

**UNION COUNTY
NEW JERSEY**

MASTER PLAN

GOALS & OBJECTIVES
DEMOGRAPHICS
LAND USE PLAN
CIRCULATION/TRANSPORTATION PLAN
ECONOMIC DEVELOPMENT PLAN

June, 1998

TM

TABLES
(Continued)

TABLE 4-1 - ROADWAY SYSTEM CLASSIFICATION 4-2
TABLE 4-2 - NEW JERSEY HIGHWAY ACCESS MANAGEMENT CODE,
UNION COUNTY 4-8
TABLE 4-3 - PASSENGER RAIL SERVICE, UNION COUNTY 4-10
TABLE 4-4 - NEW JERSEY TRANSIT BUS SERVICE, UNION COUNTY 4-13
TABLE 5-1 - PRIVATE SECTOR COVERED JOBS, SELECTED YEARS 1980 - 1996
UNION COUNTY AND NEW JERSEY 5-3
TABLE 5-2 - UNION COUNTY POPULATION 1980-1990, BIRTHS, DEATHS,
MIGRATION..... 5-7

FIGURES

FIGURE 2-1- POPULATION 1860-1994, UNION COUNTY..... 2-2
FIGURE 2-2 - POPULATION BY AGE COHORT - 1990-2010, UNION COUNTY 2-12
FIGURE 3-1- LAND USE PLAN 3-3
FIGURE 4-1 - ROADWAY SYSTEM MAP 4-1
FIGURE 4-2 - FUNCTIONAL CLASSIFICATION MAP 4-3
FIGURE 4-3 - TRANSPORTATION PLAN 4-15

INTRODUCTION

Phase I of the Union County Master Plan presents the Planning Board's recommendations for the future of Union County as it relates to population, land use, transportation and circulation, and economic development. It represents the direction that the County should pursue to achieve the optimum relationship between land uses, protection of the natural environment and development of efficient transportation systems.

The statutory authority for the development of a County Master Plan is set forth in the New Jersey County and Regional Planning Act N.J.S.A. 40:27-2 et seq. that states:

"The County Planning Board shall make and adopt a master plan for the physical development of the County. The master plan of a County, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the County Planning Board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the County.

The County Planning Board shall encourage the cooperation of the local municipalities within the County in any matters whatsoever which may concern the integrity of the County master plan and to advise the Board of Chosen Freeholders with respect to the formulation of development programs and budgets for capital expenditures."

GOALS AND OBJECTIVES

The Union County Master Plan has a variety of planning goals and objectives designed to address major issues and influences that impact Union County's housing, land use, transportation/circulation and economic development. The County goals and objectives recognize the interrelationships of related policies of municipalities, regional agencies and the State regarding the future development of Union County. The achievement of these goals and objectives will require decision making at many levels of government, as well as private sector. The goals and objectives form the basis for the creation and implementation of specific programs and actions designed to achieve the more generalized goals and objectives.

Housing

Goal:

Promote the provision of a broad range of housing opportunities for all income levels and household types by encouraging the maintenance or rehabilitation of the existing housing stock and through the construction of new housing units.

Objectives:

- Promote the continued construction of quality single family homes suitable for persons of all of income levels.
- Encourage municipalities to zone for a variety of housing types and densities.
- Encourage the rehabilitation of substandard or vacant structures
- Encourage the construction of multi-family apartment and townhouse units in either rental, condominium or fee simple ownership for all age groups, household types and income levels.

- Encourage the expansion of existing public, non-profit and inclusionary low-income and senior housing opportunities.
- Encourage participation in programs designed to promote the maintenance and rehabilitation of housing, including low interest loans, grants, tax incentives, Regional Contribution Agreements.

Development

Goal:

To facilitate the development of Union County by directing new growth to environmentally suitable areas that can be provided with essential infrastructure and support facilities and to revitalize the urban centers and corridors within the County.

Objectives:

- Identify land areas suitable for residential, commercial and industrial development sufficient to accommodate reasonable projections of future needs.
- Identify land areas that are environmentally sensitive including lands that have physiographic characteristics including floodplains, freshwater and/or saline wetlands, steep slopes, rock outcroppings and mature forests.
- Promote new development and redevelopment that is consistent and compatible with existing settlement patterns.
- Promote the revitalization of urban centers and older suburban areas through industrial and commercial adaptive reuse, economic development programs, environmental clean-up of contaminated sites, upgrading of community infrastructure, and upgrading of transportation

and transit facilities.

- Promote the continued development and expansion of recreational facilities to meet the recreational needs of existing and future residents and encourage the maintenance of open space and the protection of sensitive environmental features.

Transportation/Circulation

Goal:

To promote the development of an improved and balanced, multi-modal transportation system that integrates and links highway, bus, rail, air, waterborne transport systems and pedestrian and bicycle facilities.

Objectives:

- Continue the development and maintenance programs for an efficient County highway system to service existing and future traffic needs.
- Upgrade existing roads to higher design standards where applicable and feasible.
- Support and implement transportation plans and programs that reduce negative impacts on the environment such as requirements to reduce hydrocarbons, carbon monoxide and nitrogen oxide emissions from automobiles.
- Provide coordinated development of land use density/intensity and transportation systems that will support and sustain regional transportation systems for rail and bus service.
- Encourage the improvement of existing and construction of new rail stations, bus shelters and parking support facilities.
- Review and coordinate local bus routes and rail schedules to address potential ridership

demands and destination needs.

- Encourage public and private efforts to retain and rehabilitate the existing rail network and encourage upgraded freight line services.
- Promote transportation improvements that will encourage increased inter-modal passenger and freight transportation movements especially those related to the Port Elizabeth/Port Newark regional and international transportation facilities.
- Support the expansion and improvement of facilities at Newark International Airport to meet increased operational and safety requirements, passenger demands, and expansion of monorail and light rail passenger links with other transportation services and regional urban centers.
- Improve waterborne transportation by encouraging navigational surveys, the implementation of regular maintenance dredging of state and federal waterways to their authorized width and depth, maintenance of channel markers and other navigational aids through improvements to the inlets and upgrading of port facilities and service.

Economic Development

Goal:

Continue County sponsored economic development efforts to reduce unemployment, provide year-round employment opportunities and enhance the tax base by encouraging compatible industrial, commercial, office and retail facilities to locate or expand in Union County.

Objectives:

- Promote the development of industrial parks, marine terminal facilities and air terminal facilities in the County.
- Encourage the expansion or location of industrial firms, office, research and development firms in areas that are capable of being serviced by County and regional facilities and infrastructure.
- Maintain relationships with federal, state, regional and municipal officials involved with economic development activities relative to Union County.
- Conduct and/or provide assistance on feasibility and technical studies addressing economic development issues associated with airports, marine terminal facilities, capital improvements, natural resources and other related issues.
- Promote the reclamation and redevelopment of brownfields within the County.

DEMOGRAPHICS

The population of Union County has undergone dramatic changes in terms of the number of residents, age characteristics, racial composition, employment characteristics and other characteristics since the County was formed on March 19, 1857. While population growth continued for more than 100 years, Union County's population peaked in 1970 and has been declining gradually since that time. Demographic data tabulated every 10 years by the U.S. Bureau of the Census and by various agencies in New Jersey provide statistical data on past trends and some insight into the future composition and demographic characteristics of the residents of Union County. This section presents key demographic information for Union County and its municipalities. Historic population changes, the number and characteristics of existing residents, housing data, employment and labor force data and school district enrollment data are reviewed. Projections of the future population of the County and its municipalities at five year increments from 1990 through the year 2020 are provided to assist decision making for the next 20 years.

The Union County Department of Economic Development, Division of Policy and Planning maintains a County Data Book. The Data Book contains additional information, statistics and Census information on Land Use, Demography, Housing, Income, Employment, Transportation, Tax Information and Education. The Data Book and its revisions can be used as a supplement to this section of the Master Plan for demographic statistical data for Union County and its 21 municipalities.

Population

The population of Union County increased steadily from its formation in 1857 through 1970. Since 1970 the population of Union County and 18 of its 21 municipalities has experienced moderate declines. Between 1970 and 1980 the County population decreased 7.2 percent from 543,116 to 504,094 with a further decrease of 2.0 percent to 493,819 by 1990. However, the population showed a slight increase of 0.5 percent to 496,230 as of the 1994 Census estimate.

Figure 2-1 and Table 2-1 presents the rate of population growth in Union County between 1860 and

UNION COUNTY MASTER PLAN

**TABLE 2-2
POPULATION 1930-1994
UNION COUNTY MUNICIPALITIES**

Municipality	1930	1940	1950	1960	1970	1980	1990	1994**
Berkeley Heights	1,899	2,194	3,466	8,721	13,078	12,549	11,980	12,560
Clark	1,474	2,083	4,352	12,195	18,829	16,699	14,629	14,557
Cranford	11,126	12,860	18,602	26,424	27,391	24,573	22,624	22,798
Elizabeth	114,589	109,912	112,817	107,698	112,654	106,201	110,002	106,298
Fanwood	1,681	2,310	3,228	7,963	8,920	7,767	7,115	7,196
Garwood	3,344	3,622	4,622	5,426	5,260	4,752	4,227	4,234
Hillside	17,601	18,556	21,007	22,304	21,636	21,440	21,044	21,820
Kenilworth	2,243	2,451	4,922	8,379	9,165	8,221	7,574	7,658
Linden	21,206	24,115	30,644	39,931	41,409	37,836	36,701	36,564
Mountainside	965	1,148	2,046	6,325	7,520	7,118	6,657	6,867
New Providence	1,918	2,374	3,380	10,243	13,796	12,426	11,439	12,044
Plainfield	34,422	37,469	42,366	45,330	46,862	45,555	46,567	44,793
Rahway	16,011	17,498	21,290	27,699	29,114	26,723	25,325	25,760
Roselle	13,021	13,597	17,681	21,032	22,585	20,641	20,314	20,572
Roselle Park	8,969	9,661	11,537	12,546	14,277	13,377	12,805	12,907
Scotch Plains	4,186	4,993	9,069	18,491	22,279	20,774	21,160	22,509
Springfield	3,725	4,148	7,214	14,467	15,740	13,955	13,420	14,058
Summit	14,556	16,165	17,929	23,677	23,620	21,071	19,757	20,192
Union	16,472	24,730	38,004	51,499	53,077	50,184	50,024	51,840
Westfield	15,801	18,458	21,243	31,447	33,720	30,447	28,870	29,340
*Winfield	—	—	2,719	2,458	2,184	1,785	1,585	1,662
Union County	305,209	328,344	398,138	504,255	543,116	504,094	493,819	496,230
Percent Change	—	+7.7%	+21.1	-26.7	-7.7%	-7.2%	-2.0%	-0.5%

Source: U.S. Census of Population 1930-1990

* Winfield was incorporated on August 6, 1941

** 1994 Estimates - Source: NJ Dept. Of Labor

UNION COUNTY MASTER PLAN

The decline in population in Union County from 1970 through 1990 reflects a general decline in population in northeastern New Jersey. Bergen, Essex, Passaic and Union Counties reached their peak population in 1970 while Hudson has had a declining population since its peak in 1930. During a period when the State of New Jersey experienced an 7.8 percent increase in population from 7,168,164 to 7,730,188 between 1970 and 1990, Bergen County experienced a decrease of 8.1 percent, Essex County a decrease of 16.3 percent, Hudson County a decrease of 9.2 percent, Passaic a decrease of 1.7 percent and Union County a decrease of 9.1 percent.

The regional population is expected to increase slightly by the year 2000 (0.4 percent). Essex County is the only county expected by to decline in population. In comparison, the State is expected to increase by 5.2 percent between 1990 and 2000 (See Table 2-3).

**TABLE 2-3
POPULATION 1970 - 2000
REGIONAL COUNTIES & NEW JERSEY**

Location	1970	1980	1990	Percent Change 1970-1990	Population Projection 2000	Percent Change 1990-2000
Bergen County	898,012	845,385	825,380	-8.1%	856,100	3.7%
Essex County	929,986	851,304	778,206	-16.3%	756,100	-2.8%
Hudson County	609,266	556,972	553,099	-9.2%	555,400	0.4%
Passaic County	460,782	447,585	453,060	-1.7%	453,302	0.1%
Union County	543,116	504,094	493,819	-9.1%	495,600	0.4%
Regional Total	3,441,162	3,205,340	3,103,564	-9.8%	3,116,502	0.4%
New Jersey	7,168,164	7,365,011	7,730,188	7.8%	8,135,000	5.2%

Sources: U. S. Census of Population, 1970-1990.

New Jersey Department of Labor Projections 2.97 for 2000 projection.

The decline in population in Union County and northeastern New Jersey occurs in part from the migration from the State and an out-migration from the County and region to southern and western portions of the State. Part of the "decline" in population can be also be attributed to demographic change which has occurred in the older, more developed portions of New Jersey since 1960 namely the aging of the resident population and the associated decline in the number of persons per household. Even though the population declined 2.0 percent from 1980 to 1990 the number of housing units and households increased by 2.3 percent. This caused the number of persons per household to decrease from 2.8 in 1980 to 2.7 in 1990.

The declining population in Union County and northeastern New Jersey since 1970 is not isolated to New Jersey; the Northeast United States region experienced the lowest population gain in the nation numerically and also the lowest rate of increase since 1970. New Jersey experienced its lowest rate in population increase (2.7 percent) from 1970 to 1980 compared to any decade since the first Census in 1790.

Demographic Characteristics

Demographic characteristics which are of major significance in defining the Union County population include the age/sex distribution, race and cultural origin. These are described below.

Census data provides statistical data by age group within the County. The 0 to 9 age category included 62,737 persons in 1990. The 10-19 age group included 58,728 persons; the 20 to 29 age group included 77,565 persons; and the 30 to 39 age group included 81,276 persons. The population in the older age groups included 64,465 in the 40 to 49 age group, 49,645 in the 50 to 59 age group, 50,342 in the 60 to 69 age group, 33,778 in the 70 to 79 age group and 15,283 persons in the 80+ age group. Similar to other counties, 48.0 percent of the Union County population is male and 52.0 percent is female. This distribution is similar in the municipalities of the County.

Table 2-4 presents the population by race and Hispanic origin for each of the municipalities. In terms of racial characteristics, Union County is predominately white. In the 1990 Census, 367,247 persons or 74.4 percent of the County population was recorded as white. Of the minority population, black residents represented the largest group comprising 92,994 persons or 18.8 percent of the total population. Asian and Pacific Islanders represent 2.8 percent of the population or 13,619 persons. The Census reported 700 American Indians/Eskimos or Aleuts in Union County or 0.1 percent of the total population. The remaining 3.9 percent of the population represented other minority categories. Of the total population, 66,885 or 13.5 percent of the County population was of "Hispanic origin." "Hispanic origin" residents include white and black residents who are or are descendents from persons of Latin American, Caribbean and other Hispanic speaking countries. A majority of the County's 43,050 Hispanic residents (64.4 percent), lived in the City of Elizabeth in 1990.

Population Projections

This section presents population projections for Union County. Several population projection models are presented along with projections prepared by the New Jersey Department of Labor for the years 2000, 2010 and 2020. While population projection models can produce a broad range of results, it is expected that the County population will decline from 493,819 in 1990 to approximately 490,000 in 2020 based on analysis of existing demographic data and trends. A "projection" is defined "as the measurement of a future condition that would exist if the assumptions and procedures of the method prove to be empirically valid in the future." Projections are based on one or more assumptions including a continuation of past conditions, present conditions, or trended changes in historical conditions. Projections can also be based on entirely new transition rates.

UNION COUNTY MASTER PLAN

**TABLE 2-4
1990 POPULATION BY RACE AND HISPANIC ORIGIN
UNION COUNTY MUNICIPALITIES**

Municipality	Total Population	White	Black	Am. Indian/ Eskimo & Aleut	Asian & Pacific Islander	Other	Hispanic Origin*
Berkeley Heights	11,980	10,995	164	2	779	40	225
Clark	14,629	14,316	15	6	240	52	428
Cranford	22,633	21,558	689	7	331	48	543
Elizabeth	110,002	72,098	21,833	297	3,002	12,772	43,050
Fanwood	7,115	6,413	372	2	297	31	157
Garwood	4,227	4,160	11	1	30	25	114
Hillside	21,044	11,157	8,578	30	812	467	2,807
Kenilworth	7,574	7,238	188	7	90	51	394
Linden	36,701	28,173	7,344	49	552	583	2,700
Mountainside	6,657	6,434	45	3	164	11	126
New Providence	11,439	10,773	62	5	560	39	309
Plainfield	46,567	12,338	30,573	252	493	2,911	6,996
Rahway	25,325	19,092	5,119	38	606	470	1,912
Roselle	20,314	11,461	7,726	39	534	554	2,323
Roselle Park	12,805	11,797	137	6	679	186	935
Scotch Plains	21,160	17,729	2,349	37	968	77	598
Springfield	13,420	12,625	463	6	286	40	277
Summit	19,757	17,815	1,118	16	607	201	1,044
Union	50,024	43,277	4,694	57	1,675	321	2,339
Westfield	28,870	26,408	1,323	20	1,019	100	589
Winfield	1,576	1,559	4	0	0	11	31
Union County Total	493,819	367,416	92,807	880	13,726	18,990	67,797

* Hispanic Origin residents are included in White, Black and Other categories.

Source: U.S. Census of Population 1990.

UNION COUNTY MASTER PLAN

In order to develop reasonable population projections for Union County, a variety of population projection models were evaluated including cohort survival, linear, geometric, parabolic, modified exponential, Gompertz and logistic models. Several calculations for each model were produced using different starting point years to assess the applicability and functionality of the models. It should be noted as indicated in the above definition of a projection that an infinite number of projections can be calculated by using different models with different starting years and other variables. Therefore, in preparing meaningful population projections for the County, other factors about the County must be considered to limit the number of possible outcomes that the models can produce. Such factors include the lack of vacant land available for construction, decreases in household size, the composition of age groups, birth and death rates out-migration of residents, and the annual number of residential building permits. Although projections are based on past demographic trends they are not a forecast and are not intended to be official. They are for reference purposes only. Dramatic changes or disruptions in the economic and demographic conditions in the future can impact and could invalidate the projections. Presented in Table 2-5 are population projections for Union County using the most common projection models. As can be seen the results of these models produce projected populations for the year 2020 ranging from 635,476 to 415,082.

**TABLE 2 -5
POPULATION PROJECTIONS 2000- 2020
UNION COUNTY**

Projection Models	Actual 1990	Estimated 1994	Projected		
			2000	2010	2020
Modified Exponential	493,819	496,230	491,113	490,401	490,213
Gompertz	493,819	496,230	491,018	490,247	490,035
Logistic	493,819	496,230	490,921	490,088	489,848
Cohort Survival	493,819	496,230	483,128	464,381	427,957
Parabolic	493,819	496,230	512,291	559,510	635,476
Linear	493,819	496,230	464,379	439,731	415,082
Geometric	493,819	496,230	466,658	444,976	424,301

Sources: US Census Data for years 1960 through 1990 used for base data. Models used are in "Spreadsheet Models for Urban Analysis": Klosterman, Brail and Bossard. 1993.

The Modified Exponential, Gompertz and Logistic Models assume that growth will move toward, or from, an asymptotic upper or lower growth limit. The projections take the form of an S-shaped curve in which growth begins slowly, increases rapidly for a while then slows as it approaches a fixed upper growth limit. These models produced nearly identical projections to the year 2020, and as will be shown below, produced results similar to those of the New Jersey Department of Labor. These projections appear to be the most reasonable of the models reviewed in light of the fact that the population growth in Union County is following an S-curve in which there was rapid growth after the 1940's through the 1970's but has begun to reach the upper limit of growth in the 80's and 90's due to the unavailability of vacant land, high out-migration, a decrease in the household size and a slowing economy.

The Cohort Survival Model projections uses the age cohorts of males and females, fertility, and net-migration levels as the basis for projections. The cohort component technique is one of the oldest and most widely used procedures for projecting populations. It projects a decreasing County population through the year 2020 and produced population estimates approximately 15 percent lower than the modified exponential, Gompertz and Logistic models. The cohort model should be considered a valid model. This model appears to produce reasonable projections for the County.

The parabolic, linear, and geometric models were also reviewed. The Parabolic Model is a model that assumes growth increases or decreases by a constant amount in the future. This model produced extremely high projections for the County, especially for the year 2020. The Linear Model assumes that the dependant variable (population) will always increase or decrease by equal amounts for equal time periods. The linear model produced a very low population projection. This is due to the fact the population decreased, the 80's and 90's and this decrease was continued into the future. The geometric curve assumes that growth will correspond to a constant growth rate or decline. The geometric produced results similar to the linear model. The parabolic, linear and geometric do not appear to be as reasonable as the other models reviewed.

Population projections have also been prepared by the New Jersey Department of Labor by age group categories for 2000, 2005, and 2010. Estimates have been prepared for 1994. Based on population estimates, the Union County population increased slightly between the 1990 Census and 1994 from 493,819 persons to 496,230 persons, however, the County population is expected to continue the post-1970 decline through the year 2010. The projected population is expected to be 490,400 persons in 2010. This is comparable to several of the mid-level projections which were calculated.

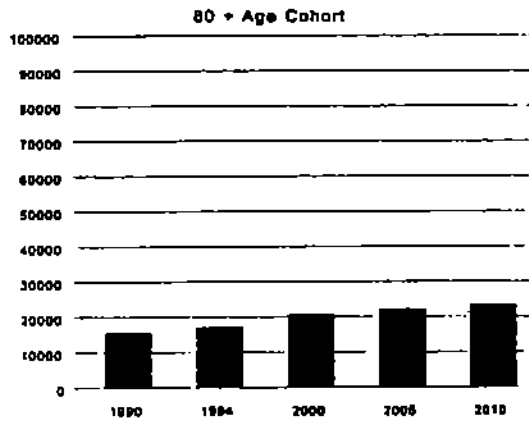
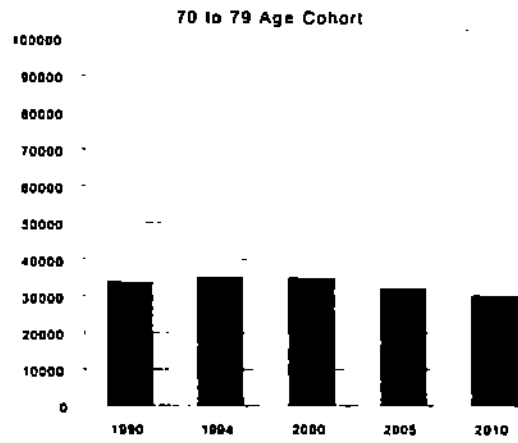
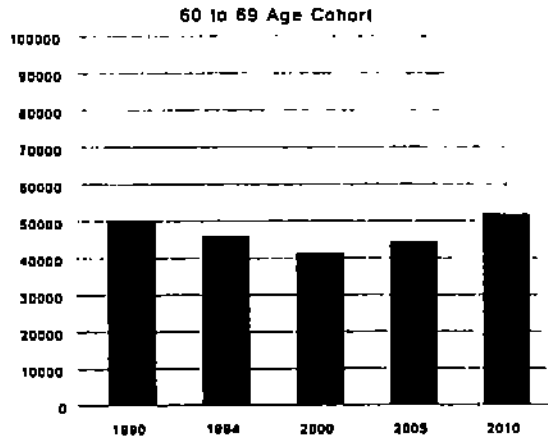
The projections of population by age category show a variety of changes. The 0 to 9 and the 30 to 39 age categories are expected to have a rapid decrease in population from 1994 through 2010. The 10-19 and 40-49 age categories are expected to increase to 2005 then decline between 2005 and 2010. The 20-29 age category is expected to decrease to 2005 then increase between 2005 and 2010. The 50 to 59 age category shows the largest increase in population between 1994 and 2010. The 80+ age category is also expected to increase to the year 2010. The 60 to 69 age group is expected to increase after the year 2000 and then rapidly increase to the year 2010. The 70 to 79 age category is expected to decline between 1994 and 2010. Table 2-6 presents these estimates for Union County and Figure 2-2 shows these estimates graphically.

**TABLE 2 - 6
POPULATION PROJECTIONS BY AGE GROUP 1994- 2010
UNION COUNTY**

Age	1990 Census	Population Projections			
		1994	2000	2005	2010
0 to 9	62,737	66,801	66,100	61,100	55,900
10 to 19	58,728	58,141	62,000	65,000	64,200
20 to 29	77,565	65,905	57,000	57,200	61,100
30 to 39	81,276	85,338	76,100	63,200	57,300
40 to 49	64,465	69,749	76,900	79,900	72,300
50 to 59	49,645	52,012	60,500	68,100	74,100
60 to 69	50,342	45,966	41,400	44,400	51,900
70 to 79	33,778	35,288	35,100	32,100	30,200
80 +	15,283	17,030	20,500	22,200	23,400
Total	493,819	496,230	495,600	493,200	490,400

*Source: Projections by Age Group by County: New Jersey 1994 - 2010;
N. J. Department of Labor 2/97*

FIGURE 2-2 (continued)
 UNION COUNTY POPULATION BY AGE COHORT - 1990-2010
 UNION COUNTY



Sources: U.S. Census of Population, 1990 & New Jersey Department of Labor Projections; 2/97.

Housing

The Union County population decline did not result in a decline in the total number of housing units between 1970 and 1990. Since 1970 there has been a net increase of 12,705 housing units in Union County for a total of 187,033 housing units in 1990. Of this total 106,325 units were in single attached and detached structures; 28,701 units were in two unit structures; 15,538 units were in 3 to 4 unit structures; 15,930 units were in 5 to 19 unit structures and 17,832 were in structures having 20 or more units. Mobile homes or trailers accounted for 167 units and 2,540 were listed as "other" units (See Table 2-7).

**TABLE 2-7
1970 - 1990 HOUSING UNIT TYPE
UNION COUNTY**

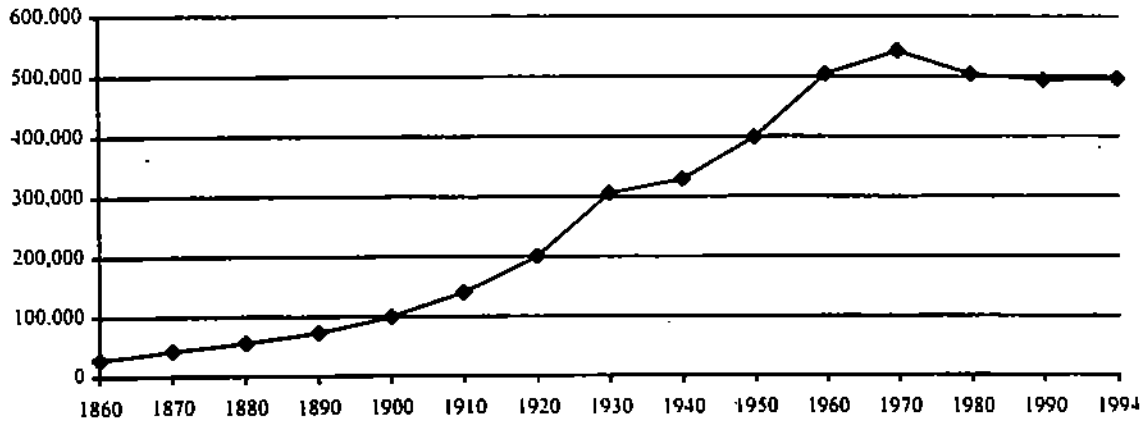
Unit Type	1970	1990	1970-1990 Change	
			Number	Percent
Single Attached/Detached	99,595	106,325	6,730	6.8%
2 Units	30,893	28,701	(2,192)	-7.1%
3 & 4 Units	14,294	15,538	1,244	8.7%
5 to 19 Units	13,145	15,930	2,785	21.2%
20 Units or Greater	16,234	17,832	1,598	9.8%
Mobile Homes or Trailers	167	167	0	0.0%
Other	N/A	2,540	2,540	N/A
Total	174,328	187,033	12,705	7.3%

Source: U.S. Census 1970 & 1990.

Generally, year-round units in Union County are owner-occupied, which is consistent with the single-family unit. In 1990, of the total occupied units 112,508 units were owner occupied units. 67,568 were renter occupied units and 6,957 units were vacant housing units. In some municipalities the number of renter occupied units exceeds the number of owner occupied units. This occurs in the City of Elizabeth where there are 26,706 renter occupied units and 12,395 owner-occupied units. In Plainfield there are 8,341 renter-occupied units and 7,722 owner-occupied

1994. Table 2-2 presents the population for Union Counties municipalities between 1930 and 1994.

**FIGURE 2-1
POPULATION 1860-1994
UNION COUNTY**

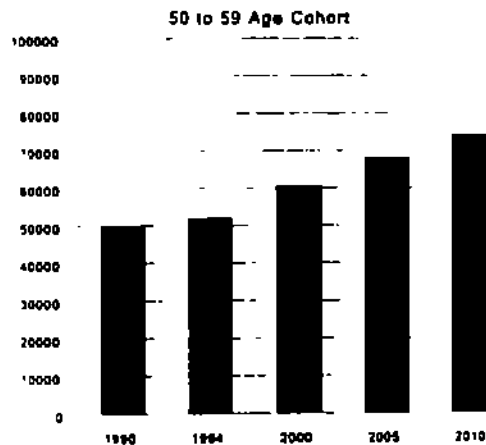
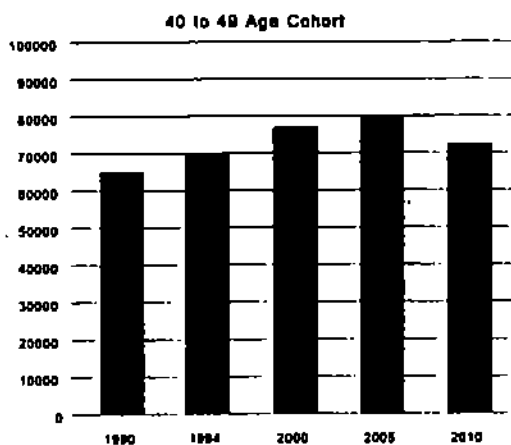
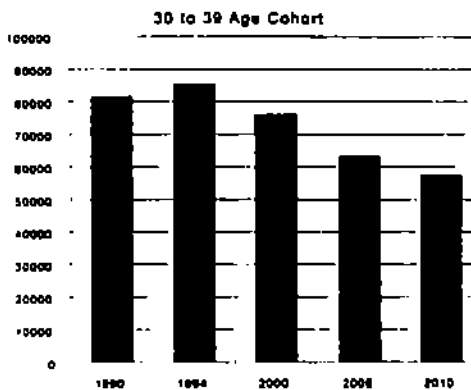
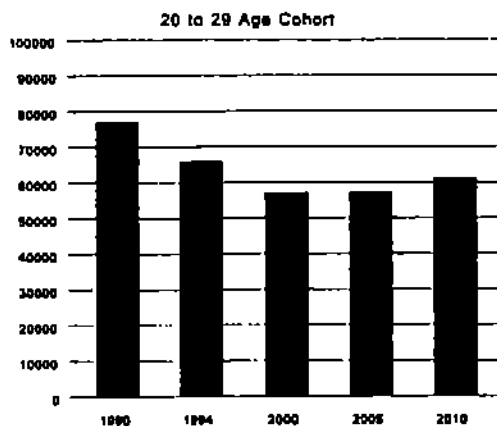
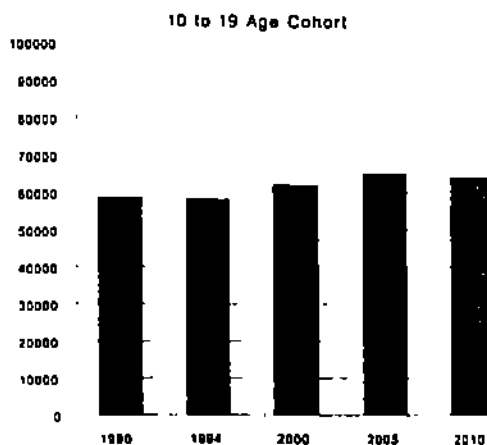
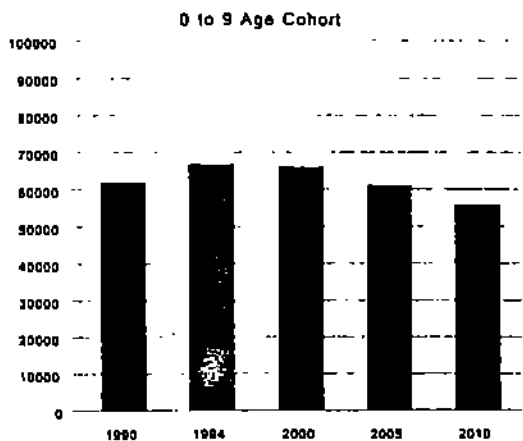


**TABLE 2-1
POPULATION 1860-1995
UNION COUNTY**

Year	Population	No. Change	% Change
1860	27,780	-----	-----
1870	41,891	14,111	50.8%
1880	55,571	13,680	32.7%
1890	72,467	16,896	30.4%
1900	99,353	26,886	37.1%
1905	117,211	17,858	18.0%
1910	140,197	22,986	19.6%
1920	200,157	59,960	42.8%
1930	305,209	105,052	52.5%
1940	328,734	23,525	7.7%
1950	398,138	69,404	21.1%
1960	504,255	106,117	26.7%
1970	543,116	38,861	7.7%
1980	504,094	(39,022)	-7.2%
1990	493,819	(10,275)	-2.0%
1994	496,230	2,411	0.5%

Source: U.S. Census of Population, 1960-1994

**FIGURE 2-2
POPULATION BY AGE COHORT - 1990-2010
UNION COUNTY**



1998 ADOPTING BOARDS AND STAFF

UNION COUNTY MASTER PLAN

UNION COUNTY BOARD OF CHOSEN FREEHOLDERS

Daniel P. Sullivan.....Chairperson
Nicholas P. Scutari.....Vice-Chairperson
Donald Goncalves.....Freeholder
Chester Holmes.....Freeholder
Lewis Mingo, Jr.Freeholder
Alexander Mirabella.....Freeholder
Mary P. Ruotolo.....Freeholder
Deborah P. Scanlon.....Freeholder
Linda Stender.....Freeholder

UNION COUNTY PLANNING BOARD

Linda Stender.....Freeholder Member
Deborah P. Scanlon.....Freeholder Member
John O'Shea.....Chairman
Livio Mancino.....Vice-Chairman
Janet Prince.....Secretary
Armand A. Fiorletti.....County Engineer
Ralph Liccardi.....Member
William Malone.....Member
Eugene Pepe.....Member
David Graves.....Alternate Member
Patrick Scanlon.....Alternate Member
Neil Cohen, Esq.Counsel

UNION COUNTY STAFF

Michael J. Lapolla.....County Manager
George W. Devanney.....Deputy County Manager
Mauro Checchio.....Director, Division of Policy & Planning
Carol I. Cohen.....County Counsel
Armand A. Fiorletti, P.E.County Engineer
Richard S. Muller.....Supervising Planner
Ron Weening.....Supervising Transportation Planner
Scott Bauman.....Senior Planner
E. Wesley Day.....Senior Planner
Mary Jane Milway.....Assistant Planner
Robert J. Travisano.....Program Development Specialist I
Sal Antonelli.....Economic Development Rep. I
William Inglefield.....Economic Development Rep. I

2003 CURRENT BOARDS

UNION COUNTY BOARD OF CHOSEN FREEHOLDERS

Deborah P. Scanlon, Chairwoman
Angel G. Estrada, Vice-Chairman
Chester Holmes
Lewis Mingo, Jr.
Alexander Mirabella
Rick Proctor
Mary P. Ruotolo
Nicholas P. Scutari
Daniel P. Sullivan

Annette Quijano, Esq., Clerk of the Board

UNION COUNTY PLANNING BOARD

Livio Mancino, Chairman
John A. O'Shea, Vice-Chairman
William Malone, Secretary
Deborah P. Scanlon, Freeholder
Nicholas P. Scutari, Freeholder
G. Bruce Connor, County Engineer
Thomas Lavecchia
Eugene Pepe
Rosemary McClave
David Graves, Alternate
Steven Coffin, Alternate

Neil Cohen, Esq., Planning Board Attorney
Edward Kolling, County Planning Consultant

UNION COUNTY STAFF

George W. Devanney, County Manager
James Daley, Director, Department of Economic Development
G. Bruce Connor, County Engineer
Timothy Mettlen, Director, Division of Engineering
Gary Weltchek, Supervising Planner
Liza Betz, Senior Transportation Planner/Coordinator
E. Wesley Day, Jr., Senior Transportation Planner
Matt Mathan, Geographic Information Specialist

TABLE OF CONTENTS

INTRODUCTION..... 1-1

GOALS AND OBJECTIVES 1-2

 Housing 1-2

 Development 1-3

 Transportation/Circulation 1-4

 Economic Development 1-5

DEMOGRAPHICS 2-1

 Population 2-1

 Demographic Characteristics 2-5

 Population Projections 2-6

 Housing 2-14

 Employment/Labor Force 2-20

 School Enrollments 2-22

LAND USE PLAN..... 3-1

 Residential 3-1

 Commercial 3-5

 Industrial 3-6

 County Parks 3-7

 Municipal Parks 3-9

 Reservations 3-9

 Cemeteries 3-9

 Hospitals 3-9

 Golf Courses 3-10

 Airports 3-10

 Colleges 3-10

 Terminals 3-11

 Port Elizabeth/Port Newark 3-11

CIRCULATION/TRANSPORTATION PLAN..... 4-1

 Roadway System 4-1

 Interstates/Freeways 4-4

 Principal Arterials 4-5

 Minor Arterials 4-5

 Collectors 4-6

 Local Roads 4-6

 New Jersey Highway Access Management Code 4-6

PASSENGER RAIL SERVICE	4-9
FREIGHT RAIL SERVICE	4-11
BUS SERVICE	4-12
AIRPORT SERVICE	4-14
WATERWAYS	4-17
Port Dredging.....	4-18
ECONOMIC DEVELOPMENT PLAN	5-1
Union County Employment - 1983 to 1993.....	5-2
Economic and Labor Market Indicators.....	5-6
Economic Developments and Future Economic Development Plans.....	5-13
Economic Outlook.....	5-21

TABLES

TABLE 2-1 - POPULATION 1860-1995, UNION COUNTY.....	2-2
TABLE 2-2 - POPULATION 1930-1994, UNION COUNTY MUNICIPALITIES.....	2-3
TABLE 2-3 - POPULATION 1970 - 2000, REGIONAL COUNTIES & NEW JERSEY.....	2-4
TABLE 2-4 - 1990 POPULATION BY RACE AND HISPANIC ORIGIN, UNION COUNTY MUNICIPALITIES.....	2-7
TABLE 2-5 - POPULATION PROJECTIONS 2000- 2020, UNION COUNTY.....	2-8
TABLE 2-6 - POPULATION PROJECTIONS BY AGE GROUP 1994- 2010, UNION COUNTY.....	2-11
TABLE 2-7 - 1970 - 1990 HOUSING UNIT TYPE, UNION COUNTY.....	2-14
TABLE 2-8 - HOUSING UNIT STOCK, UNION COUNTY MUNICIPALITIES.....	2-16
TABLE 2-9 - NET RESIDENTIAL BUILDING PERMITS BY MUNICIPALITY 1986 - 1996*UNION COUNTY MUNICIPALITY.....	2-17
TABLE 2-10 -HOUSING UNITS 1970-1990, UNION COUNTY MUNICIPALITIES.....	2-18
TABLE 2-11 -AGE OF HOUSING UNITS, UNION COUNTY.....	2-19
TABLE 2-12 -EMPLOYMENT BY INDUSTRIAL GROUP, UNION COUNTY.....	2-21
TABLE 2-13 -LABOR FORCE UNION COUNTY.....	2-22
TABLE 2-14 -PUBLIC SCHOOL ENROLLMENT 1989 AND 1993, UNION COUNTY.....	2-23
TABLE 2-15 -PROJECTIONS OF POPULATION BY SCHOOL AGE.....	2-23
TABLE 3-1 - LAND USE PLAN & MUNICIPAL ZONING DISTRICTS.....	3-4
TABLE 3-2 - UNION COUNTY PARKS.....	3-7

units (See Table 2-8, Housing Unit Stock).

In 1990 the Median Value of Housing Units in Union County was \$179,800. The highest median value of owner-occupied units in the County is in Summit at \$316,600. The lowest median value is in Hillside at \$138,500. Winfield's median value of owner-occupied units is \$14,999. Winfield has only 612 owner-occupied units.

Table 2-9 shows the number of net residential permits constructed by municipality between 1986 and 1996 as compiled by the New Jersey Department of Labor in the Building Permit Survey (net residential building permits is the number of permits issued minus the number of demolitions). The largest increase of net permits during this time period occurred in Scotch Plains (915), Union Township (496), Berkeley Heights (494), Elizabeth (438) and Linden (421). Several municipalities had little or no increase in their residential units during this period. These municipalities included Summit (5 units), Winfield (unchanged), Fanwood (12), Plainfield (15) Mountainside and Garwood (21). Between 1986 and 1996 there has been a net increase of 4,447 units in Union County.

Table 2-10 shows the total number of units, and vacant units by municipality for the years 1970, 1980 and 1990. The vacancy rate has climbed from 1.6 percent in 1970 to 3.7 percent in 1990. This is due to the decrease in total population and an increase in the number of housing units.

**TABLE 2 - 8
HOUSING UNIT STOCK
UNION COUNTY MUNICIPALITIES**

Municipality	1980 Census	1990 Census	Percent Change 1980-1990	1990 YEAR-ROUND HOUSING UNITS			Median Value of Owner Occupied Units
				Owner Occupied	Renter Occupied	Vacant	
Berkeley Heights	3,748	3,924	4.7%	3,513	347	64	\$262,800
Clark	5,608	5,638	0.5%	4,488	1,035	115	\$197,300
Cranford	8,340	8,405	0.8%	6,695	1,477	233	\$200,300
Elizabeth	40,613	41,315	1.7%	12,395	26,706	2,214	\$145,000
Fanwood	2,519	2,507	-0.5%	2,300	168	39	\$191,300
Garwood	1,759	1,748	-0.6%	1,088	587	73	\$166,900
Hillside	7,347	7,364	0.2%	5,288	1,830	246	\$138,500
Kenilworth	2,771	2,844	2.6%	2,215	557	72	\$167,300
Linden	14,603	14,917	2.2%	8,797	5,572	548	\$151,300
Mountainside	2,395	2,454	2.5%	2,302	92	60	\$285,900
New Providence	4,213	4,325	2.7%	3,203	1,038	84	\$246,100
Plainfield	16,154	16,063	-0.6%	7,722	8,341	917	\$140,400
Rahway	10,082	9,989	-0.9%	6,324	3,299	366	\$150,700
Roselle	7,724	7,899	2.3%	4,718	2,887	294	\$139,500
Roselle Park	5,164	5,231	1.3%	2,990	2,080	161	\$159,800
Scotch Plains	6,763	7,792	15.2%	6,185	1,409	198	\$208,600
Springfield	5,627	5,990	6.5%	4,093	1,688	209	\$216,300
Summit	7,906	8,003	1.2%	5,214	2,480	309	\$316,600
Union	18,356	19,334	5.3%	14,530	4,352	452	\$175,300
Westfield	10,465	10,588	1.2%	8,363	1,926	299	\$256,600
Winfield	698	703	0.7%	612	87	4	\$14,999
Union County	182,835	187,033	2.3%	112,508	67,568	6,957	\$179,800

Source: U.S. Census of Population 1980 and 1990.

UNION COUNTY MASTER PLAN

**TABLE 2-9
NET RESIDENTIAL BUILDING PERMITS BY MUNICIPALITY 1986 - 1996*
UNION COUNTY MUNICIPALITIES**

Municipality	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Total
Berkeley Heights	28	29	59	10	8	-41	51	118	40	114	-4	494
Clark	12	-2	37	1	1	3	2	4	2	0	24	84
Cranford	6	6	2	7	-6	4	5	102	6	1	2	135
Elizabeth	-54	96	85	51	22	112	-53	25	13	15	18	438
Fanwood	-1	-1	-2	4	0	0	1	1	4	5	1	12
Garwood	7	1	1	3	1	1	3	2	1	1	0	21
Hillside	41	62	9	6	3	7	4	4	5	8	2	151
Kenilworth	0	3	5	0	0	0	2	5	12	10	8	45
Linden	99	104	28	9	4	6	17	14	66	34	40	421
Mountainside	12	9	3	0	0	0	-2	-1	0	0	0	21
New Providence	8	6	9	3	8	51	11	38	32	2	23	191
Plainfield	7	-3	-7	9	16	3	0	1	2	7	-20	15
Rahway	55	29	3	19	25	-2	-6	3	5	7	3	141
Roselle	9	28	26	6	2	-4	-2	5	-2	9	0	77
Roselle Park	3	16	0	0	1	3	0	2	3	2	1	31
Scotch Plains	28	27	87	12	6	119	239	187	59	64	87	915
Springfield	5	103	93	6	15	75	54	2	0	4	1	358
Summit	-8	-3	0	6	0	-17	-8	5	3	6	11	-5
Union	116	131	37	18	13	40	18	86	13	2	22	496
Westfield	30	16	4	5	0	10	11	147	140	5	38	406
Winfield	0	0	0	0	0	0	0	0	0	0	0	0
Union County	511	657	479	175	119	452	347	750	404	296	257	4447

* Net residential building permits refers to the number of building permits authorized minus the number of demolition permits authorized.

Source: New Jersey Building Permit Summary 1986-1996

UNION COUNTY MASTER PLAN

**TABLE 2-10
HOUSING UNITS 1970-1990
UNION COUNTY MUNICIPALITIES**

Municipality	1970 Units			1980 Units			1990 Units		
	Total	Occupied	Vacant	Total	Occupied	Vacant	Total	Occupied	Vacant
Berkeley Heights	3,372	3,335	37	3,748	3,698	48	3,924	3,860	64
Clark	5,302	5,284	54	5,608	5,564	44	5,638	5,523	115
Cranford	7,923	7,874	48	8,340	8,232	106	8,405	8,172	233
Elizabeth	39,413	38,575	836	40,613	38,878	1,725	41,315	39,101	2,214
Fanwood	2,467	2,447	20	2,519	2,497	22	2,507	2,468	39
Garwood	1,683	1,655	28	1,759	1,736	23	1,748	1,675	73
Hillside	7,168	7,052	115	7,347	7,184	159	7,364	7,118	246
Kenilworth	2,672	2,656	15	2,771	2,751	18	2,844	2,772	72
Linden	13,599	13,361	238	14,603	14,232	363	14,917	14,369	548
Mountainside	2,191	2,172	19	2,395	2,362	33	2,454	2,394	60
New Providence	3,807	3,781	26	4,213	4,135	78	4,325	4,241	84
Plainfield	15,414	14,933	480	16,154	15,269	883	16,063	15,146	917
Rahway	9,498	9,357	141	10,082	9,793	266	9,989	9,623	366
Roselle	7,352	7,220	132	7,724	7,545	179	7,899	7,605	294
Roselle Park	4,912	4,806	106	5,164	5,038	126	5,231	5,070	161
Scotch Plains	6,231	6,182	49	6,763	6,682	81	7,792	7,594	198
Springfield	5,352	5,326	26	5,627	5,538	84	5,990	5,781	209
Summit	7,841	7,721	120	7,906	7,738	165	8,003	7,694	309
Union	17,455	17,323	132	18,356	18,132	221	19,334	18,882	452
Westfield	9,961	9,840	119	10,465	10,271	191	10,588	10,289	299
Winfield	717	716	1	698	698	0	703	699	4
Union County	174,330	171,616	2,742	182,855	177,973	4,815	187,033	180,076	6,957

Source: U.S. Census 1970, 1980 and 1990.

Table 2-11 shows the number of housing units and the year the units were constructed. The relatively old age of the housing in Union County is reflected by the fact that 30.3 percent of the 187,033 housing units in the County is more than 50 years old (1939 or earlier) and that 72.1 percent of all housing units was built prior to 1960. 47.6 percent of the County housing stock was constructed before 1950 and 5.1 percent of the housing stock was constructed between 1980 and March 1990.

**TABLE 2 -11
AGE OF HOUSING UNITS
UNION COUNTY**

Year Structure Built	Number of Units	Percent
1989 to March 1990	1,091	0.6%
1985 to 1988	4,500	2.4%
1980 to 1984	3,888	2.1%
1970 to 1979	13,478	7.2%
1960 to 1969	29,124	15.6%
1950 to 1959	45,804	24.5%
1940 to 1949	32,424	17.3%
1939 or Earlier	56,724	30.3%
Total	187,033	100.0%

Source: U.S. Census 1990

Employment/Labor Force

Although the total population of Union County declined between 1970 and 1990, the number of employees in the County increased 7.3 percent during the same time period. In 1970 a total of 220,155 persons were employed. The largest industrial group at that time was manufacturing with 44 percent of the workforce employed in manufacturing; 15 percent employed in retail trade; 14 percent in services and 11 percent in wholesale trade. The composition of the workforce remained nearly the same in 1980 and 1990 with the exception of the manufacturing and services groups (see Table 2-12). Manufacturing, which dominated the percentage of workforce in 1970, declined from 44 percent in 1970 to 26 percent in 1990. During this same time period the services employment group increased from 14 percent to nearly 28 percent.

The long term trend in total labor force has been a slight increase each decade since 1970. In 1970 the total labor force was 241,058 persons with 232,138 persons employed. In 1980 the total labor force increased to 256,095 persons with 236,602 persons employed. In 1990 it increased to 267,200 persons and 251,900 persons employed. The short term trend shows increases and decreases in labor force and employment between these time periods. The New Jersey Department of Labor projections indicate continued increases in the total labor force to 2010. Table 2-13, Labor Force in Union County, shows the labor force in 1970, 1980 and 1990 with projections for 2000 and 2010. The percent of unemployment is also shown in this table. The unemployment rate varies from decade to decade.

Despite the expanding economy over the past 20 years there are still many more workers in the County's labor force than there are local employment opportunities, requiring many residents to commute to jobs outside the County and the state. It is estimated that 40.5 percent of the workers 16 years and older worked outside Union County and 7.8 percent worked outside New Jersey in 1989.

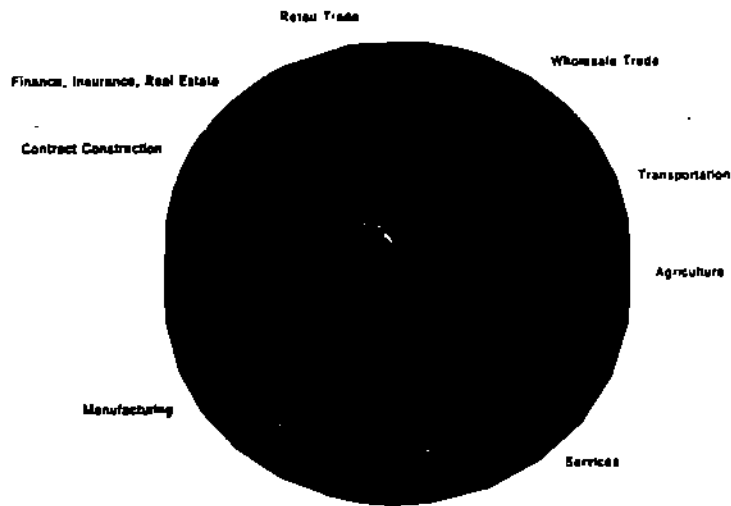
UNION COUNTY MASTER PLAN

**TABLE 2 - 12
EMPLOYMENT BY INDUSTRIAL GROUP
UNION COUNTY**

Industry	1970		1980		1990	
	Number of Employees	Percent of Total	Number of Employees	Percent of Total	Number of Employees	Percent of Total
Agriculture	339	0.1%	269	0.1%	561	0.2%
Mining	N/A	N/A	224	0.1%	N/A	N/A
Transportation	15,170	6.9%	15,274	6.6%	21,640	9.2%
Wholesale Trade	23,885	10.80%	23,892	10.30%	24,588	10.40%
Retail Trade	33,406	15.30%	29,011	12.5%	33,980	14.4%
Finance	9,683	4.4%	14,242	6.1%	16,106	6.8%
Contract Construction	10,250	4.60%	10,930	4.70%	12,003	5.10%
Manufacturing	96,835	44.0%	94,771	40.7%	62,030	26.3%
Services	30,587	13.9%	42,893	18.4%	65,266	27.6%
Non-Classified	N/A	N/A	1,137	0.50%	N/A	N/A
Total	220,155	100.0%	232,643	100.0%	236,174	100.0%

Source: New Jersey Department of Labor.

1990 EMPLOYMENT



**TABLE 2-13
LABOR FORCE
UNION COUNTY**

	1970	1980	1990	1995	Projection		
					2000	2005	2010
Total Labor Force	241,058	256,095	271,370	260,515	264,100	265,900	267,100
Employed	232,138	236,602	256,791	243,468	N/A	N/A	N A
Percent Unemployed	3.7%	7.6%	5.6%	6.5%	N/A	N/A	N A

Source: New Jersey Department of Labor.

School Enrollments

School enrollments for 1989 and 1993 are shown in Table 2-14. In 1989 a total of 62,995 public school students were enrolled in Union County. Interestingly, the number of students is nearly uniform in grades 1 through 12 and Kindergarten, averaging approximately 4,406 students. The number of students increased in 1993 by 4,841 to a total of 67,836 students. A large increase of students occurred in the Kindergarten, 1st and 3rd grades, indicating that a cycle of increased enrollment will be filtering through the school system in the next several years. Moderate increases were shown in most grades with the exception of the 12th grade which showed a twenty-seven percent increase of 871 students.

Population projections for school children were prepared by the New Jersey Department of Labor and are shown in Table 2-15. The school age population from age 1 to 14 are expected to increase between 1990 and 2000. The 15 - 19 age cohort is expected to decline 5 percent during this period. The school age population is expected to increase in all ages except for the 0 to 4 age cohort which is expected to decline 12.2 percent between 1990 - 2010. Despite the decreases in those specific age cohorts the total change in school age population is expected to increase 8.5 percent between 1990 - 2000 and 8.3 percent between 1990 and 2010.

**TABLE 2-14
PUBLIC SCHOOL ENROLLMENT 1989 AND 1993
UNION COUNTY**

Grade	1989	1993	Number Change	Percent Change
Pre-K	1,049	1,545	496	47.3%
K	4,605	5,454	849	18.4%
1	5,066	5,692	626	12.4%
2	4,884	5,231	347	7.1%
3	4,494	5,114	620	13.8%
4	4,599	4,977	378	8.2%
5	4,546	4,721	175	3.9%
6	4,325	4,688	363	8.4%
7	4,261	4,507	246	5.8%
8	4,301	4,537	236	5.5%
9	4,604	4,919	315	6.8%
10	4,463	4,526	63	1.4%
11	4,162	4,180	18	0.4%
12	3,168	4,039	871	27.5%
Post Grad	6	1	(5)	-83.3%
Special Ed.	3,462	3,558	96	2.8%
Ungraded	0	146	146	---
Total	62,995	67,836	4,841	7.7%

Source: New Jersey Department of Education Vital Statistics.

**TABLE 2-15
PROJECTIONS OF POPULATION BY SCHOOL AGE
UNION COUNTY**

Age Cohort	1990	1995	2000	2005	2010	Change 1990-2000		Change 1990-2010	
						Number	Percent	Number	Percent
0-4	33,375	36,300	35,300	31,400	29,300	1,925	5.8%	(4,075)	-12.2%
5-9	29,362	32,100	35,900	35,000	31,300	6,538	22.3%	1,938	6.6%
10-14	28,607	28,700	32,000	35,900	35,300	3,393	11.9%	6,693	23.4%
15-19	30,121	27,400	28,600	31,800	35,700	(1,521)	-5.0%	5,579	18.5%
Total	121,465	124,500	131,800	134,100	131,600	10,335	8.5%	10,135	8.3%

Source: Union County Department of Education

LAND USE PLAN

This Section presents the Land Use Plan Element for Union County. The Land Use Plan Element serves as the primary basis for guiding the extent and intensity of future development within Union County. It was prepared to identify existing residential and non-residential land use development patterns which have occurred within the County. It also reflects the extent and intensity of development planned for the future by Union County municipalities for varying types of land use including residential, commercial, industrial and public areas.

Union County is nearly fully developed. The Land Use Plan Map was prepared, therefore, to reflect a composite of the Master Plan, land use plan and zoning designations for each of the municipalities. In this way the Union County Land Use Plan provides a uniform comparison of zoning or land use designations based upon categories of land development which are found throughout the County. For example, the residential development of the Land Use Plan is identified into single-family residential categories including lot sizes of 10,001 square feet and or greater; 5,001 to 10,000 square feet and 5,000 square feet or less. Two to four family and multi-family development is also identified. All zoning classifications by the municipalities throughout the County have been incorporated into the County Land Use Plan designations for identification and comparison. Table 3-1 presents the Land Use Plan categories and the municipal zoning district or land use plan categories which comprise the categories utilized in the Land Use Plan. Figure 3-1 presents the Land Use Plan Map for Union County.

Residential

Residential land use is comprised of five (5) categories of single family, two to four families and multi-family residential development as follows:

Single Family

Single-family residential use is divided into 3 classifications based on existing or required square footage of lots including 5,000 sq. ft. or less lots; 5,001 sq. ft. to 10,000 sq. ft. lots, and 10,001 sq.

ft. and greater lots. Single-family residential developments in Union County is comprised of lots ranging from 5,000 to 10,000 sq. ft.

The 10,001 sq. ft. and larger lots in Union County are generally located in the western portion of the County away from the older commercial and industrial areas. The 5,000 to 10,000 sq. ft. lots occur in areas which provide a transition between the higher density single family and lower density single family lots. This is the predominant single-family land use category in Union County. 5,000 sq. ft. lots or less are the highest density of single family development. These types of lots are found primarily in Hillside and Rahway. Additional areas are found in Roselle, Cranford and Summit. 5,000 sq. ft. lots or less cover the smallest geographical area of the single family categories.

Two to Four Family & Multi-Family

Two to four family and multi-family residential land uses are provided in the plan. Two to four family and multi-family areas are found primarily in the eastern portion of the County with smaller areas in the western portion of the County.

Two to four family development is most prevalent in Elizabeth with some smaller areas of two to four family throughout the County usually adjacent to commercial areas.

Union County has a variety of multi-family development types including apartments, townhouses and planned unit developments. Multi-family development areas are located primarily in the eastern portion of the County especially in Elizabeth and Linden. There are small scattered areas of multi-family throughout other municipalities in the County.

TABLE 3-1
UNION COUNTY LAND USE PLAN
MUNICIPAL ZONING DISTRICTS

UNION COUNTY LAND USE PLAN RESIDENTIAL	Residential Single-Family	Residential Medium-Density	Residential Single-Family	Residential Medium-Density	Residential Single-Family	Residential Medium-Density	MUNICIPALITIES AND ZONING OR LAND USE DISTRICTS										
							Asheboro	Beaufort	Chatham	Craven	Currituck	Edgecombe	Franklin	Granville	Halifax	Johnston	Wake
General	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B
Single-Family	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B	R-100 R-110 R-11A R-11B
Multi-Family	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B	M-100 M-110 M-11A M-11B
Commercial	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B	C-100 C-110 C-11A C-11B
Industrial	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B	I-100 I-110 I-11A I-11B

* Legend does not have designated zoning districts

Commercial

The commercial designation includes office, regional, community and neighborhood level commercial and special development districts. The commercial designations vary at the municipal level in municipal master plans and ordinances. Commercial areas in Union County occur along major roadways and are clustered within town centers and center cities. Commercial areas include general business activities such as retail, food services, business services and personal services. Lot sizes are generally in the range of 5,000 to 10,000 sq. ft.

Office

Office development includes professional offices as well as research/laboratory facilities. Small pockets of office development are found adjacent to the general commercial category along major roadways in Roselle Park, Linden, Clark, Springfield, and Mountainside. Larger areas of office land use including research/laboratory facilities are located in Berkeley Heights, Summit and Cranford.

Neighborhood & General Commercial

Neighborhood and General Commercial is prevalent throughout all of the County municipalities. The pattern of general commercial areas is linear since such areas are found adjacent to major roadways. General Commercial also defines broader center city limits such as Elizabeth and Plainfield.

Special Development Districts

Several Special Development Districts are located throughout the County. Improvement Districts encourage development and redevelopment for commercial, office and other planned uses. The Linden Airport is designated as a Special Development District, however, it is shown as "airport" on the Land Use Map. The north side of the field is planned to be developed for a new hotel and conference center containing restaurants, movie theaters and retail stores which will be developed over several years.

Commercial

The commercial designation includes office, regional, community and neighborhood level commercial and special development districts. The commercial designations vary at the municipal level in municipal master plans and ordinances. Commercial areas in Union County occur along major roadways and are clustered within town centers and center cities. Commercial areas include general business activities such as retail, food services, business services and personal services. Lot sizes are generally in the range of 5,000 to 10,000 sq. ft.

Office

Office development includes professional offices as well as research/laboratory facilities. Small pockets of office development are found adjacent to the general commercial category along major roadways in Roselle Park, Linden, Clark, Springfield, and Mountainside. Larger areas of office land use including research/laboratory facilities are located in Berkeley Heights, Summit and Cranford.

Neighborhood & General Commercial

Neighborhood and General Commercial is prevalent throughout all of the County municipalities. The pattern of general commercial areas is linear since such areas are found adjacent to major roadways. General Commercial also defines broader center city limits such as Elizabeth and Plainfield.

Special Development Districts

Several Special Development Districts are located throughout the County. Improvement Districts encourage development and redevelopment for commercial, office and other planned uses. The Linden Airport is designated as a Special Development District, however, it is shown as "airport" on the Land Use Map. The north side of the field is planned to be developed for a new hotel and conference center containing restaurants, movie theaters and retail stores which will be developed over several years.

Light Industrial

A light industrial facility is one that does not produce large quantities of air pollution, water pollution or hazardous wastes. Assembly processes, manufacturing and warehousing are typical activities in this designation. Light industrial areas are found in the interior of the County, especially along the rail lines in Union Township, Garwood, Cranford and Roselle.

Medium Industrial

Medium industrial facilities are not as well defined as light or heavy industrial. These facilities contain elements of both. Medium industrial areas are found in Elizabeth along the waterfront and near the Newark Airport.

Heavy Industrial

Heavy industrial areas include those areas of large scale manufacturing and industrial processes. Examples include chemical and food processing plants. Heavy industrial development is dominant in Linden due to the large number of refineries and large scale manufacturing facilities.

County Parks

There are twenty-three (23) County Parks offering a variety of activities and facilities. The parks, their location and acreage are listed in Table 3-2.

**TABLE 3-2
UNION COUNTY PARKS**

COUNTY PARK	LOCATION	ACREAGE
Black Brook Park	Kenilworth	17.3
Briant Park	Springfield/Summit	30.3
Cedar Brook Park	Plainfield/South Plainfield	80.5
Echo Lake Park	Mountainside/Westfield	143.6

Light Industrial

A light industrial facility is one that does not produce large quantities of air pollution, water pollution or hazardous wastes. Assembly processes, manufacturing and warehousing are typical activities in this designation. Light industrial areas are found in the interior of the County, especially along the rail lines in Union Township, Garwood, Cranford and Roselle.

Medium Industrial

Medium industrial facilities are not as well defined as light or heavy industrial. These facilities contain elements of both. Medium industrial areas are found in Elizabeth along the waterfront and near the Newark Airport.

Heavy Industrial

Heavy industrial areas include those areas of large scale manufacturing and industrial processes. Examples include chemical and food processing plants. Heavy industrial development is dominant in Linden due to the large number of refineries and large scale manufacturing facilities.

County Parks

There are twenty-three (23) County Parks offering a variety of activities and facilities. The parks, their location and acreage are listed in Table 3-2.

**TABLE 3-2
UNION COUNTY PARKS**

COUNTY PARK	LOCATION	ACREAGE
Black Brook Park	Kenilworth	17.3
Briant Park	Springfield/Summit	30.3
Cedar Brook Park	Plainfield/South Plainfield	80.5
Echo Lake Park	Mountainside/Westfield	143.6

UNION COUNTY MASTER PLAN

Elizabeth River Park: Chatfield Section Lightning Brook Section Pruden Section Salem Section Ursino Section Woodruff Section	Hillside/Union Hillside/Union Elizabeth Hillside/Union Elizabeth/Hillside/Union Hillside/Union	305.3
Green Brook Park	Plainfield/North Plainfield	94.6
Hidden Valley Park	Springfield/Summit	78.0
Houdaille Quarry	Springfield	67.0
Kawameeh Park	Union	21.1
Lenape Park	Cranford/Kenilworth/Springfield/ Union/Westfield	387.1
Madison Avenue Park	Rahway	16.7
Mattano Park	Elizabeth	39.7
McConnell Park	Cranford	2.6
Milton Lake Park	Clark/Rahway	33.4
Nomahegan Park	Cranford	95.0
Passaic River Park	Berkeley Heights/New Providence/Summit	284.9
Rahway River Park	Clark/Rahway	133.4
Rahway River Parkway Clark-Linden Section Cranford Section Rahway Section Springfield/Union Section	Clark/Linden Cranford Rahway Springfield	414.3
Sperry Park	Cranford	1.6
Unami Park	Cranford/Garwood/Westfield	35.0
Warinanco Park	Elizabeth/Roselle	204.0
Watchung Reservation	Berkeley Heights/ Mountainside/ Scotch Plains/Springfield & Summit/ (Watchung Somerset County)	2,002.0
Wheeler Park	Linden	25.8
	TOTAL	4513.2

Municipal Parks

Municipal parks are shown on the County Land Use Plan, however, not all the parks have been designated. Municipal parks of less than 1 acre are not shown.

Reservations

In addition to the Watchung Reservation operated by the County there is the Ash Brook Reservation and the Tamaques Reservations. The Ash Brook Reservation is located in Scotch Plains while the Tamaques Reservation is located in Westfield.

Cemeteries

There are several cemeteries of various sizes located throughout the County. Several cemeteries are 50 acres or greater in area including the Evergreen Cemetery in Hillside, Rose Hill and Linden Park Cemeteries in Linden, Hollywood Memorial Park Cemetery in Union, and Fairview Cemetery in Westfield.

Hospitals

Union County has nine hospitals offering a variety of core and specialized units. These hospitals include the following:

HOSPITAL	LOCATION
John E. Runnells Hospital	Berkeley Heights
Muhlenburg Hospital	Plainfield
Childrens Specialized Hospital	Mountainside
Overlook Hospital	Summit
Rahway Hospital	Rahway
St. Elizabeth Hospital	Elizabeth
Elizabeth General Medical Center	Elizabeth
Elizabeth Medical Center Nursing Home	Elizabeth
Union Hospital	Union
Fair Oaks (Psychiatric)	Summit

Golf Courses

There are ten public and private golf courses in Union County. These include the following:

GOLF COURSE	TYPE	LOCATION
Ash Brook Golf Course	Public	Scotch Plains
Batusrol Golf Course	Private	Springfield
Canoe Brook Country Club	Private	Summit
Echo Lake Country Club	Private	Westfield
Galloping Hill Golf Course	Public	Kenilworth
Oak Ridge Golf Course	Public	Clark
Roselle Golf Course	Private	Roselle
Scotch Hills Golf Course	Private	Scotch Plains
Shackamaxon Country Club	Private	Scotch Plains
Suburban Golf Club	Private	Union

Airports

Newark International Airport is located in the City of Newark (Essex County) and in the City of Elizabeth in Union County. The Union County portion of the airport is situated in the northeast portion of the County and northern portion of Elizabeth west of the New Jersey Turnpike. A second, but smaller, airport, Linden Airport, is located on Route 1&9 in the City of Linden, 3 miles south of the Newark Airport. Linden Airport is a federally designated relief facility for Newark International Airport and operates a full-service facility. Complete descriptions of both facilities are found in the Circulation/Transportation Plan Section of the Master Plan.

Colleges

The County has two colleges; Kean University and Union County College. Kean University, founded in 1855, is located in the Townships of Union and Hillside. The campus covers 150 acres and has 35 buildings. The college offers both undergraduate and graduate level degrees and has a

total enrollment of approximately 9,800 students.

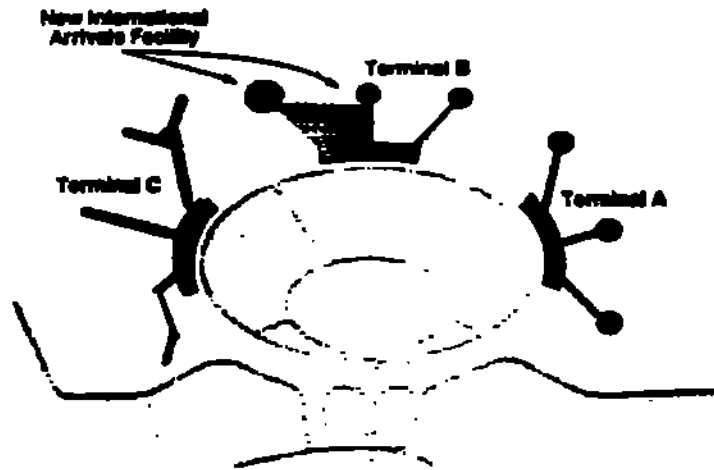
Union County College was established in 1933. It is a two-year community college with a main campus in Cranford which covers approximately 40 acres and facilities in center city Elizabeth. The enrollment in 1996 was 4,412 part-time students and 5,186 full-time students.

Terminals

There are two intermodal facilities within Elizabeth: the Conrail "Portside Terminal" located on Corbin Street in the Seaport area and the Conrail "E-Line Terminal" located adjacent to the former Elizabethport shops on Third Street. Both terminals serve as transfer points for shipping containers between trains, trucks and ships.

Port Elizabeth/Port Newark

The Port Newark/Elizabeth Marine Terminal includes Port Newark located in Newark (Essex County) north of the Elizabeth Channel and including the Newark Channel. The Elizabeth Port Authority Marine Terminal is located in Elizabeth south of the Elizabeth Channel. Elizabeth is known as "America's Containership Capital."



The Port Newark/Elizabeth Marine Terminal handles more than two-thirds of all the cargo in the New York/New Jersey area and more intermodal containers than any other port in the nation. The complex contains approximately 2,230 acres, has 3 miles of ship berths and 3.5 million square feet of warehouse space.

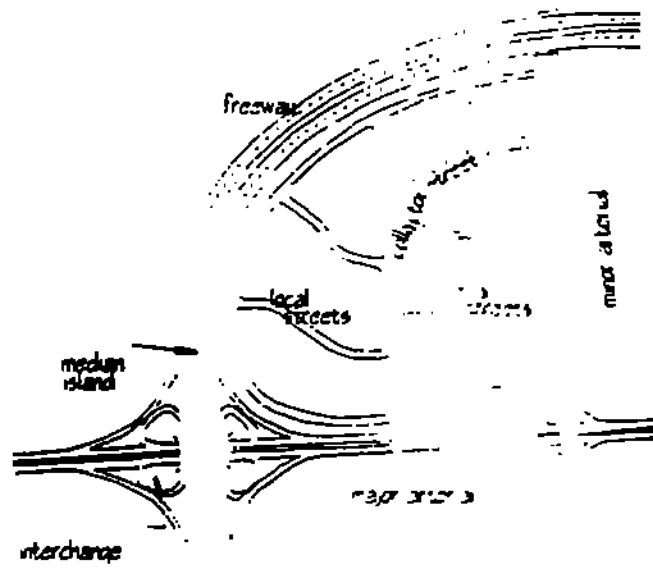
CIRCULATION/TRANSPORTATION PLAN

Union County is at the hub of the air, road, and rail transportation network serving the northeast corridor between Washington, D.C. and Boston. The transportation network has greatly influenced the development of the County and improvements to the network will aid future growth. The transportation network in the County includes all modes of transportation including highway, bus, rail, air and water, and it is through this infrastructure network that goods and people are brought into and out of the County and moved through the County.

Roadway System

The roadway system is the most important intra-County component of the Union County transportation infrastructure. The road system is comprised of Interstate, freeway and expressway, principal arterial, minor arterial, collector and local roadways. Each type of roadway performs a distinctly different function according to its capacity, design and relationship to the overall circulation network. Figure 4-1 shows a generalized roadway system map.

**FIGURE 4-1
ROADWAY SYSTEM MAP**



All roadways within Union County have been classified by the New Jersey Department of Transportation according to the Functional Classification of Highways developed by the Federal Highway Administration (last revised in 1990). The Federal Highway Administration functional classification system includes standards for rural and urban areas. Union County is entirely within an "Urban Area" that encompasses all of northeastern New Jersey and the New York Metropolitan Area. There are four functional highway categories for "Urban Areas": interstates, freeways and expressways; principal arterials; minor arterials; and collectors. All other streets and roads are broadly classified as "local roadways". The standards for the Federal roadway functional designations are based upon the character of services they are intended to provide. These are described below in Table 4-1. Figure 4-2 delineates the Functional Classification Circulation Plan for Union County.

**TABLE 4-1
ROADWAY SYSTEM CLASSIFICATION**

Interstate/Freeway	A limited access highway with no grade crossings
Principal Arterials	A street with access control, channelized intersections, restricted parking, and that collects and distributes traffic to and from minor arterials
Minor Arterials	A street with signals at important intersections and stop signals on the side streets and that collects and distributes traffic to and from collector streets.
Collectors	A street which has the function of both mobility and access.
Local Roads	A street designed to provide vehicular access to abutting property and to discourage through traffic.

Interstates/Freeways

The highest functional classification of roadway is interstates/freeways which are roadways with fully controlled access. Fully controlled access mean that authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade and direct private driveway connections. Essential interstate/freeway elements include medians, grade separations at cross street, ramp connections for entrance to and exit from the through roads, and (in some cases) frontage roads. Interstates/freeways are intended to provide high levels of safety and efficiency in the movement of high volumes of traffic at high speeds.

Two Interstates, I-78 and I-95 (New Jersey Turnpike), cross through Union County. Interstate 78 extends 10.40 miles through the northern portion of the County including Hillside, Union and Springfield Townships and along the Watchung Reservation through Mountainside, New Providence and Berkeley Heights.

Interstate 95 (New Jersey Turnpike) extends 6.25 miles in a north/south direction through Linden and Elizabeth. Interstate 95 extends through New Jersey from the George Washington Bridge in northern New Jersey to the Delaware Memorial Bridge in southern New Jersey. Recent improvements to the New Jersey Turnpike included the widening of the roadway between Interchange 11 in Woodbridge and Interchange 14 in Newark that includes the section of the Turnpike extending through Union County. This 13-mile section is the most heavily traveled section of the Turnpike. The widening was completed in 1996 and resulted in the addition of new fourth lanes to the northbound and southbound outer roadways. These lanes were designated as High Occupancy Vehicle (HOV) lanes on December 4, 1996. During the weekday periods of 6:00 to 9:00 a.m. in the northbound lane and 4:00 to 7:00 p.m. in the southbound lane the HOV lanes are reserved for cars and vans carrying three or more people, buses and motorcycles. At all other times the lanes are open to all passenger vehicles.

The Turnpike proposes to expand the existing toll plaza at Interchange 13A from 15 lanes to 21

lanes. In addition, the plaza canopy and tunnel will be extended, and utilities, ramp pavement, curbs, drainage facilities and roadway lighting will be upgraded. The plaza is being expanded in order to accommodate increased traffic which will be generated by the proposed Jersey Gardens Mall and the proposed expansion to Newark International Airport. There are no additional improvements planned within Union County by the New Jersey Turnpike.

One "freeway", the Garden State Parkway, traverses 6.9 miles of Union County. The Parkway extends through the central portion of Union County in a north/south direction and includes nine access points: Interchange 135 in Clark; Interchanges 136 and 137 in Cranford; Interchange 138 in Kenilworth; Interchanges 139, 140, and 141 in Union; and Interchanges 142/142A in Hillside.

Principal Arterials

The principal arterial system connects major urbanized centers, serves the high traffic volume corridors and carries a high proportion of the total urban area travel on a minimum of mileage. The principal arterial system carries most of the trips entering and leaving urban areas as well as most of the through movements by-passing urban centers and the cities. Because of the nature of the travel served by the principal arterial system, almost all fully and partially controlled access facilities are usually part of this functional class. Principal arterial roadways include the following in Union County: U. S Route 1/9 (6.25 miles), U.S. Route 22 (9.6 miles), State Route 27 (5.6 miles), State Route 28 (12.3 miles), State Route 82 (4.6 miles), and State Route 124 (2.9 miles).

Minor Arterials

The minor arterial system interconnects with the principal arterial system. It accommodates trips of moderate length at a somewhat lower level of travel mobility than principal arterials. This system distributes travel to geographic areas smaller than those identified with the higher system. The minor arterial system places more emphasis on land access and offers lower traffic mobility. Examples of minor arterials in Union County include Elizabeth Avenue in Elizabeth, Springfield Avenue in Berkeley Heights and New Providence and Vauxhall Road in Union Township.

Collector

The collector system provides both land access service and traffic circulation within residential neighborhoods and commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to their ultimate destinations. The collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. In central business districts, and in other areas of similar development and traffic density, the collector system may include the entire street grid.

Examples of collectors include Linden Avenue in Linden, Rahway Avenue in Westfield and Lincoln Avenue in Cranford.

Local Roads

Local roads including residential streets serve primarily as access to the adjacent property and uses.

On these roads the through traffic is local in nature and extent rather than regional, interstate or intrastate. While local roadways constitute a high proportion of the roadway mileage in the system, the traffic volumes generated by the abutting land uses are largely short trips or a relatively small part of longer trips where the local road connects with major streets or highways of higher classifications. Due to the relatively low traffic volumes and the extensive mileage, design standards for local roads and streets are of a comparatively low order as a matter of practicality.

However, to provide for traffic mobility and safety and essential economies in construction, maintenance, and operation, local roads must be planned, located, and designed to be suitable for predictable traffic operations and must be consistent with the development abutting the right-of-way. (Due to mapping constraints not all of the local roadway system within the County is shown in Figure 4-1).

New Jersey Highway Access Management Code

In 1989, the New Jersey Municipal Land Use Law was amended by the State Highway Access

Management Act. The act authorizes the NJDOT, county and municipalities to adopt access management codes. Where such codes have been adopted, no permits for construction of a building or structure can be issued unless the proposed access conforms to the adopted codes of the entity with jurisdiction over the road. The NJDOT prepared a Statewide Access Management Code in April 1992 and updated in 1994 which sets standards for highway access and desired roadway design based on roadway segments. The code provides standards for highway access for:

- **Minimum spacing of driveways**
- **Minimum corner clearance**
- **Regulation of the number of driveways per property frontage**
- **Consolidation of access for adjoining properties**
- **Consolidation of access for parcels assembled for one purpose, plan, entity, or usage.**
- **Designation of the number of driveways permitted to each existing property and denial of additional driveways regardless of future subdivision.**
- **Minimum sight distance**
- **Encouraging connections between adjacent property**
- **Adequate internal design and circulation**

The New Jersey Highway Access Management Code roadway segments are shown in Table 4-2.

**TABLE 4-2
NEW JERSEY HIGHWAY ACCESS MANAGEMENT CODE
UNION COUNTY**

1	2	3	4	5	6	7
NJ State Route	Mile Post Number	Description	Posted Speed Limit	Cell Number	Access Level Number	Desired Typical Section Number
1/9	38.34-40.45	From-Middlesex County Line To-Linden Airport	45	1	3	6A
1/9	40.45-41.80	From-Linden Airport To-Mt. Calvary Cem.	35 & 40	4	3	6A
1/9	41.80-43.20	From-Mt. Calvary Cem. To-Gibbons Ct.	45	1	3	6A
1/9	43.20-45.45	From-Gibbons Ct. To-North Ave.	40	4	3	6A
1/9	45.45-46.20	From-North Ave. To-County border	50	0	1	8C
22	47.02-58.39	From-Somerset Co. border To-Essex Co. border	45 & 50	1	3	6A
24	7.37-10.59	From-River Rd. To-Rt. 78	55	0	1	6A
27	27.18-35.79	From-Middlesex Co. border To-Essex Co. border	30 & 35	2	4	4E
28	17.50-23.00	From-5th St. To-Elizabeth Ave	25 & 35	6	3	1A
28	23.00-26.63	From-Elizabeth Ave To-Cherry St. (End)	30 & 35	4	4	4A
81	0.51-1.18	From-after toll booth To-I&9 intersection	50	1	3	5A
82	0.00-2.65	From-Springfield Ave. To-Garden State Parkway	30 & 35	5	4	4E
82	2.65-3.35	From-Garden State Parkway To-Suburban Rd	45	2	4	4E
82	3.35-4.25	From-Suburban Rd. To-R.R. line	40	5	4	4E
82	4.25-4.93	From-R.R. line To-North Ave	45	2	4	4E
124	10.03-11.70	From-Essex Co. border To-Victory Rd	30 & 35	5	4	4E
124	11.70-12.58	From-Victory Rd To-Valley St	40	4	3	4A
124	12.58-13.38	From-Valley St To-Essex Co. border	35 & 40	5	4	4E
459	0.00-3.39	From-Rt. 278 To-Rt. 27	25 to 35	5	4	4E
1-78	42.74-48.54	From-Somerset County border To-Quarry Rd	55	0	1	6A
1-78	48.54-54.32	From-Quarry Rd To-Essex County border	55	0	1	1A
1-278	0.00-0.90	From-Rt. 1&9 To-Brunswick Ave	50	0	1	6A

**TABLE 4-2 (continued)
NEW JERSEY HIGHWAY ACCESS MANAGEMENT CODE
UNION COUNTY**

Access Level

- 1 Fully Controlled Access
- 2 Access along Street or Interchange only
- 3 Right-turn access with provision for left-turn access via jughandle
- 4 Driveway with provision for left-turn access via left-turn lane
- 5 Driveway with provision for left-turn access (limited by spacing requirements and safety considerations)
- 6 Driveway access limited by edge clearance and safety considerations

Desired Typical Section

DTS	R.O.W.	Description
1A	Existing	Same lane, shoulder, and parking conditions as exist.
4A	114'	4 lanes, divided, with shoulders
4E	102'	4 lanes, undivided, with shoulders, parking (urban situation)
5A	131'	5 lanes (2 lanes, 1 direction + 3 lanes, opposite direction), divided, with shoulders
6A	148'	6 lanes, divided, with shoulders
8C	234'	8 lanes, divided, with CD Roads

* Not Applicable to single family lots.

Sources:

Column 1,2,3,4 - N.J State Highway Straight Line Diagrams. 1987

Column 6,7 - State Highway Access Management Code. N.J.A.C. 16:47. Effective September 21, 1992.

Prepared By: T&M Associates November 2, 1997

PASSENGER RAIL SERVICE

Passenger rail service is provided by New Jersey Transit along three main rail lines and two minor branch lines in Union County. The main rail lines are the Raritan Valley, the Amtrak Northeast Corridor Line and the Conrail North Jersey Coast Line. The Raritan Valley Line runs between High Bridge in Hunterdon County and Penn Station in Newark. It extends through the central portion of Union County through Plainfield, Fanwood, Scotch Plains, Westfield, Garwood, Cranford, Union and Hillside. The North Jersey Coast Line runs between Bay Head and Rahway. The North Jersey Coast Line merges with the Northeast Corridor Line which extends through New Jersey between Trenton and New York City and connecting Boston and Washington. In Union County, the North

Jersey Coast and Northeast Corridor Lines extend from south of Rahway and continue north through Linden and Elizabeth.

Two other New Jersey Transit rail branches are located in the northwest portion of Union County and including a portion of the Gladstone Branch running through Berkeley Heights, New Providence and Summit; and the Morristown Line which extends through Summit connecting Essex and Morris Counties and provides direct service to Midtown. The Gladstone line provides service to Newark and Hoboken with connecting service to New York City. The passenger rail lines and their respective passenger stations located in Union County are shown in Table 4-3.

**TABLE 4-3
PASSENGER RAIL SERVICE
UNION COUNTY**

STATION	MUNICIPALITY	LOCATION
GLADSTONE BRANCH		
Berkeley Heights Station	Berkeley Heights	Sherman & Plainfield Ave.
Murray Hill Station	New Providence	Foley Place near South St.
New Providence Station	New Providence	Springfield & Division Ave.
Summit Station	Summit	Union Pl. & Summit Ave.
MORRISTOWN LINE		
Summit Station	Summit	Union Pl. & Summit Ave.
RARITAN VALLEY LINE		
Plainfield Station	Plainfield	Cleveland Ave. & North Ave.
Netherwood Station	Plainfield	Between North & South Ave.
Fanwood Station	Fanwood	South & Martine Ave.
Westfield Station	Westfield	South & Central Ave.
Garwood Station	Garwood	Center St. & North Ave.
Cranford Station	Cranford	High St. & North Ave.
Roselle Park Station	Roselle Park	Lincoln Ave. & Chestnut St.
NORTHEAST CORRIDOR LINE & NORTH JERSEY COAST LINE		
Rahway Station	Rahway	W. Milton & Lewis St.
Linden Station	Linden	Wood Ave. & Elizabeth Ave.
Elizabeth Station	Elizabeth	W. Grand & Broad St.
North Elizabeth Station	Elizabeth	North & Pennsylvania Ave.

FREIGHT RAIL SERVICE

Freight rail service is provided within Union County on some of the same rail lines as passenger service as well as separate freight lines. The largest of the freight rail line companies serving Union County is Conrail. Freight rail service is provided in Union County to support many important businesses and industries. Freight is frequently shipped in and through Union County by "intermodal" trains that are specialized trains carrying truck trailers or shipping containers "piggyback" style to key terminals within the region. These containers are transferred on and off the railcars for local pickup and delivery by trucks provided by nearly 200 truck companies in the area. The intermodal shipping containers can also be transported by ocean-going vessels located at the Port Newark/Elizabeth Marine Terminal.

General freight rail lines provide bulk shipment needs of many different types of business and industries for such types of products as lumber, steel, frozen and canned foods, newspaper and printed products, and recycled materials.

Freight lines are important in Union County for the vehicle assembly plant in Linden, the Newark/Elizabeth Port, and the chemical industry including refineries along the Arthur Kill. Spur rail lines located in Linden carry parts to the automobile assembly plant and carry chemicals and refined petrochemical products. In Elizabeth the rail lines primarily serve the Port Terminal.

There are two intermodal facilities within Elizabeth: the Conrail "Portside Terminal" located on Corbin Street in the Seaport area and the Conrail "E-Line Terminal" located adjacent to the former Elizabethport Shops on Third Street. Both terminals serve as transfer points for shipping containers between trains, trucks and ships. Freight rail lines are shown on Figure 4-3.

In August, 1998, it is anticipated that the CSX Corporation and Norfolk Southern Corporation will divide Conrail and merge its respective assets into their systems. This merger will restructured the rail system along the East Coast and New Jersey. It will restore balanced rail competition to New

Jersey for the first time in 20 years. The merger will allow Norfolk Southern to retail Conrail's trackage rights over Amtrack's New Jersey Service and over other passenger rail lines including New Jersey Transit. This will provide major service improvements and access to rail lines within Union County including: improved service between the Midwestern auto markets and the General Motors plant in Linden; new freight service between New Jersey and Buffalo, Detroit, Chicago, St. Louis and Kansas City; a \$25 million investment to expand and improve intermodal facilities; and new RoadRailer services to markets in the South and Midwest.

BUS SERVICE

New Jersey Transit is the primary bus service provider in Union County. The bus routes and the municipalities they serve are listed in Table 4-4 and shown on Figure 4-3, Transportation Plan. A total of 16 bus lines service Union County providing intra-county service and regional service to Newark and New York. The WHEELS bus line is provided by the Suburban Transportation bus line operating in association with New Jersey Transit. WHEELS is a mini-bus line servicing Summit, New Providence and Plainfield.

**TABLE 4-4
NEW JERSEY TRANSIT BUS SERVICE
UNION COUNTY**

LINE	SERVING
18 & 22 Plainfield/North Plainfield	Green Brook, North Plainfield, US 22 K-Mart, Plainfield Rail Station, Muhlenberg Regional Medical Center, Plainfield, Netherwood Rail Station, Fanwood, Union County Vo-Tech and Scotch Plains
M19	Piscataway, Plainfield, Plainfield Rail Station, Muhlenberg Regional Medical Center, South Plainfield, Middlesex Mall, Edison, Metuchen, Metuchen Rail Station
25 Springfield Avenue	Maplewood, Irvington, Newark
52 Morris Avenue	Springfield, Union, Elizabeth
26 Irvington/Elizabeth	Elizabeth, Union, Hillside, Irvington
56 Elizabeth-Winfield 57 Tremley	Elizabeth, Linden, Roselle, Cranford, Winfield
58 Elizabeth/Kenilworth	Cranford, Kenilworth, Roselle Park, Elizabeth
59 Plainfield/Newark	Dunellen, Plainfield, Scotch Plains, Westfield, Garwood, Cranford, Union County College, Roselle, Elizabeth, Hillside, Newark
62 Newark/Woodbridge/ Perth Amboy	Perth Amboy, Edison, Woodbridge, Carteret, Woodbridge Center Mall, Iselin, Rahway, Roselle, Linden, Elizabeth, Newark Airport
70 Newark/Livingston Mall	Florham Park, Livingston, Summit, Springfield, Millburn, Maplewood, Irvington, Newark
94 Stuyvesant/Crosstown	Bloomfield, East Orange, Newark, Irvington, Union, Roselle Park, Roselle, Linden
112 Clark/New York	Scotch Plains, Clark, Linden, Roselle, Elizabeth, New York
113 Dunellen/New York	Dunellen, Plainfield, Scotch Plains, Fanwood, Westfield, Garwood, Cranford, Roselle Park, Hillside, Elizabeth, New York
114 Bridgewater/New York 117 Somerville/New York	Bridgewater, Somerville, Bound Brook, Dunellen, Plainfield, Scotch Plains, Mountainside, Springfield, Union, Hillside, New York
115 Rahway/New York	Avenel, Rahway, Roselle, Linden, Elizabeth, New York
986 Summit/Murray Hill/Plainfield WHEELS Suburban Transportation Service	Summit, New Providence, Murray Hill, Berkeley Heights, Watchung, North Plainfield, Plainfield

Source: New Jersey Transit, 1997

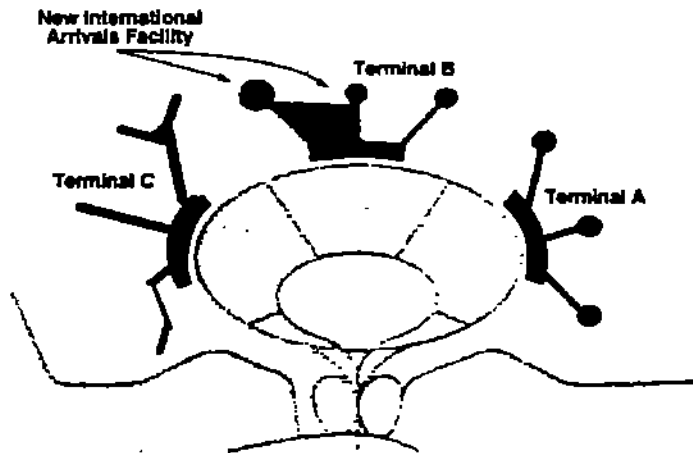
AIRPORT SERVICE

Union County is served by three major regional airports located for interstate and international travel. They include Newark International Airport, LaGuardia Airport and John F. Kennedy Airport all of which are operated by the Port Authority of New York/New Jersey. A fourth, but smaller, airport, Linden Airport, is located on Route 1&9 in the City of Linden 3 miles south of the Newark Airport.

Newark International Airport is located in the City of Newark (Essex County) and in the City of Elizabeth in Union County. The Union County portion of the airport is situated in the northeast portion of the County and northern portion of Elizabeth west of the New Jersey Turnpike. Newark Airport opened on October 1, 1928 and set the standard for modern airport design. When the airport terminal facility was dedicated by Amelia Earhart in 1934 it was the largest airport in the world and was used primarily for airmail. After the airline industry was deregulated in the late 1970's Newark Airport experienced rapid growth in passenger travel. In 1996 Newark Airport had a total of 29,107,459 passengers. This included 24,519,700 passengers traveling domestically and 4,587,759 passengers traveling internationally. In comparison, John F. Kennedy Airport had 31,155,411 passengers and LaGuardia had 20,699,136 passengers in 1996. All three airports showed increases in passenger travel between 1995 and 1996, with the largest being at Newark Airport, 9.3 percent.

Recent improvements to Newark Airport include the International Terminal and new monorail facilities which connect the various terminal facilities and major parking lots. The Newark International Terminal opened on January 24, 1996 in Terminal B. The 1.9-mile monorail connects Newark Airport's three passenger terminals with long-term parking lots and rental car facilities. It was opened on May 31, 1996. The monorail, which carries more than 20,000 passengers a day, will be extended to a new rail station to be constructed in Elizabeth along the Northeast Corridor/North Jersey Coast line to link with Amtrak and NJ Transit trains.

NEWARK INTERNATIONAL AIRPORT



Pending improvements to the Newark Airport include the extension of Runway 4L-22R 1,800 feet to the southwest (within Union County) and 1,000 feet to the northeast (in Essex County). This improvement is subject to federal approval of an environmental assessment. The \$93 million project was approved on February 6, 1997 by the Port Authority of New York and New Jersey. The expansion will improve airport operations and flexibility.

A light rail transit system known as the "Newark Elizabeth Rail Link" connecting the Airport with the downtown areas of Newark and Elizabeth, providing 12 stops along its route is currently being

studied. Possible extensions to Plainfield, Summit, Elizabeth and the Jersey Gardens Mall are also being considered.

Nearby Linden Airport encompasses approximately 188 acres, has two runways and is home to 128 aircraft which includes 116 single engine planes, 9 multi-engine planes and 3 helicopters. The airport offers fuel, maintenance, aircraft storage, charter service and flight instruction. It hosts the helicopter fleet for the President of the United States when he visits the New York/New Jersey area. Linden Airport is in the process of closing one of its two runways (Runway 14/32). The north side of the field is planned to be developed for a new hotel and conference center containing restaurants, movie theaters, and retail stores. The south side of the field will accommodate tenants, 80 T-hangars, six conventional hangars, and an aircraft tie-down area.

WATERWAYS

The Arthur Kill is a narrow waterway lying between eastern Union County and New York's Borough of Staten Island. It is one of the busiest waterways in the world. It serves as a channel into Upper New York Harbor and Raritan Bay and is the gateway to and from the Atlantic Ocean for the Port Newark/Elizabeth Marine Terminal.

The Port Newark/Elizabeth Marine Terminal handles more than two-thirds of all the cargo in the New York/New Jersey area and more intermodal containers than any other port in the nation. The complex contains approximately 2,230 acres, has 3 miles of ship berths and 3.5 million square feet of warehouse space. The Port Newark/Elizabeth Marine Terminal includes Port Newark located in Newark (Essex County) north of the Elizabeth Channel and including the Newark Channel. The Elizabeth Port Authority Marine Terminal is located in Elizabeth south of the Elizabeth Channel. Elizabeth is known as "America's Containership Capital." The Port Elizabeth Marine Terminal includes 23 container cranes serving three fully equipped containership terminals, 16 freight distribution buildings with more than 2 million square feet of space, and numerous other buildings. Sea-Land operates a terminal with 7 cranes on 232 acres, including 4,519 feet of wharf.

Maher Terminal Inc., the largest container terminal operator, operates two terminals with a total of 7,350 feet of berthing space, approximately 453 acres of upland area, miscellaneous buildings and 14 container cranes. The Port Authority has recently constructed three multi-level buildings, each 44,000 sq. ft. in size with eight 5,500 sq. ft. units known as Expressport Plaza. Figure 4-3. Transportation Plan shows passenger and freight rail service, railroad passenger stations, bus service lines, terminals, airports and the Seaport.

The Howland Hook container terminal opened in the fall of 1996 after renovations. Howland Hook is a 187 acre marine terminal located in Staten Island, New York near the Goethals Bridge. The Goethals connects Staten Island with Elizabeth, spanning the Arthur Kill. The terminal consists of 2,500 linear feet of berth, capable of handling 3 vessels simultaneously and has the capacity to handle 425,000 containers annually.

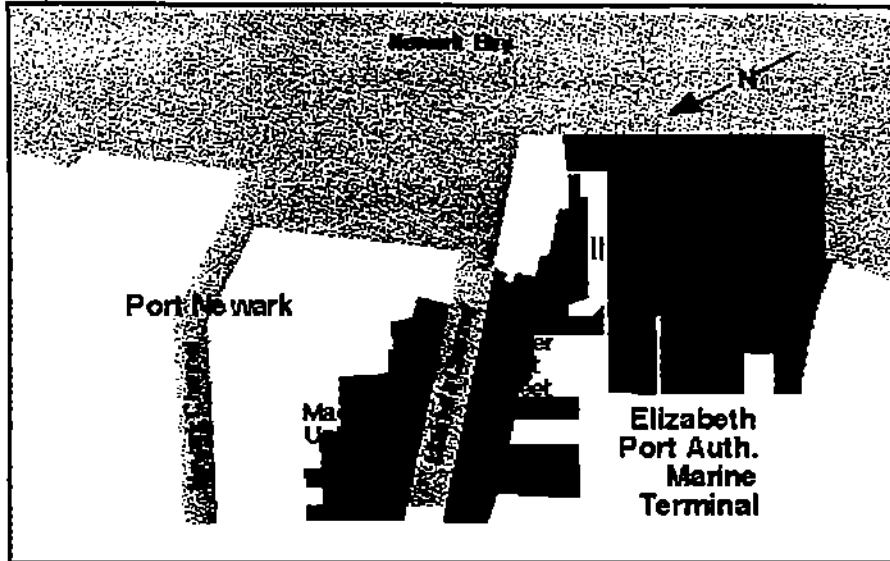
The Port Authority proposes to construct a new bridge near the existing Goethals Bridge to improve traffic capacity of Route 278 (Staten Island Expressway) across the Arthur Kill. Once completed, the current two-way traffic on the Goethals Bridge would be split into one-way traffic on the two bridges; the existing Goethals Bridge would carry westbound traffic and the new bridge would carry eastbound traffic.

Port Dredging

Dredging began in July 1997 on key channels and berths in Port Newark and Elizabeth and in the Port Jersey channel on the Bayonne peninsula. A new underwater containment area is being created in Newark Bay to handle approximately 1.5 million cubic yards of the material. The State is reviewing eight options for the short-term disposal of dredged materials in the containment area through the year 2002. A review of long term disposal solutions that are economically feasible are still being reviewed. Long term solutions will be crucial for the port if it to become the hub port of the North Atlantic coast. It is estimated by the Port Authority the container traffic could grow

to four million units by the year 2010.

PORT ELIZABETH/NEWARK



ECONOMIC DEVELOPMENT PLAN

This plan presents an analysis of Union County's economy. It begins with the geographic location and situation of the County and reviews economic activities following the 1981-82 recession, through the 1993 economic recovery, to the present. The plan presents the factors that have affected and will continue to affect the economy including population, housing, income, labor force and labor supply/demand. The current economic developments and plans by industry within and adjacent to the County are discussed such as the Jersey Gardens Mall and the Cross-County Rail Project. Finally, the plan projects the future economic outlook for Union County into the next Century.

Union County, with an estimated 1994 population of 496,230, distributed over only 103 square miles, is one of New Jersey's most densely populated counties: 4,800 persons/sq. mi. (In comparison there are 1,066 persons/sq. mi. in the State.) Union County is also one of the most historic areas in the state. Settled in 1664, it became the first capitol of the Province of New Jersey, and now contains many historic sites associated with important events throughout its centuries of development. The county's major city is Elizabeth, the fourth largest city in the State. Union County is part of the Newark Metropolitan Area which also includes Essex, Morris, Sussex and Warren counties.

Union County is a vital part of New Jersey's transportation hub, directly linked with the transportation facilities of the state through several major rail lines and an extensive network of highways. U.S. Routes 1 & 9 and 22, the New Jersey Turnpike, the Garden State Parkway and Interstates 78 and 278 all transverse Union County. The Goethals Bridge links the County to the New York City area through Staten Island. Railroad lines serving Union County include the Amtrak Northeast Corridor Line, Raritan Valley, North Jersey Coast, Gladstone and Morristown lines. In addition, two major transportation centers are located partly within Union County: Newark International Airport and Port Elizabeth. Newark International is one of the nation's fastest growing

airports, and Port Elizabeth has container-ship facilities that make it the busiest port on the East Coast and one of the busiest shipping ports in the nation.

Many leading companies have facilities in Union County including two of the world's largest corporations, AT&T and General Motors (GM). In Berkeley Heights is located AT&T's recent corporate spinoff of its research and development company, Lucent Technologies. In Linden, GM operates a vehicle assembly plant that produces both light trucks and sport utility vehicles. The pharmaceutical industry, the largest manufacturing industry in New Jersey, is well represented in the County by Merck & Co. in Rahway, Novartis in Summit and Schering-Plough Corporation in Union Township. The Tosco Corporation Refinery in Linden is the largest refinery on the east coast.

Union County Employment - 1983 to 1993

The following analysis is based on data collected from private establishments covered under New Jersey's Unemployment Insurance (UI) Law. This analysis compares data for the cyclical period from 1983, an economic recovery year following the 1981-1982 recession, to 1993, also a year of economic recovery following the 1990-1991 national recession. This ten-year span ran the gamut economically in the State, ranging from boom to bust to recovery. The greatest job growth in New Jersey's history occurred during the 1980s (April 1982-March 1989) that was followed by the longest and severest contraction since the Great Depression (March 1989-May 1992). While the turnaround began in the Spring of 1992 and expansion continued into 1993, it was not until 1994 that the recovery gained momentum, creating more jobs than any year since 1988. The recovery slowed in 1995 and has remained steady in 1996 and has continued into 1997.

During the mid- and late-1980s, as most of New Jersey experienced economic expansion, Union County's older and more fully developed industrial base was in decline. Employment in the county reached a peak level of 237,423 in 1985 before falling each year to the low point in 1993 of

198,925. There was positive job growth between 1993 and 1994. In 1995 and 1996 the number of jobs has remained steady. For the 1985-to-1996 period total private-sector employment in Union County decreased by 37,498 or 15.8 percent. This was in comparison with the statewide gain of 6.4 percent over the same period (See Table 5-1).

Union County's negative rate of growth (-15.8%) was driven by continuous losses in the once dominant manufacturing industry division, by downturns in several service-producing industries and by the county's mature state of overall development.

**TABLE 5-1
PRIVATE SECTOR COVERED JOBS
SELECTED YEARS 1980 - 1996
UNION COUNTY AND NEW JERSEY**

	1980	1985	1992	1993	1994	1995	1996
Union County	229,614	237,423	199,354	198,925	203,968	199,946	199,925
New Jersey	2,506,358	2,833,177	N/A	2,872,495	2,928,870	2,972,129	3,015,429

Source: New Jersey Department of Labor

In the County urban areas, particularly in Elizabeth, Linden and Plainfield, stringent environmental regulations, changing market demands and obsolete physical plants continued to be main reasons for the decline in the number of manufacturing jobs. In the early 1990s, downsizing in the defense industry, cautious consumer spending and the recessionary economic cycles experienced by many international trading partners also affected factory employment levels. From 1983 to 1993, manufacturing employment fell by 26,100 or 35.2 percent (versus a 27.5 percent decline in the State). More than 215 manufacturing employers left the County. Four of the County's seven largest industrial classifications accounted for over half of the total loss in factory employment: electrical machinery (-3,900), fabricated metals (-3,500), chemicals (-3,300) and industrial

machinery (-2,700). Employment in chemicals, the County's largest manufacturing industrial classification, remained fairly consistent until 1993 when the impact of plant closings and corporate downsizings began. Contributing to the employment loss in the County were the closings of GAF (-200) and American Cyanamid (-250) both in Linden, and the downsizing at Ciba-Geigy (-400) in Summit.

Construction employment dropped slightly (-900 or -9.4%) in Union County over the ten-year period, compared with a small statewide gain of 3.0 percent. The level of employment remained near its 1987 peak level (11,800) through 1989. During the recession, construction employment was particularly hard-hit, falling to its lowest level in a decade in 1991 (8,700) before rebounding slightly in 1992 and 1993. The level of employment in New Jersey peaked in 1988 and, like Union County, began to fall due to overbuilding and the 1990-1991 recession before beginning to rebound in 1993 and 1994.

The service-producing sector, which accounted for seven out of every ten jobs in Union County in 1993, declined by 3,100 jobs or -2.2 percent from 1983 to a level of 138,700 in 1993. This was in sharp contrast to the State's 26.3 percent gain over the same ten-year span.

Over the 1983-1993 period, the services subcategory, which includes health, business, legal, personal and amusement services, including cultural tourism and recreation, was the County's largest source of employment, increasing by 8,400 or 15.9 percent (versus 46.1% statewide). This was the only industry category to add jobs in the service-producing sector over the period. Employment in this division increased fairly steadily from 1983 until reaching its peak level of 63,600 in 1990. The effects of the 1990-1991 national recession resulted in employment losses in 1991 and 1992 before a small rebound occurred in 1993. Health services, the largest industry in the services subcategory, has been an area of sustained employment growth (37.8%) driven by changing demographic trends, increasing health care expenditures and advances in medical technology over the decade.

Employment in the wholesale/retail trade industry division, the county's third largest source of employment declined by 9,400 or 16.8 percent from 1983 to 1993. In comparison, New Jersey registered a 10.6 percent gain in comparable employment during the same period. After peaking in 1988 (58,700), trade payrolls in Union County fell in 1993 to 46,500, the lowest level of the previous decade and 9,400 (-16.8%) fewer jobs than in 1983. Financial problems led to leveraged buyouts, mergers and store closings (Macy's and Lord & Taylor for example) followed by a prolonged period of reduced consumer spending which began with the 1990-1991 recession and continued through 1993. However, the development of warehouse clubs, off-price and retail superstores in the County became one of the few bright spots for employment growth in the post-recession period and is expected to increase in the coming decade as older industrial and retail facilities are redeveloped for such facilities..

Over the 1983-1993 period, employment in the transportation/communications/public utilities industry division remained relatively unchanged (-250 or -1.3%) compared with an increase of 15.5 percent in the State. During this decade, all of Union County's job loss was in the transportation component employment which peaked in 1985 at 17,300 and then generally declined, reaching the period's lowest point (13,300) in 1993. From 1987 to 1989, employment drastically dropped at the County's port facilities, primarily because of cutbacks at Sea-Land, Inc., a major port employer. Nevertheless, over the long term, the County's employment in transportation is expected to be enhanced by Newark International Airport and Port Elizabeth, one of the largest container terminals in the world and is the home of The Port Newark-Port Elizabeth US-Foreign Trade Zone, the largest in the country.

From 1983 to 1993, employment in the finance/insurance/real estate industry division decreased by 1,900 (-13.5%) in Union County to a level of 11,900, compared with a substantial increase of 30.8 percent in New Jersey. The number of jobs in the County increased annually from 1983 to a peak in 1986 (15,500). Employment levels stabilized near the peak level through 1988 before

beginning to slide, with a decline of 3,400 jobs from 1988 to 1993. The drop in employment was largely the result of several factors: overbuilding in the office/commercial component during the mid-1980s; the softness in the County's real estate market in the late 1980's and early 1990's; and the banking crisis that not only impacted banks but also insurance companies (including the Mutual Benefit Insurance Company which was placed in receivership) and realtors in New Jersey.

Comparing the 1993 distribution of jobs by industrial classification in the County with the State, Union County's percentage of total manufacturing jobs of 24.5 percent far exceeded that of the State at 18.1 percent. Among selected factory-type industries, the County had higher proportions of its jobs in fabricated metals, industrial machinery and chemicals than the State, while the county had smaller shares of factory jobs in electronic equipment and apparel. In Union County, employment in the chemical industry is concentrated in production rather than in research or corporate administration as in other areas of the State. In the construction industry division, Union County had a higher proportion of jobs than the State, 4.6 percent and 4.1 percent respectively, in 1993.

The proportion of total service-producing employment covered by unemployment insurance to the total of covered jobs was smaller in the County (70.9%) in 1993 than in the State (77.2%). The County had a smaller share of jobs than the State in all major individual industry divisions, except in transportation/communications/public utilities where Union County had a high concentration of trucking, waterway and air transport employment.

Economic and Labor Market Indicators

Population

Union County has been experiencing a declining resident population since the mid-1970's. The County is a highly developed, urban/suburban county with 21 municipalities including the historic urban centers of Elizabeth and Plainfield, to more suburban municipalities such as Westfield.

Cranford and Summit, which developed along commuter rail lines serving the County. According to the 1990 Census, the population of Union County decreased from 504,094 to 493,819 between 1980 to 1990, a loss of 10,275 or 2.0 percent of the population. This compared to an increase of 5.0 percent for the State. The County population loss was primarily due to out-migration rather than to natural decrease (deaths vs. births). In fact, between 1980 and 1990 there was a natural increase of 15,584 resulting from 65,262 births and 49,678 deaths. See Table 5-2. Union County ranked seventh among New Jersey's 21 counties in total population in 1990, down from fifth place in 1980.

**TABLE 5-2
UNION COUNTY POPULATION 1980-1990
BIRTHS, DEATHS, MIGRATION**

1980 Population	1980-1989				1990 Population
	Births	Deaths	Natural Increase /Decrease	Net Migration	
504,094	65,262	49,678	15,584	(25,859)	493,819

Population increases occurred in only three of the 21 municipalities in Union County from 1980 to 1990. Interestingly, the growth was concentrated in the urban centers of Elizabeth (+3,801) and Plainfield (+1,012). Of the suburban municipalities, only Scotch Plains registered an increase (+386). The population of Elizabeth, the County's largest municipality and the State's fourth largest city, has remained relatively stable over the last four decades, declining by only 2,800 persons (2.5%) from 1950 to 1990. After falling by 5.7 percent from 1970 to 1980, population increased by 3,801 (3.6%) to 110,002 in 1990. The City's population accounts for 22.3 percent of the county's total population and has roughly maintained that proportion since the 1960 census.

Municipalities losing the most population from 1980 to 1990 were Clark, down by 2,070 (-12.4%) to 14,629; Cranford, down by 1,940 (-7.9%) to 22,633; Westfield, down by 1,577 (5.2%) to 28,870; Rahway, down by 1,398 (-5.2%) to 25,325; Summit, down by 1,314 (-6.2%) to 19,757; and

Linden, down by 1,135 (3.0%) to 36,701.

Population estimates for Union County from April 1, 1990 to July 1, 1994 show that the population increased marginally by 2,411 or 0.5 percent. This compares with a 2.2 percent increase for New Jersey and a 0.9 percent increase in the five-county Newark Labor Area over the same period. The County's rate of growth between 1990 and 1994 was among the slowest in the State and was caused by the substantially developed nature of the municipalities and continued out-migration.

Based on population projections prepared by the New Jersey Department of Labor, Division of Labor Market and Demographic Research, the County population is expected to remain relatively stable between 1990 to 2005 and then decline slightly by 2010; a demographic pattern consistent with other older, industrialized counties in the northeastern region of New Jersey. During the period 1990-2005, the State population is projected to increase by 10.0 percent rate. The age group 40-59 that contains members of the "baby boom" generation (persons born between 1946 and 1964) should continue to show the largest change as this population ages and begin to leave the labor force. By 2010, the 40-59 age group is projected to show the largest growth increasing by 32.300 (28.3%) in Union County compared with 39.8 percent in the State. Also of concern, a projected decline in the number of traditional labor force entrants (20-29 year old age group) will intensify throughout the 1990's. From 1990 to 2010, the drop in this age group, the "baby-bust" generation, is projected to be greater in the County than in the State (-21.2% versus -11.1%). Similar to the statewide projections, minorities are expected to account for the majority of the population growth in Union County by 2010.

Housing

Data from the 1990 Census show that despite the decline in population in Union County from 1980 to 1990, the number of housing units increased during the decade by 2.3 percent; thus the population per household declined. In comparison, the housing stock in New Jersey increased by

Per capita personal income in Union County was \$32,285 in 1995, up by 106.0 percent from 1982, compared with an increase of 114.6 percent for the State. Of the State's 21 counties, Union County ranked 9th highest in per capita personal income and was \$2,344 higher per capita than the State level of \$29,941 in 1995.

Labor Force¹

The labor force in Union County in the early 1990's experienced a relatively high rate of unemployment. For the 1990-to-1992 period, the annual average unemployment rate in Union County increased from 4.6 percent in 1990 to 9.5 percent in 1992 (fourth highest in the northeastern region). In 1993 the rate dropped to 7.4 percent. Despite the diverse economy in Union County, substantial job losses occurred in every industry (with the exception of transportation/communications/public utilities), which contributed to the overall decline during 1990-1993. Economic restructuring and downsizing affected blue and white collar workers. Resident workers laid off from manufacturing and construction jobs in the County and the surrounding areas along with the high rates of unemployment in the cities of Elizabeth and Plainfield also contributed to the high unemployment rate within the County.

Union County's rate of unemployment averaged 6.8 percent of the labor force in 1994, a rate slightly below the five-county Newark Labor Area of 7.0 percent. In comparison, the State rate was 6.8 percent for the same period. During 1994 the unemployment rate in Union County fluctuated but generally moved downward after a peak of 8.4 percent in March. This pattern was consistent with the State as a whole. In the second half of 1994, unemployment rates consistently moved

¹ *Readers of the following analysis of labor force trends in Union County are reminded that the labor force estimates for 1990, 1991, 1992 and 1993 have been revised to 1990 Census population controls and to a Census undercount adjustment and are not comparable with those before 1990. Also, estimates for 1994 and later are not comparable to prior years due to a major revision of the monthly household survey by the U.S. Department of Labor's Bureau of Labor Statistics (BLS).*

lower reaching a low in December of 5.7 percent. As noted in the footnote for this section, unemployment rates in 1994 are not comparable to prior years because of major changes in the monthly household survey utilized by the U.S. Department of Labor's Bureau of Labor Statistics (BLS) to calculate unemployment rates.

In 1994, almost 75 percent of the County's suburban municipalities had unemployment rates below the State level. In the communities of Berkeley Heights, Cranford, Fanwood, New Providence and Summit, unemployment rates averaged less than 4.0 percent in 1994, but the overall County statistics are greatly affected by the cities of Elizabeth and Plainfield. In 1994, over one-third of the County's unemployed lived in Elizabeth where the unemployment rate was 11.6 percent, the highest rate in the county and sixth highest among larger municipalities (population over 50,000 persons) in the State. The City of Plainfield, the third largest municipality in the county, posted an annual average unemployment rate of 10.2 percent in 1994. The number of unemployed in these two cities alone accounted for 48.0 percent of the total unemployed in Union County. While still relatively high, the 1994 unemployment rates in Elizabeth and Plainfield were the lowest since 1991.

In Union County, Elizabeth, Linden and Plainfield qualify as Labor Surplus Areas or areas of high unemployment where employers are given preference when bidding on Federal contracts. In 1985, portions of Elizabeth, Plainfield and Hillside (1996) were designated by the New Jersey Urban Enterprise Zone Authority as Urban Enterprise Zones (UEZ). The UEZ's, which are administered by the New

Jersey Department of Commerce, are designed to attract and to retain businesses within the zones by offering special benefits, including :

- Qualified retailers may charge 50 percent of New Jersey sales tax on "in person" purchases;
- Sales tax exemptions for materials and for tangible personal property;
- A one-time corporation tax credit of \$1,500 for the full-time hiring of residents of a city where

a Zone is located who have been unemployed or dependent upon public assistance for at least 90 days or

- Corporation tax credit of \$500 for hiring resident within the zone, within another zone or within a qualifying municipality
- Subsidized unemployment insurance costs, for certain new employees;
- An eligible firm may receive an incentive tax credit of 8 percent of investment in the Zone by an approved "in lieu" agreement;

Labor Supply/Demand

A number of factors affect the relationship between labor supply and demand within a given labor market. The low unemployment rates during much of the 1980's were evidence of a scarcity of labor: most qualified workers were able to find work. During the recession in the late 1980's the demand for labor decreased which resulted in an increase in unemployment and an increase in the supply of labor. The structural change in the economy, which trended from manufacturing to a more diverse, service-oriented economy, will continue to affect the County labor force.

The supply of labor in Union County is greatly affected by the commuting patterns of County residents and the easy accessibility of worksites within the County to non-County residents. According to the 1990 Census, 70.0 percent of the County resident labor force (173,906) aged 16 years and older reported to worksites within the Newark Primary Metropolitan Statistical Area (PMSA) which includes Essex, Morris, Sussex and Union Counties. Approximately 52.0 percent of these workers were employed in Union County. Of those residents reporting to worksites outside the PMSA, 73,300 or 30.0 percent of the working population, an estimated 17,000, 7.0 percent commuted to jobs in New York City. Other New Jersey counties which attracted Union County commuters included Essex (35,500, or 14.4%), Middlesex (24,400, or 9.9%), Somerset (11,200 or 4.5%) and Hudson (6,600, or 2.7%).

Union County's diversified economy and excellent transportation network also attract workers from outside the County. According to the 1990 Census, an estimated 85,600 workers commuted to Union County from nearby New Jersey counties. Six neighboring counties provided the greatest number of incoming commuters; Middlesex (26,800), Essex (26,200), Somerset (11,800), Morris (8,800), Hudson (5,100) and Bergen (4,000).

Economic Developments and Future Economic Development Plans

Manufacturing

Manufacturing jobs in Union County will continue to be affected by companies corporate decisions pertaining to existing or planned facilities moving in the County, particularly those in Elizabeth. Ritter-Sysco Foods Corp., a major national distributor of food to corporate and institutional clients moved from its outdated Elizabeth distribution facility to a 345,000-sq. ft. warehouse building in Jersey City (Hudson County) in 1994. Most of the company's 430 employees at the Elizabeth facility transferred to the new location. In addition, Thomas & Betts moved its Elizabeth-based production of electrical fittings to company locations in Canada and the South in the spring of 1995 with a loss of 200 jobs.

The pharmaceutical industry, a long time mainstay for both the State and County economies, continue their bid to be competitive but have shown mixed results from a County perspective with an upgrade of facilities but loss of jobs. Both Merck & Co. (Rahway) and Schering-Plough (Union Township/Kenilworth) made substantial investments to upgrade their research and development facilities over the past few years. Merck & Co. opened two new research and development laboratories at the P. Roy Vagelos Research and Development Center on the company's Rahway campus. These were a 60,000-sq.ft. lab for the development of safe and environmentally sensitive chemical processing for drugs under development and a 100,000 square foot biological supply laboratory and medical waste incinerator. In early 1995, Schering-Plough received FDA approval to begin production at its new \$30-million clinical production facility in Union Township.

However, competition driven by cost containment incentives within the health care industry has intensified and so have announcements of corporate downsizing and mergers. Chase Pharmaceutical, a Newark-based manufacturer, moved its operations and 210 jobs to North Carolina in March, 1996. In April 1996, Sandoz and Ciba agreed to the merger of the two Basel-based Swiss enterprises; the largest corporate merger in history. The merged company became known as Novartis.

Transportation/Communications/Public Utilities

Payrolls in the transportation/communications/public utilities industry division, especially the transportation component, will benefit from ongoing and proposed redevelopment projects at Newark International Airport, Port Elizabeth and the surrounding area. The "Portway" project proposed by the New Jersey Department of Transportation involves a number of related transportation projects within the Newark-Elizabeth Seaport-Airport complex and adjacent industrial areas. The project is being designed to provide traffic congestion relief, safer operations, improved air quality, more efficient intermodal transfers, local economic development, job retention and stronger links to the global economy.

Monorail

The construction of the \$378-million, 1.9 mile monorail line at the Newark International Airport, which opened in May 1996, is the first monorail in the New York-New Jersey Metropolitan Area. It links seven stations within the airport to carry passengers between the three main terminals, the remote parking lots and the rental car area. A light rail transit system known as the "Newark/Elizabeth Rail Link" connecting the Airport with the downtown areas of Newark and Elizabeth, providing 12 stops along its route, is currently being studied. Possible extensions to Plainfield and Summit are also being considered. One additional rail study, the Heritage Light Rail System, would connect downtown Elizabeth with historic sites and with the Jersey Gardens Mall.

Newark Airport Improvements

The Newark Airport completed a \$58 million retrofitting for an air cargo building in 1995. Federal Express is the major tenant in the 210,000-sq. ft. terminal along with Delta Airlines, Airborne Express and EVA Airways. A \$93 million runway extension project was approved in February 1997 by the Port Authority. The project expansion will improve airport operations and flexibility.

Port Elizabeth Improvements

Port Elizabeth continues to expand its cargo volume which includes bulk cargo, auto and ship to rail cargo handling. The Port is maintaining its market share and continues to be the busiest Port on the East Coast as of 1996. An Express Rail facility was recently constructed at the Port. The facility is a daily rail service that connects the Port and Union County to all Midwest and Canadian markets. Legislation was recently signed allocating \$32 million to begin the Port dredging project. The dredging of the Elizabeth waterway corridor is critical for continued marine commerce access to Port Elizabeth and Newark.

Transportation Development District

The New Jersey Department of Transportation recently approved an application in 1997 by Union County for a \$300,000 grant for a "Transportation Development District" (TDD). This planning and implementation project is envisioned to provide solutions to many of the infrastructure needs in the Port area. It will concentrate on improvement of accesses for rail and truck and adjacent major commercial and retail development

Intermodal Freight System

The Union County Intermodal Freight System Plan is a strategy to revitalize the Rahway Valley, Staten Island and other rail line segments of the County. This will enable the County to offer new transportation and distribution options, such as Intermodalism, Warehousing, Value Added Services, and Logistic Management, and to expand links to the global marketplace. The first phase of the plan will be a Reconstruction and Rehabilitation Phase to begin in 1998. A marketing plan

will then be developed over the next two years that is designed to assist rail operators to determine businesses to be served and to work with local officials in addressing community concerns relative to the resumption of rail services. The intermodal freight system is designed to generate business retention, business expansion, new markets and potential creation of more than 1,000 new jobs on the initial rail line segments.

Cross-County Rail Link Project

The Cross-County Rail Project is a plan to improve east/west public transit through the County. The County has recommended a seamless transit route from Plainfield to Elizabeth Port with access to the Newark Airport Monorail System. The County has secured \$300,000 in funding from the Federal Transit Administration (FTA) to conduct a planning and feasibility study in this corridor. The impact of the plan is projected to provide expanded employment opportunities in the revitalized Port Area; an expanded connectivity with Newark Airport and the developing mega-mall retail area in Elizabeth; and relief of traffic congestion in the Plainfield-Elizabeth corridor, the Port area and along Routes 1 & 9.

South Avenue Corridor Study

Another important study to expand redevelopment opportunities is the South Avenue Corridor Study. This study will examine both North and South Avenue intersections and recommend traffic flow improvements in this congested corridor as well as identifying redevelopment opportunities. The data collected from this study will support the effort to re-establish rail transit service from Plainfield to Elizabeth and the redevelopment centers in Elizabeth Port. Another contribution to improving the corridor will be the ITS (Intelligent Transportation System) project that will be computerizing the traffic signalization system along South Avenue.

Retail

Several large retail projects which are expected to create thousands of new jobs are being implemented in Elizabeth. The largest of these projects began construction in 1997 on a 166-acre

site located in the city's Urban Enterprise Zone near Exit 13A. The OENJ Corp. is developing a \$320-million complex consisting of a 1.2-million square foot retail discount mall with 250 mall shops, 12 major anchor stores and 18 restaurants. The project is known as the "Jersey Gardens Mall" is expected to create an estimated 1,700 construction jobs and over 5,200 permanent jobs.

Elizabeth Urban Enterprise Zone

Retail expansion in Elizabeth's Urban Enterprise Zone has been and will continue to be a major source of job growth. Most notably, the Elizabeth Center at Exit 13A, a three-building complex developed by IKEA, is planning future expansion.

Route 22 Corridor

Retail development is also expected to occur along the Route 22 retail corridor in Union County that has attracted a number of superstores including the Take Good Care health care superstore (40 jobs), a newcomer that opened in Springfield Township in April 1996.

Route 1 & 9 Corridor

Preliminary plans were being finalized in 1997 for a \$150-million retail and entertainment complex on a portion of the Linden Airport. The north side of the field is planned to be developed for a new hotel and conference center containing restaurants, movie theaters, and retail stores.

Cultural Tourism Development

By the dawn of the 21st century, tourism is expected to become the leading retail industry in the United States. More income will be generated by *cultural tourism* than any other component of the tourism industry.

According to Longwoods International, New Jersey's tourism generated \$24.6 billion in total expenditures in 1996. Tourism spending impacts a variety of retail and service industries including accommodations, dining, travel, entertainment, and entertainment needs that would otherwise be sought elsewhere. Nurturing these quality of life resources can make a county an ideal place in

which to live, work and visit.

State planners envision that within the next ten years, tourism will be recognized as a vital component of the state's economy, and the state will also be recognized for the breadth of its tourism offerings. Additionally, the economic and community benefits of tourism will be more integrated in urban and rural development strategies.

Union County, which has one of the longest (334 years) and richest histories in the United States, has the resources to develop its cultural tourism potential. Sites related to royal government, the American Revolution, development of the federal government, State government, Victorian suburban development, inventions, industrial innovations, immigration and more are found in Union County. In addition, arts initiatives are already in place, several historic sites (Liberty Hall in Union and Merchants and Drivers Tavern in Rahway) expect to open first-class museums by the year 2000, the Union County Arts Center, Westfield Symphony Orchestra, NJ Center for Visual Arts, are flourishing, other smaller theaters and museums are developing, and the County has a first class parks system. These are factors that represent a good start to the development of the cultural tourism industry here in Union County.

The County seat and Union County has an early history that rivals that of Virginia and Massachusetts. The basic elements for cultural tourism development focusing on this period of history exist in Elizabeth, which can be marketed as the colonial capital of New Jersey and an important contributor to the formation of national and state government. In addition to the Belcher-Ogden Mansion, the Bonnell House, Boxwood Hall, the Presbyterian Church and the St. John's Parsonage offering cultural tourism opportunities, Liberty Hall, located just over the Elizabeth city line in Union, is being developed as a museum/educational complex that will open April 1999. The City of Elizabeth has recently restored the Central Railroad Station and is anticipating restaurant development in an area undergoing multi-use redevelopment.

Elizabeth has potential to figure in the cultural tourism industry. A historic tourism package, which would include Liberty Hall, a County museum comprised of Belcher-Ogden and Bonnell House, Boxwood Hall, and the Presbyterian Church would be a principal attraction to lure heritage tourists into the city.

Tourism development in the County would be bolstered by existing efforts in Rahway and Plainfield. In Rahway, restoration and development of the Union County Arts Center is progressing at a steady rate. The City of Rahway has created an Arts Guild that is restoring a nineteenth century library, and has adopted ordinances to benefit artists and craftsmen and antiques stores in the business district. The Merchants and Drovers Tavern has received major federal and state grant funding. It is currently undergoing development as a museum of early tavern life and stagecoach transportation. A 1999 opening is planned. The Doctor William Robinson House Museum in Clark, the best preserved seventeenth century building in New Jersey, could be part of a cultural tourism package for the area. New Jersey Transit is nearing completion of a multi-million dollar station.

Plainfield is actively soliciting designation as the site of the New Jersey Railroad and Transportation Museum. The city, with architecturally significant civic and religious buildings and private homes, has seven historic districts. The Drake House Museum, with colonial and Victorian collections, has the potential for becoming an outstanding facility. House tours, band concerts, orchestral performances and a variety of other arts and history events are regular occurrences in the city. New Audiences for Plainfield, the emerging arts organization representing cultural groups and individual artists, recently presented their Action Plan 2000 detailing actions needed to implement the vision of Plainfield as a hub of cultural activities for the area.

Support of tourism initiatives in Elizabeth, Rahway and Plainfield should have significant effect throughout the communities of Union County. Complementary historic sites in Hillside, Berkeley Heights, New Providence, Summit, Union, Springfield, Scotch Plains, Fanwood, Westfield,

Cranford, Roselle, Mountainside will also become part of the cultural tourism package drawing tourists initially attracted to tourism attractions in the larger communities out to the surrounding communities.

Special weekend events organized by county, local governments, chambers of commerce, non-profit organizations and civic groups will give visitors reason to come into Union County on a regular basis. In addition to history and arts events, attractions such as bike races and ethnic festivals will attract visitors. The Union County Park System, one of the state's finest, has swimming pools, golf courses, riding stables, a skating rink, a large reservation that includes a nature and science center as well as historic sites, and other amenities that should be marketed as part of a tourism package.

Union County is favored by excellent rail, air and highway transportation, facilitating access to sites and events.

Other Construction

Several recently completed and ongoing development projects helped bolster employment in the County construction industry division. In Elizabeth, a three-year, \$58-million expansion and renovation project on Saint Elizabeth Hospital's patient towers was completed in 1994. The \$328-million expansion of the New Jersey Turnpike from Exit 14 in Newark to Exit 11 in Woodbridge (Middlesex County) will continue through 1999. Kean University in Union Township spent \$7 million to renovate the Student College Center in 1997.

Other construction projects under way in 1997-1998 include a major redevelopment site in the heart of the City of Plainfield business district. The former Tepper's Department Store is being redeveloped into "The Green at Plainfield," a \$50-million, multi-use, barrier-free project. Plans call for two floors of outlet-type, retail stores at and below street level with one floor of office space on the second floor and, an estimated 200 "assisted living" housing units for senior citizens developed on the upper floors.

In Elizabeth, the City Council awarded a development contract in 1996 to Sea Crest Enterprises for the \$100-million Midtown Redevelopment Project. The long-awaited redevelopment plan for this 20-acre site in downtown Elizabeth calls for restoration of the historic Central Jersey Railroad Station, several hundred units of market-rate and multi-family housing, and a 40,000-sq. ft. mixed-use, commercial building on Broad Street.

A new train station on the Raritan Valley Line, at Morris Avenue, named the Townley Station is proposed in Union Township adjacent to Kean University, Schering-Plough and the Elizabethtown Gas Company, Morris Avenue Complex. It will be designed to reduce congestion which has been increasing along Route #82 (Morris Avenue) between the City of Elizabeth and Union Township. In 1997 the U.S. Congress approved \$23 million in funding for construction of the station, retail facilities and commuter parking facilities that will be operated by New Jersey Transit.

Economic Outlook

The overall rate of growth in Union County's economy through 2000 is expected to be relatively modest, lagging the pace of recovery in the Northern New Jersey Region and the State as a whole. While unemployment rates have improved, the pockets of chronic high unemployment in the County's urban centers will cause the County's overall unemployment rate to remain slightly higher than the State in the coming year.

The New Jersey Department of Labor's Division of Labor Market and Demographic Research prepared State and county industry and occupational projections for the year 2005. The last year of historic data used as input to the projections is the base year of 1990. While State analysts realized that a recession was under way, they underestimated its length and severity, making it highly unlikely that the projected total growth rates from 1990 to 2005 as well as the year 2005 job levels will be realized. The projections, however, remain useful in pointing to direction of change

and long-run trends for specific industries and occupations which will be sources of job growth or decline as well as geographic strengths and weaknesses during the 1990-2005 period.

Between 1990 and 2005, wage and salary employment in Union County is projected to remain relatively stable, increasing by 5,600 or 2.2 percent, far below the 14.0 percent increase projected for the State during the same period. Over the fifteen-year period, the County's annual growth rate was projected to remain constant at 0.1 percent, one of the lowest in the State.

Job growth in Union County will be primarily dependent on the momentum and recovery of the service based industry. The service-producing sector was expected to account for all of the net job growth in Union County during the 1990-2005 period. Over the fifteen-year period, the services subcategory was expected to grow by an estimated 17,200 jobs or 25.8 percent, with business and health services accounting for much of this increase. This may be dampened by hospital mergers and affiliations designed to address the growing managed care health insurance network. Another industry division that was projected to expand during this period is transportation/communications/public utilities (TCPU) up by 2,000 jobs or 9.8 percent. Employment growth in TCPU should continue and will be paced by businesses involved in increased passenger and air cargo volume at Newark International Airport and at the Port Newark/Port Elizabeth Marine Terminal and related industries, including trucking. Employment in government and education was projected to grow by 1,700 jobs. The finance/insurance/real estate industry division in Union County was projected to remain stable at the 1990 level of 13,900 jobs through the projection period. The only industry division projected to decline during this period was wholesale/retail trade, down by 3,100, or -5.7 percent, by 2005 primarily due to Union County's substantially developed nature and changing demographic trends. These projections, however, can change with the development of the Elizabeth Urban Enterprise Zone and Redevelopment Project, the development of the Plainfield Urban Enterprise Zone and the Linden Airport retail and entertainment complex.

In the goods-producing sector, both the manufacturing and construction industry divisions were projected to decline from 1990 to 2005. Construction jobs were expected to fall by 900 or 8.4 percent by 2005. Also, the long-term decline in the manufacturing industry division in Union County should continue, losing another 11,300 jobs or 19.4 percent from 1990-2005, a continuation of existing trends throughout the State.

In making projections, with a 1990 base year, this N.J. Department of Labor notes that the two factors that most affected employment levels of major occupational groups were the growth rates of specific industries and the changing occupational structure within industries. Job openings arise from both new jobs and the need to replace workers who retire, change occupations or leave the area labor force. In Union County, close to 80.0 percent of the average number of annual openings projected between 1990 and 2005 were expected to be replacement jobs rather than new jobs.

Occupational employment projections for Union County through 2005 reflected the slow employment growth projected for the County as a whole during this period. Of the eight major occupational categories for which data were prepared, four categories in Union County were projected to decline as opposed to only one statewide. In addition, in the occupational categories where growth was projected for both the State and the County, the County's growth rates were projected to significantly lag behind those of the State. The changing composition of the Union County economy, the continued shift from manufacturing, and the elimination of middle management and administrative jobs in County businesses were expected to be partially responsible for the change.

Professional and technical (9,800 new jobs or 18.5%), and service (5,200 or 15.0%) occupations were projected to register the highest rates of growth in the County and the State over the fifteen-year period. The only other occupational categories projected to increase in Union County were the executive, administrative and managerial (1,100 jobs or 7.7%) and gardening and animal care (300 or 22.2%) occupations. Reflecting the County's continued loss of manufacturing jobs.

the operators, fabricators and laborers category was expected to decline by an estimated 7,200 jobs (-15.5%), a pace substantially ahead of the 2.4 percent loss projected for New Jersey. In a related occupation, precision production employment in the county was projected to fall by 2,200 jobs (-7.1%) compared with a projected increase of 7.3 percent statewide. Administrative support and clerical occupations were also projected to decline by an estimated 2,050 jobs (-3.7%) reflecting the nationwide trend toward corporate downsizing and office automation (e.g., word processing by professional and less by clerical staff). Marketing and sales occupations in Union are also predicted to decline (-0.7%) while advancing statewide by 17.2 percent during the projection period.