

JULY

2021

HOUSTON
ECONOMIC
HIGHLIGHTS



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Houston Economic Highlights, a publication of the Greater Houston Partnership, is designed to impart an overview of the changes in Houston's economy over the past decade.

Each page is devoted to a single economic indicator or a few related indicators with a key point, analysis, and historical data.

July 2021 Houston Economic Highlights was compiled by the research team of the Greater Houston Partnership, including Elizabeth Balderrama, Heath Duran, Annaissa Flores, Patrick Jankowski, Roel Gabe Martinez, and Josh Pherigo. This publication was designed by Marc Keosayian and Suzanne Morgan.

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HOUSTON IN PERSPECTIVE

PEOPLE

The nine-county **Houston MSA** had a population of 7,154,478 residents as of July 1, 2020, according to the most recently available estimates by the U.S. Census Bureau. If metro Houston were a state, it would have the 15th largest population in the U.S., behind Arizona (7,421,401) and ahead of Massachusetts (6,893,574) and Tennessee (6,886,834).

Harris County had a population of 4,738,253 residents as of July 1, 2020, according to estimates by the U.S. Census Bureau. If Harris County were a state, it would have the 25th largest population in the U.S., behind Alabama (4,921,532) and ahead of Louisiana (4,645,318) and Kentucky (4,477,251).

The **City of Houston** had a population of 2,320,268 residents as of July 1, 2020, according to estimates by the U.S. Census Bureau. If the city were a state, it would rank 36th in population in the U.S., behind Kansas (2,913,805) and ahead of New Mexico (2,106,319) and Nebraska (1,937,552).

ECONOMY

The U.S. Bureau of Economic Analysis estimated the Houston MSA's Gross Domestic Product (GDP) at \$512.2 billion in '19, ranking it as the nation's seventh largest metro economy. If Houston were a state, its GDP would rank 14th, behind Michigan (\$536.9 billion) and ahead of Maryland (\$426.7 billion) and Colorado (\$393.0 billion).

If the MSA were an independent nation, it would rank as the world's 27th largest economy, behind Belgium (\$529.7 billion) and ahead of Nigeria (\$448.1 billion).

Selected Key Economic Indicators for '20

- The Houston Association of Realtors Multiple Listing Service recorded closings on 115,523 properties (includes single-family homes, townhomes, condos, high rises, etc.), an average of one every 4.5 minutes.
- Houston MSA automobile dealers sold 248,034 new cars, trucks and SUVs, an average of one every 2.1 minutes.
- The Houston Airport System handled 24.7 million passengers, an average of 47 passengers per minute.

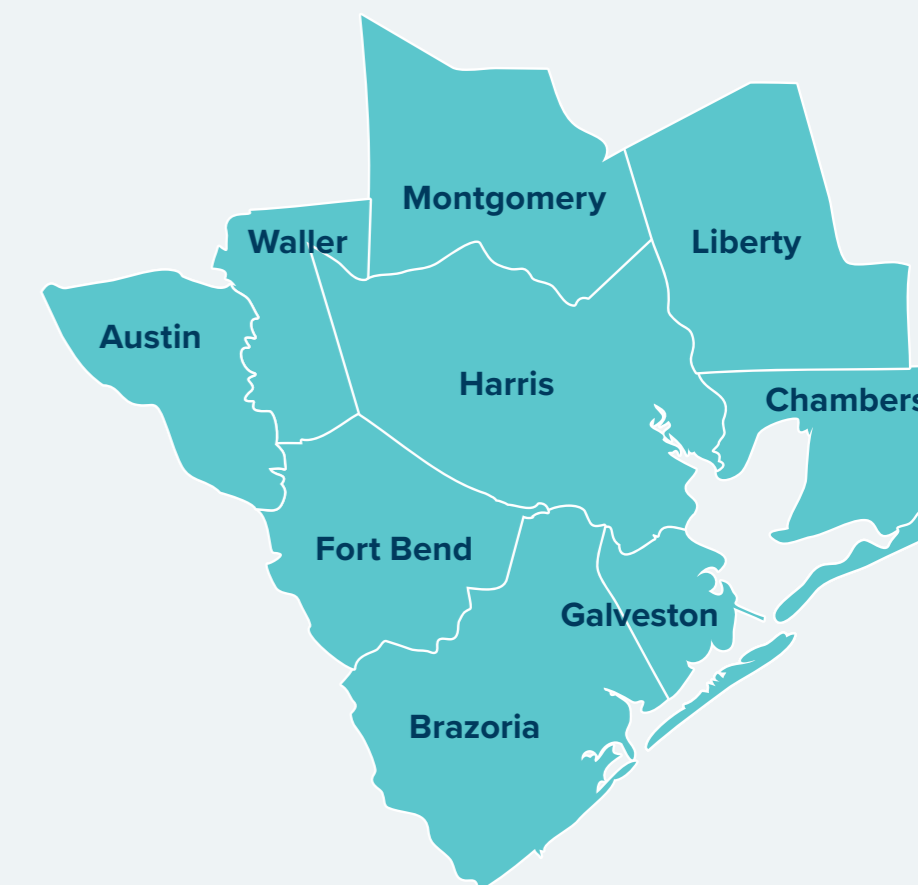
AREA

The nine-county **Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA)** covers 9,444 square miles, an area larger than five states: New Hampshire, New Jersey, Connecticut, Delaware, and Rhode Island.

Harris County covers 1,778 square miles, enough space to fit the cities of Austin, Boston, Chicago, Dallas, New York City, and Seattle with room still to spare.

At 665 square miles, the **City of Houston** is larger than the cities of Chicago, Dallas, Los Angeles, New York, Phoenix, and San Diego.

9-COUNTY HOUSTON MSA



9,444
SQUARE
MILES

7,154,478
RESIDENTS

\$512.2
BILLION GDP

GEOGRAPHY FOR DATA IN THIS PUBLICATION

Metropolitan statistical areas are geographic delineations defined by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. These geographic delineations change over time, with the most recent change occurring in March '13.

This publication contains data based on both of the '09 and '13 delineations of the Houston MSA, depending on the source. Where possible, every effort was made to revise data to reflect the nine-county Houston MSA.

2009 MSA DELINEATION FOR THE HOUSTON REGION

Houston-Sugar Land-Baytown Metropolitan Statistical Area (MSA) contains 10 counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto and Waller.

2013 MSA DELINEATION FOR THE HOUSTON REGION

Houston - The Woodlands - Sugar Land Metropolitan Statistical Area (MSA) contains nine counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller.

IN 2020

7,154,478
RESIDENTS
in Metro Houston

4,738,253
RESIDENTS
in Harris County

2,320,268
RESIDENTS
in the City of Houston

115,523 Properties Closed
1 every 4.5 MINUTES

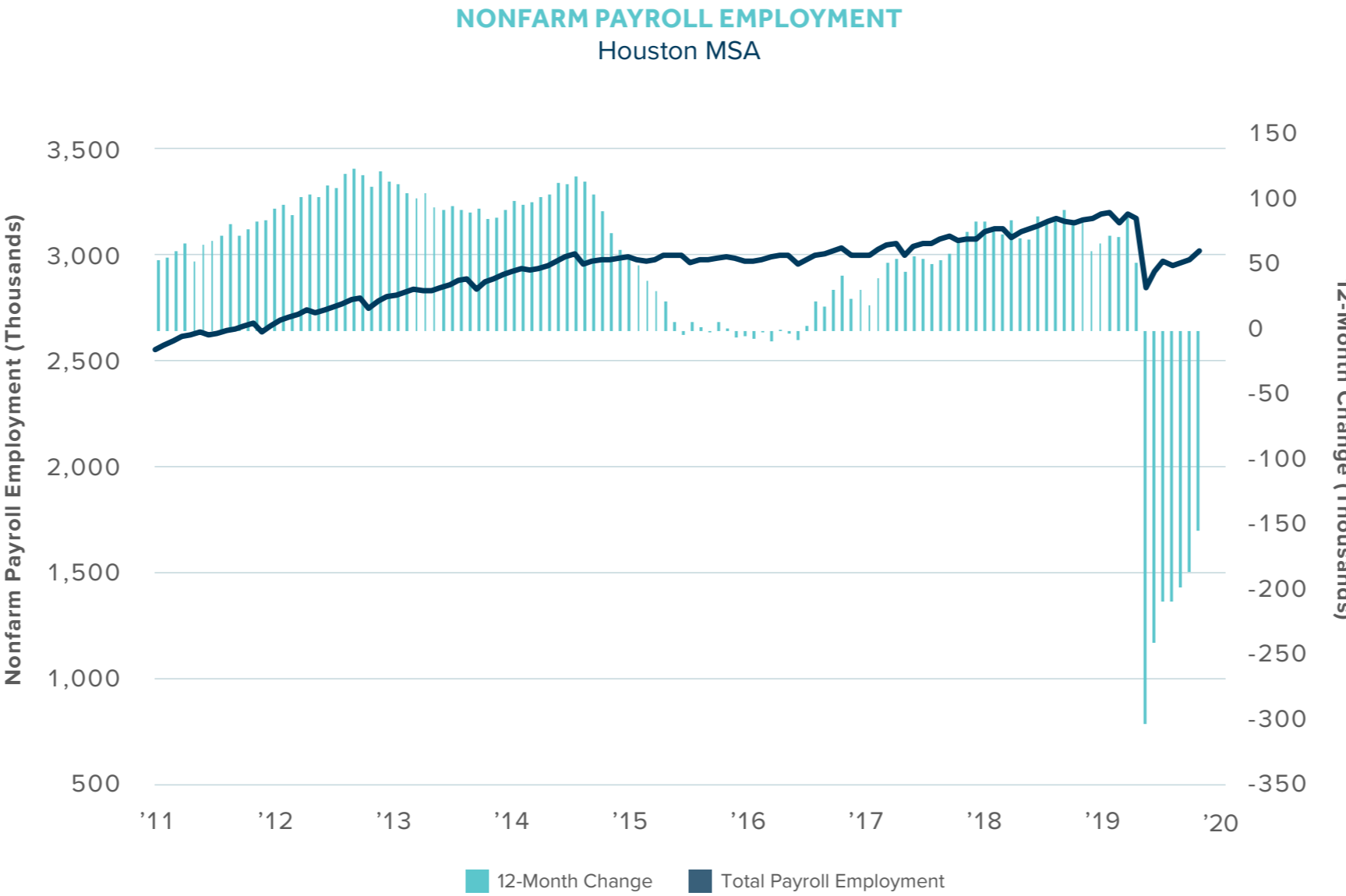
248,034
New Cars, Trucks
and SUVs Sold

24.7 MILLION
Airport
Passengers

PAYROLL EMPLOYMENT

Houston enjoyed robust employment growth early in the decade, but has since struggled with the Fracking Bust and the recession brought on by the COVID-19 pandemic.

- Metro Houston enjoyed strong job growth early in the decade, adding over 400,000 jobs from '11 to '14. Then the Fracking Bust ('15 to '17) hit and energy companies proceeded to lay off over 90,000 workers. Other sectors added jobs, mitigating energy's losses. Metro Houston emerged from the downturn with a loss of fewer than 5,000 total jobs. Growth resumed again in '17, was briefly interrupted by Hurricane Harvey, and then continued.
- Houston, like the rest of the nation, suffered greatly during the COVID-19 recession. In March and April of '21, the region lost 361,400 jobs. With the reopening in May, the region began to recover. As of May '21 (most current data available), the region had recouped over half of the losses, or about 206,900 jobs. The region needs to add another 154,500 to return to pre-COVID employment levels.



Source: Texas Workforce Commission, not seasonally adjusted

NONFARM PAYROLL EMPLOYMENT Year-end

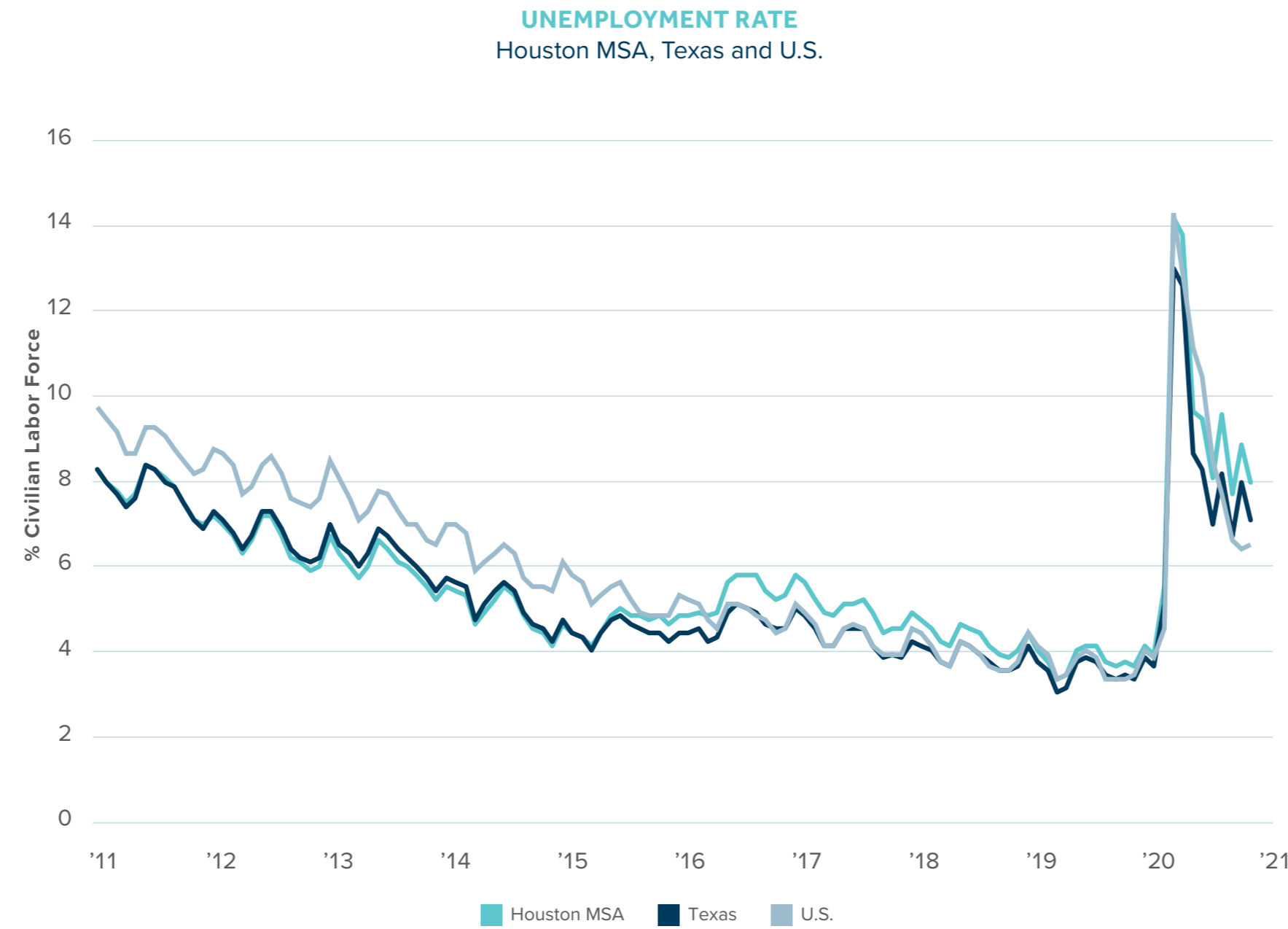
Year	Nonfarm Payroll Employment	Change from Prior Year
2011	2,691,500	83,000
2012	2,808,900	117,400
2013	2,898,700	89,800
2014	3,015,500	116,800
2015	3,013,100	-2,400
2016	3,010,700	-2,400
2017	3,065,100	54,400
2018	3,147,900	82,800
2019	3,202,300	54,400
2020	2,995,700	-206,600

* As of December each year
Source: Texas Workforce Commission, not seasonally adjusted

UNEMPLOYMENT RATE

Houston's unemployment rate reached a 10-year peak of 8.6 percent in '20.

- Houston's unemployment rate tracked below the U.S. rate for nearly a decade from December '06 to early '16. Since April '16, Houston's unemployment rate has generally tracked above the national rate.
- Houston's unemployment rate averaged 8.6 percent in '20, up from 3.8 percent a year earlier. Texas' unemployment rate averaged 7.7 percent in '20, up from 3.5 percent in '19. The U.S. rate averaged 8.1 percent in '20, also up from 3.7 percent in '19. The rates are not seasonally adjusted.
- Houston lost 214,100 jobs in '20, making it the worst single-year loss on record for the region. Prior to '20, the worst year was '09, the height of the Great Recession, when the region shed 110,500 jobs.
- Houston's unemployment rate declined steadily during the longest expansion in U.S. history, reaching a 10-year low of 3.3 percent in April '19. A year later, in April '20, the unemployment rate peaked at 14.3 percent but has since trended down. In February '20, prior to the COVID-19 pandemic, the rate was 3.9 percent. The U.S. rate peaked in April '20 at 14.4 percent, up from 3.8 percent in February '20.



Source: Texas Workforce Commission, not seasonally adjusted

PERCENT OF UNEMPLOYED CIVILIAN LABOR FORCE
Annual Averages

Year	Metro Houston	Texas	U.S.
2011	7.8	7.8	8.9
2012	6.6	6.7	8.1
2013	6.0	6.3	7.4
2014	4.9	5.1	6.2
2015	4.6	4.4	5.3
2016	5.3	4.6	4.9
2017	5.0	4.3	4.4
2018	4.3	3.8	3.9
2019	3.8	3.5	3.7
2020	8.6	7.7	8.2

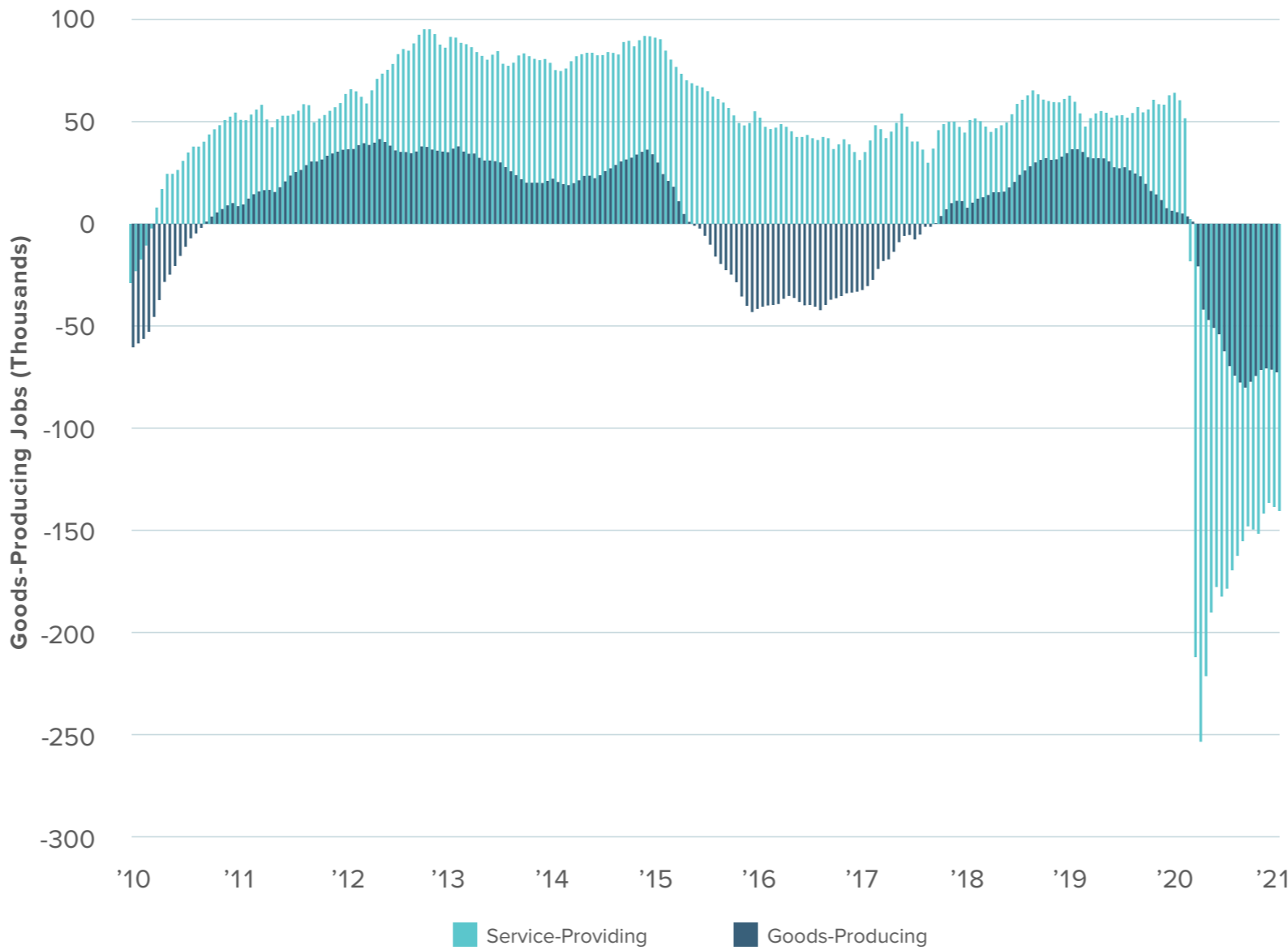
Source: Texas Workforce Commission, not seasonally adjusted.

GOODS-PRODUCING AND SERVICE-PROVIDING JOBS

The COVID-19 pandemic caused 361,000 initial job losses in the Houston region. By Jan '21, two-thirds of the losses had been recovered.

- Before COVID-19, goods-producing jobs last recorded year-over-year declines during the oil downturn from '15-'17. During that period, service-providing jobs continued to grow, which helped keep net job growth near or above neutral. The last time both goods-producing and service-providing jobs fell at the same time was the Great Recession.
- The Houston region lost 319,800 service-providing jobs in March and April '20, the first year-over-year decline for the service sector since March '10. After the initial lockdowns, service providers began rehiring in May '20 and by May '21 the sector had recouped 231,900 jobs, three-fourths of its pandemic losses.
- The goods-producing sector (oil and gas production, construction and manufacturing) shed 41,600 jobs in March and April '20, but unlike the service sector, goods-producing job losses deepened in the summer before beginning a tepid recovery in the fall. As of May '21, goods-producing losses had mounted to 66,600 jobs, nearly double the initial losses.

GOODS-PRODUCING AND SERVICE-PROVIDING JOBS (12-MONTH CHANGE)
Houston MSA



Source: Texas Workforce Commission

ANNUAL AVERAGES

Year	Goods-Producing	Service-Providing
2010	471,250	2,104,125
2011	491,025	2,078,775
2012	524,283	2,096,517
2013	549,142	2,144,550
2014	571,708	2,214,908
2015	562,542	2,292,033
2016	522,825	2,368,667
2017	512,292	2,431,417
2018	530,750	2,470,575
2019	552,742	2,508,858
2020	509,250	2,557,925

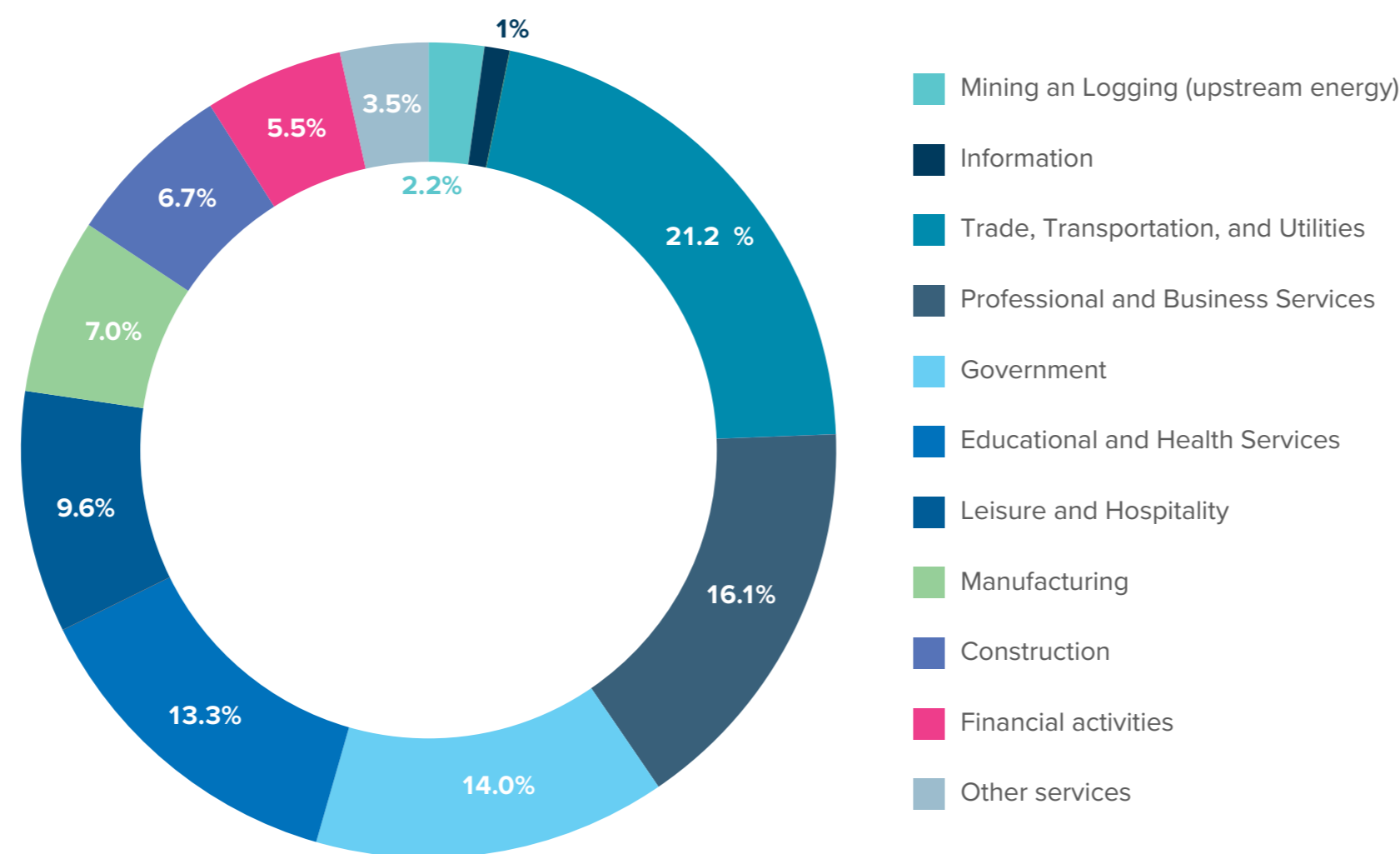
Source: Source: Texas Workforce Commission, not seasonally adjusted

EMPLOYMENT BY INDUSTRY

No single industry or sector dominates Houston employment.

- Nonfarm payroll employment in the Houston metro area reached 2,995,700 in December '20.
- Service industries account for more than 2.5 million Houston-area jobs or four out of five workers in the region. The largest service industries are trade, transportation, and utilities (21.2 percent of jobs), professional and business services (16.1 percent), and government (14.0 percent).
- The goods-producing sector employs 483,700 Houstonians and accounts for approximately one in six of the region's jobs. Manufacturing is the largest goods-producing industry with 7.0 percent of total jobs, followed closely by construction (6.7 percent) and upstream energy (2.2 percent).
- More than half of Houston's manufacturing jobs involve the production of durable goods, items with a useful life of three years or more. In Houston, this includes items such as oil field equipment, structural steel, and computers.

INDUSTRY SHARE OF METRO HOUSTON EMPLOYMENT



Source: Texas Workforce Commission, December 2020, not seasonally adjusted

METRO HOUSTON EMPLOYMENT BY INDUSTRY
December '20

Industry	Jobs	Percent of Total
Total Nonfarm	2,995,700	100.0
Total Private	2,575,600	86.0
Goods Producing	475,900	15.9
Service Providing	2,519,800	84.1
Mining and Logging	66,300	2.2
Oil and Gas Extraction	34,600	1.2
Support Activities for Mining	30,200	1.0
Construction	200,900	6.7
Manufacturing	208,700	7.0
Durable Goods	125,900	4.2
Non-Durable Goods	82,800	2.8
Trade, Transportation, and Utilities	633,600	21.2
Wholesale Trade	158,500	5.3
Retail Trade	303,500	10.1
Transportation, Warehousing, and Utilities	171,600	5.7
Information	29,000	1.0
Financial Activities	163,300	5.5
Finance and Insurance	104,500	3.5
Real Estate and Rental and Leasing	58,800	2.0
Professional and Business Services	483,800	16.1
Professional, Scientific, and Technical Services	232,100	7.7
Management of Companies and Enterprises	45,500	1.5
Admin and Support and Waste Mgmt.	206,200	6.9
Educational and Health Services	398,000	13.3
Educational Services	61,900	2.1
Health Care and Social Assistance	336,100	11.2
Leisure and Hospitality	287,200	9.6
Arts, Entertainment, and Recreation	25,800	0.9
Accommodation and Food Services	261,400	8.7
Other Services	104,800	3.5
Government	420,100	14.0

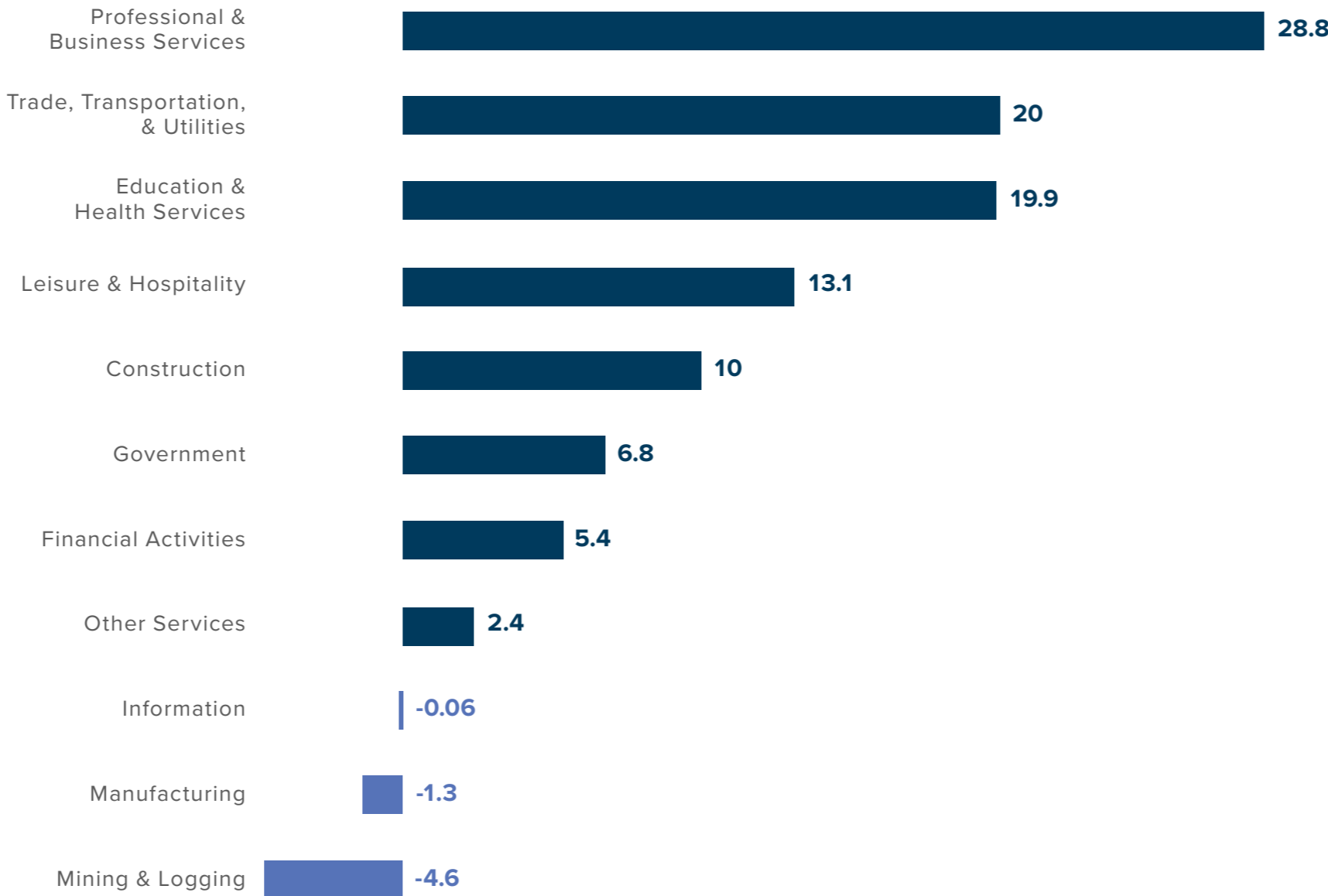
Source: Texas Workforce Commission, December 2020, not seasonally adjusted

EMPLOYMENT CHANGE BY INDUSTRY

Professional and business services accounts for over a fourth of Houston’s job growth since ‘10.

- Metro Houston added 469,600 jobs between December ‘10 and December ‘20.
- Professional and business services added 132,500 jobs, of which 69,300 were in the professional, scientific, and technical services subsector. This includes law, accounting, and management services.
- Trade, transportation, and utilities added 91,900 jobs, or one in five gained over the decade. Contributing to the growth were the 21,600 jobs in wholesale trade and 29,900 in retail trade. The sector benefits from the \$200 billion in trade that passes through the Houston-Galveston Customs District each year.
- Education and health services added 91,600 jobs from December ‘10 to December ‘20, with an increase of 69,800 jobs in health care and social assistance. Home to the world’s largest medical center, health care continues to expand in Houston.
- Leisure and hospitality gained 60,300 jobs over the decade, accounting for 13.1 percent of the region’s job growth. Houston has over 94,000 hotel rooms and more than 11,500 restaurants. This increase in jobs coincides with the growth in tourism, with more than 22 million people visiting the city in ‘18.

PERCENT OF HOUSTON METRO JOB GROWTH BY INDUSTRY
December ‘10 to December ‘20



Source: Texas Workforce Commission, not seasonally adjusted

JOB GROWTH BY INDUSTRY

Industry	Employment		Change	
	December '10	December '20	Jobs	Percent
Total Nonfarm	2,608,000	3,068,200	460,200	17.6
Mining and Logging	85,700	64,500	-21,200	-24.7
Construction	171,000	217,100	46,100	27.0
Manufacturing	219,000	213,100	-5,900	-2.7
Durable Goods	144,100	128,900	-15,200	-10.5
Non-Durable Goods	74,900	84,200	9,300	12.4
Trade, Transportation, and Utilities	545,000	636,900	91,900	16.9
Wholesale Trade	136,800	158,400	21,600	15.8
Retail Trade	279,400	309,300	29,900	10.7
Transportation, Warehousing, Utilities	128,800	169,200	40,400	31.4
Information	32,500	29,900	-2,600	-8.0
Financial Activities	139,000	163,800	24,800	17.8
Finance and Insurance	90,100	105,600	15,500	17.2
Real Estate and Rental and Leasing	48,900	58,200	9,300	19.0
Professional and Business Services	385,100	517,600	132,500	34.4
Professional, Scientific, Technical Services	184,200	253,400	69,200	37.6
Mgmt. of Companies and Enterprises	26,200	44,400	18,200	69.5
Admin and Support and Waste Mgmt.	174,700	219,800	45,100	25.8
Educational and Health Services	313,800	405,400	91,600	29.2
Educational Services	42,800	64,600	21,800	50.9
Health Care and Social Assistance	271,000	340,800	69,800	25.8
Leisure and Hospitality	235,600	295,900	60,300	25.6
Arts, Entertainment, and Recreation	25,200	24,500	-700	-2.8
Accommodation and Food Services	210,400	271,400	61,000	29.0
Other Services	92,200	103,400	11,200	12.1
Government	389,100	420,600	31,500	8.1

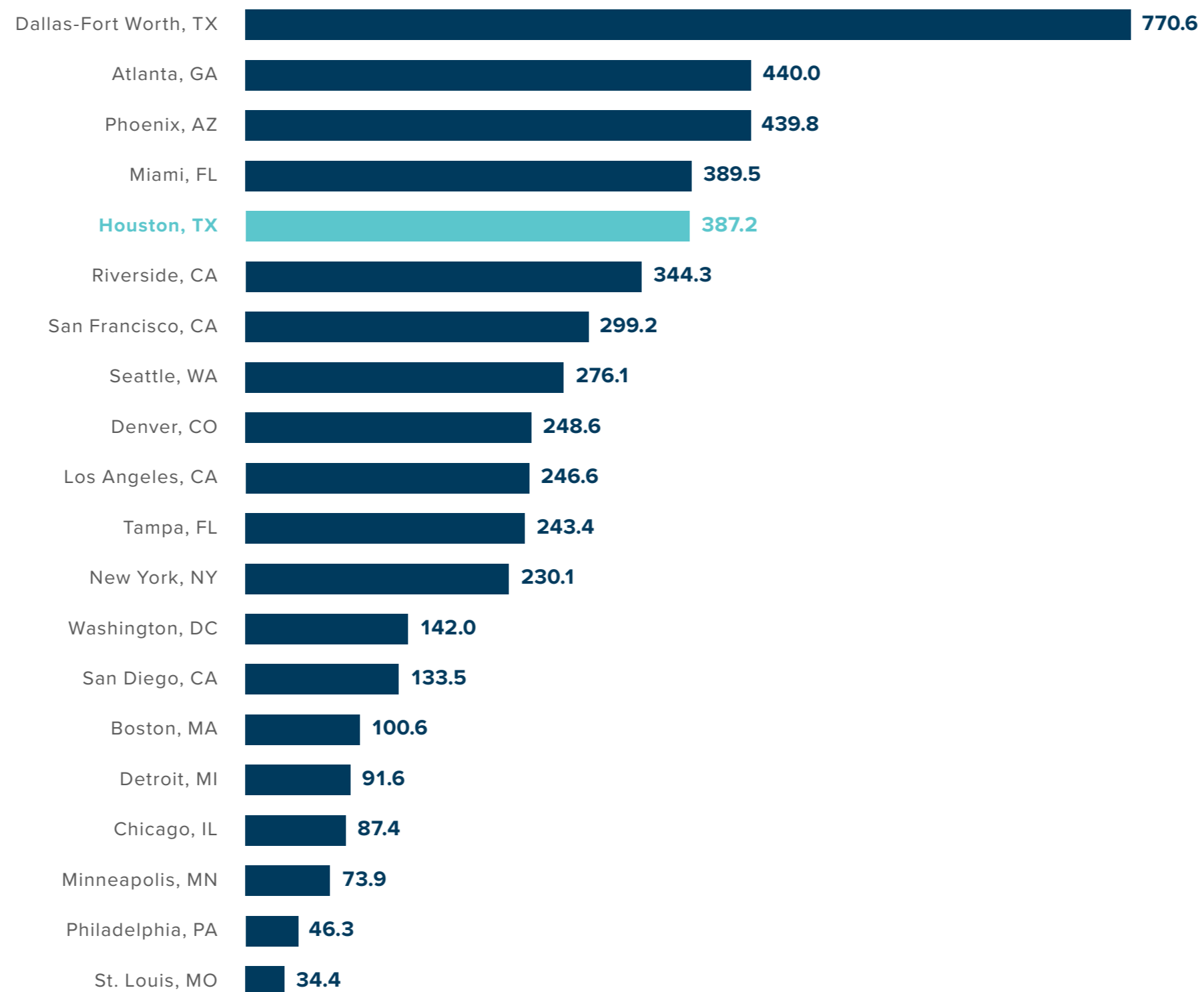
Source: Texas Workforce Commission, not seasonally adjusted

EMPLOYMENT GROWTH IN MAJOR METROS

Houston ranked fifth in the nation in job growth from December '10 to December '19.

- From December '10 to December '19, metro Houston ranked sixth in the nation in job growth with 387,200 jobs, a 14.8 percent increase.
- Though job growth slowed mid-decade, it picked up again prior to the COVID-19 pandemic. Houston created more jobs from December '10 to December '19 than much larger metros, like New York, Los Angeles and Chicago.

EMPLOYMENT GROWTH, 000s, DEC '10 TO DEC '19
20 Most Populous Metro Areas



Source: U.S. Bureau of Labor Statistics, not seasonally adjusted

20 MOST POPULOUS U.S. METROPOLITAN STATISTICAL AREAS
Ranked by Percent Change, December '19 to December '20

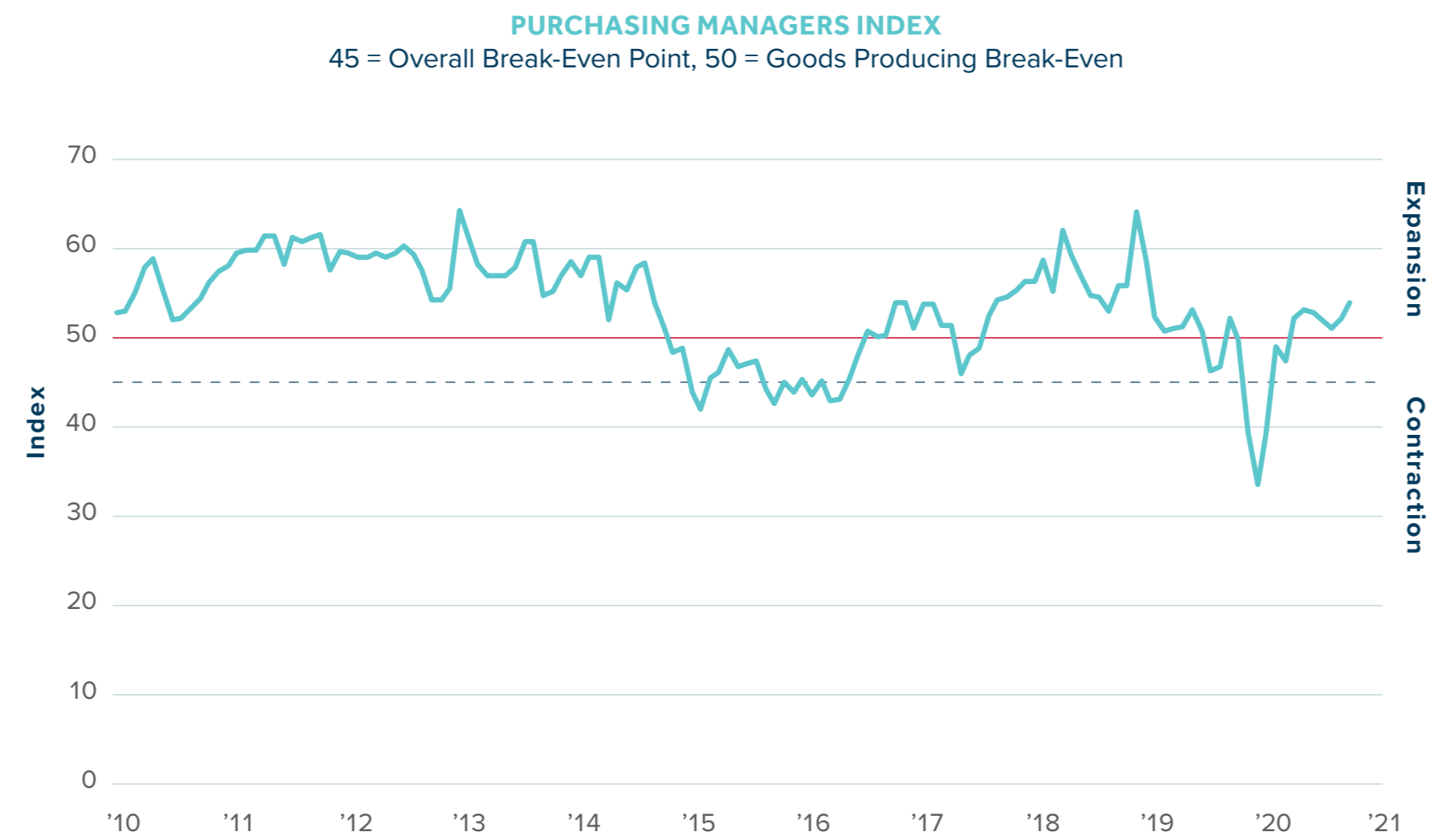
Metro Area	Change in Jobs (Thousands)	Percent Change
Dallas-Fort Worth-Arlington, TX	770.6	25.8
Atlanta-Sandy Springs-Roswell, GA	440.0	19.1
Phoenix-Mesa-Scottsdale, AZ	439.8	25.4
Miami-Fort Lauderdale-West Palm Beach, FL	389.5	17.9
Houston-The Woodlands-Sugar Land, TX	387.2	14.8
Riverside-San Bernardino-Ontario, CA	344.3	29.5
San Francisco-Oakland-Hayward, CA	299.2	15.4
Seattle-Tacoma-Bellevue, WA	276.1	16.4
Denver-Aurora-Lakewood, CO	248.6	20.6
Los Angeles-Long Beach-Anaheim, CA	246.6	4.6
Tampa-St. Petersburg-Clearwater, FL	243.4	21.7
New York-Newark-Jersey City, NY-NJ-PA	230.1	2.6
Washington-Arlington-Alexandria, DC-VA-MD-WV	142.0	4.7
San Diego-Carlsbad, CA	133.5	10.6
Boston-Cambridge-Newton, MA-NH	100.6	4.1
Detroit-Warren-Dearborn, MI	91.6	5.2
Chicago-Naperville-Elgin, IL-IN-WI	87.4	2.0
Minneapolis-St. Paul-Bloomington, MN-WI	73.9	4.2
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	46.3	1.7
St. Louis, MO-IL	34.4	2.6

Source: U.S. Bureau of Labor Statistics, not seasonally adjusted

PURCHASING MANAGERS INDEX

During the COVID-19 lockdown in April '20, the Houston PMI plunged to 34.6, a record-low. Vaccine rollouts have improved the near-term outlook. The June '21 PMI marks the strongest sign of expansion in nearly two years.

- The Houston Purchasing Managers Index (PMI), a short-term leading indicator of regional production, registered 36.7 in May '21, the eleventh consecutive month above 50. Readings above 45 correlate with expansion of the service side of Houston's economy, below 45 a contraction, while readings above 50 signal expansion in Houston's goods producing sectors and below 50 a contraction.
- During the COVID-19 pandemic, movements in the PMI closely tracked the economy's response to the virus. In April '20, as businesses closed amid stay-at-home orders, the PMI fell to 34.6, the lowest reading on record and an indication that the downturn was more severe than even the depths of the Great Recession. The uptick that began in May '20 reflected the initial reopening, and while the PMI has pointed toward expansion since August '20, the strength of that expansion has ebbed during periods when the virus surged, as it did in late fall and over the holidays. The PMI has trended higher since January '20 as vaccine rollouts improved the near-term economic outlook.
- COVID-19 is the second downturn to hit the Houston economy since the Great Recession. In December '14, a decline in global oil prices kicked off a 19-month contraction lasting from January '15 through September '16. For three months following Hurricane Harvey in the fall of '17, the PMI dipped below 50 but stayed above 45, signaling a temporary slow-down before expansion continued.
- Since the Houston PMI's inception in January '95, the all-time low for the index was 34.6 in April '20. The all-time high occurred in January '06, when the PMI reached 67.9. The PMI is based on a survey of some 80 purchasing executives in key Houston industries—oil and gas exploration and production; manufacturing; engineering and construction; chemicals; distribution; health care; and business and financial services. It measures over-the-month changes in sales (new orders), production, employment, purchases of new equipment, prices paid for major purchases, lead times from sellers, purchased materials inventory and finished goods inventory.



Source: Institute for Supply Management-Houston

ANNUAL AVERAGES

Year	Houston	United States
2010	55.1	57.5
2011	60.1	55.3
2012	58.5	51.7
2013	58.4	53.9
2014	56.5	55.8
2015	46.5	51.4
2016	46.7	51.5
2017	51.9	57.4
2018	56.6	58.8
2019	53.4	51.3
2020	48.2	52.5

* The PMI has a possible range from zero to 100. Readings above 50 generally indicate expansion in Houston's manufacturing sector while readings below 50 signal contraction in manufacturing. The PMI needs to drop below 45, however, before it signals contraction in the overall Houston economy.

The Houston and U.S. Purchasing Managers Indexes are conceptually similar but not identical.

Source: Institute for Supply Management-Houston

OIL AND NATURAL GAS PRICES

Oil and natural gas prices have risen since their decline at the onset of the COVID-19 pandemic.

- The closing spot price for West Texas Intermediate (WTI), the U.S. benchmark for light, sweet crude, averaged \$47.02 per barrel in December '20, down 21.5 percent from \$59.88 for the same period in '19, according to the U.S. Energy Information Administration (EIA). In '20, the WTI averaged \$39.17, a 31.3 percent decrease from \$56.99 for '19.
- During the oil bust early in the decade, global oversupply caused the weekly WTI spot price to fall from a high of \$105.78 in June '14 to a low of \$30.19 in February '16—a 71.5 percent decline. A combination of production cuts and an increase in consumption caused prices to rise in '17 and '18. As global production rose, crude prices fell again and remained flat for much of '19.
- Crude averaged \$57.52 per barrel in January '20 and \$50.54 in February '20. By March, the price had dropped to \$29.21 due to the onset of the COVID-19 restrictions. In April, prices plunged further, averaging \$16.55 per barrel. After this drop, prices began to climb, hovering around \$40.00 per barrel from July to November.
- In December '20, Henry Hub natural gas prices averaged \$2.59 per million British thermal units (MMBtu), up 16.7 percent from \$2.22 in December the year before. For the 12 months ending December '20, gas prices averaged \$2.04 per MMBtu, compared to \$2.57 for the same period in '19. In June '20, the average price was \$1.63 per MMBtu, the lowest since August 1995.
- As of July '21, the EIA expects WTI to average \$65.85 per barrel and the Henry Hub natural gas spot price to average \$3.22/MMBtu in '21.

SPOT CRUDE AND NATURAL GAS PRICES
Monthly Averages



Source: U.S. Energy Information Administration

ANNUAL AVERAGES

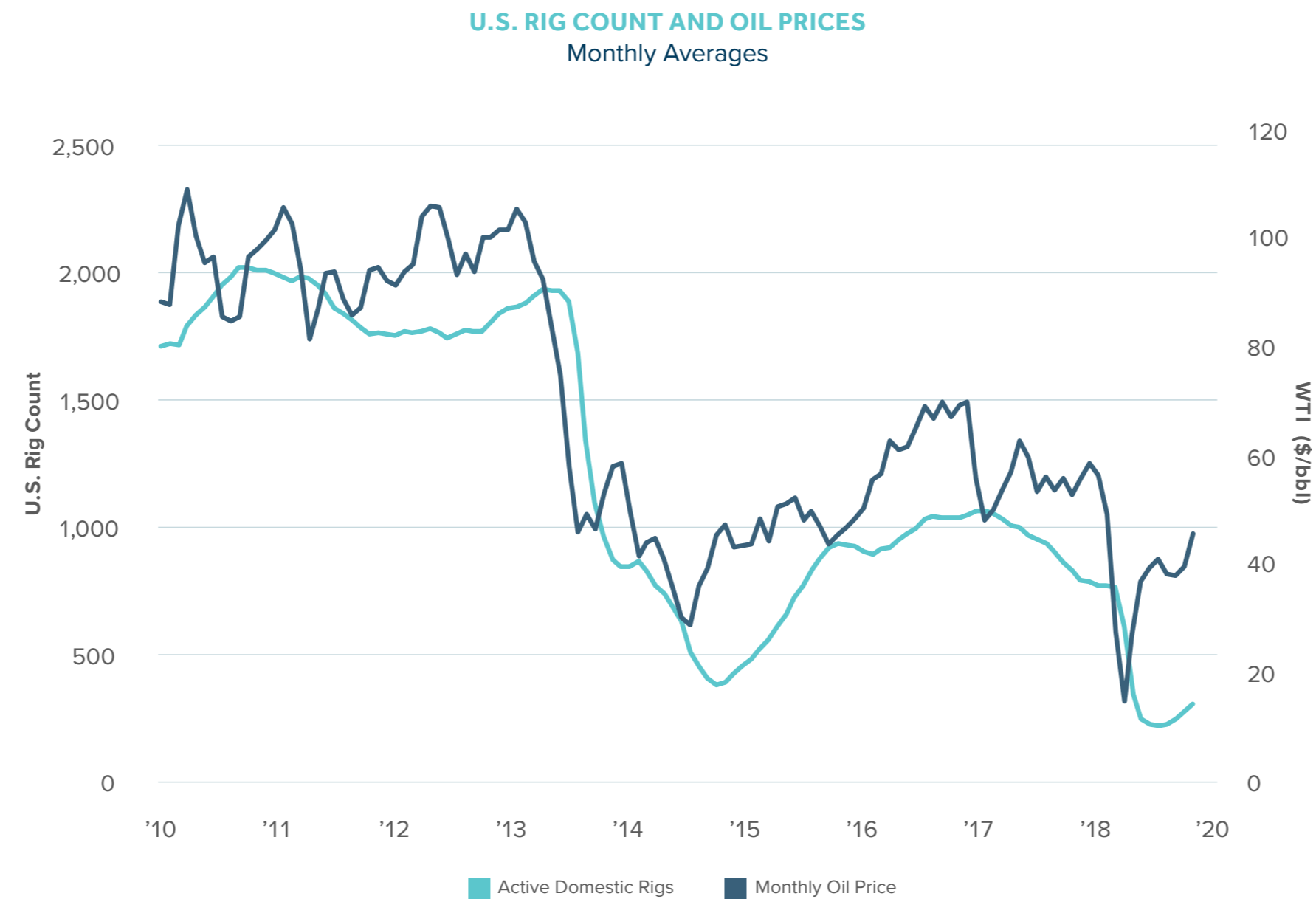
Year	WTI Crude Price (\$/bbl)	Natural Gas Price (\$/MMBtu)
2011	94.88	4.0
2012	94.05	2.75
2013	97.98	3.73
2014	93.17	4.37
2015	48.66	2.62
2016	43.29	2.52
2017	50.88	2.99
2018	64.94	3.17
2019	56.98	2.57
2020	39.22	2.04

Source: U.S. Energy Information Administration

DRILLING ACTIVITY AND OIL PRICES

The U.S. rig count collapsed in '20 as oil prices remained low.

- The weekly rig count in '20 averaged 443, down 53.0 percent from 943 rigs during the same span in '19. Despite this drop, domestic crude production averaged 11.31 million barrels per day (b/d) in '20, a decrease of 7.7 percent from the 12.25 million (b/d) in the previous year.
- The ability to produce crude and natural gas from tight shale formations led to a drilling boom in the U.S. The rig count peaked at 1,931 in September '14. But the boom also led to a global crude oversupply. During the mid-decade Fracking Bust ('15-'17), the rig count dropped from a high of 1,930 in September '14 to a low of 404 in May '16, a 78.9 percent decline. By '18, oil was again trading above break-even costs for most producers, leading to the increase in the rig count.
- By mid-year '20, drilling activity plummeted. The industry pulled over 500 rigs from the field in April, May, and June. In mid-August, the drilling fleet fell to 244 working rigs, the lowest level on record.
- The rig count averaged 280 in October '20, as the outlook for consumption and pricing improved. In December '20, as WTI averaged \$47.02, the highest since February, the count increased to an average of 335.
- The Permian Basin accounts for the majority of U.S. rig activity. As of July '21, the Permian was home to nearly half of the U.S. drilling fleet.



Sources: Baker Hughes, a GE company; U.S. Energy Information Administration

ANNUAL AVERAGES

Year	U.S. Rig Count	WTI Crude Price (\$/bbl)
2011	1,875	94.88
2012	1,919	94.05
2013	1,761	97.98
2014	1,862	93.17
2015	977	48.66
2016	510	43.29
2017	876	50.8
2018	1,032	65.23
2019	943	56.99
2020	443	39.16

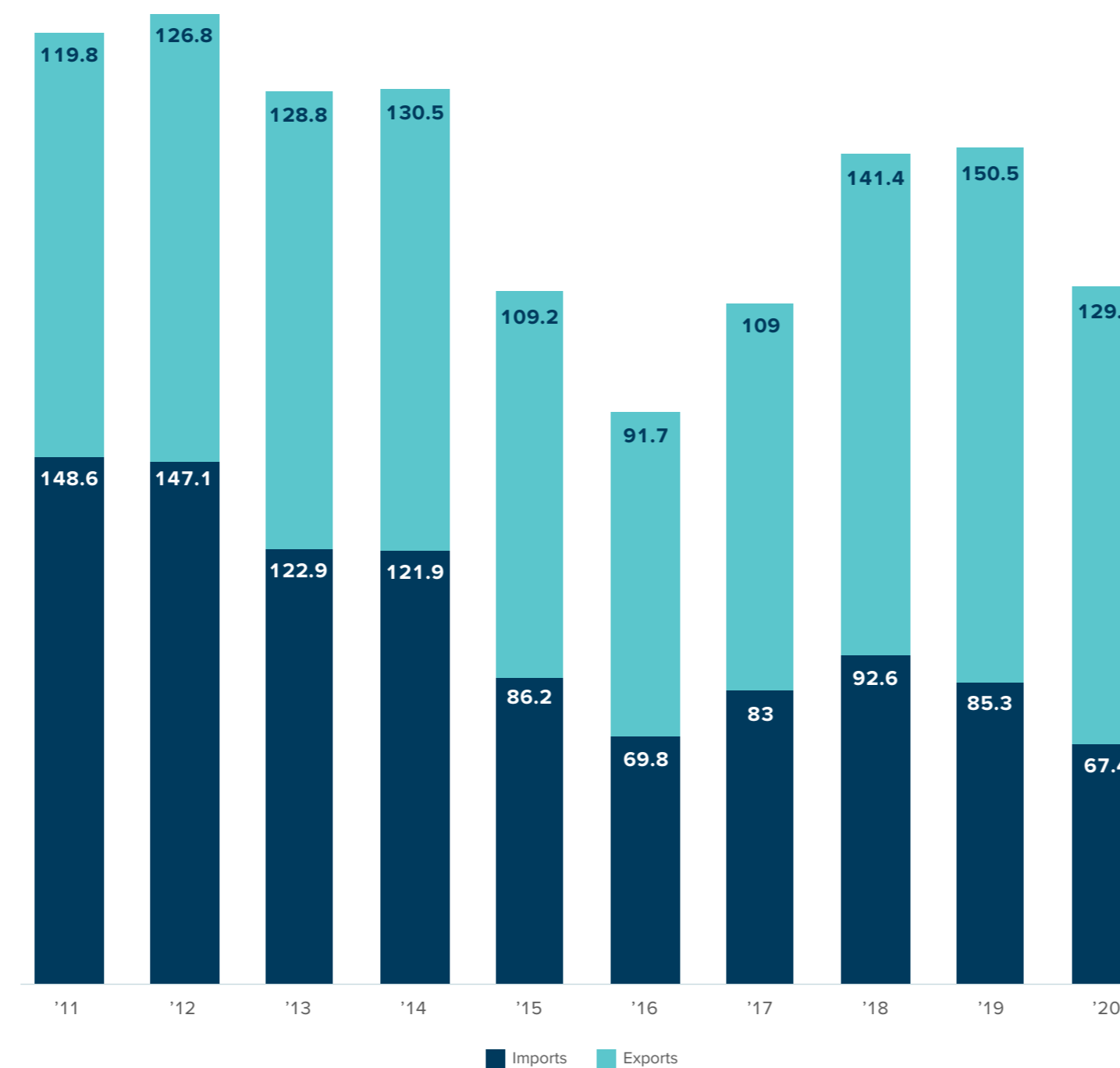
Source: Baker Hughes, U.S. Energy Information Administration

FOREIGN TRADE

Nearly \$200 billion in foreign trade passed through the Houston-Galveston Customs District in '20, making it the sixth busiest district in the U.S.

- The Houston-Galveston Customs District handled 341.6 million metric tons (“MT”) of goods and commodities in '20, a 7.2 percent increase over '19. These shipments were valued at \$196.9 billion, down 16.5 percent from '19.
- Houston has achieved nearly \$200 billion or more in annual trade for seven out of the past ten years.
- Thirty-eight countries logged more than \$1 billion each in trade through the Houston-Galveston Customs District in '20. Houston's top 10 trading partners in '20 were China (\$19.3 billion), Mexico (\$14.5 billion), Brazil (\$11.9 billion), South Korea (\$9.5 billion), Germany (\$9.5 billion), Netherlands (\$9.5 billion), India (\$8.0 billion), Japan (\$7.7 billion), United Kingdom (\$7.6 billion) and Italy (\$5.7 billion).
- Imports totaled \$67.4 billion in '20. The top five imports were fuels, crude oil, and refined products (\$13.9 billion), industrial equipment and computers (\$10.2 billion), electric machinery (\$5.3 billion), motor vehicles and parts (\$4.7 billion), and articles of iron or steel (\$4.1 billion).
- Imports have declined by 54.6 percent in value since the beginning of the decade, from \$148.6 billion in '11 to \$67.4 billion in '20, and 53.9 percent in volume, from 162.8 MT in '11 to 75.0 MT in '20.
- Exports totaled \$129.5 billion in '19. Leading exports included fuels, crude oil, and refined products (\$73.0 billion), organic chemicals (\$12.5 billion), plastics and plastic products (\$9.2 billion), industrial equipment and computers (\$8.3 billion), and motor vehicles and parts (\$3.6 billion).
- Exports have increased in value by 8.1 percent in the past ten years, from 119.8 billion in '11 to 129.5 billion in '20, and 164.1 percent in volume, from 100.9 MT in '11 to 266.6 MT in '20.

HOUSTON-GALVESTON CUSTOMS DISTRICT TRADE
\$ Billions



Source: WISERTrade from U.S. Census Bureau, Foreign Trade Division data
The Houston-Galveston Customs District includes the ports of Houston, Galveston, Freeport, Texas City, Corpus Christi, Port Lavaca, Bush Intercontinental Airport and Sugar Land Regional Airport

ANNUAL VALUES
\$ Billions

Year	Imports	Exports	Total
2011	148.6	119.4	268.0
2012	147.1	126.8	273.9
2013	122.9	128.8	251.7
2014	121.9	130.5	252.4
2015	86.2	109.2	195.5
2016	69.8	91.7	161.5
2017	83.0	109.0	192.0
2018	92.6	141.4	234.0
2019	85.2	151.8	237.0
2020	67.4	129.5	196.9

Note: Sums may not total due to rounding.

The Houston-Galveston Customs District includes the ports of Houston, Galveston, Freeport, Texas City, Corpus Christi, Port Lavaca, Bush Intercontinental Airport and Sugar Land Regional Airport

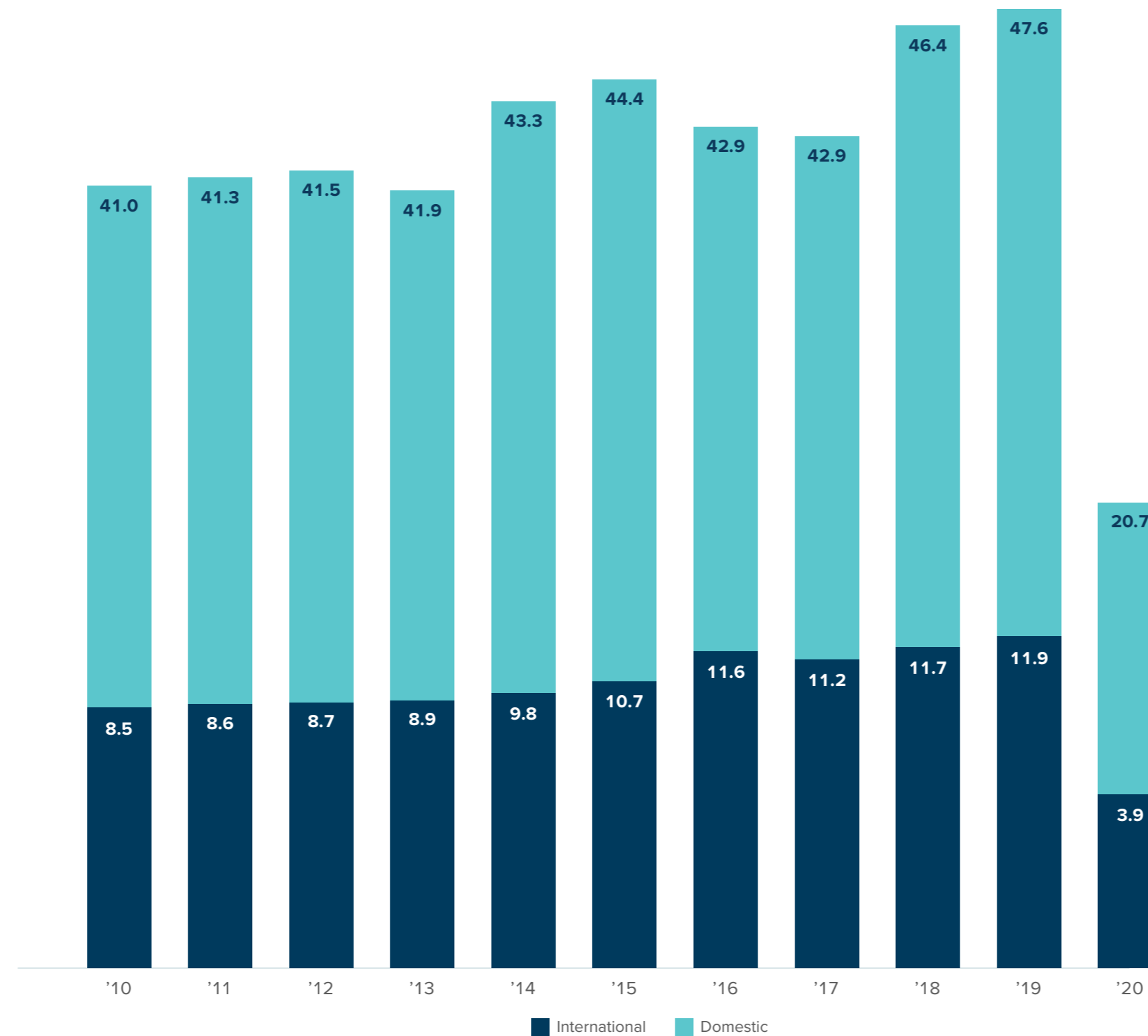
Source: WISERTrade from U.S. Census Bureau, Foreign Trade Division data

AIR PASSENGERS

Houston recorded substantial gains in international and domestic traffic through most of the decade, with this growth interrupted only by the COVID-19 pandemic.

- Domestic traffic grew by 10.1 million passengers, or 20.4 percent, from '10 to '19. International passengers increased by 3.5 million, or 40.6 percent, over the same period.
- In the 12 months ending December '20, HAS handled 24.7 million travelers, down 58.6 percent from the 59.7 million handled in the prior year. Domestic passenger traffic fell 56.5 percent from 47.7 million to 20.7 million. International passenger volume totaled 3.9 million, down 67.0 percent from 11.9 million for '19.
- Prior to COVID-19, the Houston Airport System (HAS) offered nonstop flights to 190 domestic and international destinations in 37 countries. George Bush Intercontinental Airport (IAH), Houston's largest airport and a significant hub for United Airlines, is the 14th busiest airport in the U.S. William P. Hobby Airport (HOU), a key hub for Southwest Airlines, ranks as the nation's 36th busiest airport.
- Since the launch of international service at HOU in October '15, the airport has handled more than 4.0 million global passengers. Houston is the only city in Texas with two airports offering international service and only one of eight such cities nationwide.
- The International Air Transport Association (IATA), a global trade group representing most of the world's major airlines and cargo carriers, doesn't expect the industry to fully recover before '24.

DOMESTIC AND INTERNATIONAL PASSENGERS
Houston Airport System



Source: Houston Airport System

HOUSTON AIRPORT SYSTEM
Domestic and International Air Passengers (Millions)

Year	Domestic	International	Total
2010	41.026	8.508	49.534
2011	41.378	8.637	50.016
2012	41.565	8.765	50.329
2013	41.923	8.986	50.909
2014	43.387	9.816	53.202
2015	44.425	10.759	55.184
2016	42.965	11.626	54.591
2017	42.932	11.236	54.168
2018	46.481	11.763	58.244
2019	47.693	11.96	59.653
2020	20.733	3.943	24.676

Note: Sums may not total due to rounding. Figures may differ slightly from HAS reports due to later revisions.

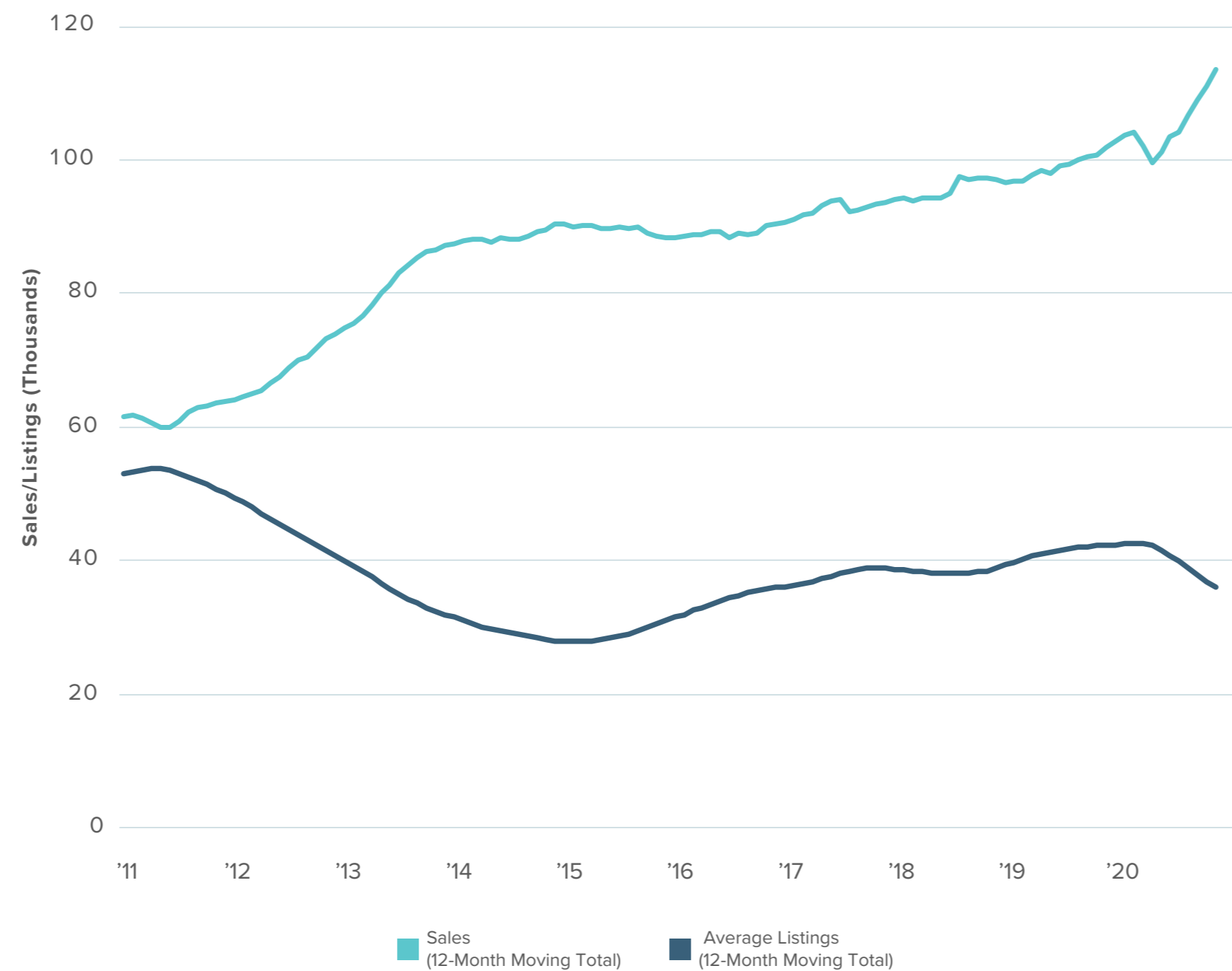
Source: Houston Airport System

RESIDENTIAL REAL ESTATE

Houston home sales broke records in '20 despite the global pandemic

- Houston-area realtors sold 115,523 homes in '20, up 11.6 percent from '19 and a new record for the region. The median price of a single-family home also reached a new peak of \$259,011 in '20, a 6.4 percent increase from \$243,521 in '19.
- Annual home sales have nearly doubled in the last ten years, growing 81.6 percent from 63,600 sales in '11. The median home price also jumped 68.6 percent since '11. The decade was punctuated by two periods of exceptional growth. First, during the fracking boom of '12-'14 and again during the COVID-19 pandemic beginning in spring '20.
- Historically low mortgage rates have propelled home sales through the pandemic. Higher wage workers have been less impacted by job losses than lower wage workers who are more likely to be renters.
- Houston's housing inventory stood at 1.9 months in December '20, down from 3.2 months in December '19 and the lowest in at least 25 years. The inventory reflects the number of months it will take to deplete current housing stock based on the prior 12 months' sales activity. The market is considered balanced with inventory at six months.

METRO HOUSTON HOUSING MARKET



Source: Houston Association of Realtors®

ANNUAL CLOSINGS, SALES PRICES AND LISTINGS
\$ Millions

Year	Total Closings ¹	Median Sales Price (\$) ²	Average Active Listings
2011	63,606	153,618	48,800
2012	74,116	162,502	40,247
2013	88,080	179,737	32,101
2014	91,340	197,462	28,363
2015	89,296	211,396	31,326
2016	91,530	220,211	35,753
2017	94,816	228,199	38,406
2018	98,395	236,260	38,265
2019	103,513	243,521	41,549
2020	115,523	259,011	35,727

¹: All Property types: Single family homes, condominiums, and townhomes.

²: Average of monthly medians

Source: Houston Association of Realtors®

OFFICE MARKET

Vacancy rates in Houston’s office market translate into significant space availability at highly favorable terms.

- In Houston—the nation’s sixth-largest office market with 220.5 million square feet (msf) of net rentable area—overall vacancy at the end of the fourth quarter of ’20 stood at 22.3 percent. Vacancy in the Central Business District (CBD) was 23.2 percent, while the suburbs had a vacancy rate of 22.0 percent. Houston’s 121.1 msf of Class A space was 77.9 percent leased.
- Overall sublease space in the Houston market as of Q4/20 was over 6.4 msf. This represents 11 percent of total available space, which is considerably lower than its ’16 peak of 11.0 msf or 25 percent of total availability.
- A total of 4.1 million square feet of office space was under construction as of Q4/20.

HOUSTON OFFICE VACANCY RATES



Source: CBRE

PERCENT OF COMPLETED VACANT SPACE
Central Business District and Suburban Office Markets

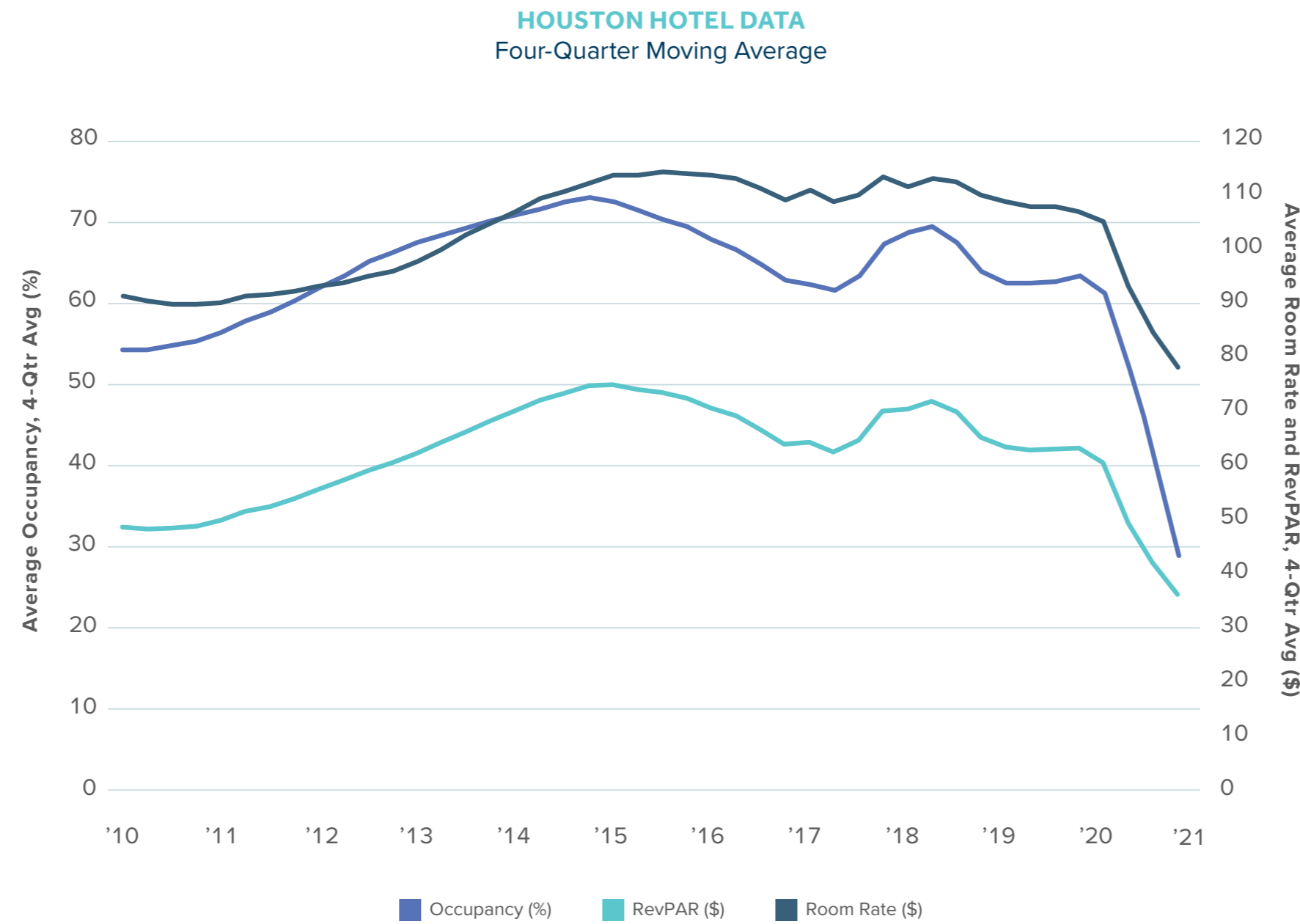
Year	Central Business District				Suburbs			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2009	9.0	9.2	9.2	9.8	13.8	15.4	17.0	17.6
2010	10.4	10.5	10.5	10.2	18.0	18.0	17.9	18.0
2011	11.6	11.1	11.1	10.7	17.2	17.0	16.9	16.2
2012	10.8	10.8	10.3	9.7	15.5	14.8	14.6	13.8
2013	8.8	11.2	11.2	9.2	13.3	13.0	12.1	12.5
2014	9.2	8.7	8.7	7.9	12.7	12.8	12.8	12.6
2015	8.8	8.9	8.9	9.1	13.6	14.6	14.3	15.4
2016	10.3	10.3	10.3	10.4	15.5	16.1	16.8	17.0
2017	13.7	14.0	14.0	14.3	17.8	18.3	18.5	18.1
2018	14.8	15.1	15.1	15.4	18.6	19.3	19.4	19.4
2019	16.9	17.3	17.3	17.2	19.6	20.0	19.8	19.3
2020	20.6	22.6	22.6	23.2	20.0	21.6	22.1	22.0

Source: CBRE

METRO HOUSTON HOTEL DATA

Occupancy rates, room rates and revenue in Houston hotels reached historic lows due to lockdowns and travel restrictions related to the COVID-19 pandemic.

- Houston's hotel occupancy, approximately 90,600 rooms across 816 properties, averaged 42.5 percent in '20, down from 62.6 in '19. The average daily room rate (ADR) during this period was \$81.38 and revenue per available room (RevPAR) averaged \$34.56 per day compared to \$104.41 and \$65.35, respectively, a year earlier.
- Houston's hotel industry experienced a sharp decline in '20 as uncertainty surrounding the spread of COVID-19 caused both business and leisure travel to drop off. In '20, with visitor activity and corporate travel all but suspended, the Houston market saw occupancy decline 32.2 percent, ADR fall 22.1 percent and RevPAR slip 47.1 percent.



RevPAR = Revenue Per Available Room (\$/day)
 Source: CBRE Hotel Horizons Houston

ANNUAL AVERAGES

Year	Occupancy (Percent)	Room Rate (\$/Day)	Revenue Per Available Room (\$/Day)
2008	67.6	104.75	70.92
2009	55.4	91.64	51.0
2010	55.0	88.24	48.57
2011	59.8	90.49	54.13
2012	65.6	93.58	61.43
2013	69.3	100.96	70.0
2014	72.0	107.08	77.05
2015	68.6	108.63	74.53
2016	62.3	104.33	65.2
2017	66.6	107.94	71.88
2018	63.2	105.18	66.63
2019	62.6	104.41	65.35
2020*	42.5	81.38	34.56

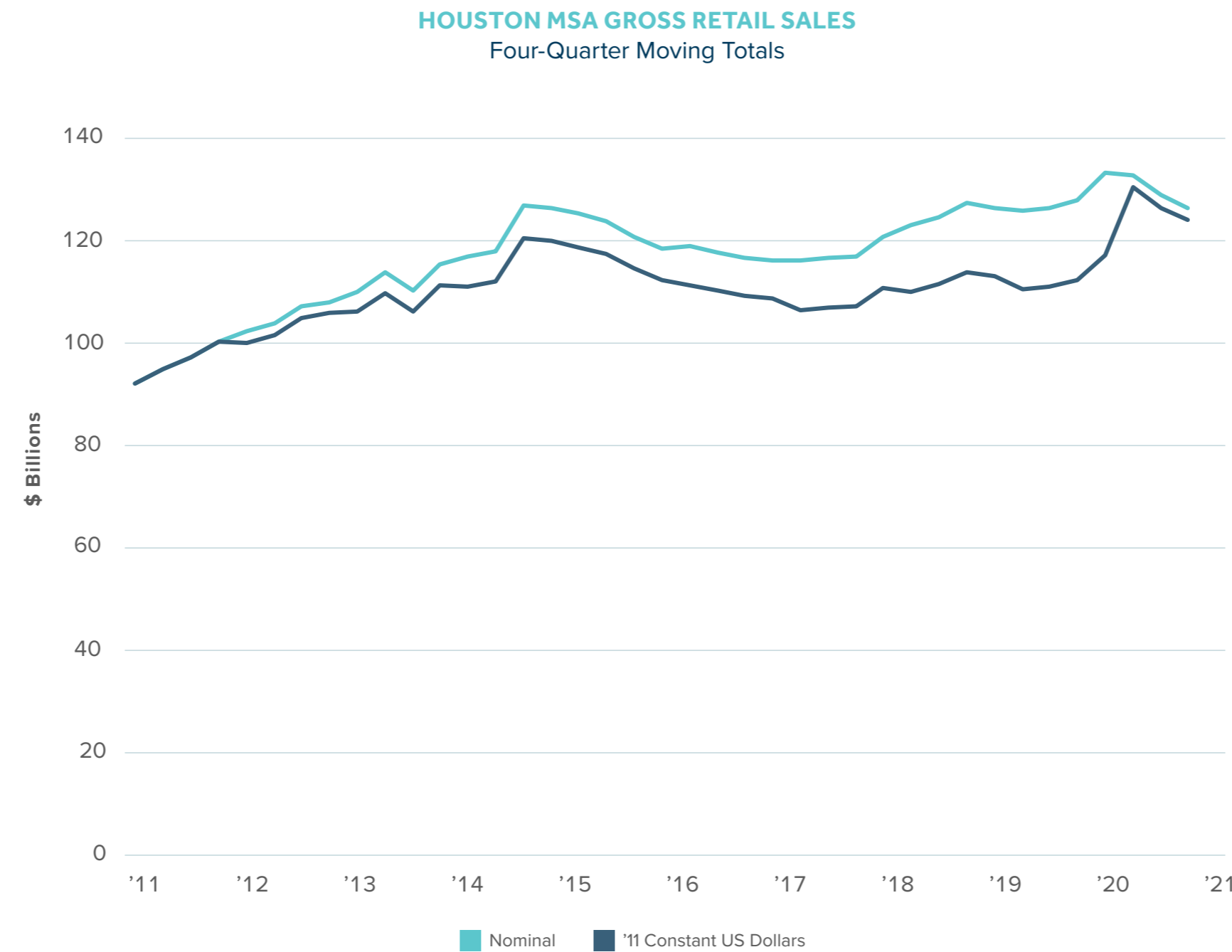
* Annual data incorporates forecasted fourth quarter estimates.

Source: CBRE Hotel Horizons Houston

RETAIL SALES

Following a 10-year peak in Q4/19, retail sales dipped in the four quarters ending Q3/20.

- The Houston Metro area’s nominal gross retail sales totaled \$126.5 billion in the four quarters ending Q3/20, slipping from a decade high of \$133.3 billion at the end of ’19. On an inflation adjusted basis, the four-quarter sum totaled \$126.2 billion in ’11 constant dollars.
- At the start of the decade, retail sales grew rapidly but stalled in Q3/14. Low oil prices led to a two-year decline that ended in Q4/16. Retail sales rose steadily in the ensuing years. Growth stalled again in early ’20 due to business closures and government restrictions in response to the coronavirus pandemic.
- By Q3/20 retail sales had recovered in three Houston area counties: Harris (\$22.1 billion), Fort Bend (\$2.4 billion) and Montgomery (\$2.3 billion). Sales in the remaining six counties— Galveston (\$1.2 billion), Brazoria (\$1.1 billion), Liberty (\$235.7 million), Waller (\$142.8 million), Chambers (\$121.5 million), and Austin (\$78.9 million)—had yet to recover.



Source: Texas Comptroller of Public Accounts

ANNUAL TOTALS
\$ Billions

Year	Nominal Sales	Constant 2011 Dollars
2011	100.712	100.712
2012	108.344	106.147
2013	115.445	111.472
2014	126.302	120.008
2015	118.477	112.44
2016	116.277	108.977
2017	120.9	110.947
2018	126.377	113.207
2019	133.316	117.298
Four quarters ending Q3/20	126.466	124.198

Source: Texas Comptroller of Public Accounts

NEW CAR, TRUCK AND SUV SALES

Trucks and SUV sales continue to garner a larger share of the new vehicle market.

- Houston-area auto dealers sold 248,034 vehicles in '20, a 15.2 percent decrease from the 292,606 sold in '19. Sales for '20 were the lowest since the Great Recession, when 240,354 vehicles were sold in '10.
- During the first half of the decade, local vehicle sales grew year over year, hitting a record in '15 with 376,481 units sold. Encouraged by low gas prices, consumers purchased trucks and SUVs in greater numbers. In '16, overall sales dipped before beginning to rise again in late '17 as the need to replace vehicles destroyed by Hurricane Harvey helped lift sales.
- Houston consumers continue to purchase more trucks and SUVs than cars. Trucks and SUVs captured 75.5 percent of the market in '20, up from 71.9 percent in '19, and 71.0 percent in '18.
- The average retail price for a new vehicle sold in December '20 was \$42,941, up 12.1 percent from \$38,312 in December '19. The average retail price for a truck or SUV was \$45,546, up 13.1 percent from \$40,288. The average price for a car rose 1.2 percent from \$33,556 in December '19 to \$33,942 in December '20.
- The drop in Houston car sales last year mirrors the overall estimated 15.0 percent decline in national sales. The COVID-19 pandemic forced many factories to close in the spring, causing a shortage of vehicles later in the year. Elevated levels of unemployment kept many potential buyers out of the market. And high car prices forced many would-be buyers into the used car market. All contributed to the decline in new car sales in '20. Analysts expect U.S. vehicle sales for '21 to be around 10.0 percent higher than they were in '20.

NEW CAR, TRUCK AND SUV SALES
Houston, MSA



Source: TexAuto Facts Report, InfoNation, Inc., Sugar Land, TX

ANNUAL TOTALS
Houston-Sugar Land-Baytown MSA*

Year	Cars	Trucks and SUVs	Total
2010	105,753	134,601	240,354
2011	107,552	147,444	254,996
2012	143,061	182,027	325,088
2013	153,210	194,649	347,859
2014	159,899	214,099	373,998
2015	150,622	225,859	376,481
2016	107,943	191,518	299,461
2017	96,251	194,103	290,354
2018	87,979	215,438	303,417
2019	82,117	210,489	292,606
2020	60,737	187,297	248,034

*Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto and Waller counties.

Source: TexAuto Facts Report, InfoNation, Inc., Sugar Land, TX

INFLATION

Houston's inflation rate reached a 10-year peak in April '11 and nadir in April '20.

- Prices as measured by the Consumer Price Index for All Urban Consumers (CPI-U) rose 1.4 percent nationwide from December '19 to December '20, according to the U.S. Bureau of Labor Statistics. Over the same period, core inflation (all items less the volatile food and energy categories) increased 1.6 percent in the U.S.
- In the Houston-The Woodlands-Sugar Land metro area, consumer prices as well as core inflation crept up 0.7 percent. The cost of shelter rose 1.3 percent since December '19. Shelter costs along with medical care (3.1 percent) and recreation (3.3 percent) were the largest contributors to core inflation in '20.
- The U.S. energy index decreased 7.0 percent from December '19 to December '20, while Houston's energy index fell 3.8 percent. Steep declines in motor fuel prices contributed to the lower local (-18.4 percent) and national (-15.3 percent) energy index. In Houston, electricity prices partially offset these declines, with a 13.4 percent rise.
- The food index increased 3.0 percent for Houston and 3.9 percent for the U.S. from December '19 to December '20. The cost of dining out in Houston grew 4.3 percent and grocery prices nudged up 1.7 percent.
- Over the past decade, inflation rose rapidly in '11 and '13 due to high food and energy costs, before falling in '15 as oil prices sank. Prices steadily grew over the next four years, then tapered off in '19. The pandemic led to the decade's most precipitous fall in Houston's consumer costs in April '20 but prices have grown since then.

INFLATION
12 Month Change



Source: U.S. Bureau of Labor Statistics, not seasonally adjusted

CONSUMER PRICE INDEX
Annual Change

Year	Houston CPI	U.S. CPI
2010	1.86	1.5
2011	3.08	2.96
2012	1.0	1.74
2013	3.62	1.5
2014	1.12	0.76
2015	0.36	0.73
2016	2.26	2.07
2017	1.75	2.11
2018	2.25	1.91
2019	0.97	2.29
2020	0.71	1.36

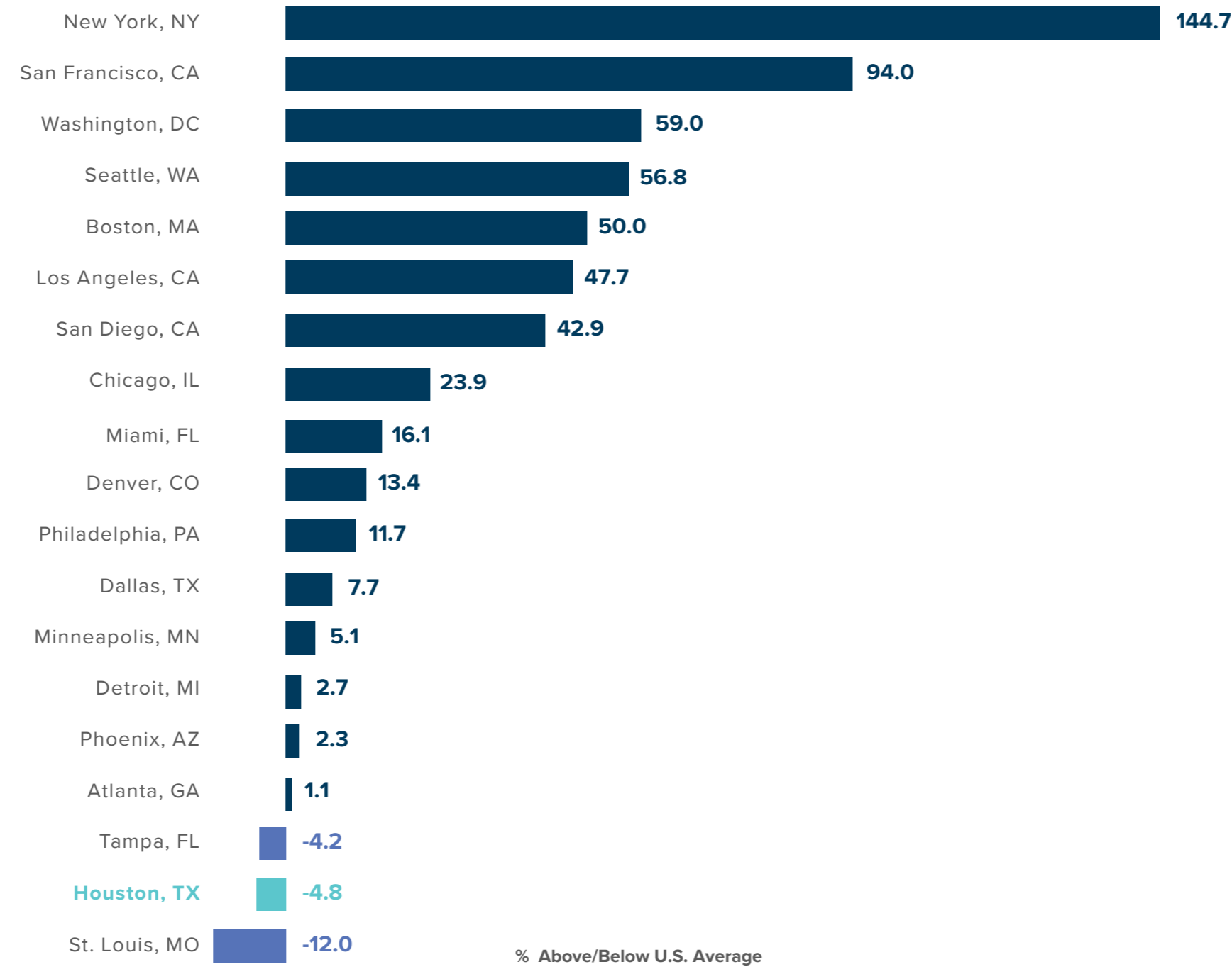
Source: U.S. Bureau of Labor Statistics, not seasonally adjusted

LIVING COST COMPARISON

Houston offers low cost of living while maintaining a high quality of life with the amenities expected in a world-class city.

- Houston has the second lowest living costs among the 20 most populous metro areas, according to the C2ER Cost of Living Index for '20. Houston's living costs are 4.8 percent below the nationwide average and 26.4 percent below the average of the nation's 20 most populous metropolitan areas.
- Only the St. Louis metro area is considered more affordable than Houston among the 20 most populous metro areas, although the Houston metro's population of 7.2 million is more than double the population of St. Louis with 2.8 million.

COST OF LIVING COMPARISON
20 Most Populous Metros*



*Riverside, California is among the 20 most populous MSAs, but did not submit COLI data.

Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2020 Annual Average (Data based on a survey of 269 urban areas, published February 2021)

COST OF LIVING COMPARISONS
20 Most Populous U.S. Metros*
(Average for 269 Urban Areas = 100)

Urban Area	Composite	Groceries	Housing	Utilities	Transportation	Health Care	Goods & Services
New York (Manhattan), NY	244.7	148.1	542.3	98.3	131.7	109.8	132.8
San Francisco, CA	194.0	130.5	357.1	137.9	148.3	124.7	125.9
Washington, DC	159.0	115.7	271.4	113.2	105.5	92.8	121.6
Seattle, WA	156.8	127.7	232.7	109.4	140.8	127.6	128.9
Los Angeles, CA	147.7	113.9	228.9	107.9	134.5	110.2	115.7
Boston, MA	150.0	113.2	224.4	122.3	108.5	120.6	127.4
San Diego, CA	142.9	114.4	212.0	125.8	136.1	108.3	110.4
Chicago, IL	123.9	107.2	163.0	92.7	113.6	98.9	113.9
Miami, FL	116.1	117.7	143.2	99.5	107.6	104.1	102.1
Denver, CO	113.4	95.0	138.5	79.8	113.1	100.2	111.5
Philadelphia, PA	111.7	119.9	116.8	111.3	113.5	100.4	105.6
Dallas, TX	107.7	99.9	115.9	108.0	93.2	113.8	107.1
Phoenix, AZ	102.3	98.7	111.4	106.6	106.0	89.8	96.1
Minneapolis, MN	105.1	102.6	103.1	97.3	100.5	102.2	111.2
Atlanta, GA	101.1	105.0	102.8	84.7	102.0	102.0	102.3
Detroit, MI	102.7	99.6	98.8	96.4	106.9	95.6	108.7
Tampa, FL	95.8	104.1	85.7	101.1	100.1	97.8	97.7
Houston, TX	95.2	92.0	85.3	111.4	95.3	98.4	99.5
St. Louis, MO	88.0	101.5	71.3	96.5	89.4	89.1	93.0

*Riverside, California, is among the 20 most populous MSAs, but did not submit COLI data.

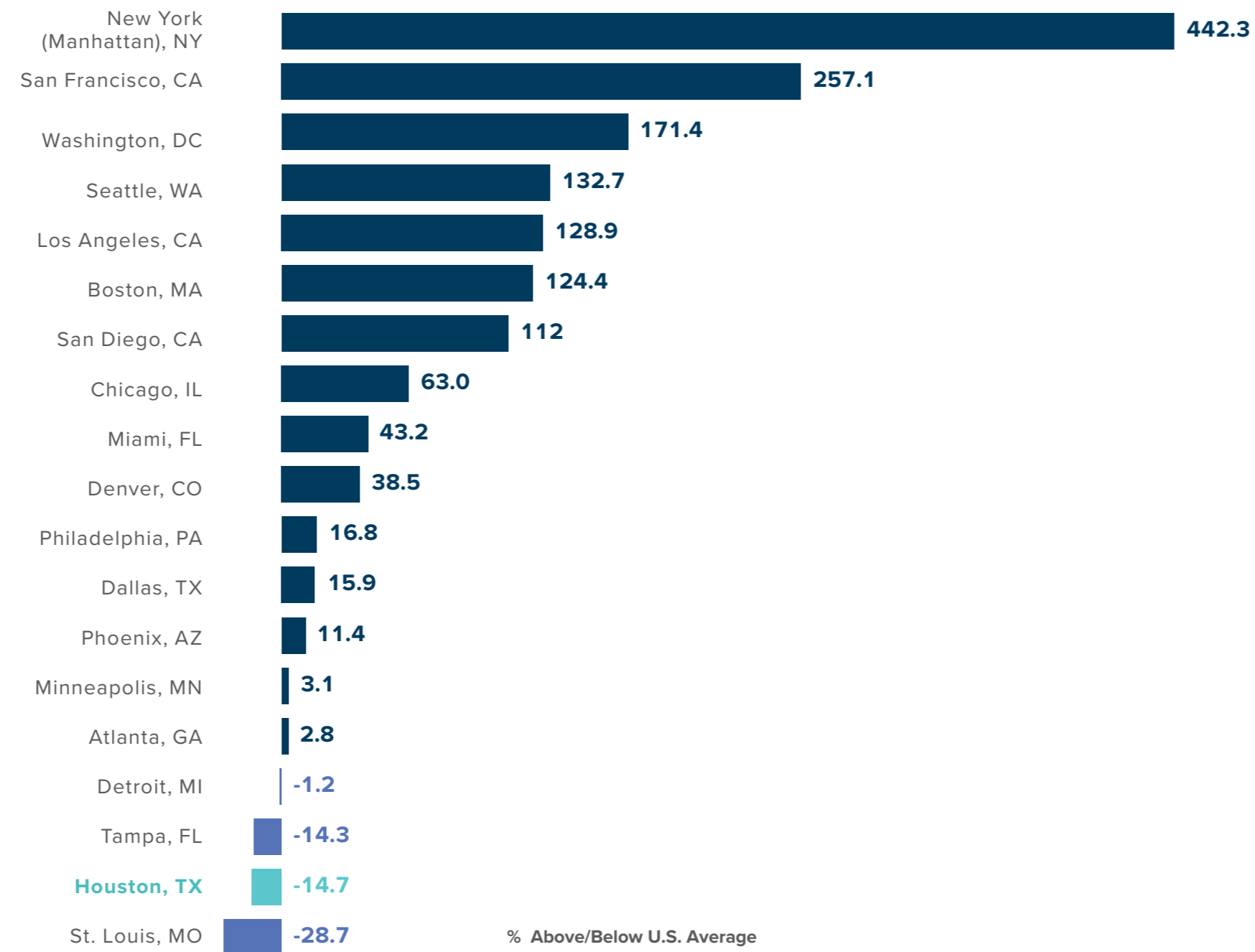
Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2020 Annual Average (Data based on a survey of 269 urban areas, published February 2021).

HOUSING COST COMPARISON

Houston's housing costs are among the lowest of the major U.S. metro areas.

- At 14.7 percent below the national average, Houston's housing costs are the second most affordable among the 20 most populous U.S. metros, according to the C2ER Cost of Living Index for '20. Furthermore, housing costs in Houston are 52.4 percent below the average of the 20 most populous U.S. metros. Lower housing costs are one of the reasons Houston's overall living costs are 26.4 percent below the large-metro average. (This housing index is based 71.0 percent on homeownership and 29.0 percent on rental occupancy).
- Excluding the two most expensive housing markets—New York and San Francisco—which tend to skew the average, Houston's housing costs are still 42.1 percent below the major metro average.

HOUSING COST COMPARISON
20 Most Populous U.S. Metros*



*Riverside, California is among the 20 most populous metros, but did not submit COLI data.

Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2020 Annual Average (Data based on a survey of 269 urban areas, published February 2021)

HOUSING COST COMPARISON – 2020 ANNUAL AVERAGE
20 Most Populous U.S. Metros* (Average for 269 Urban Areas = 100)

Urban Area	Housing Cost Index**	Percent Above or Below the Nationwide Average	Average Price for New 2,400-Square-Foot House (\$) ***
New York (Manhattan), NY	542.3	442.3	\$2,227,806
San Francisco, CA	357.1	257.1	\$1,362,163
Washington, DC	271.4	171.4	\$1,020,885
Seattle, WA	232.7	132.7	\$854,748
Los Angeles, CA	228.9	128.9	\$841,834
Boston, MA	224.4	124.4	\$744,522
San Diego, CA	212.0	112.0	\$797,634
Chicago, IL	163.0	63.0	\$537,912
Miami, FL	143.2	43.2	\$447,771
Denver, CO	138.5	38.5	\$530,852
Philadelphia, PA	116.8	16.8	\$426,075
Dallas, TX	115.9	15.9	\$371,745
Phoenix, AZ	111.4	11.4	\$362,970
Minneapolis, MN	103.1	3.1	\$386,294
Atlanta, GA	102.8	2.8	\$380,418
Detroit, MI	98.8	-1.2	\$351,019
Tampa, FL	85.7	-14.3	\$278,508
Houston, TX	85.3	-14.7	\$297,296
St. Louis, MO	71.3	-28.7	\$262,641

* Riverside, California is one of the 20 most populous areas, but did not submit COLI data.

** Index is based 71.0 percent on homeownership costs and 29.0 percent on apartment rent.

*** Approximately 2,400 square foot home with 4 bedrooms, 2 baths, family-room (or equivalent), 2-car garage and 8,000 square foot lot. Neighborhoods are typical for corporate middle-management transferees.

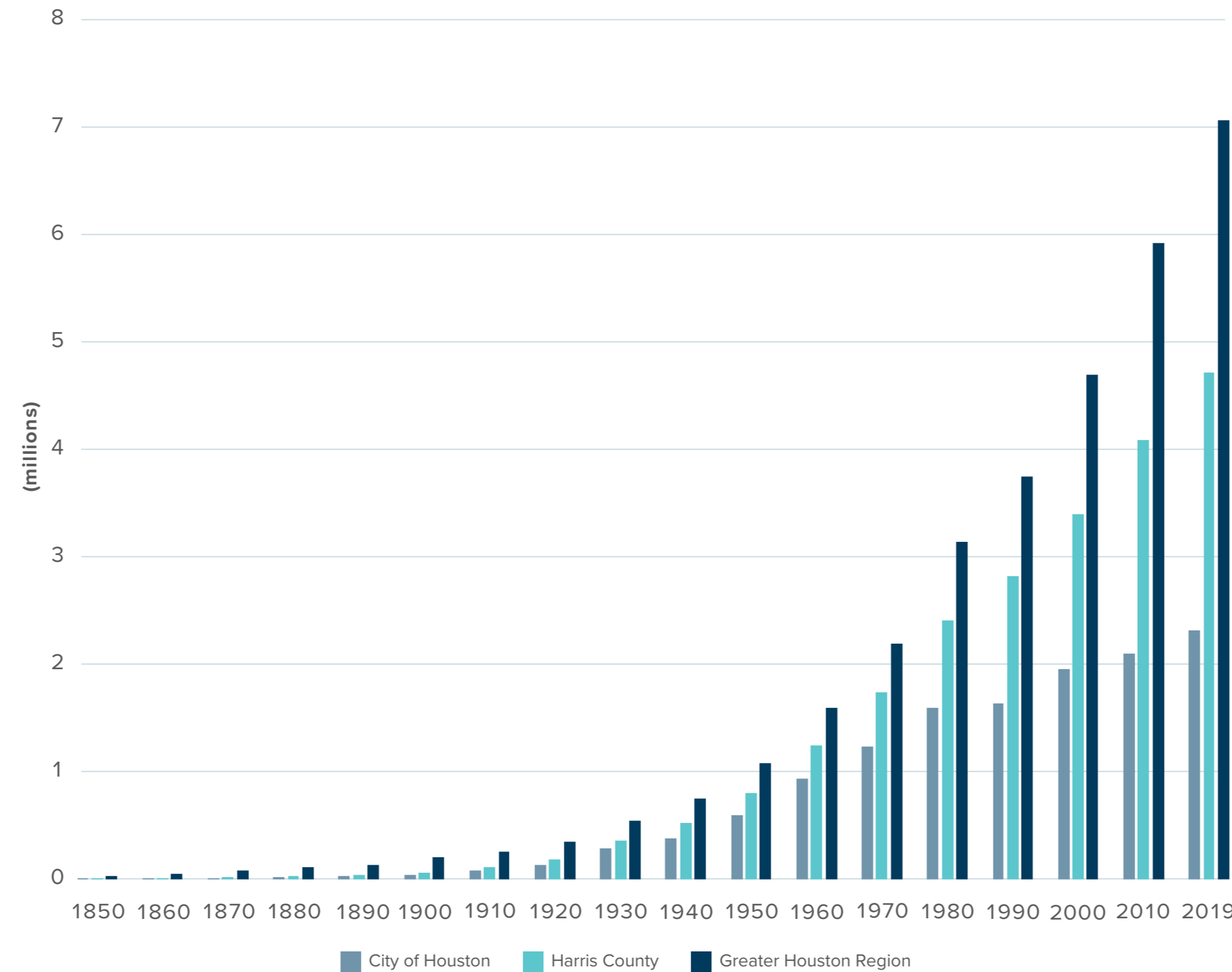
Source: Council for Community and Economic Research (C2ER), Cost of Living Index 2020 Annual Average (Data based on a survey of 269 urban areas, published February 2021)

HOUSTON REGION POPULATION

Houston has a long history of robust population growth.

- From the first census in Texas in 1850 through the 2019 intercensal estimates, the Greater Houston area has averaged a compound annual growth rate of 3.3 percent.
- The Houston-The Woodlands-Sugar Land MSA is the nation's fifth most populous metropolitan area. As Houston's population has grown, the region has climbed in the rankings. In 1970, Houston was the nation's 14th most populous metro, 10th in 1990, eighth in '00, sixth in '10 and fifth in '19.
- Between '10 and '19 (the period for which the Bureau of the Census released its most recent population estimates), metro Houston added 1,145,654 residents, the second largest gain of any U.S. metro over that period. Nearly half of this growth (47.1 percent) came from the natural increase (births minus deaths) and 52.6 percent came from net in-migration (more residents moving in than out).
- Since '10, more than 600,000 people moved to the Houston region. More than half of this population (55.4 percent) came from abroad and 44.6 percent came from within the U.S.

HOUSTON REGION POPULATION



Source: U.S. Census Bureau, Decennial and 2019 Population Estimates; Texas Almanac

POPULATION TOTALS

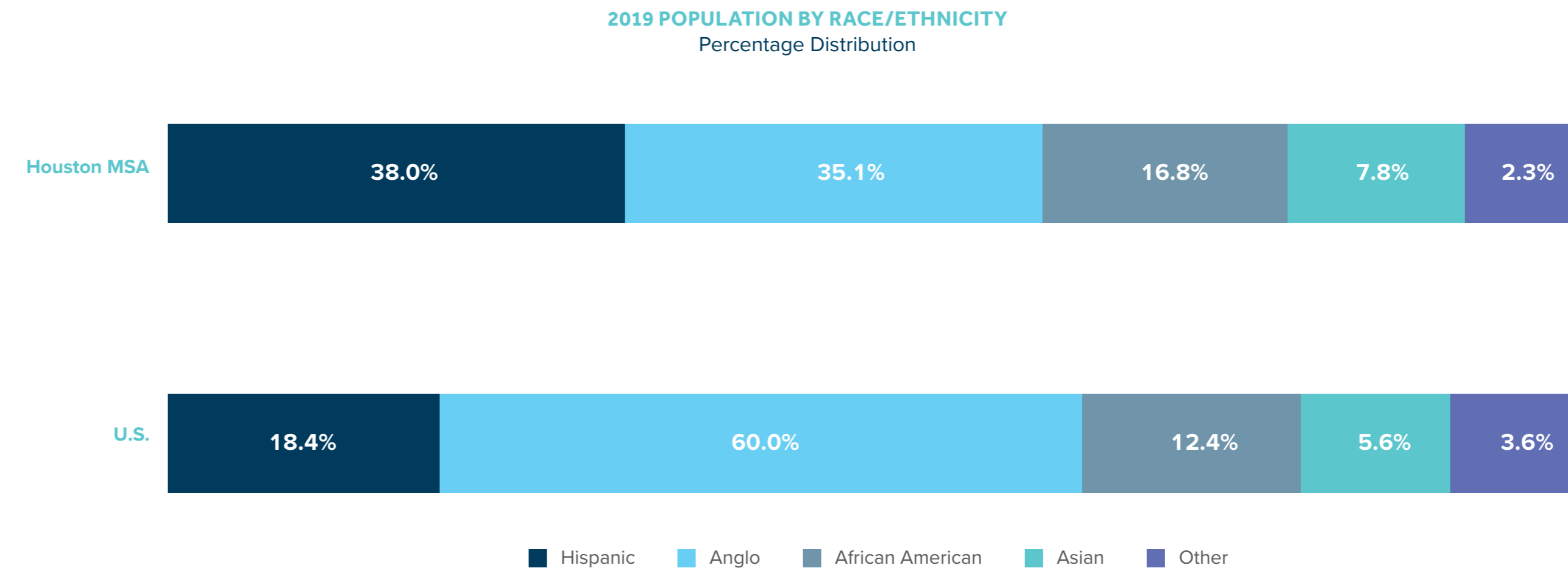
Census Year	Metro Houston	Harris County	City of Houston
1850	27,984	4,668	2,396
1860	55,317	9,070	4,845
1870	80,866	17,375	9,382
1880	112,053	27,985	16,513
1890	137,800	37,249	27,557
1900	202,438	63,786	44,633
1910	252,066	115,693	78,800
1920	348,661	186,667	138,276
1930	545,547	359,328	292,352
1940	752,937	528,961	384,514
1950	1,083,100	806,701	596,163
1960	1,594,894	1,243,158	938,219
1970	2,195,146	1,741,912	1,232,802
1980	3,135,806	2,409,544	1,594,086
1990	3,750,411	2,818,199	1,637,859
2000	4,693,161	3,400,578	1,953,631
2010	5,920,416	4,092,459	2,099,451
2011	6,056,008	4,179,279	2,123,298
2012	6,183,119	4,262,549	2,158,700
2013	6,327,622	4,352,419	2,196,367
2014	6,499,375	4,454,951	2,238,653
2015	6,670,803	4,556,559	2,283,616
2016	6,806,315	4,622,836	2,306,360
2017	6,898,912	4,655,798	2,313,079
2018	6,974,948	4,676,913	2,314,478
2019	7,063,400	4,709,243	2,315,720
2020	7,154,478	4,738,253	2,316,120

Source: U.S. Census Bureau, Decennial and 2019 Population Estimates; Texas Almanac

RACE / ETHNICITY

Houston is more racially and ethnically diverse than the nation as a whole.

- The U.S. Census Bureau's 2019 American Community Survey showed that no racial or ethnic group constitutes a majority of the Houston-The Woodlands-Sugar Land Metro Statistical Area (MSA) population.
- The Houston MSA is home to the nation's fourth-largest Hispanic population. In '18, Houston's Hispanic population of 2.7 million overtook the Houston's Anglo population to become the region's largest ethnic group.
- The Houston MSA contains the nation's ninth-largest Asian population (550,675)—larger than the total population of the Corpus Christi, Brownsville or Beaumont MSAs.
- The Houston MSA ranks as the nation's eighth largest Black population (1,190,236) and the nation's 12th largest Anglo population (2,481,188).



Source: U.S. Census Bureau, 2019 American Community Survey

AGE DISTRIBUTION

Houston's median age of 34.9 is the lowest of the nation's major metro areas.

AGE DISTRIBUTION FOR 20 MOST POPULOUS U.S. MSAs
(Age groups as a percentage of total population)

Metro Area	Median Age	0-14 Years	15-24 Years	25-34 Years	35-54 Years	55-64 Years	65 and Over
Houston, TX	34.9	22.0	13.3	14.9	27.0	11.2	11.6
Riverside, CA	35.1	21.0	14.2	14.7	25.1	11.5	13.4
Dallas, TX	35.2	21.4	13.6	14.9	27.3	11.5	11.6
San Diego, CA	36.4	18.0	13.5	16.4	25.7	11.8	14.5
Atlanta, GA	36.8	20.0	13.3	14.3	27.8	12.0	12.6
Denver, CO	36.7	18.2	11.8	17.1	27.7	11.8	13.3
Phoenix, AZ	37.2	19.4	13.1	14.5	25.3	11.7	16.0
Seattle, WA	37.1	17.9	11.5	17.1	27.5	12.2	13.7
Los Angeles, CA	37.4	17.8	12.9	15.9	26.8	12.3	14.4
Washington, DC	37.4	19.2	12.2	14.8	27.9	12.4	13.5
Minneapolis, MN	37.4	19.5	12.3	14.6	26.1	13.1	14.4
Chicago, IL	38.0	18.6	12.9	14.4	26.2	12.9	15.0
U.S. Average	38.5	18.4	13.0	26.7	25.2	12.9	16.4
Boston, MA	38.8	16.1	13.5	15.2	25.6	13.4	16.1
Philadelphia, PA	38.9	17.8	12.5	14.3	25.3	13.6	16.3
New York, NY	39.1	17.7	12.0	14.8	26.2	13.0	16.2
San Francisco, CA	39.2	16.2	11.0	16.2	28.1	12.7	15.9
St. Louis, MO	39.7	18.1	12.0	13.6	25.1	14.2	17.1
Detroit, MI	39.9	18.0	12.1	13.7	25.3	14.0	16.8
Miami, FL	41.6	16.8	11.3	13.3	26.8	13.1	18.7
Tampa, FL	42.2	16.3	11.1	13.2	25.5	13.7	20.1

Note: Sums may not total due to rounding.

Source: U.S. Census Bureau, 2019 American Community Survey

FOREIGN-BORN POPULATION

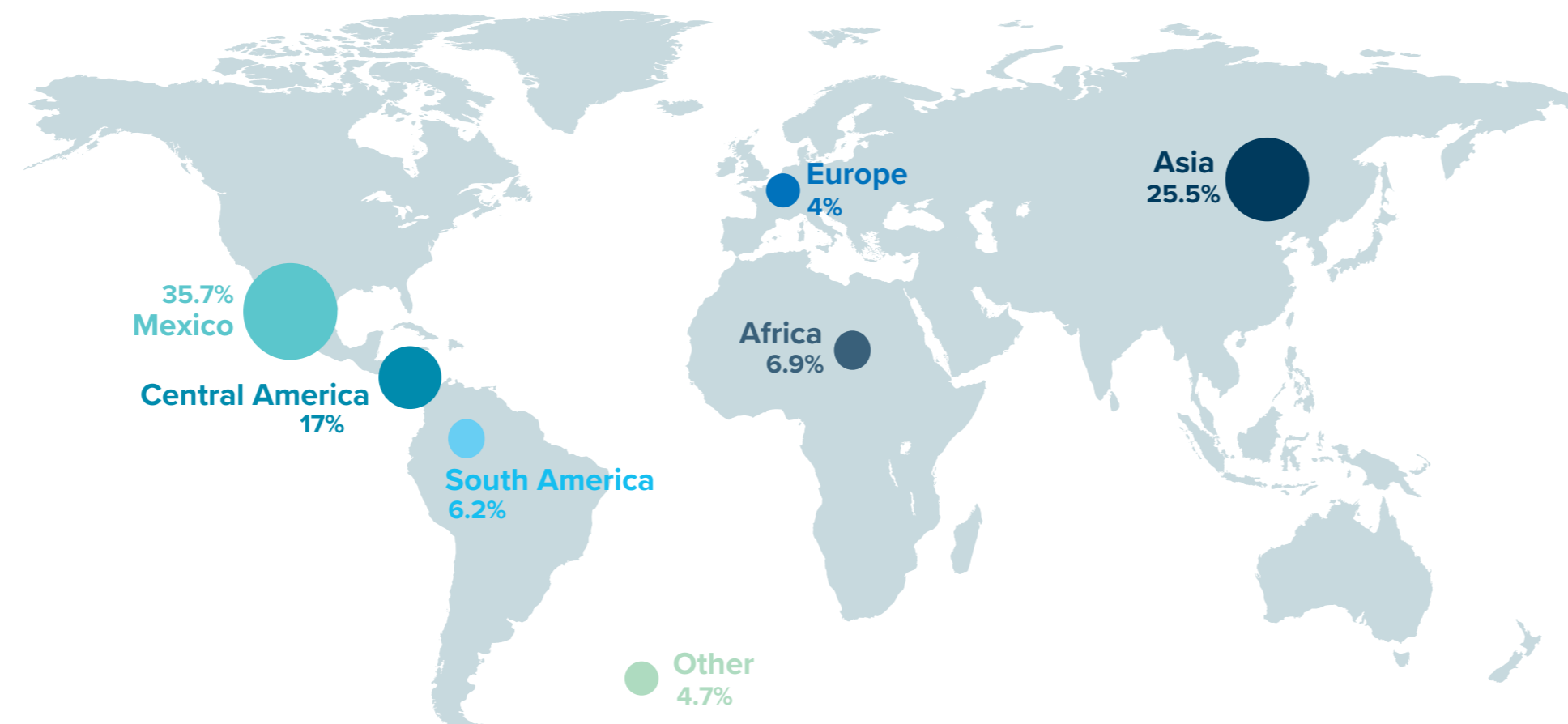
Nearly one in four Houstonians was born outside the U.S.

- In '19, the Houston-The Woodlands-Sugar Land Metro Statistical Area (MSA) contained an estimated 1.7 million foreign-born residents, according to the U.S. Census Bureau.
- Mexico accounts for one third of Houston's foreign-born residents (591,302).
- Among the Central American countries, El Salvador (135,071) had the largest population in Houston, followed by Honduras (89,237) and Guatemala (40,529).
- Nearly one-fourth of Houston's foreign-born residents came from Asia (421,952). Asian nations with the largest populations in Houston include Vietnam (96,184), India (89,876), China (67,571), Philippines (43,778) and Pakistan (27,904).

Houston is a magnet for international migration.

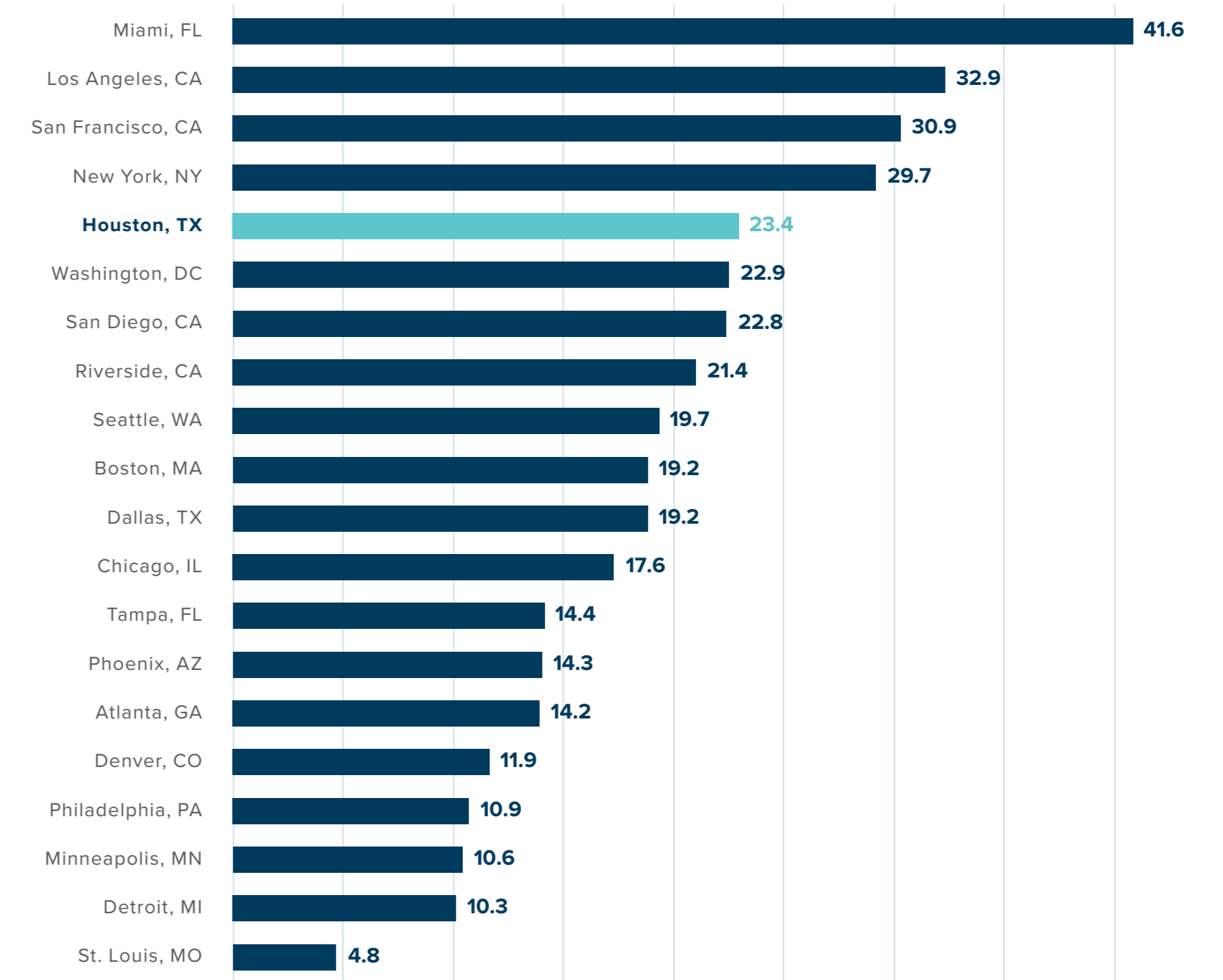
- Over the past decade, the foreign-born population in metro Houston increased by almost one-third, from 1.2 million in '08 to 1.7 million in '19.
- Among the 1.7 million foreign-born in the Houston metro area, 71.8 percent entered the U.S. before '10.
- In '19, nearly one in four Houstonians was foreign-born, compared to less than nearly one in nine nationwide.
- Only four of the nation's 20 most populous metropolitan areas—New York, Los Angeles, San Francisco and Miami—have more foreign-born residents than Houston.

PLACE OF ORIGIN, FOREIGN-BORN RESIDENTS
PERCENT OF FOREIGN-BORN POPULATION
Metro Houston, 2019



Source: U.S. Census Bureau, 2019 American Community Survey

PERCENT OF METRO POPULATION FOREIGN-BORN
20 Most Populous Metro Areas



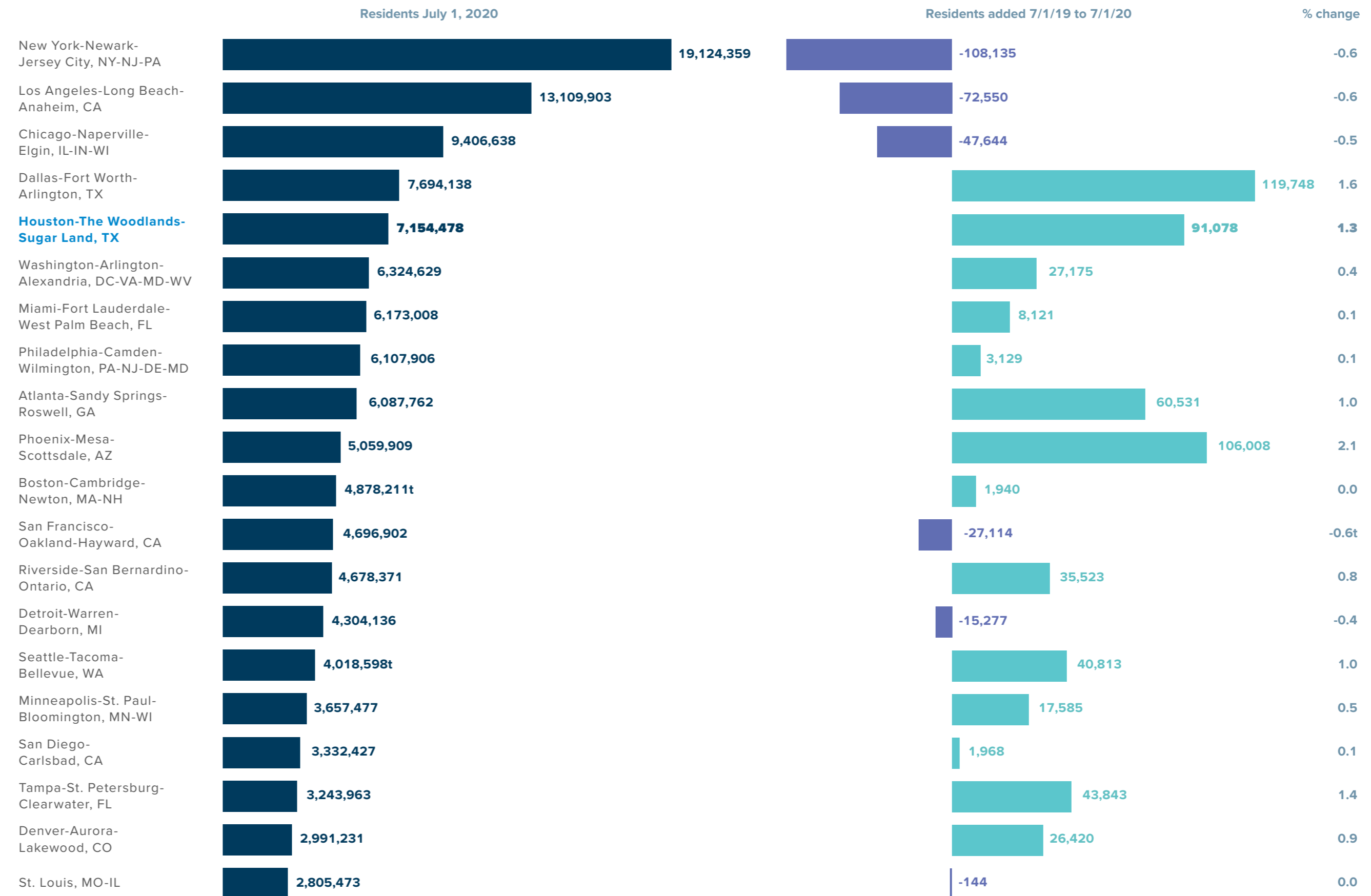
Source: U.S. Census Bureau, 2019 American Community Survey

MOST POPULOUS METROPOLITAN AREAS

Houston is the fifth most populous metro in the U.S.

- Between July 1, 2019 and July 1, 2020 (the period for which the U.S. Census Bureau released its most recent population estimates), the Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA) ranked third in population growth among metros.

POPULATION ESTIMATES U.S. Metros



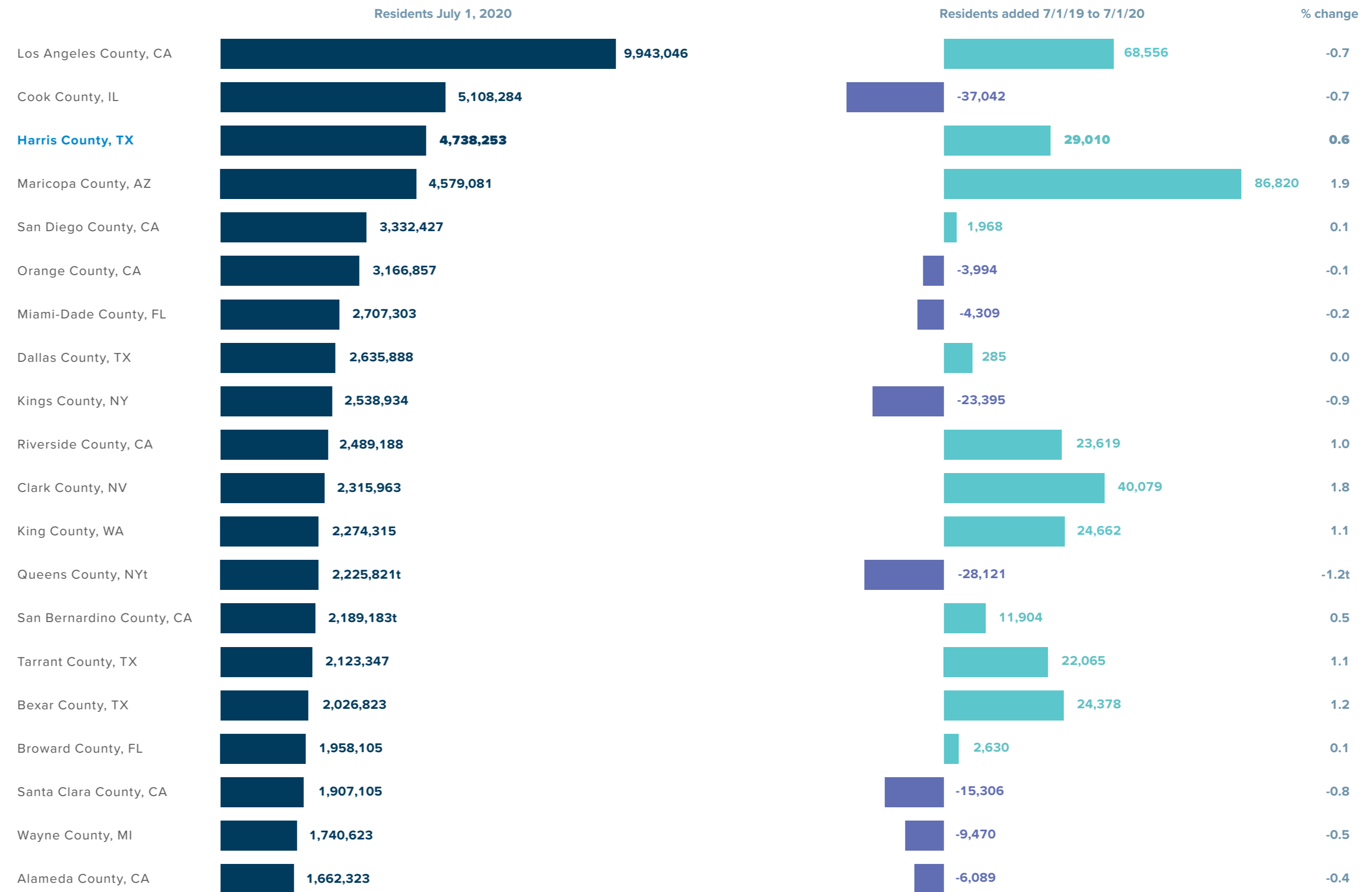
Source: U.S. Census Bureau, 2019 Population Estimates

MOST POPULOUS COUNTIES

Harris County is the third most populous county in the U.S.

- Between July 1, 2019 and July 1, 2020 (the period for which the U.S. Census Bureau released its most recent population estimates), Harris County ranked third in population growth among U.S. counties.

POPULATION ESTIMATES U.S. Counties

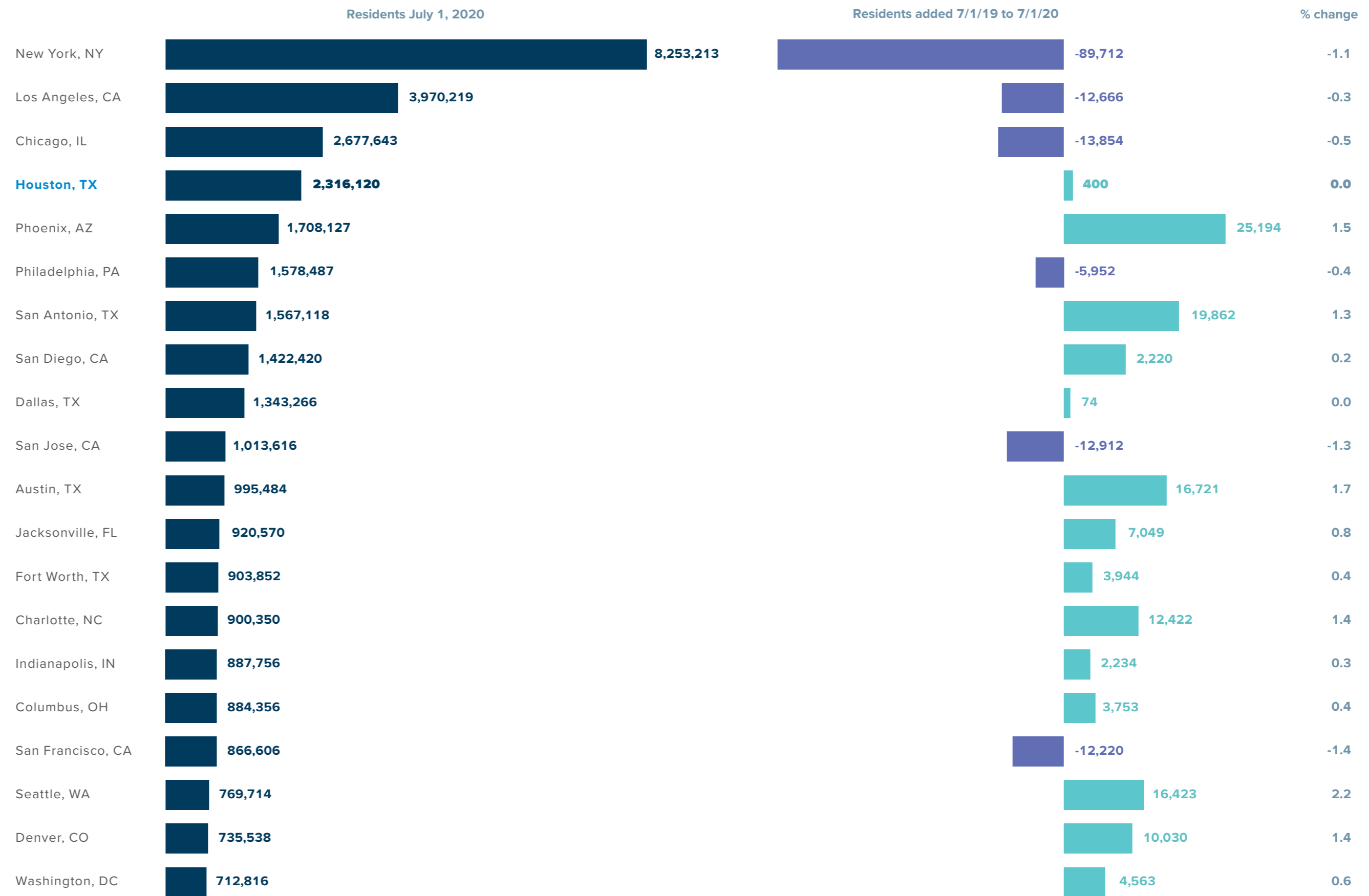


Source: U.S. Census Bureau, 2019 Population Estimates

MOST POPULOUS CITIES

Houston is the fourth most populous city in the U.S.

POPULATION ESTIMATES U.S. Cities



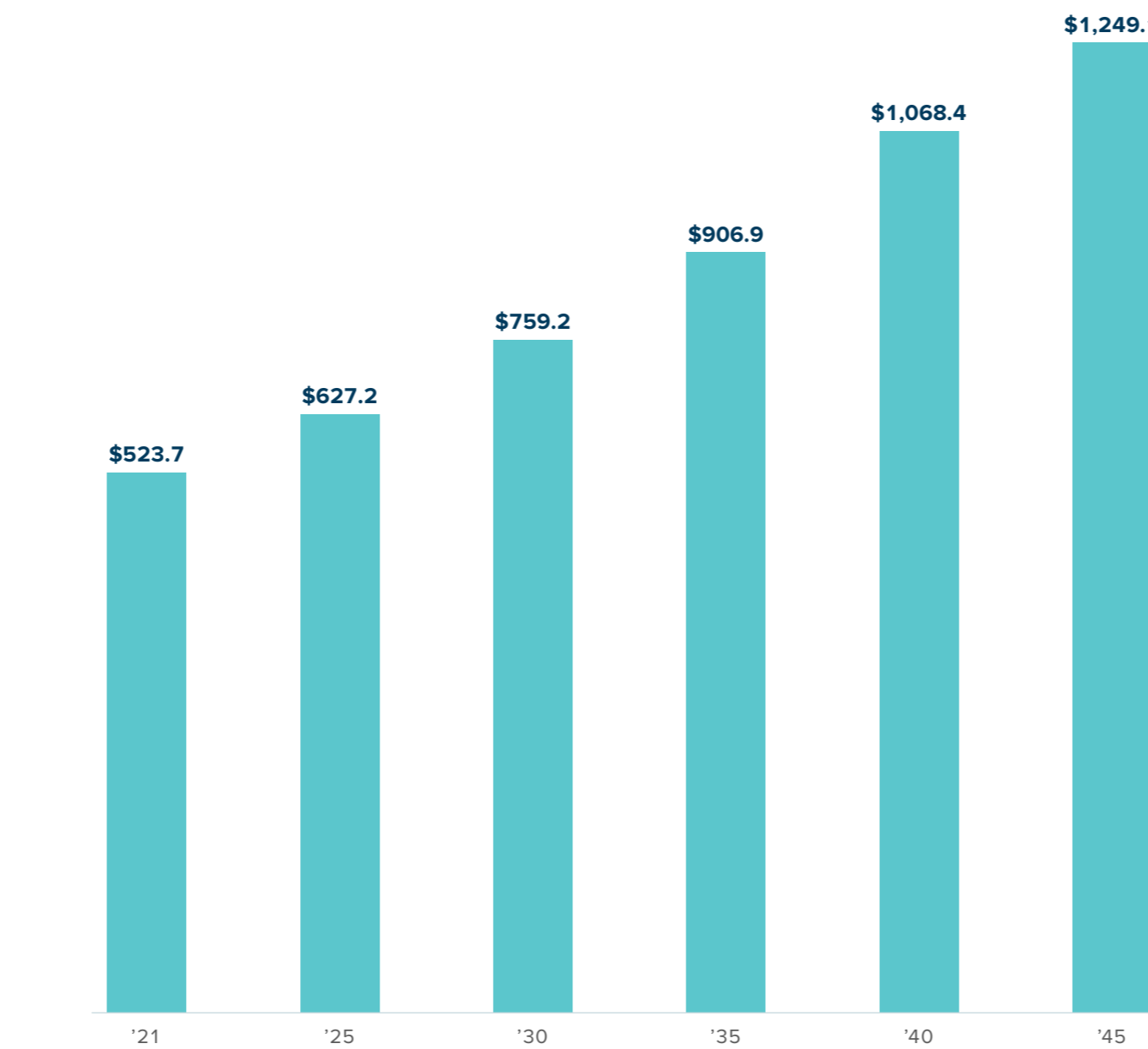
Source: U.S. Census Bureau, 2019 Population Estimates

GROSS AREA PRODUCT FORECAST

The Perryman Group forecasts sustained economic growth for metro Houston over the next quarter century.

- Real (i.e., net of inflation) Gross Area Product (GAP) in the Houston region is expected to grow at an average annual rate of 3.9 percent from '21 to '45 in The Perryman Group's forecast.
- The Houston MSA's real GAP is projected to more than double between '21 and '45. In nominal terms (i.e., not adjusted for inflation), Houston's nominal GAP is forecasted to reach one trillion U.S. dollars in '31.
- Among the highest rates of compound annual growth in real gross area product from '21 to '45 are manufacturing (4.2 percent), accommodation and food services (3.7 percent), health care and social assistance (3.7 percent), and professional and business services (3.7 percent).

**REAL GROSS AREA PRODUCT
HOUSTON-THE WOODLANDS-SUGAR LAND MSA**
\$ Billions*



Source: The Perryman Group
**'12 constant dollars

ESTIMATES AND FORECASTS

Year	Real Gross Area Product \$ Billions, Constant '12 Dollars	Compound Annual Growth Rate Percent, 5 Years Ending
2021	523.674	1.1
2025	627.194	4.7
2030	759.216	3.9
2035	906.896	3.6
2040	10,684.11	3.3
2045	1,249.07	3.2

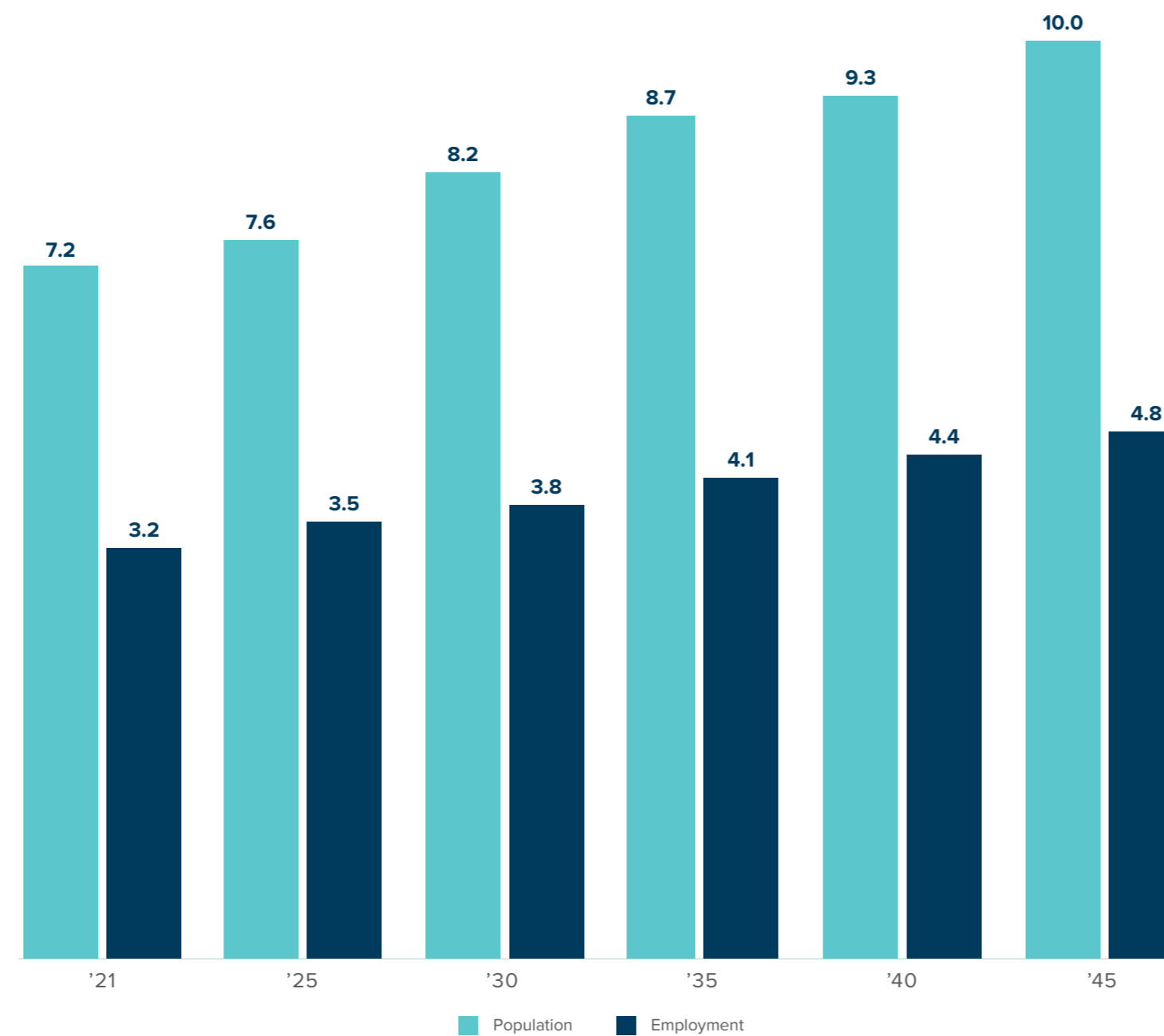
Source: The Perryman Group; growth rate calculations by the Greater Houston Partnership

POPULATION AND EMPLOYMENT FORECAST

The Perryman Group forecasts Houston’s population to reach 10.0 million and payroll employment to grow to 4.8 million by '45.

- From '21 to '45, The Perryman Group sees population growth averaging 1.4 percent annually in the Houston region. Over the same period, the Texas-based economic forecasting firm expects wage and salary employment to rise at a higher rate of 1.8 percent annually.
- The Houston–The Woodlands–Sugar Land Metro Area will add 2.8 million residents between '21 and '45. Perryman also forecasts that Houston will add an additional 1.6 million payroll jobs and account for one-fourth of Texas job growth during that time frame.

**POPULATION AND EMPLOYMENT
HOUSTON-THE WOODLANDS-SUGAR LAND MSA**
\$ Millions



Source: The Perryman Group

ESTIMATES AND FORECASTS
\$ Millions

Year	Population	Payroll Employment
2021	7.242	3.213
2025	7.66	3.523
2030	8.206	3.859
2035	8.779	4.185
2040	9.381	4.491
2045	10.01	4.802

Source: The Perryman Group

TOP METRO AREAS BY GROSS DOMESTIC PRODUCT

Houston has the seventh largest metro GDP in the nation.

- The U.S. Bureau of Economic Analysis (BEA) estimated Houston's gross domestic product (GDP) at \$512.2 billion in '19, ranking it as the nation's seventh largest metro economy.
- Metro Houston's GDP rose 2.9 percent from \$498.0 billion in '18 to \$512.2 billion in '19, a 10-year peak and the first time this decade that Houston's GDP exceeded \$500 billion.
- The Houston region has a gross domestic product greater than 37 states and accounts for 27.8 percent of Texas' GDP.
- If Houston were an independent nation, the region would have the 27th largest economy in the world, placing it behind Belgium (\$529.7 billion) and ahead of Nigeria (\$448.1 billion).



Source: U.S. Bureau of Economic Analysis, 2019 GDP by Metropolitan Area, current dollars



GREATER HOUSTON
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