**New York
Metropolitan
Transportation
Council**

The Metropolitan Planning Organization

Demographic and
Socioeconomic Forecasting

*Technical Memorandum
Task 1.2.3
Labor Force Model*

NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

DEMOGRAPHIC AND SOCIOECONOMIC FORECASTING

TECHNICAL MEMORANDUM NO. 1.2.3
LABOR FORCE MODEL

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1.1 INTRODUCTION

Background

This memorandum describes the Labor Force Model developed as Task 1.2.3 of the Demographic and Socioeconomic Forecasting project. Work described here represents a recalibration and extension of work performed for Task 8.4 of the Transportation Models and Data Initiative (TMDI) project. The latter is a major effort undertaken by the New York Metropolitan Transportation Council (NYMTC) to forecast the transportation needs of the New York Metropolitan Region[1] through the year 2020. (See Map 1.) The Labor Force Model described here is used to forecast labor force trends to the subregional level. Forecasts are made on a five-year interval basis for the period from 2000 to 2025.

At the outset it is important to conceptually distinguish labor force data from employment. The term "labor force" refers to workers on a resident basis, that is, residents of an area regardless of whether they also work in that area; it includes unemployed as well as employed workers. "Employment," in contrast, refers to jobs by location of workplace -- that is, the number of jobs in a given area regardless of whether the people who hold those jobs also live in that area. Labor force forecasts are driven by expected growth in population, rates of labor force participation, and employment levels. Employment forecasts, in contrast, are based on market-driven factors. These include, at the regional level, relative competitiveness in terms of the 'cost of doing business,' productivity advantages, and local market consumption; and, at the national level, demand for output, productivity, interest and exchange rates, and inflation. Employment forecasts were conducted in a separate model, which is described in Technical Memorandum 1.2.2. The labor force forecasts depend heavily on outputs of the Population Model, as adjusted for the demand for labor as forecasted by the Employment Model. The Labor Force Model utilizes the US Bureau of the Census Civilian Labor Force concept and decennial data as the basis of the historical and forecasted resident labor force by racial/ethnic group. Historical labor force data collected for this model are presented in Technical Memorandum 1.1.3, *Labor Force Data Collection and Analysis,* which also includes a further discussion of relevant labor force concepts.

Within the process of regional transportation modeling, labor force forecasts are useful for two primary reasons. First, the size and distribution of the labor force affect the

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[1] The New York Metro Region includes the following counties, by subregion: New York City subregion: Bronx, Kings, New York, Queens, Richmond Counties; Long Island subregion: Nassau & Suffolk Counties; Mid-Hudson subregion: Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester Counties; New Jersey subregion: Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, Warren Counties; Connecticut subregion: Fairfield, Litchfield, New Haven Counties.

Map 1. Thirty-One County New York Metropolitan Region

number and pattern of journey-to-work trips, which account for a large proportion of all travel within the region, especially during peak hours. Labor force forecasts are thus necessary as a control in the process of journey-to-work forecasting. Second is the effect of labor force demand on population. Unlike at the national level, where employment levels tend to follow population growth, at the regional level employment leads population, with the number of jobs establishing the demand for labor, which in turn affects population and migration. A growing job base can be expected to attract workers to a region, and a declining job base will result in out-migration of local workers seeking employment elsewhere. By matching the expected labor force supply to anticipated levels of employment, it is possible to account for these effects on migration.

In any forecast period, the Labor Force Model therefore produces two sets of outputs: first, the initial labor force estimate and, second, the net in- or out-migration level induced by a match between labor force supply and demand for employees. Initial labor force estimates are generated, in any forecast year, based upon expected population from net natural increase and aging of the population, previous period rates of net migration, and forecasted rates of labor force participation. Induced net in- or out-migration is calculated by comparing this resulting labor force supply with the expected levels of employment as forecasted in the Employment Model. The Population Model described in Technical Memo 1.2.1, then, incorporates the change to initial net migration that results from this matching process, at each five-year interval. (See Figure 1 and Section 1.3 on methodology, below.)

All outputs of the Labor Force Model are generated by sex and age-group for the population 16 years of age and over. A separate model was run for each subregion; within each subregional model, sub-models generate outputs for each racial/ethnic group (non-Hispanic White, non-Hispanic Black, non-Hispanic Asian/Other, and Hispanic).[2] Each model includes a historical section, covering the years 1970 through 2000, and a forecast section, covering the years 2001 through 2025. All outputs are generated on a five-year interval basis. In addition, the model is used to disaggregate historical Civilian Labor Force figures from the decennial Census by age, sex and racial/ethnic group. (See Appendices A and B.)

Reflecting the interactions, discussed above, between labor force supply, employment availability, and population, the Labor Force Model was developed in conjunction with other models. It depends on the Population Model (Task 1.2.1) for inputs of forecasted population by sex, race/ethnicity and age, and on the Employment Model (Task 1.2.2) for inputs of forecasted non-agricultural employment and proprietors. The Labor Force Model, in turn, controls the results of the Population Model.[3] A separate forecasting routine disaggregates the subregional labor force forecasts to the county level.

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[2] See Technical Memorandum 1.1.1 for a further discussion of racial/ethnic groupings used for this study.

[3] Under the TMDI, the Labor Force Model outputs were also used as inputs to a separate Journey-to-Work Model. No comparable model is being developed for the current round of 2025 forecasts. However, journey-to-work forecasts will be produced by the Enhanced Best Practices Model developed for the TMDI project.

Figure 1. Labor Force Model Flow Chart
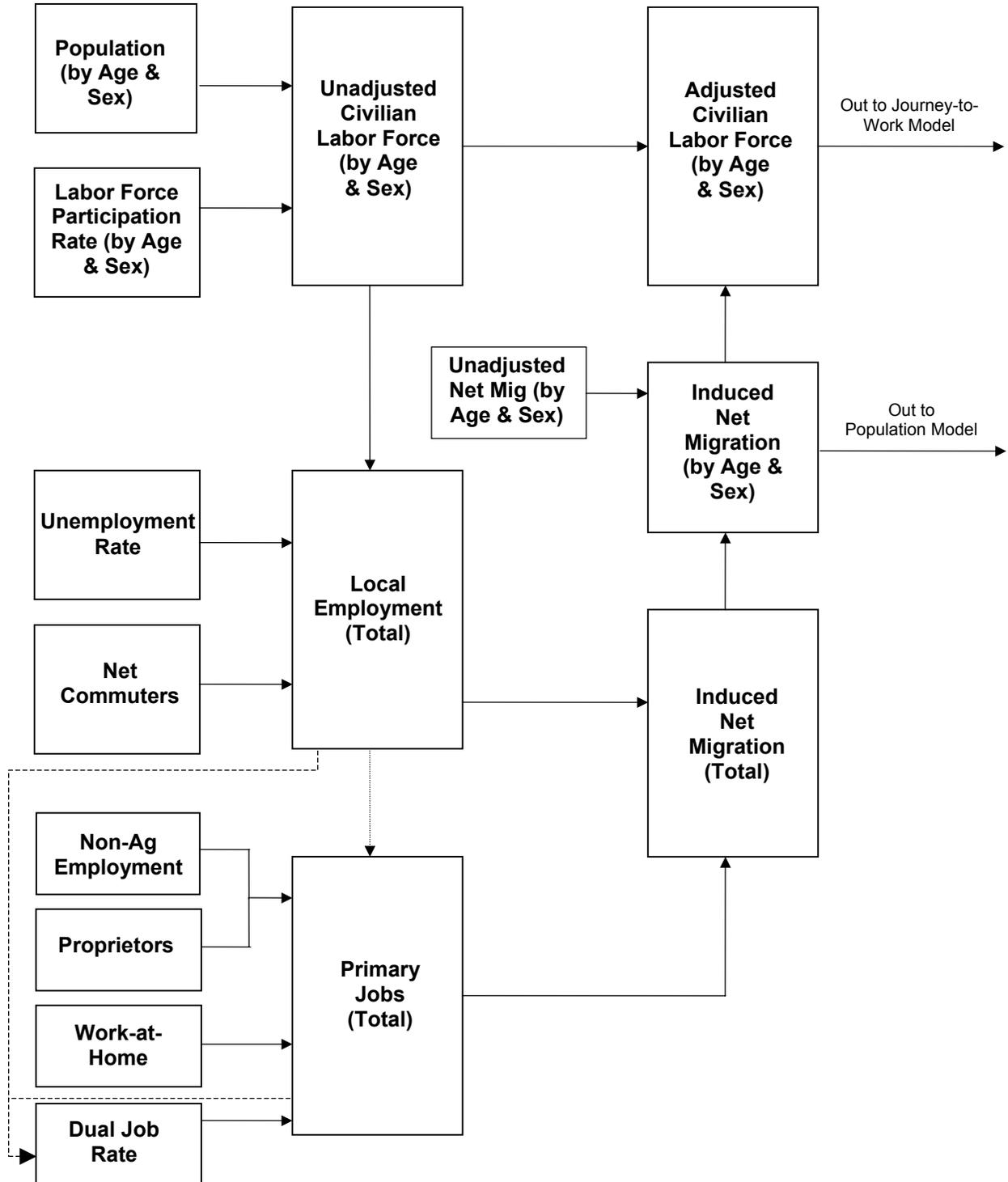
The Labor Force Model is delivered to NYMTC in Microsoft Excel version 97 workbooks which combine the Labor Force and Population Models. These spreadsheet models will be utilized by NYMTC in periodic monitoring and reforecasting of labor force trends.

Changes from NYMTC TMDI Task 8.4 Labor Force Model

The methodology used for the current task is basically the same as was used for TMDI Task 8.4. However, some modifications have been made. First, the model's Excel workbook has been streamlined to facilitate the updating of model inputs. Inputs have been broken into separate worksheets for ease of entry and validation. The Population and Labor Force Models, which formerly shared a single worksheet for each subregion and racial/ethnic group, also have been given separate worksheets. As before, model outputs are summarized on independent worksheets.

The base year for the forecasts has been extended from 1990 to 2000. Population controls for the year 2000 have been estimated outside the cohort model framework based on the latest (1998) Census Bureau estimates, as discussed in Technical Memorandum 1.2.1.

Employment figures used as inputs to the Labor Force Model are the latest currently available. Some figures used in TMDI Task 8.4 have been rebenchmarked and thus differ from those used in developing the TMDI forecasts. Employment data used as inputs for this model are presented and discussed in Technical Memorandum 1.1.2, Employment Data Collection and Analysis.

In the previous round of work, unemployment rates for future years were estimated as the average of historical rates, by racial/ethnic group, and were held constant throughout the forecast period. In the current model, unemployment rates are estimated based on county level unemployment rates for the labor force as a whole produced as part of the Employment Model. A weighted average was used to convert county rates to subregional rates, which were then indexed to 1990 racial/ethnic rates, as discussed below.

For the sake of consistency, tables in the current memorandum have been restricted to model inputs, such as labor force participation rates and historical levels of net commutation. TMDI Technical Memorandum 8.4 included some tables (such as future-year net commutation and dual job holding rates) which are properly considered as model outputs. These include racial/ethnic estimates for some figures (such as net commutation and dual job holding) which depend on inputs from the Population Model. Comparable tables will appear in Technical Memorandum 1.3.3, which presents results of the Labor Force Model.

Overview

The section below includes a discussion of the various inputs to the Labor Force Model. This is followed by a section describing the model itself and its outputs. Finally, there is

a description of the Task 1.2.3 work products. Labor force forecasting results and analysis will be presented by five-year interval in a separate memo under Task 1.3.3.

1.2 DATA INPUTS

This section enumerates the various model inputs, gives their sources, and, where relevant, discusses the methodology for estimating inputs for forecast years.

The subregional Labor Force Model incorporates a number of independent variables as inputs at each five-year interval:

- Population by racial/ethnic group, sex, and age-group.
- Labor Force Participation Rate by racial/ethnic group, sex, and age group.
- Unemployment Rate by racial/ethnic group.
- Net Commutation.
- Employment levels, combining non-agricultural employees and proprietors.
- Work-at-Home Employment.

For the historical section of the model, most of these data were gathered under Tasks 1.1.1, 1.1.2, and 1.1.3. Sources of these data are discussed in the Technical Memoranda for those tasks, which are referenced below as appropriate. Where additional data collection was necessary specifically for the present task, a full discussion of sources is included below. For the forecast section, some of the necessary inputs were derived from the outputs of other models; others are the official forecasts of government sources. Where necessary, estimates were made for some inputs based on historical data.

As mentioned above, the subregional models incorporate submodels for each racial/ethnic group. These sub-models are interdependent where necessary to aggregate racial/ethnic shares of overall employment, commutation, and work-at-home employment to subregional totals. For the sake of clarity, this aggregation process is described together with the discussion of each input, below.

Population

The Labor Force Model depends on the Population Model for inputs, at each five-year interval, of population by sex and age cohort for all persons 16 years and older, by racial/ethnic group. The seven age cohorts are determined by their differences in labor force participation, as follows:

- Age 16 - 19: Teenage workers.
- Age 20 - 24: Recent high school and college graduates.
- Age 25 - 34: Young labor force.
- Age 35 - 44: Prime labor force.
- Age 45 - 54: Middle labor force.
- Age 55 - 64: Mature labor force.

- Age 65+: Retirement Ages.

Historical Population

Population data were collected from the decennial Census for the years 1970, 1980 and 1990. These are discussed in Technical Memo 1.1.1, which describes population data collection and analysis.

For the intercensal years 1975 and 1985, the Census Bureau has published population estimates, but without the detailed breakdowns by racial/ethnic group, sex, age, and geographic area required for the modeling process. Therefore, for these years, figures were interpolated from the preceding and following decennial Census years.

More detailed population estimates are available from the Census Bureau for the 1990s (though without the full necessary racial/ethnic breakdown), and formed the basis for the population figures incorporated into the Model for 1995 and 2000. The estimation methodology and data sources used are discussed in Technical Memorandum 1.2.1, *Population Model*.

Forecasted Population

At the start of each five-year forecast period, the Population Model generates an 'open' population estimate by racial/ethnic group, sex and age. These estimates are equivalent in the model structure to a historical census count or intercensal estimates or interpolation. For each period, an initial 'closed' estimate of population is made on an age/sex-specific basis as the sum of open population, natural increase, and an initial estimate of net migration based on historical levels. The 'closed' estimate corresponds to the expected population change unmodified by the anticipated demand for labor. These 'closed' population figures are used as population inputs to the Labor Force Model in forecast years. (A discussion of the population forecasting methodology appears in Technical Memo 1.2.1, and the forecasted figures are included in Technical Memo 1.3.1. It should be noted that the Population Model depends, in turn, on outputs of the Labor Force Model, as discussed below in section 1.3 of this Memorandum.)

Labor Force Participation Rates

The Labor Force Participation Rate is defined as the percentage of all residents of a particular population group who are in the Civilian Labor Force, as expressed in the equation:

$$LFPR = \frac{CLF}{POP}$$

where LFPR equals Labor Force Participation Rate, CLF equals the Civilian Labor Force and POP equals the resident population. Civilian Labor Force includes both employed and unemployed workers, and excludes military personnel and all other residents who are not in the labor market. Labor Force Participation Rates for the historical section of

the model were calculated by age, sex, and racial/ethnic characteristics of the subregional population, based on data from the decennial Census[4]. Rates for the forecast section were benchmarked on national forecasts prepared by the US Bureau of Labor Statistics.

Historical Rates

Historical racial/ethnic Labor Force Participation Rates are provided for the five subregions in 1970, 1980 and 1990 by age and sex. Rates for 1995 through 2025 were benchmarked on the differences between national and regional rates in 1990. (Rates for 1970 and 1980 did not influence the development of future rates.) Rates for 1990 are derived from the Census Bureau's *Census/Equal Employment Opportunity (EEO) Special File* CD-ROM. Since the 1980 Census EEO file did not provide the same extensive labor force participation data by racial/ethnic, age/sex and geographic detail as did the 1990 Census EEO file, and the model's need for such detail was less significant on a historical basis, both 1970 and 1980 rates were developed from decennial Census data published in the report *Characteristics of the Population* Chapter B, "General Population Characteristics." These Census sources provide county-level CLF and/or LFPR data, with limited age-, race- and sex-specific figures depending on the Census year. The historical Labor Force Participation Rates incorporated in the model disaggregate Census control totals where necessary to calculate age/sex specific rates by race/ethnicity. Different adjustments were necessary for each year because of differences in Census data reporting by age and race/ethnicity. These methodologies, however, all follow the same general pattern. First, county-level Census control totals were used to aggregate subregional-level CLF and population figures for each racial/ethnic group, disaggregated by sex and age. This can be expressed by the equations:

$$CLF_{si} = \sum CLF_{ci}$$

$$POP_{si} = \sum POP_{ci}$$

where s indicates subregion, c indicates county and i indicates age group. Second, CLF figures were divided by the corresponding population figures to derive group-specific LFPRs:

$$LFPR_{si} = \frac{CLF_{si}}{POP_{si}}$$

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[4] It should be noted that all population figures used in the calculation of Labor Force Participation Rates are based upon the Census Bureau's STF data set, whereas the data described in the section above on population inputs rely on the Bureau's Modified Age, Race, Sex (MARS) data set for 1980 and 1990. The MARS data set incorporates adjustments to the STF data in order to improve allocation by racial/ethnic group and age. However, since the Census's labor force figures rely on unadjusted STF population data, STF data were used in the calculation of Labor Force Participation Rates for the sake of consistency.

Data Limitations

The 1970 Census *Characteristics of the Population* includes age-specific, county-level LFPR data for three groups: the Total population, Negroes, and (depending on the state) one of two Hispanic subgroups: Persons of Puerto Rican Birth or Parentage for New York and New Jersey, and Persons of Spanish Language for Connecticut. Differences in racial/ethnic group definitions between 1970 Census data and those used for this study were accounted for as follows: 1) the Census's LFPR figures for Persons of Puerto Rican Birth or Parentage or Persons of Spanish Language were adopted, as appropriate for each state, for Hispanics as a whole, and used with the corresponding population figures to compute Hispanic LFPR; 2) the Census's Negro figures were adopted for non-Hispanic Blacks and used with the corresponding population figures to compute Black LFPR; 3) since the 1970 Census provides no age-specific labor force data for Whites or Asians, CLF figures for the combined White and Asian population were inferred by excluding the Census data for Blacks and Hispanics from the data for the Total population for each age group. These combined White/Asian figures were used with their corresponding population figures to compute White/Asian LFPR. (See Appendix C for an example of the 1970 methodology.)

In the 1980 Census, reporting of age- and race-specific labor force data is extremely limited at the county level. On the one hand, CLF data broken down by racial/ethnic group include only sex-specific totals with no age breakdown; on the other hand, age-specific CLF data are reported only in aggregate for the total CLF, and even there only at a coarse level. Given these limitations, the approach taken for this year was to use both the race-specific CLF totals and the age-specific figures for the entire Civilian Labor Force to control initial age/sex-specific CLF estimates for each racial/ethnic group. These initial estimates were made based on age/sex-specific Census population data and age/sex-specific LFPRs for major metropolitan areas or whole states in the New York Metropolitan Region. (See Appendix D for an example of the 1980 methodology.)

The 1990 *Census/Equal Employment Opportunity (EEO) Special File* CD-ROM includes detailed age- and sex-specific CLF figures aggregated by the racial/ethnic groups used in this study. Only minor adjustments were necessary to account for differences in age-group reporting.

Estimation of Post-1990 Rates

There is no source for detailed intercensal labor force estimates by racial/ethnic group, sex and age for small areas comparable to the Census Bureau's annual series of population estimates. Therefore it has been necessary to estimate post-1990 rates based on the 1990 decennial Census figures, in combination with national estimates and forecasts of Labor Force Participation Rates.

Labor Force Participation Rates were projected by indexing 1990 subregional rates on LFPR forecasts for the nation as a whole prepared by the Bureau of Labor Statistics'

Office of Employment, on a racial/ethnic basis by age and sex.[5] (See Appendix E.) The BLS forecasts extend only to the year 2008, and thus cover only the early part of the Labor Force Model forecast period. They provide no trends for the later period when racial/ethnic restructuring of the labor force is expected to be particularly great, and when the New York Metropolitan Region is expected to significantly outpace the nation. For the TMDI it was found necessary to adjust rates for the later years based on a review of the model outputs and analyst's judgment regarding regional labor force trends.[6] The increasing relative -- as well as absolute -- importance of minorities in the Region's labor force beyond 2005 was considered likely to encourage greater supply, just as the declining importance of earlier dominant sources of labor has correlated with reductions in their Labor Force Participation Rates. For the draft version of the labor force forecasting the decision was made to extend the BLS rates for 2008 to the end of the forecast period, leaving open the possibility of adjustments for the final draft based on review of the draft figures by NYMTC, its partners, and the consultant. These adjusted figures are presented in Table 1, which supersedes the corresponding table included in the draft version of the memorandum.

Unemployment Rates

Unemployed persons are defined as those who are in the Civilian Labor Force but are not currently working; they are counted based on unemployment claims. Unemployment figures do not include certain groups of persons who are not employed for a variety of reasons and are not considered part of the labor force, such as the disabled or the long-term unemployed who have stopped seeking work. (See Technical Memorandum 1.1.3 for a discussion of historical unemployment rates and concepts.) Unemployment rate is defined as the percentage of unemployed persons in the Civilian Labor Force:

$$UNEMP\_RATE = \frac{UNEMP}{CLF}$$

The Labor Force Model requires Unemployment Rate inputs at each interval for each racial/ethnic group as a whole; age- and sex-specific Unemployment Rates are not required. (See Table 2.)

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[5]All BLS Labor Force Participation Rate estimates and projections are available at their web site: www.bls.gov/emphome.htm. Projections are discussed in some detail in a series of articles contained in the Bureau's publication, *Monthly Labor Review.* See in particular two articles by Howard Fullerton, Jr.: "Labor Force Participation: 75 Years of Change, 1950-98 and 1998-2025", December 1999 and "The Labor Force: Steady Growth, Changing Composition," November 1999. Both are available free of charge in Adobe Acrobat (pdf) format at the above-referenced web site.

[6] The forecasted Labor Force Participation Rates for Hispanics, Asians and Blacks were adjusted upward between 2010 and 2020 by factors ranging from 1.05 to 1.15 as the multiple of the nationally-driven subregionally-benchmarked forecasts. Thus, for the initial year of adjustment, 2010, each age/sex Labor Force Participation Rate was increased by 5%.   This adjustment was made after inspection of the national forecasts, which at the time of the TMDI forecasts held Labor Force Participation Rates constant after 2005, but which allowed modest changes of the order adopted between 1990 and 2005.

Historical Section

Historical unemployment inputs are derived from a combination of US Census and state Department of Labor sources. The decennial Census provides county-level unemployment data by race and ethnicity for the years 1970, 1980 and 1990, although reporting is incomplete and reflects problems with racial/ethnic categorizations similar to those cited for Labor Force Participation Rates. State DOLs provide unemployment data for intercensal years, but not by racial/ethnic group. Technical Memorandum 1.1.3 contains a further discussion of these data sources.

Census Years

For each of the Census years, subregional Unemployment Rates were derived from county-level data as the number of unemployed persons divided by the size of the CLF:

$$UNEMP\_RATE_s = \frac{\sum UNEMP_c}{\sum CLF_c}$$

where *c* denotes county-level figures and *s* denotes subregional-level figures.

Reporting by racial/ethnic group varied between the Census years, and was thus reconciled with the categories used in this study differently for each year. The 1970 Census includes county-level unemployment figures for the population as a whole as well as for the racial group Negroes, and (depending on the state) one of two ethnic Hispanic subgroups: Persons of Puerto Rican Birth or Parentage for New York and New Jersey, and Persons of Spanish Language for Connecticut. Because no unemployment data were reported specifically for White or Asian/Other groups, a combined White/Asian Unemployment Rate was derived based on the residual unemployed and Civilian Labor Force figures (after Negro and Hispanic figures were excluded from totals).

The 1980 Census reports county-level unemployment and Civilian Labor Force figures for each of five racial categories (White, Black, American Indian, Asian and Pacific Islander, and Other) as well as for Hispanics, which can include persons of any race. Census figures for Blacks and Hispanics were adopted directly for the corresponding categories non-Hispanic Black and Hispanics. Census figures for Asian and Pacific Islander, American Indian, and Other were combined and adopted for the category non-Hispanic Asian/Other. Census figures for Whites were adopted for the category non-Hispanic White after excluding double-counting in the Census due to the overlap of reporting for the Hispanic ethnic group and the various racial groups.

For 1990, unemployment figures aggregated by racial/ethnic group were adopted from the Census' *Social and Economic Characteristics* report, with minor adjustments to account for double-counting of Hispanics. Civilian Labor Force figures by mutually exclusive racial/ethnic group were adopted directly from the *Census/Equal Opportunity (EEO) Special File* CD-ROM disk.

Rates for 1975, 1985 and 1995

As discussed above, the source used for unemployment rates on a racial/ethnic basis is the US decennial Census, available for 1970, 1980 and 1990. Estimates of total and unemployed civilian labor force are available from the state Departments of Labor (DOL) at the county level for all years through 1999, but not by racial/ethnic group (see Technical Memorandum 1.1.3, Table 8). Subregional unemployment rates were calculated from these data using the formula above. These total subregional figures were adjusted by racial/ethnic group on the assumption that the ratio of the group-specific Unemployment Rate to that of the Civilian Labor Force as a whole would be the same as for the preceding Census year. This can be expressed as the formula:

$$UNEMP\_RATE_{ir} = UNEMP\_RATE_{it} \times \frac{UNEMP\_RATE_{cr}}{UNEMP\_RATE_{ct}}$$

where *i* refers to the intercensal year (1975, 1985 or 1995), *c* refers to the preceding Census year, *r* refers to a race-specific Unemployment Rate for the given year, and *t* refers to the Unemployment Rate for the Civilian Labor Force as a whole.

Unemployment Rates for Forecast Years

Unemployment rate estimates were prepared for the years 2000 through 2025 as part of the Employment Model (Task 1.2.2). These estimates are conceptually comparable to the state DOL figures used for intercensal years; however total and unemployed labor force figures were not developed as part of the Employment Model. It was therefore necessary to calculate subregional rates as the weighted average of the county rates, using the civilian labor force forecasts produced under TMDI Task 8.11 as weights for each year from 2000 through 2025.[7]

The 1990 decennial Census rates by racial/ethnic group were then indexed to the subregional rates to produce racial/ethnic Unemployment Rate estimates through the year 2025. Conceptually this is identical to the method described for intercensal years, above. Finally, racial/ethnic rates were readjusted so that the resulting total unemployment rates (based on the weighted average of the racial/ethnic rates) were reconciled to the employment model rates.

Net Commutation

Net Commutation figures are input into the Labor Force Model at each five-year interval as part of the subregional labor force-employment match. They are calculated at the subregional level and are defined as the difference between the number of non-resident workers commuting into the subregion and the number of resident workers commuting out of the subregion. Net Commutation levels are positive for New York City and

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[7] 2020 civilian labor force forecasts were used as weights for both 2020 and 2025 since no 2025 CLF forecast was produced for the TMDI.

negative for the other subregions, reflecting the continued importance of the Manhattan CBD as an employment center.

Historical Section

For the Census years, historical Net Commutation levels for each subregion were developed with input from Census county-to-county Journey-to-Work flows, but will not always correspond to Census numbers because of several adjustments: Census flow data reflect travel patterns of respondents during a spring week (April 1) of the decennial year. (See Table 3.) The labor force model adjusts spring travel to reflect commutation between place of work and place of residence on an annual average basis. The 1990 Journey-to-Work flows were adopted as given for this reconciliation; the 1980 flow inputs reflect estimated adjustments to the Journey-to-Work data prepared by Regional Plan Association for the Metropolitan Transportation Authority in 1988. (A detailed discussion of these data sources is presented in TMDI Technical Memorandum 7.6.) Depending upon the commutershed taken to capture work trip flows, gross-in commutation will differ for any destination subregion. The 31 county catchment area was used for this purpose, as demonstrated for New York City with adjustments in 1980:

	Gross-In Commutation	Gross-Out Commutation	Net Commutation
14 New Jersey Counties	198,527	77,793	--
7 Mid-Hudson Counties	143,330	40,907	--
2 Long Island Counties	240,252	72,893	--
3 Connecticut Counties	23,765	4,978	--
Total	605,874	196,571	409,303

Within the Labor Force Model it was necessary to disaggregate total figures for incorporation into each racial/ethnic sub-model. For the purpose of disaggregation it was assumed that Net Commutation levels are proportional to the racial/ethnic distribution of employed workers within the subregion, as described in the formula:

$$NETCOM_R = NETCOM_{TOTAL} \times \frac{EMP_R}{EMP_{TOTAL}}$$

where *NETCOM* indicates subregional Net Commutation, *EMP* indicates subregional resident employed workers, *R* indicates a given racial/ethnic group, and *TOTAL* indicates the total for all racial/ethnic groups. For the intercensal years, Net Commutation levels were estimated based on the preceding and following Census years.

Forecast Section

Total Net Commutation levels were forecasted for each racial/ethnic group at every five-year interval and were assumed to reflect two factors: first, the number of employed workers in the group at the given time period; second, historical ratios of Net Commuters to employed workers. Because of the difficulties of forecasting Net Commutation ratios by racial/ethnic group, the average historical ratio between Net Commuters and employed workers in Census years, a constant, was used for each racial/ethnic group. This can be expressed as the equation:

$$NETCOM_i = EMPL_i \times \frac{(NETCOM_{1970} + NETCOM_{1980} + NETCOM_{1990})}{(EMPL_{1970} + EMPL_{1980} + EMPL_{1990})}$$

where *i* is the forecast year. A deflation factor was applied for the year 1995 in order to account for the slump in New York City employment during this period.

Employment

The employment inputs reflect the number of available jobs in a given subregion at each five-year interval, and combine the amount of non-agricultural payroll employment and the number of proprietors. Non-agricultural employment includes jobs in nine major industry sectors: Manufacturing; Mining; Construction; Transportation, Communications and Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance and Real Estate; Services; and Government. Proprietors includes self-employed persons, partners in non-limited partnerships, and non-farm proprietors. A further discussion of the definition of employment categories can be found in Technical Memo 1.1.2.

Historical Section

The Labor Force Model incorporates employment figures for each five-year interval as reported in Technical Memo 1.1.2; the latter includes annual subregional totals for non-agricultural employment and proprietors based, respectively, on state Department of Labor (DOL) and federal Bureau of Economic Analysis (BEA) data. Within the Labor Force Model it was necessary to disaggregate these figures for inclusion in each racial/ethnic sub-model. For purposes of disaggregation it was assumed that the racial/ethnic distribution of employment is proportional to that of the supply of local commutation-adjusted workers within each subregion, which reflects their relative differences in unemployment. This figure is generated in the supply-side of the Labor Force model for each racial/ethnic group based on the size of the labor force, Unemployment Rates, and net-commutation levels. (See Section 1.3.)

Forecast Section

For the forecast years, the Labor Force Model depends on the Employment Model for inputs of non-agricultural employment and proprietors. The Employment Model generates annual subregional totals for each of these groups. These totals are disaggregated by racial/ethnic group following the same methodology used for the

historical years, described above. Forecasts of the Employment Model are presented in Technical Memorandum 1.3.2.

Work-at-Home Employment

Table 4 presents total Work-at-Home employment by subregion for the period 1970 through 2025. Levels of Work-at-Home employment were incorporated in the Labor Force Model since, for transportation modeling purposes, it is necessary to exclude workers who do not generate commuting trips.

Historical Section

For the Census years, historical total Work-at-Home levels for each subregion were derived from Census county-to-county journey-to-work data. A detailed discussion of these data sources is presented in TMDI Technical Memorandum 7.6. Within the Labor Force Model it was necessary to disaggregate these total figures for inclusion in each racial/ethnic sub-model. For purposes of disaggregation it was assumed that Work-at-Home levels were proportional to the racial/ethnic distribution of residents employed within the subregion. For the intercensal years, Net Commutation levels were estimated based on the preceding and following Census years.

Forecast Section

Total work-at-home employment for the forecast years were estimated within the Labor Force Model by indexing the 1990 subregional totals to the forecasted number of proprietors by subregion. These figures were disaggregated by racial/ethnic group using the same methodology as for the historical period, described above.

Dual Job Rate

To account for workers holding two or more jobs within the jobs-labor force matching process in the forecast years, the Labor Force Model applies a Dual Job Rate for each racial/ethnic group at every five-year interval. The Dual Job Rate for all forecast years is calculated based on the average for all historical periods. The latter are calculated in the reconciliation of historical labor force and employment series as the ratio of locally-employed labor force to local trip-based employment.

1.3 METHODOLOGY

The methodology described below applies to the racial/ethnic sub-models incorporated into each subregional model.   As mentioned above, each subregional model incorporates submodels for every racial/ethnic group.   These sub-models are interdependent where necessary to aggregate racial/ethnic shares of overall

employment, Net Commutation, and Work-at-Home employment to subregional totals. For the sake of convenience, this aggregation process is described in the above section on Data Inputs. Thus, all figures discussed below are for individual racial/ethnic groups.

The methodology involves a three-step process. (See Figure 1.) First, an initial, unadjusted estimate is made of Civilian Labor Force, by age and sex, and in total. This corresponds to the supply of labor that would be available based on prior-period population, natural increase, and historical rates of net migration, not modified by the anticipated demand for labor. Second, this expected supply of laborers is matched against the expected demand for workers, input from the Employment Model, to determine if there is a surplus or deficit of workers. Any such surplus or deficit is assumed to induce a net in- or out-migration of an equal number of workers. Finally, this net migration figure is disaggregated by age/sex group and added to the initial CLF figures to yield an adjusted CLF for each group. The disaggregated net migration also becomes an input to the Population Model, where it is factored up to population by application of the LFPR and used to adjust net migration levels forecasted within that model. (See Figure 1.)

Unadjusted Civilian Labor Force Forecast

Unadjusted Civilian Labor Force is calculated separately for each age/sex group, based on the forecasted 'closed' population and Labor Force Participation Rates for each time period.[8] The CLF is simply the product of these two figures:

$$CLF_i = POP_i \times LFPR_i$$

where *i* represents the age/sex group. The total Civilian Labor Force is the sum of these age/sex-specific Civilian Labor Force figures:

$$CLF = \sum CLF_i$$

Labor Force-Employment Match

In the labor force-employment match, the forecasted labor supply is compared with demand, with any difference forming the basis of an induced in or out-migration of workers. For purpose of this matching process, labor force supply is defined as Local Employment and demand is defined as Primary Jobs, which are calculated as follows.

Labor Force Supply - Local Employment

Local Employment is defined as equal to the total Civilian Labor Force after unemployed workers have been excluded and net in- or out-commuters have been accounted for; that is:

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[8] Definitions and sources of all data inputs are discussed in Section 1.2.

$$LOCALEMP = CLF - UNEMP + NETCOM$$

where *CLF* is the total Civilian Labor Force carried from above, *UNEMP* is the total number of unemployed workers and *NETCOM* is the net number of commuters (a positive value if there is net in-commutation and a negative value if there is net out-commutation).

Labor Force Demand - Primary Jobs

The number of Primary Jobs is calculated by first determining the level of Trip-Based Employment, which is equal to the sum of all non-agricultural employees and individual proprietors less the level of Work-at-Home employment (which does not generate regular commuting trips), as follows:

$$TRIPBASED = (NONAG + PROP) - WORKATHOME$$

The number of Primary Jobs is then calculated by excluding secondary jobs from the Trip-Based Employment; this is done by dividing Trip-Based Employment by the Dual Job Rate (i.e., the ratio of all jobs to Primary Jobs):

$$PRIMJOB = TRIPBASED \div DUALJOB$$

The Dual Job Rate for forecast years is calculated in the Model's historical section. The rate for each historical interval is calculated as the ratio of Trip-Based Employment to Local Employment. The Dual Job Rate for forecast years is calculated as the average of rates for historical years on a racial/ethnic basis by subregion.

Jobs-Labor Force Match

In the jobs-labor force match, a net in- or out-flow of workers is induced by comparing local employment with the forecasted number of primary jobs. The level of net migration is calculated by subtracting the former from the latter,

$$NETMIG = PRIMJOB - LOCAL\_EMP$$

resulting in a positive figure if jobs exceed labor force (generating a net in-flow of workers) and a negative figure if there are insufficient jobs for local workers (generating a net out-flow of workers).

Disaggregation of Induced Net Migration by Age and Sex

Age-group allocation of induced in- or out-migration is based upon the age-group distribution of the initial unadjusted labor force estimate for each racial/ethnic group. In the historical period there is no induced net migration calculation since this dynamic is

incorporated in the residual of population growth and natural increase by each age-group. (See Technical Memorandum 1.2.1 for a more detailed discussion of net migration modeling.)

Adjustment of Labor Force Net Migration to Population Net Migration

The migration of workers brings with it an additional migration of non-workers. Thus, the labor force net-migration figures, discussed above, must be adjusted for this additional migration before incorporation into the Population Model. Total net-migration is calculated based on age/sex-specific figures for net-migration of workers and LFPR, following the equation:

$$NETMIG_{Ti} = NETMIG_{Wi} \div LFPR_i$$

where T denotes total net migration, W denotes net-migration of workers, and i denotes age/sex group. These age/sex-specific figures are incorporated as inputs into the Population Model.

Additional net in-migration of dependent children of adult workers was not included because of the lack of availability of historical data on which to base forecasts by race/ethnicity.

1.4 COUNTY-LEVEL DISAGGREGATION

Subregional totals are disaggregated to component counties using regression analysis procedures. Historical labor force estimates of the state DOLs are related to resident population estimates of the Census Bureau on an annual basis by county. SPSS, a software package of SPSS, Inc., provides statistical data analysis capability to fit linear, cubic and quadratic equations to the population-labor force relationship of each county. Using time as an independent variable, the best fitting form of equation is then used to predict future population-labor force ratios on a county-by-county basis.

Ratios are applied to the predicted level of resident population by county for the forecast period, to yield initial estimates of resident civilian labor force. Prevailing county-to-subregion differences in resident unemployment rates are continued over the forecast period and applied to the labor force forecasts for future estimates of employed residents. The component county estimates are then summed to subregional totals and normalized to equal the subregional controls. County-level forecasts are made for total and employed labor force only, with no race, age, or sex detail.

The resulting forecasts of civilian labor force and employed resident labor force are evaluated for reasonableness by county. Modifications are made to smooth trends in relation to state DOL time series and forecasts are reviewed by state and county agencies.

1.5 WORK PRODUCTS

The subregional Labor Force Models are delivered to NYMTC in Microsoft Excel '97 workbooks. Because of their numerous points of interaction, the Population and Labor Force Models are combined in a single workbook for each subregion. Within each workbook, racial/ethnic submodels are included on separate worksheets. The workbooks also include worksheets that summarize various model outputs. *Since worksheets contain references to other worksheets within a given workbook, these sheets should be separated only with care to account for these references.* Each subregional model is contained in a separate workbook.

The text of this memorandum is contained in a Microsoft Word 97 file. The tables and appendices presented in this report are also delivered in Microsoft Excel workbooks. Figures are delivered as Microsoft Word.

Summary and analysis of Labor Force Model results are included in Technical Memorandum 1.3.3.

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

New York City Subregion												
White												
Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	37.1%	37.6%	38.0%	37.2%	36.3%	36.4%	35.5%	35.4%	35.4%	35.4%	35.4%	35.4%
20 - 24	73.1%	73.8%	74.5%	73.3%	72.1%	71.8%	70.4%	70.4%	70.4%	70.4%	70.4%	70.4%
25 - 34	93.0%	92.2%	91.3%	91.8%	92.2%	91.1%	91.4%	91.5%	91.5%	91.5%	91.5%	91.5%
35 - 44	94.6%	93.1%	91.6%	91.4%	91.2%	89.5%	89.7%	89.6%	89.6%	89.6%	89.6%	89.6%
45 - 54	89.3%	89.7%	90.0%	90.4%	90.8%	89.3%	89.5%	89.5%	89.5%	89.5%	89.5%	89.5%
55 - 64	89.3%	82.4%	75.4%	73.6%	71.8%	70.5%	72.4%	73.1%	73.1%	73.1%	73.1%	73.1%
65 & Over	25.4%	24.4%	23.4%	23.0%	22.6%	22.9%	22.5%	23.3%	23.3%	23.3%	23.3%	23.3%
Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	38.7%	39.4%	40.0%	40.0%	40.0%	40.5%	40.6%	40.8%	40.8%	40.8%	40.8%	40.8%
20 - 24	64.7%	68.6%	72.4%	72.4%	72.3%	72.2%	73.7%	74.6%	74.6%	74.6%	74.6%	74.6%
25 - 34	49.7%	59.4%	69.0%	72.2%	75.4%	77.6%	79.0%	80.6%	80.6%	80.6%	80.6%	80.6%
35 - 44	51.9%	56.1%	60.2%	66.5%	72.8%	74.1%	74.0%	75.5%	75.5%	75.5%	75.5%	75.5%
45 - 54	52.1%	57.1%	62.1%	68.1%	74.1%	78.3%	80.6%	82.6%	82.6%	82.6%	82.6%	82.6%
55 - 64	52.1%	50.5%	48.8%	50.8%	52.7%	58.1%	62.2%	66.2%	66.2%	66.2%	66.2%	66.2%
65 & Over	11.6%	10.8%	10.0%	10.7%	11.4%	12.2%	11.8%	12.2%	12.2%	12.2%	12.2%	12.2%
Black												
Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	29.7%	27.8%	25.8%	28.2%	30.6%	29.8%	29.3%	29.4%	30.2%	30.8%	31.9%	32.3%
20 - 24	70.5%	66.8%	63.1%	64.3%	65.5%	63.6%	61.3%	61.4%	63.2%	64.5%	66.6%	67.5%
25 - 34	86.7%	82.6%	78.5%	78.7%	78.8%	77.6%	77.3%	77.3%	79.6%	81.2%	83.9%	85.0%
35 - 44	87.0%	85.5%	83.9%	83.0%	82.0%	78.3%	79.1%	79.0%	81.4%	83.0%	85.7%	86.9%
45 - 54	81.5%	81.2%	80.9%	83.8%	86.7%	81.5%	82.8%	82.8%	85.2%	86.9%	89.8%	91.0%
55 - 64	81.5%	73.5%	65.5%	65.3%	65.0%	61.0%	64.7%	65.6%	67.5%	68.8%	71.1%	72.1%
65 & Over	25.4%	22.4%	19.4%	19.8%	20.2%	23.2%	22.5%	23.9%	24.6%	25.1%	26.0%	26.3%
Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	25.9%	23.6%	21.2%	26.9%	32.5%	35.1%	38.1%	39.0%	40.2%	41.0%	42.4%	42.9%
20 - 24	51.6%	51.3%	50.9%	56.5%	62.1%	63.5%	69.9%	71.3%	73.4%	74.8%	77.3%	78.4%
25 - 34	49.0%	56.2%	63.4%	68.1%	72.7%	74.2%	80.8%	82.3%	84.7%	86.4%	89.2%	90.5%
35 - 44	54.4%	61.4%	68.3%	73.2%	78.0%	77.6%	80.8%	82.4%	84.9%	86.5%	89.4%	90.7%
45 - 54	54.0%	59.8%	65.5%	73.6%	81.6%	81.4%	86.4%	89.0%	91.7%	93.4%	96.6%	97.9%
55 - 64	54.0%	52.5%	51.0%	53.4%	55.7%	60.9%	64.1%	68.3%	70.4%	71.8%	74.1%	75.2%
65 & Over	14.9%	13.4%	11.9%	12.6%	13.2%	10.3%	10.3%	9.9%	10.2%	10.4%	10.7%	10.9%
Asian/Other												
Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	37.1%	30.1%	23.0%	25.5%	27.9%	30.3%	28.0%	28.3%	29.2%	29.8%	30.8%	31.2%
20 - 24	73.1%	66.9%	60.7%	62.2%	63.6%	64.9%	59.6%	59.8%	61.6%	62.8%	64.9%	65.8%
25 - 34	93.0%	91.4%	89.7%	90.3%	90.8%	92.4%	93.4%	93.5%	96.3%	98.2%	99.5%	99.5%
35 - 44	94.6%	94.4%	94.2%	94.4%	94.6%	93.8%	95.2%	95.3%	98.2%	99.5%	99.5%	99.5%
45 - 54	89.3%	91.1%	92.9%	94.1%	95.3%	94.8%	96.8%	96.9%	99.5%	99.5%	99.5%	99.5%
55 - 64	89.3%	83.9%	78.5%	76.1%	73.7%	69.3%	73.6%	74.4%	76.6%	78.1%	80.7%	81.9%
65 & Over	25.4%	23.7%	21.9%	20.1%	18.3%	20.4%	21.9%	23.5%	24.2%	24.7%	25.5%	25.9%
Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	38.7%	33.2%	27.6%	26.4%	25.2%	28.0%	23.4%	23.4%	24.1%	24.5%	25.4%	25.7%
20 - 24	64.7%	60.9%	57.1%	57.3%	57.4%	55.3%	58.2%	59.4%	61.2%	62.4%	64.5%	65.4%
25 - 34	49.7%	56.1%	62.5%	65.5%	68.5%	67.5%	71.2%	73.2%	75.4%	76.8%	79.4%	80.5%
35 - 44	51.9%	61.7%	71.4%	72.6%	73.8%	75.1%	79.0%	81.0%	83.4%	85.1%	87.9%	89.1%
45 - 54	52.1%	61.8%	71.5%	73.8%	76.1%	74.9%	82.6%	85.4%	88.0%	89.7%	92.7%	93.9%
55 - 64	52.1%	53.9%	55.7%	54.1%	52.4%	57.0%	59.8%	63.1%	65.0%	66.2%	68.4%	69.4%
65 & Over	11.6%	14.3%	16.9%	13.5%	10.1%	8.3%	9.1%	9.1%	9.4%	9.5%	9.9%	10.0%

Source: Urbanomics, based on US Census
(see memo text for methodology).

Table 1 - 1

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

Hispanic												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	30.5%	30.0%	29.4%	32.8%	36.1%	32.4%	31.5%	31.5%	32.4%	33.0%	34.1%	34.6%
20 - 24	74.2%	72.2%	70.1%	69.9%	69.7%	67.1%	68.4%	68.4%	70.4%	71.8%	74.2%	75.2%
25 - 34	86.3%	84.8%	83.2%	81.7%	80.1%	79.1%	80.1%	80.1%	82.5%	84.1%	86.9%	88.1%
35 - 44	86.7%	86.3%	85.8%	83.6%	81.3%	80.0%	80.1%	80.0%	82.4%	84.0%	86.8%	88.0%
45 - 54	76.8%	80.0%	83.2%	82.2%	81.2%	79.8%	80.8%	80.8%	83.3%	84.9%	87.7%	88.9%
55 - 64	76.8%	72.9%	69.0%	68.3%	67.6%	63.6%	73.0%	73.8%	76.0%	77.5%	80.1%	81.2%
65 & Over	19.1%	19.0%	18.9%	18.0%	17.1%	19.3%	16.9%	16.9%	17.4%	17.7%	18.3%	18.5%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	23.9%	23.9%	23.8%	27.2%	30.5%	31.8%	33.3%	33.7%	34.7%	35.3%	36.5%	37.0%
20 - 24	37.2%	41.7%	46.1%	49.1%	52.1%	49.2%	55.1%	56.3%	58.0%	59.1%	61.1%	62.0%
25 - 34	25.8%	36.5%	47.2%	51.0%	54.8%	55.1%	58.5%	60.3%	62.2%	63.4%	65.5%	66.4%
35 - 44	32.9%	40.3%	47.7%	51.6%	55.5%	55.4%	57.9%	59.6%	61.4%	62.6%	64.7%	65.6%
45 - 54	33.2%	41.6%	50.0%	53.6%	57.2%	58.9%	64.1%	67.1%	69.1%	70.5%	72.8%	73.8%
55 - 64	33.2%	35.7%	38.1%	39.3%	40.5%	37.9%	43.6%	45.8%	47.2%	48.1%	49.7%	50.4%
65 & Over	7.9%	8.0%	8.0%	8.0%	8.0%	7.3%	6.9%	6.6%	6.8%	6.9%	7.1%	7.2%

Long Island Subregion

White												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	38.3%	41.6%	44.9%	45.7%	46.6%	46.8%	45.6%	46.4%	46.4%	47.3%	49.1%	52.3%
20 - 24	71.9%	76.3%	80.7%	79.6%	78.5%	78.3%	76.7%	78.2%	78.2%	79.8%	82.8%	88.2%
25 - 34	91.9%	93.2%	94.4%	94.8%	95.1%	94.0%	94.3%	96.3%	96.3%	98.2%	98.5%	98.5%
35 - 44	93.6%	95.1%	96.6%	96.1%	95.6%	93.8%	94.0%	95.8%	95.8%	97.6%	98.5%	98.5%
45 - 54	89.9%	92.0%	94.2%	94.5%	94.8%	93.2%	93.4%	95.3%	95.3%	97.2%	98.5%	98.5%
55 - 64	89.9%	85.3%	80.8%	78.9%	77.0%	75.6%	77.7%	79.9%	79.9%	81.5%	84.6%	90.1%
65 & Over	26.2%	24.8%	23.5%	24.1%	24.7%	25.0%	24.6%	25.9%	25.9%	26.5%	27.5%	29.2%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	36.4%	40.8%	45.3%	48.3%	51.3%	52.0%	52.2%	53.5%	53.5%	54.5%	56.6%	60.3%
20 - 24	55.2%	65.0%	74.7%	75.8%	76.9%	76.8%	78.5%	81.0%	81.0%	82.5%	85.7%	91.3%
25 - 34	27.9%	40.7%	53.5%	61.6%	69.7%	71.7%	73.0%	76.0%	76.0%	77.4%	80.4%	85.6%
35 - 44	38.6%	47.5%	56.3%	63.5%	70.6%	71.9%	71.8%	74.8%	74.8%	76.2%	79.2%	84.3%
45 - 54	45.8%	52.7%	59.7%	67.0%	74.4%	78.6%	80.8%	84.6%	84.6%	86.2%	89.5%	95.3%
55 - 64	45.8%	45.3%	44.8%	48.8%	52.7%	58.1%	62.3%	67.6%	67.6%	68.9%	71.6%	76.2%
65 & Over	8.1%	7.6%	7.1%	9.1%	11.2%	12.0%	11.6%	12.2%	12.2%	12.4%	12.9%	13.8%

Black												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	32.3%	31.3%	30.2%	34.7%	39.1%	38.1%	37.4%	38.3%	38.3%	39.1%	40.6%	43.2%
20 - 24	73.9%	71.9%	69.9%	69.4%	68.9%	66.9%	64.5%	65.8%	65.8%	67.1%	69.7%	74.2%
25 - 34	86.3%	86.3%	86.3%	84.4%	82.5%	81.3%	80.9%	82.5%	82.5%	84.2%	87.4%	93.1%
35 - 44	86.6%	89.5%	92.3%	90.5%	88.6%	84.6%	85.5%	87.1%	87.1%	88.8%	92.2%	98.2%
45 - 54	76.8%	82.2%	87.6%	90.9%	94.2%	88.5%	89.9%	91.7%	91.7%	93.5%	97.1%	98.5%
55 - 64	76.8%	74.8%	72.7%	70.3%	67.9%	63.7%	67.5%	69.8%	69.8%	71.2%	74.0%	78.7%
65 & Over	24.2%	23.6%	23.0%	23.8%	24.6%	28.2%	27.5%	29.7%	29.7%	30.3%	31.5%	33.5%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	28.7%	27.1%	25.5%	35.0%	44.5%	48.0%	52.1%	54.5%	54.5%	55.6%	57.8%	61.5%
20 - 24	59.8%	59.3%	58.8%	64.4%	69.9%	71.5%	78.7%	81.9%	81.9%	83.5%	86.7%	92.3%
25 - 34	56.8%	65.6%	74.3%	77.4%	80.4%	82.1%	89.5%	92.8%	92.8%	94.7%	98.3%	98.5%
35 - 44	62.6%	69.1%	75.5%	79.3%	83.0%	82.6%	86.0%	89.5%	89.5%	91.2%	94.7%	98.5%
45 - 54	57.4%	64.6%	71.8%	78.1%	84.3%	84.1%	89.3%	93.8%	93.8%	95.7%	98.5%	98.5%
55 - 64	57.4%	55.4%	53.3%	58.0%	62.6%	68.4%	72.0%	78.3%	78.3%	79.9%	82.9%	88.3%
65 & Over	19.6%	17.9%	16.2%	15.3%	14.5%	11.3%	11.3%	11.1%	11.1%	11.3%	11.7%	12.5%

Source: Urbanomics, based on US Census
(see memo text for methodology).

Table 1 - 2

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

Asian/Other

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	40.1%	35.8%	31.5%	29.9%	28.3%	30.8%	28.4%	29.4%	29.4%	29.9%	31.1%	33.1%
20 - 24	70.0%	66.5%	63.0%	55.5%	48.0%	49.0%	45.0%	46.0%	46.0%	47.0%	48.8%	51.9%
25 - 34	91.9%	90.7%	89.4%	89.3%	89.2%	90.8%	91.8%	93.8%	93.8%	95.6%	98.5%	98.5%
35 - 44	93.7%	94.2%	94.6%	95.3%	96.1%	95.2%	96.7%	98.5%	98.5%	98.5%	98.5%	98.5%
45 - 54	89.7%	91.1%	92.4%	94.7%	97.0%	96.4%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
55 - 64	89.7%	84.3%	78.9%	78.9%	78.9%	74.2%	78.8%	81.3%	81.3%	82.9%	86.1%	91.7%
65 & Over	25.4%	23.9%	22.4%	21.3%	20.2%	22.5%	24.2%	26.5%	26.5%	27.0%	28.0%	29.8%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	38.1%	34.2%	30.4%	32.5%	34.7%	38.6%	32.3%	32.8%	32.8%	33.5%	34.8%	37.0%
20 - 24	55.1%	52.7%	50.2%	54.3%	58.3%	56.2%	59.2%	61.6%	61.6%	62.8%	65.2%	69.5%
25 - 34	27.9%	41.5%	55.1%	59.1%	63.0%	62.0%	65.5%	68.6%	68.6%	70.0%	72.7%	77.4%
35 - 44	38.6%	49.6%	60.6%	65.7%	70.7%	72.0%	75.7%	79.2%	79.2%	80.7%	83.9%	89.3%
45 - 54	45.8%	53.3%	60.9%	67.8%	74.8%	73.6%	81.2%	85.6%	85.6%	87.3%	90.7%	96.6%
55 - 64	45.8%	42.7%	39.7%	42.6%	45.4%	49.5%	51.8%	55.8%	55.8%	56.9%	59.1%	62.9%
65 & Over	8.2%	8.5%	8.7%	8.9%	9.0%	7.4%	8.1%	8.2%	8.2%	8.4%	8.7%	9.3%

Hispanic

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	43.0%	40.2%	37.4%	42.5%	47.6%	42.7%	41.6%	42.3%	42.3%	43.2%	44.8%	47.7%
20 - 24	91.5%	84.6%	77.7%	78.7%	79.7%	76.7%	78.2%	79.7%	79.7%	81.3%	84.4%	89.9%
25 - 34	96.3%	94.8%	93.4%	91.2%	89.0%	87.8%	89.0%	90.7%	90.7%	92.5%	96.1%	98.5%
35 - 44	95.2%	94.9%	94.5%	93.3%	92.0%	90.5%	90.6%	92.3%	92.3%	94.1%	97.8%	98.5%
45 - 54	91.6%	92.1%	92.7%	90.6%	88.5%	87.0%	88.1%	89.8%	89.8%	91.6%	95.1%	98.5%
55 - 64	91.6%	86.2%	80.8%	79.3%	77.9%	73.3%	84.1%	86.7%	86.7%	88.4%	91.8%	97.8%
65 & Over	14.3%	19.4%	24.5%	24.6%	24.6%	27.8%	24.3%	24.8%	24.8%	25.2%	26.2%	27.9%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	36.2%	35.0%	33.8%	39.1%	44.4%	46.3%	48.5%	49.9%	49.9%	50.9%	52.9%	56.3%
20 - 24	58.7%	61.5%	64.4%	66.6%	68.8%	65.0%	72.8%	75.9%	75.9%	77.4%	80.3%	85.6%
25 - 34	32.9%	44.9%	56.8%	61.8%	66.8%	67.1%	71.2%	75.0%	75.0%	76.5%	79.4%	84.5%
35 - 44	47.9%	54.0%	60.1%	64.9%	69.7%	69.6%	72.7%	76.4%	76.4%	77.9%	80.9%	86.2%
45 - 54	48.8%	55.4%	62.0%	66.2%	70.4%	72.4%	78.9%	84.2%	84.2%	85.9%	89.2%	94.9%
55 - 64	48.8%	46.7%	44.7%	49.9%	55.1%	51.6%	59.3%	63.6%	63.6%	64.8%	67.3%	71.7%
65 & Over	11.0%	9.1%	7.1%	10.2%	13.3%	12.2%	11.4%	11.1%	11.1%	11.3%	11.8%	12.5%

Mid-Hudson Subregion

White

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	46.7%	46.2%	45.7%	45.9%	46.2%	46.4%	45.2%	45.1%	46.2%	47.4%	49.6%	49.6%
20 - 24	79.7%	78.3%	76.9%	75.2%	73.5%	73.2%	71.8%	71.8%	73.6%	75.4%	79.0%	79.0%
25 - 34	95.0%	94.0%	93.0%	93.4%	93.8%	92.7%	93.0%	93.1%	95.4%	97.8%	98.5%	98.5%
35 - 44	96.5%	95.8%	95.1%	94.6%	94.1%	92.3%	92.5%	92.4%	94.7%	97.0%	98.5%	98.5%
45 - 54	89.9%	91.3%	92.8%	93.6%	94.4%	92.9%	93.1%	93.1%	95.4%	97.7%	98.5%	98.5%
55 - 64	89.9%	84.4%	79.0%	77.6%	76.2%	74.9%	76.9%	77.5%	79.5%	81.4%	85.3%	85.3%
65 & Over	30.0%	26.9%	23.9%	24.2%	24.4%	24.7%	24.3%	25.1%	25.8%	26.4%	27.6%	27.6%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	38.7%	43.5%	48.3%	49.3%	50.2%	50.8%	51.0%	51.3%	52.5%	53.8%	56.4%	56.4%
20 - 24	59.3%	66.6%	73.9%	74.0%	74.1%	74.0%	75.6%	76.5%	78.4%	80.3%	84.1%	84.1%
25 - 34	36.9%	47.7%	58.6%	66.0%	73.5%	75.6%	77.0%	78.6%	80.5%	82.5%	86.4%	86.4%
35 - 44	46.0%	53.8%	61.7%	67.5%	73.4%	74.7%	74.6%	76.1%	78.1%	80.0%	83.8%	83.8%
45 - 54	50.5%	57.9%	65.3%	71.1%	76.9%	81.3%	83.6%	85.7%	87.9%	90.0%	94.3%	94.3%
55 - 64	50.5%	49.3%	48.0%	51.0%	54.0%	59.5%	63.8%	67.9%	69.6%	71.3%	74.7%	74.7%
65 & Over	11.7%	10.2%	8.7%	10.0%	11.3%	12.1%	11.7%	12.1%	12.4%	12.7%	13.3%	13.3%

Table 1 - 3

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

Black												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	28.0%	28.2%	28.4%	29.0%	29.6%	28.8%	28.3%	28.4%	29.1%	29.8%	31.2%	32.7%
20 - 24	61.3%	61.4%	61.6%	60.3%	59.0%	57.3%	55.2%	55.3%	56.7%	58.1%	60.8%	63.6%
25 - 34	75.7%	77.1%	78.4%	72.5%	66.5%	65.5%	65.2%	65.2%	66.9%	68.5%	71.7%	75.0%
35 - 44	83.3%	83.6%	83.9%	79.0%	74.1%	70.7%	71.5%	71.4%	73.2%	75.0%	78.5%	82.1%
45 - 54	77.9%	78.7%	79.6%	80.8%	82.0%	77.1%	78.3%	78.3%	80.2%	82.2%	86.1%	90.0%
55 - 64	77.9%	71.8%	65.6%	68.6%	71.6%	67.2%	71.2%	72.2%	74.0%	75.8%	79.4%	83.0%
65 & Over	31.0%	26.3%	21.6%	24.0%	26.3%	30.1%	29.3%	31.2%	31.9%	32.7%	34.3%	35.8%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	31.0%	28.8%	26.6%	33.4%	40.2%	43.4%	47.1%	48.3%	49.5%	50.7%	53.1%	55.5%
20 - 24	58.9%	57.9%	56.9%	59.7%	62.4%	63.8%	70.2%	71.6%	73.4%	75.2%	78.8%	82.4%
25 - 34	61.3%	70.4%	79.6%	77.8%	76.0%	77.6%	84.5%	86.0%	88.1%	90.3%	94.6%	98.5%
35 - 44	66.4%	73.6%	80.9%	81.4%	81.9%	81.5%	84.9%	86.5%	88.7%	90.9%	95.2%	98.5%
45 - 54	63.1%	70.0%	76.9%	81.0%	85.2%	85.0%	90.3%	92.9%	95.2%	97.6%	98.5%	98.5%
55 - 64	63.1%	59.5%	55.9%	60.4%	64.9%	70.9%	74.7%	79.6%	81.6%	83.6%	87.6%	91.6%
65 & Over	21.2%	20.3%	19.4%	18.1%	16.8%	13.1%	13.1%	12.6%	12.9%	13.2%	13.8%	14.4%
Asian/Other												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	46.7%	41.6%	36.4%	30.9%	25.3%	27.5%	25.4%	25.7%	26.3%	27.0%	28.3%	29.6%
20 - 24	79.7%	74.0%	68.2%	65.7%	63.1%	64.4%	59.2%	59.3%	60.8%	62.3%	65.3%	68.2%
25 - 34	95.0%	92.2%	89.5%	92.8%	96.2%	97.9%	99.0%	98.5%	98.5%	98.5%	98.5%	98.5%
35 - 44	96.5%	95.6%	94.7%	96.1%	97.5%	96.6%	98.1%	98.2%	98.5%	98.5%	98.5%	98.5%
45 - 54	89.9%	91.2%	92.5%	95.2%	97.9%	97.3%	99.5%	98.5%	98.5%	98.5%	98.5%	98.5%
55 - 64	89.9%	88.7%	87.5%	81.0%	74.6%	70.2%	74.5%	75.3%	77.2%	79.1%	82.9%	86.6%
65 & Over	30.0%	27.9%	25.9%	22.6%	19.3%	21.5%	23.1%	24.8%	25.4%	26.0%	27.3%	28.5%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	38.7%	35.1%	31.6%	31.2%	30.9%	34.4%	28.7%	28.7%	29.4%	30.1%	31.5%	33.0%
20 - 24	59.3%	53.9%	48.4%	54.2%	60.0%	57.8%	60.9%	62.1%	63.7%	65.2%	68.3%	71.4%
25 - 34	36.9%	47.9%	58.8%	57.3%	55.7%	54.9%	57.9%	59.5%	61.0%	62.5%	65.5%	68.4%
35 - 44	46.0%	55.3%	64.7%	68.5%	72.4%	73.7%	77.5%	79.5%	81.5%	83.4%	87.4%	91.4%
45 - 54	50.5%	57.7%	64.9%	68.0%	71.0%	69.9%	77.0%	79.7%	81.7%	83.7%	87.6%	91.6%
55 - 64	50.5%	46.0%	41.5%	41.8%	42.1%	45.8%	48.0%	50.7%	51.9%	53.2%	55.7%	58.3%
65 & Over	11.7%	11.1%	10.4%	10.6%	10.8%	8.9%	9.7%	9.7%	10.0%	10.2%	10.7%	11.2%
Hispanic												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	5.8%	20.0%	34.1%	42.4%	50.6%	45.4%	44.2%	44.1%	45.2%	46.3%	48.5%	55.1%
20 - 24	27.3%	46.9%	66.5%	67.8%	69.1%	66.5%	67.8%	67.8%	69.5%	71.2%	74.6%	84.7%
25 - 34	77.1%	79.8%	82.5%	79.3%	76.2%	75.2%	76.2%	76.2%	78.1%	80.0%	83.8%	95.3%
35 - 44	79.1%	81.3%	83.5%	81.7%	80.0%	78.7%	78.8%	78.7%	80.7%	82.6%	86.6%	98.4%
45 - 54	75.1%	78.4%	81.8%	83.3%	84.7%	83.2%	84.3%	84.3%	86.4%	88.5%	92.7%	98.5%
55 - 64	75.1%	73.0%	70.9%	71.0%	71.2%	67.0%	76.9%	77.8%	79.7%	81.6%	85.5%	97.2%
65 & Over	0.0%	11.2%	22.4%	20.6%	18.9%	21.3%	18.6%	18.6%	19.1%	19.6%	20.5%	23.3%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	13.5%	24.6%	35.7%	38.5%	41.4%	43.2%	45.3%	45.7%	46.8%	48.0%	50.2%	57.1%
20 - 24	6.4%	34.7%	63.0%	63.6%	64.1%	60.5%	67.8%	69.3%	71.0%	72.8%	76.2%	86.6%
25 - 34	32.2%	46.9%	61.6%	64.5%	67.3%	67.6%	71.8%	74.1%	76.0%	77.8%	81.5%	92.6%
35 - 44	42.6%	53.9%	65.2%	67.4%	69.6%	69.5%	72.6%	74.8%	76.6%	78.5%	82.2%	93.5%
45 - 54	35.1%	51.2%	67.2%	67.0%	66.9%	68.8%	75.0%	78.5%	80.5%	82.4%	86.4%	98.1%
55 - 64	35.1%	41.3%	47.4%	50.5%	53.6%	50.2%	57.7%	60.6%	62.1%	63.7%	66.7%	75.8%
65 & Over	0.0%	4.3%	8.6%	9.2%	9.8%	9.0%	8.4%	8.0%	8.2%	8.4%	8.8%	10.0%

Source: Urbanomics, based on US Census
  (see memo text for methodology).

Table 1 - 4

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

New Jersey Subregion												
White												

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	47.1%	48.2%	49.2%	49.7%	50.3%	50.4%	49.2%	50.3%	50.8%	52.3%	55.2%	56.4%
20 - 24	79.1%	80.8%	82.5%	81.2%	80.0%	79.7%	78.2%	80.1%	80.9%	83.2%	87.9%	89.9%
25 - 34	96.6%	95.5%	94.3%	95.0%	95.7%	94.6%	94.9%	97.3%	98.3%	99.5%	99.5%	99.5%
35 - 44	97.5%	97.0%	96.5%	96.1%	95.7%	93.9%	94.1%	96.4%	97.3%	99.5%	99.5%	99.5%
45 - 54	92.3%	93.2%	94.1%	94.9%	95.7%	94.1%	94.3%	96.7%	97.6%	99.5%	99.5%	99.5%
55 - 64	92.0%	86.1%	80.3%	78.8%	77.3%	75.9%	77.9%	80.6%	81.4%	83.7%	88.4%	90.4%
65 & Over	27.8%	24.9%	22.1%	21.9%	21.7%	21.9%	21.5%	22.9%	23.1%	23.8%	25.1%	25.7%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	43.5%	47.0%	50.5%	52.2%	53.8%	54.5%	54.7%	56.3%	56.9%	58.5%	61.8%	63.2%
20 - 24	61.8%	69.8%	77.9%	78.5%	79.2%	79.1%	80.8%	83.7%	84.6%	87.0%	91.9%	94.0%
25 - 34	39.4%	49.2%	59.0%	67.7%	76.3%	78.5%	79.9%	83.6%	84.4%	86.9%	91.8%	93.8%
35 - 44	48.1%	55.1%	62.2%	68.6%	75.1%	76.4%	76.3%	79.8%	80.6%	82.9%	87.6%	89.6%
45 - 54	51.4%	58.6%	65.9%	71.6%	77.3%	81.7%	84.0%	88.3%	89.2%	91.8%	96.9%	99.1%
55 - 64	51.2%	49.4%	47.5%	50.8%	54.0%	59.6%	63.8%	69.6%	70.3%	72.3%	76.4%	78.1%
65 & Over	10.0%	9.0%	8.0%	9.1%	10.2%	11.0%	10.6%	11.2%	11.3%	11.7%	12.3%	12.6%

Black												

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	36.3%	34.4%	32.4%	35.7%	39.0%	38.0%	37.3%	38.3%	38.7%	39.8%	42.1%	43.0%
20 - 24	88.6%	79.2%	69.9%	69.6%	69.4%	67.4%	65.0%	66.7%	67.3%	69.3%	73.2%	74.8%
25 - 34	88.5%	86.4%	84.3%	81.8%	79.4%	78.2%	77.9%	79.8%	80.6%	82.9%	87.6%	89.5%
35 - 44	90.1%	90.1%	90.2%	86.7%	83.2%	79.4%	80.3%	82.2%	83.0%	85.4%	90.2%	92.2%
45 - 54	84.2%	84.9%	85.5%	86.1%	86.7%	81.5%	82.7%	84.8%	85.6%	88.1%	93.1%	95.1%
55 - 64	84.2%	77.4%	70.6%	70.4%	70.1%	65.8%	69.8%	72.5%	73.2%	75.3%	79.6%	81.3%
65 & Over	30.1%	25.6%	21.1%	22.0%	22.8%	26.1%	25.4%	27.7%	28.0%	28.8%	30.4%	31.1%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	31.7%	28.7%	25.6%	34.9%	44.2%	47.7%	51.8%	54.5%	55.0%	56.6%	59.8%	61.1%
20 - 24	58.3%	56.8%	55.2%	61.9%	68.7%	70.2%	77.3%	80.8%	81.6%	83.9%	88.7%	90.6%
25 - 34	56.8%	65.3%	73.8%	75.7%	77.7%	79.3%	86.4%	90.1%	90.9%	93.6%	98.9%	99.5%
35 - 44	62.2%	68.6%	75.0%	77.7%	80.4%	80.0%	83.3%	87.1%	88.0%	90.5%	95.6%	97.7%
45 - 54	58.3%	64.8%	71.3%	77.7%	84.0%	83.8%	89.0%	93.9%	94.9%	97.6%	99.5%	99.5%
55 - 64	58.3%	54.6%	51.0%	55.2%	59.5%	65.0%	68.5%	74.8%	75.6%	77.8%	82.1%	84.0%
65 & Over	19.2%	17.8%	16.5%	15.8%	15.1%	11.8%	11.8%	11.6%	11.7%	12.1%	12.7%	13.0%

Asian/Other												

Male	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16-19	47.0%	43.2%	39.4%	34.2%	29.0%	31.5%	29.1%	30.2%	30.5%	31.4%	33.2%	33.9%
20 - 24	79.1%	76.2%	73.3%	68.0%	62.7%	64.0%	58.8%	60.5%	61.0%	62.8%	66.4%	67.8%
25 - 34	96.6%	93.8%	91.1%	92.3%	93.5%	95.1%	96.2%	98.7%	99.5%	99.5%	99.5%	99.5%
35 - 44	97.5%	97.0%	96.4%	96.6%	96.8%	95.9%	97.4%	99.5%	99.5%	99.5%	99.5%	99.5%
45 - 54	92.3%	93.2%	94.1%	95.8%	97.5%	96.9%	99.1%	99.5%	99.5%	99.5%	99.5%	99.5%
55 - 64	92.0%	90.6%	89.2%	81.7%	74.2%	69.8%	74.1%	76.8%	77.6%	79.8%	84.3%	86.2%
65 & Over	27.8%	25.9%	24.0%	22.6%	21.3%	23.7%	25.5%	28.1%	28.3%	29.1%	30.8%	31.5%

Female	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
16 - 19	43.5%	39.3%	35.2%	34.2%	33.3%	37.0%	31.0%	31.6%	31.9%	32.9%	34.7%	35.5%
20 - 24	61.8%	58.1%	54.3%	58.0%	61.6%	59.3%	62.5%	65.4%	66.0%	67.9%	71.8%	73.4%
25 - 34	39.4%	51.3%	63.2%	64.5%	65.9%	64.9%	68.4%	72.1%	72.8%	74.9%	79.1%	80.9%
35 - 44	48.1%	58.8%	69.4%	73.4%	77.3%	78.6%	82.7%	87.0%	87.8%	90.3%	95.4%	97.6%
45 - 54	51.4%	60.5%	69.7%	75.3%	80.9%	79.7%	87.8%	93.1%	94.0%	96.7%	99.5%	99.5%
55 - 64	51.2%	47.5%	43.7%	41.6%	39.6%	43.1%	45.1%	48.8%	49.3%	50.7%	53.6%	54.8%
65 & Over	10.0%	10.1%	10.3%	10.9%	11.5%	9.4%	10.4%	10.6%	10.7%	11.0%	11.6%	11.9%

Source: Urbanomics, based on US Census
(see memo text for methodology).

Table 1 - 5

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

	Hispanic											
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	49.7%	45.3%	40.9%	44.7%	48.5%	43.5%	42.4%	43.3%	43.8%	45.0%	47.6%	48.6%
20 - 24	84.7%	81.9%	79.1%	79.0%	78.8%	75.8%	77.3%	79.3%	80.0%	82.3%	87.0%	88.9%
25 - 34	91.5%	92.2%	93.0%	91.1%	89.3%	88.2%	89.3%	91.6%	92.5%	95.1%	99.5%	99.5%
35 - 44	92.7%	93.4%	94.1%	92.3%	90.5%	89.0%	89.1%	91.3%	92.2%	94.8%	99.5%	99.5%
45 - 54	84.5%	88.4%	92.2%	92.0%	91.8%	90.2%	91.4%	93.7%	94.6%	97.3%	99.5%	99.5%
55 - 64	84.9%	82.4%	80.0%	79.5%	79.0%	74.4%	85.3%	88.4%	89.3%	91.9%	97.1%	99.2%
65 & Over	24.6%	23.7%	22.9%	23.6%	24.3%	27.4%	23.9%	24.5%	24.8%	25.5%	26.9%	27.5%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	32.6%	33.8%	35.1%	40.3%	45.5%	47.5%	49.8%	51.5%	52.0%	53.5%	56.5%	57.8%
20 - 24	43.5%	52.9%	62.3%	64.2%	66.0%	62.4%	69.8%	73.2%	73.9%	76.0%	80.3%	82.1%
25 - 34	32.2%	45.2%	58.3%	64.3%	70.2%	70.6%	74.9%	79.3%	80.0%	82.4%	87.0%	88.9%
35 - 44	45.9%	53.8%	61.7%	66.7%	71.7%	71.6%	74.7%	78.9%	79.7%	82.0%	86.6%	88.6%
45 - 54	38.5%	51.0%	63.6%	67.7%	71.9%	74.0%	80.6%	86.5%	87.3%	89.9%	94.9%	97.0%
55 - 64	36.2%	40.1%	44.1%	48.2%	52.3%	49.0%	56.3%	60.7%	61.2%	63.0%	66.6%	68.0%
65 & Over	9.3%	8.4%	7.5%	8.8%	10.2%	9.3%	8.8%	8.5%	8.6%	8.9%	9.4%	9.6%

Connecticut Subregion

	White											
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	49.6%	52.4%	55.2%	54.8%	54.5%	54.7%	53.3%	53.2%	53.2%	53.2%	53.2%	53.2%
20 - 24	76.5%	79.9%	83.4%	82.2%	81.0%	80.7%	79.1%	79.1%	79.1%	79.1%	79.1%	79.1%
25 - 34	95.1%	95.0%	94.8%	95.6%	96.4%	95.3%	95.6%	95.7%	95.7%	95.7%	95.7%	95.7%
35 - 44	96.9%	96.9%	96.9%	96.6%	96.3%	94.4%	94.6%	94.5%	94.5%	94.5%	94.5%	94.5%
45 - 54	92.7%	93.6%	94.6%	95.3%	96.1%	94.5%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%
55 - 64	92.6%	87.4%	82.2%	79.9%	77.6%	76.2%	78.3%	78.9%	78.9%	78.9%	78.9%	78.9%
65 & Over	28.9%	26.1%	23.4%	23.4%	23.5%	23.7%	23.3%	24.2%	24.2%	24.2%	24.2%	24.2%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	43.4%	49.2%	55.0%	56.9%	58.9%	59.6%	59.8%	60.1%	60.1%	60.1%	60.1%	60.1%
20 - 24	60.3%	68.4%	76.5%	76.3%	76.2%	76.1%	77.7%	78.6%	78.6%	78.6%	78.6%	78.6%
25 - 34	40.6%	51.1%	61.5%	70.4%	79.3%	81.6%	83.1%	84.8%	84.8%	84.8%	84.8%	84.8%
35 - 44	49.9%	57.4%	64.8%	71.2%	77.6%	79.0%	78.9%	80.5%	80.5%	80.5%	80.5%	80.5%
45 - 54	54.0%	61.3%	68.7%	73.7%	78.8%	83.2%	85.6%	87.8%	87.8%	87.8%	87.8%	87.8%
55 - 64	54.1%	52.4%	50.7%	54.2%	57.7%	63.6%	68.1%	72.5%	72.5%	72.5%	72.5%	72.5%
65 & Over	11.8%	10.2%	8.5%	10.1%	11.6%	12.4%	12.0%	12.4%	12.4%	12.4%	12.4%	12.4%
	Black											
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	42.4%	39.6%	36.9%	38.9%	40.9%	39.9%	39.1%	40.2%	41.2%	43.2%	45.1%	45.1%
20 - 24	81.3%	76.6%	71.8%	71.1%	70.3%	68.3%	65.9%	67.6%	69.2%	72.5%	75.8%	75.8%
25 - 34	91.8%	88.9%	86.0%	83.8%	81.7%	80.5%	80.1%	82.1%	84.1%	88.1%	92.1%	92.1%
35 - 44	92.0%	92.0%	92.1%	91.5%	91.0%	86.9%	87.8%	89.9%	92.1%	96.5%	99.5%	99.5%
45 - 54	87.2%	87.3%	87.3%	90.8%	94.3%	88.7%	90.0%	92.3%	94.5%	99.0%	99.5%	99.5%
55 - 64	87.2%	80.3%	73.5%	74.0%	74.6%	70.0%	74.2%	77.1%	79.0%	82.8%	86.5%	86.5%
65 & Over	38.9%	30.9%	22.8%	24.7%	26.6%	30.5%	29.7%	32.3%	33.1%	34.7%	36.3%	36.3%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	36.5%	31.8%	27.1%	36.8%	46.5%	50.1%	54.4%	57.2%	58.6%	61.4%	64.2%	64.2%
20 - 24	62.3%	57.4%	52.6%	60.2%	67.8%	69.4%	76.3%	79.8%	81.7%	85.6%	89.5%	89.5%
25 - 34	57.9%	66.3%	74.7%	74.9%	75.1%	76.7%	83.5%	87.1%	89.2%	93.5%	97.7%	97.7%
35 - 44	65.4%	70.7%	75.9%	78.5%	81.1%	80.7%	84.0%	87.8%	90.0%	94.3%	98.5%	98.5%
45 - 54	62.1%	67.1%	72.2%	80.1%	88.1%	87.9%	93.3%	98.5%	99.5%	99.5%	99.5%	99.5%
55 - 64	62.0%	57.4%	52.8%	57.3%	61.7%	67.5%	71.0%	77.6%	79.5%	83.3%	87.1%	87.1%
65 & Over	20.5%	18.8%	17.0%	19.1%	21.1%	16.4%	16.4%	16.2%	16.6%	17.4%	18.2%	18.2%

Source: Urbanomics, based on US Census
(see memo text for methodology).

Table 1 - 6

Table 1. Labor Force Participation Rates by Age, Sex, Racial/Ethnic Group and Subregion: 1970 to 2025

Asian/Other												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	49.6%	46.3%	43.0%	46.9%	50.8%	55.1%	50.9%	52.9%	54.2%	56.8%	59.3%	59.3%
20 - 24	74.5%	73.4%	72.4%	63.6%	54.8%	55.9%	51.4%	52.8%	54.1%	56.7%	59.3%	59.3%
25 - 34	95.2%	92.2%	89.3%	89.6%	89.9%	91.5%	92.5%	94.9%	97.2%	99.5%	99.5%	99.5%
35 - 44	96.9%	95.7%	94.5%	93.8%	93.1%	92.3%	93.7%	96.2%	98.5%	99.5%	99.5%	99.5%
45 - 54	92.7%	92.5%	92.3%	92.7%	93.1%	92.5%	94.6%	97.0%	99.4%	99.5%	99.5%	99.5%
55 - 64	92.6%	90.9%	89.1%	83.1%	77.2%	72.6%	77.0%	79.8%	81.8%	85.7%	89.6%	89.6%
65 & Over	28.8%	26.8%	24.9%	22.2%	19.6%	21.8%	23.5%	25.9%	26.5%	27.7%	29.0%	29.0%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	43.4%	39.3%	35.2%	36.3%	37.4%	41.6%	34.8%	35.6%	36.4%	38.2%	39.9%	39.9%
20 - 24	60.2%	54.6%	49.0%	53.2%	57.3%	55.2%	58.2%	60.8%	62.3%	65.3%	68.3%	68.3%
25 - 34	40.7%	50.6%	60.5%	64.6%	68.6%	67.6%	71.3%	75.2%	77.0%	80.7%	84.3%	84.3%
35 - 44	49.9%	58.2%	66.5%	63.8%	61.1%	62.1%	65.3%	68.7%	70.4%	73.7%	77.1%	77.1%
45 - 54	54.1%	60.4%	66.8%	66.4%	66.1%	65.1%	71.7%	76.1%	77.9%	81.6%	85.3%	85.3%
55 - 64	54.1%	48.5%	42.9%	42.6%	42.2%	46.0%	48.2%	52.1%	53.4%	55.9%	58.5%	58.5%
65 & Over	11.8%	10.9%	10.1%	15.1%	20.1%	16.4%	18.0%	18.5%	18.9%	19.8%	20.7%	20.7%
Hispanic												
Male	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16-19	51.3%	47.7%	44.2%	46.4%	48.6%	43.6%	42.5%	43.4%	44.5%	46.6%	48.7%	48.7%
20 - 24	80.9%	79.1%	77.3%	75.6%	73.9%	71.1%	72.5%	74.3%	76.1%	79.7%	83.3%	83.3%
25 - 34	94.4%	92.3%	90.1%	86.9%	83.6%	82.5%	83.6%	85.7%	87.8%	92.0%	96.1%	96.1%
35 - 44	94.6%	92.9%	91.2%	87.6%	84.0%	82.6%	82.7%	84.7%	86.7%	90.9%	95.0%	95.0%
45 - 54	90.8%	90.1%	89.4%	88.1%	86.8%	85.3%	86.4%	88.6%	90.8%	95.1%	99.4%	99.4%
55 - 64	90.5%	84.8%	79.0%	71.6%	64.1%	60.4%	69.3%	71.8%	73.5%	77.0%	80.5%	80.5%
65 & Over	36.3%	29.9%	23.5%	21.4%	19.3%	21.8%	19.0%	19.5%	20.0%	20.9%	21.9%	21.9%
Female	*1970*	*1975*	*1980*	*1985*	*1990*	*1995*	*2000*	*2005*	*2010*	*2015*	*2020*	*2025*
16 - 19	38.0%	36.5%	35.0%	40.4%	45.8%	47.8%	50.1%	51.8%	53.1%	55.6%	58.1%	58.1%
20 - 24	49.4%	52.8%	56.2%	57.1%	58.0%	54.8%	61.4%	64.3%	65.9%	69.0%	72.2%	72.2%
25 - 34	41.3%	48.5%	55.8%	59.6%	63.4%	63.7%	67.6%	71.5%	73.3%	76.8%	80.2%	80.2%
35 - 44	53.0%	56.0%	59.1%	61.7%	64.4%	64.3%	67.2%	70.9%	72.7%	76.1%	79.6%	79.6%
45 - 54	49.1%	55.0%	60.9%	64.2%	67.5%	69.5%	75.7%	81.2%	83.2%	87.1%	91.1%	91.1%
55 - 64	49.0%	46.1%	43.2%	46.0%	48.7%	45.7%	52.4%	56.5%	57.9%	60.6%	63.4%	63.4%
65 & Over	11.2%	9.3%	7.3%	8.9%	10.5%	9.6%	9.0%	8.8%	9.0%	9.5%	9.9%	9.9%

Table 1 - 7

Table 2. Unemployment Rate by Subregion and Racial/Ethnic Group: 1970 to 2025

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
New York City												
White	3.8%	8.4%	5.5%	5.2%	5.6%	5.2%	4.5%	5.0%	5.1%	5.0%	4.9%	4.8%
Black	4.9%	10.8%	11.3%	10.6%	12.9%	12.1%	10.5%	11.4%	11.6%	11.5%	11.2%	11.2%
Asian/Other	3.8%	8.3%	4.7%	4.4%	6.4%	6.0%	5.2%	5.7%	5.8%	5.7%	5.6%	5.5%
Hispanic	6.8%	15.0%	5.9%	5.5%	11.5%	10.8%	9.3%	10.2%	10.4%	10.2%	10.0%	10.0%
Long Island												
White	3.1%	7.5%	5.1%	3.9%	4.1%	4.5%	2.9%	3.0%	3.6%	3.8%	3.5%	3.6%
Black	3.9%	9.5%	7.4%	5.7%	7.7%	8.5%	5.5%	5.7%	6.8%	7.2%	6.7%	6.9%
Asian/Other	3.1%	7.6%	5.9%	4.5%	4.1%	4.6%	3.0%	3.1%	3.7%	3.9%	3.6%	3.7%
Hispanic	2.9%	7.1%	6.9%	5.2%	6.6%	7.3%	4.7%	4.9%	5.9%	6.2%	5.7%	5.9%
Mid-Hudson												
White	2.8%	6.4%	4.7%	4.6%	4.2%	4.1%	2.6%	2.9%	3.4%	3.2%	2.6%	2.5%
Black	3.9%	8.9%	7.4%	5.5%	9.6%	9.5%	6.1%	6.7%	7.8%	7.4%	6.1%	5.8%
Asian/Other	2.8%	6.5%	3.4%	2.5%	3.7%	3.7%	2.4%	2.6%	3.0%	2.9%	2.4%	2.3%
Hispanic	5.7%	13.0%	6.8%	5.0%	7.2%	7.1%	4.5%	5.0%	5.8%	5.5%	4.5%	4.3%
New Jersey												
White	3.4%	5.3%	5.3%	4.2%	4.3%	4.6%	3.0%	3.3%	3.7%	3.5%	3.4%	3.4%
Black	6.2%	9.8%	11.5%	9.2%	12.0%	12.8%	8.5%	9.2%	10.2%	9.9%	9.4%	9.4%
Asian/Other	3.4%	5.3%	4.4%	3.5%	4.8%	5.1%	3.4%	3.7%	4.1%	3.9%	3.8%	3.7%
Hispanic	7.2%	11.2%	10.6%	8.4%	10.3%	11.0%	7.3%	7.9%	8.8%	8.5%	8.1%	8.0%
Connecticut												
White	3.4%	5.4%	4.2%	3.4%	4.5%	4.2%	2.6%	2.7%	2.6%	2.2%	2.0%	2.0%
Black	5.7%	9.0%	10.7%	8.5%	12.0%	11.3%	7.1%	7.2%	6.9%	6.0%	4.9%	4.4%
Asian/Other	3.4%	5.4%	5.5%	4.4%	5.2%	4.9%	3.1%	3.1%	3.0%	2.6%	2.1%	2.0%
Hispanic	5.5%	8.6%	8.5%	6.8%	11.4%	10.7%	6.7%	6.8%	6.5%	5.7%	4.6%	4.2%

Source: Urbanomics, based on US Census and State Departments of Labor
(see memo text for methodology).

Table 2 - 1

Table 3. Net Commutation Average Historical Ratios by Subregion and Racial/Ethnic Group
(Avg ratio of net commutation to resident employed labor force for 1970, 1980, 1990)

	White	Black	Asian/Other	Hispanic
New York City	0.146	0.148	0.152	0.149
Long Island	(0.162)	(0.158)	(0.151)	(0.154)
Mid-Hudson	(0.126)	(0.126)	(0.128)	(0.128)
New Jersey	(0.054)	(0.053)	(0.054)	(0.053)
Connecticut	(0.024)	(0.024)	(0.024)	(0.024)

Table 4. Net Commutation by Subregion: 1970, 1980 and 1990

	1970	1985	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
New York City	**451,755**	**430,529**	**409,303**	**467,490**	**525,677**	**466,352**	**512,160**	**523,136**	**529,531**	**544,231**	**554,036**	**561,868**
White	324,641	279,106	233,571	243,625	253,679	217,314	216,530	207,858	195,081	185,426	171,717	158,722
Black	71,234	80,745	90,256	106,641	123,026	112,087	125,176	125,852	128,067	130,553	130,650	127,791
Asian/Other	9,081	13,301	17,521	30,469	43,417	39,549	53,241	65,787	74,318	84,845	96,870	110,833
Hispanic	46,799	57,377	67,955	86,755	105,555	97,402	117,213	123,639	132,065	143,407	154,799	164,521
Long Island	**(191,470)**	**(181,877)**	**(172,283)**	**(182,405)**	**(192,526)**	**(184,304)**	**(194,183)**	**(195,697)**	**(200,844)**	**(207,652)**	**(212,828)**	**(220,503)**
White	(177,900)	(166,340)	(154,780)	(159,161)	(163,543)	(155,717)	(158,939)	(154,079)	(153,599)	(152,980)	(149,587)	(146,773)
Black	(8,631)	(9,156)	(9,681)	(11,215)	(12,748)	(12,442)	(14,463)	(15,920)	(17,120)	(18,465)	(19,647)	(20,766)
Asian/Other	(894)	(1,278)	(1,662)	(3,099)	(4,537)	(4,564)	(6,371)	(8,763)	(10,663)	(13,107)	(16,287)	(20,743)
Hispanic	(4,045)	(5,103)	(6,161)	(8,929)	(11,697)	(11,582)	(14,410)	(16,936)	(19,462)	(23,099)	(27,306)	(32,221)
Mid-Hudson	**(83,829)**	**(98,696)**	**(113,563)**	**(121,589)**	**(129,614)**	**(124,916)**	**(132,993)**	**(133,834)**	**(136,809)**	**(141,101)**	**(148,761)**	**(157,115)**
White	(75,751)	(87,227)	(98,702)	(102,631)	(106,561)	(102,142)	(105,093)	(101,063)	(99,808)	(98,198)	(97,411)	(93,161)
Black	(6,013)	(7,464)	(8,915)	(9,880)	(10,845)	(10,520)	(12,223)	(13,428)	(14,386)	(15,622)	(17,217)	(18,733)
Asian/Other	(522)	(1,077)	(1,633)	(2,629)	(3,624)	(3,676)	(5,101)	(7,178)	(8,660)	(10,636)	(13,614)	(17,899)
Hispanic	(1,543)	(2,928)	(4,313)	(6,449)	(8,584)	(8,577)	(10,576)	(12,165)	(13,955)	(16,645)	(20,520)	(27,322)
New Jersey	**(157,139)**	**(131,881)**	**(106,622)**	**(142,503)**	**(178,383)**	**(144,163)**	**(155,192)**	**(161,232)**	**(171,546)**	**(182,040)**	**(189,475)**	**(192,154)**
White	(137,361)	(112,114)	(86,866)	(110,303)	(133,740)	(106,200)	(107,347)	(103,930)	(105,092)	(104,537)	(100,559)	(93,415)
Black	(13,809)	(12,413)	(11,018)	(15,329)	(19,641)	(16,153)	(18,466)	(18,774)	(19,822)	(20,968)	(21,492)	(20,900)
Asian/Other	(1,030)	(1,423)	(1,816)	(4,598)	(7,381)	(6,626)	(9,585)	(14,041)	(17,735)	(22,184)	(27,341)	(33,092)
Hispanic	(4,939)	(5,931)	(6,922)	(12,272)	(17,621)	(15,184)	(19,794)	(24,487)	(28,897)	(34,351)	(40,082)	(44,747)
Connecticut	**(19,308)**	**(18,072)**	**(16,835)**	**(19,982)**	**(23,129)**	**(20,260)**	**(22,005)**	**(22,637)**	**(25,307)**	**(25,325)**	**(25,704)**	**(26,619)**
White	(17,665)	(16,387)	(15,109)	(17,441)	(19,773)	(17,138)	(18,012)	(17,762)	(19,172)	(18,290)	(17,575)	(17,317)
Black	(1,169)	(1,112)	(1,055)	(1,400)	(1,744)	(1,606)	(1,927)	(2,172)	(2,603)	(2,819)	(3,037)	(3,220)
Asian/Other	(90)	(109)	(127)	(261)	(396)	(363)	(533)	(772)	(1,047)	(1,280)	(1,601)	(2,021)
Hispanic	(383)	(463)	(544)	(880)	(1,216)	(1,154)	(1,533)	(1,931)	(2,485)	(2,935)	(3,490)	(4,060)

Source: Urbanomics, based on US Census Bureau
(see memo text for methodology).

Table 4 - 1

Table 5. Work-at-Home Employment by Subregion: 1970 to 2025

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
New York Metro Region	140,504	132,413	124,320	174,532	224,742	237,474	262,056	284,907	304,351	319,273	329,958	340,286
White	116,017	104,250	92,552	124,758	155,685	162,050	168,846	173,857	177,007	175,363	169,220	161,636
Black	14,890	16,238	16,927	24,197	31,327	34,066	39,344	43,101	46,761	49,525	51,115	51,543
Asian/Other	1,630	2,382	3,097	6,568	10,934	11,815	16,631	23,419	28,852	34,806	41,790	50,495
Hispanic	7,967	9,542	11,743	19,008	26,796	29,543	37,235	44,531	51,731	59,579	67,833	76,612
New York City	57,146	52,829	48,512	62,666	76,819	82,216	91,353	99,221	106,022	110,962	113,789	116,214
White	41,066	34,431	27,684	32,519	37,071	38,432	38,762	39,585	39,232	37,988	35,452	33,017
Black	9,011	10,128	10,697	14,309	17,978	19,749	22,325	23,879	25,660	26,647	26,874	26,485
Asian/Other	1,149	1,612	2,077	4,029	6,345	6,842	9,324	12,257	14,622	17,005	19,565	22,555
Hispanic	5,920	6,658	8,054	11,808	15,425	17,192	20,942	23,500	26,508	29,323	31,898	34,157
Long Island	19,245	18,191	17,136	23,157	29,177	30,221	33,464	35,182	36,379	37,298	38,087	39,039
White	17,881	16,598	15,395	20,190	24,785	25,521	27,375	27,683	27,803	27,459	26,750	25,966
Black	868	924	963	1,443	1,932	2,050	2,505	2,876	3,116	3,333	3,533	3,694
Asian/Other	90	134	165	386	688	745	1,094	1,569	1,923	2,345	2,902	3,657
Hispanic	407	535	613	1,139	1,773	1,905	2,491	3,054	3,536	4,161	4,901	5,721
Mid-Hudson	17,863	15,625	13,386	21,251	29,116	33,062	36,247	39,105	41,818	44,060	45,829	47,475
White	16,142	13,850	11,634	17,854	23,937	26,984	28,583	29,460	30,430	30,576	29,916	28,049
Black	1,281	1,174	1,051	1,787	2,436	2,817	3,369	3,967	4,445	4,930	5,358	5,716
Asian/Other	111	162	192	462	814	975	1,393	2,101	2,652	3,326	4,199	5,412
Hispanic	329	438	508	1,148	1,928	2,285	2,901	3,577	4,291	5,228	6,356	8,297
New Jersey	34,029	33,952	33,875	48,947	64,019	65,220	71,827	78,782	85,242	90,334	94,548	98,203
White	29,746	28,681	27,598	38,045	47,997	48,443	50,202	51,462	53,021	52,788	51,198	48,857
Black	2,990	3,273	3,501	5,347	7,049	7,332	8,593	9,250	9,951	10,536	10,888	10,876
Asian/Other	223	401	577	1,461	2,649	2,792	4,140	6,422	8,265	10,347	12,858	15,986
Hispanic	1,070	1,597	2,199	4,094	6,324	6,654	8,893	11,648	14,005	16,664	19,604	22,483
Connecticut	12,221	11,816	11,411	18,511	25,611	26,754	29,164	32,617	34,890	36,620	37,705	39,356
White	11,181	10,689	10,241	16,150	21,894	22,670	23,925	25,666	26,520	26,553	25,904	25,746
Black	740	739	715	1,311	1,932	2,118	2,552	3,129	3,589	4,080	4,462	4,772
Asian/Other	57	74	86	231	439	460	680	1,070	1,390	1,784	2,265	2,885
Hispanic	242	314	369	820	1,346	1,506	2,008	2,752	3,390	4,203	5,074	5,954

Source: Urbanomics (see memo text for methodology).

Table 5 - 1

Table 6. Dual Job Holding Rate by Subregion: 1970 to 2025

	New York City	Long Island	Mid-Hudson	New Jersey	Connecticut
1970	1.11	1.10	1.06	1.03	1.05
1975	1.05	1.09	1.05	1.01	1.00
1980	1.07	1.09	1.08	1.10	1.08
1985	1.04	1.15	1.11	1.13	1.09
1990	1.03	1.15	1.12	1.16	1.11
1995	1.06	1.12	1.08	1.10	1.07
2000	1.06	1.12	1.08	1.10	1.07
2005	1.06	1.12	1.08	1.10	1.07
2010	1.06	1.12	1.08	1.10	1.07
2015	1.06	1.12	1.08	1.10	1.07
2020	1.06	1.12	1.08	1.10	1.07
2025	1.06	1.12	1.08	1.10	1.07

Table 7. Local Employment by Subregion & Racial/Ethnic Group: 1970 to 2025

	1970	1985	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
New York Metro Region	8,073,069	8,027,438	8,460,572	9,128,235	9,607,663	9,782,944	10,156,585	10,721,069	11,151,855	11,555,004	11,883,072	12,138,050
White	6,579,460	6,260,510	6,264,989	6,395,592	6,461,358	6,502,398	6,362,726	6,387,444	6,362,159	6,221,677	5,971,263	5,655,287
Black	901,927	1,014,554	1,169,112	1,325,053	1,423,720	1,478,255	1,596,019	1,670,469	1,743,766	1,815,142	1,856,568	1,848,817
Asian/Other	99,305	149,016	213,586	361,377	499,972	515,575	679,617	919,523	1,092,412	1,300,909	1,550,875	1,849,674
Hispanic	492,377	603,358	812,886	1,046,213	1,222,613	1,286,717	1,518,222	1,743,634	1,953,518	2,217,275	2,504,367	2,784,273
New York City	3,640,352	3,352,438	3,353,590	3,621,647	3,794,781	3,803,225	3,929,664	4,012,219	4,060,040	4,171,445	4,245,016	4,303,210
White	2,616,034	2,183,471	1,913,743	1,880,404	1,831,272	1,777,136	1,666,594	1,599,850	1,501,503	1,427,189	1,321,679	1,221,659
Black	574,019	640,903	739,507	826,875	888,105	913,647	960,365	965,550	982,547	1,001,617	1,002,364	980,429
Asian/Other	73,180	102,442	143,556	233,280	313,418	317,262	402,052	496,788	561,213	640,710	731,512	836,954
Hispanic	377,120	425,622	556,783	681,087	761,985	795,180	900,653	950,031	1,014,777	1,101,930	1,189,461	1,264,167
Long Island	766,558	842,199	990,828	1,071,748	1,134,175	1,167,309	1,204,471	1,292,234	1,326,269	1,371,284	1,405,518	1,456,230
White	712,229	768,065	890,163	934,295	963,438	985,660	985,206	1,016,704	1,013,532	1,009,452	987,063	968,495
Black	34,556	42,864	55,678	66,936	75,102	79,258	90,231	105,718	113,691	122,622	130,467	137,899
Asian/Other	3,577	6,262	9,556	17,784	26,729	28,771	39,334	57,590	70,081	86,145	107,042	136,328
Hispanic	16,195	25,008	35,431	52,732	68,906	73,621	89,701	112,223	128,965	153,066	180,945	213,508
Mid-Hudson	636,758	673,911	758,034	818,510	874,653	908,891	948,220	1,014,977	1,037,778	1,070,653	1,129,175	1,193,191
White	575,401	597,627	658,834	687,206	719,088	741,628	747,517	764,404	754,914	742,734	736,785	704,634
Black	45,674	50,612	59,508	69,180	73,181	77,553	88,273	103,106	110,465	119,954	132,203	143,846
Asian/Other	3,961	6,923	10,899	17,797	24,458	26,823	36,462	54,557	65,823	80,837	103,470	136,041
Hispanic	11,722	18,749	28,793	44,327	57,926	62,887	75,968	92,910	106,577	127,128	156,717	208,670
New Jersey	2,350,887	2,430,506	2,556,500	2,751,088	2,895,625	2,969,548	3,129,715	3,430,647	3,642,779	3,856,567	4,002,937	4,046,747
White	2,055,004	2,052,448	2,082,806	2,138,821	2,170,957	2,206,544	2,188,545	2,242,372	2,267,443	2,255,467	2,169,645	2,015,503
Black	206,583	234,607	264,181	300,764	318,821	333,876	374,518	402,949	425,448	450,059	461,301	448,580
Asian/Other	15,410	28,851	43,539	81,752	119,812	126,656	179,761	278,750	352,093	440,401	542,793	656,958
Hispanic	73,890	114,600	165,974	229,752	286,036	302,471	386,892	506,576	597,796	710,641	829,198	925,705
Connecticut	678,514	728,385	801,621	865,242	908,430	933,971	944,514	970,993	1,084,989	1,085,055	1,100,426	1,138,672
White	620,792	658,900	719,443	754,865	776,603	791,430	774,864	764,113	824,768	786,837	756,091	744,995
Black	41,096	45,569	50,238	61,299	68,511	73,921	82,633	93,147	111,615	120,891	130,233	138,063
Asian/Other	3,176	4,537	6,035	10,763	15,555	16,062	22,009	31,839	43,202	52,817	66,057	83,393
Hispanic	13,450	19,379	25,905	38,315	47,760	52,558	65,008	81,894	105,404	124,510	148,046	172,222

Table 8. Primary Jobs by Subregion & Racial/Ethnic Group: 1970 to 2025

	1970	1985	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
New York Metro Region	8,073,069	8,027,438	8,460,572	9,128,235	9,607,663	9,439,283	10,315,369	10,780,817	11,150,310	11,457,813	11,900,710	12,246,966
White	6,579,460	6,260,510	6,264,989	6,395,592	6,461,358	6,326,700	6,513,500	6,443,427	6,353,327	6,169,649	5,983,644	5,710,238
Black	901,927	1,014,554	1,169,112	1,325,053	1,423,720	1,402,033	1,598,414	1,671,560	1,746,502	1,801,412	1,860,414	1,864,043
Asian/Other	99,305	149,016	213,586	361,377	499,972	489,561	681,441	920,105	1,094,300	1,289,117	1,550,962	1,864,913
Hispanic	492,377	603,358	812,886	1,046,213	1,222,613	1,220,989	1,522,014	1,745,724	1,956,181	2,197,634	2,505,690	2,807,772
New York City	3,640,352	3,352,438	3,353,590	3,621,647	3,794,781	3,487,884	3,828,125	3,975,385	4,082,958	4,151,149	4,260,135	4,328,482
White	2,616,034	2,183,471	1,913,743	1,880,404	1,831,272	1,629,776	1,623,518	1,585,148	1,509,963	1,420,228	1,326,369	1,228,817
Black	574,019	640,903	739,507	826,875	888,105	837,903	935,561	956,695	988,103	996,752	1,005,942	986,194
Asian/Other	73,180	102,442	143,556	233,280	313,418	290,969	391,682	492,251	564,408	637,624	734,154	841,910
Hispanic	377,120	425,622	556,783	681,087	761,985	729,236	877,365	941,291	1,020,484	1,096,545	1,193,670	1,271,562
Long Island	766,558	842,199	990,828	1,071,748	1,134,175	1,147,131	1,264,805	1,305,411	1,337,229	1,366,664	1,411,597	1,464,581
White	712,229	768,065	890,163	934,295	963,438	968,624	1,034,560	1,027,075	1,021,913	1,006,056	991,339	974,057
Black	34,556	42,864	55,678	66,936	75,102	77,888	94,751	106,796	114,632	122,210	131,033	138,691
Asian/Other	3,577	6,262	9,556	17,784	26,729	28,272	41,302	58,175	70,658	85,852	107,502	137,105
Hispanic	16,195	25,008	35,431	52,732	68,906	72,346	94,192	113,364	130,027	152,546	181,724	214,728
Mid-Hudson	636,758	673,911	758,034	818,510	874,653	876,547	957,531	1,000,594	1,043,336	1,081,539	1,148,929	1,193,083
White	575,401	597,627	658,834	687,206	719,088	715,229	754,848	753,563	758,946	750,274	749,661	704,555
Black	45,674	50,612	59,508	69,180	73,181	74,795	89,143	101,648	111,059	121,177	134,519	143,836
Asian/Other	3,961	6,923	10,899	17,797	24,458	25,870	36,821	53,785	66,178	81,662	105,284	136,032
Hispanic	11,722	18,749	28,793	44,327	57,926	60,652	76,718	91,598	107,153	128,427	159,466	208,660
New Jersey	2,350,887	2,430,506	2,556,500	2,751,088	2,895,625	3,021,603	3,289,002	3,474,360	3,632,534	3,777,809	3,958,055	4,092,024
White	2,055,004	2,052,448	2,082,806	2,138,821	2,170,957	2,245,241	2,299,954	2,270,973	2,261,100	2,209,445	2,145,363	2,038,102
Black	206,583	234,607	264,181	300,764	318,821	339,730	393,581	408,087	424,256	440,873	456,136	453,608
Asian/Other	15,410	28,851	43,539	81,752	119,812	128,867	188,896	282,283	351,079	431,379	536,673	664,269
Hispanic	73,890	114,600	165,974	229,752	286,036	307,764	406,571	513,017	596,099	696,112	819,884	936,046
Connecticut	678,514	728,385	801,621	865,242	908,430	906,119	975,907	1,025,067	1,054,254	1,080,652	1,121,993	1,168,796
White	620,792	658,900	719,443	754,865	776,603	767,830	800,620	806,668	801,406	783,647	770,912	764,707
Black	41,096	45,569	50,238	61,299	68,511	71,717	85,379	98,334	108,453	120,400	132,785	141,716
Asian/Other	3,176	4,537	6,035	10,763	15,555	15,582	22,740	33,611	41,977	52,601	67,350	85,597
Hispanic	13,450	19,379	25,905	38,315	47,760	50,990	67,168	86,454	102,418	124,004	150,946	176,776

Appendix A. Labor Force by Sex and Racial/Ethnic Group: 1970, 1980, 1990

	1970	1980	1990
New York Metro Region			
Total	8,391,330	9,009,270	10,275,105
Male	5,122,449	5,077,467	5,523,579
Female	3,268,880	3,931,803	4,751,526
White	6,899,033	6,731,635	6,949,327
Male	4,248,428	3,881,375	3,804,995
Female	2,650,605	2,850,261	3,144,332
Black	907,381	1,244,720	1,530,940
Male	487,339	604,424	709,424
Female	420,042	640,296	821,516
Asian/Other	96,231	211,107	501,187
Male	60,390	118,696	280,289
Female	35,841	92,411	220,898
Hispanic	488,684	821,808	1,293,651
Male	326,292	472,973	728,871
Female	162,392	348,835	564,780
New York City			
Total	3,330,806	3,161,321	3,579,763
Male	1,975,511	1,726,318	1,885,745
Female	1,355,295	1,435,003	1,694,018
White	2,381,163	1,777,960	1,671,179
Male	1,408,754	1,000,037	905,264
Female	972,409	777,923	765,915
Black	528,802	731,798	878,392
Male	287,852	353,084	401,624
Female	240,950	378,714	476,768
Asian/Other	66,610	132,251	288,463
Male	41,529	72,926	161,279
Female	25,081	59,325	127,184
Hispanic	354,231	519,312	741,729
Male	237,376	300,271	417,578
Female	116,855	219,041	324,151
Long Island			
Total	988,531	1,228,581	1,388,782
Male	644,542	724,497	766,935
Female	343,989	504,085	621,847
White	918,132	1,101,401	1,174,747
Male	605,389	657,273	655,243
Female	312,743	444,129	519,504
Black	44,940	70,596	95,136
Male	22,954	34,543	44,590
Female	21,986	36,053	50,546
Asian/Other	4,614	11,919	32,611
Male	3,048	6,998	18,034
Female	1,566	4,921	14,577
Hispanic	20,845	44,665	86,288
Male	13,151	25,683	49,068
Female	7,694	18,982	37,220

Appendix A. Labor Force by Sex and Racial/Ethnic Group: 1970, 1980, 1990

	1970	1980	1990
Mid-Hudson			
Total	742,672	917,434	1,056,551
Male	461,756	521,089	574,250
Female	280,916	396,345	482,301
White	670,186	795,011	861,773
Male	422,642	458,551	472,289
Female	247,544	336,460	389,484
Black	53,801	73,926	93,063
Male	26,855	35,123	43,779
Female	26,946	38,803	49,284
Asian/Other	4,614	12,975	29,717
Male	3,048	7,600	16,784
Female	1,566	5,375	12,933
Hispanic	14,071	35,522	71,998
Male	9,211	19,815	41,398
Female	4,860	15,707	30,600
New Jersey			
Total	2,605,375	2,842,178	3,264,196
Male	1,596,967	1,617,751	1,766,856
Female	1,008,408	1,224,427	1,497,340
White	2,268,456	2,290,370	2,407,792
Male	1,403,295	1,326,796	1,320,759
Female	865,160	963,574	1,087,033
Black	235,004	310,966	384,471
Male	125,796	153,050	181,401
Female	109,208	157,916	203,070
Asian/Other	17,011	47,444	133,562
Male	10,632	27,350	74,567
Female	6,379	20,094	58,995
Hispanic	84,904	193,398	338,371
Male	57,244	110,555	190,129
Female	27,661	82,843	148,242
Connecticut			
Total	723,945	859,756	985,813
Male	443,673	487,813	529,793
Female	280,272	371,943	456,020
White	661,097	766,893	833,836
Male	408,348	438,718	451,440
Female	252,749	328,175	382,396
Black	44,834	57,434	79,878
Male	23,882	28,624	38,030
Female	20,952	28,810	41,848
Asian/Other	3,382	6,518	16,834
Male	2,133	3,822	9,625
Female	1,249	2,696	7,209
Hispanic	14,632	28,911	55,265
Male	9,310	16,649	30,698
Female	5,322	12,262	24,567

Appendix B. Labor Force by Age Group and Sex: 1970, 1980, 1990

Region	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	268,602	251,747	520,349	279,488	268,786	548,274	225,859	226,107	451,966
20 - 24 yrs	505,697	469,087	974,784	585,139	557,206	1,142,346	559,863	529,955	1,089,818
25 - 34 yrs	1,110,718	551,001	1,661,720	1,318,738	967,494	2,286,232	1,575,289	1,289,904	2,865,193
35 - 44 yrs	1,103,530	617,724	1,721,254	1,026,437	756,698	1,783,134	1,352,193	1,149,826	2,502,020
45 - 54 yrs	1,055,312	677,360	1,732,672	930,649	725,451	1,656,100	950,055	857,063	1,807,118
55 - 64 yrs	850,075	563,533	1,413,608	731,017	525,351	1,256,368	634,490	522,533	1,157,022
65 yrs & over	228,515	138,429	366,944	206,000	130,817	336,817	225,831	176,137	401,968
Total	5,122,449	3,268,880	8,391,330	5,077,467	3,931,803	9,009,270	5,523,579	4,751,526	10,275,105

New York City	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	81,819	81,025	162,845	70,701	66,968	137,669	65,561	63,835	129,396
20 - 24 yrs	212,827	205,431	418,259	198,092	193,832	391,924	198,134	189,660	387,794
25 - 34 yrs	465,360	252,872	718,232	495,345	397,580	892,926	577,283	487,822	1,065,105
35 - 44 yrs	397,229	238,188	635,417	346,204	270,013	616,217	459,139	406,413	865,552
45 - 54 yrs	370,366	260,684	631,049	299,036	249,733	548,769	309,926	297,870	607,796
55 - 64 yrs	349,544	251,560	601,104	236,021	197,476	433,498	200,477	182,296	382,772
65 yrs & over	98,366	65,534	163,900	80,917	59,402	140,319	75,226	66,122	141,348
Total	1,975,511	1,355,295	3,330,806	1,726,318	1,435,003	3,161,321	1,885,745	1,694,018	3,579,763

Long Island	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	38,239	35,493	73,732	45,864	44,126	89,990	33,959	34,980	68,939
20 - 24 yrs	53,492	47,201	100,693	82,498	75,913	158,411	77,881	72,648	150,529
25 - 34 yrs	122,795	46,872	169,667	169,696	108,079	277,775	201,762	151,005	352,767
35 - 44 yrs	159,066	73,961	233,027	147,502	99,297	246,799	186,012	148,776	334,788
45 - 54 yrs	153,939	80,020	233,959	145,339	101,112	246,451	137,119	118,926	256,045
55 - 64 yrs	95,560	50,270	145,830	109,722	64,108	173,830	97,626	73,951	171,576
65 yrs & over	21,451	10,173	31,624	23,876	11,450	35,325	32,576	21,562	54,138
Total	644,542	343,989	988,531	724,497	504,085	1,228,581	766,935	621,847	1,388,782

Appendix B. Labor Force by Age Group and Sex: 1970, 1980, 1990

Mid-Hudson	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	26,454	23,214	49,668	31,735	32,058	63,794	24,894	24,946	49,840
20 - 24 yrs	40,920	37,614	78,533	57,077	53,819	110,896	53,942	51,550	105,491
25 - 34 yrs	97,935	45,643	143,578	128,744	91,308	220,052	153,962	122,982	276,944
35 - 44 yrs	107,074	55,988	163,063	111,247	81,414	192,662	144,000	120,172	264,172
45 - 54 yrs	91,900	57,074	148,974	99,758	75,844	175,602	104,384	91,672	196,056
55 - 64 yrs	74,878	48,255	123,132	70,956	49,082	120,038	68,901	53,292	122,193
65 yrs & over	22,595	13,129	35,723	21,572	12,819	34,390	24,167	17,687	41,855
Total	461,756	280,916	742,672	521,089	396,345	917,434	574,250	482,301	1,056,551

New Jersey	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	93,145	87,482	180,627	97,920	94,078	191,998	76,804	77,482	154,287
20 - 24 yrs	156,159	140,578	296,737	190,944	180,699	371,644	177,615	167,844	345,459
25 - 34 yrs	333,181	161,664	494,845	403,962	285,285	689,248	495,633	404,485	900,118
35 - 44 yrs	347,244	196,768	544,012	325,216	235,307	560,523	432,742	364,144	796,886
45 - 54 yrs	342,112	217,591	559,702	299,038	230,006	529,044	306,648	267,809	574,457
55 - 64 yrs	258,509	166,643	425,152	240,255	163,142	403,398	206,772	163,140	369,912
65 yrs & over	66,618	37,682	104,299	60,415	35,910	96,325	70,641	52,435	123,077
Total	1,596,967	1,008,408	2,605,375	1,617,751	1,224,427	2,842,178	1,766,856	1,497,340	3,264,196

Connecticut	1970			1980			1990		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
16-19 yrs	28,945	24,532	53,477	33,267	31,557	64,824	24,640	24,864	49,504
20 - 24 yrs	42,299	38,263	80,562	56,527	52,942	109,470	52,291	48,254	100,545
25 - 34 yrs	91,447	43,951	135,398	120,990	85,241	206,231	146,648	123,611	270,259
35 - 44 yrs	92,917	52,818	145,735	96,267	70,667	166,933	130,301	110,321	240,622
45 - 54 yrs	96,995	61,992	158,987	87,478	68,757	156,235	91,978	80,786	172,764
55 - 64 yrs	71,584	46,805	118,388	74,063	51,542	125,605	60,714	49,854	110,568
65 yrs & over	19,486	11,911	31,397	19,221	11,237	30,458	23,220	18,330	41,550
Total	443,673	280,272	723,945	487,813	371,943	859,756	529,793	456,020	985,813

Appendix C. Sample 1970 Labor Force Participation Rate Calculations: Connecticut Subregion

1. Calculation of Race-Specific Labor Force Participation Rates by Age: Black

A. Input Negro Population by Age

Black	Fairfield	New Haven
Male		
>5 yrs	3150	3510
5-9 yrs	3527	3822
10-14 yrs	3132	3512
15-19 yrs	2297	2690
20-24 yrs	1883	2102
25-29 yrs	2033	1826
30-34 yrs	1769	1506
35-39 yrs	1482	1356
40-44 yrs	1371	1332
45-49 yrs	1238	1206
50-54 yrs	983	912
55-59 yrs	818	684
60-64 yrs	594	496
65-69 yrs	430	381
70-74 yrs	248	265
75-79 yrs	118	133
80-84 yrs	87	92
85+ yrs	63	65
TOTAL	25222	25891
Female		
>5 yrs	3351	3778
5-9 yrs	3692	3872
10-14 yrs	3170	3378
15-19 yrs	2459	2657
20-24 yrs	2522	2756
25-29 yrs	2496	2423
30-34 yrs	2193	2021
35-39 yrs	1754	1737
40-44 yrs	1593	1584
45-49 yrs	1509	1442
50-54 yrs	1230	1034
55-59 yrs	1047	817
60-64 yrs	779	631
65-69 yrs	616	497
70-74 yrs	354	350
75-79 yrs	207	189
80-84 yrs	146	145
85+ yrs	84	100
TOTAL	29202	29411
TOT M+F	54424	55301

B. Aggregate by LFPR Reported Age Groups / C. Input LFPR From Census / D. Calculate Age-Specific Civilian Labor Force / E. Calculate CT LFPR

	B. Fairfield	B. New Haven	B. CT	C. Fairfield	C. New Haven	D. Fairfield	D. New Haven	D. CT	E. CT LFPR Black
Male									
16 - 19	1,838	2,152	3,990	0.439172	0.410533	807	884	1,691	42.37%
20 - 24	1,883	2,102	3,984	0.8252	0.802	1,554	1,685	3,239	81.30%
25 - 34	3,802	3,332	7,134	0.914	0.922	3,475	3,072	6,548	91.77%
35 - 44	2,853	2,687	5,540	0.919	0.921	2,622	2,475	5,097	92.00%
45 - 54	2,221	2,119	4,340	0.869	0.876	1,930	1,856	3,786	87.24%
55 - 64	1,412	1,179	2,591	0.869	0.876	1,227	1,033	2,260	87.22%
65 & Over	946	937	1,882	0.459	0.319	434	299	733	38.93%
Total	14,954	14,508	29,463			12,049	11,305	23,354	79.27%
Female									
16 - 19	1,967	2,126	4,093	0.369373	0.360505	727	766	1,493	36.48%
20 - 24	2,522	2,756	5,278	0.6534	0.5946	1,648	1,639	3,286	62.27%
25 - 34	4,689	4,443	9,132	0.574	0.584	2,691	2,595	5,286	57.89%
35 - 44	3,348	3,321	6,669	0.617	0.691	2,065	2,295	4,360	65.39%
45 - 54	2,739	2,476	5,215	0.608	0.635	1,665	1,572	3,237	62.08%
55 - 64	1,826	1,448	3,274	0.608	0.635	1,110	919	2,030	61.99%
65 & Over	1,407	1,281	2,688	0.233	0.174	328	223	551	20.49%
Total	18,497	17,851	36,348			10,234	10,009	20,244	55.69%
TOT	33,451	32,359	65,810			22,283	21,314	43,597	66.25%

NB. Litchfield County excluded because of inadequate reporting

Appendix C. Sample 1970 Labor Force Participation Rate Calculations: Connecticut Subregion

2. Calculation of Race-Specific Labor Force Participation Rates by Age: Hispanic

	A. Input Puerto Rican Population by Age		B. Aggregate by LFPR Reported Age Groups				C. Input LFPR From Census			D. Calculate Age-Specific Civilian Labor Force			E. Calculate CT LFPR
	Fairfield	New Haven		Fairfield	New Haven	CT		Fairfield	New Haven	Fairfield	New Haven	CT	CT LFPR
Hispanic													Hispanic
Male			Male				Male						
>5 yrs	1868	1324	16 - 19	837	398	1,234	16 - 19	0.5045	0.53	422	211	633	51.27%
5-9 yrs	1628	1071	20 - 24	953	713	1,666	20 - 24	0.7998	0.822	762	586	1,349	80.93%
10-14 yrs	1372	872	25 - 34	1,937	1,307	3,244	25 - 34	0.95	0.935	1,840	1,222	3,062	94.40%
15-19 yrs	1046	497	35 - 44	1,460	833	2,292	35 - 44	0.941	0.954	1,374	794	2,168	94.57%
20-24 yrs	953	713	45 - 54	919	446	1,365	45 - 54	0.923	0.877	848	391	1,239	90.80%
25-29 yrs	1096	740	55 - 64	389	243	633	55 - 64	0.923	0.877	359	213	573	90.53%
30-34 yrs	840	567	65 & Over	402	140	542	65 & Over	0.396	0.268	159	38	197	36.29%
35-39 yrs	785	452											
40-44 yrs	675	381	Total	6,897	4,080	10,977	Total			5,765	3,455	9,220	84.00%
45-49 yrs	503	257											
50-54 yrs	416	189	Female				Female	0.332					
55-59 yrs	251	114											
60-64 yrs	139	130											
65-69 yrs	157	73	16 - 19	991	549	1,540	16 - 19	0.3725	0.393	369	216	585	37.98%
70-74 yrs	135	23	20 - 24	1,187	791	1,978	20 - 24	0.5436	0.4194	645	332	977	49.39%
75-79 yrs	58	23	25 - 34	2,116	1,228	3,344	25 - 34	0.412	0.414	872	508	1,380	41.27%
80-84 yrs	33	13	35 - 44	1,504	810	2,314	35 - 44	0.542	0.508	815	412	1,227	53.01%
85+ yrs	19	7	45 - 54	856	437	1,293	45 - 54	0.498	0.477	426	209	635	49.09%
TOTAL	11974	7446	55 - 64	477	314	791	55 - 64	0.498	0.477	237	150	387	48.97%
			65 & Over	428	184	611	65 & Over	0.15	0.023	64	4	68	11.19%
Female													
>5 yrs	1422	1084	Total	7,558	4,313	11,871	Total			3,429	1,830	5,259	44.30%
5-9 yrs	1637	974											
10-14 yrs	1417	755	TOT	14,455	8,392	22,848	TOT			9,194	5,285	14,479	63.37%
15-19 yrs	1239	686											
20-24 yrs	1187	791											
25-29 yrs	1232	702											
30-34 yrs	884	526											
35-39 yrs	835	465											
40-44 yrs	668	345											
45-49 yrs	493	243											
50-54 yrs	363	194											
55-59 yrs	293	197											
60-64 yrs	184	117											
65-69 yrs	209	70											
70-74 yrs	107	49											
75-79 yrs	55	32											
80-84 yrs	34	19											
85+ yrs	23	13											
TOTAL	12283	7263											
TOT M+F	24257	14709											

3. Calculation of White/Asian LFPR based on Residuals of Population and Labor Force

	A. Input Total Population by Age			B. Aggregate by LFPR Reported Age Groups				C. Input LFPR From Census			D. Calculate Age-Specific Civilian Labor Force				E. Calculate CT LFPR
	Fairfield	New Haven			Fairfield	New Haven	CT		Fairfield	New Haven		Fairfield	New Haven	CT		CT
Total																Total
Male	Total	Total		Male												
>5 yrs	32152	31329		16 - 19	27,486	26,657	54,143		0.476724	0.50631		13,103	13,497	26,600		49.13%
5-9 yrs	39618	35731		20 - 24	23,360	27,756	51,116		0.7866	0.7556		18,375	20,972	39,347		76.98%
10-14 yrs	41474	37012		25 - 34	44,111	44,185	88,296		0.957	0.94		42,214	41,534	83,748		94.85%
15-19 yrs	34358	33321		35 - 44	48,524	40,199	88,723		0.97	0.96		47,068	38,591	85,659		96.55%
20-24 yrs	23360	27756		45 - 54	51,181	45,636	96,817		0.928	0.92		47,496	41,985	89,481		92.42%
25-29 yrs	23081	24877		55 - 64	37,305	33,341	70,646		0.928	0.92		34,619	30,674	65,293		92.42%
30-34 yrs	21030	19308		65 & Over	29,520	30,694	60,214		0.317	0.269		9,358	8,257	17,615		29.25%
35-39 yrs	22571	18741														
40-44 yrs	25953	21458		Total	261,487	248,468	509,955					212,234	195,509	407,743		79.96%
45-49 yrs	26402	23124														
50-54 yrs	24779	22512		Female					0.293							
55-59 yrs	21292	18725														
60-64 yrs	16013	14616														
65-69 yrs	10940	10757		16 - 19	27,129	25,453	52,582		0.421709	0.431873		11,440	10,992	22,433		42.66%
70-74 yrs	7883	8455		20 - 24	27,565	31,115	58,680		0.609	0.594		16,787	18,482	35,269		60.10%
75-79 yrs	5609	5952		25 - 34	49,023	46,105	95,128		0.412	0.435		20,197	20,056	40,253		42.31%
80-84 yrs	3208	3537		35 - 44	51,666	43,485	95,151		0.479	0.549		24,748	23,873	48,621		51.10%
85+ yrs	1880	1993		45 - 54	54,853	49,626	104,479		0.529	0.56		29,017	27,791	56,808		54.37%
TOTAL	381603	359204		55 - 64	40,223	37,832	78,055		0.529	0.56		21,278	21,186	42,464		54.40%
				65 & Over	44,605	45,002	89,607		0.131	0.11		5,843	4,950	10,793		12.05%
Female																
>5 yrs	30932	30522		Total	295,064	278,618	573,682					129,311	127,330	256,642		44.74%
5-9 yrs	38339	34372														
10-14 yrs	40094	35869		TOT	556,551	527,086	1,083,637					341,545	322,840	664,385		61.31%
15-19 yrs	33911	31816														
20-24 yrs	27565	31115														
25-29 yrs	25559	26014														
30-34 yrs	23464	20091														
35-39 yrs	24203	20165														
40-44 yrs	27463	23320														
45-49 yrs	28381	25086														
50-54 yrs	26472	24540														
55-59 yrs	22422	20698														
60-64 yrs	17801	17134														
65-69 yrs	14268	14352														
70-74 yrs	11913	12251														
75-79 yrs	8994	9075														
80-84 yrs	5668	5546														
85+ yrs	3762	3778														
TOTAL	411211	385744														
TOT M+F	792814	744948														

Appendix C. Sample 1970 Labor Force Participation Rate Calculations: Connecticut Subregion

	F. Calculate Residual White/Asian Population				G. Calculate Residual White/Asian Civilian Labor Force					H. Calculate White/Asian CT LFPR	
	Fairfield	New Haven	CT		Fairfield	New Haven	CT			CT	
White/Asian										White/Asian	
Male											
16 - 19	24,812	24,107	48,919		11,874	12,402	24,277			49.6%	
20 - 24	20,524	24,941	45,465		16,059	18,701	34,760			76.5%	
25 - 34	38,372	39,545	77,918		36,899	37,239	74,138			95.1%	
35 - 44	44,211	36,679	80,890		43,073	35,322	78,394			96.9%	
45 - 54	48,041	43,072	91,112		44,717	39,738	84,456			92.7%	
55 - 64	35,504	31,918	67,422		33,033	29,427	62,460			92.6%	
65 & Over	28,172	29,617	57,790		8,765	7,920	16,685			28.9%	
Total	239,636	229,880	469,516		194,420	180,750	375,169			79.9%	
Female											
16 - 19	24,171	22,778	46,949		10,345	10,010	20,355			43.4%	
20 - 24	23,857	27,568	51,425		14,494	16,512	31,006			60.3%	
25 - 34	42,218	40,434	82,652		16,634	16,952	33,587			40.6%	
35 - 44	46,815	39,353	86,168		21,868	21,167	43,034			49.9%	
45 - 54	51,258	46,713	97,971		26,926	26,010	52,936			54.0%	
55 - 64	37,920	36,070	73,990		19,930	20,117	40,047			54.1%	
65 & Over	42,770	43,538	86,308		5,451	4,723	10,174			11.8%	
Total	269,008	256,454	525,463		115,648	115,491	231,139			44.0%	
TOT	508,645	486,334	994,979		310,068	296,241	606,308			60.9%	

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

	White - Unadjusted			Black			Asian/Other			Hispanic			Connecticut Unadjusted	
	Fairfield	Litchfield	New Haven	Fairfield	Litchfield	New Haven	Fairfield	Litchfield	New Haven	Fairfield	Litchfield	New Haven	White	Total
Male														
CLF	212,853	44,829	191,629	14,414	245	13,965	2,242	97	1,483	10,149	251	6,249	449,311	498,406
Empl.	205,475	42,802	181,999	13,022	233	12,001	2,171	97	1,433	9,455	241	5,588	430,276	474,517
Unemp.	7,378	2,027	9,630	1,392	12	1,964	71	0	50	694	10	661	19,035	23,889
Female														
CLF	153,511	33,695	148,939	14,473	297	14,040	1,352	132	1,212	8,055	241	3,966	336,145	379,913
Empl.	147,857	32,165	141,374	13,407	285	12,345	1,270	106	1,085	7,358	235	3,572	321,396	361,059
Unemp.	5,654	1,530	7,565	1,066	12	1,695	82	26	127	697	6	394	14,749	18,854
Total														
CLF	366,364	78,524	340,568	28,887	542	28,005	3,594	229	2,695	18,204	492	10,215	785,456	878,319
Empl.	353,332	74,967	323,373	26,429	518	24,346	3,441	203	2,518	16,813	476	9,160	751,672	835,576
Unemp.	13,032	3,557	17,195	2,458	24	3,659	153	26	177	1,391	16	1,055	33,784	42,743

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

2. Enter control total - all races						3. Calculate mutually exclusive groupings by excluding double-count from figures fo								
	Census - Control			Census - Control			CT Adjusted							
	Fairfield	Litchfield	New Haven	Total			White	Black	Asian/Oth	Hispanic	Total				
Male						Male								
CLF	232,799	45,279	209,735	487,813		CLF	438,718	28,624	3,822	16,649	487,813				
Empl.	223,738	43,232	197,748	464,718		Empl.	420,477	25,256	3,701	15,284	464,718				
Unemp.	9,061	2,047	11,987	23,095		Unemp.	18,241	3,368	121	1,365	23,095				
Female						Female								
CLF	171,944	34,185	165,814	371,943		CLF	328,175	28,810	2,696	12,262	371,943				
Empl.	164,898	32,617	156,223	353,738		Empl.	314,075	26,037	2,461	11,165	353,738				
Unemp.	7,046	1,568	9,591	18,205		Unemp.	14,100	2,773	235	1,097	18,205				
Total						Total								
CLF	404,743	79,464	375,549	859,756		CLF	766,893	57,434	6,518	28,911	859,756				
Empl.	388,636	75,849	353,971	818,456		Empl.	734,552	51,293	6,162	26,449	818,456				
Unemp.	16,107	3,615	21,578	41,300		Unemp.	32,341	6,141	356	2,462	41,300				

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

4. a) Enter LFPR estimates by mutually exclusive racial/ethnic group, age and sex b) Estimate CLF c)Adjust by racial/ethnic group													
	White Non-Hispanic				Black Non-Hispanic				Asian/Oth Non-Hispanic				
Age Group	CT Pop	CT LFPR	Unadjusted CLF	Adjusted - CLF	CT Pop	CT LFPR	Unadjusted CLF	Adjusted - CLF	CT Pop	CT LFPR	Unadjusted CLF	Adjusted - CLF	
MALE													
POPULATION													
16 - 19	53,130	45.67%	24,266	25,206	6,207	28.37%	1,761	1,976	411	36.40%	150	152	
20 - 24	59,302	76.94%	45,626	47,393	5,541	61.56%	3,411	3,826	589	68.20%	402	407	
25 - 34	112,696	92.96%	104,761	108,819	9,068	78.42%	7,111	7,977	1,430	89.48%	1,280	1,296	
35 - 44	87,871	95.08%	83,545	86,780	6,949	83.90%	5,830	6,540	1,152	94.67%	1,091	1,105	
45 - 54	84,529	92.76%	78,406	81,443	5,400	79.59%	4,298	4,821	563	92.46%	521	527	
55 - 64	84,902	79.00%	67,074	69,672	3,847	65.63%	2,525	2,832	301	87.49%	263	267	
65 & Over	78,160	23.90%	18,682	19,405	2,689	21.61%	581	652	259	25.91%	67	68	
												0	
Total	560,590	75.34%	422,359	438,718	39,701	64.27%	25,517	28,624	4,705	80.18%	3,773	3,822	
FEMALE													
POPULATION													
16 - 19	51,778	48.31%	25,015	26,370	6,478	26.62%	1,725	1,622	410	31.57%	129	133	
20 - 24	61,465	73.90%	45,420	47,880	6,732	56.91%	3,831	3,602	588	48.42%	285	293	
25 - 34	116,839	58.58%	68,440	72,149	11,713	79.56%	9,319	8,763	1,600	58.83%	941	970	
35 - 44	93,102	61.66%	57,410	60,521	9,068	80.88%	7,334	6,896	1,068	64.69%	691	712	
45 - 54	90,208	65.34%	58,943	62,137	6,444	76.87%	4,953	4,658	605	64.93%	393	405	
55 - 64	94,927	47.99%	45,558	48,027	4,700	55.91%	2,628	2,471	339	41.45%	141	145	
65 & Over	121,048	8.69%	10,521	11,091	4,377	19.39%	849	798	357	10.44%	37	38	
Total	629,367	49.46%	311,308	328,175	49,512	61.88%	30,638	28,810	4,967	52.69%	2,617	2,696	
TOT	1,189,958	61.65%	733,667	766,893	89,214	62.94%	56,155	57,434	9,672	66.06%	6,389	6,518	

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

4. (cont.)						5. Calculate age-group adjustment factors fo[r]						
	Hispanic											
Age Group	CT Pop	CT LFPR	Unadjusted CLF	Adjusted - CLF	All Races - Adjusted CLF	Age Groups Following Census Aggregation	All Races - Adjusted CLF	Census CLF			Census CLF	Age Group Adjustment Factor
								Fairfield	Litchfield	New Haven	Connecticut	
MALE												
POPULATION												
						Male						
16 - 19	3,392	34.14%	1,158	1,297	28,630	16-19 yrs	28,630	15,175	2,924	15,172	33,271	1.16
20 - 24	3,430	66.47%	2,280	2,554	54,180	20-24 yrs	54,180	24,765	4,902	26,867	56,534	1.04
25 - 34	5,680	82.47%	4,685	5,247	123,339	25-54 yrs	310,637	146,817	28,959	128,964	304,740	0.98
35 - 44	3,965	83.48%	3,310	3,708	98,133							
45 - 54	2,590	81.84%	2,120	2,374	89,166							
55 - 64	1,519	70.87%	1,076	1,206	73,976	55-64 yrs	73,976	36,514	6,555	30,982	74,051	1.00
65 & Over	1,053	22.36%	235	264	20,389	65+ yrs	20,389	9,528	1,939	7,750	19,217	0.94
Total	21,629	68.72%	14,864	16,649	487,813	Total	487,813	232,799	45,279	209,735	487,813	1.00
FEMALE												
POPULATION												
						Female						
16 - 19	3,356	35.70%	1,198	1,090	29,215	16-19 yrs	29,215	14,404	2,915	14,239	31,558	1.08
20 - 24	3,763	63.02%	2,371	2,158	53,934	20-24 yrs	53,934	23,402	4,414	25,128	52,944	0.98
25 - 34	6,466	61.62%	3,984	3,626	85,507	25-54 yrs	225,370	104,790	21,221	98,649	224,660	1.00
35 - 44	4,650	65.19%	3,031	2,759	70,888							
45 - 54	2,904	67.18%	1,951	1,775	68,975							
55 - 64	1,711	47.41%	811	738	51,380	55-64 yrs	51,380	23,969	4,489	23,086	51,544	1.00
65 & Over	1,480	8.64%	128	116	12,043	65+ yrs	12,043	5,379	1,146	4,712	11,237	0.93
Total	24,330	55.39%	13,475	12,262	371,943	Total	371,943	171,944	34,185	165,814	371,943	1.00
TOT	45,959	61.66%	28,339	28,911	859,756	TOT	859,756	404,743	79,464	375,549	859,756	

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

Age Group	6. Adjust race-adjusted CLF by age group				7. Re-adjust CLF by racial/ethnic group total				
	Age-Adjusted CLF				Final Adjusted CLF				
	White	Black	Asian/Other	Hispanic	White	Black	Asian/Other	Hispanic	Total
MALE									
POPULATION									
16 - 19	29,291	2,296	176	1,507	29,302	2,289	177	1,499	33,267
20 - 24	49,452	3,993	425	2,665	49,470	3,981	427	2,650	56,527
25 - 34	106,753	7,825	1,272	5,147	106,792	7,802	1,277	5,119	120,990
35 - 44	85,133	6,416	1,084	3,637	85,164	6,397	1,089	3,617	96,267
45 - 54	79,897	4,730	517	2,329	79,926	4,716	520	2,316	87,478
55 - 64	69,742	2,835	267	1,207	69,767	2,827	268	1,200	74,063
65 & Over	18,290	614	64	249	18,297	612	64	247	19,221
Total	438,558	28,709	3,805	16,741	438,718	28,624	3,822	16,649	487,813
FEMALE									
POPULATION									
16 - 19	28,485	1,752	144	1,178	28,482	1,754	144	1,176	31,557
20 - 24	47,001	3,536	288	2,118	46,997	3,542	288	2,115	52,942
25 - 34	71,921	8,736	967	3,614	71,914	8,749	968	3,609	85,241
35 - 44	60,330	6,875	710	2,750	60,324	6,886	710	2,746	70,667
45 - 54	61,941	4,643	403	1,770	61,935	4,650	404	1,767	68,757
55 - 64	48,180	2,479	145	740	48,175	2,483	145	739	51,542
65 & Over	10,348	744	36	109	10,347	746	36	108	11,237
Total	328,207	28,764	2,693	12,279	328,175	28,810	2,696	12,262	371,943
TOT	766,765	57,473	6,498	29,020	766,893	57,434	6,518	28,911	859,756

Appendix D. Sample 1980 Labor Force Participation Rate Calculations: Connecticut Subregion

8. Calculate LFPRs based on adjusted CLF and population by age group						
Age Group	Final Adjusted LFPR					
	White	Black	Asian/Other	Hispanic		
MALE						
POPULATION						
16 - 19	55.15%	36.88%	43.05%	44.20%		
20 - 24	83.42%	71.84%	72.42%	77.26%		
25 - 34	94.76%	86.04%	89.33%	90.13%		
35 - 44	96.92%	92.05%	94.51%	91.23%		
45 - 54	94.55%	87.33%	92.30%	89.43%		
55 - 64	82.17%	73.48%	89.12%	79.02%		
65 & Over	23.41%	22.78%	24.85%	23.47%		
Total	78.26%	72.10%	81.23%	76.98%		
FEMALE						
POPULATION						
16 - 19	55.01%	27.08%	35.18%	35.04%		
20 - 24	76.46%	52.61%	49.03%	56.22%		
25 - 34	61.55%	74.70%	60.49%	55.82%		
35 - 44	64.79%	75.93%	66.52%	59.06%		
45 - 54	68.66%	72.17%	66.77%	60.86%		
55 - 64	50.75%	52.82%	42.90%	43.22%		
65 & Over	8.55%	17.04%	10.05%	7.32%		
Total	52.14%	58.19%	54.28%	50.40%		
TOT	64.45%	64.38%	67.39%	62.91%		

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White Non-Hispanic Male																			
16 and over	76.5	76.6	76.0	75.7	75.5	75.4	75.3	75.2	75.0	75.0	75.0	75.0	74.9	74.9	74.6	74.4	74.3	74.1	73.9
16-24	74.0	74.2	72.9	72.8	73.4	73.4	72.2	71.7	71.5	71.2	71.4	71.5	71.6	71.7	71.8	71.8	71.6	71.6	71.6
16-19	59.6	59.1	57.2	57.2	58.9	59.8	58.2	57.9	58.2	58.2	58.3	58.3	58.2	58.2	58.3	58.2	58.1	58.1	58.3
16-17	49.7	49.2	47.6	47.7	49.8	49.6	48.1	48.0	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8
18-19	69.0	68.4	66.2	66.3	68.4	70.4	69.1	68.2	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
20 and over	77.8	77.9	77.3	77.0	76.7	76.5	76.6	76.6	76.3	76.3	76.3	76.3	76.3	76.2	75.8	75.7	75.5	75.3	75.1
20-24	85.2	85.6	84.6	84.6	85.0	84.9	84.8	84.3	83.7	83.3	83.2	83.1	83.2	83.2	83.3	83.2	83.2	83.2	83.2
20-21	79.1	79.4	78.5	78.5	78.8	78.7	78.6	78.1	77.6	77.5	77.5	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
22-24	89.0	89.3	88.3	88.3	88.6	88.5	88.3	87.8	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.1	87.1
25 and over	77.0	77.0	76.5	76.2	75.8	75.7	75.8	75.9	75.6	75.7	75.7	75.7	75.6	75.5	75.1	74.9	74.8	74.5	74.3
25-54	94.5	95.0	94.3	93.9	93.1	92.9	93.1	93.1	93.1	93.1	93.0	92.9	92.9	92.9	92.9	92.8	92.8	92.8	92.8
25-34	95.3	95.9	95.1	94.8	94.0	94.2	94.5	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.6	94.6	94.6	94.6
25-29	94.8	95.5	94.5	94.6	93.5	93.7	94.3	94.0	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
30-34	95.7	96.3	95.6	95.0	94.5	94.7	94.7	94.7	93.7	93.7	93.7	93.7	93.8	93.8	93.8	93.8	93.8	93.8	93.8
35-44	95.5	96.1	94.9	94.7	94.1	93.7	93.8	93.9	94.0	94.0	93.9	93.9	93.9	93.9	93.8	93.8	93.8	93.8	93.8
35-39	96.0	96.5	95.3	94.9	94.3	93.9	96.1	94.3	95.2	95.2	95.2	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
40-44	94.9	95.7	94.5	94.5	93.9	93.5	91.5	93.5	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.7	92.7	92.7	92.7
45-54	91.9	92.1	92.2	91.6	90.7	90.4	90.7	90.9	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.5	90.5
45-49	93.4	93.8	93.4	93.2	92.7	92.4	91.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
50-54	90.0	90.0	90.6	89.7	88.1	87.9	90.2	89.4	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
55 and over	39.5	38.4	38.2	37.8	38.1	38.1	38.3	38.9	39.0	39.5	39.9	40.2	41.3	42.1	42.2	42.6	43.1	43.4	43.7
55-64	68.7	67.7	67.6	67.5	66.7	67.5	68.2	68.9	69.0	69.2	69.3	69.4	69.8	69.9	70.0	69.9	70.0	69.8	70.1
55-59	80.9	80.2	79.7	79.0	78.6	79.6	78.1	80.1	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
60-64	56.5	55.4	55.3	55.3	53.8	54.5	56.8	55.6	56.7	57.0	57.2	57.4	57.6	58.2	58.3	57.9	57.8	58.6	59.5
60-61	71.5	71.3	68.2	67.6	65.7	66.5	69.0	67.0	68.7	68.7	68.7	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.8
62-64	46.4	44.9	46.7	47.3	46.0	46.6	48.8	47.6	48.2	48.5	48.8	49.0	49.3	49.6	49.8	50.1	50.4	50.6	50.9
65 and over	16.8	16.1	16.3	15.9	17.3	17.0	17.2	17.4	16.7	16.6	16.7	16.8	17.0	17.2	17.2	17.3	17.6	17.8	18.3
65-74	22.0	21.0	21.5	21.3	22.6	22.2	23.1	23.3	23.1	23.3	23.5	23.8	24.2	24.6	24.9	25.3	25.6	26.0	26.4
65-69	26.8	25.9	26.5	26.1	27.9	27.4	28.7	29.0	28.5	28.9	29.3	29.6	30.0	30.4	30.8	31.1	31.5	31.9	32.2
70 and over	11.0	10.6	10.9	10.7	12.0	11.8	11.7	11.8	11.3	11.3	11.3	11.4	11.4	11.4	11.3	11.3	11.4	11.4	11.5
70-74	15.8	14.9	15.5	15.5	16.5	16.2	16.7	16.9	17.0	17.1	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	18.5
75 and over	7.4	7.3	7.4	7.0	8.6	8.4	8.2	8.3	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.7

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White Non-Hispanic Female																			
16 and over	57.8	58.3	58.1	58.6	59.5	59.7	59.8	60.1	59.9	60.4	60.8	61.3	61.8	62.2	61.7	61.9	62.1	62.2	62.3
16-24	67.6	68.1	66.6	67.8	68.2	67.6	67.8	67.4	67.9	68.0	68.2	68.4	68.6	68.8	69.0	69.1	69.1	69.2	69.4
16-19	57.3	57.4	54.2	56.2	57.9	58.0	58.0	57.1	57.9	58.1	58.2	58.3	58.3	58.4	58.5	58.5	58.4	58.5	58.7
16-17	48.6	48.7	46.0	47.7	49.0	49.3	50.0	47.8	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5
18-19	65.0	65.1	61.5	63.8	67.1	67.2	66.3	66.8	67.5	67.7	67.8	67.9	68.0	68.2	68.3	68.4	68.6	68.7	68.8
20 and over	57.8	58.3	58.4	58.8	59.7	59.8	59.9	60.3	60.1	60.5	61.0	61.5	62.0	62.4	61.9	62.1	62.3	62.4	62.5
20-24	75.3	75.7	75.4	76.2	75.8	75.2	76.1	76.2	76.8	76.6	76.8	76.9	77.1	77.3	77.6	77.7	77.9	78.0	78.2
20-21	71.8	72.2	71.9	72.7	71.4	70.7	71.6	71.7	72.3	72.4	72.5	72.6	72.8	72.9	73.0	73.1	73.2	73.4	73.5
22-24	77.5	77.9	77.6	78.4	78.5	77.8	78.7	78.9	79.5	79.7	79.9	80.1	80.3	80.5	80.7	80.9	81.0	81.2	81.4
25 and over	56.0	56.5	56.7	57.1	58.1	58.3	58.5	58.9	58.7	59.1	59.6	60.1	60.6	61.0	60.4	60.7	60.9	61.0	61.1
25-54	75.5	76.5	76.2	76.7	77.5	77.8	78.1	78.5	78.1	78.5	78.8	79.2	79.5	79.9	80.2	80.6	80.9	81.2	81.5
25-34	75.5	76.3	76.0	76.2	77.0	77.7	77.8	78.5	78.5	78.8	79.1	79.4	79.8	80.1	80.4	80.7	81.0	81.3	81.6
25-29	76.5	77.1	77.2	77.4	77.9	78.7	77.0	80.0	80.9	80.0	80.2	80.4	80.6	80.8	81.0	81.2	81.4	81.5	81.7
30-34	74.7	75.5	75.0	75.3	76.2	76.9	78.5	77.2	76.3	77.8	78.2	78.6	79.0	79.4	79.8	80.3	80.7	81.1	81.5
35-44	77.5	78.5	78.0	78.2	78.7	78.9	79.1	79.0	78.1	78.4	78.8	79.1	79.4	79.8	80.1	80.4	80.7	81.0	81.3
35-39	76.4	77.5	76.8	76.9	77.6	77.8	79.6	77.5	77.2	76.9	77.4	77.9	78.4	78.9	79.4	79.9	80.4	80.9	81.4
40-44	78.7	79.6	79.4	79.5	79.9	80.1	78.6	80.6	78.9	80.0	80.1	80.2	80.4	80.5	80.6	80.8	80.9	81.1	81.2
45-54	72.3	73.8	73.9	75.3	76.5	76.4	77.2	77.8	77.8	78.2	78.6	79.0	79.5	79.9	80.2	80.6	80.9	81.3	81.6
45-49	75.9	77.0	77.2	78.2	79.6	79.5	79.6	79.6	81.2	80.5	80.8	81.1	81.4	81.7	82.0	82.3	82.6	82.9	83.2
50-54	68.0	69.9	69.7	71.6	72.5	72.4	74.2	75.8	73.9	75.6	76.2	76.7	77.2	77.7	78.2	78.7	79.1	79.5	79.9
55 and over	22.5	22.3	22.6	22.6	24.0	23.8	23.8	24.5	25.0	25.6	26.3	27.0	28.4	29.4	29.3	29.9	30.7	31.2	31.7
55-64	45.9	45.9	47.4	48.2	50.3	50.6	50.9	52.5	52.5	53.3	54.2	54.8	55.8	56.5	57.2	57.7	58.5	58.8	59.5
55-59	56.4	57.0	58.0	58.6	61.2	61.6	60.9	62.8	62.9	63.7	64.5	65.3	66.1	66.9	67.7	68.5	69.2	70.0	70.7
60-64	36.1	35.4	37.2	37.8	38.7	38.9	39.9	41.1	40.0	40.7	41.2	41.7	42.4	43.2	43.7	43.9	44.2	45.2	46.2
60-61	44.5	43.6	45.9	46.6	47.1	47.4	48.5	49.9	48.4	48.8	49.2	49.7	50.1	50.5	50.9	51.3	51.8	52.2	52.6
62-64	30.4	29.8	31.4	31.9	33.1	33.3	34.3	35.3	34.0	34.6	35.2	35.9	36.5	37.1	37.8	38.4	39.0	39.7	40.3
65 and over	8.5	8.5	8.3	8.2	9.3	9.1	8.8	8.7	8.8	8.7	8.8	8.9	9.0	9.2	9.0	9.1	9.2	9.4	9.7
65-74	13.0	12.9	12.6	12.4	14.0	13.8	13.8	13.5	14.3	14.3	14.5	14.6	14.8	15.1	15.3	15.5	15.8	16.0	16.3
65-69	17.2	17.0	16.5	16.5	18.7	18.3	18.6	18.3	18.7	18.9	19.1	19.3	19.5	19.7	19.9	20.2	20.4	20.6	20.8
70 and over	4.7	4.8	4.8	4.7	5.5	5.4	5.1	5.1	5.3	5.2	5.3	5.3	5.3	5.3	5.1	5.1	5.2	5.2	5.2
70-74	8.0	8.2	8.2	7.9	9.0	8.9	8.7	8.6	9.7	9.7	9.8	9.9	10.0	10.0	10.1	10.2	10.3	10.4	10.4
75 and over	2.7	2.8	2.8	2.8	3.4	3.4	3.1	3.1	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Black Male																			
16 and over	71.1	70.4	70.7	69.6	69.1	69.0	68.7	68.3	69.0	69.0	69.0	68.9	68.8	68.7	68.8	68.7	68.6	68.4	68.3
16-24	59.1	57.9	59.1	57.6	58.2	57.6	56.4	54.5	56.0	56.3	56.5	56.6	56.6	56.5	56.9	56.7	56.6	56.6	56.8
16-19	40.7	37.3	40.6	39.5	40.8	40.1	39.5	37.4	40.6	40.6	40.8	40.9	40.8	40.9	41.1	41.1	41.3	41.6	41.9
16-17	29.0	25.6	27.4	27.5	30.0	30.6	29.3	28.0	29.1	29.3	29.5	29.8	30.0	30.3	30.5	30.8	31.0	31.3	31.5
18-19	52.6	49.4	54.7	52.3	53.1	50.8	51.3	48.1	53.1	53.1	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
20 and over	75.0	74.6	74.3	73.2	72.5	72.5	72.3	72.2	72.5	72.5	72.4	72.3	72.1	72.0	72.1	72.0	71.9	71.7	71.6
20-24	76.8	76.7	75.4	74.1	73.8	74.6	73.4	72.1	71.8	72.0	71.9	71.9	71.9	72.0	72.1	72.0	72.0	71.9	71.9
20-21	69.3	72.1	68.7	67.2	68.0	67.5	65.3	67.3	64.3	64.2	64.2	64.1	64.0	64.0	64.0	64.0	64.0	64.1	64.1
22-24	82.5	80.1	79.9	78.8	77.7	79.3	79.4	75.9	77.8	77.8	77.8	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
25 and over	74.7	74.2	74.1	73.1	72.3	72.2	72.1	72.2	72.6	72.6	72.5	72.3	72.1	72.0	72.1	72.0	71.9	71.7	71.5
25-54	87.4	86.6	86.1	85.3	84.5	84.1	84.1	84.4	84.4	84.3	84.2	84.1	84.0	84.0	84.0	84.0	83.9	83.9	83.9
25-34	88.8	87.3	88.0	87.3	86.2	87.5	87.5	86.8	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.0	87.0
25-29	88.5	87.6	87.6	85.8	85.8	86.9	88.2	86.5	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8	85.8
30-34	89.1	87.0	88.5	88.7	86.6	88.0	86.9	87.1	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
35-44	88.1	87.7	86.5	86.1	85.9	84.1	84.4	84.8	85.0	85.0	85.0	84.9	84.9	84.9	84.9	84.9	84.9	85.0	85.0
35-39	88.5	88.3	87.1	87.1	85.2	84.4	85.0	86.0	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
40-44	87.5	86.9	85.7	84.9	86.6	83.7	83.6	83.6	84.5	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.5
45-54	83.5	83.4	81.8	80.1	79.2	78.5	78.5	80.1	79.9	79.8	79.7	79.7	79.7	79.7	79.7	79.7	79.6	79.6	79.5
45-49	86.5	85.9	84.2	83.0	80.9	82.4	81.9	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.8
50-54	79.7	80.1	78.6	76.3	76.8	73.0	73.5	76.5	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
55 and over	34.7	34.9	35.8	33.5	32.6	33.5	33.1	32.4	34.5	35.0	35.3	35.5	36.1	36.7	37.0	37.5	38.1	38.5	38.9
55-64	58.0	58.7	60.0	57.9	54.4	54.4	55.6	54.3	57.4	57.6	57.7	57.7	57.9	58.1	58.3	58.5	58.7	58.8	58.9
55-59	67.2	66.4	67.7	67.0	65.3	66.1	66.5	65.6	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
60-64	47.4	50.1	51.1	47.7	41.8	40.6	42.7	40.4	46.3	46.6	46.7	46.8	47.0	47.3	47.4	47.5	47.5	47.9	48.4
60-61	59.6	61.1	62.8	60.0	53.6	51.9	51.7	54.4	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
62-64	38.9	41.9	41.4	37.4	33.4	33.7	36.8	30.1	39.8	40.1	40.4	40.6	40.9	41.2	41.4	41.7	42.0	42.3	42.5
65 and over	13.0	13.1	13.7	11.6	12.7	14.9	12.9	12.9	14.0	14.3	14.5	14.6	14.8	15.0	15.2	15.4	15.6	15.9	16.1
65-74	17.0	16.5	17.2	14.6	15.6	19.1	17.0	15.6	17.4	17.6	17.8	18.1	18.4	18.7	19.0	19.3	19.7	20.0	20.3
65-69	19.1	19.5	21.8	19.2	18.9	23.1	18.9	19.8	21.9	22.2	22.5	22.8	23.2	23.5	23.8	24.2	24.5	24.8	25.1
70 and over	9.2	9.3	8.5	6.9	9.1	9.8	8.9	9.3	10.0	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.1	11.2
70-74	14.2	12.7	10.9	8.9	11.6	13.9	14.2	10.7	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0
75 and over	4.9	6.2	6.2	5.1	6.9	5.9	4.6	8.1	8.4	8.5	8.5	8.6	8.7	8.7	8.8	8.9	9.0	9.1	9.2

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Black Female																			
16 and over	58.3	57.5	58.5	57.9	58.7	59.5	60.4	61.7	62.8	63.1	63.5	63.8	64.1	64.4	64.3	64.4	64.5	64.6	64.6
16-24	50.9	48.5	49.6	50.3	52.0	52.9	52.9	55.7	56.8	57.0	57.6	58.0	58.3	58.6	58.8	58.8	58.9	59.1	59.5
16-19	36.8	33.5	35.2	34.6	36.4	39.7	38.8	39.9	42.5	42.7	43.1	43.4	43.5	43.8	44.0	44.2	44.6	45.0	45.5
16-17	26.6	23.4	24.9	23.3	29.9	30.5	29.9	28.2	30.6	30.8	31.1	31.3	31.6	31.9	32.2	32.6	32.9	33.2	33.6
18-19	46.2	43.1	45.2	46.0	43.3	49.6	48.3	52.0	54.3	54.7	55.1	55.5	55.8	56.1	56.4	56.7	57.0	57.3	57.5
20 and over	60.6	60.0	60.8	60.2	60.9	61.4	62.6	64.0	64.8	65.1	65.5	65.8	66.1	66.4	66.3	66.4	66.5	66.5	66.6
20-24	62.3	60.3	60.7	62.6	64.5	63.7	65.2	69.8	69.6	69.8	70.1	70.4	70.8	71.0	71.3	71.5	71.7	71.8	71.9
20-21	57.0	53.4	56.5	57.5	57.9	56.8	58.3	64.4	65.5	65.9	66.3	66.7	67.0	67.3	67.6	67.8	68.0	68.2	68.3
22-24	65.7	65.5	63.5	65.9	68.8	68.1	69.9	73.6	72.4	72.6	72.9	73.2	73.4	73.7	73.9	74.1	74.3	74.5	74.6
25 and over	60.3	59.9	60.8	59.9	60.4	61.1	62.2	63.2	64.2	64.5	64.9	65.2	65.5	65.8	65.6	65.7	65.8	65.9	65.9
25-54	73.8	73.2	74.2	73.1	73.5	74.4	75.8	77.0	78.3	78.6	78.9	79.2	79.5	79.9	80.1	80.4	80.6	80.9	81.1
25-34	72.3	71.4	73.1	70.9	71.9	73.8	75.9	78.1	79.6	80.0	80.4	80.8	81.1	81.4	81.6	81.8	81.9	82.0	82.0
25-29	70.9	69.1	70.9	69.0	71.3	73.5	74.8	77.7	78.4	78.9	79.3	79.7	80.0	80.3	80.6	80.8	80.9	81.0	81.0
30-34	73.7	73.7	75.1	72.7	72.6	74.2	76.8	78.5	80.8	81.2	81.5	81.9	82.2	82.4	82.6	82.8	82.9	83.0	83.1
35-44	77.7	77.2	77.1	76.8	76.4	77.3	78.2	78.4	79.9	80.2	80.5	80.9	81.2	81.5	81.8	82.1	82.3	82.6	82.9
35-39	77.1	77.0	76.1	76.4	76.7	78.5	78.7	78.8	79.0	79.4	79.7	80.1	80.4	80.7	81.1	81.4	81.7	82.1	82.4
40-44	78.4	77.4	78.4	77.3	76.2	75.9	77.7	78.0	80.9	81.1	81.4	81.7	81.9	82.2	82.4	82.7	82.9	83.1	83.4
45-54	70.7	70.2	71.7	71.2	71.3	70.5	72.0	73.2	74.0	74.5	74.9	75.3	75.7	76.2	76.6	77.1	77.5	77.9	78.3
45-49	74.0	76.0	74.3	74.3	74.9	72.9	75.2	76.3	77.4	77.9	78.4	78.9	79.4	79.8	80.3	80.8	81.2	81.7	82.1
50-54	66.7	63.1	68.3	67.1	66.4	67.1	67.4	68.8	69.3	69.8	70.3	70.8	71.2	71.7	72.2	72.6	73.1	73.5	74.0
55 and over	24.4	24.3	24.3	23.8	24.7	24.7	24.7	25.2	25.7	26.1	26.6	27.0	27.7	28.5	28.7	29.3	30.1	30.6	31.1
55-64	43.2	44.1	45.1	44.3	45.2	47.2	47.2	47.6	48.5	49.1	49.7	50.2	50.9	51.6	52.3	53.0	53.7	54.3	54.9
55-59	51.7	52.9	54.4	52.5	53.6	56.9	58.4	55.5	57.6	58.3	59.0	59.7	60.4	61.0	61.7	62.4	63.0	63.7	64.3
60-64	34.3	34.8	35.2	35.6	35.9	35.9	34.2	38.2	37.8	38.1	38.4	38.8	39.2	39.7	40.0	40.3	40.6	41.2	42.1
60-61	40.4	42.0	42.9	43.6	39.9	42.9	40.8	45.9	46.0	46.5	47.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	51.0
62-64	29.9	29.3	29.8	30.3	33.4	31.0	28.8	31.9	31.5	31.8	32.1	32.4	32.6	32.9	33.2	33.5	33.8	34.1	34.4
65 and over	9.9	9.2	8.6	8.2	9.3	7.7	7.7	8.2	7.9	7.8	7.7	7.7	7.6	7.6	7.4	7.4	7.3	7.3	7.2
65-74	14.5	13.9	12.3	12.0	12.7	11.5	11.0	11.5	11.3	11.1	11.0	10.9	10.7	10.7	10.6	10.5	10.4	10.3	10.2
65-69	17.7	18.8	15.3	16.0	16.6	14.3	13.7	13.8	14.0	13.8	13.5	13.3	13.1	12.8	12.6	12.4	12.2	12.0	11.8
70 and over	5.7	4.2	5.5	4.5	5.6	4.5	4.9	5.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.9	4.9	5.0
70-74	9.8	7.1	8.8	7.4	7.9	7.8	7.7	8.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
75 and over	3.2	2.5	3.2	2.7	4.2	2.5	3.2	3.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Asian & Other Male																			
16 and over	75.0	74.4	75.2	74.9	74.3	75.2	73.4	74.7	75.5	74.8	74.8	74.8	74.8	74.8	74.6	74.5	74.4	74.2	74.0
16-24	56.6	53.2	56.4	57.7	56.1	59.6	53.4	53.8	54.5	53.7	53.7	53.9	54.1	54.3	54.5	54.5	54.5	54.3	54.3
16-19	37.6	34.9	36.5	39.4	37.6	40.8	34.9	35.2	37.3	37.5	37.7	37.9	38.0	38.1	38.2	38.2	38.4	38.5	38.6
16-17	25.3	23.4	24.6	29.3	26.1	27.7	26.7	27.9	29.9	30.1	30.3	30.5	30.7	31.0	31.2	31.5	31.7	32.0	32.3
18-19	50.0	49.1	48.6	49.4	50.3	54.9	46.1	43.6	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
20 and over	79.1	78.8	79.3	78.5	78.0	78.8	77.5	78.6	79.1	78.7	78.6	78.6	78.5	78.4	78.3	78.1	78.0	77.8	77.6
20-24	72.2	67.6	71.9	70.8	69.5	73.7	68.8	69.5	68.5	67.8	67.7	67.7	67.7	67.8	67.9	67.9	67.9	67.9	67.9
20-21	63.4	57.5	66.1	64.6	61.7	67.7	61.8	63.9	61.1	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.1	61.1
22-24	77.9	74.0	76.1	74.9	75.6	78.0	72.9	73.4	73.7	73.7	73.6	73.6	73.6	73.6	73.6	73.6	73.5	73.5	73.5
25 and over	80.1	80.7	80.5	79.7	79.4	79.6	78.8	79.8	80.4	80.2	80.1	80.0	80.0	79.9	79.7	79.5	79.3	79.2	78.9
25-54	88.5	88.9	89.5	88.3	87.9	88.7	88.0	89.2	90.1	90.1	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.1
25-34	86.4	87.1	88.0	86.5	86.6	87.9	87.3	87.6	88.9	88.8	88.9	88.9	89.0	89.0	89.0	89.0	89.0	88.9	88.9
25-29	85.6	85.9	84.8	84.8	83.6	87.0	84.8	84.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
30-34	87.1	88.2	90.9	88.1	89.6	88.7	89.8	90.7	90.4	90.4	90.5	90.5	90.5	90.6	90.6	90.6	90.6	90.6	90.6
35-44	91.3	91.9	91.9	90.7	89.7	90.5	89.0	91.2	91.8	91.9	91.9	91.9	91.9	91.9	91.9	92.0	92.0	92.0	91.9
35-39	89.8	91.1	93.0	90.2	88.8	86.5	89.1	91.5	93.0	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
40-44	93.1	92.9	90.8	91.4	90.7	95.6	89.0	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
45-54	88.0	87.7	88.5	87.6	87.7	87.5	87.7	88.5	89.4	89.4	89.4	89.4	89.5	89.5	89.5	89.5	89.5	89.5	89.5
45-49	88.8	89.4	90.4	88.6	88.7	82.9	88.4	89.7	90.7	90.8	90.8	90.8	90.8	90.9	90.9	90.9	90.9	90.9	90.8
50-54	86.8	85.4	86.3	86.3	86.4	91.1	87.0	87.2	87.7	87.8	87.8	87.8	87.8	87.8	87.9	87.9	87.9	87.9	87.9
55 and over	43.1	45.0	44.5	43.5	43.6	42.1	44.2	46.6	46.0	44.3	44.7	45.2	45.8	46.3	46.6	46.9	47.2	47.4	47.5
55-64	72.3	70.7	68.6	68.8	69.7	68.0	69.2	69.9	71.3	72.0	72.2	72.3	72.5	72.7	72.9	73.0	73.1	73.1	73.1
55-59	80.6	80.5	82.5	81.0	78.7	67.5	75.0	77.7	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
60-64	62.8	59.1	51.1	54.3	59.3	68.5	60.9	61.2	61.4	63.4	63.7	63.9	64.1	64.4	64.6	64.8	65.0	65.2	65.4
60-61	77.6	64.4	57.1	62.1	65.3	70.9	66.4	71.9	74.0	74.3	74.6	74.8	75.0	75.1	75.2	75.3	75.3	75.3	75.3
62-64	51.6	54.4	46.8	48.8	52.9	64.6	55.5	52.1	52.0	52.4	52.9	53.3	53.8	54.2	54.6	54.9	55.3	55.6	55.9
65 and over	15.1	16.3	18.0	15.5	17.4	16.8	18.1	19.3	19.6	17.8	18.1	18.4	18.8	19.1	19.3	19.4	19.6	19.7	19.8
65-74	19.2	21.3	23.0	19.8	18.7	22.8	22.4	25.3	28.3	27.7	28.2	28.7	29.1	29.5	29.8	30.0	30.2	30.2	30.2
65-69	25.0	23.3	25.6	24.1	26.2	38.5	27.6	33.7	34.0	34.8	35.4	36.0	36.5	36.9	37.2	37.4	37.6	37.7	37.7
70 and over	8.6	11.2	12.4	10.0	12.7	7.8	12.3	10.4	10.3	10.1	10.1	10.3	10.4	10.5	10.5	10.6	10.7	10.8	10.8
70-74	11.1	18.2	18.6	13.9	9.9	8.2	15.7	11.6	19.1	19.2	19.4	19.6	19.7	19.9	20.1	20.3	20.4	20.5	20.5
75 and over	6.3	5.2	7.7	6.6	15.1	7.4	9.1	9.6	4.6	4.6	4.6	4.7	4.7	4.7	4.8	4.8	4.8	4.9	4.9

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Asian & Other Female																			
16 and over	57.4	56.6	58.2	57.1	56.9	57.2	58.8	59.0	59.2	58.9	59.1	59.4	59.6	59.9	59.9	60.1	60.3	60.4	60.5
16-24	51.1	49.3	49.6	47.7	48.6	51.9	51.4	51.2	49.9	50.2	50.3	50.6	50.9	51.2	51.4	51.5	51.6	51.5	51.4
16-19	37.3	36.7	39.4	36.7	38.1	41.5	38.5	37.3	35.0	34.7	34.7	34.9	34.9	34.8	34.8	34.6	34.6	34.5	34.5
16-17	28.3	26.9	31.7	24.4	30.0	29.1	30.4	25.4	23.8	23.7	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.7	23.8
18-19	46.7	46.9	47.2	48.8	46.1	54.7	47.0	48.4	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8
20 and over	59.3	58.5	59.9	58.8	58.5	58.6	60.5	60.9	61.3	61.1	61.3	61.5	61.8	62.0	62.0	62.2	62.4	62.6	62.7
20-24	62.0	59.2	57.5	55.3	55.7	59.7	60.5	62.2	62.8	62.8	62.9	63.1	63.4	63.6	63.9	64.2	64.5	64.7	65.0
20-21	67.2	124.0	75.6	50.8	54.4	59.2	52.9	61.5	60.1	60.4	60.7	60.9	61.2	61.4	61.7	61.9	62.2	62.4	62.6
22-24	59.2	45.4	50.8	58.2	56.6	60.1	65.4	62.6	64.5	64.5	64.6	64.8	65.0	65.3	65.5	65.8	66.1	66.4	66.6
25 and over	58.9	58.4	60.3	59.3	59.0	58.5	60.5	60.7	61.1	60.8	61.1	61.3	61.6	61.8	61.8	62.0	62.2	62.3	62.5
25-54	67.7	67.3	69.7	68.7	68.3	67.6	70.4	70.7	71.4	71.8	72.2	72.7	73.1	73.6	74.0	74.4	74.8	75.3	75.7
25-34	65.9	65.1	67.4	66.0	64.6	64.9	69.2	67.3	67.8	68.1	68.5	68.9	69.2	69.6	70.0	70.4	70.8	71.2	71.5
25-29	64.2	64.6	65.6	64.6	64.6	63.2	69.2	67.7	68.2	68.5	68.9	69.3	69.6	70.0	70.4	70.8	71.2	71.6	72.0
30-34	67.5	65.5	68.9	67.4	64.6	66.6	69.2	66.9	67.3	67.7	68.1	68.5	68.9	69.2	69.6	70.0	70.4	70.7	71.1
35-44	68.6	69.5	71.2	70.9	71.4	69.8	71.7	72.8	72.9	73.1	73.4	73.8	74.2	74.5	74.9	75.3	75.6	75.9	76.3
35-39	67.9	68.6	69.7	67.5	68.5	64.3	69.7	71.2	69.5	70.0	70.4	70.9	71.3	71.8	72.2	72.7	73.1	73.5	74.0
40-44	69.4	70.5	72.8	74.7	74.9	77.1	74.1	74.5	76.2	76.5	76.8	77.0	77.3	77.6	77.8	78.1	78.4	78.6	78.9
45-54	69.6	67.7	71.3	69.6	69.4	68.5	70.5	72.4	74.3	75.0	75.5	76.0	76.6	77.1	77.6	78.1	78.6	79.0	79.5
45-49	71.6	71.4	75.2	70.9	70.1	75.6	72.8	74.8	77.4	77.8	78.3	78.7	79.1	79.5	79.9	80.3	80.6	81.0	81.3
50-54	66.8	62.6	66.4	68.0	68.5	62.2	67.0	69.3	70.7	71.4	72.1	72.8	73.5	74.1	74.8	75.5	76.1	76.8	77.4
55 and over	26.3	26.6	26.2	25.7	26.1	26.5	25.7	26.4	27.2	26.6	27.0	27.4	28.0	28.6	28.8	29.3	29.8	30.1	30.5
55-64	44.2	43.5	43.6	44.6	47.4	48.1	46.1	47.3	49.1	49.9	50.4	50.9	51.5	52.1	52.7	53.2	53.7	54.1	54.5
55-59	56.5	50.9	53.4	54.8	58.0	66.2	54.6	55.8	57.6	58.0	58.4	58.8	59.1	59.5	59.9	60.3	60.7	61.0	61.4
60-64	30.3	35.8	33.5	32.1	33.5	28.7	35.9	36.8	38.5	38.7	39.3	40.0	40.6	41.3	41.9	42.6	43.3	44.0	44.8
60-61	37.9	44.4	40.3	39.1	45.9	37.6	46.4	47.4	43.4	44.0	44.7	45.3	45.9	46.6	47.2	47.8	48.5	49.1	49.7
62-64	25.0	29.0	28.7	27.6	26.8	24.8	29.5	30.6	34.5	35.1	35.7	36.3	36.9	37.6	38.2	38.9	39.5	40.2	40.9
65 and over	8.9	9.1	8.6	7.7	7.1	7.3	6.6	7.8	8.6	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.1	8.2
65-74	12.0	11.4	11.8	10.6	7.9	4.7	9.0	10.6	10.8	10.7	10.7	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3
65-69	14.6	14.5	16.5	11.3	9.1	5.0	11.3	13.8	14.1	14.2	14.3	14.3	14.4	14.5	14.6	14.7	14.8	14.9	15.1
70 and over	4.9	5.6	3.7	5.6	5.9	8.6	4.2	4.3	5.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
70-74	7.6	6.7	5.2	9.7	6.2	4.4	6.6	6.2	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75 and over	2.9	4.6	2.5	2.3	5.7	12.5	2.2	3.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hispanic Male																			
16 and over	81.4	80.3	80.7	80.2	79.2	79.1	79.6	80.1	79.8	79.1	79.0	78.9	78.8	78.7	78.7	78.5	78.4	78.1	77.9
16-24	75.8	73.7	73.0	72.8	72.5	71.2	70.4	70.3	70.6	70.6	70.7	70.9	70.8	70.8	70.9	70.7	70.4	70.0	69.7
16-19	56.0	51.5	52.1	50.9	50.0	50.2	50.0	47.4	48.7	48.8	48.9	49.0	48.8	48.7	48.8	48.8	48.7	48.5	48.6
16-17	38.3	33.2	35.3	33.2	34.6	35.0	32.2	30.2	32.0	32.1	32.2	32.2	32.3	32.4	32.5	32.6	32.7	32.8	33.0
18-19	71.5	67.8	67.8	67.8	66.1	65.7	67.1	66.3	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.7
20 and over	84.7	83.8	84.0	83.5	82.5	82.4	83.0	84.1	83.6	82.8	82.7	82.5	82.4	82.3	82.2	82.1	81.9	81.7	81.6
20-24	89.6	88.5	87.4	87.8	88.0	86.2	85.7	88.1	88.1	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.8
20-21	86.2	85.7	83.8	83.5	84.4	83.0	82.0	84.2	84.1	84.1	84.1	84.1	84.1	84.0	84.0	84.0	84.0	84.0	83.9
22-24	91.8	90.4	89.7	91.0	90.1	88.2	88.0	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.5	90.5	90.5	90.5
25 and over	83.6	82.8	83.3	82.6	81.4	81.6	82.5	83.4	82.8	81.9	81.7	81.6	81.4	81.2	81.2	81.0	80.9	80.7	80.5
25-54	92.4	91.2	91.5	91.7	90.9	91.0	91.5	91.8	91.6	91.4	91.4	91.3	91.3	91.2	91.2	91.2	91.1	91.1	91.1
25-34	94.1	92.6	92.9	92.9	92.5	92.9	93.2	93.5	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
25-29	94.2	92.6	92.6	92.8	91.8	91.2	93.2	93.5	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.9	92.9
30-34	94.0	92.6	93.2	92.9	93.2	94.7	93.2	93.5	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
35-44	92.8	91.1	92.2	92.4	91.6	91.3	91.7	91.9	91.4	91.4	91.4	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
35-39	93.8	91.8	92.7	93.4	91.7	96.8	92.6	92.9	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
40-44	91.6	90.3	91.7	91.2	91.2	85.0	90.5	90.7	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
45-54	87.1	87.6	86.8	87.2	85.7	85.6	87.0	87.9	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
45-49	87.6	90.5	88.0	88.1	87.6	83.3	88.0	88.8	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
50-54	86.4	84.2	85.4	86.0	82.9	89.2	85.7	86.5	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
55 and over	42.9	43.7	44.3	40.9	39.7	40.0	42.8	44.6	43.6	42.4	42.6	42.7	43.2	43.5	43.7	44.0	44.4	44.6	44.9
55-64	66.3	67.5	68.7	65.7	63.7	62.4	65.9	68.4	70.2	71.4	71.6	71.8	72.0	72.1	72.3	72.4	72.6	72.5	72.6
55-59	78.0	78.5	78.5	77.9	72.4	71.1	78.4	81.4	83.5	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
60-64	52.8	54.9	57.0	50.4	52.0	50.8	50.7	52.7	54.0	54.5	54.7	55.0	55.1	55.3	55.6	55.7	55.9	56.2	56.5
60-61	68.1	69.0	69.4	61.0	63.1	61.6	61.5	63.9	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
62-64	41.2	45.1	48.8	43.6	44.9	43.9	43.8	45.5	46.6	46.9	47.2	47.5	47.7	48.0	48.3	48.5	48.8	49.1	49.4
65 and over	14.0	14.0	14.8	15.2	14.5	15.8	16.7	17.3	14.9	13.8	13.8	13.7	13.8	13.8	13.8	13.8	13.8	13.9	14.0
65-74	17.4	18.5	18.8	19.4	17.6	20.6	21.3	22.1	19.0	18.5	18.5	18.6	18.7	18.9	19.1	19.2	19.3	19.4	19.6
65-69	22.4	22.0	23.7	25.1	22.0	27.8	27.5	28.6	24.6	24.7	24.9	25.1	25.3	25.5	25.6	25.8	26.0	26.1	26.3
70 and over	7.5	8.7	8.7	8.1	9.5	7.9	8.7	9.0	7.8	7.6	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.5	7.5
70-74	9.6	13.3	11.2	10.5	11.2	10.3	11.3	11.8	10.1	10.1	10.1	10.2	10.2	10.2	10.2	10.2	10.2	10.3	10.3
75 and over	5.6	5.1	6.5	6.0	8.0	5.8	6.4	6.7	5.7	5.7	5.7	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8

Appendix E. Civilian Labor Force Participation Rates, Estimated and Projected: 1990 to 2008

	Estimated									Projected									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hispanic Female																			
16 and over	53.1	52.3	52.8	52.1	52.9	52.6	53.4	55.1	55.6	55.7	56.1	56.4	56.7	57.0	57.2	57.4	57.6	57.7	57.9
16-24	50.4	48.6	50.7	48.0	49.6	49.2	49.2	51.1	53.2	53.3	53.6	53.9	54.1	54.3	54.5	54.6	54.6	54.6	54.6
16-19	38.7	38.0	39.1	36.7	38.7	40.4	36.5	38.0	42.4	42.1	42.3	42.5	42.5	42.5	42.7	42.7	42.7	42.5	42.6
16-17	28.1	27.2	27.5	24.2	28.4	29.0	26.8	27.5	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
18-19	48.0	47.6	49.9	48.4	48.0	50.1	46.1	48.5	55.4	55.7	56.0	56.3	56.6	56.9	57.2	57.4	57.7	58.0	58.3
20 and over	54.8	54.0	54.3	53.8	54.4	53.9	55.2	57.0	57.1	57.3	57.6	57.9	58.3	58.6	58.7	58.9	59.2	59.4	59.6
20-24	59.2	56.4	59.2	56.2	57.9	55.9	59.2	62.3	62.2	62.4	62.6	62.8	63.1	63.4	63.7	64.0	64.4	64.7	65.0
20-21	59.0	55.1	57.0	55.5	59.3	52.3	57.4	62.2	62.0	62.3	62.6	62.9	63.2	63.5	63.8	64.0	64.3	64.5	64.8
22-24	59.3	57.2	60.8	56.4	56.9	58.2	60.4	62.3	62.4	62.4	62.6	62.8	63.0	63.3	63.7	64.0	64.4	64.8	65.2
25 and over	53.9	53.5	53.4	53.3	53.8	53.6	54.6	56.2	56.3	56.5	56.8	57.2	57.5	57.8	57.9	58.2	58.4	58.6	58.8
25-54	62.3	61.7	62.3	62.1	62.7	62.9	64.0	65.7	65.8	66.3	66.8	67.2	67.7	68.2	68.6	69.1	69.5	70.0	70.4
25-34	61.3	59.8	60.8	60.5	60.5	61.6	62.0	63.7	64.5	65.0	65.4	65.8	66.3	66.7	67.1	67.5	67.9	68.3	68.6
25-29	59.4	59.0	60.2	59.4	59.6	59.2	60.9	62.6	63.4	63.9	64.3	64.8	65.2	65.7	66.1	66.6	67.0	67.4	67.8
30-34	63.3	60.8	61.7	61.7	61.4	64.0	63.1	64.8	65.7	66.1	66.5	66.9	67.3	67.7	68.1	68.4	68.8	69.2	69.5
35-44	66.0	65.3	66.0	65.4	66.4	65.9	67.0	69.3	67.9	68.4	68.8	69.2	69.6	70.0	70.5	70.9	71.3	71.7	72.0
35-39	66.1	65.3	66.1	64.9	65.0	68.0	66.4	68.8	67.3	67.7	68.0	68.3	68.7	69.0	69.3	69.7	70.0	70.3	70.6
40-44	65.9	65.5	65.9	66.0	68.1	63.4	67.7	70.1	68.6	69.1	69.6	70.1	70.6	71.1	71.6	72.1	72.5	73.0	73.5
45-54	58.8	60.3	59.4	59.6	61.4	60.5	62.7	63.3	64.7	65.3	65.9	66.5	67.2	67.8	68.4	69.0	69.5	70.1	70.6
45-49	63.0	61.5	60.8	63.1	63.8	64.4	66.4	67.2	68.6	69.4	70.2	71.0	71.8	72.6	73.3	74.0	74.7	75.4	76.1
50-54	53.9	58.8	57.7	55.1	58.3	55.7	57.9	58.5	59.7	60.2	60.6	61.1	61.5	61.9	62.4	62.8	63.2	63.7	64.1
55 and over	24.2	24.0	22.4	23.2	22.6	21.8	23.2	23.6	23.2	23.5	23.8	24.0	24.4	24.7	24.8	25.1	25.4	25.6	25.9
55-64	39.7	40.5	38.0	40.1	37.9	37.2	40.5	40.6	41.8	42.2	42.7	43.1	43.6	44.0	44.5	44.9	45.3	45.6	46.0
55-59	46.3	48.5	46.4	47.9	44.1	45.8	47.7	47.7	49.1	49.5	49.9	50.3	50.7	51.1	51.5	51.9	52.3	52.7	53.1
60-64	31.1	31.8	29.1	31.1	31.3	27.8	32.1	32.3	33.3	33.8	34.2	34.5	34.8	35.3	35.7	36.0	36.3	36.8	37.2
60-61	36.3	39.3	37.5	38.9	39.8	35.4	39.5	39.6	40.8	41.1	41.4	41.7	42.0	42.3	42.7	43.0	43.3	43.6	43.9
62-64	27.4	25.7	23.6	26.1	25.7	22.8	27.1	27.5	28.3	28.7	29.0	29.4	29.8	30.1	30.5	30.9	31.3	31.7	32.0
65 and over	7.2	6.7	6.7	7.4	7.9	6.6	6.9	8.1	6.6	6.3	6.2	6.1	6.1	6.1	5.9	5.9	5.8	5.8	5.8
65-74	10.6	9.6	10.0	10.1	10.1	7.1	7.4	10.9	8.9	8.7	8.7	8.6	8.5	8.5	8.5	8.4	8.4	8.3	8.3
65-69	12.1	12.2	12.4	12.1	13.1	10.9	12.2	14.0	11.4	11.3	11.2	11.1	11.0	10.9	10.8	10.7	10.7	10.6	10.5
70 and over	4.4	3.2	3.3	4.7	4.7	5.5	5.8	4.6	3.7	3.7	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5
70-74	8.5	5.6	6.7	7.5	6.0	5.4	5.6	6.8	5.5	5.5	5.5	5.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4
75 and over	1.3	1.7	0.8	2.5	3.6	2.7	2.6	2.9	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4