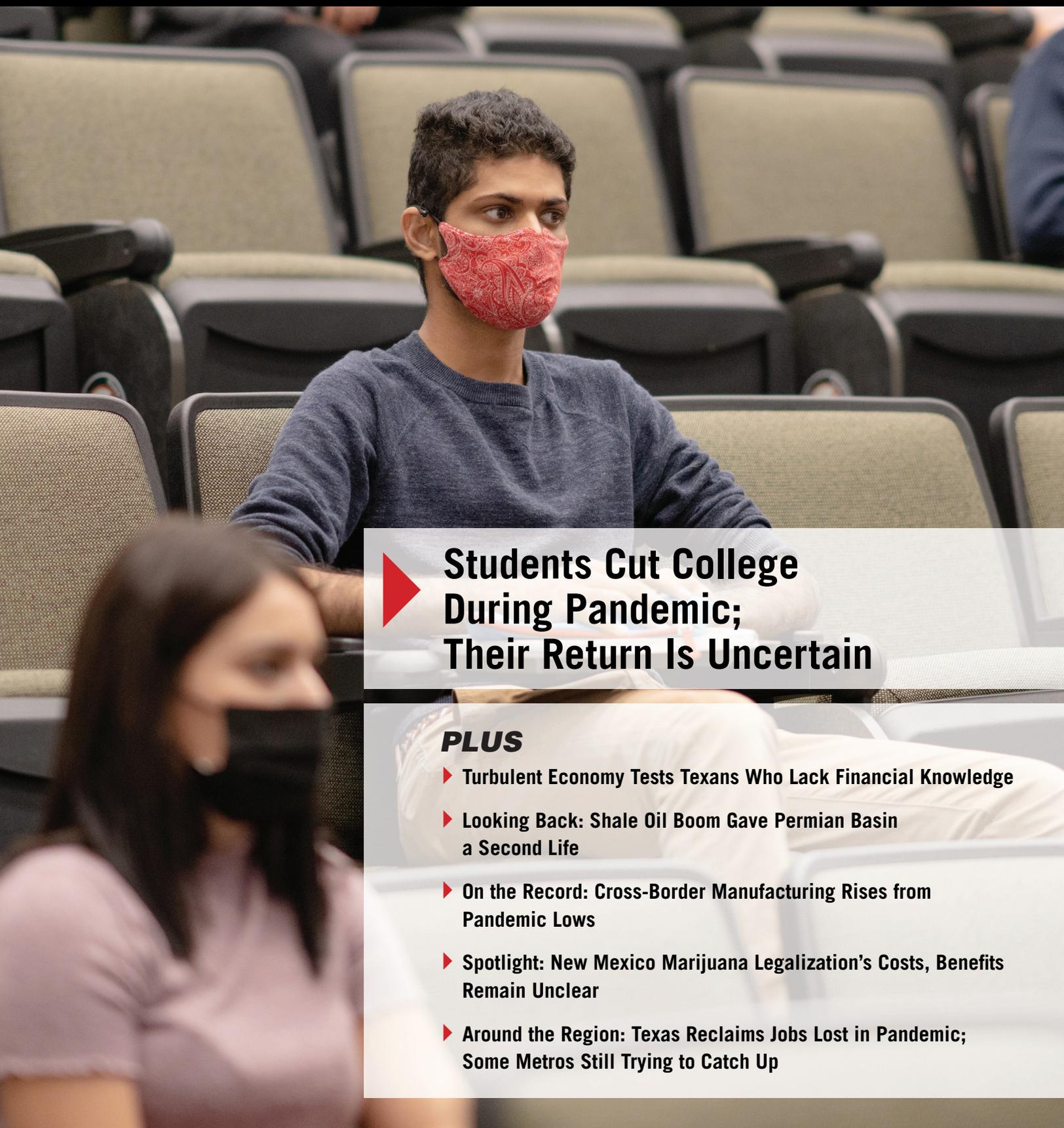




# Southwest Economy



## ▶ Students Cut College During Pandemic; Their Return Is Uncertain

### **PLUS**

- ▶ Turbulent Economy Tests Texans Who Lack Financial Knowledge
- ▶ Looking Back: Shale Oil Boom Gave Permian Basin a Second Life
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# Students Cut College During Pandemic; Their Return Is Uncertain

By Wenhua Di and Mytiah Caldwell

**ABSTRACT:** Postsecondary institutions suddenly closed their doors with the arrival of COVID-19 in March 2020. Two years later, the impacts are coming into focus. They include steeply declining college enrollment in Texas and across the country, with particularly noteworthy cuts among normally accessible community colleges. The results could portend a less-educated and less-nimble future workforce.

Colleges and universities abruptly emptied. Everything, it seemed, was online.

As COVID-19 spread across the U.S. in first quarter 2020, followed by waves of its variants, virtual instruction took hold and rolled on through the 2020-21 and 2021-22 academic years. Worrisome infection rates not only limited in-person learning, they also curtailed most campus activities—sports and entertainment included. The student experience was turned on its head in an era of evolving vaccine requirements and mask wearing.

Prospective college students faced another set of challenges. Successive classes of high school seniors lacked academic preparation for higher edu-

cation, let alone assistance navigating the college application process, while pandemic-related financial shocks put college further out of reach for some.

Two years into the pandemic, as the virus' impact recedes, the results have become clear: steeply declining college enrollment in Texas and across the country. Particularly noteworthy, normally accessible community colleges have experienced the greatest drop-off. The vanishing students portend a possibly less-educated and less-versatile future workforce.

## Enrollment Decline Quickens

Enrollment in fall 2021 for postsecondary education (colleges and universities) nationally declined 5.1

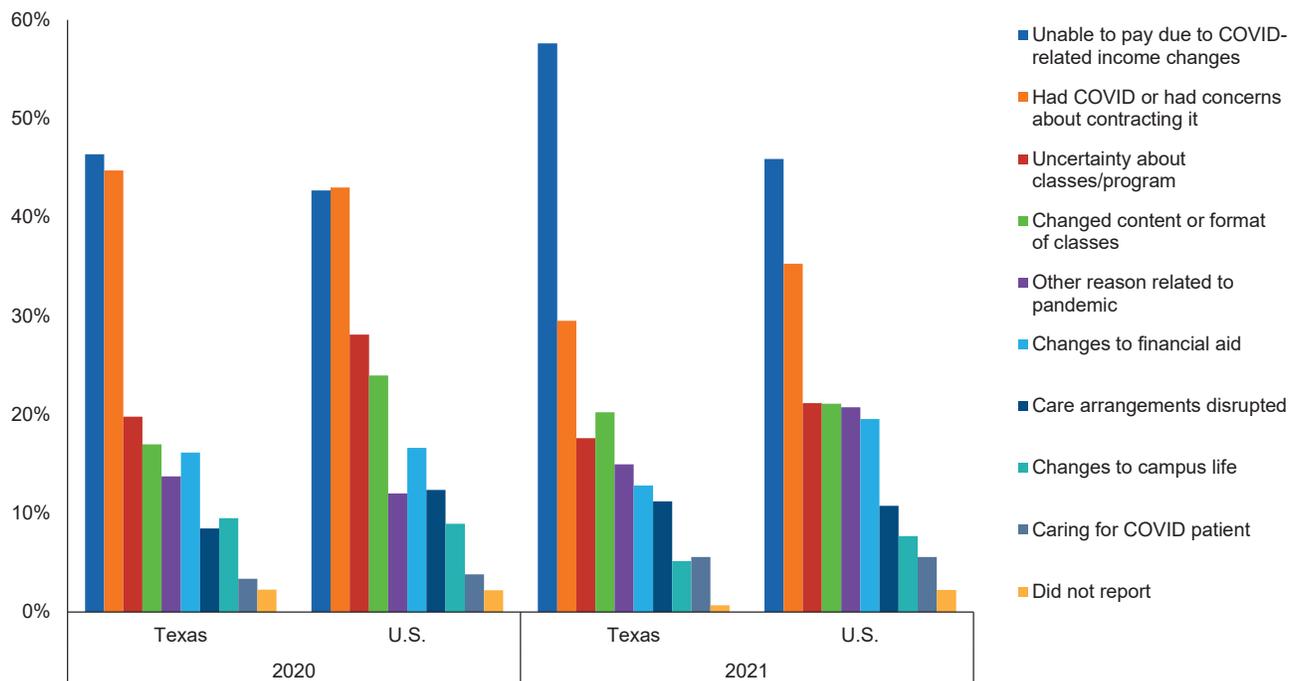
**TABLE 1**  
**1** College Enrollment Declined During Pandemic

	Fall 2019	Fall 2021	Fall 2021 % change from fall 2019
<b>U.S.</b>			
Public 2-yr	5,368,470	4,662,364	-13.2
First-time freshmen (age 24 and younger)	759,649	626,017	-17.6
Public 4-yr	7,989,984	7,767,617	-2.8
First-time freshmen (age 24 and younger)	927,723	878,208	-5.3
Private nonprofit 4-yr	3,842,930	3,776,285	-1.7
First-time freshmen (age 24 and younger)	399,426	385,304	-3.5
<b>Total</b>	<b>18,239,874</b>	<b>17,302,364</b>	<b>-5.1</b>
First-time freshmen (age 24 and younger)	2,143,023	1,955,529	-8.7
<b>Texas</b>			
Public 2-yr	647,127	607,763	-6.1
Public 4-yr	704,194	668,881	-5.0
Private nonprofit 4-yr	125,156	121,131	-3.2
<b>Total</b>	<b>1,490,953</b>	<b>1,428,231</b>	<b>-4.2</b>

NOTES: Enrollment is for both undergraduate and graduate programs. First-time freshmen are undergraduate students entering college in the fall term for the first time. Total includes private for-profit, four-year institutions. SOURCES: "Overview: Fall 2021 Enrollment Estimates," National Student Clearinghouse; authors' calculations.

**CHART**  
**1**

**Inability to Pay Is Top Reason for Canceling College Plans in Pandemic**



NOTES: Estimates are based on households with at least one adult who is taking or was planning on taking classes this term from a post-high school institution. Totals do not sum to 100 percent as respondents can choose multiple categories.  
SOURCE: Census Bureau Household Pulse Survey, weeks 15 and 38.

percent from prior-year levels, the National Student Clearinghouse found (Table 1).<sup>1</sup> Although U.S. college enrollment was trending lower before the pandemic, the subsequent drop was much more pronounced.

Texas’ population has grown faster than the nation. Despite this growing potential student pool, the state’s total college enrollment fell 4.2 percent from 2019 to 2021, smaller than the national drop.

Community colleges in the state, like those in the nation, were particularly affected, with enrollment down 6.1 percent from fall 2019 levels. Meanwhile, Texas’ four-year universities reported larger enrollment declines than their counterparts nationally. Before the pandemic, Texas enrollment was increasing in contrast to declines nationally.<sup>2</sup>

The pandemic recession—albeit a brief two months—differed from previous downturns with high unemployment. During those episodes,

people typically returned to school to build skills. This outcome, in contrast, resulted in lower postsecondary numbers. Public four-year enrollment decreased 2.8 percent nationally, while community colleges experienced a 13.2 percent decline over the pandemic’s initial two years.

Undergraduate students entering college for the first time appear to have been more affected than other students. Enrollment among first-time freshmen, age 24 years and younger, declined by a larger percentage across all types of institutions, suggesting that the pandemic disproportionately disrupted college education for young adults.

**Why Not in School?**

The Census Bureau’s Household Pulse Surveys provide real-time insight into factors affecting postsecondary enrollment. The survey queries respondents online regarding economic experiences during the pandemic.

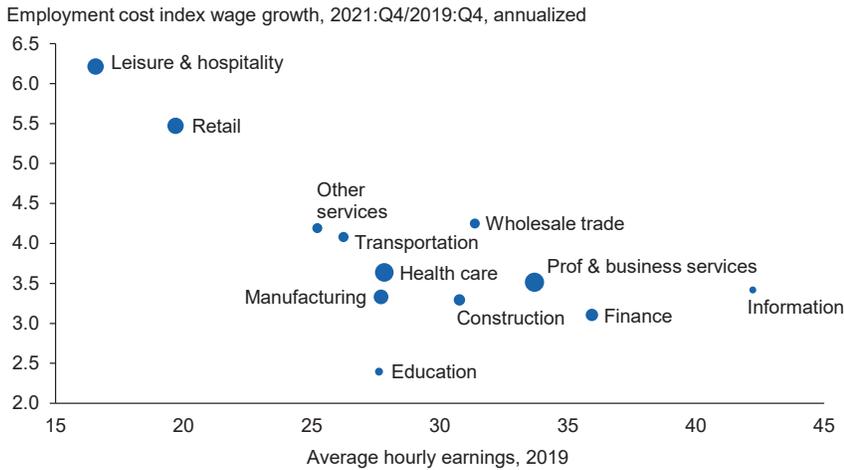
The survey asked whether adults in the respondent household had changed their college plans—if they had any—and the reasons for the changes. Data from survey periods (Sept. 16–28, 2020, and Sept. 15–27, 2021, weeks 15 and 38, respectively) highlight changes in fall college enrollment plans.<sup>3</sup>

Approximately 73 percent of all respondents who had college plans reported that they had changed them as of the fall term 2020; about one-third in Texas and nationwide reported canceling all plans.<sup>4</sup> Not all plan changes were cancellations. Many students took fewer (or more) classes, had classes in a different format or at a different institution or took classes for different kinds of certificates or degrees.

There were far fewer respondents to the fall 2021 Pulse survey, and many skipped the college plan questions. Still, the share reporting that they canceled college plans was about half that

**CHART**  
**2**

**Wages Jump Furthest in Low-Paying Sectors**



NOTES: Data show the average of October–December 2021/October–December 2019 annualized growth by industry. Bubbles are weighted by share of total U.S. employment in December 2021.  
SOURCES: Bureau of Labor Statistics; authors' calculations.

of the prior year—about 15 percent—in Texas and the U.S.<sup>5</sup>

The survey asked what prompted the changed college plans. Looking at those who opted not to enroll, the top reason was an inability to pay for school due to a pandemic-related income change (*Chart 1*).

COVID-19 illness or fear of catching the virus was the second-most cited reason for canceling college plans. Uncertainty about classes or programs was the third-most frequent reason, while changes in class content or format was the fourth-most noted reason for skipping college.

Texans were less likely to view the uncertainty, content or format changes as a negative factor, perhaps because the state's colleges returned to in-person classes sooner than those elsewhere.

What about leaving school for work opportunities? In the months after the pandemic's onset in spring 2020, labor markets quickly rebounded and demand for workers outpaced supply, particularly among lower-skill positions, for which pay quickly rose (*Chart 2*).

The survey did not directly ask about labor market opportunities, but for some potential students, plentiful employment openings and higher wages

for low-skill jobs might have made work more appealing than school. Among all age groups, employment rates in the pandemic recovered first for 16–19-year-olds. Those vulnerable to health risks or whose parents needed help with care for younger siblings though, may have opted to stay out of school and the job market.<sup>6</sup>

**Demographic Factors**

The Pulse survey also sheds light on the role of demographics during the period. Applying regression analysis to the national data suggests that—all else

equal—cancellation of education plans is positively correlated with being Black or Hispanic. It is also positively correlated with lower income status. This is consistent with the pandemic's greater impact on community college enrollment, as these demographics comprise a larger share of students at two-year campuses.

Texas data, though less robust, yield a similar result. However, there is no correlation with being Hispanic.

**Impact Among Men**

Men's college enrollment fell about twice as much as that of women during the pandemic (*Table 2*). Community college enrollment fell 16 percent for men compared with 11 percent among women. Men also drove the overall enrollment drop at four-year institutions.<sup>7</sup> This is consistent with a long-run trend of declining male college attendance.

Additionally, the decline is indicative of labor market opportunities that appeared following the onset of the pandemic. Job retention and creation was tilted toward male-dominated occupations, especially as women bore much of the burden of caring for children unable to attend in-person classes or daycare.<sup>8</sup>

Longer term, men have fallen behind women in college enrollment as access to higher education and the career path for women improved.<sup>9</sup> The share of men attending colleges and universities fell to 40.9 percent in fall 2020, from 42.3 percent in 2019 and 43.7 percent in 2015.<sup>10</sup>

**TABLE**  
**2**

**Men Far More Likely Than Women to Skip College in Pandemic**

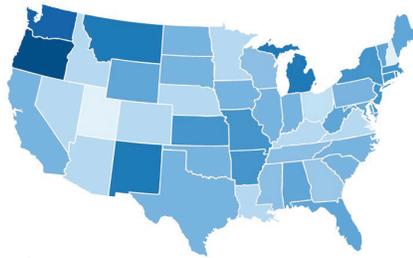
		Fall 2019	Fall 2021	Fall 2021 % change from fall 2019
Public 2-yr	Men	2,256,354	1,891,359	-16.2%
	Women	3,112,115	2,771,005	-11.0%
Public 4-yr	Men	3,477,314	3,296,535	-5.2%
	Women	4,512,670	4,471,082	-0.9%
Private nonprofit 4-yr	Men	1,535,530	1,485,664	-3.2%
	Women	2,307,400	2,290,620	-0.7%
<b>Total</b>	Men	7,606,756	7,059,178	-7.2%
	Women	10,633,118	10,243,187	-3.7%

NOTE: Enrollment for both undergraduate and graduate programs are included.  
SOURCE: "Overview: Fall 2021 Enrollment Estimates," National Student Clearinghouse.

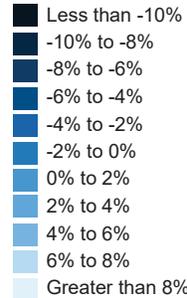
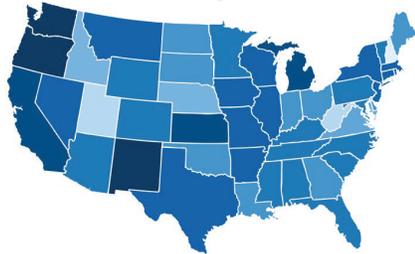
**CHART  
3**

**Male College Enrollment Decline Outpaces Female Drop**

**A. Female Enrollment Changes from Fall 2019 to Fall 2020**



**B. Male Enrollment Changes from Fall 2019 to Fall 2020**



NOTE: This information is based on data collected from Title IV institutions in the United States.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall Enrollment 2020 provisional data.

State-level enrollment data by gender are available only until fall 2020 (*Chart 3*). The male decline accelerated for almost all states from fall 2019 to fall 2020. In Texas, undergraduate enrollment fell 6.4 percent for men and 1.1 percent for women.

Meanwhile, the labor force participation rate for Texas men ages 18 to 24 generally exceeded that of women during the pandemic (*Chart 4*).<sup>11</sup> To the degree that labor shortages helped prompt some prospective students to not pursue a college education, they may motivate more men than women.

**Loan Payment Relief**

While some students canceled college plans due to an inability to pay, aid to students and institutions actually increased during the pandemic. Qualified federal student loan payments were suspended at a zero-interest rate beginning in March 2020 under the Coronavirus Aid, Relief and Economic Security (CARES) Act and Department of Education administrative acts.<sup>12</sup>

Collections also stopped on defaulted loans.<sup>13</sup> Thus, the unpaid outstanding student loan balance grew, totaling

\$1.6 trillion in third quarter 2021, despite a decrease in borrowing.<sup>14</sup> Borrowers with large loan balances or with obligations in distress have benefited most from the pause in payments. Delinquencies will likely reappear in credit reports when repayment obligation resumes in May 2022.<sup>15</sup>

Student loan originations declined in response to the falling college enrollment. The number of new student loan borrowers fell in the past two academic years in Texas and nationally, according to calculations based on New York Fed Consumer Credit Panel/Equifax data.<sup>16</sup>

The total number of student loan borrowers with outstanding balances in Texas was little changed during the first year of the pandemic (*Chart 5*).

**Disrupted Education**

Enrollment for postsecondary education has declined broadly during the pandemic. A particularly large drop in community college enrollment reflects the sensitivity to pandemic disruptions for lower-income and minority students, who represent a large share of students at these schools.

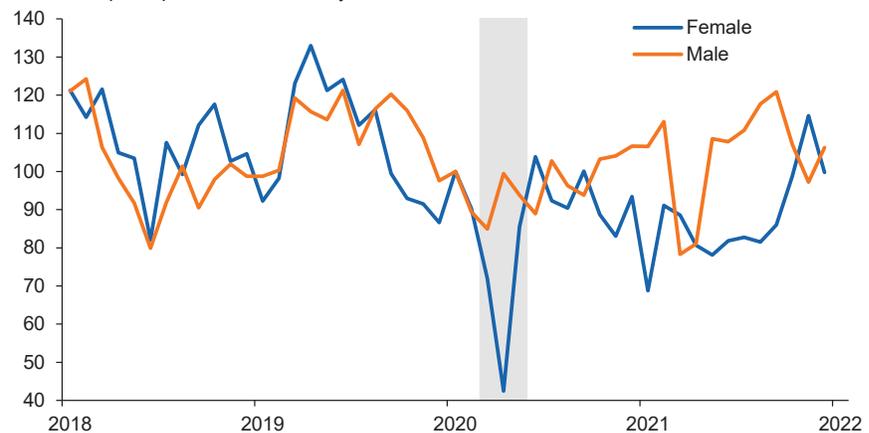
Community colleges serve as a relatively affordable entry to general education and skills training, with graduates able to transfer to traditional universities to continue their education. As a result, the lower enrollment may lead to a less-prepared labor force that lacks education and skills for the workplace and produces fewer students for traditional four-year institutions.

The gender gap in college enrollment also widened during the pandemic. Among women, likely burdened by

**CHART  
4**

**Texas Male Young Adult Labor Force Participation Generally Exceeds Female Rate in Pandemic**

Labor force participation, index January 2020 = 100\*



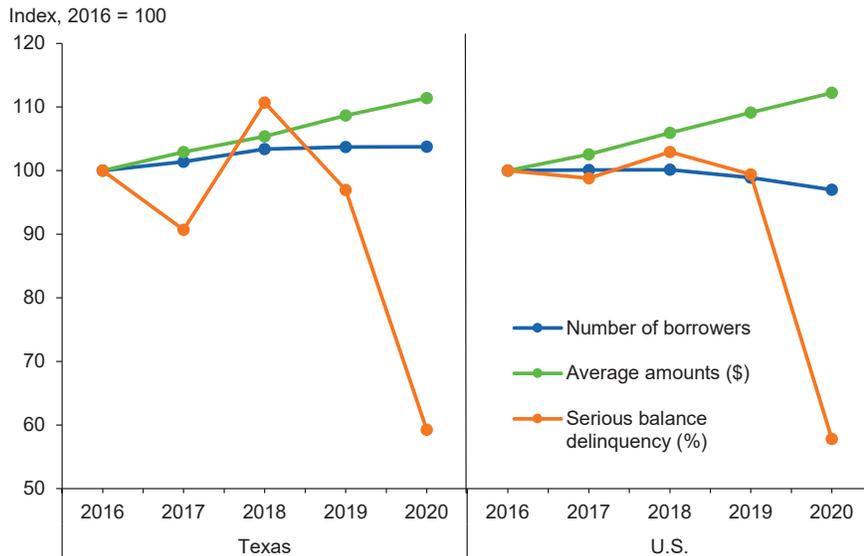
\*Seasonally adjusted.

NOTES: Rates shown are for Texas, ages 18–24. Data are through December 2021. Gray bar shows the initial onset of the pandemic, March–May 2020.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

**CHART**  
**5**

**Student Loan Forbearance Slowed Pandemic Delinquencies**



NOTES: Serious delinquencies are the percent 90+ days past due (including defaults), based on total outstanding balance. Student loans include both federal student loans and private student loans.

SOURCES: Federal Reserve Bank of New York Consumer Credit Panel/Equifax; authors' calculations.

family care responsibilities during the pandemic, community college enrollment declined.

However, the enrollment decline for men was much larger than for women, reaffirming a long-term trend of lower higher-education enrollment for men.

More young men joined the workforce, likely because of higher wages offered for lower-skill positions. Skipping college can, however, reduce lifelong earnings and lead to fewer job opportunities in the long term.

*Di is a senior research economist in the Research Department of the Federal Reserve Bank of Dallas.*

*Caldwell is a research analyst in the Research Department at the Federal Reserve Bank of Dallas.*

**Notes**

<sup>1</sup> "Current Term Enrollment Estimates, Fall 2021," the National Student Clearinghouse Research Center, Jan. 13, 2022, <https://nscresearchcenter.org/current-term-enrollment-estimates/>. The Clearinghouse data account for 97 percent of all enrollments at Title IV, degree-granting institutions in the U.S.

<sup>2</sup> Texas community college enrollment rose 2.1 percent

in 2021 from the sharp decline in the pandemic's first year. Public and private nonprofit four-year enrollment increased slightly in fall 2020 but fell in fall 2021.

<sup>3</sup> In the September 2020 survey, about 19.6 percent of respondents had adults in the households with postsecondary education plans. In the September 2021 period, that share dropped to 16.2 percent. The survey's response rate declined over the two periods, which may imply substantial nonresponse biases, [www.census.gov/programs-surveys/household-pulse-survey.html](http://www.census.gov/programs-surveys/household-pulse-survey.html).

<sup>4</sup> The percentages are higher than enrollment estimates from the National Student Clearinghouse or from the Integrated Postsecondary Education Data System because not all with a college plan applied to college or got admitted. The Pulse responses are self-reported.

<sup>5</sup> Survey questions are specific to the pandemic, so there are no comparable prior data about plan changes.

<sup>6</sup> "Skipping School: Enrollment Numbers Down for Students Ages 16–24 During Pandemic," by Anna Crockett and Jason Saving, Federal Reserve Bank of Dallas *Dallas Fed Communities*, Jan. 24, 2022, [www.dallasfed.org/cd/communities/2022/0124](http://www.dallasfed.org/cd/communities/2022/0124).

"Employment Numbers Suggest Young People Face Barriers in Recovery from Pandemic," by Anna Crockett and Jason Saving, Federal Reserve *Dallas Fed Communities*, Dec. 9, 2021, [www.dallasfed.org/cd/communities/2021/1209](http://www.dallasfed.org/cd/communities/2021/1209).

<sup>7</sup> Women's enrollment declined at a similar rate as the prepandemic rate at public or private nonprofit four-year institutions. See the eighth column in Table 8 in

"Overview: Fall 2021 Enrollment Estimates," by the National Student Clearinghouse Center. The preliminary Texas enrollment data are not broken down by gender.

<sup>8</sup> "The She-Cession by the Numbers," by Liz Elting, *Forbes*, Feb. 12, 2022, [www.forbes.com/sites/lizelling/2022/02/12/the-she-cession-by-the-numbers/?sh=d0efb2105309](http://www.forbes.com/sites/lizelling/2022/02/12/the-she-cession-by-the-numbers/?sh=d0efb2105309).

<sup>9</sup> "The Homecoming of American College Women: The Reversal of the College Gender Gap," by Claudia Goldin, Lawrence F. Katz, and Ilyana Kuziemko, *Journal of Economic Perspectives*, vol. 20, no. 4, 2006, pp. 133–156. Developmental and behavioral differences are suggested.

<sup>10</sup> The National Student Clearinghouse includes only degree-granting institutions, while the National Center for Education Statistics data also cover nondegree-granting institutions. There are also reporting period differences between the two.

<sup>11</sup> The trend is noisy due to a small sample size.

<sup>12</sup> The U.S. Department of Education extended the payment pause to May 1, 2022. All federal loans qualify except for Perkins loans not held by the department, <https://studentaid.gov/announcements-events/covid-19>.

<sup>13</sup> "The Early Effects of the COVID-19 Pandemic on Consumer Credit," Consumer Financial Protection Bureau Office of Research Special Issue Brief, August 2020. Loans not in default under this "administrative forbearance" include previously delinquent ones, which are considered current. Nonpayment has no negative impact on borrowers' credit, [https://files.consumerfinance.gov/f/documents/cfpb\\_early-effects-covid-19-consumer-credit\\_issue-brief.pdf](https://files.consumerfinance.gov/f/documents/cfpb_early-effects-covid-19-consumer-credit_issue-brief.pdf).

<sup>14</sup> "Trends in College Pricing and Student Aid 2021," The College Board, accessed March 4, 2022. Student loans are one of the major sources of funds for postsecondary education. However, the percent of student loans as a share of the college costs have gradually declined from 40 percent to 30 percent, as grants become more available. Grants increased from 49 percent to 64 percent of total funds, <https://research.collegeboard.org/trends/student-aid>.

<sup>15</sup> "Student Loan Repayment During the Pandemic Forbearance," by Jacob Goss, Daniel Mangrum and Joelle Scally, Federal Reserve Bank of New York *Liberty Street Economics*, March 22, 2022, <https://libertystreeteconomics.newyorkfed.org/2022/03/student-loan-repayment-during-the-pandemic-forbearance/>

<sup>16</sup> The New York Fed Consumer Credit Panel/Equifax is a nationally representative anonymous random sample from Equifax credit files. It tracks all consumers with a U.S. credit file residing in the same household from a random, anonymous sample of 5 percent of U.S. consumers with a credit file. Equifax data assets are used as a source but all calculations, findings and assertions are those of the authors.

Looking back at a past *Southwest Economy* article from a decade ago, with updates on what has happened since.

# Shale Oil Boom Gave Permian Basin a Second Life

**D**uring the first four months of 2012, the average monthly price of benchmark West Texas Intermediate crude oil stayed stubbornly above \$100 per barrel, creating anxiety then, as now, about higher energy prices.

We look back a decade ago as *Southwest Economy* told of the rebirth of the Permian Basin as part of the shale oil boom in “Permian Basin Booms as New Techniques Resurrect Old Sites.”<sup>1</sup>

The Permian Basin, home to many of America’s oldest oil fields, covers 75,000 square miles of West Texas and southeastern New Mexico. Discovered in 1921, the formation has produced more than 40 billion barrels of oil, including much of the oil used during World War II. Until recently, the Permian Basin’s biggest challenges were to slow the loss of production—which began ebbing in 1973—while squeezing out the last 30 billion barrels of “mobile” oil as economically as possible. That was before innovation, technology and \$100-per-barrel oil offered the aging fields a new future.

The breakthrough arose in the Midland area’s Spraberry oil field, among the Permian Basin’s most venerable locations. Spraberry formations were fractured for decades, usually in one or two zones, for vertical wells. The innovation: drilling vertically while emulating the multi-stage fracturing typical of horizontal wells. The result spawned a boom in the eastern Permian Basin in 2005, reversing years of decline.

The Permian Basin’s second chance at new life parallels earlier development of the Eagle Ford in

South Texas. Horizontal drilling and fracturing could produce oil from shale—and the western Permian Basin is rich in shale. The Delaware Sub-basin encompasses the Hobbs area of southeastern New Mexico and four counties of West Texas.

Shale development is just beginning in the Delaware. A Texas General Land Office lease auction in April 2011 brought a bid of \$3,264 per acre for 30,000 acres, compared with an average bid of \$906 per acre six months earlier.

**Update:** By 2016, as the industry emerged from the largest oil bust since 1986, business-to-business acreage transactions in the Permian ranged from \$7,000 to \$58,000 per acre. Two years later, some positions sold for as much \$70,000 an acre, according to estimates. In 2021, after the COVID-19 bust, large acquisitions were being priced at closer to \$10,500 per acre.

Partly because these developments are relatively new, production data don’t yet reflect the magnitude of the changes. Oil production in the Delaware during 2011 was 13 million barrels above that in 2008, while natural gas production declined significantly.

**Update:** Oil production in the Delaware reached 751.2 million barrels in 2019. Natural gas output increased 2.43 trillion thousand-cubic feet (Mcf) from 2008 to 2019. In 2020, the Delaware Sub-basin produced 660 million barrels of oil and 2.96 trillion Mcf of natural gas.

As production has grown in the Eagle Ford and Bakken oil shale regions, a shortage of infrastructure to

## SpotLight Shale Oil Exploration Permian Basin Booms as New Techniques Resurrect Old Sites

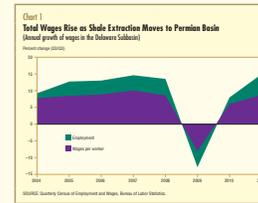
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The Permian Basin’s second chance at new life parallels earlier development of the Eagle Ford in South Texas (see related article, page 2). Horizontal drilling and fracturing could produce oil from shale—and the western Permian Basin is rich in shale—instead of concentrating only on the remaining 30 billion barrels of mobile oil.

The Delaware Sub-basin encompasses the Hobbs area of southeastern New Mexico and four counties of West Texas and is home to the Anoles and Wolfcamp shale, as well as three layers of Bone Spring shale. Together, they provide rich sources of oil and natural gas.

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well: increasingly came to look like the latest version of a horizontal well. The result spawned a boom in the eastern Permian Basin in 2005, reversing years of decline.

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shale later, heralding a major transition. Partly because these developments are relatively new, production data don’t yet reflect the magnitude of the changes. Oil production in the Delaware during 2011 was 13 million barrels above that in 2008 (when the price peaked), while natural gas production declined significantly. Revenue from oil and gas production increased \$1 billion from 2008 to 2011.

Oil production has grown in the Eagle Ford and Bakken oil shale regions, a shortage of infrastructure to transport the product to market has been a key constraint. Moving new natural gas liquids to the Gulf Coast per day market on the Gulf Coast has proved the greatest problem. The mature Permian Basin, with a rich infrastructure in place, enjoys the advantage of expanding on existing transportation systems rather than starting from scratch. And significant expansion is under way, with new gathering systems and fractionation capacity in the Anoles shale. Additionally, a rail terminal and several pipelines are under construction to move product to Houston.

The stories of the Permian Basin tight labor markets and the staff of legend—restaurants half-open for lack of workers, the local fast food labor markets in the Delaware were tight before the shift to shale began, and they remain so. A 15 percent increase in total wages last year was driven by a 6.2 percent jump in employment, accompanied by an 8.8 percent increase in wages paid per worker (Chart 2). Labor shortages in the backbone of sector drive local wage increases, leaving other regions to compete for workers.

And that nearly frantic activity level is increasing. Drilling in six gas-producing areas such as the Barnett and Fayetteville shale regions significantly pulled back following the collapse of natural gas prices to nearly \$2 per thousand cubic feet during the winter. Producers and service companies are rapidly drilling rigs and hydraulic fracturing crews into shale rich in oil and natural gas liquids. Thus, while overall drilling activity has cooled in recent months, the Permian Basin has pulled up the

CHART 1  
Total Wages Rise as Shale Extraction Moves to Permian Basin (Annual wages in billions of dollars)

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transport the product to market has been a key constraint.

**Update:** By 2022, total Permian Basin takeaway capacity had expanded to more than 6 million barrels per day from less than 2 million a decade prior.

The stories of the Permian Basin’s tight labor markets are the stuff of legend—restaurants half-open for lack of workers, the local fast food labor markets in the Delaware were tight before the shift to shale began, and they remain so.

**Update:** On average, the unemployment rate was more than 1.3 percentage points lower in the Midland-Odessa area than the state in the 2010s—including during the disastrous 2015–16 oil bust. In December 2021, metro unemployment was 5.6 percent versus 5 percent statewide.

—Updates from Jesse Thompson

### Note

<sup>1</sup> “Permian Basin Booms as New Techniques Resurrect Old Sites,” by Robert W. Gilmer and Jesse B. Thompson, Federal Reserve Bank of Dallas *Southwest Economy*, Second Quarter, 2012.

*A Conversation with Fabiola Luna*

## Cross-Border Manufacturing Rises from Pandemic Lows

*Fabiola Luna became president of the Association of Maquiladoras, Index Ciudad Juárez, in 2021. The trade group represents manufacturing facilities along the U.S.–Mexico border that import components, assemble them and export finished products. She spoke about cross-border trade and the impact of the pandemic.*

### Q. Why do we call it cross-border manufacturing?

It is an industry mainly located along the U.S.–Mexico border, making easy the logistics for international trade. All raw materials get to Mexico on a temporary basis and then are used in the manufacturing process and exported back to the U.S. Since Texas borders several Mexican states, it is the main intermediary for U.S.–Mexico manufacturing trade.

Ciudad Juárez is particularly important because it was here where the maquiladora model was born back in the 1960s, and since then it has been the economic backbone of the border region.

Ciudad Juárez has 320 plants employing 330,000 workers. About 60 percent of all maquiladora jobs in the state of Chihuahua are in Ciudad Juárez. Originally, maquiladora plants were in industrial parks close to international border crossings, but currently they are all over the city.

### Q. How do maquilas figure into what U.S. consumers see in the marketplace?

Our main maquiladora industry is the automotive sector. It represents 38 percent of employment in first quarter 2022. We manufacture all kinds of auto-related products, such as seat covers, seat belts, battery cables and wiring harnesses. So, practically all cars U.S. consumers own have a component made

in Ciudad Juárez. We also manufacture top-of-the-line all-terrain vehicles (ATVs), refrigerators, washing machines, medical surgical devices and even candies. The popular Brach's candies are made here.

### Q. How have goods changed in the past 20 years?

What we produce now is completely different from what we made 50 years ago. Our manufacturing processes have also evolved with new technologies. For example, some of our plants include high-tech robotics; some have automated processes with a good mix of traditional labor and robots.

We are even adopting the technology needed to supply electric vehicle production. We also have plants that manufacture for Apple, including the iPhone, the MacBook and AirPods. We are manufacturing the electronic products that have become essential. The [maquiladora] industry has evolved at the pace required by the companies and markets we serve. Nevertheless, our industry continues to be labor intensive with a good mix of automation and a more skilled labor force.

### Q. How has the pandemic affected cross-border manufacturing?

We still have supply-chain issues, mainly in the automotive and electronics sectors. If our clients can't produce

due to supply-chain issues, we don't get the production orders for the components we manufacture here.

At the beginning of the pandemic—between March and April of 2020—our industry had to close for more than two months. The government mandated the closure of nonessential business, so the only essential industry in town was medical device manufacturing.

Eventually, we negotiated with the government, and industries such as auto and electronics got the essential designation due to increased demand from the U.S. In addition, we had to continue paying 100 percent of the salary to our workforce during the months that we were closed—on top of all fixed costs. Even now, with reduced production orders, our payrolls must remain unchanged.

The main challenge was to keep the workforce safe from COVID-19. We had to adjust our manufacturing processes to follow domestic and international safety standards, such as social distancing between workers. When vaccines were available domestically, we, in coordination with local and federal authorities, made sure most of the workforce got vaccinated.

Once we had the vaccination process under control, supply-chain issues arose. Our production orders were significantly reduced. We did not have enough raw materials and components; we did not have truck drivers. Even though the international bridges were open for international trade, we did not have product to send. In fact, we are still dealing with supply-chain issues, although we expect that they could get resolved by mid-2022.

During the worst days of the pandemic—before vaccines were available in Mexico—we collaborated with the Mexico consulate in El Paso, El Paso city government and U.S. Rep. Veronica Escobar to organize a massive vaccination campaign for the industry.

Officials from both sides of the border were amazed how orderly the process was. We vaccinated about 400 people every 30 minutes. We ended up vaccinating 33,000 people between July 6 and July 31. Even though it only represented



► *Some of our plants include high-tech robotics; some have automated processes with a good mix of traditional labor and robots.*

10 percent of our labor force, it helped to buy time until we got vaccines from the Mexican government.

The future for the industry in our region is encouraging. There is a lot of expected future demand for products that will be incorporated into new technologies, such as those for electric vehicles, but it all depends on investment decisions that must take place now in order to produce in 2023 and 2024. However, it is hard to plan under the current [January 2022] COVID-19 situation.

#### **Q. What measures is the industry taking to keep up with U.S. demand two years into the pandemic?**

It has been very complicated; we are monitoring our orders almost by the minute because such orders can change several times during the day. We are efficiently utilizing all that we have available such as labor, components/raw materials [and] financing and always looking for additional business around the world. We are always monitoring current economic conditions in the U.S. because as soon as there is an increase in demand, we will see our production orders growing.

Something we have learned during the pandemic is that we do not depend 100 percent on the U.S. market. We have learned to cope with reduced demand from our principal client, and we have diversified our business at the same time.

#### **Q. As the U.S. talks of “reshoring” manufacturing to ease supply-chain issues, is cross-border manufacturing getting more attention?**

There is some discussion about how to bring back manufacturing processes to the region in order to make North

America more self-sufficient. There are high-level talks looking at ways to manufacture some components in Mexico and in the U.S. that are currently imported from other regions of the world. We are in constant communication with our clients and looking at ways to fix, in the short run, what we have experienced during the pandemic.

#### **Q. How do United States–Mexico–Canada Agreement (USMCA) trade rules challenge collaborative arrangements?**

Before the USMCA was enacted [July 1, 2020], we were taken into consideration and our concerns noted. In theory, the majority of our demands were included in the negotiations. Several of the new requirements—such as the new rules of origin—will take place gradually, giving us time to adjust. So far, it is really hard to measure the effects of USMCA on our bottom line given the pandemic.

Hopefully, once the pandemic is over, we will have time to assess how the USMCA will affect our business and how we could find ways to minimize the impacts, always working closely with our clients to keep our cross-border manufacturing system well-oiled.

#### **Q. Are recent Mexican domestic policies, such as minimum-wage increases, affecting the maquiladora industry?**

In every new administration, there are new laws with which to comply, and this [Andrés Manuel López Obrador] administration is no exception. We are kind of used to it. So, what we do every time is inform the new government how new laws would impact our business.

We were not significantly impacted by the new minimum-wage law requir-

ing increases of more than 50 percent in 2019 because we were already paying more than two times the minimum wage. We doubled the minimum wage to the very few workers who were making only minimum wage, and we had to adjust our payroll salary ranges.

We also had to inform our workers that the mandatory wage increases were for minimum-wage earners only, not for all employees. However, subsequent minimum-wage increases in 2020 (5 percent), 2021 (15 percent) and 2022 (22 percent) are impacting the industry.

We are negotiating with the federal government regarding strategies to limit wage increases in the succeeding years given that, in the border region, we already pay what the new mandatory increases are trying to reach.

#### **Q. Is the region ready to go to the next phase of manufacturing, one that may require advanced materials and software development?**

We have great expectations for the future regarding new technologies and manufacturing processes for electric vehicles. Practically all automotive plants in our region are already working on different projects with their respective clients.

Such manufacturing projects could materialize in 2023 or 2024. For example, we are working on the new wiring systems that the new models will require and assessing what new tools, materials [and] even manufacturing space we may require. We are already including in our budgets today what we may need two years from now despite the hard times we have gone through during the pandemic.

# Turbulent Economy Tests Texans Who Lack Financial Knowledge

By Emma Marshall, Pia Orrenius and Michael Weiss

**ABSTRACT:** Texans continue to trail the nation in financial literacy as measured by the National Financial Capability Study. The Legislature has taken steps to enhance personal finance instruction in a bid to improve performance. Studies show a lack of financial literacy can have lifelong effects, though some argue the assessment underscores structural and economic barriers that impede some population segments.

Navigating personal finance has rarely been more challenging than today, as the world economy attempts to move past the COVID-19 pandemic and manage the fallout from the Russia-Ukraine war. The end of pandemic stimulus, rising inflation and interest rates, increasing rents and the pending resumption of student debt repayment obligations will test many households' checkbook agility.

Making informed decisions about one's income and expenses requires a degree of financial literacy—"the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being."<sup>1</sup>

Studies have shown that financial literacy improves household financial outcomes involving saving, investing and debt.<sup>2</sup> To provide an indicator of the extent of the public's knowledge, the Financial Industry Regulatory Authority (FINRA), a brokerage and exchange markets oversight organization, periodically surveys individuals

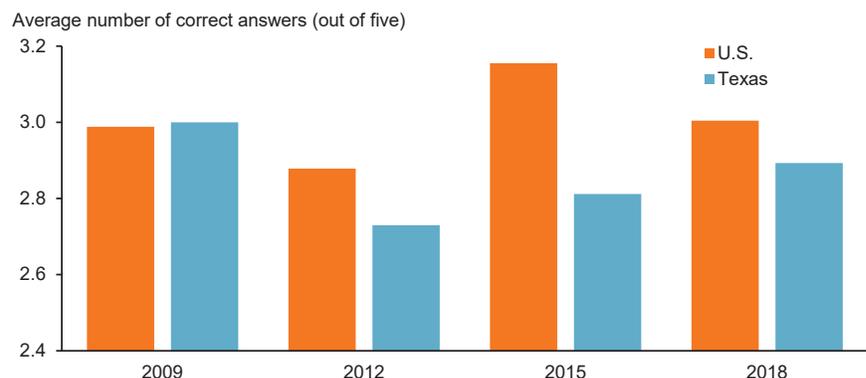
across the country about their financial literacy.

In FINRA's most recent "National Financial Capability Study in 2018," Texas' performance ranked 43rd among the 50 states and District of Columbia. A five-question quiz that is part of the overall survey tests knowledge of bond prices and interest rates, mortgages, compound interest and portfolio diversification and provides a top-level assessment of financial literacy. While the survey tests overall financial literacy, its questions may be outside the usual experience of certain demographic groups who lack experience with financial instruments such as stocks and bonds.

The average Texas quiz score has improved little since 2012 when the state ranked 45th—a result detailed in *Southwest Economy* in 2016.<sup>3</sup> The 2018 quiz—which was taken nationwide by 25,000 adults—found that Texans have consistently trailed the nation in their ability to understand personal finance

CHART  
1

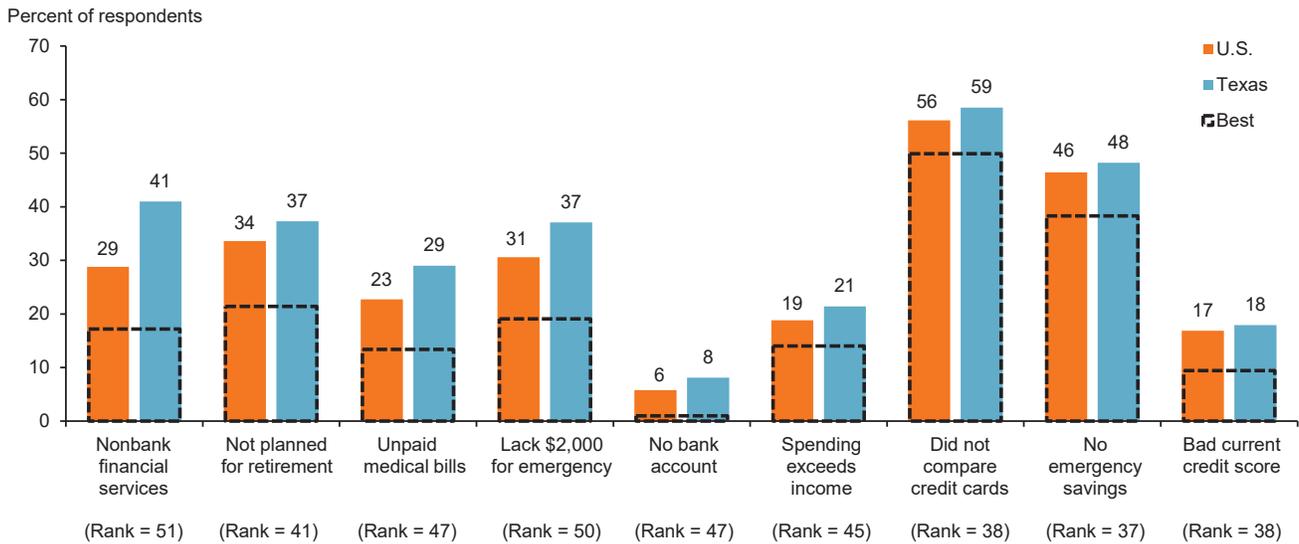
Texas Falls Short on Financial Literacy, Trails the U.S



SOURCE: Financial Industry Regulatory Authority, National Financial Capability Survey.

CHART  
2

Texas Ranks Below U.S. in Financial Planning



NOTES: The Texas state ranking is in parentheses and includes the District of Columbia (51=worst). "Best" indicates percent for the state where "Rank = 1." Dashed lines show the percentages of those states with the top scores. Respondents to the "No emergency savings" category said they lacked confidence they could cover expenses for three months. SOURCE: National Financial Capability Study 2018.

over the past decade (*Chart 1*).<sup>4</sup> Notably, the Texas–U.S. gap has shrunk over the past three surveys.

### Teaching Financial Literacy

Texas lawmakers have recognized the importance of financial literacy, as well as the state’s lagging performance. As a result, they have passed measures twice in the past 15 years to address the subject in K-12 schools, though falling short of fully requiring and funding instruction.

In 2007, Texas mandated students have access to elective courses on personal finance and that required material be integrated into preexisting classes, “including instruction in methods for paying for college and other postsecondary education and training.”<sup>5</sup> Supporting coursework was added to the curriculum in 2016. The state has also supported annual events such as financial literacy month in April.

The 2021 Legislature revised social studies curriculum requirements for high school programs to provide stu-

dents the option to complete one-half credit in personal financial literacy and economics as an alternative to one-half credit in just economics.

The law also requires that the Texas Education Agency, which oversees public primary and secondary education in the state, develop a list of free, publicly available materials for school district use in personal finance and economics classes. It also instructed the agency to seek private and public grant money in support of this curriculum.

Notwithstanding the state’s efforts, Texas still falls short of the nation on financial literacy.

### Financial Outcomes Suffer

FINRA’s 2018 survey also gathered information on the personal finances and financial vulnerability of households. Texas’ low financial literacy rate is correlated with poor outcomes on such measures. For example, 8 percent of Texans don’t have bank accounts compared with 6 percent nationwide, and 41 percent use nonbank financial services, a far higher share than the 29

percent nationally (*Chart 2*).<sup>6</sup> Nonbank financial service companies include payday lenders and pawn shops, as well as much larger entities such as nonbank mortgage lenders.

FINRA also found that 48 percent of Texans had not set aside money for emergencies that would cover expenses for three months in case of sickness, job loss, economic downturn or other emergencies—ranking the state 37th in the nation.

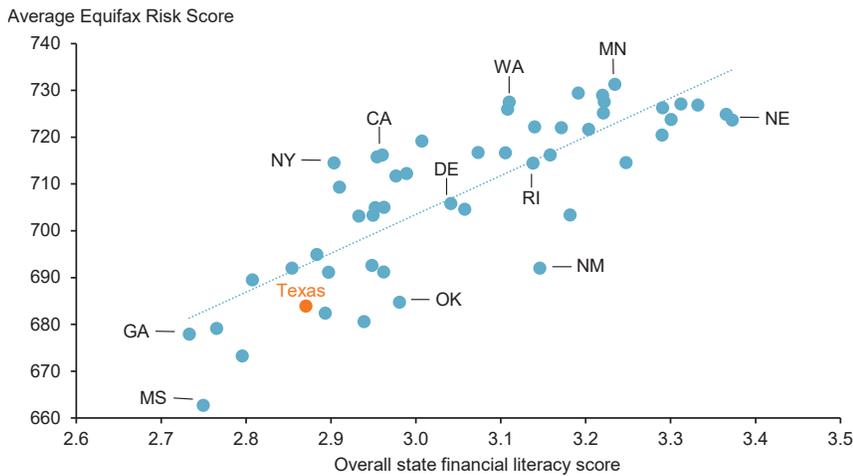
Another indicator of financial health is retirement planning. In the survey, 37 percent of Texas participants said they lacked a retirement plan through a current or previous employer compared with 34 percent nationally.

In addition, 18 percent of Texas respondents in the 2018 FINRA survey reported that their current credit score was “bad” or “very bad”—putting the state in 38th place. Nationally, 17 percent of respondents similarly assessed their credit scores.

Equifax Risk Score data, available through the New York Fed Consumer Credit Panel/Equifax, can be used to

**CHART**  
**3**

**States' Financial Literacy, Equifax Credit Scores Highly Correlated**



NOTE: Financial literacy score indicates average score on a five-question test.  
SOURCES: Federal Reserve Bank of New York Consumer Credit Panel/Equifax Data; Financial Industry Regulatory Authority, National Financial Capability Survey; authors' calculations.

assess correlation between FINRA quiz scores and risk/credit scores at the state level.<sup>7,8</sup> If the quiz questions are accurately gauging financial literacy among a representative sample of the state's adults, then there should be a clear positive correlation with Equifax Risk Scores. Chart 3 indicates that states with lower FINRA quiz scores also have lower risk scores, on average.

However, consumers who don't have credit relationships that would be the basis of credit reports tend to be over-represented in states such as Texas, with large minority, low-income and immigrant populations.

**High Debt Collections**

Difficulty managing payments, whether on a car loan or a utility bill, can result in borrowers being subject to debt collection. An Urban Institute 2020 survey showed that 41 percent of Texas residents were subject to debt collection, the second highest in the country behind Louisiana.<sup>9</sup> By comparison, Minnesota had the fewest collections, 14 percent, followed by South Dakota at 16 percent.

One reason Texas ranks high in debt collection is due to medical debt

referred to collection, placing the state 48th of the 50 states and the District of Columbia. Only three states ranked worse than Texas: West Virginia, South Carolina and Louisiana.

Medical debt likely reflects Texas' low level of health insurance coverage. The state has the highest share of uninsured working-age adults in the nation at 21 percent. This is a longstanding problem and may have slightly worsened when Texas opted out of the Medicaid expansion under the Affordable Care Act.<sup>10</sup> According to one study, Medicaid expansion in Texas would have insured an additional 1.3 million residents.<sup>11</sup>

However, medical debt will become a less notable portion of consumer debt. The nation's three largest credit reporting agencies plan to drop most medical debt from consumers' credit profiles due to systemic reporting errors on credit reports.<sup>12</sup>

In the FINRA survey, 74 percent of Texas respondents said they have health insurance, the lowest percentage among the states and the District of Columbia.<sup>13</sup> A total of 29 percent of Texas respondents claimed they have unpaid bills from health care, the fifth

highest in the survey group. Notably, this snapshot was taken before the COVID-19 pandemic and the financial strains it brought.

**Lacking Financial Tools**

In the five-question quiz portion of the 2018 FINRA study, Texas answered 2.9 questions correctly on average, just below the overall U.S. score of 3.0 questions. Nebraska recorded the highest mean score at 3.4 (Chart 4).<sup>14</sup>

A majority of national and Texas respondents understood interest rates, inflation and mortgages; however, the majority of both groups did not fully understand portfolio diversification and how bond prices respond to changes in interest rates. The result has changed little since 2012.

Texas outperformed the U.S. on understanding that bond prices move in the opposite direction of interest rates—bond prices fall when interest rates rise. Among Texas respondents, 27 percent knew that, compared with 26 percent nationally.

**Explaining Poor Ranking**

Financial literacy is correlated with a host of socioeconomic and demographic variables, including age, income, education, nativity and race/ethnicity.

Older people generally have more experience and, hence, familiarity with personal finances. The median age in Texas was 34 in 2018, making it the fourth-youngest state. Thus, the state's relative youth contributes to its relatively low financial literacy score.

Education is another important indicator of how well respondents perform on the quiz questions. Those who have some college education or higher will perform better than those with just a high school diploma or less.

Among states, Texas had the highest share of adults ages 25 and older with no high school diploma or equivalent in 2012, at about 17 percent—a figure that was little changed in 2018 and roughly the same as California. It bears noting the low levels of education in Texas overall are predominately due to immigration from low-education countries, such as Mexico. Among U.S.-born

Texans, educational attainment gaps vis-a-vis the nation are much smaller.<sup>15</sup>

Race and ethnicity also appear correlated with financial literacy. Blacks and Hispanics score lower than Asians and non-Hispanic whites, perhaps because of lower income and less education on average. Because low-income individuals have fewer resources, the consequences of bad financial decisions tend to be proportionately greater.

Among immigrants, many of them Hispanic, there are also language barriers and cultural differences. Texas has far higher shares of Hispanics and immigrants than the national average. Hispanic residents made up 39 percent of the Texas population in 2018, a share more than twice as large as that for the U.S. (18 percent). Meanwhile, immigrants overall comprised 17.2 percent of the Texas population in 2018, compared with 13.7 percent in the nation.

By comparison, Blacks accounted for 12.1 percent of the Texas population, close to the U.S. figure of 12.7 percent.

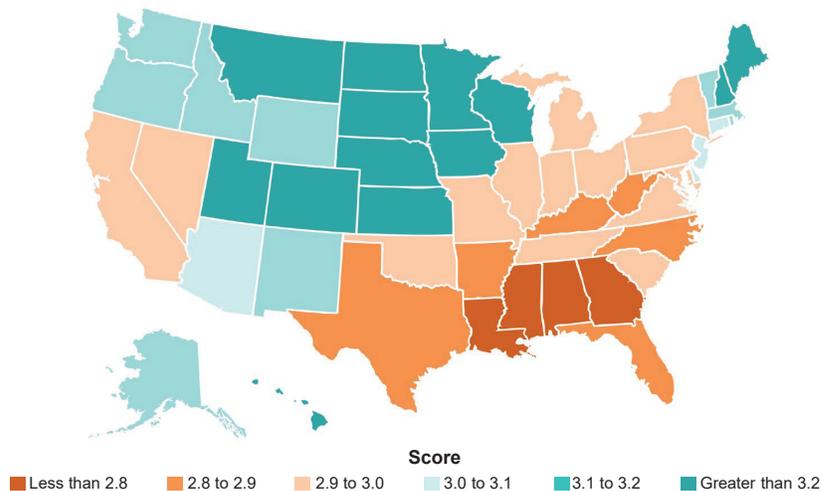
The pandemic has brought renewed attention to the need for financial literacy, much as the Great Recession did more than a decade ago. Even in the presence of government assistance, a national study of financial fragility following the onset of COVID-19 in 2020 discovered that feelings of financial insecurity were inversely related to financial literacy.<sup>16</sup>

COVID-19 led to greatest concerns of financial insecurity among respondents under age 60—women more so than men. Blacks' feelings of fragility exceeded those of Hispanics, both of which exceeded that of non-Hispanic whites. Subsequent pandemic-related economic difficulties tended to prove these anxieties correct, most affecting those who felt insecure, the study noted.

### A Lifelong Challenge

Lacking adequate financial literacy creates lifelong challenges to well-being and adds to the growing wealth gap. Those with lower financial literacy have a disadvantage when it comes to accumulating a financial cushion for an emergency or financial planning to build assets in the long run. Missed op-

## CHART 4 Financial Literacy Scores 2018



NOTE: Financial literacy score indicates average score on a five-question test.  
SOURCE: Financial Industry Regulatory Authority, National Financial Capability Survey.

portunities for homeownership, financial market investment or retirement savings bear costs for individuals and the communities in which they live.

Those who lack financial literacy are also less likely to understand when to take on debt and when not to, such as borrowing for higher education or to acquire a car.

To promote individual financial success and decrease wealth gaps, financial literacy education has become a priority. Two dozen state legislatures considered bills in 2021 amid the pandemic to bolster financial literacy education, an increase from four states two years prior.<sup>17</sup>

In Texas, the Legislature's action to increase financial education is part of the broader trend and an acknowledgement that more can be done.

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### Notes

<sup>1</sup> "2008 Annual Report to the President," President's Advisory Council on Financial Literacy, U.S. Treasury Department, Washington, D.C., p. 4, [http://www.treasury.gov/resource-center/financial-education/Documents/PACFL\\_ANNUAL\\_REPORT\\_1-16-09.pdf](http://www.treasury.gov/resource-center/financial-education/Documents/PACFL_ANNUAL_REPORT_1-16-09.pdf).

<sup>2</sup> "Measuring Financial Literacy," by Sandra J. Huston, *Journal of Consumer Affairs*, vol. 44, no. 2, 2010, pp. 296–316.

<sup>3</sup> "High School Financial Literacy Mandate Could Boost Texans' Economic Well-Being," by Camden Cornwell and Anthony Murphy, Federal Reserve Bank of Dallas *Southwest Economy*, First Quarter, 2016.

<sup>4</sup> When evaluating Texas' overall financial education, *The Nation's Report Card on Financial Literacy* gave Texas a "B," stating that requiring stand-alone personal finance courses could improve its standing, [www.thenationsreportcard.org/](http://www.thenationsreportcard.org/).

<sup>5</sup> Texas Education Code, Title 2, Subtitle F, Chapter 28, Subchapter A ("Essential Knowledge and Skills"), Section 28.0021 ("Personal Financial Literacy"), <https://statutes.capitol.texas.gov/Docs/ED/htm/ED.28.htm#28.0021>.

<sup>6</sup> Additional data on financial outcomes by state are available through Propensity Now, a nonprofit seeking economic equity, <https://scorecard.prosperitynow.org/data-by-location>.

<sup>7</sup> The New York Fed Consumer Credit Panel/Equifax is a nationally representative anonymous random sample from Equifax credit files. It tracks all consumers with a U.S. credit file residing in the same household from random, anonymous sample of 5 percent of U.S. consumers with a credit file. Equifax data assets are used

# New Mexico Marijuana Legalization's Costs, Benefits Remain Unclear

By Keighton Hines and Pia Orrenius

**N**ew Mexico legalized recreational marijuana use last year, joining 17 other states. The state has begun licensing for commercial cultivation and retail sales despite existing federal marijuana prohibitions.

Proponents laud the benefits of legalization—greater access to marijuana's medicinal properties, a new source of tax revenue and job creation, and a decreased burden on law enforcement.

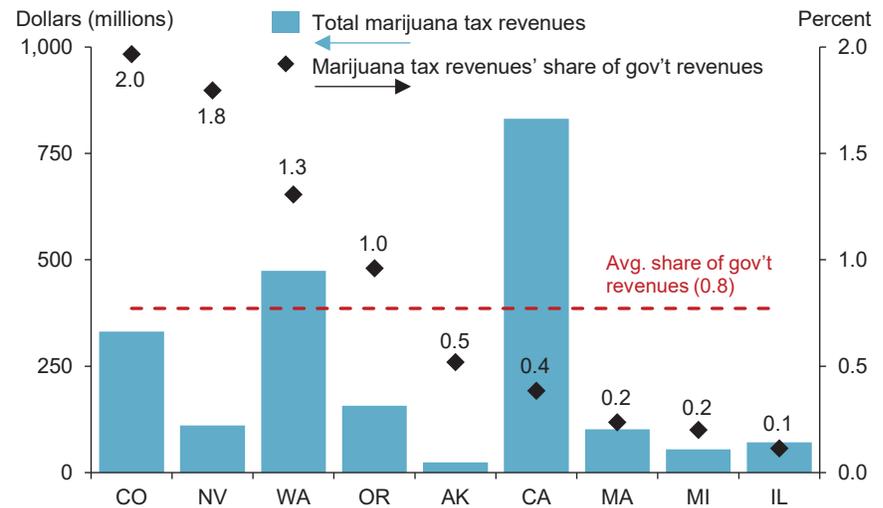
Critics argue legalization increases accessibility and use of marijuana, which are linked to adverse health effects, especially among chronic users. Anticipated benefits and costs partially offset one another, but there is considerable uncertainty around both.

Marijuana use and legalization are gaining acceptance. Nationally, the share of people age 12 or older reporting marijuana use rose from 11 percent in 2002 to nearly 18 percent in 2020.<sup>1</sup> New Mexico, at 18.7 percent, was near the national average in 2020, while Texas was below, at 12.5 percent. Those age 18 to 25 had the highest use rate, 34.5 percent, an increase of 4.7 percentage points since 2002.

Research on the health impacts of marijuana is limited and mixed.<sup>2</sup> Long-term, heavy use is linked to increased risk of several mental health conditions and respiratory complications. Short-term use may impair learning, memory and attention. Conversely, studies show marijuana is useful for treating symptoms accompanying chronic conditions such as pain, nausea, spasticity, convulsions, insomnia and post-traumatic stress disorder.

Supporters of marijuana legalization tout its economic benefits, including increased tax revenue. But states that have legalized and taxed recreational and/or medical marijuana earned on average just 0.8 percent of state revenues from it in 2020 (Chart 1). By comparison, sin taxes account for 2.8 percent of states' tax collections.

**CHART 1** Marijuana Taxes Remain Small Share of State Revenues



NOTES: Total marijuana tax revenues include excise and cultivation taxes, licenses and fees, and penalties from recreational and medical marijuana where applicable for fiscal year 2020. Government revenues exclude federal intergovernmental transfers, grants, reimbursements and contracts.  
SOURCES: States' marijuana revenue reports and Annual Comprehensive Financial Reports; author adjustments.

While legalizing recreational marijuana may provide a small boost to New Mexico's tax revenue, it will not materially change the state's reliance on traditional industries, such as oil and gas. In addition, if consumers substitute marijuana for other taxed goods, realized revenues may fall short of projections. Marijuana tourism, meanwhile, could expand the consumer base and enhance tax revenues, benefiting the leisure and hospitality industry.

In setting marijuana tax rates, states try to meet several objectives. While higher prices can discourage use, they also risk pushing consumers into the black market. State tax regimes vary, and retail marijuana tax rates generally range from 10 to 21 percent. New Mexico specifies a 12 percent excise tax on recreational sales, with a 1-percentage-point increase annually beginning in July 2025 until reaching 18 percent in 2030.

Removing prohibitions on recreational marijuana sales will encourage investment in marijuana cultivation and retail outlets, creating jobs in construction,

manufacturing and retail, as well as in ancillary industries such as professional and business services. A significant industry growth barrier, however, is its lack of access to banking services and credit due to the federal marijuana prohibition.

Some hope marijuana could become a substitute for harmful prescription drugs, playing a part in curbing New Mexico's ongoing opioid epidemic. Ultimately, legalization is no panacea. Rather, it is an exercise in weighing costs and benefits and implementing an effective regulatory and public health oversight infrastructure.

**Notes**

<sup>1</sup> "2019 and 2020 National Survey on Drug Use and Health," by the Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, 2020.

<sup>2</sup> *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*, by the National Academies of Sciences, Engineering and Medicine, Washington, D.C.: National Academies Press, 2017.

# Texas Reclaims Jobs Lost in Pandemic; Some Metros Still Trying to Catch Up

By Juliette Coia and Pia Orrenius

**A**s of December 2021, Texas had finally regained the 1.4 million jobs lost in the initial months of the pandemic. But many jobs in the latest count were not the same as the ones lost—and they were not in the same places either.

The recovery from the pandemic recession ushered in a massive reallocation of employment between industries with repercussions for different areas of the state. Austin and Dallas–Fort Worth are already well above their prepandemic levels of employment, but Houston, San Antonio and El Paso are not (*Chart 1*).

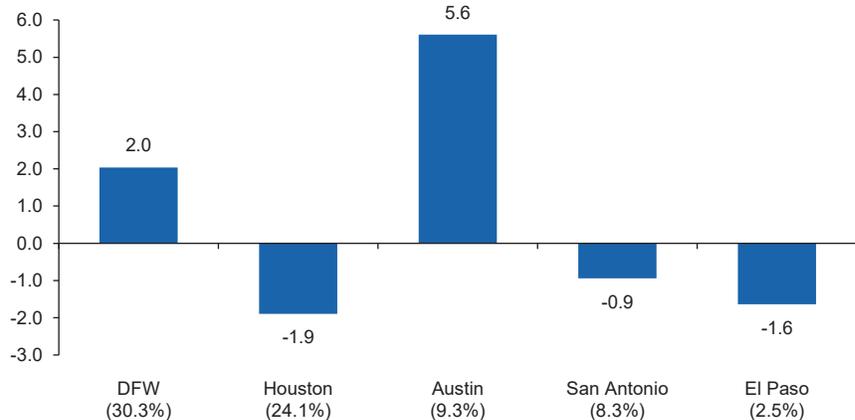
In May 2021, Austin became the first Texas metro to regain all jobs lost at the onset of the pandemic. The DFW region reached prepandemic employment levels in July. The boom in high-tech, financial activities, and professional and business services helped Austin and DFW come back sooner than their counterparts along the Gulf Coast and the border.

Employment in professional and business services in Austin is 18.0 percent higher than prepandemic levels, and financial activity employment has risen 10.9 percent. Across the state, these two sectors did not experience the same magnitude of growth as they did in Austin. Statewide employment is up 7.0 percent in professional and business services and 4.8 percent in financial activities. In many Texas cities, including El Paso, these sectors have yet to return to February 2020 employment levels.

Houston employment declined with the fallout in the energy industry in 2020 when the state's mining sector lost 28.3 percent of its jobs in seven months. At the end of 2021, energy still trailed other industries statewide and was down 20.3 percent (roughly 45,000 jobs) from prepandemic levels. San Antonio, with its outsized dependence on tourism and business travel,

**CHART 1** Austin, DFW Are First Texas Metros to Recover All Lost Jobs

Percent change, seasonally adjusted



NOTES: Data refer to December 2021/February 2020 nonannualized job growth. Numbers in parentheses refer to share of state employment in December 2021.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by Federal Reserve Bank of Dallas.

has also been slower to come back, reflecting the later-to-recover leisure and hospitality sector.

El Paso faced a series of obstacles starting with the U.S.–Mexico border shutdown beginning in March 2020. The 20-month closure led to steep declines in trade and the number of cross-border shoppers.

Overall, Texas job growth over the past two years has been robust, and the state is one of only four (including Arizona, Idaho and Utah) to have regained all jobs lost during the pandemic. Part of Texas' employment growth can be attributed to a large in-migration increase.

## Migrants Flocked to Texas

Relocation to Texas accelerated during the pandemic. Net migration was up 60 percent compared with prepandemic levels, increasing from 109,000 in the five quarters preceding the pandemic's onset in February 2020 to 174,000 people in the five quarters after the pandemic began.<sup>1</sup>

Austin and Dallas–Fort Worth were the two most popular destinations.

Dallas–Fort Worth drew 64,000 new residents, while Austin picked up roughly 48,000. The large gains in migration likely bolstered job growth in these metros, which have sizable high-tech sectors.

In Austin, the number of migrants from Silicon Valley (San Jose, California) and San Francisco doubled since the pandemic began. Combined, the two Bay Area metros were the largest source of Austin's newcomers.

In Houston, in-migration increased substantially over the course of the pandemic. Net in-migration to Houston was almost five times prepandemic levels, increasing from 4,000 people in the five-month prepandemic period to roughly 25,000 people during the pandemic. However, these numbers are quite small relative to the metro's population of roughly 7 million people.

## Note

<sup>1</sup> "Largest Texas Metros Lure Big-City, Coastal Migrants During Pandemic," by Wenli Li and Yichen Su, Federal Reserve Bank of Dallas *Southwest Economy*, Fourth Quarter, 2021, [www.dallasfed.org/research/swe/2021/swe2104/swe2104b.aspx](http://www.dallasfed.org/research/swe/2021/swe2104/swe2104b.aspx).

# Turbulent Economy Tests Texans Who Lack Financial Knowledge

*(Continued from page 13)*

as a source, but all calculations, findings and assertions are those of the author.

<sup>8</sup> "An Introduction to the New York Fed Consumer Credit Panel," by Donghoon Lee and Wilbert van der Klaauw, Federal Reserve Bank of New York Staff Reports, no. 479, 2010, [www.newyorkfed.org/research/staff\\_reports/sr479.html](http://www.newyorkfed.org/research/staff_reports/sr479.html).

<sup>9</sup> "Debt in America: An Interactive Map," Urban Institute. Data were updated March 31, 2021, from data assembled in December 2020. Accessed Feb. 10, 2022, [https://apps.urban.org/features/debt-interactive-map/?type=overall&variable=pct\\_debt\\_collections&state=48](https://apps.urban.org/features/debt-interactive-map/?type=overall&variable=pct_debt_collections&state=48).

<sup>10</sup> "Health Insurance Coverage in the United States: 2020," by Katherine Keisler-Starkey and Lisa N. Bunch, U.S. Census Bureau, September 2021, p. 9.

<sup>11</sup> "Medicaid Expansion's Impact in Texas," The

Takeaway: Policy Briefs from the Mosbacher Institute for Trade, Economics and Public Policy, vol. 11, no. 12, 2020, [https://bush.tamu.edu/wp-content/uploads/2020/09/V11-12\\_Texas\\_Medicaid\\_Expansion\\_Takeaway-new.pdf](https://bush.tamu.edu/wp-content/uploads/2020/09/V11-12_Texas_Medicaid_Expansion_Takeaway-new.pdf).

<sup>12</sup> "Most Medical Debt Will Be Dropped from Consumers' Credit Reports," by Aimee Picchi, CBS News, March 18, 2022. Medical debt is particularly prone to negotiation between providers and patients, which was a factor in the credit bureaus' decisions, [www.cbsnews.com/news/medical-debt-dropped-from-credit-reporting-health-care-bills/](http://www.cbsnews.com/news/medical-debt-dropped-from-credit-reporting-health-care-bills/).

<sup>13</sup> The American Community Survey estimates that 20.8 percent of residents under age 65 lack health insurance, [www.census.gov/quickfacts/fact/dashboard/TX/IPE120220](http://www.census.gov/quickfacts/fact/dashboard/TX/IPE120220).

<sup>14</sup> As part of the survey, a five-question quiz has been

part of the study since 2009. A sixth question was added in 2015 and 2016, asking respondents to estimate the effect of 20 percent compound interest over time. To maintain comparability, this question is not included in summaries of the national test results.

<sup>15</sup> "Gone to Texas: Immigration and the Transformation of the Texas Economy," Special Report, by Pia M. Orrenius, Madeline Zavodny and Melissa LoPalo, Federal Reserve Bank of Dallas, 2013, p. 5, [www.dallasfed.org/research/economy/-/media/documents/research/pubs/gonetx.pdf](http://www.dallasfed.org/research/economy/-/media/documents/research/pubs/gonetx.pdf).

<sup>16</sup> "Financial Fragility During the COVID-19 Pandemic," by Robert L. Clark, Annamaria Lusardi and Olivia S. Mitchell, AEA Papers and Proceedings, vol. 111, May 2021, pp. 292–96.

<sup>17</sup> "Pandemic Helps Stir Interest in Teaching Financial Literacy," by Ann Carns, *The New York Times*, April 2, 2021 (updated Aug. 27, 2021).



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