



HOUSTON FACTS

2020

GREATER
HOUSTON
PARTNERSHIP

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

Demographics

Economy

Education

Government

Industries

Infrastructure

Quality of Life

HOUSTON
FACTS

2020

(c) 2020 Greater Houston Partnership

Data in Houston Facts 2020 are current as of June 2020 unless otherwise noted. Houston Facts is a registered trademark of Greater Houston Partnership Photos courtesy of Bryan Malloch and Houston First Corporation.

Houston Facts 2020 was compiled by the research team of the Greater Houston Partnership, including

ELIZABETH BALDERRAMA
HEATH DURAN
ROXANA GUZMAN (intern)
PATRICK JANKOWSKI
ROEL MARTINEZ
JOSH PHERIGO
BERINA SULJIC

This publication was designed by
SUZANNE MORGAN

This issue of Houston Facts is dedicated to the memory of Skip Kasdorf, who passed away on March 6, 2020. Kasdorf edited Houston Facts from 1975 until he retired in 2010.

Cover photo: Centennial Gardens at Hermann Park. Credit: Bryan Malloch

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 through the merger of the Greater Houston Chamber of Commerce, the Houston Economic Development Council and the Houston World Trade Association. Today, the Partnership serves the 11-county greater Houston region and represents a member roster of more than 1,100 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 goals of making Houston greater.

701 AVENIDA DE LAS AMERICAS, SUITE 900
HOUSTON, TX 77010
713-844-3600
HOUSTON.ORG

TABLE OF
CONTENTS

INTRODUCTION 4

GEOGRAPHY 5

HOUSTON IN PERSPECTIVE 6

Population 6
Area 6
Economy 7

DEMOGRAPHICS 8

Population and People..... 8
Income 12
Wages..... 12
Commuting to Work 12

HOUSTON ECONOMY..... 14

Corporate Economy 15
International Business 16
Houston's Top Employers 18

KEY INDUSTRIES AND SECTORS ... 20

Construction and Real Estate 20
Health Care and Social Assistance 21
Manufacturing 23
Professional and Technical Services 25
Wholesale and Retail Trade..... 26
Energy 26
NASA and Aerospace..... 28
Innovation 29
Biotech and Life Science31

GOVERNMENT..... 33

City of Houston 33
Metro Area Counties 33
Texas Government 34
Local Council of Governments 34
U.S. Congress 34
Taxation 35
Public Safety 35
Libraries 35

EDUCATION 36

Elementary and Secondary Education 37
Higher Education 37

INFRASTRUCTURE..... 38

Utilities 38
Land Transportation..... 40
Sea Ports41
Air Transportation..... 42
HAS Statistics 43

COMMUNICATIONS AND MEDIA 44

Broadcast..... 44
Digital and Print 44

LIFE IN HOUSTON 45

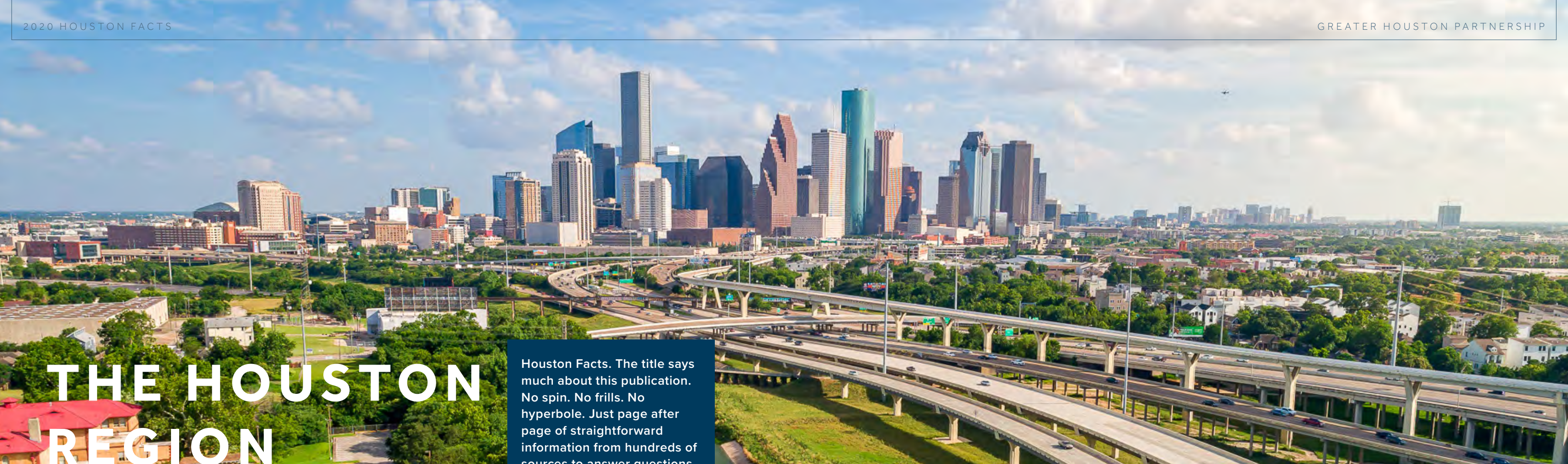
Cost of Living 45
Weather 46
Lodging 47
Dining..... 47
Arts and Culture 48
Arts Organizations 49
Museums51
Recurring Events and Festivals 54
Religious and Cultural Diversity 55
Major Events and Conventions..... 56
Convention and Sports Facilities 57
Parks and Recreation..... 59

HISTORY 62

EXCLUSIVE PRESENTING SPONSOR



To learn more about our sponsor, click [here](#).



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.

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 Iran's Gross Domestic Product.

Metro Houston ranks third in the U.S. for Fortune 500 company headquarters.

More than 500 institutions are devoted to the performing and visual arts, science and history in the Houston area.

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.

GEOGRAPHY

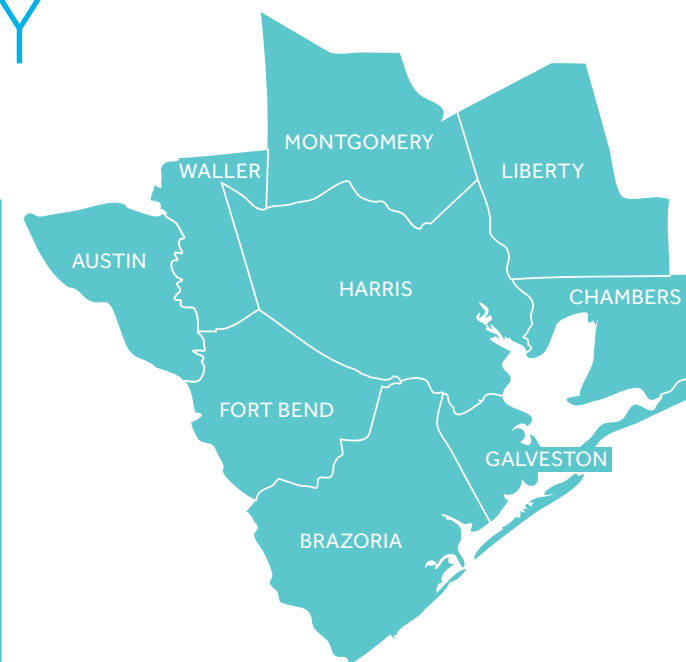
The Houston - The Woodlands - Sugar Land Metropolitan Statistical Area (MSA) contains nine Texas counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller.² Within these nine counties are 124 incorporated cities and 33 Census Designated Places (CDP).³

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.

¹ The longer title is shorted to "Houston MSA," "Metro Houston," "Greater Houston," "Houston area" or simply, "Houston"

² Combined land and water area

³ A Census Designated Place functions like a city or town, but is not incorporated



9,444
square miles¹

HOUSTON
MSA

1,778
square miles

HARRIS
COUNTY

655
square miles

HOUSTON

HOUSTON IN PERSPECTIVE

Population

The nine-county Houston MSA had a population of 7,066,141 residents as of July 1, 2019, 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 (7,278,717) and ahead of Massachusetts (6,892,503) and Tennessee (6,829,174).

The City of Houston had a population of 2,320,268 residents as of July 1, 2019, according to estimates by the U.S. Census Bureau.

If the city were a state, it would rank 35th in population in the U.S. behind Kansas (2,913,314) and ahead of New Mexico (2,096,829) and Nebraska (2,913,314).

Harris County had a population of 4,713,325 residents as of July 1, 2018, 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 (4,903,185) and ahead of Louisiana (4,648,794) and Kentucky (4,467,673).

Area

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

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

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

Economy

The U.S. Bureau of Economic Analysis estimates the Houston MSA's Gross Domestic Product (GDP) at 478.8 billion in '18, making it the seventh largest U.S. metro economy.

If Houston were a state, its GDP would rank 15th behind Michigan (\$527.1 billion) and ahead of Maryland (\$412.6 billion) and Colorado (\$371.8 billion)

If the MSA were an independent nation, it would rank as the world's 27th largest economy behind Thailand (\$487.2 billion) and ahead of Austria (\$457.6 billion) and Iran (\$452.3), according to the International Monetary Fund.

SELECTED KEY ECONOMIC INDICATORS FOR '19

The Houston Association of Realtors Multiple Listing Service recorded closings on 102,706 properties (includes single-family homes, townhomes, condos, high rises, etc.), an average of one every 5.1 minutes.

Houston MSA automobile dealers sold 292,606 new cars, trucks and SUVs, an average of one every 1.8 minutes.

The Houston Airport System handled 59,652,616 passengers, an average of 113 passengers per minute.

The City of Houston issued building permits for construction valued at \$7.3 billion, an average of \$13,799 per minute.



DEMOGRAPHICS

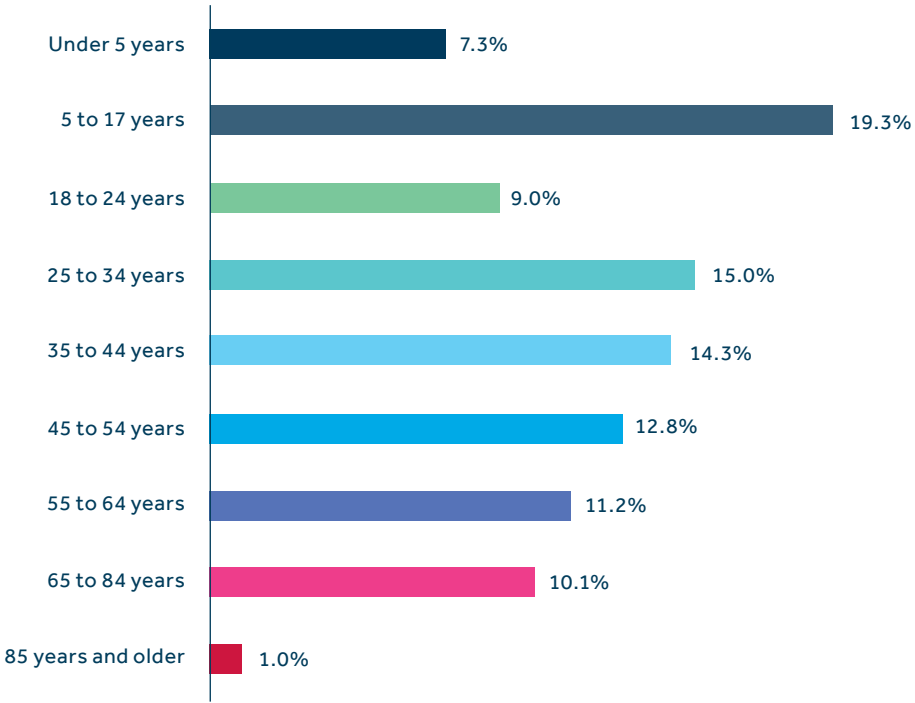
Population and People

The **Houston-The Woodlands-Sugar Land MSA**'s population of 7,066,141 residents on July 1, 2019 ranks fifth among the nation's metropolitan areas. The Houston MSA added 89,994 residents from July 1, 2018 to July 1, 2019, the increase primarily from the net natural increase (births minus deaths) and international migration. Domestic migration has significantly lagged international migration in recent years.

Harris County, with a population of 4,713,325 on July 1, 2019, is the third most populous county in the nation. Harris County added 33,280 new residents between July 1, 2018 and July 1, 2019.

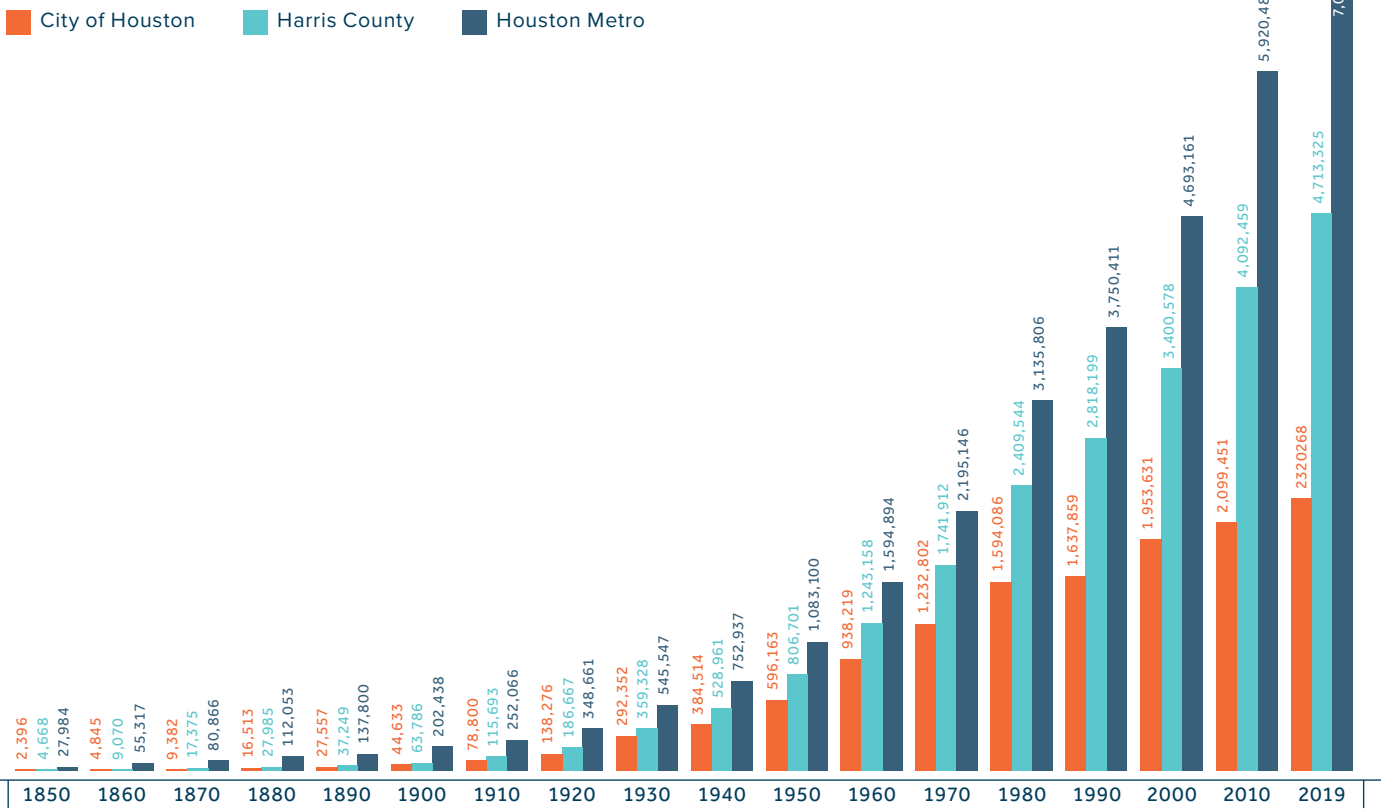
The **City of Houston**, the fourth most populous U.S. city, had a population of 2,320,268 on July 1, 2019. Houston added 1,695 residents from July 1, 2018 to July 1, 2019.

AGE DISTRIBUTION Houston MSA, 2018



Note: Sums may not total due to rounding.
Source: U.S. Census Bureau, 2018 American Community Survey

DECENNIAL CENSUS AND INTERCENSAL POPULATION



Source: U.S. Census Bureau, Texas Almanac

COMPONENTS OF POPULATION CHANGE Metro Houston, 2010 – 2019

	POPULATION		POPULATION CHANGE SINCE '10				
	'10	'19	NET MIGRATION		NATURAL INCREASE		TOTAL POPULATION CHANGE
			INTERNATIONAL MIGRATION	DOMESTIC MIGRATION	BIRTHS	DEATHS	
Austin County	28,412	30,032	210	808	3,133	2,517	1,620
Brazoria County	313,123	374,264	3,767	34,228	43,568	20,606	61,147
Chambers County	35,099	43,837	470	6,038	4,683	2,506	8,730
Fort Bend County	584,690	811,688	44,013	125,314	83,280	27,199	226,989
Galveston County	291,307	342,139	4,802	32,504	37,105	23,882	50,827
Harris County	4,093,188	4,713,325	267,216	-53,954	637,975	230,702	620,149
Liberty County	75,641	88,219	246	9,321	10,190	7,170	12,576
Montgomery County	455,750	607,391	12,462	106,235	63,930	32,210	151,644
Waller County	43,277	55,246	367	8,563	5,746	2,791	11,972
HOUSTON MSA	5,920,487	7,066,141	333,553	269,057	889,610	349,583	1,145,654

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, 2019 Population Estimates

SELECTED DEMOGRAPHIC CHARACTERISTICS Metro Houston, 2018

	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	11,041	2.7	23.6	10.8
Brazoria County	35.6	118,762	2.9	29.8	13.4
Chambers County	35.4	13,529	3.0	21.4	8.9
Fort Bend County	36.0	230,381	3.2	46.1	28.4
Galveston County	37.5	119,181	2.7	30.0	9.8
Harris County	33.3	1,583,486	2.9	31.0	26.1
Liberty County	35.7	26,203	2.9	9.4	7.9
Montgomery County	36.9	192,823	2.9	34.6	13.3
Waller County	29.0	14,807	3.1	19.9	14.8
HOUSTON MSA	34.6	2,359,266	2.9	33.1%	23.3%

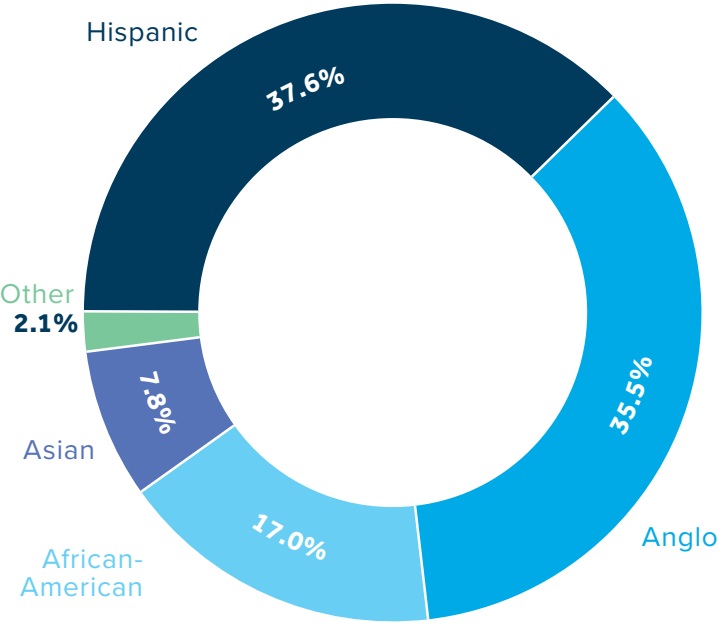
Note: County data may not sum to Houston MSA total due to a difference in survey methods.
Source: County data from U.S. Census Bureau, 2014-18 American Community Survey; MSA data from U.S. Census Bureau, 2018 American Community Survey

Nearly one in four Houstonians was born outside the U.S. Among the 1,648,768 foreign-born in the Houston metro area, 73.5 percent entered the U.S. before '10.

Top regions of birth for the Houston MSA's foreign-born populations: Latin America (61.1 percent), Asia (27.1 percent), Africa (5.9 percent) and Europe (4.3 percent).

Metro Houston accepted 587 refugees from 30 countries in '19, a quarter of all refugees resettled in Texas that year.

RACE/ETHNIC COMPOSITION Houston MSA, 2018



Note: Hispanic/Latino includes all races. Sums may not total due to rounding.
Source: U.S. Census Bureau, 2018 American Community Survey



1 IN 4
HOUSTONIANS

was born outside the U.S.

EDUCATIONAL ATTAINMENT Houston MSA, 2018

HIGHEST EDUCATION LEVEL ATTAINED	POPULATION AGE 25 OR OLDER	
	NUMBER	PERCENT
NO HIGH SCHOOL DIPLOMA	735,625	16.3
HIGH SCHOOL GRADUATE OR HIGHER	3,771,641	83.7
High School Diploma or GED	1,045,481	23.2
Some College, No Degree	923,075	20.5
Associate Degree	312,734	6.9
BACHELOR'S DEGREE OR HIGHER	1,490,351	33.1
Bachelor's Degree	948,842	21.1
Graduate or Professional Degree	541,509	12.0
TOTAL POPULATION AGE 25 OR OLDER	4,507,266	100.0

Note: Sums may not total due to rounding.
Source: U.S. Census Bureau, 2018 American Community Survey

Income

PER CAPITA PERSONAL INCOME

The nine-county Houston MSA pretax per capita personal income (PCPI) in '18 was \$56,077, 16.5 percent above the U.S. average of \$48,146, according to the latest data available by the U.S. Bureau of Economic Analysis (BEA). PCPI increased 4.9 percent in the Houston MSA, compared to 5.6 percent nationwide from '17 to '18.

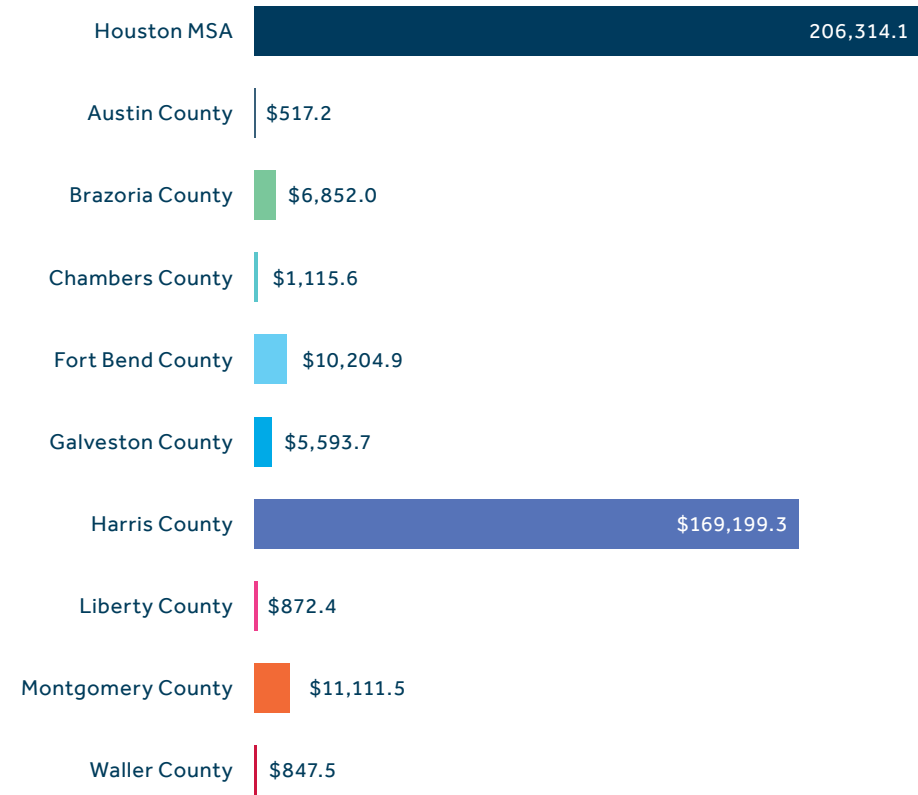
TOTAL PERSONAL INCOME

Total personal income in the Houston MSA, defined as income from all sources (wages, investments, transfer payments), totaled \$392.4 billion in '18, up 6.3 percent from '17, according to the BEA.

Wages

The average weekly wage in metro Houston was \$1,315 in the four quarters ending Q3/19, according to the Texas Workforce Commission. Total wages for the metro area were \$206.3 billion for the same period.

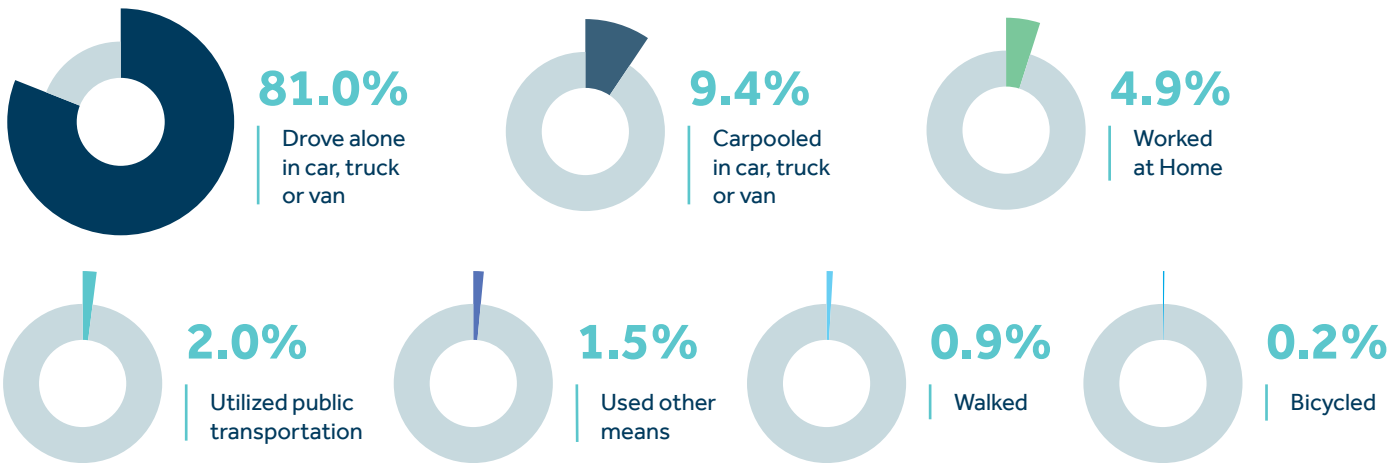
TOTAL WAGES Metro Houston, 2019* (\$ Millions)



*Note: Four quarters ending Q3/19. 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, 2018



Note: Sums may not total due to rounding.
Source: U.S. Census Bureau, 2018 American Community Survey

METRO EMPLOYMENT BY OCCUPATION Houston MSA, 2019

		EMPLOYMENT	PERCENT OF TOTAL			EMPLOYMENT	PERCENT OF TOTAL
	Office and Administrative Support	419,280	13.7%		Healthcare Support	110,590	3.6%
	Sales and Related	300,320	9.8%		Building and Grounds Cleaning and Maintenance	87,320	2.9%
	Food Preparation and Serving Related	280,000	9.2%		Architecture and Engineering	84,560	2.8%
	Transportation and Material Moving	258,690	8.5%		Computer and Mathematical	84,040	2.8%
	Construction and Extraction	193,950	6.4%		Protective Service	73,870	2.4%
	Production	193,460	6.3%		Personal Care and Service	47,940	1.6%
	Education, Training, and Library	177,250	5.8%		Life, Physical, and Social Science	34,680	1.1%
	Healthcare Practitioners and Technical	165,350	5.4%		Arts, Design, Entertainment, Sports, and Media	31,720	1.0%
	Management	163,940	5.4%		Community and Social Service	26,450	0.9%
	Business and Financial Operations	156,470	5.1%		Legal	24,770	0.8%
	Installation, Maintenance and Repair	133,010	4.4%		Farming, Fishing, and Forestry	4,500	0.1%
TOTAL OCCUPATION EMPLOYMENT		3,052,170	100%				

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2019 Occupation Employment Statistics

30.0 MINUTES

Average travel time to work in '18





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 standard 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.

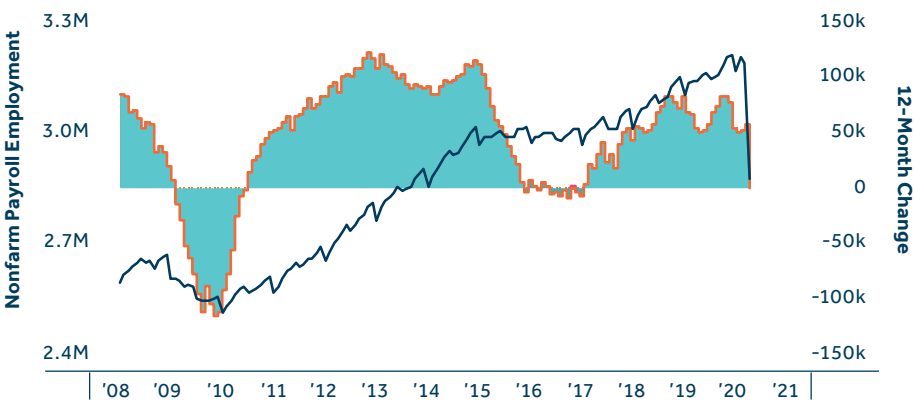
Job growth resumed mid-'17, aided by a healthy U.S. economy and strong ties to a growing global economy. U.S. GDP growth averaged 2.5 percent over the quarter. Global growth exceed 3.5 percent. The Brookings Institution estimates that 17.3 percent of Houston's GDP is

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 soon followed. In a matter of days, local employers were following Stay Home-Work

PAYROLL EMPLOYMENT Metro Houston

■ Total Employment
■ 12-Month Change



Source: Texas Workforce Commission

EMPLOYMENT BY INDUSTRY Houston MSA, December 2019

	JOB	PERCENT OF TOTAL
GOODS PRODUCING	555,000	17.3%
MINING AND LOGGING	78,500 jobs	2.4%
Oil and Gas Extraction	37,600	1.2
Support Activities for Mining	39,200	1.2
CONSTRUCTION	241,600 jobs	7.5%
MANUFACTURING	234,900 jobs	7.3%
Durable Goods	150,400	4.7
Non-Durable Goods	84,500	2.6
TRADE, TRANSPORTATION, AND UTILITIES	652,900 jobs	20.3%
Wholesale Trade	177,400	5.5
Retail Trade	313,900	9.8
Transportation, Warehousing, and Utilities	161,600	5.0
SERVICE PROVIDING	2,654,50 JOBS	82.7%
INFORMATION	32,700 jobs	1.0%
FINANCIAL ACTIVITIES	168,800 jobs	5.3%
Finance and Insurance	104,100	3.2
Real Estate and Rental and Leasing	64,700	2.0
PROFESSIONAL AND BUSINESS SERVICES	512,700 jobs	16.0%
Professional, Scientific, and Technical Services	247,000	7.7
Management of Companies and Enterprises	46,500	1.4
Admin and Support and Waste Mgmt.	219,200	6.8
EDUCATION AND HEALTH SERVICES	411,100 jobs	12.8%
Educational Services	64,600	2.0
Health Care and Social Assistance	346,500	10.8
LEISURE AND HOSPITALITY	332,200 jobs	10.4%
Arts, Entertainment, and Recreation	37,000	1.2
Accommodation and Food Services	295,200	9.2
OTHER SERVICES	117,300 jobs	3.7%
GOVERNMENT	426,800 jobs	13.3%
TOTAL NONFARM	3,084,7 JOBS	100.0%

Source: Texas Workforce Commission, December 2019, not seasonally adjusted

Safe guidelines requiring much of the region's population to work remotely. Businesses closures and furloughs resulted in over 600,000 claims being filed for unemployment benefits. More than 350,000 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 gradually easing restrictions on May 1 and Houston businesses started 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. However, a surge in COVID-19 cases that began in late June created new public health concerns and delayed the full reopening of the Texas economy.

Though the U.S. economy may not fully recover until late '21, according to many economists, Houston's long-term outlook remains bright. The region'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 fourth in the nation in Fortune 500 headquarters and third in Fortune 1000. Many other Fortune firms maintain U.S. offices in Houston.

The 21 companies on the Forbes Global 2000 list that are headquartered in Houston have a combined total revenue of \$422.2 billion.

The Texas Workforce Commission reports that Metro Houston was home to more than 160,000 establishments in '19. 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 38.2 percent of the region's business establishments. Over half of the metro's establishments employ between one and four workers.

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 23.7 million metric tons in exports valued at \$151.8 billion in ’19, according to WISERTrade. These exports accounted for 64.1 percent of the value of total trade that passed through the region in ’19—a 19-point increase from 44.8 percent in ’10.

The Brookings Institution estimates that in ’17, the latest data available,

17.3 percent of Houston’s economy was tied to exports, and that exports supported 330,340 jobs (indirect and direct).

Seventy-eight nations have consular representation in the city, ranking Houston’s consular corps the third largest in the nation.

Fifteen foreign governments maintain trade and commercial offices here, and the city has more than 35 active foreign chambers of commerce and trade associations.

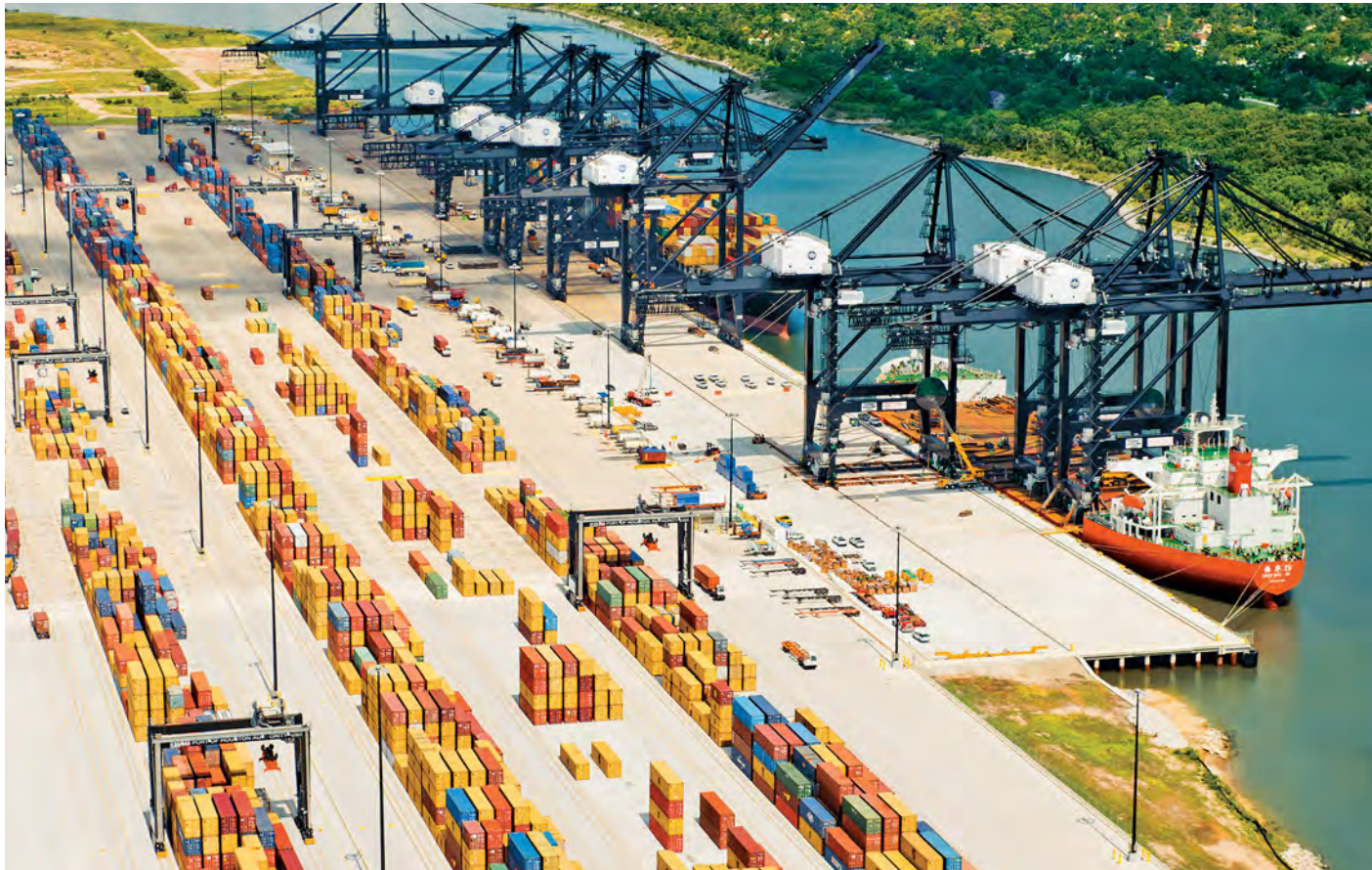
Houston has 18 sister-city relationships promoting business opportunities across five continents: Asia (7), Europe (7), Americas (2), Africa (1), and Australia (1). Houston’s oldest sister-city relationship was established in 1961 with Taipei, Taiwan, and its most recent relationship with Basrah, Iraq was established in ’15.

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

More than 1,700 firms in Houston report foreign ownership. In ’19, at least 30 foreign-owned firms invested in office expansions, new plants and expanded distribution facilities in Houston. More than \$3.3 billion in capital investments were made by foreign-owned firms in Houston.

Nearly 5,000 Houston-area firms are engaged in global commerce, including more than 2,300 local manufacturers.

Eleven of Houston’s 32 skyscrapers (at least 150 meters tall) are owned, co-owned, or financed by foreign investors.



ESTABLISHMENTS BY INDUSTRY Houston MSA

INDUSTRY	ESTABLISHMENTS	% OF TOTAL
Professional, Scientific, and Technical Services	22,436	14.0
Health Care and Social Assistance	20,588	12.8
Retail Trade	18,321	11.4
Other Services (except Public Administration)	15,223	9.5
Accommodation and Food Services	13,030	8.1
Construction	11,431	7.1
Wholesale Trade	11,059	6.9
Finance and Insurance	9,207	5.7
Administrative and Support and Waste Management and Remediation Services	8,719	5.4
Real Estate and Rental and Leasing	7,972	5.0
Manufacturing	6,572	4.1
Transportation and Warehousing	4,822	3.0
Educational Services	2,102	1.3
Mining, Quarrying, and Oil and Gas Extraction	1,912	1.2
Arts, Entertainment, and Recreation	1,732	1.1
Information	1,680	1.0
Unclassified	1,348	0.8
Management of Companies and Enterprises	830	0.5
Public Administration	711	0.4
Agriculture, Forestry, Fishing and Hunting	589	0.4
Utilities	509	0.3
TOTAL	160,791	100%

Note: Four quarters ending Q3/19. Sums may not total due to rounding.
Source: Texas Workforce Commission

HOUSTON-HEADQUARTERED COMPANIES 2019

22	47	6	21	114
Fortune 500	Fortune 1000	Fortune Global 500	Forbes Global 2000	Inc. 5000
Metro Rank 4	Metro Rank 3	Metro Rank 2	Metro Rank 5	Metro Rank 11

Source: Fortune, Forbes, Inc.



Houston's Top Employers

OVER 20,000 EMPLOYEES

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

10,000 TO 19,999 EMPLOYEES

ExxonMobil
HCA Houston Healthcare
Kroger
Landry's
Schlumberger
Shell Oil Co.
Texas Children's Hospital
United Airlines
UT Health Science Center
Wood Group

5,000 TO 9,999 EMPLOYEES

AT&T
Baker Hughes, a GE Company
Baylor College of Medicine
BP America
Chevron
CHI St. Luke's Health
Dow Chemical Co.
Harris Health System
Home Depot
Houston Community College
JPMorgan Chase
KBR
Lone Star College
Michael E. DeBakey VA Medical Center
National Oilwell Varco
Occidental Petroleum
S&B Engineers and Constructors
Target Corp.
Texas A&M University
University of Houston
UT Medical Branch Health System
Walgreens

2,000 TO 4,999 EMPLOYEES

Academy Sports & Outdoors
Air Liquide USA
American National Insurance Co
Apache Corp.
Ascend Performance Materials
Bank of America
Bechtel Corp.
Ben Taub Hospital
Brinker International
Cameron, a Schlumberger Co.
CenterPoint Energy
Chevron Phillips Chemical Co.
Comcast
ConocoPhillips
CVS Health
Daikin/Goodman
Deloitte
Enterprise Products Partners
Fiesta Mart
Fluor Corp.
The Friedkin Group, Inc.
Goodwill Industries of Houston
Grocers Supply Company
Group 1 Automotive
Halliburton
Hewlett Packard Enterprise
HP Inc.
Jacobs
KBR
Kelsey-Seybold Clinic
Kinder Morgan
Lewis Food Town Inc.
Lowe's Cos.
Luby's
LyondellBasell
Macy's
Marathon Oil Corp.
NASA - Johnson Space Center
Phillips 66
Rice University
Sam Houston State University
Sam's Club
San Jacinto Community College
Sysco Corp.
TechnipFMC
Texas Home Health
Turner Industries
Universal Plant Services
Wells Fargo

Note: The list is for '19 and does not account for increased employment or layoffs due to the coronavirus in '20. The list excludes government employers (except hospitals, universities and research centers) and fast food chains. Source: Greater Houston Partnership Research, May 2020



KEY INDUSTRIES AND SECTORS

Construction and Real Estate

EMPLOYMENT

The construction industry in Houston employed an average of 233,240 people in the four quarters ending Q3/19, 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). Building construction accounted for 23.8 percent, and heavy and civil engineering construction accounted for 27.2 percent of construction employment. Annual wages in the industry averaged \$75,855.

ESTABLISHMENTS

The Houston metro area was home to nearly 11,431 construction establishments in the four quarters ending Q3/19. Of that total, 60.8 percent were specialty trade contractors, 29.4 percent were in building construction, and 9.7 percent were heavy and civil engineering construction establishments.

TOP EMPLOYERS

Bechtel, Bellows Construction, D.E. Harvey Builders, E.E. Reed Construction, Fluor, Gilbane Building, Jacobs, Linbeck Group, McCarthy Building Companies, S & B Engineers and Constructors, SpawGlass Construction, Summit Industrial, Tellepsen, Turner Construction, Turner Industries, Williams Brothers Construction and Zachry.

BUILDING PERMITS

City of Houston building permits totaled nearly \$7.3 billion in '19 with \$2.8 billion for residential and nearly \$4.5 billion for commercial building permits, according to city data.

OFFICE

At the close of '19, NAI reported that the Houston area contains 236.7 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 positive 842,537 square-feet in '19. The vacancy rate for the entire Houston market was 21.1 percent at the end of '19.

Average asking rent for the Class A office market was \$35.03 per square foot (\$43.55 for CBD Class A and \$31.40 for suburban Class A).

INDUSTRIAL

As of Q4/19, Houston has more than 236.6 million square feet of industrial space. NAI reported year-end '19 occupancy dipped slightly from the previous year to 93.1 percent. At the end of '19, 18.7 msf of projects were under construction. Net absorption for '19 was strong with a total of 8.7 msf. Across the market, average monthly asking rates were \$0.61 per square foot in the fourth quarter of '19.

RETAIL

Metro Houston had 356.7 msf of retail space at the end of '19, of which 19.9 msf was vacant and available for lease. Nearly 3.6 msf was under construction at the start of '20. The average asking rent, on a triple net basis, was \$18.16 per square foot per year.

SINGLE-FAMILY

In '19, Houston home sales set records for sales, average prices and median prices. In '19, single-family closings (largely resale homes) in the Houston area totaled 86,205, and an additional 6,562 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 \$251,000. Single-family starts in '19 numbered 30,547, according to Metrostudy.

MULTI-FAMILY

Apartment Data Services reported that Houston area multi-family occupancy averaged 89.5 percent in '19, with an inventory of 666,678 units, and as of April '20, Houston's multi-family inventory included 2,855 properties with approximately 666,600 units. Monthly rents across all property classes averaged \$1,050.

CLASS A apartments recorded 83.8 percent occupancy at \$1.63/sf/mo;

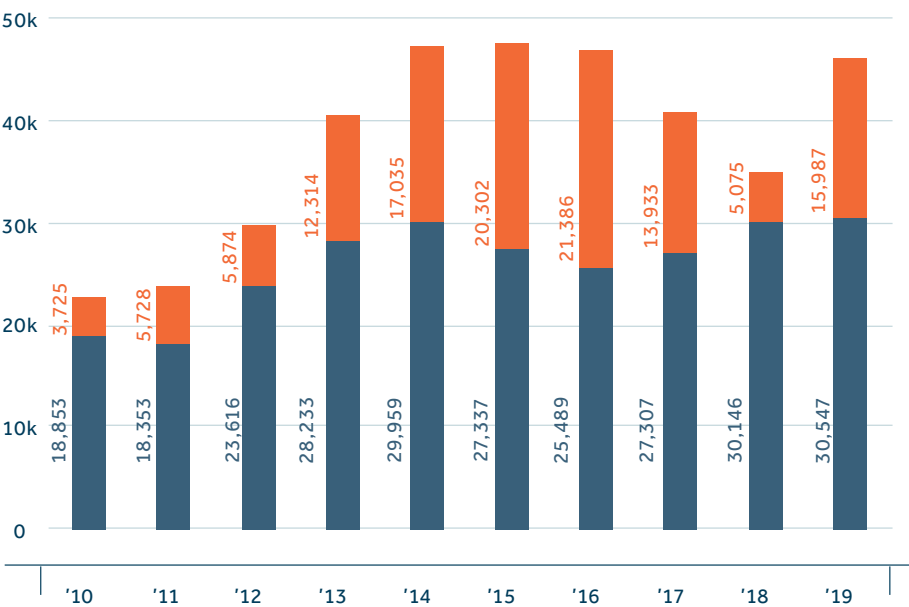
CLASS B recorded 91.0 percent occupancy at \$1.17/sf/mo;

CLASS C recorded 91.2 percent occupancy at \$0.96/sf/mo; and

CLASS D recorded 89.8 percent occupancy at \$0.76/sf/mo.

Construction remains high despite a growing glut in apartment units, generous incentives offered by landlords to potential renters, and weak job growth. As of early June, there were 18,633 units under construction and another 27,707 on the drawing boards.

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



Source: Metrostudy and Apartment Data Services

Health Care and Social Assistance

EMPLOYMENT

Health care and social assistance employed an average of 375,744 people in the four quarters ending Q3/19, almost one in eight Houston workers, according to the Texas Workforce Commission. Ambulatory health care accounts for 43.8 percent of the sector employment, hospitals for 32.3 percent and social assistance, nursing and residential care for 23.8 percent. The average annual wage for the industry was \$56,252.04 in the four quarters ending Q3/19.

According to the Texas Medical Board, metro Houston has 19,065 licensed physicians. Eighty percent of those physicians are in Harris County. The concentration of anesthesiologists, nurse anesthetists, cardiovascular technologists and technicians, respiratory therapy technicians, and occupational health and safety specialists/technicians is well above the national average.

ESTABLISHMENTS

Houston's 20,558 health care and

social assistance establishments included 13,467 ambulatory health care providers, 6,192 social assistance establishments, 703 nursing and residential care facilities and 226 hospitals in the four quarters ending Q3/19.

TOP EMPLOYERS

CHI St. Luke's, HCA, Harris Health System, Houston Methodist, Kindred Healthcare, Kelsey Seybold Clinic, MD Anderson Cancer Center, Memorial Hermann Healthcare System,

Michael E. DeBakey Veterans Affairs Medical Center, Texas Children’s Hospital and UTMB Health.

TEXAS MEDICAL CENTER

The Texas Medical Center (TMC) is the world’s largest medical complex by many measures: number of hospitals, number of physicians, square footage and patient volume. The Texas Medical Center’s 61 member institutions are consistently recognized by U.S. News and World Report as among the best hospitals and universities in the nation.

The TMC is developing five institutes:

- 1. TMC Innovation Institute
- 2. TMC Health Policy Institute
- 3. TMC Clinical Research Institute
- 4. TMC Regenerative Medicine Institute
- 5. TMC Genomics Institute

These institutes will foster collaboration across all member institutions:

Clinical Research: To be the world leader in clinical research by more efficiently translating discoveries into breakthrough therapies and cures.

Genomics: To create the world’s premier clinical genomics program.

Health Policy: To develop effective policy solutions to improve the health of diverse populations in Houston and Texas and will serve as models for the world.

Innovation: To become the global leader in health and life sciences innovation. The TMC Innovation Institute houses TMCx, an accelerator that advances the development of health and medical technology companies, and TMCx+, an incubator for health startups.

Regenerative Medicine: To lead the world in discovering, developing and delivering curative regenerative therapies.

Initially announced in ’15, the design of TMC3, a multi-institutional 37-acre research campus bringing together the best institutions in clinical care, research and industry, was updated in ’19. Construction on the campus is scheduled for completion in '22. TMC3 will create nearly 30,000 jobs and inject more than \$5.2 billion into the Texas economy, creating nearly 30,000 jobs and bringing an anticipated \$5.2 billion to the Texas economy. The “3” in TMC3 is meant to designate Houston as the “third coast” for life sciences.

PROMINENT TMC MEMBERS INCLUDE

- Baylor College of Medicine
- CHI St. Luke's Health
- Children's Memorial Herman Hospital
- Harris Health System
- Houston Baptist University
- Houston Community College
- Houston Methodist Hospital
- MD Anderson Cancer Center
- Memorial Hermann
- Menninger
- Michael E. DeBakey Veterans Affairs Medical Center
- Prairie View A&M University
- Rice University
- Texas A&M University Health Science Center
- Texas Children's Hospital
- Texas Heart Institute
- Texas Southern University
- Texas Women's University
- University of Houston
- University of Texas
- University of St. Thomas

Manufacturing

The 6,572 manufacturing establishments in the Houston region employed 234,155, or about 1 in 13 Houston-area workers in ’19, according to the Texas Workforce Commission. The average annual wage was \$89,685. The value of goods manufactured in metro Houston topped \$84.8 billion in ’18 and accounted for 17.7 percent of the region’s total GDP, according to the Bureau of Economic Analysis.

CHEMICALS

The Houston region was home to 591 chemical plants employing 39,776 workers, or 17.0 percent of Greater Houston’s total manufacturing workforce in ’19, 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 49.0 percent of the country’s capacity of polypropylene, 38.1 percent of polyethylene and 52.1 percent of polyvinyl chloride.

PETROLEUM REFINING

The Spaghetti Bowl is a complex of several thousand miles of product

MANUFACTURING OVERVIEW Houston MSA, 2019*

Fabricated Metal Products
54,457 jobs | 1,768 establishments

Computer and Electronic Products
13,225 jobs | 338 establishments

Plastics and Rubber Products
10,284 jobs | 231 establishments

Transportation Equipment
5,355 jobs | 138 establishments

Machinery
46,311 jobs | 823 establishments

Food
11,843 jobs | 439 establishments

Nonmetallic Mineral Products
6,727 jobs | 295 establishments

Other Manufacturing
29,649 jobs | 1,706 establishments

Chemical
39,776 jobs | 591 establishments

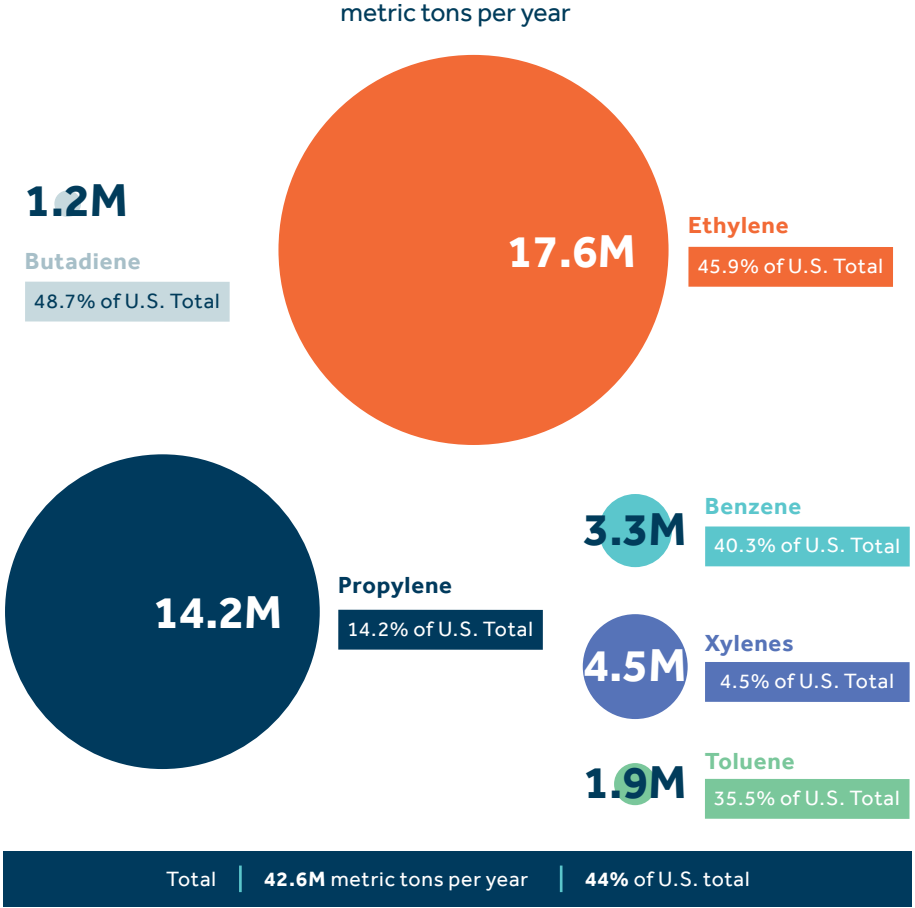
Petroleum and Coal Products
10,150 jobs | 86 establishments

Electrical Equipment and Appliances
6,399 jobs | 158 establishments

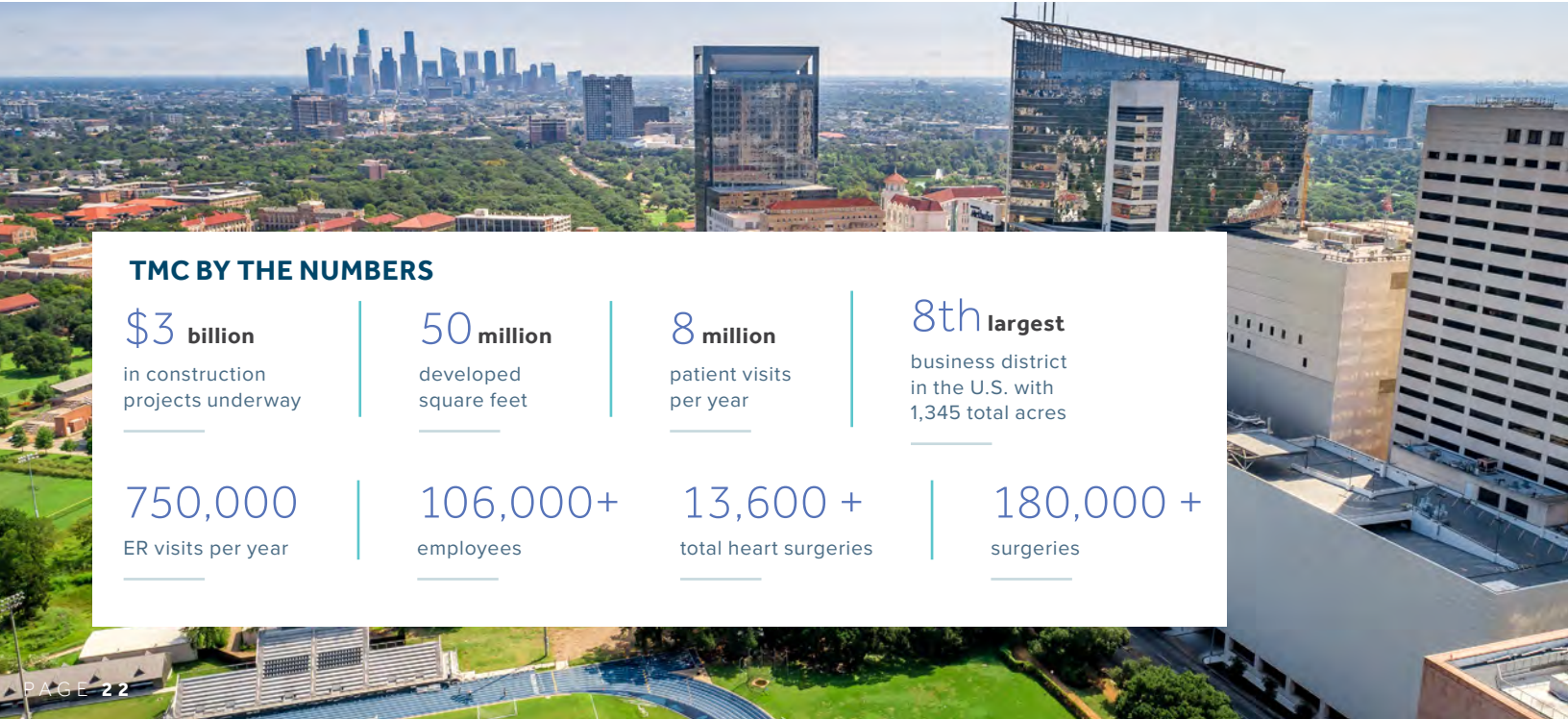
Fabricated Metal Products
54,457 jobs | 1,768 establishments

Total Manufacturing
234,155 jobs | 6,572 establishments

BASE CHEMICAL PRODUCTION CAPACITY Houston MSA, 2020



Source: Metrostudy



TMC BY THE NUMBERS

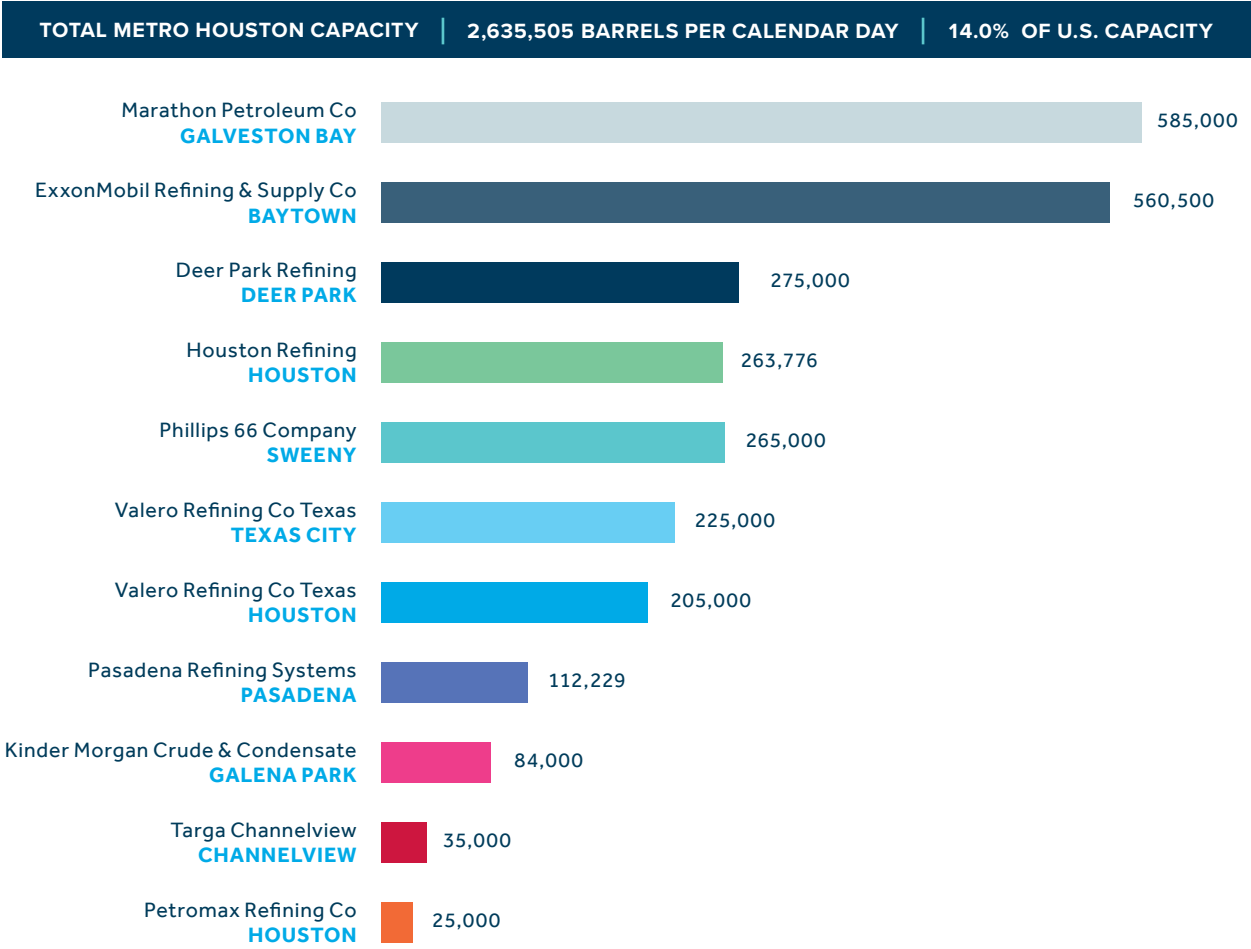
\$3 billion	50 million	8 million	8th largest
in construction projects underway	developed square feet	patient visits per year	business district in the U.S. with 1,345 total acres
750,000	106,000+	13,600 +	180,000 +
ER visits per year	employees	total heart surgeries	surgeries

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 '19, the Houston metro had a crude operating capacity of 2.6 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 9,318 workers in '19, equivalent to 4.0 percent of the Houston region's total manufacturing workforce.



PETROLEUM REFINING CAPACITY Metro Houston, 2019



Source: U.S. Energy Information Agency, Refinery Capacity Report January 1, 2019 (Release Date: June 21, 2019)

Professional and Technical Services

EMPLOYMENT

Metro Houston employed an average of 227,699 professional, scientific and technical service workers in the four quarters ending Q3/19. Architectural and engineering services, with 72,285 workers, represents over a third of the sector's total employees. The second and third largest industry subsectors include management and technical consulting (39,356 employees) and computer systems design services (31,231 employees).

Houston has more than 56,860 engineers of all disciplines, the most numerous being, petroleum, civil, mechanical, industrial, chemical and electrical. Houston has one of the highest concentrations of engineering talent in the nation. For every 100,000

workers in the Houston MSA, there are 1,857 engineers. In comparison, for every 100,000 workers in the U.S., there are 1,138 engineers.

ESTABLISHMENTS

The Houston MSA had 22,487 establishments in professional, scientific and technical services in the four quarters ending Q3/19. The sector includes 5,352 management and technical consulting establishments, 4,231 computer systems design companies and 3,917 establishments that provide legal services.

FINANCE

Metro Houston's 95 Federal Deposit Insurance Corporation (FDIC)-insured

institutions had 1,416 offices and branches with \$249.6 billion in local deposits, according to June '19 FDIC data. Houston ranked 12th among U.S. metros in total deposits in '19.

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

Five 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 five include the three largest banks in the nation.

ENGINEERS Houston MSA vs. U.S., 2019

	TOTAL	HOUSTON ENGINEERS	PER 100,000 WORKERS HOUSTON	U.S.
Aerospace		1,770	57.8	43.1
Biomedical		230	7.7	13.5
Chemical		4,230	138.6	20.5
Civil		10,740	351.9	212.0
Computer Hardware		600	19.5	46.4
Electrical		4,290	140.7	126.8
Electronics		2,110	69.1	87.5
Environmental		1,440	47.1	36.2
Health and Safety		1,540	50.6	17.6
Industrial		5,400	176.9	198.8
Marine Engineers and Naval Architects		440	14.5	7.8
Materials		1,100	36.1	18.2
Mechanical		8,760	287.0	209.5
Mining and Geological		340	11.3	4.3
Petroleum		10,210	334.5	22.2
All Other Engineers		3,480	114.0	103.6
TOTAL		56,680	1,857	1,138

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2019

Wholesale and Retail Trade

EMPLOYMENT

Wholesale trade employed 161,500 in the Houston MSA, including 102,062 in durable goods, 49,036 in nondurable goods and 10,402 in electronic online markets in '19.

Retail trade employed 301,330, including 65,981 in food and beverage, 58,471 in general merchandise and 42,479 in motor vehicle and part dealers. Average annual wage in '19 was \$88,231 for wholesale workers and \$33,540 for retail workers.

ESTABLISHMENTS

Metro Houston contained 11,059 wholesale trade establishments, including 6,700 durable goods wholesalers and 2,493 nondurable goods wholesalers in '19. There were 18,321 retail establishments, including 2,635 food and beverage stores, 2,554 gas stations and 2,275 clothing stores.

TOP EMPLOYERS

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

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 630 exploration and production firms, nearly 800 oilfield service companies, nearly 90 pipeline transportation firms, and hundreds of manufacturers and wholesalers of energy-sector products.



GROSS RETAIL SALES Metro Houston, 2018-2019, (\$ Millions)

GEOGRAPHY	'18	'19	% CHANGE FROM '18
Houston MSA	127,662.4	128,258.8	0.5%
Austin County	320.1	341.0	6.5%
Brazoria County	4,829.6	4,398.8	-8.9%
Chambers County	437.4	502.6	14.9%
Fort Bend County	9,089.2	8,538.2	-6.1%
Galveston County	4,336.3	4,303.8	-0.7%
Harris County	98,675.1	100,083.0	1.4%
Liberty County	880.8	867.9	-1.5%
Montgomery County	8,530.9	8,630.0	1.2%
Waller County	563.1	593.4	5.4%

Note: Data compiled from four quarters ending Q3/19.

Source: Texas Comptroller's Office

Houston is home to 42 of the nation's 113 publicly traded oil and gas exploration and production firms, including eight 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 more than 2.6 million barrels of crude oil per calendar day—approximately 45.5 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 58,810 miles, or 34.2 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 133,203 miles of U.S. pipeline, which is 68.2 percent of the total U.S. natural gas pipeline capacity.

In '19, the Houston MSA held 26.1 percent of the nation's jobs in oil and gas extraction (37,001 of 141,627), and 18.4 percent of jobs in drilling oil and gas wells (11,156 of 60,546), and 10.6 percent of jobs in support activities for oil and gas operations (28,475 of 269,485), according to 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 '19 accounted for 8.5 percent of the region's employment and 3.6 percent of its firms. The average job in an energy-related industry paid approximately \$145,108 per year, more than double the metro average of \$68,770.

ENERGY-RELATED SECTORS Houston MSA, 2019*

INDUSTRY	EMPLOYMENT	FIRMS	AVG. ANNUAL WAGE (\$)
Engineering services	48,649	1,841	125,554
Chemical manufacturing	39,980	458	137,449
Oil and gas extraction	37,001	497	244,075
Support activities for oil and gas	28,475	787	138,216
Oil and gas field machinery	28,456	252	116,207
Oil and gas pipeline construction	27,068	199	92,781
Pipeline transportation	11,702	88	194,766
Drilling oil and gas wells	11,156	139	144,521
Petroleum refineries	9,346	43	168,844
Fabricated pipe and pipe fitting mfg.	5,575	92	66,664
Industrial valve manufacturing	3,967	70	88,153
Geophysical surveying and mapping	3,520	144	134,303
Pump and compressor manufacturing	1,750	47	108,238
TOTAL ENERGY-RELATED	256,644	4,655	145,108
SHARE OF METRO HOUSTON TOTAL	8.5%	3.6%	

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 Q4/19

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

TOP ENERGY-RELATED EMPLOYERS

Apache	Direct Energy	McDermott International	Schlumberger
Aramco	Enbridge	National Oilwell Varco	Shell
Baker Hughes	Enterprise Products	NRG Energy	Sun Coast Resources
BP North America	EOG Resources	Occidental	Superior Energy Services
Calpine	Equinor	Oceaneering International	TechnipFMC
CenterPoint Energy	ExxonMobil	Oil States International	Total
Cheniere	Halliburton	Phillips 66	Universal Plant Services
Chevron	Hilcorp	Plains All	Weatherford
CITGO	Kinder Morgan	American Pipeline	Wood
ConocoPhillips	Marathon Oil	Repsol	

NASA and Aerospace

Houston is home to NASA's Johnson Space Center (JSC), the focal point of the nation's manned space flight program. Manned U.S. space missions have been planned, executed and controlled from JSC since 1961. Astronauts live and train at this facility.

The 50th anniversary of the first lunar landing by Apollo 11 occurred on July 20, '19. Space Center Houston, the official visitor center of JSC, hosted a series of anniversary events, drawing people from 49 countries and yielding a record attendance of 13,000 people on July 20th. Following the anniversary, NASA announced in August '19 that there would be a new lunar lander program and that JSC would develop the lunar ascent spacecraft.

JSC serves as NASA's lead center for life sciences research and application, astronaut selection and training and mission control. JSC personnel direct industrial efforts to design, develop,

build and upgrade piloted space craft and oversee many of the medical, scientific and engineering experiments conducted in space.

JSC, a \$1.5 billion complex established in 1961, occupies over 1,700 acres in southeast Houston. It is one of NASA's largest R&D facilities. JSC managed an annual budget of \$4.61 billion in '19 and spent \$2.34 billion in Texas on contracts and federal salaries. JSC's largest contractors in '19 included Boeing, Collins Aerospace and Pacific Architects and Engineers. NASA supported 11,088 employees (8,056 contractors and 2,952 federal) at JSC in '19. Space Center Houston, which welcomed more than 1.1 million visitors in '19, an annual record, employs 300 full-time workers.

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 \$2.9 billion in '19, and aircraft, spacecraft, and parts were Houston's 11th largest internationally traded commodity. The Space Commerce Conference and Expo (SpaceCom) was in its fifth year in '19 at Houston's George R. Brown Convention Center and featured Bill Nye the Science Guy as a keynote speaker.

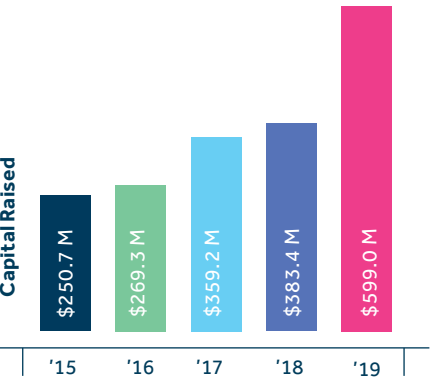
In '15, the Federal Aviation Administration (FAA) designated Ellington Field as a spaceport, clearing the way for commercial space flight in Houston. In June '19, the groundbreaking began for Phase I of the spaceport development, an \$18.8 million project designed to provide infrastructure and utilities, as well as the construction of 53,000 square feet of lab and office space.

Innovation

Houston has emerged as a hub for digital technology. With more than 235,000 tech workers, Houston has the 12th largest tech sector in the U.S., according to the Computing Technology Industry Association. Houston's tech industry generates \$28.1 billion to the region's GDP.

Houston is home to 8,800 tech-related firms, including more than 500 venture-backed startups. These companies have received \$1.9 billion in venture capital funding over the last five years, including \$600 million in '19, a record high for the region, according to Pitchbook. In January '20, the financial software firm HighRadius was valued over \$1 billion after receiving \$125 million in late stage VC funding, the most lucrative venture capital deal for a Houston startup in at least 20 years, according to Pitchbook data.

VENTURE CAPITAL IN HOUSTON



Source: Partnership analysis of Pitchbook data

In '19, the most heavily invested industry for VC funding in Houston was Health Care, which received \$230.8 million across 25 deals, followed by information technology with \$132.8 million across 28 deals.

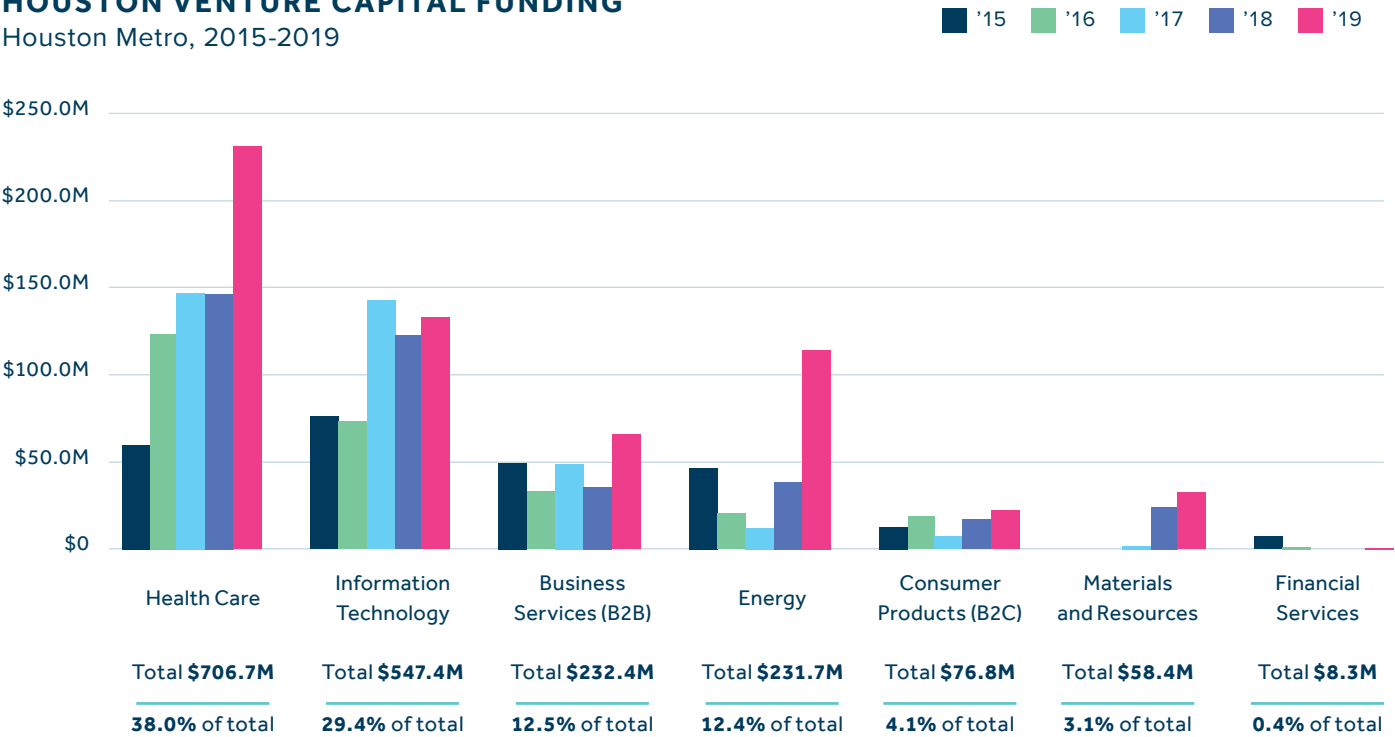
LARGEST HOUSTON VC DEALS IN '19

ALLOVIR	Health Care	\$121.3M
SOLUGEN	Materials and Resources	\$32.0M
PROCYRION	Health Care	\$30.0M
GOEXPEDI	Business Services	\$25.0M
MAGNA IMPERIO SYSTEMS	Energy	\$21.0M



HOUSTON VENTURE CAPITAL FUNDING

Houston Metro, 2015-2019



Source: Partnership Analysis of PitchBook data

HOUSTON'S STARTUP ECOSYSTEM

A number of Startup Development Organizations (SDOs) have emerged in recent years to facilitate growth across Houston's tech ecosystem. The region has more than 40 SDOs, including incubators and accelerators, makerspaces, coworking spaces, 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. To anchor the corridor and spur collaboration within the ecosystem, Rice University is constructing The Ion, a \$100 million facility that will serve as a major innovation hub for the city, offering co-working space and mentorship for tech startups, laboratories and classrooms for academic and research pursuits, as well as permanent office space for established tech companies. Supporters hope The Ion generates

growth in Houston's tech sector by clustering like-minded innovators together and sparking new projects and ideas. Located in the historic Sears Department Store building in Houston's midtown neighborhood, The Ion broke ground in July '19 and is expected to open by Spring '21.

COWORKING AND MAKERSPACES

In '19, there were at least 20 coworking providers in Houston. The Cannon, with a main campus in the Energy Corridor and branches in Downtown and the Galleria, is one of a growing number of Houston area companies offering both workspace and incubation services. Other coworking spaces include: Station Houston in downtown, The Headquarters in the East End, Techspace Houston in Uptown, WeWork locations in downtown, north, and west Houston, Work Lodge in northwest Houston, Cowork Lab in the Heights and Common Grounds in Greenway Plaza. There are also several makerspaces across the region, including TX/RX Labs in the East End.

INCUBATORS AND ACCELERATORS

The recent push by Houston leaders to encourage more startup support

has produced a surge of incubator and accelerator activity in the city. In '19, there were at least 23 incubator and accelerator programs operating in Houston, including MassChallenge, Ion Smart Cities Accelerator, Gener8tor, Plug and Play, TMCx, J Labs, and The AT&T Foundry.

UNIVERSITY PROGRAMS

The entrepreneurship programs at Rice University and University of Houston are consistently ranked as two of the nation's best, according to the Princeton Review. 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 Owlspark Accelerator has helped launch dozens of companies and the Rice Business Plan Competition is the richest pitch competition in the country, with awards in '19 totaling \$3 million. Participating companies in the 19-year history of the competition have raised more than \$2.3 billion in capital.

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. By convening stakeholders, connecting startups to funding and removing barriers to growth, HX hopes to boost innovation in the region and spur job creation in the tech sector. Through its \$25-million HX Venture Fund of Funds, the organization plans to lure tech investment to Houston.

INDUSTRY BACKING

Oil and gas startups continue to be the most frequent destination for venture capital and private equity funding in

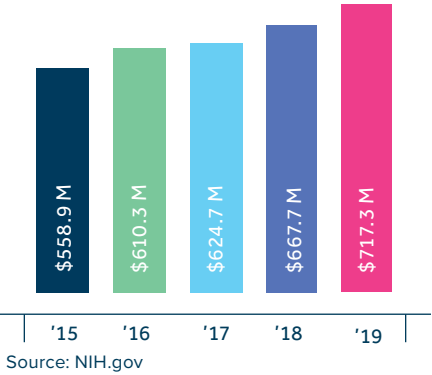
Houston, with investments flowing from both outside sources firms and the industry itself. Many of the major oil and gas companies have business units dedicated to finding and funding innovation in the sector. This includes: **Shell Technology Ventures, Chevron Technology Ventures, ConocoPhillips Technology 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

As a hub for medical device manufacturing, pharmaceuticals, and health research, Houston is home to more than 20,700 life science and biotech researchers. Additionally, Houston's health care industry includes 158,000 health care practitioners and technical occupations, including 12,900 medical doctors and 59,500 nurses. More than 2,100 clinical trials were active in the

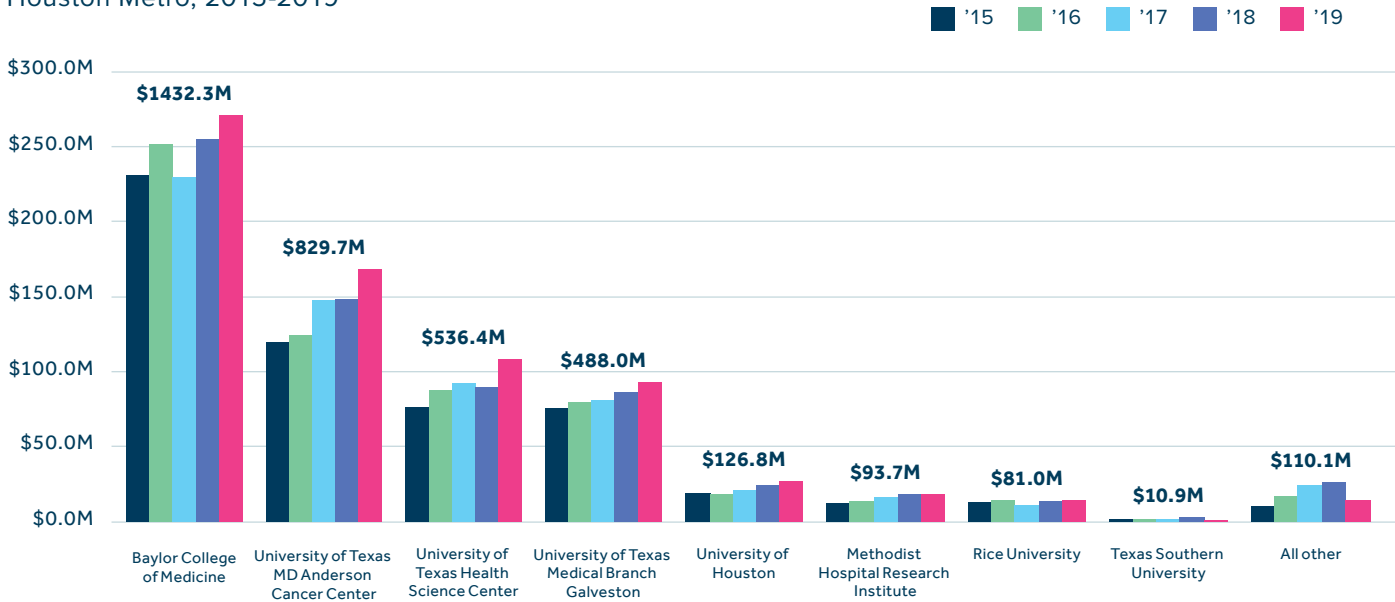
Houston region in '20, representing 20.5 percent of all trials in the U.S. Houston's medical research institutions received \$717 million in medical research grant funding from the National Institutes of Health (NIH) in '19, a 7.4 percent increase from '18. Since '15, the region has received nearly \$3.2 billion in NIH funding, an average of \$635.8 million per year.

NIH FUNDING IN HOUSTON



HOUSTON VENTURE CAPITAL FUNDING

Houston Metro, 2015-2019



In '19, the top 10 Houston institutions receiving NIH funding were:

Baylor College of Medicine	\$271.4M	University of Texas MD Anderson Cancer Center	\$168.6M
University of Texas Health Science Center	\$108.2M	University of Texas Medical Branch Galveston	\$93.0M
University of Houston	\$27.2M	Methodist Hospital Research Institute	\$18.8M
Rice University	\$14.4M	Texas Heart Institute	\$1.4M
Chrysalis Biotherapeutics	\$1.9M	Texas Southern University	\$1.3M

Venture Capital investment in Houston health care companies totaled \$230.8 million in '19, a 57.9 percent increase from '18, according to PitchBook.

In '19, the Top 6 biotech firms receiving investment were:

Allovir	\$121.3M
Procyron	\$30.0M
AcceleDent	\$20.5M
Decisio Health	\$15.9M
Castle Biosciences	\$13.0M
Medical Informatics	\$11.9M

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 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.



GOVERNMENT

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.

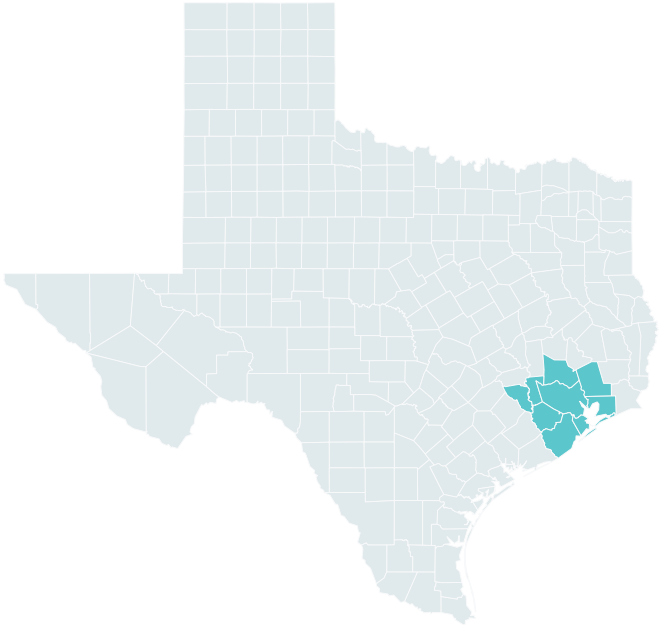
The city's current elected officials, serving four-year terms, are: the mayor, Sylvester Turner; the city

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) '20 is \$2.4 billion. Property and sales taxes compose 80.4 percent of revenue for the General Fund, with property taxes expecting to total \$1.2 billion and revenue from sales tax estimated (pre-COVID 19 pandemic) at \$694 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 current Harris County Judge is Lina Hidalgo. The county's General Fund budget for fiscal year '20 is \$3.1 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 special 30-day sessions if needed.

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 | 2019

City of Houston	Harris County	Houston Independent School District	Houston Community College
\$0.56792	\$0.40713	\$1.2067	\$0.100263
Total Property Tax Rate		2.282013	

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

FULL MARKET VALUE OF TAX ROLL 2019

Houston ISD
\$242.8 Billion
City of Houston
\$324.6 Billion
Harris County
\$630.7 Billion

Source: Harris County Appraisal District

Public Safety

HOUSTON POLICE DEPARTMENT (HPD)

HPD's budget for FY '20 is \$899.9 million.

The HPD budget funds a total of 6,395 full-time-equivalent (FTE) police personnel, of which 5,256 are classified, 976 civilian and 163 police cadets in training.

HPD's estimated average response time in '19 was 5.8 minutes for priority one calls and 10.66 minutes for priority two calls.

HPD responded to 1,082,782 calls for service in '19.

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 '20 operating budget is \$717.4 million.

The Harris County Sheriff's Office provides law enforcement protection to the 4.7 million residents in Harris County.

HCSO employs over 4,600 employees and 200 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 '19, HFD responded to 336,718 incidents. Of these incidents, there were 43,774 fire-related incidents with a first unit response time of 7.5 minutes and 292,944 EMS related incidents with a first unit response time of 7.6 minutes.

HFD's FY '20 budget is \$507.1 million and supports 3,998.1 FTE employees, of whom 97 are civilians.

Libraries

The Houston Public Library (HPL) is comprised of 44 branches including 31 neighborhood libraries, four regional libraries, four express libraries, three special collection libraries, the HPL Mobile Express and a satellite library located at the

Children's Museum of Houston. The system has a total collection of three million items. In '19, HPL served 8.2 million visitors and circulated 5.7 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 '19, 7.8 million physical items and 2.7 million digital items were borrowed by 1.7 million library card holders.



EDUCATION

SELECTED HOUSTON-AREA INDEPENDENT SCHOOL DISTRICTS (ISDS) AND CHARTER MANAGEMENT ORGANIZATIONS (CMOS) 2018-2019

ISD OR CMO	CAMPUSES	TOTAL STUDENTS FALL '18	STUDENT-TEACHER RATIO	COUNTY
HOUSTON	281	209,040	18.2	Harris
CYPRESS-FAIRBANKS	87	116,245	16	Harris
KATY	68	79,710	15.1	Harris
FORT BEND	80	75,797	16.3	Fort Bend
ALDINE	82	66,763	16.4	Harris
CONROE	59	62,577	16.4	Montgomery
KLEIN	49	53,252	15.1	Harris
PASADENA	67	53,157	13.9	Harris
ALIEF	46	45,423	13.9	Harris
HUMBLE	46	43,441	15.7	Harris
CLEAR CREEK	45	42,042	16.6	Galveston
SPRING	39	35,348	16.3	Harris
SPRING BRANCH	47	34,632	15.4	Harris
LAMAR CISD*	39	33,347	16.1	Fort Bend
ALVIN	30	25,732	15.1	Brazoria
GOOSE CREEK CISD*	30	23,765	15.5	Harris
GALENA PARK	25	22,264	16.4	Harris
PEARLAND	24	21,526	16.5	Brazoria
TOMBALL	20	16,920	16.2	Harris
KIPP PUBLIC CHARTER (HOUSTON)	30	16,876	19.9	Harris
NEW CANEY	20	15,360	14.9	Montgomery
MAGNOLIA	17	13,231	16.2	Montgomery
DEER PARK	14	12,812	15.6	Harris
BRAZOSPORT	20	12,385	14.7	Brazoria
YES PREP PUBLIC SCHOOLS	14	11,405	15.8	Harris
DICKINSON	18	11,129	14.5	Galveston
HUNTSVILLE	11	8,898	22.3	Walker
WALLER	8	7,382	15.9	Waller
CLEVELAND	7	6,568	15.6	Liberty
BARBERS HILL	9	5,710	14.4	Chambers
SEALY	4	2,751	13.1	Austin
SHEPHERD	4	2,026	15.3	San Jacinto

Source: Texas Education Agency, Texas Academic Performance Reports, 2018-19

Elementary and Secondary Education

The 11-county Greater Houston area contains more than 60 independent school districts (ISDs) and 40 state-approved charter management organizations (CMOs). Charter schools and ISDs in the Houston metro area enrolled more than 1.3 million students, approximately one out of every four school-aged children in Texas, in fall '18.

Houston Independent School District (HISD) is the seventh largest public school system in the nation and the largest in Texas. In the '18-19 school year, HISD operated 279 campuses and enrolled more than 209,000 students.

Higher Education

Houston area colleges and universities enrolled more than 440,000 students across more than 35 academic institutions in the fall of '18, according to the National Center for Education Statistics. Undergraduates comprised 87.1 percent of enrolled students in the region.

Houston benefits from three Tier I research universities in close proximity. Rice University and the University of Houston are located directly within the Houston MSA, while Texas A&M University in College Station is within 100 miles of Metro Houston. The three universities have the highest ranking under the Carnegie classification system for research activity.

INSTITUTIONS OF HIGHER EDUCATION Greater Houston Area , Fall 2019

TWO-YEAR COMMUNITY COLLEGES	FALL 2019 ENROLLMENT
Lone Star College System	77,810
Houston Community College	47,703
San Jacinto Community College District	39,303
Blinn College District*	19,184
Lee College	7,528
Wharton County Junior College*	6,903
Alvin Community College	5,995
College of the Mainland Community College District	4,702
Brazosport College	4,224
Lamar Institute of Technology*	4,022
Galveston College	2,325
Texas State Technical College-Fort Bend	531
220,230 STUDENTS	
FOUR-YEAR OR ABOVE	FALL 2019 ENROLLMENT
Texas A&M University-College Station*	63,927
University of Houston	46,137
Sam Houston State University*	21,360
Lamar University*	15,140
University of Houston-Downtown	14,680
Prairie View A&M University	9,170
University of Houston-Clear Lake	9,092
Texas Southern University	9,034
Rice University	7,135
UT Health Science Center-Houston	5,353
University of Houston-Victoria*	4,501
Houston Baptist University	3,741
Texas A&M Health Science Center	3,592
UT Medical Branch-Galveston	3,525
University of St. Thomas	3,454
Texas A&M University at Galveston	1,648
Baylor College of Medicine	1,577
Texas Woman's University-Houston	1,184
South Texas College of Law Houston	975
UT M.D. Anderson Cancer Center	377
224,418 STUDENTS	
TOTAL	444,648 STUDENTS

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 ’19 Annual Report:

- CNP’s assets total nearly \$29.0 billion.
- The company employs 14,262, of which approximately 4,200 work in Houston.
- CNP, via its subsidiary Houston Electric, serves 2,534,286 Texas Gulf customers (2,243,188 residential and 291,098 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 3,811 circuit miles of overhead and 26 miles of underground electric transmission lines, 29,303 circuit miles of overhead and 25,935 miles of underground distribution lines, 236 major substation sites with a capacity of 68,053 megavolt amperes and 15 regional service centers.
- In ’19, 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 291 active Competitive Local Exchange Carriers to provide local phone service in the state.
- The Texas PUC has registered 221 active long-distance Interexchange Carriers.
- Numerous cellular service providers offer mobile voice and data communications in the Houston MSA, and Houston was first in the nation to install Verizon 5G broadband in October ’18.

FIBER

Houston added 545 miles of carrier fiber since the first quarter of ’19. As of Q1/20, the Houston metro has 12,592 installed fiber carrier miles, the equivalent of 7,910 fiber 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 route miles are measured by conduit length.

Twenty-four carriers operate or provide fiber service in Houston including, AT&T, Centurylink, Crown Castle, Consolidated Communications, Fiberlight, Phonoscope, Verizon, Windstream, XO Communications and Zayo.

Fifty-five companies operate 42 fiber-lit data centers, colocation, or carrier hotel facilities in Houston including, but not limited to, Alpheus, CentruryLink, 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.

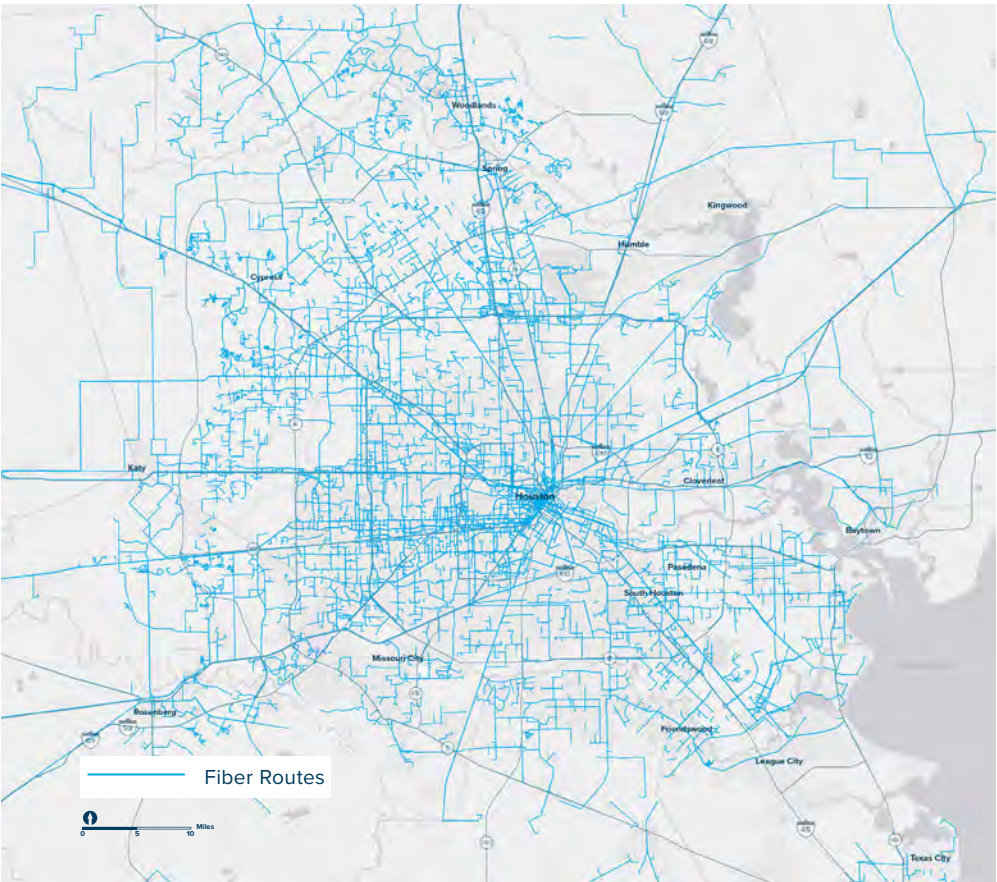
Houston’s Drinking Water Operations produced and distributed more than 160 billion gallons of water in ’17, the most recent data available, through a 7,000-mile pipeline distribution system. The City of Houston treated an average of 449 million gallons of water per day in ’17. Most of this water is used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



Land Transportation

MOTOR FREIGHT LINES

1,067 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 daily passenger service 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 3,309 centerline miles and 10,759 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, SH 99 Grand Parkway, 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 '19, the TxDOT spent \$1.5 billion on construction and maintenance projects in the Houston District.

Vehicle Miles Traveled (VMT):
Motorists traveled a total of 96,685,315 vehicle miles per day in the Houston district in '19. The average daily VMT per vehicle was 17.6 miles based on the 5,478,148 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 METRO Highlights '19.

METRO's fleet included 1,236 active buses and 76 light-rail train cars.

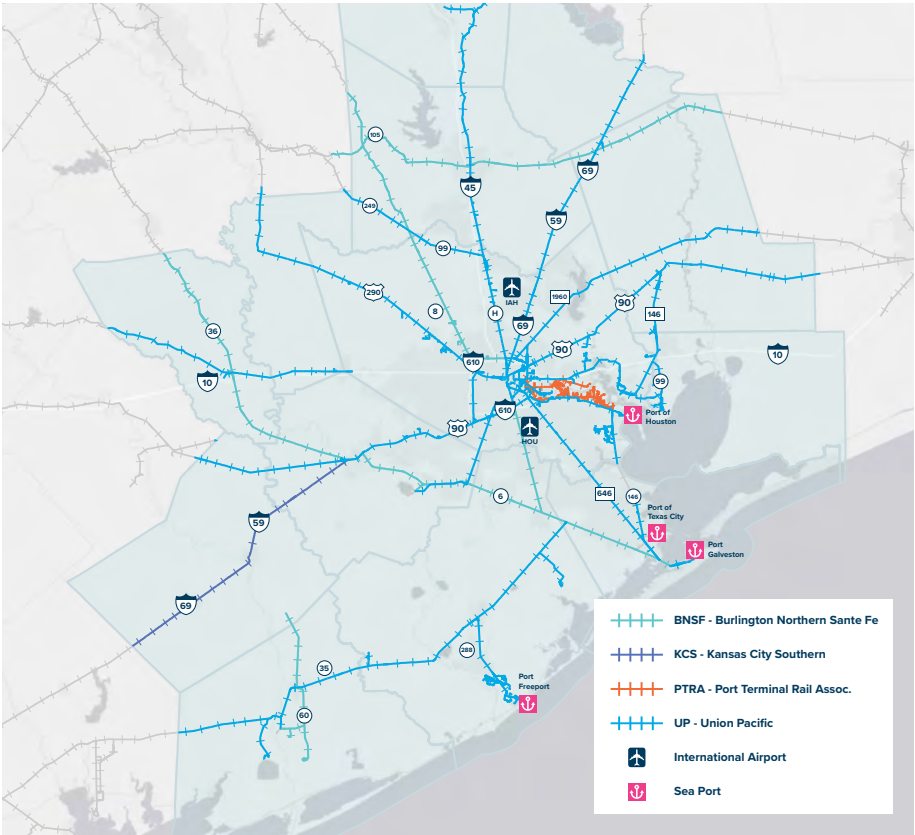
METRO operates 114 routes and three light-rail lines that travel more than 22 track miles.

Ridership in '19, including bus, rail and Park & Ride, totaled 86.1 million passengers, up 0.4 percent from '18, according to annual calculations from METRO's Monthly Ridership Reports.

Passenger boardings in '19 averaged 7.2 million per month.

Daily fixed-route weekday ridership in '19 averaged 282,397 boardings.

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. In November '19, voters approved a \$3.5 billion plan to be pared with \$4.0 billion in local and federal resources to add more than 500 miles of travel improvements to the region.



Sea Ports

The Houston region has four seaports which handled 242.9 million metric tons of trade in '19.

PORT HOUSTON

In '18, the most recent year for which data is available, the Port of Houston ranked 27th in total tonnage (foreign and domestic) and 23rd in foreign tonnage (imports and exports) among U.S. ports, according to the U.S. Army Corps of Engineers. Globally, the Port of Houston ranks 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 27.4 million metric tons of containerized

TOP 5 TRADING PARTNERS

RANK	TOP FIVE BY VALUE	VALUE
1	Mexico	14,125.2
2	China	11,740.5
3	Brazil	10,430.0
4	South Korea	8,100.1
5	Germany	7,373.7
TOTAL TOP 5 TRADING PARTNERS		\$51,769.5 M
ALL OTHER TRADING PARTNERS		\$105,776.5 M
TOTAL ALL TRADING PARTNERS		\$157,546.0 M

RANK	TRADING PARTNERS	WEIGHT
1	Mexico	31,096.7
2	Brazil	14,078.1
3	South Korea	11,476.7
4	Japan	11,087.5
5	India	9,338.5
TOTAL TOP 5 TRADING PARTNERS		77,077.5 K METRIC TONS
ALL OTHER TRADING PARTNERS		117,896.1 K
TOTAL ALL TRADING PARTNERS		194,973.6 K

Source: WISERTrade

GREATER HOUSTON PARTNERSHIP

cargo and hauled in 3.0 million TEUs (twenty-foot equivalent units) in '19, setting new port records for containers handled in a year. The Port ranked as the sixth

busiest U.S. container port in '19,
based on total TEUs.

Foreign shipments in '19 totaled 195.0 million metric tons valued at \$157.5 billion. Foreign imports were 55.6 million metric tons, valued at \$63.4 billion. Foreign exports were 139.3 million metric tons, valued at \$93.8 billion.

The Port of Houston traded with 209 countries in '19. Of those, trade with 35 countries exceeded one billion dollars each, and trade with 178 countries exceeded one million dollars. Mexico was the Port's top trading partner by both value and weight.

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.

PORT OF HOUSTON TOTAL TRADE VALUE AND WEIGHT BY COMMODITY 2019

RANK	COMMODITY	VALUE
1	Mineral fuels, oil, refined products	60,081.6
2	Organic chemicals	15,065.2
3	Industrial equipment and computers	13,655.6
4	Plastics and plastic products	10,992.4
5	Articles of iron or steel	7,154.7
TOTAL TOP 5 COMMODITIES		\$106,949.4 M
ALL OTHER COMMODITIES		\$50,596.6 M
TOTAL ALL COMMODITIES		\$157,546.0 M

RANK	COMMODITY	WEIGHT
1	Mineral fuels, oil, refined products	133,205.8
2	Organic chemicals	17,574.7
3	Plastics and plastic products	8,912.0
4	Salt, sulfur, stone, lime, and cement plaster	5,840.8
5	Cereals	5,576.9
TOTAL TOP 5 COMMODITIES		171,110.2 K METRIC TONS
ALL OTHER COMMODITIES		23,863.4 K
TOTAL ALL COMMODITIES		194,973.6 K

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

SEAPORTS RANKED BY FOREIGN TRADE 2019

Port of Houston
194,973,595 metric tons
U.S. Rank 1
Port Freeport
22,497,283 metric tons
U.S. Rank 17
Port of Texas City
20,059,242 metric tons
U.S. Rank 18
Port of Galveston
5,411,356 metric tons
U.S. Rank 47

Source: WISERTrade

a budget of \$1.2 billion and includes refurbishing the existing Terminal D facility, as well as demolishing the Terminal D/E parking garage to allow for an international terminal processor for passengers. The plans are expected to be mostly complete by '24.

In '18, the Houston City Council allocated \$18.8 million toward phase one of the Houston Spaceport development project. This expansion to Ellington Airport will add streets, water, wastewater, electrical power distribution facilities, and communications facilities in order to prepare for future commercial space flight tenants. The Houston Aerospace Support Center, a 53,000-square foot facility at the Spaceport, was fully leased in '19, with lab and office space tenants including Intuitive Machines and San Jacinto College.

Houston offers scheduled passenger air service to 117 domestic and 67 international destinations; 28 airlines provide scheduled passenger service from Houston.

AIR CARRIERS SERVING THE HOUSTON AIRPORT SYSTEM

GEORGE BUSH INTERCONTINENTAL (IAH)

Airlines Offering Direct Domestic Flights

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

Airlines Offering Direct International Flights

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

WILLIAM P. HOBBY AIRPORT (HOU)

Airlines Offering Direct Domestic Flights

American Airlines
Delta Airlines
Southwest Airlines

Airlines Offering Direct International Flights

Southwest Airlines

Air Transportation

Houston is the international air gateway to the Central United States and Latin America. With the addition of international air service at Hobby Airport in '15, Houston became the only city in Texas with two airports offering international service and one of only eight such cities nationwide.

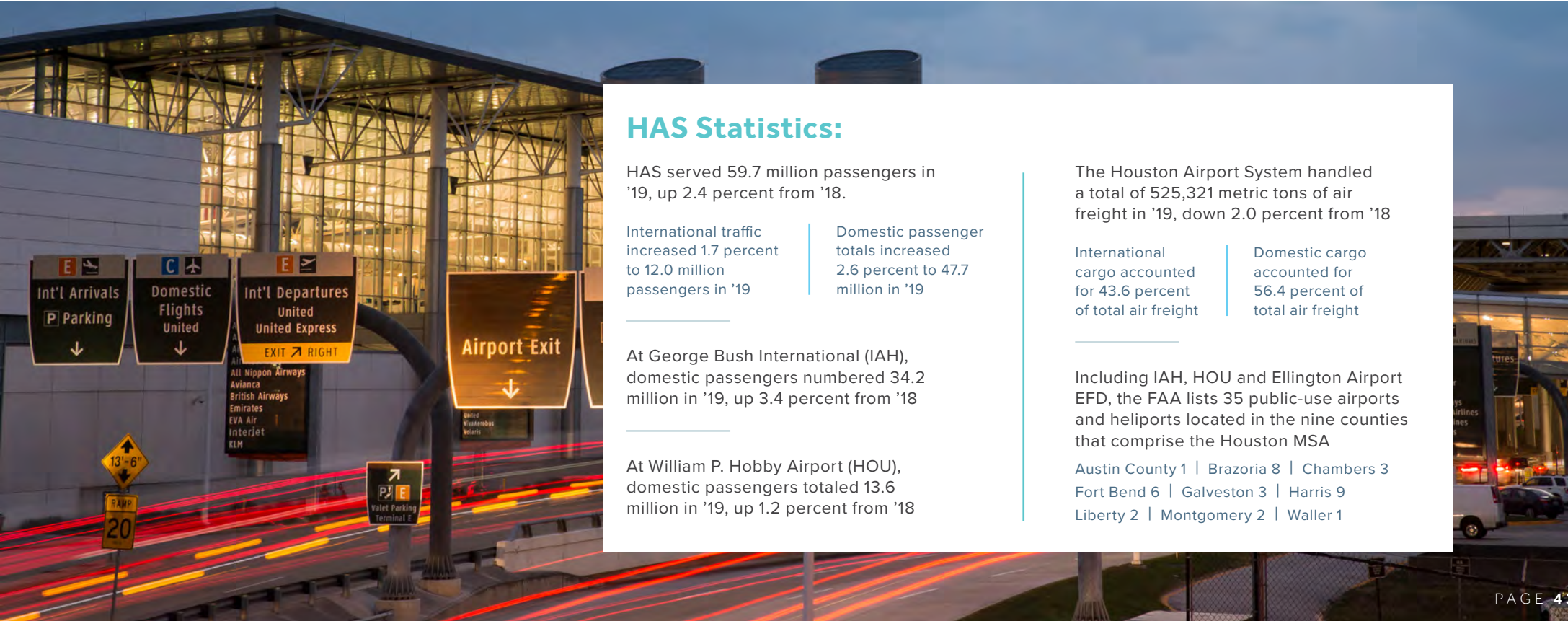
The Houston Airport System (HAS) was recognized with a number of awards in '19:

- George Bush Intercontinental (IAH) ranked ninth among “mega airports” in the U.S. and William P. Hobby Airport (HOU) ranked 10th among “large airports” in the U.S. according to J.D. Power airport satisfaction rankings released in September '19.

- IAH ranked as the 10th best airport in the nation on the Wall Street Journal U.S. airport rankings released November '19. Among the 15 factors in the study, IAH was ranked first for On-Site Parking Cost, sixth for Satisfaction, and eighth for TSA Screening Time and Nonstop Destinations Served.

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

In October '18, Houston City Council approved the updated contracts and funding for the redevelopment of George Bush Intercontinental Airport. The adjusted International Terminal Redevelopment Program (ITRP) has



HAS Statistics:

HAS served 59.7 million passengers in '19, up 2.4 percent from '18.

International traffic increased 1.7 percent to 12.0 million passengers in '19	Domestic passenger totals increased 2.6 percent to 47.7 million in '19
---	--

At George Bush International (IAH), domestic passengers numbered 34.2 million in '19, up 3.4 percent from '18

At William P. Hobby Airport (HOU), domestic passengers totaled 13.6 million in '19, up 1.2 percent from '18

The Houston Airport System handled a total of 525,321 metric tons of air freight in '19, down 2.0 percent from '18

International cargo accounted for 43.6 percent of total air freight	Domestic cargo accounted for 56.4 percent of total air freight
---	--

Including IAH, HOU and Ellington Airport EFD, the FAA lists 35 public-use airports and heliports located in the nine counties that comprise the Houston MSA

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



Houston has 255 professional media outlets, including 174 print and online publications, 37 television stations and 44 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.

COMMUNICATIONS MEDIA
BY TYPE Houston MSA, 2019*

TV	
37 establishments	1,500 jobs
\$92,768 annual wage	
Radio	
44 establishments	975 jobs
\$78,052 annual wage	
Print	
174 establishments	3,130 jobs
\$85,765 annual wage	

*Note: Four quarters ending Q3/19.
Source: Texas Labor Market Information,
Quarterly Census of Employment and Wages

Broadcast

According to Nielsen, the Houston television market was the eighth largest in the nation in '19, making up 2.2 percent of all TV households in the U.S.

Houston's podcast industry is also booming, offering topics varying

from politics and hurricane season to sports and religion. One of Houston's podcasts on classical music, Classical Classroom, is regularly listed in the top 50 most popular music podcasts on iTunes.

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

according to ratings from Nielson

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 each month and distributes over half a million copies every week.

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

LIFE
IN HOUSTON



Cost of Living

Houston's living costs are 25.4 percent below the average of the nation's 20 most populous metropolitan areas, ranking it the third most affordable, according to the Cost of Living Index from the Council for Community and Economic Research

(C2ER). Houston's overall living costs are 4.5 percent below the average for all U.S. metros.

Housing costs in Houston are 49.3 percent below the average for the nation's 20 most populous metro areas and 9.8 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 38.8 percent below the major metro average.

COST OF LIVING COMPARISONS 2019 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	237.4	139.7	514.0	120.6	128.6	110.5	136.2
San Francisco, CA	196.6	130.9	364.8	123.2	145.0	129.5	133.2
Washington, DC	159.0	115.7	274.0	118.1	110.4	95.7	118.0
Seattle, WA	156.7	128.8	255.0	108.1	137.6	128.6	136.0
Boston, MA	150.1	109.0	226.1	120.6	111.8	118.2	129.1
Los Angeles, CA	145.9	116.0	228.1	106.3	134.5	110.7	111.8
San Diego, CA	141.3	115.8	213.9	123.3	128.9	107.2	107.1
Chicago, IL	120.0	101.6	154.0	92.4	125.6	100.0	109.3
Miami, FL	114.4	110.2	142.7	102.1	101.3	100.5	102.5
Denver, CO	110.8	98.0.0	137.8	80.6	100.8	103.6	106.5
Philadelphia, PA	110.5	118.4	115.2	105.7	115.9	101.7	104.6
Dallas, TX	107.7	100.0	117.5	106.9	96.6	105.4	106.6
Minneapolis, MN	106.2	103.3	101.7	97.6	104.3	105.5	113.7
Atlanta, GA	102.4	103.1	102.4	85.2	103.4	107.0	105.9
Detroit, MI	99.5	95.3	96.2	91.4	107.4	94.6	104.3
Phoenix, AZ	98.9	99.4	102.6	109.6	107.0	90.1	91.8
HOUSTON, TX	95.5	88.2	90.2	105.9	95.1	92.0	100.2
Tampa, FL	90.9	104.5	78.3	86.0	99.2	98.2	93.6
St. Louis, MO	87.6	104.1	69.0	100.0	91.5	91.2	90.9

*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, 2019 Annual Average Data (Data based on a survey of 266 urban areas, published January 2020)

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 86 percent at midnight; 92 percent at 6:00 a.m.; 62 percent at noon; 68 percent at 6:00 p.m. in '18.

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

PRECIPITATION

Houston had 51.9 inches of rain in '19, higher than the 30-year annual average of 49.8 inches.

Thunderstorms occurred on 74 days in '19, higher than the 48-year average of 62.8 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.

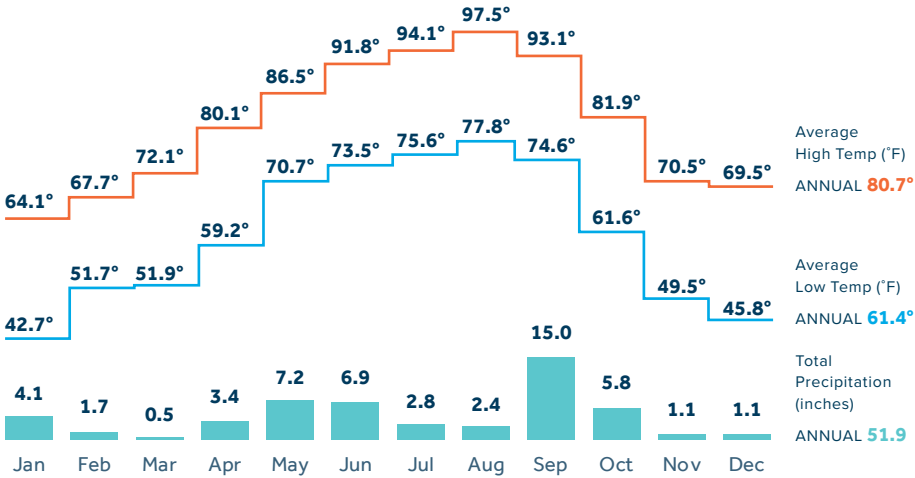
Record daily snowfall: 2.0 inches in January 1973.

SUNSHINE

Houston averages 59 percent of possible sunshine annually, ranging from 45 percent in January to 70 percent in July.



HOUSTON WEATHER 2019



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

Related Normal (27-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 23.9 days per year.

WIND

Prevailing wind in '19 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 22.3 million out-of-town visitors in '18, the latest data available. Every year, visitors from across the nation and around the world come to enjoy the city's award-winning culinary scene, professional sports teams, annual rodeo, and pop culture convention Comiconpalooza, among many other events and attractions. According to CBRE Hotels, in Q4/19, the Houston MSA had 981 major hotels and motels, with 94,401 total rooms. There were 4,070 hotel

and motel rooms under construction at the time. Annual room occupancy was 63.0 percent in '19 with an average room rate of \$101.92 per night.

Houstonians offered 1,784,023 units (any space, such as an entire home, private room, or shared room listed for rent) on Airbnb in '19, up 42.3 percent from '18. Just over half of the units, or 54.4 percent, were rented out during the year. These 970,909 rental bookings created \$116.9

million in revenue for their owners, up 54.6 percent from last year. The average daily Airbnb rate in '19 was \$120.33. Bookings for entire homes or apartments accounted for 88.4 percent of all transactions, followed by private rooms (11.4 percent) and shared rooms (0.2 percent). The highest number of active units (at least one night sold within a month) was reached in December '19.

Dining

Houston restaurants feature outstanding regional dishes as well as diverse international cuisine. In the four quarters ending Q3/19, the Houston MSA was home to 11,692 food service and drinking establishments that employed more than 265,222. These establishments included: 4,462 full-service restaurants, 4,484 limited-service eating places and 652 drinking establishments.

The Houston MSA food service and drinking establishments had sales of \$18.1 billion in the four quarters ending Q3/19, according to the State Comptroller's office.

According to Yelp.com, Houston has nearly 130 categories of cuisine, including Afghan, Georgian and Polish restaurants. Houston is also home to nearly 1,000 food trucks and stands and about 100 wine bars. There are also over 64 active breweries or craft beer establishments in the region, an increase of 355% from '13, when the area had 18. In '19, three Houston-area breweries won medals at the annual Great American Beer Festival.

Houston's reputation as 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 13 semifinalist nominations for the 2020 awards. Additionally, the city is in the top 20 for WalletHub's “Best Cities for Vegans

& Vegetarians” as well as being home to three of Texas Monthly's top 10 “Best New Restaurants in Texas for 2020”.

Numerous dining options, and the increasing number of food halls in

the Houston area, earned the city a spot on “The 20 Best Places to Travel in 2020,” compiled by Harper's Bazaar. Since Houston's first food hall opened in '16, four more have launched in the city, with an additional six in the works.



Arts and Culture

PERFORMANCE ARTS

Resident companies in drama, ballet, opera and orchestra perform year-round in Houston. More than 500 institutions are devoted to the performing and visual arts, science and history in the Houston area. Houston’s nonprofit arts and culture industry generated over \$1.1 billion in total economic activity, according to the latest 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, have 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 2,912. 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, 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 had its first performances in ’15, was formed to create a new space for Houston artists to collaborate and present their work. Over 40 arts groups provided input for the design of the venue, which consists of two buildings with four performance spaces, three rehearsal studios, a gallery space and offices for arts professionals.

MILLER OUTDOOR THEATRE in Hermann Park 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 1,705 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. 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 over the past 15 years, appearing in Europe, Canada, Australia and cities throughout the U.S. The company produced nine ballets in the ’18-’19 season. 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 resident 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 six contemporary and classical works annually, 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 75,000 visitors each season. Stages completed its five-year strategic plan during the '19-'20 season, which included its move to a new three-theatre campus 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 14 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.

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. The museum underwent a \$34 million expansion in '19, and its new 57,000-square-foot facility is ranked as the fourth largest Holocaust museum in the nation.

HOUSTON ARTS ALLIANCE (HAA) works to implement local civic art through grants and investments for public art and cultural events. HAA recently moved to The Southmore in the Museum District.

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 16 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 more than 65,000 works of art. The MFAH campus includes two buildings, the Glassell School of Art, a sculpture garden and more. Satellite facilities include the Bayou Bend Collection and Gardens. The museum began construction of a new master-planned campus transformation in



summer '15 and has completed the second phase of construction in '18. Set for completion in late '20, this \$450 million expansion will include a state-of-the-art conservation center and a new tunnel system connecting the buildings.

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. The chapel and grounds are undergoing restorations and expansions and will reopen in Spring '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.

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.

ART LEAGUE HOUSTON, founded in 1948, is one of Houston's longest-running nonprofits and is dedicated to showcasing local contemporary art. Art League Houston also provides art education and outreach to underserved communities.

BLAFFER ART MUSEUM at the University of Houston, 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 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's new \$38-million, 130,000-square-foot facility at Houston's Ellington Airport opened 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 15 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, University of Houston–Downtown, 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 25 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. The battleship closed to the public in '19 and seeks to be moved to a new location in '20.

SPACE CENTER HOUSTON, the Disney-designed visitors' center for Johnson Space Center, opened in 1992 and attracts more than one 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 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 2000, 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

FEBRUARY

Experimental Action: Performance Art Festival
Mardi Gras! Galveston
Texas Lunar New Year Celebration
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 Press Brewfest
Houston Turkish Festival
Japan Festival Houston
McDonald’s Houston Children’s Festival
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

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

SEPTEMBER

AdvoCare Texas Kickoff
Fiestas Patrias
Oktoberfest Houston

OCTOBER

Bayou City Art Festival Downtown
Grito Fest
Houston Italian Festival
Houston Open
International Quilt Festival

Original Greek Festival
Pearland Art & Crafts on the Pavilion
Texas Renaissance Festival
Texian Market Days

Wings Over Houston Airshow

NOVEMBER

Day of the Dead
H-E-B Thanksgiving Day Parade
Houston Salutes American Heroes Veterans Day Celebration
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

Via Colori

DECEMBER

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



Religious and Cultural Diversity

According to the Kinder Institute for Urban Research’s 39th Annual ’20 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 and 30.1 percent identify as Catholic. Yet, as the nation’s most diverse city, Houston is also 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 spotted across the region. Representative religious congregations in Houston include:

AL-NOOR MOSQUE 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, uniquely located in the heart of downtown, is a predominantly African American church that was founded by freed slaves in 1866 and occupies an important place in Houston’s history.

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 worshiping 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 100-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. Houston will soon become the home of the first U.S. Ismaili Center, located in Montrose, serving as a national hub for the social, cultural and intellectual activities of the Ismaili Muslim Community.

LAKEWOOD 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.

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.

According to the Greater Houston Convention & Visitors Bureau, in '19 Houston hosted 524 conventions and meetings that drew 771,591 attendees to Houston translating into an estimated economic impact of \$415 million.

Houston hosted its third Super Bowl (Super Bowl LI) in '17, drawing 150,000 visitor and generating an estimated economic impact of \$347 million. The previous two Super Bowls hosted by Houston were Super Bowl VIII in 1974 and Super Bowl XXXVIII in '04.

Other past major Houston-based events include '02 World Space Congress, '08 Latin Grammy Awards ceremony, '13 American Association for Clinical Chemistry, '16 Copa America Centenario and the '16 NCAA Final Four Basketball Tournament.

In '19, Houston hosted two matches of the 2019 CONCACAF Gold Cup, the Confederation of North and Central America and Caribbean Association Football, in addition to the Gastech conference, held every 18 months.

Houston is slated to host the U.S. Women's Open Golf Championship in '20, 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

There are 142 golf courses in the Houston MSA, according to pga.com.

Houston has hosted world-class golf tournaments for over half a century, including five PGA tour championships, two LPGA tour championships, one Ryder Cup, one U.S. Open, and five U.S. amateur championships.

The Houston Open has made the Bayou City an annual PGA tour stop since it was first played in 1930. The Golf Club of Houston has hosted the tournament since '03, though the event will move to Memorial Park starting in '20.

The Woodlands Country Club has hosted the Insuperity Invitational since '08. The event was held at Augusta Pines from '04-'07. It's the only Texas stop for the PGA's senior tour.

Houston was selected to host the U.S. Women's Open Tournament in '20. The event will take place at Champions Golf Club. Houston previously hosted the men's U.S. Open in 1969.

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 paths, separate bike lanes, bike routes and shared sidewalks.

In March '17, the City Council adopted the Houston Bike Plan, which strives to make Houston a safer, more bike-friendly city. The long-term vision of the plan is to extend Houston's bikeway network to almost 1,800 miles.

Houston BCycle is the City of Houston's non-profit bike share program, offering rentable bicycles at over 109 bike share stations with nearly 800 bikes in circulation. A \$4.7 million expansion of the Houston BCycle network will add hundreds of bikes and dozens of stations to the current network. The program is track to have more than 1,100 bikes and 160 stations by '21.



Convention and Sports Facilities

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 to 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 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.

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. At this stadium, President John F. Kennedy made his famous challenge to America to place a man on the moon and bring him safely home again.

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 DASH
National Women's Soccer League
BBVA Compass Stadium
- 

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

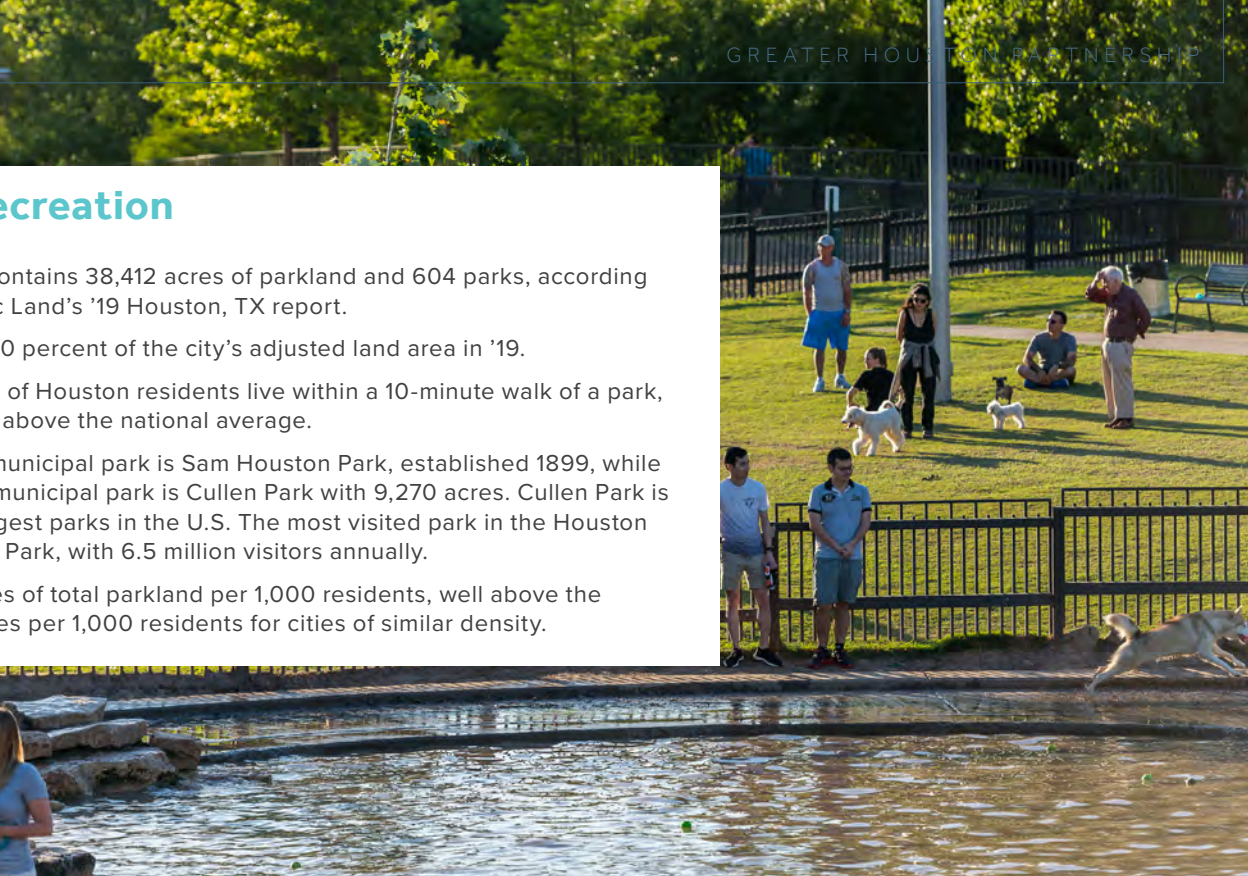
HOUSTON ROCKETS
Western Conference in the
National Basketball Association
Toyota Center
- 

HOUSTON TEXANS
American Football Conference in
the National Football League
NRG Stadium
- HOUSTON ROLLER DERBY**
Women's Flat Track Derby Association
Revention Music Center
- HOUSTON SABERCATS**
Major League Rugby
VEVA Stadium
- SUGAR LAND SKEETERS**
'18 Atlantic League World Champions
Atlantic League of Professional Baseball
Constellation Field

Parks and Recreation

The city of Houston contains 38,412 acres of parkland and 604 parks, according to The Trust for Public Land's '19 Houston, TX report.

- Parks represent 11.0 percent of the city's adjusted land area in '19.
- Fifty-eight percent of Houston residents live within a 10-minute walk of a park, which is 4 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 6.5 million visitors annually.
- There are 17.3 acres of total parkland per 1,000 residents, well above the median of 13.6 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** (1,464 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** (83 acres)

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

AMENITIES IN CITY OF
HOUSTON PARKS INCLUDE

- 235 Playgrounds**
- 201 Tennis Courts**
- 173 Basketball Courts**
- 165.3 Miles of Trails**
- 161 Baseball & Softball Fields**
- 87 Soccer Fields**
- 75 Practice Backstops**
- 38 Pools**
- 29 Water Spray Grounds**
- 20 Volleyball Courts**
- 16 Football/Rugby/
Cricket/Lacrosse Fields**
- 11 Community Garden Sites**
- 9 Dog Parks**
- 8 Golf Courses**
- 7 Skate Parks**
- 5 Fitness Centers**
- 4 Nature Centers**

NEW AND RECENTLY HONORED
PARKS

CHAMPION FOREST PARK, a seven-acre park in Spring, opened in '19. The park features four soccer fields and a playground and will connect to the Kickerillo-Mischer Preserve and Matzke Park. It is also designed to absorb water during heavy rains.

HERMAN BROWN PARK, a 717-acre park located eight miles from downtown, is currently renovating a 24-acre section to have rolling hills with pavilions, a new play area and native landscaping. Referred to as the 'Commons,' this project is the first of the park's 20-year master plan for improvements.

HADEN PARK, a 12-acre park in Spring Branch, won the '19 Natural Planning Award presented by the Houston-Galveston Area Council. The redesigned park includes a playground, splashpad, nature area, dog park, event lawn and tennis court. activities for children and adults with disabilities.





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. The park underwent a \$12 million renovation in ’19.

ELEANOR TINSLEY PARK, a section of Buffalo Bayou Park, immediately west of downtown, is the site of major Houston festivals and events, including Houston’s Fourth of July Fireworks.

HERMANN SQUARE, serves as the courtyard of City Hall, occupies a city block, and is dominated by a reflecting pool.

MARKET SQUARE, a one square block donated to the city in 1854 by Augustus Allen, was Houston’s original town center. The park now provides live entertainment, shaded 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 and a short distance from City Hall, was acquired in 1899. The park’s 19.7 acres contain 10 restored historic buildings.

SESQUICENTENNIAL PARK, created to commemorate Houston’s 150th birthday in 1986, is a 22-acre urban oasis in the heart of Houston’s downtown theater district.

SETTEGAST PARK, located adjacent to a community center building, provides a playground and swimming pool as well as courts for basketball, tennis and volleyball.

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 (2,168 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 (5,000 acres) has coastal prairies, woodlands and wetlands. The park is located approximately 45 miles southwest of downtown Houston in Fort Bend County.

GALVESTON ISLAND STATE PARK (2,013 acres) is a mosaic of coastal habitats and 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 161,508 acres in Montgomery, San Jacinto and Walker counties.

W. GOODRICH JONES STATE FOREST, an urban working forest covering 1,725 acres, is located 40 miles north of Houston near Conroe in Montgomery County. The forest is named after W. Goodrich Jones, the founder of the Texas Forestry Association and the Department of Forestry (now the Texas A&M Forest Service). 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 several sanctuary locations are Bolivar Flats and High Island. Houston Audubon celebrated its 50th anniversary in ’19.

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 6,000 animals and employees more than 330 caretakers, administrators and educators.

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 celebration.



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.
- 1838 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

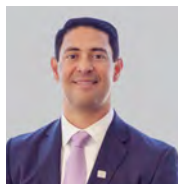
- 2000 Census finds Houston MSA has no racial or ethnic majority.
- 2000 Minute Maid Park, home of Major League Baseball's Houston Astros, opens.
- 2001 Tropical Storm Allison inundates Houston June 5-9, claiming 22 lives and inflicting \$4.9 billion in property damage, with storm precipitation as high 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.
- 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.
- 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.
- 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.
- 2014 Hobby Airport launches international service with the opening of the airport's first international terminal.
- 2015 Ellington Airport receives a commercial airport license by the Federal Aviation Administration.
- 2016 The energy downturn bottoms out and a slow recovery begins.
- 2017 Houston hosts NFL Super Bowl LI.
- Hurricane Harvey inundates Houston with five days of rain. Total rainfall exceeds 50 inches in many parts of the region.
- The American League Houston Astros defeat the National League Los Angeles Dodgers to win Major League Baseball's World Series.
- 2018 Rice University announced 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.
- The World Health Organization declares the emergence of a mysterious pneumonia-like virus in Wuhan, China on December 31.
- 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. A tepid economic recovery begins in May.
- 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.

Building an Advisory Board for Your Business

When it comes to advisory boards, companies should think of them as a beacon, not a burden. Long a requirement of corporate governance, advisory boards can be a critical component for guiding privately-held companies toward future growth, navigating challenges, side-stepping risk and, when relevant, mapping out an exit strategy.



SCOTT SILVAS
Texas Market
President, GHP
Board Member

In its 2020 Private Company Board Compensation Survey, Lodestone Global notes that 94 percent of private companies with boards reported increased revenues and 92 percent increased EBITDA. More than half categorized their boards as “indispensable” or “very effective” at driving corporate strategy.

Still, it isn't enough just to have a board in place. Much like hiring for top management, getting the right people in the right board seats is a key part of the equation.

Here are some best practices to consider when creating a board that can help your business reach new levels of success.

Identify Your Company Vision

One of the first considerations in creating an effective advisory board is identifying your company's strategic vision and being able to articulate that to potential board members. The mission of the company is its basic constitution and should be the starting point for creating an effective board.

After all, the role of an effective board is to fine-tune or reinforce the company's vision. At the same time, a board should not be a cohort of “yes” men and women there to validate current leadership. The board's role is to identify vulnerabilities as well as opportunities for future growth.

Recruiting Ideal Board Members

The old saying, “dress for the job you want, not the one you have” is relevant to board building, too. The ideal board brings to the table connections and competencies that reflect where a company and its industry should be going. Step back and consider where your gaps and opportunities are in terms of geography and industry, and then find key people who can help.

If a company is diving into new markets or parallel sectors, it makes sense to consider a board member well-connected in those areas. For example, if a company's vision is to be the best lifestyle marketing firm in Chicago, that may narrow the field to local and strategic talent. On the other hand, if the company's vision is to gain nationwide appeal, the board composition might look a little different.

Likewise, if a major shift in technology is on the horizon, a member who has experience in change management and technology may be key to help navigate choppy waters. Similarly, if your business foresees a large expansion phase over the next five years, a board member who can open doors to growth capital may be your first recruit.

Mistakes to Avoid

A common mistake in creating boards is building it in the image of current leadership. The difference between an insightful, effective and active dream board and one whose main purpose is to validate a company's management is the difference between winning and losing.

Boards should be socially (e.g. gender, race and age) and professionally diverse—but that's just a starting point. Research published in the Harvard Business Review concluded that “diversity doesn't guarantee a better performing board and firm; rather, the culture of the board is what can affect how well diverse boards perform their duties and oversee their firms.”

And as far as size, bigger is not better when it comes to your board, particularly for smaller, privately held companies. Boards that are too big may be difficult to manage and expensive. You wouldn't hire two people to do the same job. So

why would you bring on board members with the same work experience?

The ideal size varies by company, but in the Lodestone Global survey the median number of board members was six with three independent directors. The median total compensation among respondents—whose median revenue was \$100 million—was \$43,500.

Establish Roles and Objectives

Whether your board members are volunteering or being paid to advance your company's interests, it's important to make their time count. In addition to a general document of the board's purpose and obligations, create an organizational chart that emphasizes each member's expertise and specific role in moving the company forward. This is important because board members, particularly private citizens, are often giving their time in exchange for the impact they expect to have on the organization and larger community. In that way, feedback and a sense of purpose is as valuable as financial compensation.

To be sure, it's important to set expectations with your board. It typically makes sense to meet quarterly or semi-annually; a lot can happen to a business in a year, and monthly may be overkill unless a company is going through a major crisis or transition. It also helps to establish a logical cadence for your meetings, including the typical length, issues covered and primary themes of each meeting.

Whether or not you're compensating your board, make a point of letting them know how and where they're making an impact. While it's important to not overstep, company leaders should recognize that most board members want to contribute in a meaningful way.

Indeed, building a dream board is only the first step. Cultivating an effective board takes time and energy—but it's an endeavor that can pay significant dividends over time. A great board can not only help a company realize its near-term vision, it can manage difficult transitions, execute new strategies and create a foundation for sustainable growth for decades to come. ■

Fifth Third Means Business™

Led by a local, dedicated Relationship Manager, our Commercial Banking experts are able to create customized banking solutions to power your business forward.

Email Scott.Silvas@53.com or visit 53.com/CommercialBank to learn more.



FIFTH THIRD BANK



GREATER HOUSTON
PARTNERSHIP.

Making Houston Greater.

PARTNERSHIP TOWER | 701 AVENIDA DE LAS AMERICAS, SUITE 900 | HOUSTON, TX 77010 | HOUSTON.ORG

AUSTIN | BRAZORIA | CHAMBERS | FORT BEND | GALVESTON | HARRIS | LIBERTY | MONTGOMERY | SAN JACINTO | WALKER | WALLER