ONE COMPLETE HOUSTON:

UNDERSTANDING OUR EQUITY OPPORTUNITIES AND CHALLENGES DETAILED REPORT
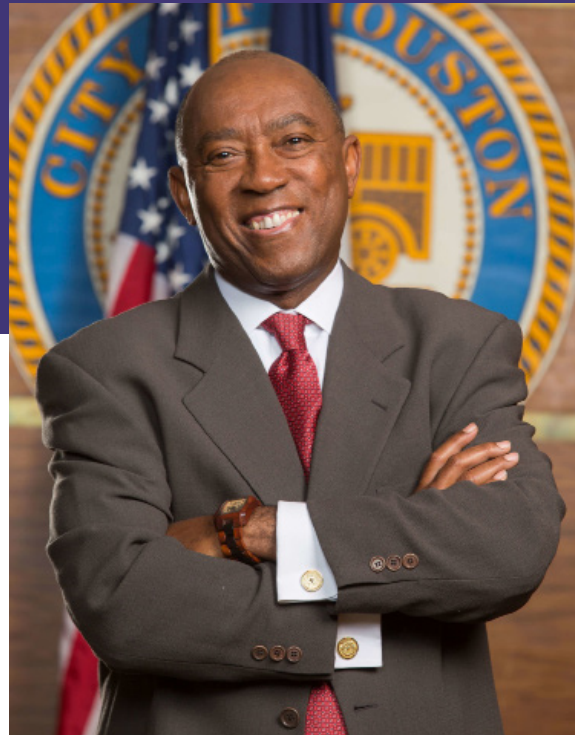
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A LETTER FROM OUR MAYOR

MAYOR SYLVESTER TURNER,
CITY OF HOUSTON

When the people of Houston first elected me as mayor in 2015, I said that I did not want to be the mayor of two cities. Houston cannot continue to be divided as a city of haves and have nots. Through my Complete Communities initiative, we are addressing issues we are demonstrating our commitment to bridge the deep disparities that exist in our city – the division of wealth, unequal accessibility of opportunity, and the inconsistent availability of necessities that are exacerbated by racial, ethnic, gender and ability biases. Houston is celebrated for our multiculturalism and opportunity for all, but the track to opportunity and success does not look the same for everyone. Start lines do not look the same for everyone. Finish lines do not end in the same place for everyone. Hurdles are higher for some, not forgetting those who struggle to make it onto the track at all.

If you have not examined the important differences between equity and equality, I encourage you to use this report as a guide. This analysis provides crucial insight to Houstonians new to the equity conversation, community leaders, and decision makers working close to the pervasive and complex causes and compounding effects of inequities.

I'm incredibly proud of all the work this administration has done to foster equity in projects across all sectors of the city. But despite our successes, this report is intended as a hard look in the mirror, a tool for accountability, and a deep dive into data that can guide the City's efforts to achieve even greater equity in the future.

Our Equity Score is assessed on a scale of 1-100, and the score reflects the disparity between the highest and lowest scores. Don't take the number at face value or compare it to a report card in the traditional sense – there is no passing or failing. I urge you to take some time to understand the methodology before drawing conclusions.

Equity is a lens we must use to assess and adjust city policies and procedures so that all residents, especially those who have been historically marginalized, can thrive. We take the feedback we received through community surveys and the data in report seriously. We will use this tool to direct our focus on increasing equitable outcomes and we encourage you to use it in the same way. It is imperative that we come together and address systemic problems in the community to build a movement that makes Houston a leader in opportunity and equity.

I give my most sincere thanks to our partners at the Rice University's Kinder Institute for Urban Research and Shell USA, Inc. for their research and funding support for this initiative. I applaud staff from the Planning and Development Department, Mayor's Office of Resilience and Sustainability, and Complete Communities for their collaborative work that ties to the vision and framework for a resilient community outlined in the Resilient Houston strategy.

A LETTER FROM SHELL USA, INC.

Houston has long been celebrated as one of the most diverse cities in the United States. For Shell USA, Inc., we believe that Houston's diverse population opens up a workforce that adds the value of diverse perspectives to our objective to supply the energy that people need to power their lives. At Shell in the US, working to promote diversity is not merely a human resources initiative. Diversity, equity, and inclusion are at the very core of how we do business.

Produced through collaboration between the City of Houston and the Kinder Institute for Urban Research, and funded by Shell USA, Inc., this Equity Indicators Report is the first of its kind for the City of Houston. It is important to us to support this initiative, including transparency of the report's findings, because we believe that action, from all sectors, must be taken by which we can measure progress toward a more equitable society.

We believe to uphold a city as diverse as Houston, differences should also become strengths, so that together we are all helping move Houston forward in efforts to close the opportunity gap. At Shell USA, Inc., we strive to support individuals and communities by providing jobs, bringing local businesses into our supply chain, promoting entrepreneurship, investing in education, and offering skills training in communities where we operate.

We also endeavor to support historically disadvantaged communities as the energy system changes, by listening and engaging with them to identify opportunities for them to shape their own energy future. To make progress, we believe everybody must experience the economic, social, and environmental benefits of a changing energy system.

Shell USA, Inc. has proudly called Texas home for decades. The heart of our US operations is based in Houston, including our US corporate offices and most of Shell USA, Inc.'s core businesses. We strive to be one of the most diverse, equitable, and inclusive companies in the world – and we believe creating opportunities for a diverse range of people is a community effort, and that working together to create opportunities will strengthen our communities, which in turn strengthens our company.

Houston is one of our largest homebases, and Shell USA, Inc. is invested in its societal health. Our goal is to thrive in this City and uplift others to thrive with us.

We understand everybody is on a journey, and this report's findings serve as indicators for the work happening in the greater Houston area today and what comes next for the future.

EXECUTIVE SUMMARY

HOUSTON'S UNIQUE OPPORTUNITY TO ADVANCE RACIAL EQUITY OUTCOMES

Houston is considered by many to be the land of opportunity and in many ways it is. Unfortunately, that opportunity flows differently to some Houstonians based on their zip code and their race and ethnicity group. An Equity Indicators Tool was developed to compare data on 63 topical areas that measures whether opportunities are equally available to all Houstonians . The data coalesces into a score, called an Equity Indicator.

HOUSTON'S OVERALL EQUITY SCORE IS 44.1 OUT OF 100 DELINEATING A DIRE NEED FOR IMPROVEMENTS.

Compared to other cities that have used the Equity Indicators methodology, our score is higher than Dallas's 2021 score of 38 and Tulsa's 2022 score of 42.63. Houston follows behind St. Louis's 2018 score of 45.57 and Pittsburgh's 2018 score of 55.

The City of Houston is the fourth largest city in the United States with more than 2.3 million people, 145 languages, 10,000 plus restaurants representing more than 70 countries, and more than 25 religions and faiths practiced within the city's limits. It is a world business center with two international airports offering non-stop service to more than 70 international destinations. Fourteen major institutions of higher learning and more than 60 degree-granting colleges, universities and technical schools service the greater Houston area, making it one of the biggest college cities in the nation. From an external perspective, Houston is a stunning and novel combination of cultures, languages, influences, business enterprises, learning and traditions. Its present and future have been called the next great American experiment.

As diversity increases in Houston, does equity keep pace? Do the services, opportunities, infrastructure and leadership match the diversity of the fourth largest city in the United States? To answer this question and ultimately develop policies and initiatives to increase equity for all 2.3 million residents, the City of Houston embarked on an exercise to objectively analyze its own equity, equality, justice and resilience assets.

This report is the first of its kind for the city and marks a commencement to collective action. To that end, the findings of this report establish a baseline of indicators, something against which we can measure progress toward a more equitable city in the future.

Houstonians have a choice to make about their city and its future. Will we live into our unique opportunity to advance outcomes for people of all races and ethnicities or continue the status quo?

A LEVEL PLAYING FIELD
FOR HOUSTON

To better understand this work, we must first be clear about what equity is and what it is not. Equity recognizes that each person has different circumstances and needs. These circumstances and needs are not absent from the impact of historic and present day policies and practices that have targeted black and brown communities. Different groups of people need different resources to thrive. Equity is not equality. Equality is giving everyone the exact same resources across the board regardless of an individual's or group of people's actual needs. Equity considers the impact of race, ethnicity, disability, gender identity, and sexual orientation from a person or community's outcomes.

With this in mind, the equity indicators and the findings in the report can help drive equitable policies, programs and services to meet communities where they are and allocate resources as needed to create better opportunities for all of Houston's residents.

The City of Houston is committed to advance racial and ethnic equity by mobilizing all departments, divisions, and programs to review, revise, and implement systems providing for equity, as defined above. To ensure limitless choices, opportunities, and freedoms, we will invest and support historically underserved and marginalized communities, such as people of color, people with disabilities, people with low incomes, immigrants and refugees, youth, those with limited-English proficiency, and other compounding factors related to racial and ethnic disparities. This commitment includes the provision and continuation of the amount of goods, services, supports and resources specifically required to accomplish the equity goals in the City of Houston. In doing so, we will meet our vision as a city to offer opportunity for all and fully celebrate our diversity of people, economy, culture, and places. The definition of equity intentionally leaves out the concept of everyone having equal outcomes.

EQUITY is achieved when a Houstonian's race, ethnicity, disability, gender identity, and/or sexual orientation, do not predict their outcomes or limit their choices. Our city embraces and nurtures its multicultural-ism and diversity by offering opportunities for all and deploys policies that support fair and just access to opportunity.

Houston includes equity as an important component in projects and programs. As such, it is a key component in major plans from Plan Houston to the Civic Art Collection Equity Review to the 10 Complete Communities Action Plans.

HOUSTON'S EQUITY INDICATOR TOOL COMPONENTS

The City of Houston's Equity Indicators tool was developed in partnership with the Kinder Institute for Urban Research and is based on a model developed by the City University New York Institute for State and Local Governance. The City of Houston's Equity Indicator Tool has been used successfully by six other US cities to measure disparities faced by disadvantaged groups and to use the overall score as a guide to frame policy and program development. While there is no passing or failing, the score helps to identify the disparity between the highest and lowest scores among different racial and ethnic groups in Houston.

This report measures equity across 63 indicators for the City of Houston. The Houston Equity Indicators tool comprises seven broad themes: Access &

Inclusion. Economic Opportunity, Environmental & Climate Risks, Health, Housing, Infrastructure, and Public Safety. Each of the seven themes is broken down into twenty one topics, and each topic is subdivided into three indicators each. The themes and topics are based on priorities established through existing planning efforts and public engagement. The indicators within each theme were selected based on the availability of reliable, regularly collected data.

While Houston's Equity definition includes characteristics beyond race and ethnicity (as defined above), this report focuses solely on the two. Future reports could and should focus on the other features listed in Houston's definition of equity (e.g., disability or sexual orientation).

HOW TO USE THE EQUITY INDICATOR TOOL:

1
For each indicator, the tool compares outcomes between two racial and/or ethnic groups and assigns a score on a scale from 1 to 100. One hundred represents the highest possible score, and one represents the lowest possible score.

2
The closer the score is to one, the more disparity exists between race and ethnicity groups on that particular indicator. For instance, a score of 15 indicates that there is a great difference between how people of different races can access an opportunity. Conversely, a score of 75 indicates that opportunities seem to flow evenly, regardless of race or ethnicity. Having the indicators measured this way allows for comparison across indicators and across time.
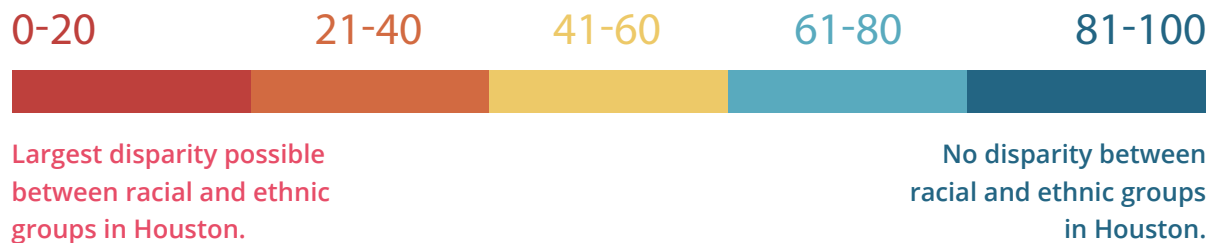
THE EQUITY INDICATOR TOOL IN PRACTICE

For example, examine the theme of Economic Opportunity. Two indicators that were identified as contributing factors of economic opportunity are: Child Poverty and On-Time High School Graduation. The score for Child Poverty is 32. This indicates that some races or ethnicities have many more children in poverty than other races or ethnicities. The other indicator, On-Time High School Graduation is 82. This shows that there are fewer disparities between the races and ethnicities in terms of how many children graduate from high school on time. Because both indicators have a range from 1 to 100, it is possible to compare the equity of those two indicators and conclude that there are greater disparities in the percent of children in poverty across race and ethnic groups than there is in the percent of youth graduating from high school on time. This way of measuring the Equity Indicators is useful for comparison and tracking over time; it is less useful as a stand-alone score or percentage.

This tool should be used to highlight areas where equity can be celebrated and to identify the areas that need additional resources and attention to increase Houston's equity standing. Equally important, the tool can help the city understand the impact of its programs and initiatives by measuring its change in score over time.

EQUITY SCORE

| 0-20 | 21-40 | 41-60 | 61-80 | 81-100 |

Largest disparity possible between racial and ethnic groups in Houston.

No disparity between racial and ethnic groups in Houston.

EQUITY SCORE

47.8

ACCESS & INCLUSION	
Representation	City Leadership Diversity Diversity in Police Force Diversity in HFD/EMS
Community Amenities	Residents Without Internet Access Access to Parks & Green Space Art Grants
Quality of Life Assets	Early Childhood Learning Residents Without Bank Accounts Access to Healthy Food Providers

EQUITY SCORE
77.8

INFRASTRUCTURE	
Transportation	Access to a Vehicle Public Transportation Access Commute Time
Connectivity & Mobility	Street Quality Sidewalk Availability Traffic Fatalities
Green & Resilient Infrastructure	Drainage System Adequacy Green Stormwater Infrastructure LEED Certified Buildings

EQUITY SCORE
34.6

ECONOMIC OPPORTUNITY	
Employment	Employment in High-Paying Sectors Business Ownership Unemployment Rate
Educational Attainment	On-Time High School Graduation Youth Not in School or Working College Degrees
Income & Poverty	Median Household Income Adult Poverty Child Poverty

EQUITY SCORE
27.3

HEALTH	
Access to Healthcare	Uninsured Adults Uninsured Children Preventable Hospitalizations
Child & Maternal Health	Infant Mortality Maternal Mortality Low Birth Weight
Health Outcomes	Mental Health Related EMS Transports Cancer Mortality Premature Death

EQUITY SCORE
56.1

ENVIRONMENTAL & CLIMATE RISK	
Pollution	EPA Penalties Hazard Waste Proximity Air Pollution
Disaster Risks	Housing in FEMA Floodplain Highly Impacted Households Flood Insurance Policies
Temperature Resilience	Temperature-Related EMS Transports Heat Islands Tree Canopy

EQUITY SCORE
24.0

PUBLIC SAFETY	
Victimization	Domestic Violence Calls for Service Robbery Victimization Rates Homicide Victimization Rates
Arrests	Adult Misdemeanor Arrest Adult Felony Arrests Juvenile Misdemeanor Arrests
Law Enforcement	Traffic Stops that Lead to Searches Officer Use of Force Police Response Time

EQUITY SCORE
41.3

HOUSING	
Home Ownership & Affordability	Homeownership Home Loan Denial Housing Cost Burden
Housing Quality	Overcrowded Housing Vacant Housing Units Low Value Stock
Housing Risks	Eviction Filings Residential Fire Incidents Fire Response Time

THE EQUITY INDICATOR SCORES TELL
THE STORY OF HOUSTONIANS

Taking action requires going beyond the indicator scores to examine the data and disparities behind them. Each of the 63 Equity Indicators starts with a score, which is then broken down to reveal the Black-, white-, Asian-, and Hispanic-specific scores that are being used to arrive at the indicator's score. To change the indicator's score requires changing the numbers behind them.

Returning to the example of Child Poverty, improving the indicator score of 32 requires action and policy that will significantly reduce the percent of Black children and Hispanic children in poverty. The policy would need to target Black children and Hispanic children because currently, 37% of Black children and 33% of Hispanic children live in poverty, compared to 12% of white children and 11% of Asian children. The Child Poverty indicator score of 32 reflects the sizable differences in the percent of children living in poverty across race and ethnic groups.

With this data, policymakers have a decision to make. To improve the Child Poverty data, they can institute policies such as a child tax credit that helps those in poverty but equally distributes resources to everyone with a child regardless of income, or they can target policies and resources toward those families living in poverty. The former will raise all children out of poverty but have little effect on the indicator score. The latter would raise the score and narrow the opportunity gap between races. These decisions are not easy, but this Equity Indicator tool can make the decisions more data-driven.

We can also look at the example of Housing, the indicator is homeownership and the equity score is 39. In 2019, 40% of Houstonians lived in a home they own, down 1.5% from 2018. White and Asian Houstonians are more likely to own their home than Hispanic or Black Houstonians. In 2019, 56% of White Houstonians owned their home, roughly the same rate as in 2018. However, only 25% of Black Houstonians were homeowners in 2019, down almost 3% from 2018. The fall in Black homeownership caused the equity score to decrease from 41 in 2018 to 39 in 2019.

A 2022 study from the National Community Reinvestment Coalition reported that racial discrimination persists in mortgage lending. While most forms of discrimination in the housing market declined or ceased (including the most extreme forms, such as lying about the availability of advertised housing units), the authors of the study said that Black and Hispanic borrowers still face disproportionately high levels of rejection.

According to the study, racial gaps in loan denial decreased slightly between the 1970s and 2020, while gaps in mortgage costs remained for Blacks, Hispanics, and Asians. Discrimination like this entrenches racial segregation by pushing those with weak preferences to neighborhoods made up of residents with similar racial backgrounds. This only serves to fuel the racial wealth gap by making it harder for Blacks to actually build wealth.

Other studies also corroborate this finding,

including a 2019 LendingTree report, which indicated racial differences in lending rejection rates. According to that report, Black borrowers have the highest denial rates, at 17.4%, and non-Hispanic Whites have the lowest, at 7.9%.[1]

We can also examine the disparities in the Health theme. One of the indicators used to measure the health of Houstonions is if they have health insurance or not. Those with health insurance have more access to health care which gives them better health outcomes. The Equity Indicator score for Uninsured Adults was 25. This score tells us that while 1 in 3 adult Houstonians do not have health insurance, there is a big difference in the number of adults insured across different race and ethnicities.

In 2019, half of the adult Hispanic population in Houston did not have health insurance, by far the highest percentage among the different racial ethnic groups. Black Houstonians had the second-highest percent of uninsured adults at 27%. White and Asian adult residents experienced much lower uninsured rates, at 12% and 16% respectively. Between 2018 and 2019, the uninsured rate for the city increased almost 2%, and the impact was seen across all groups. This led to the equity score remaining stable while the overall situation did not improve.

Black and Latino/Hispanic adults have historically reported much higher uninsured rates than white adults. This disparity reflects economic inequities, for these communities are less likely than white adults to receive coverage

through their jobs, as well as immigration policies that can constrain coverage options for Latino/Hispanic families in particular.

The ACA promised to increase coverage equity by funding 100 percent of state Medicaid expansions in the first three years, phasing down to 90 percent over time, and by subsidizing individual marketplace plans.

Uninsured rates for all three groups fell after coverage expansions went into effect in 2014, and Black and Latino/Hispanic adults made the largest gains. The Black adult uninsured rate dropped from 24.4 percent in 2013 to a low of 13.7 percent in 2016, before rising slightly to 14.2 percent in 2019. The Latino/Hispanic uninsured rate decreased from 40.2 percent in 2013 to a low of 24.9 percent in 2018 but has since edged upward to 25.7 percent in 2019. These trends reduced coverage disparities in relation to white adults by 4.6 percentage points for Black adults and 9 points for Latino/Hispanic adults.[2]

HOUSTON'S EQUITY SCORE IS 44.1— WHAT'S ON THE HORIZON?

The journey to ensure all Houstonians have equitable access to resources and opportunities is a long one which takes planning, intention, and, perhaps most importantly, execution. The community must be involved in designing equitable policy interventions. The data and research behind each of the Equity Indicators in this report are merely a reference – a map to point city leaders in the right direction. But to arrive at the destination, the city must ask which roadblocks should be addressed first, and how to overcome them. No single mayoral administration can solve all the issues raised in this report, but each administration must ask how this data should shape its policies and practices.

And most importantly, future data and research will provide the evidence needed to change, adapt, and innovate to address inequities. This will ensure Houston is a city where everyone has the chance to thrive, and race, ethnicity, gender, disability, sexual orientation, and other features may inform our identities but not determine our trajectory.

THEMES RANKED FROM HIGHEST TO LOWEST

77.8	INFRASTRUCTURE
56.1	ENVIRONMENTAL & CLIMATE RISKS
47.8	ACCESS & INCLUSION
41.3	HOUSING
34.6	ECONOMIC OPPORTUNITY
27.3	HEALTH
24.0	PUBLIC SAFETY

PLEASE NOTE: ALL RESULTS ABOVE ARE REFLECTIVE OF DATA FROM PREVIOUS YEARS

CRITICAL AREAS TO ADDRESS

Indicator Score 1 Signaling Greatest Possible Disparity

1	EPA PENALTIES

1   RESIDENTS WITHOUT BANK ACCOUNTS

1   LOW VALUE STOCK

1   BUSINESS OWNERSHIP

1   MENTAL HEALTH RELATED EMS TRANSPORTS

1   ADULT FELONY ARRESTS

1   TRAFFIC STOPS THAT LEAD TO SEARCHES

1   OFFICER USE OF FORCE

38   *TRAFFIC FATALITIES
     Indicator had largest drop in
     score between comparison years

The EPA regulates over 3,700 active facilities in 71 ZIP codes with over 50% of landmass inside Houston. In the past 5 years, these facilities have been cited for over $150 million in penalties, for an average of $41,640 per facility. There were slightly more than 600 facilities in the 16 ZIP codes where the majority of the population is Non-Hispanic White, with an average of $1,621 in penalties per facility. Of the 55 ZIP codes where the majority of the population are people of color, there were over 3,100 facilities, with an average of $49,234 in penalties in the last five years. The equity score of 1 reflects the large disparity in this indicator.

EQUITY TO ACKNOWLEDGE

Indicator Score 90 or Above Signaling Low Disparity

98   DRAINAGE SYSTEM ADEQUACY

97   POLICE RESPONSE TIME

96   ART GRANTS

95   PUBLIC TRANSPORTATION ACCESS

94	AIR POLLUTION

92   HEAT ISLANDS

90   ACCESS TO PARKS & GREEN SPACE

The average air pollution exposure index for cancer and non-cancer risks for all Houstonians is 80. This means that Houston residents have higher air toxin exposure than 80% of census tracts nationwide. For air toxins with cancer risk, the index for all Houstonians was 88, again meaning that the risk is higher here than 88% of census tracts in the US. There is very little difference in exposure among racial/ethnic groups. While Hispanic Houstonians had the highest exposure index at 88.0, both Black and White Houstonians had index values of 87.8. Asian or Pacific Islanders had the lowest value of 85.4. This is a case where the equity score is high, but all Houstonians could benefit from cleaner air.

PLEASE NOTE: ALL RESULTS ABOVE ARE REFLECTIVE OF DATA FROM PREVIOUS YEARS

ABOUT THE EQUITY INDICATOR

POPULATIONS ADVERSELY
AFFECTED BY INEQUITY

The Houston Equity Indicators tool measures disparities between racial and ethnic groups in Houston. While these are not the only groups experiencing inequities, we acknowledge these disparities have compounding effects, such as socioeconomics, gender, sexual orientation, and disabilities that exacerbate such gaps. Given Houston's diversity of cultural groups, the sub-population groups used for each indicator are chosen based on which two groups display the greatest disparity for that indicator (or for those whom demonstrate the widest gap within an outcome).

The table below shows the City of Houston's demographics by race/ethnicity. The population of each group increased to varying extents between 2010 and 2020. The largest increases are seen among Hispanics (44%), followed by Whites (23.7%) and Blacks (22.1%). Other ethnic groups, such as Asians, "Non-Hispanic Some Other Race" and "Non-Hispanic Two or More Races," have also grown over the ten-year period.

CITY OF HOUSTON: 2010 - 2020				
	Census		Percent Change 2010 - 2020	Percent of Population
Population by Ethnicity	2010	2020		
Hispanic	919,668	1,013,423	10.2%	44.0%
Non-Hispanic White	537,901	545,989	1.5%	23.7%
Non-Hispanic Black or African American	485,956	509,479	4.8%	22.1%
Non-Hispanic American Indian and Alaska Native	3,528	3,669	4.0%	0.2%
Non-Hispanic Asian	124,859	165,189	32.3%	7.2%
Non-Hispanic Native Hawaiian and Other Pacific Islander	711	960	35.0%	0.0%
Non-Hispanic Some Other Race	4,128	11,884	187.9%	0.5%
Non-Hispanic Two or More Races	22,700	53,987	137.8%	2.3%
City of Houston	2,099,451	2,304,580	9.8%	100%
Source: U.S. Census Bureau; Census 2010 - 2020				

City of Houston 2020 Census Demographics
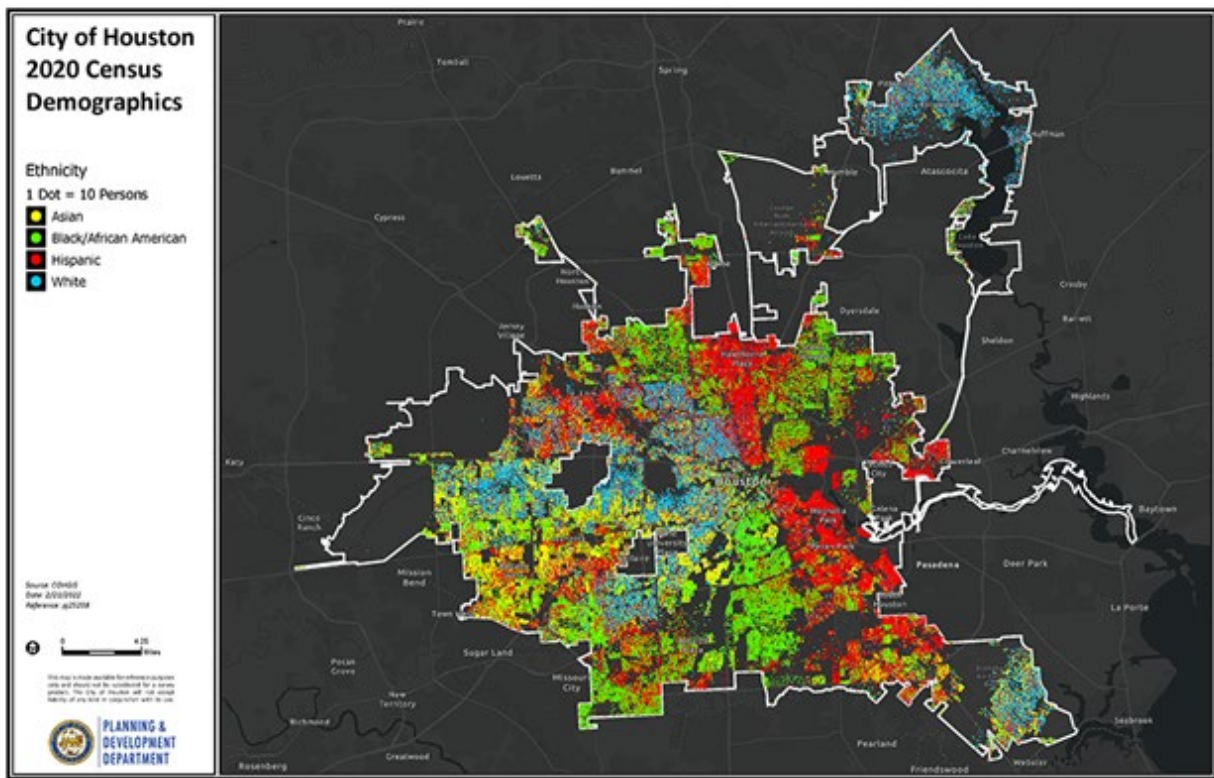
Across all 63 indicators, the following racial/ethnic groups are used for comparison in outcomes: Hispanic, White, Black, and Asian. Although most of the indicators comparing outcomes by race/ethnicity use individual-level data, other indicators use geographical areas such as census tracts and zip codes. In the latter scenario, the comparisons are often made between majority-Non-Hispanic-White census tracts/zip codes and majority-people-of-color census tracts/zip codes (or areas without a specific majority non-Hispanic-White sub-population). Based on the availability of mappable data, 33 of these indicators are included in the City of Houston's Equity Map Atlas.

EQUITY AND RESILIENCE

Equity is a theme in the City-wide and neighborhood focused planning efforts of recent years. From Plan Houston, which established a vision and goals for the city, to Resilient Houston which specifically called for an Equity Indicators Tool, Houstonians have prioritized equity for all.

- Plan Houston [1]
- Rising Together: A Road Map to Confront Inequity [2]
- Complete Communities [3]
- Resilient Houston [4]
- Climate Action Plan [5]
- Vision Zero [6]
- Mayor's Health Equity Response (HER) Task Force [7]
- Resilient Infrastructure Diversity and Equity (RIDE) [8]

People often think of resilience as the response to climate change. Through Resilient Houston, the City acknowledges that resilience is the "capacity of individuals, communities, institutions, businesses and systems within an urban area to survive, adapt, and thrive no matter what kind of chronic stresses and acute shocks they experience." This acknowledges that residents are made vulnerable by social and economic inequalities that compound their exposure and their ability to respond, recover and thrive when exposed to climate risks and other unexpected shocks and stressors such as pandemics, cyber-attacks or extreme weather. Resilient Houston defines resilience in a broad sense that places equity at the center.

CHAPTER 4
ACCESSIBLE & ADAPTIVE CITY

GOAL 10 — We will demonstrate leadership on climate change through action.

GOAL 11 — We will modernize Houston's infrastructure to address the challenges of the future.

GOAL 12 — We will advance equity and inclusion for all.

GOAL 13 — We will transform city government to operationalize resilience and build trust.

Goal 12 of Resilient Houston states, "We will Advance Equity and Inclusion for All" and provides directives to achieve this goal. Action 39 recognizes that to eliminate inequities, the city must promote equity through citywide policies and programs. Resilient Houston further includes several steps toward carrying out this action.

39 PROMOTE EQUITY THROUGH CITYWIDE POLICIES AND PROGRAMS.

Improve equitable outcomes for Houstonians by developing and institutionalizing equity trainings, assessing equity indicators, and creating an equity framework that will guide future citywide policies and programs.

The Equity Indicators work is a direct result of action items 39.2 - develop and adopt an equity atlas and framework, and 39.3 - establish an equity indicators program and tracking system. Now that Houston has evaluated numerous local indicators and developed a baseline equity

PUBLIC ENGAGEMENT PROCESS

Meaningful public engagement is important to defining what equity means in Houston and holding ourselves accountable for eliminating inequities in our city. First, the City sought input and guidance from leaders of organizations that serve the communities experiencing inequity first-hand. These leaders helped shape the City's definition of equity and guided the City's approach to engaging the general public.

The general public was asked what equity means to them. People responded to this question on-line through the City's public engagement web site www.Letstalkhouston.org or by paper surveys made available at City of Houston libraries, parks, health centers and multi-service centers. A summary of responses is available for viewing online.

Engagement doesn't end with this first report. The Equity Indicators web page, public engagement portal and Equity Atlas are tools to help people learn more and to hold the City and its partners accountable for eliminating inequities.

HOUSTON'S EQUITY CHARGE

When we talk about equity and inclusion throughout *Resilient Houston*, we want to be clear about not projecting a victimhood label on any Houstonian or neighborhood. The diversity of Houstonians and our communities is a source of pride for our city and contributes to our celebrated cultures and traditions. An individual's ZIP code, race, ethnicity, gender identity, sexual orientation, age, social class, physical abilities or attributes, religious or ethical values system, national origin, linguistic ability, or immigrant status should not limit their choices, opportunity, and freedom in our city. But there are disparities in health, wealth, access, and privilege that impact Houstonians and challenge our collective resilience. While every Houstonian is needed to build a more resilient Houston, the actions we take to make Houston safer and stronger will need to prioritize identifying and addressing barriers to equity and inclusion for all.

METHODOLOGY

The City of Houston's Equity Indicators tool is based on a model developed by the City University New York (CUNY) Institute for State and Local Governance (ISLG). This model has been used successfully by six other US cities to measure disparities faced by disadvantaged groups and use the overall score as a guide to frame policy and program development.

The City and the Shell USA, Inc. engaged the help of the Kinder Institute for Urban Research to review best practices from other cities, identify appropriate indicators, collect data and perform analysis resulting in a base line equity score for Houston using the CUNY model.   To ensure consistency in scoring from year to year, the methodology requires that the indicators can be tracked over time, are collected at regular intervals, be able to show a positive or negative change, and be disaggregated by at least one characteristic such as race/ethnicity, gender, age, or neighborhood. Sixty-three indicators were selected to meet these criteria based on the availability of existing data explored by city leaders and the Kinder Institute. They are specific to Houston and direct attention to areas where the city can be more equitable in delivering its programs and services.

DATA SOURCES

This report includes two years of data findings for comparison: a baseline year (2021) and a second year (2022). Each year uses the most recently collected annual data available at the time of analysis. The data used in this report comes from both internal and external sources such as city departments, Kinder Institute, Houston-Galveston Area Regional Council, the U.S. Census Bureau's American Community Surveys (1 and 5-Year Estimates), Federal Emergency Management Agency, and Environmental Protection Agency.

Some of the findings in this report are based on data from 2019 and 2020, but in most instances, the latest data available is from 2018 and 2019. There are fewer instances when findings are based on data from 2022, 2021, and 2017 or earlier. There are exceptions when only one annual data set is used for an indicator. This results in a non-applicable change in equity score due to limitations in the data collection from that source. Nonetheless, the findings were found useful to highlight in this report.

STRUCTURE OF THE EQUITY INDICATORS

There are four levels In the CUNY methodology. Each rolls up to the level above. The indicators are at the base. These are the sets of data that get to the specific disparity experienced. The indicators roll up into topics. Topics are the content that describes the category or stories we are trying to tell. The topics roll up into themes. Themes are the broad categories, the overall concept or big picture of an area. The themes roll up to provide the city with an overall Equity score.

Within this framework and model, there is an equal number of indicators per topic, and an equal number of topics per each theme, so that each indicator and topic has equal weight within the framework. The Houston Equity Indicators tool is comprised of seven broad themes: **Economic Opportunity, Health, Public Safety, Housing, Infrastructure, Environmental & Climate Risks,** and **Access & Inclusion**. Each of the seven themes has four topics. Within each topic are three indicators. Ratios within the structured levels are calculated and the ratio is converted to an Equity Score using an algorithm. The equity scores are on a 100-point scale where 100 represents the highest possible score and one represents the lowest possible score.

In the Detailed Findings section of this report, each Theme will be explained in further detail. The overall score for each theme, the score for each related topic, the score for each indicator and any discrepancies in the data collection are provided and explained. Although Houston is in this first year of reporting its Equity Indicators Score, data was compared to a previous base year to identify possible trends towards improved or worsening equity.

WHAT NEXT?

The journey to ensure all Houstonians have equitable access to resources and opportunities is a long one which takes planning, intention, and, perhaps most importantly, execution. The community must be involved in designing equitable policy interventions. The data and research behind each of the Equity Indicators in this report are merely a reference – a map to point city leaders in the right direction. But to arrive at the destination, the city must ask which roadblocks should be addressed first, and how to overcome them. No single mayoral administration can solve all the issues raised in this report, but each administration must ask how this data should shape its policies and practices.

Most importantly, future data and research will provide the evidence needed to change, adapt, and innovate to address inequities. This will ensure Houston is a city where everyone has the chance to thrive, and race, ethnicity, gender, disability, sexual orientation, and other features may inform our identities but not determine our trajectory.

[1] http://www.houstontx.gov/planhouston/

[2] ?Where is this document?

[3] Welcome to Houston Complete Communities (houstoncc.org)

[4] http://www.greenhoustontx.gov/

[5] http://www.greenhoustontx.gov/

[6] https://www.letstalkhouston.org/vision-zero

[7] https://www.houstontx.gov/covid19recovery/health-equity-response-task-force/index.html

[8] https://www.houstontx.gov/mayor/press/2021/resilient-cities-glasgow.html

DETAILED FINDINGS

THEME: ACCESS & INCLUSION

Theme Equity Score 2022: 47.8
Theme Equity Score 2021: 47.4
Theme Equity Score Change: 0.4

As important as housing, infrastructure, and other basic services are, equity also involves a real sense of inclusion and a sense of belonging.   Access and inclusion can take many forms. It can mean something as simple as having a bank account or seeing a police officer or firefighter serving the community who has a similar lived experiences. It can mean having easy access to parks and early learning opportunities for children. This sense of belonging is sometimes hard to quantify, but it is vital for the well-being of individuals which in turn strengthens neighborhoods in Houston.

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Representation	24.0	City Leadership Diversity	27
		Diversity in Police Force	37
		Diversity in HFD/EMS	8
Community Amenities	73.0	Internet Access	33
		Access to Parks	90
		Art Grants	96
Quality of Life Assets	46.3	Early Childhood Learning	61
		Residents Without Bank Accounts	1
		Access to Healthy Food Providers	77

TOPIC: REPRESENTATION

Topic Equity Score 2022: 24.0
Topic Equity Score 2021: 22.7
Topic Equity Score Change: 1.3

As Houston becomes more diverse, it is vital that city government employees represent that diversity in both leadership and high-profile positions. Whether watching the government operate over media, or interacting with police officers or firefighters, people of color must see individuals representing the city whose lived experience is similar to their own. This is an area of constant flux as Houston's population has become increasingly more diverse. While African-American inclusion in city municipal leadership positions is strong, diversity among firefighters is especially low.

CITY LEADERSHIP DIVERSITY: 27

EI Score 2022	27
EI Score 2021	23
EI Change Score	4
High Group	Black
Low Group	Hispanic
High Group Results (2021)	1.00
Low Group Results (2021)	0.21
2021 Ratio	4.685
High Group Results (2022)	1.14
Low Group Results (2022)	0.28
2022 Ratio	4.024

Indicator Definition:

Ratio between Black officials in city management positions per 1,000 Black residents and Hispanic officials in city management positions per 1,000 Hispanic residents

Rationale:

Diversity in the public sector can be a strong contributor to innovation, organizational performance and trust in public institutions.[1]

Additional Findings:

As of May 2022, the City of Houston had 1,250 employees in management positions. Of these officials, 37% were White and 36% are Black. However, only 16% were Hispanic and 10% were Asian. Comparing these percentages to Houston's adult population, Black Houstonians were represented in high levels of city government at 1.14 officials per 1,000 Black adults. While Hispanics are only represented at 0.28 per 1,000 Hispanic adults, which is an increase from the 2019 data when they were only represented at a rate of 0.21. The equity score increased 4 points reflecting the increased representation of Hispanic adults.

Data Source: City of Houston Human Resources Department

Data Years: 2019, 2022

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[1] Diversity and inclusion. (n.d.). Organisation for Economic Co-Operation and Development (OECD). https://www.oecd.org/gov/pem/diversity-and-inclusion.htm

DIVERSITY IN POLICE FORCE: 37

Equity Score 2022	37
Equity Score 2021	35
Equity Change Score	2
High Group	White
Low Group	Hispanic
High Group Results (2021)	4.1
Low Group Results (2021)	1.5
2021 Ratio	2.761
High Group Results (2022)	3.9
Low Group Results (2022)	1.6
2022 Ratio	2.525

Indicator Definition:
Ratio between the rates of White officers per 1,000 White residents and Hispanic HPD officers per 1,000 Hispanic residents

Rationale:
Increased diversity among police officers has been shown to improve citizen-officer relations[2] and may improve police treatment of minority communities.[3]

Additional Findings:
 While White residents made up 23% of Houston's population, they accounted for over 40% of HPD officers for both years in this report. This compares to Hispanic residents, who represented 45% of the population, but only 30% of HPD officers, also for both years. In terms of proportional representation, in 2019 for every 1,000 White residents there were 4.1 White officers. For Hispanic residents, representation was lower at 1.5 Hispanic officers per 1,000 residents. The equity score increased two points as the number of White officers decreased by 57 and the number of Hispanic officers increased by eight. The total number of HPD officers dropped in 2020 to 5,250 from 5,290 in 2019.

Data Source: HPD

Data Years: 2019, 2020

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[2] Cochran, J. C., & Warren, P. Y. (2012). Racial, Ethnic, and Gender Differences in Perceptions of the Police: The Salience of Officer Race Within the Context of Racial Profiling. Journal of Contemporary Criminal Justice, 28(2), 206–227. https://doi.org/10.1177/1043986211425726
[3] Ba, B. A., Knox, D., Mummolo, J., & Rivera, R. (2021). The role of officer race and gender in police-civilian interactions in Chicago. Science, 371(6530), 696–702. https://doi.org/10.1126/science.abd8694

DIVERSITY IN HFD/EMS: 8

Equity Score 2022	8
Equity Score 2021	10
Equity Change Score	-2
High Group	White
Low Group	Asian/Other
High Group Results (2021)	3.7
Low Group Results (2021)	0.5
2021 Ratio	7.582
High Group Results (2022)	3.6
Low Group Results (2022)	0.4
2022 Ratio	8.135

Indicator Definition:
Ratio between White Firefighters in the ranks per 1.000 residents and Asian/Other Firefighters in the ranks of the Houston Fire Department per 1,000 residents

Rationale:
Fire departments that reflect their community's demographic makeup are more likely to provide better service to the public.[4]

Additional Findings:
While less than 25% of Houstonians were White, over 50% of the Houston Fire Department was White. In terms of proportional representation, for every 1,000 White residents, there were 3.7 White firefighters in 2020 and 3.6 in 2021. The proportional representation for Hispanic and Black Houstonians was 1.0 and 1.1, respectively. Asian and other racial/ethnic groups had lower proportional representation with 0.5 firefighters per 1,000 residents in 2020 and 0.4 in 2021.

Data Source: HFD
Data Years: 2020, 2021
Data Notes for Representation Topic:

- For Diversity in HPD, race/ethnicity is reported as White, Black, Hispanic, and Asian/Pacific Islander.
- For Diversity in HFD/EMS, race/ethnicity is reported as White, Black, Hispanic, and Asian/Other. Population data for Asian/Other includes: Asian, Pacific Islander, Other, and Two or More Races.

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[4] Bendersky, C. (2018, December 7). Making U.S. Fire Departments More Diverse and Inclusive. Harvard Business Review. https://hbr.org/2018/12/making-u-s-fire-departments-more-diverse-and-inclusive

TOPIC: COMMUNITY AMENITIES

Topic Equity Score 2022: 73.0
Topic Equity Score 2021: 73.7
Topic Equity Score Change: -0.7

As important as jobs and housing are, community amenities are very important in providing people of color with opportunities they need. Without internet access, they cannot fully participate in society. Without access to parks and greenspaces, they may see both their physical and mental health suffer. Neighborhoods of color in Houston and elsewhere have traditionally not shared in rich community amenities.

RESIDENTS WITHOUT INTERNET ACCESS: 33

Equity Score 2022	33
Equity Score 2021	35
Equity Change Score	-2
High Group	Hispanic
Low Group	White
High Group Results (2021)	19.8%
Low Group Results (2021)	6.9%
2021 Ratio	2.888
High Group Results (2022)	17.6%
Low Group Results (2022)	5.6%
2022 Ratio	3.120

Indicator Definition:

Ratio between the percentages of White and Hispanic households without a computer with high-speed internet access

Rationale:

Internet access is one of the keys to upward mobility. Without internet access, both adults and children cannot access the information they need not only to navigate daily life, but also to move up in the world.[5]

Additional Findings:

Almost 85% of households in Houston had a computer with high-speed internet in 2019, a 1.3 percentage point increase from 2018. However, about 140,000 homes still lacked this modern necessity in 2019. A higher percentage of Hispanic households were more likely to not have a computer with broadband access, at 19.8% in 2018 and 17.6% in 2019. The percentage of White households without a computer and broadband access decreased to 5.6% in 2019 from 6.9% in 2018. Black households had higher rates without high quality internet at 16.5% in 2018 and 15.2% in 2019. Asian households saw a sharp decrease in the share of households without computers with high-speed internet, from 8.2% in 2018 to 4.4% in 2019. Because White households had the lowest rate in the base year, the equity score for both years is based on their data.

Data Source:

ACS 1-Year Estimates

Data Years:

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[5] Eynon, R., Deetjen, U., & Malmberg, L.-E. (2018). Moving on up in the information society? A longitudinal analysis of the relationship between Internet use and social class mobility in Britain. The Information Society, 34(5), 316–327. https://doi.org/10.1080/01972243.2018.1497744

ACCESS TO PARKS & GREENSPACE: 90

EI Score 2022	90
EI Score 2021	90
EI Change Score	0
High Group Low Group	Census tracts with Majority Non-Hispanic White Census tracts with Majority People-of-Color
High Group Results (2021)	74.5%
Low Group Results (2021)	70.8%
2021 Ratio	**1.053**
High Group Results (2022)	74.5%
Low Group Results (2022)	70.8%
2022 Ratio	**1.053**

Indicator Definition:

Ratio between the percentage of people who live within 0.5 miles of a park or greenspace in majority-Non-Hispanic-White census tracts and majority-People-of-Color census tracts

Rationale:

According to the CDC, parks and greenspace are important to maintain both the physical and mental health of individuals. In addition, greenspace helps neighborhoods of color minimize the impact of heat island effects and climate change. [6]

Additional Findings:

Over 70% of Houstonians lived within half a mile of a public park or greenspace. In recent years, having a park within a half mile, which can be accessed in about 10 minutes by walking, has become the standard to measure park access.[7] In areas of town where the majority population was White, almost 75% of residents lived within 0.5 miles of a park, while 70.8% of residents in areas where the majority are people of color did so. Not all parks and greenspaces are created alike, but at least in terms of proximity, Houston residents have similar access.

Data Source: Houston-Galveston Area Council
Data Years: 2019

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[6] Slater, S. J., Christiana, R. W., & Gustat, J. (2020). Recommendations for Keeping Parks and Green Space Accessible for Mental and Physical Health During COVID-19 and Other Pandemics. Preventing Chronic Disease, 17, 200204. https://doi.org/10.5888/pcd17.200204
[7] Parks on the clock: Why we believe in the 10-minute walk. (2016, February 25). Trust for Public Land. https://www.tpl.org/blog/why-the-10-minute-walk

ART GRANTS: 96

EI Score 2022	96
EI Score 2021	96
EI Change Score	0
High Group Low Group	ZIP Codes with Majority Non-Hispanic White ZIP Codes with Majority People-of-Color
High Group Results (2021) Low Group Results (2021)	75.4% 73.6%
2021 Ratio	1.024
High Group Results (2022) Low Group Results (2022)	75.4% 73.6%
2022 Ratio	1.024

Indicator Definition:
Ratio between the percentage of art grants approved by the City of Houston in majority-people-of-color and majority-Non-Hispanic-White ZIP codes

Rationale:
Access to the arts provides people of color with health and wellness benefits, increases the likelihood of higher educational attainment, and even helps their communities stay safe.[8]

Additional Findings:
In 2020, 190 art grant applications were either approved or declined by the City of Houston. Art grant applications can list the top 5 locations where the applicant delivers its principal activities. A single art grant application can affect different majority population areas. Looking at ZIP codes that had over 50% of their landmass in Houston, art grant applications were made in over 60 ZIP codes. Of those, 16 were in zip codes where the majority population was Non-Hispanic White and 48 were in zip codes where most residents were people of color. Overall, the City of Houston approved 74% of art grant applications. For grants that had at least one location inside an area where the majority of the population are Non-Hispanic White, the rate of approval was 75.4%. For grants that had at least one location inside an area where the majority of the population are Non-Hispanic White, the rate of approval was 73.6%.

Data Source: City of Houston, Mayor's Office of Cultural Affairs and Houston Arts Alliance

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[8] Stern, M., & Seifert, S. (2017). The Social Wellbeing of New York City's Neighborhoods: The Contribution of Culture and the Arts. Culture and Social Wellbeing in New York City—2014-2017. https://repository.upenn.edu/siap_culture_nyc/1

Data Years: 2020

Data Notes for Community Amenities Topic:
- For Internet Access, races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White. "Asian" in this indicator does not include Pacific Islanders, as data was not available for Pacific Islanders.

- Art grant applications can list the top 5 locations where the applicant delivers its principal activities. A single art grant application can affect different majority population areas. Only art grant applications that received a decision of approved or declined were included in the analysis. Art grants data collection changed in 2020 and cannot be compared to previous years.

TOPIC: QUALITY OF LIFE ASSETS

Topic Equity Score 2022: 46.3
Topic Equity Score 2021: 46.0
Topic Equity Score Change: 0.3

Quality of life can be hard to measure, but as these indicators suggest, they are essential to wellbeing and upward mobility, and they speak to aspects of the day-to-day experiences that differ among neighborhoods. Without access to such resources as early childhood education, grocery stores or bank accounts, many people of color cannot fully participate in society and take advantage of its opportunities.

These indicators suggest that quality-of-life are inequitably distributed in many cases—especially with regard to bank account access, which received the lowest possible equity score. The equity variation among these indicators is wide.

EARLY CHILDHOOD LEARNING: 61

Equity Score 2022	61
Equity Score 2021	60
fEquity Change Score	1
High Group	White
Low Group	Hispanic
High Group Results (2021)	27.8%
Low Group Results (2021)	18.5%
2021 Ratio	1.502
High Group Results (2022)	31.5%
Low Group Results (2022)	21.1%
2022 Ratio	1.493

Indicator Definition:

Ratio of the percent of White and Hispanic children enrolled in preschool

Rationale:

Early childhood learning is linked to future academic accomplishments and is especially important for children classified as being English learners, having a learning disability, or being economically disadvantaged. [9]

Additional Findings:

Over 40,000 Houstonian children over the age of 3 were enrolled in preschool in 2019. While data limitations make it hard to compare the exact percentage by age group, it is estimated that White and Asian children attend at higher rates than Hispanic and Black children. In 2019, only 21% of Hispanic children under 5 were enrolled in preschool, and Black children attended at a rate of 23%. This compares to 31% of White children and 35% of Asian children. Because White children had the highest attendance rate in 2018 at 28%, the equity score for both years is based on their data.

Data Source: ACS 1-Year Estimates from Social Explorer

Data Years: 2018, 2019

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[9] Early Childhood Education. (n.d.). Understanding Houston. https://www.understandinghouston.org/topic/education/early-childhood-education

RESIDENTS WITHOUT BANK ACCOUNTS: 1

Equity Score 2022	1
Equity Score 2021	1
Equity Change Score	0
High Group	Hispanic
Low Group	White
High Group Results (2021)	19.5%
Low Group Results (2021)	2.0%
2021 Ratio	9.750
High Group Results (2022)	22.4%
Low Group Results (2022)	1.2%
2022 Ratio	18.667

Indicator Definition:

Ratio between the percentage of unbanked Hispanic and White households

Rationale:

Having a bank account and a banking relationship can also facilitate households' access to responsible, affordable credit, and such access can help households build their credit history.[10]

Additional Findings:

In 2019, an estimated 10.4% of households in the Houston MSA were considered unbanked by the FDIC. "Unbanked" means the household does not have a bank account. For this dataset, estimates were only available for White and Hispanic households, but the data shows very wide differences. In 2019, 22.4% of Hispanic households were without a bank account, while only 1.2% of White households were unbanked. This dramatic disparity is reflected in the lowest possible equity score.

Data Source: FDIC Survey of Household Use of Banking and Financial Services

Data Years: 2017, 2019

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[10] What is Economic Inclusion? (2021, December 17). Federal Deposit Insurance Corporation (FDIC).
https://www.fdic.gov/analysis/household-survey/economic-inclusion/index.html

ACCESS TO HEALTHY FOOD PROVIDERS: 77

Equity Score 2022	77
Equity Score 2021	77
Equity Change Score	0
High Group Low Group	Census Tracts with Majority Non-Hispanic White Census Tracts with Majority People-of-Color
High Group Results (2021) Low Group Results (2021)	56.8% 48.7%
2021 Ratio	1.166
High Group Results (2022) Low Group Results (2022)	56.8% 48.7%
2022 Ratio	1.166

Indicator Definition:
Ratio between the percentage of the population that does not live within a half a mile or closer to a supermarket in majority-Non-Hispanic-White census tracts and majority-people-of-color census tracts

Rationale:
Poor diets lead to chronic illnesses such as heart disease, type 2 diabetes, and obesity. Low-income and minority communities often lack convenient places that offer affordable healthier foods.[11]

Additional Findings:
Half of Houston residents lived farther than half a mile from the nearest supermarket in 2019. Living more than 0.5 miles from a supermarket, supercenter, or large grocery store is one of the measures the USDA uses to define low access.[12] Fifty-six percent of residents in majority White areas lived more than 0.5 miles from a grocery store compared to 48.7% of residents in areas with majorities of people-of-color.

Data Source: USDA Economic Research Service's Food Access Research Atlas

Data Years: 2019

Data Notes for Quality of Life Assets Topic:

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[11] Healthy Food Environments: Improving Access to Healthier Food. (2020, September 10). CDC: Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion. https://www.cdc.gov/nutrition/healthy-food-environments/improving-access-to-healthier-food.html
[12] The Food Access Research Atlas guide. (n.d.). USDA Economic Research Service. https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=page_4

- For Early Childhood Learning, preschool enrollment estimates were for children over 3 years-old who were enrolled in nursery or preschool. However, population estimates were only available for children under the age of 5.
- For Early Childhood Learning, races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White. "Asian" in this indicator does not include Pacific Islanders, as data was not available for Pacific Islanders.
- For Residents without Bank Accounts, data was only available at the Houston MSA level, which consists of nine counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller.
- For Residents without Bank Accounts, data is only collected every two years. Data from 2017 and 2019 were used to create the equity score change.
- For Residents without Bank Accounts, data was only available for Hispanic and White residents.

THEME: ECONOMIC OPPORTUNITY

THEME EQUITY SCORE 2022: 34.6
THEME EQUITY SCORE 2021: 33.3
THEME EQUITY SCORE CHANGE: 1.3

As racial justice re-emerged as an important issue in the past two years, increased attention has been placed on the limits to economic opportunity among people of color. For people to have a successful and stable life, they must have access to economic opportunity, which creates pathways for upward mobility in society and improves health outcomes as well. Economic opportunity is also critical for a family's wealth creation.

Economic opportunity has many facets, including educational attainment, employment status, and business ownership. All play a role in social stability, upward mobility, and wealth creation. The racial equity indicators on economic opportunity range across all these areas, from high school and college graduation rates to how many businesses are owned by persons of color. Overall, Houston has a fairly low equity score on almost all indicators – the exception being high-school graduation rates – with some small improvements over the base comparison year.

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Employment	21.0	Employment in High-Paying Sectors	29
		Business Ownership	1
		Unemployment Rate	33
Educational Attainment	47.3	On-Time High School Graduation	82
		Youth Not in School or Working (Opportunity Youth)	28
		College Degrees	32
Income & Poverty	35.3	Median Household Income	38
		Adult Poverty	36
		Child Poverty	32

TOPIC: EMPLOYMENT

Topic Equity Score 2022: 21.0
Topic Equity Score 2021: 19.3
Topic Equity Score Change: 1.7

Job opportunities are important for both individuals and the local community. Without sufficient employment opportunities, people struggle to afford housing, food, utilities and medical care.[13] Beyond jobs, business ownership also provides a path to wealth creation and upward mobility. Inequitable access to jobs and business ownership can limit opportunity. Equity scores in the employment and business ownership arena are low – especially business ownership.

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[13] Income and Inequality in Houston. (n.d.). Understanding Houston. https://www.understandinghouston.org/topic/economic-opportunity/income-equality

EMPLOYMENT IN HIGH-PAYING SECTORS: 29

Equity Score 2022	29
Equity Score 2021	24
Equity Score Change	5
High Group	White
Low Group	Hispanic
High Group Results (2021)	48.5%
Low Group Results (2021)	10.9%
2021 Ratio	4.430
High Group Results (2022)	49.3%
Low Group Results (2022)	13.3%
2022 Ratio	3.697

Indicator Definition:
Ratio between the percentages of White and Hispanic working adults employed in high-paying occupations

Rationale:
Like owning a home or business, a high-paying job is a path to wealth accumulation and upward mobility. Most research suggests that people of color fall far behind Non-Hispanic Whites in obtaining high-paying jobs, creating another barrier to upward mobility.

Additional Findings:
One in four Houstonians was employed in high-paying occupations. Almost half of Non-Hispanic White working adults were in one of these jobs. However, in 2019, only 13% of Hispanic adults were employed in one of these sectors, a 3-percentage-point increase from 2018. Asian workers have similar rates of employment in high-paying sectors to White workers (48%), while only 17% of Black workers were employed in these sectors in 2019.

Data Source: Census ACS 1-year Estimates from Social Explorer

Data Years: 2018, 2019

BUSINESS OWNERSHIP: 1

Equity Score 2022	1
Equity Score 2021	1
Equity Score Change	0
High Group	Asian
Low Group	Black
High Group Results (2021)	6.0%
Low Group Results (2021)	0.6%
2021 Ratio	10.330
High Group Results (2022)	6.0%
Low Group Results (2022)	0.6%
2022 Ratio	10.038

Indicator Definition:
Ratio between the percentages of Asian and Black working-age adults who are business owners

Rationale:
Business ownership is an important route to wealth creation, especially for people of color. Significant discrepancies suggest narrow opportunity for people of color to accumulate the wealth necessary for upward mobility.[14]

Additional Findings:
In 2019, over 110,000 firms in the Houston MSA area had paid employees. Of those, 68,651 were owned by Non-Hispanic White residents. Looking at the share of White Houston MSA residents, only 5% were business owners. While Asian Houstonians owned fewer businesses (19,867), a greater percentage of Asian residents were business owners (6%). Black and Hispanic residents owned fewer business and had lower rates of business ownership. Less than 1% of Black Houstonians were business owners in both years of this report, leading to the lowest possible equity score.

Data Source: Census Annual Business Survey

Data Years: 2018, 2019

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[14] The Racial Gap in Business Ownership Explained in Four Charts. (2017, February 6). The Aspen Institute.
https://www.aspeninstitute.org/blog-posts/racial-gap-business-ownership-explained-four-charts/

UNEMPLOYMENT RATE: 33

Equity Score 2022	33
Equity Score 2021	33
Equity Score Change	0
High Group	Black
Low Group	Asian
High Group Results (2021)	8.8%
Low Group Results (2021)	2.9%
2021 Ratio	3.067
High Group Results (2022)	9.4%
Low Group Results (2022)	3.1%
2022 Ratio	3.057

Indicator Definition:
Ratio between the unemployment rates for Blacks and Asians 16 years and older in the civilian labor force

Rationale:
Having a job is usually the most basic measurement of economic stability. A good-paying job makes it easier to live in healthier neighborhoods, provide quality education for their children, secure childcare services, and buy more nutritious food.[15]

Additional Findings:
The 2019 unemployment rate in Houston was 5.4%, a slight increase from the 2018 rate of 5.3%. The range in unemployment rate by race/ethnicity was over 6 percentage points in 2019, however. Asian and Non-Hispanic White residents had less than 4% unemployment in 2019 (3.1% and 3.7%, respectively). Hispanic residents also had an unemployment rate below the city level at 4.7% in 2019. However, the unemployment rate for Black residents was much higher at 9.4% in 2019, a half-point increase from 2018. This was almost twice the city rate and three times the rate for Asian Houstonians.

Data Source: Census ACS 1-year Estimates from Social Explorer

Data Years: 2018, 2019

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[15] How Does Employment, or Unemployment, Affect Health? (2013, March 12). Robert Wood Johnson Foundation. https://www.rwjf.org/en/library/research/2012/12/how-does-employment--or-unemployment--affect-health-.html

Data Notes for Employment Topic:

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- "Asian" in this topic area does not include Pacific Islanders, as data was not available for Pacific Islanders for these three indicators.
- High-paying occupations were defined as occupations with median annual earnings over $70,000. Those occupations included jobs in management, business, finance, computer science, engineering, science, legal, and health practitioners.
- Data for business owners was available only at the Houston MSA level. The Houston MSA consists of nine counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller.
- "Working-age population" was defined as age 25–64.

TOPIC: EDUCATIONAL ATTAINMENT

Topic Equity Score 2022: 47.3
Topic Equity Score 2021: 44.7
Topic Equity Score Change: 2.6

Education is often seen as a strong driver of social mobility. Lower education levels are associated with lower earnings, higher crime rates, poorer health and mortality outcomes, and reduced participation in political and social institutions.[16] Equity scores for educational attainment are moderate, owing mostly to a high equity score for on-time high school graduation. However, the pipeline from high school to postsecondary achievement—a key indicator of social mobility—appears to be weak.

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[16]Pinto, S., & Jones, J. B. (2020, May 22). Economic Impact of COVID-19: The Long-Term Effects of Educational Disruptions. Federal Reserve Bank of Richmond. https://www.richmondfed.org/publications/research/coronavirus/economic_impact_covid-19_05-22-20

ON-TIME HIGH SCHOOL GRADUATION: 82

EI Score 2022	**82**
EI Score 2021	**78**
EI Change Score	**4**
High Group	Asian
Low Group	Hispanic
High Group Results (2021)	92.2%
Low Group Results (2021)	80.2%
2021 Ratio	**1.150**
High Group Results (2022)	90.7%
Low Group Results (2022)	83.2%
2022 Ratio	**1.090**

Indicator Definition:

Ratio of 4-year longitudinal graduation rate for Hispanic and Asian students in the Houston Independent School District

Rationale:

A high-school diploma is a basic "passport" to the world of upward mobility. Without such a diploma, individuals cannot enter college and usually have difficulty finding employment of any kind. Racial differences in high school graduation rates can suggest deep inequities in future opportunities.[17]

Additional Findings :

The on-time high school graduation rate in the Houston Independent School District improved from 81.0% for the Class of 2019 to 83.8% for the Class of 2020. Graduation rates were similar for Black (84.2%), Hispanic (83.2%) and White (83.9%) students. Graduation rates for these three groups also improved from the previous year. Asian students had the highest 4-year graduation rate at 90.7% in 2020, but experienced a decrease of 1.5 percentage points from 2019. The improved graduation rate for Hispanic students as well as the decreased rate for Asian students led the equity score to improve 4 points.

Data Source: TEA, Texas Performance Reporting System (TPRS)

Data Years: 2019, 2020

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[17] Kearney, M., & Levine, P. (2014). Income Inequality, Social Mobility, and the Decision to Drop Out of High School (No. w20195; p. w20195). National Bureau of Economic Research. https://doi.org/10.3386/w20195

YOUTH NOT IN SCHOOL OR WORKING: 28

EI Score 2022	**28**
EI Score 2021	**28**
EI Change Score	**N/A**
High Group	Majority POC Census Tracts
Low Group	Majority NH White Census Tracts
High Group Results (2021)	10.2%
Low Group Results (2021)	2.6%
2021 Ratio	**3.942**
High Group Results (2022)	10.2%
Low Group Results (2022)	2.6%
2022 Ratio	**3.942**

Indicator Definition:
Ratio between the percentage of youths age 16-19 who are not working or in school by majority-POC census tracts and majority-White census tracts

Rationale:
The cost of youth neither working nor in school—both to the youth themselves and to society at large—is enormous. A relatively modest investment in programs that lead to credentials with value in the labor market for this population would help go a long way toward reducing the burden.[18]

Additional Findings:
About 9% of Houstonians between the ages of 16 and 19 are not in school or working. In areas of town where the majority of the population are People of Color, 10.2% of those youths were not in school or working. This is much higher than areas of town where the majority of residents are Non-Hispanic White, where only 2.6% of 16–19-year-olds were neither in school nor working.

Data Source: Census ACS 5-Year Estimates from Social Explorer

Data Years: 2019 was used for both years.

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[18] Houston's Opportunity: Reconnecting Disengaged Youth and Young Adults to Strengthen Houston's Economy. (2016). Rice University Kinder Institute for Urban Research. https://kinder.rice.edu/sites/default/files/documents/OYYA-report-0928.pdf

COLLEGE DEGREES: 32

Equity Score 2022	32
Equity Score 2021	28
Equity Score Change	4
High Group	Asian
Low Group	Hispanic
High Group Results (2021)	67%
Low Group Results (2021)	18%
2021 Ratio	3.803
High Group Results (2022)	68%
Low Group Results (2022)	20%
2022 Ratio	3.335

Indicator Definition:
Ratio of the percentages of Asian and Hispanic adults with an associate's, bachelor's or higher degree

Rationale:
College degrees are essential for a stable life and upward mobility. Recent research suggests that college graduates make about 60% more than high school graduates.[19]

Additional Findings:
Over 40% of adult Houstonians had an associate's degree or higher in 2019. Asian and Non-Hispanic White residents had the highest rates of educational attainment, at 68% for Asian and 66% for Non-Hispanic White. Black Houstonians had lower rates at 32% and Hispanic residents were below that level at 20%. Hispanic residents did increase their share of college degrees from 18% in 2018. This gain of 2 percentage points caused the equity score to improve slightly from 28 to 32.

Data Source: Census ACS 1-year Estimates from Social Explorer
Data Years: 2018, 2019

Data Notes for Educational Attainment Topic:

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- "Asian" in this topic area does not include Pacific Islander.
- Because of sample overlap between ACS 5-year estimates, no equity change score is available for Youth Not in School or Working.

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[19] Jaison, & Dietz, R. (2019, June 5). Despite Rising Costs, College Is Still a Good Investment. Liberty Street Economics: Federal Reserve Bank of New York. https://libertystreeteconomics.newyorkfed.org/2019/06/despite-rising-costs-college-is-still-a-good-investment/

TOPIC: INCOME & POVERTY

Topic Equity Score 2022: 35.3
Topic Equity Score 2021: 36.0
Topic Equity Score Change: -0.7

In addition to creating economic stress, poverty negatively affects physical and mental health conditions. Poorer children and teens are also at greater risk for several negative outcomes such as poor academic achievement and developmental delays.[20] Houston's poverty equity scores consistently come out in the 30s—the lower end of the scale.

[20] Wadsworth, M., & Rienks, S. (2012, July). Stress as a mechanism of poverty's ill effects on children. American Psychological Association. https://www.apa.org/pi/families/resources/newsletter/2012/07/stress-mechanism

MEDIAN HOUSEHOLD INCOME: 38

Equity Score 2022	38
Equity Score 2021	38
Equity Score Change	0
High Group Low Group	NH White Black
High Group Results (2021) Low Group Results (2021)	$85,121 $36,888
2021 Ratio	2.308
High Group Results (2022) Low Group Results (2022)	$87,208 $36,725
2022 Ratio	2.375

Indicator Definition:
Ratio between the median household incomes for White and Black households

Rationale:
Income is an essential component to well-being. It allows people to satisfy their needs and purse goals that are important to their lives.[21]

Additional Findings:
In 2019, the median household income in Houston was $52,450, an increase of 2.4% from the 2018 level of $51,203. The median income for Non-Hispanic White households was almost $35,000 more the median for the city and it was more than double the median income that Black households had in both years of the study. Asian households had a median income of $71,218 in 2019, while Hispanic households had $45,326. White households saw their income grow between the two years in the study, but Black households saw a slight decrease. However, even with this change, the equity score remained 38 for both years.

Data Source:
Census ACS (1-year Estimates)

Data Years:
2018, 2019

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[21] OECD. (2013). OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth. OECD. https://doi.org/10.1787/9789264194830-en

ADULT POVERTY: 36

Equity Score 2022	36
Equity Score 2021	40
Equity Score Change	-4
High Group	Black
Low Group	NH White
High Group Results (2021)	19.4%
Low Group Results (2021)	9.5%
2021 Ratio	2.032
High Group Results (2022)	22.1%
Low Group Results (2022)	8.1%
2022 Ratio	2.720

Indicator Definition:

Ratio between the percentages of Hispanic and White adults living below the poverty line

Rationale:

Not having enough money affects every facet of life and has understandably been linked to overall lower well-being.[22]

Additional Findings:

In Houston, 16.7% of adults lived below the poverty line in 2019, a slight uptick from 16.2% in 2018. Black and Hispanic adults had the highest rates of poverty in 2018 and 2019. Asian adults also face much higher rates of poverty than White adults, 13.4% compared to 8.1%. While the poverty rate decreased for White and Asian adults between 2018 and 2019, it increased almost 3 percentage points for Black adults, from 19.4% in 2018 to 22.1% in 2019. This led to a decrease in the equity score from 40 to 36.

Data Source:

Census ACS (1-year Estimates)

Data Years:

2018, 2019

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[22] Graham, C. (2015, February 19). The high costs of being poor in America: Stress, pain, and worry. Brookings. https://www.brookings.edu/blog/social-mobility-memos/2015/02/19/the-high-costs-of-being-poor-in-america-stress-pain-and-worry/

CHILD POVERTY: 32

EI Score 2022	32
EI Score 2021	30
EI Score Change	2
High Group	Black
Low Group	Asian
High Group Results (2021)	40.6%
Low Group Results (2021)	11.5%
2021 Ratio	3.521
High Group Results (2022)	36.5%
Low Group Results (2022)	11.2%
2022 Ratio	3.250

Indicator Definition:

Ratio between the percentages of Hispanic and White children under age 18 who live in poverty

Rationale:

Poorer children and teens are at greater risk for several negative outcomes that can have lifelong consequences, such as poor academic achievement, developmental delays, and physical health problems.[23]

Additional Findings:

The poverty rate is much higher for children than adults. In 2019, nearly three out of 10 youths in Houston lived in poverty. Higher rates were seen for Black and Hispanic youths, at 36.5% and 33.0% respectively. The percentage of youth poverty improved between 2018 and 2019, with a decrease of 4 points. However, most of the gains were by White youth. In 2018, 12.4% of White youth lived below the poverty, but in 2019 only 5.6% did. Given that Asian youth had the lowest rate in the baseline year at 11.5%, their data was used in the equity score calculation. The equity score improved slightly as both groups saw an overall decline in the share of children living in poverty.

Data Source: Census ACS (1-year Estimates)
Data Years: 2018, 2019
Data Notes for Income & Poverty Topic

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- "Asian" in this topic area does not include Pacific Islanders because data was not available for Pacific Islanders for these three indicators.

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[23] Wadsworth, M., & Rienks, S. (2012, July). Stress as a mechanism of poverty's ill effects on children. American Psychological Association. https://www.apa.org/pi/families/resources/newsletter/2012/07/stress-mechanism

THEME: ENVIRONMENTAL & CLIMATE RISKS

THEME EQUITY SCORE 2022: 56.1
THEME EQUITY SCORE 2021: 56.3
THEME EQUITY SCORE CHANGE: -0.2

Climate change is perhaps the greatest threat to humankind, not only in Houston but across the world. But like other environmental hazards, the burden of climate change does not fall equally on everyone. Some neighborhoods could be more affected than others by the risks posed by increased flooding and intense heat. Some neighborhoods may be protected by tree canopies and other resources that "soften" climate-related circumstances such as heat, while others may not.

Similarly, disaster and pollution concerns may not be equitably distributed as well. It has been well documented that neighborhoods of color in Houston stand in much closer proximity than other neighborhoods to polluting facilities such as cement batch plants, landfills, and railroad yards.

The equity indicators in this section show, in large part, a more equitable distribution of hazards and risks that we see in other sections. This is not to say the situation is good; only that the risks are more spread across the landscape in this topic than in others.

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Pollution	56.0	EPA Penalties	1
		Hazard Waste Proximity	73
		Air Pollution	94
Disaster Risks	46.3	Housing in FEMA Floodplain	63
		Highly Impacted Households	32
		Flood Insurance Policies	44
Temperature Resilience	66.0	Temperature-Related EMS Transports	30
		Heat Islands	92
		Tree Canopy	76

TOPIC: POLLUTION

Topic Equity Score 2022: 56.0
Topic Equity Score 2021: 56.0
Topic Equity Score Change: N/A

Neighborhoods of color have often been disproportionately affected by toxic pollutants—one of the circumstanced that has led to concern about environmental justice. According to the U.S. government's definition of environmental justice, "No population should bear a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws; regulations; and policies."[24] These indicators suggest that environmental justice and disproportionate impact is an issue in Houston.

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[24] What Is Environmental Justice? (n.d.). U.S. Department of Energy. https://www.energy.gov/lm/services/environmental-justice/what-environmental-justice

EPA PENALTIES: 1

EI Score 2022	1
EI Score 2021	1
EI Change Score	N/A
High Group	ZIP Codes with Majority People-of-Color
Low Group	ZIP Codes with Majority Non-Hispanic White
High Group Results (2021)	49234
Low Group Results (2021)	1621
2021 Ratio	30.367
High Group Results (2022)	49234
Low Group Results (2022)	1621
2022 Ratio	30.367

Indicator Definition:
Ratio between the average amount of EPA penalties in the last five years by the number of active facilities in majority people-of-color ZIP codes to majority Non-Hispanic-White ZIP codes

Rationale:
EPA violations suggest the presence of toxic pollutants in a neighborhood, which have an adverse impact on human health. Those who live in neighborhoods of color may suffer significant health problems and shorter lives if they are disproportionately exposed to toxic pollutants.

Additional Findings:
The EPA regulates over 3,700 active facilities in 71 ZIP codes with over 50% of landmass inside Houston. In the past 5 years, these facilities have been cited for over $150 million in penalties, for an average of $41,640 per facility. There were slightly more than 600 facilities in the 16 ZIP codes where the majority of the population is Non-Hispanic White, with an average of $1,621 in penalties per facility. Of the 55 ZIP codes where the majority of the population are people of color, there were over 3,100 facilities, with an average of $49,234 in penalties in the last five years. The equity score of 1 reflects the large disparity in this indicator.

Data Source: EPA's Enforcement and Compliance History Online (ECHO)

Data Years: As of April 7, 2022

HAZARDOUS WASTE PROXIMITY: 73

EI Score 2022	73
EI Score 2021	73
EI Change Score	N/A
High Group Low Group	Census tracts with Majority People-of-Color Census tracts with Majority Non-Hispanic White
High Group Results (2021)	10.6%
Low Group Results (2021)	8.5%
2021 Ratio	1.250
High Group Results (2022)	10.6%
Low Group Results (2022)	8.5%
2022 Ratio	1.250

Indicator Definition:
Ratio between the percentage of majority-people-of-color and majority-Non-Hispanic-White census tracts in the 90th percentile of proximity to hazardous waste facilities

Rationale:
Hazardous waste facilities often are cause for concerns about effects on health and the environment in the communities where they operate.[25]

Additional Findings:
The EPA measures hazardous waste proximity as the number of hazardous waste facilities within 5 km of an area. There are 81 hazardous waste treatment, storage, and disposal facilitates in Houston reporting to the EPA. Census tracts in Houston that have more than 3.9 hazardous waste facilities operating within a 5 km radius—more than double the citywide block-level average—are considered to be in the top 10% of areas with high proximity to hazardous waste. Of census tracts where the majority of the population is Non-Hispanic White, 8.5% are in this high hazardous-waste proximity category. For census tracts where the majority of the population are people of color, 10.6% are in this category.

Data Source: EPA's EJSCREEN
Data Years: 2022

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[25] California Office of Environmental Health Hazard Assessment. *California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0.* https://oehha.ca.gov/calenviroscreen

AIR POLLUTION: 94

EI Score 2022	94
EI Score 2021	94
EI Change Score	N/A
High Group	Hispanic
Low Group	Asian/Pacific Islander
High Group Results (2021)	88.0
Low Group Results (2021)	85.4
2021 Ratio	1.030
High Group Results (2022)	88.0
Low Group Results (2022)	85.4
2022 Ratio	1.030

Indicator Definition:
Ratio between the air pollution exposure index for cancer risk for Hispanic and Asian residents

Rationale:
Exposure to high levels of air pollution can cause adverse health outcomes by increasing the risk of respiratory infections, heart disease and lung cancer.[26]

Additional Findings:
The average air pollution exposure index for cancer and non-cancer risks for all Houstonians is 80. This means that Houston residents have higher air toxin exposure than 80% of census tracts nationwide. For air toxins with cancer risk, the index for all Houstonians was 88, again meaning that the risk is higher here than 88% of census tracts in the US. There is very little difference in exposure among racial/ethnic groups. While Hispanic Houstonians had the highest exposure index at 88.0, both Black and White Houstonians had index values of 87.8. Asian or Pacific Islanders had the lowest value of 85.4. This is a case where the equity score is high, but all Houstonians could benefit from cleaner air.

Data Source:
National Equity Atlas analysis of data from U.S. Environmental Protection Agency (National Air Toxics Assessment) and U.S. Census Bureau

Data Years: 2019

Data Notes for Pollution Topic:
- Given data availability, none of the indicators in this topic area were able to be compared to the previous year.

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[26] Health consequences of air pollution on populations. (2019, November 15). World Health Organization. https://www.who.int/news/item/15-11-2019-what-are-health-consequences-of-air-pollution-on-populations

TOPIC: DISASTER RISKS

Topic Equity Score 2022: 46.3
Topic Equity Score 2021: 46.3
Topic Equity Score Change: 0

Natural disasters affect people's lives in many different ways—financially, physically, emotionally—and the effects can linger well after the storm passes.[27] Houston has experienced more than its fair share of natural disasters in the last few years—flooding, hurricanes, the winter freeze—but neighborhoods and individuals have not bounced back from those disasters in an equitable manner. While housing located in the floodplain is, for or better or worse, more equitable than average, damaged properties and access to insurance are not.

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[27] Vulnerability to and Impacts from Disasters. (n.d.). Understanding Houston.
https://www.understandinghouston.org/topic/disasters/vulnerability-impacts

HOUSING IN FEMA FLOODPLAIN: 63

EI Score 2022	63
EI Score 2021	63
EI Change Score	0
High Group Low Group	ZIP Codes with Majority People-of-Color ZIP Codes with Majority Non-Hispanic White
High Group Results (2021)	35.7%
Low Group Results (2021)	24.5%
2021 Ratio	1.457
High Group Results (2022)	35.6%
Low Group Results (2022)	24.5%
2022 Ratio	1.453

Indicator Definition

Ratio between the percentages of households in a FEMA-designated flood plain in majority-people-of-color and majority-Non-Hispanic-White ZIP codes

Rationale

Living in a floodplain means constantly living with the risk of flooding that disrupts a household's life, home stability, and livelihood. Few indicators reveal so starkly the risk a household faces.[28]

Additional Findings

Houstonians are well aware of the risks of flooding. Since 2015, FEMA has declared six disasters in the area related to flooding. Only two of these were from named storms. Almost one in three housing units in Houston is located within FEMA 100- or 500-year floodplain. In areas where the majority of the population are Non-Hispanic White, 25% of housing units are in the 500-year floodplain. For areas where the majority of the population are people of color, the share of housing units is over 35%. The relatively high equity score shows that flooding is a risk Houstonians face together.

Data Source

FEMA

Data Years

2018, 2019

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[28] Living in a Floodplain. (n.d.). Texas Water Development Board.
https://www.twdb.texas.gov/flood/doc/084_LivinginaFloodplain_handout.pdf

HIGHLY IMPACTED HOUSEHOLDS: 32

EI Score 2022	32
EI Score 2021	32
EI Change Score	N/A
High Group Low Group	ZIP Codes with Majority People-of-Color ZIP Codes with Majority Non-Hispanic White
High Group Results (2021) Low Group Results (2021)	18.2% 5.6%
2021 Ratio	3.273
High Group Results (2022) Low Group Results (2022)	18.2% 5.6%
2022 Ratio	3.273

Indicator Definition:
Ratio between the percent of majority-people-of-color and majority-Non-Hispanic-White ZIP codes in the 90th percentile of valid FEMA Individual and Household Program registrations from either Hurricane Harvey or Winter Storm Uri

Rationale:
FEMA's Individuals and Households Program (IHP) provides financial and direct services to eligible individuals and households affected by a disaster who are uninsured or under-insured necessary expenses and serious needs.[29] The number of IHP valid registrations suggests the level of distress that different neighborhoods experience as a result of disasters.

Additional Findings:
The impacts of Hurricane Harvey and Winter Storm Uri were felt across Houston. However, some areas suffered more than others. The number of FEMA IHP valid registrations was used to measure impact. Of the 73 ZIP codes that have at least 50% of their landmass inside the city boundaries, 11 ZIP codes were in the 90th percentile (or top 10%) of IHP valid registrations for either Harvey or Uri. Only one out of 18 (or 5.6%) ZIP codes with a majority White population was included in the 90th percentile, whereas 10 of the 55 (18.2%) majority people-of-color ZIP Codes were highly impacted.

Data Source:
Federal Emergency Management Agency, U.S. Census Bureau, & Kinder Institute For Urban Research-Urban Data Platform Team

Data Years: 2021

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[29] Individuals and Households Program | FEMA.gov. (n.d.). https://www.fema.gov/assistance/individual/program

FLOOD INSURANCE POLICIES: 44

EI Score 2022	44
EI Score 2021	44
EI Change Score	N/A
High Group	ZIP Codes with Majority Non-Hispanic White
Low Group	ZIP Codes with Majority People-of-Color
High Group Results (2021)	27.0%
Low Group Results (2021)	14.2%
2021 Ratio	1.900
High Group Results (2022)	27.0%
Low Group Results (2022)	14.2%
2022 Ratio	1.900

Indicator Definition:
Ratio between the percentage of housing units with flood insurance in majority-people-of-color and majority-Non-Hispanic-White ZIP codes

Rationale:
Flood insurance is one of the best ways to protect against financial losses caused by flood events, as it enables people to recover more quickly and completely.[30]

Additional Findings:
Most homeowners and renters insurance policies do not cover flood damages. Flood insurance is available primarily from the federally-run National Flood Insurance Program (NFIP). Homes and businesses in high-risk flood areas with government-backed mortgages are required to have flood insurance. There were about 168,000 flood insurance policies in Houston in 2020. The percent of housing units with flood insurance policies in 27% in ZIP codes where the majority of the population is Non-Hispanic White. In ZIP codes where the majority of the population are people of color, less than 15% of housing units have flood insurance.

Data Source: FEMA NFIP Risk Rating 2.0 State Profiles
Data Years: 2020

Data Notes for Disaster Risks Topic:
- Given data availability, Highly Impacted Properties and Flood Insurance Policies were not able to be compared to the previous year.

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[30] Learn about the benefits of having flood insurance. (n.d.). Flood Factor. https://help.floodfactor.com/hc/en-us/articles/360048256113-Learn-about-the-benefits-of-having-flood-insurance

TOPIC: TEMPERATURE RESILIENCE

Topic Equity Score 2022: 66.0
Topic Equity Score 2021: 66.7
Topic Equity Score Change: -0.7

Extreme heat is one of the most important indicators of climate risk. Extreme heat often results in the highest annual number of deaths among all weather-related disasters,[31] and temperature extremes can exacerbate chronic cardiovascular, respiratory and diabetes-related conditions.[32] As climate change has become more severe, the number of extreme heat days—exceeding 100 degrees Fahrenheit—expected to increase dramatically in the years ahead.[33]

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[31] Be prepared for extreme heat. (2018). FEMA. https://www.ready.gov/sites/default/files/2021-01/ready_extreme-heat_info-sheet.pdf

[32] Heat and Health. (2018, June 1). World Health Organization. https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health

[33] Resilience Science Information Network. (2021, November 5). Houston Advanced Research Center (HARC). https://storymaps.arcgis.com/stories/2daea920408e41669ab70801a452aff0

TEMPERATURE-RELATED EMS TRANSPORTS: 30

EI Score 2022	30
EI Score 2021	32
EI Change Score	-2
High Group	Black
Low Group	Hispanic
High Group Results (2021)	22.5
Low Group Results (2021)	6.9
2021 Ratio	3.275
High Group Results (2022)	12.2
Low Group Results (2022)	3.5
2022 Ratio	3.524

Indicator Definition:
Ratio between the rates of EMS temperature-related health transports per 100,000 Black and Hispanic residents

Rationale:
Strong associations between extreme heat and health have been identified through increased mortality and hospitalizations, as well as increased emergency department visits and demand for emergency medical services (EMS).[34] Winter storms are also dangerous, as they increase the risk of hypothermia, frostbite, carbon monoxide poisoning, and heart attacks from overexertion.[35]

Additional Findings:
In 2019, 272 Houstonians were transported by an ambulance or medic to a hospital for temperature-related reasons. As COVID-19 forced outdoor spaces and events to close or be cancelled, this number decreased to 144 in 2020. Medical reasons for transport include not only heat exhaustion and heatstroke, but also cold weather medical emergencies such as hypothermia and frostbite. For every 100,000 Houstonians, there were 11.7 temperature-related EMS transports in 2019 and 6.2 in 2020. In 2019, Black Houstonians were transported at much higher rate than Hispanic Houstonians, 22.5 per 100,000 residents compared to 6.9. Both groups experienced declines in 2020 with the rate for Black residents decreasing to 12.2 and 3.5 for Hispanic residents. For White Houstonians, the rate of temperature related transports fell from 13.3 in 2019 to 7.5 in 2020. Even with the drop in the rate of transports due to COVID-19, the city's equity score still shows the uneven effect weather on population health. While the total number of transports dropped, the change in who was transported did not change significantly.
Data Source: HFD/EMS
Data Years: 2019, 2020

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[34] Calkins, M. M., Isaksen, T. B., Stubbs, B. A., Yost, M. G., & Fenske, R. A. (2016). Impacts of extreme heat on emergency medical service calls in King County, Washington, 2007–2012: Relative risk and time series analyses of basic and advanced life support. Environmental Health, 15(1), 13. https://doi.org/10.1186/s12940-016-0109-0
[35] Winter Weather. (2022, January 11). U.S. Department of Homeland Security: Ready.Gov. https://www.ready.gov/winter-weather

HEAT ISLANDS: 92

EI Score 2022	92
EI Score 2021	92
EI Change Score	N/A
High Group Low Group	Census Tracts with Majority People-of-Color Census Tracts with Majority Non-Hispanic White
High Group Results (2021)	10.4%
Low Group Results (2021)	10.0%
2021 Ratio	1.044
High Group Results (2022)	10.4%
Low Group Results (2022)	10.0%
2022 Ratio	1.044

Indicator Definition:

Ratio of between the percent of majority-people-of-color and majority-Non-Hispanic-White census tracts in the 90th percentile of afternoon temperature

Rationale:

Heat islands are urbanized areas that experience higher temperatures than outlying areas or areas that have better tree cover and other mitigating factors. Heat islands put greater pressure on energy demand, increase the detrimental effect of pollution, and can damage human health.[36]

Additional Findings:

In August 2020, the Houston Harris Action Team (H3AT) measured the temperature of 320 square miles in the Houston area. Data was collected for 222 census tracts that were at least 50% inside Houston boundaries. Of these tracts, 40 had a majority Non-Hispanic White population and 182 had a majority people-of-color population. The maximum afternoon temperature for these census tracts ranged from 94.0° to 100.4°. Census tracts with afternoon heat over 97.6° were in the 90th percentile. In census tracts where the majority of the population are Non-Hispanic White, 10.0% were in 90th percentile of afternoon heat. In census tracts where the majority of the population are people of color, 10.4% were in 90th percentile of afternoon heat. The equity score shows that the city's heat islands pose risks across a wide range of neighborhoods.

Data Source: H3at.org

Data Years: August 2020

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[36] Heat Island Impacts. (n.d.). EPA. https://www.epa.gov/heatislands/heat-island-impacts

TREE CANOPY: 76

EI Score 2022	76
EI Score 2021	76
EI Change Score	N/A
High Group	Census tracts with Majority Non-Hispanic White
Low Group	Census tracts with Majority People-of-Color
High Group Results (2021)	24.7%
Low Group Results (2021)	20.7%
2021 Ratio	1.195
High Group Results (2022)	24.7%
Low Group Results (2022)	20.7%
2022 Ratio	1.195

Indicator Definition:

Ratio between the percentage of tree canopy in majority-people-of-color and majority-Non-Hispanic-White census tracts

Rationale:

A tree canopy can be one of the most important natural mitigating factors against extreme heat and climate change. A tree canopy can cool an urban neighborhood and lessen the effects of environmental pollution.[37]

Additional Findings:

In Houston, the benefits of trees cannot be overstated. They reduce air pollution and stormwater runoff, minimize noise and light pollution, slow erosion, provide food and habitat for the wildlife in the community, and contribute to walkability.[38] Urban Tree Canopy (UTC) refers to the layer of tree leaves, branches, and stems that provide tree coverage of the ground when viewed from above.[39] In Houston, roughly 21% of the city has tree canopy. For areas of the city where the majority population is Non-Hispanic White, almost 25% has tree canopy. This compares to 20.7% in areas where the majority of residents are people of color.

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[37] How Urban Trees Can Save Lives. (2016, October 30). The Nature Conservancy. https://www.nature.org/en-us/what-we-do/our-insights/perspectives/how-urban-trees-can-save-lives/

[38] Knapp, G. (2020, May 22). Trees For Houston Makes Our City a Better Place to Live, Even During COVID-19. Houstonia Magazine. https://www.houstoniamag.com/travel-and-outdoors/2020/05/trees-for-houston-2020-planting

[39] Urban Natural Resources Stewardship, Urban Tree Canopy. (2019, August 9). USDA Forest Service. http://www.nature.com/articles/npre.2011.6368.1

Data Source: Houston-Galveston Area Council

Data Years: 2016

Data Notes for Temperature Resilience Topic:

- For Temperature-Related EMS Transports, the sample size only allowed for the analysis of Black, White and Hispanic residents.
- Reasons for Temperature-Related EMS Transports include heat exhaustion, heat stroke, hypothermia, or frostbite.
- Heat Island data was only available for about 50% of the census tracts within Houston.
- Given data availability, Heat Island and Tree Canopy were not able to be compared to the previous year.

THEME: HEALTH

THEME EQUITY SCORE 2022: 27.3
THEME EQUITY SCORE 2021: 30.4
THEME EQUITY SCORE CHANGE: -3.1

Good health is central not only to human happiness and well-being, but also to prosperity, wealth, and economic progress. Healthy populations are more productive, save more and live longer.[40] Health is determined in part by access to health care. Beyond that, conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. These factors are known as the social determinants of health (SDOH) and contribute to health inequities.[41]

There is no biological reason for health to be associated with race or ethnicity. Nevertheless, significant racial and ethnic inequities exist around health, as the indicators in this section reveal. While most scores were low, the equity score for the mental health indicator was particularly low. Reasons for these persistent disparities come from many sources. They are partly due to SDOH, such as pollution, lack of safe housing, violence, and racism. Disparities can also arise due to health care providers' attitudes and implicit biases. This can lead to disease stereotyping and biased treatment guidelines.[42]

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[40] Importance of Good Health in Our Life—How can We Achieve Good Health and Well Being? (2019, December 27). The Scientific World. https://www.scientificworldinfo.com/2019/12/importance-of-good-health-in-our-life.html
[41] Social Determinants of Health—Healthy People 2030 | health.gov. (n.d.). U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. https://health.gov/healthypeople/priority-areas/social-determinants-health
[42] Tong, M., & Artiga, S. (2021). Use of Race in Clinical Diagnosis and Decision Making: Overview and Implications. Kaiser Family Foundation. https://www.kff.org/racial-equity-and-health-policy/issue-brief/use-of-race-in-clinical-diagnosis-and-decision-making-overview-and-implications/

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Access to Health Care	28.7	Uninsured Adults	25
		Uninsured Children	25
		Preventable Hospitalizations	36
Child & Maternal Health	28.3	Infant Mortality	28
		Maternal Mortality	17
		Low Birth Weight	40
Health Outcomes	25.0	Mental Health Related EMS Transports	1
		Cancer Mortality	40
		Premature Death	34

ACCESS TO HEALTH CARE

Topic Equity Score 2022: 28.7
Topic Equity Score 2021: 31.7
Topic Equity Score Change: -3.0

According to the Houston Health Department Disparities Data Report, access to health care has three major components: having health insurance, utilizing health care, and overcoming barriers to access because of cost, transportation, language and cultural factors, or the quality of the clinical encounter.[43] As one of 12 states[44] that has not expanded Medicaid to cover low-income residents, Texas has had the highest percentage of residents without health insurance among all states in the U.S. each year for the last decade.[45] Large inequities exist among uninsured adults (those not eligible for Medicare), and for uninsured children, the equity score is going in the wrong direction. Preventable hospitalizations suggest a lack of timely care or high-quality preventative treatment. Reducing preventable hospitalizations is also critical for increasing quality of care and controlling costs.

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[43] Health Disparity and Health Inequity: 2019 Trends and Data Report, Houston/Harris County; Section 1: Root Causes Creating Health Inequities, Upstream Factors. (2019). City of Houston, Houston Health Department.
https://www.houstontx.gov/health/chs/documents/Health-Disparities-Data-Report-I-2019-Root-Causes.pdf
[44] Status of State Medicaid Expansion Decisions: Interactive Map. (2022, February 24). Kaiser Family Foundation.
https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/
[45] Explore Uninsured in Texas | 2021 Annual Report. (n.d.). America's Health Rankings.
https://www.americashealthrankings.org/explore/annual/measure/HealthInsurance/state/TX

UNINSURED ADULTS: 25

EI Score 2022	25
EI Score 2021	25
EI Change Score	0
High Group	Hispanic
Low Group	Non-Hispanic White
High Group Results (2021)	48.9%
Low Group Results (2021)	11.2%
2021 Ratio	**4.366**
High Group Results (2022)	51.0%
Low Group Results (2022)	11.9%
2022 Ratio	**4.280**

Indicator Definition
Ratio between the percentages of Hispanic and Non-Hispanic White adults aged 19-64 without health insurance

Rationale
Regular and reliable access to health services can prevent disease and disability, increase quality of life, and increase life expectancy.[46]

Additional Findings
One in three adult Houstonians do not have health insurance. In 2019, half of the adult Hispanic population in Houston did not have health insurance, by far the highest percentage among the different racial/ethnic groups. Black Houstonians had the second-highest percent of uninsured adults at 27%. White and Asian adult residents experienced much lower uninsured rates, at 12% and 16% respectively. Between 2018 and 2019, the uninsured rate for the city increased almost 2 percentage points, and increases were seen across all groups. This led to the equity score remaining stable while the overall situation did not improve.

Data Source
Census ACS (1-Year Estimates) from Social Explorer

Data Years
2018, 2019

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[46] Access to Health Services | Healthy People 2020. (n.d.). U.S. Department of Human and Health Services, Office of Disease Prevention and Health Promotion. https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Access-to-Health-Services

UNINSURED CHILDREN: 25

EI Score 2022	25
EI Score 2021	33
EI Change Score	-8
High Group	Hispanic
Low Group	Non-Hispanic White
High Group Results (2021)	19.1%
Low Group Results (2021)	6.2%
2021 Ratio	3.086
High Group Results (2022)	21.7%
Low Group Results (2022)	5.0%
2022 Ratio	4.313

Indicator Definition:
Ratio between the percentages of Hispanic and Non-Hispanic White children without health insurance

Rationale:
Evidence suggests that children with health insurance have much more stable medical care and are much more likely to use preventive care and not have unmet needs. This not only benefits the children but also reduces the overall cost of health care for children.[47]

Additional Findings:
While 83% percent of children in Houston have health insurance compared to just 67% of adults, Texas does have the highest rate of uninsured children in the nation, and racial disparities in coverage for children still exist. For instance, over 20% of Hispanic children do not have health insurance, while only 5% of White children are uninsured. The uninsured rate for Asian and Black children was 9%. Between 2018 and 2019, the uninsured rate increased for Hispanic children by almost 3 percentage points, while it decreased for White children by 1 percentage point. This increased the gap in health care coverage and caused the equity score to decrease by 13 points.

Data Source: Census ACS (1-Year Estimates) from Social Explorer

Data Years: 2018, 2019

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[47] Paradise, J. (2014). The Impact of the Children's Health Insurance Program (CHIP): What Does the Research Tell Us? Kaiser Family Foundation. https://www.kff.org/report-section/the-impact-of-the-childrens-health-insurance-program-chip-issue-brief/

PREVENTABLE HOSPITALIZATIONS: 36

EI Score 2022	36
EI Score 2021	37
EI Change Score	-1
High Group	Black
Low Group	Asian
High Group Results (2021)	7679
Low Group Results (2021)	3127
2021 Ratio	**2.456**
High Group Results (2022)	7371
Low Group Results (2022)	2830
2022 Ratio	**2.605**

Indicator Definition
Ratio between the rate of Black and Asian hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees

Rationale
Potentially preventable hospitalizations are inpatient stays for treating ambulatory care-sensitive conditions (ACSCs) that evidence suggests may be avoidable, in part, through timely and quality primary and preventive care.[48]

Additional Findings
Data show that the majority of preventable hospital stays occur in patients aged 65 and older. This indicator measures the number of hospital stays for ambulatory-care sensitive conditions (ACSCs) per 100,000 Medicare enrollees. Medical conditions such as asthma and diabetes are considered ACSCs. In Harris County, the rate of preventable hospitalizations was 4,701 per 100,000 Medicare enrollees in 2018, a decrease from the overall rate of 5,042 in 2017. Black residents have a much higher rate of potentially preventable hospitalization at 7,371 compared to 2,830 for Asian residents. Hispanic and White residents had rates of 4,782 and 3,998 respectively.

Data Source: County Health Rankings; Mapping Medicare Disparities Tool
Data Years: 2017, 2018

Data Notes for Access to Health Care Topic

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- Preventable Hospitalization is for Harris County, as data at the city-level was not available.

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[48] McDermott, K., & Jiang, J. (2020). Characteristics and Costs of Potentially Preventable Inpatient Stays, 2017 (Statistical Brief No. 259). U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb259-Potentially-Preventable-Hospitalizations-2017.jsp

TOPIC: CHILD & MATERNAL HEALTH TOPIC

Topic Equity Score 2022: 28.3
Topic Equity Score 2021: 29.3
Topic Equity Score Change: -1.0

Protecting and improving the health of children is of fundamental importance. Investing in children is one of the most important things a society can do to build a better future.[49] Indeed, the health of not only children but their mothers as well is considered a bellwether for the overall health and well-being not only of communities but of entire nations as well. Despite the progress made to reduce infant mortality in the past decades[50], the U.S. rate is still higher than that of other developed countries.[51]

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[49] Child health. (n.d.). World Health Organization. https://www.who.int/health-topics/child-health
[50] Ely, D., & Driscoll, A. (2021). Infant Mortality in the United States, 2019: Data From the Period Linked Birth/Infant Death File. National Center for Health Statistics (U.S.). https://doi.org/10.15620/cdc:111053
[51] Mortality rate, infant (per 1,000 live births) | Data. (n.d.). The World Bank. https://data.worldbank.org/indicator/SP.DYN.IMRT.IN

INFANT MORTALITY: 28

EI Score 2022	28
EI Score 2021	30
EI Change Score	-2
High Group	Black
Low Group	Asian
High Group Results (2021)	10.0
Low Group Results (2021)	2.9
2021 Ratio	3.518
High Group Results (2022)	10.5
Low Group Results (2022)	2.7
2022 Ratio	3.891

Indicator Definition

Ratio between the rate of Black and Asian infant deaths within 1 year of life per 1,000 live births

Rationale

The infant mortality rate (IMR) is often regarded as a barometer for overall well-being of a community or country. If infants, who are the most vulnerable of all populations, are dying unnecessarily, it reflects large gaps in the system of health and welfare for all people.[52]

Additional Findings

The loss of a baby is a devastating event for families and communities. Maternal health, prenatal and postnatal care, and access to health care are all known factors associated with infant mortality.[53] In Houston, the infant mortality rate was 6.0 per 1,000 live births in both 2016 and 2017. However, the rate was much higher for babies born to Black mothers, over 10.0 for both years. The infant mortality rate for babies born to Asian mothers was below 3. Babies born to Hispanic and White mothers had infant mortality rates below the city, at 4.8 and 4.4 respectively. The considerably higher infant mortality rate for babies born to Black mothers led to a low equity score for both years.

Data Source

Big Cities Health Coalition; National Vital Statistics System (NVSS), Centers for Disease Control and Prevention

Data Years

2016, 2017

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[52] Gonzalez, R. M., & Gilleskie, D. (2017). Infant Mortality Rate as a Measure of a Country's Health: A Robust Method to Improve Reliability and Comparability. Demography, 54(2), 701–720. https://doi.org/10.1007/s13524-017-0553-7

[53] Singh, G. K., & Yu, S. M. (1995). Infant mortality in the United States: Trends, differentials, and projections, 1950 through 2010. American Journal of Public Health, 85(7), 957–964. https://doi.org/10.2105/AJPH.85.7.957

MATERNAL MORTALITY: 17

EI Score 2022	17
EI Score 2021	17
EI Change Score	N/A
High Group	Black
Low Group	Hispanic
High Group Results (2021)	77.4
Low Group Results (2021)	13.2
2021 Ratio	**5.857**
High Group Results (2022)	77.4
Low Group Results (2022)	13.2
2022 Ratio	**5.857**

Indicator Definition
Ratio between the rate of Black and Hispanic maternal deaths during pregnancy or within 42 days after giving birth per 100,000 live births

Rationale
Like infant mortality, maternal mortality is compared internationally and used as an indicator of development and quality of health care. It is considered to be one of the main markers of the health of a nation and a bellwether for human rights.[54]

Additional Findings
While the vast majority of women in America give birth without incident, 861 mothers died in the United States in 2020, up from 754 in 2019 and 658 in 2018. The maternal mortality rate in the U.S. reached 23.5 in 2020.[55] The CDC and Texas Department of State Health Services has found that the vast majority of these deaths are preventable.[56] Between 2010 and 2019, the maternal mortality rate in Houston was 30.1 per 100,000 live births. However, the rate for Black mothers was 77.4, 2.5 times the city rate. The rates for Hispanic and White mothers was significantly lower at 13 and 23.

Data Source: Big Cities Health Coalition; National Vital Statistics System (NVSS), Centers for Disease Control and Prevention
Data Years: Annual Average for 2010-2019

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[54] Reducing US Maternal Mortality as a Human Right. (2011, November 1). American Public Health Association. https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/11/15/59/reducing-us-maternal-mortality-as-a-human-right
[55] Hoyert, D. (2022). Maternal Mortality Rates in the United States, 2020. National Center for Health Statistics (U.S.). https://doi.org/10.15620/cdc:113967
[56] Texas Maternal Mortality and Morbidity Review Committee and Department of State Health Services Joint Biennial Report. (2020). Texas Health and Human Services, Texas Department of States Health Services. https://www.dshs.texas.gov/mch/pdf/DSHS-MMMRC-2020-UPDATED-11282020.pdf

LOW BIRTH WEIGHT: 40

EI Score 2022	40
EI Score 2021	41
EI Change Score	-1
High Group	Black
Low Group	White
High Group Results (2021)	14.1%
Low Group Results (2021)	7%
2021 Ratio	**1.985**
High Group Results (2022)	14.6%
Low Group Results (2022)	6.9%
2022 Ratio	**2.104**

Indicator Definition:
Ratio between percent of Black and White babies born with low birth weight (less than 5 pounds, 8 ounces)

Rationale:
Low birth weight increases the risk of infant mortality and increases the risk of diseases or other conditions, such as lower respiratory tract infections, learning disorders, behavior problems, and complications of neonatal intensive care interventions.[57]

Additional Findings:
An average newborn usually weighs about 8 pounds. Babies born weighing less than 5 pounds, 8 ounces are described as having low birth weight.[58] Premature birth and fetal growth restrictions are the most common causes of low birth weight.[59] In Houston, 9.4% of babies are born with low birth weight. Babies born to Black mothers had the highest rate of low birth weight at 14.6%, while only 6.9% of babies born to White mothers had low birth weight. Babies born to Hispanic and Asian mothers were closer to the city rate, at 8.0% and 9.1% respectively.

Data Source: Big Cities Health Coalition; National Vital Statistics System (NVSS), Centers for Disease Control and Prevention
Data Years: 2018, 201
Data Notes for Child Health Topic
- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- Because of the small overall numbers, the annual average of 10 years of data was used for Maternal Mortality and no change score was calculated. Maternal Mortality data was not available for Asian mothers.

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[57] Committee to Study the Prevention of Low Birthweight; Division of Health Promotion and Disease Prevention; Institute of Medicine. Preventing Low Birthweight. Washington (DC): National Academies Press (US); 1985 Jan 1. 1, The Significance of Low Birthweight. Available from: https://www.ncbi.nlm.nih.gov/books/NBK214473/
[58] Low Birth Weight. (n.d.). University of Rochester Medical Center, Health Encyclopedia. https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=90&contentid=p02382
[59] Low Birthweight. (n.d.). March of Dimes. https://www.marchofdimes.org/complications/low-birthweight.aspx

TOPIC: HEALTH OUTCOMES TOPIC

Topic Equity Score 2022: 25.0
Topic Equity Score 2021: 30.3
Topic Equity Score Change: -5.3

Ultimately, health indicators are designed to measure improvement health "outcomes" – that is, how people's health improves as a result of interventions. The United States spends more money on health than any other country but has worse health outcomes than peer countries.[60] The equity indicator looks at health outcomes in three measures – mental health transports, incidence of cancer, and premature deaths. Of the three, the equity score for mental health transports is extremely low, while the equity score for cancer and premature death also show wide disparities in health outcomes.

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[60] Health Rankings. (n.d.). American Public Health Association. https://www.apha.org/topics-and-issues/health-rankings

MENTAL HEALTH RELATED EMS TRANSPORTS: 1

EI Score 2022	1
EI Score 2021	11
EI Change Score	-10
High Group	Black
Low Group	Asian
High Group Results (2021)	321.4
Low Group Results (2021)	43.2
2021 Ratio	**7.440**
High Group Results (2022)	318.0
Low Group Results (2022)	31.9
2022 Ratio	**9.969**

Indicator Definition:

Ratio between the rates of EMS mental health transports per 100,000 Black and Asian residents

Rationale:

Mental health is often overlooked as an important health indicator. But it is the foundation for emotions, thinking, communication, learning, resilience, and self-esteem. Left untreated, mental health issues can also affect physical health as well, as individuals have more difficulty identifying and coping with physical health. [61]

Additional Findings:

While mental illness can affect anyone, regardless of age, gender, income, or race/ethnicity, certain groups often suffer worse mental health outcomes than others. Factors that lead to this include a lack of access to high quality mental health care services, cultural stigma surrounding mental health care, discrimination, and overall lack of awareness about mental health.[62] In Houston, over 3,500 people were transported by an ambulance or medic to a hospital for mental health reasons in 2020. Black Houstonians were transported at much higher rate per 100,000 residents than Asian Houstonians, 318 compared to 31. White Houstonians received mental health transports at a rate of 174 and Hispanic Houstonians were lower at 98. This wide range of outcomes led to the lowest possible equity score.

Data Source: HFD/EMS

Data Years: 2019, 2020

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[61] Mental Illness. (2022, January). National Institute of Mental Health (NIMH). https://www.nimh.nih.gov/health/statistics/mental-illness

[62] Mental Health Disparities: Diverse Populations. (n.d.). American Psychiatric Association. https://psychiatry.org:443/psychiatrists/diversity/education/mental-health-facts

CANCER MORTALITY: 40

EI Score 2022	40
EI Score 2021	45
EI Change Score	-5
High Group	Black
Low Group	Asian/PI
High Group Results (2021)	179.7
Low Group Results (2021)	95.2
2021 Ratio	**1.888**
High Group Results (2022)	178.8
Low Group Results (2022)	84.7
2022 Ratio	**2.111**

Indicator Definition
Ratio of the age-adjusted cancer mortality rate per 100,000 Black and Asian residents

Rationale
Cancer is one of the most pervasive health conditions in the United States, and it is often, though not always, associated with community environmental conditions such as exposure to toxins. The Texas Department of Health Services has found an elevated rate of certain types of cancer in Houston.[63] There have been concerns about cancer clusters in Houston, especially in historically Black neighborhoods such as the Fifth Ward and Kashmere Gardens.[64]

Additional Findings
Cancer is the second-leading cause of death in the U.S. with over 600,000 deaths in 2020.[65] Cancer occurrence and outcomes vary considerably between racial and ethnic groups, largely because of longstanding inequalities in wealth that lead to differences in risk factor exposures and barriers to equitable cancer prevention, early detection, and treatment.[66] The age-adjusted cancer mortality rate for Harris County was 140.3 per 100,000 residents in 2018. Black and White Houstonians have high rate of cancer mortality, at 178.8 and 152.8 respectively. The Hispanic rate was 100.3 and the Asian rate was the lowest at 84.7.
Data Source: Texas Cancer Registry
Data Years: 2017, 2018

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[63] Assessment of the Occurrence of Cancer Houston, Texas (Investigation No. 20001). (2020). Texas Department of State Health Services. https://www.dshs.texas.gov/epitox/CancerClusters/Assessment-of-Occurrence-of-Cancers,-Houston,-Texas---2000-2016.pdf
[64] Fifth Ward/Kashmere Gardens Union Pacific Railroad Site Contamination and Area Cancer Cluster. (n.d.). Houston Health Department. https://www.houstontx.gov/health/Environmental/bcceh/fifth-ward-kashmere-gardens-union-pacific-railroad-site-contamination-area-cancer-cluster.html
[65] Ahmad, F. B., Cisewski, J. A., Miniño, A., & Anderson, R. N. (2021). Provisional Mortality Data—United States, 2020. MMWR. Morbidity and Mortality Weekly Report, 70(14), 519–522. https://doi.org/10.15585/mmwr.mm7014e1
[66] Siegel, R. L., Miller, K. D., Fuchs, H. E., & Jemal, A. (2022). Cancer statistics, 2022. CA: A Cancer Journal for Clinicians, 72(1), 7–33. https://doi.org/10.3322/caac.21708

PREMATURE DEATH: 34

EI Score 2022 EI Score 2021	34 35
EI Change Score	-1
High Group Low Group	Black Asian
High Group Results (2021) Low Group Results (2021)	13,774 5,002
2021 Ratio	**2.754**
High Group Results (2022) Low Group Results (2022)	13,603 4,519
2022 Ratio	**3.010**

Indicator Definition:

Ratio between the years of potential life lost before age 75 per 100,000 Black and Asian residents

Rationale:

Other than the death of an infant and its mother, perhaps no health outcome is so tragic as premature death. Social determinants such as poverty, low education and social isolation contribute to premature death[67] and there has been considerable documentation that lifespan is significantly different across neighborhoods in Houston.[68]

Additional Findings:

Premature death is a measure of the years of potential life lost due to death occurring before the age of 75. According to the CDC, the leading causes of premature death are accidents, cancer, heart disease, suicide, and homicide.[69] The years of potential life lost emphasizes deaths of younger persons, as the death of 35-year-old counts eight times as much as the death of a 70-year-old.[70] In Houston, for every 100,000 residents over 7,800 years of life were lost prematurely in 2019. The rate was over 13,600 for Black Houstonians. Asian residents had the lowest rate of years of life lost at 4,500. The rate for White and Hispanic residents were also much lower than the Black rate, at 7,200 and 5,800 respectively.

Data Source:

Big Cities Health Coalition; National Vital Statistics System (NVSS), Centers for Disease Control and Prevention

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[67] Galea, S., Tracy, M., Hoggatt, K. J., DiMaggio, C., & Karpati, A. (2011). Estimated Deaths Attributable to Social Factors in the United States. American Journal of Public Health, 101(8), 1456–1465. https://doi.org/10.2105/AJPH.2010.300086

[68] Abraha, R. (2019, October 22). The 21-Year Gap. Understanding Houston: Community Voices. https://www.understandinghouston.org/blog/the-21-year-gap

[69] Ten Leading Causes of Death and Injury. (2020, June 24). CDC. https://www.cdc.gov/injury/wisqars/LeadingCauses_images.html

[70] Premature death (YPLL). (n.d.). County Health Rankings & Roadmaps. https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model/health-outcomes/length-of-life/premature-death-ypll

Data Years: 2018, 2019

Data Notes for Health Outcomes Topic:

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White. For premature death, "Asian" included Pacific Islander.
- Reasons for mental health transports include anxiety, depression, manic episode, suicidal intentions, suicide attempt, or other mental disorder.
- The cancer incidence rate is for Harris County, as data at the city level was not available.

THEME: HOUSING

Theme Equity Score 2022: 41.3
Theme Equity Score 2021: 42.7
Theme Equity Score Change: -1.4

Few life circumstances are as important to individuals and families as stable housing. As the recent national crisis in homelessness has revealed, losing a place to call home can have a destabilizing effect on a family, initiating a cycle of financial and emotional turmoil, affecting their current and future prospects for residential stability.[71] Housing problems have ripple effects on health, education, economic mobility, child welfare, civil rights, criminal justice, and more. Affordable, stable, and quality housing options for all types of households and income levels can support better outcomes.[72]

In addition, although renting a home in a stable situation is important, home *ownership* provides families with a sense of emotional and financial stability and, historically, it has contributed to household wealth that can be used for education, retirement, or other activities that help upward mobility.[73]

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Home Ownership & Affordability	46.0	Homeownership	39
		Home Loan Denial	38
		Housing Cost Burden	61
Housing Quality	24.7	Overcrowded Housing	34
		Vacant Housing Units	39
		Low Value Stock	1
Housing Risks	53.3	Eviction Filings	36
		Residential Fire Incidents	37
		HFD Response Time	**87**

[71] Peiffer, E. (2018, July 25). Why We Need to Stop Evictions Before They Happen. Housing Matters: An Urban Institute Initiative. https://housingmatters.urban.org/feature/why-we-need-stop-evictions-they-happen
[72] About Us. (n.d.). Housing Matters. https://housingmatters.urban.org/about-us
[73] Why Homeownership Matters: The Triple Bottom Line. (2018, June 4). My Home by Freddie Mac. https://myhome.freddiemac.com/blog/homeownership/20180604-national-homeownership-month

TOPIC: HOME OWNERSHIP & AFFORDABILITY

Topic Equity Score 2022: 46.0
Topic Equity Score 2021: 46.7
Topic Equity Score Change: -0.7

Home ownership not only provides housing stability, it has also historically been a way for American families to build wealth. In 2017, the median household net worth of a homeowner in the U.S. was $269,100, compared to only $3,036 for a renter[74]. In fact, almost half of the homeowners' net worth came from the equity in their own home. Tragically, however, home-ownership rates—and hence household wealth—is highly unequal across racial and ethnic groups. The history of systemic racism that has led to this inequity has been well documented. But even for those shut out of home ownership, housing is far from affordable. Far too many people in Houston pay too much for housing even if they are renting.

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[74] Eggleston, J., Hays, D., Munk, R., & Sullivan, B. (2020). The Wealth of Households: 2017 (No. P70BR-170; Current Population Reports). U.S. Census Bureau. https://www.census.gov/content/dam/Census/library/publications/2020/demo/p70br-170.pdf

HOMEOWNERSHIP: 39

EI Score 2022	39
EI Score 2021	41
EI Change Score	-2
High Group	NH White
Low Group	Black
High Group Results (2021)	55.9%
Low Group Results (2021)	28.3%
2021 Ratio	1.975
High Group Results (2022)	56.0%
Low Group Results (2022)	25.4%
2022 Ratio	2.205

Indicator Definition
Ratio between the percentages of White and Black residents who are homeowners

Rationale
Home ownership is a vital source of both stability and family wealth. Families that do not own their own homes cannot control their living circumstances. They may be forced out of their homes by increasing rents, demolitions, or gentrification.[75]

Additional Findings
In 2019, 40% of Houstonians lived in a home they own, down 1.5 percentage points from 2018. White and Asian Houstonians are more likely to own their home than Hispanic or Black Houstonians. In 2019, 56% of White Houstonians owned their home, roughly the same rate as in 2018. However, only 25% of Black Houstonians were homeowners in 2019, down almost 3 percentage points from 2018. The fall in Black homeownership, caused the equity score to decrease from 41 in 2018 to 39 in 2019.

Data Source
Census ACS (1-Year Estimates) from Social Explorer

Data Years
2018, 2019

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[75] Schuetz, J. (2019, February 13). Renting the American Dream: Why homeownership shouldn't be a prerequisite for middle-class financial security. Brookings. https://www.brookings.edu/blog/up-front/2019/02/13/renting-the-american-dream-why-homeownership-shouldnt-be-a-pre-requisite-for-middle-class-financial-security/

HOME LOAN DENIAL: 38

EI Score 2022	38
EI Score 2021	38
EI Change Score	0
High Group	NH Black
Low Group	NH White
High Group Results (2021)	12.4%
Low Group Results (2021)	5.3%
2021 Ratio	**2.357**
High Group Results (2022)	12.3%
Low Group Results (2022)	5.3%
2022 Ratio	**2.335**

Indicator Definition
Ratio between the Black and White home loan denial rates

Rationale
For almost all households, home ownership is impossible without a mortgage. Therefore, those aspiring to home ownership are highly dependent on the decisions of banks and mortgage companies. Home loan denial is a key indicator as to whether equity is possible in home ownership.[76]

Additional Findings
Over 113,000 home loan applications originated in Houston in 2020. Of those, 8.1% were denied, up from 7.5% in 2019. Reasons for denial range from "debt-to-income ratio" and "incomplete credit application" to "credit history" and "collateral." Denial rates were higher for Black and Hispanic applicants, at 12.3% and 11.6% respectively. Asian applicants had a denial rate of 8.4% and White applicants had the lowest denial rate at 5.3%. There was little change in the denial rates for Black and White applicants, keeping the equity score at 38 for both years.

Data Source
Federal Financial Institutions Examination Council: HMDA

Data Years
2019, 2020

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[76] Choi, J. H., & Mattingly, P. J. (2022, January 13). What Different Denial Rates Can Tell Us About Racial Disparities in the Mortgage Market. Urban Institute. https://www.urban.org/urban-wire/what-different-denial-rates-can-tell-us-about-racial-disparities-mortgage-market

HOUSING COST BURDEN: 61

EI Score 2022	61
EI Score 2021	61
EI Change Score	N/A
High Group	Census Tracts with Majority POC
Low Group	Census Tracts with Majority NH White
High Group Results (2021)	39.3%
Low Group Results (2021)	26.5%
2021 Ratio	**1.484**
High Group Results (2022)	39.3%
Low Group Results (2022)	26.5%
2022 Ratio	**1.484**

Indicator Definition
Ratio between the percentages of households who spend more than 30% of their income on housing in majority-people-of-color census tracts and majority-Non-Hispanic-White census tracts

Rationale
The traditional definition of housing that is affordable is housing that consumes no more than 30% of a household's income.[77] Spending more than 30% means families face difficult choices in what to pay – rent, food, utilities, and other expenses.

Additional Findings
Over one in three Houstonians spends more than 30% of their income on housing. Renters are more likely to be housing cost-burdened (47%) compared to home owners (21%). In areas of town where the majority of the residents are Non-Hispanic White, just over one-fourth of the residents spend more than 30% of their income on housing. However, in areas where the majority of the residents are people of color, almost 40% were housing cost-burdened.

Data Source: Census ACS (5-Year Estimates) from Social Explorer   **Data Years:** 2019
Data Notes for Home Ownership & Affordability Topic

- For Home Ownership, races/ethnicities were defined as: Asian, Black, Hispanic, and Non-
- Hispanic White.
- For Home Loan Denial, races/ethnicities were defined as: Non-Hispanic Asian, Non-Hispanic Black, Non-Hispanic White, and Hispanic.
- For Home Loan Denial, only loans for home purchases with no commercial or business purposes were included in the analysis.
- For Housing Cost Burden, no change score is available because of sample year overlap in the Census 5-Year Estimates.

[77] The Golden Rule in Affordable Housing. (n.d.). Housing Opportunities Commission of Montgomery County.
https://www.hocmc.org/blog-articles/71-dwellings/351-the-golden-rule-in-affordable-housing-2.html

TOPIC: HOUSING QUALITY

Topic Equity Score 2022: 24.7
Topic Equity Score 2021: 24.3
Topic Equity Score Change: 0.4

Not all homes are alike. Some are high-quality and comfortable, while others are in poor condition and subject families to difficulty living day-to-day. Many are too small for families to comfortably live in given household size. Despite decades of effort to alleviate the problem, housing overcrowding is still a public health issue, as the pandemic reminded us. Measuring housing quality is not easy, but it is essential to understanding whether the housing available fits the needs of the families who live in those units—just as high-cost housing is a problem for some, low-value housing stock is a problem for others, especially after disasters like Hurricane Harvey.

OVERCROWDED HOUSING: 34

EI Score 2022	34
EI Score 2021	34
EI Change Score	N/A
High Group Low Group	Census Tracts with Majority POC Census Tracts with Majority NH White
High Group Results (2021)	2.3%
Low Group Results (2021)	0.8%
2021 Ratio	2.940
High Group Results (2022)	2.3%
Low Group Results (2022)	0.8%
2022 Ratio	2.940

Indicator Definition:
Ratio between the percent of severely overcrowded housing units in majority-people-of-color census tracts and majority-Non-Hispanic-White census tracts

Rationale:
Overcrowded housing is widely regarded as undesirable, and it is often associated with poor health outcomes. For example, during the COVID-19 pandemic, close proximity to others increased the likelihood of infection. In addition, overcrowding can have a negative impact on a child's growth and development.[78]

Additional Findings:
Homes with more than 1.5 occupants per room are considered severely overcrowded. In Houston almost 2% of housing units fit this description. While this is a small share, it represents over 15,000 housing units. Renters have higher rates of overcrowding than homeowners, 2.9% compared to 0.7%. Areas of town with a majority-White population have less than 1% of severely overcrowded housing units. Conversely, the rate of overcrowding in areas with a majority-people-of-color population was 2.3%, almost 3 times the rate of White areas.
Data Source: Census ACS (5-Year Estimates) from Social Explorer

Data Years: 2019

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[78] Measuring Overcrowding in Housing. (2007). U.S. Department of Housing and Urban Development, Office of Policy Development & Research. https://www.census.gov/content/dam/Census/programs-surveys/ahs/publications/Measuring_Overcrowding_in_Hsg.pdf

VACANT HOUSING UNITS: 39

EI Score 2022	39
EI Score 2021	38
EI Change Score	1
High Group	Census Tracts with Majority POC
Low Group	Census Tracts with Majority NH White
High Group Results (2021)	2.4%
Low Group Results (2021)	1.0%
2021 Ratio	2.349
High Group Results (2022)	2.2%
Low Group Results (2022)	1.0%
2022 Ratio	2.260

Indicator Definition
Ratio between the percent of housing units vacant for longer than 12 months in majority-people-of-color census tracts and majority-Non-Hispanic-White census tracts

Rationale
Housing vacancy – especially long-term vacancy – can have a negative effect on neighborhoods and the people who live in them. They reduce property values and often lead to a vicious cycle of decline in neighborhoods that are already struggling.[79]

Additional Findings
In 2020, 1.9% of Houston housing units were vacant for over a year. This was a slight improvement from 2019 when 2.0% of housing units were vacated for longer than 12 months. Of these long-term vacant housing units, two-thirds were vacant for 3 or more years. The vacant housing rate was higher in census tracts where people of color are the majority population (2.2%) than census tracts where the majority is White (1.0%). Moreover, in White-majority areas, only 45% of long-term vacant housing had been vacant for 3 or more years, compared to 71% in majority-people-of-color areas.

Data Source
HUD USPS Vacancy Data

Data Years
2019, 2020

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[79] Accordino, J., & Johnson, G. T. (2000). Addressing the Vacant and Abandoned Property Problem. Journal of Urban Affairs, 22(3), 301–315. https://doi.org/10.1111/0735-2166.00058

LOW VALUE STOCK: 1

EI Score 2022	1
EI Score 2021	1
EI Change Score	N/A
High Group	ZIP Codes with Majority POC
Low Group	ZIP Codes with Majority NH White
High Group Results (2021)	30.5%
Low Group Results (2021)	2.8%
2021 Ratio	11.003
High Group Results (2022)	30.5%
Low Group Results (2022)	2.8%
2022 Ratio	11.003

Indicator Definition
Ratio between the percent of occupied housing units valued below $100,000 in majority-Non-Hispanic-White and majority-people-of-color ZIP codes

Rationale
Much attention recently has been paid to housing that is too expensive for most people, but housing of extremely low value is also a problem. Those who own houses with low values may, for example, face challenges obtaining resources to rebuild or repair after a disaster. As a result, low-value homes might further decrease in value, to the detriment of both the household and the neighborhood.[80]

Additional Findings
Almost one in four owner occupied housing units in Houston is valued below $100,000. The vast majority of these properties are located in areas where people of color are the majority of the population. Less than 3% of owner-occupied housing units in majority-White ZIP codes are valued below $100,000. The equity score of 1 reflects the large disparity in the location of low-value housing stock.

Data Source
Census ACS (5-Year Estimates)

Data Year
2019
Data Notes for Housing Quality Topic

- For Overcrowded Housing and Low Value Stock, no change score is available because of sample overlap in the Census 5-Year Estimates.

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[80] Peacock, W. G., Van Zandt, S., Zhang, Y., & Highfield, W. E. (2014). Inequities in Long-Term Housing Recovery After Disasters. Journal of the American Planning Association, 80(4), 356–371. https://doi.org/10.1080/01944363.2014.980440

TOPIC: HOUSING RISKS

Topic Equity Score 2022: 53.3
Topic Equity Score 2021: 57.0
Topic Equity Score Change: -3.7

For housing to be a positive factor in the lives of families and households, it must be *stable*—that is, either relatively risk-free or else able to bounce back quickly if risk is high. Otherwise, the stability of the family is threatened. Risks take several forms—for example, economic (in the form of evictions) and disaster-related (as in the case of fires). Houston has among the worst eviction rates in the United States—an unfortunate indicator of widespread housing instability. And while fire response times are equitable, unfortunately the incidence of residential fires is not.

EVICTION FILINGS: 36

EI Score 2022	36
EI Score 2021	40
EI Change Score	-4
High Group	ZIP Codes with Majority POC
Low Group	ZIP Codes with Majority NH White
High Group Results (2021)	7.6%
Low Group Results (2021)	3.6%
2021 Ratio	2.091
High Group Results (2022)	10.5%
Low Group Results (2022)	3.9%
2022 Ratio	2.730

Indicator Definition

Ratio between the eviction filings rate in majority-people-of-color ZIP codes and majority-Non-Hispanic-White ZIP codes.

Rationale

There is no greater threat of disruption, especially to a household of modest means, than the threat of eviction. Eviction is disruptive to families, harms the ability of householders to maintain stable jobs, and negatively affects the educational performance of children.[81]

Additional Findings

There were over 43,000 eviction filings in Houston in 2019.[82] The eviction filing rate was 9.4%, meaning almost 1 in 10 renters in Houston faced eviction in 2019. In ZIP codes where the majority of the population is Non-Hispanic White, the eviction filing rate was less than 4%. In ZIP codes where the majority of the population is people of color, the rate was 10.5%. While eviction filings increased across the city from 2018 to 2019, the increase was sharper in majority-people-of-color ZIP codes. This caused the equity score to fall 4 points, from 40 to 36.

Data Source: Harris County Clerk and Fort Bend County Clerk by January Advisors; Census ACS (5-Year Estimates)

Data Years: 2018, 2019

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[81] Edmonds, L., Hepbrun, P., Jin, O., & Desmond, M. (n.d.). Eviction Prevalence and Spatial Variation Within the Houston Independent School District. Rice University, Houston Education Research Consortium (HERC). https://herc.rice.edu/research/eviction-prevalence-and-spatial-variation-within-houston-independent-school-district

[82] This only counts evictions filed in Harris and Fort Bend Counties. See the data notes for this topic.

RESIDENTIAL FIRE INCIDENTS: 37

Equity Score 2022 Equity Score 2021	37 48
Equity Change Score	-11
High Group Low Group	ZIP Codes with Majority POC ZIP Codes with Majority NH White
High Group Results (2021) Low Group Results (2021)	6.4 3.6
2021 Ratio	1.801
High Group Results (2022) Low Group Results (2022)	5.9 2.3
2022 Ratio	2.515

Indicator Definition:

Ratio between the rates of residential fires per 10,000 residential units in majority-Non-Hispanic-White and majority-people-of-color ZIP codes

Rationale:

Poor housing conditions can have greater fire risk that put lives in danger.[83]

Additional Findings:

In 2019, there were 729 residential fires in Houston, and 88% of those fires occurred in ZIP codes where people of color are the majority of the population. The rate of residential fires in those ZIP codes was 6.4, compared with 3.6 in ZIP codes where the majority of residents were Non-Hispanic White. In 2020, there were 652 residential fires, of which 90% occurred in areas of town that are populated with majorities of people of color. While the total number of residential fires decreased, the disparities in the rate of residential fires led to a decrease in the equity score.

Data Source: HFD

Data Years: 2019, 2020

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[83] Fahy, R., & Maheshwari, R. (2021). Poverty and the Risk of Fire. National Fire Protection Association (NFPA). https://www.nfpa.org/~/media/Files/News%20and%20Research/Fire%20statistics%20and%20reports/US%20Fire%20Problem/ospoverty.pdf

FIRE RESPONSE TIMES: 87

Equity Score 2022	87
Equity Score 2021	83
Equity Change Score	4
High Group	ZIP Codes with Majority NH White
Low Group	ZIP Codes with Majority POC
High Group Results (2021)	07:15
Low Group Results (2021)	06:40
2021 Ratio	1.088
High Group Results (2022)	06:53
Low Group Results (2022)	06:26
2022 Ratio	1.070

Indicator Definition:
Ratio between the response times for fires in majority-Non-Hispanic-White and majority-people-of-color ZIP codes

Rationale:
Faster response times to fire emergencies are linked with smaller consequences for people and property.[84]

Additional Findings:
Across Houston, 3,261 fire incidents occurred in 2019, and the average response time by the HFD was 6 minutes and 45 seconds. In 2020, there were 3,536 fire incidents, and the average response time was 6 minutes and 29 seconds. Response times were slightly faster in ZIP codes where the majority of the residents were people of color compared the ZIP codes where the majority of residents were Non-Hispanic White. The difference between the response times in the two majority group areas was less than 30 seconds in 2020. This small difference is reflected in the high equity score for this indicator.

Data Source: HFD

Data Years: 2019, 2020
Data Notes for Housing Risks Topic:

- For Eviction Filings, only data for City of Houston ZIP codes inside Harris and Fort Bend counties were included in this analysis. The ACS 2019 5-Year Estimates were used as the source for the number of renter households in both years for this indicator.

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[84] Scheller, D. S., & Reglen, D. (2021). Improving fire department turnout times: Training versus sanctions in a high public service motivation environment. International Public Management Journal, 24(6), 973–996. https://doi.org/10.1080/10967494.2019.1635236

THEME: INFRASTRUCTURE

Theme Equity Score 2022: 77.8
Theme Equity Score 2021: 82.1
Theme Equity Score Change: -4.3

Public infrastructure includes any structure that facilitates human activity: roads, water and sewer systems, public buildings such as libraries, flood control projects that are both "hard" (structures) and "soft" (natural and non-structural). Public infrastructure investments can generate enormous community benefits—jobs, business opportunities, access to public transportation, and quality affordable housing. [85]

Cities in the United States have a long history of inequitable distribution and maintenance of public infrastructure. Many people of color—especially in the South—simply did not receive their fair share of public infrastructure. Nevertheless, the equity score on infrastructure for Houston is quite good compared to other scores. Traffic deaths in particular have been going in the wrong direction, especially given the city's commitment to a "Vision Zero" reduction in pedestrian deaths.

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Transportation	85.3	Access to a Vehicle	83
		Public Transportation Access	95
		Commute Time	78
Connectivity & Mobility	63.0	Street Quality	70
		Sidewalk Availability	67
		Traffic Fatalities	52
Green & Resilient Infrastructure	85.0	Drainage System Adequacy	98
		Green Stormwater Infrastructure	80
		LEED Certified Buildings	77

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[85] Infrastructure Equity. (n.d.). PolicyLink. https://www.policylink.org/our-work/community/infrastructure

TOPIC: TRANSPORTATION

Topic Equity Score 2022: 85.3
Topic Equity Score 2021: 87.7
Topic Equity Score Change: -2.4

Few aspects of daily life are as important as transportation. Roadways and transit systems help ensure that people can reach everyday destinations, such as jobs, schools, healthy food outlets and health care facilities, safely and reliably.[86] People without access to an adequate transportation system simply do not have the same opportunities in life as other people.

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[86] Public Transportation System: Introduction or Expansion. (n.d.). CDC, Office of the Associate Director for Policy and Strategy. https://www.cdc.gov/policy/hst/hi5/publictransportation/index.html

ACCESS TO A VEHICLE: 83

EI Score 2022	83
EI Score 2021	86
EI Change Score	-3
High Group	Non-Hispanic White
Low Group	Hispanic
High Group Results (2021)	81.4%
Low Group Results (2021)	75.8%
2021 Ratio	1.074
High Group Results (2022)	82.9%
Low Group Results (2022)	76.1%
2022 Ratio	1.089

Indicator Definition:

Ratio of percentages of Whites and Hispanic workers who commute by driving alone

Rationale:

Given the auto-oriented nature of Houston, in most cases it is necessary to have access to a vehicle in order to have access to jobs, health care, shopping, and other opportunities. Lack of a vehicle is especially damaging to economic opportunities, because so many jobs in the city are accessible only by car.[87]

Additional Findings:

In Houston, 78% of workers drove to work alone in a vehicle in 2019. White Houstonians were more likely to commute alone with almost 83% doing so in 2019, an increase of 1.5 percentage points from 2018. In both 2018 and 2019, 76% of Hispanic workers drove to work alone. The percentage of Black workers who commuted alone was 79% in 2018 and 78% in 2019. The share of Asian workers commuted alone in 2018 was 78% and decreased to 73% in 2019. Because Hispanic workers commuted alone at the lowest rate in the base year, the equity score for both years is based on their data.

Data Source: Census ACS (1-Year Estimates) from Social Explorer

Data Years: 2018, 2019

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[87] Job Accessibility for Households Without Vehicles. (n.d.). U.S. Department of Housing and Urban Development's (HUD's) Office of Policy Development and Research (PD&R). https://www.huduser.gov/portal/pdredge/pdr_edge_research_011312.html

PUBLIC TRANSPORTATION ACCESS: 95

EI Score 2022 EI Score 2021	95 99
EI Change Score	-4
High Group Low Group	Census Tracts with Majority Non-Hispanic White Census Tracts with Majority People-of-Color
High Group Results (2021) Low Group Results (2021)	49.6% 49.2%
2021 Ratio	1.008
High Group Results (2022) Low Group Results (2022)	50.4% 49.1%
2022 Ratio	1.027

Indicator Definition:

Ratio of the percentage of residents who live within half a mile of high-frequency transit by majority-People-of-Color and majority-Non-Hispanic-White census tracts

Rationale:

For most people, public transportation is the only alternative to having access to a vehicle, making it a vital link to opportunity. This became especially clear during the pandemic. Public transit ridership overall declined sharply—but those who rode public transit were low-wage essential workers who kept the economy going.[88]

Additional Findings:

Almost half of all Houstonians live within half a mile of a high-frequency transit stop. There was only a small difference in access for areas of town where the majority of the population is White compared to where the majority population is people-of-color. For example, in 2019, 50.4% of census tracts with majority-White population lived within half a mile versus 49.1% of tracts with majority people-of-color. This small difference translates to very high equity score, though it did fall slightly from the previous year.

Data Source: Metropolitan Transit Authority of Harris County (METRO)

Data Years: 2018, 2019

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[88] COVID and Public Transit in the Houston Region. (2021). Air Alliance Houston, LINK Houston, and Texas Southern University Bullard Center for Environmental and Climate Justice. https://airalliancehouston.org/wp-content/uploads/2021/10/AAH-Public-Transit-Covid-Report-final.pdf

COMMUTE TIME: 78

EI Score 2022 EI Score 2021	78 78
EI Change Score	N/A
High Group Low Group	Census Tracts with Majority People-of-Color Census Tracts with Majority Non-Hispanic White
High Group Results (2021) Low Group Results (2021)	28.33 24.60
2021 Ratio	**1.152**
High Group Results (2022) Low Group Results (2022)	28.33 24.60
2022 Ratio	**1.152**

Indicator Definition:
Ratio between the average time spent commuting one way to work (in minutes) by majority-people-of-color census tracts and majority-Non-Hispanic-White census tracts

Rationale:
Commuting can have a devastating effect on an individual's health and mental well-being. Long-distance commuters spend more time sitting, suffer from more psychosomatic disorders, and are unable to participate in home and community life in a healthy way.[89]

Additional Findings:
On average, Houstonians spent 27.5 minutes commuting to work each way in 2019. The commute time was slightly higher, at 28.3 minutes, for residents in census tracts where the majority of the population are people of color. That was almost 4 minutes longer than the commute for residents in majority-White census tracts, where the average commute time was 24.6 minutes.

Data Source: Census ACS (5-Year Estimates) from Social Explorer
Data Years: 2019

Data Notes for Transportation Topic:

- Races/ethnicities were defined as: Asian, Black, Hispanic, and Non-Hispanic White.
- For Public Transportation Access, data is only for Harris County. High-frequency transit was defined as bus stops with services every 15 minutes, METRORail stops, and METRORapid (bus-rapid transit) Uptown stops.
- For Commute Time, no change score is available because of sample year overlap in the Census 5-Year Estimates.

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[89] Schaefer, A. (2005, October 1). Commuting Takes Its Toll Workers are traveling ever longer to attain the job or home life they want, but the. Scientific American. https://www.scientificamerican.com/article/commuting-takes-its-toll/

TOPIC: CONNECTIVITY & MOBILITY

Topic Equity Score 2022: 63.0
Topic Equity Score 2021: 75.7
Topic Equity Score Change: -12.7

Because transportation is vital to everyday life, connectivity and mobility are vital components in helping people access economic opportunity, health care, and other necessities. If streets and sidewalks are not of good quality—or, in some cases, even unavailable—people may face obstacles to meeting vital everyday needs. Poor connectivity and mobility can also lead to environmental damage, causing more automobile pollution and more vehicle miles traveled.

STREET QUALITY: 70

EI Score 2022	70
EI Score 2021	70
EI Change Score	N/A
High Group	ZIP Codes with Majority People-of-Color
Low Group	ZIP Codes with Majority Non-Hispanic White
High Group Results (2021)	15.7%
Low Group Results (2021)	12.0%
2021 Ratio	**1.311**
High Group Results (2022)	15.7%
Low Group Results (2022)	12.0%
2022 Ratio	**1.311**

Indicator Definition:
Ratio between the percentage of city road miles rated poor or very poor in majority-people-of-color and majority-Non-Hispanic-White census tracts

Rationale:
Road maintenance is perhaps the single most important indicator of a good transportation system. Virtually everyone uses roads, whether they are drivers, automobile passengers, or public transit users. Road quality is also vital for the movement of goods—an increasingly important concern in urban locations as more people shop online.[90]

Additional Findings:
Houston Public Works ranks road pavement quality in the city on a 5-point scale, from good to very poor. Almost 15% of city roads in Houston were rated poor or very poor using this system. In areas of town where the majority population is White, only 12% of road receive a rating below fair. However, almost 16% of roads in areas where the majority population are people of color were rated either poor or very poor.

Data Source: City of Houston, Houston Public Works
Data Years: Pavement quality for city roadways was measured between 2015 and 2020.

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[90] 2021 Infrastructure Report Card: Roads. (n.d.). American Society of Civil Engineers. https://infrastructurereportcard.org/cat-item/roads/

SIDEWALK AVAILABILITY: 67

EI Score 2022	67
EI Score 2021	67
EI Change Score	N/A
High Group	ZIP Codes with Majority People-of-Color
Low Group	ZIP Codes with Majority Non-Hispanic White
High Group Results (2021)	0.65
Low Group Results (2021)	0.47
2021 Ratio	1.367
High Group Results (2022)	0.65
Low Group Results (2022)	0.47
2022 Ratio	1.367

Indicator Definition:
Ratio between the miles of sidewalk compared to miles of roadway in majority-Non-Hispanic-White and majority-people-of-color census tracts

Rationale:
Every person begins and ends every trip as a pedestrian. For all people, walking is correlated with both improved physical and emotional health. For persons who cannot drive or don't have access to a car, walking is an essential component of daily transportation—for example, walking to a train or bus stop. Walking behavior is often heavily influenced by environmental conditions.[91]

Additional Findings:
Ideally, every road would have a sidewalk on both sides. In this ideal situation, the sidewalk-to-road ratio would be 2. However, for Houston, the sidewalk to road ratio is slightly over 0.5. The ratio is lower for areas where the majority of residents are people of color, at just 0.47. In areas of town with a majority-White population, the ratio was higher at 0.65. While the equity score is on the higher side, this is an area where all residents would need more sidewalk availability to reach the ideal sidewalk-to-road ratio.

Data Source: Kinder Institute for Urban Research and LINK Houston analysis of Houston-Galveston Area Council: 2019 Sidewalk Miles and U.S. Census Bureau: 2019 TIGER/Line Road Centerline Miles

Data Years: 2019

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[91] Suarez-Balcazar, Y., Early, A. R., Garcia, C., Balcazar, D., Arias, D. L., & Morales, M. (2020). Walkability Safety and Walkability Participation: A Health Concern. Health Education & Behavior, 47(3), 430–438. https://doi.org/10.1177/1090198120903256

TRAFFIC FATALITIES: 52

EI Score 2022	52
EI Score 2021	90
EI Change Score	-38
High Group	ZIP Codes with Majority People-of-Color
Low Group	ZIP Codes with Majority Non-Hispanic White
High Group Results (2021)	9.78
Low Group Results (2021)	9.27
2021 Ratio	**1.0542**
High Group Results (2022)	12.05
Low Group Results (2022)	7.05
2022 Ratio	**1.7091**

Indicator Definition:
Ratio between traffic fatality rates per 100,000 residents in ZIP codes with majority-people-of-color and majority-Non-Hispanic-White

Rationale:
Transportation safety is a high priority not only for individuals but also for society. Collisions result not only in injury or death but are highly disruptive, often leading to traffic congestion that inconveniences motorists and interferes with the movement of goods.[92]

Additional Findings:
In 2019, the traffic fatality rate for Houston was 9.69 per 100,000 residents. In 2020 the rate increased to 11.11. This increase was not felt in all areas of town. In parts of Houston where the majority of residents are White, the traffic fatality rate fell from 9.27 in 2019 to 7.05 in 2020. The opposite was true in areas where the majority of residents are people of color. The traffic fatality rate rose from 9.78 to 12.05 over the same period. This large change led the equity score to fall 38 points.
Data Source: Kinder Institute For Urban Research-Urban Data Platform Team; Texas Department Of Transportation
Data Years: 2019, 2020

Data Notes for Connectivity & Mobility Topic:

- For sidewalk availability, data was only available for 2019 and for census tracts inside Harris County.

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[92] Shahum, L. (2022, February 3). Vision Zero Network. Zero Matters: National Goal of Zero Roadway Fatalities. https://visionzeronetwork.org/zero-matters-national-goal-of-zero-roadway-fatalities/

TOPIC: GREEN & RESILIENCY INFRASTRUCTURE

Topic Equity Score 2022: 85.0
Topic Equity Score 2021: 83.0
Topic Equity Score Change: 2.0

Traditional "hard" (structural) infrastructure solutions have not always performed as advertised. For example, traditional flood control devices sometimes create unexpected flooding problems themselves because they cannot always handle large volumes of water. In flood control and other infrastructure, the City of Houston has made a significant commitment in recent years to alternatives, especially "green" approaches that use naturalistic elements and approaches that increase the region's resiliency—the ability to bounce back quickly after a disaster. Climate-resilient infrastructure reduces, but may not fully eliminate, the risk of climate-related disruptions.[93]

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[93] Climate-resilient Infrastructure (Policy Perspective OECD Environment Policy Paper No. 12). (2018). Organisation for Economic Co-operation and Development (OECD). https://www.oecd.org/environment/cc/policy-perspectives-climate-resilient-infrastructure.pdf

DRAINAGE SYSTEM ADEQUACY: 98

EI Score 2022	98
EI Score 2021	98
EI Change Score	N/A
High Group	Census Tracts with Majority People-of-Color
Low Group	Census Tracts with Majority NH White
High Group Results (2021)	56.8%
Low Group Results (2021)	56.3%
2021 Ratio	1.010
High Group Results (2022)	56.8%
Low Group Results (2022)	56.3%
2022 Ratio	1.010

Indicator Definition:

Ratio between the percentage of the city's stormwater drainage system that is rated adequate to meet the level of service for a 2-year and/or 100-year storm event in majority-people-of-color census tracts and majority-Non-Hispanic-White census tracts

Rationale:

In a flood-prone region such as Houston, the adequacy of drainage systems is of paramount importance. Many Houston neighborhoods are saddled with outdated drainage systems that limit the community's ability to absorb major rain events. By contrast, an adequate drainage system helps a community manage fallout from all but the most extreme storms.[94]

Additional Findings:

Houston Public Works rates the city's stormwater systems for underground pipe and open ditch as adequate if it meets the level of service for a 2-year rainfall event. There are almost 19,000 miles of drainage systems in Houston, and 56.7% is rated adequate. For census tracts where a majority population are people of color, 56.8% of the drainage system was rated adequate. Similar adequacy rates were found in areas where the majority are Non-Hispanic White (56.3%). While the score reflects very high equity, it is important to note that for the city overall, 39.3% of drainage was rated inadequate.

Data Source: City of Houston, Houston Public Works

Data Years: 2016

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[94] 2021 Infrastructure Report Card: Stormwater. (n.d.). American Society of Civil Engineers. https://infrastructurereportcard.org/cat-item/stormwater/

GREEN STORMWATER INFRASTRUCTURE: 80

EI Score 2022	80
EI Score 2021	74
EI Change Score	6
High Group	ZIP Codes with Majority Non-Hispanic White
Low Group	ZIP Codes with Majority People-of-Color
High Group Results (2021)	33.3%
Low Group Results (2021)	27.3%
2021 Ratio	1.222
High Group Results (2022)	44.4%
Low Group Results (2022)	40.0%
2022 Ratio	1.111

Indicator Definition:

Ratio between the percentage of majority-Non-Hispanic-White ZIP codes and majority-people-of-color ZIP codes with new green stormwater infrastructure projects

Rationale:

Green infrastructure reduces and treats stormwater at its source, thus reducing the risk of downstream flooding, while delivering other environmental, social, and economic benefits.[95]

Additional Findings:

Developing 100 new green stormwater infrastructure projects is one of Resilient Houston's 18 targets. In 2020, 30 green stormwater projects were completed in Houston and 40 more were completed in 2021. In 2020, six out of 18 ZIP codes (or 33%) where the majority population is Non-Hispanic White had at least one green stormwater project completed. In 2021, that number increased to eight (or 44%). For the 55 ZIP codes where the majority population is people-of-color, 15 (or 27%) had at least one green stormwater project complete in 2020 and 22 (40%) did in 2021. While the equity score is high and increasing, the impact of these projects may be felt beyond the ZIP code in which they are located and affect more than just the population in the immediate vicinity.

Data Source: City of Houston, Office of Resilience & Sustainability

Data Years: 2020, 2021

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[95] Benefits of Green Infrastructure. (n.d.). EPA. https://www.epa.gov/green-infrastructure/benefits-green-infrastructure

LEED CERTIFIED BUILDINGS: 77

EI Score 2022	77
EI Score 2021	77
EI Change Score	N/A
High Group	ZIP Codes with Majority Non-Hispanic White
Low Group	ZIP Codes with Majority People-of-Color
High Group Results (2021)	72.2%
Low Group Results (2021)	61.8%
2021 Ratio	**1.1683**
High Group Results (2022)	72.2%
Low Group Results (2022)	61.8%
2022 Ratio	**1.1683**

Indicator Definition:
Ratio between the percentage of majority-Non-Hispanic-White ZIP codes and majority-People-of-Color ZIP codes with LEED-certified buildings built in the last 5 years

Rationale:
LEED buildings contribute 50% fewer GHGs than conventionally constructed buildings because of reduced water consumption, 48% fewer GHGs from solid waste and 5% fewer GHGs from transportation.[96]

Additional Findings:
Between 2017 and 2021 approximately[97] 184 buildings were LEED-certified in Houston. Of these LEED-certified buildings, 116 were built in ZIP codes where the majority population are people of color, while 68 were built in ZIP codes with majority-White residents. While fewer LEED-certified buildings built in the past 5 years were in areas where the majority of residents are White, 72% of majority-White ZIP codes had at least one building LEED certified during that time, compared to 62% of majority people-of-color ZIP codes.

Data Source: U.S. Green Building Council **Data Years:** pooled 2017-2021

Data Notes for Green & Resiliency Infrastructure Topic:
- For drainage system adequacy, a 2-year rainfall event is defined as a rainfall intensity having a 50 percent probability of occurrence in any given year, occurring on average every 2 years over a long period of time.[98]
- In Houston, 217 buildings were LEED-certified between 2017 and 2021. However, 33 were in ZIP codes that had less than 50% of their landmass inside the City of Houston. Due to this, these buildings were exclude from the equity analysis.
- For drainage system adequacy and LEED-certified buildings, data limitations did not allow for the calculations of a change score.

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96 Why LEED. (n.d.). U.S. Green Building Council. https://www.usgbc.org/leed/why-leed
97 See data notes for Green & Resiliency Infrastructure.
98 Haddock, C., & Kanwar, S. (2021). 2021 Infrastructure Design Manual. City of Houston, Houston Public Works. https://www.houstonpermittingcenter.org/resources?keys=design+manual

THEME: PUBLIC SAFETY

Theme Equity Score 2022: 24.0
Theme Equity Score 2021: 22.8
Theme Equity Score Change: 1.2

Concern about equity in public safety has been mounting ever since the murder of George Floyd, who was reared in Houston, by a Minneapolis police officer in 2020. Public safety includes all police and law enforcement activities, as well as firefighting and emergency medical services. At about $1.5 billion per year, public safety constitutes more than half of the City of Houston's general fund budget.

Concern about public safety has revolved around the treatment of different racial and ethnic groups. Public safety indicators reflect this broad concern, ranging from arrests to structure fires to response times. Overall, public safety equity scores were low with slight improvement over last year, but scores for individual indicators vary widely.

Topic	Topic Equity Score	Equity Indicator	Equity Indicator Score
Victimization	32.3	Domestic Violence Calls for Service	34
		Robbery Victimization Rates	47
		Homicide Victimization Rates	16
Arrests	6.7	Adult Misdemeanor Arrest	10
		Adult Felony Arrests	1
		Juvenile Misdemeanor Arrests	9
Law Enforcement	33.0	Traffic Stops that Lead to Searches	1
		Officer Use of Force	1
		HPD Response Times	97

Topic: Victimization

Topic Equity Score 2022: 32.3
Topic Equity Score 2021: 27.0
Topic Equity Score Change: 5.3

Crime victimization has significant emotional, psychological, physical, financial, and social consequences. Therefore inequitable victimization across racial and ethnic groups can have a profound impact on the ability of people of color to lead fulfilling lives. [99] Victimization can take many forms and is represented by indicators including Domestic Violence Calls for Service, Robbery, and Homicides. Of these three, Homicides has the most inequity, while Robberies occur in a relatively equitable manner.

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[99] Victims of Crime. (n.d.). National Institute of Justice. https://nij.ojp.gov/topics/victims-of-crime

DOMESTIC VIOLENCE CALLS FOR SERVICE: 34

Equity Score 2022	34
Equity Score 2021	30
Equity Score Change	4
High Group	ZIP Codes with Majority POC
Low Group	ZIP Codes with Majority NH White
High Group Results (2021)	610.6
Low Group Results (2021)	172.2
2021 Ratio	3.546
High Group Results (2022)	629.8
Low Group Results (2022)	211.4
2022 Ratio	2.979

Indicator Definition:

Ratio between the rate of domestic violence calls to HPD per 100,000 residents in majority-People-of-Color and majority-Non-Hispanic-White ZIP codes

Rationale:

Family and domestic violence is a common problem in the United States, affecting an estimated 10 million people every year. Domestic violence worsens psychological and physical health, decreases quality of life, decreases productivity, and in some cases, leads to death.[100]

Additional Findings:

The majority of domestic violence cases go unreported for many reasons. Calls to police relating to domestic violence were used instead of cases of domestic violence that lead to arrests. HPD received almost 19,000 calls related to domestic violence in both 2019 and 2020. Since a caller's race/ethnicity is not recorded, this report uses the caller's ZIP code as a proxy. In ZIP codes where the majority of the population are people of color, the rate of calls to HPD relating to domestic violence was 610 per 100,000 residents in 2019. It increased to 629 in 2020. The rate of domestic violence-related calls was much lower in ZIP codes where the majority of residents were Non-Hispanic White—172 per 100,000 residents in 2019 and 211 in 2020.

Data Source: HPD

Data Years: 2019, 2020

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[100] Huecker, M. R., King, K. C., Jordan, G. A., & Smock, W. (2022). Domestic Violence. In StatPearls. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK499891/

ROBBERY: 47

Equity Score 2022	47
Equity Score 2021	37
Equity Score Change	10
High Group	Asian/PI
Low Group	White
High Group Results (2021)	746.7
Low Group Results (2021)	301.0
2021 Ratio	2.480
High Group Results (2022)	533.3
Low Group Results (2022)	289.9
2022 Ratio	1.839

Indicator Definition:
Ratio between Asian and White robbery victimization rates per 100,000 residents

Rationale:
Anyone can be a victim of robbery. In 2010 robberies accounted for 30% of violent crimes in the US. A robbery can be a frightening, life-threatening situation that can lead to physical or emotional pain.[101]

Additional Findings:
In 2019, Asian/Pacific Islander Houstonians were victims of robbery at a rate of 747 per 100,000 residents. They were 2.4 times more likely to be a victim of robbery than White Houstonians, whose rate was 301. Black and Hispanic residents also faced higher robbery rates than White residents, at 570 and 543 respectively. In 2020, the number of robberies fell 6% in Houston. The number of Asian/Pacific Islander robbery victims fell by 21%. While White and Hispanic residents also saw a decrease in robberies, Black Houstonians experienced an increase of 4%. In 2020, Black residents had the highest robbery victimization rate at 601. Because the Asian rate fell by over 200, the equity score improved by 10 points to 47. Howeverthis does not take into account the increase experienced by Black residents, which merits further research

Data Source: HPD

Data Years: 2019, 2020

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[101] Robbery. (n.d.). U.S. Department of Justice, Office of Justice Programs, Office for Victims of Crime. https://ovc.ojp.gov/sites/g/files/xyckuh226/files/pubs/helpseries/HelpBrochure_Robbery.html

HOMICIDES: 16

Equity Score 2022	16
Equity Score 2021	14
Equity Score Change	2
High Group	Black
Low Group	White
High Group Results (2021)	30.8
Low Group Results (2021)	4.6
2021 Ratio	6.665
High Group Results (2022)	46.7
Low Group Results (2022)	7.7
2022 Ratio	6.073

Indicator Definition:
Ratio between Black and White homicide victimization rates per 100,000 residents

Rationale:
Beyond the direct impact of violently ending a life, homicide has serious negative effects on the lives of surviving family members, particularly children. Homicides can also generate a sense of insecurity in society.[102]

Additional Findings:
Between 2019 and 2020, the number of homicides in Houston nearly doubled, from 283 to 411. Black residents were significantly more likely to be victims of homicides in both years. In 2019, the homicide rate per 100,000 Black residents was 30.8, and in 2020 it increased to 46.7. White residents had the lowest homicide rate at 4.6 in 2019, however the rate increased to 7.7 in 2020, a 68% increase. The only group to see a decrease between 2019 and 2020 were Asian/Pacific Islanders, whose rate fell from 6.0 in 2019 to 3.0 in 2020. Given the sharp increase in the homicide rate for both Black and White Houstonians, the equity score inched up to 16. Although, increased homicide rate for any group is an undesirable outcome.
Data Source: HPD
Data Years: 2019, 2020

Data Notes for Victimization Topic:

- Races/ethnicities for robbery and homicide victims were defined as: Non-Hispanic Asian/Pacific Islander, Non-Hispanic Black, Non-Hispanic White, and Hispanic. Other race/ethnicities were not included because of their small size.
- Of the 108 ZIP codes included in the 2019 domestic violence calls for service rate, seven had no calls in 2020. Of the 102 ZIP codes included in the 2020 rate, one zip code had no calls in 2019.

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[102] Violence Info – Homicide. (n.d.). World Health Organization. http://apps.who.int/violence-info/homicide

Topic: Arrests

Topic Equity Score 2022: 6.7
Topic Equity Score 2021: 8.7
Topic Equity Score Change: -2.0

Arrests are a fundamental tool for law enforcement. However, arrests have long-term effects on arrestees, even if never convicted, including access to housing and employment.[103] There has long been a concern in Houston that arrests reflect inequitable law enforcement across racial and ethnic groups. Indicators for Arrests are Adult Misdemeanor Arrests, Adult Felony Arrests, and Juvenile Misdemeanor Arrests. All indicators show high inequity. For example, Blacks are subject to Adult Felony Arrests at a rate of 26.4 per 1,000 residents, while the same indicator for Asians is 1.9 per 1,000 residents.

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[103]Impacts of Arrest. (n.d.). The International Association of Chiefs of Police.
https://www.theiacp.org/sites/default/files/Research%20Center/Impacts%20of%20Arrest%20(infographic).pdf

ADULT MISDEMEANOR ARRESTS: 10

Equity Score 2022	10
Equity Score 2021	9
Equity Score Change	1
High Group	Black
Low Group	Asian
High Group Results (2021)	34.0
Low Group Results (2021)	4.3
2021 Ratio	7.915
High Group Results (2022)	19.6
Low Group Results (2022)	2.6
2022 Ratio	7.632

Indicator Definition:
Ratio between Black and Asian adult misdemeanor arrest rates per 1,000 adult residents

Rationale:
Misdemeanors involve less serious offenses and shorter sentences than felonies, but they comprise the vast majority of criminal cases and can still result in significant jail time and a permanent criminal record – both of which have been shown to negatively affect individuals' lives.[104]

Additional Findings:
Black adults were over seven times more likely to be arrested for misdemeanor offenses than Asian adults in both years of the study. The misdemeanor arrest rates for Black adults in 2019 was 34.0 per 1,000, compared to 4.3 for Asian adults. For White adults, the misdemeanor arrest rate was 8.1 per 1,000 and 14.9 for Hispanic adults. Misdemeanor arrests fell sharply between 2019 and 2020, likely because of the COVID-19 pandemic. While the Black misdemeanor arrest rate fell to 19.6 in 2020, it was still significantly higher than the other racial and ethnic groups in Houston, and the equity score remained at the lowest possible level.

Data Source: HPD

Data Years: 2019, 2020

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[104] Cadoff, B., Chauhan, P., & Bond, E. (2020). Misdemeanor Enforcement Trends Across Seven U.S. Jurisdictions. John Jay College of Criminal Justice. https://datacollaborativeforjustice.org/wp-content/uploads/2020/10/2020_20_10_Crosssite-Draft-Final.pdf

ADULT FELONY ARRESTS: 1

Equity Score 2022	1
Equity Score 2021	1
Equity Score Change	0
High Group	Black
Low Group	Asian
High Group Results (2021)	26.4
Low Group Results (2021)	1.9
2021 Ratio	13.576
High Group Results (2022)	25.1
Low Group Results (2022)	1.6
2022 Ratio	15.707

Indicator Definition:
Ratio between Black and Asian adult felony arrest rates per 1,000 adult residents

Rationale:
A felony is a more serious crime than a misdemeanor and is typically defined as a crime punishable by a term of imprisonment of one year or more. At the individual level, a criminal conviction affects employability and access to housing and public services. At the community level, disproportionately incarcerating people from poor communities removes economic resources and drives cycles of poverty and justice system involvement.[105]

Additional Findings:
The adult felony arrest rate for Black Houstonians was substantially higher than that of other races or ethnic groups. At 26.4 per 1,000 adults, the Black rate was over 13 times higher than the Asian rate of 1.9. White and Hispanic adult felony arrests were also much lower than the Black rate, at 5.2 and 7.5 respectively. In 2020, there was only a slight decline in adult felony arrests across the city. While the Black arrest rate fell a small amount in this time, it had no impact on the equity score. It remained at 1, the lowest possible score

Data Source: HPD

Data Years: 2019, 2020

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[105]Hinton, E. K., Henderson, L., & Reed, C. (2018, May). An Unjust Burden: The Disparate Treatment of Black Americans in the Criminal Justice System. Vera Institute of Justice. https://www.vera.org/publications/for-the-record-unjust-burden

JUVENILE MISDEMEANOR ARRESTS: 9

Equity Score 2022	9
Equity Score 2021	16
Equity Change Score	-7
High Group	Black
Low Group	Asian
High Group Results (2021)	3.2
Low Group Results (2021)	0.5
2021 Ratio	6.066
High Group Results (2022)	2.0
Low Group Results (2022)	0.3
2022 Ratio	7.901

Indicator Definition:

Ratio between Black and Asian juvenile misdemeanor arrest rates per 1,000 juvenile residents

Rationale:

The trauma of being arrested as a youth can produce a negative ripple effect on future health and life potential.[106] Furthermore, once an adolescent becomes involved with the criminal justice system, the likelihood of further criminal justice involvement increases.[107]

Additional Findings:

Black youth are arrested for misdemeanor offenses at a rate of 3.2 per 1,000 compared to Asian youth at 0.5 per 1,000. While Hispanic youth had the second-highest rate at 1.4; half the rate for Black youth. White youth experienced misdemeanor arrests at a rate of 0.7 per 1,000. In 2020, the number of juvenile arrests by the HPD fell by almost 50%. While the decrease experienced by Black youth was similar to that experienced by Asian youth, roughly a decline of 45% for both groups, the equity score fell below 10 because of the small number of Asian youth experiencing misdemeanor arrests.

Data Source: HPD

Data Years: 2019, 2020

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[106] Gilhuly, K., Gaydos, M., & Avey, H. (2017). Reducing Youth Arrests Keeps Kids Healthy and Successful: A Health Analysis of Youth Arrest in Michigan. Human Impact Partners. https://humanimpact.org/wp-content/uploads/2018/10/HIP_MichYouthArrests_2017.06.pdf

[107] Raphael, S., & Rozo, S. V. (2019). Racial Disparities in the Acquisition of Juvenile Arrest Records. Journal of Labor Economics, 37(S1), S125–S159. https://doi.org/10.1086/701068

Data Notes for Arrest Topic:

- Races/ethnicities were defined as: Non-Hispanic Asian, Non-Hispanic Black, Non-Hispanic White, and Hispanic. Other race/ethnicities were not included because of their small size.
- "Asian" in this topic area does not include Pacific Islanders because population estimates by age was not available for this group in 2019.
- In Texas, 17-year-olds who are arrested are automatically sent to the adult justice system. However, population data for 17-year-olds is not available. The adult population is defined as 18 and over, while the juvenile population is under 18.

Topic: Law Enforcement

Topic Equity Score 2022: 33.0
Topic Equity Score 2021: 32.7
Topic Equity Score Change: 0.3

Police-community relations has emerged as a major issue in recent years in Houston and across the nation. A law enforcement agency that both reflects and respects the community it serves can help ease tension, while a law enforcement agency that has a hostile relationship with that community can increase tension. This topic examines racial/ethnic disparities across three indicators: Diversity in the Houston Police Department, Traffic Stops That Led to Searches, Officer Use of Force and Response Times. Although there was some improvement in 2020 from the previous year and Response Times are equitable, significant disparities exist across ethnic groups in their experience with police officers.

TRAFFIC STOPS THAT LEAD TO SEARCHES: 1

Equity Score 2022	1
Equity Score 2021	1
Equity Score Change	0
High Group	Black
Low Group	Asian
High Group Results (2021)	37.7
Low Group Results (2021)	2.9
2021 Ratio	**12.85**
High Group Results (2022)	27.2
Low Group Results (2022)	1.7
2022 Ratio	**16.16**

Indicator Definition:

Ratio between Black and Asian rates of traffic stops that lead to searches per 1,000 adult residents

Rationale:

Traffic stops are the most common form of police-citizen interaction, and while the vast majority of traffic stops and searches do not lead to arrests, the racial disparities in interactions can erode community trust.[108]

Additional Findings:

Traffic stops that lead to searches dropped 44% in 2020 from 2019, likely because of the COVID-19 pandemic. Even with this change, Black Houstonians still faced much higher rates of searches after a traffic stop. In 2019, for every 1,000 Black adult residents there were 37.8 traffic stops that led to searches. This number decreased to 27.2 in 2020. Other race and ethnic groups saw similar declines but had much lower rates to begin with. The rate for Hispanic adult residents fell from 10.8 in 2019 to 7.8 in 2020, while the rate for White adults fell from 7.8 to 5.1 during the same period. Asian adults had the lowest rates for both years at 2.9 in 2019 and 1.7 in 2020. Despite the overall decrease in traffic stops that lead to searches, the racial equity score for Black and Asian adults remained at the lowest possible point for both years, given the high rate for Black Houstonians and the low rate of Asian Houstonians.

Data Source: HPD

Data Years: 2019, 2020

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[108] Doyle, L., & Nembhard, S. (2021, April 26). Police Traffic Stops Have Little to Do with Public Safety. Urban Institute: Urban Wire. https://www.urban.org/urban-wire/police-traffic-stops-have-little-do-public-safety

OFFICER USE OF FORCE: 1

Equity Score 2022	1
Equity Score 2021	1
Equity Score Change	0
High Group	Black
Low Group	Asian
High Group Results (2021)	15.0
Low Group Results (2021)	0.5
2021 Ratio	11.370
High Group Results (2022)	18.3
Low Group Results (2022)	0.2
2022 Ratio	17.494

Indicator Definition:
Ratio between Black and Asian rates of use of force per 1,000 residents

Rationale:
Use of force can result in serious injuries and fatalities.[109] It should be considered an officer's last option to restore safety in a community when other practices are ineffective. [110]

Additional Findings:
Use of force increased by HPD increased 14% in 2020. Black Houstonians were far more likely to experience use of force with a rate of 15.0 per 1,000 residents in 2019. The rate for Black residents increased to 18.3 in 2020. White residents were second in 2019 with a significantly lower rate of 4.0 that increased slightly to 4.3 in 2020. Hispanics were third in 2019 at a rate of 3.9, but increased to 4.9 in 2020 above White Houstonians in that year. Asians had the lowest rate in both years at 1.3 and 1.0, respectively. Given the increased rate for Black residents and decreased rate for Asian residents, the equity score should have fallen further. However, since the equity score was already at the lowest point possible in 2019, it remained unchanged in 2020.

Data Source: HPD

Data Years: 2019, 2020

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[109] Bozeman, W. P., Stopyra, J. P., Klinger, D. A., Martin, B. P., Graham, D. D., Johnson, J. C., Mahoney-Tesoriero, K., & Vail, S. J. (2018). Injuries associated with police use of force. Journal of Trauma and Acute Care Surgery, 84(3), 466–472. https://doi.org/10.1097/TA.0000000000001783

[110] Overview of Police Use of Force. (2020, March 5). National Institute of Justice. https://nij.ojp.gov/topics/articles/overview-police-use-force

HOUSTON POLICE DEPARTMENT RESPONSE TIMES: 97

Equity Score 2022	97
Equity Score 2021	96
Equity Score Change	1
High Group	Police Districts with Majority POC
Low Group	Police Districts with Majority NH White
High Group Results (2021)	5.89
Low Group Results (2021)	5.77
2021 Ratio	1.021
High Group Results (2022)	5.60
Low Group Results (2022)	5.51
2022 Ratio	1.015

Indicator Definition:

Ratio between the average response times for Priority 1 calls in majority-People-of-Color and majority-Non-Hispanic-White police districts

Rationale:

Response times are a fundamental metric in law enforcement, revealing the ability of a law enforcement agency to respond to emergency calls or calls involving potential danger to citizens.

Additional Findings:

The Houston Police Department responded to Priority 1 calls in 5.88 minutes in 2019 to 5.59 minutes in 2020.[111] Priority 1 calls are those involving an "imminent threat to life." Concern is often expressed that police respond quickly to residents in some neighborhoods while residents of color in other neighborhoods must wait. Therefore, this indicator helps determine whether some residents seeking emergency assistance of law enforcement must wait longer than others. Using the racial and ethnic composition of the different police districts and the response times in those districts, the average response time was slightly faster in police districts where the majority of residents are Non-Hispanic White. In 2020, the response times for police districts where the majority of resides are those of color, the response time was 5.6 and for police districts where the majority of resident are Non-Hispanic White, the average response time was 5.5. Overall, the response was highly equitable in both years.

Data Source: HPD

Data Years: 2019, 2020

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[111] Responses times for Districts 0, 21, and 23 were excluded from this analysis due to those districts being mostly comprised of facilities and non-residential areas.

Data Notes on Law Enforcement Topic:

- Races/ethnicities were defined as: Non-Hispanic Asian/Pacific Islander, Non-Hispanic Black, Non-Hispanic White, and Hispanic. Other race/ethnicities were not included due to their small size.
- For Traffic Stops that Lead to Searches, driving age population was defined as 18 years and older, as population data for 15-17 year-olds by race/ethnicity is not available for 2020.
- For Traffic Stops that Lead to Searches, "Asian" does not include Pacific Islanders because population by age was not available for that group in 2019.
- Responses times for Districts 0, 21, and 23 were excluded from this analysis due to those districts being mostly comprised of facilities and non-residential areas.

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- Cindy Chapman, Super Neighborhood Alliance
- Juan Sorto, Super Neighborhood Alliance
- Roy Lira, Super Neighborhood Alliance
- Tomaro Bell, Super Neighborhood Council #83
- Anna Parras, T.E.J.A.S
- Adriana Tamez, Tejano Center for Community Concerns

- Carol Lewis, Texas Southern University
- Ana Gonzalez, The Alliance
- Katy Butterwick, The Hackett Center For Mental Health
- Quianta Moore, The Hackett Center For Mental Health
- Jaime Gonzales, The Nature Conservancy
- Barry Ward, Trees for Houston
- Natalie Jones, Trees for Houston
- Jessica Davison, United Way of Greater Houston
- Wendy Johnson, United Way of Greater Houston
- Poonam Salhotra, University of Houston - Downtown
- Elwyn Lee, University of Houston
- Karl Hearne, University of Houston
- Leslie Vergara, University of Houston
- Janna Roberson, Urban Harvest
- David Kim, Urban Land Institute-Houston District Council
- Niiobli Armah IV, We-Collab
- Samia Mirza, We-Collab
- Suri Clark, We-Collab
- Amy Corron, Wesley Community Center
- Marie Arcos, YMCA Houston
- Katherine Culbert, Youth Engagement Working Group (CA)

APPENDIX

SURVEY QUESTIONS

City-wide Survey

What makes a community equitable?

Please share with us your vision and ideas of an equitable community.

Equity Indicators Survey

Demographic Information

1. Please enter your zip code.

2. What is your age?
   - ☐ Less than 18 years
   - ☐ 18 - 34 years
   - ☐ 35 - 64 years
   - ☐ 65 and over

3. Please identify your preferred gender identification.
   - ☐ He/Him/His
   - ☐ She/Her/Hers
   - ☐ They/Them/Their
   - ☐ If different from above, self identify here: _____

4. Please specify your race or ethnicity.
   - ☐ White
   - ☐ Black or African American
   - ☐ Latino or Hispanic
   - ☐ Asian
   - ☐ Native American
   - ☐ Native Hawaiian or Pacific Islander
   - ☐ Other (please specify) _____

5. What is your main language?
   - ☐ English
   - ☐ Spanish

- ☐ Chinese
- ☐ Vietnamese
- ☐ Arabic
- ☐ French
- ☐ Other (please specify)
  _____

THEME: Economic Opportunity

Data Source(s): Census ACS; Small Business Administration (SBA); Census- Annual Business Survey; U.S. Department of Housing, U.S. Postal Service Vacancy Data; Texas Education Agency (TEA); Texas Higher Education Coordinating Board (THECB)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

6. TOPIC: Educational Attainment
Education is often seen as a strong driver of social mobility. Lower education levels are associated with lower earnings, higher crime rates, poorer health and mortality outcomes, and reduced participation in political and social institution.
Do you agree these 3 indicators adequately measure Houston's Educational Attainment:

	Yes	Maybe	No
On-Time High School Graduation			
Youth Not in School or Working (Opportunity Youth)			
College Degrees			

7. TOPIC: Employment
Job opportunities are important for both the individuals and the local community. Without sufficient employment opportunities, people struggle to afford housing, food, utilities or medical care.
Do you agree these 3 indicators adequately measure Houston's Employment opportunities:

	Yes	Maybe	No
Business Ownership			
Employment in High-Paying Sectors			
Unemployment Rate			

8. TOPIC: Income & Poverty
The ongoing stress associated with poverty, has been found to negatively affect physical and mental health conditions. Poorer children and teens are also at greater risk for several negative outcomes such as poor academic achievement and developmental delays.
Do you agree these 3 indicators adequately measure Houston's Income and Poverty:

	Yes	Maybe	No
Median Household Income			
Adult Poverty			
Child Poverty			

9. Please let us know your thoughts below.

THEME: Health

Data Source(s): Census - American Community Survey, Texas Department of State Health Services (DSHS), Houston Health Department, Houston Fire Department, Center for Disease Control & Prevention (CDC), Health Resources and Services Administration (HRSA), Texas Commission on Environmental Quality (TCEQ), Environment Protection Agency (EPA)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

10. TOPIC: Access to Health Care
    Regular and reliable access to health services can: prevent disease and disability; increase quality of life; and increase life expectancy.
    Do you agree these 3 indicators adequately measure Houston's Access to Health Care:

	Yes	Maybe	No
Uninsured Adults			
Uninsured Children			
Preventable Hospitalizations			

11. TOPIC: Child Health
    Protecting and improving the health of children is of fundamental importance. Investing in children is one of the most important things a society can do to build a better future.
    Do you agree these 3 indicators adequately measure Houston's Child Health:

	Yes	Maybe	No
Infant Mortality			
Infant Birth Weight			
Childhood Asthma Rates			

12. TOPIC: Health Outcomes
    Good health is central to human happiness and well-being that contributes significantly to prosperity and wealth and even economic progress, as healthy populations are more productive, save more and live longer.

Do you agree these 3 indicators adequately measure Houston's Health Outcomes:

	Yes	Maybe	No
Mental Health Related EMS Transports			
Cancer Rates			
Premature Death			

13. Please let us know your thoughts below.

THEME: Public Safety

Data Source(s): Houston Police Department, Houston Fire Department, Municipal Courts Department

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

14. TOPIC: Victimization
Crime victimization has significant emotional, psychological, physical, financial, and social consequences.
Do you agree these 3 indicators adequately measure Houston's Crime Victimization:

	Yes	Maybe	No
Domestic Violence			
Robbery Victimization Rates			
Homicide Victimization Rates			

15. TOPIC: Arrests
Arrests have long term effects on arrestees, even if never convicted, including access to housing and employment.
Do you agree these 3 indicators adequately measure Houston's Arrests:

	Yes	Maybe	No
Adult Misdemeanor Arrests			
Adult Felony Arrests			
Juvenile Misdemeanor Arrests			

16. TOPIC: Law Enforcement
Police are a part of the community, and how they engage in the day-to-day duties impacts the communities they serve.
Do you agree these 3 indicators adequately measure Houston's Law Enforcement:

	Yes	Maybe	No
Traffic Stops that Lead to Searches			

Office Use of Force			
HPD Response Times			

17. Please let us know your thoughts below.

THEME: Housing

Data Source(s): Census - American Community Survey, METRO, Texas Department of Transportation (TxDOT), Houston Planning and Development Department, Home Mortgage Disclosure Act (HMDA), January Advisors, Harris County Appraisal District, Reliant Energy, Houston Permitting Center, Federal Emergency Management Agency (FEMA), CenterPoint Energy, Texas Department of Housing and Community Affairs (TDHCA)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

18. TOPIC: Homeownership & Affordability
Homeownership provides families with a sense of emotional and financial stability and, historically, boosting household wealth.
Do you agree these 3 indicators adequately measure Houston's Homeownership and Affordability:

	Yes	Maybe	No
Homeownership			
Home Loan Denial			
Housing Cost Burden			

19. TOPIC: Housing Quality
Housing problems have ripple effects on health, education, economic mobility, child welfare, civil rights, criminal justice, and more. Affordable, stable, and quality housing options for all types of households and income levels can support better outcomes.
Do you agree these 3 indicators adequately measure Houston's Housing Quality:

	Yes	Maybe	No
Overcrowded Housing			
Vacant Housing Units			
Low Value Stock			

20. TOPIC: Housing Risks
Losing a place to call home can have a destabilizing effect that can send a family into a cycle of financial and emotional turmoil, affecting their current and future prospects for residential stability.
Do you agree these 3 indicators adequately measure Houston's Housing Risks:

	Yes	Maybe	No
Eviction Rates			
Residential Fires Incidents			
HFD Response Time			

21. Please let us know your thoughts below.

THEME: Infrastructure

Data Source(s): Census - American Community Survey, METRO, Texas Department of Transportation (TxDOT), Houston Planning and Development Department, Home Mortgage Disclosure Act (HMDA), January Advisors, Harris County Appraisal District, Reliant Energy, Houston Permitting Center, Federal Emergency Management Agency (FEMA), CenterPoint Energy, Texas Department of Housing and Community Affairs (TDHCA)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

22. TOPIC: Transportation
Transportation systems help ensure that people can reach everyday destinations, such as jobs, schools, healthy food outlets and healthcare facilities, safely and reliably.
Do you agree these 3 indicators adequately measure Houston's modes of transportation:

	Yes	Maybe	No
Access to a Vehicle			
Public Transportation Access			
Commute Time			

23. TOPIC: Connectivity & Mobility
Walking is correlated with both improved physical and emotional health. Walking behavior is often heavily influenced by environmental conditions.
Do you agree these 3 indicators adequately measure Houston's Connectivity and Mobility:

	Yes	Maybe	No
Street Quality			
Sidewalk Availability			
Traffic Fatalities			

24. TOPIC: Green & Resilient Infrastructure
Climate-resilient infrastructure reduces, but may not fully eliminate, the risk of climate-related disruptions.

Do you agree these 3 indicators adequately measure Houston's Green & Resiliency Infrastructure:

	Yes	Maybe	No
Green Stormwater and/or Weatherized Infrastructure			
LEED-Certified Buildings			
Drainage System Adequacy			

25. Please let us know your thoughts below.

THEME: Environmental & Climate Risks

Data Source(s): Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ), Houston Fire Department, Census - American Community Survey, Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP), Houston Harris Heat Action Team (H3AT), ASFPM Flood Science Center, National Land Cover Database, Houston Advanced Research Center (HARC), U.S. Green Building Council, Tree Equity Score, CenterPoint Energy, Bureau of Transportation Statistics (BTS)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

26. TOPIC: Pollution
No population should bear a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws; regulations; and policies.
Do you agree these 3 indicators adequately measure Houston's Educational Pollution:

	Yes	Maybe	No
EPA Violations			
Hazard Waste Proximity			
Air Pollution			

27. TOPIC: Disaster Risks
Natural disasters, like flooding, affect people's lives in many different ways — financially, physically, emotionally — and the effects can linger well after the storm passes.
Do you agree these 3 indicators adequately measure Houston's response to natural disasters such as floods:

	Yes	Maybe	No
Housing in FEMA Floodplain			
Properties with Repetitive Loss			
Flood Insured Homes			

28. TOPIC: Temperature Resilience
Extreme heat often results in the highest annual number of deaths among all weather-related disasters, and temperature extremes can exacerbate chronic cardiovascular, respiratory and diabetes-related conditions.
Do you agree these 3 indicators adequately measure Houston's Temperature Resilience:

	Yes	Maybe	No
Temperature Related EMS Transports			
Heat Islands			
Tree Canopy			

29. Please let us know your thoughts below.

THEME: Access & Inclusion

Data Source(s): Municipal Courts Department, Census - American Community Survey, Houston Public Library, Houston Parks Board, U.S. Department of Agriculture (USDA)

For each topic below, reply if the following Indicators contribute to understanding and measuring Houston's racial/ethnic equity.

30. TOPIC: Representation
Diversity in the public sector can be a strong contributor to innovation, organizational performance and trust in public institutions.
Do you agree these 3 indicators adequately measure Houston's Representation:

	Yes	Maybe	No
City Leadership Diversity			
Diversity in the Police Force			
Diversity in HFD/EMS			

31. TOPIC: Quality of Life Amenities
Access to key resources and services can have an immense impact on a person's life.
Do you agree these 3 indicators adequately measure Houston's Quality of Life Amenities:

	Yes	Maybe	No
Early Childhood Learning			
Residents Without Bank Accounts			
Access to Healthy Food Providers			

32. TOPIC: Community Amenities

Public infrastructure investments can generate enormous community benefits—jobs, business opportunities, access to public transportation, and quality affordable housing.
Do you agree these 3 indicators adequately measure Houston's Community Amenities:

	Yes	Maybe	No
Access to Parks and Greenspace			
Park Investment			
Internet Access			

33. Please let us know your thoughts below.

DATA BY INDICATOR

Theme	Topic	Indicator	Data by race/ethnicity (2021)				Data by race/ethnicity (		
			Asian	Black	Hispanic	White	Asian	Black	Hispanic
Economic Opportunity	Employment	Employment in High-Paying Sectors	48.1%	16.7%	10.9%	48.5%	47.8%	16.9%	13.3%
		Business Ownership	6.0%	0.6%	1.0%	4.9%	6.0%	0.6%	0.9%
		Unemployment Rate	2.9%	8.8%	4.7%	4.1%	3.1%	9.4%	4.7%
	Educational Attainment	On-Time High School Graduation	92.2%	81.1%	80.2%	80.7%	90.7%	84.2%	83.2%
		Youth Not in School or Working (Opportunity Youth)							
		College Degrees	66.7%	29.6%	17.5%	65.6%	67.9%	32.2%	20.3%
	Income & Poverty	Median Household Income	67,975	36,888	42,791	85,121	71,218	36,725	45,326
		Adult Poverty	15.1%	19.4%	19.1%	9.5%	13.4%	22.1%	19.7%
		Child Poverty	11.5%	40.6%	37.6%	12.4%	11.2%	36.5%	33.0%
Health	Access to Health Care	Uninsured Adults	14.0%	25.0%	48.9%	11.2%	15.6%	27.6%	51.0%
		Uninsured Children	9.7%	6.2%	19.1%	6.2%	9.2%	9.5%	21.7%
		Preventable Hospitalizations	3,127	7,679	4,907	4,360	2,830	7,371	4,782
	Child & Maternal Health	Infant Mortality	2.85	10.03	5.07	4.26	2.71	10.53	4.81
		Infant Birth Weight	8.9	14.1	7.8	7.1	9.1	14.6	8.0
		Maternal Mortality	-	-	-	-	-	77.4	13.2
	Health Outcomes	Mental Health Related EMS Transports	43.2	321.4	114.2	236.3	31.9	318.0	98.7
		Cancer Mortality	95.2	179.7	102.6	147.7	84.7	178.8	100.3
		Premature	5,002	13,77	5,902	7,502	4,519	13,60	5,812

		Death	4				3		
Public Safety	Victimization	Domestic Violence							
		Robbery Victimization Rates	746.7	570.8	543.0	301.0	533.3	601.8	514.1
		Homicide Victimization Rates	6.0	30.8	8.3	4.6	3.0	46.7	12.3
	Arrests	Adult Misdemeanor Arrest	4.3	34.0	14.9	8.1	2.6	19.6	10.4
		Adult Felony Arrests	1.9	26.4	7.5	5.2	1.6	25.1	7.8
		Juvenile Misdemeanor Arrests	0.5	3.2	1.4	0.7	0.3	2.0	0.8
	Law Enforcement	Traffic Stops that Lead to Searches	2.9	37.7	6.9	12.2	1.7	27.2	5.1
		Office Use of Force	1.3	15.0	4.0	4.0	1.0	18.3	4.9
		HPD Response Times							
Housing	Home Ownership & Affordability	Homeownership	45.5%	28.3%	38.7%	55.9%	44.0%	25.4%	37.1%
		Home Loan Denial	7.5%	12.4%	11.4%	5.3%	8.4%	12.3%	11.6%
		Housing Cost Burden							
	Housing Quality	Overcrowded Housing							
		Vacant Housing Units							
		Low Value Stock							
	Housing Risks	Eviction Filings							
		Residential Fires Incidents							
		HFD Response Time							
Infrastructure	Transportation	Access to a vehicle	77.9%	79.2%	75.8%	81.4%	72.5%	78.2%	76.1%
		Public Transportation Access							
		Commute Time							

Category	Subcategory	Metric							
	Connectivity & Mobility	Street Quality Sidewalk Availability Traffic fatalities							
	Green & Resiliency Infrastructure	Green Stormwater Infrastructure LEED-Certified Buildings Drainage System Adequacy							
Environmental & Climate Risks	Pollution	EPA Penalties Hazard Waste Proximity Air Pollution	-	-	-	-	85.4	87.3	88.0
	Disaster Risks	Housing in FEMA Floodplain Highly Impacted Households Flood Insurance Policies							
	Temperature Resilience	Temperature Related EMS Transports Heat Islands Tree Canopy	-	22.5	6.9	13.3	-	12.2	3.5
Access & Inclusion	Representation	City Leadership Diversity	0.69	1.00	0.21	0.99	0.87	1.14	0.28
		Diversity in Police Force	2.64	2.11	1.48	4.09	2.48	2.11	1.56
		Diversity in HFD/EMS	0.49	1.11	0.96	3.70	0.44	1.13	1.02
	Community Amenities	Internet Access Access to Parks and Greenspace Art Grants	8.2%	16.5%	19.8%	6.9%	4.4%	15.2%	17.6%
	Quality of Life Assets	Early Childhood Learning	25.8%	26.6%	18.5%	27.8%	34.7%	23.0%	21.1%
		Residents Without Bank Accounts	-	-	19.5%	2.0%	-	-	22.4%

		Access to Healthy Food Providers		

Mayor Council Controller

Leading City of Houston Departments and Offices

- Planning & Development Department
    - o Margaret Wallace Brown, Director
    - o Jennifer Ostlind, Deputy Director
    - o Lynn Henson, Division Manager
    - o Sona Sunny, GIS Supervisor
    - o Davonte Caldwell, Planner II
    - o Kyle LLoyd, GIS Analyst
- Mayor's Office of Resilience and Sustainability
    - o Priya Zachariah, Chief Resilience Officer
    - o Yaneth Calderon, Community Outreach Coordinator
- Mayor's Office of Complete Communities
    - o Shannon Buggs, Director
- Office of Business Opportunity
    - o Ky Wilson

ONE COMPLETE HOUSTON:

UNDERSTANDING OUR EQUITY OPPORTUNITIES AND CHALLENGES EXECUTIVE SUMMARY