

# Empowering Texas: Immigrants' Contributions to the Energy Industry



The Demographic and Economic Contributions of Immigrants<sup>1</sup> in the State's<sup>2</sup> Energy Industry

The energy sector has long played a crucial role in the Texas economy, providing the power needed to sustain the daily lives of residents of the state. The industry attracts a variety of workers – including many immigrants – whose unique experiences, knowledge, and skills contribute to a vibrant economy.

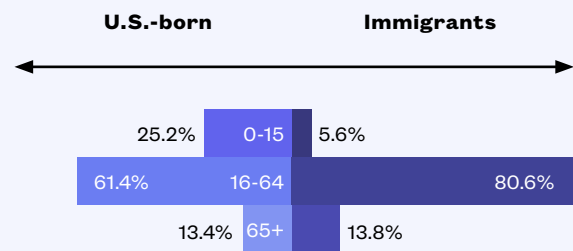
## DEMOGRAPHICS

In 2022, 5.2 million immigrants called the Lone Star State home, making up 17.2 percent of the state's total population. Immigrants have bolstered the state's energy workforce, bringing multicultural perspectives, multilingual skills, and talent across the skills spectrum.<sup>3</sup>



Immigrant share of the Texas population in 2022. This represented a total of **5.2 million** immigrants living in the state at that time.

Share of population by age:



2022 immigrant shares of the state's:



**DEMOGRAPHICS (CONTINUED)**

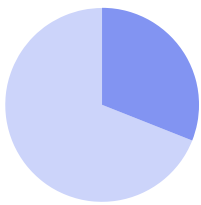
In 2022, immigrants in Texas were

**31.3%** A bar chart with two bars. The first bar is dark blue and represents 31.3%. The second bar is a lighter blue and is significantly shorter, representing the U.S.-born counterparts.

more likely to be of working-age than their U.S.-born counterparts.

Immigrants in Texas had a labor force participation rate of **75.5%**, further demonstrating their invaluable contributions to the state's labor force and economy.

In 2022, 7,100 science, technology, engineering, and math (STEM) degrees were awarded to international students in Texas, including 2,900 engineering or engineering-related degrees.<sup>5</sup> This is important because the state will need professionals in STEM fields like these if it is to advance research and development in the energy sector. As companies move to Texas, they will look to fill skilled positions. Retaining talent from Texas colleges and universities will be as important as ever.



In 2022, **30.6%** of the immigrant population in Texas reported that they did not speak English well. Of those, the top languages spoken at home other than English were:

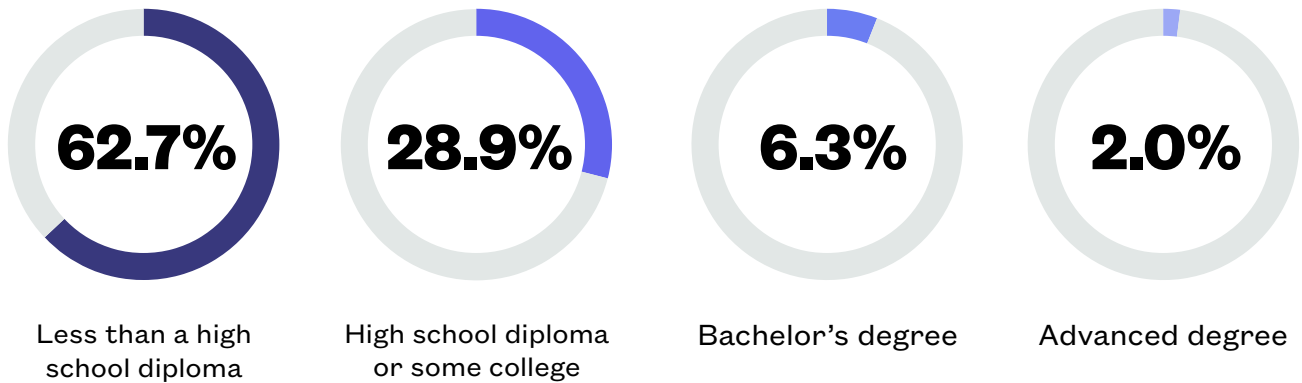
- Spanish - **87.6%**
- Vietnamese - **3.7%**
- Chinese - **1.4%**
- Korean - **0.8%**
- Arabic - **0.6%**
- Other - **5.9%**

**87.6%**

Share of immigrants that did not speak English well who spoke Spanish at home.

**DEMOGRAPHICS (CONTINUED)**

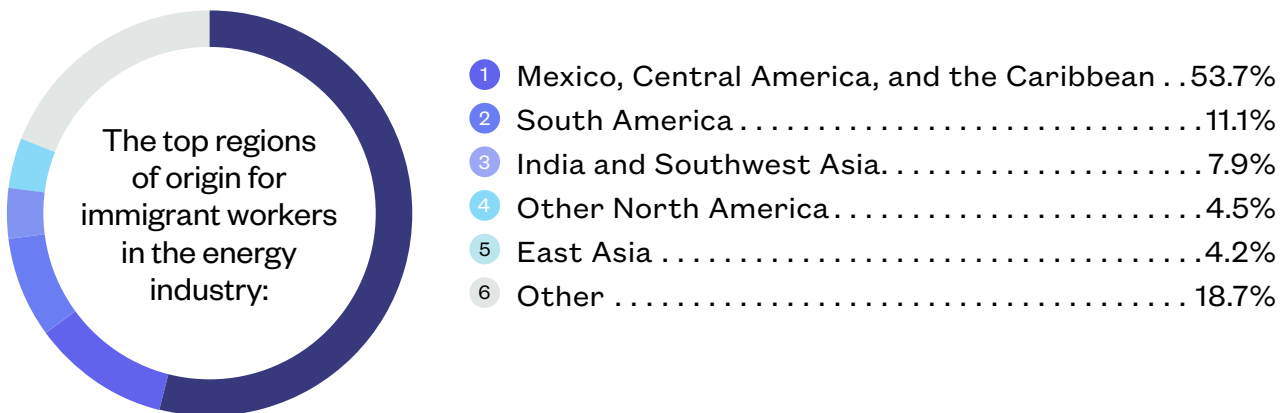
The educational level of immigrants who said they did not speak English well was:



**LABOR FORCE**

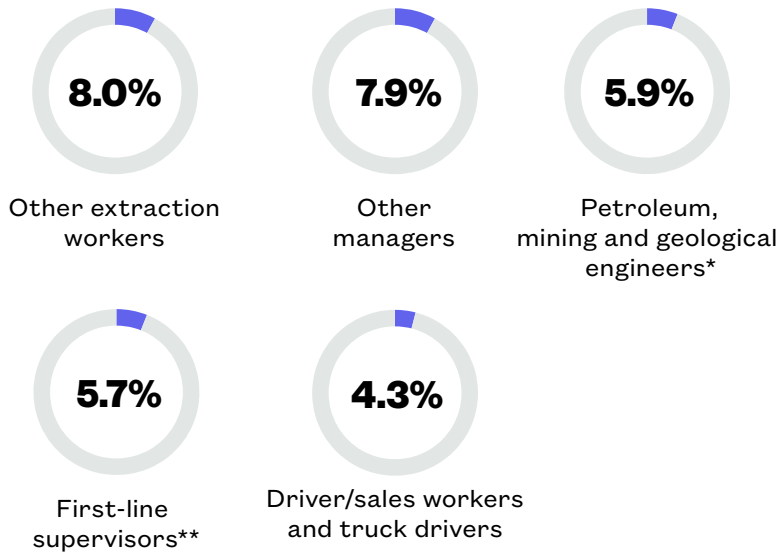
As the Texas populations continues to grow, it will bring businesses and jobs to the state that will require power and resources to support arriving families and accommodate new businesses. The state needs to leverage both U.S.-born and immigrant talent to fill energy jobs that power the Texas economy.

Immigrants play a critical role in the Texas energy industry. In 2022, more than 43,100 immigrants worked in the energy sector, representing 20.1 percent of all employees in the sector. Of these workers, approximately 9,600 were undocumented, representing 4.5 percent of all employed workers in the industry.



**LABOR FORCE (CONTINUED)**

The energy industry needs workers with different skills to fill a variety of occupations. The top occupations in the energy industry in Texas were:



\*Including mining safety engineers

\*\*Of construction trades and extraction workers

Immigrant workers made up significant shares of the workforce in the following occupations<sup>6</sup>:



- 1 Petroleum, mining, and geological engineers, including mining safety engineers – **32.5%**
- 2 Other extraction workers – **25.9%**
- 3 Other managers – **16.2%**

**Stephen Gonzales**

*Business Manager, International Brotherhood of Electrical Workers Local Union 716*

Billions of dollars in construction projects in Texas are stalled, says Stephen Gonzales, manager of the Houston chapter of the International Brotherhood of Electrical Workers (IBEW), Local Union 716.

The reason: there aren't enough electricians. Or plumbers, or sheet metal workers, or carpenters. Or any number of skilled workers.

"Jobs are on hold because there are not a lot of people in the trades to do this work," Gonzales says. "Contractors don't want to go after that work because of the shortage of manpower."

Gonzales has been an electrician for 28 years, and a project foreman for six. It's good, well-paying work. But he can't get enough Americans interested in either job. And, as head of IBEW's Local 716 since 2022, he has definitely tried.

He gives presentations at Texas high schools and junior highs. He hits job fairs and sets up college apprenticeships. He buys space on billboards, makes radio ads, and speaks at public meetings. He even walks up to strangers—young people he sees working at restaurants or stores—and asks, "Do you like your job?"

"They always tell me the same thing: I'm just doing this job to get through college," he says. "Ninety percent of individuals don't know that these jobs are out there."

Houston, "the energy capital of the world," has a large influx of new projects heading its way, including solar installations and battery-storage facilities. One carbon capture facility is putting some 40,000 people to work during construction, including about 1,500 electricians.

Then there are other projects: new hospitals; residential developments; the small business owner who needs an upgrade; the homeowner who needs a repair. "When you're redirecting workers," Gonzales says, "the residential industries, the smaller projects, all of those electricians that should be building those are not going to be available."

With a national, and growing, shortage of electricians, Gonzales is left with only one other place to turn: immigrants.

"There are electricians in Mexico, Cuba, Venezuela, El Salvador ... " he says. "They want to come here and work." So Gonzales talks to politicians, too. He tells them the region needs more temporary work visas for foreign workers, and that immigrants with skills the building industries need should have a way to obtain work permits.

"We need them," Gonzales says. "When they do the exact same work in other countries, why not have them come here to help us do that?"

The domestic shortage of electricians and other tradespeople is getting worse as the American population ages out of the workforce. Immigrant labor is just as critical now to building and maintaining new infrastructure as it is to rebuilding following a natural disaster like Hurricane Beryl.

"I hate when people say immigrants are taking work from us. I tell those individuals: 'Then send me your kids.' They say, no, that's not for them. I say, 'Then what do you want me to do?'"

**JOB DEMAND IN ENERGY**

From 2018 to 2023, there were

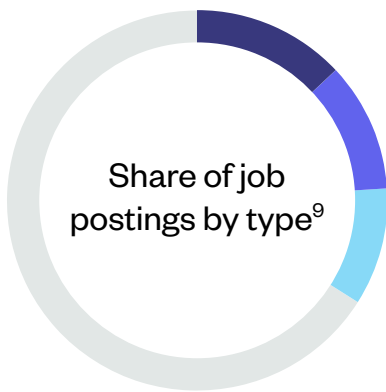
**140,900**

unique job postings in the energy industry in Texas. During that time, the average earnings in the industry **increased**<sup>7</sup> from

**\$148,100 to \$172,800.**

Between 2018 and 2023, the top Texas employers that listed job postings in the energy industry<sup>8</sup> were:

- **John Wood Group** (10,100 job postings)
- **Halliburton** (8,800)
- **Martin Marietta** (6,300)
- **Weatherford International** (4,900)
- **Schlumberger** (3,800)



- 1 Transportation and materials moving occupations . . . . 12.6%
- 2 Architecture and engineering occupations . . . . . 11.0%
- 3 Business and financial operations occupations . . . . . 10.1%
- 4 Other . . . . . 67.3%

The top in-demand occupations in the energy industry in Texas<sup>10</sup>:



*\*Wholesale and Manufacturing, Except Technical and Scientific Products*

## JOB DEMAND IN ENERGY (CONTINUED)

---

Immigrants across the skills spectrum are needed to fill jobs in the growing energy industry in Texas.<sup>11</sup> These roles require a variety of educational levels and on-the-job training for competency. The top in-demand occupations in the energy industry in Texas required the following qualifications:

➤ **Heavy and tractor-trailer truck**

Postsecondary nondegree award • Short-term on-the-job training<sup>12</sup>

➤ **Managers, all other**

Bachelor's degree • No on-the-job training<sup>13</sup>

➤ **Maintenance and repair workers, general**

High school diploma or equivalent • Moderate-term on-the-job training<sup>14</sup>

➤ **Accountants and auditors**

Bachelor's degree • No on-the-job training

➤ **Sales representatives, wholesale and manufacturing, except technical and scientific products**

High school diploma or equivalent • Moderate-term on-the-job training



## BILINGUAL SKILLS

---

From 2018 to 2023,

**3,400**

unique job postings in the energy industry, or **2.4%**, listed knowledge of at least one other language as a desired skill.<sup>16</sup>

## H-2B VISAS<sup>17</sup>

---

The top energy-related occupation among certified H-2B visa applications in Fiscal Year 2023 was **Pump Operators, Except Wellhead Pumpers** (10 certifications issued).<sup>18</sup>

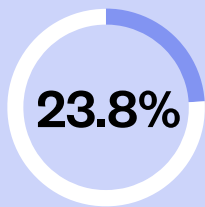
SPOTLIGHT

# Houston Metro Area

## DEMOGRAPHICS

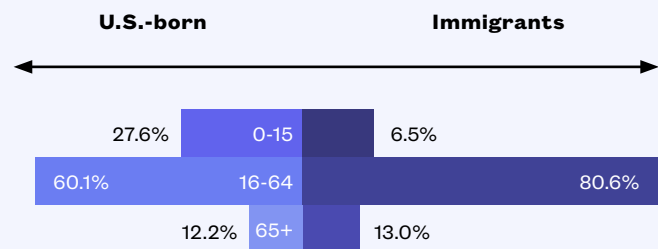
# 1.8M+

Number of immigrants living in the Houston Metro Area in 2022.<sup>19</sup>



Immigrant share of the metro area's total population in 2022

Share of population by age:<sup>20</sup>



In 2022, **31.6%** of the immigrant population living in the Houston metro area reported they did not speak English well. Among those, the top languages spoken at home other than English were:

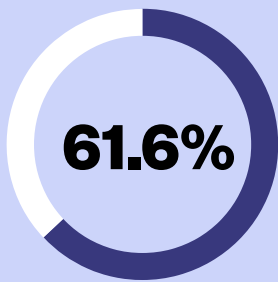
- Spanish - **84.8%**
- Vietnamese - **5.3%**
- Chinese - **2.2%**
- Urdu - **0.9%**
- Korean - **0.8%**
- Other - **6.0%**

# 84.8%

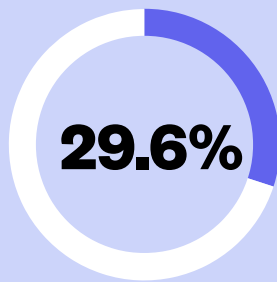
Share of immigrants that did not speak English well who spoke Spanish at home.

**DEMOGRAPHICS** (CONTINUED)

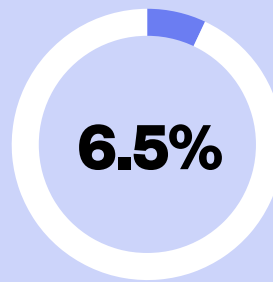
The educational level of immigrants who said they did not speak English well was:



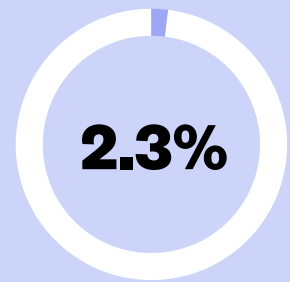
Less than a high school diploma



High school diploma or some college

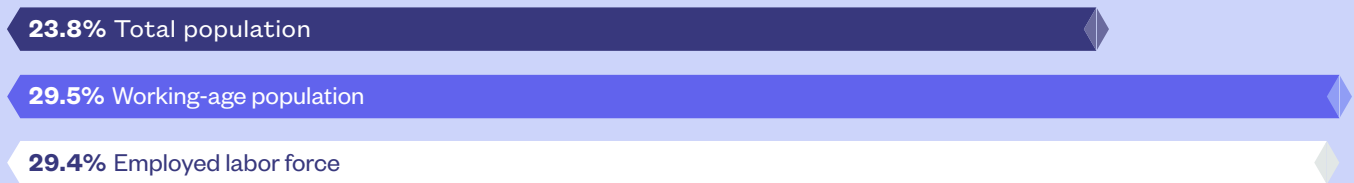


Bachelor's degree



Advanced degree

2022 immigrant shares of the metro area's:



In 2022, immigrants in the Houston metro area were



more likely to be of working-age than their U.S.-born counterparts.

Immigrants in the Houston metro area had a labor force participation rate of **74.9%**.



LABOR FORCE

Immigrants played a critical role in the metro area's energy industry.

**20,700**

immigrants were employed in the energy industry in 2022, representing **26.5%** of all employed workers in the energy industry.

Undocumented immigrants employed in the energy industry represented **4.2%** of all employed workers in the industry.



- 1 Mexico, Central America, and the Caribbean... 27.5%
- 2 South America..... 17.4%
- 3 India and Southwest Asia ..... 14.3%
- 4 East Asia..... 7.9%
- 5 Other ..... 32.9%

## ENDNOTES

---

- 1** Estimates provided in this report may slightly undercount the immigrant population. The American Community Survey (ACS) historically undersamples the immigrant population, especially among lower income, more recently arrived, and less English-fluent immigrant populations.
- 2** Unless otherwise specified, data comes from 1-year sample of the American Community Survey from 2022, downloaded from IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org), and figures refer to the state of Texas.
- 3** We define “immigrant” as any non-citizen or any naturalized U.S. citizen. They include naturalized citizens, green card holders, temporary visa holders, refugees, asylees, and undocumented immigrants, among others.
- 4** We define working age as 16-64 years of age.
- 5** Data on degrees awarded to international students is derived from the Integrated Postsecondary Education Data System maintained by the National Center for Education Statistics.
- 6** American Immigration Council analysis of the IPUMS microdata from the 2022 American Community Survey, 1-Year sample. IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org).
- 7** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on September 5, 2024.
- 8** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on April 14, 2024.
- 9** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on August 5th, 2024.
- 10** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on August 5th, 2024.
- 11** On-the-job training: training or preparation that is typically needed for a worker, once employed in an occupation, to attain competency in the occupation. Training is occupation specific rather than job specific; skills learned can be transferred to another job in the same occupation.
- 12** Short-term-on-the-job-training entails 1 month or less of combined on-the-job experience and informal training that is needed for the worker to develop the skills to attain competency in the occupation; this on-the-job training category also includes employer-sponsored training programs.
- 13** No-on-the-job training entails no additional occupation-specific training or preparation typically required for the worker to attain competency in the occupation.
- 14** Moderate-term-on-the-job training entails more than 1 month, and up to 12 months, of combined on-the-job experience and informal training that is needed for the worker to develop the skills to attain competency in the occupation; this on-the-job training category also includes employer-sponsored training programs.
- 15** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on April 14, 2024.
- 16** Data is obtained from Lightcast Technologies for the time period between January 1, 2018, and December 31, 2023. Accessed on April 14, 2024.
- 17** For an employer to obtain an H-2B certification, the Department of Labor must determine that there are not enough U.S. worker available to do the temporary job being petitioned for, and that employing H-2B workers will not adversely affect the wages and working conditions of similar workers. Additionally, the need for the worker must be temporary. Certified jobs are not necessarily the jobs filled, though they do indicate a level of demand for temporary immigrant workers in a particular occupation. More information on the H-2B process can be found here: <https://www.dol.gov/agencies/eta/foreign-labor/programs/h-2b>.
- 18** Department of Labor H-2B Disclosure Data for FY 2023: <https://www.dol.gov/agencies/eta/foreign-labor/performance>.
- 19** Unless otherwise specified, data comes from the 1-year sample of the American Community Survey (ACS) from 2022, downloaded from IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org), and figures refer to the Houston-The Woodlands-Sugar Land, Texas, Metropolitan Statistical Area.
- 20** Totals may not add up to 100 percent due to rounding.



# Acknowledgements

---

The American Immigration Council would like to thank the following organizations for their partnership and support in the release of this report.

