Appendix C

2030 DEMOGRAPHIC
AND
SOCIOECONOMIC FORECASTS

2030 DEMOGRAPHIC AND SOCIOECONOMIC FORECASTS

BACKGROUND

Demographic and socioeconomic forecasts adopted by the Program, Finance and Administrative Committee (PFAC) in August, 2003 represented an adjustment required by federal waiver regulations to prior forecasts adopted by PFAC in December, 2000. These adjustments included a rebenchmarking of demographic forecasts.
Results of the work to determine *Post September 11th Impacts: Changes to Patterns of Employment & Floorspace in the New York Urban Region* were incorporated into the employment forecast adjustments, while the *2000 Census of Population* enumerations were reflected in the population and household forecast adjustments.

Subsequent to this adjustment, NYMTC required county and Transportation Analysis Zone (TAZ) level forecast extensions to 2030. This work was required by December 31, 2003, as a mechanical five-year extension of the adopted forecasts at all levels from 2025 to 2030. However, since the mechanical 2030 extension was undertaken, new macroeconomic assumptions were provided by the NYS Department of Transportation (DOT) at the national level, in the form of U.S. employment, output, earnings, and population and labor force forecasts from 2003 to 2027 by Global Insight, Inc (GI). These new drivers suggest that long term growth will be considerably stronger than previously anticipated and result in more employment than mechanically extrapolated to 2030. Therefore the PFAC members requested the use of these drivers before official adoption of the 2030 forecasts.

A new set of forecasts was developed for the New York Metropolitan Region (31 counties) at the subregional, county and TAZ levels, for the period 2005-2030 using the new GI national level drivers. The five subregions comprise the following counties:

New York City: Bronx, Kings, New York, Queens, and Richmond
Long Island: Nassau and Suffolk
Mid-Hudson: Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and
                   Westchester
New Jersey: Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex,
                   Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and
                   Warren
Connecticut: Fairfield, Litchfield, and New Haven

METHODOLOGY

The three models (population, labor force, households) were used with the new macroeconomic forecasts of Global Insight (GI). However, the employment model, which utilized the Standard Industrial Classification (SIC) code system, was no longer viable given the conversion of federal statistical data to the North American Industrial Classification System (NAICS) and the release of GI forecasts on a NAICS basis.

For purposes of forecasting regional employment to 2030, it was necessary to build a NAICS-based model that utilized quarterly employment data by subregion from 1990 through 2003 in conjunction with GI's macroeconomic assumptions, and quarterly employment and earnings forecasts by supersector. The existing demographic models were recalibrated using the most recent available data.

Following upon the model development/re-estimation work, subregional and county level forecasts were prepared that provide five-year interval projections of the following variables from 2000 to 2030.

- Employment by NAICS Supersector (Total Employment, Payroll by Industry, Proprietors)
- Population (Total Population, Household Population, Group Quarters Population, Enrollment Ages)
- Labor Force (Total Civilian, Employed Residents)
- Households (Total Households, Average Household Size, Income)

The county level employment, population, labor force and household variables were applied to TAZ level socioeconomic forecast requirements for the 28-county Best Practice Model (BPM) region over the period 2005 to 2030. These forecasts cover the following 16 variables:

- Employment (Total, Basic, Non Basic, Office, Retail)
- Population (Total, Household, Group Quarters in Institutions, Other Group Quarters)
- Labor Force (Employed)
- Households (Total, Average Household Size)
- Earnings per Worker (Constant $$)
- Mean Household Income (Constant $$)
- Enrollment (K-12, University)

Employment Model

The employment model is composed of five subregional models for New York City, Long Island, the Mid-Hudson, northern New Jersey, and southeastern Connecticut. The

equations were derived using ordinary least squares regression analysis, a common statistical process used in econometric modeling.

The employment model is critical to operation of the Best Practices Model (BPM) in that it provides a basis for generating work trips in the journey-to-work forecasting process. The output of the employment model also impacts the forecasting of future population and labor force in the Region. Employment forecasts enter the labor force model and set the level of demand for workers in each subregion. In turn, the labor force forecasts enter the population model and determine the necessary level of net in- or out-migration, in conjunction with the expected labor force participation of the resident population.

It is important to clearly understand the differences between *labor force* and *employment*. Labor force data indicate how many residents of a particular area have jobs or are unemployed, but provide no information on where the residents actually work. Employment data, by contrast, supply information on the number of persons working in an area, regardless of where the workers may actually live. Labor force forecasts tend to be driven by employment and labor force participation rates, whereas the employment forecasts are based on a range of economic variables.

- The employment model for each subregion includes equations for:
  employment by industry
  personal income
      wages and salaries
      other income
  population
  unemployment rate
  number of proprietors

- Employment in each industry in each subregion depends on:
  demand for the output of the sector
  wage rates relative to the U.S. average
  prices relative to the U.S.
  other relevant variables, such as the mortgage rate

- The nonemployment variables in the model are used primarily as measures of demand.

The historical U.S. data used to build the model, and the forecast U.S. data used as inputs to the NYMTC forecast are from the Global Insight, (GI) Inc. Summer 2003 Long Term Trend Forecast which runs to 2027. They present a stronger economic forecast than that in the Data Resources, Inc. (DRI) Summer 1999 Long Term forecast that was used in the previous forecast (adopted as revised in July 2003).

Another change in the model is the use of employment codified by the North American Industrial Classification System (NAICS), which replaced the SIC system, and for which regional historical data exists only since 1990 (compared to SIC data available back to 1969 in some industries). The SIC data allowed to build annual models; with the NAICS data it was required to build quarterly models for adequate data points to econometrically explain subregional/ national employment relationships. However, the results are presented on an annual basis.

The benefits of using the NAICS employment system are: comparability to Mexico and Canada; the introduction of new industries; expansion of the services sectors; and, the deletion of obsolete industries. The problems, on another hand, include employment data which is available only back to 1990; income and wages by industry is available only for 2001 and forward; industry reclassifications make pushing back history any further difficult to impossible.

Population and Labor Force Models

The population and labor force models, used for the 2025 Adopted Forecasts, and extended to 2030 were updated with major inputs to the models, including the *2000 Census of Population and Housing*, and the Census Bureau's *Population Estimates* to 2003. The existing models' structure and assumptions were not changed, including the fertility, mortality, and labor force participation rates by age/sex/race-ethnicity.

The population model consists of five subregional cohort/survival models in *Excel* workbook format, with separate worksheets for each mutually-exclusive racial-ethnic group (white nonhispanic, black nonhispanic, Asian/other nonhispanic, and Hispanic). The models are calibrated on annual and decennial data from 1970 through 2003. They are linked to national forecasts of fertility, mortality, labor force participation, and to subregional trends in net migration and forecasts of employment.

Despite use of the Census Bureau's *Population Estimates* to 2003, the slow recovery in employment and high unemployment rates caused originally the model to lose population in the 2003-2005 period. Therefore the 2005 population forecasts for all subregions were reestimated based upon the housing unit method. Using the 2003 housing unit estimates recently released at the county level by the Census Bureau, as well as building permit authorizations through June of 2004, a forecast was prepared of housing stock in place by mid-year 2005, to which prevailing vacancy rates were applied for a measure of occupied units or households. The 2005 household estimate was converted to resident population by county, by applying county-specific measures of average household size. A 2005 estimate of civilian labor force was prepared from state DOL *Local Area Unemployment Survey* data at the county level through June 2004 and compared to the 2005 resident population estimate. The population and labor force models were rerun at the subregional level, incorporating the new 2005 baseline estimates.

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2030 FORECASTS

NATIONAL ASSUMPTIONS

Over the four intervening years between the release of Data Resources Inc.'s (DRI) Summer 1999 Long Term Trend Forecast, and the Global Insight Inc.'s (GI) Summer 2003 Long Term Trend Forecast, significant economic and political events occurred. Foremost among them at the national level was the recession of 2000-2001 and the changes wrought to federal fiscal and regulatory policies by a new administration. At the regional level, the combined effects of a national recession and the terrorist attacks on September 11th, 2001 magnified the impact of these changes.

Gross Domestic Product

In 1996 constant dollars, the value of Real Gross Domestic Product (RGDP) is estimated at $9.7 trillion in 2003. Under GI's higher productivity assumptions, RGDP will grow to $19.7 trillion by 2027, or double in output value nationally. Real GDP will increase by 4.4% annually to 2030, as major investment is spurred by low interest rates in early 2000s. By 2024, national output will be 23% higher, under the new forecast than NYMTC's prior series (DRI), despite twin deficits and a weaker dollar. A corresponding 1.3% expansion in payroll employment annually will elevate national job-holding, labor force, personal earnings and population levels over previous expectations, while tighter labor markets are reflected in lower unemployment, more self employment and multiple jobs per worker.

Interest Rate

The rapid increase in national output foreseen by GI over the forecast period is explained in part by the investment encouraged by extraordinarily low rates of interest that are expected to hold throughout the current decade. At a low of one percent on the three-month Treasury bill in 2003, GI interest rate assumptions climb slowly to 5.1 percent by 2010.

Personal Income

From higher national output, created by enhanced worker productivity, flow direct benefits to worker earnings and personal income.
The Fall 2003 of Global Insight's forecast of U.S. Personal Income shows aggregate personal income reaching $40 trillion in future year dollars by 2027, the last year of GI's long term forecast. Both, investment-driven productivity gains and inflation explain a large portion of this increase.
From 1970 to 2003, U.S. Personal Income grew at an average annual rate of 7.5 percent in nominal dollars, and real personal income grew at an average annual rate of 2.6 percent. From 2003 to 2030, the GI U.S. Personal Income is forecast to grow at an

average annual rate of 6.4 percent in nominal dollars and real personal income at an average annual rate of 3.3 percent a year. Thus, the forecast is definitely in line with long-term historical experience.

Complementing the growth in personal income is GI's assumption of a lower rate of inflation throughout the forecast period. From 1.7 percent in 2000, the average annual rate of increase in the Consumer Price Index (CPI) grows slowly to 2.1 percent by 2010, 3.3 percent by 2024, ending at 3.7 percent by 2027.

A corresponding 1.3 percent expansion in payroll employment annually will elevate national job-holding, labor force, personal earnings and population levels over previous expectations, while tighter labor markets are reflected in lower unemployment, more self employment, and multiple jobs per worker.

EMPLOYMENT

Regional Share of U.S. Employment Growth

In a national climate of robust economic growth, improved worker productivity, and enhanced personal and corporate earnings, the service industries flourish. The New York Urban Region, the nation's premier concentration of advanced corporate and personal services, is well positioned to benefit from this outlook. In 2000, the Region's share of U.S. payroll employment stood at 7.5%, having slipped from 8.5% in 1990. By 2030, however, regional employment is expected to account for 7% of national employment. Although all industries will decline in share over the forecast period, Financial Services, Information Services, Education and Health Services will remain well above the national average.

Regional Employment by Industry

With the reclassification of industry from an SIC to a NAICS (North American Industrial Classification System) basis, implemented by the federal government at the turn of the century, greater diversification has emerged in the Region's industrial structure. Manufacturing and other goods-handling activity decline to under 7% of the Region's job base by 2030 while Professional and Business Services, Education and Health Services rise to 32% of all employment. Leisure and Hospitality Services, Finance, Insurance and Real Estate, Information and Other Services expand demand for labor with the Region's ever-widening participation in global and national markets. Between 2005 and 2030, total employment is forecast to grow by 3 million jobs, from 11.7 to 14.7 million jobs or by 25.4% in the Region.

Employment Shares and Growth Rates by Subregion

The distribution of employment in the Region is expected to remain relatively unchanged over the forecast period. New York City and New Jersey will remain the major job concentrations, while the Long Island, Mid Hudson and Connecticut subregions will

share less than one-third of the Region's total employment. For the City, the increase of one million new jobs between 2005 and 2030 will mean a substantial upturn over the recent past period. Between 2000 and 2005, New York City was the only subregion to experience job losses, averaging 0.5% annually, owing to the adverse effects of the national recession and the terrorist attack of September 11th. However, with recovery underway, which will elevate total employment to 5.2 million jobs by 2030, the City will experience a rate of job growth competitive with the rest of Region, though less than the U.S as a whole.

POPULATION

Regional Share of U.S. Population Growth

In keeping with a robust economic outlook, the Region's population is expected to grow from 22 to 26.1 million by 2030, or by 0.7% annually. Hispanics and Asians will account for more than all of this growth, offsetting the decline of 3 million white inhabitants. Minority population as a share of the Region is projected to jump from 41.8 % in 2000 to 65.1% in 2030. The Region's increasing racial/ethnic diversity, as well as its renewed growth, reflects the on-going impact of foreign immigration. As growth has resumed, with the increase from 20 to 22 million inhabitants over the last ten years (1993-2003), the Region's share of U.S. population stemmed its decline to 7.5%. Between 2005 and 2030, it is expected to slip to only 7.2%. The influx of foreign immigration has been slowing the Region's declining share of US population – from 2% points 1970-2005, to 0.3% points, 2005-2030.

Regional Population by Subregion

In New York City, where the population is projected to reach 9.5 million by 2030, up from 8.2 million in 2005, the resident labor force will likely grow by 0.8% annually and the population by 0.6% annually. New Jersey and the Mid Hudson will experience the fastest rates of demographic change, with population advancing by 1% annually in the Mid Hudson, where the largest share of undeveloped land exists, and by 0.7% in New Jersey. Indeed, New Jersey inhabitants are likely to increase by 1.3 million over the 2005-2030 period, about equal to all the population growth occurring elsewhere in the suburban region.

LABOR FORCE

Regional Share of U.S. Labor Force Growth

Robust growth in population will affect labor supply, household formation and the expansion of consumer demand for local products. In the past, the Region lost a larger share of labor force than population as jobless rates fluctuated above the national average. In the future, coupled with a stronger growth in a working age population, the expectation of a more stable jobless rate competitive with the national average should forestall further losses in the Region's share of the U.S. labor force.

Relationship Between Regional Employment and Labor Force

The robust growth anticipated in labor force and work place employment over the next 25 years will lead to heavier commutation flows in the Region as more workers travel, some longer distances, to reach employment destinations. New York City will continue to attract more commuters as jobs increase faster than resident labor force, despite the City's expected population growth. With slower job than labor force expansion, the Mid Hudson will likely send more commuters to New York City jobs. New Jersey, Long Island and Connecticut may realize more balanced increases in work site employment and resident labor force, though existing high levels of in-commutation are not likely to diminish.

Resident Labor Force Growth by Subregion

A higher rate of labor force participation and faster growth in working ages will expand the Region's labor force by 1% per annum, from 2005 to 2030. In New York City, where the population is projected to reach 9.5 million by 2030, up from 8.2 million in 2005, the resident labor force will likely grow by 0.8% annually and the population by 0.6%. Similarly ahead of its population growth rate, the resident labor force in the Mid Hudson and New Jersey will expand 1.3% annually.

HOUSEHOLDS

Resident Households by Subregion

Fully 1.5 million new households will be added to the Region between 2005 and 2030, implying the need for 65,000 new housing units per year just meet new household formation needs. Most of the new housing construction will be concentrated in New York City and New Jersey, followed by the Mid Hudson, Connecticut and Long Island. Concentrated patterns of development will be necessary, in both resident and non-residential expansion, to preserve the Region's environment and provide energy-conserving means of transport.

After a steep decline between 1970 and the early 1990s, average household size has stabilized with growth in larger immigrant households offsetting the decline in household size of non-Hispanic whites and elderly populations.

NEW YORK URBAN REGION POPULATION BY COUNTY, 1970-2030 (in 000s)

AREANAME	1970	1980	1990	2000	2002	2005	2010	2015	2020	2025	2030
NEW YORK CITY	**7,894.9**	**7,071.6**	**7,322.6**	**8,008.3**	**8,072.0**	**8,209.3**	**8,411.7**	**8,674.1**	**9,013.5**	**9,352.5**	**9,492.4**
Bronx	1,471.7	1,169.0	1,203.8	1,332.7	1,358.4	1,367.5	1,391.1	1,432.1	1,484.9	1,546.8	1,557.4
Kings	2,602.0	2,231.0	2,300.7	2,465.3	2,475.7	2,515.3	2,565.9	2,622.3	2,688.1	2,764.3	2,797.5
New York	1,539.2	1,428.3	1,487.5	1,537.2	1,555.4	1,583.0	1,625.8	1,650.9	1,675.8	1,694.2	1,709.2
Queens	1,986.5	1,891.3	1,951.6	2,229.4	2,227.2	2,272.7	2,334.3	2,445.2	2,610.8	2,756.3	2,795.4
Richmond	295.5	352.0	379.0	443.7	455.4	470.9	494.7	523.7	554.0	591.0	633.0
LONG ISLAND	**2,553.0**	**2,605.8**	**2,609.2**	**2,753.9**	**2,795.0**	**2,837.2**	**2,923.1**	**2,999.6**	**3,070.3**	**3,160.7**	**3,219.8**
Nassau	1,428.1	1,321.6	1,287.4	1,334.5	1,339.3	1,357.4	1,377.7	1,394.5	1,409.9	1,423.9	1,436.5
Suffolk	1,124.9	1,284.2	1,321.8	1,419.4	1,455.7	1,479.8	1,545.4	1,605.2	1,660.4	1,736.8	1,783.4
MID HUDSON	**1,818.5**	**1,931.3**	**2,026.0**	**2,179.2**	**2,225.3**	**2,312.8**	**2,422.4**	**2,500.9**	**2,607.2**	**2,719.9**	**2,871.6**
Dutchess	222.3	245.1	259.5	280.2	287.7	300.1	328.0	342.9	362.9	383.1	431.5
Orange	221.7	259.6	307.6	341.4	355.8	375.6	408.9	434.1	467.0	499.2	532.4
Putnam	56.7	77.2	83.9	95.7	98.5	101.9	110.0	114.6	120.3	126.1	134.3
Rockland	229.9	259.5	265.5	286.8	291.2	298.9	315.7	328.4	342.5	357.6	370.5
Sullivan	52.6	65.1	69.3	74.0	74.1	79.1	90.3	96.2	102.3	108.4	125.3
Ulster	141.2	158.2	165.3	177.7	180.1	188.8	195.2	208.4	226.2	243.3	265.7
Westchester	894.1	866.6	874.9	923.5	937.9	968.2	974.2	976.2	985.8	1,002.2	1,011.9
NEW JERSEY	**5,799.7**	**5,857.0**	**6,097.1**	**6,661.8**	**6,790.2**	**6,927.0**	**7,095.9**	**7,271.5**	**7,470.5**	**7,874.9**	**8,202.0**
Bergen	898.0	845.4	825.4	884.1	894.5	905.4	907.4	917.0	931.8	963.1	989.6
Essex	930.0	851.3	778.0	793.6	795.9	809.8	818.0	826.0	841.8	875.0	893.6
Hudson	609.3	557.0	553.1	609.0	609.9	622.1	648.6	670.6	688.6	713.5	743.6
Hunterdon	69.7	87.4	107.9	122.0	126.7	130.0	136.1	139.3	143.5	154.6	165.1
Mercer	304.0	307.9	325.8	350.8	358.2	366.5	388.4	400.8	410.1	443.1	482.7
Middlesex	583.8	595.9	671.7	750.2	772.4	785.6	813.5	842.6	869.7	913.6	956.9
Monmouth	459.3	503.2	553.2	615.3	627.7	652.0	665.0	683.5	698.8	723.8	732.2
Morris	383.4	407.6	421.3	470.2	478.6	494.8	500.4	504.9	514.1	536.5	557.2
Ocean	208.5	346.0	433.2	510.9	536.8	552.9	574.1	600.2	628.4	689.9	737.3
Passaic	460.8	447.6	470.9	489.0	496.5	498.8	503.8	511.1	523.4	548.4	558.7
Somerset	198.4	203.1	240.2	297.5	307.7	314.9	330.4	344.5	359.9	392.7	425.9
Sussex	77.5	116.1	130.9	144.2	148.9	152.0	156.1	160.9	168.2	185.5	198.5
Union	543.1	504.1	493.8	522.5	528.9	530.8	538.8	550.0	565.3	593.7	607.7
Warren	73.9	84.4	91.7	102.4	107.5	111.4	115.4	120.2	126.9	141.6	152.8
CONNECTICUT	**1,681.9**	**1,725.2**	**1,806.0**	**1,888.8**	**1,916.7**	**1,958.4**	**2,016.5**	**2,078.3**	**2,136.0**	**2,206.8**	**2,291.6**
Fairfield	792.8	807.1	827.7	882.6	894.6	916.1	945.7	975.3	999.3	1,030.0	1,067.2
Litchfield	144.1	156.8	174.1	182.2	186.4	191.9	206.9	217.0	230.7	244.2	254.6
New Haven	745.0	761.3	804.2	824.0	835.7	850.4	863.9	886.0	906.0	932.5	969.7
REGION	**19,748.0**	**19,191.0**	**19,860.8**	**21,491.9**	**21,799.2**	**22,244.7**	**22,869.6**	**23,524.5**	**24,297.5**	**25,314.8**	**26,077.3**

Source: New York Metropolitan Transportation Council, September 2004

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31 COUNTY NEW YORK URBAN REGION POPULATION, 1970-2030

	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By SubRegion (in 000s):											
NEW YORK CITY	7,894.9	7,071.6	7,322.6	7,665.4	8,008.3	8,209.3	8,411.7	8,674.1	9,013.5	9,352.5	9,492.4
LONG ISLAND	2,553.0	2,605.8	2,609.2	2,681.6	2,753.9	2,837.2	2,923.1	2,999.6	3,070.3	3,160.7	3,219.8
MID HUDSON	1,818.6	1,931.3	2,026.0	2,102.6	2,179.2	2,312.8	2,422.4	2,500.9	2,607.2	2,719.9	2,871.6
NEW JERSEY	5,799.7	5,857.0	6,079.5	6,370.6	6,661.8	6,927.0	7,095.9	7,271.5	7,470.5	7,874.9	8,202.0
CONNECTICUT	1,681.9	1,725.2	1,806.0	1,847.4	1,888.8	1,958.4	2,016.5	2,078.3	2,136.0	2,206.8	2,291.6
REGION TOTAL	19,748.1	19,191.0	19,843.2	20,667.5	21,491.9	22,244.7	22,869.6	23,524.5	24,297.5	25,314.8	26,077.3

Population by Subegion, 1970-2030
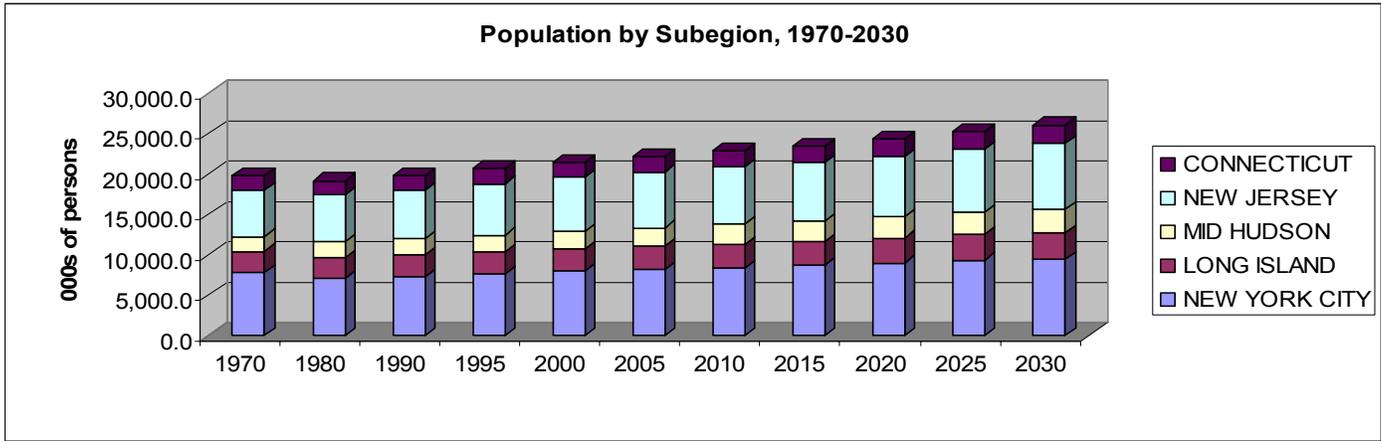
	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By Race / Ethnicity (in 000s):											
WHITE NON-HISPANIC	15,660.8	13,816.2	12,911.1	12,707.5	12,503.9	12,175.4	11,659.3	11,049.2	10,411.3	9,821.8	9,111.8
BLACK NON-HISPANIC	2,277.6	2,865.7	3,152.4	3,359.7	3,567.0	3,708.4	3,805.5	3,883.0	3,948.5	4,007.3	3,973.9
ASIAN / OTHER NON-HISPANIC	209.8	406.2	909.1	1,230.4	1,551.7	1,942.7	2,395.9	2,927.4	3,545.9	4,271.2	5,010.1
HISPANIC	1,599.9	2,102.7	2,870.5	3,369.9	3,869.3	4,418.2	5,008.9	5,664.9	6,391.8	7,214.5	7,981.4
REGION TOTAL	19,748.1	19,191.0	19,843.2	20,667.5	21,491.9	22,244.7	22,869.6	23,524.5	24,297.5	25,314.8	26,077.3

Regional Population by Race/Ethnicity, 1970-2030
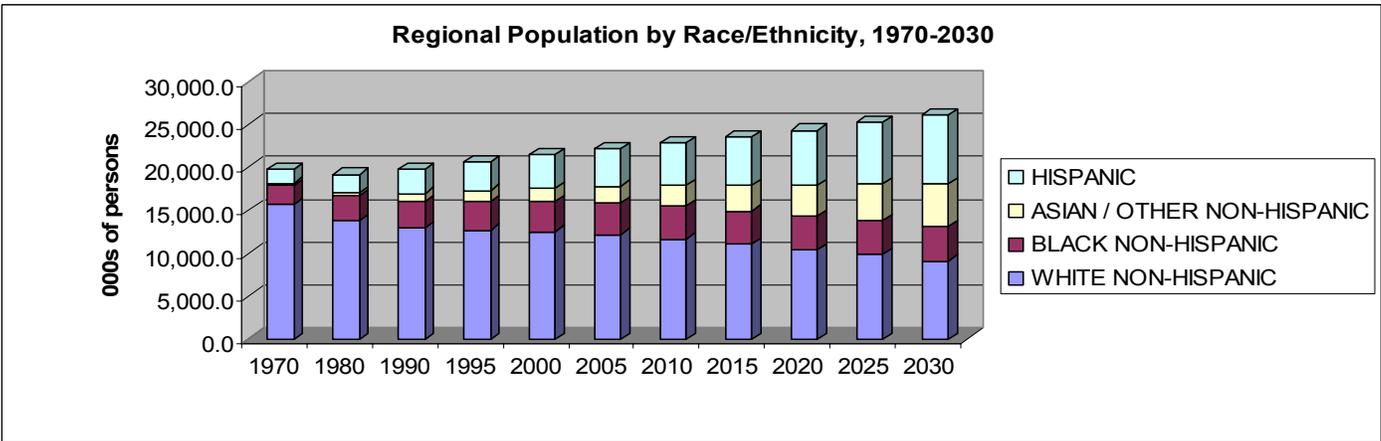
Source: New York Metropolitan Transportation Council, September 2004

NEW YORK URBAN REGION EMPLOYMENT BY COUNTY, 1970-2030 (in 000s)

AREANAME	1970	1980	1990	2000	2002	2005	2010	2015	2020	2025	2030
NEW YORK CITY	**4,083.7**	**3,626.6**	**3,966.1**	**4,277.3**	**4145.2**	**4,177.1**	**4,460.4**	**4,650.7**	**4,849.6**	**5,032.5**	**5,243.1**
Bronx	247.3	211.9	237.8	269.4	274.3	282.0	295.5	307.1	320.2	333.5	347.7
Kings	592.2	485.7	504.5	584.6	588.2	590.5	621.6	650.0	681.8	713.5	746.8
New York	2,654.9	2,364.8	2,565.1	2,682.2	2,548.8	2,545.8	2,737.7	2,850.1	2,966.7	3,067.5	3,189.4
Queens	543.1	499.7	567.3	624.1	617.5	635.4	668.3	693.3	718.5	743.1	771.3
Richmond	45.9	64.4	91.6	116.9	116.3	123.4	137.4	150.1	162.5	174.9	188.0
LONG ISLAND	**868.9**	**1,099.3**	**1,329.8**	**1,457.5**	**1,464.1**	**1,488.8**	**1,565.7**	**1,640.5**	**1,705.9**	**1,757.5**	**1,812.2**
Nassau	562.9	643.3	716.8	743.3	742.6	742.7	767.3	790.2	807.6	817.4	828.8
Suffolk	306.1	456.0	613.0	714.2	721.5	746.0	798.4	850.3	898.3	940.1	983.4
MID HUDSON	**696.8**	**830.1**	**1,009.2**	**1,079.6**	**1,094.2**	**1,123.8**	**1,170.9**	**1,222.7**	**1,279.7**	**1,342.9**	**1,411.5**
Dutchess	92.5	110.6	140.4	139.4	142.1	145.8	154.8	164.1	174.4	185.9	198.2
Orange	80.7	95.9	128.3	149.8	152.2	160.4	171.4	182.8	194.5	206.6	219.2
Putnam	11.8	17.1	26.3	32.9	34.0	36.5	38.3	40.2	42.6	45.1	47.8
Rockland	73.6	98.7	122.7	133.7	137.7	142.0	148.7	153.8	160.9	168.4	176.1
Sullivan	23.0	27.0	31.8	33.1	33.8	34.8	36.3	37.8	39.8	42.0	44.4
Ulster	49.1	58.6	76.2	81.6	81.7	86.1	88.5	92.4	96.6	101.2	106.5
Westchester	366.2	422.1	483.6	509.2	512.7	518.1	532.9	551.5	571.0	593.7	619.3
NEW JERSEY	**2,458.8**	**2,837.9**	**3,403.9**	**3,748.3**	**3766.5**	**3,882.0**	**4,079.5**	**4,278.9**	**4,514.1**	**4,741.1**	**4,985.7**
Bergen	372.2	456.2	533.8	570.2	566.9	581.3	593.1	610.6	631.5	650.9	673.0
Essex	453.9	428.9	436.2	451.1	447.1	442.3	456.6	468.3	483.8	499.8	518.5
Hudson	279.8	248.6	273.5	287.6	289.4	286.6	300.4	313.8	329.5	344.2	359.7
Hunterdon	24.1	32.5	51.4	68.8	71.7	75.3	83.4	91.6	99.6	107.7	116.2
Mercer	148.0	176.8	223.6	244.3	252.8	260.0	271.5	281.4	296.8	310.7	324.7
Middlesex	236.0	313.2	407.5	474.4	474.2	503.0	528.1	553.6	583.6	613.0	644.4
Monmouth	141.9	195.7	265.5	306.6	315.1	332.4	357.8	383.3	412.3	440.6	470.0
Morris	125.5	212.7	288.4	342.6	344.2	367.0	392.0	414.0	438.9	462.0	487.9
Ocean	54.3	96.9	146.1	179.4	189.4	199.7	216.4	233.9	252.7	271.6	291.2
Passaic	203.9	209.4	225.0	218.8	213.6	217.7	220.0	222.6	227.2	231.6	237.8
Somerset	69.0	109.3	166.1	217.7	213.4	233.2	262.7	296.0	330.1	363.9	398.1
Sussex	20.4	30.1	42.0	53.1	54.9	58.8	63.6	68.8	74.0	79.6	85.4
Union	300.2	292.6	303.0	289.2	287.9	278.2	284.2	288.6	298.8	307.4	317.6
Warren	29.6	34.9	41.9	44.3	45.9	46.6	49.7	52.4	55.2	58.0	61.1
CONNECTICUT	**731.5**	**874.0**	**1,028.0**	**1,064.9**	**1056.2**	**1,072.2**	**1,135.3**	**1,174.4**	**1,207.8**	**1,239.0**	**1,275.0**
Fairfield	347.6	436.9	509.6	536.9	530.1	534.8	568.3	587.9	603.7	618.1	635.4
Litchfield	51.7	67.7	83.0	89.5	89.7	93.6	100.2	105.5	110.5	115.4	120.4
New Haven	332.2	369.4	435.4	438.6	436.5	443.8	466.8	481.0	493.7	505.6	519.2
REGION	**8,839.7**	**9,268.0**	**10,737.0**	**11,627.7**	**11,526.2**	**11,743.9**	**12,411.8**	**12,967.1**	**13,557.1**	**14,113.0**	**14,727.4**

Source: New York Metropolitan Transportation Council, September 2004
Note: 2002 estimates from U.S. Bureau of the Census, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis

	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By SubRegion (in 000s):											
NEW YORK CITY	4,083.7	3,626.6	3,966.1	3,795.8	4,277.3	4,177.1	4,460.4	4,650.7	4,849.6	5,032.5	5,243.1
LONG ISLAND	868.9	1,099.3	1,329.8	1,316.3	1,457.5	1,488.8	1,565.7	1,640.5	1,705.9	1,757.5	1,812.2
MID HUDSON	696.8	830.1	1,009.2	976.9	1,079.6	1,123.8	1,170.9	1,222.7	1,279.7	1,342.9	1,411.5
NEW JERSEY	2,458.8	2,837.9	3,403.9	3,386.3	3,748.3	3,882.0	4,079.5	4,278.9	4,514.1	4,741.1	4,985.7
CONNECTICUT	731.5	874.0	1,028.0	994.3	1,064.9	1,072.2	1,135.3	1,174.4	1,207.8	1,239.0	1,275.0
REGION TOTAL	8,839.7	9,268.0	10,737.0	10,469.6	11,627.7	11,743.9	12,411.8	12,967.1	13,557.1	14,113.0	14,727.4

Total Employment by Subregion, 1970-2030
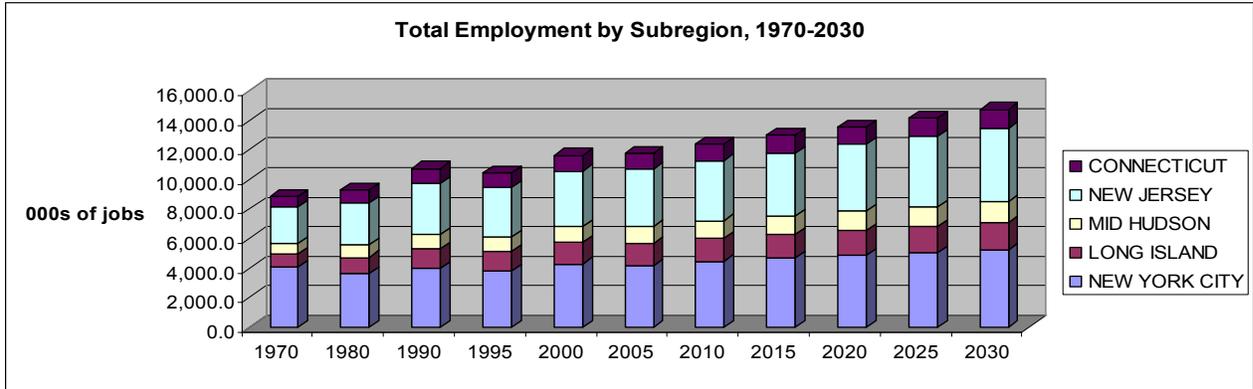
	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By NAICS Industry (in 000s):											
Constr'n & Nat'l Resources			353.6	284.0	376.0	388.9	409.6	426.5	451.2	479.8	524.3
Manufacturing			1,109.5	892.2	828.2	633.5	575.5	536.5	504.8	474.2	445.8
Transp'n, Trade, & Utilities			1,888.8	1,783.9	1,906.9	1,867.8	1,948.3	2,039.8	2,120.6	2,183.9	2,260.5
Information			360.9	337.8	389.4	345.8	358.8	369.5	384.3	396.8	398.2
Finance, Insur, Real Estate			918.9	844.6	914.4	870.3	914.1	926.2	922.0	907.6	893.4
Profess'l & Business Services			1,136.1	1,151.7	1,463.1	1,471.4	1,730.2	1,910.6	2,074.5	2,269.8	2,502.9
Educ'l & Health Services			1,148.5	1,323.4	1,504.3	1,650.7	1,796.9	1,915.8	2,030.4	2,128.2	2,209.4
Leisure & Hospitality			587.9	578.5	663.5	703.1	770.4	823.0	860.1	885.5	925.6
Other Services	6698.6	6843.6	319.2	324.9	380.9	400.5	431.6	475.5	512.2	552.4	608.3
Government	1201.6	1345.7	1,497.0	1,433.0	1,481.3	1,527.4	1,551.5	1,542.5	1,592.5	1,611.9	1,611.5
Proprietors	939.5	1078.7	1,416.8	1,515.6	1,719.7	1,884.4	1,924.8	2,001.0	2,104.5	2,222.9	2,347.5

Regional Employment by Industry, 1990-2030
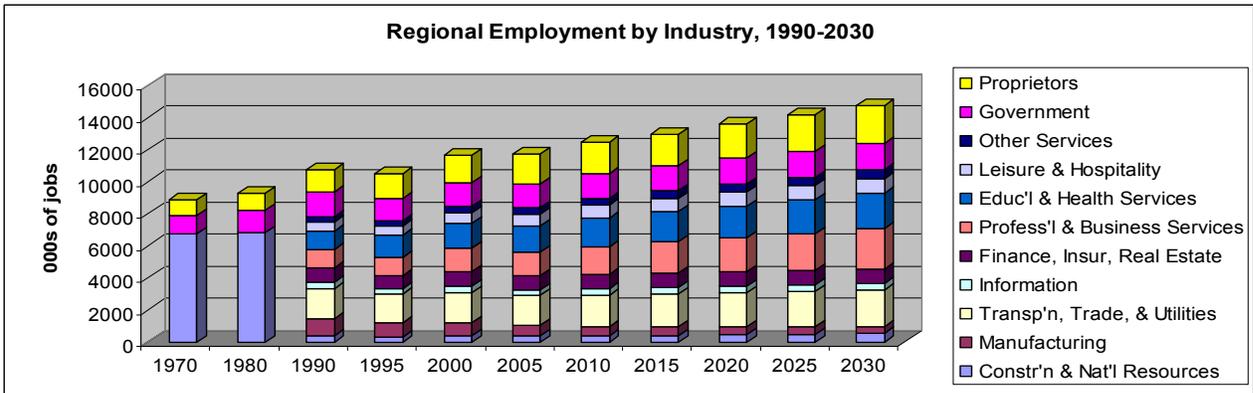
(Note: Industry classification prior to 1990 on SIC code basis)

Source: New York Metropolitan Transportation Council, September 2004

31 COUNTY NEW YORK URBAN REGION HOUSEHOLDS, 1970-2030

	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By SubRegion (in 000s):											
NEW YORK CITY	2,836.9	2,788.5	2,819.4	2,901.8	3,021.6	3,089.3	3,163.2	3,263.1	3,420.0	3,543.3	3,591.5
LONG ISLAND	696.6	809.1	856.2	882.9	916.7	942.9	970.8	1,002.5	1,035.8	1,057.5	1,055.5
MID HUDSON	547.5	653.5	709.3	736.8	772.0	826.3	870.8	902.1	941.5	966.6	998.5
NEW JERSEY	1,807.6	2,035.3	2,206.5	2,310.7	2,423.2	2,520.5	2,580.6	2,657.1	2,757.4	2,918.5	3,043.4
CONNECTICUT	521.1	607.8	676.1	693.6	714.8	745.9	776.2	809.9	844.1	877.9	917.1
REGION TOTAL	6,409.7	6,894.3	7,267.5	7,525.8	7,848.3	8,124.9	8,361.6	8,634.6	8,998.7	9,363.8	9,606.0

Resident Households by Subregion, 1970-2030
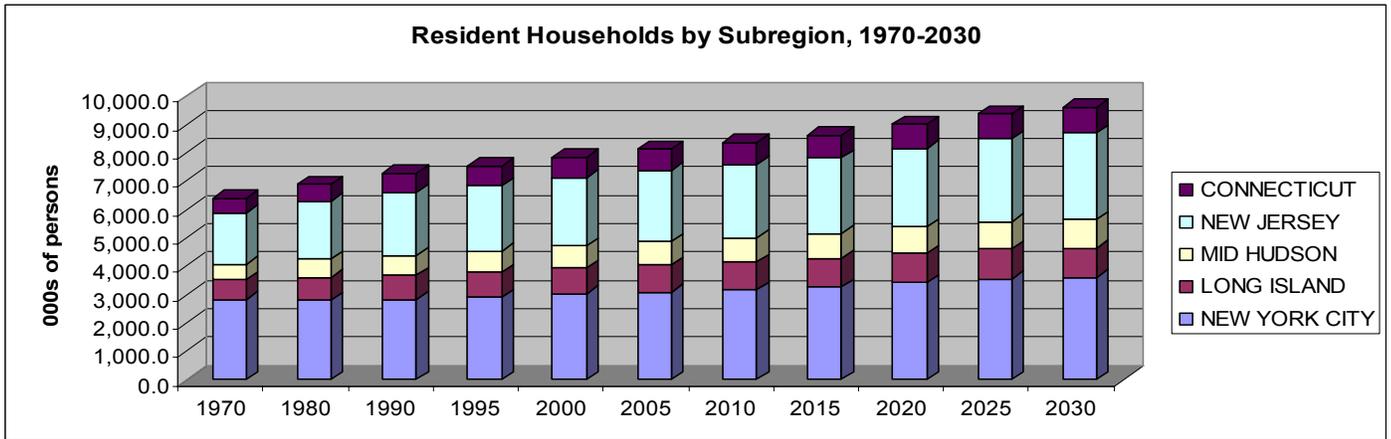
	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By Average Household Size:											
NEW YORK CITY	2.74	2.49	2.54	2.59	2.58	2.60	2.60	2.60	2.58	2.58	2.59
LONG ISLAND	3.58	3.16	2.99	2.95	2.96	2.95	2.95	2.93	2.90	2.92	2.98
MID HUDSON	3.17	2.84	2.74	2.72	2.73	2.69	2.67	2.66	2.65	2.69	2.75
NEW JERSEY	3.15	2.83	2.70	2.69	2.69	2.69	2.69	2.68	2.65	2.64	2.64
CONNECTICUT	3.16	2.78	2.61	2.57	2.59	2.56	2.53	2.50	2.46	2.44	2.43
REGION TOTAL	3.02	2.73	2.67	2.67	2.68	2.67	2.67	2.66	2.63	2.64	2.65
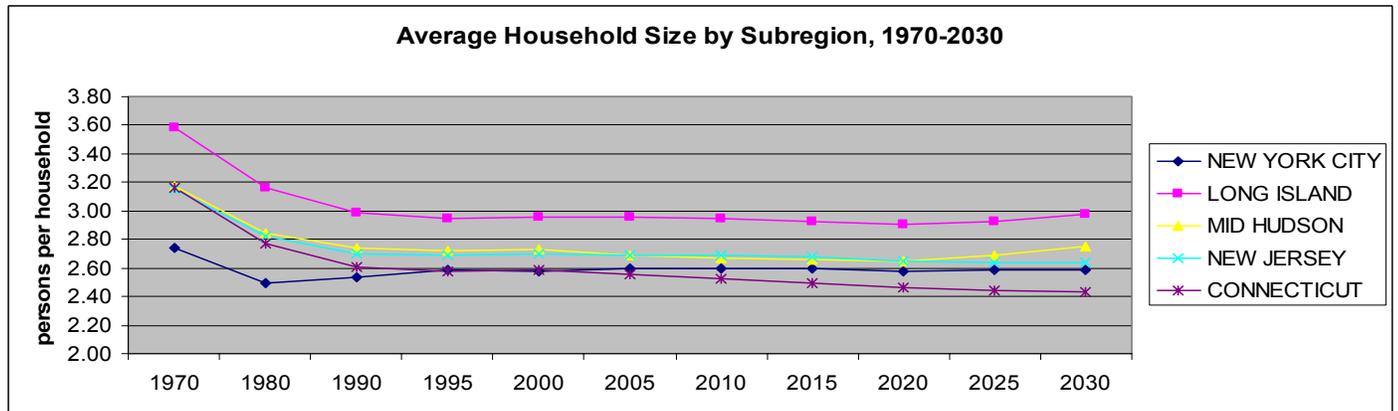
Average Household Size by Subregion, 1970-2030

Source: New York Metropolitan Transportation Council, September 2004

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31 COUNTY NEW YORK URBAN REGION CIVILIAN LABOR FORCE, 1970-2030

	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By SubRegion (in 000s):											
NEW YORK CITY	3,330.8	3,161.3	3,579.8	3,545.2	3,706.4	3,607.3	3,843.5	3,965.6	4,124.9	4,276.6	4,440.9
LONG ISLAND	988.7	1,228.6	1,388.8	1,411.5	1,407.0	1,502.8	1,577.2	1,639.1	1,683.1	1,716.0	1,758.3
MID HUDSON	734.2	918.2	1,055.4	1,044.3	1,031.9	1,175.7	1,232.9	1,284.8	1,338.9	1,410.2	1,477.9
NEW JERSEY	2,448.1	2,842.2	3,264.2	3,259.0	3,382.6	3,804.6	3,877.0	3,947.3	4,161.8	4,355.9	4,601.9
CONNECTICUT	723.9	859.8	985.8	994.3	987.2	1,041.8	1,077.5	1,106.0	1,137.3	1,165.0	1,197.3
REGION TOTAL	8,225.8	9,010.0	10,274.0	10,254.4	10,515.0	11,132.2	11,608.1	11,942.8	12,446.0	12,923.7	13,476.4
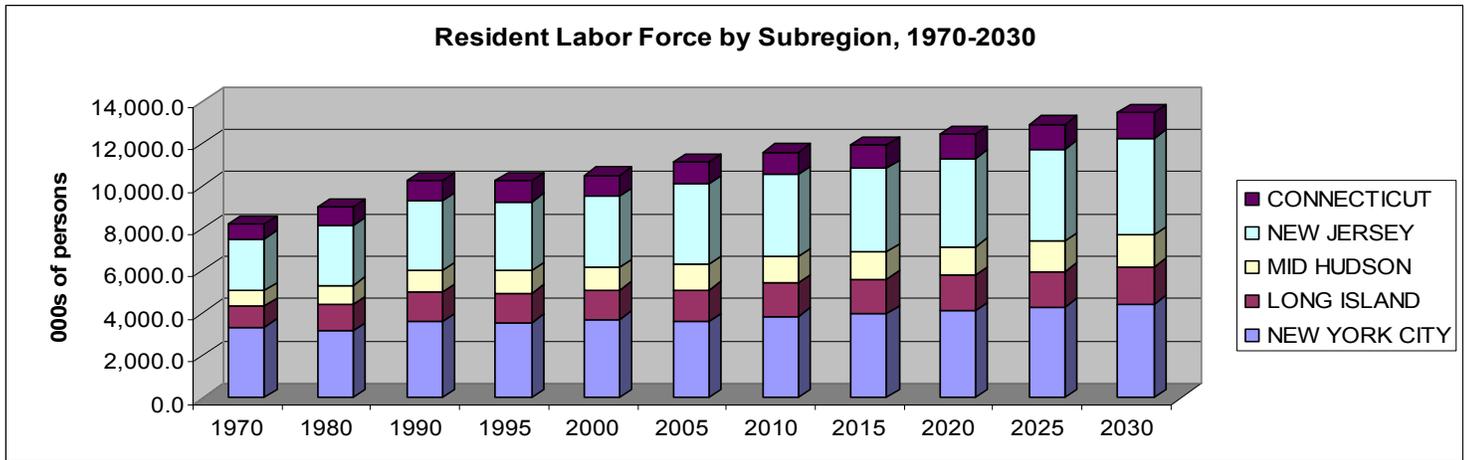
Resident Labor Force by Subregion, 1970-2030

	1970	1980	1990	1995	2000	2005	2010	2015	2020	2025	2030
By Race / Ethnicity (in 000s):											
WHITE NON-HISPANIC	6,762.9	6,732.2	6,949.2	6,845.7	6,453.3	6,476.2	6,283.1	5,958.2	5,616.5	5,184.9	4,568.3
BLACK NON-HISPANIC	889.5	1,244.8	1,530.8	1,557.6	1,609.0	1,680.8	1,779.4	1,833.5	1,885.9	1,895.2	1,921.5
ASIAN / OTHER NON-HISPANIC	94.3	211.1	500.6	499.6	785.8	976.4	1,213.3	1,467.8	1,803.5	2,203.1	2,724.0
HISPANIC	479.0	821.9	1,293.3	1,351.4	1,666.9	1,998.7	2,332.2	2,683.3	3,140.0	3,640.5	4,262.6
REGION TOTAL	8,225.8	9,010.0	10,274.0	10,254.4	10,515.0	11,132.2	11,608.1	11,942.8	12,446.0	12,923.7	13,476.4
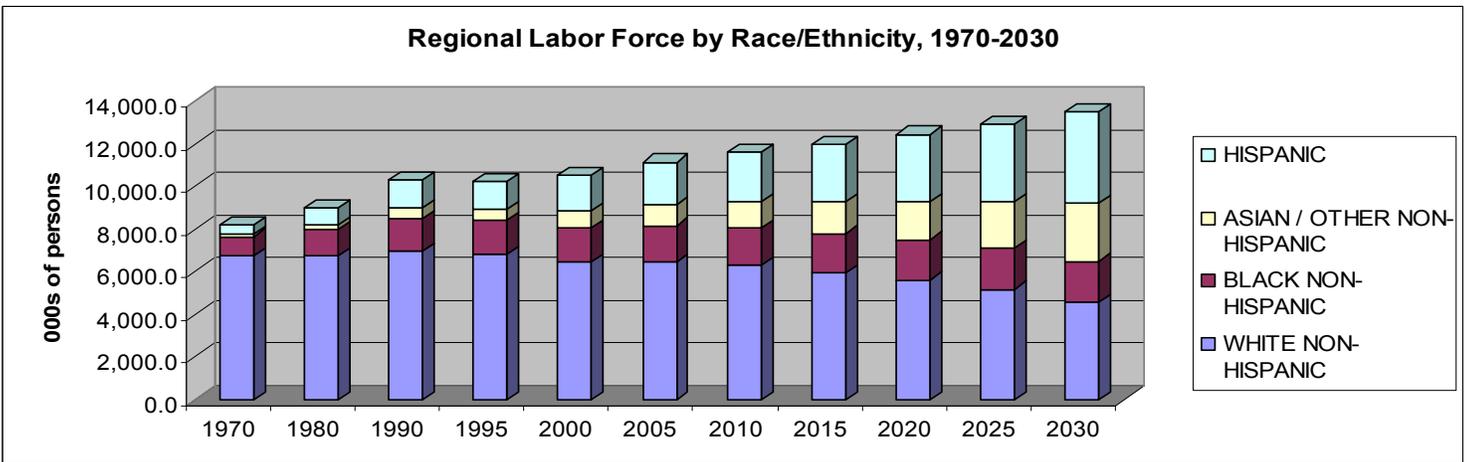
Regional Labor Force by Race/Ethnicity, 1970-2030

Source: New York Metropolitan Transportation Council, September 2004

31 COUNTY NEW YORK URBAN REGION GROWTH RATES, 1970-2030 *Appendix C*

Population: *Ave Anl Rate of Change:*	1970-80	1980-90	1990-95	1995-2000	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2000-2030
NEW YORK CITY	-1.0%	0.4%	0.9%	0.9%	0.5%	0.5%	0.6%	0.8%	0.8%	0.3%	0.6%
LONG ISLAND	0.2%	0.0%	0.6%	0.5%	0.6%	0.6%	0.5%	0.5%	0.6%	0.4%	0.6%
MID HUDSON	0.6%	0.5%	0.8%	0.7%	1.2%	0.9%	0.6%	0.9%	0.9%	1.1%	1.1%
NEW JERSEY	0.1%	0.4%	1.0%	0.9%	0.8%	0.5%	0.5%	0.5%	1.1%	0.8%	0.8%
CONNECTICUT	0.3%	0.5%	0.5%	0.4%	0.7%	0.6%	0.6%	0.6%	0.7%	0.8%	0.7%
REGION TOTAL	-0.3%	0.3%	0.8%	0.8%	0.7%	0.6%	0.6%	0.7%	0.8%	0.6%	0.7%

Employment: *Ave Anl Rate of Change:*	1970-80	1980-90	1990-95	1995-2000	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2000-2030
NEW YORK CITY	-1.1%	0.9%	-0.9%	2.5%	-0.5%	1.4%	0.9%	0.9%	0.8%	0.8%	0.8%
LONG ISLAND	2.7%	2.1%	-0.2%	2.1%	0.4%	1.0%	1.0%	0.8%	0.6%	0.6%	0.8%
MID HUDSON	1.9%	2.2%	-0.6%	2.1%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%
NEW JERSEY	1.5%	2.0%	-0.1%	2.1%	0.7%	1.0%	1.0%	1.1%	1.0%	1.0%	1.1%
CONNECTICUT	1.9%	1.8%	-0.7%	1.4%	0.1%	1.2%	0.7%	0.6%	0.5%	0.6%	0.7%
REGION TOTAL	0.5%	1.6%	-0.5%	2.2%	0.2%	1.1%	0.9%	0.9%	0.8%	0.9%	0.9%

Resident Labor Force: *Ave Anl Rate of Change:*	1970-80	1980-90	1990-95	1995-2000	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2000-2030
NEW YORK CITY	-0.5%	1.3%	-0.2%	0.9%	-0.5%	1.3%	0.6%	0.8%	0.7%	0.8%	0.7%
LONG ISLAND	2.4%	1.3%	0.3%	-0.1%	1.4%	1.0%	0.8%	0.5%	0.4%	0.5%	0.8%
MID HUDSON	2.5%	1.5%	-0.2%	-0.2%	2.8%	1.0%	0.8%	0.8%	1.1%	1.0%	1.4%
NEW JERSEY	1.6%	1.5%	0.0%	0.8%	2.5%	0.4%	0.4%	1.1%	0.9%	1.1%	1.2%
CONNECTICUT	1.9%	1.5%	0.2%	-0.1%	1.1%	0.7%	0.5%	0.6%	0.5%	0.6%	0.7%
REGION TOTAL	1.0%	1.4%	0.0%	0.5%	1.2%	0.9%	0.6%	0.8%	0.8%	0.9%	0.9%

Households: *Ave Anl Rate of Change:*	1970-80	1980-90	1990-95	1995-2000	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2000-2030
NEW YORK CITY	-0.2%	0.1%	0.6%	0.8%	0.4%	0.5%	0.6%	1.0%	0.7%	0.3%	0.6%
LONG ISLAND	1.6%	0.6%	0.6%	0.8%	0.6%	0.6%	0.7%	0.7%	0.4%	0.0%	0.5%
MID HUDSON	1.9%	0.9%	0.8%	1.0%	1.4%	1.1%	0.7%	0.9%	0.5%	0.7%	1.0%
NEW JERSEY	1.3%	0.8%	0.9%	1.0%	0.8%	0.5%	0.6%	0.8%	1.2%	0.9%	0.9%
CONNECTICUT	1.7%	1.1%	0.5%	0.6%	0.9%	0.8%	0.9%	0.8%	0.8%	0.9%	0.9%
REGION TOTAL	0.8%	0.5%	0.7%	0.9%	0.7%	0.6%	0.7%	0.8%	0.8%	0.5%	0.7%

Source: New York Metropolitan Transportation Council, September 2004