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Migration, Job Creation and Business Formation: A Case for Texas Exceptionalism? *

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The Texas economy consistently grows faster than the nation's. Since emerging from the 1980s oil bust, the state has exceeded national growth rates. This performance was interrupted only occasionally over the last three decades when low oil prices helped suppress Texas growth below the U.S. rate. However, the Texas economy is generally an overachiever. Job growth has averaged more than 2 percent since 1990, about twice the national rate. State real gross domestic product (GDP) growth has similarly outstripped the nation, averaging 3.6 percent per year versus 2.5 percent for the nation.

Texas could not have grown as fast as it has without migration. While experts may point toward a large and diverse economy, fracking boom, export boom, favorable business climate, and low taxes to explain why Texas grows faster, all these drivers would be for naught without the workers to power them. Migrants are a vital source that sustains the state's outsized economic growth.

Migration channels workers to places where labor is in relatively scarce supply. Specifically, migrants boost population and labor force growth, bring skills that are in demand by employers, and resolve labor market bottlenecks. In so doing, migration in turn spurs business formation and expansion, leading to business investment and faster job creation. Migrants need not come from abroad—indeed, domestic migrants, a group that includes both U.S. natives and immigrants who live in another state, are an increasingly important component of migration to Texas.²

That said, Texas' major migration advantage is not the large number of people moving into the state, at least when scaled by the state's sizable population, but rather the small number moving out. Out-migration – actually, lack thereof – turns out to be the critical component of Texas' net migration rate.

While there are numerous studies of international and state-to-state migration, there are far fewer that explore how worker migration ties into business dynamics. This study examines the relationship between people migration and business entry (startups), business exit (closures), and the components of job growth (job creation and job destruction). This study also examines whether the relationship between migration and business and employment dynamics is different in Texas than in the rest of the country. Texas might be different for several reasons. The most

¹ For an overview of why Texas grows faster, see Saving (2015).
² For an overview of migration to Toyog see Organius, Zavadny

^{*} The views expressed here are solely those of the authors and do not reflect those of the Federal Reserve Bank of Dallas or the Federal Reserve System.

² For an overview of migration to Texas, see Orrenius, Zavodny, and LoPalo (2013) and Orrenius, Abraham, and Gullo (2018).

important reason is the state's economic expansion. Because Texas grows about twice as fast as the nation, it makes sense that migration should play an outsized role. That said, Texas is large. As the second-largest state in terms of population and GDP, Texas' growth might be less dependent than other states on migration. Texas is also different because of its border with Mexico, sizable immigrant share, and, as mentioned above, its well-diversified economy, large energy sector, and bustling exports.

As we show below, Texas is indeed very different from the rest of the nation. As expected, we find that Texas ranks first among large states for net migration rates. This finding echoes prior research based on Census Bureau estimates of net migration rates between states.³ However, quite unexpectedly, we also find that this top ranking is not the consequence of high gross domestic in-migration but rather low gross domestic out-migration. Texas actually had lower domestic in-migration rates than the rest of the U.S. on average for most of the past decade.

Despite Texas' strong economic growth during this period, the state failed to attract people from other states in large numbers relative to its population. The state did outpace the rest of the country in terms of attracting new immigrants from Mexico. Where Texas was truly exceptional, however, was its out-migration to other states: Texas was the nation's 'stickiest' state, with very low domestic out-migration by U.S. natives, all immigrants, and Mexican immigrants.⁴

Texas is also exceptional when it comes to business dynamics. Texas had a higher net business formation rate than the rest of the country during the period examined (2006 to 2018). This was due largely to the state's high rate of business startups rather than a low rate of business closures, especially during the energy bust in 2015-16, when hundreds of energy firms failed. Much like the high startup rates, Texas' net job creation rate is also an outlier, pushed up by rapid job creation and, in a typical year, low job destruction as compared with the rest of the U.S.

As a result of these patterns, Texas is clearly an outlier in the relationship between migration, business formation, and employment growth. This is not surprising since previous research on immigrant inflows suggests there is a strong positive relationship between labor flows, firm entry, and job growth.⁵ This raises questions about the future, however. The aging of the U.S. labor force and retirement of the baby boomers call into question how much longer domestic migration flows can sustain business dynamism, even in regions where other factors favor these activities. A favorable business climate, advantageous industry mix, and international trade may be insufficient to maintain outsized regional growth once labor grows more scarce. Technological advancements will be helpful. But sustaining growth in the future may require looking beyond borders once again and implementing immigration reform.⁶

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³ See, for example, Orrenius, Abraham, and Gullo (2018).

⁴ Texas is also the stickiest state in terms of the share of people born there who stay there—a whopping 82 percent, according to Orrenius, Abraham, and Gullo (2018).

⁵ For an examination of the relationship between immigration and business entry and exit, see Mahajan (2021) and Orrenius, Zavodny, and Abraham (2020).

⁶ For more on immigration reform, see Orrenius, Zavodny, and Gullo (2019).

Overview of data sources

This study uses data from two U.S. Census Bureau programs to examine migration patterns and business and job dynamics. Our measures of migration are primarily based on the American Community Survey (ACS), a survey of 1 percent of U.S. households conducted throughout the year. Since 2005, the ACS sample has been nationally representative. Our migration measures begin in 2006 in order to capture migration behavior over the previous year. We include adults ages 20 to 54 who do not live in group quarters when constructing our migration measures from the ACS. The survey asks where respondents lived a year ago. From the answers, we create measures of in- and out-migration with respect to states and major Texas metro areas. The migration rates shown here are per 1,000 adults ages 20 to 54.

The ACS does not include people who no longer live in the U.S., or international out-migration, so we create an estimate of international out-migration based on Census Bureau counts of net international migration and international in-migration. The latter measure is first available for 2010, so our measure of international out-migration begins then. Unlike our other migration measures, international out-migration includes all people ages one and older, not just ages 20 to 54. Those rates are therefore reported per 1,000 people ages one and older.

The data on businesses and jobs are from the Business Dynamics Statistics (BDS) program, which tracks establishment openings and closings and job creation and destruction. The BDS data encompass almost all non-agricultural private-sector firms. The data are reported on an annual basis, from mid-March of one year to mid-March of the next year. We focus on rates, which are per 100 establishments or per 100 jobs. The BDS data are available through 2018.

Domestic and international migration

Since 2006, Texas has had more net domestic migrants than any other U.S. state. Focusing on prime-aged migrants (ages 20-54), Texas averaged 75,861 net domestic migrants per year in the period 2006-18. The closest competitor is Florida, with 27,616 net domestic prime-aged migrants per year. These numbers are shown as rates (per 1,000 people in **Figure 1**). ¹⁰ California and New York had negative net domestic migration rates, meaning more people left than arrived from other states. These two states lost, respectively, an average of 44,527 and 79,108 prime-aged people per year to net domestic migration and made up for the population loss with a combination of natural increase (births minus deaths) and net international migration.

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⁷ We construct denominators analogously to the BDS denominators (explained below), so the 2006 rates are based on the average of 2005 and 2006, for example.

⁸ An establishment is a fixed physical location where economic activity occurs, and an establishment may be part of a multi-unit firm or may be a single-unit firm. See https://www.census.gov/programs-surveys/bds/about.html for details about the data.

⁹ The denominators of the rates are based on the average number of establishments or jobs in the year shown and the previous year (so, rates for 2016 are per 100 establishments or jobs averaged over 2015 and 2016).

¹⁰ According to Census Bureau population estimates, which include migrants of all ages, Texas averaged 127,000 net domestic migrants per year in the 2006–18 period. Florida averaged a gain of 94,000 domestic migrants per year while California and New York lost 102,000 and 140,000 people per year on average to domestic out-migration.

In Texas, domestic migration turned down in the 2015-16 oil bust, a sign that economic factors boost and detract from migration depending on the business cycle. Other states experience less cyclically sensitive migration, such as Florida, for example, where net migration rates slowly trend up during most of the sample period as the U.S. population ages and seniors retire to warmer weather.

Per 1,000 people 12 8 Texas 4 Florida 0 -4 California -8 -12 **New York** -16 2013 2014 2015 2016 2017 2018 2006 2007 2008 2009 2010 2011 2012 NOTE: Grev bar indicates U.S. recession.

Figure 1
Net Domestic Migration Rates, Texas and Other Large States

SOURCES: Authors' calculations based on American Community Survey data; National Bureau of Economic Research.

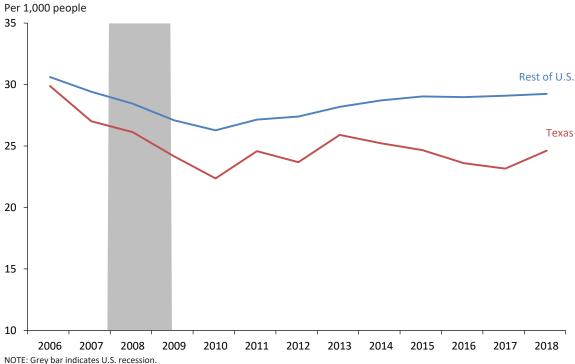
Net migration is the tally of inflows of new residents minus outflows of existing residents, so either component can drive the patterns seen in net migration. Interestingly, when decomposing net domestic migration, it becomes immediately clear that Texas' high net domestic migration rate is not due to a high in-migration rate but, rather, a very low out-migration rate.

In terms of domestic in-migration rates, or gross inflow rate, Texas is slightly below the rest of the country on average and the gap generally widens over time (**Figure 2**). ¹¹ The state's relatively low domestic in-migration rate is due to its size. Most years, Texas trails only Florida in terms of the number of domestic migrants it receives, but its large population pulls down its domestic in-migration rate.

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¹¹ The domestic in-migration rate is the number of people who moved in from other states over the last year divided by the state pop *1,000 (ages 20-54; denominator is average state population this year and last year).

Figure 2
Domestic In-Migration Rates, Texas and Rest of US



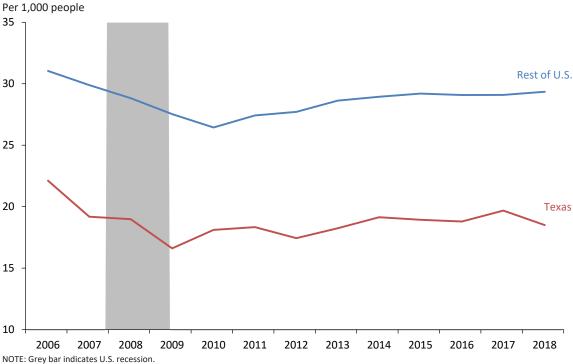
SOURCES: Authors' calculations based on American Community Survey data; National Bureau of Economic Research.

In terms of domestic out-migration rates, or gross outflows, Texas is far below the rest of the country on average, and the gap holds mostly steady over time (**Figure 3**). The gross outflow rate is actually the lowest among the 50 states. Among people nationwide who were born in Texas, 82 percent still live in Texas. ¹² This is the highest retention rate among all the states.

¹² Calculated using 2019 American Community Survey data.

Figure 3

Domestic Out-Migration Rates, Texas and Rest of US



SOURCES: Authors' calculations based on American Community Survey data; National Bureau of Economic Research.

While Texas lags the national average with respect to domestic migration rates, Texas exceeds the national average in terms of international in-migration rates, indicating that it receives an above-average number of migrants coming from abroad. This may not be surprising since Texas is a border state. Mexico has traditionally been Texas' main source of international movers, and the state clearly outpaces the rest of the country in terms of international moves from Mexico. Even measured relative to the population of Mexican immigrants, as shown in **Figure 4**, Texas receives more immigrants coming directly from Mexico than the rest of the U.S. as a whole. In addition to Texas' proximity to Mexico, its long history of Mexican migration presumably is the main reason for the difference. That said, the Mexican in-migration rate is declining, from over 25 immigrants per 1,000 people in 2006 to only about 9 per 1,000 people in 2018. Some of these migrants may end up moving on to other states in the U.S. interior. Nonetheless, Texas's domestic out-migration rate of Mexican immigrants is lower than the rest of the country's, indicating many Mexican immigrants settle permanently in Texas.

¹³ For patterns of net domestic and international migration to Texas, see Orrenius, Abraham, and Gullo (2018). ¹⁴ The international in-migration rate is people (ages 20-54) moving from abroad divided by the foreign-born population (ages 20-54) averaged over the current and previous year, multiplied by 1,000. The in-migration rate from Mexico is in-migrants from abroad who were born in Mexico (ages 20-54) divided by the Mexican-born population (ages 20-54) averaged over the current and previous year, again multiplied by 1,000.

Per 1,000 people Texas Rest of U.S. O

Figure 4
International In-Migration Rates, Mexican Immigrants, Texas and Rest of US

NOTE: Grey bar indicates U.S. recession.
SOURCES: Authors' calculations based on American Community Survey data; National Bureau of Economic Research.

It bears noting that we do not observe *net* international migration at the state level since international out-migration is hard to measure. When foreigners leave the state, we cannot know from the micro data if they also leave the country. Census data indicate that international out-migration rates are much lower than other migration rates since few people leave the U.S.

Factors driving migration

Rapid economic growth is the key factor attracting migrants to Texas. It likely also helps keep Texans from leaving the state. Texas job growth is about 1 percentage point higher than the nation on average 15 and, consistent with this, just over half of all cross-state movers to Texas relocated for a job. 16 Among domestic migrants who chose a state other than Texas, 41 percent said they moved primarily for employment, 10 percentage points lower than those moving to Texas. Migrants who were Texas bound were also more likely to be moving for family reasons, while migrants to other states were more likely to report moving for amenities such as cheaper housing.

¹⁵ Based on BLS Current Employment Statistics (CES) payroll survey data, Texas employment grew at an annualized rate of 1.9 percent in Texas and 0.8 percent in the U.S. from December 2005 to December 2018. ¹⁶ Based on the primary reason for moving as reported in the 2019 March CPS–ASEC.

Employment opportunities in Texas are a clear draw. Besides adding jobs at a rapid clip, employment growth in the state has been widespread across industries and has required a wide skill distribution. From 2006 to 2018, most major industries added jobs, led by a 51 percent job gain in leisure and hospitality, 50 percent in oil and gas, 46 percent gains in professional and business services, and 43 percent in education and health.¹⁷ Importantly, job creation is not limited to low-wage work. Quite the opposite—job creation in the last decade and a half has been skewed more toward high-skill, high-wage positions.¹⁸

To investigate job gains across the wage distribution, we divide the labor force into quarters based on workers' wage rates in 2006 and measure how each quartile grows over time with respect to employment (**Figure 5**). ¹⁹ Texas' lowest-paying jobs (with hourly wages below \$9.37) grew 4.3 percent between 2006–18. The two highest-paying job quartiles expanded 26.4 percent and 35.7 percent (with hourly wages starting at roughly \$16 and \$27, respectively). The rates of growth for the rest of the nation were lower than Texas' across the board: 0.1 percent in the lowest-paying quartile, and 5.2 and 13.8 percent, respectively, in the two highest-paying quartiles. Overall, Texas job growth was weakest among the lowest paid, in the first quartile, and that was true for the rest of the nation as well. The top quartile grew the fastest in both places.

Percent growth, 2006-2018 40 Rest of U.S. 35 ■ Texas 30 25 20 15 10 5 0 Lower-Middle Wage Upper-Middle Wage Lowest Wage Quartile Highest Wage Quartile Quartile Quartile

Figure 5
Texas job growth has outpaced U.S. in all wage quartiles

NOTE: Lowest wage quartile includes wages up to \$9.37 for Texas and \$10.56 for the rest of the U.S., lower-middle quartile includes wages above the lowest quartile up to \$15.77 for Texas and \$17.73 for the rest of the U.S., upper-middle wage quartile includes wages above the lower-middle quartile up to \$27.08 for Texas and \$29.56 for the rest of the U.S., and highest wage quartile include all wages above that.

SOURCE: American Community Survey.

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¹⁷ Job growth by industry based on CES data as described in footnote 15.

¹⁸ See Hunt and Nunn (2019) and Orrenius (2016).

¹⁹ We deflate wages using the CPI-U-RS and express them in 2018 dollars.

In addition to robust labor markets, Texas has traditionally offered a lower cost of living than other large states, although that advantage has recently eroded as house prices and rents have surged in cities such as Dallas and Austin. Nevertheless, the cost of living in Texas is still about 8 percent below the U.S. average and 13 percent below that of the nation's other nine largest states. The tax burden is also lower in Texas than in other large states. Per capita state and local taxes in Texas were \$4,482 in 2018, which was below the national average of \$5,389 and significantly below California (\$6,817) and New York (\$9,822). It bears noting, however, that though there is no state income tax in Texas, property taxes are relatively high, and with lower taxes come fewer government-provided services or lower-quality services, a trade-off that migrants to Texas should consider before making the move.

Business and employment dynamics

Migration is partly driven by employment opportunities, and this appears to particularly be the case for Texas. But migration to the state, and the retention of workers that would otherwise leave, are endogenous to the availability of jobs. In other words, while employment opportunity generates migration and stimulates retention, the additional workers ease hiring and skill mismatches and reduce employer search costs, further boosting business investment. Business investment, in turn, should manifest in higher startup rates for new businesses and lower exit rates for existing businesses as well as faster job creation and less job destruction.²²

The Census Bureau BDS data allow us to look at business entry and exit rates at the state level. The entry rate is the number of new establishments (those less than 1 year old) for every 100 existing establishments. Texas has a consistently higher entry rate relative to the rest of the nation (**Figure 6**). Every year in Texas in the 2006–18 period, an average of 54,537 businesses were formed, at a rate of about 11 new establishments per 100 existing establishments. The average entry rate across all states was 9.7 new establishments per 100 existing businesses. It's notable that even during the 2015–16 oil bust, Texas entry rates held largely steady.

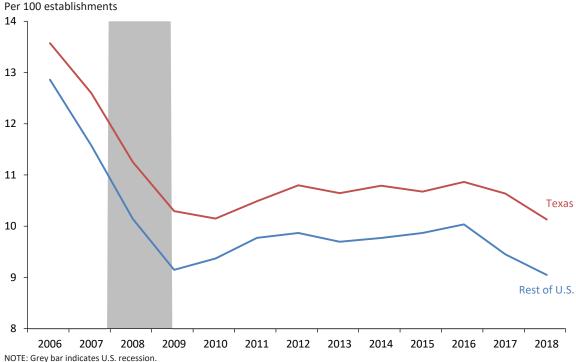
The factors that boost entry rates are the same as those that boost the state's economic growth in general: a large and diversified economy, favorable industry mix, advantageous geographic location with access to major domestic and international ports, and relatively low taxes and regulations.

²⁰ Cost-of-living (COL) estimates are based on first quarter 2021 data from Cost of Living Data Series, *Missouri Economic Research and Information Center, Missouri Department of Economic Development,* https://meric.mo.gov/data/cost-living-data-series. For comparison, 2017 data from the same source indicated Texas COL was 9 percent below the U.S. average and 19 percent below the nation's other nine largest states.

²¹ Census Bureau's Annual Survey of State and Local Government Finances.

²² Direct measures of business investment are not available at the state level.

Figure 6
Establishment entry rate



SOURCES: Authors' calculations based on Business Dynamics Statistics data; National Bureau of Economic Research.

While Texas startup rates consistently exceed the nation, the data also point to a marked downward trend in both the state and the U.S. (Hathaway and Litan, 2014). The long-run decline in business formation in the U.S. has been extensively studied without arriving at a clear consensus (Wang and Weiss, 2016). It appears the same forces that are contributing to large-scale business consolidation are the ones that benefit large, established firms at the expense of small, young ones. Economies of scale are increasingly important, a trend that is underscored by technological change and globalization. Large firms can more readily leverage global supply chains as well as invest in online platforms and other technological advancements to reach their customers, process orders, or complete services. And to the extent that regulations are increasing, even in less-regulated states like Texas, they drive up the fixed costs of starting and running a business (Decker et al., 2014).

Why should it matter whether the economy is made up of young or old businesses? New businesses are important because they help fuel long-term economic growth in two ways. First, they grow fast, adding jobs at a high rate. Second, they innovate. Whether it's a niche business opportunity or the launch of a new service or technology or perhaps just a more efficient process, new businesses improve upon existing commerce. Businesses with fewer than 100 workers employed 47 percent of all workers in Texas in 2018.

Another way, besides startups, for a state to increase the number of businesses is to attract them from other locales (Kumar and Abraham, 2018). Firms move for many of the same reasons workers do—to maximize current and future earnings, which means they move for growth potential, including available high-skilled and low-skilled labor; cheaper real estate; and ease of

doing business. The latter might include everything from proximity to airports and ground transportation to the ability to build new plants and hire and fire workers. In 1996, there were 37 Fortune 500 companies headquartered in Texas; today there are 51. The most recent transplants include Oracle, CBRE, Charles Schwab and Hewlett Packard—all relocating to Texas from California. Firms also report moving for proximity to a supply chain or for a more central location.²³

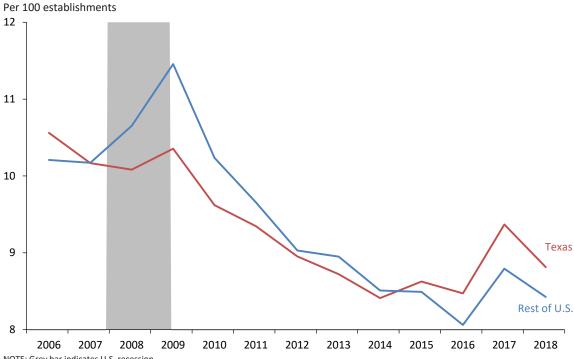
Business exit rates are also important. While high business failure rates, such as the ones that occur in a recession or took place in the pandemic, are not desirable, it's important that in a free market economy, failed businesses exit the marketplace. When they exit, they free up workers, real estate, lines of credit, and a customer base for more successful ventures.

Given the nuanced interpretation of exit rates, it isn't clear, *a priori*, whether a high or low business exit rate is a sign of a healthier economy but, all else equal, a healthier and faster growing economy should sustain businesses for longer. Turning again to the Census Bureau BDS data, exit rates—the share of establishments that ceased employing any workers over the last year—tend to be lower in Texas than in the rest of the U.S., with the notable exception of the 2015–16 oil bust when exit rates were elevated due to the failure of hundreds of energy firms (**Figure 7**).²⁴

²³ Data on firm relocation are hard to come by. The BDS does not have data on firm relocation.

²⁴ The HaynesBoone bankruptcy monitor and bankruptcy tracker indicates 225 energy companies filed for bankruptcy from first quarter 2015 to fourth quarter 2016 in the U.S. and Canada. This number is likely an underestimate because it leaves out many of the small businesses that failed. See www.haynesboone.com.

Figure 7
Establishment exit rate



NOTE: Grey bar indicates U.S. recession.

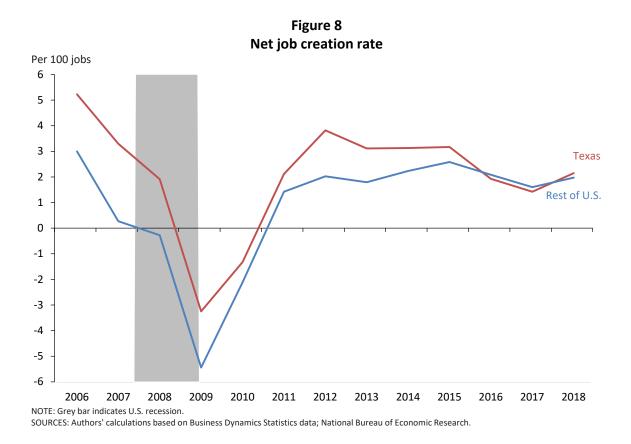
SOURCES: Authors' calculations based on Business Dynamics Statistics data; National Bureau of Economic Research.

Net job creation reflects the number of jobs added. It's the difference between the job creation rate and the job destruction rate, where job creation is employment gains from expanding establishments over the past year—including startups—and job destruction is employment losses at contracting and closing establishments. Consistent with higher business formation rates and more migration, Texas typically has a higher net job creation rate although, again, energy busts tend to disrupt this pattern (**Figure 8**). Net job creation in Texas was 5 net new jobs per 100 existing jobs in 2006, then fell to negative 3 in 2009 before recovering to between 2 and 3 in the post-recession period. Net job creation dipped in 2016–17, slipping to just below the rest of the nation before recovering somewhat in 2018.

While energy is a relatively small share of the state economy in a historical sense—making up about 9 percent of GDP in 2018, down from its high of 19 percent in 1980—the 2018 share is still a much higher fraction than the national average. Texas produces about 40 percent of the nation's crude oil and one-quarter of its natural gas. The state is home to many small oil and gas exploration and production and oilfield services firms in addition to large, well-known ones. However, as in other industries, many smaller firms have either gone out of business or merged with other firms. The timing of these changes tends to coincide with oil price drops that force firms to either exit or adapt.

²⁵ Estimates based on the mining super sector, which in Texas is mostly oil and gas extraction and oilfield services. This calculation excludes mid-stream (pipelines) and downstream (refining and petrochemicals).

²⁶ Oil and gas production based on March 2021 output according to the U.S. Energy Information Administration.



Relationship between business and employment dynamics and migration

A broader look that includes all states should help clarify the relationship between migration and business dynamics. As noted above, the causal relationship runs both ways. Jobs attract and retain people (net migration), and people attract and stimulate businesses that create jobs. Either way, there should be a positive correlation between migration and business entry.

Figure 9 plots the net domestic migration rate (difference from the median rate) against net establishment entry rate (difference from the median rate) by state for the period 2006–18.²⁷

Fast-growing states are generally located in the top right quadrant, including Texas, and slow-growing states in the bottom left quadrant. Positive net migration means a state is gaining prime-age population compared with the median state over this time period. Most of these are southern and western states, with Nevada, Oregon, and Colorado as the highest net domestic migration states. Negative net migration means a state is losing prime-age population compared with the

²⁷ Net migration rates include all domestic in-migration for people ages 20-54 minus domestic out-migration ages 20-54 divided by state population ages 20-54 *1,000. Alaska is included in the de-median calculation but not shown in the chart because it distorts the scale due to its large negative net migration rate.

median state. Many of these are northern and midwestern states. Some large states suffer net negative domestic migration, including California, New York, and Illinois.

Turning to net establishment entry rates, positive rates suggest business formation exceeds the median rate while negative rates imply business formation is below the median rate. Most states with low business formation also have low migration, but California and New York are notable exceptions—they have above average business formation but below average migration. Most states with below average migration and business dynamics are in the Midwest and Northeast (Illinois, Michigan, Ohio, Connecticut, and New Jersey). Texas has the sixth-highest migration rate and the second-highest business formation rate. It's far off the regression line due to its high business formation rate, which makes it more of an outlier than its migration rate.

Figure 9 Net domestic migration and establishment entry rates, average over 2006-2018 UT 1.0 DC Net establishment entry rate 0.5 NY 0.0 DE -1.0 -1.5 -20 -25 -5 10 15 -15 Net domestic migration rate

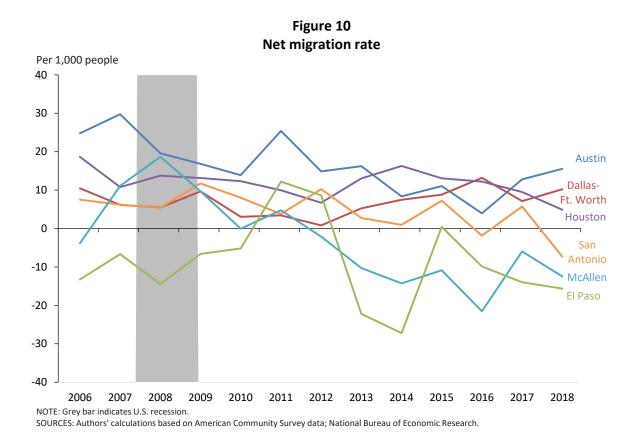
SOURCE: Authors' calculations based on data from American Community Survey and Business Dynamics Statistics.

There should also be a positive correlation between migration and job growth. Plotting the net domestic migration rate (difference from the median rate) against the net job creation rate (difference from the median rate) by state for the period 2006–18, the figure (not shown) looks very similar to Figure 9. As is the case with business formation, Utah, Texas, and North Dakota have the highest net job creation rates over this time period, meaning they added the most jobs as a share of their prime-age population and far more than implied by their net migration rates. Negative net job creation is most pronounced in states in the northeast and Midwest but includes some southern states like West Virginia and Louisiana.

Patterns within Texas

The migration data above look at moves in and out of Texas, but lots of people move within Texas as well. The ACS can be used to look at prime-age net migration rates by metropolitan statistical area (MSA), which we calculate as in-migration to the MSA from anywhere (including abroad) and subtracting domestic outmigration to anywhere in the U.S. (other than that MSA). To create the rate, we divide by the average population in the MSA in the year of migration and the prior year. The results are pictured in **Figure 10**.

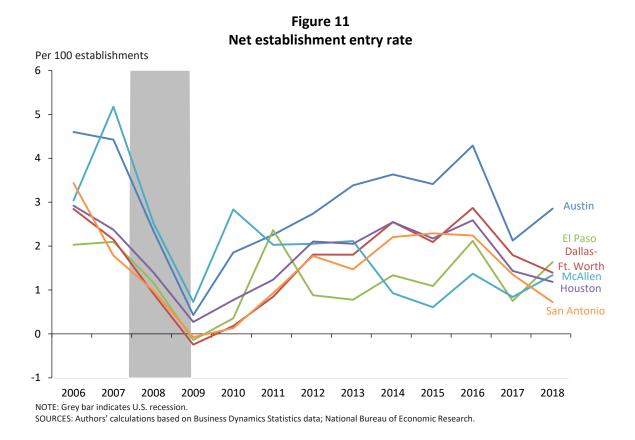
Austin and Dallas-Fort Worth have the highest net migration rates in the state; the border cities have the lowest. In fact, migration rates are negative in McAllen and El Paso, and they are losing people on net to other cities in Texas and the U.S.



Net establishment entry is the difference between the number of establishments entering a metro area, which combines newly created establishments and those moving from elsewhere, and the number of exiting establishments, which combines establishments that are closing and those moving elsewhere. The net establishment entry rate is per 100 establishments in a metro area.

Figure 11 shows net establishment entry by major MSA in Texas and they are all positive, with Austin and Dallas-Fort Worth generally ranking highest in the last five years or so followed by Houston. Austin is again the standout performer, with high migration and startup rates. The high concentration of the IT industry in Austin likely boosts startup rates because innovation is rapid

in that industry. Rates in most MSAs dipped into negative territory in 2009, a consequence of the recession and the widespread business failures around that time.



Conclusion and outlook

Texans are proud of the state's favorable comparison with the rest of the U.S. along many dimensions, including economic growth. While that story is a familiar one, this report sheds light on what factors account for that success. There are several new findings. First, it's well-known that Texas attracts more domestic migrants on net than any other state, even though some of this standout performance is simply a function of Texas' massive size. Nevertheless, expressed as a rate relative to its working-age population, Texas' net domestic migration is significantly above the national average. More surprising is the fact that, when decomposing domestic net migration into its two components, in-migration and out-migration, Texas' exceptional performance is due to its low out-migration rate. Texas is the stickiest state in the nation, retaining more of its population than any other state.

Very few people leave Texas, largely because of abundant economic opportunities. Findings based on BDS data on business formation indicate that Texas has both an above-average establishment entry rate and below-average establishment exit rate. In fact, for the 2006–18 period, Texas ranks second among states in net business formation. Relatedly, it ranks second in net job creation as well. Texas' business dynamism is more exceptional than its migration when measured as a rate and compared to other states.

There are a number of considerations that play into the outlook for the state. Job growth and business formation are robust due to the state economy's many favorable attributes, including its size and diversity, industry mix, international border that creates booming trade, and business-friendly climate. Policies that support these attributes, as well as those that bolster publicly provided services such as schools, health care and infrastructure, are needed to safeguard continued high business startup rates and employment growth. That said, the ability to retain and attract workers has been key to business startups and employment growth. Attracting inmigration domestically will become more challenging in coming years with an aging workforce and the retirement of the baby boomers. Slower labor force growth nationally will reduce the impetus for migration, as will aging. Part of the solution could be immigration reforms that more readily attract foreign workers based on their employment prospects and skills.

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