RICE UNIVERSITY
Shell Center for Sustainability

HOUSTON COMMUNITY SUSTAINABILITY
The Quality of Life Atlas

Economic Development

RICE

LESTER KING, PhD.

Houston Community Sustainability:

The Quality of Life Atlas

by

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Economic Development Pillar of Sustainability

Theme - Economic Development

Sub Theme - Employment

Indicator - Employment Status

In a 2010 survey of area residents, 38% of respondents stated that the biggest problem facing Houston was unemployment, poverty and the cost of living (Klineberg, 2010). Employment is essential to gain access to health care, quality shelter, good communities, and quality of life among others (King, 2012). In comparison to the 63 largest cities in the country, Houston had the 18th highest unemployment rate in 2010 (U.S. Census Bureau, 2011). Houston is projected to add 404,007 jobs between 2010 and 2015 based on the projected performance trend developed over the 20-year period between 1990 and 2010 (King, 2012). It is hoped that this increase in job numbers will significantly reduce the unemployment rate despite the premise that many of the new jobs advertised will be filled by new people moving into the city. Educational training to meet the specialized need for Houston based job mix is essential to reducing the unemployment rate in the city (King, 2012). The Houston Metropolitan Region had the largest increase in jobs in the country between the last quarter of 2011 and the first quarter of 2013 (The Economist, 2013).

Sustainability Benefit: The unemployment rate for Hispanics, which are the fastest growing segment of the population, has not increased significantly between 1990 and 2010.

Sustainability Issue: African-Americans in Houston have a disproportionately high unemployment rate.

Indicator Groups: Employment Status among Super Neighborhoods in Houston was measured by a comparison of the Unemployment Rate in each Super Neighborhood. This metric is part of the most significant group of indicators in the study. This group of indicators is titled 'Wealthy Group' since it is composed of the following indicators: Health Care spending; Income; Poverty; Housing Value; Housing and Transportation costs; Percent White; Percent Master's degrees and Unemployment rate (Poverty and Unemployment rate are also correlated since those percentages are very low in these neighborhoods).

The following metrics are used to measure the indicator *Employment Status.*

Figure 21: Unemployment rate by neighborhood
Figure 22: Unemployment Rate

Ranking of Super Neighborhoods by unemployment rate

|			
1	EL DORADO / OATES PRAIRIE	45	FAIRBANKS / NORTHWEST CROSSING
2	MINNETEX	46	MAGNOLIA PARK
3	SOUTH ACRES / CRESTMONT PARK	47	SOUTH BELT / ELLINGTON
4	SETTEGAST	48	GREATER FONDREN SOUTHWEST
5	SUNNYSIDE	49	WESTBURY
6	HARRISBURG / MANCHESTER	50	NORTHSIDE VILLAGE
7	GREATER FIFTH WARD	51	GREATER EASTWOOD
8	KASHMERE GARDENS	52	FORT BEND / HOUSTON
9	SOUTH PARK	53	HIDDEN VALLEY
10	HUNTERWOOD	54	MEYERLAND AREA
11	WESTWOOD	55	SPRING BRANCH NORTH
12	TRINITY / HOUSTON GARDENS	56	WILLOWBROOK
13	ACRES HOME	57	MID WEST
14	OST / SOUTH UNION	58	BRIARFOREST AREA
15	EAST HOUSTON	59	SPRING BRANCH WEST
16	DOWNTOWN	60	CARVERDALE
17	SOUTH MAIN	61	ELDRIDGE / WEST OAKS
18	CLINTON PARK TRI-COMMUNITY	62	PARK PLACE
19	EASTEX - JENSEN AREA	63	SPRING BRANCH CENTRAL
20	FOURTH WARD	64	SPRING BRANCH EAST
21	GOLFCREST / BELLFORT / REVEILLE	65	LAWNDALE / WAYSIDE
22	PLEASANTVILLE AREA	66	LAZY BROOK / TIMBERGROVE
23	NORTHSHORE	67	NEAR NORTHWEST
24	GREATER INWOOD	68	ADDICKS PARK TEN
25	EDGEBROOK AREA	69	LAKE HOUSTON
26	GREATER THIRD WARD	70	KINGWOOD AREA
27	MACGREGOR	71	WESTCHASE
28	GULFGATE RIVERVIEW / PINE VALLEY	72	NEARTOWN - MONTROSE
29	EAST LITTLE YORK / HOMESTEAD	73	CLEAR LAKE
30	PECAN PARK	74	GREATER HEIGHTS
31	SECOND WARD	75	WILLOW MEADOWS / WILLOWBEND AREA
32	BRAEBURN	76	MIDTOWN
33	IAH / AIRPORT AREA	77	GREATER UPTOWN
34	GREATER HOBBY AREA	78	MEMORIAL
35	CENTRAL SOUTHWEST	79	MEDICAL CENTER AREA
36	MEADOWBROOK / ALLENDALE	80	GREENWAY / UPPER KIRBY AREA
37	GREATER GREENSPOINT	81	BRAESWOOD PLACE
38	LANGWOOD	82	WESTBRANCH
39	ALIEF	83	WASHINGTON AVENUE COALITION / MEMORIAL PARK
40	DENVER HARBOR / PORT HOUSTON	84	ASTRODOME AREA
41	SHARPSTOWN	85	UNIVERSITY PLACE
42	GULFTON	86	FONDREN GARDENS
43	INDEPENDENCE HEIGHTS	87	AFTON OAKS / RIVER OAKS AREA
44	NORTHSIDE/NORTHLINE	88	MUSEUM PARK
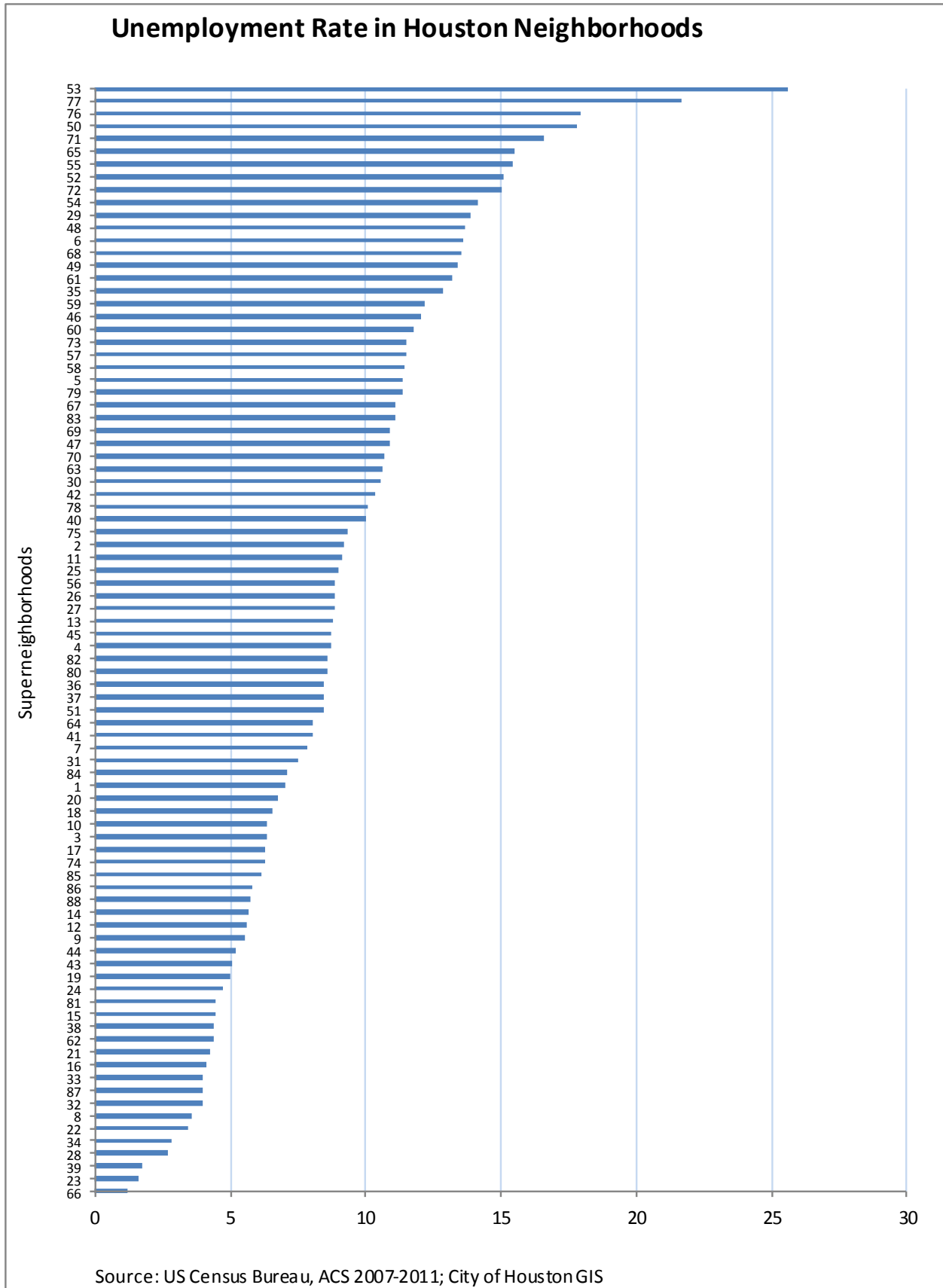
Figure 21: Unemployment rate by neighborhood

- The average unemployment rate in the city was 10% in 2010.
- Twenty neighborhoods scored below 5% unemployment.
- Six neighborhoods scored at or above 15% unemployment. Those neighborhoods are Harrisburg, Sunnyside, Settegast, South Acres, Minnetex, and El Dorado/ Oates Prairie.
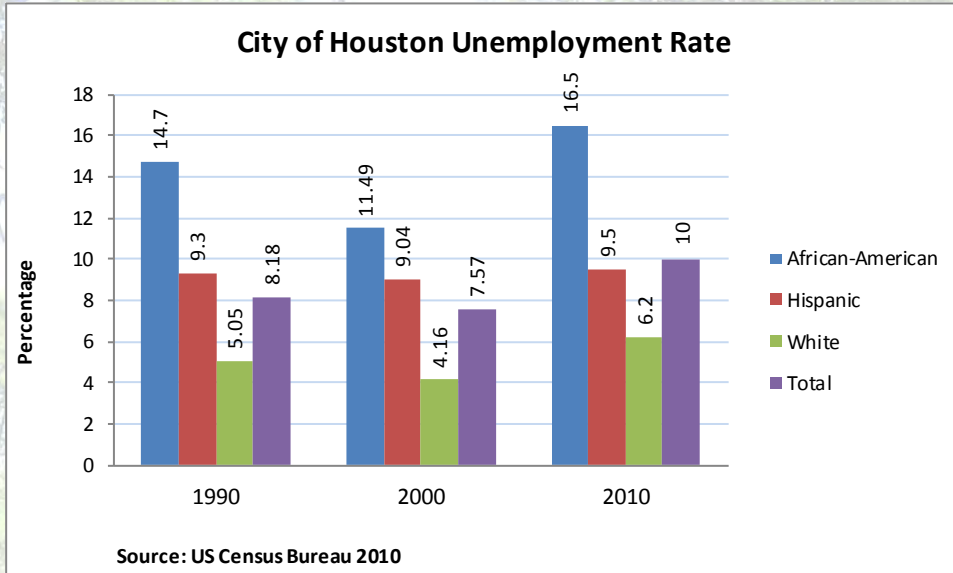
City of Houston Unemployment Rate

Source: US Census Bureau 2010

Figure 22: Unemployment Rate
- African Americans had a 16.5% unemployment rate in 2010. This is the highest rate of any racial or ethnic group and hence it demonstrates that African Americans are at a disadvantage when it comes to employment and job security in Houston.
- The unemployment rate among Hispanics remained stable at around 9.5%. This suggests the majority of jobs occupied by Hispanics are in sectors which are less volatile to the type of economic downturn we experienced.
- All groups show a reduction in unemployment percentage in 2000 and then an increase in unemployment in 2010. African Americans are the most adversely affected group in terms of unemployment.

Theme - Economic Development

Sub Theme - Macroeconomic Performance

Indicator - Primary Jobs

Traditionally **primary jobs** (manufacturing) were considered the anchors of local economies and essential for reporting economic success (King, 2012). The city of Houston ranked 23rd among the largest 63 cities in the country in terms of the percentage of manufacturing jobs (U.S. Census Bureau, 2011). For this indicator primary jobs are defined as manufacturing jobs plus health sector jobs, since the health sector in Houston attracts patients nationally and internationally.

Sustainability Benefit: Decentralization of the core business areas in Houston means that jobs are spread out across the city. Research shows that there are 17 business centers including the central business district in the City of Houston (King, 2012).

Sustainability Issue: Even with gains in medical jobs, medical added to manufacturing jobs, constitute less than one quarter of all jobs.

Indicator Groups: Primary Jobs among Super Neighborhoods in Houston was measured by a comparison of primary jobs as a percentage of total jobs in each Super Neighborhood. This metric is not part of any significant group of indicators in the study.

The following metrics are used to measure the indicator *Primary Jobs*:

Figure 23: Primary jobs as a percentage of total jobs
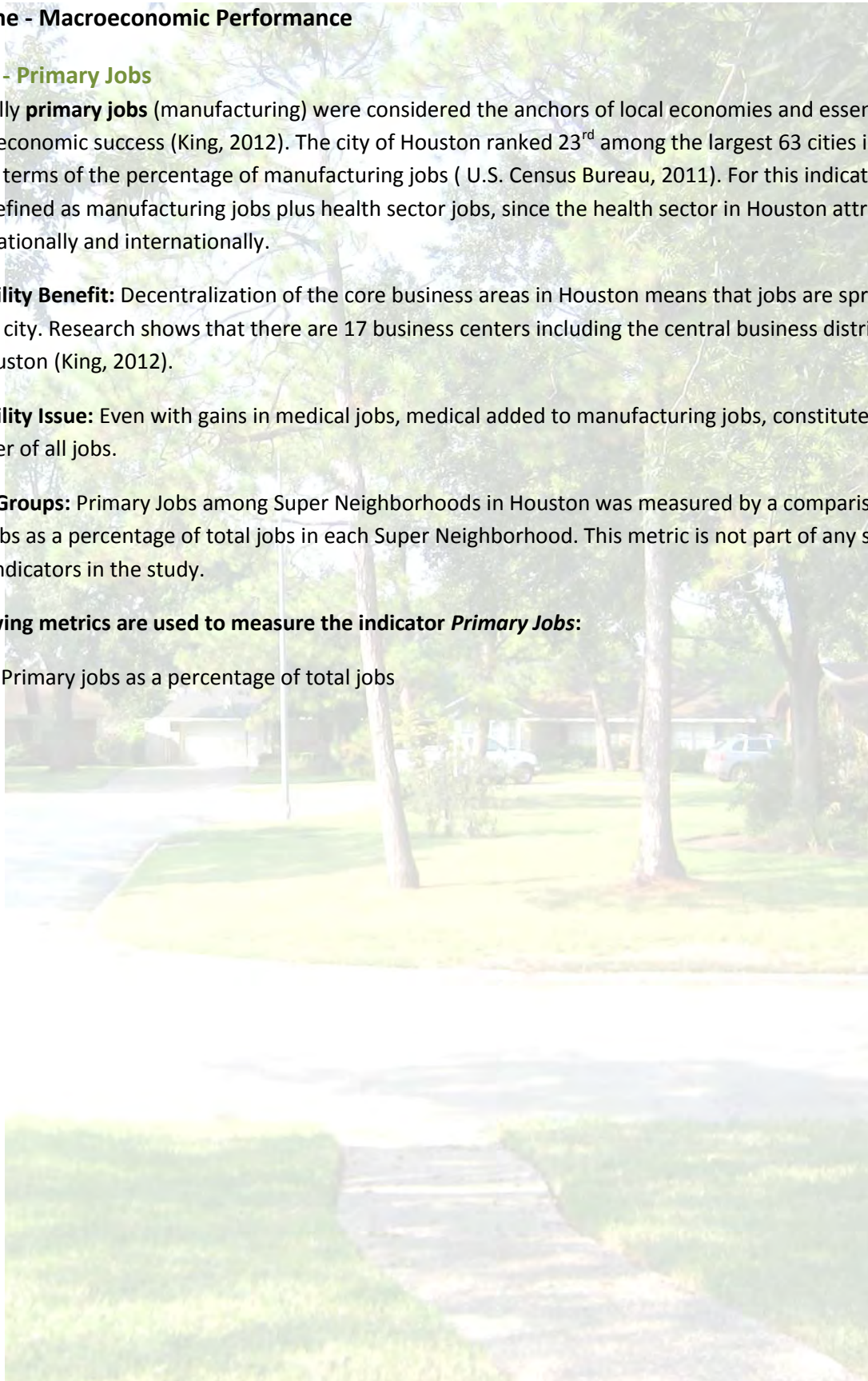
Ranking of Super Neighborhoods by primary jobs as percentage of total jobs

1	MEDICAL CENTER AREA	45	SPRING BRANCH EAST
2	WESTBRANCH	46	GREATER FONDREN SOUTHWEST
3	CARVERDALE	47	GULFGATE RIVERVIEW / PINE VALLEY
4	ASTRODOME AREA	48	WESTWOOD
5	MUSEUM PARK	49	GREATER HEIGHTS
6	LAZY BROOK / TIMBERGROVE	50	ADDICKS PARK TEN
7	SECOND WARD	51	KINGWOOD AREA
8	BRAEBURN	52	MIDTOWN
9	SPRING BRANCH CENTRAL	53	EAST HOUSTON
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11	PLEASANTVILLE AREA	55	MID WEST
12	GREATER HOBBY AREA	56	CLINTON PARK TRI-COMMUNITY
13	GREATER INWOOD	57	GULFTON
14	HARRISBURG / MANCHESTER	58	NEAR NORTHWEST
15	BRAESWOOD PLACE	59	WESTCHASE
16	SOUTH MAIN	60	WASHINGTON AVENUE COALITION / MEMORIAL PARK
17	PARK PLACE	61	GREATER GREENSPOINT
18	GREATER FIFTH WARD	62	CLEAR LAKE
19	SHARPSTOWN	63	IAH / AIRPORT AREA
20	MACGREGOR	64	ALIEF
21	MEADOWBROOK / ALLENDALE	65	WILLOW MEADOWS / WILLOWBEND AREA
22	WILLOWBROOK	66	AFTON OAKS / RIVER OAKS AREA
23	DENVER HARBOR / PORT HOUSTON	67	LAKE HOUSTON
24	KASHMERE GARDENS	68	ACRES HOME
25	SOUTH BELT / ELLINGTON	69	NEARTOWN - MONTROSE
26	SPRING BRANCH WEST	70	GREATER EASTWOOD
27	MINNETEX	71	SOUTH PARK
28	FAIRBANKS / NORTHWEST CROSSING	72	FORT BEND / HOUSTON
29	EASTEX - JENSEN AREA	73	MEYERLAND AREA
30	NORTHSIDE/NORTHLINE	74	WESTBURY
31	LANGWOOD	75	GREATER THIRD WARD
32	INDEPENDENCE HEIGHTS	76	SOUTH ACRES / CRESTMONT PARK
33	NORTHSIDE VILLAGE	77	EAST LITTLE YORK / HOMESTEAD
34	MEMORIAL	78	GREATER UPTOWN
35	GREENWAY / UPPER KIRBY AREA	79	EDGEBROOK AREA
36	LAWNDALE / WAYSIDE	80	PECAN PARK
37	CENTRAL SOUTHWEST	81	SPRING BRANCH NORTH
38	EL DORADO / OATES PRAIRIE	82	HUNTERWOOD
39	GOLFCREST / BELLFORT / REVEILLE	83	ELDRIDGE / WEST OAKS
40	OST / SOUTH UNION	84	FONDREN GARDENS
41	NORTHSHORE	85	BRIARFOREST AREA
42	UNIVERSITY PLACE	86	SETTEGAST
43	SUNNYSIDE	87	HIDDEN VALLEY
44	DOWNTOWN	88	FOURTH WARD

2013 Primary Jobs as a Percentage of Total Jobs

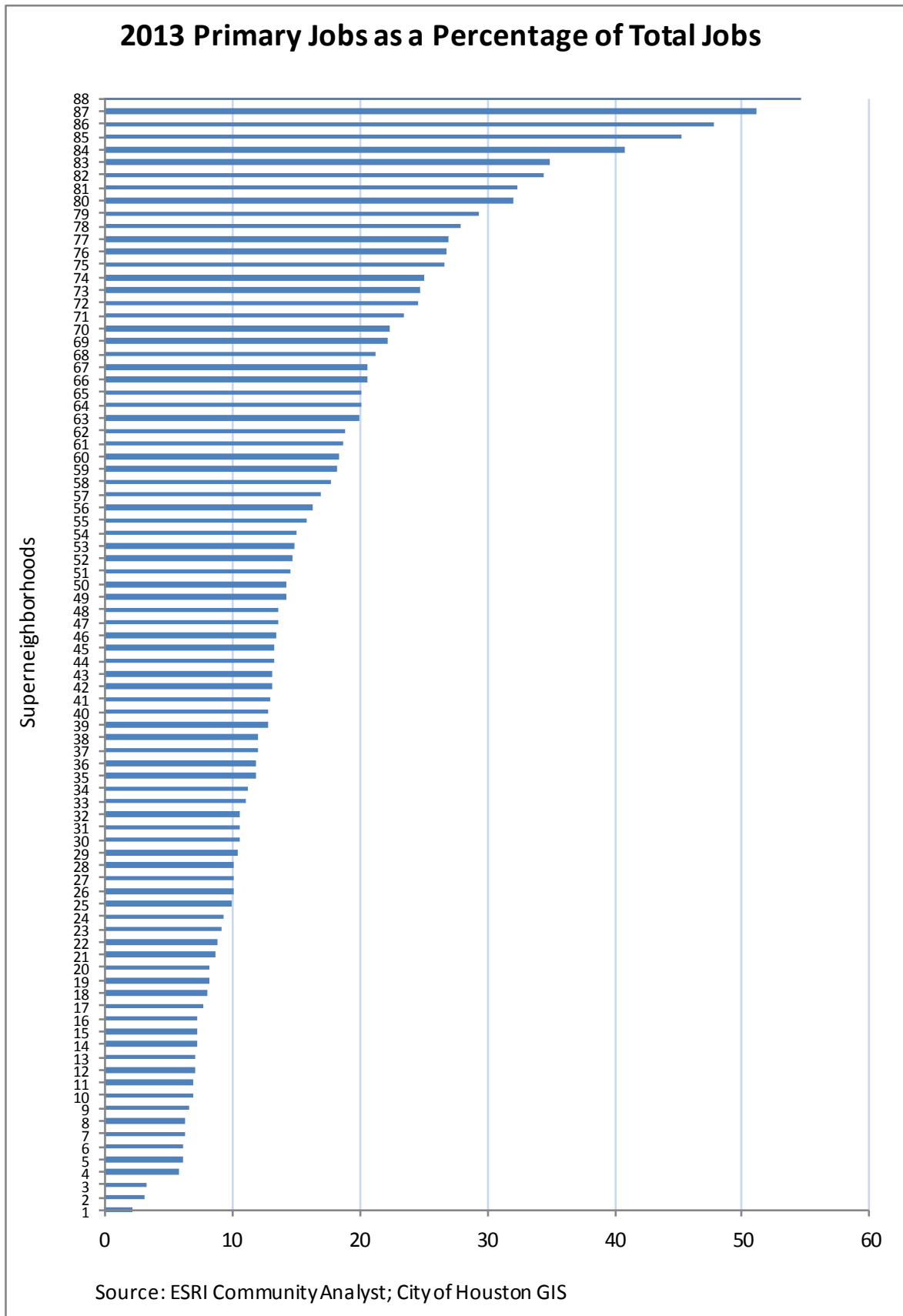Source: ESRI Community Analyst; City of Houston GIS

Figure 23: Primary jobs as a percentage of total jobs

- Manufacturing jobs and Health Care jobs are the primary jobs in Houston and constitute less than 25% of all jobs in all but 17 Houston neighborhoods.
- The Medical Center and Westbranch have more than 50% of all jobs as primary jobs. Fourth Ward has the lowest number of primary jobs in Houston.

Theme – Economic Development

Sub Theme – Business Location

Indicator - Jobs/ Housing Balance

Sprawl can be described as the separated spread-out development practice that has dominated suburban development over the last 60 years. The **Jobs/ Housing balance** is a focus on the supply of housing in proximity to jobs. The ideal Jobs/Housing balance is one that offers access to many and various types of housing such as single family, duplexes, and multifamily housing within walking distance to jobs. The Jobs/Housing balance alludes to the importance of mixed-use developments where pedestrian access to schools, services, entertainment, jobs and housing is made possible (Burchell, Downs, McCann, & Mukherji, 2005). For sustainable development, should local governments actively encourage companies to locate in existing business centers or should we let the market decide? In a survey of Harris County residents in 2010, 80% called for redevelopment of older urban areas for mixed use development (Klineberg, 2010). However, in a 2005 survey, Anglos preferred neighborhoods that do not have high percentages of African American or Hispanic people (Klineberg, 2005). This cultural practice complicates the rational location choice theory of maximizing income to find housing close to jobs. It also explains why some inner city neighborhoods, such as the Houston Third Ward and parts of the Fifth Ward, have large supplies of vacant and underused property, despite their close proximity to the central business district.

Sustainability Benefit: Houston has a very efficient freeway system which connects most areas of the city to employment centers very efficiently.

Sustainability Issue: Less than 25% of Houstonians live within a quarter mile of high density business centers.

Indicator Groups: Jobs / Housing Balance among Super Neighborhoods in Houston was measured by the Percentage of housing units in business centers in each Super Neighborhood. This metric is part of the second most significant group of indicators in the study. This group of indicators is titled 'Inner City Group' since it is composed of the following indicators: **Vehicle Miles Travelled, Street Intersection Density, Percent of open Space, Population close to parks, Housing units close to business centers, Poor Streets, High development land use, population close to bus stops, Population in food deserts** (**Vehicle miles travelled** and **Percent of open space** are negatively correlated).

The following metrics were used to measure *Job / Housing Balance:*

Figure 25: Houston Business Centers
Figure 24: Percent of housing units in business centers
Figure 26: Jobs in Business Centers compared to Houston Demographics

Ranking of Super Neighborhoods by percentage of housing close to business centers			
1	FOURTH WARD	45	ALIEF
2	GREENWAY / UPPER KIRBY AREA	46	BRAYS OAKS
3	LAZY BROOK / TIMBERGROVE	47	LAWNDALE / WAYSIDE
4	MEDICAL CENTER AREA	48	ELDRIDGE / WEST OAKS*
5	MIDTOWN	49	GREATER FIFTH WARD*
6	MUSEUM PARK	50	NORTHSIDE VILLAGE*
7	NEARTOWN - MONTROSE	51	ACRES HOME*
8	WESTCHASE	52	CENTRAL SOUTHWEST*
9	AFTON OAKS / RIVER OAKS AREA	53	CLINTON PARK TRI-COMMUNITY*
10	GREATER UPTOWN	54	DENVER HARBOR / PORT HOUSTON*
11	UNIVERSITY PLACE	55	EAST HOUSTON*
12	GULFTON	56	EAST LITTLE YORK / HOMESTEAD*
13	DOWNTOWN	57	EASTEX - JENSEN AREA*
14	PECAN PARK	58	EDGEBROOK AREA*
15	FAIRBANKS / NORTHWEST CROSSING	59	EL DORADO / OATES PRAIRIE*
16	GREATER EASTWOOD	60	FONDREN GARDENS*
17	ADDICKS PARK TEN	61	FORT BEND / HOUSTON*
18	WASHINGTON AVENUE COALITION / MEMORIAL PARK	62	GREATER HOBBY AREA*
19	ASTRODOME AREA	63	GREATER INWOOD*
20	MACGREGOR	64	HARRISBURG / MANCHESTER*
21	WESTWOOD	65	HIDDEN VALLEY*
22	MID WEST	66	HUNTERWOOD*
23	MEMORIAL	67	IAH / AIRPORT AREA*
24	BRAEBURN	68	INDEPENDENCE HEIGHTS*
25	SHARPSTOWN	69	KASHMERE GARDENS*
26	SPRING BRANCH WEST	70	KINGWOOD AREA*
27	GREATER GREENSPOINT	71	LAKE HOUSTON*
28	GREATER THIRD WARD	72	MAGNOLIA PARK*
29	GULFGATE RIVERVIEW / PINE VALLEY	73	MEADOWBROOK / ALLENDALE*
30	PARK PLACE	74	MEYERLAND AREA*
31	CARVERDALE	75	MINNETEX*
32	BRIARFOREST AREA	76	NORTHSHORE*
33	CENTRAL NORTHWEST	77	NORTHSIDE/NORTHLINE*
34	GREATER HEIGHTS	78	PLEASANTVILLE AREA*
35	LANGWOOD	79	SETTEGAST*
36	SPRING BRANCH EAST	80	SOUTH ACRES / CRESTMONT PARK*
37	SPRING BRANCH CENTRAL	81	SOUTH BELT / ELLINGTON*
38	CLEAR LAKE	82	SOUTH PARK*
39	GOLFCREST / BELLFORT / REVEILLE	83	SUNNYSIDE*
40	BRAESWOOD PLACE	84	TRINITY / HOUSTON GARDENS*
41	OST / SOUTH UNION	85	WESTBRANCH*
42	SECOND WARD	86	WESTBURY*
43	SOUTH MAIN	87	WILLOW MEADOWS / WILLOWBEND AREA*
44	SPRING BRANCH NORTH	88	WILLOWBROOK*

- * - 0% of housing units close to business centers

Percent of Housing units in Business Centers

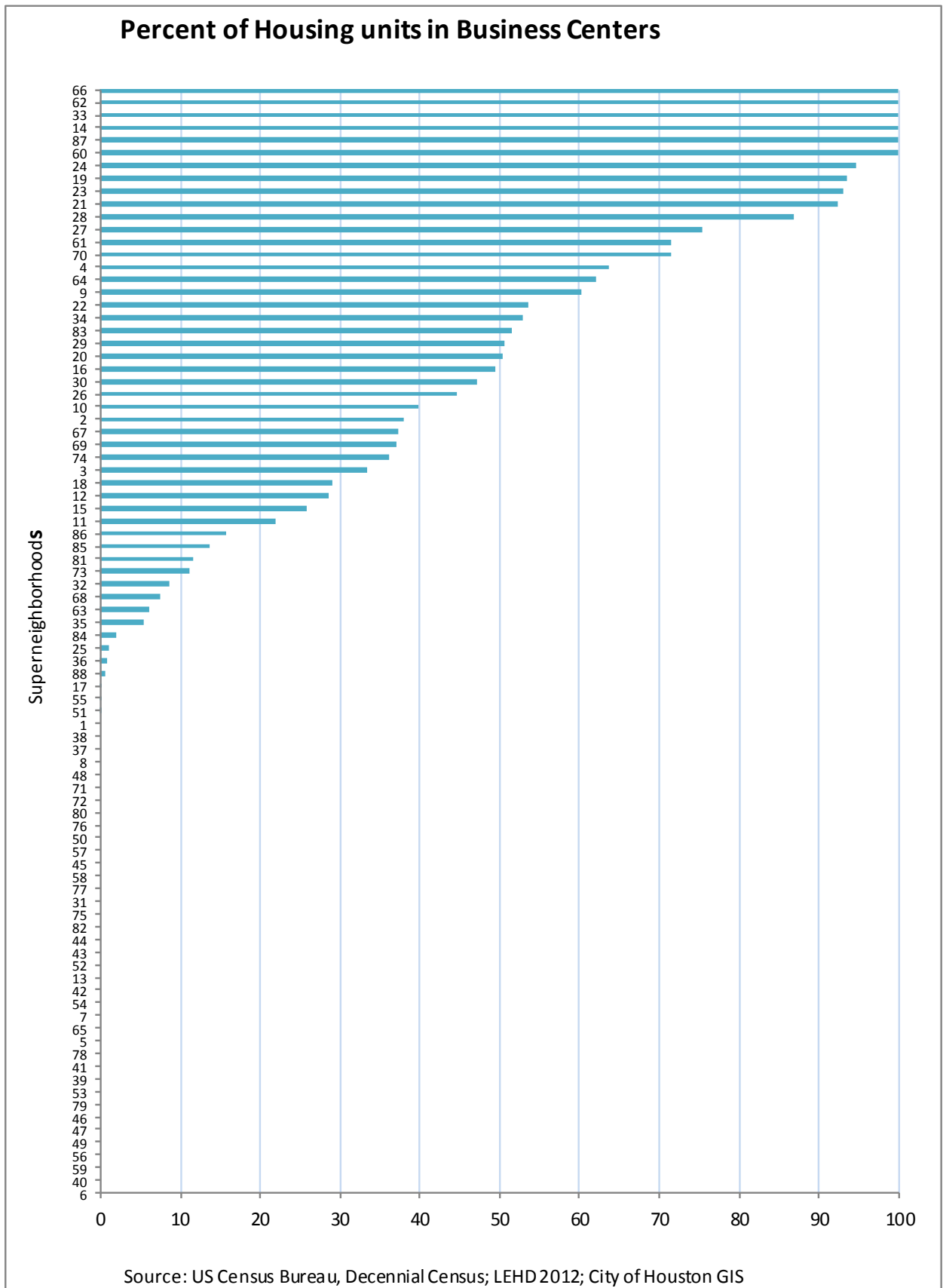Source: US Census Bureau, Decennial Census; LEHD 2012; City of Houston GIS

Figure 24: Percent of housing units in business centers

- The above figure shows the percentage of housing units within a quarter of a mile of the business districts in Houston by Super Neighborhood.

- The neighborhoods of Uptown, Afton Oaks/ River Oaks, Westchase, Neartown – Montrose, Lazy Brook, Museum Park, Midtown, Greenway/ Upper Kirby, Fourth Ward, and Medical Center Area all have more than 90% of housing units close to business centers.
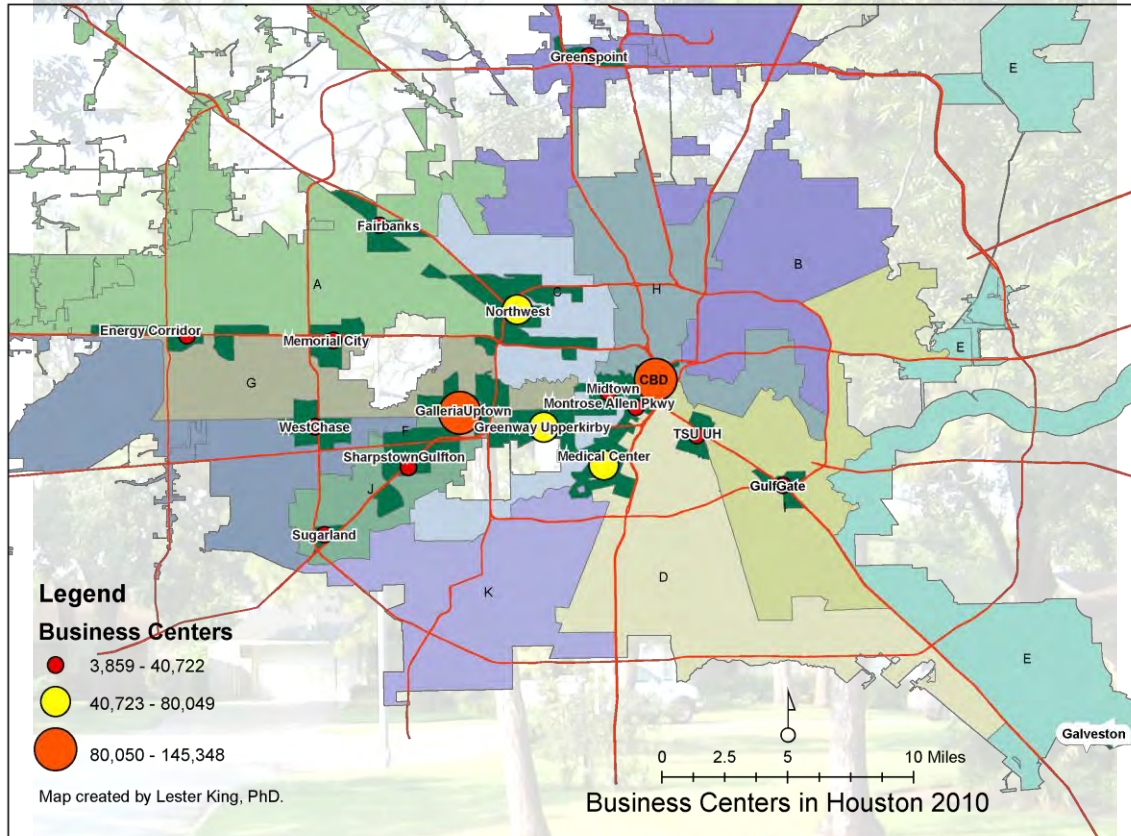

Figure 25: Houston Business Centers

- This map shows the location of business centers in Houston in 2010. These business centers are defined primarily as places with a high density of jobs (greater than 10 per acre within transit analysis zones or TAZs and clusters of such high density TAZs with more than 10,000 jobs).
- In 2010 there were 17 business centers in the City of Houston.
- Downtown, the Galleria, and the Medical Center show the highest concentration of jobs in the City of Houston with more than 75,000 jobs each.
- Although less than 25% of Houstonians on average live within a quarter mile of business centers, about a third of the White cohort live within a quarter mile of the business centers (31.33%). The comparable figures for other races/ ethnicities are: Black – 13%, Hispanic 20%, other races 27%. This suggests that in comparison to other races and ethnicities in Houston, the White cohort prefers and can afford to live close to business centers.
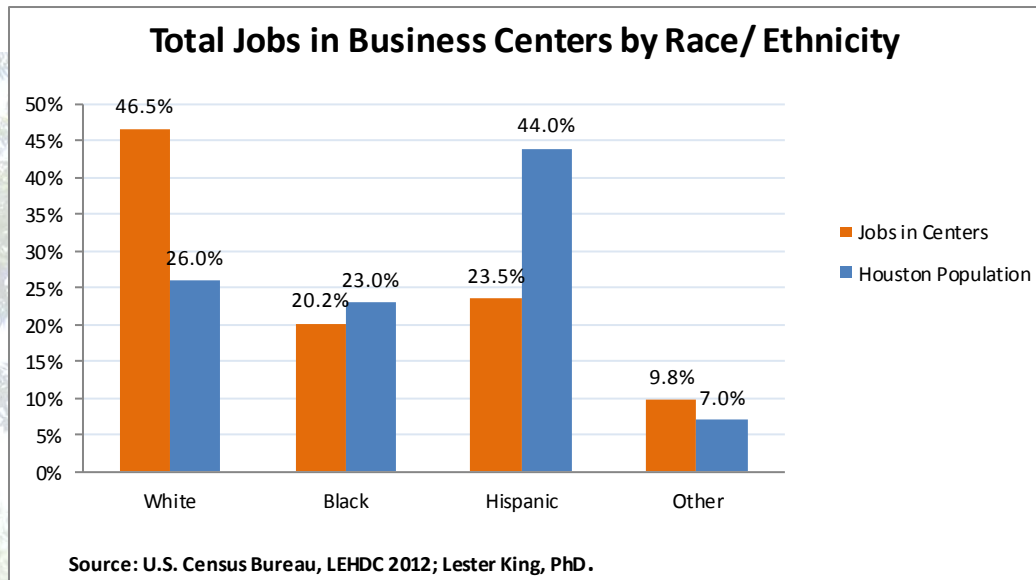
Total Jobs in Business Centers by Race/ Ethnicity

Source: U.S. Census Bureau, LEHDC 2012; Lester King, PhD.

Figure 26: Jobs in Business Centers compared to Houston Demographics

- The above figure compares percentages of racial ethnic groups in Houston, in terms of holding jobs in business centers in 2012 and city wide population distribution in 2010.

- It shows that African Americans and all other racial groups hold jobs in the business centers relatively commensurate with their population distribution in the city as a whole.

- However, the White cohort is overly represented with almost twice as many jobs in the business center as their citywide percentage. At the same time, the Hispanic cohort is under-represented in terms of holding jobs in the business centers with almost exactly the opposite trend as the White cohort.

Theme - Consumption and Production

Sub Theme – Capital Improvements

Indicator – Infrastructure Condition

Capital Investments in a municipality are a key indicator for sustainability in that investments drive the social, economic and environmental fabric of a city. Carefully targeted investment can enhance the social fabric in a visible sense, through such investments as park improvements or public art projects. The economic fabric can be enhanced through efficiencies such as arterial network improvements, and hazard mitigation improvements such as laying subsurface utility arterials. The environmental fabric is enhanced through such efforts as surface runoff improvements to prevent flooding. For the first time ever, there is a General Fund line item of $2.5 million in the proposed City of Houston 2014 budget. This represents approximately 2% of the average annual Capital Improvement Plan for Public Improvement Programs for infrastructure maintenance, renewal and replacement and will be applied to improvements of city facilities (CitizensNet, 2013).

Sustainability Benefit: Houston recently passed an ordinance for a dedicated fund to further improve infrastructure to prevent flooding.

Sustainability Issue: Capital Improvement spending in Houston for stormwater management, streets, wastewater, and water infrastructure are not guided by a forward thinking comprehensive plan and as such are more responsive to reactive and extant problems, such as potholes and sidewalk repair.

Indicator Groups: Infrastructure Condition among Super Neighborhoods in Houston was measured by a Rating street assessment in each Super Neighborhood. This metric is part of the second most significant group of indicators in the study. This group of indicators is titled 'Inner City Group' since it is composed of the following indicators: **Vehicle miles travelled, Street intersection density, Percent of open space, Population close to parks, Housing units close to business centers, Street assessment, High development land use, population close to bus stops, Population in food deserts** (**Vehicle miles travelled** and **Percent of open space** are negatively related). The Percent of adequate storm sewers was also used to measure Infrastructure Condition in this study. This second metric is correlated with the group composed of Percent of Low to Mid Intensity Development and the Percent of Voters.

The following metrics are used to measure the indicator Infrastructure Condition:

Figure 28: Street condition assessment map
Figure 27: Street condition neighborhood ranking
Figure 29: Adequate storm sewers

Ranking of Super Neighborhoods by percentage of poor street conditions

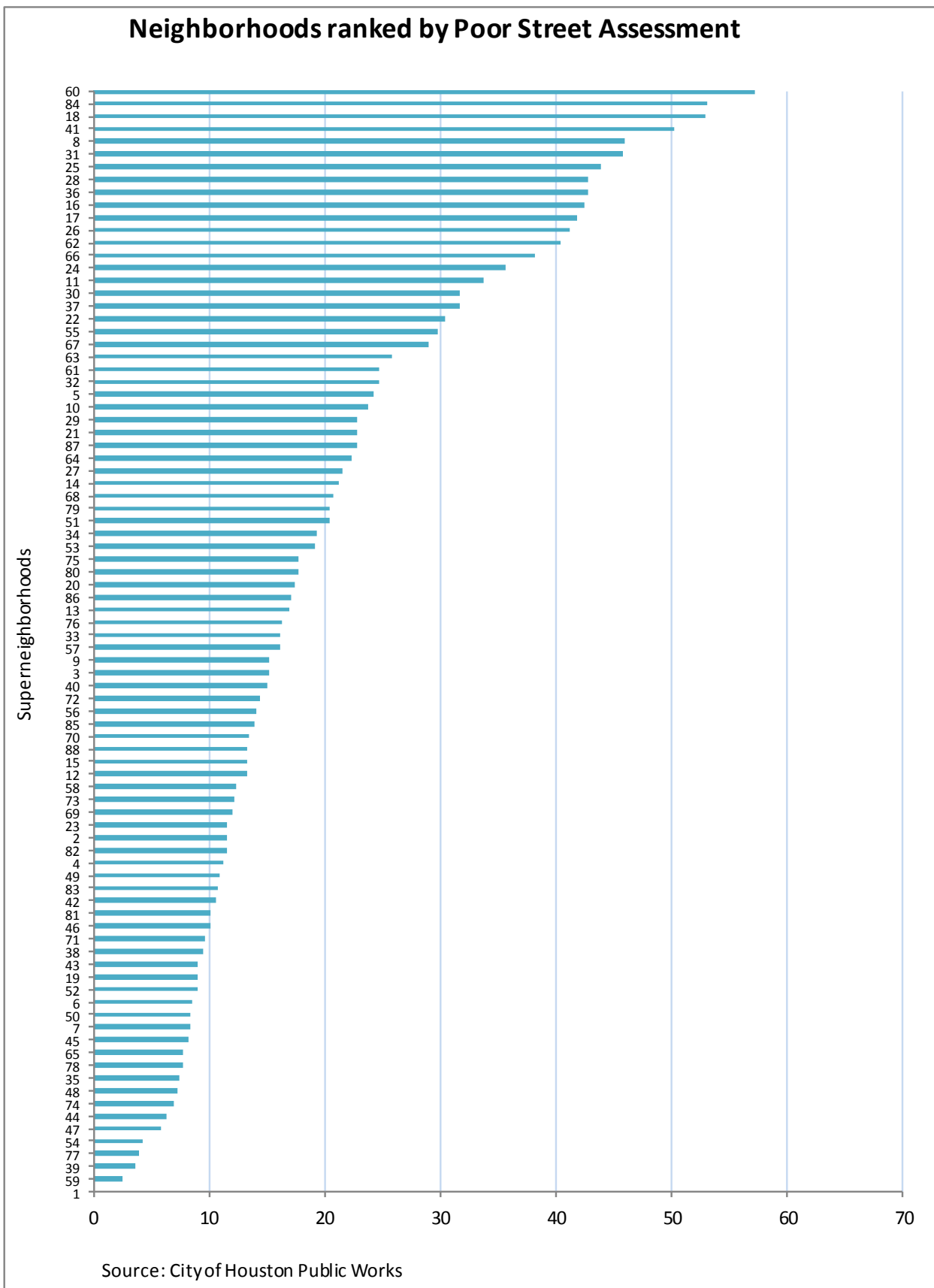| #	Neighborhood	#	Neighborhood
1	FOURTH WARD	45	PLEASANTVILLE AREA
2	SPRING BRANCH NORTH	46	ADDICKS PARK TEN
3	BRIARFOREST AREA	47	CARVERDALE
4	FORT BEND / HOUSTON	48	CENTRAL SOUTHWEST
5	WESTBRANCH	49	SOUTH PARK
6	MEYERLAND AREA	50	DENVER HARBOR / PORT HOUSTON
7	ALIEF	51	SPRING BRANCH CENTRAL
8	UNIVERSITY PLACE	52	PECAN PARK
9	BRAYS OAKS	53	LAWNDALE / WAYSIDE
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11	ELDRIDGE / WEST OAKS	55	CENTRAL NORTHWEST
12	SHARPSTOWN	56	NORTHSHORE
13	MIDTOWN	57	GOLFCREST / BELLFORT / REVEILLE
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19	WASHINGTON AVENUE COALITION / MEMORIAL PARK	63	EAST HOUSTON
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23	DOWNTOWN	67	EASTEX - JENSEN AREA
24	BRAESWOOD PLACE	68	SUNNYSIDE
25	GREATER INWOOD	69	WILLOW MEADOWS / WILLOWBEND AREA
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31	GULFTON	75	HIDDEN VALLEY
32	LAZY BROOK / TIMBERGROVE	76	NORTHSIDE/NORTHLINE
33	OST / SOUTH UNION	77	HARRISBURG / MANCHESTER
34	EDGEBROOK AREA	78	GREATER HOBBY AREA
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37	EL DORADO / OATES PRAIRIE	81	PARK PLACE
38	MEADOWBROOK / ALLENDALE	82	LAKE HOUSTON
39	SOUTH BELT / ELLINGTON	83	EAST LITTLE YORK / HOMESTEAD
40	MID WEST	84	HUNTERWOOD
41	SPRING BRANCH EAST	85	MINNETEX
42	INDEPENDENCE HEIGHTS	86	FONDREN GARDENS
43	SOUTH ACRES / CRESTMONT PARK	87	CLINTON PARK TRI-COMMUNITY
44	MEDICAL CENTER AREA	88	Willowbrook

Figure 27: Street condition neighborhood ranking

- The figure above shows that the percentage of poor streets ranges from less than 10% in 23 neighborhoods in Houston.

- The neighborhoods with the highest percentage of poor streets (more than 50% of street lane miles) are Fort Bend/ Houston, Briarforest, Spring Branch, and Forth Ward.
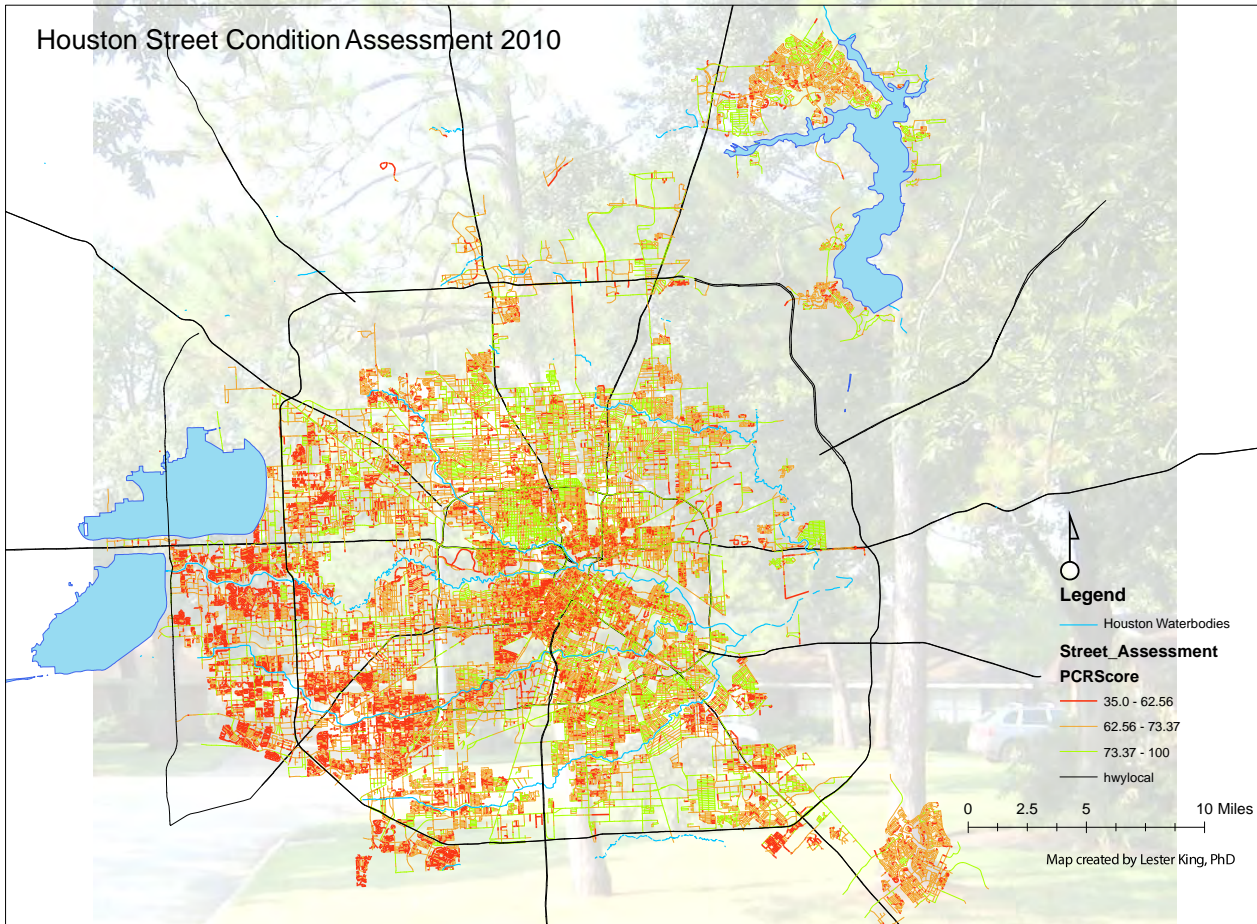
Houston Street Condition Assessment 2010

Legend

Houston Waterbodies

Street_Assessment
PCRScore
35.0 - 62.56
62.56 - 73.37
73.37 - 100
hwylocal

0   2.5   5   10 Miles

Map created by Lester King, PhD

Figure 28: Street condition assessment map

- The map above shows the street condition assessment for Houston streets.

- This map shows that streets with the worst conditions are mainly located in the west and southwest portions of the city.

Ranking of Super Neighborhoods by percentage of adequate storm sewers			
1	WESTCHASE	45	NEAR NORTHWEST
2	KINGWOOD AREA	46	PECAN PARK
3	FONDREN GARDENS	47	LAWNDALE / WAYSIDE
4	BRIARFOREST AREA	48	BRAESWOOD PLACE
5	ELDRIDGE / WEST OAKS	49	GREATER UPTOWN
6	EL DORADO / OATES PRAIRIE	50	INDEPENDENCE HEIGHTS
7	CLEAR LAKE	51	MEMORIAL
8	FORT BEND / HOUSTON	52	EAST LITTLE YORK / HOMESTEAD
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10	CENTRAL SOUTHWEST	54	GOLFCREST / BELLFORT / REVEILLE
11	MID WEST	55	PLEASANTVILLE AREA
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14	AFTON OAKS / RIVER OAKS AREA	58	GREATER HEIGHTS
15	GULFGATE RIVERVIEW / PINE VALLEY	59	NORTHSIDE/NORTHLINE
16	MINNETEX	60	SHARPSTOWN
17	FAIRBANKS / NORTHWEST CROSSING	61	SETTEGAST
18	EDGEBROOK AREA	62	FOURTH WARD
19	GREATER FONDREN SOUTHWEST	63	SECOND WARD
20	CLINTON PARK TRI-COMMUNITY	64	DOWNTOWN
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32	WESTBRANCH	76	ASTRODOME AREA
33	MEADOWBROOK / ALLENDALE	77	LAKE HOUSTON
34	SOUTH ACRES / CRESTMONT PARK	78	SPRING BRANCH EAST
35	NORTHSHORE	79	EASTEX - JENSEN AREA
36	IAH / AIRPORT AREA	80	GULFTON
37	PARK PLACE	81	GREATER THIRD WARD
38	SOUTH BELT / ELLINGTON	82	SOUTH MAIN
39	WESTWOOD	83	ADDICKS PARK TEN
40	MAGNOLIA PARK	84	UNIVERSITY PLACE
41	SPRING BRANCH CENTRAL	85	WILLOWBROOK
42	GREATER GREENSPOINT	86	MUSEUM PARK
43	SPRING BRANCH WEST	87	MIDTOWN
44	LAZY BROOK / TIMBERGROVE	88	Hunterwood*
• No storm sewers in database			

Percent of Adequate Storm Sewers

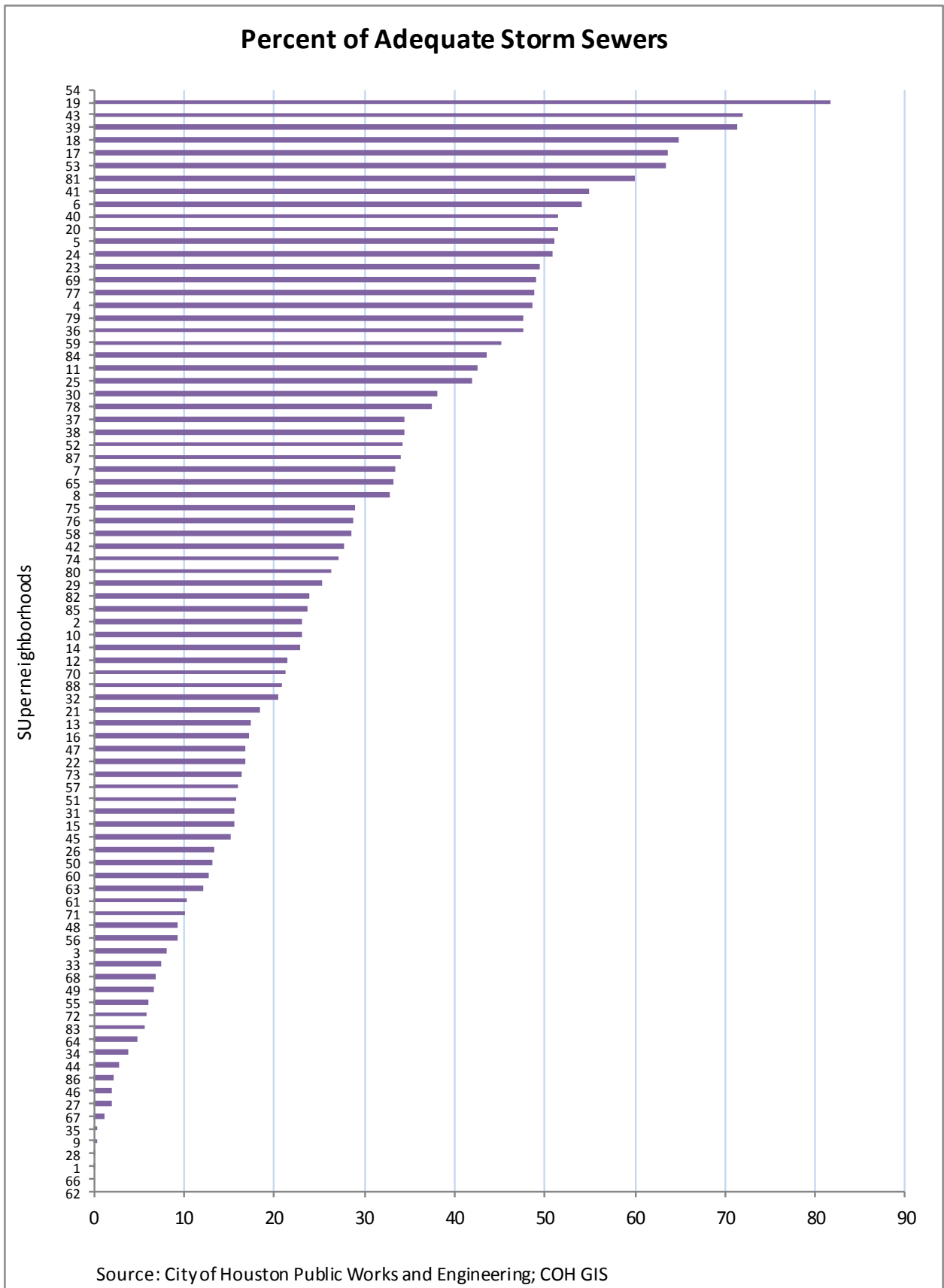Source: City of Houston Public Works and Engineering; COH GIS

Figure 29: Adequate storm sewers

- The figure above shows that the percentage of 'Adequate' storm sewers ranges from 0% in 25 Super Neighborhoods to over 50% in 14 Super Neighborhoods.

- Storm sewer condition in this analysis was based on an assessment of drainage areas conducted by the City of Houston Public Works and Engineering department.

Theme - Transportation

Sub Theme - Access

Indicator - Access to Public Transportation

Dr. Martin Luther King, Jr. commented on the failure of public transit to overcome disparities in access to jobs among racial minorities. Several historical studies in the country have pointed to the need to connect central city residents with jobs using transit (Sanchez, 1999). Sustainability of public transit is a balance between providing access; ensuring timely frequency of bus/ rail trips; minimizing time of travel to final destinations, minimizing environmental impact of bus/ rails emissions and right of way development; and lastly ensuring that pricing covers the cost of operations. **Access to Transit** in this indicator is measured by Euclidean (straight line) proximity to bus stops, and by the density of street intersections. Other accessibility considerations such as frequency of bus routes; travel time to destinations; and congestion time contribute more robustly to addressing accessibility. None of the previously mentioned accessibility methods negate the importance of providing transit stops within walking distance to the population. This metric is the most fundamental of all accessibility methods and since all neighborhoods across Houston do not show perfect scores of population within ¼ mile to transit stops, then this simple metric has an important role to play in addressing access to public transportation. This metric demonstrates the level of increases necessary to improve the distribution of transit stops across the city.

Street connectivity is important in that it directly influences the time possible for commuters to arrive to destinations. More street intersections are an opportunity to minimize travel time, while fewer street intersections are an infrastructural obstacle to improving time spend in travel. The sustainability trade-off between paving new roadways to increase connectivity and the environmental impact of new roads, should be properly evaluated.

Sustainability Benefit: Houstonians have moderate access to transit stops that are within walking distance for most areas in the city.

Sustainability Issue: Houston has poor street connectivity and neighborhoods tend to be separated from places of work and schools. As a result, even though accessibility to bus stops is good, trip times are long.

Indicator Groups: Access to Public Transportation among Super Neighborhoods in Houston was measured by a comparison of the **Percentage of persons within ¼ mile to transit stops** in each Super Neighborhood. This metric is part of the second most significant group of indicators in the study. This group of indicators is titled 'Inner City Group' since it is composed of the following indicators: **Vehicle miles travelled, Street intersection density, Percent of open space, Population close to parks, Housing units close to business centers, Street assessment, High development land use, Population close to bus stops, Population in food deserts** (**Vehicle miles travelled** and **Percent of open space** are negatively related). Street Intersection Density is also used to measure this indicator. Both indicators belong to the same group.

The following metrics, are **used to measure the indicator** *Access to Public Transportation.*

Figure 30: Access to transit stops
Figure 31: Intersections by neighborhood

Ranking of Super Neighborhoods for percent of population ¼ to transit stops

1	NEARTOWN - MONTROSE	45	GREATER GREENSPOINT
2	MIDTOWN	46	SPRING BRANCH CENTRAL
3	FOURTH WARD	47	LAWNDALE / WAYSIDE
4	GULFTON	48	BRAYS OAKS
5	MACGREGOR	49	SOUTH PARK
6	NORTHSIDE VILLAGE	50	MEMORIAL
7	GREATER THIRD WARD	51	SPRING BRANCH NORTH
8	GREATER FIFTH WARD	52	EASTEX - JENSEN AREA
9	DOWNTOWN	53	GULFGATE RIVERVIEW / PINE VALLEY
10	OST / SOUTH UNION	54	ALIEF
11	GREENWAY / UPPER KIRBY AREA	55	HIDDEN VALLEY
12	MUSEUM PARK	56	BRIARFOREST AREA
13	GREATER EASTWOOD	57	PARK PLACE
14	UNIVERSITY PLACE	58	PLEASANTVILLE AREA
15	LAZY BROOK / TIMBERGROVE	59	SPRING BRANCH WEST
16	MEYERLAND AREA	60	WESTWOOD
17	BRAEBURN	61	GOLFCREST / BELLFORT / REVEILLE
18	GREATER HEIGHTS	62	HARRISBURG / MANCHESTER
19	WESTBURY	63	EAST LITTLE YORK / HOMESTEAD
20	MEDICAL CENTER AREA	64	MEADOWBROOK / ALLENDALE
21	SECOND WARD	65	WILLOWBROOK
22	ASTRODOME AREA	66	EAST HOUSTON
23	MAGNOLIA PARK	67	SOUTH ACRES / CRESTMONT PARK
24	SPRING BRANCH EAST	68	CLINTON PARK TRI-COMMUNITY
25	INDEPENDENCE HEIGHTS	69	CENTRAL SOUTHWEST
26	KASHMERE GARDENS	70	FONDREN GARDENS
27	SHARPSTOWN	71	GREATER INWOOD
28	WESTCHASE	72	CARVERDALE
29	BRAESWOOD PLACE	73	EL DORADO / OATES PRAIRIE
30	TRINITY / HOUSTON GARDENS	74	NORTHSHORE
31	NORTHSIDE/NORTHLINE	75	FAIRBANKS / NORTHWEST CROSSING
32	AFTON OAKS / RIVER OAKS AREA	76	FORT BEND / HOUSTON
33	GREATER UPTOWN	77	ELDRIDGE / WEST OAKS
34	MID WEST	78	WESTBRANCH
35	SUNNYSIDE	79	GREATER HOBBY AREA
36	SOUTH MAIN	80	IAH / AIRPORT AREA
37	LANGWOOD	81	SOUTH BELT / ELLINGTON
38	CENTRAL NORTHWEST	82	MINNETEX
39	WASHINGTON AVENUE COALITION / MEMORIAL PARK	83	CLEAR LAKE
40	WILLOW MEADOWS / WILLOWBEND AREA	84	EDGEBROOK AREA
41	SETTEGAST	85	ADDICKS PARK TEN
42	DENVER HARBOR / PORT HOUSTON	86	KINGWOOD AREA
43	ACRES HOME	87	HUNTERWOOD*
44	PECAN PARK	88	LAKE HOUSTON*

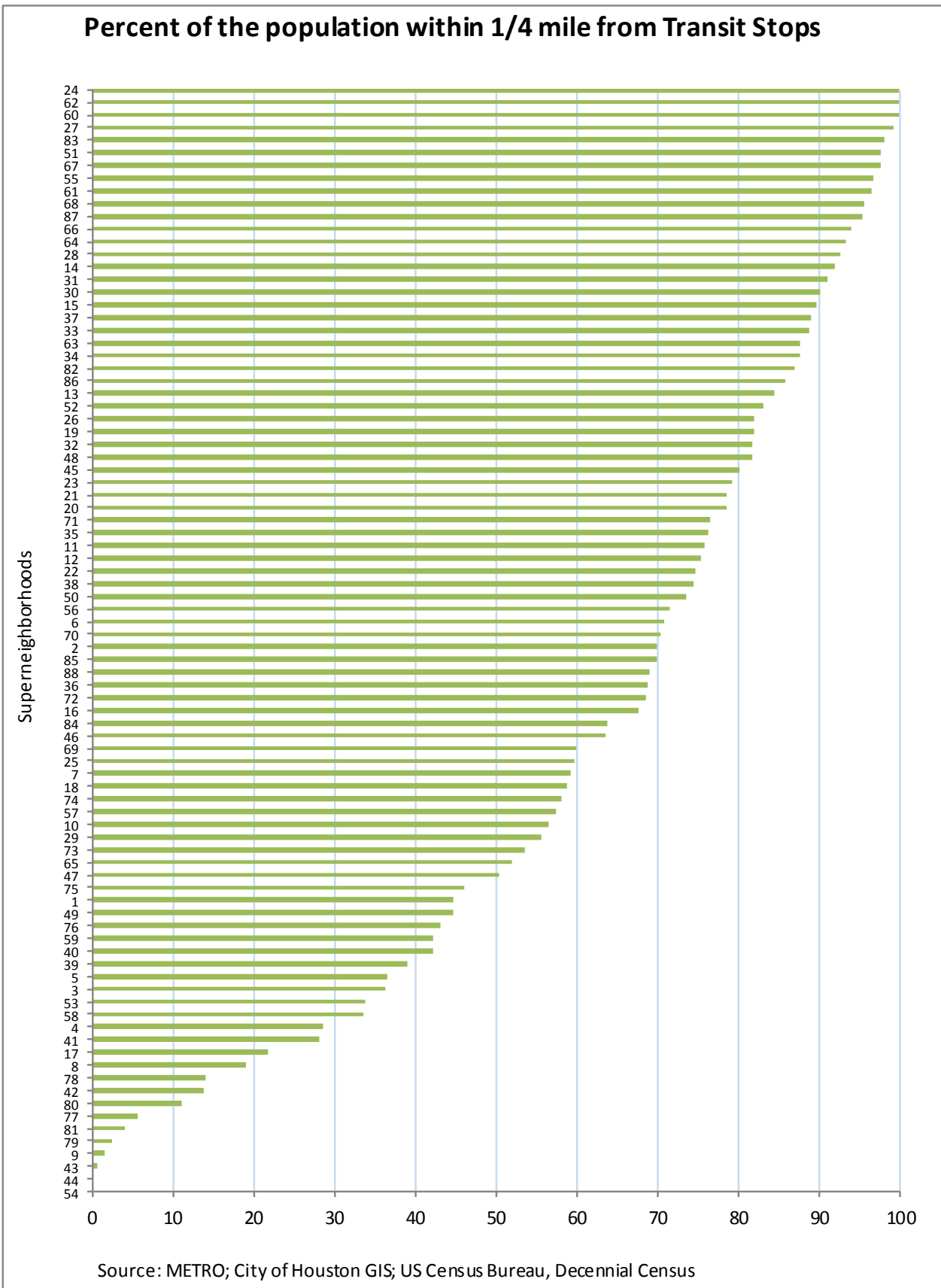- * - 0% population ¼ mile to transit stops

Figure 30: Access to transit stops

- The percentage of total population within a quarter mile from a bus stop was 68.5% in 2010.
- Seven neighborhoods had less than 10% of their population within ¼ mile from transit stops. Those neighborhoods are Minnetex, Clear Lake, Edgebrook Area, Addicks Park Ten, Lake Houston and Hunterwood.
- Eighteen neighborhoods have over 90% of their populations within ¼ mile to transit stops.

|	Ranking of Super Neighborhoods for density of intersections per square mile		
1	FOURTH WARD	45	GREATER UPTOWN
2	MIDTOWN	46	ELDRIDGE / WEST OAKS
3	MUSEUM PARK	47	MEDICAL CENTER AREA
4	GREATER FIFTH WARD	48	HARRISBURG / MANCHESTER
5	DOWNTOWN	49	MEMORIAL
6	NEARTOWN - MONTROSE	50	GREATER INWOOD
7	GREATER THIRD WARD	51	EAST LITTLE YORK / HOMESTEAD
8	NORTHSIDE VILLAGE	52	ALIEF
9	GREATER EASTWOOD	53	KASHMERE GARDENS
10	SECOND WARD	54	TRINITY / HOUSTON GARDENS
11	GREATER HEIGHTS	55	WESTBRANCH
12	PECAN PARK	56	SPRING BRANCH EAST
13	MAGNOLIA PARK	57	LAZY BROOK / TIMBERGROVE
14	OST / SOUTH UNION	58	MID WEST
15	SETTEGAST	59	SOUTH ACRES / CRESTMONT PARK
16	UNIVERSITY PLACE	60	MEADOWBROOK / ALLENDALE
17	INDEPENDENCE HEIGHTS	61	FORT BEND / HOUSTON
18	WASHINGTON AVENUE COALITION / MEMORIAL PARK	62	SPRING BRANCH WEST
19	LANGWOOD	63	SPRING BRANCH NORTH
20	MEYERLAND AREA	64	GULFTON
21	GREENWAY / UPPER KIRBY AREA	65	CENTRAL SOUTHWEST
22	WESTBURY	66	FAIRBANKS / NORTHWEST CROSSING
23	BRAESWOOD PLACE	67	NORTHSHORE
24	MACGREGOR	68	KINGWOOD AREA
25	SOUTH PARK	69	EAST HOUSTON
26	DENVER HARBOR / PORT HOUSTON	70	CLEAR LAKE
27	HIDDEN VALLEY	71	SOUTH BELT / ELLINGTON
28	SUNNYSIDE	72	FONDREN GARDENS
29	GOLFCREST / BELLFORT / REVEILLE	73	CARVERDALE
30	NEAR NORTHWEST	74	GREATER GREENSPOINT
31	NORTHSIDE/NORTHLINE	75	WESTCHASE
32	EASTEX - JENSEN AREA	76	CLINTON PARK TRI-COMMUNITY
33	GULFGATE RIVERVIEW / PINE VALLEY	77	HUNTERWOOD
34	SPRING BRANCH CENTRAL	78	WESTWOOD
35	ACRES HOME	79	LAKE HOUSTON
36	BRAEBURN	80	PLEASANTVILLE AREA
37	GREATER FONDREN SOUTHWEST	81	ASTRODOME AREA
38	EDGEBROOK AREA	82	GREATER HOBBY AREA
39	AFTON OAKS / RIVER OAKS AREA	83	ADDICKS PARK TEN
40	BRIARFOREST AREA	84	SOUTH MAIN
41	WILLOW MEADOWS / WILLOWBEND AREA	85	IAH / AIRPORT AREA
42	PARK PLACE	86	MINNETEX
43	LAWNDALE / WAYSIDE	87	WILLOWBROOK
44	SHARPSTOWN	88	EL DORADO / OATES PRAIRIE
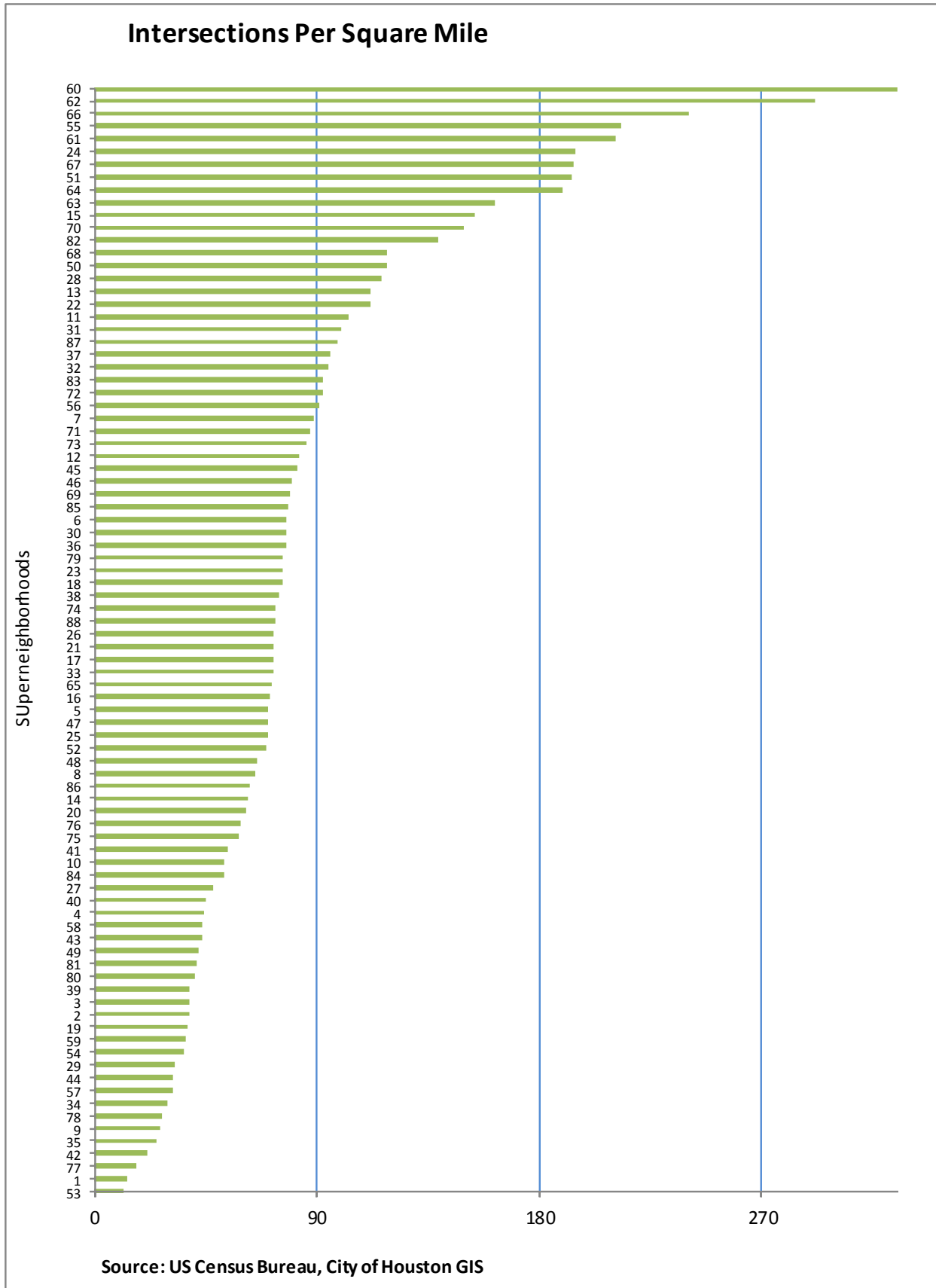
Figure 31: Intersections by neighborhood

- Increased street connectivity is related to efficient commuting in getting from origins to destinations such as from home to work or other discretionary stops. The more intersections there are signifies that more options are available for alternative routes, which eases congestion and reduces trip times.

- The above figure shows the average number of intersections per square mile within each of the 88 Super Neighborhoods in Houston. The U.S. Green Building Council (USGBC) developed a rating system for Green Neighborhood Development called LEED ND. This rating system has a pre-requisite of 90 intersections per square mile for any project interested in considering applying for the rating **(U.S. Green Building Council, 2009)**.

- Twenty-six neighborhoods exceed the LEED minimum rating criteria for intersection density. Twenty-four neighborhoods have less than half the required minimum threshold for street intersection density.
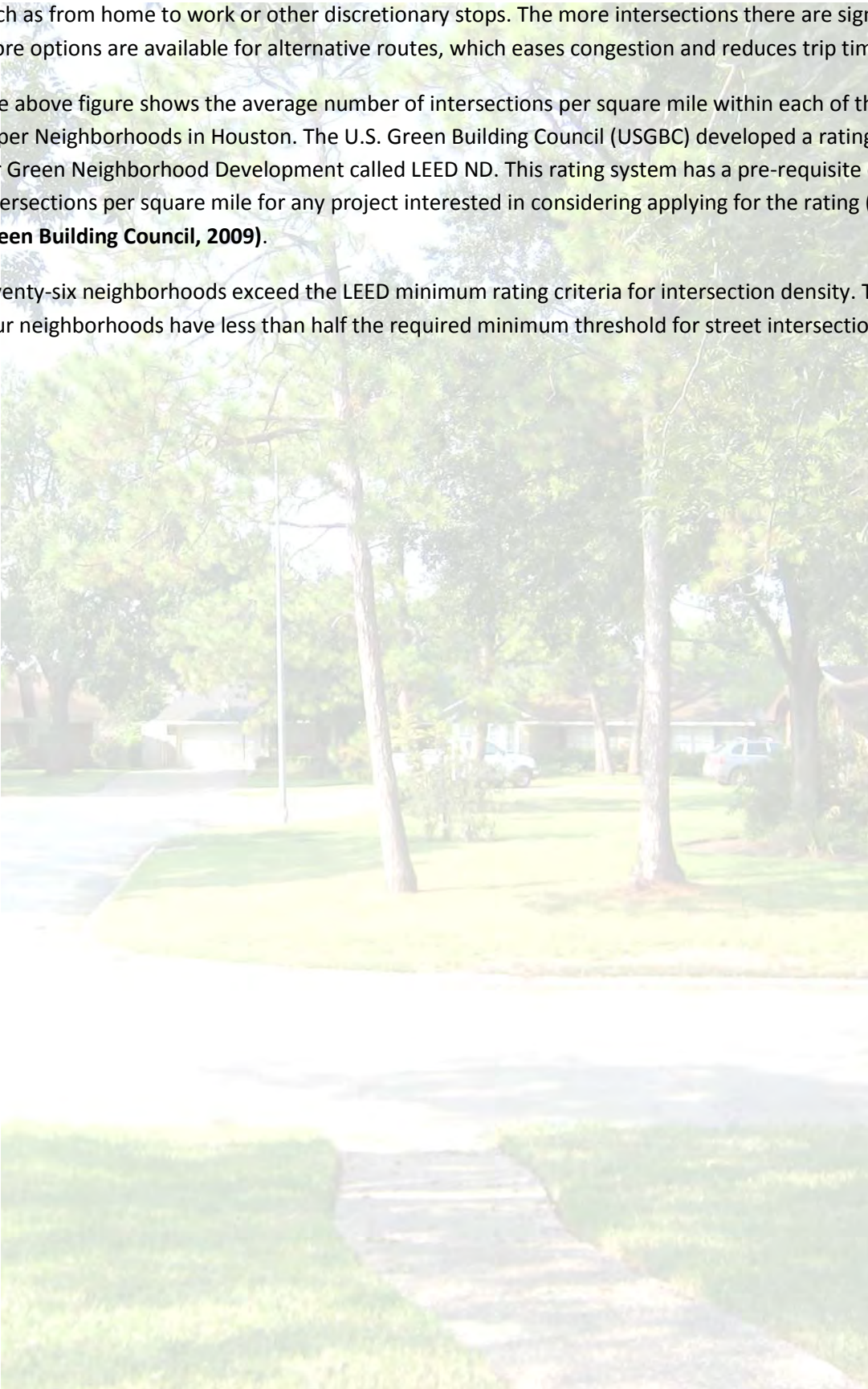
Theme - Transportation

Sub Theme - Demand

Indicator – Vehicle Miles Traveled

Reducing the amount of **vehicle miles traveled** (VMT) is one method for curbing air pollution, greenhouse gas emissions and traffic congestion. Population growth and economic development inhibit reductions in VMT (ICF International, 2011). Most contemporary urban planners agree that locating jobs and services close to homes would aid in reducing VMT numbers (Cervero & Duncan, 2006). In a representative sample of Harris County residents, 48% thought that traffic was the biggest problem in 2005, while in 1990 9% thought that traffic was the biggest problem (Klineberg, 2005). In 2007 the City of Houston reported the highest auto sales of any city in the country, with 379 auto dealers reporting $9.4 billion dollars of sales (U.S. Census Bureau, 2011).

Sustainability Benefit: High VMT is an indicator of a robust economy.

Sustainability Issue: VMT per capita in Houston is projected to increase over time.

Indicator Groups: Vehicle miles traveled among Super Neighborhoods in Houston was measured by a comparison of the **Annual vehicle miles traveled** in each Super Neighborhood. This metric is part of the second most significant group of indicators in the study. This group of indicators is titled 'Inner City Group' since it is composed of the following indicators: **Vehicle Miles Travelled, Street Intersection Density, Percent of open Space, Population close to parks, Housing units close to business centers, Poor Streets, High development land use, population close to bus stops, Population in food deserts** (**Vehicle miles travelled** and **Percent of open space** are negatively related).

The following metric, Error! Reference source not found., is used to measure the indicator *Vehicle Miles ravelled.*

Figure 32: Annual VMT per household
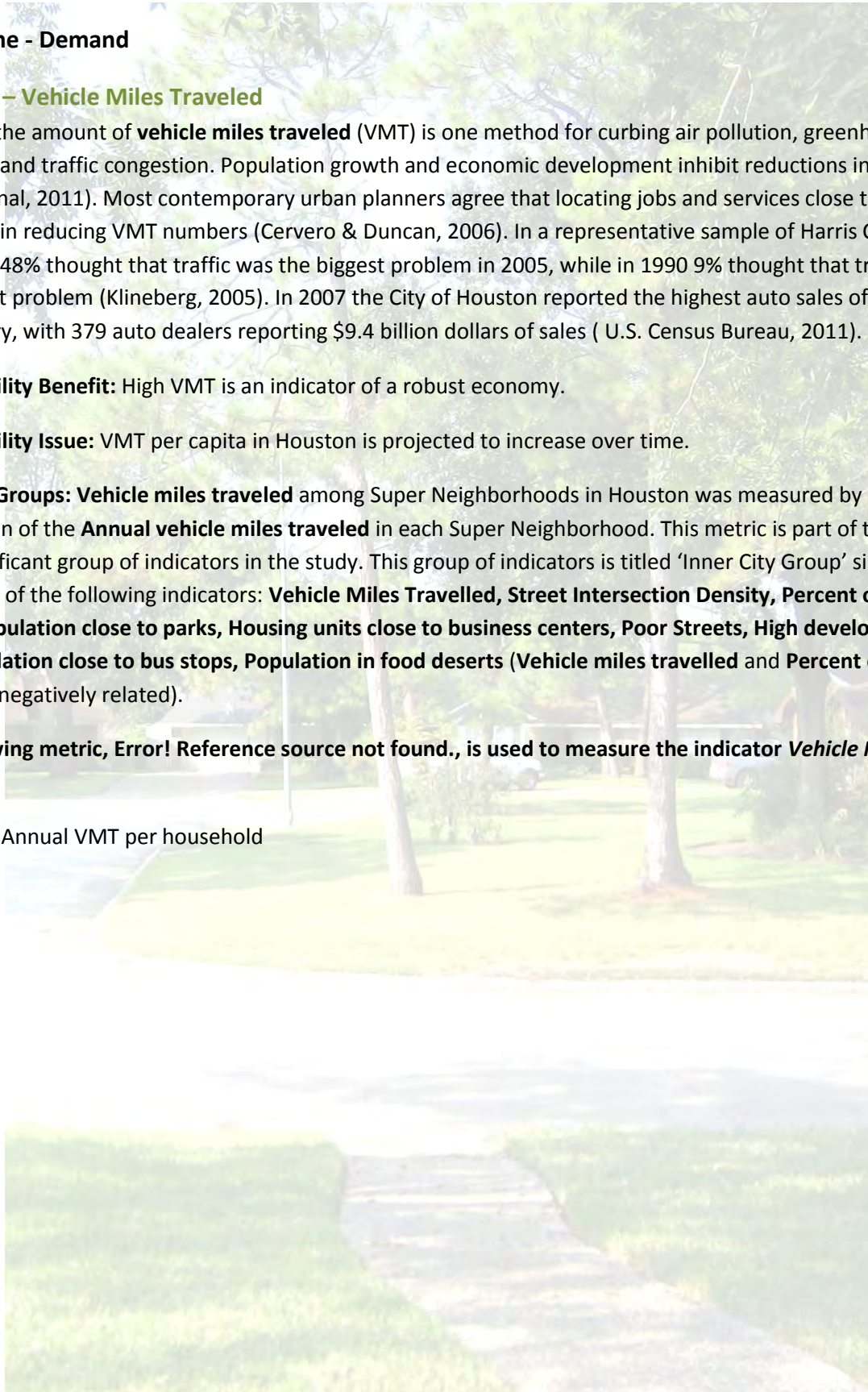
Ranking of Super Neighborhoods by vehicle miles traveled (VMT)

|			
1	LAKE HOUSTON	45	MEMORIAL
2	KINGWOOD AREA	46	WESTBURY
3	HUNTERWOOD	47	INDEPENDENCE HEIGHTS
4	IAH / AIRPORT AREA	48	SPRING BRANCH CENTRAL
5	EL DORADO / OATES PRAIRIE	49	LANGWOOD
6	MINNETEX	50	PECAN PARK
7	ADDICKS PARK TEN	51	WILLOW MEADOWS / WILLOWBEND AREA
8	EAST HOUSTON	52	GREATER FONDREN SOUTHWEST
9	CLEAR LAKE	53	NEAR NORTHWEST
10	GREATER HOBBY AREA	54	GULFGATE RIVERVIEW / PINE VALLEY
11	SOUTH BELT / ELLINGTON	55	LAWNDALE / WAYSIDE
12	FORT BEND / HOUSTON	56	MAGNOLIA PARK
13	SETTEGAST	57	BRIARFOREST AREA
14	EAST LITTLE YORK / HOMESTEAD	58	SPRING BRANCH EAST
15	NORTHSHORE	59	GREATER FIFTH WARD
16	PLEASANTVILLE AREA	60	MEYERLAND AREA
17	EDGEBROOK AREA	61	WESTWOOD
18	FONDREN GARDENS	62	LAZY BROOK / TIMBERGROVE
19	CLINTON PARK TRI-COMMUNITY	63	OST / SOUTH UNION
20	SOUTH ACRES / CRESTMONT PARK	64	BRAEBURN
21	CARVERDALE	65	GREATER HEIGHTS
22	CENTRAL SOUTHWEST	66	NORTHSIDE VILLAGE
23	WESTBRANCH	67	WESTCHASE
24	TRINITY / HOUSTON GARDENS	68	SECOND WARD
25	WILLOWBROOK	69	SHARPSTOWN
26	EASTEX - JENSEN AREA	70	GREATER EASTWOOD
27	MEADOWBROOK / ALLENDALE	71	GREATER UPTOWN
28	HIDDEN VALLEY	72	WASHINGTON AVENUE COALITION / MEMORIAL PARK
29	GREATER INWOOD	73	MID WEST
30	ELDRIDGE / WEST OAKS	74	GULFTON
31	ACRES HOME	75	SOUTH MAIN
32	HARRISBURG / MANCHESTER	76	BRAESWOOD PLACE
33	PARK PLACE	77	MACGREGOR
34	NORTHSIDE/NORTHLINE	78	GREATER THIRD WARD
35	GOLFCREST / BELLFORT / REVEILLE	79	AFTON OAKS / RIVER OAKS AREA
36	FAIRBANKS / NORTHWEST CROSSING	80	GREENWAY / UPPER KIRBY AREA
37	DENVER HARBOR / PORT HOUSTON	81	DOWNTOWN
38	KASHMERE GARDENS	82	ASTRODOME AREA
39	SPRING BRANCH NORTH	83	NEARTOWN - MONTROSE
40	SOUTH PARK	84	FOURTH WARD
41	SPRING BRANCH WEST	85	UNIVERSITY PLACE
42	SUNNYSIDE	86	MEDICAL CENTER AREA
43	ALIEF	87	MIDTOWN
44	GREATER GREENSPOINT	88	MUSEUM PARK
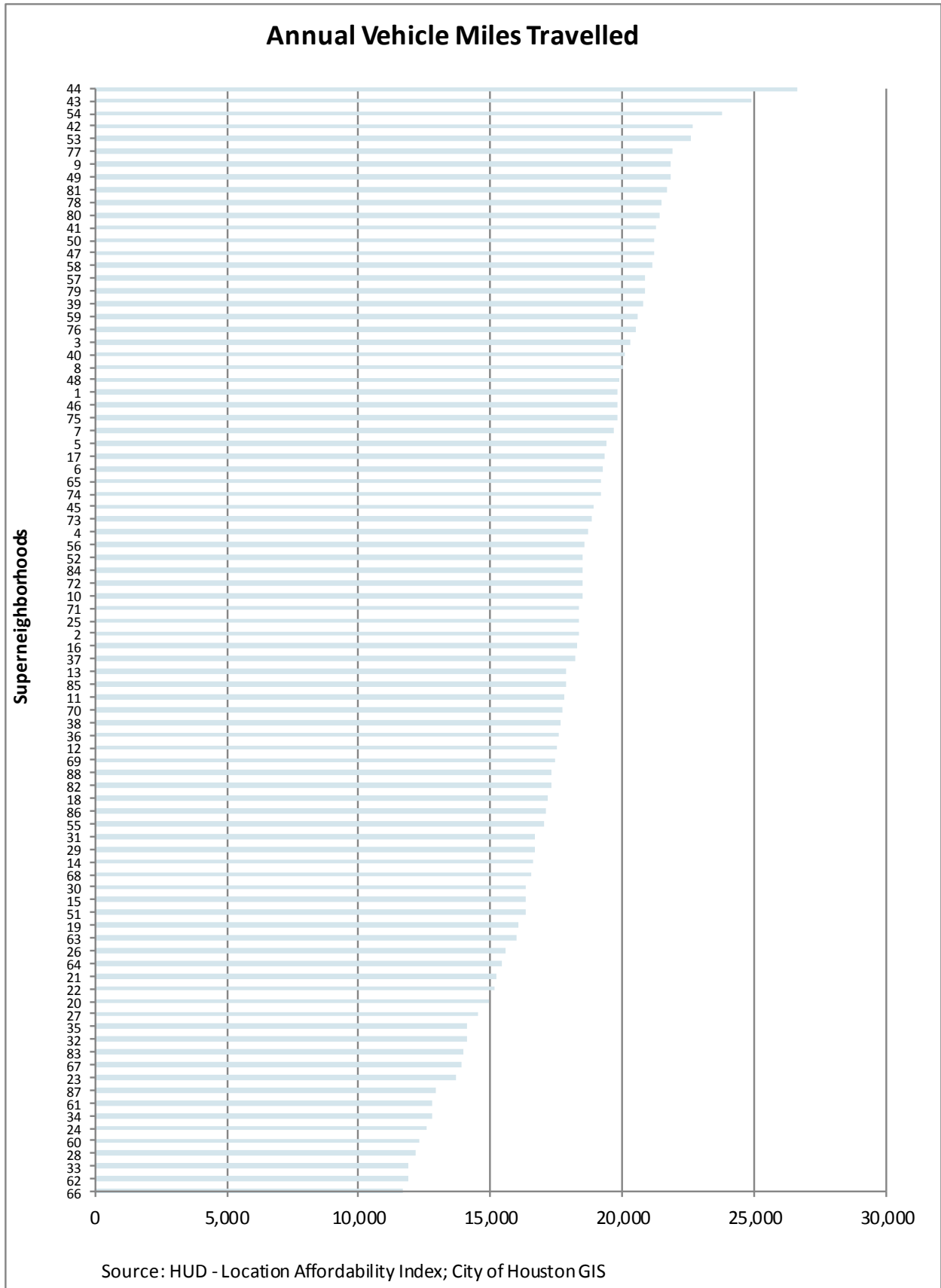
Figure 32: Annual VMT per household

- The annual average VMT in Houston is 17,534 per household.
- Neighborhoods in Houston range from 11,688.86 annual miles in Museum Park to 26,660.74 annual miles in Lake Houston.

Theme - Transportation

Sub Theme - Mode

Indicator - Travel Choice

The private automobile has long been the preferred method of travel for most Houstonians (Klineberg, 2010). Is the percentage of persons traveling by private automobile a sign of decreasing community standards, an indicator that population growth is occurring in areas not serviced by public transit, or an indicator that the current transit system, which relies heavily on buses, is not efficient?

Sustainability Benefit: No benefit identified for low use of transit in Houston.

Sustainability Issue: The percentage of persons using transit varies widely by District in Houston.

Indicator Groups: Travel mode among Super Neighborhoods in Houston was measured by a comparison of the **percentage of persons taking transit to work** in each Super Neighborhood. This metric is part of a group of three indicators titled 'Race and Ethnicity' since it is composed of the following indicators: Percent of persons who are Hispanic; Percent of persons who are African American; Percent of persons taking transit to work (Percent of persons who are Hispanic is negatively related).

The following metric is used to measure the indicator *Travel Choice*.

Figure 33: Transit to work
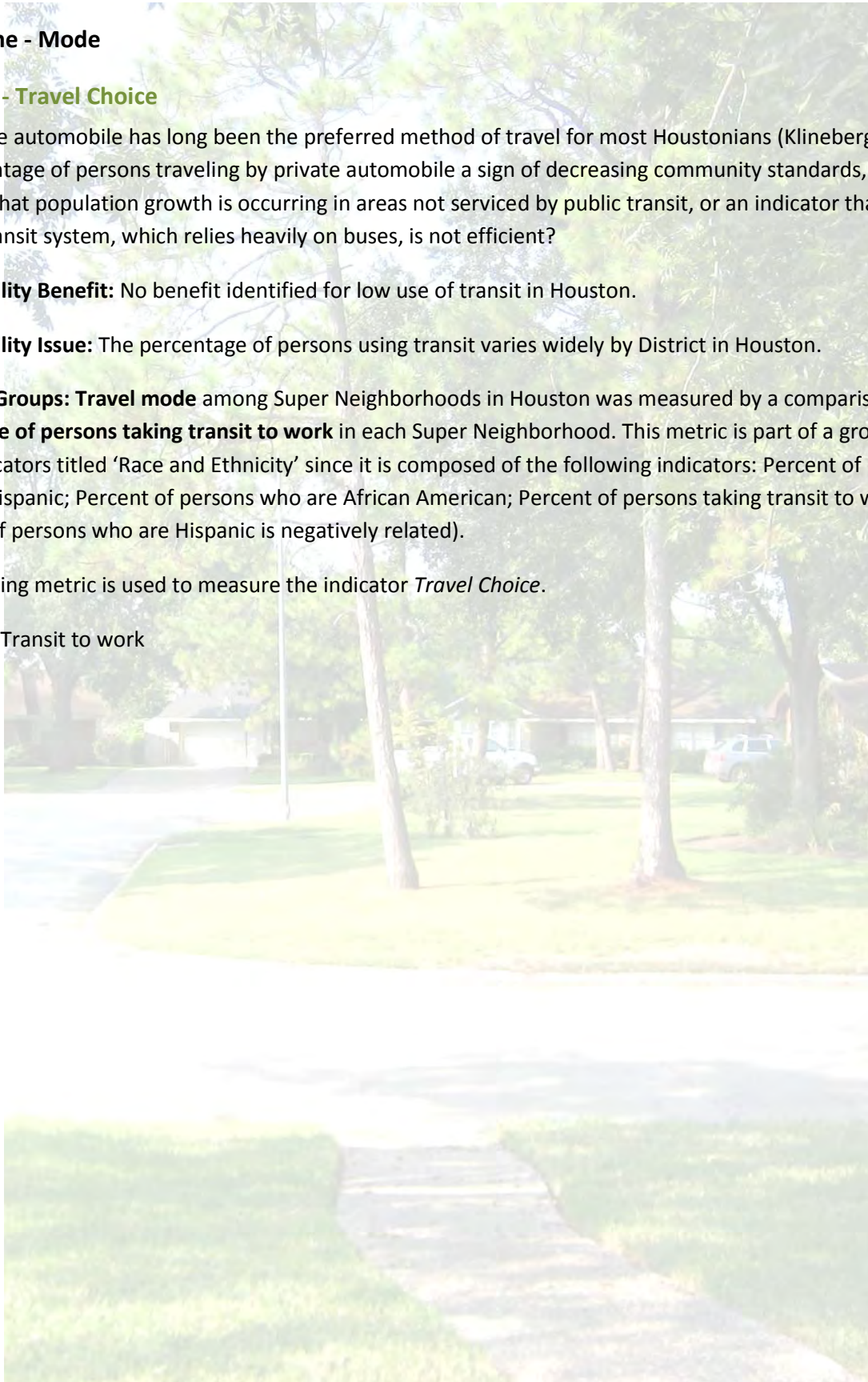
Ranking of Super Neighborhoods by percent of workers taking transit

1	GREATER THIRD WARD	45	BRAESWOOD PLACE
2	ASTRODOME AREA	46	ACRES HOME
3	SETTEGAST	47	EASTEX - JENSEN AREA
4	DOWNTOWN	48	ALIEF
5	KASHMERE GARDENS	49	GOLFCREST / BELLFORT / REVEILLE
6	OST / SOUTH UNION	50	FORT BEND / HOUSTON
7	BRAEBURN	51	SPRING BRANCH EAST
8	SUNNYSIDE	52	SPRING BRANCH WEST
9	MUSEUM PARK	53	LANGWOOD
10	MACGREGOR	54	SPRING BRANCH CENTRAL
11	GULFTON	55	GREATER HEIGHTS
12	INDEPENDENCE HEIGHTS	56	NEAR NORTHWEST
13	GREATER EASTWOOD	57	UNIVERSITY PLACE
14	SOUTH MAIN	58	SPRING BRANCH NORTH
15	GREATER FIFTH WARD	59	CENTRAL SOUTHWEST
16	NORTHSIDE VILLAGE	60	PARK PLACE
17	SECOND WARD	61	KINGWOOD AREA
18	SOUTH PARK	62	CARVERDALE
19	MAGNOLIA PARK	63	LAWNDALE / WAYSIDE
20	WESTWOOD	64	LAZY BROOK / TIMBERGROVE
21	TRINITY / HOUSTON GARDENS	65	AFTON OAKS / RIVER OAKS AREA
22	HARRISBURG / MANCHESTER	66	BRIARFOREST AREA
23	MID WEST	67	GREENWAY / UPPER KIRBY AREA
24	SOUTH ACRES / CRESTMONT PARK	68	FOURTH WARD
25	GREATER GREENSPOINT	69	MEADOWBROOK / ALLENDALE
26	GREATER INWOOD	70	NORTHSHORE
27	MINNETEX	71	PLEASANTVILLE AREA
28	EAST LITTLE YORK / HOMESTEAD	72	SOUTH BELT / ELLINGTON
29	SHARPSTOWN	73	ELDRIDGE / WEST OAKS
30	MIDTOWN	74	MEMORIAL
31	GREATER FONDREN SOUTHWEST	75	WILLOWBROOK
32	WILLOW MEADOWS / WILLOWBEND AREA	76	WASHINGTON AVENUE COALITION / MEMORIAL PARK
33	MEDICAL CENTER AREA	77	CLEAR LAKE
34	EAST HOUSTON	78	GREATER UPTOWN
35	FAIRBANKS / NORTHWEST CROSSING	79	ADDICKS PARK TEN
36	CLINTON PARK TRI-COMMUNITY	80	EDGEBROOK AREA
37	NEARTOWN - MONTROSE	81	LAKE HOUSTON
38	DENVER HARBOR / PORT HOUSTON	82	GREATER HOBBY AREA
39	GULFGATE RIVERVIEW / PINE VALLEY	83	WESTBRANCH
40	NORTHSIDE/NORTHLINE	84	HIDDEN VALLEY
41	WESTCHASE	85	FONDREN GARDENS
42	WESTBURY	86	EL DORADO / OATES PRAIRIE*
43	PECAN PARK	87	IAH / AIRPORT AREA*
44	MEYERLAND AREA	88	HUNTERWOOD*

- * - 0% workers using transit

Percent of workers taking Transit to Work
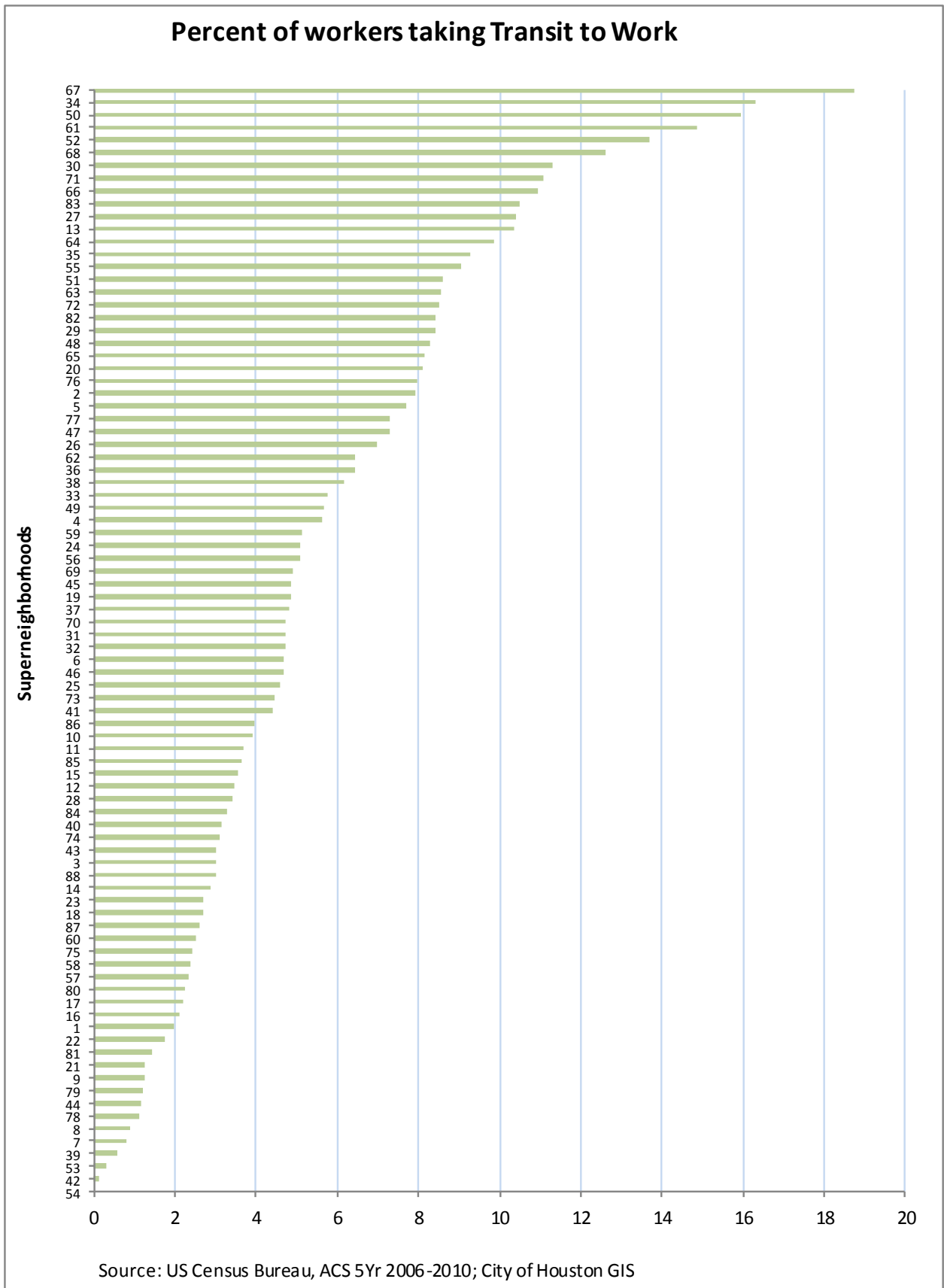

Superneighborhoods

Figure 33: Transit to work

- In 2010, 4.9% of Houstonians used transit to get to work. In comparison 87.7% of Houstonians used car, truck, or van to get to work.
- The range of transit use by neighborhood in Houston is 0% in Hunterwood, Airport area, and El Dorado/ Oates Prairie to 18.75% in the Third Ward.

Economic Development Policy Recommendations

THEME – Economic Development

Sub Theme – Employment: Indicator – Employment Status

- Need to match skills training from community colleges with demand from employers. Collaboration between community colleges, school districts, and major employers, with support from the city, is necessary. Apprenticeship programs is one type of solution.
- Utilize Science, Technology, Engineering, Math (STEM) training programs more effectively.
  - Citizens can support the following:
    - Support career day opportunities at schools and become more involved at schools.
  - Local government and school districts can support the following:
    - Incentives for companies to provide internships/ apprenticeships.
    - Start stem programs by 5th grade.
    - School district and city partnership
  - Businesses can support the following:
    - Be clear on needs.
    - Provide opportunities for internships/ apprenticeships.

Sub Theme – Macroeconomic Performance: Indicator – Primary Jobs/Green Jobs

- Develop alternative energy industry to attract high end jobs in that sector.
- Develop IT/ Advanced Technologies skills and knowledge labor force.
- Need to improve quality of life to attract professionals and jobs (eg. Arts, eco-tourism, attractions).
- Need to foster and grow Life Science and Bio-Technology industries in Houston.
  - Citizens can support the following:
    - Advocate for improved quality of life.
    - Purchase green products and services.
  - Local governments can support the following:
    - Campaign to raise visibility of green businesses.
    - Incentives to develop manufacturing and green industries.
    - Market studies.
    - Land planning for enhanced quality of life.
    - Develop workforce to meet industrial needs.
  - Non-profit groups can support the following:
    - Assist businesses to clarify needs.
    - Talent attraction.

Sub Theme – Earnings: Indicator – Income

- Foster development of energy trading (collaboration between Greater Houston Partnership, banks, and universities).
- Develop our opportunity to increase international trade based on large diversity.
  - Local government can contribute in the following ways:
    - Offer incentives to companies to raise level of pay.
    - Facilitate improved education and training for workforce.
    - Address minimum wages.
  - Businesses can contribute in the following ways:
    - Talent retention.
    - Develop non-monetary perks
  - Non-profit groups can contribute in the following ways:
    - Assessment of international trade benefits to local economy.
    - Wage surveys.
    - Identify factors to attract higher paying jobs.

THEME – Consumption and Production

Sub Theme – Waste Generation and Management: Indicator – Waste Generation

- Reporting requirement for waste haulers to report sources of waste collected.
- We need to be more conscious about decreasing land fill space to work towards a green and sustainable region.
- City of Houston needs to expand the household recycling program to all households.
- Charging a fee for regular stream waste disposal will offset the cost of this important program.
  - Local government can support the following:
    - Education to the general public on waste reduction and management.

Sub Theme – Energy: Indicator – Energy Consumption

- We need to utilize energy efficient building technology such as smart energy meters.
- Educate and incentivize residents on weatherization and energy conservation.
- Need to develop real time pricing policy since we have smart meter capability.
- Need energy disclosure policies and required audits for large users.
  - Non-profit groups can contribute in the following ways:
    - Develop study on real-time pricing policies.

THEME – Transportation

Sub Theme – Access: Indicator – Access to Transit

- Transit service improvements - Frequency, circulation services/linkages within strategic areas such as the job centers, and travel time need to be improved to circumvent congestion and long travel time.
- Transit accessibility improvements - Infrastructure such as ramps, sidewalks, bridges over ditches, and sufficient amount of shelters need to be addressed as part of a complete trips package to make public transportation safe, feasible, and desirable.
- Transit coordination - We need coordination of public agencies to plan for improving transit (METRO, Houston Planning Department, Houston Public Works, HGAC, HISD.
- Transit Planning - Transit corridor ordinance has not been utilized effectively in Houston.

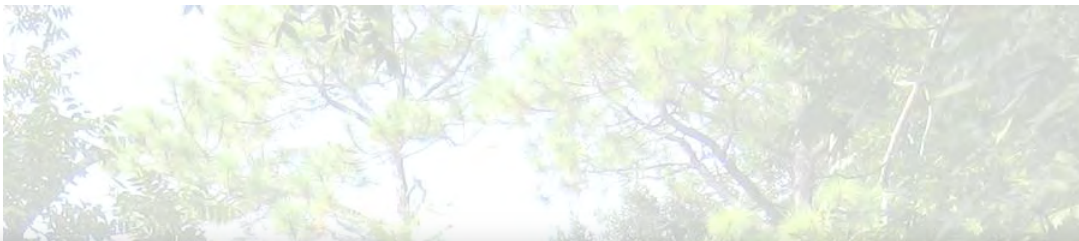### Sub Theme – Demand: Indicator – Vehicle Miles Traveled (VMT)

- Incentivize housing development near employment areas.
- Flex Work program is not being effectively promoted and utilized.
  - Local government can contribute in the following ways:
    - Develop vision and goals.
    - Speed up developer permitting processes.

Sub Theme – Mode: Indicator – Travel Choice

- The pedestrian and bicycle network should be developed to complement the bus and rail network as the rail network cannot be as effective without the other modes.
- Develop technologies such as apps to coordinate transit options such as bus, rail, and ride share programs.
  - Local government can contribute in the following ways:
    - Make apps available for citizens to plan trips more efficiently.
    - Land use planning
  - Businesses can contribute by:
    - Offering alternative travel and telecommuting options.
    - Providing facilities for bike and walking.
    - Citizens and non-profits can advocate

Houston Community Sustainability:

The Quality of Life Atlas