

# HOUSTON FACTS 2021

GREATER  
HOUSTON  
PARTNERSHIP



**Your Guide to  
Data on the  
Houston Region**

Demographics

Economy

Education

Government

Industries

Infrastructure

Quality of Life

# HOUSTON FACTS

## 2021

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Houston Facts 2021 was compiled by the research team of the Greater Houston Partnership, including

**ELIZABETH BALDERRAMA**

**HEATH DURAN**

**ANNAISSA FLORES**

**PATRICK JANKOWSKI**

**ROEL GABE MARTINEZ**

**JOSH PHERIGO**

This publication was designed by

**SUZANNE MORGAN**

**AARON GRIFFIN**

and **MARC KEOSAYIAN**



## ABOUT THE GREATER HOUSTON PARTNERSHIP

The mission of the Greater Houston Partnership is to make Houston one of the world's best places to live, work and build a business. The Partnership works to make Houston greater by promoting economic development, foreign trade and investment, and by advocating for efficient and effective government that supports, rather than impedes, business growth. The Partnership also convenes key stakeholders to solve the region's most pressing issues.

The Partnership was formed in 1989 in a merger of the Greater Houston Chamber of Commerce, the Houston Economic Development Council and the Houston World Trade Association. Today, the Partnership serves the 12-county greater Houston region and represents a member roster of 900 businesses and institutions. Members of the Partnership account for one-fifth of all jobs in Houston. They engage in various initiatives, committees and task forces to work toward our goal of making Houston greater.

### GREATER HOUSTON PARTNERSHIP

**701 AVENIDA DE LAS AMERICAS, SUITE 900**

**HOUSTON, TX 77010**

**713-844-3600**

**HOUSTON.ORG**

**This issue of Houston Facts is dedicated to the memory of Skip Kasdorf, who passed away in 2020. Kasdorf edited Houston Facts from 1975 until he retired in 2010.**

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# THE HOUSTON REGION

## THE FACTS SPEAK FOR THEMSELVES

Houston Facts. The title says much about this publication. No spin. No frills. No hyperbole. Just page after page of straightforward information from hundreds of sources to answer questions frequently asked about the Houston region.

Houston Facts has presented unvarnished information about the Houston region since 1959, and its predecessor publications—under different names, but with the same objective—date to 1906. Over the decades, Houston Facts has grown well beyond its original four pages so that we could expand the range and depth of coverage, bringing you more information about parks, museums, schools, living costs, the regional economy and a host of other topics. It has evolved into a concise almanac for the Houston region. Corporate planners, market analysts, students, relocation and site selection consultants, real estate professionals, government agencies and myriad others turn to it for authoritative information on this region.

Of course, we believe the Houston region is one of the nation's most attractive major metropolitan areas—an outstanding place to live, work and build a business. We would like you to share that view. But we won't try to persuade you. The facts need no embellishment. They speak for themselves.

You may find in these pages facts that you never knew about the Houston region. For example:

- More than 1.6 million Houstonians, or roughly one in four, were born outside the U.S.
- If Houston were a country, it would rank as the 27th largest economy in the world—exceeding Austria's and Nigeria's Gross Domestic Product.
- Metro Houston has the third largest number of Fortune 500 companies in the nation.
- Houston is home to 9,290 tech-related firms, including more than 700 venture-backed startups. These companies have received \$2.7 billion in venture capital funding over the last five years.



# GEOGRAPHY

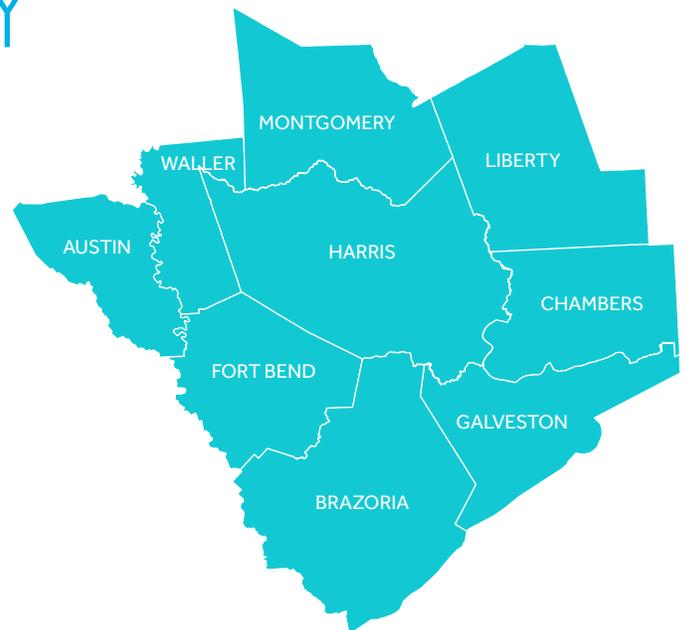
The Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA) contains nine Texas counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller.<sup>1</sup> Within these nine counties are 124 incorporated cities and 33 Census Designated Places (CDP).<sup>2</sup>

The county seat or administrative center of Harris County is the City of Houston. Harris County contains the bulk of the city in addition to all or part of 33 incorporated cities and 12 CDPs. Small portions of Houston spread into adjacent Montgomery and Fort Bend counties.

<sup>1</sup> The longer title is shortened to “Houston MSA,” “metro Houston,” “Greater Houston,” “Houston area” or simply “Houston” in Houston Facts. MSAs are geographic delineations defined by the Office of Management and Budget (OMB) for use by federal statistical agencies in collecting, tabulating and publishing data.

<sup>2</sup> A Census Designated Place functions like a city or town but is not incorporated.

<sup>3</sup> Combined land and water area.



**9,444**  
square miles<sup>3</sup>

HOUSTON  
MSA

**1,778**  
square miles

HARRIS  
COUNTY

**655**  
square miles

HOUSTON



# REGION IN PERSPECTIVE

## Population

The nine-county **Houston MSA** had a population of 7,154,478 residents as of July 1, 2020, according to 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 2,316,120 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).

## Area

The nine-county **Houston-The Woodlands-Sugar Land Metropolitan Statistical Area (MSA)** covers 9,444 square miles. If the MSA were a state, it would rank as the 45th largest, ahead of 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 in area than the cities of Chicago, Dallas, Los Angeles, New York, Phoenix and San Diego.

## Economy

The U.S. Bureau of Economic Analysis estimates the Houston MSA's Gross Domestic Product (GDP) at \$512.2 billion in '19, making it the seventh largest U.S. metro economy.

If Houston were a state, its GDP would rank 15th, 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) and Austria (\$446.3), according to the International Monetary Fund.

### 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 City of Houston issued building permits for construction valued at \$6.5 billion, an average of \$12,367 per minute.

# DEMOGRAPHICS

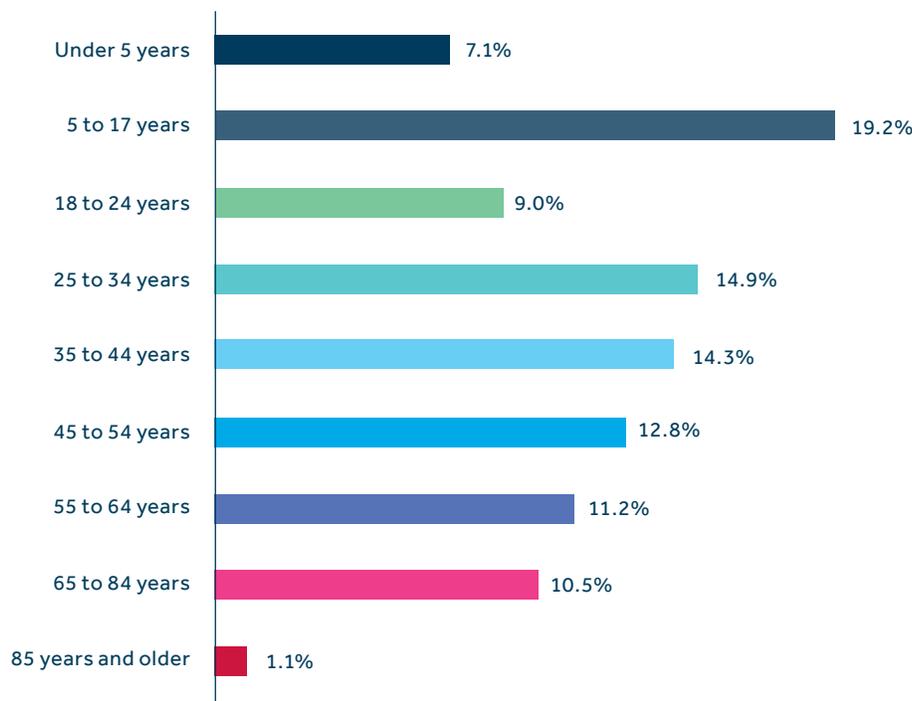
## Population and People

The Houston-The Woodlands-Sugar Land MSA's population of 7,154,478 residents on July 1, 2020 ranks fifth among the nation's metropolitan areas. The Houston MSA had the third largest numeric increase (91,078) in population of any U.S. metro from July 1, 2019 to July 1, 2020, reflecting 1.3 percent growth.

Harris County, population of 4,738,253 on July 1, 2020, is the third most populous county in the nation. Among all U.S. counties, Harris County had the fifth highest numeric population increase between July 1, 2019 and July 1, 2020, gaining 29,010 new residents.

The City of Houston, the fourth most populous U.S. city, had a population of 2,316,420 on July 1, 2020. Houston added 400 residents from July 1, 2019 to July 1, 2020.

## AGE DISTRIBUTION Houston MSA, 2019



Note: Sums may not total due to rounding.

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

## SELECTED DEMOGRAPHIC CHARACTERISTICS Metro Houston, 2019

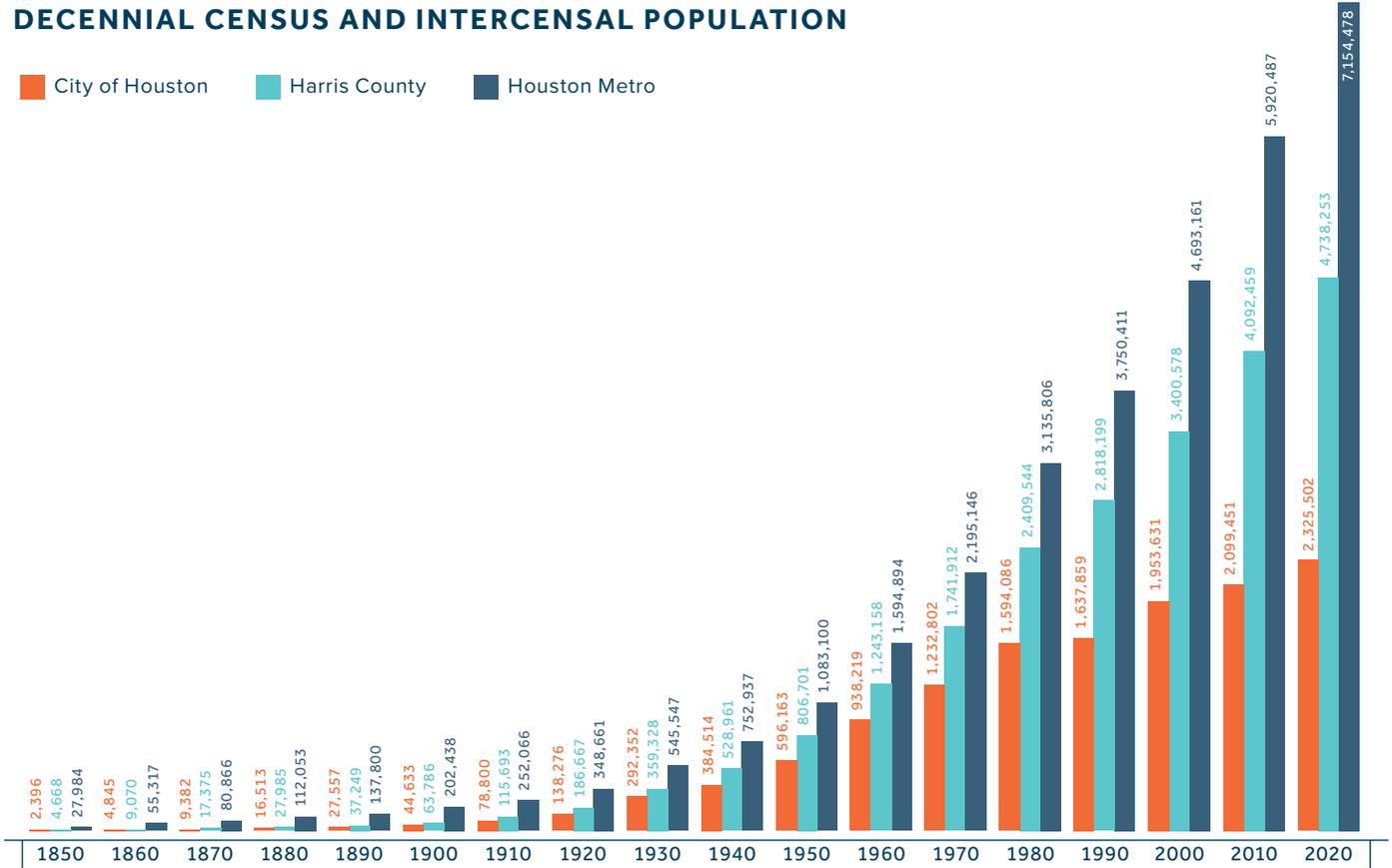
	MEDIAN AGE (YEARS)	TOTAL HOUSEHOLDS	AVERAGE HOUSEHOLD SIZE	PERCENT OF ADULTS WITH BACHELOR'S DEGREE OR HIGHER	PERCENT OF POPULATION FOREIGN BORN
Austin County	40.7	11,301	2.6	23.9	10.5
Brazoria County	35.8	121,523	2.9	30.0	13.1
Chambers County	35.2	14,069	2.9	22.7	7.7
Fort Bend County	36.3	237,883	3.2	46.2	28.9
Galveston County	37.7	121,438	2.7	31.1	9.9
Harris County	33.5	1,605,368	2.9	31.5	26.1
Liberty County	35.5	26,873	2.8	9.7	8.1
Montgomery County	37.1	198,649	2.9	34.5	13.5
Waller County	28.9	15,171	3.1	21.1	13.9
<b>HOUSTON MSA</b>	<b>34.9</b>	<b>2,436,438</b>	<b>2.9</b>	<b>33.4</b>	<b>23.4</b>

Note: County data may not sum to Houston MSA total due to a difference in survey methods.

Source: County data from U.S. Census Bureau, 2014-18 American Community Survey; MSA data from U.S. Census Bureau, 2018 American Community Survey

## DECENNIAL CENSUS AND INTERCENSAL POPULATION

■ City of Houston
 ■ Harris County
 ■ Houston Metro



Source: U.S. Census Bureau, Texas Almanac

## COMPONENTS OF POPULATION CHANGE Metro Houston, 2010 – 2020

	POPULATION		POPULATION CHANGE SINCE '10				
	'10	'20	NET MIGRATION		NATURAL INCREASE		TOTAL POPULATION CHANGE
			INTERNATIONAL MIGRATION	DOMESTIC MIGRATION	BIRTHS	DEATHS	
Austin County	28,417	29,972	222	746	3,470	2,872	1,555
Brazoria County	313,166	380,518	4,604	37,589	48,335	23,392	67,352
Chambers County	35,096	45,590	468	7,534	5,309	2,852	10,494
Fort Bend County	585,375	839,706	48,523	143,926	92,628	31,474	254,331
Galveston County	291,309	345,089	5,059	34,495	41,027	27,118	53,780
Harris County	4,092,459	4,738,253	284,632	-82,035	704,169	261,529	645,794
Liberty County	75,643	91,547	333	12,033	11,583	8,020	15,904
Montgomery County	455,746	626,351	13,068	121,948	71,546	37,044	170,605
Waller County	43,205	57,452	407	10,461	6,391	3,196	14,247
<b>HOUSTON MSA</b>	<b>5,920,416</b>	<b>7,154,478</b>	<b>357,316</b>	<b>286,697</b>	<b>984,458</b>	<b>397,497</b>	<b>1,234,062</b>

Note: In some cases, the increase due to migration and the natural increase will not sum to the change in population due to rounding and the Bureau's use of residual values in generating the estimates.

Source: U.S. Census Bureau, 2020 Population Estimates

## SELECTED DEMOGRAPHICS, HOUSTON-THE WOODLANDS-SUGAR LAND METRO AREA 2019

TOTAL NUMBER OF RACES REPORTED	TOTAL POPULATION*	HISPANIC**	WHITE, NOT HISPANIC	BLACK, NOT HISPANIC	ASIAN, NOT HISPANIC	TWO OR MORE RACES, NOT HISPANIC	AMERICAN INDIAN OR ALASKAN NATIVE	NATIVE HAWAIIAN OR PACIFIC ISLANDER
Median age (years)	34.9	29.1	42.1	34.2	38.6	19.9	36.2	31.0
Under 18 years	26.3%	32.6%	20.3%	25.2%	20.7%	46.0%	24.2%	25.9%
18 years and over	73.7%	67.4%	79.7%	74.8%	79.3%	54.0%	75.8%	74.1%
65 years and over	11.5%	6.0%	18.3%	10.5%	12.3%	4.6%	11.9%	5.0%
<b>HOUSEHOLDS BY TYPE</b>								
Households	2,436,438	748,691	1,017,907	444,566	178,873	35,896	11,627	900
Family households	70.3%	78.7%	67.1%	60.5%	78.3%	65.8%	61.0%	75.7%
With own children of the householder under 18 years	33.8%	45.7%	26.3%	29.1%	38.8%	35.4%	NA	NA
Married-couple family	50.6%	51.8%	55.4%	31.0%	68.1%	48.2%	45.4%	55.7%
With own children of the householder under 18 years	23.4%	11.0%	3.8%	13.2%	2.3%	7.3%	NA	NA
Nonfamily households	29.7%	21.3%	32.9%	39.5%	21.7%	34.2%	39.0%	24.3%
<b>MARITAL STATUS</b>								
Population 15 years and over	5,511,323	1,950,272	2,062,910	942,150	455,964	77,060	23,694	3,107
Now married, except separated	49.6%	47.0%	56.2%	33.4%	64.9%	43.2%	51.1%	46.0%
Widowed	4.4%	2.9%	5.7%	5.2%	3.9%	2.3%	3.1%	3.6%
Divorced, Separated	11.9%	10.5%	12.8%	15.6%	6.2%	12.3%	7.7%	5.6%
Never married	34.1%	39.6%	25.3%	45.8%	25.0%	42.3%	35.1%	44.8%
<b>EDUCATIONAL ATTAINMENT</b>								
Population 25 years and over	4,571,710	1,516,226	1,811,018	774,235	395,004	56,270	20,011	2,269
Less than high school diploma	15.4%	34.0%	4.5%	7.4%	11.3%	5.3%	14.6%	14.9%
High school graduate (includes equivalency)	23.5%	27.9%	20.3%	28.3%	13.2%	16.1%	20.8%	31.1%
Some college or associate's degree	27.8%	21.9%	30.8%	35.8%	19.0%	35.1%	42.3%	37.7%
Bachelor's degree	21.3%	11.5%	29.0%	17.3%	30.3%	27.7%	37.1%	16.4%
Graduate or professional degree	12.1%	4.7%	15.4%	11.2%	26.2%	15.9%	6.1%	NA
High school graduate or higher	84.7%	66.0%	95.5%	92.6%	88.7%	94.7%	85.4%	85.1%
Bachelor's degree or higher	33.4%	16.2%	44.4%	28.5%	56.5%	43.5%	22.3%	16.4%
<b>FERTILITY</b>								
Women 15 to 50 years	1,782,655	713,947	544,684	329,815	153,702	31,838	7,659	144
Women 15 to 50 years who had a birth in the past 12 months	98,373	42,739	25,106	19,356	7,695	3,171	NA	NA
Unmarried women 15 to 50 years who had a birth in the past 12 months	32,758	14,800	5,591	11,720	228	NA	NA	NA
As a percent of all women with a birth in the past 12 months	33.3%	34.6%	22.3%	60.5%	3.0%	NA	NA	NA
<b>DISABILITY STATUS</b>								
Total civilian noninstitutionalized population	7,010,291	2,667,618	2,458,868	1,172,607	550,355	128,409	28,967	3,900
With a disability	9.4%	6.8%	11.6%	11.9%	6.3%	10.4%	15.3%	4.1%
<b>PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR OF ENTRY</b>								
Native	76.6%	62.8%	94.4%	90.0%	31.3%	88.0%	85.2%	79.5%
Foreign born	23.4%	37.2%	5.6%	10.0%	68.7%	12.0%	14.8%	20.5%
<b>LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH</b>								
Population 5 years and over	6,562,626	2,444,342	2,346,079	1,111,606	521,431	109,627	27,108	3,732
English only	59.9%	21.4%	92.9%	90.7%	20.9%	82.4%	56.8%	65.1%
Language other than English	40.1%	78.6%	7.1%	9.3%	79.1%	17.6%	43.2%	34.9%
<b>OCCUPATION</b>								
Civilian employed population 16 years and over	3,420,767	1,233,784	1,252,195	573,650	295,934	49,944	13,692	1,669
Management, business, science, and arts occupations	39.5%	23.0%	52.9%	35.8%	57.4%	49.1%	30.3%	29.8%
Service occupations	16.1%	21.2%	9.7%	19.8%	14.2%	19.1%	21.9%	21.4%
Sales and office occupations	19.8%	17.7%	21.6%	21.9%	17.5%	18.3%	22.5%	16.6%
Natural resources, construction, and maintenance occupations	10.8%	20.9%	6.5%	4.2%	1.9%	2.8%	10.9%	9.3%
Production, transportation, and material moving occupations	13.7%	17.2%	9.4%	18.2%	9.0%	10.7%	14.5%	22.8%
<b>INCOME IN THE PAST 12 MONTHS (IN 2019 INFLATION-ADJUSTED DOLLARS)</b>								
Households	2,436,438	748,691	1,017,907	444,566	178,873	35,896	11,627	3,883
Median household income (dollars)	\$69,193	\$54,810	\$92,978	\$48,923	\$92,731	\$70,298	\$60,608	\$69,115
Median family income (dollars)	\$81,684	\$57,826	\$115,928	\$61,028	\$105,943	\$82,309	\$70,130	\$76,122
<b>HEALTH INSURANCE COVERAGE</b>								
Civilian noninstitutionalized population	7,010,291	2,667,618	2,458,868	1,172,607	550,355	128,409	NA	NA
With private health insurance	60.7%	42.9%	76.8%	76.8%	59.1%	75.7%	69.4%	NA
With public coverage	26.2%	27.2%	24.7%	31.6%	17.3%	24.5%	NA	NA
No health insurance coverage	19.7%	32.7%	9.6%	15.9%	11.4%	10.7%	NA	NA
<b>POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED</b>								
All families	10.2%	16.5%	3.7%	14.9%	6.3%	7.7%	NA	NA
With related children of the householder under 18 years	14.8%	21.4%	5.8%	20.3%	6.9%	9.4%	NA	NA
Married-couple family	5.2%	10.1%	1.9%	6.0%	5.2%	3.3%	NA	NA
Female householder, no spouse present, family	27.6%	38.7%	15.4%	25.5%	13.6%	23.3%	NA	NA
All people	12.9%	18.3%	5.9%	17.6%	8.4%	11.5%	NA	NA
Under 18 years	18.1%	25.2%	5.5%	23.7%	8.9%	11.8%	NA	NA
18 to 64 years	11.2%	14.8%	6.4%	15.4%	6.9%	10.6%	NA	NA
65 years and over	9.8%	16.3%	4.7%	16.3%	15.1%	17.8%	NA	NA
<b>HOUSING TENURE</b>								
Occupied housing units	2,436,438	748,691	1,017,907	444,566	178,873	35,896	11,627	900
Owner-occupied housing units	60.1%	53.6%	72.0%	40.1%	69.6%	56.2%	58.5%	48.9%
Renter-occupied housing units	39.9%	46.4%	28.0%	59.9%	30.4%	43.8%	41.5%	51.1%
<b>OWNER CHARACTERISTICS</b>								
Median value (dollars)	\$219,100	\$161,100	\$257,200	\$185,400	\$278,400	\$238,900	NA	NA
<b>GROSS RENT</b>								
Occupied units paying rent	914,248	335,408	273,244	259,786	51,442	15,268	NA	NA
Median gross rent (dollars)	\$1,139	\$1,038	\$1,324	\$1,091	\$1,285	\$1,191	NA	NA
<b>COMPUTERS AND INTERNET USE</b>								
Total households	2,436,438	748,691	1,017,907	444,566	178,873	35,896	28,643	NA
With a computer	94.6%	92.0%	96.4%	93.2%	99.2%	96.4%	95.2%	NA
With a broadband Internet subscription	89.1%	84.7%	92.8%	84.7%	96.8%	93.3%	87.5%	NA
<b>TOTAL POPULATION</b>	<b>7,066,140</b>	<b>2,682,311</b>	<b>2,481,188</b>	<b>1,190,236</b>	<b>550,675</b>	<b>128,923</b>	<b>29,270</b>	<b>3,963</b>

63.3 percent from the 2,458 refugees the previous year.

Note: County data may not sum to Houston MSA total due to a difference in survey methods.

Source: County data from U.S. Census Bureau, 2014-18 American Community Survey; MSA data from U.S. Census Bureau, 2018 American Community Survey

# 1 IN 4 HOUSTONIANS

**was born outside the U.S.**

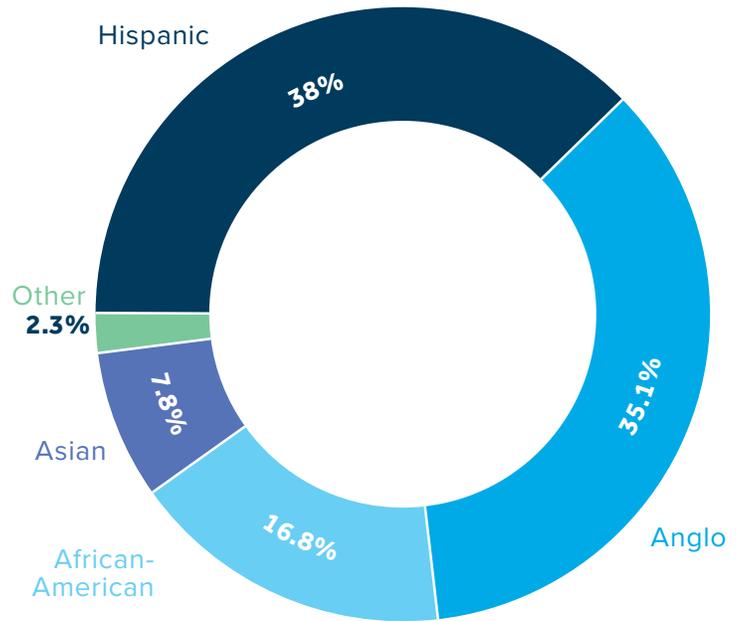
Nearly one in four Houstonians was born outside the U.S. Among the 1,654,511 foreign-born in the Houston metro area, 71.8 percent entered the U.S. before '10.

Top regions of birth for the Houston MSA's foreign-born are: Latin America (62.4 percent), Asia (25.5 percent), Africa (6.9 percent) and Europe (4.0 percent).

The State of Texas accepted 902 refugees from 25 countries in FY '20, 7.6 percent of all refugees resettled in the U.S. during that period. The number of refugees resettled in Texas in FY '20 fell 63.3 percent from the 2,458 refugees the previous year.



## RACE/ETHNIC COMPOSITION Houston MSA, 2019



Note: Hispanic/Latino includes all races. Sums may not total due to rounding. Source: U.S. Census Bureau, 2019 American Community Survey

## EDUCATIONAL ATTAINMENT Houston MSA, 2019

HIGHEST EDUCATION LEVEL ATTAINED	POPULATION AGE 25 OR OLDER	
	NUMBER	PERCENT
<b>NO HIGH SCHOOL DIPLOMA</b>	<b>702,982</b>	<b>15.4</b>
<b>HIGH SCHOOL GRADUATE OR HIGHER</b>	<b>3,868,728</b>	<b>84.7</b>
High School Diploma or GED	1,075,744	23.5
Some College, No Degree	927,541	20.3
Associate Degree	342,711	7.5
<b>BACHELOR'S DEGREE OR HIGHER</b>	<b>1,522,732</b>	<b>33.3</b>
Bachelor's Degree	971,507	21.3
Graduate or Professional Degree	551,225	12.1
<b>TOTAL POPULATION AGE 25 OR OLDER</b>	<b>4,507,266</b>	<b>100.0</b>

Note: Sums may not total due to rounding. Source: U.S. Census Bureau, 2019 American Community Survey

## Income

### PER CAPITA PERSONAL INCOME

The nine-county Houston MSA's pretax per capita personal income (PCPI) in '19 was \$58,890, 11.1 percent above the U.S. average of \$52,991, according to the latest data available by the U.S. Bureau of Economic Analysis (BEA). PCPI increased 3.0 percent in the Houston MSA, compared to 6.5 percent nationwide from '18 to '19.

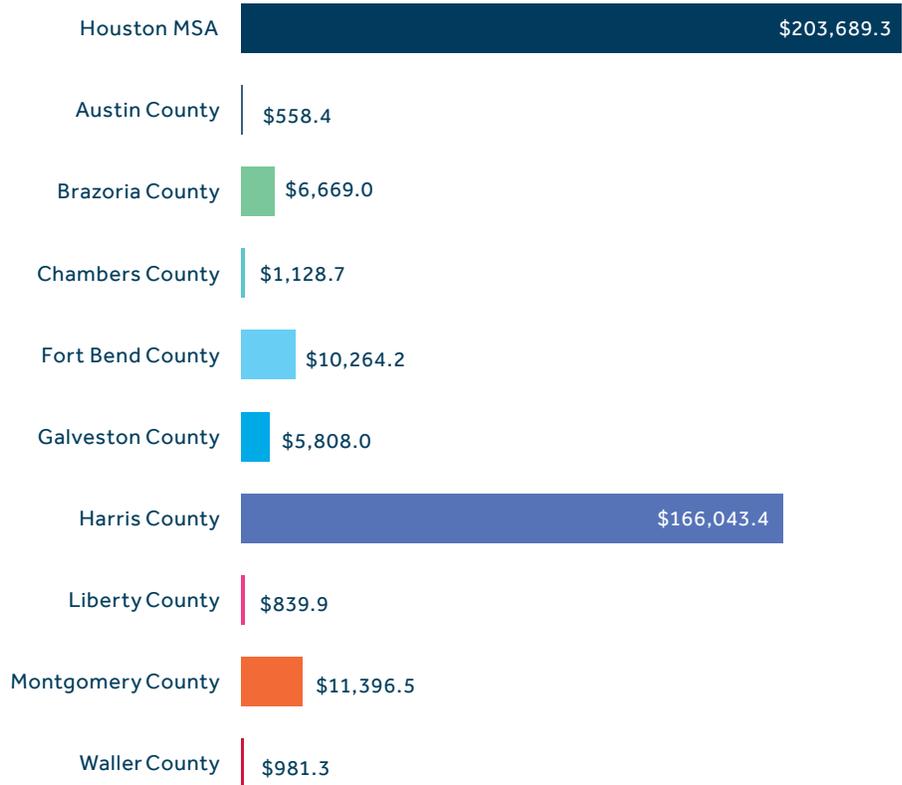
### TOTAL PERSONAL INCOME

Total personal income, defined as income received from all sources, in the nine-county Houston MSA in '19 was \$416.1 billion, up 4.4 percent from '18, according to BEA data.

## Wages

The average weekly wage in metro Houston was \$1,358 in '20, according to the Texas Workforce Commission. Total wages for the metro area were \$203.7 billion for the same period.

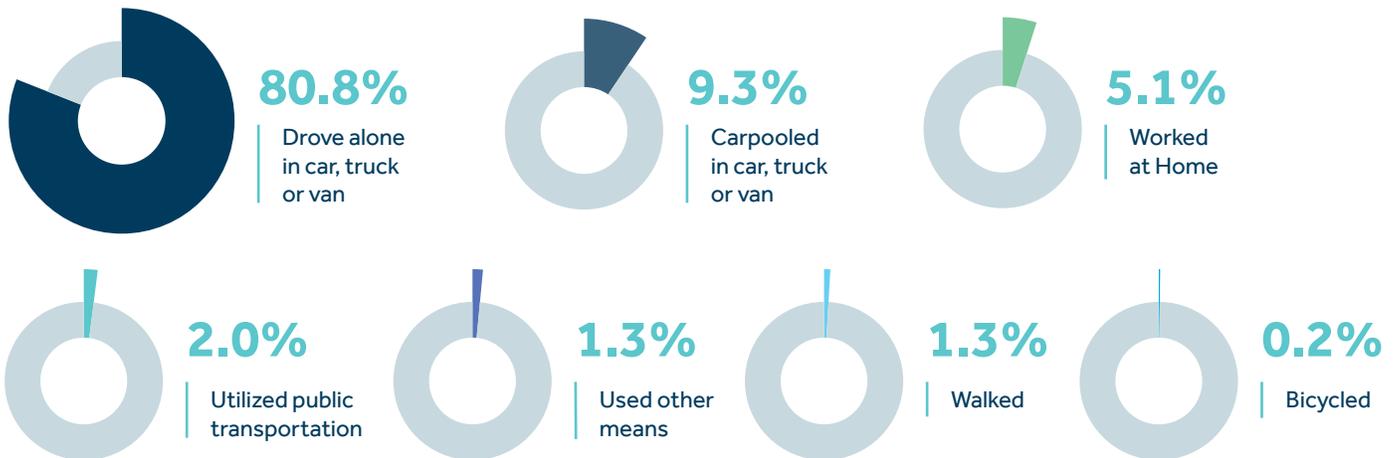
### TOTAL WAGES Metro Houston, 2020\* (\$ Millions)



\*Note: Four quarters ending Q4/20. Sums may not total due to rounding.  
Source: Texas Workforce Commission, Quarterly Census of Employment and Wages

## Commuting to Work

### PERCENT OF WORKERS 16 AND OLDER Houston MSA, 2019



Note: Sums may not total due to rounding.  
Source: U.S. Census Bureau, 2019 American Community Survey

**METRO EMPLOYMENT BY OCCUPATION** Houston MSA, 2020

		EMPLOYMENT	PERCENT OF TOTAL			EMPLOYMENT	PERCENT OF TOTAL
	Office and Administrative Support	408,570	13.8		Healthcare Support	118,280	4.0
	Sales and Related	281,830	9.5		Building and Grounds Cleaning and Maintenance	83,150	2.8
	Food Preparation and Serving Related	262,880	8.9		Architecture and Engineering	80,730	2.7
	Transportation and Material Moving	252,880	8.5		Computer and Mathematical	80,270	2.7
	Construction and Extraction	185,630	6.3		Protective Service	72,260	2.4
	Production	175,270	5.9		Personal Care and Service	47,080	1.6
	Education, Training, and Library	171,520	5.8		Life, Physical, and Social Science	33,040	1.1
	Healthcare Practitioners and Technical	171,460	5.8		Arts, Design, Entertainment, Sports, and Media	29,420	1.0
	Management	165,700	5.6		Community and Social Service	28,080	0.9
	Business and Financial Operations	159,130	5.4		Legal	26,320	0.9
	Installation, Maintenance and Repair	130,240	4.4		Farming, Fishing, and Forestry	5,000	0.2
<b>TOTAL OCCUPATIONAL EMPLOYMENT</b>		<b>2,968,750</b>	<b>100%</b>				

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2020 Occupational Employment Statistics

# 30.7 MINUTES

Average travel time to work in '19





# HOUSTON ECONOMY

From '10 to '19, Houston endured two economic downturns (the Great Recession and the Fracking Bust) and two major storms (Hurricanes Ike and Harvey), and yet the region demonstrated remarkable growth over that period, gaining 1.5 million residents, creating more than 560,000 jobs, and adding \$140 billion (in nominal dollars) to its gross domestic product (GDP).

Houston lost 120,000 jobs in the Great Recession but was among the first to recover, recouping all the jobs lost in less than two years. Houston went on to lead the nation in job growth, averaging 100,000 per year during the height of the fracking boom ('10 – '14). Population growth exceeded 170,000 new residents in some years.

Oil prices fell from over \$100 per barrel in June '14 to \$26 per barrel in February '16 and the energy industry proceeded to shed nearly 95,000 jobs. Construction, retail, health care, business and professional services and hospitality grew, but not enough to offset the layoffs in oil and gas. Houston lost 4,900 jobs in the downturn, by any standards a relatively mild recession. Population growth responded in a like manner, dropping to around 93,000 new residents in '17 and 76,000 in '18, the gains coming solely from the net natural increase (births minus deaths) and international migration.

Job growth resumed mid-'17, aided by a healthy U.S. economy and strong ties to a growing global economy. U.S. GDP growth averaged 2.5 percent over the quarter. Global growth exceed 3.5 percent. The Brookings

Institution estimates that more than 17 percent of Houston's GDP is now tied to exports, up from just 8.9 percent in '03.

In March '20, the COVID-19 pandemic arrived in Houston. The first blow came when the Houston Livestock Show & Rodeo shut down 10 days early. Calls from Houston Mayor Sylvester Turner and Harris County Judge Lena Hidalgo to close all bars and limit restaurants to take-out and delivery only soon followed. In a matter of days, local employers were following Stay Home-Work Safe guidelines requiring much of the region's population to work remotely. Businesses closures and furloughs resulted in more than 450,000 area residents filing initial claims for unemployment insurance. More than 360,000 jobs were lost in March and April. The region's unemployment rate hit 14.2 percent.

Trying to balance public health concerns with economic needs, Texas Governor Greg Abbott began gradual easing restrictions on May 1 and Houston businesses began the slow process of reopening. A survey of Partnership members found that by mid-June 40 percent had brought back furloughed employees or those who had been working from home. Roughly half hoped to resume normal operations by early August '20.

Economic conditions began to improve quickly in the fall. From August '20 through December '20, the region added 92,000 jobs, the fastest August-through-December pace on record. As of March '21, the region had recouped 168,400

of the jobs lost in the pandemic. Employment in insurance, computer systems and design, transportation and warehousing and several retail sectors (food and beverage, building supply, general merchandise) already exceeds pre-pandemic levels. However, energy, manufacturing and construction continued to struggle well into '21.

Though employment in Houston may not fully recover until late '22 or early '23, the region's long-term outlook remains bright. Metro Houston's population is expected to surpass 8.0 million and payroll employment to approach 4.0 million by the end of the decade.

## Corporate Economy

Metro Houston, a major corporate center, ranks third in the nation in Fortune 500 and fifth in Fortune 1000 headquarters. Many other Fortune firms maintain U.S. offices in Houston.

The 20 companies on the Forbes Global 2000 list that are headquartered in Houston have a combined total revenue of \$413.6 billion.

The Texas Workforce Commission reports that Metro Houston was home to more than 160,000 establishments in '20. The three industries with the most establishments were professional, scientific, and technical services; health care and social assistance; and retail trade. These three industries comprised 38.3 percent of the region's business establishments. Over half of the metro's establishments employ between one and four workers.

**ESTABLISHMENTS BY INDUSTRY** Houston MSA

INDUSTRY	ESTABLISHMENTS	% OF TOTAL
Professional, Scientific, and Technical Services	23,598	14.2%
Health Care and Social Assistance	21,612	13.0%
Retail Trade	18,631	11.2%
Other Services (except Public Administration)	15,233	9.2%
Accommodation and Food Services	13,542	8.2%
Construction	11,814	7.1%
Wholesale Trade	11,071	6.7%
Finance and Insurance	9,500	5.7%
Administrative and Support and Waste Management and Remediation Services	8,866	5.3%
Real Estate and Rental and Leasing	8,338	5.0%
Manufacturing	6,758	4.1%
Transportation and Warehousing	5,122	3.1%
Educational Services	2,240	1.3%
Information	1,874	1.1%
Mining, Quarrying, and Oil and Gas Extraction	1,819	1.1%
Arts, Entertainment, and Recreation	1,806	1.1%
Unclassified	1,543	0.9%
Management of Companies and Enterprises	869.5	0.5%
Public Administration	712.75	0.4%
Agriculture, Forestry, Fishing and Hunting	589.25	0.4%
Utilities	524.5	0.3%
<b>TOTAL</b>	<b>166,061</b>	<b>100%</b>

Note: Four quarters ending Q4/20. Sums may not total due to rounding.

Source: Texas Workforce Commission

**HOUSTON-HEADQUARTERED COMPANIES**

24

Fortune 500

Metro Rank | 3

39

Fortune 1000

Metro Rank | 5

6

Fortune Global 500

Metro Rank | 2

20

Forbes Global 2000

Metro Rank | 5

110

Inc. 5000

Metro Rank | 12

Source: Fortune, Forbes, Inc.

## International Business

Houston is the base of operations for the international oil and gas exploration and production industry as well as for many of the nation's largest international engineering and construction firms.

A key center for international finance, Houston leads the Southwest U.S. with 16 foreign banks from 9 nations.

Houston's economy is deeply tied to global trade and foreign investment. The region has trading relationships with more than 200 countries. The Houston/Galveston Customs District handled 266.6 million metric tons in exports valued at \$129.5 billion in '20, according to WISERTrade. These exports accounted for 65.8 percent of the value of total trade that passed

through the region in '20—a 21-point increase from 44.5 percent in '11.

Ninety-two nations have consular representation in the city, ranking Houston's consular corps third largest in the nation.

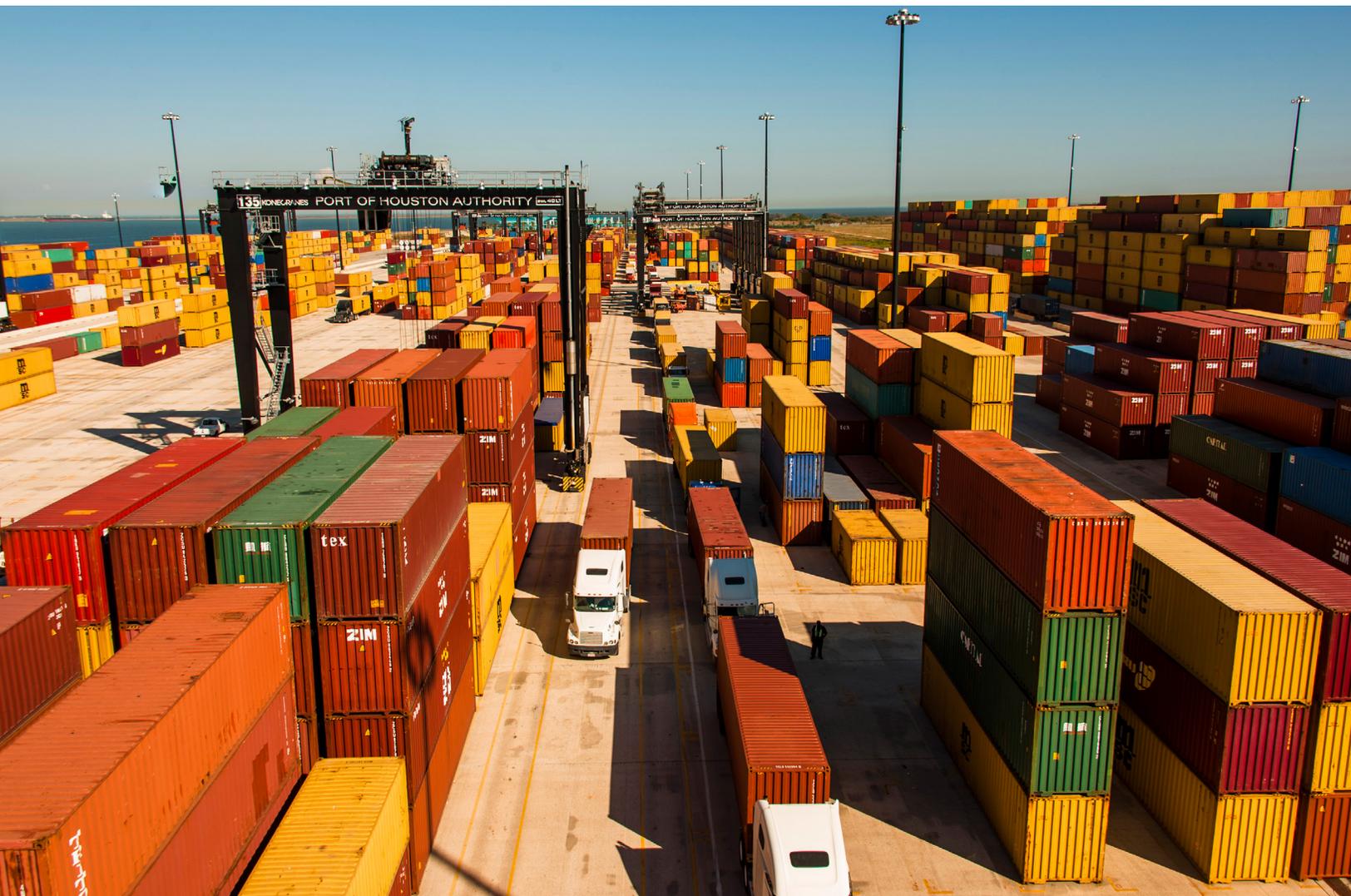
Fifteen foreign governments maintain trade and commercial offices here, and the city has 42 active foreign chambers of commerce and trade associations.

Houston has 18 sister-city relationships promoting business opportunities across five continents: Asia (7), Europe (7), Americas (2), Africa (1), and Australia (1). Houston's oldest sister-city relationship was established in 1961 with Taipei, Taiwan, and its most

recent relationship with Basrah, Iraq was established in '15.

Nearly 150 Houston-based companies operate subsidiary locations around the world. These firms account for nearly 3,000 offices in more than 110 countries.

More than 1,700 firms in Houston report foreign ownership. In '20, at least 20 foreign-owned firms invested in office expansions, relocations and headquarter facilities in Houston. More than \$1.7 billion in capital investments were made by foreign-owned firms in Houston.



## Houston's Top Employers

### OVER 20,000 EMPLOYEES

H-E-B  
Houston Methodist  
Memorial Hermann Health System  
UT MD Anderson Cancer Center  
Walmart

### 5,000 TO 9,999 EMPLOYEES

AT&T  
Baker Hughes  
Baylor College of Medicine  
BP America  
Chevron  
CHI St. Luke's Health

### 2,000 TO 4,999 EMPLOYEES

Academy Sports & Outdoors  
Accenture  
Air Liquide USA  
Ascend Performance Materials  
Austin Industrial Inc.  
Bank of America  
Bechtel Corp.  
Boeing  
Brinker International  
Cameron, a Schlumberger Co.  
CenterPoint Energy  
Chevron Phillips Chemical Co.  
Comcast  
ConocoPhillips  
CVS Health  
Daikin/Goodman

### 10,000 TO 19,999 EMPLOYEES

ExxonMobil  
HCA Houston Healthcare  
Kroger  
Landry's  
Schlumberger  
Shell Oil Co.

Dow Chemical Co.  
Fiesta Mart  
Harris Health System  
Home Depot  
JPMorgan Chase  
KBR

Deloitte  
Enterprise Products Partners  
FedEx  
Fluor Corp.  
The Friedkin Group, Inc.  
Grocers Supply Company  
Group 1 Automotive  
Halliburton  
Hewlett Packard Enterprise  
HP Inc.  
Jacobs  
Kelsey-Seybold Clinic  
Kinder Morgan  
Lowe's Cos.  
Macy's  
Metropolitan Transit Authority

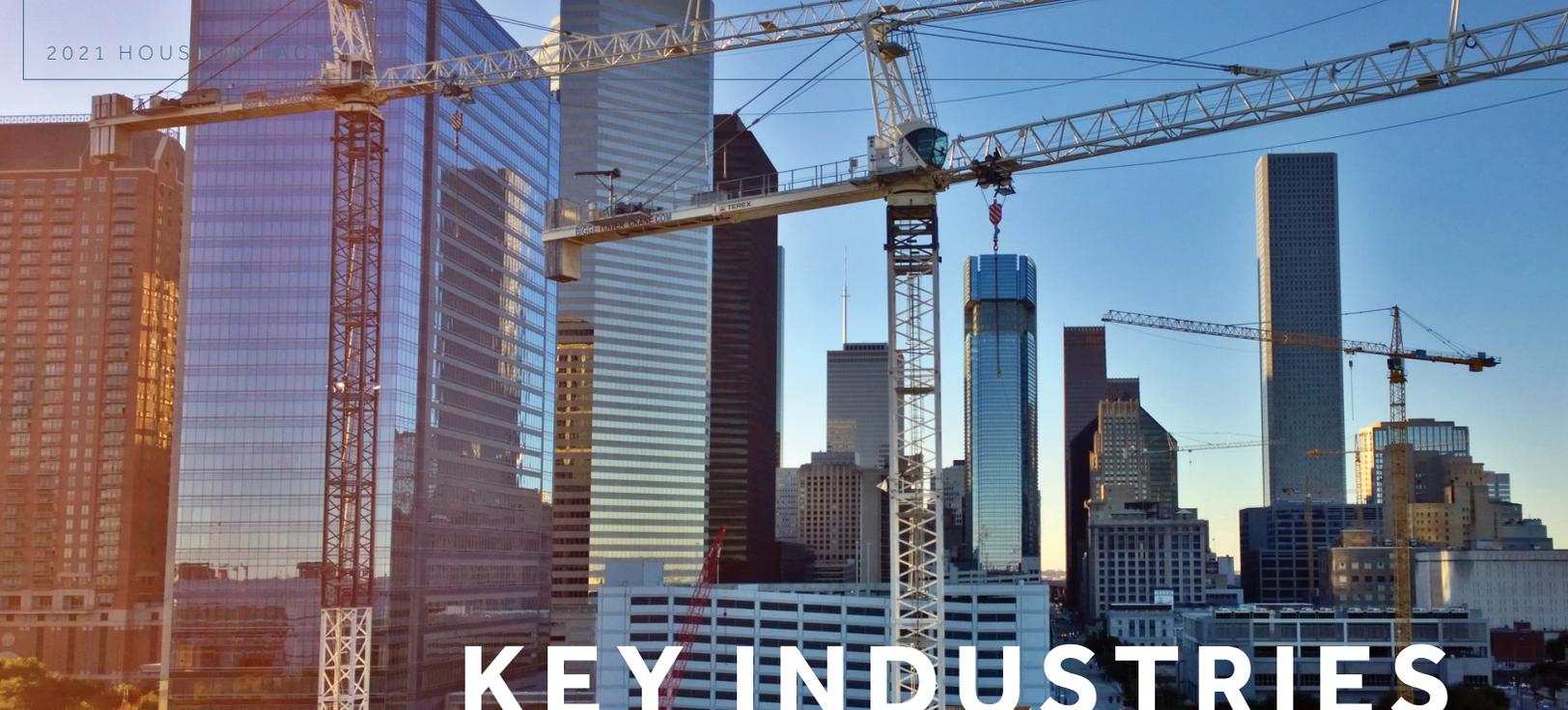
Texas Children's Hospital  
United Airlines  
University of Houston  
UT Health Science Center  
UT Medical Branch Health System  
Wood Group

LyondellBasell  
Michael E. DeBakey VA Medical Center  
NOV  
Occidental Petroleum  
Texas A&M University

NASA - Johnson Space Center  
Phillips 66  
Randalls  
Rice University  
S&B Engineers and Constructors  
Sam's Club  
Sysco Corp.  
Target Corp.  
TechnipFMC  
Texas Home Health  
Turner Industries  
Universal Plant Services  
Walgreens  
Weatherford International Ltd.  
Wells Fargo

Note: The list is for '20 and includes pandemic-related gains and losses in employment wherever possible. The list includes private sector employers, except for Texas Medical Center institutions, and excludes fast-food chains.

Source: Greater Houston Partnership Research, May 2021



# KEY INDUSTRIES AND SECTORS

## Construction and Real Estate

### EMPLOYMENT

The construction industry in Houston employed an average of 224,344 people in the four quarters ending Q3/20, according to the Texas Workforce Commission. Nearly half of all construction employment occurred as specialty trade contractors (e.g., electrical work, plumbing, site preparation, painting). The remaining types of construction employment, building construction and heavy and civil engineering construction accounted for 23.0 percent and 28.5 percent of construction employment, respectively. Annual wages in the industry averaged \$76,947.

### ESTABLISHMENTS

The Houston metro area was home to nearly 11,696 construction establishments in the four quarters ending Q3/20. Of that total, 60.4 percent were specialty trade contractors, 29.6 percent were in building construction, and 10.0 percent were heavy and civil engineering construction establishments.

### MAJOR EMPLOYERS

Alston, Anslow Bryant, Arch-Con, Austin Industrial, Bechtel, Bellows, Burns & McDonnell, Burton, D.E. Harvey Builders, DPR, Durotech, E.E. Reed Construction, Flintco, Fluor, Gamma, Gilbane, Harvey Construction, Hoar, Joslin Construction, Kilgore Industries, Linbeck Group, Manhattan Construction, McCarthy Building Companies, McDermott, O'Donnell/Snider, Performance Contractors, Ref-Chem, Rosenberger, S & B Engineers and Constructors, Satterfield & Pontikes, Skanska, SpawGlass, Summit Industrial, Tellepsen, Turner Construction, Turner Industries, Vaughan Construction, Webber, Williams Brothers Construction, Worley and Zachry.

### BUILDING PERMITS

City of Houston building permits totaled nearly \$6.5 billion in '20 with nearly \$2.8 billion for residential and nearly \$3.8 billion for commercial building permits, according to city data.

### OFFICE

At the close of '20, NAI reported that the Houston area contains 241.3 million-square-foot (msf) of inventory, with 39.8 msf in the Central Business District (CBD).

Net absorption (net change in leased space in completed buildings) for all general-purpose office space was negative 4.2 million square-feet in '20. The vacancy rate for the entire Houston market was 23.3 percent at the end of '20.

Average asking rent for the entire Class A office market was \$35.04 per square foot (\$43.52 for CBD Class A and \$31.95 for suburban Class A).

### INDUSTRIAL

At the end of '20, the industrial market in Houston had 633.2 msf of inventory. NAI reported year-end '20 occupancy dipped slightly from the previous year to 91.2 percent. At the end of '20, 8.0 msf of projects were under construction. Net absorption for '20 was strong with a total of 14.5 msf. Across the market, average monthly asking rates were \$0.64 per square foot in the fourth quarter of '20.

**RETAIL**

The Houston retail market recorded nearly 1.4 msf of net absorption in '20. The region is home to 360.5 msf of net rentable area. Occupancy rates dipped slightly in '20 and the year ended with a vacancy rate of 6.2 percent. The average asking rental rate was \$18.37 per square foot.

**SINGLE-FAMILY**

In '20, Houston real estate set record highs in terms of one-year sales volume, average price, and average median price. In '20, single-family closings (largely resale homes) in the Houston area totaled 96,151, and an additional 19,372 town homes, condos and high rises were sold, according to the Houston Association of Realtors. The median sales price for a resale single-family detached home was \$260,000. Single-family starts in '20 numbered 36,700, according to Metrostudy.

**MULTI-FAMILY**

Apartment Data Services reported that Houston area multi-family occupancy was 88.8 percent in '20, with an inventory of 687,562 units, and as of April '21, inventory included 2,915 complexes. Prices averaged \$1,046 per month. Rental rates ending December '20 averaged \$1.18 per square foot per month.

**CLASS A** apartments recorded 81.4 percent occupancy at \$1.55/sf/mo

**CLASS B** recorded 91.5 percent occupancy at \$1.17/sf/mo

**CLASS C** recorded 90.5 percent occupancy at \$0.96/sf/mo

**CLASS D** recorded 89.9 percent occupancy at \$0.78/sf/mo.

An additional 21,363 new units were added to the market in '20, an increase from '19. In '20, 11,412 units were absorbed, a decrease from the record high absorption of 17,108 units in '17 due to demand by residents displaced by Hurricane Harvey. As of December '20, 96 communities with 27,681 units were proposed, according to Metrostudy.

**SINGLE-FAMILY STARTS AND MULTI-FAMILY UNITS DELIVERED – Houston MSA**



Source: Zonda (formerly Metrostudy) and Apartment Data Services

**Health Care and Social Assistance**

**EMPLOYMENT**

Health care and social assistance employed an average of 376,089 people in the four quarters ending in Q3/20, almost one in eight Houston workers, according to the Texas Workforce Commission. Ambulatory health care accounts for 43.9 percent of the sector employment, hospitals account for 33.1 percent and social assistance, nursing and residential care account for 23.0 percent. The average annual wage for the industry was \$58,448 in the four quarters ending in Q3/20.

According to the Texas Medical Board, 19,493 physicians are licensed in the Houston region, with Harris County accounting for nearly 80.0 percent. The concentration of anesthesiologists, nurse anesthetists, surgeons, cardiovascular technologists and technicians, pediatricians, dentists, and occupational health and safety specialists/technicians is well above the national average.

**ESTABLISHMENTS**

Houston's 21,391 health care and social assistance establishments averaged 13,899 ambulatory health care providers, 6,512 social assistance establishments, 740 nursing and residential care facilities and 240 hospitals for the four quarters ending in Q3/20.

**MAJOR EMPLOYERS**

Baylor College of Medicine, CHI St. Luke’s, HCA Houston Healthcare, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann Healthcare System, Michael E. DeBakey Veterans Affairs Medical Center, Texas Children’s Hospital and UTMB Health, Texas A&M Health Science Center, University of Texas Health Science Center.

**TEXAS MEDICAL CENTER**

Houston’s Texas Medical Center is the world’s largest medical complex by several measures: number of hospitals, number of physicians, square footage and patient volume. The Texas Medical Center’s 63 member institutions are consistently

recognized by U.S. News and World Report as some of the best hospitals and universities in the nation.

Scientists at TMC-affiliated institutions, most notably Baylor College of Medicine, Houston Methodist, and MD Anderson are advancing life science breakthroughs across dozens of research centers and more than 300 research laboratories.

In early ’21, the University of Houston College of Medicine, Houston’s first new medical school in nearly 50 years, became the TMC’s 63rd member institution. The school, founded with a mission to improve health in underserved communities, is currently building a three-story, 130,000 sq. ft. facility, and is expected to open in ’22. The new campus joins four existing TMC-affiliated medical schools:

University of Texas Health Science Center at Houston, Baylor College of Medicine, University of Texas Medical Branch at Galveston and Texas A&M College of Medicine.

In ’21, construction began on TMC3, a multi-institutional 37-acre research campus designed to foster collaboration in clinical care, research and industry. The project is a joint venture between four founding institutions: MD Anderson, UT Health, Texas A&M HSC and TMC. The four-story campus will include 187,000 square feet of wet labs, offices, shared meeting space and lecture halls. It is projected to create over 26,540 permanent jobs and bring \$5.4 billion annually to Texas’ economy. The “3” in TMC3 is meant to designate Houston as the “third coast” for life sciences.



**TMC BY THE NUMBERS**

**\$3 billion**  
in construction projects underway

**50 million**  
developed square feet

**10 million**  
patient visits per year

**8th largest**  
business district in the U.S. with 1,345 total acres

**750,000**  
ER visits per year

**106,000+**  
total employees

**13,600 +**  
total heart surgeries

**180,000 +**  
annual surgeries



# COVID Timeline

The COVID-19 pandemic triggered an unprecedented global crisis, impacting almost every aspect of Houstonian's lives. The following timeline summarizes how the pandemic unfolded in the region.

## MARCH 2020

- 4 ○ A resident of Fort Bend County is the first person to test positive for the COVID-19 virus in Texas (excluding the passengers returned under federal quarantine from Wuhan, China, or the Diamond Princess cruise ship).
- 11 ○ After eight days of operation, the remainder of the 2020 Houston Livestock Show and Rodeo is canceled.
- 12 ○ More than 20 Houston-area school districts and universities announce closures.
- 16 ○ The Houston Health Department issues an order requiring the closure of bars and nightclubs, and for restaurants to halt on-site dining service for 15 days.
- 19 ○ Following the national emergency declaration by the president, Governor Abbott issues Executive Order No. GA-08, restricting social gatherings of ten or more people as well as the visitation of certain businesses through April 3.
- 21 ○ The Houston MSA hits 50 positive COVID-19 cases.
- 24 ○ Harris County issues a stay-at-home order and non-essential businesses are temporarily closed.
- 31 ○ Governor Abbott extends social distancing protocols through April 30 and announces that Texas schools will remain closed through May 4.

## APRIL 2020

- 12 ○ The Houston MSA hits 5,000 positive COVID-19 cases.

## MAY 2020

- 1 ○ Phase One of Governor Abbott's Executive Order GA-17, known as "Open Texas," goes into effect. The plan allows retail stores, restaurants, malls, and movie theaters to begin operations starting at 25% capacity. Additional businesses (gyms, work offices, childcare centers, among others) will also be allowed to reopen at 25% capacity within the coming weeks.

## JUNE 2020

- 26 ○ Governor Abbott signs Executive Order GA-28, addressing the increased COVID-19 hospitalizations and positivity rates across the state. In accordance with the new order, bars once again close, and restaurants reduce indoor capacity to 50%.

## JULY 2020

- 2 ○ Governor Abbott issues an order for Texans in counties with more than 20 coronavirus cases to wear a face covering over the nose and mouth while in a business or other building open to the public, as well as outdoor public spaces.
- 3 ○ Nearly all Texas businesses are allowed to operate at 50% occupancy.
- 4 ○ The Houston MSA reports 1,000 deaths from COVID-19.
- 5 ○ COVID-19 hospitalizations at the Texas Medical Center (TMC) institutions reach 360 patients per day, marking the peak of the first wave of infections in Houston.
- 24 ○ Deaths from COVID-19 top 2,000 in the Houston MSA.
- 31 ○ The Houston MSA hits 100,000 positive COVID-19 cases.

## OCTOBER 2020

- 3 ○ The Houston MSA hits 200,000 positive COVID-19 cases.
- 8 ○ Governor Abbott issues Executive Order GA-32 allowing bars and similar establishments to operate at 50% of pre-COVID capacity. The order also allows all other businesses to operate at an indoor capacity rate up to 75%, depending on whether they are located in an area with high numbers of COVID-19 hospitalizations.

## NOVEMBER 2020

- 13 ○ Texas reports more than 1 million positive COVID-19 cases.
- 15 ○ COVID-19 Hospitalizations at TMC Institutions jump to 147 patients per day, a 41% increase from the prior week and the start of a second wave of infections in the Houston region.

## DECEMBER 2020

- 15 ○ First COVID-19 vaccination in Houston administered at Memorial Hermann Hospital. Robert Luckey, a nurse in the hospital's COVID Intensive Care Unit, is the recipient.
- 17 ○ The Houston MSA hits 300,000 positive COVID-19 cases.
- 30 ○ The Houston MSA reports 5,000 deaths from COVID-19.

## JANUARY 2021

- 10 ○ COVID-19 hospitalizations at TMC institutions reach 335 patients per day, marking the peak of the second wave of infections in Houston.
- 16 ○ The Houston MSA hits 400,000 positive COVID-19 cases.
- 27 ○ Texas reports more than 2 million positive COVID-19 cases.

## FEBRUARY 2021

- 3 ○ The 2021 Houston Livestock Show and Rodeo is cancelled.
- 8 ○ Houston is named one of five US cities chosen to have a FEMA 'super' vaccination site, with NRG Park selected as the location.
- 24 ○ The Houston MSA hits 500,000 positive COVID-19 cases.

## MARCH 2021

- 2 ○ Governor Abbott issues Executive Order GA-34 which lifts the mask order in Texas and allows all businesses and facilities in the state to operate at 100 percent of capacity.
- 11 ○ The Houston MSA reports 8,000 deaths from COVID-19.
- 24 ○ Harris County announces more than 1 million doses of vaccine have been administered and more than 550,000 people are fully vaccinated.

## MAY 2021

- TMC institutions have administered more than 1.9 million doses of COVID-19 vaccine. Over 1 million Houstonians are fully vaccinated.

## Manufacturing

The 6,723 manufacturing establishments in the Houston region employed 223,706, or about 1 in 13 Houston-area workers in '20, according to the Texas Workforce Commission. The average annual wage was \$88,574. The value of goods manufactured in metro Houston topped \$86.0 billion in '19 and accounted for 16.8 percent of the region's total GDP, according to the Bureau of Economic Analysis.

### CHEMICALS

The Houston region was home to 618 chemical plants employing 39,703, or 17.7 percent of Greater Houston's total manufacturing workforce in '20, according to the Texas Workforce

Commission. The region has 44.0 percent of the nation's overall base petrochemicals manufacturing capacity which includes 48.7 percent of butadiene produced in the country, 45.9 percent of ethylene, 45.0 percent of propylene, 40.3 percent of benzene, 40.1 percent of xylenes and 35.5 percent of toluene.

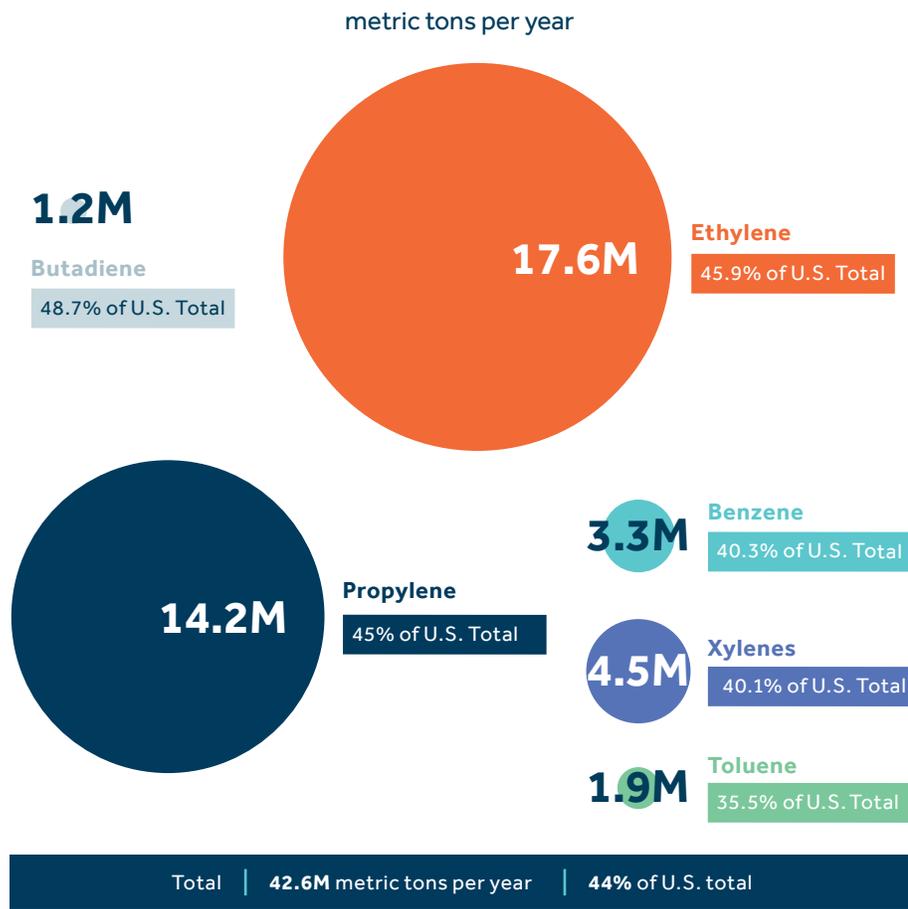
Base petrochemicals are the raw materials for producing some of the more important plastics and resins. The Houston MSA also dominates U.S. production of three major resins, producing 40.1 percent of the country's capacity of polypropylene, 44.0 percent of polyethylene and 31.6 percent of polyvinyl chloride.

## MANUFACTURING

### OVERVIEW Houston MSA, 2020\*

<b>Fabricated Metal Products</b>	
49,666 jobs	1,782 establishments
<b>Machinery</b>	
43,617 jobs	824 establishments
<b>Chemical</b>	
39,703 jobs	618 establishments
<b>Other Manufacturing</b>	
28,634 jobs	1,754 establishments
<b>Computer and Electronic Products</b>	
13,347 jobs	370 establishments
<b>Food</b>	
11,119 jobs	449 establishments
<b>Plastics and Rubber Products</b>	
10,503 jobs	236 establishments
<b>Petroleum and Coal Products</b>	
8,953 jobs	87 establishments
<b>Nonmetallic Mineral Products</b>	
6,953 jobs	301 establishments
<b>Electrical Equipment and Appliances</b>	
6,401 jobs	167 establishments
<b>Transportation Equipment</b>	
4,811 jobs	135 establishments
<b>Total Manufacturing</b>	
223,706 jobs	6,723 establishments

### BASE CHEMICAL PRODUCTION CAPACITY Houston MSA, 2020



Note: Sums may not total due to rounding.

Source: IHS Markit

Source: Texas Workforce Commission, Quarterly Census of Employment and Wages, four quarters ending Q3/20

**PETROLEUM REFINING**

The Spaghetti Bowl is a complex of several thousand miles of product pipeline connecting hundreds of chemical plants, refineries, salt domes and fractionation plants along the Texas Gulf Coast. It gives the Houston area an economic advantage through

convenient and low-cost transfer of feedstocks, fuel and chemical products among plants, storage terminals and transportation facilities.

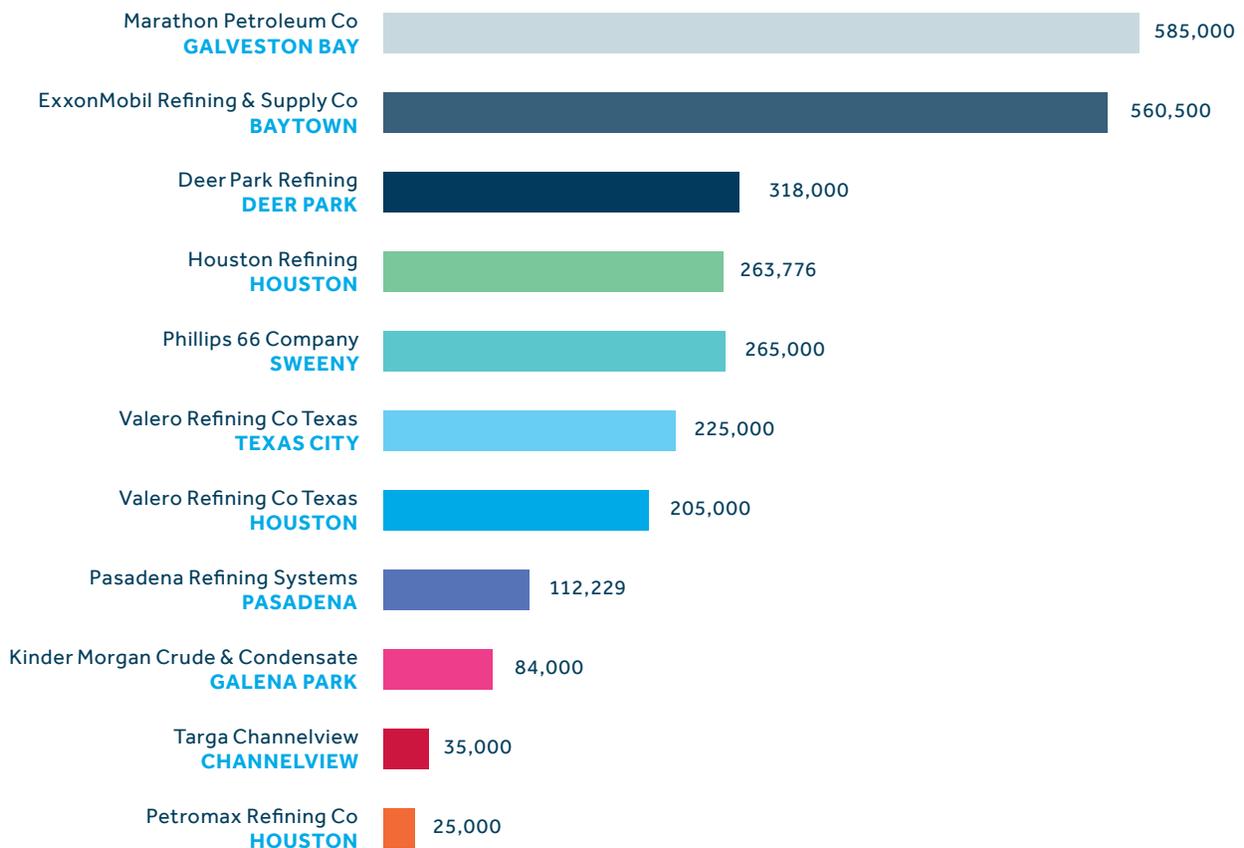
In '20, the Houston metro had a crude operating capacity of 2.7 million barrels of refined petroleum products per calendar day,

representing 14.0 percent of overall U.S. capacity, according to the U.S. Energy Information Administration. Oil refiners in the region employed 8,079 in '20, equivalent to 3.6 percent of the Houston region's total manufacturing workforce.



**PETROLEUM REFINING CAPACITY** Metro Houston, 2020

**TOTAL METRO HOUSTON CAPACITY | 2,678,505 BARRELS PER CALENDAR DAY | 14.0% OF U.S. CAPACITY**



Source: U.S. Energy Information Agency, Refinery Capacity Report January 1, 2019 (Release Date: June 22, 2020)

## Professional and Technical Services

### EMPLOYMENT

Metro Houston employed an average of 223,310 professional, scientific and technical service workers in the four quarters ending Q4/20. Architectural and engineering services, with 67,859 workers, represents a third of the sector's total employees. The second and third largest industry subsectors include management and technical consulting (40,056 employees) and computer systems design services (30,151 employees).

Houston has 51,860 engineers of all disciplines, the most numerous being civil, mechanical, petroleum, industrial, electrical and chemical. Houston has one of the highest concentrations of engineering talent in the nation. For every 100,000 workers in the Houston MSA, there

are 1,747.0 engineers. In comparison, for every 100,000 workers in the U.S., there are 1,190.7 engineers.

### ESTABLISHMENTS

The Houston MSA had 23,598 establishments in professional, scientific and technical services in the four quarters ending Q4/20. The sector includes 5,749 management and technical consulting establishments, 4,451 computer systems design companies and 4,051 establishments that provide legal services. Seven of the nation's top 20 engineering and design firms are located in metro Houston, according to Engineering News-Record.

### FINANCE

Metro Houston's 94 Federal Deposit Insurance Corporation (FDIC)-insured institutions had 1,422 offices and branches with \$306.0 billion in local deposits, according to June '20 FDIC data. Houston ranked 12th among U.S. metros in total deposits in '20.

Houston's 10 largest banks (ranked by local deposits) include JPMorgan Chase Bank, Wells Fargo Bank, Bank of America, BBVA, Zions Bank, Frost Bank, Cadence Bank, Prosperity Bank, Capital One and Woodforest National Bank.

Six of the nation's 10 largest FDIC-insured banks, as measured by domestic deposits, operate full-service branches or commercial loan offices in the Houston region. These six include the three largest banks in the nation.

### ENGINEERS Houston MSA vs. U.S., 2020

	TOTAL	HOUSTON ENGINEERS	PER 100,000 WORKERS	
			HOUSTON	U.S.
Aerospace	1,660	55.8	43.6	
Biomedical	240	8.1	13.4	
Chemical	3,210	108.2	18.5	
Civil	10,780	363.2	216.3	
Computer Hardware	620	21	46.5	
Electrical	4,760	160.2	133.2	
Electronics	1,750	58.9	87.9	
Environmental	1,420	47.9	36.1	
Health and Safety	1,240	41.8	17.1	
Industrial	5,000	168.6	208.6	
Marine Engineers and Naval Architects	230	7.9	6.3	
Materials	720	24.2	17.8	
Mechanical	8,380	282.0	211.3	
Mining and Geological	320	10.7	4.5	
Petroleum	8,220	276.8	20	
All Other Engineers	3,310	111.4	109.6	
<b>TOTAL</b>	<b>51,860</b>	<b>1,747</b>	<b>1,190.7</b>	

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2020

## Wholesale and Retail Trade

### EMPLOYMENT

Wholesale trade employed 155,839 in the Houston MSA, including 97,857 in durable goods, 48,455 in nondurable goods, and 9,527 in electronic markets in '20. Retail trade employed 290,650, including 67,645 in food and beverage, 56,670 in general merchandise and 40,978 in motor vehicle and part dealers. The average annual wage in '20 was \$88,387 for wholesale workers and \$35,126 for retail workers.

### ESTABLISHMENTS

Metro Houston had 11,050 wholesale trade establishments, including 6,677 durable goods wholesalers and 2,513 nondurable goods wholesalers in '20. There were 18,511 retail establishments, including 2,703 food and beverage stores, 2,570 gas stations and 2,230 clothing stores.

### LARGEST EMPLOYERS

Academy Sports & Outdoors, CVS Health, Fiesta Mart, H-E-B, Home Depot, Kroger, Macy's, Lewis Food Town, Lowe's, Randalls, Sam's Club, Sysco, Target, Walmart, and Walgreens.

### GROSS RETAIL SALES Metro Houston, 2019-2020, (\$ Millions)

GEOGRAPHY	'19	'20	% CHANGE FROM '19
<b>Houston MSA</b>	<b>127,747.8</b>	<b>126,403.5</b>	<b>-1.1%</b>
Austin County	341.1	339.6	-0.5%
Brazoria County	4,400.8	4,465.6	1.5%
Chambers County	502.5	541.1	7.7%
Fort Bend County	8,559.1	9,182.4	7.3%
Galveston County	4,307.7	4,444.8	3.2%
Harris County	99,540.7	93,566.9	-6.0%
Liberty County	868.1	931.8	7.3%
Montgomery County	8,634.2	12,344.2	43.0%
Waller County	593.6	587.2	-1.1%

Note: Data compiled from four quarters ending Q3/20.

Source: Texas Comptroller's Office



## Energy

Houston is the leading domestic and international center for virtually every segment of the energy industry—exploration and production, transmission, marketing, service, trading, supply, offshore drilling and technology.

More than 4,650 energy-related firms are located within the Houston metro area, including over 600 exploration and production firms, 740 oilfield service companies, nearly 90 pipeline transportation firms, and hundreds of manufacturers and wholesalers of energy-sector products.

Houston is home to 44 of the nation's 113 publicly traded oil and gas exploration and production firms, including nine of the top 25; seven more among the top 25 have subsidiaries, major divisions or other significant operations in Houston.

Two-thirds of the global-integrated oil companies (e.g., ExxonMobil, Shell, Chevron) have operations here. More than half of all oil field service firms based outside of North America (e.g. ENI, TechnipFMC, Transocean) have offices in Houston, and around one-fifth of the world's national oil companies (e.g., Saudi Aramco, PetroChina, Gazprom) have operations in Houston.

The 11 refineries in the Houston region process 2.7 million barrels of crude oil per calendar day—approximately 45.7 percent of the state's total production and 14.0 percent of total U.S. capacity.

The logistics for moving much of the nation's petroleum and natural gas across the country are controlled from Houston. Thirteen of the nation's 20 largest oil pipeline operators have corporate or divisional headquarters or ownership interests based in Houston. These 13 pipeline companies control 57,333 miles, or 33.0 percent of all U.S. oil pipeline capacity. Seventeen of the nation's top 20 natural gas transmission companies have corporate or divisional headquarters in Houston, controlling 122,890 miles of U.S. pipeline, which is 63.2 percent of the total U.S. natural gas pipeline capacity.

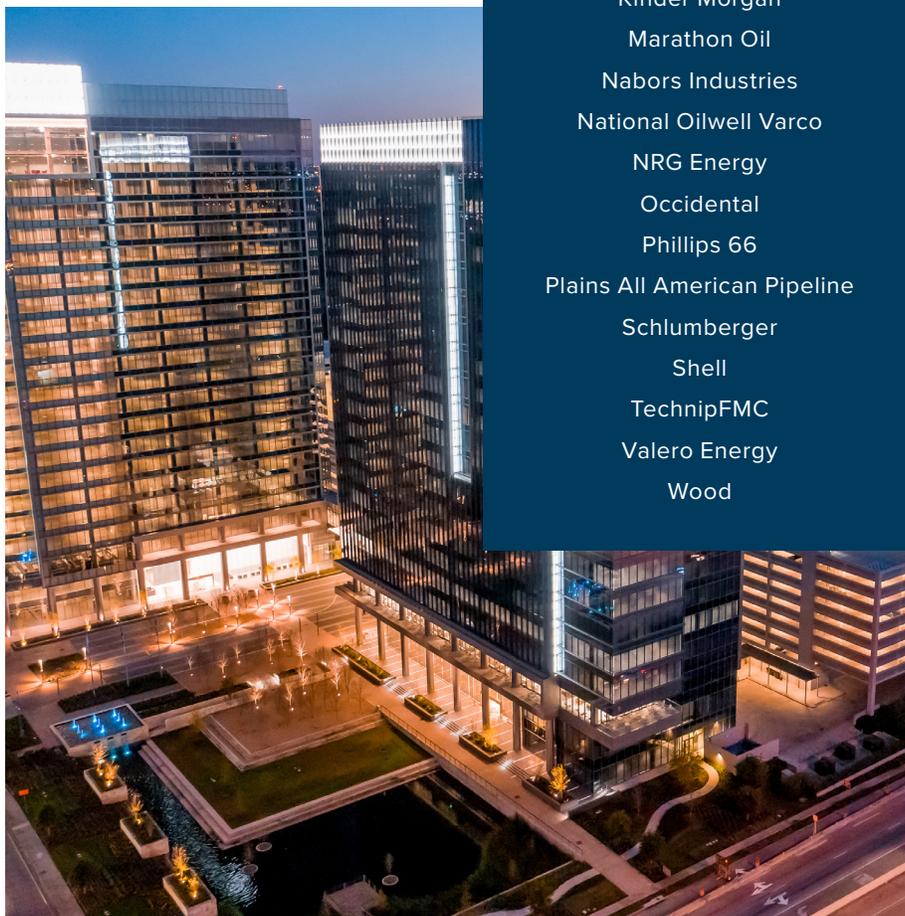
In '20, the Houston MSA held 25.3 percent of the nation's jobs in oil and gas extraction (35,236 of 139,296) 19.5 percent of jobs in drilling oil and gas wells (7,836 of 40,092), and 12.2 percent of jobs in support activities for oil and gas operations (23,541 of 193,696), according to Chmura, using data from the U.S. Bureau of Labor Statistics.

### DEFINING "ENERGY"

Defining the "energy" sector and its related industries is a challenging task. There are multiple approaches and the table which follows serves as one interpretation. Given this definition, Houston's energy sector in '20 accounted for 7.9 percent of the region's employment and 3.5 percent of its firms. The average job in an energy-related industry paid approximately \$136,897 per year, almost double the metro average of \$70,616.

### MAJOR ENERGY-RELATED EMPLOYERS

Apache  
Baker Hughes  
BP North America  
CenterPoint Energy  
Cheniere Energy  
Chevron  
CITGO  
ConocoPhillips  
Direct Energy  
Dril-Quip  
Enbridge  
Enterprise Products  
EOG Resources  
Flotek Industries  
ExxonMobil  
Halliburton  
Hess Corp.  
Kinder Morgan  
Marathon Oil  
Nabors Industries  
National Oilwell Varco  
NRG Energy  
Occidental  
Phillips 66  
Plains All American Pipeline  
Schlumberger  
Shell  
TechnipFMC  
Valero Energy  
Wood



**ENERGY-RELATED SECTORS** Houston MSA, 2020\*

INDUSTRY	EMPLOYMENT	FIRMS	AVG. ANNUAL WAGE (\$)
Engineering services	46,408	1,879	126,087
Chemical manufacturing	39,307	474	135,811
Oil and gas extraction	34,108	476	255,216
Support activities for oil and gas	23,258	787	135,642
Oil and gas field machinery	22,626	254	119,652
Oil and gas pipeline construction	22,465	207	96,252
Pipeline transportation	12,116	86	178,711
Petroleum refineries	7,583	42	163,306
Drilling oil and gas wells	7,582	134	154,622
Fabricated pipe and pipe fitting mfg.	4,129	92	66,430
Industrial valve manufacturing	3,775	77	92,404
Geophysical surveying and mapping	2,812	146	141,557
Pump and compressor manufacturing	1,499	46	113,971
<b>TOTAL ENERGY-RELATED</b>	<b>227,665</b>	<b>4,658</b>	<b>136,897</b>
<b>SHARE OF METRO HOUSTON TOTAL</b>	<b>7.9%</b>	<b>3.5%</b>	

Note: Due to the reach of the energy industry in Houston, portions of several other industries (e.g., utilities, accounting, real estate) could be added to this definition.

\*Four quarters ending Q4/20

Source: Texas Workforce Commission, Quarterly Census of Employment and Wages

**NEW ENERGY**

In June '21, the Greater Houston Partnership released its blueprint for leading the transition from traditional fuel sources to low-carbon and no-carbon energy. Titled, "Houston, Leading the Transition to a Low-Carbon World," begins with four key points:

- Energy has been very good to Houston, powering economic growth for over a century,
- Oil and gas production and consumption will not disappear, even in a net-zero emissions world,
- The traditional oil and gas industry won't drive Houston's growth as it has in the past, and
- Houston has an opportunity and a responsibility to lead the global transition to a low-carbon energy system.

There's a great deal at stake for Houston. As the energy industry

becomes more efficient at finding and producing oil and gas, it will continue to shed jobs. Houston has lost over 100,000 energy jobs in the past six years. That doesn't include the indirect jobs, those created by the household spending of the oil and gas workers.

If the region continues to do business as usual, the economy will continue to contract, Houston losing another 270,000 jobs over the next 30 years, according to estimates by McKinsey & Co. That number could rise to 370,000 if the world accelerates to low-carbon energy future, or up to 650,000 jobs if the world takes dramatic steps to prevent global temperatures from rising by more than 1.5 Celsius and CO2 emissions drop 90 percent by '50, an objective set out in the Paris Agreement, often refer to as the "Paris Climate Accords."

But the region is well positioned to lead the transition. The plan notes Houston has a large, diverse, and

technically oriented workforce. It has the most highly developed of energy infrastructure in the nation. A large and expanding renewable generation capacity is already in place. The local culture supports innovation and growth. And the region's extensive port, rail and aviation infrastructure offer a platform for large-scale decarbonization initiatives.

The strategy sets out three initial objectives for the region: jumpstarting emerging technologies and markets where Houston has a strategic advantage, attracting and supporting companies in established yet rapidly growing "New Energy" industries, and creating an environment that encourages investment in and deployment of a wide range of value chains. The later includes everything from nature-based solutions, to cleaner production of natural gas, oil, and petrochemicals, to breakthroughs in energy efficiency, geothermal energy, and advanced materials.

## NASA and Aerospace

NASA's Johnson Space Center (JSC), located 25 miles southeast of downtown Houston, has served as mission control for U.S. space exploration and astronaut training since 1961. JSC currently serves as mission control for America's human space program aboard the International Space Station (ISS). JSC personnel develop, build, and upgrade piloted spacecraft and oversee many of the medical and scientific experiments conducted in space.

JSC, a \$1.5 billion complex established in 1961, occupies 1,620 acres and is one of NASA's largest R&D facilities. JSC managed an annual budget of \$5.56 billion in '20 and generated more than \$8.7 billion in economic output in Texas. JSC'S largest contractors in '20 included Boeing, Lockheed Martin, and Northrop Grumman. NASA supported 2,950 civil workers (110 of which are astronauts) and 8,942 contractors at JSC in '20. Space Center Houston, the official visitor center of JSC, employed approximately 180 workers. The Space Center closed for six months in '20, due to the coronavirus pandemic.

In '20, NASA began to accept applications for future astronauts for the first time in four years. All astronauts undergo training at JSC, and the call for more astronauts coincides with NASA's preparations to send the first woman to the moon with the Artemis program. JSC is home to NASA's Astronaut Corps and is the primary training site for astronauts

from the original Gemini and Apollo programs to the contemporary ISS Expedition crews.

In May '20, the first commercially built and operated American crew spacecraft launched from the U.S., taking two astronauts, Robert Behnken and Douglas Hurley, to the ISS. It was the first launch from American soil since the last Space Shuttle launch in '11. SpaceX controlled the Falcon 9 rocket, and NASA monitored the launch, flight, and space station docking operation from mission control at JSC. When Behnken and Hurley returned two months later, it marked the first splashdown of American astronauts in 45 Years.

In November '20, NASA celebrated the 20th anniversary of the ISS. Over the past 20 years, the ISS has hosted 241 astronauts from 18 countries. More than 3.5 million photos of Earth have been captured since the first ISS expedition. JSC serves as the lead NASA center for the ISS and even has a replica of the space station on the JSC campus for training purposes.

Construction on laboratories for NASA's Astromaterials Research and Exploration division began in '20 at JSC. The laboratories will house astromaterials (samples from the Moon, Mars, asteroids, comets, etc.) brought to Earth by the Mars Curiosity Rover, OSIRIS-REx, and other spacecraft.

Houston is home to 350 companies involved in aircraft or space vehicle manufacturing, research and technology or other air transportation support activities. Of the 50 largest aerospace manufacturing companies in the U.S., 10 have a presence in the Houston region.

Houston's total trade in aircraft, spacecraft, and parts totaled \$1.9 billion in '20, and aircraft, spacecraft, and parts were Houston's 13th largest internationally traded commodity. The Space Commerce Conference and Expo (SpaceCom), which has been held for five consecutive years at Houston's George R. Brown Convention Center, postponed its March '20 annual conference to fall '21 due to the COVID-19 pandemic.

Ellington Field, located 18 miles southeast of downtown Houston, became a Federal Aviation Administration (FAA) designated spaceport in '15. In '20, Phase 1 construction of the spaceport development was underway, an \$18.8 million project designed to provide infrastructure and utilities. One of only 10 spaceports in the U.S., the project is intended to help attract the relocation of aerospace companies. Axiom Space, the world's first commercial space station builder, announced in '20 that it will build a 14-acre headquarters campus at Ellington Field to train private astronauts and establish a private space station. The company also leased office space in the Clear Lake area near JSC.



## Innovation

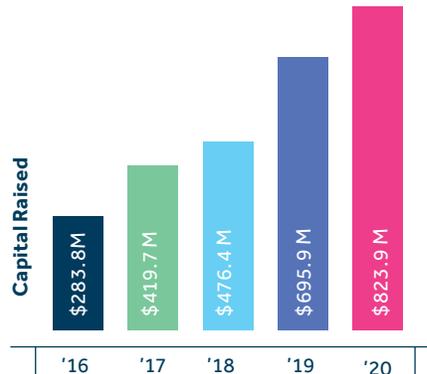
Houston is a thriving hub of digital tech talent. With more than 243,900 tech workers, Houston has the 11th largest tech workforce in the U.S., according to the Computing Technology Industry Association. In '19, Houston's tech industry contributed \$29.2 billion to the region's GDP.

Houston is home to 9,290 tech-related firms, including more than 700 venture-backed startups. These companies received \$2.7 billion in venture capital funding from '16 to '20. In '20, Houston startups raised \$823.9 million in funding, a record high for the region, according to the financial database Pitchbook.

In '20, the most heavily invested industry for VC funding in Houston was health care, which received

\$323.9 million across 53 deals. Information technology followed, with \$203.7 million across 29 deals.

### VENTURE CAPITAL IN HOUSTON



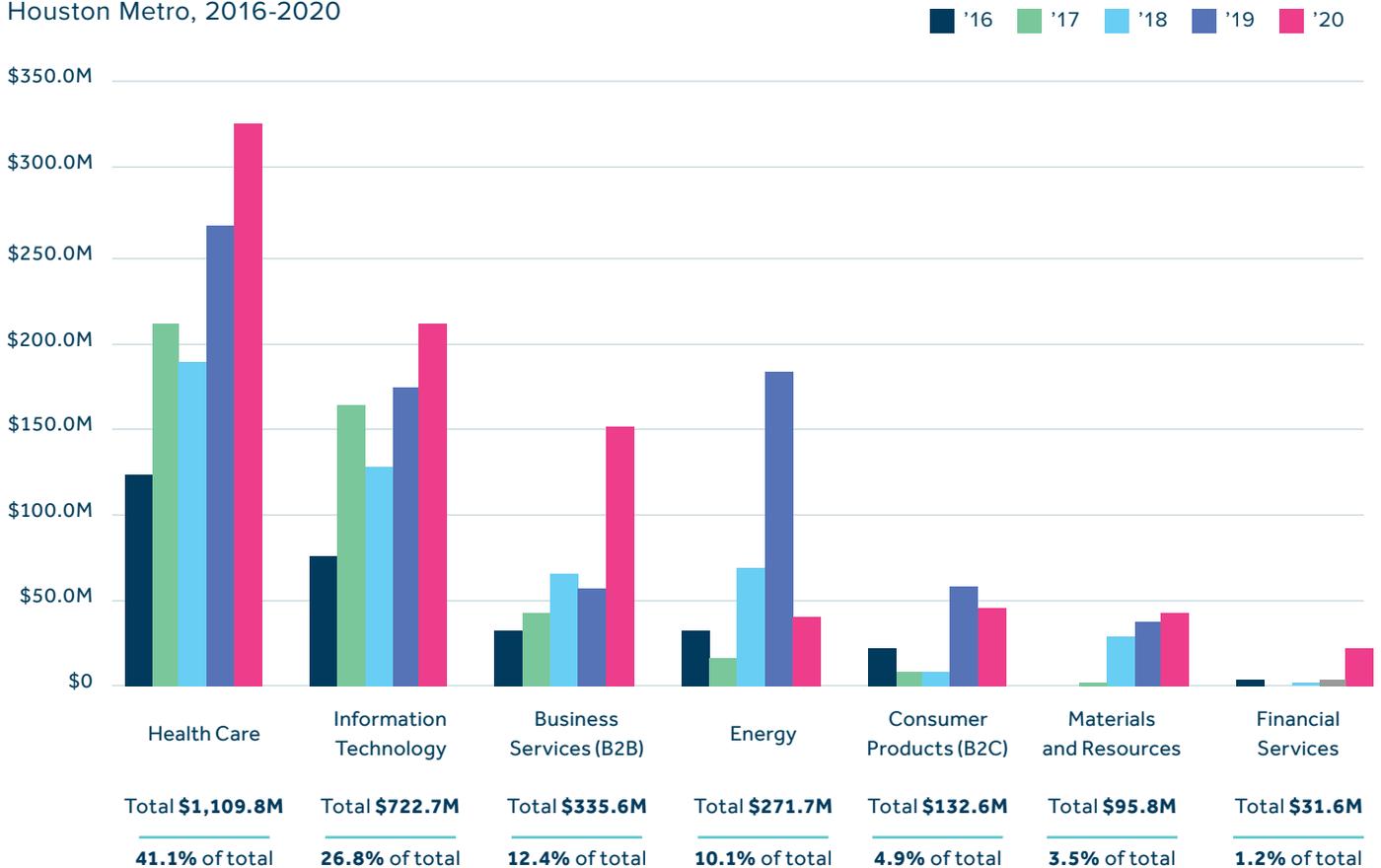
Source: Partnership analysis of Pitchbook data

### LARGEST HOUSTON VC DEALS IN '20

PREVENTICE SOLUTIONS	\$137M
AXIOM SPACE	\$130M
HIGHRADIUS	\$125M
DASCENA	\$50M
SOLUGEN	\$30M
GOEXPEDI	\$25M

## HOUSTON VENTURE CAPITAL FUNDING

Houston Metro, 2016-2020



Source: Partnership Analysis of PitchBook data

### TECH EMPLOYERS

Several tech companies are among Houston’s largest employers, including **HP Enterprise, HP Inc., IBM, PROS, BMC Software, Siemens, Honeywell, Oracle, and Microsoft**. Houston is also home to at least 10 VC-backed startups valued over \$100 million. In January ’20, investors valued the financial software firm HighRadius at \$1 billion, making it the most valuable digital tech startup in Houston.

### HOUSTON’S STARTUP ECOSYSTEM

Dozens of startup development organizations (SDOs) have emerged in recent years to facilitate growth across Houston’s tech ecosystem. In ’21, the region included more than 50 SDOs, including Incubators and accelerators, makerspaces, co-working space, non-profits, and academic institutions. These organizations have formed a growing web of resources assisting tech entrepreneurs across the Houston region.

### INNOVATION CORRIDOR & THE ION

At the nucleus of Houston’s tech ecosystem, the **Innovation Corridor** covers a four-mile expanse across the city’s dense urban core. Stretching from Downtown to the Texas Medical Center, the corridor encompasses Houston’s major business, academic and innovation centers. In May ’21, Rice University opened **The Ion**, a \$100 million tech hub meant to anchor the Innovation corridor and foster tech entrepreneurship. The 266,000-square foot building includes commercial office space for established tech companies, co-working space for early-stage startups, and 50,000 square feet of common space for events and programming.

### COWORKING AND MAKERSPACES

There are over 30 co-working spaces offering shareable workspace for startups in the Houston area. Notable co-working spaces include: **The**

**Cannon** – with a main campus in the Energy Corridor and branches in Downtown and the Galleria, **Station Houston** in downtown, **The Headquarters** in the East End, **Techspace Houston** in Uptown, **WeWork** in Downtown and west Houston, **Work Lodge** in northwest Houston, **Cowork Lab** in the Heights and **Common Grounds** in Greenway Plaza.

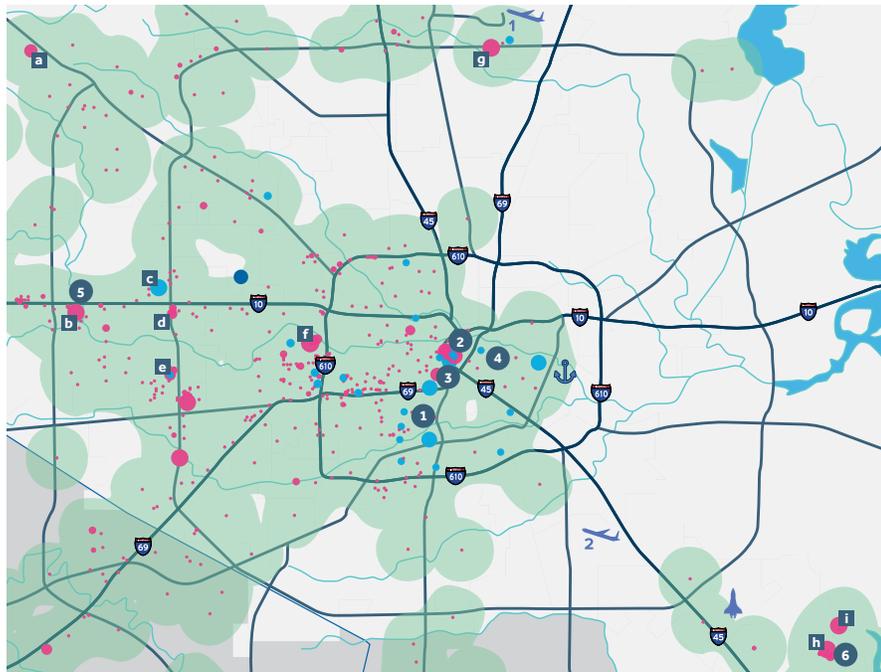
The **East End Maker Hub** opened in June ’21 as an industrial makerspace for Houston’s manufacturing and fabrication startups. The 300,000-square-foot facility is a collaboration between the Urban Partnerships Community Development Organization and the makerspace **TX/RX Labs**. The \$37-million expansion project aims to scale manufacturing and hard tech startups and create jobs for Houston’s East End residents.

### INCUBATORS AND ACCELERATORS

The recent push by Houston leaders to encourage more startup companies has produced a surge of incubator and accelerator activity in Houston. There are at least 19 incubator and accelerator programs operating in Houston. Notable programs include: **MassChallenge, Ion Smart Cities Accelerator, Gener8tor, Plug and Play, J Labs, and The AT&T Foundry**.

In April ’21, the energy accelerator **Greentown Labs** opened in Midtown. The program provides office space, mentorship and support for early stage companies working on climate change technologies. The Houston office is the first expansion outside of Boston.

**TMCx**, an accelerator program in the Texas Medical Center’s innovation Institute works to spur growth for Houston biotech and life science companies. Since its inception in ’14, the program has accelerated 172 companies that have gone on to raise over \$4.7 billion in venture capital funding.



### MAP LEGEND

#### TECH EMPLOYERS

- >1,000
- 700
- 500
- 200
- <0

● SDOs

#### SELECTED HOUSTON INNOVATORS

- a Gyrodata
- b Siemens
- c The Cannon
- d AWS
- e BMC Software
- f IBM
- g Halliburton Labs
- h Lockheed
- i Boeing

#### INFRASTRUCTURE

- 1 George Bush Intercontinental Airport
- 2 William P. Hobby Airport
- Houston Spaceport
- Port of Houston

## UNIVERSITY PROGRAMS

The Princeton Review consistently ranks the entrepreneurship programs at Rice University and University of Houston as among the nation's best. Rice University's entrepreneurship program at the Jones Graduate School of Business supports student innovation through the **Rice Alliance for Technology and Entrepreneurship**. The organization sponsors programs involving technology commercialization, entrepreneurship education and the launch of student-run technology companies. Rice's **Owlspace Accelerator** has helped launch dozens of companies and the **Rice Business Plan Competition** is the richest pitch competition in the country, according to the Princeton Review. In '21, the competition awarded \$1.6 million in prizes.

The University of Houston's **Cyvia and Melvyn Wolff Center** for Entrepreneurship at the Bauer College of Business aims to teach students how to run their own businesses from the inception of an idea through its implementation. Students with promising concepts are accepted into **Red Labs**, the University of Houston's startup incubator/accelerator

program. At the graduate level, students manage the million-dollar **Cougar Venture Fund**, working with an advisory board of entrepreneurs, angel investors and venture capitalists to analyze and invest in early stage technology companies.

## CIVIC INITIATIVES

In a joint effort between the Greater Houston Partnership and the City of Houston's Innovation and Technology Task Force, the non-profit **Houston Exponential (HX)** was formed in '17 to bolster the city's digital startup ecosystem. The organization works to convene the innovation ecosystem, connect startups to funding and remove barriers to growth. Separately, **HX Venture Fund** is a \$50 million fund of funds that seeks to transform Houston into a world-leading hub for innovation by linking outside investors to local startups.

HX is one of several non-profit startup development organizations (SDOs) working to grow the innovation ecosystem. Other notable SDOs include: **Impact Hub Houston**, which fosters startups advancing the United Nation's Sustainable

Development Goals; and **BioHouston**, which convenes the life science sector in Houston.

## INDUSTRY BACKING

Historically, oil and gas startups have been the most frequent destination for venture capital and private equity funding in Houston, with investments flowing from outside capital markets and the industry itself. Many of the major oil and gas companies have business units dedicated to finding and funding innovative ideas in the sector. A few of these include: **Shell Technology Ventures, Chevron Technology Ventures, ConocoPhillips Technology Ventures, Saudi Aramco Ventures** and **BP Ventures**. In June 2020, Boston-based Greentown Labs, a startup incubator focused on new energy technology, announced it will open a Houston office in '21, its first outside of Boston, to capitalize on synergies with the region's existing energy companies.

## Biotech and Life Science

Houston's health care industry includes 158,690 health care practitioners and technical occupations, including 12,190 medical doctors and 61,100 nurses.

As a hub for medical device manufacturing, pharmaceuticals, and health research, the Houston region is home to more than 18,960 life science and biotech researchers. More than 1,860 clinical trials were active in the Houston region in '20, representing 19.9 percent of all trials in the U.S. In '20, Houston medical institutions and life science firms received \$833.9 million in National Institutes of Health (NIH) grant funding, up 16.3 percent from '19. In the last five years, the

region received nearly \$3.5 billion in NIH funding, an average of \$690.8 million per year.

The **Texas Medical Center's Innovation Institute** is the epicenter of Houston's life science startup activity. The organization aims to help early stage companies commercialize new medical technologies by providing access to the vast resources of the world's largest medical center.

The Innovation Institute's accelerator program, **TMCx**, focuses on early-stage companies making breakthroughs in medical devices, digital health care services,

diagnostics and therapeutics. A related entity, **TMCx+**, offers a rotating incubator program for seed-stage companies. Additionally, the Texas Medical Center launched the **TMC Venture Fund** in '17. The fund has invested in 30 Houston health startups in the last three years.

TMC Innovation partners with several industry-backed programs supporting health innovation. Johnson & Johnson's **JLABs @TMC** provides lab space and support to companies developing promising technologies in consumer health, medical devices and pharmaceuticals. TMCx is also home to Johnson & Johnson's **Center for**

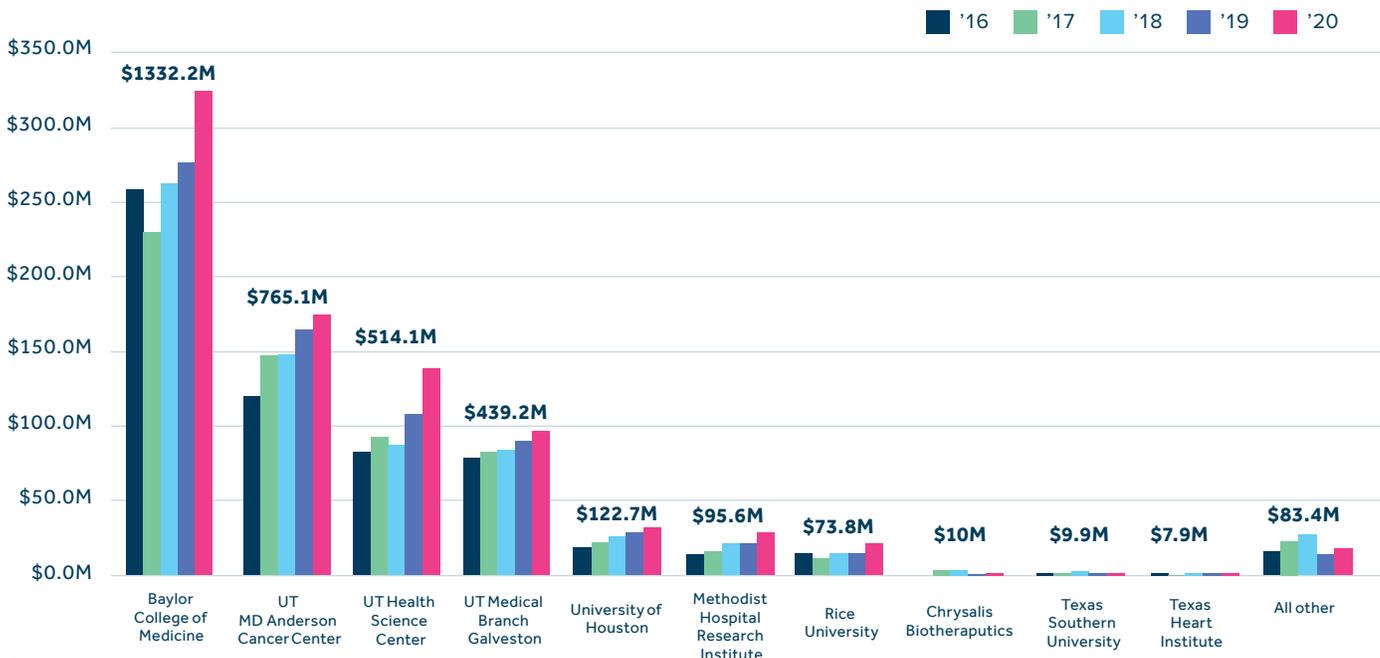
**Device Innovation**, a one-of-a-kind medical device prototyping lab. Also housed within the TMC Innovation

space, the **AT&T Foundry** is an accelerator program for companies developing digital health services.

In '19, **ABB** opened a first-of-its-kind robotics laboratory inside the TMC Innovation Institute.

### TOP HOUSTON RECIPIENTS OF NIH FUNDING

Houston Metro, 2016-2020



Source: NIH.gov

#### In '20, the top 10 Houston institutions receiving NIH funding were:

Baylor College of Medicine	\$323.6M	University of Texas MD Anderson Cancer Center	\$175.9M	University of Texas Health Science Center	\$135.6M
University of Texas Medical Branch Galveston	\$98.8M	University of Houston	\$32.0M	Methodist Hospital Research Institute	\$27.5M
Rice University	\$19.2M	Texas Heart Institute	\$2.1M	7 Hills Pharma	\$1.9M
		Texas Southern University	\$1.9M		

Health care is Houston's largest target sector for venture capital funding. In '20, Houston health care startups in biotechnology, therapeutics, digital health and medical devices raised \$323.9 million, a 23.5 percent increase from '19, according to PitchBook. In the last five years, Houston health startups received \$1.1 billion in VC funding.

#### In '20, the top Health Startups receiving VC funding were:

Preventice Solutions	\$137.0M	Dascena	\$50.0M
Iterion Therapeutics	\$17.0M	ImmunoMet	\$13.6M
Pulmotect	\$12.0M	RETINA-AI	\$9.8M



## City of Houston

The City of Houston is a home rule municipality, which provides the city with inherent powers to manage their own affairs with minimal interference from the state.

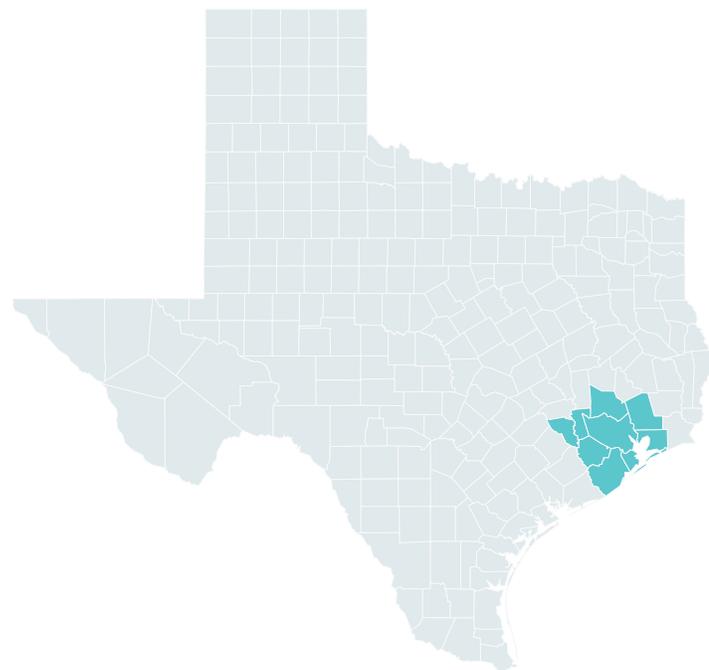
The city's current elected officials, serving four-year terms, are: the mayor, Sylvester Turner; the city controller, Chris B. Brown; and the

16 members of City Council. Eleven council members are elected from single-member districts and five are elected citywide or "at-large." City of Houston elected officials can serve no more than two terms of four years each.

The city's adopted General Fund budget for fiscal year (FY) '21 is \$2.4 billion. Property and sales taxes compose 80.0 percent of revenue for the General Fund, with property taxes expecting to total \$1.2 billion and revenue from sales tax estimated at \$675 million.

## Metro Area Counties

Each county in Texas is run by a five-member Commissioners Court consisting of four commissioners elected from single-member districts, called commissioner precincts, and a county judge elected "at-large" or countywide. The county commissioners and county judge serve staggered four-year terms and are not term-limited. The Commissioners Court of Harris County, which overlaps the City of Houston, has Judge Lina Hidalgo in addition to its four precinct commissioners. The county's General Fund budget for fiscal year '21 is \$3.3 billion.



## Texas Government

The chief executive of the State of Texas is the governor. Other elected officials with executive responsibilities include the lieutenant governor, attorney general, comptroller of public accounts, commissioner of the General Land Office, commissioner of agriculture and the railroad commissioner. These elected offices have a term of four years.

The Texas Legislature has 181 members: 31 in the State Senate, who are elected to four-year overlapping terms, and 150 in the State House of Representatives, who are elected to two-year terms. Regular sessions of the state legislature convene on the second Tuesday of January in odd-numbered years. The Texas Constitution limits the regular session to 140 calendar days; however, the governor may call a special 30-day session.



State legislative districts partly or entirely within the Houston MSA

**STATE SENATE DISTRICTS**

3 | 4 | 5 | 6 | 7 | 11  
13 | 15 | 17 | 18

**STATE HOUSE OF REPRESENTATIVES DISTRICTS**

3 | 13 | 15 | 16 | 18 | 23 | 24  
25 | 26 | 27 | 28 | 29 | 85  
126 | 127 | 128 | 129 | 130  
131 | 132 | 133 | 134 | 135  
137 | 138 | 139 | 140 | 141  
142 | 143 | 144 | 145 | 146  
147 | 148 | 149 | 150

## Local Council of Governments

The Houston-Galveston Area Council (H-GAC) is a regional council of governments in the 13-county Gulf Coast planning region. Organized in 1966, H-GAC is overseen by 36 elected officials that represent 13 counties (Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty,

Matagorda, Montgomery, Walker, Waller, and Wharton), 177 cities and 84 school districts.

H-GAC's regional programs focus on community and environmental planning, data tools and resources, disaster planning and recovery, transportation planning, public

safety, workforce, and economic development. As one of the country's largest council of governments, H-GAC provides a forum for jurisdictions of all sizes to solve regional issues; identifies and prioritizes funding opportunities; and helps analyze trends and conditions affecting the region.

## U.S. Congress

U.S. House of Representatives legislative districts partly or entirely within the Houston MSA:

- District 2** | Harris County
- District 7** | Harris County
- District 8** | Harris and Montgomery Counties
- District 9** | Brazoria, Fort Bend and Harris Counties
- District 10** | Austin, Harris and Waller Counties
- District 14** | Brazoria and Galveston Counties
- District 18** | Harris County
- District 22** | Brazoria, Fort Bend and Harris Counties
- District 29** | Harris County
- District 36** | Chambers, Harris and Liberty Counties

## Taxation

The sales and use tax in the State of Texas is 6.25 percent. The City of Houston levies an additional 1.0 percent. The Harris County Metropolitan Transit Authority levies an additional 1.0 percent in areas it serves, which includes the entire

City of Houston and many of the unincorporated parts of Harris County.

The table below shows typical tax rates for property located within Houston city limits. The tax rates are expressed as dollars per \$100 taxable value.

### TYPICAL PROPERTY TAXES Tax Rate per \$100 Taxable Value | 2020

City of Houston	Harris County	Houston Independent School District	Houston Community College
\$0.56184	\$0.39116	\$1.1331	\$0.100263
<b>Total Property Tax Rate</b>			<b>2.186363</b>

Ad valorem property tax is the primary source of local government revenue in the Houston region.

### FULL MARKET VALUE OF TAX ROLL 2020

Houston ISD

\$253.5 Billion

City of Houston

\$337.8 Billion

Harris County

\$658.4 Billion

Source: Harris County Appraisal District

## Public Safety

### HOUSTON POLICE DEPARTMENT (HPD)

HPD's budget for FY '21 is \$930.9 million.

The HPD budget calls for a total of 6,395 full-time-equivalent (FTE) police personnel, of which 5,128 are classified, 950 civilian and 140 police cadets in training.

HPD's estimated average response time in '20 was 5.6 minutes for priority one calls and 10.1 minutes for priority two calls.

HPD responded to 1,088,794 calls for service in '20.

### HARRIS COUNTY SHERIFF'S OFFICE (HCSO)

Founded in 1837, HCSO is the largest sheriff's office in Texas and the third largest in the United States.

HCSO's FY '21 operating budget is \$776.4 million.

The Harris County Sheriff's Office provides law enforcement protection to the 4.1 million residents in Harris County.

HCSO employs over 5,000 employees and over 150 volunteer reserve deputies.

### HOUSTON FIRE DEPARTMENT (HFD)

HFD is the largest fire department in the U.S. to possess a class 1

rating from the Insurance Service Organization and is the world's largest fire department to receive accreditation from the Commission on Fire Service International. The City of Houston has 105 fire stations equipped with 87 engine companies, 92 ambulances (36 with advanced life support), 2 hazmat response units, 11 booster trucks, 4 cascade units, 32 ladder trucks, and 13 evacuation and rescue boats.

In '20, HFD responded to 344,381 incidents. Of these incidents, there were 43,115 fire related incidents with a first unit response median time of 8.23 minutes and 301,266 EMS related incidents with a first unit response median time of 8.26 minutes.

HFD's FY '20 budget is \$507.1 million and calls for 4,041.5 FTE employees, of whom 97 are civilians.

## Libraries

The Houston Public Library (HPL) is comprised of 37 neighborhood and regional libraries, three history research libraries, the HPL Mobile Express, and the Central Library. The system has a collection of 2.5 million items. In fiscal year 2020, the 1.4 million registered card holders visited

the library 4.5 million times (virtually and in person) and checked out 3.1 million books, magazines, e-books, audiobooks, DVDs and CDs.

The Harris County Public Library (HCPL) system is a network of 26 branches with 1.9 million items in its

collection. In '20, 2.1 million physical items and 3.9 million digital items were borrowed by 1.9 million library card holders. physical items and 2.7 million digital items were borrowed by 1.7 million library card holders.



**SELECTED HOUSTON-AREA INDEPENDENT SCHOOL DISTRICTS (ISDS)  
AND CHARTER MANAGEMENT ORGANIZATIONS (CMOS)  
2019-2020**

ISD OR CMO	CAMPUSES	TOTAL STUDENTS FALL '19	STUDENT-TEACHER RATIO	COUNTY
HOUSTON ISD	280	209,309	18.6	Harris
CYPRESS-FAIRBANKS ISD	87	117,120	15.9	Harris
KATY ISD	69	83,241	14.9	Harris
FORT BEND ISD	80	77,575	16	Fort Bend
ALDINE ISD	78	67,130	16.2	Harris
CONROE ISD	60	64,517	16.4	Montgomery
KLEIN ISD	49	53,970	15.3	Harris
PASADENA ISD	67	52,792	14.1	Harris
ALIEF ISD	46	45,281	13.9	Harris
HUMBLE ISD	46	44,952	15.3	Harris
CLEAR CREEK ISD	47	42,234	16.8	Galveston
SPRING ISD	41	35,284	16.4	Harris
SPRING BRANCH ISD	46	35,136	15.4	Harris
LAMAR CISD	40	35,042	16.4	Fort Bend
ALVIN ISD	31	26,885	15.2	Brazoria
GOOSE CREEK CISD	29	23,850	15.5	Harris
GALENA PARK ISD	25	22,366	16.3	Harris
PEARLAND ISD	24	21,670	16.7	Brazoria
TOMBALL ISD	20	18,234	16.8	Harris
NEW CANEY ISD	20	16,081	15.6	Montgomery
MAGNOLIA ISD	17	13,230	15.5	Montgomery
DEER PARK ISD	14	12,633	15.3	Harris
BRAZOSPORT ISD	20	12,121	14	Brazoria
YES PREP PUBLIC SCHOOLS	15	12,074	15.6	Harris
DICKINSON ISD	18	11,630	14.3	Galveston
SHELDON ISD	13	10,124	16.4	Harris
CHANNELVIEW ISD	12	9,721	17.4	Harris
MONTGOMERY ISD	11	8,999	15	Montgomery
TEXAS CITY ISD	15	8,380	15.3	Galveston
WILLIS ISD	11	7,813	17.8	Montgomery
<b>70 OTHER DISTRICTS</b>	262	142,608	15.5	-
<b>TOTAL</b>	1,593	1,342,002	16	-

Source: Texas Education Agency, Texas Academic Performance Reports, 2019-20



## Elementary and Secondary Education

The Houston MSA contains 61 independent school districts (ISDs) and 39 state-approved charter management organizations (CMOs). In fall '19, public schools in the Houston metro area enrolled more than 1.3 million students, approximately one in four school children in Texas,

Houston Independent School District (HISD) is the seventh largest public school system in the nation and the largest in Texas. In the '19-20 school year, HISD operated 280 campuses and enrolled more than 209,300 students.

## Higher Education

Colleges and universities in the Houston area enrolled more than 417,000 students across 32 academic institutions in the fall of '20, according to the Texas Higher Education Coordinating Board. Community college students accounted for 45.2 percent of enrollment in '20.

Houston benefits from three Tier I research universities within a 100-mile radius: Rice University, the University of Houston, and Texas A&M University. These institutions have the highest ranking under the Carnegie classification system for research activity.

## INSTITUTIONS OF HIGHER EDUCATION

Greater Houston Area , Fall 2020

TWO-YEAR COMMUNITY COLLEGES		FALL 2020 ENROLLMENT
Lone Star College System		70,738
Houston Community College		37,676
San Jacinto Community College District		30,840
Blinn College District		17,906
Lee College		4,258
Wharton County Junior College*		6,097
Alvin Community College		5,609
College of the Mainland Community College District		4,351
Brazosport College		3,911
Lamar Institute of Technology*		4,576
Galveston College		2,149
Texas State Technical College-Fort Bend		788
		<b>188,899 STUDENTS</b>
FOUR-YEAR OR ABOVE		FALL 2020 ENROLLMENT
Texas A&M University-College Station*		65,370
University of Houston		47,066
Sam Houston State University*		21,654
Lamar University*		15,845
University of Houston-Downtown		15,251
Prairie View A&M University		9,449
University of Houston-Clear Lake		9,060
Texas Southern University		7,016
Rice University		7,437
UT Health Science Center-Houston		5,656
University of Houston-Victoria*		4,958
Houston Baptist University		3,963
Texas A&M Health Science Center		3,064
UT Medical Branch-Galveston		3,464
University of St. Thomas		3,693
Texas A&M University at Galveston		1,660
Baylor College of Medicine		1,592
Texas Woman's University-Houston		1,300
South Texas College of Law Houston		1,003
UT M.D. Anderson Cancer Center		359
		<b>228,860 STUDENTS</b>
<b>TOTAL</b>		<b>417,759 STUDENTS</b>

Source: Texas Higher Education Coordinating Board

\*located outside Houston MSA but within 100-mile radius.



# INFRASTRUCTURE

## Utilities

### ELECTRICITY AND NATURAL GAS

Headquartered in Houston, CenterPoint Energy (CNP) is a domestic energy delivery company that includes electric transmission and distribution, natural gas distribution, competitive natural gas sales and services, interstate pipelines, and field services operations. According to CNP's '20 Annual Report:

- CNP's assets total nearly \$33.5 billion.
- The company employs 9,541 people, of which approximately 4,967 work in Houston.
- CNP, via its subsidiary Houston Electric, serves 2,599,827 Texas Gulf customers (2,303,315 residential and 296,512 commercial/industrial).
- CNP'S electric utility business serves more than 2.5 million metered customers in the Houston region. Houston Electric has a Smart Grid, a private telecommunications network and a wireless radio frequency mesh telecommunications network.
- CNP's Houston Electric owns

and operates 3,805 circuit miles of overhead and 26 miles of underground electric transmission lines, 29,525 circuit miles of overhead and 26,520 miles of underground distribution lines, 239 major substation sites with a capacity of 69,915 megavolt amperes and 13 regional service centers.

In '20, CenterPoint Energy Resources Corporation (CERC) owned and operated an underground natural gas storage facility with a combined capacity of 7.0 bcf, 10 propane-air plants with a production rate of 198,000 dekatherms (dth) per day, and a liquefied natural gas (LNG) plant facility with a 12 million-gallon LNG storage tank and production rate of 72,000 Dth per day.

### TELECOMMUNICATIONS

Houston is served by seven area codes: 281, 346, 409, 713, 832, 936 and 979, four of which overlap.

- The Public Utilities Commission of Texas (PUC) has certified 290 active Competitive Local Exchange

Carriers to provide local phone service in the state.

- The Texas PUC has registered 197 active long-distance Interexchange Carriers.
- Numerous cellular service providers offer mobile voice and data communications in the Houston MSA, and Houston was first U.S. metro to install Verizon 5G broadband in October '18.

### FIBER

As of Q1/21, the Houston metro has 11,200 installed fiber carrier miles, the equivalent of 7,905 fiber conduit route miles. A fiber conduit can have 12 to 1,024 fiber strands inside it, and carriers can own multiple strands within each conduit. Fiber carrier miles are measured by strand length in each conduit, but only one strand per carrier is counted regardless of the number of strands owned within the conduit. However, fiber conduit route miles are measured by conduit length.

Twenty-four carriers operate or provide fiber service in Houston

including, but not limited to, AT&T, Crown Castle, Consolidated Communications, Entouch, Fiberlight, ICTX, Lumen, Lightwave, Phonoscope, Verizon, Windstream and Zayo.

Fifty-five companies operate 42 fiber-lit data centers, colocation, or carrier hotel facilities in Houston including, but not limited to, Alpheus, CenturyLink, CyrusOne, Data Foundry, Digital Reality, Fiberlite, Internap, Softlayer Technologies, Stratitsphere, Sungard Availability and The Planet.

**WATER**

The City of Houston is the regional water provider for Harris County and portions of three surrounding counties. At projected usage rates, the City has sufficient water supplies for its wholesale and retail customers through the year 2050.

The City owns water rights to over 1.2 billion gallons per day of reliable surface water and over 200 million gallons per day of available groundwater supplies.

The City of Houston owns a 70 percent share of Lake Livingston, 70 percent of Lake Conroe and 100 percent of Lake Houston. The City of Houston is also promised 70 percent of the water rights for Allens Creek Reservoir, a proposed lake in Austin County.

Houston's Drinking Water Operations produced and distributed more than 160 billion gallons of water in '17, the most recent data available, through a 7,000-mile pipeline distribution system. The City of Houston treated an average of 449 million gallons of water per day in '17. Most of this water is used for industrial and manufacturing purposes.

The City has three purification plants: the Northeast Water Plant, the East Water Plant and the Southeast Water

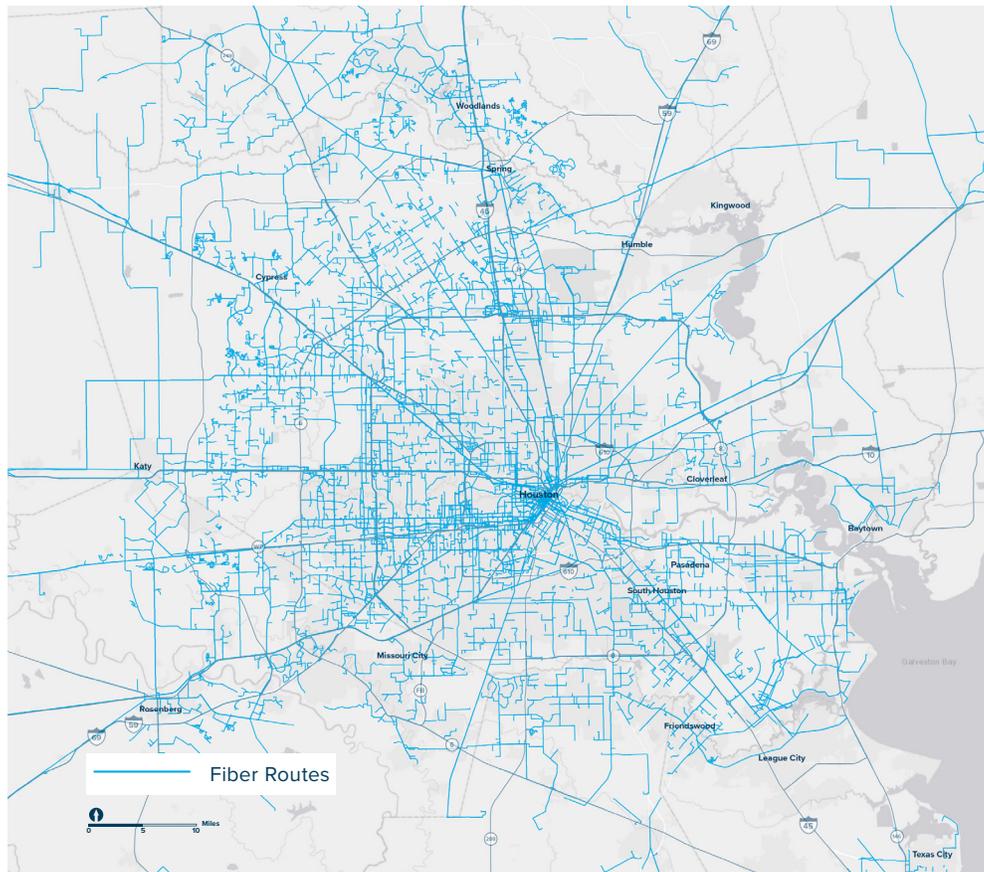
Plant. The Northeast Water Plant is currently undergoing an expansion that will increase the plant's capacity from 80 mgd to 400 mgd by '24.

The City of Houston's drinking water system maintains a "Superior" rating, the highest rating for water quality issued by the Texas Commission on Environmental Quality (TCEQ).

**WASTEWATER**

The City of Houston operates 39 wastewater treatment plants, three wet weather facilities, 18 storm water underpass pump stations and over 383 lift stations. The City treats an average of 250 mgd of wastewater with an overall permitted capacity of 564 mgd. It maintains 6,100 miles of sewer pipelines with over 127,000 manholes.

**METRO HOUSTON FIBER ROUTES, 2020**



## Land Transportation

### MOTOR FREIGHT LINES

1,469 long-distance trucking establishments operate in the Houston MSA.

### RAILROADS

The Houston area is served by BNSF Railway Company, Kansas City Southern Railway Company and Union Pacific Railroad Company. Businesses along the Houston ship channel are served by the Galveston Railroad, Port Terminal Railroad Association and Texas City Terminal Railway Company. Eight mainline tracks and five branch line tracks radiate from Houston.

Amtrak provides passenger service three times per week in Houston via the Sunset Limited route that travels from New Orleans to San Antonio and Los Angeles.

### INTRACOASTAL WATERWAY

The Texas portion of the Gulf Intracoastal Waterway stretches

423 miles. The main channel is 12 feet deep and 125 feet wide. The entire Gulf Intracoastal Waterway spans approximately 1,100 miles from Brownsville, Texas to St. Mark's, Florida. Texas' portion of the Gulf Coast Intracoastal Waterway facilitates the transportation of up to 90 million tons of freight annually.

### FREEWAYS, HIGHWAYS AND TOLL ROADS

There are 3,355 centerline miles and 11,084 lane miles of freeways and expressways in operation, according to the Texas Department of Transportation (TxDOT) Houston District. The Houston District includes Brazoria, Fort Bend, Galveston, Harris, Montgomery, and Waller Counties.

**Corridors:** Houston's major thoroughfares include Beltway 8, Fort Bend Tollway, Grand Parkway 99, Hardy Tollway, I-10, I-45, I-610, SH 6, SH 146, SH 225, SH 288, US 59/I-69, US 90, US 290 and the Westpark Tollway.

**Highway Spending:** In FY '20, the TxDOT spent \$1.6 billion on construction and maintenance projects in the Houston District.

**Vehicle Miles Traveled (VMT):** Motorists traveled a total of 100,384,366 vehicle miles per day in the Houston district in '20. The average daily VMT per vehicle was 19.7 miles based on the 5,091,153 vehicles registered in the region.

### METROPOLITAN TRANSIT AUTHORITY (METRO)

Created and funded with a one-cent sales tax in a 1978 voter referendum, the Metropolitan Transit Authority of Harris County began operations in January 1979.

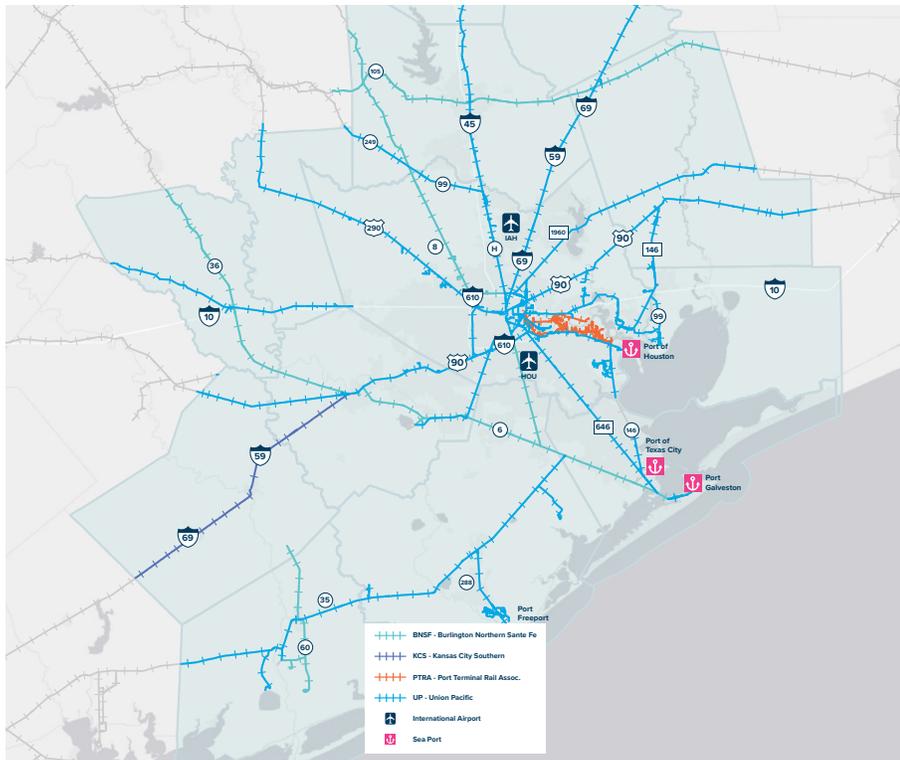
METRO serves an area of 1,303 square miles with 21 transit centers, 8,964 bus stops and 27 Park & Ride lots, according to the most recent edition of METRO Highlights.

METRO's fleet included 1,236 active buses and 76 light-rail train cars. METRO operates 114 routes and three light-rail lines that travel more than 22 track miles.

METRO Rapid Silver Line, a bus rapid transit line in Uptown Houston, opened to the public in August '20. The line (route number 433) runs along Post Oak Boulevard in dedicated lanes providing transit through the Galleria area and to two major transit centers: the Northwest Transit Center and the Westpark/Lower Uptown Transit Center. Buses run every 10 minutes from 5 am to 9:30 pm and every 15 minutes from 9:30 pm to midnight. The buses and the line are designed to be like rail with wider doorways and level boarding, stations and platforms like rail, and a dedicated lane that prioritizes bus access through traffic signals. The doorways and level boarding at stations are similar to subway access, providing ease of transfer for wheelchairs and strollers.

The COVID-19 pandemic reduced METRO ridership significantly in '20, as commuters worked from home

### METRO HOUSTON TRANSPORTATION ROUTES, 2020



or avoided mass transit. Annual ridership in '20, including bus, rail, METRORapid, and Park & Ride, totaled 51.7 million passengers, down 39.9 percent from 86.1 million passengers in '19, according to calculations based on METRO's Monthly Ridership Reports. Three Park & Ride Routes (217, 222, and 265) were combined to better align with ridership frequency. To combat risk of infection, METRO

increased cleaning and disinfecting of vehicles and stops and reduced customer seating by 50 percent, tagging seats as unavailable to encourage social distancing.

Passenger boardings in '20 averaged 4.3 million per month, down 39.9 percent from 7.2 million per month in '19.

Daily fixed-route weekday ridership in '20 averaged 168,971, down 40.2 percent from 282,397 boardings in '19.

All buses on METRO's 114 bus routes and all METRORail vehicles are fully accessible to disabled patrons. METROLift offers prescheduled curb-to-curb service for disabled patrons who cannot use METRO's fixed-route service.

## Sea Ports

The Houston region has four seaports which handled 230.1 million metric tons of foreign trade in '20. Of these four ports, the Port of Houston is the largest and ranks first in foreign trade tonnage among all U.S. seaports. Port Freeport ranks 15th in the U.S., Port of Texas City ranks 22nd and Port of Galveston ranks 43rd.

### PORT HOUSTON

In '19, the Port of Houston ranked first in total tonnage (domestic and foreign)—after 27 consecutive years in second place—and first in foreign tonnage (exports and imports) for the 24th consecutive year, according to the most recent data available from the U.S. Army Corps of Engineers. Globally, the Port of Houston ranked as the 16th largest port in the world by total tonnage.

Container service was initiated in Houston in 1956. Today, the Port of Houston is the largest Gulf Coast container port, handling 69 percent of U.S. Gulf Coast container traffic and 96 percent of Texas container traffic.

The Port of Houston handled 26.1 million metric tons of containerized cargo and hauled in 3.0 million TEUs (twenty-foot equivalent units) in '20, setting new port records for containers handled in a year. The Port ranked as the sixth busiest U.S. container port in '20, based on total TEUs.

Foreign trade in '20 totaled 180.5 million metric tons valued at \$126.5 billion. Imports totaled 47.9 million metric tons, valued at \$52.5 billion. Exports totaled 132.6 million metric tons, valued at \$74.0 billion.

The Port of Houston traded with 212 countries in '20. Of those, trade with 32 countries exceeded one billion dollars each while trade with 152 additional countries exceeded one million dollars. The Port's top trading partner by value is China and by weight is Mexico.

### HOUSTON SHIP CHANNEL

The Houston Ship Channel, a 52-mile inland waterway, connects Houston with the sea lanes of the world. Its turning basin is eight miles east of Houston's central business district.

Most of the channel has a minimum width of 530 feet and a depth of 45 feet at mean low tide.

More than 330 public and private terminals, owned by more than 150 companies, line both sides of the channel and serve one of the world's largest petrochemical industrial complexes.

### TOP 5 TRADING PARTNERS \*Port of Houston, 2020

RANK	TOP FIVE BY VALUE	VALUE IN MILLIONS
1	China	13,078.5
2	Brazil	8,971.2
3	Mexico	8,926.8
4	Germany	6,330.1
5	South Korea	5,309.3
<b>TOTAL TOP 5 TRADING PARTNERS</b>		<b>\$42,615.8 M</b>
<b>ALL OTHER TRADING PARTNERS</b>		<b>\$83,933.2 M</b>
<b>TOTAL ALL TRADING PARTNERS</b>		<b>\$126,549.0 M</b>

RANK	TRADING PARTNERS	WEIGHT IN METRIC TONS
1	Mexico	25.6
2	Brazil	15.0
3	China	12.9
4	Japan	12.0
5	South Korea	8.1
<b>TOTAL TOP 5 TRADING PARTNERS</b>		<b>73.5 M</b>
<b>ALL OTHER TRADING PARTNERS</b>		<b>107.0 M</b>
<b>TOTAL ALL TRADING PARTNERS</b>		<b>180.5 M</b>

Source: WISERTrade  
\*By combined imports and exports

### PORT OF HOUSTON TOTAL TRADE VALUE AND WEIGHT BY COMMODITY 2020

RANK	COMMODITY	VALUE IN MILLIONS
1	Mineral fuels, oil, refined products	40,595.4
2	Organic chemicals	12,388.3
3	Industrial equipment and computers	12,099.0
4	Plastics and plastic products	10,477.7
5	Articles of iron or steel	5,940.1
<b>TOTAL TOP 5 COMMODITIES</b>		<b>\$81,500.6 M</b>
<b>ALL OTHER COMMODITIES</b>		<b>\$45,048.4 M</b>
<b>TOTAL ALL COMMODITIES</b>		<b>\$126,549.0 M</b>

RANK	COMMODITY	WEIGHT IN METRIC TONS
1	Mineral fuels, oil, refined products	121.5
2	Organic chemicals	17.4
3	Plastics and plastic products	9.2
4	Cereals	6.3
5	Salt, sulfur, stone, lime, and cement plaster	4.5
<b>TOTAL TOP 5 COMMODITIES</b>		<b>158.9 M WEIGHT IN METRIC TONS</b>
<b>ALL OTHER COMMODITIES</b>		<b>21.6 M</b>
<b>TOTAL ALL COMMODITIES</b>		<b>180.5 M</b>

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

### SEAPORTS RANKED BY FOREIGN TRADE 2020

**Port of Houston**  
 180,513,771 metric tons  
 U.S. Rank | 1

**Port Freeport**  
 27,297,365 metric tons  
 U.S. Rank | 15

**Port of Texas City**  
 17,142,225 metric tons  
 U.S. Rank | 22

**Port of Galveston**  
 5,143,085 metric tons  
 U.S. Rank | 43

Source: WISERTrade

## Air Transportation

Houston is the international air gateway to the southern United States and Latin America. In '15, Hobby Airport added direct flights to Mexico, making Houston the only city in Texas with two international airports – one of only eight such cities nationwide.

The Houston Airport System (HAS) was recognized with numerous awards in '20:

- According to J.D. Power's '20 Airport Satisfaction rankings, George Bush Intercontinental (IAH) ranked 13th among “mega airports” in the U.S. and William P. Hobby Airport (HOU) ranked 4th among “large airports” in the U.S.
- IAH ranked as the 10th best airport in the nation on the 2019 Wall

Street Journal U.S. airport rankings released November '19. Among the 15 factors in the study, IAH ranked No. 1 for on-site parking cost and was among the top ten for number of nonstop destinations, TSA screening time, on-time arrivals and flight cancellations.

In July '18, Southwest began shipping international cargo between the U.S. and Mexico from Hobby Airport.

In October '18, Houston City Council approved funding for the redevelopment of George Bush Intercontinental Airport. The \$1.2 billion project will include the construction of the Mickey Leland International Terminal (MLIT), which will consolidate the existing D and E



terminals into a centralized ticketing, departures and arrivals hall for international flights.

Reconstruction of the MLIT began in July '20, and the terminal is slated to open in '24. The project also includes demolishing the existing Terminal D/E parking garage.

In October '18, Houston City Council approved \$18.8 million in infrastructure upgrades to the Houston Spaceport at Ellington Airport. Improvements were completed in '19 and included new streets, water lines, wastewater, electrical power distribution facilities, and communications facilities.

In '20, the commercial space station developer Axiom Space announced plans to locate their company HQ at the Houston Spaceport.

## AIR CARRIERS SERVING THE HOUSTON AIRPORT SYSTEM

### GEORGE BUSH INTERCONTINENTAL (IAH)

#### Airlines Offering Direct Domestic Flights

Alaska Airlines	Frontier Airlines	United Airlines
American Airlines	JetBlue Airways	
Delta Airlines	Spirit Airlines	

#### Airlines Offering Direct International Flights

Aeromexico	Emirates	Singapore Airlines
Air Canada	Ethiopian	Spirit Airlines
Air China	EVA Air	Turkish Airlines
Air France	InterJet	United Airlines
Air New Zealand,	KLM Royal	VivaAerobus
All Nippon Airways	Dutch Airlines	Volaris
AVIANCA	Lufthansa	Westjet
British Airways	Qatar Airways	

### WILLIAM P. HOBBY AIRPORT (HOU)

#### Airlines Offering Direct Domestic Flights

Allegiant Air
American Airlines
Delta Airlines
Southwest Airlines

#### Airlines Offering Direct International Flights

Southwest Airlines
Delta Airlines

## Houston Aviation Statistics:

HAS served 24,689,883 passengers in '20, down 58.7 percent from '19.

International traffic decreased 67.0 percent to 3,949,628 passengers in '20

Domestic passenger totals decreased 56.6 percent to 20,740,255 in '20

At George Bush International (IAH), domestic passengers totaled 14,602,019 in '20, down 57.2 percent from '19.

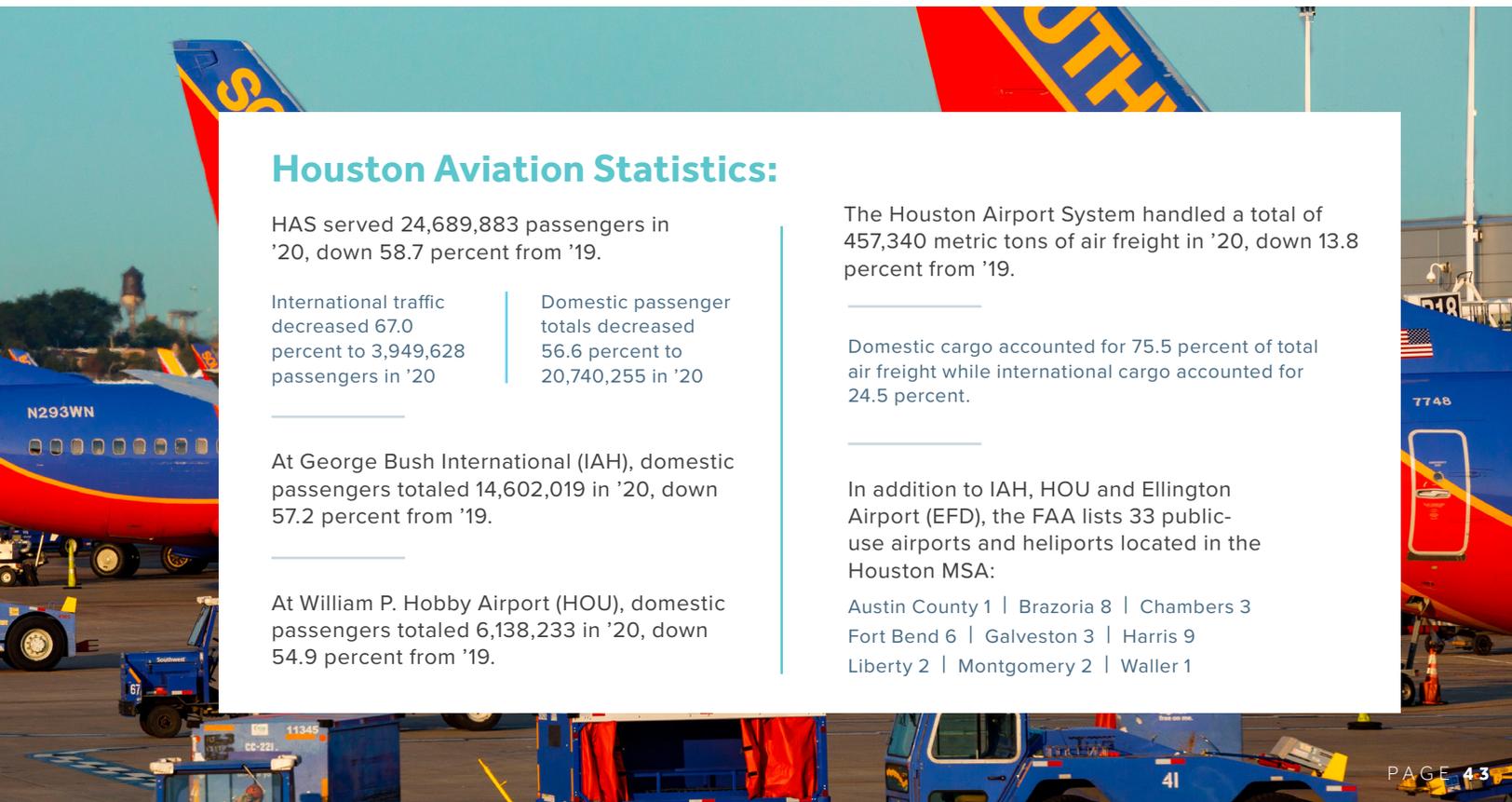
At William P. Hobby Airport (HOU), domestic passengers totaled 6,138,233 in '20, down 54.9 percent from '19.

The Houston Airport System handled a total of 457,340 metric tons of air freight in '20, down 13.8 percent from '19.

Domestic cargo accounted for 75.5 percent of total air freight while international cargo accounted for 24.5 percent.

In addition to IAH, HOU and Ellington Airport (EFD), the FAA lists 33 public-use airports and heliports located in the Houston MSA:

- Austin County 1 | Brazoria 8 | Chambers 3
- Fort Bend 6 | Galveston 3 | Harris 9
- Liberty 2 | Montgomery 2 | Waller 1





# COMMUNICATIONS AND MEDIA

Houston has 248 professional media outlets, including 171 print and online publications, 36 television stations and 40 radio stations. The Houston Chronicle, with nearly 1,000 employees, is the region's largest media employer. The University of Houston's KUHT, which aired its first broadcast May 25, 1953, is the oldest public television station in the U.S.

## Broadcast

According to Nielsen, the Houston television market was the eighth largest in the nation in '20, making up 2.2 percent of all TV households in the U.S. Top local TV news stations include the NBC-affiliate KPRC (Channel 2), CBS-affiliate KHOU (Channel 11), ABC-affiliate KTRK (Channel 13), Fox-affiliate KRIV (Channel 26), CW-affiliate KIAH (Channel 39), Univision-affiliate KXLN

(Channel 45) and Telemundo-affiliate KTMD (Channel 47).

The most popular local radio stations, by share of listenership, include KODA-FM (Sunny 99.1), KLTN-FM (Qué Buena 102.9), KMJQ-FM (Majic 102.1), KSBJ (God Listens 89.3) and KTRH-AM (NewsRadio 740), according to ratings from Nielsen.

## COMMUNICATIONS MEDIA BY TYPE Houston MSA, 2020\*

### TV

37 establishments | 1,656 jobs

\$97,523 annual wage

### Radio

39 establishments | 824 jobs

\$84,308 annual wage

### Print

171 establishments | 2,502 jobs

\$77,830 annual wage

\*Note: Four quarters ending Q4/20.  
Source: Texas Labor Market Information, Quarterly Census of Employment and Wages

### TOP LOCAL TV NEWS STATIONS INCLUDE

NBC-affiliate KPRC Channel 2 | CBS-affiliate KHOU Channel 11 | ABC-affiliate KTRK Channel 13 | Fox-affiliate KRIV Channel 26 | CW-affiliate KIAH Channel 39 | Univision-affiliate KXLN Channel 45 | Telemundo-affiliate KTMD Channel 47

### THE MOST POPULAR LOCAL RADIO STATIONS, BY SHARE OF LISTENERSHIP, INCLUDE

KLTN-FM Qué Buena 102.9 | KODA-FM Sunny 99.1 | KGLK-FM Houston Eagle 107.5 | KMJQ-FM Majic 102.1 | KKHH-FM The Spot 95.7

Source: Nielsen

## Digital and Print

Houston's major daily newspaper is the Houston Chronicle, which was founded in 1901. The paper has the second highest circulation in Texas and consistently ranks among the 15 most widely read newspapers in the country. The newspaper's website receives over 15 million unique visitors and 1.1 million weekly readers.

Other top print and digital outlets in Houston include: Bisnow, Community Impact, Culture Map Houston, Houston Business Journal, Houston Press, Houston Public Media, Houstonia Magazine, Houston CityBook, Intown Magazine, PaperCity and Realty News Report.

# LIFE IN HOUSTON



## Cost of Living

Houston's living costs are 26.4 percent below the average of the nation's 20 most populous metropolitan areas, ranking it the second most affordable, according to the Cost of Living Index from the Council for Community and Economic

Research (C2ER). Houston's overall living costs are 4.8 percent below the average for all U.S. metros.

Housing costs in Houston are 52.4 percent below the average for the nation's 20 most populous metro areas and 14.7 percent below

the average for all U.S. metros. Excluding the two most expensive housing markets, New York and San Francisco, which tend to skew the average, Houston's housing costs are 42.1 percent below the major metro average.

### COST OF LIVING COMPARISONS 2020 Annual Average 20 Most Populous U.S. Metros\* | (Average for 266 Urban Areas = 100)

URBAN AREA	COMPOSITE	GROCERIES	HOUSING	UTILITIES	TRANSPOR- TATION	HEALTH CARE	MISC. 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
Boston, MA	150.0	113.2	224.4	122.3	108.5	120.6	127.4
Los Angeles, CA	147.7	113.9	228.9	107.9	134.5	110.2	115.7
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
Minneapolis, MN	105.1	102.6	103.1	97.3	100.5	102.2	111.2
Detroit, MI	102.7	99.6	98.8	96.4	106.9	95.6	108.7
Phoenix, AZ	102.3	98.7	111.4	106.6	106.0	89.8	96.1
Atlanta, GA	101.1	105.0	102.8	84.7	102.0	102.0	102.3
Tampa, FL	95.8	104.1	85.7	101.1	100.1	97.8	97.7
<b>Houston, TX</b>	<b>95.2</b>	<b>92.0</b>	<b>85.3</b>	<b>111.4</b>	<b>95.3</b>	<b>98.4</b>	<b>99.5</b>
St. Louis, MO	88.0	101.5	71.3	96.5	89.4	89.1	93.0

\*Metro areas represented by most dominant urban area. 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)

## Weather

### TEMPERATURE AND HUMIDITY

Normal (30-year average) daily maximum temperatures: January 62.9° F; April 79.6° F; July 93.7° F; October 82.0° F.

Normal (30-year average) daily minimum temperatures: January 43.2° F; April 59.4° F; July 75.1° F; October 60.9° F.

Record extremes: 109° F on August 27, 2011 and September 4, 2000; 7° F on December 23, 1989.

Humidity averaged 81 percent at midnight; 86 percent at 6:00 a.m.; 58 percent at noon; 63 percent at 6:00 p.m. in '20.

The Houston MSA lies in a zone with 260-275 frost-free days per year.

### PRECIPITATION

Houston had 44.8 inches of rain in '20, lower than the 30-year annual average of 49.8 inches.

Thunderstorms occurred on 67 days in '20, higher than the 30-year average of 63 days per year.

Record monthly rainfall: 39.1 inches in August '17, breaking the previous record of 19.2 inches in June '01.

Highest rainfall in a 24-hour period: 18.1 inches fell on August 26-27, 2017 during Hurricane Harvey, breaking the previous record of 11.0 inches on June 8-9, 2001 during Tropical Storm Allison.

Houston has had 16 measurable snowfalls since 1939.

Record monthly snowfall: 2.8 inches in February 1973.

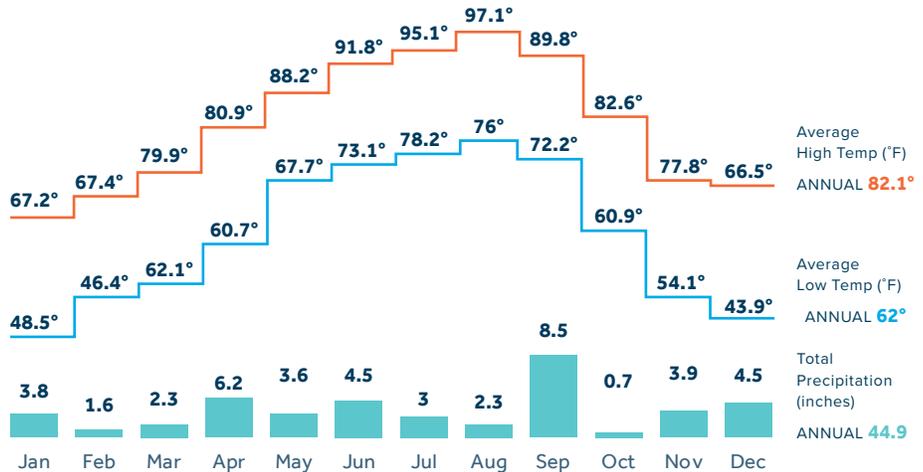
Record daily snowfall: 2.0 inches in January 1973.

### SUNSHINE

- Houston averages 60 percent of possible sunshine annually, ranging from 42 percent in January to 67 percent in June.



### HOUSTON WEATHER 2020



Note: Recorded at George Bush Intercontinental Airport's weather station.  
Source: National Oceanic and Atmospheric Administration

- Related Normal (30-year) averages:
- “Clear” on 90.3 days, concentrated in September, October and November.
- “Partly cloudy” on 114.5 days, typical of June through August.
- “Cloudy” on 160.3 days, common in December through February.
- Fog limiting visibility to a quarter of a mile or less occurs on average 23.7 days per year.

### WIND

Prevailing wind in '20 was south-southeasterly at an average speed of 7.7 miles per hour—consistent with the Normal (34-year average) speed of 7.5 mph.

## Lodging

Houston welcomed 24.9 million tourists in '19, the latest data available. Traditionally, visitors from across the nation and around the world come to enjoy the city's award-winning culinary scene, professional sports teams, and conventions, among many other attractions. According to CBRE Hotels, in Q4/20, the Houston MSA had 816 major hotels and motels, with 90,600 total rooms. There were 4,070 hotel and motel rooms under construction at the time. Annual room

occupancy was 42.5 percent in '20, down 32.5 percent from '19, with an average room rate of \$81.38 per night.

Houstonians offered 1,634,560 units (any space, such as an entire home, private room, or shared room listed for rent) on Airbnb in '20, down 2.7 percent from '19. Just over half of the units, or 50.4 percent, were rented out during the year. These 823,608 rental bookings created \$110.4 million in revenue for their owners,

up 1.5 percent from last year. The average daily Airbnb rate in '19 was \$134.07. Bookings for entire homes or apartments accounted for 68.8 percent of all transactions, followed by private rooms (29.9 percent) and shared rooms (1.3 percent). The highest number of active units (at least one night sold within a month) occurred in both January '20 and March '20.

## Dining

Houston restaurants feature outstanding regional dishes as well as diverse international cuisine. In the four quarters ending Q3/20, the Houston MSA was home to 12,036 food service and drinking establishments that employed more than 239,695. These establishments included: 4,601 full-service restaurants, 4,564 limited-service eating places and 675 drinking establishments.

The Houston MSA sold \$20.1 billion in food and drinks during the four quarters ending Q3/20, according to the State Comptroller's office.

According to Yelp.com, Houston has over 80 categories of cuisine, including Cajun, Latin American, Ramen, Polish and Vegan restaurants. Houston is also home to nearly 1,000 food trucks and stands and about 100 wine bars. Houston's reputation of being a culinary hotspot is recognized by the James Beard Foundation, the organization that bestows the James Beard Awards, commonly known as the "Oscars of the food world." The greater Houston area received 10 semifinalist nominations for this year's awards.

Houston has a diverse culinary seen with an array of dining options from world class tasting menus to food halls which earned the city a spot on "The 20 Best Places to Travel in 2020," compiled by Harper's Bazaar. During the pandemic, restaurants

quickly pivoted as lockdown orders went into place. Many began offering to-go kits and incorporating bodega-style concepts at their restaurants. The hospitality industry felt the impact of the pandemic restrictions. Southern Smoke Foundation, a crisis-

relief organization for the hospitality founded by local chef Chris Shepherd, provided support to the community along with Houston Shift Meal, an organization that provided restaurant-made meals to hospitality workers.



photo: Rosie Cannonball. Credit: Julie Soefer

## Arts and Culture

### PERFORMANCE ARTS

Resident companies in drama, ballet, opera and orchestra perform year-round in Houston. More than 550 institutions are devoted to the performing and visual arts, science and history in the Houston area. In 2017, the latest data available, Houston's nonprofit arts and culture industry generated over \$1.1 billion in total economic activity, according to the Arts & Economic Prosperity report by Americans for the Arts. This spending – \$579.4 million by nonprofit arts and culture organizations and an additional \$538.0 million in event-related spending by their audiences – supports 25,817 full-time equivalent jobs, generates \$801.6 million in household income to local residents and delivers \$119.3 million in local and state government revenue.

### THEATER DISTRICT VENUES

Houston's Theater District, located in

downtown Houston, spans 17 blocks, and its five flagship theaters house 13,000 seats. The Alley Theatre, Hobby Center for the Performing Arts, Jones Hall, Revention Music Center and Wortham Theater Center host seven renowned performing arts organizations as well as many smaller programs. The Theater District also includes one venue dedicated solely to dance: Houston Ballet's Center of Dance.

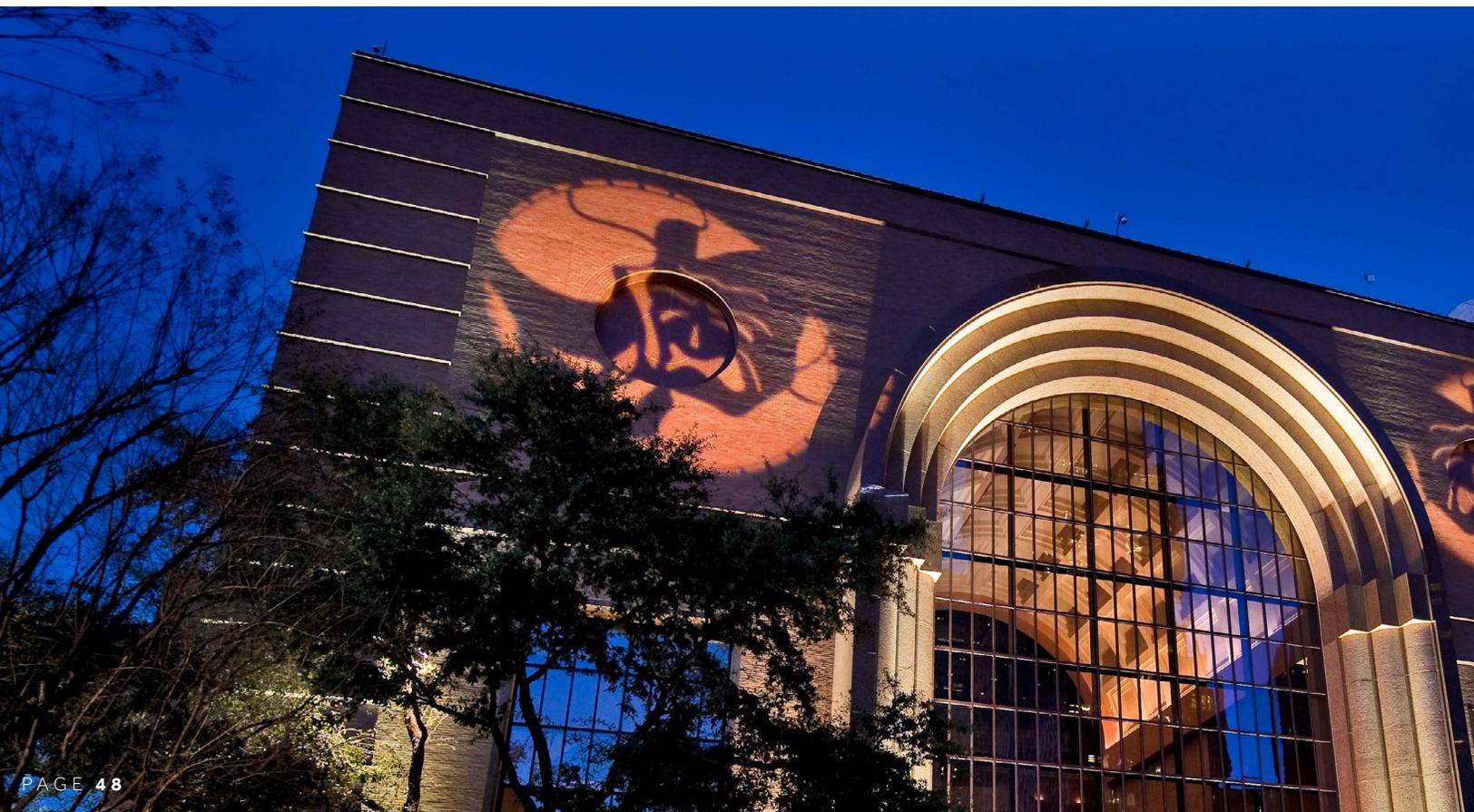
**ALLEY THEATRE**, home to a nationally recognized performing arts company, offers two stages, the 774-seat Hubbard Stage and the 296-seat Neuhaus Stage, and nearly 500 annual performances. Founded in 1947, the theater company produces up to 16 plays annually. Through its performances and educational programs, the company reaches over 200,000 people each year.

**HOBBY CENTER FOR THE PERFORMING ARTS**, opened in '02, is home to Theatre Under the Stars

(TUTS), Broadway Across America, the Humphreys School of Musical Theatre and Uniquely Houston (a program that provides a home venue for Houston's smaller and mid-sized nonprofit performing arts organizations in the Theater District). Its two stages, Sarofim Hall and Zilkha Hall, has seating for 2,650 and 500.

**HOUSTON BALLET'S CENTER FOR DANCE** is the largest professional dance company facility of its kind in the U.S. With 115,000 square feet, the six-story structure with sustainable features was constructed for \$46.6 million and opened in '11. The center features nine dance studios and a dance lab that seats 175.

**JESSE H. JONES HALL FOR THE PERFORMING ARTS**, opened in 1966, is home to the Houston Symphony and the Society for the Performing Arts. Spanning an entire city block, the hall offers 250 events annually and seats 2,911. More than 400,000 visitors attend performances each year.



**REVENTION MUSIC CENTER**, formerly known as the Bayou Music Center, seats 2,815 inside the 130,000-square-foot Bayou Place entertainment complex in downtown Houston.

**WORTHAM THEATER CENTER**, built entirely with private funds at the height of the 1980's oil bust on land provided by the city, opened in 1987. The theater is home to the opera and ballet companies, and its two halls, the Alice and George Brown Theater and the Lillie and Roy Cullen Theater, seat 2,423 and 1,100, respectively.

## OTHER VENUES

**BERRY CENTER**, located in Northwest Houston, includes an 11,000-seat athletic stadium, a conference center with over 15,000 square feet of event space, an 8,312-seat arena and a 484-seat theater.

**CYNTHIA WOODS MITCHELL PAVILION**, located in The Woodlands, offers outdoor performance space and accommodates 16,500. Established in 1990, it presents an eclectic range

of programs featuring nationally and internationally recognized artists.

**MIDTOWN ARTS & THEATER CENTER HOUSTON (MATCH)**, which began holding performances in '15, was formed to create a new space for Houston artists to collaborate and present their work. More than 40 arts groups provided input for the design of the venue, which consists of two buildings with four performance spaces, three rehearsal studios, a 3,000 square feet gallery space and offices for arts professionals.

**MILLER OUTDOOR THEATRE** offers free outdoor performances by Houston's performing arts organizations. The city-owned theatre is located on 7.5 acres of land in Hermann Park, site of the Houston Zoo, the Garden Center and the Museum of Natural Science. Seating is provided for 1,700 patrons under the covered pavilion. A sloping lawn accommodates approximately 4,500 more on blankets or lawn chairs.

**SMART FINANCIAL CENTRE**, located in Sugar Land, opened in January

'17 and is a premier venue for a wide variety of performances and programs. This state-of-the-art indoor hall can seat up to 6,400. In '19, the Centre ranked seventh in the world in ticket sales for venues under 10,000 seats.

**STAFFORD CENTRE**, located in Stafford, includes a performing arts theater with seating for 1,154 and 24 acres of outdoor festival green space.

**THE GRAND 1894 OPERA HOUSE** in Galveston is a Romanesque Revival-style theater. Listed in the National Register of Historic Places, the Opera House has seating for 1,000 and presents Broadway shows, comedians, musicians, silent films and more.

**WHITE OAK MUSIC HALL**, opened in '16, hosts over 400 live music events per year, from a diverse array of musical acts and genres, including rock, country, hip-hop, R&B and more. Covering over 5 acres, the venue provides two indoor performance stages, supporting 200 and 1,000 attendees, and an outdoor amphitheater that can fit over 3,000 people.

## Arts Organizations

### DANCE

**HOUSTON BALLET**, founded in 1955 and established as a professional company in 1969, is the nation's fifth largest ballet company, with annual operating expenses of \$33.2 million and 59 dancers. Houston Ballet has toured extensively, appearing in Europe, Canada, Australia and cities throughout the U.S. Through its Education and Community Engagement Program, the Houston Ballet is committed to providing high-quality, community-sponsored educational programming to the diverse populations of Houston and its surrounding areas.

### LITERATURE

**INPRINT**, founded in 1983, is a literary arts nonprofit organization that provides literary performances,

writing workshops and financial support for emerging writers. Inprint annually serves more than 15,000 readers and writers of fiction, poetry and creative nonfiction. Literary performance programs have featured more than 350 celebrated writers from 28 countries, including winners of seven Nobel Prizes, 12 Man Booker Prizes, 44 National Book Critics Circle Awards, 53 National Book Awards, 56 Pulitzer Prizes as well as 17 U.S. Poets Laureate.

### MUSIC

**DA CAMERA**, founded in 1987, provides thematically programmed concerts with a broad range of repertoire and musical styles. Da Camera also founded the Young Artist Program in '09 to provide performance opportunities for emerging musicians.





**HOUSTON GRAND OPERA (HGO)**, founded in 1955, is known worldwide for training young artists and for commissioning and presenting new works. HGO has presented 67 world premieres to date. With an operating budget of \$27 million, HGO presents six to eight productions per season. The opera offers diverse, innovative and wide-reaching community and education projects. HGO has won three Emmy Awards, two Grammy Awards and a Tony Award. In '19, HGO was the only American finalist for Opera Company of the Year at the International Opera Awards.

**HOUSTON SYMPHONY** was founded in 1913 and is one of the oldest performing arts organizations in the nation. The Grammy Award-winning symphony has a full-time ensemble of 88 professional musicians and presents nearly 170 concerts each year. In addition, the musicians offer more than 900 community-based performances each year. The symphony's long tradition of touring has included Europe, Japan, and Russia. In '18, the Houston Symphony won their first ever Grammy award for Best Opera Recording of Alban Berg's *Wozzeck*.

## PERFORMING ARTS

**SOCIETY FOR THE PERFORMING ARTS (SPA)**, founded in 1966, is the largest nonprofit presenting organization of its kind in the Southwest. SPA presents internationally acclaimed artists from all performing artforms, including large orchestras and dance companies, and solo performers.

## THEATER

**A.D. PLAYERS**, founded in 1967, is one of Houston's largest and oldest professional theater companies, which produces plays and programs from a Christian world-view. The A.D. Players offered five mainstage shows and two Black Box (Aspiring Artist series) theater performances for the '18-'19 season. A.D. Players perform at the Jeanette and L.M. George Theater.

**ENSEMBLE THEATRE**, located in Midtown and established in 1976, is one of a few professional theaters in the Southwest devoted to preserving African American artistic expression. Ensemble Theatre performances reach 65,000 people each year. The theatre offers contemporary and classical works, a Performing Arts Education Program and a Young Performers Program.

## MAIN STREET THEATER (MST),

founded in 1975, produces innovative plays for adults and children at its two locations, one in Rice Village and the other at the Midtown Arts & Theater Center (MATCH). MST also offers educational and youth programs on-site and at locations throughout the Houston region.

## STAGES REPERTORY THEATRE,

founded in 1978, presents plays and musicals. Stages is Houston's sixth largest nonprofit performing arts producer, the largest outside of Houston's downtown theatre district. With an average of 12 productions per year and more than 430 performances, Stages welcomes more than 75,000 visitors each season. In '20, Stages opened its new three-theater venue called *The Gordy*.

## THEATRE UNDER THE STARS (TUTS),

founded in 1968, offers a mix of touring musicals and self-produced shows, both new works and revivals, performed at the Hobby Center. It also operates the Humphreys School of Musical Theatre. The River Performing and Visual Arts Center merged with TUTS in '10 to provide singing, dancing and acting opportunities to children with disabilities. The theater celebrated its 50th anniversary during the '18-'19 season.

## Museums

### HOUSTON MUSEUM DISTRICT

The Houston Museum District is one of the country's most visited and diverse cultural centers with 19 museums. These museums provide rich experiences in art, history, culture, nature and science. The district is divided in four walkable zones, each of which includes a group of museums.

**ASIA SOCIETY TEXAS CENTER**, opened in '12, houses the 273-seat Brown Foundation Performing Arts Theater, the Louisa Stude Sarofim Gallery and more. One of only 12 Asia Society locations throughout the world, the center serves as an Asia-Pacific educational and cultural institution in the region.

**BUFFALO SOLDIERS NATIONAL MUSEUM**, founded in '01, is the only U.S. museum dedicated to preserving the legacy and honor of the African-American soldiers that served on behalf of the United States of America.

**CHILDREN'S MUSEUM OF HOUSTON**, founded in 1980, has been ranked as the number one children's museum in the U.S. by Parents Magazine. Families from 31 countries, all 50 states and 905 Texas cities have visited the Children's Museum of Houston. The museum has hands-on galleries and offers a multitude of exhibits and programs for children. In '20, the museum began offering daily virtual learning broadcasts, of which more than 6 million children and families have attended.

**CONTEMPORARY ARTS MUSEUM HOUSTON**, founded in 1948, is a non-collecting museum that presents regional, national and international art of the past 40 years through exhibitions accompanied by publications and educational programming.

**CZECH CENTER MUSEUM HOUSTON**, opened in 1996, is dedicated to the exploration and preservation of Czech and Slovak heritage, including art, music and dance. The center features a wide array of cultural events, film screenings, art exhibitions and lectures.

**DIVERSEWORKS**, founded in 1982, presents and commissions new art in all forms. DiverseWorks supports freedom of artistic expression with an artist-centered focus through a schedule of exhibitions, performances and community programs.

**HOLOCAUST MUSEUM HOUSTON**, opened in 1996, is dedicated to educating people about the Holocaust, honoring the survivors' legacy and remembering the six million Jews and other innocent victims who died in concentration camps in WWII. Reopening in '19 after undergoing a \$34 million expansion, its new 57,000-square-foot facility is ranked as the fourth largest Holocaust museum in the nation.

**HOUSTON CENTER FOR CONTEMPORARY CRAFT**, founded in '01, is a nonprofit arts organization dedicated to advancing education about the process, product and history of craft. The center is one of the few venues in the U.S. dedicated exclusively to craft.

**HOUSTON CENTER FOR PHOTOGRAPHY**, founded in 1981, brings together a community of people interested in photography and lens-based work. The center offers a gallery and a library with over 4,000 books. In addition, the center provides more than 300 photography classes and workshops annually.

**HOUSTON MUSEUM OF AFRICAN AMERICAN CULTURE (HMAAC)**, established in '12, exhibits the material and intellectual culture of Africans and African Americans in Houston, the state of Texas, the Southwest and the African Diaspora.

**HOUSTON MUSEUM OF NATURAL SCIENCE**, established in 1909, houses four floors of 17 permanent exhibits, the Burke Baker Planetarium, Cockrell Butterfly Center and the Wortham GIANT Screen Theatre. The museum also maintains a satellite facility in Sugar Land and the George Observatory in Fort Bend County, which houses one of the largest telescopes in the country.

**HOUSTON ZOO** seeks to provide a fun and inspirational experience fostering appreciation, knowledge and care for the natural world. There are over 6,000 animals attracting more than 2 million guests each year.

**JUNG CENTER OF HOUSTON** was founded in 1958 in honor of Carl Gustav Jung, the revolutionary psychologist. The center displays new art exhibits each month and offers more than 200 classes annually. Much of the featured artwork is generated by local and regional artists.

**LAWNDALE ART CENTER**, founded in 1979, is one of the only institutions in Houston that is dedicated to the presentation of contemporary





art with an emphasis on work by regional artists

**MENIL COLLECTION**, opened in 1987, features a highly acclaimed collection of some 17,000 works of art, including masterpieces from antiquity, the Byzantine and the tribal cultures of Oceania. The museum has one of the world's foremost collections of Surrealist holdings.

**MOODY CENTER FOR THE ARTS**, located at Rice University, serves as an experimental platform for creating and presenting art works. The 50,000-square-foot facility newly constructed in '17 for \$30 million features a striking contemporary design with bold geometric shapes. In '17, the Moody received a Design Honor Award from the American Institute of Architects, California Council.

**MUSEUM OF FINE ARTS, HOUSTON (MFAH)**, opened in 1924, is the first art museum in Texas. The museum is among the 10 largest art museums in the U.S. with nearly 70,000 works of art. The MFAH campus includes three buildings, the Glassell School of Art, a sculpture garden and more. Satellite facilities include the Bayou Bend Collection and Gardens. In November '20, the museum completed the construction of a new master-planned campus transformation. The \$450 million expansion included a state-of-the-art conservation center, a new tunnel system connecting the



buildings, and the Nancy and Rich Kinder Building, which adds more than 100,000 square feet of exhibition space to the museum.

**ROTHKO CHAPEL**, founded in 1971, is a non-denominational place of meditation and reflection that welcomes over 100,000 visitors each year. The chapel contains 14 canvases by the painter Mark Rothko and is lit only by skylight. The chapel's plaza contains an obelisk in memory of Dr. Martin Luther King Jr. After closing for expansion and restorations, the chapel re-opened in Fall '20.

**THE HEALTH MUSEUM**, founded in 1996, is an interactive science center and a member institution of the world-renowned Texas Medical Center. With over 2.5 million visitors, the museum is the most visited health museum in the country. In '17, the museum was named a Smithsonian Affiliate.

## OUTSIDE THE HOUSTON MUSEUM DISTRICT

**1940 AIR TERMINAL MUSEUM**, founded in 1940, has a theater and several galleries of aviation memorabilia housed in Houston's original art deco air terminal. The museum also serves as a venue for planespotters to view activity at nearby Hobby Airport. The 1928 Carter Airmail Hangar onsite is also open for tours. In '20, the Museum celebrated the 80th anniversary of

the opening of the Houston Municipal Airport terminal.

**ART CAR MUSEUM**, opened in 1998, is a private institution that exhibits contemporary art with a focus on art cars and other fine arts not typically seen in museums. Known as the 'Art Car Capital,' Houston has the largest number of art cars in any city.

**BLAFFER ART MUSEUM** established in 1973, is dedicated to furthering the understanding of contemporary art through exhibits, publications and programs.

**BRYAN MUSEUM**, located in the historic Galveston Orphans Home, opened in '15 and houses one of the world's largest collections of historical artifacts, documents and artwork relating to Texas and the American West. The museum also has a library and an archive.

**FORT BEND ART CENTER**, managed by the Art League of Fort Bend, opened in '18. It is a multi-arts center with fine artwork by more than 30 member artists on display and for sale. With two galleries, the art center functions as a shared space for artists and art enthusiasts to create, exhibit and experience art.

**GALVESTON NAVAL MUSEUM**, opened in 1971 and located in Seawolf Park, has two drydocked WWII vessels that visitors can explore: the USS Cavalla submarine, and the

USS Stewart, the only Edsall-class destroyer escort preserved in the United States.

**GALVESTON RAILROAD MUSEUM**, opened in 1983, is located at the site of the 1932 Santa Fe depot and railyard. The museum also served as the terminal for the Texas Limited excursion train until it ceased operations in 1996. The museum's artifacts include forty pieces of rolling stock (railcars and locomotives) and exhibits detailing rail history.

**HARRIS COUNTY HERITAGE SOCIETY** operates ten historic buildings that date from 1823 to 1905, which the organization authentically restored and moved to Sam Houston Park. Together with the Museum Gallery, these buildings serve as historic reference points and exhibition spaces for more than 23,000 artifacts that document life in historic Houston.

**HOUSTON BLUES MUSEUM**, founded in '09, works to preserve the legacy of Houston's Blues musicians. The museum also provides educational programs for adults and children.

**HOUSTON MARITIME MUSEUM**, founded in '00, has eight galleries with collections of maritime artifacts and ship models throughout history, including exhibits on the history of Buffalo Bayou and the Houston Ship Channel.

**LONE STAR FLIGHT MUSEUM**, opened in 1990, is an aviation museum and STEM learning center. The museum is home to the Texas Aviation Hall of Fame as well as a collection of historic aircraft, hands-on exhibits and a \$1 million Aviation Learning Center. The museum opened a new \$38-million, 130,000-square-foot facility at Houston's Ellington Airport in '17.

**MILITARY MUSEUM OF TEXAS** collects, restores and displays military artifacts including vehicles, aircraft and artillery field pieces. The museum also acts as a research facility with an online database and serves as a meeting space for military organizations.

**NATIONAL MUSEUM OF FUNERAL**

**HISTORY**, founded in 1992, houses 16 permanent exhibits of funerary artifacts, including a rare collection of historical hearses. The museum collaborates with the Vatican to display an exhibit on the lives and deaths of the Popes.

**O'KANE GALLERY**, established in 1970, annually offers five to six exhibitions representing a diversity of artists, themes and mediums.

**ORANGE SHOW CENTER FOR VISIONARY ART** is a nonprofit organization founded in 1980 that preserves, promotes and documents visionary art environments. The center has been the producer of the annual Houston Art Car Parade for the past 26 years.

**PEARL FINCHER MUSEUM**, opened in '08, is a non-collecting fine art museum that provides a wide array of art exhibits and educational programs. Housed in a former county library, the Pearl is located in Spring.

**SAN JACINTO MONUMENT AND MUSEUM OF HISTORY**, located at San Jacinto Battleground State Historic Site, features artifacts and documents covering Mexican Texas, the Texas Revolution and the Republic of Texas. This 1,200-acre site is also a National Historic Landmark and consists of the San Jacinto battleground, the monument with observation floor, the museum of history and Battleship Texas. In '20, operational control of the Battleship was transferred to the Battleship Texas Foundation. The Battleship is currently undergoing renovations and is closed to the public; the Foundation has yet to set a reopen date.

**SPACE CENTER HOUSTON**, the Disney-designed visitors' center for Johnson Space Center, opened in 1992 and attracts nearly 1.25 million visitors per year. It features two theaters, a starship gallery that includes the Saturn V Rocket, a tram tour of the campus, a space suit gallery, and the world's largest collection of moon rocks.

**STATION MUSEUM OF CONTEMPORARY ART** located in the Third Ward, is an exhibition forum for local, national and international

artists with comprehensive exhibitions from Afghanistan, Austria, Colombia, Congo, Czech Republic, India, Iraq, Mexico, Palestine, Peru, Russia, South Africa and Venezuela.

**TEXAS SEAPORT MUSEUM** is home to the 1877 tall ship Elissa, a National Historic Landmark that has also been designated as an American Treasure by the National Trust for Historic Preservation. The museum displays information on seaborne commerce and immigration, including a database containing names of over 133,000 immigrants who entered the U.S. through Galveston.

**THE HOUSTON FIRE MUSEUM**, established in 1980 and housed in a historic firehouse, provides exhibits, educational programs and public events that explore the history of Houston's fire service. Originally Fire Station No. 7 and the first paid fire station built by the Houston Fire Department, the two-story building opened in 1899 and had a steamer and hose wagon each pulled by horses. Fully renovated, the museum is listed on the National Register of Historic Places.

**THE PRINTING MUSEUM**, founded in 1979, has interactive tours and exhibits with over 10,000 items in its permanent collection. Founded by four printers, the museum features ancient papyrus fragments, a Johannes Gutenberg Gallery and early American and Texan printing.

**THE WOODLANDS CHILDREN'S MUSEUM** provides a cooperative learning environment for children, including dynamic workshops and more than 15 interactive exhibits.

**UNIVERSITY MUSEUM AT TEXAS SOUTHERN UNIVERSITY (UMUSE)**, opened in '00, has 11,000 square feet of exhibition space with acoustics for musical performances. The museum displays a collection of African and African American art accumulated over four decades.

## Recurring Events and Festivals

### JANUARY

Chevron Houston Marathon  
MLK Grande Parade  
“Original” MLK, Jr. Birthday Parade  
Texas Lunar New Year Houston

### FEBRUARY

Mardi Gras! Galveston  
World's Championship Bar-B-Que Contest

### MARCH

Azalea Trail  
Bayou City Art Festival Memorial Park  
Buffalo Bayou Regatta  
Hermann Park Kite Festival  
Houston Black Heritage Music & Arts Festival  
Houston Holi: Festival of Colors  
Houston Livestock Show and Rodeo  
Tour de Houston

### APRIL

BP MS 150  
Houston Art Car Parade  
Houston Barbecue Festival  
Houston Children's Festival  
Houston Press Brewfest  
Houston Turkish Festival  
Japan Festival Houston  
McDonald's Houston Children's Festival  
Memorial Hermann IRONMAN Texas North America Championship  
The Nutcracker Market Spring  
San Jacinto Day Festival and Battle Reenactment  
Southwest International Boat Show  
The Woodlands Waterway Arts Festival  
U.S. Men's Clay Court Championship  
WorldFest: Houston International Film Festival

### MAY

Cinco de Mayo Parade and Celebration  
Comicpalooza

Dragon Boat Festival  
Houston Polish Festival  
Japan Festival  
Keels & Wheels Concours d'Elegance  
Pasadena Strawberry Festival  
Rails & Tails Mudbug Festival

### JUNE

Caribbean Heritage Month Festival  
Juneteenth Celebration  
Pride Houston  
Texas Outlaw Challenge

### JULY

Freedom Over Texas Festival  
Great Texas Mosquito Festival  
Star-Spangled Salute

### AUGUST

AIA Sandcastle Competition  
Houston International Jazz Festival  
Houston Restaurant Weeks  
Houston Shakespeare Festival  
Theater District Open House  
White Linen Night in the Heights

### SEPTEMBER

Texas Kickoff  
Fiestas Patrias  
Oktoberfest Houston

### OCTOBER

Bayou City Art Festival Downtown  
Día de los Muertos at Sugar Land Heritage Foundation  
Grito Fest  
Houston Italian Festival

Houston Open  
International Quilt Festival  
Original Greek Festival  
Pearland Art & Crafts on the Pavilion  
Texas Contemporary Art Fair  
Texas Renaissance Festival  
Texian Market Days  
Wings Over Houston Airshow

### NOVEMBER

Annual Turkish Festival  
Día de los Muertos at Discovery Green  
H-E-B Thanksgiving Day Parade  
Houston Zoo Lights  
Interfaith Thanksgiving Service at Rothko Chapel  
Lone Star Rally  
Mayor's Holiday Celebration and Tree Lighting

Moody Gardens Festival of Lights  
Puerto Rican and Cuban Festival  
Texas Championship Native American Pow Wow  
The Nutcracker Market  
Veterans Day Celebration  
Via Colori

### DECEMBER

Christmas Boat Lane Parade  
Christmas Village at Bayou Bend  
Dickens on the Strand  
Mercari Texas Bowl  
Tamale Festival Houston  
Tomball German Christmas Market & Festival



## Religious and Cultural Diversity

According to the Kinder Institute for Urban Research's 39th Annual Houston Area Survey, 80.1 percent of Harris County residents report that religion is "somewhat" or "very" important to them. Among those surveyed, 40.5 percent identify as Protestant, 30.1 percent identify as Catholic, 1.3 percent identify as Jewish, and 4.4 percent of respondents are of another religion. Of the remaining respondents, 18.3 percent have no religious affiliation, and 5.3 percent did not answer. As the nation's most diverse city, Houston is home to a wide array of faith traditions. One can experience Houston's religious diversity through the numerous mosques, synagogues, Hindu temples and a Zoroastrian cultural center in the region. Representative religious congregations in Houston include:

**AL-NOOR MOSQUE** Al-Noor Mosque, established in 1987, boasts a large gold dome that can be seen from I-69 and the Westpark Tollway. It is located in Houston's Hillcroft region, a vibrant center of South Asian culture within the city.

**ANTIOCH MISSIONARY BAPTIST CHURCH**, located in the heart of downtown, is a predominantly African-American church founded by freed slaves in 1866.

**BAPS SHRI SWAMINARAYAN MANDIR**, the first traditional Hindu Mandir of its kind in the U.S., is located in Stafford. The stones used to build the temple were quarried in Turkey and Italy, and then shipped to India where 2,000 traditional artisans hand sculpted them.

**CENTRO ISLÁMICO**, opened in early '16, is the nation's first Spanish-speaking mosque. Located in a former industrial building on Houston's far southwest side, the building's inside has architectural elements of Moorish Spain.

**CHAPEL OF ST. BASIL**, located at Houston's Catholic University of St. Thomas in the Montrose district, is a cube-shaped chapel designed by renowned architect Philip Johnson.

**CHRIST CHURCH CATHEDRAL** was Houston's first religious congregation when founded in 1839 and is the only one still worshipping on its original site from the days when Houston was the capital of the Republic of Texas. In 1949, Christ Church became the cathedral for the Episcopal Diocese of Texas.

**CO-CATHEDRAL OF THE SACRED HEART** is a Catholic place of worship

with a congregational history dating back to the 1890s. The current cathedral building opened in '08 and features a towering stained-glass display created by artisans in Florence, Italy.

**CONGREGATION BETH YESHURUN**, the largest conservative synagogue in the U.S., is important not only for its 120-year history but also for its location in the Meyerland area, which is known as the center of Houston's Jewish community.

**ISMAILI JAMATKHANA AND CENTER**, opened in '02, is set by a lake on an 11.5-acre site in Sugar Land. The center is a religious venue for Shi'a Ismaili Muslims in Houston, as well as a site for community events to stimulate the intellect, encourage dialogue and celebrate cultural diversity in the greater Houston area.

**LAKESIDE CHURCH**, housed in a former sports arena, is one of the largest religious congregations in the U.S. It is pastored by televangelist Joel Osteen and features both English and Spanish language services.

**MTO SHAHMAGHSOUDI SCHOOL OF ISLAMIC SUFISM**, located along Beltway 8, is a Sufi temple that is rich in art and architecture. The energy efficient design of the building features solar panels.

**OUR LADY OF GUADALUPE CHURCH**, founded in 1912 in Houston's Second Ward, was the first church in Houston to offer services in Spanish. The parish hosts the oldest Catholic grade school in Houston.

**SAINTS CONSTANTINE & HELEN SERBIAN ORTHODOX CHURCH**, built in 1896 and originally supported by



the last czar of Imperial Russia, Czar Nicholas II, originally held services in Greek, Russian, and Serbian. Located in Galveston, the church will celebrate its 125th anniversary in '21.

**ST. MARTIN'S EPISCOPAL CHURCH**, founded in 1952, has grown to become the largest Episcopal Church in North America with more than 9,300 members. The funerals for former president George H. W. Bush and his wife Barbara Bush were both held at St. Martin's where they had been active members since the early 1950s.

**ST. PAUL'S UNITED METHODIST CHURCH**, founded in 1905, is in the heart of Houston's Museum District. The church is renowned for its choir and Neo-Gothic architecture.

**TEXAS GUANDI TEMPLE**, founded in 1999, welcomes Taoists, Buddhists and anyone who seeks respite, meditation or counsel. The building is a focal point of Houston Old Chinatown. An architect from China designed the Texas Guandi Temple, the largest temple in the nation dedicated to Guandi. Materials for the building and for the interior also came from China.

**THE ISLAMIC SOCIETY OF GREATER HOUSTON (ISGH)** is the largest Islamic society in North America. Established in 1969, ISGH currently includes 21 Islamic Centers across the Houston metro.

**ZARATHUSHTI HERITAGE AND CULTURAL CENTER**, opened in May 1998, is built on a seven-acre site that was donated by community members. The Center is a house of worship for Irani Zarathushtis and Parsis from India, Iran and Pakistan.

## Major Events and Conventions

Greater Houston has 4.4 million sq. ft. of convention space and regularly hosts worldwide events such as the International Quilt Festival, which draws 60,000 participants to George R. Brown Convention Center and the Offshore Technology Conference, with 62,000 attendees at NRG Park.

The COVID-19 pandemic caused Houston’s typically busy convention schedule to grind to halt in ’20. The city hosted 151 conventions and meetings that drew 139,949 attendees, down 82 percent from 771,591 attendees in ’19, according to Houston First Corporation. The estimated economic impact from conventions and meetings was \$80 million in ’20, down from \$415 million in ’19.

Recent major events in Houston include the ’20 U.S. Women’s Open Golf Championship, the ’19 CONCACAF Gold Cup soccer tournament, the ’19 GasTech Conference, the ’17 Super Bowl, the ’16 NCAA Final Four Basketball Tournament, the ’16 Copa America Centenario soccer tournament, and the ’13 American Association for Clinical Chemistry.

Houston is slated to host the NCAA Men’s Basketball Championship in ’23 and the College Football National Championship in ’24. Houston is also a finalist host city for the ’26 FIFA World Cup.

### GOLF

The Houston MSA has 143 golf courses, according to pga.com.

Houston has hosted top tier tournaments at the professional and amateur levels, including five PGA tour championships, two LPGA tour championships, one Ryder Cup, two U.S. Opens, and five U.S. amateur championships.

Most recently, Houston’s Champions Golf Club hosted the U.S. Women’s Open Tournament in ’20. It was the first U.S. Open held in Houston since the men’s tournament in 1969.

The Houston Open has made the

Bayou City an annual PGA tour stop since 1930. After 17 years at the Golf Club of Houston, the tournament moved to Memorial Park in ’20.

The Woodlands Country Club has hosted the PGA Champions Tour’s Insuperity Invitational since ’08. It is the only Texas stop for the PGA’s senior tour.

Bluejack National, located in Montgomery County, was named Golf Digest’s “Best New Course” in ’16.

The City of Houston Parks and Recreation Department maintains six municipal golf parks.

### RACING

Alkek Velodrome, built in 1986, is a concrete bicycle racing track located in Houston’s Cullen Park. It is one of 26 velodromes in the United States, according to USA Cycling. In ’19, Alkek was selected as one of four inaugural training centers for U.S. Track Cycling’s Olympic Development Program.

Galveston Bay Cruising Association, founded in 1947, is an all-volunteer non-profit sailboat racing club based in Clear Lake Shores.

Houston Raceway Park is a multi-purpose motorsports venue located in Baytown. The race park features a quarter-mile drag strip sanctioned by the National Hot Rod Association (NHRA).

Houston Motorsports Park is a car racing track in Northeast Houston that features a NASCAR oval track and a NHRA drag strip.

Sam Houston Race Park is a horse racing track located in Northwest Houston that hosts Thoroughbred and American Quarter horse races.

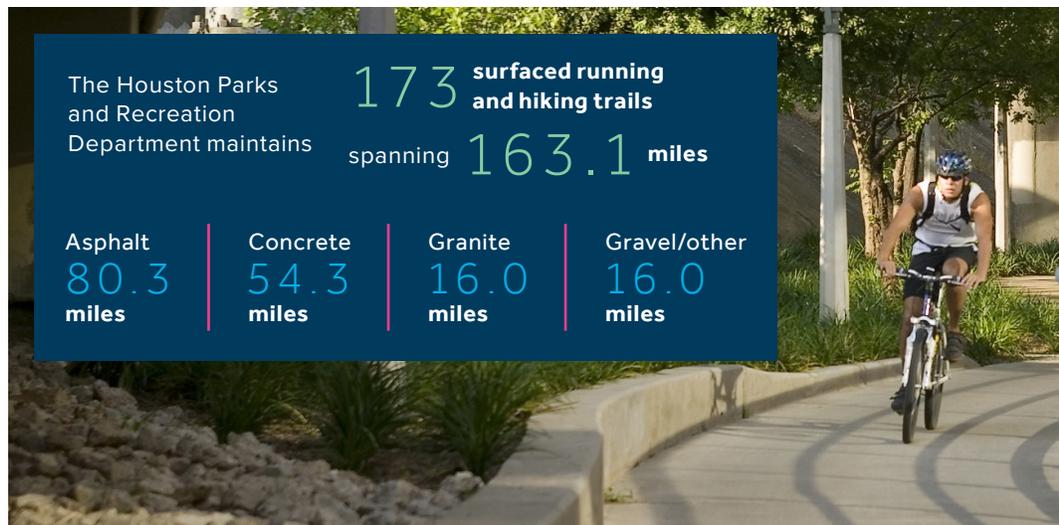
### BIKING AND HIKING

The City of Houston has a 345-mile interconnected bikeway network that includes shared-use bike lanes, dedicated on-street bike lanes, and shared sidewalk paths.

In ’17, the Houston City Council adopted the Houston Bike Plan, a multi-phased project to extend the city’s bikeway network to 1,800 miles of high quality biking routes and establish Houston as a national Gold-level Bicycle Friendly City by ’27.

Houston B-cycle is the City of Houston’s non-profit bike share program, offering rentable bicycles at 121 bike share stations with 800 bikes in circulation.

The Houston Parks and Recreation Department maintains 176 surfaced running and hiking trails spanning 163.1 miles.



The Houston Parks and Recreation Department maintains

173 surfaced running and hiking trails spanning 163.1 miles

Asphalt 80.3 miles

Concrete 54.3 miles

Granite 16.0 miles

Gravel/other 16.0 miles



## Convention and Sports Facilities

**AVENIDA HOUSTON**, Avenida Houston, which opened in '17, is the entertainment district in front of the George R. Brown (GRB) Convention Center in downtown Houston. The 97,000-square-foot outdoor plaza connects Discovery Green's 12-acre park, public art installations, as well as two convention headquarter hotels adjoined to the GRB, the 1,200-room Hilton Americas and the 1,000-room Marriott Marquis. The area around Avenida Houston offers many retail and dining options, including several restaurants within the GRB.

**BBVA COMPASS STADIUM**, the state-of-the-art, open-air stadium designed to host Dynamo and Dash soccer matches, as well as additional sporting and concert events, opened in May '12. The 22,000-seat stadium is the first soccer-specific stadium in Major League Soccer located in a city's downtown district. This stadium has also been home to Texas Southern University Tigers football since 2012.

**CONSTELLATION FIELD** opened in '12 as home of the Sugar Land Skeeters of the Atlantic League of Professional Baseball. The stadium hosts sporting events as well as concerts. It has a capacity of 7,500 spectators for baseball games (expandable to 10,000) and 9,500 for concerts.

**GEORGE R. BROWN (GRB) CONVENTION CENTER**, one of the nation's largest convention centers, opened in 1987. GRB offers nearly 2 million square feet of exhibit and meeting space, including 773,000 square feet total of exhibit space with seven exhibit halls, more than 100 meeting rooms, and 3,600 fixed seating in its amphitheater. GRB's latest improvements, which include the development of a grand entryway and four restaurants, were completed in December '16.

**MINUTE MAID PARK**, the Houston Astros' retractable-roof downtown baseball stadium with seating for 41,000, opened in April '00. In '19, a \$25-million renovation to the

stadium's suite level, to be paid for by the Astros, was approved by the Harris County Houston Sports Authority. The stadium's ornamental train, positioned 90 feet above the field on the left-field wall, makes its way along the 800-foot track whenever the Astros score a homerun.

**FERTITTA CENTER**, formerly known as Hofheinz Pavilion, is home to the University of Houston Cougars men's and women's basketball teams. The 7,100-seat multipurpose area, built in 1969, underwent a \$60-million transformation in '18, including the addition of a seating bowl bringing fans only 10 feet from the sideline and a new audio system, sports lighting and video boards.

**NRG PARK**, which occupies 350 acres and offers 26,000 parking spaces, is among the most versatile sports and meeting complexes in the United States. Hosting over 500 events annually, NRG Park includes the following venues:

**NRG STADIUM**, a 71,995-seat football stadium with a retractable roof and natural grass, opened in '02. It is home to the National Football League's Houston Texans and the Houston Livestock Show and Rodeo.

**NRG CENTER**, opened in '02, has 1.4 million square feet, which includes 706,000 square feet of contiguous exposition space and 59 meeting rooms.

**NRG ARENA** has 350,000 square feet of exhibit space, an 8,000-seat arena and a 2,000-seat pavilion.

**NRG ASTRODOME** debuted in 1965 as the first full-enclosed sports stadium seating over 70,000. In February '18, Harris County approved a \$105-million renovation, including raising the Astrodome's floor to ground level, creating 500,000 square feet of rentable space as well as 1,400 parking spaces. Construction was initially targeted to begin after the '19 Rodeo, but has since been postponed.

**RICE STADIUM**, which opened in 1950, is a 47,000-seat football stadium located on the Rice University campus. It has been the home of the Rice Owls football team since its completion in 1950 and hosted Super Bowl VIII in 1974. It was at this stadium in 1962 where President John F. Kennedy made his famous challenge to America, to place a man on the moon and bring him safely home again by the end of the decade.

**TDECU STADIUM**, which opened in August '14, is a \$125-million, 40,000-seat football stadium located on the campus of the University of Houston. To ensure the best level of comfort for Houston fans and student-athletes, sun and shade studies were conducted prior to construction.

**TOYOTA CENTER**, which opened in '03, is a sports and entertainment center located downtown. It is home to the National Basketball Association's Houston Rockets. The center can seat 18,300 for basketball and up to 19,000 for concerts.

## PROFESSIONAL TEAMS IN GREATER HOUSTON



**HOUSTON ASTROS**  
 '17 World Series Champions  
 Major League Baseball's  
 American League  
 Minute Maid Park



**HOUSTON ROCKETS**  
 Western Conference in the  
 National Basketball Association  
 Toyota Center



**HOUSTON DASH**  
 National Women's Soccer League  
 BBVA Compass Stadium



**HOUSTON TEXANS**  
 American Football Conference in  
 the National Football League  
 NRG Stadium



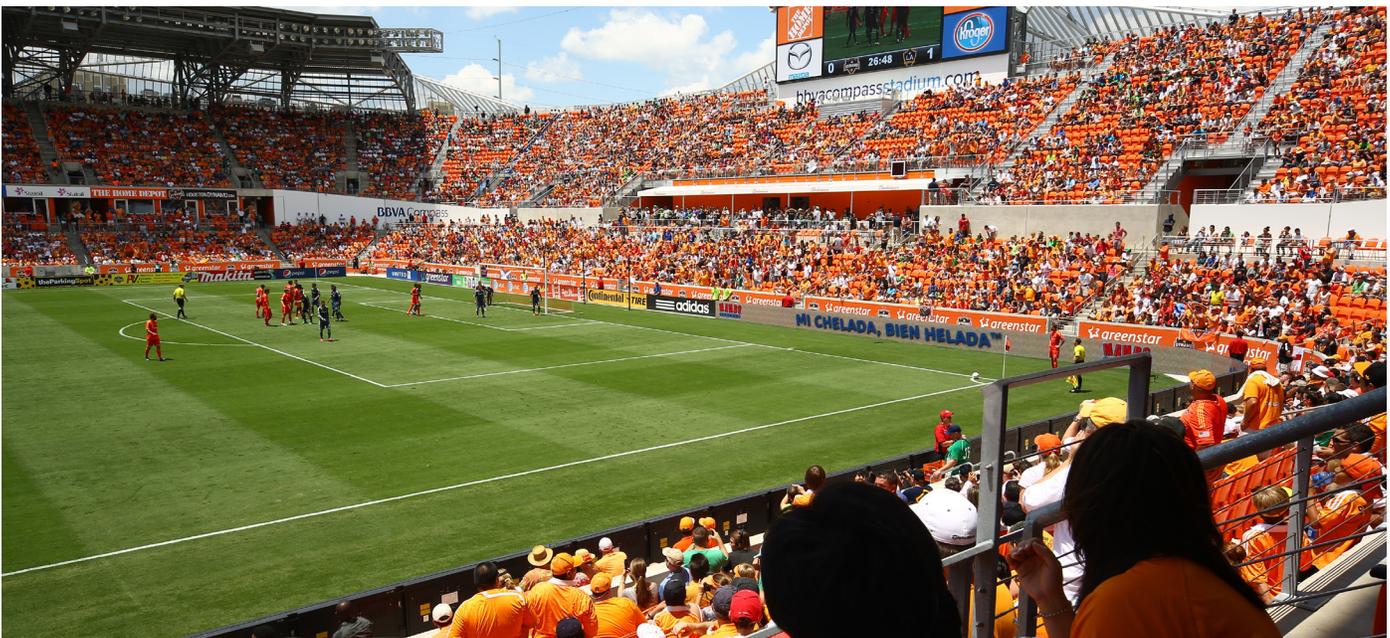
**HOUSTON DYNAMO**  
 Major League Soccer's  
 Western Conference  
 BBVA Compass Stadium

**HOUSTON ROUGHNECKS**  
 West Division of the  
 Xtreme Football League  
 TDECU Stadium

**HOUSTON ROLLER DERBY**  
 Women's Flat Track Derby Association  
 Revention Music Center

**SUGAR LAND SKEETERS**  
 '18 Atlantic League World Champions  
 Atlantic League of Professional Baseball  
 Constellation Field

**HOUSTON SABERCATS**  
 Major League Rugby  
 VEVA Stadium



## Parks and Recreation

Houston contains 43,032 acres of parkland and 627 parks, according to The Trust for Public Land's '20 Houston, TX report.

- Parks represent 11.6 percent of the city's adjusted land area in '20.
- Sixty-one percent of Houston residents live within a 10-minute walk of a park, which is six percent above the national average.
- Houston's oldest municipal park is Sam Houston Park, established 1899, while the area's largest municipal park is Cullen Park with 9,270 acres. Cullen Park is also one of the largest parks in the U.S. The most visited park in the Houston region is Hermann Park, with 6 million visitors annually.
- There are 17.8 acres of total parkland per 1,000 residents, well above the median of 13.4 acres per 1,000 residents for cities of similar density.



### CITY OF HOUSTON PARKS

Houston Parks and Recreation Department (HPARD) oversees 380 developed municipal parks and more than 167 green spaces, which together encompass approximately 39,501 acres.

HPARD owns and operates 60 community centers across the city along with the Metropolitan Multi-Service Center.

#### MAJOR CITY OF HOUSTON PARKS:

**CULLEN PARK** (9,270 acres)

**LAKE HOUSTON WILDERNESS PARK** (4,787 acres)

**MEMORIAL PARK** (1,504 acres)

**HERMAN BROWN PARK** (717 acres)

**EISENHOWER PARK** (682 acres)

**KEITH-WIESS PARK** (499 acres)

**HERMANN PARK** (445 acres)

**BUFFALO BAYOU PARK** (160 acres)

**MACGREGOR PARK** (85 acres)

Metropolitan Multi-Service Centers provide access to year-round activities for children and adults with disabilities.

### AMENITIES IN CITY OF HOUSTON PARKS INCLUDE

229 Playgrounds

201 Tennis Courts

173 Basketball Courts

165.3 Miles of Trails

161 Baseball & Softball Fields

87 Soccer Fields

75 Practice Backstops

37 Pools

29 Water Spray Grounds

20 Volleyball Courts

16 Football/Rugby/  
Cricket/Lacrosse Fields

11 Community Garden Sites

10 Dog Parks

8 Golf Courses

7 Skate Parks

5 Fitness Centers

4 Nature Centers

### NEW AND RECENTLY HONORED PARKS

**CULLINAN PARK**, a 7,540-acre park in Sugar Land, is currently undergoing renovations to improve its trail routes, playgrounds and include additional parking spaces. This project is expected to be completed by the end of '21.

**MEMORIAL PARK**, a 1,504-acre park, opened the Clay Family Eastern Glades in summer of '20. The Clay Family Eastern Glades is a 100-acre urban oasis within Memorial Park featuring a lake, picnic pavilions and a boardwalk.

**HOUSTON BOTANIC GARDEN**, a 132-acre botanical garden, opened in '20. The botanical garden provides a vast collection of plants from around the world.



## DOWNTOWN HOUSTON PARKS

**ALLEN'S LANDING**, referred to as "Houston's Plymouth Rock," is where August Chapman and John Kirby Allen stepped ashore in 1836 to found Houston.

**DISCOVERY GREEN**, a 12-acre park adjoining the George R. Brown Convention Center, opened in '08. It has since increased tourism and development in the area.

**ELEANOR TINSLEY PARK**, a section of Buffalo Bayou Park, immediately west of downtown, is the site of major Houston festivals and events with downtown Houston's skyline in the backdrop.

**HERMANN SQUARE**, serves as the courtyard of City Hall, occupies a city block, and is dominated by a reflecting pool. The park is also home to many festivals and concerts throughout the year.

**MARKET SQUARE**, located in the Historic District, was Houston's original town center. The park now provides live entertainment, shady walkways and dog runs.

**ROOT SQUARE** was donated in 1923 by the descendants of Alexander Porter Root. Located across from the Toyota Center, the park has a basketball court, a shade pavilion and displays civic art.

**SAM HOUSTON PARK**, the city's first park, was acquired in 1899. The park's 19.7 acres is home to well-preserved monuments and 10 restored historical buildings.

**SESQUICENTENNIAL PARK**, is a 22-acre urban oasis created to commemorate Houston's 150th birthday in 1986. The park features cascading waterfalls, a gazebo and a promenade.

**THE ACRE**, located between One and Two Allen Center, is a new urban park with a plaza and linear lawn.

**TRANQUILITY PARK**, between Walker and Rusk Streets, was dedicated on the 10th anniversary of the first lunar landing to honor Apollo 11 and includes cylindrical water fountains.

## MAJOR HARRIS COUNTY PARKS

**GEORGE BUSH PARK** (7,800 acres)

**ARMAND BAYOU NATURE CENTER** (2,500 acres)

**BEAR CREEK PIONEERS PARK** (3,067 acres)

**CONGRESSMAN BILL ARCHER PARK** (926 acres)

**TERRY HERSHEY PARK** (496 acres)

**CHALLENGER SEVEN MEMORIAL PARK** (326 acres)

**MERCER ARBORETUM & BOTANIC GARDENS** (400 acres)

**ROY CAMPBELL BURROUGHS PARK** (320 acres)

**JESSE H. JONES PARK & NATURE CENTER** (312 acres)

**GENE GREEN BELTWAY 8 PARK** (250 acres)

**ARTHUR STOREY PARK** (175 acres)

**CYPRESS PARK** (165 acres)

**TOM BASS REGIONAL PARK** (115 acres)

## STATE PARKS

**BRAZOS BEND STATE PARK** has nature trails and horseback riding. The park is located approximately 45 miles southwest of downtown Houston in Fort Bend County.

**GALVESTON ISLAND STATE PARK** provides access to the gulf beach and amenities such as fishing, hiking, kayaking, and bird watching. The park is located southeast of Houston in Galveston County.

**SAN JACINTO BATTLEGROUND STATE HISTORIC SITE** (1,200 acres) has a 570-foot tall monument and is located 22 miles east of downtown Houston in Harris County.

**SHELDON LAKE STATE PARK & ENVIRONMENTAL LEARNING CENTER** (2,800 acres) is filled with wetlands, lakes, and ponds. The park is located 22 miles northeast of downtown Houston in Harris County.

**STEPHEN F. AUSTIN STATE PARK** (473 acres) has acres of wetland and hardwood forests located 51 miles east of downtown Houston in Austin County.

## FORESTS

**SAM HOUSTON NATIONAL FOREST**, located 65 miles north of Houston, is the largest of the four national forests in Texas. The forest contains 163,037 acres in Montgomery, San Jacinto and Walker counties.

**W. GOODRICH JONES STATE FOREST**, an urban working forest covering 1,733 acres, is located 40 miles north of Houston near Conroe in Montgomery County. The forest provides nearly 15 miles of trails, horseback riding and two small lakes for fishing. It is owned and administered by the Texas A&M Forest Service.

## WILDLIFE REFUGES

Houston is located along the Central Flyway, a bird migration route, and over 500 species of birds migrate through or make Houston their home. Migration occurs spring through fall, depending on the species.

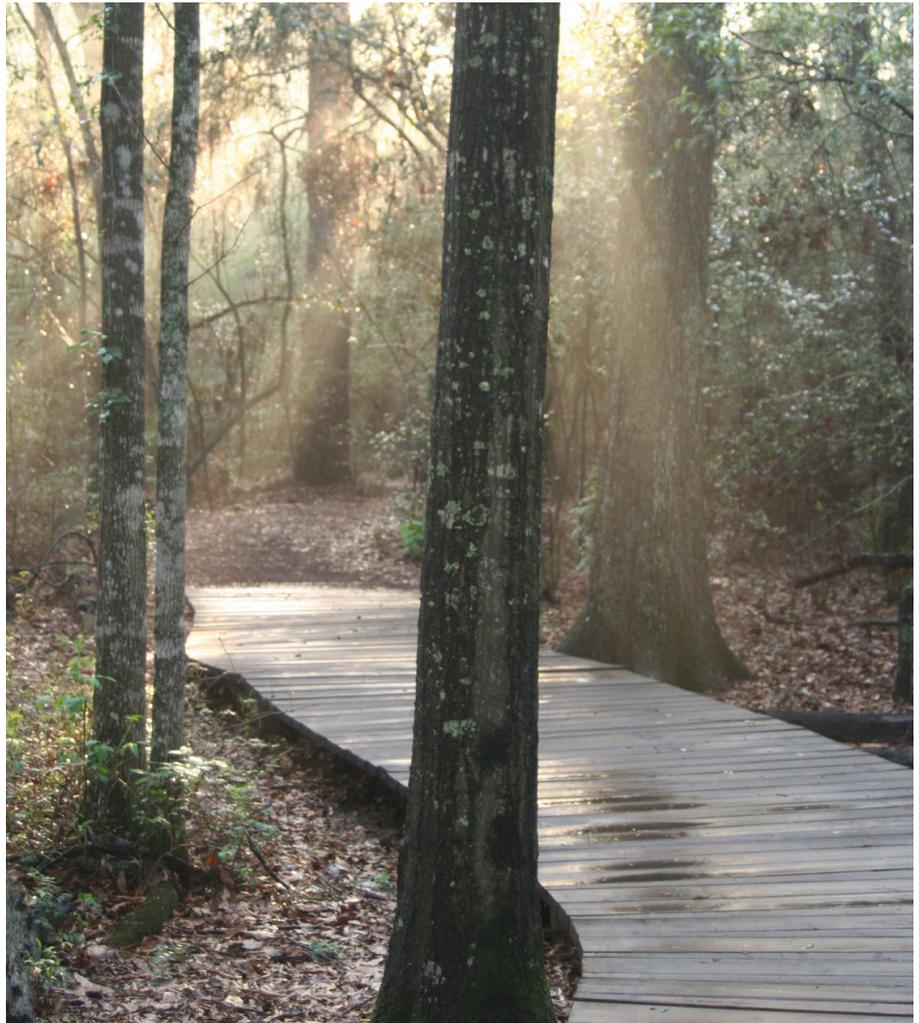
Wildlife refuges in the greater Houston area include the Anahuac National Wildlife Refuge in Chambers County, the Brazoria and San Bernard National Wildlife Refuges in Brazoria County, and the 30,000-acre Trinity River National Wildlife Refuge in Liberty County.

Houston Audubon, the largest chapter of Audubon Texas, is headquartered at the Edith L. Moore Nature Sanctuary in West Houston. Among its 17 sanctuary locations are Bolivar Flats, High Island, and West Galveston Bay. Houston Audubon's sanctuaries total 4,121 acres.

## HOUSTON ZOO

The Houston Zoo, founded in 1922, receives more than 2 million visitors per year and is the second most-visited zoo in the U.S. Occupying 55 acres in Hermann Park and accredited by the Association of Zoos and Aquariums, the Zoo is home to more than 700 species and over 280 employees.

In '18, the Houston Zoo announced its plans for a \$150-million renovation, which will add several new exhibits featuring an avian conservation center, South America's Pantanal, and the Galapagos Islands. The renovation will be complete in '22, the zoo's 100th anniversary. This project is part of a 20-year master plan focused on improving the geographic ecosystems of its inhabitants.



# HISTORY

## 1830s

- 1836 On April 21, General Sam Houston's army wins Texas' independence from Mexico in the Battle of San Jacinto.
- Houston founded on Aug. 30 by brothers Augustus C. and John K. Allen, who pay just over \$1.40 per acre for 6,642 acres near headwaters of Buffalo Bayou.
- Allen Brothers call on Gail Borden (publisher, surveyor, originator of condensed milk) and Thomas H. Borden to survey the site. Gail Borden lays out the town's streets 80' wide, with the principal east-west street (Texas Ave.) 100' wide.
- General Sam Houston, first president of the Republic of Texas, signs an act authorizing Houston to incorporate. Houston is capital of the Republic from 1837-1839.
- The Laura is the first steamship to visit Houston.
- A bucket brigade, Protection Fire Company No. 1, is formed to fight fires.

## 1840s

- 1840 On April 4, seven Houston businessmen form the Houston Chamber of Commerce.
- 1841 Houston Police Department is formed.
- 1842 Texas' oldest newspaper, The Galveston County Daily News, is first published.
- 1846 Texas becomes the 28th state.

## 1850s

- 1850 First census after Texas joins the United States counts 2,396 Houstonians. Galveston, with 4,117 residents, is the state's largest city.
- 1853 Houston's first railroad — the Buffalo Bayou, Brazos & Colorado Railroad — begins operations.
- 1853 Texas Legislature appropriates \$4,000 for Buffalo Bayou improvements.
- 1859 Three competing firefighting companies combined into the Houston Volunteer Fire Department.

## 1860s

- 1861 City provides "land and good buildings" for a smallpox/yellow fever hospital.
- 1861 Houston and Harris County vote to secede from the Union. During the Civil War, the closest fighting is at Galveston.

- 1865 Emancipation of slaves in Texas is announced from Galveston, leads to Juneteenth holiday.
- 1866 Houston's first bank, First National Bank, is founded.
- 1867 Houston Stonewalls defeat Galveston Robert E. Lees 35-2 in first recorded baseball game in Houston.
- 1868 Houston's first trolley cars (mule-drawn) appear.

## 1880s

- 1880 Houston's first telephone exchange is created.
- 1882 Houston Electric Light Co. is organized. Houston and New York are the first cities to build electric power plants.
- 1882 Houston gets its first arc light.
- 1887 Sisters of Charity open Houston's first general hospital.
- 1891 Houston is first Texas city with electric streetcars.
- 1895 Houston Business League is founded (became Houston Chamber of Commerce in 1910).
- 1895 Houston Fire Department replaces Houston Volunteer Fire Department.
- 1897 Automobile first appears in Houston as an advertising gimmick.
- 1897 Houston's first asphalt street paving is laid on Franklin St.
- 1898 Galveston Country Club opens with Texas' first recorded professionally designed golf course.
- 1899 First Houston city park opens. (This site, now Sam Houston Park, contains several of Houston's earliest buildings.)

## 1900s

- 1900 A Category 4 hurricane — deadliest in U.S. history — strikes Galveston, claiming more than 6,000 lives and causing property damage exceeding \$30 million (\$902 million in 2019 dollars).
- 1901 Houston Left Hand Fishing Club purchases the city's first automobile from Olds Motor Works of Detroit.
- 1901 Oil discovered at Spindletop, and later discoveries at Humble in 1905 and Goose Creek in 1906, put Houston in the center of new oil and oilfield equipment development.
- 1902 Congress appropriates \$1 million for work on the Houston Ship Channel.
- 1905 Houston has 80 automobiles.
- 1908 Houston city council sets speed limit of 8 mph.
- 1909 Houston Museum and Scientific Society, Inc., predecessor of the Houston Museum of Natural Science, is organized.

- 1909 Houston police begin using motorcycles to enforce speed limits.
- 1909 Houston Country Club opens with Houston's first professionally-designed 18-hole golf course.

## 1910s

- 1910 Congress accepts, from a group of Houston businessmen headed by the Houston Chamber of Commerce, a novel plan to split ship channel development costs between Houston and the federal government.
- 1912 Rice Institute (now Rice University) begins classes.
- 1913 Houston Symphony is established.
- 1914 George Hermann donates 285 acres to the city for a public park near Rice Institute.
- 1914 The 25-foot-deep Houston Ship Channel is completed and formally dedicated.
- 1915 First deepwater vessel, the S.S. Satilla, calls at Houston.

## 1920s

- 1920s Oil refineries proliferate along the Ship Channel, taking advantage of inexpensive waterborne shipping.
- 1921 Houston adopts ordinance dedicating tax monies to its library system.
- 1923 Second National Bank becomes Houston's first air-conditioned building.
- 1924 Houston Museum of Fine Arts, the first fine arts museum in Texas, opens.
- 1926 Natural gas first piped into Houston.
- 1927 Houston Colored Junior College, the forerunner of Texas Southern University, established.
- 1927 Houston Junior College (now the University of Houston) is established.
- 1928 National Democratic Convention is held in Houston.
- 1928 Municipal airport opened; air mail service to Houston begins.
- 1929 City Planning Commission recommends that Houston adopt a zoning ordinance but finds scant support.

## 1930s

- 1930 Census ranks Houston as state's most populous city at 292,352.
- 1932 First Houston Fat Stock Show & Rodeo (now Houston Livestock Show and Rodeo) held.
- 1934 Intracoastal Canal links Houston to Mississippi River navigation system.
- 1935 Braniff International inaugurates first scheduled air passenger service to Houston.

1940s

- 1940s ○ Petrochemical complex develops, taking feedstocks from nearby refineries.
- 1941 ○ New master plan for Houston thoroughfares emphasizes a loop system.
- 1943 ○ Texas Medical Center is founded.
- 1946 ○ Houston Golf Assn. hosts its first PGA Tour event — now the Houston Open, 10th oldest event on the PGA schedule.
- 1947 ○ Houston College for Negroes acquired by Texas Legislature; established as Texas State University for Negroes (now Texas Southern University).
- 1947 ○ Alley Theatre established.
- 1947 ○ Engineering begins on the Gulf Freeway, Texas' first freeway.
- 1948 ○ Houston voters reject proposed zoning ordinance.
- 1948 ○ Dec. 31 annexation expands Houston's area from 74.4 to 216 square-miles.
- 1948 ○ Port of Houston ranks second nationally in total tonnage.
- 1949 ○ KLEE-TV broadcasts first Houston commercial TV program.

1950s

- 1953 ○ KUHT-TV, the nation's first public broadcast TV station, goes on the air.
- 1955 ○ Houston Grand Opera Association and Houston Ballet founded.
- 1955 ○ Houston metro area population reaches 1,000,000.

1960s

- 1962 ○ NASA's Manned Spacecraft Center moves to Houston.
- 1962 ○ Houston voters reject proposed zoning ordinance.
- 1965 ○ First event held in the Astrodome.
- 1969 ○ Houston Intercontinental Airport begins operations.
- 1969 ○ "Houston" is the first word spoken from the lunar surface.

1970s

- 1970 ○ The Galleria opens.
- 1971 ○ Shell Oil Co. relocates corporate headquarters to Houston. More than 200 major firms move headquarters, subsidiaries and divisions here in the 1970s.
- 1973 ○ Arab oil embargo quadruples oil prices in 90 days, fueling Houston's 1973-1981 economic boom.
- 1978 ○ Voters approve and fund Metropolitan Transit Authority.

1980s

- 1982 ○ Employment peaks at 1,583,400 in March before onset of recession.
- 1983 ○ 155 office buildings completed in 12 months.
- 1983 ○ Voters approve creation of Harris County Toll Road Authority.
- 1987 ○ Trough of recession in January; net recession loss of 221,900 jobs.
- 1987 ○ Wortham Center, home to Houston Ballet and Houston Grand Opera, opens.
- 1989 ○ Houston Chamber of Commerce, Houston Economic Development Council and Houston World Trade Association combine to form Greater Houston Partnership.

1990s

- 1990 ○ Houston economic recovery complete; April job count above March 1982 level.
- 1990 ○ Houston hosts 16th annual Economic Summit of Industrialized Nations.
- 1991 ○ Houston City Council mandates first zoning regulations.
- 1992 ○ Republican National Convention held in Houston.
- 1993 ○ Houston voters reject proposed zoning ordinance.

2000s

- 2000 ○ Census finds Houston MSA has no racial or ethnic majority.
- 2000 ○ Minute Maid Park, home of Major League Baseball's Houston Astros, opens.
- 2001 ○ Tropical Storm Allison inundates Houston June 5-9, claiming 22 lives and inflicting \$4.9 billion in property damage, with storm precipitation as high as 35.67 inches in some areas.
- 2002 ○ NRG Stadium, home of the National Football League's Houston Texans, opens.
- 2002 ○ Hobby Center for the Performing Arts opens.
- 2003 ○ Toyota Center, home of the National Basketball Association's Houston Rockets, opens
- 2004 ○ Houston's first modern light rail line, 7.5-miles long, begins operations.
- 2004 ○ Houston hosts NFL Superbowl XXXVIII
- 2005 ○ More than 100,000 evacuees flee to Houston from southern Louisiana in the wake of Hurricane Katrina.
- 2008 ○ Hurricane Ike makes landfall Sept. 13 at Galveston as a Category 2 storm, claiming at least 70 lives and causing some \$27 billion in property damage along the Texas Gulf Coast, ranking it third most costly among U.S. hurricanes.

2010s

- 2011 ○ By November, Houston returns to 2008 pre-recession employment levels; first major metro to do so.
- 2012 ○ BBVA Compass Stadium, home of Major League Soccer's Houston Dynamo, opens.
- 2013 ○ A \$60-billion boom in chemical plant construction begins along the Gulf Coast. Construction boom helps to offset job losses in energy over the next two years.
- 2014 ○ Oil prices peak at \$108 per barrel in June before plunging 75% over the next 18 months devastating the local energy industry. Nearly 80,000 energy-related jobs are lost.
- 2015 ○ Hobby Airport launches international service with the opening of the airport's first international terminal.
- 2015 ○ Ellington Airport receives a commercial spaceport license by the Federal Aviation Administration.
- 2016 ○ The energy downturn bottoms out and a slow recovery begins.
- 2017 ○ Houston hosts NFL Super Bowl LI.
- 2017 ○ Hurricane Harvey inundates Houston with five days of rain. Total rainfall exceeds 50 inches in many parts of the region.
- 2017 ○ The American League Houston Astros defeat the National League Los Angeles Dodgers to win Major League Baseball's World Series.
- 2018 ○ Rice University announces plans to develop new hub for Innovation District in Midtown.
- 2019 ○ The world celebrates the 50th anniversary of the Apollo 11 lunar landing on July 20.
- 2019 ○ The World Health Organization declares the emergence of a mysterious pneumonia-like virus in Wuhan, China on December 31.
- 2020 ○ The COVID-19 pandemic arrives in Houston infecting nearly 85,000 residents and causing nearly 1,200 deaths during the first four months of the outbreak. Over 350,000 jobs are lost in March and April, an economic recovery begins in May.
- 2020 ○ On June 2, more than 60,000 Houstonians gather at Discovery Green and march to City Hall to protest systemic racism and police brutality, the demonstration brought on by the death of native Houstonian George Floyd, killed by Minneapolis police while being taken into custody.
- 2020 ○ In December Houston receives its first shipment of COVID-19 vaccine.
- 2021 ○ Winter Storm Uri causes Houston temperatures to plunge to record lows. The city records up to four inches of sleet and snow.
- 2021 ○ Rothko Chapel celebrates its 50th anniversary as a landmark of modern art.

