Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
SWUTC/00/721925-1		

4. Title and Subtitle	5. Report Date
Relationship of Commuter Routes to Central Business District Employment	June 2000
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Ronald E. Goodwin and Carol A. Lewis	Research Report 721925-1

9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Center for Transportation Training and Research Texas Southern University 3100 Cleburne Avenue Houston, TX 77004	
	11. Contract or Grant No. DTRS92-G-0006

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Southwest Region University Transportation Center Texas Transportation Institute The Texas A&M University System College Station, Texas 77843-3135	
	14. Sponsoring Agency Code

15. Supplementary Notes

Supported by a grant from the U.S. Department of Transportation, University Transportation Centers Program

16. Abstract

There are many factors that may contribute to fluctuating transit ridership in a given region. Seasonal changes, gasoline prices, availability of parking facilities and parking prices, transit fares and downtown or central business district (CBD) employment are just a few. Ridership to a region's CBD core generally represents transit's strongest markets. Volumes of literature exist detailing the suburbanization trends in the US since the 1950s. This study will measure the relationship between CBD employment and transit ridership on commuter routes in the Houston area. The focus on commuter routes will establish a direct link to suburbanites and the Houston CBD since these routes are direct from the transit center or park and ride, to downtown.

A secondary focus of this study will include an examination of the suburbanization process known as "white flight" and its impacts, if any, on Houston's demographics and potential transit ridership. It is our desire that this supplementary information may aid transit officials in determining if a captured market does exist that may need increased transit service in the future.

17. Key Words	18. Distribution Statement
Central Business District, Central Business District Employment, Passenger Trips, Commuter Ridership	No Restrictions. This document is available to the public through NTIS: National Technical Information Service 5285 Port Royal Road Springfield, Virginia 22161

19. Security Classif.(of this report)	20. Security Classif.(of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	50	

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

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Research Report SWUTC 721925-1

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June 2000

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ACKNOWLEDGMENTS

Support was provided by a grant from the U.S. Department of Transportation, University Transportation Centers Program to the Southwest Region University Transportation Center.

ABSTRACT

There are many factors that may contribute to fluctuating transit ridership in a given region. Seasonal changes, gasoline prices, availability of parking facilities and parking prices, transit fares and downtown or central business district (CBD) employment are just a few. Ridership to a region's CBD core generally represents transit's strongest markets. Volumes of literature exist detailing the suburbanization trends in the US since the 1950s. This study will measure the relationship between CBD employment and transit ridership on commuter routes in the Houston area. The focus on commuter routes will establish a direct link to suburbanites and the Houston CBD since these routes are direct from the transit center or park and ride, to downtown.

A secondary focus of this study will include an examination of the suburbanization process known as "white flight" and its impacts, if any, on Houston's demographics and potential transit ridership. It is our desire that this supplementary information may aid transit officials in determining if a captured market does exist that may need increased transit service in the future.

EXECUTIVE SUMMARY

The primary focus of this study was the determination of the relationship between Houston's CBD employment and commuter transit ridership during the 10 year period of 1985 to 1995. Since commuter routes provide the only direct link to suburban commuters by transit, we hoped to measure the influence of CBD employment in a region where the suburban growth appears greater than that of the city's core. A secondary focus included an examination of the suburbanization process known as "white flight" and its impacts, if any, on Houston's demographics and potential transit ridership. This supplementary information may aid transit officials to determine if a captured market does exist that may need increased transit service in the future.

There existed a positive, although admittedly weak, relationship between CBD employment and commuter ridership. This implies that increases in Houston's CBD employment results in increases in commuter ridership. What is interesting is that over the period of this study, both the average weekday commuter ridership and actual CBD employment declined. Furthermore, commuter routes held on to a 9 to 10 percent share of Houston METRO's systemwide ridership trips although total ridership decreased during the scope of this study.

An examination of the Houston area employment figures compared to average commuter ridership indicated a negative relationship. From this we can infer that increases in employment outside the CBD negatively impacted commuter ridership. We can also assume that increased employment in the region does not necessarily mean the jobs are located within Houston's core, or even in Houston at all. The trend over the last few years has been toward increased employment opportunities away from Houston's core, thereby negating the impacts of commuter routes that primarily serve core employment centers.

The suburbanization process of white flight has had a definite impact in Houston's urban area from 1970 to 1990. There was a massive migration of whites, a 554 percent decrease, from Houston's inner Loop 610 area from 1970 to 1990. The total population for Houston's inner Loop 610 area decreased by 93 percent while the population for the city as a whole increased 24 percent over the same period. In 1990, whites made up 41 percent of Houston's population, a decrease from 73 percent in 1970. In the inner Loop areas only 21 percent of the population considered themselves white in 1990, compared to 70 percent in 1970. There was also a widening economic gap between median incomes of inner Loop residents and the remainder of the city. In 1970, there was a $1,206 difference in median incomes, but by 1990 this difference increased to over $7,000, an 83 percent increase. The challenges of providing efficient transit services to an increasing suburban population while providing

services to a dwindling inner city must be addressed within the near future.

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INTRODUCTION

Transit ridership when viewed by microanalysis has a tendency to fluctuate based on many factors including seasonal changes, gasoline prices, availability of parking facilities and parking prices, transit fares and downtown or central business district (CBD) employment. Ridership to a region's CBD core generally represents transit's strongest market. Volumes of literature exist detailing the suburbanization trends in the US since the 1950s. Still, more studies document the movements of employers who have followed their employees to the suburbs where fringe cities have offered tax abatements, abundant free parking, and state-of-the-art facilities that cannot be matched in area CBDs. However, despite the distance, congestion, or excessive travel times, many suburbanites bravely commute to their region's CBDs and transit is struggling to maintain respectable levels of ridership among this group.

Recently, low suburban office leasing rates, and shifts in office work in the greater Houston area, have resulted in high CBD vacancy rates over the last few years. In 1992, the national average for office vacancy was 19 percent. In large cities like Denver, Houston and Atlanta, where the CBD vacancy rates exceeded 24 percent, the impacts of suburban employment directly affects transit ridership. Many of the new suburban employment locations are outside of the service areas of most transit agencies.

Therefore, the private automobile becomes the only logical means of access available to employees. Even though many cities have solid transit systems that provide a high level of dependable service to their individual CBDs, the loss of CBD employment has been a major concern to transit and public officials.[1]

The Metropolitan Transit Authority of Harris County (Houston METRO) established commuter and express routes in the 1980s to provide a competitive means of travel from the suburbs to Houston's inner city and CBD regions. Utilizing the vast network of high occupancy vehicle (HOV) lanes throughout its service area, Houston METRO provides a link through its transit centers and park and ride lots. These specialty routes are even more sensitive to changes in CBD employment than the local routes in Houston METRO's service area. This is because these routes are specifically designed to serve suburbanites who work in, and around the CBD and who had a vehicle available. This study measured the relationship between CBD employment and transit ridership on commuter routes. The focus on commuter routes will establish a direct link to suburbanites and the Houston CBD since these routes are direct from either transit centers or park and ride facilities to downtown. The scope of the project covered the period 1985 to 1995, and the data included employment figures for the city of Houston and Harris County, and transit data from the commuter, express, and local routes.

[1] Denver and Houston are "all bus" transit systems, while Atlanta uses both bus and rail in its service area.

An examination of additional data measured the extent of "white flight" from Houston's inner loop area. This supplementary information may aid transit officials in determining if there will be a market for future suburban transit services. There are potentially several factors that will influence transit planners in the designing of future transit routes. Social scientists have been documenting the process of white flight since the close of World War II. Aided by federally funded highways, the middle class abandoned the inner cities in favor of a suburban lifestyle. A cornerstone of this lifestyle would be the physical separation from perceived increases in crime associated by the increasing number of undesirable minorities in the inner city. However, as inner city housing became dilapidated, developers had been reluctant to build even marginally priced accommodations. As more and more low wage employment shifted to suburban locations, inner city residents had no choice but to follow.

The current trend towards "smart growth" encourages massive reinvestment in the inner city. However, developers are building housing that is financially out of the reach of the average low income to middle income resident. As employees return to the inner city it is anticipated that jobs will soon follow. This will effectively leave the low income employees on the fringes of urban areas, outside of the local transit service boundaries, unable to reach jobs because of the lack of available transportation. This will have a tremendous impact on those who depend on government subsidies and services. As our society adjusts to new changes in our welfare

laws and regulations, officials in Houston may soon face the decision of whether or not to provide increased commuter service to those that may actually live outside of Houston METRO's service area.

Historically, highways were seen as encouraging suburban sprawl, but have increases in commuter transit service also encouraged suburban sprawl? If Metro officials decrease commuter services from suburban areas and increase local inner city routes, would that facilitate a movement back within Houston's city limits or just increased congestion on the city's highways? Although these questions are not within the original scope of this project, they bear consideration and attention if city officials hope to recover the city's dwindling tax base, and if transit officials hope to satisfy the new demands of the welfare to work requirements.

BACKGROUND

The strong connection between daily travel and employment in American cities is evident in the examination of historical transit ridership data. Over the past thirty years, fast-growing urban areas experienced a significant link between travel patterns, labor force participation and population increases. These connections are also true of the suburban regions.

One of the more important relationships that stems from these broad connections, however, is that of transit ridership and CBD employment rates. This relationship is of particular interest, from the transit planners' point of view, because of the significant proportion of downtown service that makes up many cities' transit systems operating costs. It is also relatively important because transportation mode choice to the CBD ultimately impacts levels of service and air quality, and since environmental factors have become part of the federal mandate in all transportation planning initiatives.

In order to plan and design efficient public transportation serving CBD areas, in light of the evolution of job and population characteristics, it becomes very necessary to understand the resultant effects employment rates in the CBD have on consumer modal choice. This examination includes the other independent factors that affect employment rates; factors such as types

of employment predominant in the CBD which ultimately affect the types of employees attracted to these jobs. This breaks down into gender, age groups, educational level, income level, car ownership and family status. Other considerations include employer trip reduction programs (ETR)[2] and subsidized employee parking rates, and numbers of available parking spaces.

One of the more notable trends affecting transit ridership, which developed over the past few years, is the increased suburbanization of the American population. This phenomenon has seen a gradual but definite shift of the population to areas beyond the traditional city limits, thus drawing new transportation demand scenarios. But, even though many job and employment opportunities have also shifted to the suburbs, there still remains a large percentage of jobs within the CBD.

According to an origin and destination survey completed in Montreal, Canada, examining the population shifts between 1987 to 1993, the CBD experienced a strong decline of workers and jobs. This displacement of the population has effectively changed the transportation characteristics in that city. For instance, the average distance traveled by commuters increased significantly. Over a six year period the number of jobs in Montreal's CBD declined by 1 percent, while overall employment in the city declined by 10 percent. However, more distant suburbs witnessed an explosion in their employment numbers by 30 percent. The findings indicate that, except for

[2] The ETR program is a voluntary mandated program that is part of the Clean Air Act Amendment of 1990. The program calls for proactive employer initiatives for developing incentives to employees to decrease the number of vehicles driven to the workplace.

park and ride and kiss and ride facilities, as work travel distance increased there was a sharp decline in transit usage.[3] Among the very mobile suburban commuters, transit was no longer an attractive or viable transportation alternative.[4] Public transit was a popular transportation mode for younger (16-24 years old) and older people.

Job attraction to the CBD plays a pivotal role in transportation modal choice. Interestingly, in Montreal, Canada, the average age for the predominant job types in the CBD range from about 35 to 42 years of age. The study also noted that car ownership and the proportion of male workers are highly correlated to the longer distances traveled showing the effect that job characteristics has on modal choice and transit usage. The following is a list of some other notable findings arising out of the Montreal origin and destination analysis:

- For the Montreal case there is a definite urban sprawl involving the available job markets as well as a relocation of the area's population.
- The area job market is aging and being filled, more and more proportionally by women.
- Car ownership is increasing rapidly for women.

[3] A kiss and ride is basically a park and ride facility that does not offer parking. Commuters must be delivered to the site.
[4] Chapleau, Robert, "Urban Mobility Market of Workers: Analysis with Geo-reference Data", paper presented at the Transportation Research Board Annual Meeting, Washington, DC, 1998.

- Work trip distances are continuously increasing as a result of urban sprawl.
- Men, who travel longer distances to work and have the highest rate car ownership, dominate some specific job markets (transportation, industries, and government services).[5]

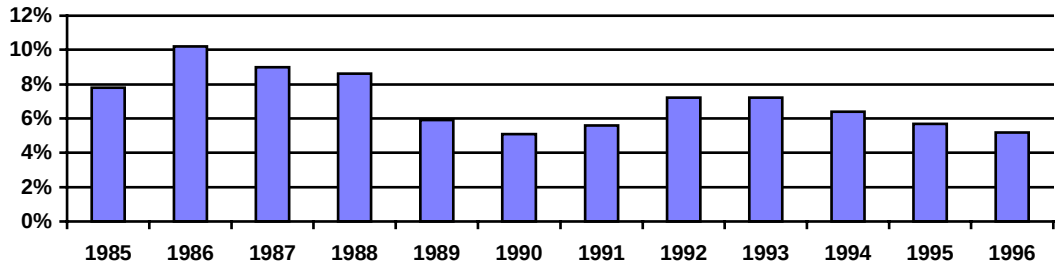
In another study, transportation and city officials identify the availability, and affordability, of parking facilities as one of the principle factors influencing transportation modal choice. One such study showed the relationship between the availability of inexpensive parking and modal choice, noted a significant impact on the proportion of workers commuting to work alone when the subsidies were reduced or removed. In one case, 42 percent of the employees drove alone to work when the company paid the monthly parking fee of $57.50; when the company ceased providing parking subsidies, that proportion of drive alone commuters dropped to 8 percent.[6] This practice of parking subsidies must be considered as a feature of the job characteristics in the CBD that impacts the transit ridership rates.

[5] IBID.
[6] Mehranian, Maria, Martin Wachs, Donald Shoup, and Richard Platkin, "Parking Cost and Mode Choices among Downtown Workers: A Case Study", Transportation Research Record Number 1130, 1981.

Examination of Data

During the late 1970s and early 1980s, Houston's economy was arguably one of the strongest in the nation. With so many companies operating in the energy business, many employees recognized Houston as a land of golden opportunity, a "boom town". However, as with many "booms" there soon follows a period of "bust". By the late 1980s Houston's economy found itself in the midst of a regional depression. Houston's unemployment rate experienced significant fluctuations between 1985 and 1995 (Figure 1). However, since 1993 the unemployment rate seems to be decreasing at a fairly consistent rate.

Figure 1
Houston Area Unemployment Rate, 1985 to 1996



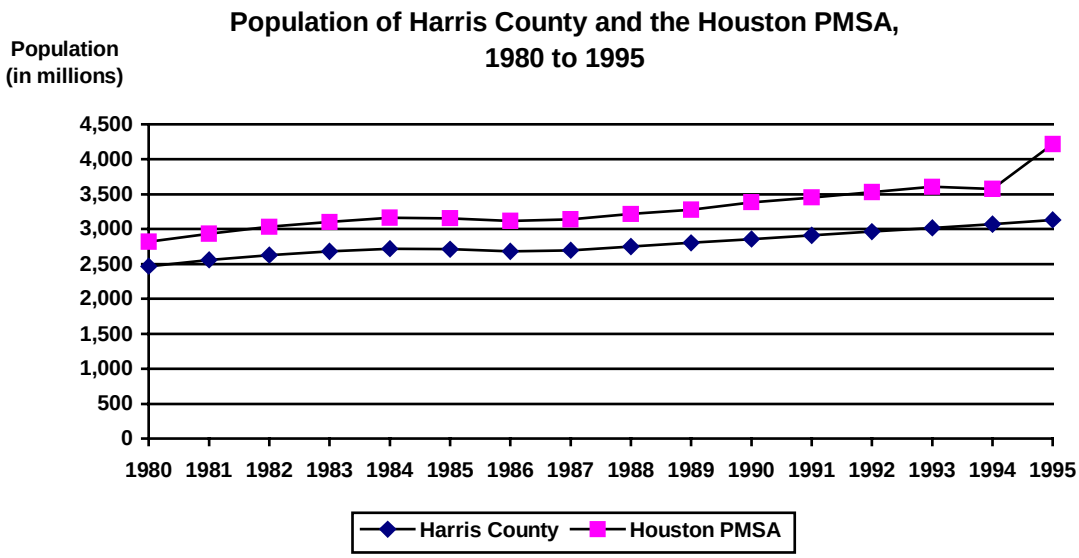
Source: Greater Houston Partnership, 1996

Despite such fluctuations in the unemployment rates, the number of people employed in non-farm occupations has actually increased from 1985 to 1996 by 18 percent. However, the employment figures for Houston's CBD decreased 14 percent for the same period. Likewise, the percent of CBD employment within the total employment figures for the entire Houston PMSA also declined from 11 percent in 1985 to 8 percent in 1996.

During the same period, Houston, as in many other North American cities, experienced a decline in urban population as the suburbanization processes continued. Houston is the major metropolitan city within Harris County, and Houston's extra territorial jurisdiction (ETJ) practically encompasses all of Harris County. In 1980, the population for Harris County was 2,469,500, compared to the population of the Houston primary metropolitan statistical area (PMSA) which was 2,820,100, a difference of over 350,000 residents (Figure 2).[7] By 1995, Harris County's population had grown to 3,130,100, a 21 percent increase. However, the Houston PMSA also increased in population by 33 percent to 4,220,900 people. The difference in 1995 was over 1 million. This indicates that many residents left their Houston/Harris County addresses for suburban areas in counties like Fort Bend, Brazoria, Williamson and Galveston.

[7] The Houston PMSA includes the following counties: Harris, Fort Bend, Waller, Montgomery, Liberty, and Chambers.

Figure 2



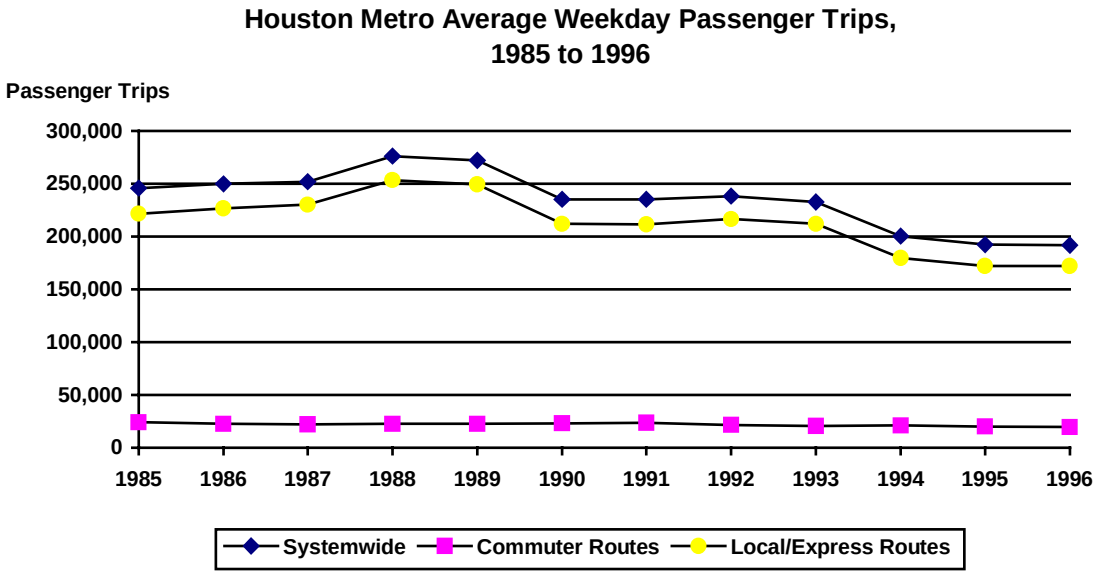
Source: Greater Houston Partnership, 1996

Even though the population in Harris County increased, the growth in population occurred faster outside Houston METRO's service area. A major hurdle for Houston METRO is finding innovative ways to provide public transit for suburbanites without sacrificing service to urban commuters. Commuter and express routes provide that service. By utilizing Houston's extensive network of high occupancy vehicle lanes (HOVs) and the numerous transit centers and park and ride lots available throughout the region, Houston METRO has been able to provide a transit alternative to the automobile.

Since 1985 Houston METRO's commuter routes have maintained about 10 percent of all average weekday passenger trips provided systemwide. For this study, the ridership data comprised three variables: systemwide, commuter routes, and local/express routes. Houston METRO experienced the same challenges other transit agencies have experienced across the country leading to a decline in transit ridership. Systemwide ridership decreased 28 percent from 1985 to 1996 (figure 3). Commuter and local/express routes also decreased over the same period by 23 and 29 percent, respectively. Although the ridership on commuter routes decreased, they remained relatively constant when viewed against the other variables.

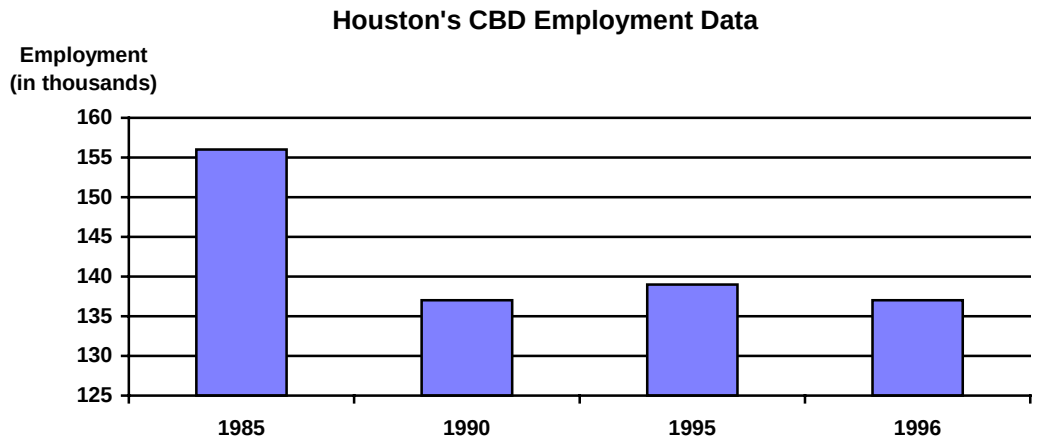
The increase in suburban population and the resultant migration of jobs to areas outside of the CBD has had a dramatic effect on Houston's urban core since 1985. In 1985, Houston's CBD employment exceeded 156,000 workers. By 1996 that figure had dropped to 137,000, a decline of 14 percent (Figure 4). However, the average non-farm employment for the Houston PMSA increased 18 percent during the same time period, from nearly 1.5 million to just over 1.8 million. While Houston's economy may have been sluggish in the late 1980s to early 1990s, the total numbers of workers employed actually increased, just not in Houston's CBD.

Figure 3



Source: Metropolitan Transit Authority of Harris County

Figure 4



Source: Houston Galveston Area Council, Houston Metro, Houston's Downtown District

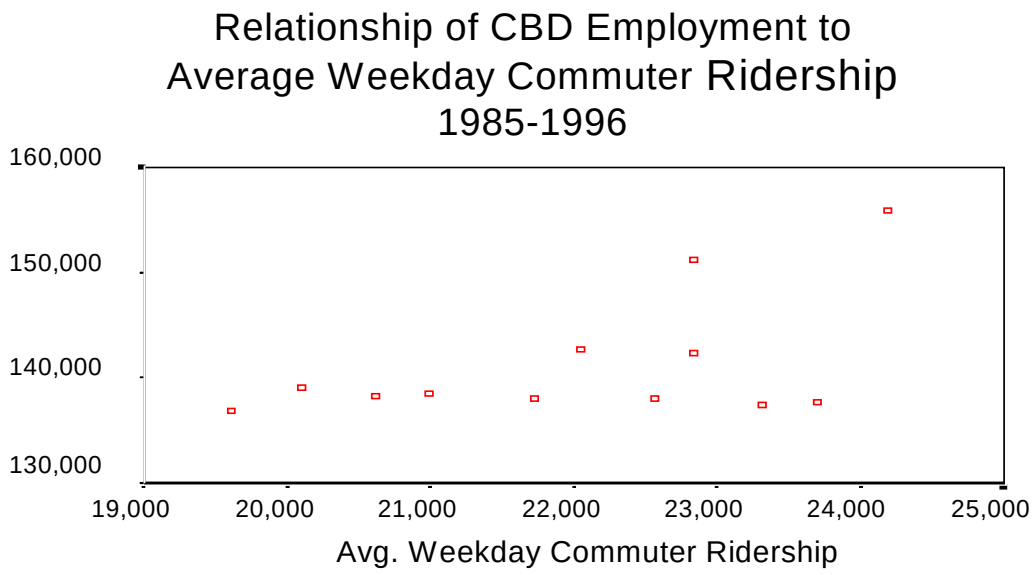
RELATIONSHIP OF COMMUTER RIDERSHIP TO EMPLOYMENT AND POPULATION

The Central Business District

The rate of CBD ridership can be viewed from three different perspectives: 1) compared to CBD and citywide employment rates, 2) compared to unemployment rates, and 3) compared to population data. The data found in the Appendix, Table 1, provided the information used in the statistical analysis. There were several missing years of data for CBD employment which could be considered a slight limitation to the study. In the column labeled *Adjusted CBD Employment*, we sought to overcome this by using a statistical mean average for those years where data were missing. However, our attempt to statistically test our theory that there existed a positive correlation between ridership on commuter routes and CBD employment can be visually observed by placing the data on a scatter plot graph. Figure 5 shows a positive relationship, albeit a loose one, between CBD employment and commuter ridership. Even though we have only four points to graph, a relationship can still be inferred. When employment rises in the CBD area, commuter ridership numbers do increase. This visual analysis may not seem valid when examining the actual data for the years 1985 to 1996 (Figure 5a). Over this period both the average weekday commuter ridership and actual CBD data declined from the 1985 base year.

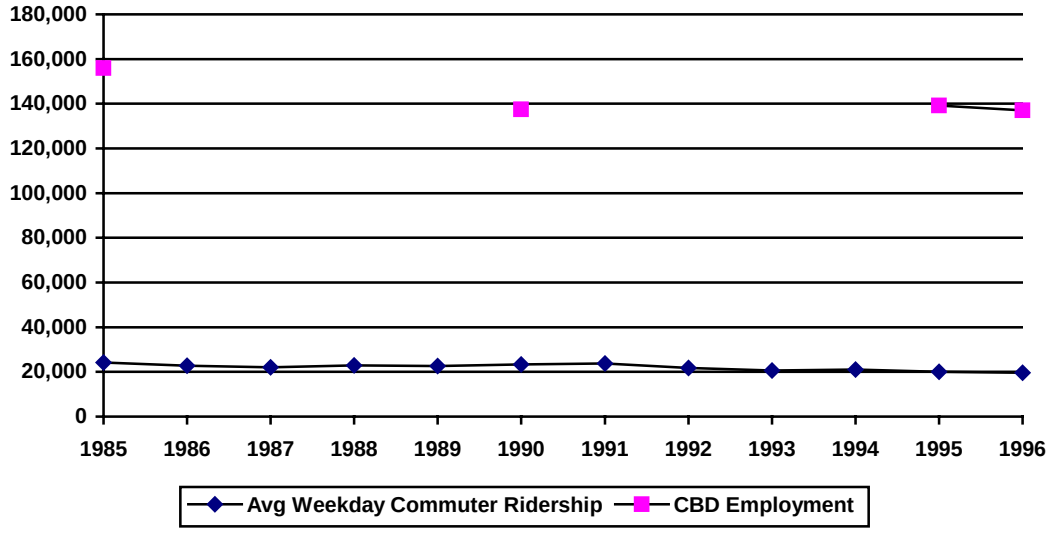
However, commuter routes have been able to maintain fairly consistent ridership even while CBD employment declined. Furthermore, commuter routes were able to hold onto a 9 to 10 percent share of Houston METRO's systemwide ridership trips although total ridership decreased during the scope of this study.

Figure 5



Note: the CBD data used in this graph is from the Adjusted CBD employment data found in Appendix Table 1.

Figure 5a
CBD Employment and Average Weekday Commuter Ridership, 1985-1996



City of Houston-Employment and Population

When comparing the data from the Houston area employment figures to average commuter ridership, we find a negative relationship (Figure 6). From this we can infer that as the employment ratio increases throughout the region, commuter ridership decreases. In addition, we can also assume that increased employment in the region does not necessarily mean the jobs are located within Houston's core, or even in Houston at all. The trend over the last few years has been toward increased employment opportunities away from Houston's core, thereby negating the impacts of commuter routes

which primarily serve core employment centers. The trend in Harris County shows that as the population decrease, transit rider increases (Figure 7).

During the study period, 1985 to 1996, Houston's unemployment reached its peak in 1986 at 10.2 percent, and has fluctuated over the last decade, as indicated in figure 1. By graphing unemployment data and commuter ridership we find a positive relation between the two variables, albeit not a strong one (Figure 8).

Graphing the population data for Harris County against commuter ridership indicates a very weak negative relationship (Figure 9). We can therefore infer that population increases in the county have no direct bearing on commuter ridership.

Figure 6

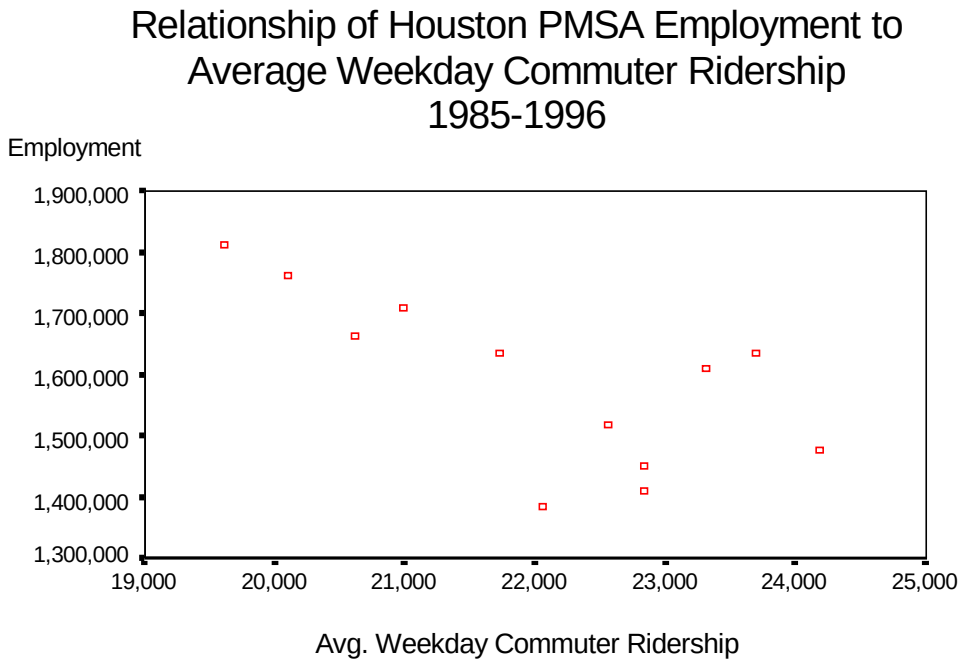


Figure 7

Relationship of Harris County Population to Average Weekday Commuter Ridership
1985-1996

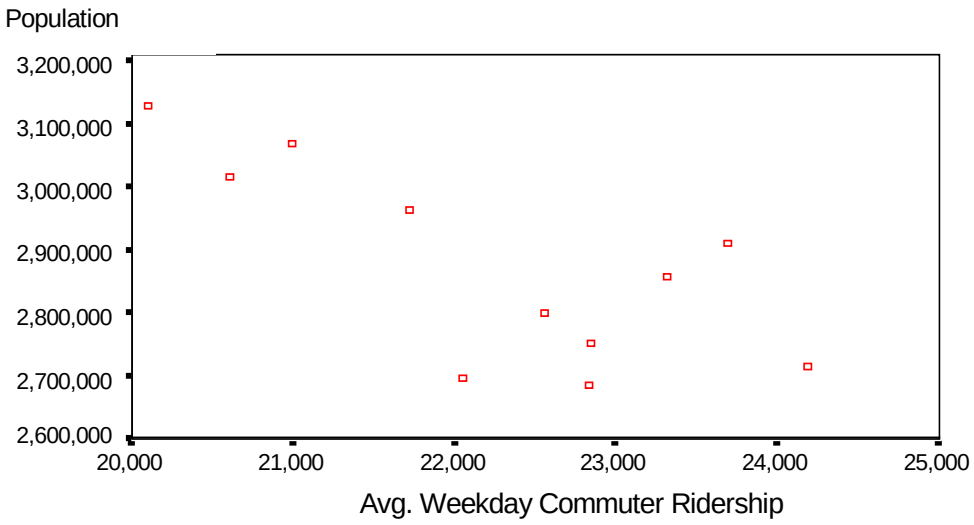


Figure 8

Relationship of Houston Unemployment Rates to Average Weekday Commuter Ridership
1985-1996

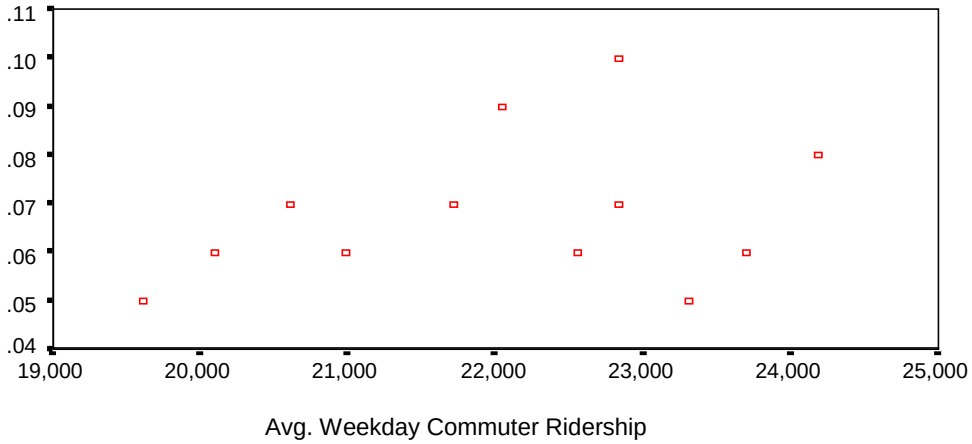
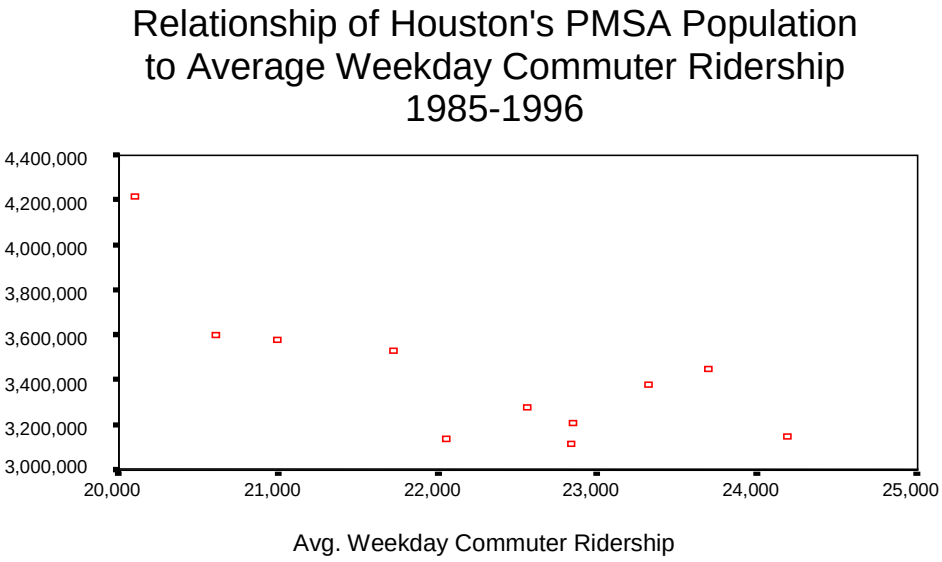


Figure 9


Relationship of Houston's PMSA Population
to Average Weekday Commuter Ridership
1985-1996
4,400,000
4,200,000
4,000,000
3,800,000
3,600,000
3,400,000
3,200,000
3,000,000
20,000
21,000
22,000
23,000
24,000
25,000
Avg. Weekday Commuter Ridership

Suburban Migration

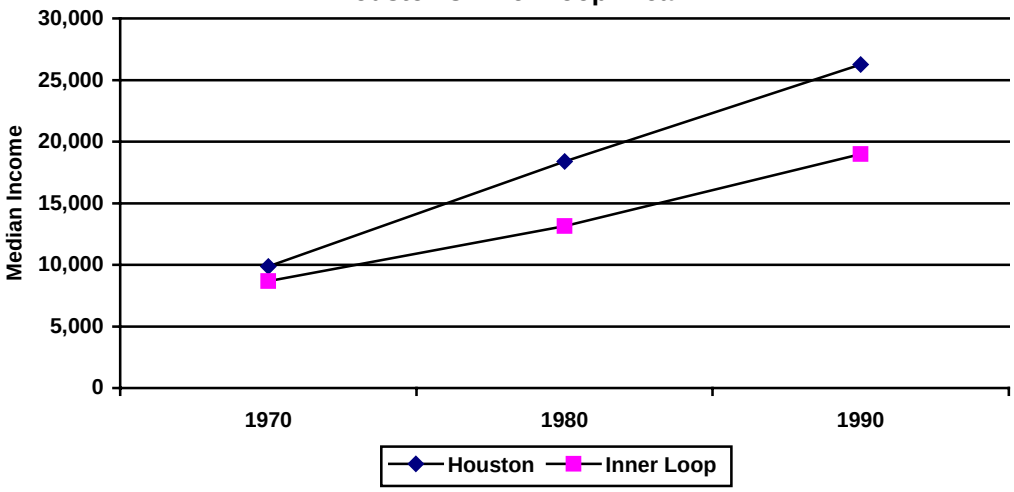
While the occurrences of white flight have received much attention when studying urban problems, the impact of this trend on commuter routes deserves more study and investigation. White flight is not the primary focus of this study. However, measuring the magnitude of racial change in the region should indicate to what extent, if any, white flight contributes to the variables used to evaluate commuter routes. To maintain continuity with data previously presented in this paper, the area inside Loop 610 is considered inner city. To determine changes in racial composition, and household median income, census tracts within Houston's Loop 610 were identified for examination. As the population increased from 1970 to 1990, many of the census tracts have subdivided. For example, in 1990 census tracts 201.01 and 201.02 were originally census tract 201 in 1970. As previously noted, the variables under examination are household median incomes and the changes in racial composition in Houston.[8] For the purposes of this study, we measured only the racial categories "white", while all other categories have been combined under the label "minority". Urban professionals anticipate the Houston area will experience a significant increase in minorities by the time the year 2000 census is completed. However, changes in minority demographics in the Houston area

[8] Median household income will be measured only for that part of Houston that lies within Harris County.

is a subject for another study. The data for the inner loop census tracts can be found in the Appendix, Tables 2-4.

Median income for Houston increased 62 percent, while the median income for the inner loop increased 54 percent. The difference between median income within the Loop compared to that for the whole of Houston has increased from $1,206 to $7,279 in 1990. The gap in median income between inner city residents and the rest of Houston increased 83 percent. The median household incomes for Houston and the inner loop is found in Figure 10.

Figure 10
Median Household Income for Houston (Harris County), and Houston's Inner Loop Area

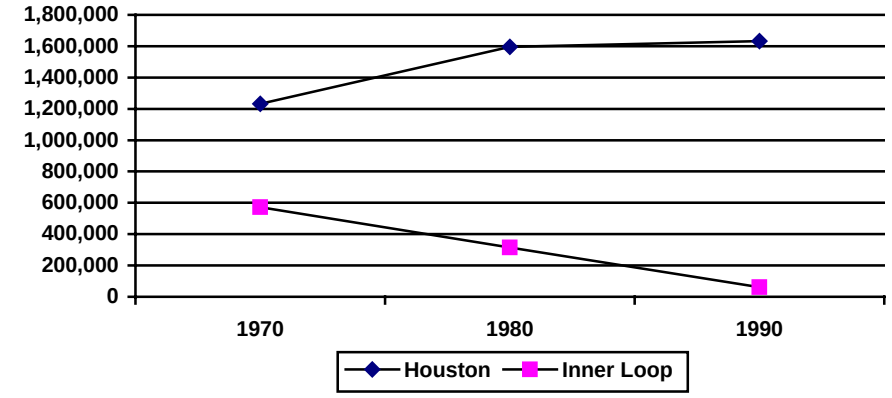


Source: US Census Bureau: 1970, 1980, 1990

Houston's population experienced consistent growth since 1970, even during the period when the economy was at its weakest (Figure 11). The city's population increased 24 percent from 1970 to 1990. However, the population in the inner loop area decreased 93 percent over the same period.

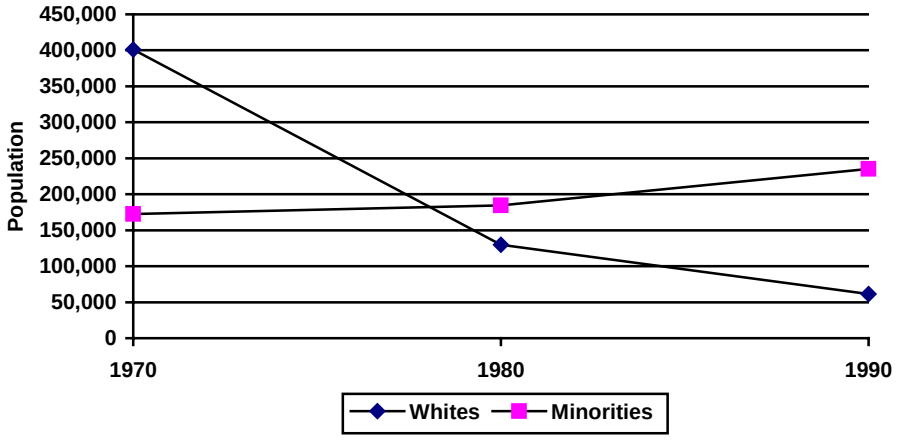
Figures 12 and 13 illustrate the changes in Houston's racial composition, and specifically the inner loop areas, based on the classifications "white" and "minority". In 1970, whites made up 70 percent (400,923) of the inner loop population and by 1990 whites constituted only 21 percent (235,403) for the same area (Figure 12). Citywide, in 1970 whites constituted 73 percent (904,889) of the population. While Houston's overall population increased by 24 percent from 1970 to 1990, the total white population decreased by 37 percent. For the same period, 1970 to 1990, minority population in Houston increased 66 percent, and by 1990 minorities increased to 59 percent (969,000) of Houston's total population, compared to 41 percent (662,766) for whites (Figure 13).

Figure 11
Houston and Inner Loop Population, 1970-1990



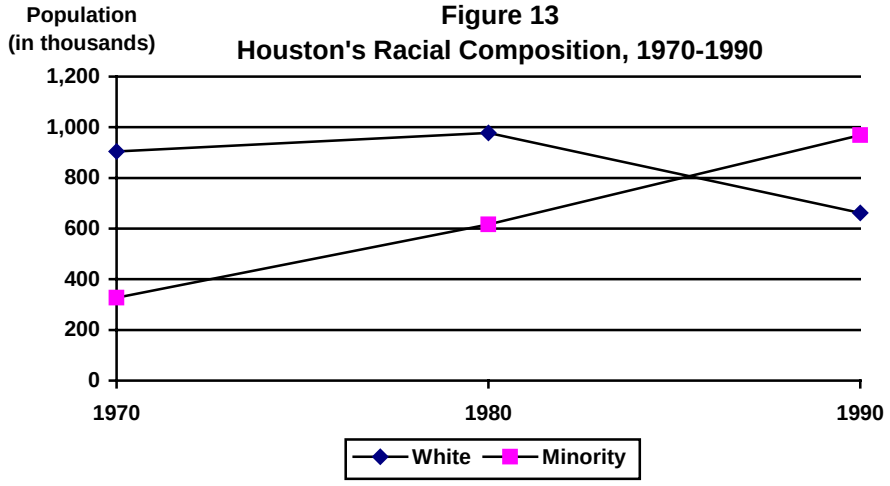
Source: US Census Bureau: 1970, 1980, 1990

Figure 12
Racial Composition of Houston's Inner Loop Area, 1970-1990



Source, US Census Bureau: 1970, 1980, 1990

Figure 13
Houston's Racial Composition, 1970-1990



Source: US Census Bureau, 1970, 1980, 1990

From this information, the process of white flight has had a definite impact in Houston's urban area. Not only has the inner city tax base been weakened, but city officials must contend with the growing influence of suburban cities and communities. Commuter routes serve a need in this region, but should it be at the expense of inner city residents who traditionally have relied on public transit services? Who should get first consideration when transit officials plan future transit improvements: suburbanites, or inner city residents? It would be interesting to find out how many of the riders on commuter routes live in communities that have chosen not to be in Metro's regular service area, and still benefit from its services.

CONCLUSION

Determining the relationship between commuter routes and the employment of the central business district can play a crucial role in regional transit planning and its associated policies. Many studies have argued that the proliferation of highways has positively influenced suburban migration in US cities since the 1950s. Finding ways to serve these suburban homeowners who still work and commute to their region's CBD resulted in transit agencies developing commuter express routes. The sole function of these commuter routes is to facilitate the travel of suburban commuters. Now the questions addressed to transit agencies are the ones facing highway departments: Are your commuter routes supporting urban sprawl?

This study sought to determine the relationship between commuter routes and CBD employment in Houston, Texas. A secondary focus included an examination of the process known as "white flight", and the impact of suburbanization to Houston's population and transit ridership. The available data indicated that there is a positive relationship between commuter routes and CBD employment levels. This indicates that the transit ridership levels increase or decrease reflecting the increases or decreases of CBD employment. It is assumed from the data that the employment variable acts upon the transit variable. However, the

relationship between the two variables, employment and transit ridership, is relatively weak. Commuter routes experienced a decline in ridership, 23 percent, as did CBD employment. However, CBD employment only decreased 14 percent over the same time period.

An examination of the Houston area-wide employment figures compared to average commuter ridership indicated a negative relationship. From this we can infer that increases in employment outside the CBD negatively impacted commuter ridership. We can also assume that increased employment in the region does not necessarily mean the jobs are located within Houston's core, or even within Houston's city limits. The trend over the last few years has been toward increased employment opportunities away from Houston's core, thereby negating the impacts of commuter routes that primarily serve core employment centers.

The suburbanization process of white flight has had a definite impact in Houston's urban area from 1970 to 1990. There was a massive migration of whites (a 554 percent decrease) from Houston's inner Loop 610 area from 1970 to 1990. The total population for Houston's inner Loop 610 area decreased by 93 percent while the population for the city as a whole increased 24 percent over the same period. In 1990, whites made up 41 percent of Houston's population, a decrease from 73 percent in 1970. In the inner Loop areas only 21 percent of the population considered themselves white in 1990, compared to 70 percent in 1970. There was also a widening economic gap between median incomes of inner Loop residents and the

remainder of the city. In 1970, there was a $1,206 difference in median incomes, but by 1990 this difference increased to over $7,000, an 83 percent increase. The challenges of providing efficient transit services to an increasing suburban population while providing services to a dwindling inner city must be addressed within the near future as the city moves toward a more compact design.

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APPENDIX

Table 1.

Year	Avg Weekday Commuter Ridership	PMSA Employment	CBD Employment	PMSA Population	Harris County Population	Adjusted CBD Employment	Houston Unemployment Rate
			156,014			156,014	
1985	24,190	1,479,000		3,153,300	2,716,000		8%
						142,436	
1986	22,840	1,410,900		3,120,200	2,685,400		10%
						142,436	
1987	22,053	1,386,600		3,143,700	2,698,500		9%
						142,436	
1988	22,842	1,453,100		3,214,400	2,752,400		7%
						142,436	
1989	22,564	1,520,500		3,281,000	2,801,600		6%
			137,530			137,530	
1990	23,318	1,611,200		3,382,900	2,858,800		5%
						142,436	
1991	23,700	1,635,900		3,452,200	2,910,400		6%
						142,436	
1992	21,723	1,636,900		3,531,200	2,963,700		7%
						142,436	
1993	20,614	1,664,700		3,603,200	3,016,400		7%
						142,436	
1994	20,994	1,710,300		3,579,600	3,069,800		6%
			139,200			139,200	
1995	20,106	1,763,600		4,220,900	3,130,100		6%
			137,000			137,000	
1996	19,618	1,813,700					5%

Table 2
1990 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minorities
121	$ 30,833	7,005	2,058	4,947
201.01	$ 7,357	2,359	27	2,332
201.02	$ 5,941	3,837	24	3,813
203.01	$ 14,569	3,050	153	2,897
203.02	$ 20,310	5,560	315	5,245
203.03	$ 23,897	2,477	169	2,308
204	$ 8,864	1,871	5	1,866
205.01	$ 8,674	2,661	15	2,646
205.03	$ 6,285	1,378	11	1,367
206.01	$ 12,023	2,395	21	2,374
207.01	$ 15,383	1,967	38	1,929
207.02	$ 12,372	1,871	25	1,846
207.03	$ 11,758	2,063	24	2,039
207.04	$ 14,777	615	10	605
208.01	$ 13,200	1,213	20	1,193
208.02	$ 11,818	3,425	19	3,406
208.03	$ 16,475	4,680	30	4,650
209	$ 20,536	752	69	683
210.01	$ 19,275	4,396	115	4,281
214.01	$ 8,610	246	2	244
300.22	$ 10,505	2,600	56	2,544
300.23	$ 20,465	1,409	113	1,296
300.24	$ 10,270	2,152	259	1,893
301.01	$ 16,463	4,859	239	4,620
301.02	$ 13,760	5,730	389	5,341
302	$ 18,075	5,796	1,160	4,636
303	$ 11,761	1,176	40	1,136
304.01	$ 5,941	2,489	11	2,478
304.02	$ 7,599	2,880	29	2,851
305.01	$ 8,548	2,559	10	2,549
305.02	$ 4,999	2,354	17	2,337
306	$ 14,605	3,577	256	3,321
307.01	$ 12,872	3,524	107	3,417
307.02	$ 19,970	3,425	41	3,384
308.1	$ 26,021	4,434	1,896	2,538
308.2	$ 22,257	2,327	450	1,877
309.01	$ 17,068	6,183	1,004	5,179

Table 2 (Con'd)
1990 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minorities
309.02	$ 19,759	4,097	378	3,719
309.03	$ 23,676	4,398	1,100	3,298
310	$ 18,483	6,214	302	5,912
311	$ 15,904	8,774	342	8,432
312	$ 15,407	6,725	233	6,492
313.01	$ 19,352	5,219	859	4,360
313.02	$ 21,868	5,038	920	4,118
314.01	$ 19,520	3,347	108	3,239
314.02	$ 22,019	4,164	695	3,469
315	$ 24,242	4,243	608	3,635
316.01	$ 13,690	2,434	447	1,987
316.02	$ 56,293	1,722	1,252	470
317.01	$ 25,263	1,215	578	637
317.02	$ 24,107	267	85	182
317.03	$ 14,500	2,826	46	2,780
318.01	$ 15,944	2,330	46	2,284
318.04	$ 13,849	2,489	82	2,407
319.01	$ 20,291	3,682	809	2,873
319.02	$ 18,076	3,766	680	3,086
420.01	$ 96,055	3,556	3,281	275
420.02	$ 31,798	2,990	2,470	520
502	$ 6,068	1,113	9	1,104
503.01	$ 9,954	6,178	461	5,717
503.02	$ 15,587	5,577	254	5,323
504	$ 15,636	2,324	135	2,189
505.01	$ 21,923	1,114	416	698
505.02	$ 12,986	2,157	269	1,888
506.01	$ 20,524	2,881	1,373	1,508
506.02	$ 30,000	5,706	3,321	2,385
507.01	$ 26,822	3,554	1,875	1,679
507.02	$ 19,716	4,752	971	3,781
508	$ 16,553	5,668	378	5,290
509.01	$ 18,333	3,099	667	2,432
509.02	$ 15,329	2,574	64	2,510
509.03	$ 22,245	5,572	1,611	3,961
511	$ 21,300	5,917	2,376	3,541
513	$ 20,133	2,478	876	1,602
514.01	$ 16,776	3,149	719	2,430
514.02	$ 8,555	1,377	57	1,320
515.01	$ 31,712	4,500	2,706	1,794

Table 2 (Con'd)
1990 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minorities
515.02	$ 28,925	2,424	1,096	1,328
516.01	$ 22,036	4,427	1,402	3,025
516.02	$ 16,974	2,288	480	1,808
517.01	$ 27,857	1,099	520	579
517.02	$ 25,644	4,316	2,737	1,579
517.03	$ 20,430	5,404	1,915	3,489
517.04	$ 31,745	6,459	4,997	1,462
518.01	$ 29,347	3,851	2,402	1,449
518.02	$ 21,320	2,681	1,150	1,531
518.03	$ 22,772	3,262	1,504	1,758

Table 3
1980 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minorities
121	$ 9,012	2145	1485	660
201.01	$ 5,897	3385	13	3372
201.02	$ 7,315	5137	142	4995
202	$ 14,985	8186	4279	3907
203.01	$ 12,897	3779	1398	2381
203.02	$ 15,402	5853	2442	3411
203.03	$ 13,172	2463	1254	1209
204	$ 8,924	3111	22	3089
205.01	$ 7,689	4020	288	3732
205.02	$ 8,675	5757	245	5512
205.03	$ 8,015	2431	57	2374
206.01	$ 9,184	3512	104	3408
207.03	$ 11,569	2622	90	2532
207.04	$ 11,339	988	93	895
208.02	$ 11,214	4822	260	4562
208.03	$ 12,042	5719	309	5410
209	$ 17,230	751	374	377
210.01	$ 16,219	5473	769	4704
214.01	$ 9,952	374	13	361
300.22	$ 7,533	3962	969	2993
300.23	$ 9,965	1472	801	671
300.24	$ 7,685	3242	530	2712
301.01	$ 11,658	4972	2579	2393
301.02	$ 13,310	6154	3016	3138
302	$ 12,370	6654	3750	2904
303	$ 9,964	2127	160	1967
304.01	$ 6,836	4642	6	4636
304.02	$ 7,269	5206	82	5124
305.01	$ 6,611	4250	6	4244
305.02	$ 6,226	4251	13	4238
306	$ 10,162	5119	414	4705
307.01	$ 11,705	5780	168	5612
307.02	$ 14,879	4900	144	4756
308	$ 13,166	7431	3427	4004
309.01	$ 13,867	6049	3384	2665
309.02	$ 15,103	3086	1367	1719

Table 3 (Con'd)
1980 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minorities
309.03	$ 13,698	3110	2446	664
310	$ 14,006	7131	3705	3426
311	$ 14,410	10079	5632	4447
312	$ 14,058	7792	3726	4066
313.01	$ 14,495	5359	3685	1674
313.02	$ 15,060	5432	3687	1745
314.01	$ 16,868	4320	264	4056
315	$ 16,380	6102	889	5213
317.02	$ 21,583	389	142	247
318.01	$ 12,623	3726	371	3355
319.02	$ 15,175	3253	1878	1375
420.02	$ 21,369	5465	5070	395
501	$ 52,076	27	9	18
502	$ 6,280	2074	249	1825
503.01	$ 12,131	7046	2746	4300
503.02	$ 13,433	6509	3070	3439
504	$ 11,306	3230	1194	2036
505.01	$ 13,971	1337	1057	280
505.02	$ 11,109	4219	2092	2127
506.01	$ 13,229	3588	2937	651
506.02	$ 14,829	5943	4623	1320
507.01	$ 15,179	4201	3263	938
507.02	$ 14,141	5187	3392	1795
508	$ 11,847	5539	2456	3083
509.02	$ 11,932	3155	573	2582
509.03	$ 16,197	6079	4333	1746
511	$ 14,355	6810	5041	1769
513	$ 13,224	3402	2251	1151
514.01	$ 11,667	3776	1889	1887
514.02	$ 9,740	2192	662	1530
515.01	$ 17,986	4913	3791	1122
515.02	$ 16,556	2785	2236	549
516.01	$ 15,683	4589	3436	1153
516.02	$ 11,615	2745	1814	931
517.04	$ 23,068	6540	6154	386
518.02	$ 14,956	2729	1939	790
518.03	$ 14,356	3721	2769	952

Table 4
1970 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minority
121	$ 6,343	3719	3137	582
201	$ 4,882	10834	82	10752
202	$ 7,237	6532	5749	783
203	$ 7,242	13497	11499	1998
204	$ 5,120	4167	57	4110
205	$ 5,086	16235	954	15281
206	$ 5,504	9231	1065	8166
207	$ 6,058	10159	894	9265
208	$ 6,688	14711	1844	12867
209	$ 10,500	875	854	21
210	$ 7,780	11981	1336	10645
214	$ 8,217	3586	2921	665
301	$ 6,798	10545	10350	195
302	$ 7,297	5813	5451	362
303	$ 4,138	3581	158	3423
304	$ 4,859	14304	218	14086
305	$ 4,714	11318	79	11239
306	$ 5,789	7634	832	6802
307	$ 6,998	12519	564	11955
308	$ 9,861	7024	5314	1710
309	$ 9,098	9723	9545	178
310	$ 6,629	6322	6251	71
311	$ 6,696	9356	9185	171
312	$ 7,113	7973	7673	300
313	$ 9,294	9801	9707	94
314	$ 10,003	7621	4815	2806
315	$ 9,615	7663	2175	5488
316	$ 7,840	5544	2570	2974
317	$ 7,535	15484	4229	11255
318	$ 8,484	19071	9112	9959
319	$ 10,108	5786	5740	46
321	$ 7,809	11704	9882	1822
330	$ 6,076	5413	154	5259
331	$ 9,367	1029	1006	23
401	$ 8,145	5963	5424	539
402	$ 8,272	11551	11012	539

Table 4 (Con'd)
1970 Inner Loop Demographic Profile by Census Tracts

Census Tracts	Median Income	Total Population	White	Minority
403	$ 9,820	7058	6901	157
404	$ 9,806	6805	6663	142
405	$ 9,715	9340	9167	173
406	$ 29,663	5978	5845	133
407	$ 11,491	10349	10114	235
412	$ 14,414	9956	9801	155
413	$ 13,706	8654	8511	143
414	$ 13,188	8948	8785	163
415	$ 13,994	14834	14624	210
416	$ 13,533	18611	18375	236
419	$ 12,177	14169	13932	237
420	$ 18,220	14091	13937	154
501	$ 6,800	126	69	57
502	$ 4,852	3211	477	2734
503	$ 6,454	13777	12002	1775
504	$ 5,645	4097	2364	1733
505	$ 6,231	6220	4200	2020
506	$ 8,380	9901	9762	139
507	$ 8,193	8603	8259	344
508	$ 6,440	5925	4181	1744
509	$ 9,057	12867	10391	2476
511	$ 8,523	6951	6879	72
513	$ 8,142	3501	3116	385
514	$ 6,022	7709	3149	4560
515	$ 8,437	8023	6989	1034
516	$ 8,181	7778	7467	311
517	$ 11,658	13449	13091	358
518	$ 8,971	13561	1104	12457