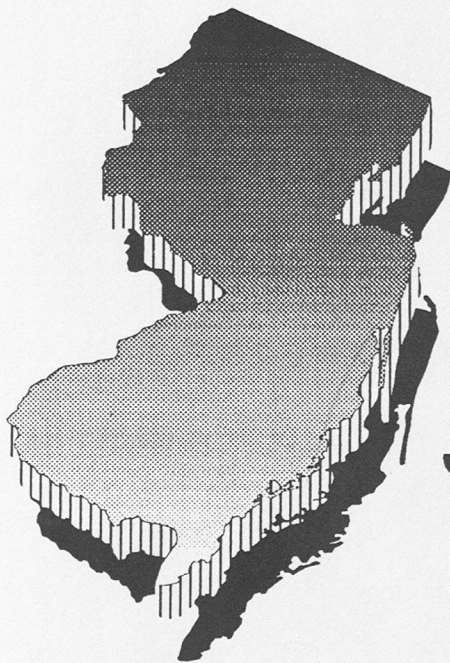


State Transportation Plan



Urban Transportation Supplement

Jersey City

New Jersey Department of Transportation

NJ TRANSIT

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JERSEY CITY
—
URBAN TRANSPORTATION
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JERSEY CITY

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I. INTRODUCTION

JERSEY CITY

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Over time, Jersey City developed the extensive transportation network that splays out across Hudson County. The Holland Tunnel, Route 1&9, and the New Jersey

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I. INTRODUCTION

State legislation (P.L. 1991 Chapter 481) approved January 18, 1992, mandates that the New Jersey Department of Transportation (NJDOT), in conjunction with NJ TRANSIT (NJT), prepare and submit to the Legislature an Urban Transportation Supplement to the State Transportation Plan. In order to improve access into and out of New Jersey's major urban centers, the Plan is to identify and address transportation needs and issues of each of seven cities. In particular, the legislation places emphasis on "the transportation problems of the state's inner-city residents who are employed by or who are seeking employment with employers located in suburban areas of the state." The seven cities included in the legislation are Atlantic City, Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton. The Urban Transportation Supplement is to be updated every five years.

Information on Jersey City for this report has been gathered from the U.S. Census, the New Jersey Transportation Plan, the NJ TRANSIT Capital Plan, county and local master and transportation plans, population and employment projections from the State Development and Redevelopment Plan, numerous other forms of published data, and from personal interviews with Jersey City and Hudson County professionals working in planning, transportation, economic development, and job placement or training.

Jersey City arose from scattered Dutch settlements facing New York Bay, a location that ensured transportation would always play a pivotal role in its development. The city served as a ferry terminal shortly after it was founded in 1660 and quickly adopted most transportation innovations that followed.

In the 1860s, the Central Railroad of New Jersey (Jersey Central) built a bridge across Newark Bay and a major terminal in Jersey City, serving a large share of the immigrants processed at Ellis Island. Railroad yards would come to cover much of Jersey City's waterfront.

The next significant transportation development was construction of the Hudson & Manhattan Tubes in 1908. The Tubes attracted residents interested in commuting to New York but avoiding its high housing costs. Completion of the Holland Tunnel in 1927 further intensified Jersey City's ties to Manhattan, albeit with the result of burdening Jersey City's traffic facilities. Today, much of the stress on Jersey City's infrastructure is produced by suburban New Jersey commuters passing through the city en route to Manhattan.

Over time, Jersey City developed the extensive transportation network that splays out across Hudson County. The Holland Tunnel, Route 1&9, and the New Jersey

2.

Turnpike facilitated the migration to the suburbs beginning in the 1950s. From a high of 316,715 in 1930, the population fell to 223,532 in 1980.

The Jersey Central began to lose business to trucking firms and airports. Oil and gas replaced the use of coal for home heating, ruining the Jersey Central's coal business. The automobile also displaced passenger rail facilities. The Hudson & Manhattan Tubes went into bankruptcy in 1954, and the Pennsylvania Railroad stopped commuter service into Jersey City in 1961.

In the 1970s many major industries, including American Can, Emerson, Swift, and Westinghouse, moved from Jersey City to less-expensive suburban locations. Colgate-Palmolive, a fixture of Jersey City since 1847, held on until 1987 but then it, too, left the city.

Beginning in the 1970s, however, Jersey City embarked on a new economic development venture, symbolized by the downtown redevelopment of brownstones and row houses and the landscaping of abandoned rail yards on the Hudson River into Liberty State Park. As the 1980s dawned, developers began to view the expanses of open space on the Hudson waterfront as a lucrative site for high-density housing and commercial development. The Port Authority of New York and New Jersey Trans-Hudson line (PATH), which had reluctantly taken over the Hudson & Manhattan Tubes in 1962, expanded its service and opened a new terminal and transportation center in Journal Square.

II. DEMOGRAPHIC PROFILE OF THE CITY'S POPULATIONS

In the 1980s Jersey City's population experienced an upturn for the first time since 1930, advancing from 223,532 in 1980 to 228,537 in 1990. The number of households grew at roughly the same rate as the population. The only age group to increase in size was the 20-64 years sector, which greatly expanded the available labor force. Median household income, while still below the state average in 1990, rose at a faster rate over the decade.

The population of Jersey City experienced a 2.2 percent increase from 1980 to 1990 (Table 1). Although less than the 5 percent population increase that New Jersey experienced during the same period, the upturn was undoubtedly welcome for a city that had lost one-third of its residents since 1930. Hispanics, who increased to 23.7 percent of the population by 1990, and Asians, at 11.3 percent, made the biggest contributions to the population growth of the 1980s.

The number of households increased over the decade from 80,720 to 82,306, for a 1.9 percent gain. The average Jersey City household size remained almost constant at 2.73, down from 2.74 in 1980. From one perspective, the small decrease in household size is

TABLE 1
POPULATION AND HOUSEHOLD
IN JERSEY CITY 1980-1990

<i>Population Indices</i>	<i>1980</i>	<i>1990</i>	<i>Change</i>	
			<i>Number</i>	<i>Percent</i>
Population	223,532	228,537	5,005	2.2
Household	80,720	82,306	1,586	1.9
Average Household Size	2.74	2.73	(.01)	0.0

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

TABLE 2
AGE PROFILE OF THE POPULATION
IN JERSEY CITY 1980-1990

<i>Age Cohorts</i>	<i>1980</i> <i>Percent</i>	<i>1990</i> <i>Percent</i>	<i>Change</i> <i>Percent</i>
<5 years	7.7	7.3	(5.2)
5 years to 19 years	25.1	20.1	(19.9)
20-64 years	55.4	61.7	11.4
Over 65 years	11.8	10.8	(8.5)
Median Age (years)	29.9	31.6	5.7

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

TABLE 3
INCOME AND POVERTY
IN JERSEY CITY 1979-1989

<i>Income Indices</i>	<i>1979</i>	<i>1989</i>	<i>Change</i>	
			<i>Number</i>	<i>Percent</i>
Household Income	\$12,787	\$29,054	\$16,267	127.2
Per Capita Income	\$5,812	\$13,060	\$7,248	124.7
Percent Population Below Poverty Level	21.2	18.6	—	(12.3)

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

surprising, as redevelopment and new housing has meant an influx of young professionals and childless couples. However, an increase in the Hispanic and Asian populations has compensated, keeping the average household size relatively constant.

The age profile of Jersey City runs counter to both state and national trends. Of the four age groups presented in Table 2, only the 20-64 age bracket recorded an increase, reflecting Jersey City's new attractiveness for working age immigrants and in-migrants.

The median household income of Jersey City climbed from \$12,787 in 1980 to \$29,054 in 1990 (Table 3), surpassing the U.S. median household income of \$28,906 but falling well short of the New Jersey median household income of \$40,972. Nonetheless, Jersey City gained on the state over the decade; its household income was 64.6 percent of the state average in 1980 and 70.9 percent in 1990.

During the 1980s, a two-tiered economy emerged, with low-paid, less-skilled service jobs and highly paid, highly skilled managerial jobs; this permitted growth of both rich and poor. Every year since 1979, what the Bureau of the Census defines as low-paying jobs (those paying no more than \$12,195 per year in 1990 dollars) have increased statewide as a percentage of total jobs. This has led to families with an employed head of household being poverty impacted. Given this statewide context, another indication of the improving fortunes of Jersey City residents is that the proportion living below the poverty line decreased from 21.2 percent in 1980 to 18.6 percent in 1990.

III. LABOR FORCE PROFILE

At decade's end, 16,356 more Jersey City residents were employed than had been in 1980. However, the labor force increased even more, so the unemployment rate rose over the period. The nature of the jobs that Jersey City residents held changed markedly over the decade, as manufacturing employment fell sharply while employment in services and FIRE (finance, insurance, and real estate) rose.

A. Total Employed

Employment of Jersey City residents expanded considerably, from 88,239 in 1980 to 104,595 in 1990, for an 18.5 percent increase (Table 4). This placed the gain in employed at precisely the national average for the last decade.

TABLE 4

**RESIDENT EMPLOYMENT AND EMPLOYMENT CHANGE
BY SIC IN JERSEY CITY 1980-1990**

<i>Resident Employment</i>	1980	1990	<i>Change</i>	
			<i>Number</i>	<i>Percent</i>
TOTAL EMPLOYMENT	88,239	104,595	16,356	18.5
	<i>1980 Percent</i>	<i>1990 Percent</i>		<i>Change Percent</i>
STANDARD INDUSTRIAL CLASSIFICATION (SIC)				
Manufacturing	25.4	15.6		(38.6)
Wholesale Trade	4.9	5.8		18.4
Retail Trade	11.7	13.7		17.1
Transportation	11.1	9.7		(12.6)
Communications and Utilities	2.6	2.3		(11.5)
Services	26.6	32.4		21.8
Finance, Insurance, and Real Estate	9.1	11.7		28.6
Construction	2.6	3.3		26.9
Agriculture	0.0	0.0		0.0
Public Sector	5.7	5.0		(12.3)

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

TABLE 5

**RESIDENT EMPLOYMENT BY OCCUPATION AND
CHANGE IN JERSEY CITY 1980-1990**

<i>Resident Employment</i>	1980	1990	<i>Change</i>	
			<i>Number</i>	<i>Percent</i>
TOTAL EMPLOYMENT	88,239	104,595	16,356	18.5
	<i>1980 Percent</i>	<i>1990 Percent</i>		<i>Change Percent</i>
OCCUPATIONAL CATEGORY				
Managerial/Executive	17.1	24.1		40.9
Technical/Sales	33.9	36.2		6.8
Services	13.7	14.0		2.2
Farming	0.0	0.0		0.0
Precision Production/Crafts	9.6	7.7		(19.8)
Operators/Laborers	25.4	17.7		(30.3)

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

B. Employment by Industry

The employment story of Jersey City during the 1980s, as in most cities nationally, was the fall of manufacturing and the rise of services. In 1980, 25.4 percent of Jersey City residents were employed in manufacturing; in 1990, the figure was 15.6 percent, a 38.6 percent decline in employment share. In absolute terms, the city lost 6,089 manufacturing jobs.

Services, on the other hand, increased its share of employment from 26.6 to 32.4 percent, for an addition of 10,442 jobs. The burgeoning number of service jobs was due not only to new office space on the waterfront but to services, such as laundry and food preparation, for the city's new array of residents. Although services is the dominant industry, finance, insurance, and real estate experienced the greatest rate of growth; it moved from 9.1 to 11.7 percent of the labor force, for a 28.6 percent increase in share.

C. Employment by Occupation

Resident employment by occupation figures underscore the new settlement of professionals and managers in Jersey City; these are displayed in Table 5. Residents classified as managerial/executive experienced a major increase in employment share, from 17.1 percent of the resident employment to 24.1 percent. Residents in technical/sales increased from 33.9 percent of the workers to 36.2 percent.

Commensurate with the faltering manufacturing sector, workers classified as precision production/crafts slipped from 9.6 to 7.7 percent of resident employment, and those classified as operators/laborers fell from 25.4 to 17.7 percent. Nothing illustrates the reconfiguration of Jersey City better than the fact that in 1980 the number of residents employed as executives and managers was one-half the number of residents employed as production/craft workers and as operators/laborers; by 1990, the numbers were virtually equal.

D. Unemployment Levels

The rise in Jersey City's unemployment rate is a jarring note in an otherwise improving economic picture. The unemployment rate in 1990 was 12.2, an increase of 24.5 percent from the 9.8 percent rate in 1980 (Table 6).

E. Households with Wage and Salary Income

The percentage of Jersey City households with wage and salary income increased from 73.9 to 76.0 between 1979 and 1989, outpacing growth in this sector of all households in Hudson County (Table 7).

TABLE 6
RESIDENT UNEMPLOYMENT AND
CHANGE IN JERSEY CITY 1980-1990

City	Unemployment Level		Change Percent
	1980 Percent	1990 Percent	
JERSEY CITY	9.8	12.2	24.5

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

TABLE 7
PERCENT OF HOUSEHOLDS HAVING
WAGE AND SALARY INCOME AND
CHANGE IN JERSEY CITY 1979-1989

Local Government	Households With Wage or Salary Income		Change Percent
	1979 Percent	1989 Percent	
JERSEY CITY	73.9	76.0	2.8
HUDSON COUNTY	75.9	76.8	1.2

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

TABLE 8
AUTOMOBILE OWNERSHIP AND
CHANGE IN JERSEY CITY 1980-1990

City	Percent of Households Having at Least One Automobile		Change Percent
	1980 Percent	1990 Percent	
JERSEY CITY	54.8	59.5	8.6

Source: U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990.*

8.

F. Household Automobile Ownership

As another indication of economic progress, the level of automobile ownership in Jersey City increased over the decade. In 1980, 54.8 percent of Jersey City households owned at least one automobile, a percentage that increased to 59.5 percent by decade's end (Table 8). Although not available from 1990 Census information, the percentage of households with at least two automobiles is believed by Jersey City planners to have also increased greatly over the decade.

IV. "AT-PLACE" EMPLOYMENT PROFILE

A. In the City

Table 9 indicates the change in at-place covered employment for Jersey City. At-place employment refers to jobs located within a specific geographic area, such as city or labor area. Covered employment refers to all jobs covered by the state's unemployment insurance program. Jersey City enjoyed a healthy increase in covered employment over the decade, as 1990 ended with 81,404 jobs, a 7.6 percent increase from the 75,633 jobs of 1980.

Indeed, of New Jersey's "Big Six" cities (Camden, Elizabeth, Newark, Paterson, and Trenton, as well as Jersey City), Jersey City was the success story of the decade, especially during the peak years of 1982-1987. In that period, the number of covered jobs increased by a robust 16.4 percent, fueled by growth in the finance, insurance, and real estate industry. Jersey City was also the only one of the Big Six to avoid job losses from 1987 to 1990, although retrenchment had set in by 1989. Since then, new office buildings have had difficulty recruiting tenants; currently Jersey City's office vacancy rate is approximately 30 percent.

At decade's end, reflective of new businesses on the waterfront, the largest industry in Jersey City was services, which increased from 17.3 percent share in 1980 to 24.0 percent share in 1990 (Table 9). During the decade, manufacturing jobs in Jersey City fell from 22.5 percent to 11.8 percent of at-place employment.

Jobs in the public sector remained fairly steady, dropping from 23.5 to 22.0 percent of covered employment. The retail trade industry moved into third place with a 13.3 percent share, up from 11.8 percent in 1980. Due to the Newport Centre Mall, Hudson County's first enclosed regional mall, Jersey City managed to expand its retail sector at a time when other major urban centers were barely staying afloat. Growth in the finance, insurance, and real estate sector was aided by the conversion of an old railroad warehouse into the

TABLE 9
"AT-PLACE" EMPLOYMENT AND EMPLOYMENT
CHANGE IN JERSEY CITY 1980-1990

Employment By Industry	Total		Change	
	1980	1990	Number	Percent
TOTAL	75,633	81,404	5,771	7.6
	1980 Percent	1990 Percent		Change Percent
STANDARD INDUSTRIAL CLASSIFICATION (SIC)				
Manufacturing	22.5	11.8		(47.5)
Wholesale Trade	4.9	6.4		30.6
Retail Trade	11.8	13.3		12.7
Transportation	9.3	8.7		(6.5)
Communications and Utilities	2.2	1.7		(25.7)
Services	17.3	24.0		38.7
Finance, Insurance, and Real Estate	7.0	9.5		35.7
Construction	1.5	2.4		60.0
Public Sector	23.5	22.0		(6.4)

Source: New Jersey Department of Labor. *Covered Employment Trends*. 1980, 1990.

TABLE 10
RESIDENT AND "AT-PLACE"
EMPLOYMENT TOTAL AND BY SIC—1990
JERSEY CITY

Employment By Industry	1990	1990	Ratio of
	Resident Employment	"At-Place" Employment	"At-Place" Employment to Resident Employment
TOTAL	104,595	81,404	77.8
STANDARD INDUSTRIAL CLASSIFICATION (SIC)			
Manufacturing	16,344	9,606	58.8
Wholesale Trade	6,075	5,210	85.9
Retail Trade	14,317	10,827	71.9
Transportation	10,179	7,082	69.6
Communications and Utilities	2,414	1,384	57.3
Services	33,940	19,537	57.6
Finance, Insurance, and Real Estate	12,189	7,733	63.4
Construction	3,489	1,954	56.0
Public Sector	5,181	17,909	345.7

Note: "At-place" employment statistics include private-sector covered employment and city and federal government covered employment recorded in September 1990.

Source: New Jersey Department of Labor. *Covered Employment Trends*. 1990; U.S. Department of Commerce, Bureau of Census. *U.S. Census of Population and Housing 1980, 1990*.

Harborside Financial Center and the construction of several major office buildings on the waterfront.

Table 10 indicates the difference between the number of employed Jersey City residents and the number of jobs located within the city. At a maximum, jobs within Jersey City are available to only 77.8 percent of the residents. The discrepancy between where residents live and work is even greater in practice, as only 33 percent of residents actually work in Jersey City (see Figure 1 in Section VI)¹. Comparing the difference between resident employment and jobs available within the city by industrial sector indicates major shortfalls in manufacturing and services; that is, even if every Jersey City resident working in those sectors were qualified for jobs within the city, less than 60 percent of those workers could be given employment. On the other hand, there are well over three times the number of public-sector jobs in the city as there are residents employed in that sector.

B. In the Labor Area

Hudson County (coterminous with Jersey City's labor area²) did slightly better than Jersey City at creating jobs over the decade; its covered jobs increased by 20,000 from 216,824 to 236,700 for a 9.2 percent rise (Table 11). Its manufacturing sector lost a greater percentage of jobs than did Jersey City's, although it started the decade with a proportionately larger base. The percentage of covered jobs in manufacturing fell from 31.4 to 16.8 percent, a 46.5 percent decrease in share.

Virtually every other private sector industry in Hudson County increased its share of covered employment at the expense of manufacturing. The largest Standard Industrial Classification (SIC) in 1990 was services, with a 19.5 percent share, up from 13.7 percent in 1980 but less than the 24.0 percent share that services held in Jersey City.

¹ "Resident employment" in the tables above is not identical to "working residents" in the figures in Section VI below. In counting resident employment, the Census includes those with a job who were not at work during the reference week, but excludes members of the Armed Forces. Conversely, in counting working residents, the Census includes members of the Armed Forces, but excludes people who had a job but did not work during the Census reference week. For more complete descriptions, see the Census definitions of "Employment Status" and "Journey to Work."

² **Labor area or labor market area (LMA)** is a geographic area consisting of a central community and contiguous areas that are economically integrated into that community. Within a labor market area, workers can generally change jobs without relocating which makes jobs of a similar type mutually competitive. This is the definition of a labor market. The Bureau of Labor Statistics defines LMAs in terms of entire counties, except in New England where cities and towns are used. LMAs are categorized as either major, which are usually coterminous with a Metropolitan Statistical Area (MSA), or as small.

TABLE 11
 "AT-PLACE" EMPLOYMENT AND EMPLOYMENT CHANGE
 BY SIC IN THE JERSEY CITY LABOR AREA 1980-1990

	1980	Total 1990	Change Percent
JERSEY CITY LABOR AREA	216,824	236,700	9.2
	1980 Percent	1990 Percent	Change Percent
STANDARD INDUSTRIAL CLASSIFICATION (SIC)			
Manufacturing	31.4	16.8	(46.5)
Wholesale Trade	7.2	11.1	52.9
Retail Trade	12.6	14.6	13.6
Transportation	9.7	10.2	3.4
Communications and Utilities	1.7	1.9	10.0
Services	13.7	19.5	40.4
Finance, Insurance, and Real Estate	4.0	6.8	70.8
Construction	1.9	2.6	34.8
Public Sector	17.9	16.4	(8.4)

Source: New Jersey Department of Labor. *Covered Employment Trends*. 1980, 1990.

TABLE 12
 ANNUAL SALARIES FOR DEMAND OCCUPATIONS
 JERSEY CITY PMSA

Type of Employment	Annual Wage (\$)
MANUFACTURING OCCUPATIONS—EXAMPLES	
Drafter	32,110
Maintenance Worker	25,272
Material Handler	21,299
Truck Driver, Heavy	21,817
Warehouseman	26,790
SERVICE OCCUPATIONS—EXAMPLES	
Accounting Clerk	22,386
Receptionist	17,316w
Computer Operator	26,468
Secretary	27,222
Word Processor	21,164

Note: These data do not take into account overtime, premium pay, or shift differential.

Source: Trenton, New Jersey, NJDOL. *Regional Labor Market Review-Northern New Jersey Region*, July 1992.

C. The Shift to the Services Sector—Implications for Income

Growing employment opportunities in services and finance, insurance, and real estate have helped offset the loss of manufacturing jobs but with a resultant decline in income for less-skilled workers. In general, manufacturing jobs with an equivalent level of training pay 10–20 percent higher in annual wages than jobs in the services sector. Table 12 displays annual salaries for typical positions. Thus, even though the number of services jobs is equal to or greater than the number of manufacturing jobs they replace, the aggregate wages goes down in the jurisdiction where this is taking place.

V. EMPLOYMENT BASE AND EMPLOYMENT PROJECTIONS FOR THE CITY, COUNTY, AND LABOR AREA

The previous sections have indicated where Jersey City residents currently work; this section projects where jobs will be available in the future. In its projections for at-place employment for both Jersey City and the city's labor area, CUPR has taken into consideration both recent growth rates and the New Jersey Development and Redevelopment Plan's (State Plan) mandate to concentrate growth in already existing urban centers. It should be further noted that at-place employment figures of Tables 13, 14, and 15 indicate total employment, unlike the at-place figures of Tables 9–11, which present data solely for covered employment.

In Tables 13–15, the employment projections are organized into three categories. *Basic employment* includes the SIC categories of manufacturing, construction, transportation, mining, communications, and wholesale trade. *Services employment* includes FIRE, professional services, business and repair services, personal services, entertainment, and public administration. *Retail employment* includes only retail trade jobs.

A. City

Jersey City is expected to prosper under the conditions of the New Jersey State Development and Redevelopment Plan, increasing employment at a 15.2 percent rate between 1990 and 2000 (Table 13). Basic employment will rise at a 4.9 percent rate during that period, from 27,743 to 29,098 jobs. Services and retail employment both will increase at a 20.7 percent rate, as services add 8,540 jobs, and retail 2,211 jobs. In short, FIRE and commercial services, beneficiaries of the waterfront development of the 1980s, will rebound from the current recession and spearhead job growth over the next decade.

TABLE 13
"AT-PLACE" EMPLOYMENT AND PROJECTIONS
IN JERSEY CITY 1990-2000
 (New Jersey State Development and Redevelopment Plan)

	<i>Total Employment</i>	<i>Basic Employment</i>	<i>Services Employment</i>	<i>Retail Employment</i>
1990	79,574	27,743	41,172	10,659
1995	84,081	27,704	44,783	11,594
2000	91,680	29,098	49,712	12,870
CHANGE 1990-2000				
NUMBER	12,106	1,355	8,540	2,211
PERCENT	15.2	4.9	20.7	20.7

Source: CUPR Projections: 1990-2000.

TABLE 14
"AT-PLACE" EMPLOYMENT AND PROJECTIONS
IN HUDSON COUNTY 1990-2000
 (New Jersey State Development and Redevelopment Plan)

	<i>Total Employment</i>	<i>Basic Employment</i>	<i>Services Employment</i>	<i>Retail Employment</i>
1990	248,600	117,250	93,439	37,910
1995	259,786	116,960	101,424	41,402
2000	279,377	121,846	111,699	45,831
CHANGE 1990-2000				
NUMBER	30,777	4,596	18,260	7,921
PERCENT	12.4	3.9	19.5	20.9

Source: CUPR Projections: 1990-2000.

B. County

Jersey City's labor area (Table 14) coincides with Hudson County. Hence, the employment base and projections are the same as those for the labor area, which are described in the following section.

C. Labor Area

According to the assumptions of the State Plan, Hudson County will experience total job growth of 12.4 percent from 1990 to 2000 (Table 15). Basic employment will post a 3.9 percent gain, with an increase of 4,596 jobs. Services employment will account for two-thirds of the projected job growth and will add 18,260 jobs by the year 2000. Retail employment will gain 7,921 jobs for a 20.9 percent increase over the decade period.

D. Job Growth and Employment Separations in the Jersey City Labor Area by Municipality—1993-2000

Another indication of potential employment change affecting Jersey City residents is employment projections made by occupational category by the New Jersey Department of Labor, Division of Labor Market and Demographic Research (DOL). These projections reflect jobs made available both through job creation and through the separation³ of workers from the labor force. This data partitions the newly available jobs by occupational category so that one can project the growth in less-skilled⁴ new jobs and job separations. The municipalities are shown in Table 16; the methodology is described in a note at the end of the chapter.

A total of 41,056 less-skilled jobs will be available to Jersey City residents by the year 2000. Newly created jobs will account for 12,725 of these less-skilled jobs. Well over half of the new jobs will occur in Secaucus, a city that has experienced major growth in retail, warehousing, and office sectors since development of the Meadowlands began two decades ago. Jersey City will add 4,678 less-skilled jobs, North Bergen, 1,112, and Weehawken, 837. Other cities in Hudson County will experience only small amounts of less-skilled growth, with the two exceptions of Hoboken and Kearny, which will lose jobs.

³ Job openings include growth and separations. Growth refers to newly created jobs. The New Jersey Department of Labor, Division of Labor Market and Demographic Research, defines separations as openings created when people leave the labor force for reasons such as death, retirement, pregnancy, or other family reasons. Separations do not include movement from one job to another. New Jersey Department of Labor, Division of Labor Market and Demographic Research, *Employment Projections. Volume II: Occupational Outlook for New Jersey and Selected Areas. 1986-2000*. October 1988.

⁴ Less-skilled occupations include non-professional services, clerical, sales, operators, and laborers.

TABLE 15
"AT-PLACE" EMPLOYMENT AND PROJECTIONS
IN THE JERSEY CITY LABOR AREA¹ 1990-2000
(New Jersey State Development and Redevelopment Plan)

	<i>Total Employment</i>	<i>Basic Employment</i>	<i>Services Employment</i>	<i>Retail Employment</i>
1990	248,600	117,250	93,439	37,910
1995	259,786	116,960	101,424	41,402
2000	279,377	121,846	111,699	45,831
CHANGE 1990-2000				
NUMBER	30,777	4,596	18,260	7,921
PERCENT	12.4	3.9	19.5	20.9

Note: 1. Labor area is a geographic area consisting of a central community and contiguous areas that are economically integrated into that community. Within a labor area, workers can generally change jobs without relocating. See discussion in text.

Source: CUPR Projections: 1990-2000.

TABLE 16
LESS-SKILLED JOB GROWTH AND JOB OPPORTUNITIES THROUGH SEPARATIONS—1993-2000
JERSEY CITY LABOR AREA ¹

COUNTY	New Less-Skilled Jobs 1993-2000			Less-Skilled Separations ² 1993-2000			Total Less-Skilled Jobs and Separations ² 1993-2000		
	Basic	Retail	Services	Basic	Retail	Services	Basic	Retail	Services
			Total ³			Total ³			Total ³
HUDSON COUNTY									
Bayonne city	-153	100	153	343	541	929	189	641	1,082
East Newark borough	47	38	51	41	43	65	88	80	116
Guittenberg town	-18	25	93	25	49	204	7	75	297
Harrison town	-141	90	132	191	199	325	50	289	456
Hoboken city	-636	28	67	258	400	1,087	-378	428	1,155
Jersey City city	703	1,275	2,700	1,010	2,701	6,394	1,713	3,976	9,094
Kearny town	-1,246	-108	-129	465	473	632	-780	365	503
North Bergen township	301	507	303	500	1,274	852	801	1,781	1,155
Secaucus town	3,890	1,984	1,438	1,096	2,535	2,054	4,986	4,519	3,493
Union City city	-149	240	207	166	688	663	17	928	870
Weehawken township	-11	245	602	27	263	723	17	509	1,325
West New York town	-204	143	154	136	443	535	-68	586	689
TOTAL FOR HUDSON	2,384	4,567	5,774	4,258	9,610	14,462	6,642	14,178	20,236
TOTAL LABOR AREA	2,384	4,567	5,774	4,258	9,610	14,462	6,642	14,178	20,236

Notes: 1. Labor area is a geographic area consisting of a central community and contiguous areas that are economically integrated into that community. Within a labor area, workers can generally change jobs without relocating. See discussion in text.
2. Separations are openings created when people leave the labor force for reasons such as death, retirement, pregnancy, or other family reasons. Separations do not include movement from one job to another. See text for discussion.
3. Numbers may not total exactly due to rounding.

Source: CUPR Projections: 1993-2000.

Separations will contribute to twice as many jobs as new job growth, indicative of the "built-up" nature of Hudson County. The labor area will make 28,331 less-skilled jobs available. Jersey City will lead all other Hudson County municipalities with 10,106 fewer less-skilled positions, followed by Secaucus with 5,686, North Bergen with 2,625, Bayonne with 1,813, and Hoboken with 1,745. Of the total number of less-skilled job separations projected to take place by the year 2000, half will be in services, one-third in retail, and only one-sixth in basic employment.

Table 16 lists the number of less-skilled job opportunities by municipality within the Jersey City labor area. From a transportation point of view, the density of these opportunities is important. Map A displays the new less-skilled employment opportunities in terms of density per square mile, and Map B depicts the less-skilled separations in terms of the number of jobs per square mile. Rather than showing all the municipalities in the labor area, these maps show the area 6–10 miles north and west of Jersey City.

Map A shows that the highest density of the new less-skilled jobs will be in Jersey City and communities to the north: Secaucus, Union City, Weehawken, North Bergen, Carlstadt, Fort Lee, Englewood, Ridgely Park, and Hackensack. In contrast, most of the areas west and northwest of Jersey City will lose jobs.

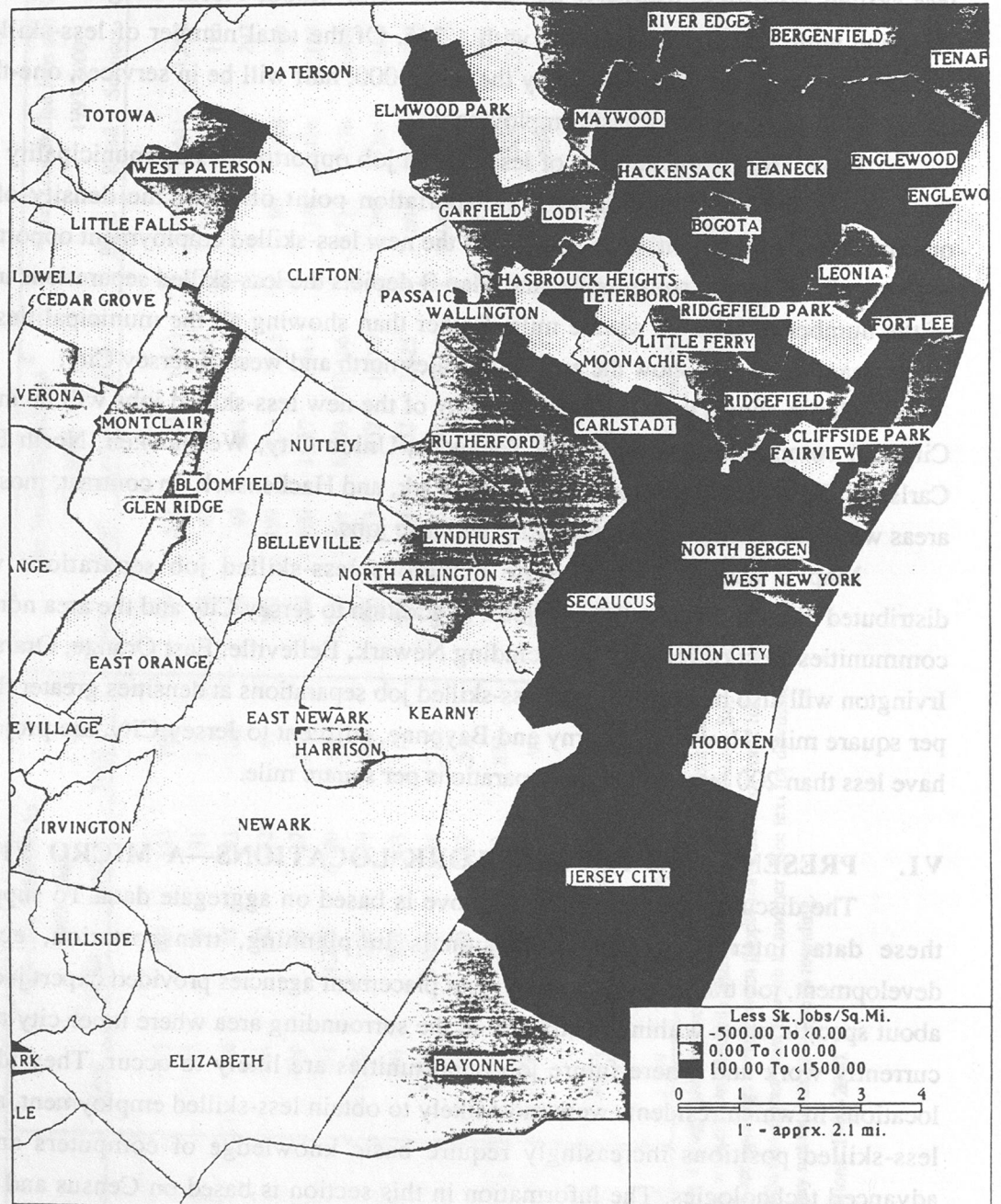
Map B shows that the more numerous less-skilled job separations will be distributed differently from the new jobs. In addition to Jersey City and the area north of it, communities west of Jersey City including Newark, Belleville, East Orange, Orange, and Irvington will also have significant less-skilled job separations at densities greater than 400 per square mile. However, Kearny and Bayonne, adjacent to Jersey City, are projected to have less than 200 less-skilled job separations per square mile.

VI. PRESENT AND FUTURE WORK LOCATIONS—A MICRO VIEW

The discussion in the sections above is based on aggregate data. To supplement these data, interviews with professionals in planning, transportation, economic development, job training, and employment placement agencies provided expert judgments about specific areas within the city and in the surrounding area where inner-city residents currently work and where future job opportunities are likely to occur. They identified locations in which residents were most likely to obtain less-skilled employment, although less-skilled positions increasingly require basic knowledge of computers and other advanced technologies. The information in this section is based on Census and NJDOT data, as well as the interviews, supplemented by data from the Hackensack Meadowlands Development Commission and the Hudson County Department of Planning and Economic Development.

MAP A

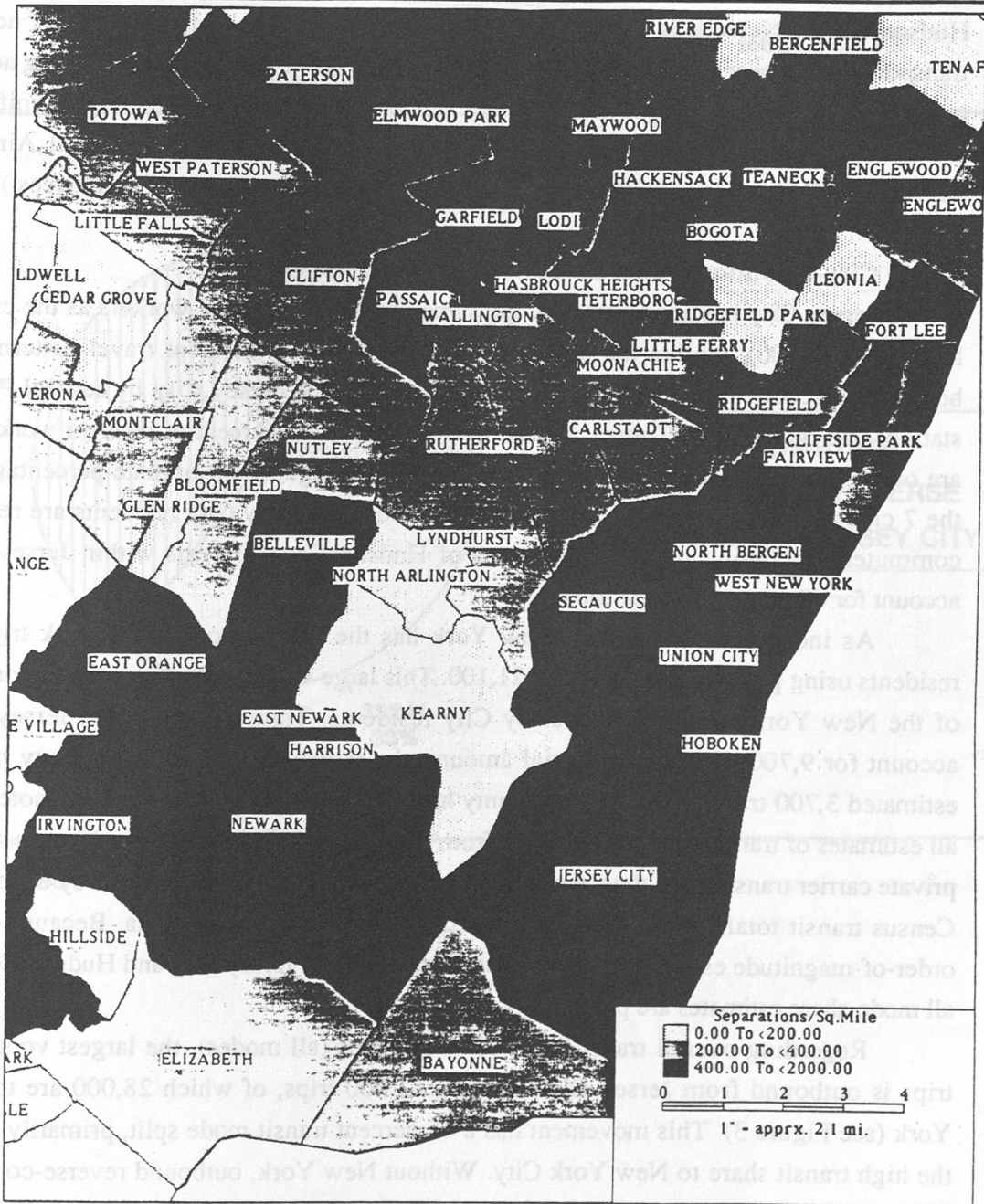
DENSITY OF NEW LESS-SKILLED EMPLOYMENT GROWTH
IN THE JERSEY CITY METROPOLITAN AREA, 1993-2000



Source: Projections by Center for Urban Policy Research, Rutgers University, Spring 1993

MAP B

DENSITY OF LESS-SKILLED EMPLOYMENT SEPARATIONS
IN THE JERSEY CITY METROPOLITAN AREA, 1993-2000



Source: Projections by Center for Urban Policy Research, Rutgers University, Spring 1993

When considering the major employers in the Jersey City labor area, it is essential to look not only at Hudson County but at the larger metropolitan area. Downtown Manhattan, a few minutes via PATH or a bit longer via bus lines, lies directly across the Hudson River; Newark is also accessible. However, the focus of this study is not on transportation between Jersey City and New York City or Newark but on improving access to other Hudson County cities and to nearby suburban communities. (Although significant job growth is expected in Port Newark/Elizabeth and Newark International Airport, NJ TRANSIT does not anticipate that Jersey City will be a key source of employees.)

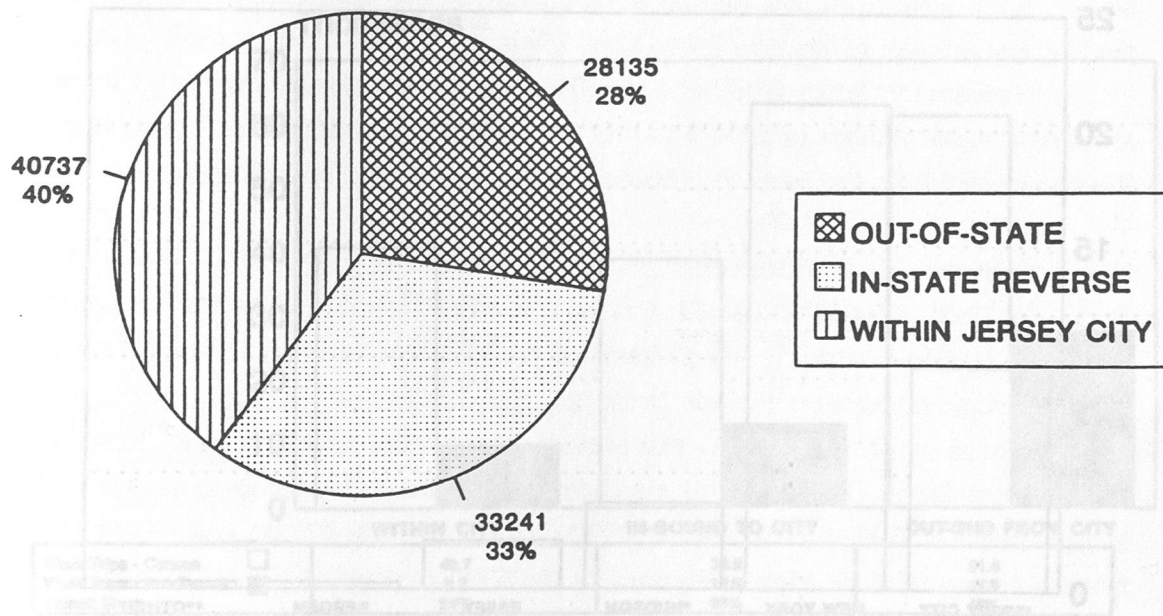
A. City-to-Suburb and In-City Trips in Perspective

Jersey City has approximately the same number of resident workers as the city of Newark (102,000). Unlike the city of Newark, Jersey City resident travel patterns are heavily influenced by New York City, which is linked to Jersey City by several PATH stations and the Holland Tunnel. Figure 1 indicates that 28 percent of resident work trips are out-of-state, primarily New York City. This is the highest out-of-state percentage for the 7 cities examined in this study. Only 33 percent of Jersey City residents are reverse commuters, including trips to other parts of Hudson County. Trips within Jersey City account for 40 percent of total trips.

As indicated in Figure 2, New York has the largest volume of work trips by residents using public transit, totaling 21,100. This large volume illustrates the importance of the New York commute for Jersey City residents. Transit trips within Jersey City account for 9,700 trips, a substantial amount; the remainder of Hudson County has an estimated 3,700 transit trips; Essex County has 2,100 transit trips. It should be noted that all estimates of transit trips were derived from factoring NJ TRANSIT ridership to estimate private carrier transit trips; thus, the transit trips are only estimates controlled by the overall Census transit totals. The 1990 Census data is preliminary STF 3 data. Because of the order-of-magnitude estimate of private carrier ridership in Jersey City and Hudson County, all mode-share estimates are preliminary.

Regarding overall travel flows for work trips (all modes), the largest volume of trips is outbound from Jersey City, totaling 61,000 trips, of which 28,000 are to New York (see Figure 3). This movement has a 45 percent transit mode split, primarily due to the high transit share to New York City. Without New York, outbound reverse-commute trips have a 20 percent transit share. Total work trip flows from the suburbs and other municipalities to Jersey City and work trips remaining within Jersey City are approximately equal, at 40,000 trips each. This indicates that Jersey City residents represent a significant portion of the overall work trips at Jersey City employment locations.

FIGURE 1
WORKSITE DESTINATIONS OF JERSEY CITY RESIDENTS
 (Total Jersey City Working Residents—102,113)

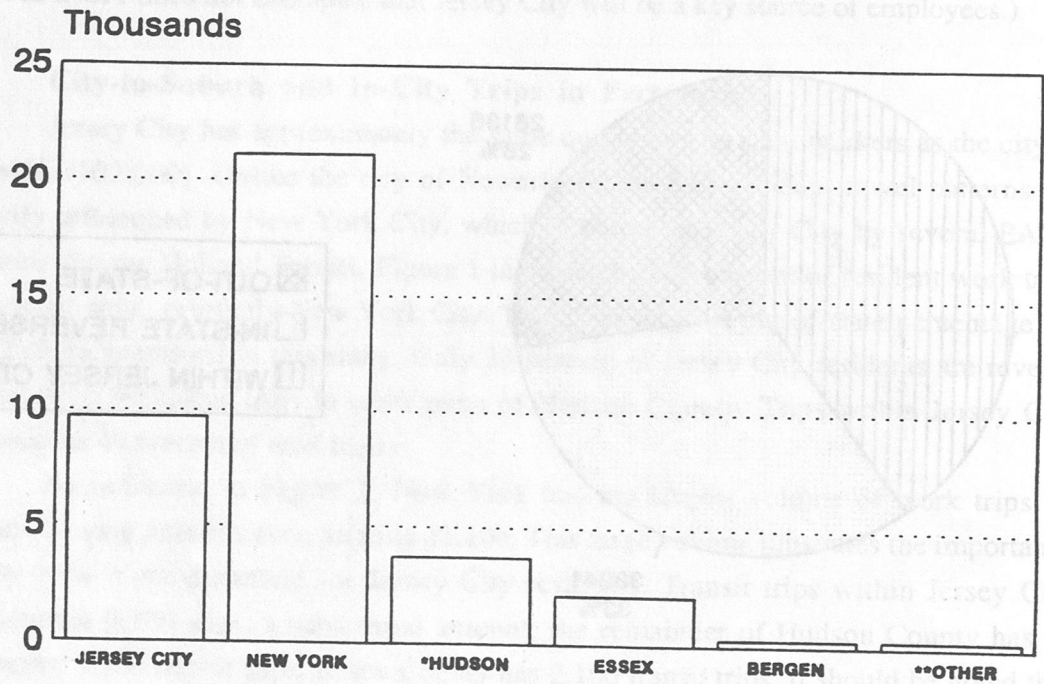


Source: 1990 U.S. Census Data STF-3.

FIGURE 2

WORK TRIP DESTINATIONS OF JERSEY CITY RESIDENTS USING PUBLIC TRANSIT

(Total Volume of Transit Commutes by Jersey City Residents—37,200)



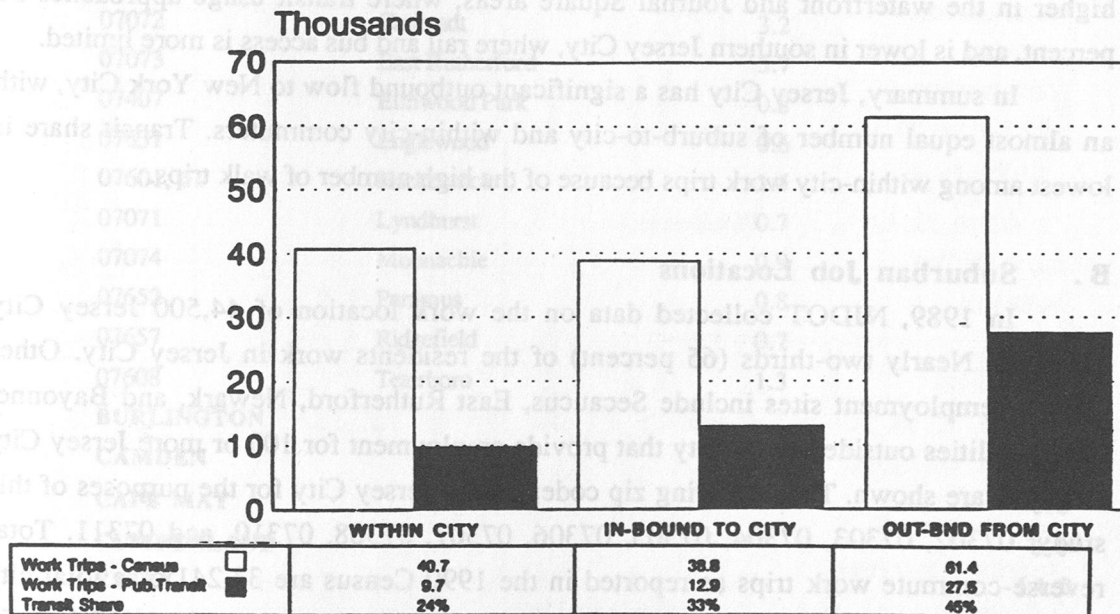
Notes: * Excludes Jersey City.
 ** Includes Passaic, Middlesex, and Morris counties.
 Totals for private carriers are estimated.

Source: 1990 NJ TRANSIT Rail, Bus, and PATH Ridership Surveys.

FIGURE 3

**TRANSIT SHARE OF WORK TRIPS
JERSEY CITY METROPOLITAN AREA**

(1990 Census Data and Public Transit Surveys)



Notes: All figures are thousands of riders, except transit share, which is percent share.
Totals for private carriers are estimated.

Source: 1990 U.S. Census STF 3 Data; 1990 NJ TRANSIT and PATH Ridership Surveys.

Transit shares are 24 percent for work trips made by city residents within Jersey City, and 33 percent by traditional suburb and outside-city commuters to Jersey City. The lower transit share within the city is due to the large number of walk trips made by within-city commuters. There are more than 9,000 walk-to-work trips, which result in a 22 percent walk mode split among in-city commuters. Thus, walk trips are almost equal to transit trips for within-city commuters. Combined, the walk and transit mode shares account for 46 percent of the within-city commuters, approximately equal to the outbound mode split. The inbound suburb-to-city mode split of 33 percent is fairly high but is much higher in the waterfront and Journal Square areas, where transit usage approaches 50 percent, and is lower in southern Jersey City, where rail and bus access is more limited.

In summary, Jersey City has a significant outbound flow to New York City, with an almost equal number of suburb-to-city and within-city commuters. Transit share is lowest among within-city work trips because of the high number of walk trips.

B. Suburban Job Locations

In 1989, NJDOT collected data on the work location of 44,500 Jersey City residents. Nearly two-thirds (65 percent) of the residents work in Jersey City. Other primary employment sites include Secaucus, East Rutherford, Newark, and Bayonne. Municipalities outside Jersey City that provide employment for 100 or more Jersey City residents are shown. The following zip codes define Jersey City for the purposes of this study: 07302, 07303, 07304, 07305, 07306, 07307, 07308, 07310, and 07311. Total reverse-commute work trips as reported in the 1990 Census are 33,241 of a total city resident work force of 102,113. Table 17 represents a sample—17,005—which is 51 percent of the 1990 Census Origin/Destination Employment Data. The NJDOT survey data includes covered employment only.

Specific suburban jobs sites are presented in Table 18A. Although the older communities of Hudson County have been hurt by post-World War II job loss to roughly the same degree as Jersey City, they still offer jobs to Jersey City residents. The Bergenline Avenue retail area, stretching for three miles through both West New York and Union City, has a moderate number of jobs for central city residents. Bayonne, with the Military Ocean Terminal and the Global Container Terminal, as well as industry in the Constable Hook area, also offers employment to less-skilled workers.

The greatest source of future jobs for Jersey City residents is found in the Hackensack Meadowlands district (HMD), including parts of Kearny, Secaucus, North Bergen, Lyndhurst, Carlstadt, Moonachie, and East Rutherford (the latter four communities located in southern Bergen County). A 1990 Hackensack Meadowlands

TABLE 17
 WORK LOCATIONS OF JERSEY CITY RESIDENTS
 IN-CITY AND REVERSE COMMUTES
 1989

County	Community	Percent Reverse Commute to Community	Percent Reverse Commute to County
ATLANTIC			0.0¹
BERGEN			21.9
07072	Carlstadt	3.2	
07073	East Rutherford	5.7	
07407	Elmwood Park	0.8	
07631	Englewood	0.6	
07601, 61	Hackensack	1.5	
07071	Lyndhurst	0.7	
07074	Moonachie	0.9	
07652	Paramus	0.8	
07657	Ridgefield	0.7	
07608	Teterboro	1.3	
BURLINGTON			0.1
CAMDEN			0.1
CAPE MAY			0.0¹
CUMBERLAND			0.0¹
ESSEX			14.0
07007	Caldwell	0.7	
07042, 43	Montclair	0.8	
07102, 03, 04, 05 06, 07, 08, 12, 14	Newark	8.3	
07006	West Caldwell-North Caldwell- Fairfield ²	0.9	
GLOUCESTER			0.0¹
HUDSON			42.6
07002	Bayonne	9.6	
07029	East Newark	0.8	
07030	Hoboken	4.8	
07047	North Bergen	6.9	
07094	Secaucus	16.5	
07087	Weehawken, Union City	2.5	
07093	West New York-Guttenberg ²	1.4	

TABLE 17 (continued)

**WORK LOCATIONS OF JERSEY CITY RESIDENTS
IN-CITY AND REVERSE COMMUTES
1989**

<i>County</i>	<i>Community</i>	<i>Percent Reverse Commute to Community</i>	<i>Percent Reverse Commute to County</i>
HUDSON-BERGEN			1.4
07031	Kearny-North Arlington ²		
HUNTERDON			0.0¹
MERCER			0.1
MIDDLESEX			4.8
08817, 20, 37	Edison	1.3	
07001, 64, 67, 77, 95, 08830, 32, 63	Woodbridge	0.9	
MONMOUTH			0.6
MORRIS			2.3
OCEAN			0.0¹
PASSAIC			3.1
07011, 12, 13, 14	Clifton	1.2	
07501, 02, 04, 05, 013, 14, 24	Paterson	0.6	
SOMERSET			0.9
SOMERSET-UNION			0.9
07060, 63	Warren-Watchung-North Plainfield-Plainfield ²		
SUSSEX			0.1
UNION			6.0
07201, 02, 06, 08	Elizabeth	1.6	
07036	Linden	0.9	
07083	Union	1.0	
WARREN			0.0¹

1. 0.0 Reported reverse commute is less than 0.1%.

2. These jurisdictions, or portions of these jurisdictions, are included within this zip code.

Source: NJDOT, 1989 ZIP Code Origin/Destination Data.

TABLE 18A

SPECIFIC SUBURBAN SITES OF EMPLOYMENT
AND EMPLOYMENT GROWTH FOR THE REVERSE COMMUTE

JERSEY CITY

	A Existing Employment or Growth Node	B Site of Primarily Skilled or Less-skilled Employment	C Potential for Jobs at Site	D Potential for Center City Residents at Site
<i>Corridors and Specific Locations</i>				
Bayonne Rt. 169 (industrial corridor)	Existing	Less-skilled	Low	Moderate
Newark Newark International Airport Port Newark	Both Both	Both Both	Moderate Moderate	Moderate Moderate
Union City, West New York Bergenline Avenue (retail area)	Existing	Less-skilled	Moderate	High
North Bergen West Side Avenue	Both	Both	Low	Moderate
Secaucus, Carlstadt, Moonachie Harmon Cove (manufacturing, retail and distribution district) Harmon Meadows (hotels and offices)	Both Both	Both Both	High High	High Moderate
East Rutherford Meadowlands Sports Complex and Concessions	Both	Less-skilled	Moderate	Moderate
Lyndhurst Lyndhurst Corporate Park	Both	Skilled	Moderate	Low

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

TABLE 18B
SPECIFIC CITY SITES OF EMPLOYMENT
AND EMPLOYMENT GROWTH FOR THE IN-CITY JOURNEY TO WORK
JERSEY CITY

<i>Corridors and Specific Locations</i>	A <i>Existing Employment or Growth Node</i>	B <i>Site of Primarily Skilled or Less-skilled Employment</i>	C <i>Potential for Jobs at Site</i>	D <i>Potential for Center City Residents at Site</i>
Downtown				
Retail				
Central Avenue	Existing	Less-skilled	Moderate	High
Journal Square	Existing	Less-skilled	Moderate	High
Grove Street	Both	Both	Low	Moderate
Newport Mall	Both	Both	Moderate	Moderate
Hudson Mall	Existing	Both	Low	Moderate
Offices				
Journal Square	Existing	Both	Moderate	Low
Newport Centre	Both	Skilled	High	Low
Harborside Financial Centre	Both	Skilled	High	Low
Exchange Place	Both	Skilled	High	Low
Grove Street	Both	Skilled	Mod	Low
Hospitals				
Christ Hospital	Both	Skilled	Moderate	Moderate
Jersey City Medical Center	Both	Skilled	Moderate	Moderate
St. Francis Hospital	Both	Skilled	Moderate	Moderate
County/City/State/ Federal Government				
Hudson County	Existing	Both	Low	Low
Jersey City	Existing	Both	Low	Low

TABLE 18B (continued)
SPECIFIC CITY SITES OF EMPLOYMENT
AND EMPLOYMENT GROWTH FOR THE IN-CITY JOURNEY TO WORK
JERSEY CITY

	A <i>Existing or Employment or Growth Node</i>	B <i>Site of Primarily Skilled or Less-skilled Employment</i>	C <i>Potential for Jobs at Site</i>	D <i>Potential for Center City Residents at Site</i>
<i>Corridors and Specific Locations</i>				
Colleges				
Jersey City State	Existing	Both	Moderate	Low
St. Peter's	Existing	Both	Moderate	Low
Hudson Co. Comm. Coll.	Existing	Both	Moderate	Low
Industrial Parks				
Greenville Yards	Existing	Less-skilled	Moderate	High
Rt. 440	Existing	Less-skilled	Low	High
Caven Point	Existing	Less-skilled	Low	High
Claremont Park	Existing	Less-skilled	Low	High
Ports/Airports				
Port Jersey	Existing	Less-skilled	Low	High
Other				
Best Foods	Both	Less-skilled	High	High
Block Drug	Both	Less-skilled	High	High
Muller's	Both	Less-skilled	High	High
US Postal Service Regional Handling Facility	Both	Both	Moderate	Moderate

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

transportation study (Ebasco 1990) indicates that Jersey City residents hold 11 percent of the jobs in the HMD.

Central city residents can find a moderate number of positions in the industrial district of South Kearny, the Hudson County Corrections facility, and the Postal Service regional handling facility along the Newark-Jersey City Turnpike, which offers over 2,500 jobs. Lyndhurst, Carlstadt, and Moonachie adjacent to Route 17 have a fair number of warehousing jobs. East Rutherford is an attractive employment site not only for the considerable number of jobs at the Sports Complex off Route 3 and the nearby Meadowlands Sheraton, but also for the collection of mid-sized manufacturing and commercial firms around Murray Hill and Madison Circle Drive.

The most significant source of jobs is in Secaucus, where the proportion of jobs to residents is much higher than in any other Hudson County municipality. For the purposes of this study, it will be convenient to divide Secaucus into two corridors: Harmon Cove, with its office complexes, a large outlet center, and numerous distribution centers; and Harmon Meadows, with hotels, offices, and some warehouses. Both areas have significant job potential for less-skilled Jersey City residents. The west side of North Bergen has large distribution centers for K-Mart and Liz Claiborne.

C. In-City Job Locations

Major employment sites within Jersey City are presented in Table 18B. The largest cluster of office buildings is found on the waterfront: Newport, Harborside, Exchange Place, and Colgate-Palmolive. Journal Square and Grove Street, the traditional office centers of Jersey City, are built up and offer less growth potential. A 30 percent office vacancy has temporarily subdued employment possibilities; even at capacity, however, it will be difficult for considerable numbers of central city residents to find work there other than in maintenance and some clerical positions.

Health services has been one of the few industries to avoid large-scale job loss. Jersey City Medical Center, with more than 2,000 personnel, is one of the city's largest employers. Physical expansion is quite possible for the near future, but for now the hospital is leveling off new hires. St. Francis, another large hospital, has begun downsizing. Pollak Hospital and Christ Hospital are two other medical institutions. Workers with a high school education can access about 35 percent of the hospital jobs, consisting of security, housekeeping, food service, clerical, and nurses' aides.

Jersey City has avoided the trend of retail job loss in older urban areas by its development of the Newport Centre Mall. Hudson Mall has recently undergone a \$2 million remodeling and is positioned for economic recovery. The Central Avenue shopping

district has more than two hundred stores and Journal Square has about fifty retail stores, although many of the latter have had to downscale their merchandise in the last decade. Retail businesses in Journal Square apparently have been hurt by the consolidation of PATH and bus transfers in the Journal Square transportation center; this has had the undesirable effect of drawing people off the streets. Though not especially lucrative in wages, retail establishments employ numerous central city residents.

Jersey City's three post-secondary schools—Jersey City State College, St. Peter's College, and Hudson County Community College—each employ more than 500 workers although job opportunities for central city residents are limited. The Postal Service complex along County Road, as well as the Hudson County and Jersey City government offices, are also significant employers.

Manufacturing and distribution are fairly well scattered throughout the city. Two of the largest employers, Best Foods and Block Drugs, are not far from the city's geographical center. Industrial parks line much of the waterfront and Route 440, but heavy industry has shrunk considerably since the 1950s. Caven Point, Claremont Industrial Park, and Montgomery Industrial Park have fairly modest operations. Greenville Yards hosts a Tropicana distributor that plans to expand and has space for other companies. Port Jersey Industrial Park has a few manufacturers. The Port Jersey Marine Complex itself has two facilities—the BMW Car Port and the Auto Marine Terminal managed by the Port Authority. Such facilities, though covering large areas, are not especially labor intensive.

VII. THE EXISTING TRANSPORTATION NETWORK

A. Roadways—City to Suburb

Table 19A displays information on the network of interstate, state, and county roadways in the Jersey City area. The network is also displayed on Map C. In general, the road system facilitates travel to the north or south of Jersey City rather than to the west or northwest.

1. Major Arterials

The Turnpike Extension, I-78, is the only interstate road to pass through Jersey City. It splits from the Turnpike at Newark and swings around the south and east sides of Jersey City, ultimately connecting with the Holland Tunnel. The Extension, the most important entry to the Jersey City waterfront from the south, is used almost entirely for traditional in-bound commuting.

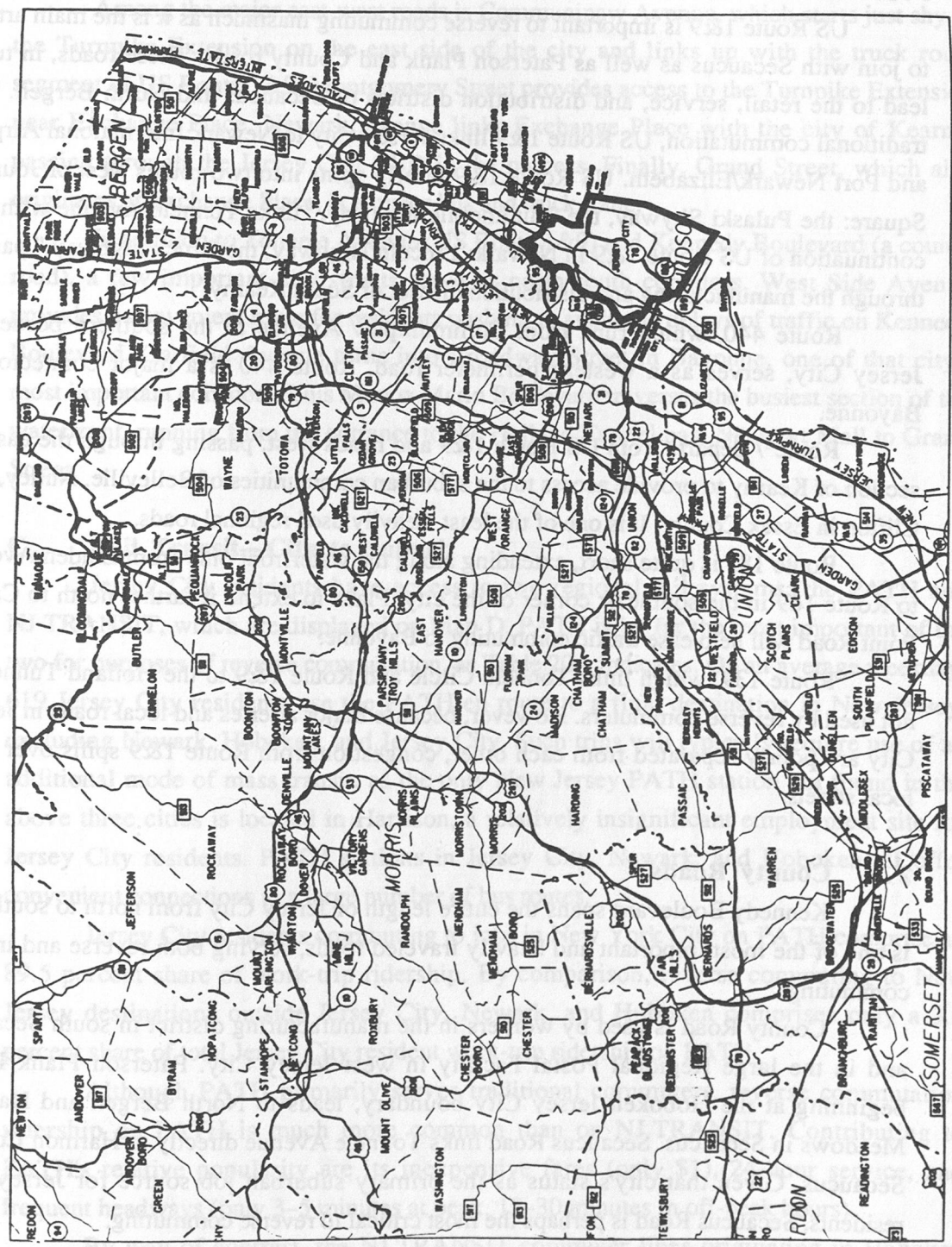
TABLE 19A
THE EXISTING TRANSPORTATION NETWORK—ROADWAYS
CITY TO SUBURB
JERSEY CITY

	<i>Location Relative to City</i>	<i>How City is Served</i>
STATE HIGHWAYS		
I-78 (Turnpike Extension)	E-W (passes through on south, east sides)	Links city to I-95; provides access to waterfront, Holland Tunnel
I-95	N-S (west of city)	Major NJ corridor
Holland Tunnel	E-W (east side)	Links to NYC
US Route 1&9 (Tonnele Avenue)	N-S (through CBD)	Major N-S corridor to North Bergen, Secaucus, and George Washington Bridge
US Route 1&9(T) (Lincoln Highway)	N-S (passes through city)	Truck route corridor; through Kearny to Newark
US Route 1&9 (Pulaski Skyway)	E-W (passes through city)	Major NJ corridor; to Newark and points south
US Route 440	N-S (west side of city)	Western beltway
Route 7	N-S (west of Journal Square)	To Kearny, Essex suburbs
Route 169	N-S (south side origin)	To Bayonne
Route 185	N-S (east side)	Feeds 169
Route 139	E-W (passes through city)	Connects Tonnele Circle to Holland Tunnel
COUNTY ROADS		
Kennedy Boulevard	N-S (through Journal Square)	Major NS corridor
County Road	N-W (northwest of city)	To Secaucus
Paterson Plank Road	NW-SE (northwest side)	Links Meadowlands to waterfront
Secaucus Road	N-W (northwest of city)	To Secaucus

Source: CUPR, 1992.

MAP C

REGIONAL ROAD SYSTEM IN THE VICINITY OF JERSEY CITY



Source: New Jersey Department of Transportation

Although not passing through the city, Jersey City also has access to the Turnpike, I-95.

US Route 1&9 is important to reverse commuting inasmuch as it is the main artery to join with Secaucus as well as Paterson Plank and County roads. These roads, in turn, lead to the retail, service, and distribution districts of Secaucus and North Bergen. For traditional commutation, US Route 1&9 links Jersey City to Newark International Airport and Port Newark/Elizabeth. US Route 1&9 briefly splits into two routes west of Journal Square: the Pulaski Skyway, the "automobile highway," links Tonnele Avenue with the continuation of US Route 1&9 in Newark; Lincoln Highway, the "truck highway," passes through the manufacturing and distribution district of South Kearny.

Route 440, which runs from Communipaw Avenue to the southern border of Jersey City, serves as a western perimeter road. Route 440 is a major connector to Bayonne.

Route 7 departs from US Route 1&9 and heads west, passing through the eastern section of Kearny to provide access to the suburban communities of Belleville, Nutley, and Clifton in Essex County. It is one of the least heavily used regional roads.

Route 185 is quite short, extending along the waterfront only from Linden Avenue to Route 169 in the southeast corner of the city. Plans to extend it farther north to Caven Point Road will help ease traffic commuting to Bayonne.

Route 139, which links Tonnele Circle and Route 1&9 to the Holland Tunnel, is not used by reverse commuters. However, because major arteries and local roads in Jersey City are poorly separated from each other, congestion from Route 1&9 spills over onto local streets.

2. County Roads

Kennedy Boulevard spans the entire length of Jersey City from north to south and is one of the most important and heavily traveled roads, serving both reverse and in-city commuting.

County Road is used by workers in the manufacturing district in south Secaucus and in the large Regional Postal Facility in west Jersey City. Paterson Plank Road, beginning at the Hoboken-Jersey City boundary, leads to North Bergen and Harmon Meadows in Secaucus. Secaucus Road links Tonnele Avenue directly to Harmon Cove in Secaucus. Given that city's status as the primary suburban job source for Jersey City residents, Secaucus Road is perhaps the most critical to reverse commuting.

B. Roadways—In City—Municipal Streets

Information on the major roadways in Jersey City is displayed in Table 19B.

Among the major east-west roads is Communipaw Avenue, which starts just shy of the Turnpike Extension on the east side of the city and links up with the truck route segment of US Route 1&9. Montgomery Street provides access to the Turnpike Extension near Exchange Place. Newark Avenue links Exchange Place with the city of Kearny, passing through the Jersey City CBD in the process. Finally, Grand Street, which also originates at Exchange Place, is a major bus and truck route.

In addition to Tonnele Avenue (US Route 1&9) and Kennedy Boulevard (a county road), a few important city streets serve as north-south corridors. West Side Avenue provides a convenient route for residents wishing to avoid the delays of traffic on Kennedy Boulevard. Garfield Avenue turns into Broadway Street in Bayonne, one of that city's most important corridors. Luis Munoz Marin Boulevard traverses the busiest section of the waterfront, running from the entrance to the Holland Tunnel past Newport Mall to Grand Street.

C. Rail Transit—City to Suburb

Jersey City residents have access to two regional rail systems: the PATH and NJ TRANSIT, which are displayed on Map D. PATH is by far the most important of the two for purposes of reverse commutation, as Table 20A indicates. On an average weekday, 619 Jersey City residents use the PATH en route to a final destination in New Jersey, excluding Newark, Hoboken, and Jersey City. Such trips will typically require use of an additional mode of mass transit, as the only New Jersey PATH station not found in the above three cities is located in Harrison, a relatively insignificant employment site for Jersey City residents. PATH stations in Jersey City, Newark, and Hoboken all offer convenient connections to a large number of bus routes.

Jersey City residents commuting to jobs in New York City on PATH comprise an 89.5 percent share of work-trip ridership. By comparison, reverse commuting to New Jersey destinations outside Jersey City, Newark, and Hoboken comprises only a 3.6 percent share of total Jersey City resident work-trip ridership on PATH.

Although PATH primarily serves traditional commuters, reverse commutation ridership on PATH is much more common than on NJ TRANSIT. Contributing to PATH's relative popularity are its inexpensive fares (only \$1), 24-hour service, and frequent headways (only 3–5 minutes at peak, 15–30 minutes in off-peak hours).

By way of contrast, the NJ TRANSIT commuter lines originating in Hoboken offer sparse and irregular reverse-commutation service. Two lines—the Pascack Valley

TABLE 19B
THE EXISTING TRANSPORTATION NETWORK—ROADWAYS
IN CITY
JERSEY CITY

	<i>Location Relative to City</i>	<i>How City is Served</i>
MUNICIPAL STREETS		
Communipaw Avenue	E-W (through city center)	Links 440 to Rt 1-9
West Side Avenue	N-S (west side)	Major corridor
Newark Avenue	E-W (through city center)	Links to waterfront
Palisade Avenue	N-S (northeast of CBD)	To Union City
Garfield Avenue	N-S (south-east side)	To Bayonne
Montgomery Street	E-W (through CBD)	Links I-78 and Harborside
Luis Munoz Marin	N-S (east side)	Waterfront route
Grand Street	E-W (near CBD)	Bus and truck route

Source: CUPR, 1992.

TABLE 20A
THE EXISTING TRANSPORTATION NETWORK: RAIL TRANSIT
CITY TO SUBURB
JERSEY CITY

Rail Lines (List)	Destination Relative to City	No. of City Passengers Carried Daily (Reverse)	Major Employment Markets Served by This Line	Times of Service	Headway
					Peak / Off-Peak
Gladstone Branch	EW (west of city)	50 ¹	Summit, New Providence	Wkdys 5:55AM-12:09AM Wkend 7:37AM-11:25PM	60 min 120 min 120 min
Morristown Line	EW (west of city)	50 ¹	Morristown	Wkdys 6:30AM-12:39AM Wkend 6:37AM-12:56AM	30 min 60 min 60 min
Main Line	NS (north of city)	10 ²	Lyndhurst	Wkdys 6:05AM-11:09PM Wkend 12:35AM-10:07PM	60 min 180 min 150 min 180 min
Bergen Line	NS (north of city)	10 ²	Harmon Cove, Secaucus, Rutherford	Wkdys ³ Wkend No service	
PATH	NYC Hoboken Newark Other NJ (excluding Newark, Hoboken, Jersey City)	15,378 55 605 619	NYC Hoboken Newark	Wkdys 24 hours Wkend 24 hours Wkend 24 hours	3/5 min 6/8 min 3/5 min 15/30 min 15/30 min 15/30 min
Newark City Subway	West of city	72	Newark	Wkdy 4:38AM-12:30AM Sat 4:38AM-12:30AM Sun 5:15AM-12:30AM	2 min 12 min 15 min 30 min

Note: 1. Combined total for Gladstone Branch and Morristown Line.
2. Combined total for Main and Bergen lines.
3. Two trains to E. Rutherford at 7:10 AM, 9:25 AM; four trains from E. Rutherford at 1:40 PM, 3:50 PM, 4:54 PM, and 9:42 PM.

Source : New Jersey Transit.

Line and Boonton Line—are unavailable for reverse commutation since they have no trips running out from Hoboken in the morning or to Hoboken in the evening. The Pascack Valley Line's restriction to traditional commutation is unavoidable in that it is a single-tracked line and thus is uni-directional.

The two other sets of commuter lines available to Jersey City residents also do not offer frequent reverse commutation. The Morris–Essex lines, consisting of the Gladstone Branch, the Morristown Line, and the Montclair Branch, carry a total of only 50 Jersey City reverse commuters on the average weekday. However, small reverse ridership on these lines is dictated to a large degree by the suburbs they serve. Summit and Morristown, among other communities along the line, offer a preponderance of higher skilled jobs that could easily be assumed by underemployed middle- and upper-class residents who live in those suburban areas.

The skilled workers living in Jersey City, on the other hand, choose redeveloped neighborhoods and new waterfront housing developments for the access they offer to waterfront businesses or to New York City. The large majority of skilled workers in New Jersey own automobiles, and these individuals would generally find reverse commuting by auto to be much more convenient than by mass transit. Problems such as parking and congestion are less immediate in reverse commuting than in the traditional commute. Skilled workers would also be confronted by irregular service; on the Gladstone Line, for example, the peak headway is 60 minutes, with 120-minute headways during much of the rest of the day.

For the less-skilled Jersey City resident, the infrequent reverse commute service on the Morris–Essex lines would also prove troublesome, as might the fare. A round-trip fare between Hoboken and Morristown on commuter rail is \$9.50.

As small as the reverse-commute ridership is on the Morris and Essex lines, the daily reverse commute on the Main–Bergen lines is even less: only 10 people. At first blush, the figure is surprising. Stops on the Main–Bergen lines include Lyndhurst, Secaucus, Rutherford—all primary sources of jobs for Jersey City residents. A round-trip between Hoboken and Rutherford is \$3.50, seemingly quite competitive with the bus. Undoubtedly, a primary reason for the small ridership is that reverse-commute service on the Main–Bergen lines is less frequent than on the Morris–Essex lines. During much of the day, the Main Line runs reverse-commute train at three-hour intervals. From Hoboken, the Bergen Line sends out only two trains—at 7:10 and 9:35 AM—to stop at Rutherford in the morning; four trains make the commute back from Rutherford to Hoboken in the afternoon and evening. Clearly, three-hour scheduled service is not adequate for regular reverse commutation.

D. Rail Transit—In City

The only rail service offered within Jersey City is on the PATH. On an average weekday 423 Jersey City residents use PATH to travel to jobs elsewhere in the city, a level of ridership surpassed by only a few bus routes. This in-city commutation represents 2.5 percent of the total Jersey City resident work trips on PATH. Information on this rail service is presented in Table 20B.

E. Bus Service—City to Suburb

Jersey City is covered by an extensive web of bus routes, both public and private. The routes are displayed in Map E and described in Table 21A. Jersey City has one of the densest bus networks in the state. There is little difficulty in moving around the city via bus or in traveling south or north from Jersey City in Hudson County. Bus service also connects to PATH service to Manhattan and Newark. Taking the bus to areas in the Hackensack Meadowlands district is problematic, however. Transfers at 31st Street in Union City permit travel to southern Bergen County. The service to some of the newer developments in various areas of the shoreline has some gaps.

Route 81

The most important NJ TRANSIT route to serve Bayonne is Route 81 from Exchange Place, which runs along Avenue C at 10-minute headways. Between Bayonne and Jersey City residential neighborhoods, headway is 30 minutes. Route 81 is used by 225 city residents daily for the reverse commute.

Route 10

Drogin Line buses have a more prominent presence in Bayonne as three routes take turns traveling along Kennedy Boulevard: Route 10, Route 55, and Route 99S. Of these three, Route 10 from Journal Square, which runs from 5 AM to 1 AM at 5-minute peak headways and 10-minute off-peak headways, has the largest number of riders. This route is well-positioned to serve new manufacturing and commercial establishments on the west side of the peninsula. Routes 55 and 99S are primarily New York routes and do not serve the local market.

Broadway Line

The only line that travels to the Constable Hook heavy industry district is the Broadway line, a private carrier that originates at the southern border of Jersey City. It travels along Broadway at 10-minute peak intervals and 12–15 minute off-peak intervals.

TABLE 20B
THE EXISTING TRANSPORTATION NETWORK: RAIL OR LIGHT-RAIL TRANSIT (WITHIN-CITY SYSTEMS)
IN CITY

JERSEY CITY					
Rail Lines (List)	Major Location in City	No. of City Passengers Carried Daily	Daily Typical Destinations In City	Times of Service	Headway
		Worker	Total		Peak / Off-Peak
PATH	Grove Street, Pavonia, Exchange Place, Journal Square	423	NA	Harborside, Newport, Government Offices	SEE TABLE 20A

Note: NA = not available.
Source: New Jersey Transit.

JERSEY CITY
 GILA TO 2008B
 THE EXISTING TRANSPORTATION NETWORK: BUS SERVICE
 TABLE XIV

TABLE 21A
THE EXISTING TRANSPORTATION NETWORK: BUS SERVICE
CITY TO SUBURB
JERSEY CITY

Bus Routes (List Major) Indicate where Private	Spoke Served	No. of Passengers Carried Daily Reverse ¹	Total ²	Employment Markets Served	Times of Service	Headway	Peak / Off-Peak
1	Lincoln Hwy., (Kearny) Market St., (Newark)	295	6,000	Newark Airport, Ports, S. Kearny Industry, Hudson Co. Corrections	Wkdy 5:10AM-12:20AM Sat 4:AM-8:20PM Sun 7:AM-6:21PM	10/30 min 30/60 min 60 min	60 min 30/60 min 60 min
8 1	Exchange Place (JC) Avenue C (Bayonne)	225	1,900	Bayonne Ind, PSE&G	Wkdy 5:AM-1:00AM Sat 5:AM-11:44PM Sun 7:AM-7:57PM	10/30 min 30/45 min 90 min	30/45 min 30/45 min 90 min
8 3	Tonnele Ave. (N. Bergen) River St. (Hackensack)	248	1,200	N. Bergen Shopping Center, N. Bergen Vo-Tech., Hackensack	Wkdy Peak only Sat 7:AM-9:25PM Sun No service	15/20 min 70/80 min	40/60 min 70/80 min
8 4/8 6	Bergenline Ave. (N. Bergen) (Union City)	576	3,900	Bergenline Ave. Retail, Guttenberg, Weehawken	Wkdy 5:AM-12:40AM Sat 6:AM-11:05PM Sun 9:AM-5:15PM	6/15 min 15 min 30 min	10/30 min 30 min 30 min
8 5	Summit Ave. (Union City) Paterson Plank Rd. (Secaucus)	35	260	Harmon Meadows (Secaucus)	Wkdy 5:30AM-10:30AM 2:30PM-6:30PM Sat No service Sun No service	20/55 min	—
8 7	King Drive (Jersey City) Paterson Plank Rd. (Hoboken)	379	2,400	Transfer to Bayonne; Hoboken Waterfront	Wkdy 5:AM-12:00AM Sat 5:AM-7:00PM Sun 10:AM-6:15PM	12 min 30 min 90 min	15/45 min 30 min 90 min

TABLE 21A (continued)
 THE EXISTING TRANSPORTATION NETWORK: BUS SERVICE
 CITY TO SUBURB
 JERSEY CITY

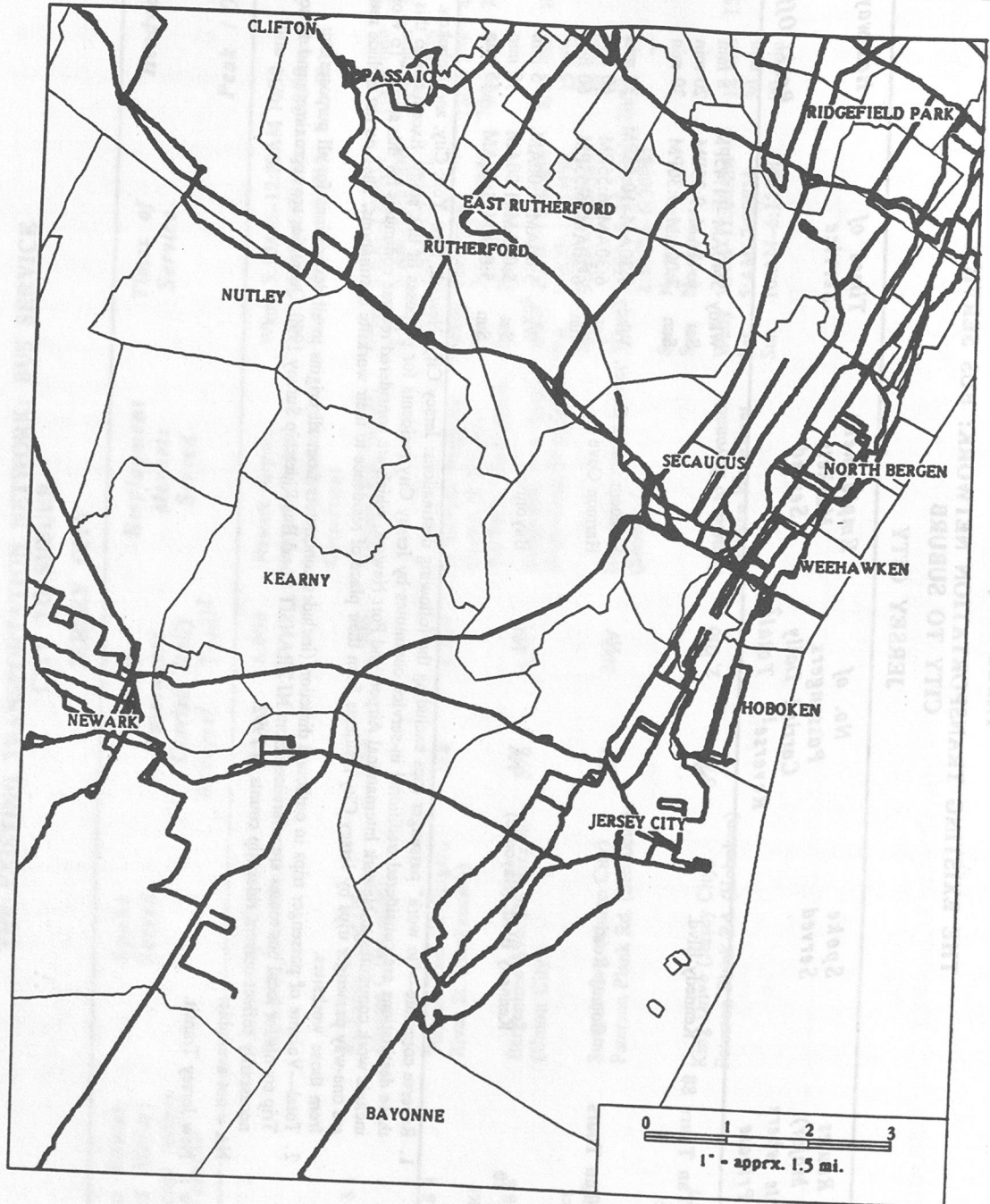
Bus Routes (List Major) Indicate where Private	Spoke Served	No. of Passengers Carried Daily Reverse ¹ Total ²	Employment Markets Served	Times of Service	Headway Peak/ Off-Peak
Red & Tan Tours 88 Contract	Kennedy Blvd.	NA NA		Wkdy 5:40AM-11:45PM Sat 6:45AM-9:35PM Sun 7:00AM-9:30PM	8 min 20 min 30 min
Red & Tan Tours Contract	County Road	NA NA	Secaucus Outlet Center, Harmon Cove	Wkdy 5:30AM-10:55PM Sat 6:30AM-6:55PM Sun 6:30AM-6:55PM	30 min 60 min 60 min
Drogin 10 Contract	Kennedy Blvd. (Bayonne)	NA NA	Bayonne	Wkdy 5:00AM-1:00AM Sat 5:00AM-1:00AM Sun 5:00AM-1:00AM	5 min 10 min 15 min

Note: 1. Reverse commute—"to work" passenger trips excluding the following destinations: Jersey City, Newark, New York City, and Hoboken. Trips to these destinations are considered traditional in-service commutes by Jersey City residents for purposes of this study. Exceptions to this definition include work commutes to Newark International Airport and Port Newark, which are considered reverse commutes for this study. "To Work" trips are one-way passenger trips by Jersey City residents from their place of residence to their worksite destinations. They do not include return trips from those worksites.

2. Total—Volume of passenger trips in outbound direction (includes commuters from all origins to all destinations for all purposes). Trip counts for local bus routes are referenced from NJ TRANSIT Local Bus Ridership Survey 1990. Quantities are approximate and do not necessarily reflect current ridership counts in 1992.
 NA = not available.

Source : New Jersey Transit.

MAP E
NJ TRANSIT BUS ROUTES IN THE JERSEY CITY METROPOLITAN AREA



Source: NJ TRANSIT

Jersey City residents may choose to take NJ TRANSIT Route 81 from Exchange Place and then walk to jobs on Broadway or east of Broadway to avoid paying a new fare. (Private bus lines and NJ TRANSIT bus lines do not accept transfers from each other.)

Route 1

Jersey City residents traveling to Newark Airport or the Port Newark/Elizabeth area (as described in Section VI, these are not regarded as a part of Jersey City's urban core and thus appropriate to consider for reverse commutation) are served by NJ TRANSIT Route 1, which originates in Exchange Place or Journal Square and connects with lines to the Port area at Penn Station in Newark. Route 1, which carries 193 work-bound Jersey City residents on an average day, has a headway of 25 minutes at peak but drops to 2 hours after 7 PM. It is the only bus to navigate the South Kearny industrial area; it also passes by the Hudson County Correctional Facility.

Route 43

NJ TRANSIT Route 43 (not shown in Table 21A) stops at the U.S. Postal Service Regional Handling Facility in Kearny several times a day; it is used daily by only 11 Jersey City residents. Other routes that service Kearny can be picked up only by transferring at Penn Station in Newark and then circling back to the east.

Route 2

As rich a source of jobs as Secaucus is, the only route with direct service between it and Jersey City is Route 2, operated by Red & Tan Tours under contract to NJ TRANSIT. It stops along some of the major streets—Secaucus Road, Enterprise Avenue, County Avenue—but it omits the Harmon Meadows and Mill Creek Mall areas. This route, including variations, operates frequent peak-period service between Jersey City and the Harmon Cove section of Secaucus. During the midday, it has three trips per hour. In the evening, service continues until 11 PM.

Routes 163 and 164

Commuters to Rutherford or East Rutherford must all take a bus from Jersey City north to 31st Street in Union City and transfer to a westbound bus utilizing Highway 3. Jersey City residents who work at the East Rutherford light manufacturing and distribution district or the Sports Complex cannot depend upon the bus lines for commuting. The only bus routes to service these areas—NJ TRANSIT Route 163 and NJ TRANSIT Route 164—stop infrequently. Service from the Union City transfer point to the Sports Complex

is hourly between 8 AM and 4 PM. Returning to Jersey City, service is hourly between 10:19 AM and 3:19 PM, with an additional run at 6:24 PM, effectively discouraging Jersey City residents working or attending night events at the Sports Complex from taking the bus.

Route 192

Similarly, there is no direct bus service from Jersey City to the office park and distribution district of Lyndhurst. The only bus to service this area, NJ TRANSIT Route 192, runs sporadically from 31st Street in Union City. Trips out arrive at the district between 6:51 AM and 9:34 AM, and return trips leave the area between 1:48 PM and 6:12 PM.

Route 161

Carlstadt is served by NJ TRANSIT Route 161, which travels along Washington Avenue from 6 AM to 1 AM. No other area of Carlstadt is served.

Route 121

Route 121 serves West Side Avenue, the up and coming job nexus in North Bergen. Jersey City residents commuting to West Side Avenue board this bus at 31st Street in Union City.

Route 83

Hackensack provides a fair number of office jobs. It is served by NJ TRANSIT Route 83, which departs from Journal Square every 15 minutes at peak. The trip length is one hour but, including other segments of the trip, more than half of the riders travel 90 minutes. The line is used for reverse-commute purposes by 248 Jersey City residents on a daily basis. Route 83 also serves North Bergen from Journal Square. It runs along Tonnele Avenue and stops at many sites of employment, including the Hudson County Vo-Tech School, North Bergen Shopping Center, several hotels, and a number of small- to medium-size manufacturing establishments.

Route 84/86

NJ TRANSIT Route 84/86, which travels largely on Bergenline Avenue, runs frequently (10-minute peak headway, 20-minute off-peak headway) and over long hours (5:10 AM–12:40 AM weekdays). With daily work-bound Jersey City resident counts of 576, it is the most popular reverse-commute line departing from Jersey City. Many of these

riders transfer at 31st or 91st Streets to routes into the Meadowlands or Bergen County. There are two legs to this route, one via Park Avenue through Guttenberg, West New York, and Weehawken, and the other via Bergenline Avenue.

F. Bus Service—In City

An extensive web of in-city private and public bus lines covers Jersey City. The coverage is probably as good as any other city in the state. Detailed information on the in-city bus service is presented in Table 21B.

Route 80

NJ TRANSIT Route 80 carries the greatest number of residents to jobs within Jersey City. It originates at Exchange Place, the fastest growing employment site in Jersey City, and runs from 4:55 AM to 11:30 PM with 4-minute headway at peak hours. This route is used by 1,325 work-bound residents on a daily basis, traveling to such worksites as Hudson County Community College, St. Peter's College, and the Hudson County offices. The major streets traveled include West Side Avenue and Newark Avenue.

Route 87

NJ TRANSIT Route 87, the second most heavily traveled route for work purposes, travels in a north-south direction through the city's core utilizing King Drive and Central Avenue. It carries 720 people to work. Central Avenue is a popular shopping strip, but the large passenger count is also explained by the densely populated residential areas through which it travels.

Route 84/86

NJ TRANSIT Route 84/86 carries a large number of work-bound Jersey City residents—646—although it runs only on Palisades Avenue from Journal Square before heading into Union City.

Route 81

NJ TRANSIT Route 81, which crosses Jersey City on Ocean Avenue and Grand Avenue from the Bayonne border to Exchange Place, carries 311 Jersey City residents to work on a daily basis. Like Route 87, it passes through densely populated residential areas. It passes by Montgomery Industrial Park and the Old Colony Plaza Shopping Center, as well as the city offices. It has 30-minute headways on local service at peak, running from 5:10 AM to 1:00 AM.

TABLE 21B
THE EXISTING TRANSPORTATION NETWORK: BUS SERVICE (WITHIN-CITY ROUTES)
IN CITY
JERSEY CITY

Bus Routes (List Major) Indicate where Private	Avenue or Street Served	No. of Passengers Carried Daily In City ¹ Total ²	Employment Markets Served	Times of Service	Headway	Peak Off-Peak
80	Newark Ave., West Side Ave.	1,325 4,014	City Hall, Hudson City Comm. Coll., St. Peter's Coll., West Side Ave. Corridor	Wkdy 4:55AM-11:30PM Sat 6:08AM-12:15AM Sun 6:25AM-9:50PM	8 min 18 min 40 min	45 min 45 min 40 min
81	Ocean Ave., Grand	311	Montgomery Industrial Park, Exchange Place	Wkdy 5:10AM-1:00AM Sat 5:10AM-11:44PM Sun 7:25AM-7:57PM	10 min 30 min 90 min	30/45 min 30 min 90 min
82	Newark Avenue, Summit Avenue	12 149	Exchange Place	Wkdy 6:50AM-7:50AM 3:10PM-5:10PM Sat No service Sun No service	30/60 min — — —	— — — —
84/86	Palisade Ave.	646 1,458	Christ Hospital Journal Square Hudson Co. offices	Wkdy 5:10AM-12:40AM Sat 6:00AM-11:05PM Sun 9:00AM-5:15PM	10 min 15 min 30 min	20 min 30 min 30 min
87	King Drive	720 2,255	Hudson Co. offices; St. Peter's College; Journal Square	Wkdy 5:00AM-12:00AM Sat 5:30AM-7:00PM Sun 10:00AM-6:15PM	12 min 30 min 90 min	45 min 30 min 90 min
L-G Local (Private)	Ocean Avenue, Grove Street	NA	Newport Mall, Journal Square	Wkdy 5:15AM-12:00AM Sat 8:30AM-11:00PM Sun No service	10 min 15 min —	10 min 15 min —
L-G #3 (Private)	Ocean Ave., Summit Ave.	NA	Block Drug; Jersey City Medical Center; Best Foods	Wkdy 6:00AM-11:30PM Sat 6:00AM-11:30PM Sun No service	20 min 20 min —	25 min 20 min —
L-G #5/6 (Private)	Newark Ave., Jersey Ave.	NA	Block Drug; Newport Centre; St. Francis Hospital; City Hall	Wkdy 6:00AM-10:00PM Sat 6:00AM-10:00PM Sun 9:00AM-7:00PM	10 min 22 min 60 min	23 min 22 min 60 min
L-G #16 (Private)	Grand Street, Bergen Avenue	NA	Newport Mall, Exchange Place, Journal Square	Wkdy 6:00AM-12:00AM Sat 8:30AM-11:00PM Sun No service	15 min 15 min —	15 min 15 min —

TABLE 21B (continued)
 THE EXISTING TRANSPORTATION NETWORK: BUS SERVICE (WITHIN-CITY ROUTES)
 IN CITY
 JERSEY CITY

Bus Routes (List Major) Indicate where Private	Avenue or Street Served	No. of Passengers Carried Daily In City ¹ Total ²	Employment Markets Served	Times of Service	Headway
L-G #31 (Private)	Observer Highway, Manila Street, Newark Avenue	NA	Exchange Place, Hoboken Terminal	Wkdy 6:00AM-6:00PM Sat No service Sun No service	20 min — —
Drogin #10 (Private)	Kennedy Blvd.	NA	St. Peter's College; Hudson Co. Com. Coll.; Jersey City State Coll.	Wkdy 5:00AM-1:00AM Sat 5:00AM-1:00AM Sun 5:00AM-1:00AM	10 min 10 min 15 min
Central Avenue (Private)	Bergen Avenue	NA	Caven Point; Best Foods Central Ave. Shopping	Wkdy 5:45AM-1:05AM Wkend 5:45AM-1:05AM	10 min 10 min
Montgomery (Private)	Montgomery, West Side Ave.	NA	Montgomery Ind. Park; West Side Ave. Industrial Corridor; City Hall	Wkdy 5:30AM-8:00PM Sat 5:30AM-8:00PM Sun 5:30AM-8:00PM	5 min 20 min 30 min
440 S (Private)	West Side Ave.	NA	Hudson Mall	Wkdy 6:00AM-10:30PM Wkend 6:00AM-10:30PM	30 min 30 min

Notes: 1 "In City"—one way "To Work" passenger trips by Jersey City residents to destinations within Jersey City.
 2. "Total City"—total volume of passenger trips boarding and deboarding within city limits (includes commuters from all origins to all destinations, for all purposes).
 Trips counts are referenced from NJ TRANSIT Local Bus Ridership Survey 1990. Quantities are approximate and do not necessarily reflect current ridership counts in 1992. Table shows counts for major routes with ridership survey data available. This is not a complete listing of all motor bus routes serving Jersey City residents.
 NA = not available.

Source: New Jersey Transit.

Note: NA = not available.

Source: CUPK interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

In addition to the more prominent NJ TRANSIT lines detailed above, Jersey City is served by a wide range of private carriers. There are no reliable passenger counts for these lines, but gauging by the frequency of the runs, some of them certainly rival NJ TRANSIT lines.

Central Avenue Line

The Central Avenue Line runs the entire length of the city, traveling on Garfield Avenue in the south and Central Avenue in the north. It runs every 10 minutes at peak, from 5:45 AM to 1:05 AM. It serves the Central Avenue shopping district and the Jersey City Medical Center and comes as close as any lines do to serving the industrial parks along the waterfront.

Route 10 and 99

The Drogin Bus Company runs a number of routes in Jersey City. The Drogin Route 10 runs on Kennedy Boulevard and serves St. Peter's College, Hudson County Community College, and Jersey City State College. The Drogin Route 99, primarily a New York City route, travels on Ocean and Baldwin Avenue, serving two large manufacturers/distributors in the middle of the city, Best Foods and Block Drug. Route 99 and two other Drogin routes are examples of a bus route using split shifts; Route 99 runs from 6:00 to 8:25 AM and 2:40 to 6:20 PM.

G. Alternatives to Rail and Bus—City to Suburb

There are not many alternatives to public rail and bus (Tables 22A and 22B). Hudson County offers a "dial-a-ride" service—Transcend—for senior citizens, the physically disabled, and some medical patients. Most passengers use this service for errands such as shopping or medical appointments, but some disabled individuals do use it to travel to work.

H. Alternatives to Rail and Bus—In City

Illegal commuter vans serve Jersey City, but their number and routes are basically unknown. An operations supervisor for Hudson Bus Lines reported in an interview that his lines were frequently cut off by these commuter vans. The vans, though providing a clearly desired service, undercut the financial base that buses derive from fares at peak and that enables those buses to survive their non-peak loads.

Taxicabs are another alternative to public rail and bus. While they do offer flexible service on demand, they are more expensive than public transit, and few Jersey City residents are likely to use them for regular reverse commuting.

TABLE 22A
THE EXISTING TRANSPORTATION NETWORK—ALTERNATIVES TO PUBLIC RAIL AND BUS
CITY TO SUBURB
JERSEY CITY

	<i>Who is Served</i>	<i>Approximate Number</i>	<i>Employment Markets Served</i>	<i>Times of Service</i>	<i>Frequency of Service</i>
DIAL-A-RIDE, JTPA, etc.					
Hudson County Transcend	Handicapped, elderly, dialysis patients	250/day (for all Hudson County)	Montgomery St. occupational center	Wkdy 6-10 Sat* 6-10	Demand-responsive
Illegal Vans	NA	NA	NA	NA	NA

Notes: *Dialysis patients only.
 NA = not available.

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

TABLE 22B
THE EXISTING TRANSPORTATION NETWORK—ALTERNATIVES TO PUBLIC RAIL AND BUS
IN CITY
JERSEY CITY

	<i>Who is Served</i>	<i>Approximate Number</i>	<i>Employment Markets Served</i>	<i>Times of Service</i>	<i>Frequency of Service</i>
JITNEYS, UNLICENSED CABS, ELDERLY PICK-UP, etc.					
Taxis	NA	NA	NA	NA	NA

Note: NA = not available.

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

VIII. SYNTHESIS OF JOB GROWTH DATA AND EXISTING PUBLIC TRANSIT NETWORK.

Before turning to the challenges that confront NJ TRANSIT and NJDOT, it is helpful to merge the job opportunities data with the existing bus route network to help illustrate the information collected. Generally, a reasonable commute can be defined as anywhere in the vicinity of a city that can be reached in an hour. Using the job growth data contained in Section VI, municipalities with the greatest job growth potential within the 'reasonable commute' distance were mapped. These locations were then overlaid upon the existing bus route network detailed in Section VII. The criterion for transit service is the existence of direct service. Table 23 and Map F illustrate where service appears to be rich and point out places where service opportunities exist. This illustration is a useful tool to help visualize the public transit route networks and locations where job growth is projected, helping to define an agenda for further study.

While these are municipalities where job growth is expected, the true potential for transit demand requires detailed study of specific employment locations, availability of existing services, and the potential for new services.

In addition to the job growth data, the interview data collected generally corroborate that these locations are identified as key for growth. The connection between economic projections and perceptions gathered through interviews allows NJ TRANSIT and NJDOT to work on an agenda for further study that will prove responsive to the specific transportation challenges discussed in the next section.

IX. TRANSPORTATION PROBLEMS—CITY TO SUBURB

Whether reverse commuters from the municipality of Jersey City use the automobile, bus, or train for their daily commute, they travel on one of the most extensive, and, within the city, one of the oldest transportation networks in the nation. In order to ensure the economic vitality of New Jersey's cities, the state will continue to put a high priority on investing in the repair and upgrade of these urban systems. The Urban Transportation Supplement focuses on the emerging need to expand access to suburban employment opportunities for city residents. The sections that follow outline the transportation problems reported in interviews and the strategies the New Jersey Department of Transportation (NJDOT) and NJ TRANSIT (NJT) will pursue to improve service to meet this need.

TABLE 23
 MUNICIPALITIES WITH
 GREATEST JOB GROWTH POTENTIAL
 IN THE JERSEY CITY AREA

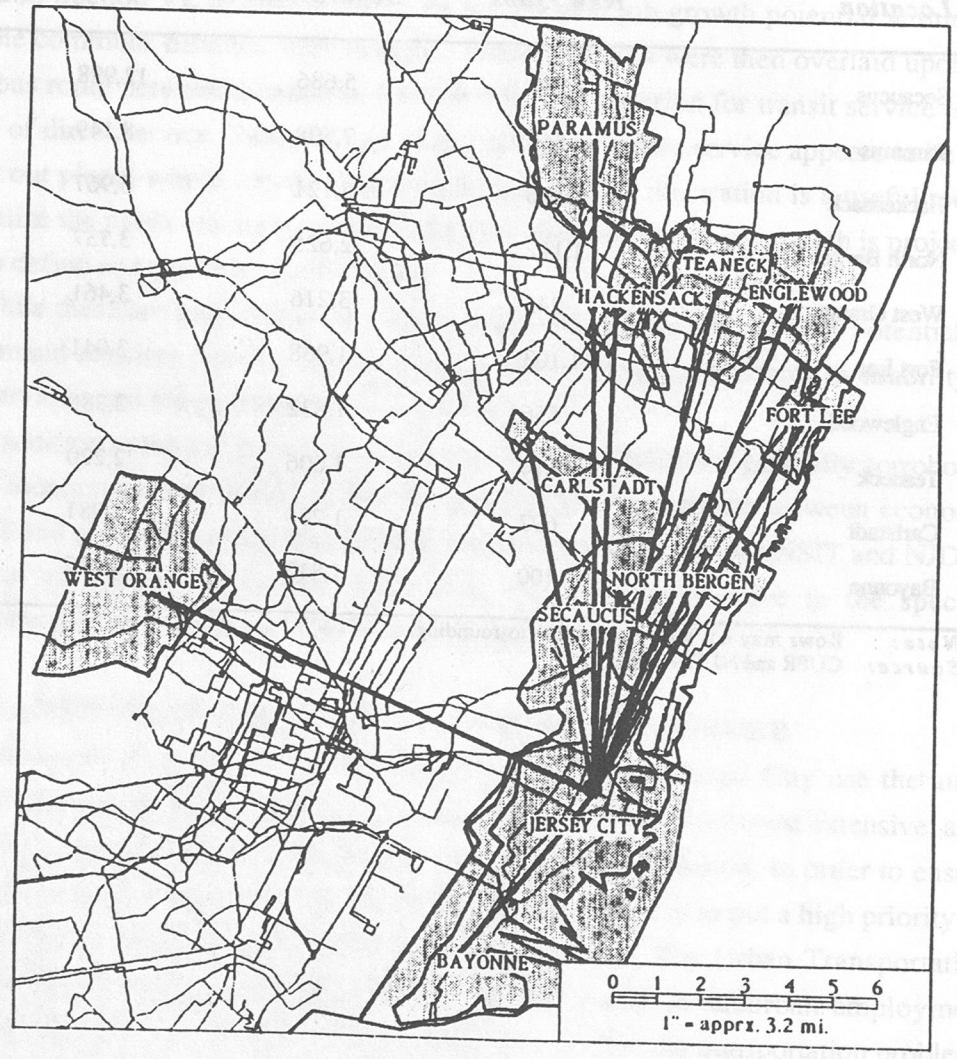
<i>Location</i>	<i>New Jobs</i>	<i>Job Separations</i>	<i>Total</i>	<i>Transit Service Yes/No</i>
Secaucus	7,312	5,686	12,998	Yes
Paramus	641	7,508	8,149	No
Hackensack	1,846	5,121	6,967	Yes
North Bergen	1,112	2,625	3,737	Yes
West Orange	245	3,216	3,461	No
Fort Lee	1,103	1,938	3,041	Yes
Englewood	556	1,832	2,388	No
Teaneck	614	1,606	2,220	No
Carlstadt	692	1,289	1,981	No
Bayonne	100	1,813	1,912	Yes

Note: Rows may not total exactly due to rounding.

Source: CUPR and NJ TRANSIT.

VIII. SYNTHESIS OF JOB GROWTH DATA AND EXISTING PUBLIC
TRANSIT NETWORK

MAP F
EMPLOYMENT DESTINATION DESIRE LINES FOR
CENTRAL CITY RESIDENTS IN THE VICINITY OF JERSEY CITY
(Overlaid on Existing Bus Routes)



Source: Projections of Less-Skilled Job Growth 1993-2000 by the Center for Urban Policy Research, Rutgers University, Spring 1993

A. Highway Problems

Jersey City is the site of an extensive array of transportation facilities converging in a small, densely developed area. The Pulaski Skyway, the Holland Tunnel, and Route 1&9 are major regional facilities that daily attract high volumes of users—trans-Hudson commuters, and business, freight, and recreational motorists. The result is some of the most severely congested transportation facilities in the state. In general, the highways that provide access to suburban employment locations from most New Jersey cities have less peak-hour volume and have adequate capacity to meet reverse-commute needs. However, in Jersey City, traffic backups and reroutings caused by daily usage of an aging, geometrically deficient, and functionally obsolete array of highways and bridges impact the reliability of all transportation services, including those serving the reverse commuter. Examples of key problem areas are:

- Route 1&9 and its substandard bridges and intersections;
- Tonnele Avenue Circle and the Charlotte Avenue Circle, located at the end of Routes 1&9 and 1&9T, and the other major intersecting arterials, Route 7, and Route 139;
- Trans-Palisades access connecting the western sections of the county and city with the developing waterfront;
- Route 1&9 intersections at Paterson Plank Road and Secaucus Road.

B. Public Transit Problems

Transportation Problems in Perspective

	<i>Service Adequacy</i>	<i>Service Frequency</i>	<i>Service Cost</i>
<i>City to Suburb</i>	Fair	Fair	Good

Bus service between Jersey City and neighboring communities to the south and north—Bayonne, North Bergen, Union City, Weehawken, Hoboken—is good. However, reaching jobs in the Meadowlands often proves to be difficult; indeed, Hudson County job planners say many companies in the Meadowlands tell their clients that cars are essential for the work commute. The problems generally are infrequent bus service, or lack of service for second- and third-shift workers (Table 24A).

Jersey City residents traveling to the Lyndhurst office and industrial parks must transfer at 31st Street in Union City to NJ TRANSIT Route 192, which only sporadically circles the area. The last bus leaves Lyndhurst at 6:12 PM, so service is nonexistent for

TABLE 24A

**LOCATIONS OF PROBLEMATIC
TRANSPORTATION SERVICE—CITY TO SUBURB**

JERSEY CITY—1992

<i>Locations</i>	<i>Service Problems or Times</i>	<i>Population Affected</i>
Newark-Port, Airport	No direct bus service	Semi-skilled, less-skilled
Secaucus-Harmon Meadows, Harmon Cove	Infrequent bus service that does not provide extensive coverage; no coverage for second and third shifts	Semi-skilled, less-skilled
East Rutherford-Sports Complex, Murray Hill	Infrequent bus service; no night service; poor rail connection	Semi-skilled, less-skilled
North Bergen (West Side Avenue)	Infrequent bus service	Semi-skilled, less-skilled
Lyndhurst industrial parks	Infrequent bus service; no night service; poor rail connection	Semi-skilled, less-skilled
Carlstadt-Moonachie	Infrequent bus service	Semi-skilled, less-skilled
South Kearny industrial district	Infrequent evening service	Semi-skilled, less-skilled

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

TABLE 24B

**LOCATIONS OF PROBLEMATIC
TRANSPORTATION SERVICE—IN CITY**

JERSEY CITY—1992

<i>Locations</i>	<i>Service Problems or Times</i>	<i>Population Affected</i>
Caven Point Greenville Yards Port Jersey Industrial Park and Marine Center	Poor bus stop— workplace connection	Semi-skilled, less-skilled in waterfront industry

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

second- and third-shift workers (except those on the northern boundary, which is served 24 hours a day by Route 190).

The Meadowlands Sports Complex and Meadowlands Sheraton in East Rutherford can be reached by transferring to NJ TRANSIT Route 163 and Route 164 at 31st Street in Union City, but stops on these routes are also infrequent and inconvenient for workers who do not put in standard 8 AM to 4 PM or 9 AM to 5 PM days. The last bus leaves East Rutherford at 6:25 PM. NJ TRANSIT Route 322 has a more regular schedule over a more extensive period, but it does not stop at the transfer point in Union City and must be picked up at the Port Authority Bus Terminal (PABT) in New York City.

NJ TRANSIT has commuter rail stations in both Lyndhurst and Rutherford, but reverse-commute service is very infrequent, and transit connections between the rail stations and workplaces in both cities are weak.

Carlstadt has one corridor served by NJ TRANSIT Route 161, which Jersey City residents must board at the 31st Street stop in Union City.

West Side Avenue in North Bergen, an active distribution center, is served by Route 121, which can be boarded at 31st Street in Union City. It does not provide for workers on second and third shifts, as it arrives in North Bergen between 6:30 AM and 7:45 AM, and departs between 3:35 PM and 4:45 PM. However, the service does represent a recent initiative by NJ TRANSIT to meet the first-shift needs of K-Mart and other businesses.

The problem of providing service for second and third shifts also exists in Secaucus with the hotels that surround Harmon Meadow and the distribution centers in Harmon Cove. The Red & Tan Tours buses stop running at 10:55 PM and even at peak run only every half hour. Further, the Red & Tan Tours do not cover every employment corridor in Secaucus.

Night workers at Port Newark/Elizabeth and Newark International Airport are confronted with a reduction in service on NJ TRANSIT Route 1 after 7 PM, as the bus runs every hour. Workers on the second and third shifts in the South Kearny industrial district, who also depend on Route 1, face the same problem. The alternative route available to the airport—the PATH from Jersey City to Newark and a switch to the Airporter—is much more expensive.

There are significant economic reasons why NJ TRANSIT or private carriers do not serve suburban areas to everyone's satisfaction. While legitimate transit needs exist for all of the above cities in the Hackensack Meadowlands District, recommending an increase in frequency on existing lines, an extension of service times, and the creation of new routes would not be economically feasible in all cases. In the past NJ TRANSIT has been forced

to cut back on routes to the Meadowlands for lack of ridership. Jersey City, its neighboring communities to the north, and Bayonne to the south can support extensive bus coverage of their cities because of the dense residential population proximate to industrial and commercial sites. Bus service to the Meadowlands, on the other hand, cannot depend upon significant two-way traffic. Running lines only at peak hours to industrial and commercial sites is not always possible because spare buses often are not available during peak.

In addition, the physical layout and locations of suburban malls, office parks, and industrial centers pose barriers to frequent economically efficient bus routes. Buses that attempt to get close to these suburban employment sites are forced to navigate winding, narrow driveways, chewing up much time in the process. The considerable physical separation between employment sites, and between these sites and residential zones, often turns conventional fixed-route bus lines into losing propositions.

NJ TRANSIT has earned a reputation for being willing to work with companies that are interested in providing bus service for their employees when none exists. This is commendable, but many large companies have never investigated new service possibilities.

There are several problems with the bus system that apply to both the labor area and the city—problems that stem partly from the prevalence of private bus lines in Jersey City. The division of bus lines among NJ TRANSIT and seven different bus companies makes it difficult for potential bus riders to become thoroughly familiar with the various systems to traverse the city. While it is true that Jersey City exhibits a fairly high level of mass transit ridership compared to most other New Jersey cities, difficulty in obtaining bus schedules and routes is a problem for Jersey City residents.

Most of the private bus companies do not keep printed schedules. Those that do—Hudson and Drogin—make available brief schedules with approximate timetables. The operator at the Hudson Bus Company consented to mailing them out only upon receipt of a self-addressed, stamped envelope. The operator at A&C Bus Corp., who is the owner of the Montgomery and West Side lines, provided only piecemeal information about service times.

Under the current system, even finding the telephone number of bus companies that run in Jersey City is difficult. NJ TRANSIT has put together a transit guide to Hudson County that depicts the routes and provides phone numbers of all carriers, but many Jersey City residents are not aware that such a guide exists. For example, job planners in Hudson County, people who are reasonably sophisticated at providing clients information on how to get around, have had to resort to thumbing through the Yellow Pages in an effort to discern where the different lines run. One job planner reported that a woman who had an interview with a company off Hook Road in Bayonne said it was "impossible" to reach her

job by bus, as NJ TRANSIT Route 81 did not run in that vicinity. In fact, Broadway Bus, a private line, includes Hook Road in its route; but neither the planner nor the would-be employee was aware of it. Jersey City officials confirm that many residents simply do not know how to get information on transportation.

Another problem that arises from the multiplicity of bus services is that Jersey City residents transferring between private and public lines (or between two private lines) have to pay an additional full fare. NJ TRANSIT explains that an integrated fare structure would result in a revenue loss for either NJ TRANSIT or a private bus company since the integrated fare would be less than the combination of the current fares. The NJ TRANSIT budget will not allow it, it says, and private bus companies are barely making it, an assessment confirmed by private bus business managers. One bus manager complained that the "expense exceeds the income," indicating the thin profit margins available to private bus carriers.

In general, relations among the various transit operators, both private and public, are strained. There is a need for improved cooperation or at least coordination among all providers of similar services.

X. TRANSPORTATION PROBLEMS—IN CITY

A. Highway Problems

Due to poor separation of local roads and major arterials, motorists wishing to avoid the long lines at the Holland Tunnel on Route 139 and the Turnpike Extension take shortcuts through the city and add congestion to the local roads.

B. Public Transit Problems

Transportation Problems in Perspective

	<i>Service Adequacy</i>	<i>Service Frequency</i>	<i>Service Cost</i>
<i>In City</i>	Excellent	Excellent	Good

Transit service within Jersey City is generally excellent. In terms of areas needing service, Jersey City's needs are those of the labor area at a smaller scale. Most of the city is well served by bus lines, but deficiencies exist at specific industrial sites (see Table 24B). Caven Point, Greenville Yards, and Port Jersey Industrial Park and Marine Center lack proximate bus service. The Bergen Avenue Line bus does stop at Port Jersey, but the walk onto the jetty might extend more than a mile. As development continues on the waterfront,

and the construction of both commercial and residential properties picks up, greater attention to the waterfront may become economically more feasible.

XI. PROBLEMS OTHER THAN TRANSPORTATION

Lack of public transit is not as large an obstacle to the job hopes of unemployed Jersey City residents as other factors affecting employment. Job-training professionals in Jersey City and Hudson County were asked to evaluate the relative importance of a lack of skills, inadequate information about job opportunities, limitations imposed by personal history (such as a criminal record or prior drug use), the need for support services such as child care and resume preparation, and the lack of transportation. The results from these interviews appear in Tables 25A and 25B.

The most significant factor constraining the unemployed from getting jobs, local officials and job planners generally agree, is inadequate skills. Such an assessment is borne out by several statistics. The dropout rate in Jersey City high schools is 15 percent. In some high schools, as many as 30 percent of the students are unable to pass the High School Proficiency Test, which evaluates basic skills in math and English. The high immigration rate to the city is at least partially responsible for the poor level of skills.

Deficiencies in skills show up in two particular sectors: manufacturing and office. An economic development planner for Jersey City reported that city residents hold a minority of manufacturing jobs in the city and that residents cannot find training for traditional industrial jobs. A 1990 Hackensack Meadowlands district (HMD) study revealed that while Jersey City residents hold 18 percent of all retail, wholesale, and warehouse positions in the Meadowlands, they hold only 7 percent of the manufacturing jobs.

The same study showed that only 3.6 percent of office positions in the HMD are held by Jersey City residents. This low share of jobs may be due to the recent abundance of office jobs on the Jersey City waterfront, but interviews reveal that even in their own city, Jersey City residents do not have significant access to office jobs. A 1989 NJ TRANSIT Hudson River Waterfront Transportation Office study, which surveyed four financial service companies on the waterfront, indicated a critical shortage of entry-level clerical workers, especially for data entry. The report says that applicant quality is poor, with only 10 to 25 percent being qualified for the work.

Job training programs in Jersey City do offer clerical training. These programs have had moderate success in placing graduates but have not significantly penetrated the financial service industry. The 1989 NJ TRANSIT study further indicates that public employment and training agencies are perceived to have shortcomings in coordination and responsiveness, and that their graduates do not have a high retention rate.

TABLE 25A
TRANSPORTATION IN THE
CONTEXT OF OTHER PROBLEMS
JERSEY CITY—1992

<i>Type of Problem</i>	<i>Importance</i>
Current Economic Conditions	High
Inadequate Skills	High
Prior Work History	Moderate
Transportation Insufficiency	Moderate
Child Care	Moderate
Communication of Work Opportunities	Low

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

TABLE 25B
SPECIFIC PROBLEMS OTHER THAN TRANSPORTATION
JERSEY CITY—1992

<i>Type of Problem</i>	<i>Description</i>
Skills Training	Some businesses have had bad experiences with people in customized training programs. Businesses don't need to take time to train people—can recruit New Yorkers. Businesses aren't aware of job-training programs.
Work Histories	Experienced people are bumping others down. Perception that center-city people aren't competent workers.
Child Care and Other	Hispanic immigrants do not learn English quickly enough. Many young men have arrest records. Workers must pay for child care. Many people do not know how to present themselves for job interviews.
Communication or Knowledge of Job	Ethnic groups tend to draw upon themselves. Companies "advertise" by word of mouth.

Source: CUPR interviews with city and county planning, economic development, transportation, and social services professionals, Summer 1992.

Job planners in Jersey City indicate that the current economic downturn has been of equal significance in preventing less-skilled residents from locating work. During this past recession, laid-off employees often were forced into seeking jobs at the entry level or at a lower skill level than the positions which they had previously held. With such competition, residents with little or no work experience found it doubly hard to secure employment.

A third obstacle is an unsatisfactory work history. When coupled with an inadequate educational level—especially if that individual is from the urban core—employers presume that the applicant will be a poor worker.

Securing affordable day care is also a problem. Parents often do not have access to day care at their work place and cannot afford to place their children in the more reputable day care centers in their area. Thus, they often turn to private arrangements that may not necessarily provide day care during every work day. Further, even private day care can stress the budgets of less-skilled workers.

Learning about job opportunities can be a problem. For example, small retail establishments have historically provided many job opportunities for immigrants. Immigrant store owners tend to hire people from the same ethnic group. Hispanic and Asian groups often fill open positions with someone they know from their own community rather than advertising the position.

Employers' actions also create barriers for unemployed residents who seek work. Certain industries have resisted attempts by job planners to list job openings in a computerized job bank, such as that provided by the State Employment Service. In New York City, such listings are mandatory; however, the Hudson County Chamber of Commerce has insisted that such listings be on a voluntary basis. At the same time, financial service companies that have moved to the Jersey City waterfront from New York City say that New York City public employment and training programs are more responsive to their needs than Hudson County programs.

XII. TRANSPORTATION STRATEGIES

Over the past three years NJDOT, NJ TRANSIT, Hudson County, and Jersey City have been working together to structure a transportation improvement strategy for relieving congestion and improving safety on the highway and bridge network. The strategies and potential improvements presented in this section represent achievement of the following NJDOT and NJ TRANSIT investment objectives for Jersey City and the region:

1. Improve and preserve the existing system and enhance safety.
2. Improve access to the regional transportation network.
3. Improve highway operations and alleviate congestion.
4. Encourage greater use of public and nonstandard transportation.
5. Continue the TEC Outreach Program.
6. Implement traditional transit service strategies.
7. Advance nontraditional transit service strategies.
8. Implement major new transit initiatives.

A. Highways

By statute, the focus of this report is on reverse-commuting problems and opportunities. This relates primarily to public transportation (bus and rail) services. However, the discussion of existing highway problems and strategies have been included in Sections IX, X, and XII, respectively, to provide a view of the comprehensive approach being advanced to improve transportation in and around New Jersey's largest cities. The Urban Transportation Supplement report is not intended to be a comprehensive detailed analysis and assessment of all cities' transportation infrastructure needs.

1. Improve and Preserve the Existing System and Enhance Safety

Rehabilitation and replacement of deficient bridges and roads, including safety improvements, will continue to be a top priority for state transportation investments. NJDOT will also continue to give a very high priority to resurfacing, rehabilitating, and reconstructing state highways. These improvements, which often include shoulder-widening and drainage improvements, prolong the life of the facility and provide a smoother, safer, and often quicker journey. Examples of rehabilitation investments for NJDOT study and development for the Jersey City region include the following:

- Route 1&9 rehabilitation and drainage improvements from the Tonnele Circle to Route 3;
- Route 1&9 St. Pauls Bridge replacement;
- Route 1&9 structures over Amtrak, NJ TRANSIT, and Conrail lines;
- Route 7 Wittpenn Bridge replacement over the Hackensack River; and
- Route 139 replacement or rehabilitation of structures at eastbound 12th Street and westbound 14th Street viaducts.

2. **Improve Access to the Regional Transportation Network**

As the state's transportation system developed over the past decades, certain connections between segments in the system were not completed, such as Route 185 at the southern border of the city. NJDOT has in design the Route 185 connection on a new alignment, with four lanes and shoulders, from Route 169 (Linden Avenue) to Caven Point Road.

3. **Improve Highway Operations and Alleviate Congestion**

Options for improving traffic flow in Jersey City are constrained by the highly built-up nature of the city. The traditional means of addressing congestion through new highway construction, adding new through lanes, and building new interchanges to replace at-grade intersections are difficult and extremely expensive in dense urban areas. State policy is to deemphasize investment in major capacity increases in favor of investment in system management strategies.

The term "system management" is given to investments that improve the operational sufficiency of existing transportation systems to move people and goods with little or no physical construction. Improvements in this broad category are typically much more "doable" than major capacity increases in terms of cost, environmental restrictions, right-of-way needs, community opposition, and time and money required for design.

Highway Operational Improvements

Highway operational investments consist of relatively low-cost, small-scale improvements made to relieve spot congestion problems, such as at-grade intersection improvements. Others include improvements to existing grade-separated interchanges, the addition of center turning lanes, and shoulder widenings. The NJDOT has a number of initiatives under study and development or design for operational improvements to the following substandard intersections and roadway segments:

- Route 1&9 grade separation at Secaucus Road intersection over the Northern Branch of Conrail and the NYS&W Railroad;
- Manhattan/County Road improvements;
- Route 1&9 intersection improvements at Secaucus Road;
- The Route 1&9 Corridor Needs Assessment study from Charlotte Circle to Tonnele Circle; and
- Route 169 reconstruction and widening.

Traffic Management

Traffic flow can be substantially improved with the implementation of computerized traffic signal control systems. These projects "wire together" traffic signals in a corridor so that traffic signal timing patterns can be varied according to traffic conditions. Traffic engineers have found that improving the efficiency of signal systems can stretch a road's capacity by up to 25 percent without widening, thus yielding significant congestion relief and air quality benefits for a modest cost.

Over the next five years NJDOT plans to install computerized traffic signals on major segments of Routes 1&9, 1&9T, 139, 440, and Kennedy Boulevard.

Incident management and motorist advisory/diversion systems are under evaluation by NJDOT for their effectiveness in easing major congestion due to accidents on key roadway segments. NJDOT is currently developing the Metropolitan Area Guidance Information Control (MAGIC) system for the highway network leading to the Hudson River crossings into Manhattan.

Intelligent vehicle/highway systems (IVHS) technology and their feasibility will also be investigated by NJDOT. IVHS technology allows sensors in the highway or along the highway right-of-way to interact with complementary receptors in vehicles, advising motorists of congestion or problems ahead and suggesting alternate routes.

To create better access to the Jersey City waterfront and to increase the capacity of the region's highway network the following two potential initiatives are under assessment.

- The NJDOT Waterfront Boulevard Study for a continuous north-south 4-lane land service road extending from the terminus of Route 185 in Jersey City, to Hillside Avenue/River Road in West New York; and
- The New Jersey Turnpike Commission study for utilizing the Bergen Arches—an abandoned railroad cut through the Palisades north of Tonnele Circle—as the site of a new roadway.

4. Encourage Greater Use of Public and Nonstandard Transportation

The New Jersey Traffic Congestion and Air Pollution Control Act—the state response to the 1990 Federal Clean Air Act Amendments (CAAA)—is lending impetus to the efforts undertaken by Jersey City to reduce automobile traffic in and through the city. A major component of these efforts is the encouragement of greater use of public transit and van and car pooling through the following strategies:

- Legislation that will mandate large employers statewide to increase ridesharing;
- Legislation that will allow employers to give employees using transit a \$60 per month rebate;

5. Continue the TEC Local Outreach Process Program

NJDOT and NJ TRANSIT staff will extend the annual local outreach effort giving Hudson County and Jersey City officials more direct access into the NJDOT project pipeline and the annual capital programming process of all the transportation agencies. Quarterly meetings with the county and city will facilitate communication and serve as a technical working group to implement long-standing capital transportation and infrastructure needs.

B. Public Transit

Agenda Setting

Focusing attention on one transportation market, the reverse commute, helps set an agenda that targets improvements. The transportation problems discussed in Sections IX and X were reported in interviews with city officials, social service agencies, and practitioners in the employment search field. The interview sessions did identify some transportation problems in each of the cities; one common problem was the lack of adequate information about transit. However, it is important to note that interviewees in each city did not rate "transportation insufficiency" as the major problem relative to gaining and keeping employment for city residents. In fact "inadequate skills" was consistently noted as more critical, along with other factors such as current economic conditions, lack of adequate child care, and communication of work opportunities.

Before detailing the strategies that can best serve Jersey City, it is important to respond to the issue of cost and fares. The comparative costs between public transit and autos is predicated upon the cost of driving and the availability of an auto. Provided that a worker drives a car, suburban commuting rarely incurs major toll or parking costs. Therefore, the perceived out-of-pocket driving costs are low. Interviews raised the issue that transit fares seem high in comparison. However, the recent Comprehensive Energy Policy Act provides tax incentives to employers who subsidize employee fares. Employers can provide a tax-free benefit to their workers worth up to \$60 per month towards the purchase of a transit ticket. This benefit can significantly reduce, if not completely offset, the fare on NJ TRANSIT bus services. For example, NJ TRANSIT's one-zone and two-zone monthly bus fares in North Jersey are \$41 and \$54. Many of the major suburban

employment clusters outside the urban areas examined in the Urban Transportation Supplement can be reached by a one- or two-zone bus trip.

The issue of bus stop signs and shelters was also raised. Both in urban and suburban areas, bus stop signs and shelters are controlled by the local government and NJDOT (for code conformance). Another local responsibility is parking enforcement. When bus stops are designated but parking restrictions are not enforced, buses cannot exit traffic flow and use the bus stop zone, effectively undermining one of the important purposes of bus stops as a congestion management tool. With more movement for buses, traffic flows improve and the air remains cleaner. The other purpose served by bus stop signs and shelters, also reported by interviewees, is in the promotion of transit for both the regular rider as well as the non-user. This is an effective form of public communication about where routes go. Bus stops need to be designated and parking enforced so that buses can exit and enter the traffic flow, easing congestion, ensuring curbside access for passenger safety and accessibility, and providing an important promotion and visible reference for public transit, thereby improving communication about services.

Implementation of improvements to the existing service network and infrastructure described below requires that they be evaluated and subjected to rigorous review to prepare them for inclusion in NJ TRANSIT's operating and/or capital budgets. Annually, NJ TRANSIT seeks appropriations to meet its operating budget. Although recent pressures for NJ TRANSIT to reduce expense growth and cut costs are not central to this Urban Transportation Supplement, they are a limiting factor on the ability of NJ TRANSIT to implement projects.

Targeted Strategies

Tables 24A and 24B note locations or corridors and transportation problems reported through the interview process. The following project descriptions are organized into either traditional or nontraditional service strategies and major new initiatives.

6. Implement Traditional Transit Service Strategies

Traditional service strategies refer to those projects, large or small, that are designed to enhance the existing bus, rail, and light-rail transportation network. Traditional service strategies concentrate on the basic building blocks used by all public transit providers. Schedule improvements and service modifications are the result of a constant process that culminates in quarterly schedule changes. Traditional service strategies, in many cases, reflect service modifications through schedule changes—adjusting running time to meet worksite hours, extending service to meet closing hours at shopping malls, and so on.

Traditional Service Project Descriptions

Bus service in Jersey City is extensive. It is, however, provided by a large number of operators, with little or no coordination of routes, schedules, or fares. Development of a mechanism for the coordination of routes and schedules, dissemination of information, and fare integration are long-term goals for the state.

While the service is extensive, the Meadowlands and Secaucus areas, which include the locations referenced in Tables 24A and 24B (Harmon Meadows, Harmon Cove, East Rutherford-Sports Complex, the west side of North Bergen, Lyndhurst, Carlstadt, and Moonachie) have not been part of the historic route network in the area; as jobs have moved to these locations, transit services have not followed in the same density that they exist in other parts of the city. Operating within a constrained budget, NJ TRANSIT has attempted to improve transfer options, allowing riders access to these locations—the entire network of interstate services that serves the Meadowlands and Secaucus has been rerouted, in the reverse direction, to afford transfer opportunities to Hudson County residents. Likewise, the #108 bus was recently rerouted to offer a connection to the Newark area. The area is still a high priority for examination, especially in conjunction with the agencies responsible for less-traditional modes. Rationalizing the northwestern Hudson County–Secaucus–Union City services on Routes 85, 190, and 121 is targeted for 1993 and 1994.

7. Advance Nontraditional Transit Service Strategies

"Nontraditional service strategies" refers to a newly developed Suburban Initiatives program that is seeking new ways for transit to serve suburban travel needs without the constraints of standard bus and rail service alternatives. With the Federal Clean Air Act Amendments (CAAA) of 1990, the Suburban Initiatives program becomes an important component of compliance. The urban centers in the state of New Jersey are all in non-attainment zones. The requirement of the CAAA that employers of more than 100 staff must reduce single-occupant vehicle trips magnifies the importance of looking for transportation solutions for the work commute—traditional or nontraditional—peak direction or reverse commute. NJ TRANSIT, as an integral part of the solution, has made a commitment to a leadership role in defining nontraditional service strategies to help the state meet these mandates. In this role, NJ TRANSIT has a working approach which, in fact, is pertinent to many of the issues raised in this first Urban Transportation Supplement.

- A. NJ TRANSIT's Service Development team has begun a joint partnership with NJDOT to support suburban TMAs. This special Suburban Initiatives program is now identifying the potential for

nontraditional services within the service area of the TMAs. The TMA service areas include Burlington-Camden, Greater Princeton, the Meadowlands, Middlesex, Monmouth, Morris, and Somerset and comprise a base of approximately 1,800 employers.

B. The Business Transit Alliance (BTA) is an outreach program to businesses through the state. The BTA assists companies located in areas where there is not a TMA. In addition to the traditional BTA services, such as Transit Days and Resources Centers, companies will be able to conduct ridesharing programs for car and van pools. With the help of the BTA, employers will be able to develop their compliance plans and implement Employee Trip Reduction (ETR) programs. There are approximately 2,700 private-sector companies with 100 or more employees in non-TMA service areas, and equally as many local, state, and federal agencies that will require special assistance for compliance with the Clean Air Act, for a total of more than 5,000 potential clients.

Nontraditional Service Project Descriptions

Hudson County TMA. The Hudson County TMA is now forming. Prior to Fiscal Year 1993, NJDOT funded and supported the TMA program for the state of New Jersey. For Fiscal Year 1993 and beyond, NJDOT and NJ TRANSIT have formed a partnership to develop and manage an entirely new type of TMA program. The combined new TMA program includes the following:

Projects Required for TMAs:

- Transit development and promotion
- Business planning
- Computerized ride-matching

Projects Optional for TMAs:

- Suburban transit initiatives: operations, marketing
- Service/system assessments: Market research, traffic mitigation, park-ride needs
- Clean Air initiatives: Employee transportation coordinator training, travel demand management (TDM) seminars
- Demonstration projects: Compressed work week, guaranteed ride home, telecommuting, parking management, travel demand reduction ordinances

NJ TRANSIT-NJ DOT Projects to Support TMAs:

- TDM training program
- Business planning workshops
- Feasibility studies for potential TMAs
- Start-up money for new TMAs
- Clean Air tool kit
- Transit experts assigned to TMAs
- Computerized ride-matching
- Technical assistance from NJ TRANSIT and NJDOT

Nontraditional Transit Project. NJ TRANSIT is currently working with Meadowlink, the Meadowlands area TMA, and employers to design innovative new transit services for the employment centers in the Meadowlands area. These services will likely include options for Jersey City residents. Meadowlink has identified the Lyndhurst Office Complex corporate center as having the potential for nontraditional transit opportunities. The area is bounded by Polito Avenue, Valley Brook Avenue, Chubb Avenue, and Route 3. This development is a large office park with several large employers including Novell Hotel, Medieval Times Restaurant, Bellemead, Coach Leather, American Import/Export, and Peugeot plus dozens of smaller employers, including financial services and legal firms.

NJ TRANSIT is surveying area employees to determine origins and destinations, travel patterns, commute habits, and attitudes towards commuting. Employment levels and locations are being assessed. Focus groups with employers are also being conducted. This qualitative and quantitative data will form the basis for recommended transit options.

The Harmon Cove Outlet Center. The Harmon Cove Outlet Center has been identified as a potential site for nontraditional transit service. This area is bounded by Meadowlands Parkway, Castle Road, County Avenue, and Front Street. Retail, warehouse, and service workers who work there have requested improved transit service to employers such as Panasonic, Petrie Stores, Mikasa, and UPS.

The Westside Avenue/Harmon Meadows. This concentration of back office and industrial activities has also been identified as a potential site for nontraditional transit services. The area includes the Westside Avenue Industrial Park from Paterson Plank Road to 69th Street, and the area between Harmon Meadow Boulevard and Plaza Drive. Employers in the area include Liz Claiborne, K-Mart, and Hartz Mountain.

These innovative transit recommendations will provide new, less expensive, smaller-scale transit options to meet the demand for suburban travel. Instead of NJ TRANSIT's traditional fixed bus routes using 40-foot buses, these innovative options

may include shuttles from bus stops or rail stations, smaller-size buses operating on fixed routes, "on request" route deviation services, expanded reverse-commute services, demand-responsive routes, "dial-a-commute," shared ride services, subscription buses, van pools, and car pools.

NJ TRANSIT is preparing operations plans (routes, schedules, staffing, hours and days of service, carrier resources, dispatching, vehicles), management and administrative plans (staffing and the responsibilities of the public sector, private sector, and contractors), financial plans (operating and capital costs, ridership, and revenue estimates), and implementation plans (assignment of responsibilities for all primary activities as well as support activities such as marketing) for the above corridors. Final recommendations are expected by the summer of 1993.

8. Implement Major New Transit Initiatives

Major new initiatives are capital-intensive projects designed to improve the transportation infrastructure. These projects have all undergone extensive study and conceptual planning; some have been discussed for decades. These projects will provide travel time savings, new travel pattern opportunities for all New Jerseyans, and will substantially improve the existing bus and rail network in the state. Some of the projects have the potential to open up new worksites for urban residents, improve ambient air quality by replacing vehicle trips with transit trips, and provide access to more job sites. In part, the projects are perceived as tools to support and enhance economic development in the targeted corridors.

The Hudson River Waterfront Transportation System. Proposals for the Hudson River Waterfront Transportation System include improving existing bus service and facilities, creating alternative bus routes to bypass congested city areas, and constructing a 15-mile light-rail transit (LRT) line from the Vince Lombardi Park and Ride lot in Ridgefield to the southern end of Jersey City. This will connect with NJ TRANSIT's existing rail system and link park-and-ride facilities on both ends of the line with numerous current and future employment sites and activity centers along the Hudson River Waterfront, and will extend the line into Bayonne. Currently, short-term public transportation improvements include the upgrade of existing transit facilities and the construction of a 2,000-space park-and-ride lot at Liberty State Park.

Not only will this project provide north-south travel improvements and all the attendant environmental benefits, but it will improve Jersey City residents' access to more job sites. In part, the project is perceived as a tool to support and enhance economic development in the Hudson River waterfront corridor, but it will also benefit Jersey City

residents by making travel quicker, safer, and more convenient. More travel opportunities will open up, and air quality concerns will be addressed.

XIII. SUMMATION

A. City's Role

Jersey City's economy, once dependent upon traditional industrial activities and its extensive rail connections, is increasingly interwoven with the development of new office and retail space on the waterfront. The recent move of Merrill Lynch from Manhattan to Exchange Place symbolizes the new prominence of financial services in Jersey City. The construction of high-scale housing on the waterfront and the redevelopment of row houses downtown have attracted professionals and managers fleeing the high rents of Manhattan.

The impact on less-skilled workers in Jersey City is not as clear. Many of the service jobs offer lower pay than the manufacturing jobs that they replaced. Further, several of the new commercial firms have questioned whether Jersey City offers a sufficient pool of qualified office workers upon which they can draw. However, extensive development of warehouse, retail, and light manufacturing firms in the Meadowlands has increasingly provided jobs for less-skilled Jersey City residents.

B. Dominant Demographic Trends

The 1980s were a good decade for Jersey City. Its population rose by 2.2 percent for the first increase in half a century. The median household income escalated at a 127.2 percent rate, outpacing the state's median household income growth rate by 20 percent.

C. Dominant Characteristics of the Labor Force

Resident employment increased by 18.5 percent over the decade, from 88,239 in 1980 to 104,595 in 1990. The percentage of residents working in manufacturing fell from 25.4 to 15.6 percent, while services, the newly dominant jobs sector in Jersey City, employed one-third of the labor force in 1990. By the end of the decade, there were as many residents in the managerial/executive occupational category as in precision production/crafts and operators/laborers combined.

D. Dominant Characteristics of "At-place" Employment and the Difference Between Employment Characteristics of Residents and Worker Populations

Manufacturing accounts for a greater percentage of employed Jersey City residents (15.6 percent) than of covered jobs within Jersey City (11.8 percent). Services also

account for a greater percentage of the Jersey City labor force (32.4 percent) than Jersey City covered jobs (24.0 percent). Retail trade is responsible for the same percentage of the Jersey City labor force as covered employment within Jersey City (about 13 percent). Jersey City residents are also employed in the finance, insurance, and real estate industry in roughly the same proportion as covered jobs are available.

It is not surprising that Jersey City residents have increasingly sought manufacturing jobs outside their city, given the decline of its manufacturing base. The export of Jersey City residents for jobs in services indicates that while the waterfront development of the 1980s has expanded employment opportunities, the suburbs continue to remain significant sources of such jobs.

E. Employment Projections

Projections based upon the State Plan indicate that employment in Jersey City will increase by 15.2 percent between the years 1990–2000, while employment in Hudson County will increase at a 12.4 percent rate. Most of the less-skilled jobs that open up by 2000 will be as a result of employees leaving the labor force rather than job creations. The major sites of less-skilled job growth are Secaucus, Jersey City, North Bergen, and Hackensack.

F. Existing Transportation Network

The major regional roads around Jersey City facilitate north-south traffic, even as residents increasingly find work in suburbs to the west. Jersey City's roads must bear a large share of the traffic traveling between New York and New Jersey, making a commute in any direction difficult during rush hour.

Residents have access to the commuter rail lines of NJ TRANSIT at the Hoboken Terminal, but reverse-commute service is generally too infrequent, and, for less-skilled residents, expensive. A greater proportion of Jersey City residents use the PATH for reverse commuting than the NJ TRANSIT lines.

Jersey City enjoys an extensive network of bus lines, split roughly 50-50 between NJ TRANSIT and private carriers.

G. Transportation Problems

Jersey City is served by an extensive array of transportation facilities converging in a small, densely developed area. The Pulaski Skyway, the Holland Tunnel, and Route 1&9 are major regional facilities that daily attract high volumes of users, i.e., trans-Hudson commuters, and business, freight, and recreational travelers. Along with high travel

demand, Jersey City's highways and bridges suffer from obsolescence. Some of the key problem areas are Route 1&9 north from and including the Tonnele Circle to Route 3, and associated bridges and intersections; and the Route 1&9 Paterson Plank Road and Secaucus Road intersections.

The most significant problem concerns transit-dependent Jersey City residents' access to jobs in the Meadowlands. Generous use of land by commercial developments and the virtual absence of residential development have made it financially difficult for any bus carrier to provide frequent extensive service. Jersey City residents are thus often confronted with infrequent service and the lack of night service, which is particularly problematic for second- and third-shift workers.

Jersey City residents are also stymied by the lack of coordination between NJ TRANSIT and the private carriers: transfers between two different carriers are not accepted, and obtaining bus schedules can be difficult.

H. Problems Other Than Transportation

The most serious obstacle to employment for Jersey City residents is the deficiency in vocational and educational skills. Jersey City high schools have a 15 percent dropout rate. The schools have also had to work with significant levels of students for whom English is a second language. Job-training programs have had some success, but many employers are wary of taking on graduates from these programs.

I. Conclusion

The preparation of this Urban Transportation Supplement marks a beginning. The road and transportation infrastructure network will be extensively overhauled during the next decade and, in consonance with the New Jersey State Development and Redevelopment Plan, central city areas will receive high priority for these capital investments. Public transit deficiencies have been clearly defined; services designed to respond to these deficiencies are in active preparation. How much of this service materializes will depend on available finances and, in any event, will evolve over time as air quality mandates become more imminent and agreements are forged between public transit service providers and employers facing these mandates.

Other deficiencies demand non-financial solutions. The designation of bus stops requires more concerted, cooperative efforts between NJ TRANSIT, municipalities, and NJDOT, since stops must be agreed to by municipalities and NJDOT, and since parking prohibitions at bus stops must be enforced by police forces having jurisdiction over these stops. Design deficiencies—including median barriers, suburban site plans with large set-

A METHODOLOGICAL NOTE ON LESS-SKILLED EMPLOYMENT GROWTH AND LESS-SKILLED JOB SEPARATIONS

LESS-SKILLED EMPLOYMENT GROWTH

Less-skilled employment growth for the period 1993–2000 is estimated by using projections for the year 2000 for the twenty largest occupational growth categories in a county or group of counties (Job Training Partnership Act [JTPA] labor areas) in 1986 and sifting from these occupations those that are typically less-skilled. Less-skilled occupations *would* include salespersons, janitors, parking-lot attendants, waiters and waitresses, stock clerks, factory workers, and so on. Less-skilled occupations *would not* include registered nurses, bookkeepers, cooks, accountants, teachers, sales representatives, truck drivers, and so on. Projections were undertaken for the following JTPA labor area county groups:¹

Atlantic and Cape May
Bergen and Passaic
Burlington and Camden
Cumberland, Gloucester, and Salem
Essex and Hudson
Hunterdon and Somerset
Mercer
Middlesex and Union
Monmouth and Ocean
Morris, Sussex, and Warren

These projections of less-skilled employment growth were obtained from occupational employment projections by the New Jersey Department of Labor (NJDOLE) for each of the above geographical areas.²

In order to estimate less-skilled employment growth by individual county and ultimately by municipality within a county, the less-skilled share of all occupations was determined for a county or county group and this ratio applied to total employment projections also by county or county group undertaken by the Center for Urban Policy Research (CUPR) at Rutgers University. For instance, if CUPR determined that of the job growth of all occupations in Bergen and Passaic counties (from the NJDOLE projections), less-skilled job growth constituted 60 percent, the 1990–2000 employment projection for each of these counties would be multiplied by 60 percent to obtain a figure for less-skilled employment. These would further be multiplied by 70 percent to account for the seven-year projection period (1993–2000) used for less-skilled employment as opposed to the ten-year projection period (1990–2000) used for total employment.

Less-skilled employment projections were assigned to municipalities by the municipalities' shares of county total employment growth over the period 1970 to 1990. If, for example, Paramus in Bergen County had 40 percent of the county's total employment growth from 1970 to 1990, it would receive 40 percent of the projected less-skilled employment for the county from 1993 to 2000.

Finally, less-skilled employment growth is divided into three categories (basic, retail, and services) according to the existing local distribution of these broad classification types in 1990. Thus, less-skilled employment growth is a fractional share of CUPR's projection of total employment growth. NJDOLE's figures for less-skilled employment growth are not used directly because these projections are dated and reflect the much more generous estimates of employment growth typical of a state economy viewed in the mid- to late-1980s. Currently new projections are underway but as of April 15, 1993 are available only at the state level. CUPR's adaptation of these projections anticipates the change in magnitude of (lower) employment projections taking place in the 1993 versus the 1988 projections.

Currently, new NJDOLE projections are underway. They are available only at the state level. They show considerably less annual employment growth (–25 percent) and significantly less annual job separations (–50 percent) than prior projections. These numbers are in keeping with the lower projections employed by CUPR in this analysis.

¹ These labor areas are slightly different from the ones used elsewhere in this report. Those labor areas used elsewhere are the New Jersey recognized labor areas. Occupational projections by NJDOLE were already undertaken by the JTPA labor areas, thus limiting the choices available for aggregation.

² See New Jersey Department of Labor, *Employment Projections. Volume II: Occupational Outlook for New Jersey and Selected Areas 1986–2000* (Trenton, NJ: New Jersey Department of Labor, October 1988).

LESS-SKILLED JOB SEPARATIONS

Job separations (at the time of this study)³ involve departures from the labor force due to death, ill health, pregnancy, or for personal or undetermined reasons. Job separations are not those jobs that result from individuals moving up the ladder of employment and, through this, the release of jobs that other aspiring workers fill. They thus represent removal from the labor force as opposed to removal from a specific job title.

Job separations are more prevalent where the employment base is large. They are concentrated in the older central core areas of employment, the older close-in suburban areas, or the newer suburban nodes of office space, retail, or industrial development.

Less-skilled job separations are also predicted by occupation for the period 1993–2000. Job separations are determined from procedures recommended by the U. S. Department of Labor and are essentially a percentage share of existing employment at any one time. These types of occupational projections, also available from the New Jersey Department of Labor and found in the prior-listed source, are somewhat less subject to widescale variation than are the occupational employment-growth projections discussed previously.

Using a procedure similar to that discussed above, the less-skilled occupations were sifted from those occupations experiencing the most growth and their average *annual* number of separations tallied. This was multiplied by 7 for the seven-year projection period 1993–2000 and divided by two-thirds to account for all occupations, not just those experiencing the most growth.

Less-skilled employment separation projections are assigned to each municipality in a JTPA labor area according to the ratio of total employment of that municipality in 1990 to total employment in the JTPA labor area, also in 1990. Employment separations are divided among basic, retail, and services categories at the municipal level according to the existing distribution of these types of employment in the municipality in 1990. On a statewide base, the components of annual job openings, i.e., job separations and job growth, are in a ratio of about 2–3 to 1.

WHAT IS THE EFFECT OF JOB GROWTH VERSUS JOB SEPARATIONS?

Much of the above discussion leads to an obvious question: Which is more important—job growth or job separations? The answer is that they are both important for different reasons.

Job growth is the net new addition of jobs to an area. The demand for workers does not bring with it an associated supply of workers. Job separations are losses of workers currently filling job billets in an area with an essentially similar number of workers ready to enter the labor force to take their places. In this case, job demand brings with it an almost equal amount of job supply. Thus, in a labor area, if 1,000 workers leave the labor force due to separations, and labor demand grows by an additional 250 jobs, there is a potential for 1,250 job openings in this labor area. If the community has 500 unemployed and another 900 ready to enter the labor force, the 1,250 openings theoretically could be filled immediately, yet with some workers still remaining unemployed.

For the job aspirant in the central city, both types of employment opportunity are important. Job growth provides net new employment opportunities. Job separations provide few net new employment opportunities from a macro perspective but potentially significantly more opportunities from a micro perspective. The latter is true for the following reason. If the central city of a labor area contains most of the job openings in the form of *separations*, and suburban workers will not go into the central city for employment, this provides a tremendous supply of available jobs to urban workers. On the other hand, if most of the job *growth* is in the suburbs and must be accessed by automobile, even though these are net new jobs, the urban resident, in only 50–75 percent of the cases having an automobile, could be at a significant disadvantage. Thus, each type of job creates a potential for employment with biases towards and biases against different types of workers (urban versus suburban).

A SUBNOTE ON THE ATLANTIC CITY/CAPE MAY AND MERCER COUNTY LABOR AREAS

Both of these labor areas have low levels of less-skilled basic employment. In the Atlantic City/Cape May case, this is due to manufacturing being almost totally eclipsed by services (casino) employment. In the case of Mercer, most of the basic employment that remains is higher skilled. In both of these cases, there is a projection of zero job separations for the basic sector.

³ There are slight definitional changes underway for the 1993 occupational projections.

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