

EMPLOYMENT PROJECTIONS IN THE 2021 SOCIAL SECURITY TRUSTEES REPORT

ACTUARIAL STUDY NO. 126

by Polina Vlasenko

SOCIAL SECURITY ADMINISTRATION
OFFICE OF THE CHIEF ACTUARY

April 2022
SSA Pub. No. 11-11545

TABLE OF CONTENTS

List of Figures	iii
List of Tables	v
I. Introduction	1
II. Employment Projections in the 2021 Trustees Report	2
III. Factors Influencing the Projected Ratios of Employment to Population	7
a. Unemployment Rate Projections	7
b. Labor Force Participation Rate Projections	10
IV. Factors Affecting Labor Force Participation Rates	13
a. Factors Affecting Labor Force Participation Rates Adjusted for Demographic Composition	13
b. Factors Affecting Unadjusted Labor Force Participation Rates	15
V. Conclusion	17
Appendix 1: Detailed Projections for Ratios of Employment to Population and Labor Force Participation Rates for the 2021 Trustees Report	19
Appendix 2: OCACT’s Labor Force Model	39

LIST OF FIGURES

Figure	Description	Page
1	Historical and Projected Ratio of Employment to Population (unadjusted) 2021 Trustees Report (Intermediate assumptions)	2
2	Historical and Projected Ratio of Employment to Population (age-sex-adjusted) 2021 Trustees Report (Intermediate assumptions)	3
3	Projected Change in Ratio of Employment to Population, Men (by age group) 2021 Trustees Report (intermediate assumptions)	4
4	Projected Change in Ratio of Employment to Population, Women (by age group) 2021 Trustees Report (intermediate assumptions)	6
5	Historical and Projected Unemployment Rates (annual, unadjusted) 2021 Trustees Report (intermediate assumptions)	8
6	Historical and Projected Unemployment Rates (annual, age-sex-adjusted) 2021 trustees Report (intermediate assumptions)	9
7	Projected Change in Unemployment Rates by age group, 2021Q2 to 2030Q4 2021 Trustees Report (intermediate assumptions)	10
8	Historical and Projected Labor Force Participation Rates (unadjusted) 2021 Trustees Report (intermediate assumptions)	11
9	Historical and Projected Labor Force Participation Rates (age-sex-adjusted) 2021 Trustees Report (intermediate assumptions)	12
10	Factors Driving the Projected Change in Labor Force Participation Rates for Men 16+, LFPRs adjusted for age, marital status, and child presence 2021 Trustees Report (intermediate assumptions)	13
11	Factors Driving the Projected Change in Labor Force Participation Rates for Women 16+, LFPRs adjusted for age, marital status, and child presence 2021 Trustees Report (intermediate assumptions)	14
12	Factors Driving the Projected Change in Labor Force Participation Rates for Men 16+, 2021 Trustees Report (intermediate assumptions)	16
13	Factors Driving the Projected Change in Labor Force Participation Rates for Women 16+, 2021 Trustees Report (intermediate assumptions)	17

LIST OF TABLES

Table	Description	Page
1	Ratio of Employment to Civilian Noninstitutional Population, Men	20
2	Ratio of Employment to Civilian Noninstitutional Population, Women.	23
3	Ratio of Employment to Civilian Noninstitutional Population.	26
4	Civilian Labor Force Participation Rates, Men.	27
5	Civilian Labor Force Participation Rates, Women	30
6	Civilian Labor Force Participation Rates	33
7	Labor Force Participation Rates (adjusted for age, sex, marital status, and presence of children, 2011 base): 2021Q2 to 2030Q4	34
8	Labor Force Participation Rates (adjusted for age, sex, marital status, and presence of children, 2011 base): 2030Q4 to 2095Q4	35
9	Labor Force Participation Rates: 2021Q2 to 2030Q4.	36
10	Labor Force Participation Rates (unadjusted): 2030Q4 to 2095Q4	37
A1	OCACT Labor Force Model; LFPR Estimated Equations, Men	42
A2	OCACT Labor Force Model; LFPR Estimated Equations, Women	44

I. Introduction

The Board of Trustees of the Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds produces an annual report on the financial status of the OASI and DI programs (hereafter, the Trustees Report). This report is prepared by the Office of the Chief Actuary (OCACT) at the Social Security Administration, in conjunction with representatives of each of the Trustees. The Trustees set demographic, economic, and programmatic assumptions that serve as a basis for projections presented in the Trustees Report. The assumptions are described in publicly available documents.¹ The projections included in each year's Trustees Report extend for 75 years into the future.

Employment projected over the 75-year long-range projection period is a key component of the financial status of the trust funds of the OASI and DI programs. Employment is a critical input into both the payroll tax revenue (income) and the scheduled benefit payments (cost) for the trust funds. In this study, we provide details on the employment projections that underlie the projections of financial status of the trust funds in the 2021 Trustees Report. The employment projections used for the 2021 report were based on an updated model, which incorporates data from the latest complete economic cycle (2007-19) and reflects changes in the relationships among factors affecting employment and labor force participation.

The employment projections result from combining the labor force projections, produced by OCACT's labor force participation model, and the projected unemployment rates, based on the underlying demographic, economic, and programmatic assumptions set by the Trustees.

Employment (the number of people who receive monetary compensation for their work) is a concept that can be measured more precisely than labor force participation or unemployment and is more directly related to the payroll tax revenue and earnings credits that are fundamental to the OASI and DI programs. The labor force includes (1) those who are employed and (2) those who are currently out of work and are actively searching for employment (classified as unemployed). Traditionally, data on the employment status of the population are collected via a monthly survey by the Bureau of Labor Statistics. Any survey introduces measurement errors associated with self-reporting. However, employment measures can also be obtained through other data sources (employer records, administrative data, and the like), which makes the employment measures more precise than labor force participation or unemployment. In addition, the concept of being employed (working for pay) is less open to misinterpretation. Other concepts, including labor force participation and unemployment, rely on the self-reporting of people who say they are actively searching for work—something that cannot be verified with any other data sources and the interpretation of which can vary from person to person and shift over time.

Because the population changes over time, the ratio of employment to population, rather than simply the level of employment, is the relevant measure to reflect the evolution of employment over time. Changes in the employment-to-population ratio can have a significant influence on OASI and DI program finances. A higher employment-to-population ratio leads to more workers who make payroll tax contributions to the trust funds. Thus, an increase in the employment-to-population ratio initially results in an increase in payroll tax revenues. Over time, the increase in the number of workers who make payroll tax contributions will result in an increase in the number of workers who are eligible for benefit payments in the event that they meet the other program eligibility criteria, and an increase in the total number of years of employment for some workers. Both of these effects result in an increase in benefit payments. The net effect of an increase in the employment-to-population ratio on the financial status of the program over the fixed 75-year projection horizon tends to be positive (an improvement) because the increase in payroll tax revenue is realized before the increase in benefit payments.

This study describes:

- (1) the historical and projected employment-to-population ratios underlying the projections in the 2021 Trustees Report;
- (2) the labor force participation rate projections and the unemployment rate projections that give rise to the employment projections; and
- (3) key factors affecting the trends in the projections of employment and labor force participation.

¹ See https://www.ssa.gov/OACT/TR/2021/2021_Long-Range_Demographic_Assumptions.pdf, https://www.ssa.gov/OACT/TR/2021/2021_Long-Range_Economic_Assumptions.pdf, and https://www.ssa.gov/OACT/TR/2021/2021_Long-Range_Disability_Assumptions.pdf

II. Employment Projections in the 2021 Trustees Report

The ratios of average weekly employment to the civilian noninstitutional population for men, women, and everyone ages 16 and older, both historical (1981-2020) and projected in the 2021 Trustees Report (2021-95), are shown in figure 1. Because employment rates vary greatly by age, and changes in the age and sex distribution of the population have occurred in the past and are projected to continue in the future, it is easier to discern the changes in employment ratios if the age-sex distribution of the population is held constant. Figure 2 shows historical and projected ratios of employment to population, where the relative sizes of population subgroups by age and sex are held constant at the 2011 proportions.

Tables 1, 2, and 3 in Appendix 1 show the ratios of employment to population in more detail, including the ratios for each age group and sex, as well as the age-sex-adjusted ratios based on the 2011 age distribution of the civilian noninstitutional U.S. population.

Figure 1—Historical and Projected Ratio of Employment to Population (Unadjusted)
2021 Trustees Report (intermediate assumptions)

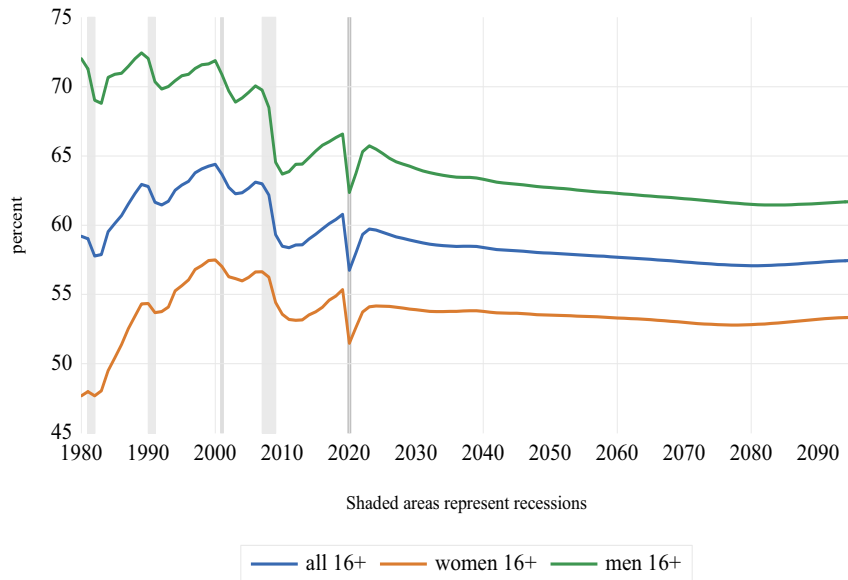
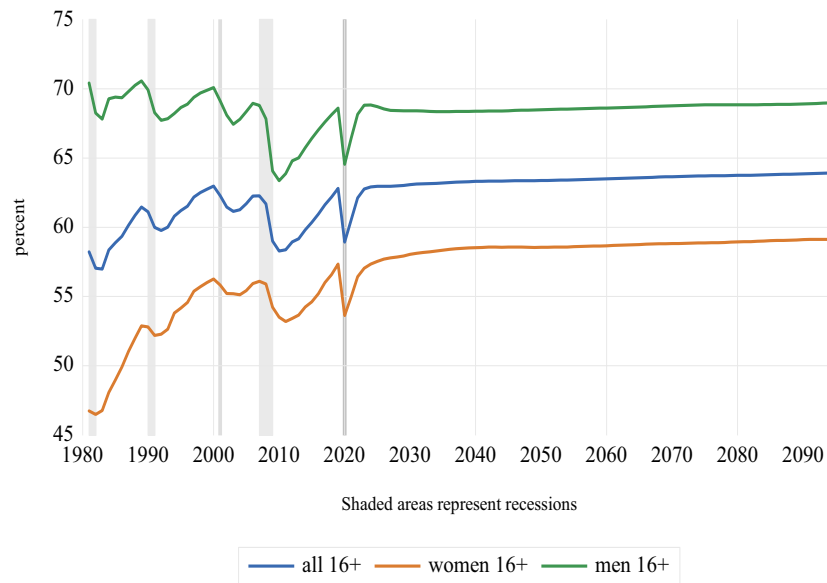


Figure 2—Historical and Projected Ratio of Employment to Population (age-sex-adjusted)
2021 Trustees Report (intermediate assumptions)



The figures show that the ratio of employment to population is cyclical, rising during economic expansions and falling during recessions. In addition to the cyclical fluctuations, some longer-run trends are apparent. In the historical period, as shown in Figure 1, the unadjusted ratio of employment to population for men fell somewhat, from about 71 percent in 1981 to about 66 percent in recent years (prior to a sharp decrease during the recession of 2020). For women, the ratio of employment to population increased substantially from just under 48 percent in 1981 to a peak of over 57 percent in 2000, after which a gradual decline has begun. In recent years, it was around 55 percent.

The changes in the unadjusted rates were partially driven by the changing age distribution of the population. If the age distribution of population is adjusted to be held constant, as shown in Figure 2, the same trends are present but the magnitude of changes is somewhat different. In the historical period, the age-adjusted ratio of employment to population for men fell from slightly over 70 percent in 1981 to around 68 percent in recent years, while for women the ratio rose from slightly below 47 percent in 1981 to a local peak of about 56 percent in 2000. After that, the ratio for women fluctuated between 55 and 56 percent through 2010, with larger fluctuations after 2010. Right before the recession of 2020, the age-adjusted ratio for women stood at 57.3 percent.

Combining the trends for men and women, the age-sex-adjusted ratio of employment to population for everyone age 16 and older rose from about 58 percent in 1981 to a peak of 63 percent in 2000. Since then, it fluctuated around 61 percent, reaching 62.8 percent in 2019, the latest peak of the economic cycle. In 2020, the ratio of employment to population fell to 58.9 percent because of the recession.

In the projection period, the ratio of employment to population is projected to rise in the immediate future, as the economy recovers from the brief but severe recession of 2020. The age-sex-adjusted ratio of employment to population for everyone age 16 and over is projected to rebound from a low recession-induced level of 58.9 percent in 2020 to 62.8 percent in 2023, before rising gradually over the longer term. By 2095, the end of the projection period, the age-sex-adjusted ratio is projected to reach 63.9 percent.

The trend in the overall age-sex-adjusted ratio of employment to population is a combination of trends in the age-adjusted ratios for men and women. The age-adjusted ratio for men 16 and older is projected to rebound from a recession-induced low of 64.5 percent in 2020 to a peak of 68.8 percent in 2024 before receding slightly. Over the longer term, the age-adjusted ratio of employment to population for men is projected to rise gradually and reach 69 percent in 2095, the end of the projection period.

The age-adjusted ratio for women 16 and older is projected to rebound from a recession-induced low of 53.6 percent in 2020 to 57.3 percent in 2024, after which it is projected to continue rising gradually. By 2095, the end of the projection period, the age-adjusted ratio of employment to population for women is projected to reach 59.1 percent.

Unlike the age-sex-adjusted ratio, the unadjusted ratios of employment to population are projected to fall gradually over the long term, once the recovery from the recession of 2020 is complete. The primary driving force behind this fall is the changing age distribution of the population, with a rising proportion of people at older ages, where employment tends to be lower. The factors driving the projected trajectory of the ratios of employment to population for men and women are discussed in detail below.

The projected changes in the ratio of employment to population result from combining the projected changes in labor force participation rates and unemployment rates. Appendix 2 describes the main factors that affect projected labor force participation rates. The projections for labor force participation rates and unemployment rates are discussed in more detail in section III of this study.

Figures 3 and 4 present a more detailed look at the projected changes in the ratios of employment to population by age groups for men (figure 3) and for women (figure 4).

Figure 3—Projected Change in Ratio of Employment to Population, Men (by Age Group)
2021 Trustees Report (intermediate assumptions)

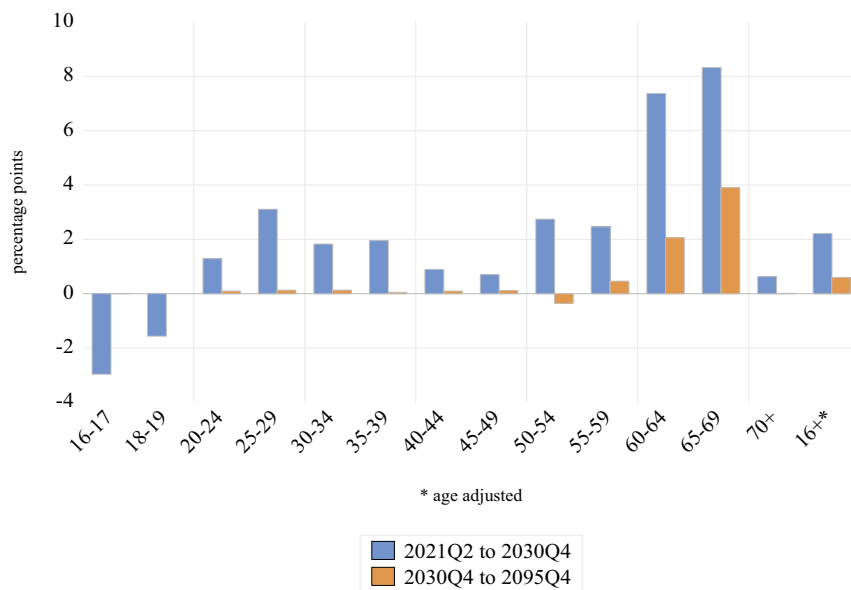


Figure 3 shows the projected change in the ratio of employment to population for men by age group for two periods: the short-range period (2021Q2 to 2030Q4) and the last 65 years of the 75-year long-range period (2030Q4 to 2095Q4). In the short-range projection period, the employment-to-population ratio is expected to increase for men ages 20 and older. For teenagers, the ratio of employment to population is projected to fall somewhat: by 3.0 percentage points for those age 16-17 and by 1.6 percentage points for those age 18-19. This decrease is primarily driven by projected changes in the unemployment rate. The unemployment rate for teenagers is projected to rise eventually from the unusually low levels observed in early 2021 to its assumed long-range value, which is more in line with historical experience.² As a result, both labor force participation and employment for these age groups decrease. Factors affecting the unemployment rates and the labor force participation rates for men of various ages are discussed in more detail in section III of this study.

² The unemployment rates for ages 16-17 and 18-19 for both men and women remained unusually low throughout 2021, but at the time the 2021 Trustees Report was prepared, data were available only through the first quarter of 2021. In the 2021 Trustees Report, the projected unemployment rates for ages 16-17 and 18-19 remain low for a few years, before rising to their ultimate values.

The largest projected increases in the ratio of employment to population in the short-range period occur for men of older ages. For men aged 60 to 64, the ratio of employment to population is projected to increase by 7.4 percentage points between 2021Q2 and 2030Q4. For men aged 65 to 69, the projected increase is 8.3 percentage points. These increases are driven in large part by rising longevity and by the increase in the Social Security normal retirement age. As Social Security's normal retirement age gradually rises to 67, the size of the benefits claimed prior to age 70 falls. This provides an incentive for people between the ages of 62 (the earliest age a person can claim benefits) and 69 to stay in the labor force longer. In addition, rising life expectancy lengthens the expected time in retirement, thus providing incentives for people to continue working longer to ensure adequate finances in retirement. The projected increase in labor force participation combines with the projected decrease in age-specific unemployment rates to result in an even more pronounced increase in the projected ratio of employment to population for these ages.

Several other factors influence projected employment for men at these ages by influencing their labor force participation. A small boost to labor force participation rates (LFPRs) and to employment comes from a projected decrease in the disability prevalence rate, consistent with the recent trends in disability incidence. Changes in educational attainment provide a small boost to LFPRs and employment for men aged 60 to 64, but reduce somewhat the LFPRs of men aged 65 to 69. Changes in the share of men married with spouse present slightly reduce LFPRs for men aged 60 to 64 and increase them for men aged 65 to 69.

Finally, another factor that raises projected LFPRs and the ratio of employment to population for men at these ages is phasing out the model's adjustment factors (or addfactors). As is the case for any econometric model, the estimates produced by OCACT's labor force model rarely match the data observed in the last historical period exactly. To account for this discrepancy and to smoothly link the projected values to the observed last historical value, we employ a set of adjustment factors, which are phased out by the end of the short-range period. For the 2021 Trustees Report, these addfactors are negative, so phasing them out results in rising projected LFPRs and thus rising employment.

For men age 16 and older, the ratio of employment to population (age-adjusted) is projected to increase 2.2 percentage points between 2021Q2 and 2030Q4.

In the last 65 years of the 75-year projection period (2030Q4 to 2095Q4), the ratio of employment to population for men under the age of 60 is projected to change little. Significant increases in the ratio are projected only for men of older ages: 2.1 percentage points for ages 60 to 64 and 3.9 percentage points for ages 65 to 69. These projected increases are driven primarily by rising life expectancy. Rising life expectancy is also projected to increase the ratio of employment to population of men 70 and older; however, that effect is almost completely counteracted by the shift in the age distribution toward older ages within this age group (employment tends to be lower for older ages). As a result, the ratio of employment to population of men 70 and older is projected to change little over this period.

For men 16 and older, the ratio of employment to population (age-adjusted) is projected to increase 0.6 percentage point between 2030Q4 and 2095Q4.

Figure 4—Projected Change in Ratio of Employment to Population, Women (by Age Group)
2021 Trustees Report (intermediate assumptions)

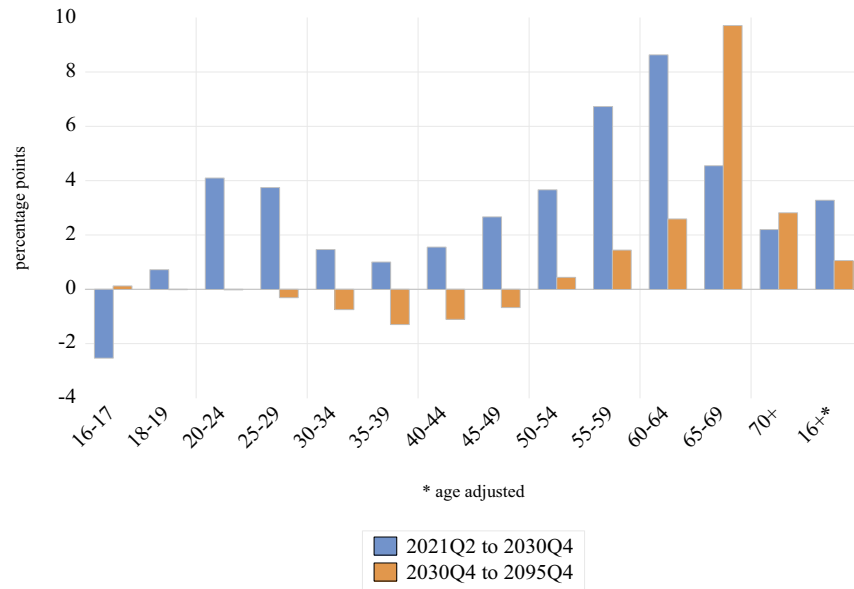


Figure 4 shows the projected change in the ratio of employment to population for women by age group for two periods: the short-range period (2021Q2 to 2030Q4) and the last 65 years of the 75-year long-range period (2030Q4 to 2095Q4).

As is the case for men, the employment-to-population ratios for women of nearly all ages are expected to increase over the short-range projection period. The only age group with a projected decrease in the ratio of employment to population is 16-17 year-olds. Their ratio of employment to population is projected to decrease by 2.5 percentage points by 2030Q4, driven primarily by business-cycle forces. As the unemployment rate for this age group rises from an unusually low level observed in early 2021 to converge to its assumed long-range value more in line with the historical experience, both labor force participation and employment for this age group decrease.

For all other ages, the ratio of employment to population is projected to rise by 2030Q4, with the largest increases happening for women age 55-59 (an increase of 6.7 percentage points) and 60-64 (an increase of 8.6 percentage points).

These changes over the short-range projection period are driven primarily by business-cycle forces (a projected decrease in the unemployment rate, which drives the ratio of employment to population higher) and rising educational attainment. In addition, similar to the effect for men of the same age, the projected rise in life expectancy increases the incentives to stay employed longer, contributing to the rise in the ratio of employment to population for women age 55 and older.

As is the case for men, the change in the Social Security replacement rate due to the normal retirement age rising over time induces women to work longer, contributing to the projected increase in the ratio of employment to population for women age 60 to 64 and 65 to 69. Finally, phasing out the discrepancy between the model estimates and data (the addfactors), which takes place over the first several years of the projection period, also contributes to the increase in the employment-to-population ratio for women at these ages.

For women age 16 and older, the ratio of employment to population (age-adjusted) is projected to increase 3.3 percentage points between 2021Q2 and 2030Q4.

In the last 65 years of the 75-year projection period (2030Q4 to 2095Q4), the ratio of employment to population for women under the age of 60 is projected to change little. Significant increases in the ratio are projected only for women of older ages: 2.6 percentage points for ages 60 to 64, 9.7 percentage points for ages 65 to 69, and 2.8 percentage points

for ages 70 and older. These projected increases are driven primarily by rising life expectancy and, to a lesser degree, by rising educational attainment, offset somewhat by rising disability prevalence.

The ratio of employment to population for women of younger ages, between the ages of 30 and 49, is projected to decrease slightly between 2030Q4 and 2095Q4, driven primarily by changes in marital status and the presence of children. As women postpone childbearing to older ages, a larger proportion of women ages 30 to 49 end up having children under age 6, which reduces both labor force participation and employment.

For women 16 and older in total, the ratio of employment to population (age-adjusted) is projected to increase 1.1 percentage points between 2030Q4 and 2095Q4.

For the entire population age 16 and older, both men and women, the age-sex-adjusted ratio of employment to population is projected to increase over the 75-year projection period, as shown in figure 2. In the short-range period (2021Q2 to 2030Q4), the ratio is projected to increase 3.6 percentage points, reflecting mostly the recovery from the recession of 2020. In the last 65 years of the 75-year long-range projection period (2030Q4 to 2095Q4), the ratio is projected to increase 0.8 percentage point, driven primarily by rising life expectancy.

However, the unadjusted ratio of employment to population, shown in figure 1, shows a different pattern. Rising life expectancy and lower birth rates since 1965, in addition to providing incentives to stay employed longer, also result in a rising proportion of the population at older ages, where the ratio of employment to population tends to be lower. When the age composition of the population changes over time, the unadjusted ratio of employment to population for everyone age 16 and older is projected to rise much less than the age-sex-adjusted ratio. In the short-range period (2021Q2 to 2030Q4), the unadjusted ratio of employment to population is projected to rise just under 1 percentage point. This increase reflects a substantial recovery of employment from the 2020 recession in the first two years of the projection period, followed by an offsetting effect due to the changing age composition of the population. In the last 65 years of the 75-year long-range projection period (2030Q4 to 2095Q4), the unadjusted ratio of employment to population of age 16 and older is projected to fall by 1.3 percentage points, driven by the changing age composition of the population.

III. Factors Influencing the Projected Ratios of Employment to Population

The projections for the ratio of employment to population reflect the combination of the projected labor force participation rates (LFPRs) and unemployment rates. Specifically:

$$\frac{E}{pop} = LFPR \times (1 - RU)$$

where

$\frac{E}{pop}$ is the ratio of employment to population,
 $LFPR$ is the labor force participation rate, and
 RU is the unemployment rate.

The projected LFPRs are produced by OCACT's labor force model, and the projected unemployment rates for each age-sex group are derived from the Trustees' ultimate assumption for the aggregate unemployment rate. This section presents in more detail the unemployment rate and LFPR projections in the 2021 Trustees Report.

a. Unemployment Rate Projections

For each Trustees Report, the Trustees make an assumption for the ultimate unemployment rate, which is the expected unemployment rate that would prevail over the longer term in the absence of economic fluctuations. For the 2021 Trustees Report, the assumed ultimate age-sex-adjusted aggregate unemployment rate is 4.5 percent (under the intermediate assumptions) and a transition path links the last historical unemployment rate to this assumed ultimate unemployment rate within the first several years of the projection period. To create the projections by age and sex, OCACT

projects age-sex-specific unemployment rates consistent with the assumed aggregate unemployment rate and the historical relationship among the age-sex-specific rates, and then develops a transition path for each age-sex group.

For each age-sex group, and thus for the aggregate, the unemployment rate is projected to reach the assumed ultimate value within the first 10 years of the projection period. The evolution of the unemployment rate from the last historical value to the assumed ultimate value depends on the deviation of gross domestic product from its potential (full-employment) level. The specific relationship for each age-sex group is based on the observed historical relationship.

The historical (1980-2020) and projected (2021 onward) unemployment rates for men age 16 and over, women age 16 and over, and for everyone age 16 and over are shown in figure 5. The same unemployment rates, adjusted to keep the age-sex composition of the population constant, are shown in figure 6.

Figure 5—Historical and Projected Unemployment Rates (Annual, Unadjusted)
 2021 Trustees Report (intermediate assumptions)

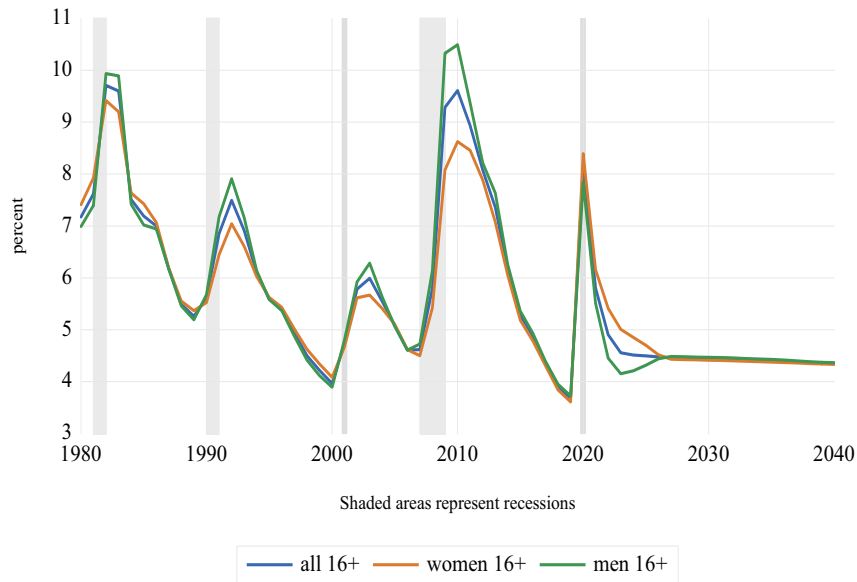
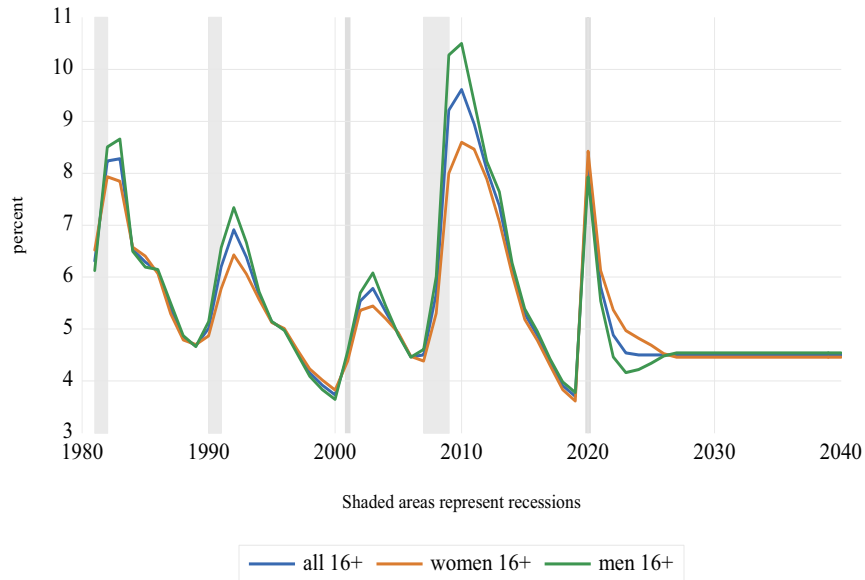


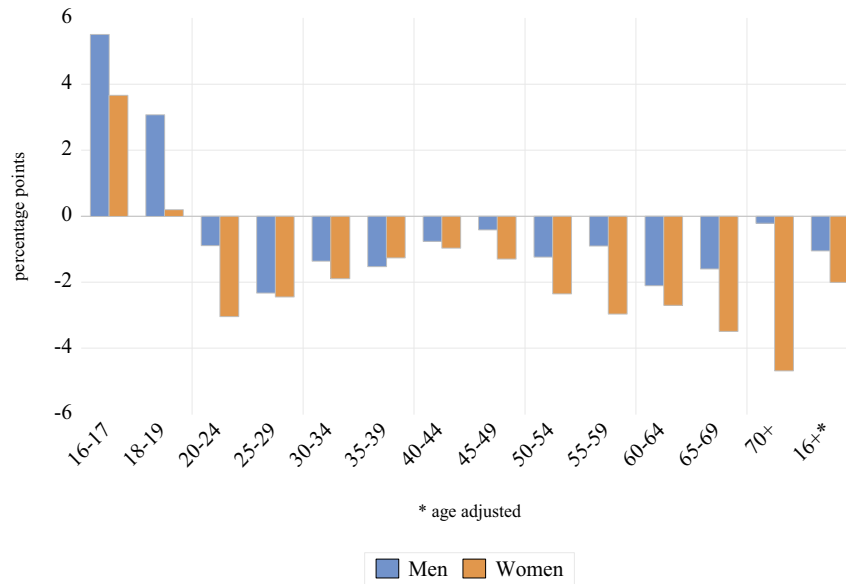
Figure 6—Historical and Projected Unemployment Rates (Annual, Age-Sex-Adjusted)
 2021 Trustees Report (intermediate assumptions)



The last historical data point known at the time the projections for the 2021 Trustees Report were developed was the first quarter of 2021. The unemployment rate for everyone age 16 and older increased dramatically during the recession of 2020, reaching a peak of 13.1 percent in the second quarter of 2020. The unemployment rate fell substantially in the second half of 2020, resulting in the average annual unemployment rate for all of 2020 of 8.1 percent. By the first quarter of 2021, the unemployment rate had fallen substantially, but was still elevated at 6 percent. The 2021 Trustees Report projects that the unemployment rate will continue to decrease, reaching its long-range assumed ultimate value of 4.5 percent by the end of 2023.

The projected trajectory of unemployment rates varies by age group. Figure 7 shows the projected change in the unemployment rate for men and women from 2021Q2 to 2030Q4, by age group.

Figure 7—Projected Change in Unemployment Rates by age group, 2021Q2 to 2030Q4
 2021 Trustees Report (intermediate assumptions)



In the short-range period, from 2021Q2 to 2030Q4, unemployment rates for ages 20 and older, for both men and women, are projected to fall. However, for ages 16 to 17 and 18 to 19, for both men and women, unemployment rates are projected to rise from the unusually low levels observed in early 2021 to the ultimate values that are more in line with historical experience. The age-specific unemployment rates for all age-sex groups are projected to reach their ultimate values in the first few years of the projection period, and thus they are not projected to change after 2030.

In the last 65 years of the 75-year projection period (2031Q4 to 2095Q4), economic cycles are assumed to have little effect on the long-range actuarial balance, so projections are based on the assumed average trends and levels rather than cyclical fluctuations around those trends and levels. During this period, the age-sex-adjusted unemployment rate for everyone 16 and older is projected to remain at its assumed ultimate value of 4.5 percent. The age-adjusted ultimate unemployment rate is slightly higher for men (4.54 percent) than for women (4.46 percent). The unadjusted unemployment rates continue to vary slightly over this period due to the changing age composition of the population.

b. Labor Force Participation Rate Projections

OACT projects labor force participation rates using a model that consists of 153 equations for the age-sex-specific labor force participation rates. For relevant age and sex categories, there are separate equations by marital status and the presence or absence of a child under the age of six. Each equation contains a set of factors that influence the labor force participation rate for the given age and sex category. These are:

- the state of the economy, as indicated by the unemployment rates for each age-sex group for the current quarter and the four previous quarters
- the disability prevalence rate
- educational attainment (for ages 50 and older)
- for older ages, the effect of marital status as indicated by the proportion of those currently married with spouse present (which is related to both employment and the retirement decision)
- the Social Security benefit replacement rate (for ages 62-69)
- the Social Security retirement earnings test (for ages 62-69)

- a lagged cohort variable designed to model labor force participation at ages 75 and older

For ages above peak labor force participation age, the equations include a life expectancy adjustment that raises the labor force participation rate as projected life expectancy increases. The coefficient for each factor is constructed either by an analysis of the historical relationships or by regression, based on data through 2019 (the peak of the last complete economic cycle). A more detailed description of the equations is provided in Appendix 2.

Below, we show historical (1981-2020) and projected (2021-95) LFPRs for men age 16 and older, women age 16 and older, and everyone age 16 and older for the 2021 Trustees Report. Figure 8 shows LFPRs not adjusted for the age and sex distribution of the population. Figure 9 shows age-sex adjusted LFPRs, which allow for a more meaningful comparison across long time periods. Detailed tables, which show the values corresponding to figures 8 and 9, as well as additional detail by age groups, are given in Appendix 1.

Figure 8—Historical and Projected Labor Force Participation Rates (Unadjusted)
2021 Trustees Report (intermediate assumptions)

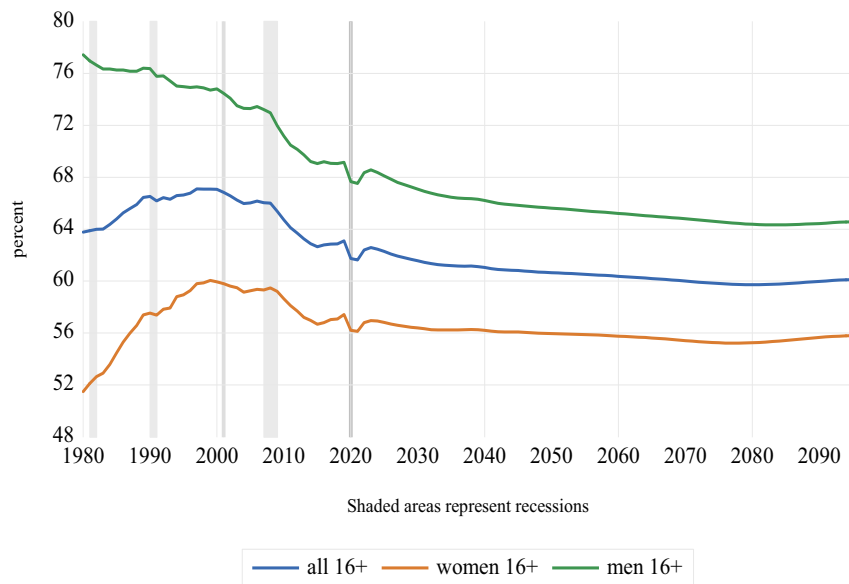
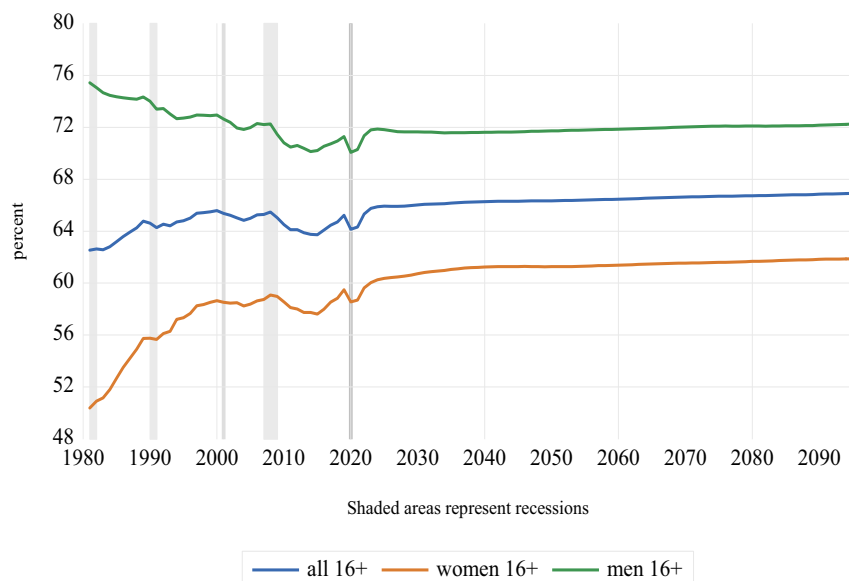


Figure 9—Historical and Projected Labor Force Participation Rates (Age-Sex-Adjusted)
2021 Trustees Report (intermediate assumptions)



The unadjusted LFPRs, shown in figure 8, are generally projected to decrease once the recovery from the recession is complete. This decrease is driven by the changing age distribution of the population, with a higher proportion of the population at older ages, where labor force participation tends to be lower.

As shown in figure 9, age-adjusted LFPRs for men have generally been falling over time. In 1981 the LFPR for men ages 16 and older was 75.4 percent. By 2014, the LFPR for men declined to a low point of 70.1 percent. It rebounded somewhat, to 71.3 by 2019, before declining to 70.1 percent in 2020 because of the recession. For the 2021 Trustees Report, age-adjusted LFPRs for men are projected to rise as the economy recovers from the recession, reaching 71.9 percent by 2024, before receding somewhat. The age-adjusted LFPR for men is projected to reach 71.6 percent by 2030, and gradually rise to 72.3 percent by 2095.

The age-adjusted LFPRs for women have generally been rising over time. In 1981, the LFPR for women ages 16 and older was 50.4 percent. The rate increased to a level of 59.5 percent in 2019, the most recent peak of an economic cycle. The age-adjusted LFPR for women fell to 58.6 percent in 2020 because of the recession. For the 2021 Trustees Report, the age-adjusted LFPRs for women are projected to rise as the economy recovers from the recession, exceeding the pre-recession level in 2022, and to continue rising gradually throughout the projection period. The age-adjusted LFPR for women is projected to reach 60.7 percent by 2030, and gradually rise to 61.9 percent by 2095.

The age-sex-adjusted LFPRs for everyone, both men and women, age 16 and older, increased from 62.5 percent in 1981 to a peak of 65.6 percent in 2000, after which the rate stayed approximately level. At the peak of the last economic cycle, in 2019, the age-sex-adjusted LFPR was 65.2 percent. The recession of 2020 led to LFPR falling to 64.1 percent. For the 2021 Trustees Report, the age-sex-adjusted LFPR is projected to rise as the economy recovers from the recession, exceeding the pre-recession level in 2022. It is projected to reach 66 percent by 2030, and gradually rise to 66.9 percent by 2095.

IV. Factors Affecting Labor Force Participation Rates

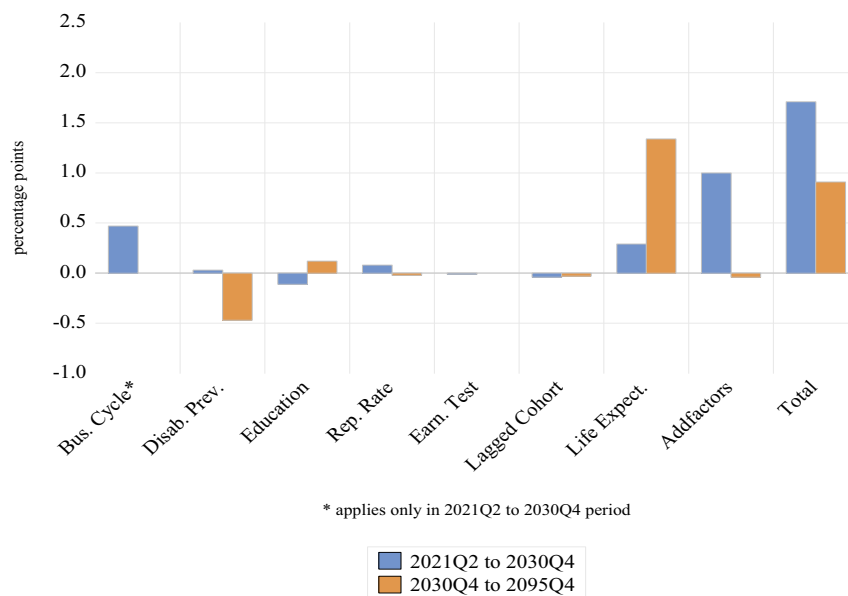
a. Factors Affecting Labor Force Participation Rates Adjusted for Demographic Composition

In this section, we consider labor force participation rates while holding the demographic composition of the population (age, sex, marital status, and the presence of children) constant.³ Doing so allows us to focus on the influence the factors within the LFPR model have on the projected participation rates. Figures 10 and 11 summarize the changes in projected LFPRs over the short-range period (2021Q2 to 2030Q4) and the last 65 years of the 75-year long-range period (2030Q4 to 2095Q4). Tables 4 and 5 in Appendix 1 provide further details by age group.

The model variables reflect the influence of the state of the economy (captured by the relevant unemployment rates), disability prevalence, educational attainment, the Social Security replacement rate, the Social Security retirement earnings test, lagged cohort effects for people 75 and older, and the life expectancy effect. The model variables are the same for the entire projection period. However, as explained above, over the last 65 years of the long-range period, the unemployment rate projections are based on assumed average trends rather than cyclical fluctuations around those trends. As a result, the projected unemployment rates remain constant, and thus the business-cycle variable does not contribute to changes in LFPRs after 2030.

Figure 10 summarizes the projected effect of each factor within the LFPR model on the projected LFPR for men age 16 and older. The LFPR is adjusted for age, sex, marital status, and the presence of children.

Figure 10—Factors Driving the Projected Change in Labor Force Participation Rate for Men 16+ LFPR adjusted for age, marital status, and child presence
2021 Trustees Report (intermediate assumptions)



From 2021Q2 to 2030Q4, the participation rate for men 16 and older is projected to increase by 1.7 percentage points. Of the model factors, the largest positive contribution comes from the business-cycle effect: as the economy recovers from the recession of 2020, the unemployment rate is projected to fall for most age groups, thus increasing labor force participation. The improving economy is projected to increase the participation rate by nearly 0.5 percentage point. Another positive effect comes from rising life expectancy, which is projected to increase the participation rate by

³ Note that the *adjusted* LFPRs discussed here are somewhat different from the age-sex-adjusted LFPRs shown in Figure 9. Figure 9 shows LFPRs where only the age and sex distribution of the population is held constant. For the adjusted LFPRs discussed here, not only is the age and sex distribution of the population held constant, but also the marital status distribution and presence of children are held constant at the distribution observed in the 2011 civilian noninstitutional U.S. population.

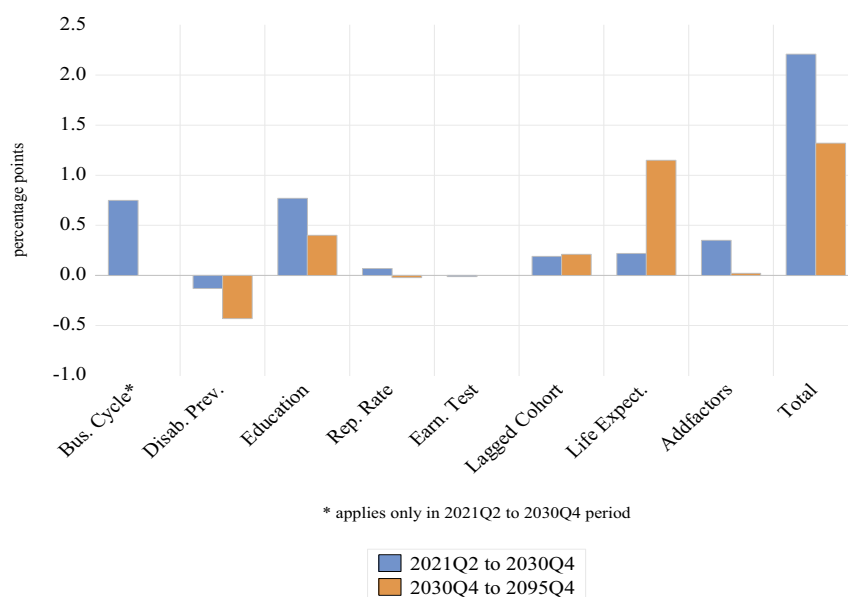
0.3 percentage point, largely due to rising participation of men ages 60 to 69. Other model factors influence the participation rate little, by less than 0.2 percentage point.

A substantial increase in the projected participation rate during this period, 1.0 percentage point, comes from phasing out the adjustments made in the early years of the projection period, the model addfactors. For the 2021 Trustees Report, these addfactors are negative since the LFPRs observed in the last historical period are lower than what the model would imply, given the values of the explanatory variables. Phasing out the addfactors results in rising projected LFPRs in the early years of the projection.⁴

In the last 65 years of the projection period (2030Q4 to 2095Q4), the age-adjusted participation rate for men 16 and older is projected to increase by 0.9 percentage point. This increase is driven primarily by rising life expectancy, which is projected to increase the participation rate by 1.3 percentage points, largely by increasing the participation rates of men ages 55 and older. This effect is offset somewhat by rising disability prevalence, which is projected to reduce the participation rate by almost 0.5 percentage point, affecting most strongly the participation rates of men between ages of 50 and 64. Other model factors influence the participation rate little, by less than 0.2 percentage point.

Figure 11 summarizes the projected effect of each model factor on the future LFPR for women age 16 and older. The LFPR is adjusted for age, sex, marital status, and the presence of children.

Figure 11—Factors Driving the Projected Change in Labor Force Participation Rate for Women 16+ LFPR adjusted for age, marital status, and child presence
2021 Trustees Report (intermediate assumptions)



From 2021Q2 to 2030Q4, the participation rate for women 16 and older is projected to increase by 2.2 percentage points. Two of the model factors provide large contributions to this increase: the business-cycle effect as reflected in the falling unemployment rate, and rising educational attainment. As is the case for men, as the economy recovers from the recession of 2020, the unemployment rate for women is projected to fall, increasing their labor force participation rate by nearly 0.8 percentage point. The rising educational attainment of women also increases their projected participation rate by 0.8 percentage point over this period, driven primarily by the participation of women between the ages of 55 to 64. Rising life expectancy also plays a role, increasing the projected participation rate by 0.2 percentage point. Other model factors influence the participation rate little, less than 0.2 percentage point. Phasing out the addfactors, as

⁴ The OCACT labor force model also includes addfactors for certain age-sex groups that are used to smooth the age profile of LFPRs and other idiosyncrasies. These addfactors are not phased out over time and thus their effect persists into the last 65 years of the projection period (2030Q4 to 2095Q4), but this effect is extremely small.

described above for men, raises the projected participation rate for women slightly, by 0.3 percentage point during this period.

In the last 65 years of the projection period (2030Q4 to 2095Q4), the participation rate for women 16 and older is projected to increase by 1.3 percentage points. This projected increase is driven almost entirely by rising life expectancy, which is projected to increase the participation rate by 1.1 percentage points, primarily by increasing the participation rates of women ages 55 and older. Another small positive contribution comes from rising educational attainment, which is projected to raise participation rates by 0.4 percentage point during this period. This effect comes primarily from increased participation rates for women ages 60 to 69. These effects are partially offset by rising disability prevalence, which is projected to reduce the participation rate by 0.4 percentage point, affecting significantly the participation rates of women between the ages of 40 and 69. The lagged cohort effect, which projects the evolution of LFPRs at ages 75 and older, further increases the participation rate by 0.2 percentage point. Other model factors influence the participation rate little.

Combining the projections for men and women, the age-sex-adjusted LFPR for everyone age 16 and older is projected to increase by nearly 2.0 percentage points in the period from 2021Q2 to 2030Q4 and by 1.1 percentage points in the last 65 years of the 75-year projection period (2030Q4 to 2095Q4).

b. Factors Affecting Unadjusted Labor Force Participation Rates

In addition to the factors within the labor force model, changes in the demographic distribution of the population (age, sex, marital status, and the presence of children) can affect labor force participation rates. Here we summarize the influence of all relevant factors, including demographic forces, on the projected unadjusted LFPRs. To be able to analyze the effect of demographic changes, the unadjusted LFPRs do not hold the demographic distribution of the population constant, in contrast to the adjusted rates considered in the subsection above.

Figures 12 and 13 summarize the influence of various factors on projected future LFPRs, for the short-range period (2021Q2 to 2030Q4) and the last 65 years of the 75-year long-range period (2030Q4 to 2095Q4). Tables 6 and 7 in Appendix 1 provide further details by age group. In contrast to the previous subsection, three additional factors are included in these figures and tables: age, marital status, and child presence. These demographic factors had no effect on the adjusted rates illustrated in the previous subsection, which were specifically constructed to eliminate the effects of demographic factors.

Figure 12—Factors Driving the Projected Change in Labor Force Participation Rate for Men 16+
2021 Trustees Report (intermediate assumptions)

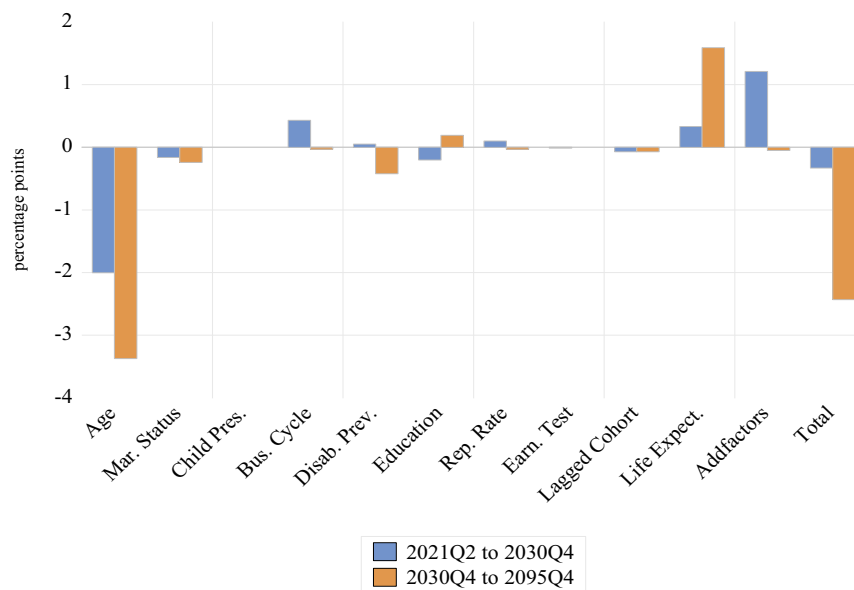


Figure 12 summarizes the factors influencing projected unadjusted LFPR for men age 16 and older. The participation rate for men age 16 and older is projected to decrease by 0.3 percentage point from 2021Q2 to 2030Q4 and by 2.4 percentage points from 2030Q4 to 2095Q4.

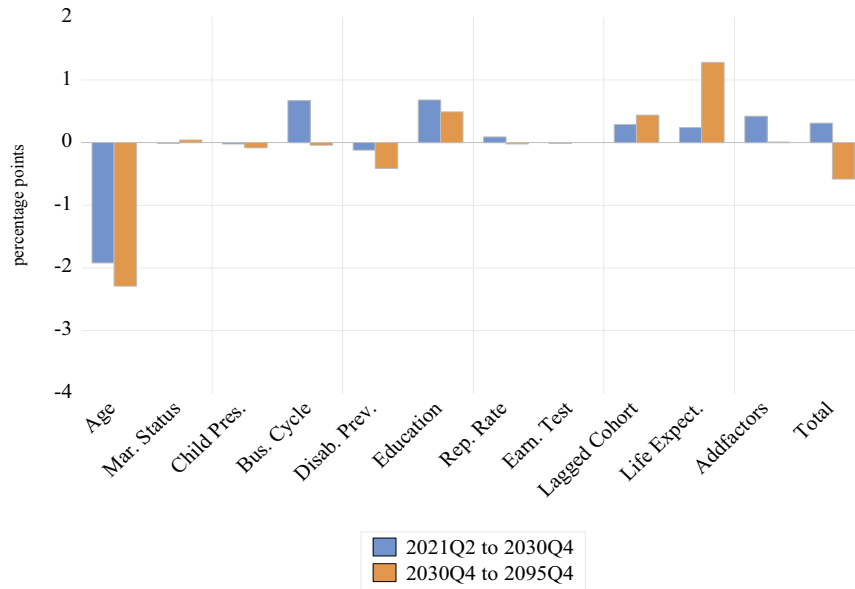
The largest influence on the projected LFPR for men comes from the projected changes in the age distribution of the population. Aging of the population is projected to raise the proportion of people at older ages, where labor force participation tends to be lower. This aging effect is projected to reduce the participation rates for men by 2 percentage points from 2021Q2 to 2030Q4 and by 3.4 percentage points from 2030Q4 to 2095Q4. At the same time, rising life expectancy is projected to mitigate this effect somewhat, increasing the participation rate by 0.3 percentage point from 2021Q2 to 2030Q4 and by 1.6 percentage points from 2030Q4 to 2095Q4.

Changes in marital status (the projected increase in the share of men at older ages who are married with spouse present) reduce the participation rate for men by 0.2 percentage point from 2021Q2 to 2030Q4, and by an additional 0.2 percentage point from 2030Q4 to 2095Q4, driven primarily by the participation rate of men between the ages of 60 and 69.

Similar to the adjusted LFPR, the business cycle (falling unemployment rate) is projected to increase the unadjusted LFPR for men by 0.4 percentage point from 2021Q2 to 2030Q4, while rising disability prevalence is projected to reduce the LFPR for men by 0.4 percentage point from 2030Q4 to 2095Q4. In addition, changes in educational attainment are projected to lower the LFPR for men from 2021Q2 to 2030Q4 by 0.2 percentage point and raise it from 2030Q4 to 2095Q4 also by 0.2 percentage point, mostly driven by the effects of educational attainment on labor force participation of men aged 65 and older. The model addfactors, mainly the phasing out of the discrepancy between the model projections and the last historical data, increase the participation rate from 2021Q2 to 2030Q4 by 1.2 percentage points. Other model factors are projected to have little effect.

Figure 13 summarizes the factors influencing the projected unadjusted LFPR for women 16 and older for the periods 2021Q2 to 2030Q4 and 2030Q4 to 2095Q4. The participation rate for women 16 and older is projected to increase by 0.3 percentage point from 2021Q2 to 2030Q4 and decrease by 0.6 percentage point from 2030Q4 to 2095Q4.

Figure 13—Factors Driving the Projected Change in Labor Force Participation Rate for Women 16+
2021 Trustees Report (intermediate assumptions)



As is the case for men, the largest influence comes from changes in the age distribution of the population. An increase in the proportion of women at older ages, where labor force participation tends to be lower, is projected to reduce the participation rate for women ages 16 and over by 1.9 percentage points from 2021Q2 to 2030Q4 and by 2.3 percentage points from 2030Q4 to 2095Q4. At the same time, rising life expectancy is projected to mitigate this effect, increasing the participation rate by 0.2 percentage point from 2021Q2 to 2030Q4 and by 1.3 percentage points from 2030Q4 to 2095Q4. The lagged cohort effect, which projects the evolution of LFPRs at ages 75 and older, further increases the participation rates by 0.3 percentage point from 2021Q2 to 2030Q4 and 0.4 percentage point from 2030Q4 to 2095Q4.

As is the case with the adjusted LFPR, the business cycle (falling unemployment rate) is projected to increase the LFPR for women from 2021Q2 to 2030Q4 (by 0.7 percentage point), while rising disability prevalence is projected to reduce the LFPR from 2030Q4 to 2095Q4 (by 0.4 percentage point). Rising educational attainment of women is expected to increase their labor force participation, by 0.7 percentage point from 2021Q2 to 2030Q4 and by 0.5 percentage point from 2030Q4 to 2095Q4. The model addfactors, mainly the phasing out of the discrepancy between the model projections and the last historical data, increase the participation rate by 0.4 percentage point from 2021Q2 to 2030Q4. Other model factors are projected to have little effect.

Combining the projections for men and women, the projected LFPR for everyone 16 and older is essentially the same, at 61.5 percent, in 2030Q4 as it is in 2021Q2, although it rises and falls in the intervening period. It is then projected to decrease by 1.4 percentage points from 2030Q4 to 2095Q4. As described above for men and women separately, between 2021Q2 and 2030Q4, the effect of the aging population is offset by the life expectancy, business cycle, and education effects. From 2030Q4 to 2095Q4, the effect of the aging of the population dominates, even though it is moderated somewhat by the effects of rising life expectancy and educational attainment.

V. Conclusion

Projections of employment, labor force, and unemployment over the next 75 years are key components of the financial status of the OASI and DI Trust Funds. The 2021 Trustees Report was the first report to present projections for employment, unemployment, and labor force reflecting the pandemic-induced recession of 2020.

The ratio of employment to population is projected to recover from the low levels experienced during the recession by 2023, after which the longer-term influences take over. Over the longer term, the age distribution of the population will change as a result of both the increasing life expectancy and reduced birth rates after 1965. The projected increases in life expectancy provide incentives for people to remain employed longer, thereby boosting labor force participation and employment. In addition, the changing age distribution of the population is affecting the need for increased employment, especially at older ages. At the same time, increased longevity over time leads to a rising proportion of people at older ages in the population. This aging of the population leads to the unadjusted labor force participation rate and the ratio of employment to population being lower relative to trends in the combined age-sex-adjusted rates. Additional smaller influences include projected changes in disability prevalence rates, which lead to decreases in the ratio of employment to population, and rising educational attainment, which leads to a higher ratio of employment to population. All of these effects differ by age and sex. This study presents a detailed look at these influences for various age-sex groups.

APPENDIX 1:
DETAILED PROJECTIONS FOR RATIOS OF
EMPLOYMENT TO POPULATION AND LABOR FORCE
PARTICIPATION RATES FOR THE
2021 TRUSTEES REPORT

Table 1. Ratio of Employment to Civilian Noninstitutional Population, Men, by age group
2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Historical															
1981	37.37	57.14	74.16	86.48	90.19	91.38	90.60	89.42	86.19	78.24	56.42	26.89	NA	71.29	70.42
1982	33.42	52.22	71.01	83.00	87.57	88.83	88.68	87.59	84.61	77.01	54.51	25.87	NA	69.03	68.25
1983	32.37	53.39	71.29	82.87	86.71	88.33	88.69	87.35	83.52	75.86	53.49	24.97	NA	68.80	67.81
1984	34.04	55.68	74.91	86.19	89.14	90.29	90.57	88.77	85.08	76.26	53.14	23.78	NA	70.67	69.28
1985	35.24	56.58	75.33	87.14	89.79	90.51	90.25	88.87	84.58	76.10	53.23	23.61	NA	70.91	69.40
1986	35.88	56.20	76.36	87.36	89.22	90.02	89.87	88.97	84.77	75.42	52.74	24.12	NA	70.98	69.36
1987	36.40	56.62	76.82	88.05	89.89	90.54	90.28	89.00	84.59	76.73	52.91	25.11	NA	71.47	69.81
1988	37.75	58.22	77.48	88.40	90.24	90.94	90.79	89.71	85.41	76.55	52.48	25.14	NA	72.02	70.25
1989	37.59	59.20	77.67	88.67	91.12	90.88	91.12	89.61	86.45	76.70	53.02	25.42	NA	72.44	70.57
1990	35.44	56.96	76.70	88.16	89.70	90.75	90.25	88.47	85.95	76.79	53.57	25.17	NA	72.04	69.93
1991	31.95	53.23	73.77	86.27	87.86	88.72	89.16	87.72	84.13	75.15	52.49	24.16	NA	70.36	68.28
1992	30.92	53.10	73.10	85.25	87.51	87.95	87.99	87.05	83.80	74.54	51.40	24.92	NA	69.84	67.73
1993	32.08	52.90	73.86	85.99	87.76	88.08	88.25	87.12	83.49	74.16	51.32	24.48	NA	70.02	67.84
1994	34.63	53.63	74.63	85.96	88.18	88.43	88.78	87.39	83.14	73.57	50.46	25.58	NA	70.43	68.21
1995	34.68	55.35	75.48	87.13	89.16	88.33	88.36	87.58	83.38	74.56	51.28	25.75	NA	70.80	68.66
1996	33.36	54.66	74.72	87.76	89.44	88.88	88.45	87.57	83.98	75.32	52.39	26.46	NA	70.91	68.89
1997	33.48	54.07	75.25	87.95	90.01	89.51	88.86	87.99	85.04	76.28	52.71	27.45	NA	71.32	69.39
1998	34.53	55.23	75.40	88.64	90.35	90.20	89.45	88.27	84.81	76.29	53.83	27.08	NA	71.59	69.71
1999	34.70	55.85	75.62	88.99	90.78	90.68	89.68	87.92	84.74	76.31	53.29	27.51	NA	71.65	69.90
2000	34.12	57.01	76.64	88.90	91.49	90.57	89.63	87.99	84.62	75.28	53.51	29.33	NA	71.90	70.09
2001	30.94	53.80	74.23	87.32	90.08	89.47	88.94	87.34	83.81	74.80	54.58	29.29	NA	70.87	69.14
2002	27.26	50.95	72.47	85.50	88.45	88.43	87.52	86.32	82.91	74.74	55.08	31.12	NA	69.71	68.10
2003	25.52	47.48	71.55	84.39	87.79	88.18	86.83	85.20	82.30	74.16	54.51	31.40	NA	68.90	67.43
2004	24.07	48.84	71.56	85.27	88.41	88.46	87.54	85.68	82.26	74.52	54.79	31.40	6.51	69.19	67.79
2005	23.91	48.32	71.47	85.79	88.97	88.99	88.39	86.14	82.99	74.97	56.22	32.46	6.84	69.60	68.35
2006	25.56	49.18	72.71	86.01	89.17	89.83	88.22	86.98	83.56	75.22	57.01	33.30	6.86	70.06	68.95
2007	23.47	46.22	71.66	86.50	89.36	89.98	88.56	86.98	83.74	75.27	57.32	33.12	7.42	69.76	68.81
2008	20.06	44.88	69.71	83.93	88.09	88.43	87.54	85.88	82.50	75.82	57.69	33.91	7.71	68.51	67.83
2009	17.22	37.68	63.31	78.36	82.72	84.45	83.08	81.45	79.03	72.42	56.55	33.56	7.83	64.54	64.07
2010	14.90	36.04	61.26	77.95	82.08	84.42	83.08	80.94	77.85	72.36	55.11	33.50	7.86	63.70	63.36
2011	14.46	35.65	62.95	78.27	82.92	84.83	83.60	81.42	78.17	72.79	54.75	34.77	7.83	63.88	63.88
2012	14.46	36.28	63.82	80.48	83.99	85.21	84.63	82.62	78.88	73.01	56.81	34.66	7.98	64.40	64.80
2013	15.45	36.85	63.55	80.12	84.80	85.43	85.57	82.31	79.07	73.60	57.08	35.02	8.64	64.41	65.01
2014	16.17	37.85	64.95	80.50	85.54	86.44	86.21	83.64	80.15	73.41	59.05	34.29	8.78	64.88	65.74
2015	17.75	39.76	65.16	82.03	85.94	86.55	86.90	84.81	80.84	74.01	59.12	35.40	8.84	65.35	66.43
2016	18.29	41.82	66.20	82.26	86.46	87.44	87.23	85.16	81.73	74.45	59.62	35.47	8.91	65.78	67.04
2017	19.25	40.97	67.89	83.00	86.61	87.91	87.64	85.79	81.87	75.62	60.38	35.96	9.35	66.03	67.60
2018	18.72	41.35	67.60	84.04	87.45	88.32	88.36	86.31	82.77	76.54	61.08	36.44	9.56	66.33	68.13
2019	19.72	41.69	68.25	83.99	87.69	88.73	88.20	86.46	83.64	77.04	62.02	38.25	9.95	66.58	68.61
2020	18.23	38.43	61.12	77.07	82.32	85.12	83.09	83.42	80.04	73.26	58.93	35.86	9.28	62.36	64.55

Table 1. Ratio of Employment to Civilian Noninstitutional Population, Men, by age group (Cont.)
 2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Projected															
2021	21.05	41.81	65.53	80.72	85.69	86.45	87.02	85.75	80.59	74.72	56.90	34.23	10.02	63.77	66.45
2022	21.86	42.86	67.45	83.16	87.42	87.63	88.42	87.03	82.59	76.08	59.47	37.21	11.06	65.31	68.17
2023	21.66	42.88	67.89	83.87	87.95	88.19	88.70	87.33	83.44	76.75	61.43	39.20	11.39	65.73	68.82
2024	20.84	42.19	67.65	83.99	88.00	88.32	88.61	87.21	83.65	76.88	61.89	39.51	11.62	65.50	68.83
2025	19.76	41.24	67.25	84.01	87.92	88.31	88.45	86.98	83.65	76.91	62.08	39.94	11.83	65.17	68.71
2026	18.50	40.11	66.80	84.05	87.82	88.27	88.29	86.72	83.61	76.92	62.29	40.29	12.04	64.84	68.55
2027	17.77	39.49	66.57	84.06	87.76	88.23	88.21	86.56	83.56	76.87	62.36	40.53	12.20	64.57	68.44
2028	17.77	39.46	66.55	84.05	87.72	88.20	88.21	86.48	83.51	76.82	62.39	40.80	12.20	64.42	68.42
2029	17.77	39.46	66.57	84.04	87.70	88.19	88.19	86.42	83.47	76.75	62.52	41.05	12.18	64.26	68.41
2030	17.77	39.46	66.57	84.00	87.66	88.21	88.21	86.39	83.41	76.77	62.68	41.12	12.19	64.09	68.41
2031	17.77	39.45	66.58	83.97	87.65	88.22	88.22	86.38	83.32	76.83	62.77	41.20	12.21	63.93	68.41
2032	17.77	39.45	66.59	83.97	87.65	88.23	88.18	86.39	83.25	76.86	62.61	41.29	12.17	63.79	68.40
2033	17.77	39.45	66.60	83.97	87.65	88.23	88.17	86.42	83.18	76.85	62.40	41.33	12.17	63.69	68.37
2034	17.77	39.45	66.61	83.98	87.65	88.22	88.17	86.45	83.12	76.79	62.19	41.39	12.19	63.60	68.35
2035	17.77	39.45	66.61	84.00	87.65	88.21	88.18	86.45	83.11	76.79	62.22	41.53	12.19	63.53	68.35
2036	17.77	39.45	66.62	84.03	87.65	88.20	88.21	86.42	83.13	76.75	62.23	41.62	12.17	63.47	68.36
2037	17.77	39.45	66.62	84.06	87.65	88.20	88.23	86.39	83.17	76.72	62.35	41.50	12.20	63.45	68.36
2038	17.77	39.45	66.63	84.09	87.65	88.20	88.24	86.38	83.22	76.74	62.27	41.40	12.25	63.45	68.37
2039	17.77	39.45	66.64	84.10	87.66	88.19	88.24	86.39	83.24	76.79	62.25	41.24	12.35	63.40	68.37
2040	17.77	39.45	66.64	84.10	87.69	88.18	88.22	86.41	83.22	76.82	62.32	41.22	12.47	63.32	68.39
2041	17.77	39.45	66.65	84.10	87.72	88.18	88.19	86.43	83.17	76.81	62.38	41.11	12.58	63.21	68.39
2042	17.77	39.45	66.65	84.11	87.75	88.18	88.18	86.44	83.12	76.87	62.48	41.11	12.66	63.11	68.40
2043	17.77	39.45	66.65	84.11	87.78	88.17	88.17	86.44	83.08	76.94	62.57	41.02	12.74	63.05	68.40
2044	17.77	39.45	66.64	84.11	87.79	88.17	88.16	86.42	83.06	76.93	62.60	40.93	12.82	63.00	68.40
2045	17.77	39.45	66.63	84.12	87.79	88.18	88.16	86.39	83.08	76.97	62.64	41.03	12.90	62.96	68.41
2046	17.77	39.45	66.63	84.13	87.78	88.21	88.16	86.37	83.10	77.01	62.69	41.21	12.94	62.91	68.44
2047	17.77	39.45	66.63	84.14	87.78	88.24	88.15	86.36	83.12	77.05	62.80	41.30	12.98	62.85	68.46
2048	17.77	39.45	66.64	84.14	87.78	88.27	88.13	86.36	83.12	77.05	62.79	41.38	13.05	62.80	68.47
2049	17.77	39.45	66.64	84.13	87.78	88.28	88.12	86.35	83.10	77.02	62.80	41.61	13.18	62.76	68.47
2050	17.77	39.45	66.64	84.12	87.79	88.28	88.13	86.35	83.08	77.00	62.92	41.77	13.34	62.72	68.49
2051	17.77	39.45	66.64	84.11	87.82	88.27	88.15	86.35	83.06	76.96	63.10	41.65	13.50	62.67	68.50
2052	17.77	39.45	66.64	84.11	87.84	88.26	88.18	86.33	83.05	76.94	63.26	41.69	13.64	62.64	68.52
2053	17.77	39.45	66.64	84.11	87.85	88.25	88.22	86.30	83.04	76.92	63.33	41.79	13.79	62.59	68.53
2054	17.77	39.45	66.65	84.11	87.84	88.26	88.23	86.28	83.03	76.91	63.32	41.78	13.91	62.54	68.54
2055	17.77	39.45	66.65	84.11	87.83	88.28	88.23	86.28	83.03	76.91	63.27	41.92	14.02	62.50	68.55
2056	17.77	39.45	66.65	84.11	87.81	88.32	88.22	86.30	83.02	76.90	63.19	42.14	14.11	62.45	68.56
2057	17.77	39.45	66.65	84.11	87.80	88.36	88.22	86.34	82.99	76.88	63.15	42.36	14.20	62.41	68.58
2058	17.77	39.45	66.65	84.11	87.80	88.38	88.21	86.38	82.95	76.88	63.15	42.46	14.26	62.38	68.59
2059	17.77	39.45	66.65	84.11	87.80	88.38	88.22	86.40	82.92	76.89	63.20	42.47	14.31	62.34	68.60
2060	17.77	39.45	66.65	84.11	87.80	88.37	88.25	86.40	82.91	76.91	63.28	42.45	14.37	62.30	68.61
2061	17.77	39.45	66.65	84.11	87.80	88.34	88.31	86.39	82.92	76.95	63.32	42.40	14.43	62.26	68.62
2062	17.77	39.45	66.66	84.11	87.80	88.32	88.36	86.38	82.95	77.00	63.33	42.40	14.48	62.22	68.64

Table 1. Ratio of Employment to Civilian Noninstitutional Population, Men, by age group (Cont.)
2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+ Age- Adj (2011 pop.)	
2063	17.77	39.45	66.66	84.11	87.80	88.31	88.40	86.39	83.00	77.05	63.37	42.45	14.50	62.18	68.65
2064	17.77	39.45	66.66	84.11	87.80	88.31	88.41	86.40	83.02	77.07	63.44	42.53	14.53	62.14	68.67
2065	17.77	39.45	66.66	84.11	87.79	88.31	88.40	86.44	83.02	77.08	63.51	42.64	14.56	62.10	68.68
2066	17.77	39.45	66.66	84.11	87.79	88.31	88.36	86.51	83.01	77.07	63.62	42.72	14.56	62.06	68.70
2067	17.77	39.45	66.66	84.11	87.79	88.30	88.33	86.58	83.00	77.05	63.79	42.76	14.56	62.03	68.72
2068	17.77	39.45	66.66	84.12	87.79	88.30	88.32	86.62	83.00	77.06	63.96	42.84	14.56	62.00	68.75
2069	17.77	39.45	66.66	84.12	87.79	88.29	88.32	86.63	83.01	77.07	64.06	42.94	14.57	61.96	68.76
2070	17.77	39.45	66.66	84.12	87.79	88.29	88.32	86.62	83.05	77.09	64.08	43.05	14.59	61.92	68.78
2071	17.77	39.45	66.66	84.12	87.78	88.29	88.32	86.58	83.13	77.12	64.07	43.22	14.59	61.88	68.79
2072	17.77	39.45	66.66	84.12	87.78	88.28	88.32	86.54	83.22	77.12	64.04	43.46	14.60	61.84	68.81
2073	17.77	39.45	66.66	84.12	87.78	88.28	88.31	86.53	83.26	77.13	64.03	43.68	14.63	61.79	68.82
2074	17.77	39.45	66.66	84.12	87.78	88.27	88.30	86.52	83.28	77.11	64.07	43.84	14.68	61.75	68.83
2075	17.77	39.45	66.66	84.12	87.78	88.27	88.30	86.52	83.26	77.09	64.15	43.91	14.72	61.71	68.84
2076	17.77	39.45	66.66	84.12	87.78	88.26	88.30	86.52	83.22	77.05	64.23	43.93	14.76	61.66	68.85
2077	17.77	39.45	66.66	84.12	87.78	88.26	88.29	86.52	83.17	77.01	64.28	43.91	14.82	61.62	68.84
2078	17.77	39.45	66.66	84.12	87.78	88.26	88.29	86.51	83.15	77.01	64.29	43.94	14.88	61.58	68.85
2079	17.77	39.45	66.66	84.12	87.78	88.25	88.28	86.50	83.13	77.02	64.27	44.01	14.91	61.54	68.85
2080	17.77	39.45	66.66	84.12	87.78	88.25	88.28	86.50	83.13	77.06	64.21	44.13	14.93	61.51	68.85
2081	17.77	39.45	66.66	84.12	87.78	88.25	88.27	86.49	83.13	77.10	64.06	44.26	14.94	61.48	68.85
2082	17.77	39.45	66.66	84.11	87.79	88.25	88.27	86.48	83.12	77.13	63.90	44.34	14.95	61.47	68.85
2083	17.77	39.45	66.66	84.11	87.79	88.26	88.27	86.47	83.11	77.14	63.87	44.38	14.95	61.46	68.85
2084	17.77	39.45	66.66	84.11	87.79	88.26	88.27	86.47	83.10	77.14	63.95	44.36	14.96	61.46	68.86
2085	17.77	39.45	66.66	84.11	87.79	88.26	88.27	86.46	83.09	77.14	64.09	44.31	14.97	61.47	68.87
2086	17.77	39.45	66.66	84.11	87.79	88.26	88.27	86.45	83.08	77.14	64.26	44.16	14.97	61.48	68.87
2087	17.77	39.45	66.66	84.11	87.79	88.26	88.27	86.45	83.07	77.15	64.39	44.01	14.96	61.50	68.88
2088	17.77	39.45	66.66	84.11	87.79	88.27	88.28	86.45	83.06	77.17	64.45	44.01	14.96	61.52	68.88
2089	17.77	39.45	66.66	84.11	87.79	88.27	88.28	86.45	83.05	77.18	64.48	44.12	14.95	61.54	68.89
2090	17.77	39.45	66.66	84.11	87.78	88.27	88.29	86.45	83.05	77.19	64.51	44.34	14.94	61.56	68.91
2091	17.77	39.45	66.66	84.11	87.78	88.27	88.30	86.45	83.04	77.21	64.54	44.59	14.91	61.59	68.93
2092	17.77	39.45	66.66	84.11	87.78	88.27	88.30	86.46	83.03	77.23	64.60	44.78	14.89	61.63	68.95
2093	17.77	39.45	66.66	84.11	87.78	88.27	88.31	86.46	83.02	77.23	64.66	44.88	14.91	61.66	68.96
2094	17.77	39.45	66.67	84.11	87.78	88.27	88.31	86.47	83.02	77.24	64.72	44.95	14.95	61.68	68.98
2095	17.77	39.45	66.67	84.11	87.78	88.27	88.32	86.48	83.03	77.25	64.78	45.02	15.01	61.70	69.00

Note: For compactness, the table displays annual values. Annual values are averages of the quarterly values. Quarterly values are available on request.

Table 2. Ratio of Employment to Civilian Noninstitutional Population, Women, by age group
2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Historical															
1981	33.68	50.01	61.84	61.82	61.30	62.44	63.79	61.06	55.69	47.31	31.44	14.25	NA	47.98	46.73
1982	31.51	48.35	60.63	62.09	61.15	62.65	63.93	61.42	54.68	47.04	31.65	14.37	NA	47.67	46.47
1983	30.49	48.65	60.88	63.01	62.31	63.20	64.90	61.38	55.03	46.22	32.27	14.12	NA	48.04	46.76
1984	32.78	51.55	62.72	64.72	64.48	65.96	66.57	62.52	56.56	47.53	32.13	13.57	NA	49.48	48.07
1985	33.67	51.89	64.17	65.72	65.44	67.56	68.15	64.42	58.06	47.95	32.25	12.99	NA	50.42	48.96
1986	35.10	52.16	64.94	66.72	66.17	69.19	69.80	66.27	59.34	49.39	31.94	13.89	NA	51.38	49.91
1987	36.52	53.34	66.15	68.42	67.45	70.31	72.00	67.91	60.96	50.49	32.19	13.92	NA	52.51	51.03
1988	36.71	54.80	66.60	69.10	68.16	71.23	73.07	69.88	62.82	51.79	32.96	14.89	NA	53.43	51.99
1989	37.54	54.34	66.41	69.50	69.24	71.90	74.42	71.90	63.87	53.15	34.68	15.82	NA	54.31	52.87
1990	34.40	52.36	65.22	69.15	69.50	72.06	74.47	72.08	64.76	53.66	34.61	16.40	NA	54.35	52.79
1991	31.80	50.02	63.21	67.87	68.41	71.64	74.25	72.18	64.98	53.79	33.83	16.36	NA	53.68	52.18
1992	30.64	49.00	63.58	68.36	68.47	71.00	74.16	72.36	65.43	54.48	34.82	15.51	NA	53.76	52.27
1993	31.33	50.55	64.03	68.13	68.67	70.92	74.22	72.96	66.66	54.77	35.52	15.64	NA	54.09	52.63
1994	34.63	51.51	64.51	69.36	69.48	72.05	74.97	74.58	67.85	56.94	36.30	17.28	NA	55.25	53.80
1995	34.81	52.96	64.01	70.42	70.91	72.69	74.96	74.60	68.65	57.38	36.61	16.86	NA	55.63	54.16
1996	35.68	51.57	64.89	71.30	70.82	72.95	75.65	75.61	69.44	57.79	36.86	16.45	NA	56.05	54.56
1997	33.96	52.89	66.77	72.92	71.30	73.41	75.98	75.92	71.30	59.06	38.51	17.03	NA	56.80	55.38
1998	35.59	55.45	67.36	73.40	71.95	72.49	75.92	76.59	71.15	59.86	38.17	17.24	NA	57.09	55.70
1999	34.65	53.87	67.96	73.23	72.82	73.54	75.78	76.95	72.19	60.17	37.85	17.75	NA	57.44	56.00
2000	35.16	54.65	67.92	73.40	72.65	73.11	76.25	77.07	72.45	59.85	39.16	18.94	NA	57.49	56.26
2001	32.95	51.92	67.25	71.85	71.60	73.06	75.41	75.91	72.15	59.99	41.40	19.38	NA	57.01	55.83
2002	30.35	50.41	65.55	70.79	70.56	71.43	74.25	74.76	71.20	61.60	42.53	19.86	NA	56.27	55.21
2003	28.53	48.33	64.15	69.66	69.74	70.47	73.95	75.57	72.00	62.99	43.70	21.76	NA	56.14	55.20
2004	27.18	48.20	64.31	68.71	70.21	70.92	73.50	75.22	71.77	62.62	43.71	22.53	6.51	55.97	55.12
2005	28.24	48.60	64.52	69.33	70.19	71.43	73.68	74.80	71.65	63.41	44.28	22.87	6.84	56.23	55.42
2006	28.17	48.87	64.19	71.22	70.33	71.58	74.18	74.61	72.54	64.76	45.58	23.53	6.86	56.61	55.93
2007	26.14	47.42	65.02	71.11	70.98	71.07	74.36	74.61	72.41	64.59	46.60	24.87	7.42	56.64	56.10
2008	23.61	45.43	63.84	71.38	70.65	71.55	73.79	74.24	71.86	65.16	47.05	25.49	7.71	56.25	55.90
2009	19.70	41.05	61.07	68.38	68.78	69.27	71.61	72.61	70.23	64.36	46.84	25.00	7.83	54.42	54.22
2010	16.93	38.41	59.39	68.13	67.60	68.47	70.31	71.50	69.72	64.19	47.53	25.15	7.86	53.57	53.50
2011	16.57	38.30	58.70	67.29	66.96	68.03	70.52	71.12	69.61	63.64	47.17	25.53	7.83	53.19	53.19
2012	17.42	38.00	59.21	67.79	67.93	68.24	71.01	70.94	69.14	63.57	47.56	25.75	7.98	53.13	53.42
2013	17.90	38.88	59.79	68.09	68.20	68.99	70.11	71.06	69.07	63.84	47.49	26.11	8.64	53.16	53.65
2014	18.68	39.75	60.92	69.06	68.85	69.93	71.10	71.48	69.63	63.59	48.12	26.27	8.78	53.52	54.23
2015	19.01	40.44	62.49	69.44	69.22	70.23	71.83	71.56	69.80	64.00	47.91	26.80	8.84	53.74	54.62
2016	20.56	41.53	62.97	71.30	70.07	70.92	72.13	72.56	69.94	63.76	48.50	27.02	8.91	54.08	55.20
2017	22.45	41.94	64.20	72.78	71.25	71.45	72.93	73.21	70.87	64.10	49.57	26.95	9.35	54.58	56.00
2018	22.58	42.48	64.72	73.48	72.16	72.23	73.25	74.06	71.43	64.31	50.40	27.94	9.56	54.88	56.57
2019	20.96	43.44	66.37	74.80	72.78	73.11	73.97	75.30	72.04	65.27	50.48	29.00	9.95	55.35	57.33
2020	20.88	37.55	58.10	69.79	68.89	69.19	70.78	70.82	68.23	61.73	47.83	25.75	9.28	51.47	53.62

Table 2. Ratio of Employment to Civilian Noninstitutional Population, Women, by age group (Cont.)
2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Projected															
2021	22.71	40.92	60.58	70.76	70.69	70.97	72.03	72.14	71.01	62.72	46.74	26.83	10.02	52.64	54.98
2022	22.70	41.71	62.43	72.62	72.04	72.37	73.45	73.67	73.05	64.11	47.91	28.48	11.06	53.73	56.42
2023	22.54	42.08	63.18	73.46	72.52	72.72	73.85	74.14	73.81	65.17	49.32	29.11	11.39	54.11	57.05
2024	21.88	41.90	63.47	73.82	72.64	72.78	73.94	74.30	74.18	66.44	49.96	29.37	11.62	54.16	57.34
2025	21.02	41.55	63.68	74.03	72.66	72.75	73.92	74.34	74.42	67.59	50.43	29.69	11.83	54.15	57.54
2026	20.00	41.04	63.91	74.23	72.66	72.70	73.85	74.39	74.65	68.62	50.88	29.91	12.04	54.13	57.70
2027	19.44	40.74	64.05	74.33	72.58	72.61	73.75	74.41	74.77	69.02	51.41	30.18	12.20	54.08	57.79
2028	19.52	40.74	64.08	74.34	72.47	72.49	73.65	74.41	74.78	69.14	51.98	30.67	12.20	54.01	57.85
2029	19.54	40.73	64.08	74.34	72.37	72.37	73.56	74.36	74.82	69.13	53.08	31.00	12.18	53.94	57.93
2030	19.56	40.73	64.07	74.33	72.29	72.29	73.56	74.41	74.95	69.20	54.12	31.31	12.19	53.90	58.04
2031	19.59	40.72	64.06	74.31	72.22	72.20	73.57	74.43	75.08	69.27	54.91	31.56	12.21	53.84	58.13
2032	19.61	40.72	64.06	74.32	72.14	72.09	73.54	74.40	75.29	69.35	55.09	32.06	12.17	53.78	58.18
2033	19.63	40.73	64.06	74.32	72.08	71.99	73.50	74.38	75.50	69.48	55.08	32.70	12.17	53.76	58.23
2034	19.65	40.74	64.06	74.29	72.02	71.89	73.44	74.37	75.58	69.56	55.01	33.68	12.19	53.76	58.28
2035	19.66	40.73	64.06	74.25	71.96	71.80	73.38	74.36	75.53	69.84	55.11	34.59	12.19	53.77	58.34
2036	19.68	40.73	64.06	74.21	71.91	71.72	73.31	74.34	75.48	70.23	55.27	35.17	12.17	53.77	58.40
2037	19.69	40.73	64.06	74.17	71.89	71.63	73.24	74.33	75.40	70.66	55.46	35.33	12.20	53.80	58.45
2038	19.70	40.74	64.06	74.13	71.87	71.55	73.17	74.31	75.32	71.00	55.58	35.35	12.25	53.82	58.48
2039	19.70	40.74	64.05	74.10	71.83	71.47	73.11	74.30	75.26	71.13	55.71	35.43	12.35	53.81	58.51
2040	19.70	40.71	64.05	74.09	71.78	71.39	73.03	74.28	75.25	70.94	56.11	35.62	12.47	53.77	58.53
2041	19.70	40.69	64.05	74.08	71.73	71.31	72.96	74.24	75.23	70.73	56.53	35.82	12.58	53.71	58.55
2042	19.70	40.70	64.05	74.06	71.67	71.27	72.89	74.20	75.22	70.47	57.01	36.01	12.66	53.67	58.56
2043	19.70	40.71	64.05	74.04	71.61	71.26	72.83	74.15	75.21	70.21	57.29	36.14	12.74	53.65	58.56
2044	19.70	40.72	64.06	74.02	71.57	71.23	72.78	74.11	75.20	70.01	57.25	36.33	12.82	53.65	58.56
2045	19.70	40.72	64.06	74.01	71.56	71.20	72.73	74.06	75.20	70.00	57.02	36.75	12.90	53.64	58.57
2046	19.71	40.72	64.06	73.97	71.55	71.17	72.69	74.02	75.21	70.02	56.79	37.10	12.94	53.61	58.57
2047	19.71	40.71	64.06	73.94	71.54	71.13	72.66	73.99	75.20	70.03	56.51	37.50	12.98	53.57	58.56
2048	19.71	40.71	64.06	73.94	71.53	71.07	72.65	73.97	75.19	70.01	56.26	37.73	13.05	53.54	58.56
2049	19.70	40.72	64.06	73.98	71.51	71.04	72.64	73.95	75.17	69.97	56.11	37.72	13.18	53.52	58.54
2050	19.70	40.72	64.06	74.01	71.50	71.03	72.64	73.94	75.14	69.95	56.17	37.61	13.34	53.51	58.55
2051	19.70	40.72	64.06	74.04	71.46	71.03	72.63	73.93	75.12	69.96	56.22	37.52	13.50	53.50	58.56
2052	19.70	40.72	64.06	74.06	71.42	71.03	72.61	73.93	75.11	69.99	56.19	37.41	13.64	53.48	58.56
2053	19.70	40.72	64.06	74.06	71.41	71.03	72.59	73.92	75.11	70.01	56.07	37.37	13.79	53.45	58.57
2054	19.70	40.72	64.06	74.06	71.44	71.02	72.57	73.91	75.11	70.03	55.95	37.38	13.91	53.43	58.57
2055	19.70	40.72	64.06	74.06	71.47	71.02	72.57	73.90	75.13	70.04	55.91	37.55	14.02	53.42	58.59
2056	19.70	40.72	64.06	74.05	71.52	70.99	72.57	73.89	75.14	70.04	55.91	37.67	14.11	53.40	58.61
2057	19.70	40.72	64.05	74.05	71.56	70.95	72.57	73.89	75.14	70.04	55.95	37.74	14.20	53.38	58.63
2058	19.70	40.72	64.05	74.05	71.57	70.92	72.57	73.89	75.14	70.04	55.98	37.75	14.26	53.36	58.64
2059	19.70	40.72	64.05	74.05	71.57	70.92	72.57	73.90	75.14	70.04	56.02	37.77	14.31	53.33	58.65
2060	19.70	40.72	64.05	74.04	71.57	70.93	72.57	73.90	75.14	70.06	56.09	37.86	14.37	53.30	58.66
2061	19.70	40.72	64.05	74.04	71.56	70.97	72.56	73.89	75.15	70.10	56.11	38.01	14.43	53.28	58.68
2062	19.69	40.72	64.05	74.04	71.55	71.02	72.54	73.89	75.18	70.13	56.08	38.22	14.48	53.25	58.70

Table 2. Ratio of Employment to Civilian Noninstitutional Population, Women, by age group (Cont.)
2021 Trustees Report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
2063	19.69	40.72	64.05	74.04	71.56	71.05	72.51	73.88	75.22	70.16	56.08	38.39	14.50	53.23	58.72
2064	19.69	40.72	64.05	74.04	71.56	71.05	72.50	73.87	75.25	70.17	56.12	38.47	14.53	53.20	58.74
2065	19.69	40.72	64.05	74.03	71.56	71.05	72.49	73.87	75.27	70.14	56.16	38.53	14.56	53.17	58.76
2066	19.69	40.72	64.05	74.03	71.55	71.04	72.51	73.87	75.28	70.12	56.22	38.62	14.56	53.13	58.77
2067	19.69	40.72	64.05	74.02	71.55	71.03	72.54	73.88	75.27	70.12	56.31	38.69	14.56	53.10	58.79
2068	19.70	40.72	64.05	74.02	71.55	71.03	72.55	73.88	75.28	70.16	56.35	38.76	14.56	53.06	58.81
2069	19.70	40.72	64.05	74.02	71.54	71.03	72.55	73.87	75.29	70.22	56.31	38.84	14.57	53.02	58.82
2070	19.70	40.72	64.05	74.01	71.54	71.03	72.55	73.87	75.31	70.27	56.22	38.98	14.59	52.98	58.82
2071	19.70	40.72	64.05	74.01	71.54	71.03	72.54	73.87	75.35	70.30	56.13	39.12	14.59	52.94	58.83
2072	19.70	40.72	64.05	74.00	71.53	71.03	72.53	73.86	75.38	70.31	56.10	39.23	14.60	52.90	58.84
2073	19.70	40.72	64.05	74.00	71.53	71.03	72.53	73.85	75.39	70.31	56.15	39.31	14.63	52.86	58.85
2074	19.70	40.72	64.05	74.00	71.52	71.03	72.53	73.84	75.38	70.31	56.23	39.31	14.68	52.84	58.86
2075	19.70	40.72	64.05	74.00	71.52	71.02	72.53	73.83	75.38	70.33	56.31	39.30	14.72	52.82	58.88
2076	19.70	40.72	64.05	73.99	71.51	71.02	72.52	73.83	75.36	70.35	56.37	39.30	14.76	52.80	58.88
2077	19.70	40.71	64.05	73.99	71.50	71.02	72.52	73.82	75.34	70.36	56.36	39.37	14.82	52.79	58.89
2078	19.70	40.72	64.05	73.99	71.50	71.01	72.52	73.82	75.33	70.40	56.35	39.56	14.88	52.79	58.91
2079	19.70	40.72	64.05	74.00	71.49	71.01	72.52	73.81	75.33	70.47	56.33	39.75	14.91	52.80	58.92
2080	19.70	40.72	64.05	74.00	71.49	71.00	72.52	73.81	75.34	70.56	56.34	39.90	14.93	52.81	58.94
2081	19.70	40.72	64.05	74.00	71.49	71.00	72.51	73.81	75.34	70.59	56.30	40.01	14.94	52.84	58.96
2082	19.70	40.72	64.05	74.01	71.49	70.99	72.51	73.80	75.33	70.56	56.28	40.07	14.95	52.87	58.96
2083	19.70	40.72	64.05	74.01	71.49	70.99	72.51	73.80	75.33	70.53	56.43	40.11	14.95	52.90	58.98
2084	19.70	40.72	64.05	74.01	71.49	70.98	72.51	73.80	75.34	70.51	56.66	40.14	14.96	52.94	59.01
2085	19.70	40.72	64.05	74.02	71.49	70.98	72.50	73.79	75.34	70.52	56.87	40.22	14.97	52.98	59.03
2086	19.70	40.72	64.05	74.02	71.49	70.97	72.50	73.79	75.35	70.55	56.97	40.31	14.97	53.03	59.05
2087	19.70	40.72	64.05	74.02	71.49	70.97	72.50	73.78	75.36	70.58	56.95	40.42	14.96	53.07	59.05
2088	19.70	40.72	64.05	74.02	71.50	70.96	72.49	73.78	75.36	70.59	56.91	40.57	14.96	53.12	59.06
2089	19.70	40.72	64.05	74.02	71.50	70.96	72.49	73.78	75.37	70.59	56.92	40.78	14.95	53.16	59.08
2090	19.70	40.72	64.05	74.02	71.51	70.96	72.49	73.78	75.38	70.60	56.97	41.03	14.94	53.21	59.10
2091	19.70	40.72	64.05	74.02	71.51	70.96	72.49	73.78	75.39	70.62	57.01	41.11	14.91	53.25	59.12
2092	19.69	40.72	64.05	74.02	71.51	70.96	72.48	73.78	75.40	70.64	57.04	41.02	14.89	53.28	59.12
2093	19.69	40.72	64.05	74.02	71.52	70.96	72.48	73.77	75.41	70.65	57.06	40.94	14.91	53.30	59.12
2094	19.69	40.72	64.05	74.02	71.52	70.97	72.47	73.77	75.42	70.67	57.06	40.94	14.95	53.32	59.13
2095	19.69	40.72	64.05	74.02	71.52	70.97	72.47	73.77	75.43	70.68	57.09	41.01	15.01	53.34	59.14

Note: For compactness, the table displays annual values. Annual values are averages of the quarterly values. Quarterly values are available on request.

Table 3. Ratio of Employment to Civilian Noninstitutional Population
2021 Trustees Report (intermediate assumptions)

year	16+	16+ age-sex-adjusted ¹	year	16+	16+ age-sex-adjusted ¹	year	16+	16+ age-sex-adjusted ¹
Historical			2019	60.78	62.81	2057	57.78	63.46
1981	59.01	58.23	2020	56.74	58.92	2058	57.75	63.47
1982	57.78	57.04	Projected			2059	57.72	63.48
1983	57.87	56.98	2021	58.03	60.55	2060	57.69	63.49
1984	59.53	58.36	2022	59.33	62.12	2061	57.65	63.51
1985	60.13	58.88	2023	59.73	62.76	2062	57.63	63.53
1986	60.69	59.35	2024	59.65	62.92	2063	57.60	63.54
1987	61.53	60.15	2025	59.48	62.96	2064	57.56	63.56
1988	62.28	60.86	2026	59.31	62.97	2065	57.53	63.58
1989	62.94	61.46	2027	59.16	62.96	2066	57.49	63.59
1990	62.80	61.11	2028	59.05	62.98	2067	57.46	63.61
1991	61.66	60.00	2029	58.94	63.02	2068	57.43	63.63
1992	61.46	59.77	2030	58.83	63.07	2069	57.39	63.64
1993	61.73	60.01	2031	58.72	63.12	2070	57.35	63.65
1994	62.53	60.80	2032	58.63	63.14	2071	57.31	63.67
1995	62.90	61.20	2033	58.57	63.15	2072	57.27	63.68
1996	63.17	61.52	2034	58.52	63.17	2073	57.23	63.69
1997	63.79	62.18	2035	58.49	63.20	2074	57.20	63.70
1998	64.07	62.50	2036	58.47	63.24	2075	57.17	63.71
1999	64.26	62.75	2037	58.47	63.26	2076	57.14	63.72
2000	64.40	62.97	2038	58.48	63.28	2077	57.11	63.72
2001	63.66	62.29	2039	58.46	63.30	2078	57.09	63.73
2002	62.73	61.47	2040	58.39	63.32	2079	57.08	63.74
2003	62.28	61.14	2041	58.31	63.32	2080	57.08	63.75
2004	62.34	61.27	2042	58.24	63.34	2081	57.08	63.76
2005	62.68	61.70	2043	58.21	63.34	2082	57.09	63.76
2006	63.11	62.25	2044	58.18	63.33	2083	57.10	63.77
2007	62.99	62.27	2045	58.16	63.35	2084	57.12	63.79
2008	62.18	61.69	2046	58.12	63.36	2085	57.15	63.81
2009	59.32	59.00	2047	58.08	63.37	2086	57.18	63.82
2010	58.47	58.29	2048	58.03	63.37	2087	57.21	63.82
2011	58.38	58.38	2049	58.00	63.36	2088	57.25	63.83
2012	58.56	58.94	2050	57.98	63.38	2089	57.28	63.84
2013	58.59	59.17	2051	57.96	63.39	2090	57.32	63.86
2014	59.01	59.82	2052	57.93	63.40	2091	57.35	63.88
2015	59.35	60.35	2053	57.90	63.40	2092	57.39	63.89
2016	59.73	60.95	2054	57.87	63.41	2093	57.41	63.90
2017	60.11	61.63	2055	57.84	63.43	2094	57.44	63.91
2018	60.42	62.18	2056	57.81	63.44	2095	57.45	63.93

¹ Adjusted to the 2011 age-sex-distribution of the U.S civilian noninstitutional population.

Note: For compactness, the table displays annual values; quarterly values are available on request.

Table 4. Civilian Labor Force Participation Rates, Men
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Historical															
1981	47.90	70.40	85.48	94.02	95.77	95.84	94.72	93.33	89.53	81.22	58.52	27.79	12.51	76.98	75.45
1982	45.42	67.87	84.94	94.09	95.54	95.88	94.69	92.84	89.69	81.89	57.25	26.95	12.23	76.64	75.06
1983	43.27	68.59	84.72	93.57	94.83	95.55	94.81	93.26	89.03	80.71	56.96	26.10	12.23	76.35	74.68
1984	43.56	68.12	85.00	93.60	95.07	95.61	95.07	93.26	88.93	80.21	56.04	24.57	11.38	76.34	74.47
1985	45.10	68.92	85.01	93.91	95.51	95.30	94.68	93.31	88.59	79.59	55.62	24.44	10.54	76.26	74.37
1986	45.29	68.30	85.85	94.18	95.02	95.10	94.35	92.87	88.90	79.06	54.88	25.02	10.42	76.26	74.28
1987	45.61	67.43	85.24	93.94	95.19	94.86	94.27	92.81	88.37	79.74	54.90	25.79	10.54	76.18	74.23
1988	46.10	68.15	85.03	93.73	94.86	94.74	94.20	92.97	88.42	79.34	54.37	25.82	10.92	76.17	74.17
1989	46.18	69.03	85.22	93.72	95.12	94.66	94.30	92.61	89.25	79.49	54.85	26.15	10.89	76.41	74.35
1990	43.48	67.05	84.40	93.74	94.54	94.80	93.88	92.25	88.84	79.91	55.53	26.00	10.73	76.38	74.02
1991	40.91	65.30	83.54	93.34	93.96	94.37	93.81	92.21	88.40	79.12	54.74	25.09	10.46	75.78	73.41
1992	41.01	65.98	83.29	93.13	94.40	94.08	93.23	92.09	88.95	79.01	54.67	25.97	10.68	75.82	73.45
1993	41.61	65.13	83.21	92.95	93.82	93.69	93.05	91.62	88.08	78.24	54.06	25.42	10.32	75.42	73.03
1994	43.86	65.04	83.06	91.92	93.14	92.80	92.70	90.98	86.71	76.92	52.77	26.78	11.72	75.04	72.67
1995	44.00	66.30	83.09	92.32	93.58	92.48	92.03	90.69	86.39	77.35	53.14	26.96	11.58	74.99	72.71
1996	42.13	65.26	82.49	92.91	93.42	92.75	91.97	90.78	86.91	77.85	54.27	27.51	11.51	74.93	72.80
1997	41.39	63.93	82.53	92.48	93.42	93.02	92.03	90.81	87.84	78.66	54.48	28.39	11.63	74.97	72.95
1998	42.68	64.34	82.00	92.75	93.60	93.02	92.20	90.79	87.28	78.41	55.43	27.97	11.13	74.89	72.94
1999	41.78	64.26	81.94	92.73	93.78	93.30	92.26	90.33	86.95	78.38	54.83	28.45	11.74	74.72	72.90
2000	41.00	64.94	82.64	92.52	94.19	93.23	92.11	90.17	86.79	77.05	54.94	30.33	12.04	74.81	72.96
2001	38.29	62.59	81.60	91.73	93.71	92.90	92.18	90.21	86.62	77.26	56.61	30.23	12.13	74.47	72.64
2002	34.48	60.91	80.68	91.38	93.38	92.69	91.60	90.17	86.54	78.02	57.60	32.24	11.45	74.10	72.39
2003	32.10	58.17	80.07	90.67	92.95	92.81	91.42	89.22	85.96	77.60	57.16	32.84	12.26	73.51	71.95
2004	30.87	58.37	79.56	90.89	92.90	92.71	91.19	89.30	85.39	77.57	57.01	32.59	12.83	73.32	71.84
2005	30.57	57.88	79.06	90.72	92.69	92.57	91.55	89.31	85.86	77.59	58.02	33.57	13.51	73.30	71.99
2006	31.40	58.28	79.63	90.55	92.88	92.93	91.21	89.82	86.10	77.68	58.64	34.40	13.88	73.45	72.29
2007	29.12	55.31	78.68	91.33	93.10	92.99	91.59	89.82	86.43	77.76	59.21	34.29	14.03	73.22	72.22
2008	26.70	55.40	78.74	90.28	92.96	92.75	91.81	89.70	86.20	78.81	59.93	35.58	14.60	72.98	72.26
2009	24.23	51.89	76.27	88.96	91.85	92.56	90.95	88.76	86.13	78.08	60.89	36.27	14.80	71.99	71.47
2010	21.86	49.58	74.52	88.34	91.05	92.22	90.71	88.50	85.11	78.48	60.04	36.51	14.69	71.17	70.81
2011	20.43	48.34	74.71	87.81	90.65	91.54	90.43	88.09	84.24	78.23	59.14	37.42	15.38	70.48	70.48
2012	20.88	48.39	74.47	88.36	90.65	91.34	90.10	88.11	84.10	77.99	60.55	37.11	16.21	70.16	70.61
2013	21.72	48.30	73.88	87.64	90.73	90.86	90.62	87.27	83.95	78.01	60.47	37.23	15.90	69.73	70.40
2014	21.27	47.39	73.92	86.95	90.40	90.88	90.14	87.51	83.72	76.76	61.92	36.10	15.68	69.21	70.14
2015	22.12	48.27	73.01	87.38	90.30	90.33	90.26	87.85	84.00	77.07	61.49	36.77	15.80	69.06	70.21
2016	22.80	49.60	73.00	87.29	90.36	90.78	90.48	88.22	84.49	77.37	61.98	36.91	16.51	69.19	70.55
2017	23.05	48.19	74.10	87.46	90.22	90.90	90.51	88.29	84.62	78.04	62.38	37.27	16.51	69.07	70.73
2018	22.15	48.04	73.19	87.77	90.57	91.05	90.78	88.66	85.28	78.89	62.98	37.57	16.85	69.06	70.95
2019	23.06	48.20	73.97	87.81	90.47	91.12	90.52	88.91	85.95	78.97	63.62	39.41	17.09	69.15	71.30
2020	22.14	47.45	70.98	85.58	88.74	90.66	88.65	88.67	85.03	78.05	63.17	38.64	16.34	67.66	70.08

Table 4. Civilian Labor Force Participation Rates, Men (Cont.)
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Projected															
2021	24.26	48.55	72.88	87.00	90.03	90.40	90.49	88.69	84.20	77.74	60.01	36.12	16.39	67.52	70.29
2022	25.03	48.56	73.65	88.31	90.90	90.79	91.19	89.46	85.43	78.51	62.07	38.98	17.60	68.36	71.35
2023	24.94	48.68	73.83	88.58	91.09	91.02	91.25	89.61	86.02	79.02	63.81	40.93	18.00	68.57	71.82
2024	24.38	48.45	73.77	88.64	91.15	91.11	91.22	89.59	86.23	79.17	64.16	41.20	17.97	68.37	71.87
2025	23.60	48.06	73.64	88.62	91.13	91.10	91.17	89.50	86.25	79.24	64.25	41.61	17.88	68.11	71.82
2026	22.67	47.60	73.49	88.60	91.10	91.06	91.13	89.41	86.24	79.30	64.34	41.91	17.68	67.85	71.75
2027	22.01	47.23	73.39	88.59	91.06	91.02	91.11	89.32	86.20	79.27	64.36	42.15	17.50	67.61	71.68
2028	22.01	47.18	73.37	88.58	91.02	90.99	91.11	89.24	86.15	79.22	64.40	42.43	17.35	67.44	71.66
2029	22.01	47.18	73.39	88.57	91.00	90.98	91.08	89.17	86.11	79.15	64.53	42.68	17.18	67.27	71.65
2030	22.01	47.18	73.39	88.53	90.96	91.00	91.11	89.14	86.05	79.16	64.69	42.75	17.03	67.08	71.65
2031	22.01	47.18	73.40	88.50	90.94	91.01	91.12	89.14	85.96	79.23	64.78	42.84	16.90	66.91	71.65
2032	22.01	47.18	73.41	88.50	90.95	91.02	91.08	89.15	85.88	79.26	64.62	42.94	16.78	66.77	71.63
2033	22.01	47.18	73.42	88.50	90.95	91.02	91.07	89.18	85.81	79.25	64.41	42.97	16.64	66.65	71.61
2034	22.01	47.18	73.43	88.51	90.95	91.01	91.07	89.21	85.75	79.19	64.18	43.04	16.51	66.55	71.58
2035	22.01	47.18	73.44	88.53	90.95	91.00	91.08	89.21	85.73	79.19	64.21	43.18	16.35	66.47	71.59
2036	22.01	47.18	73.44	88.56	90.95	90.99	91.11	89.18	85.76	79.14	64.23	43.27	16.20	66.40	71.59
2037	22.01	47.18	73.45	88.59	90.94	90.99	91.13	89.15	85.80	79.12	64.36	43.15	16.07	66.37	71.60
2038	22.01	47.18	73.46	88.62	90.95	90.98	91.14	89.13	85.85	79.13	64.28	43.05	15.97	66.36	71.60
2039	22.01	47.18	73.46	88.64	90.96	90.98	91.14	89.15	85.88	79.19	64.25	42.88	15.93	66.30	71.61
2040	22.01	47.18	73.47	88.64	90.99	90.97	91.12	89.17	85.85	79.22	64.32	42.86	15.95	66.21	71.63
2041	22.01	47.18	73.47	88.64	91.02	90.97	91.09	89.19	85.80	79.21	64.38	42.75	16.01	66.10	71.63
2042	22.01	47.18	73.48	88.64	91.05	90.96	91.07	89.20	85.75	79.27	64.48	42.74	15.98	66.00	71.64
2043	22.01	47.18	73.47	88.64	91.08	90.95	91.07	89.19	85.70	79.35	64.58	42.66	15.95	65.94	71.64
2044	22.01	47.18	73.46	88.65	91.09	90.95	91.06	89.17	85.69	79.34	64.61	42.55	15.88	65.89	71.64
2045	22.01	47.18	73.45	88.65	91.09	90.97	91.06	89.15	85.70	79.37	64.65	42.66	15.86	65.84	71.65
2046	22.01	47.18	73.45	88.67	91.09	91.00	91.06	89.13	85.73	79.42	64.70	42.85	15.82	65.80	71.68
2047	22.01	47.18	73.46	88.68	91.08	91.03	91.05	89.12	85.75	79.45	64.81	42.94	15.84	65.75	71.70
2048	22.01	47.18	73.47	88.68	91.08	91.06	91.03	89.11	85.75	79.45	64.80	43.03	15.87	65.70	71.71
2049	22.01	47.18	73.47	88.67	91.09	91.07	91.02	89.11	85.73	79.43	64.82	43.26	15.92	65.66	71.71
2050	22.01	47.18	73.47	88.65	91.09	91.07	91.03	89.11	85.71	79.40	64.94	43.43	16.03	65.63	71.73
2051	22.01	47.18	73.47	88.64	91.12	91.06	91.05	89.10	85.69	79.37	65.13	43.30	16.16	65.58	71.74
2052	22.01	47.18	73.47	88.64	91.15	91.05	91.08	89.08	85.67	79.34	65.29	43.35	16.28	65.55	71.76
2053	22.01	47.18	73.47	88.64	91.15	91.04	91.12	89.05	85.66	79.32	65.36	43.45	16.37	65.51	71.78
2054	22.01	47.18	73.47	88.65	91.15	91.05	91.13	89.04	85.66	79.31	65.35	43.45	16.44	65.46	71.78
2055	22.01	47.18	73.48	88.65	91.13	91.07	91.13	89.04	85.65	79.31	65.30	43.59	16.54	65.42	71.80
2056	22.01	47.18	73.48	88.65	91.11	91.11	91.13	89.05	85.65	79.30	65.22	43.82	16.58	65.37	71.81
2057	22.01	47.18	73.48	88.65	91.10	91.15	91.12	89.09	85.61	79.28	65.17	44.04	16.61	65.33	71.82
2058	22.01	47.18	73.48	88.65	91.10	91.17	91.11	89.13	85.57	79.28	65.18	44.15	16.66	65.30	71.84
2059	22.01	47.18	73.48	88.65	91.10	91.18	91.12	89.16	85.55	79.29	65.24	44.16	16.75	65.26	71.85
2060	22.01	47.18	73.48	88.65	91.10	91.16	91.15	89.16	85.53	79.31	65.31	44.14	16.83	65.22	71.86
2061	22.01	47.18	73.48	88.65	91.10	91.13	91.21	89.15	85.54	79.35	65.36	44.09	16.91	65.17	71.87
2062	22.01	47.18	73.48	88.65	91.10	91.11	91.27	89.14	85.58	79.41	65.37	44.08	16.97	65.13	71.88

Table 4. Civilian Labor Force Participation Rates, Men (Cont.)
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age- Adj (2011 pop.)
2063	22.01	47.18	73.49	88.65	91.10	91.10	91.30	89.14	85.62	79.45	65.41	44.14	16.98	65.09	71.90
2064	22.01	47.18	73.49	88.65	91.10	91.10	91.31	89.16	85.64	79.48	65.47	44.22	16.95	65.05	71.92
2065	22.01	47.18	73.49	88.65	91.10	91.10	91.30	89.20	85.65	79.49	65.55	44.33	16.90	65.00	71.93
2066	22.01	47.18	73.49	88.65	91.10	91.10	91.27	89.27	85.64	79.48	65.67	44.42	16.86	64.96	71.95
2067	22.01	47.18	73.49	88.65	91.09	91.10	91.24	89.34	85.63	79.46	65.84	44.46	16.85	64.93	71.97
2068	22.01	47.18	73.49	88.65	91.09	91.09	91.22	89.39	85.63	79.47	66.01	44.54	16.84	64.89	72.00
2069	22.01	47.18	73.49	88.65	91.09	91.09	91.22	89.40	85.64	79.48	66.12	44.65	16.83	64.85	72.01
2070	22.01	47.18	73.49	88.65	91.09	91.08	91.22	89.38	85.68	79.50	66.14	44.76	16.84	64.80	72.03
2071	22.01	47.18	73.49	88.65	91.09	91.08	91.22	89.34	85.76	79.53	66.13	44.94	16.85	64.76	72.04
2072	22.01	47.18	73.49	88.65	91.08	91.07	91.22	89.30	85.85	79.53	66.10	45.19	16.85	64.71	72.06
2073	22.01	47.18	73.49	88.65	91.08	91.07	91.21	89.29	85.90	79.54	66.09	45.42	16.86	64.67	72.08
2074	22.01	47.18	73.49	88.65	91.08	91.06	91.21	89.28	85.91	79.52	66.13	45.58	16.87	64.62	72.09
2075	22.01	47.18	73.49	88.65	91.08	91.06	91.21	89.28	85.89	79.50	66.21	45.66	16.90	64.57	72.10
2076	22.01	47.18	73.49	88.65	91.08	91.05	91.20	89.28	85.85	79.45	66.30	45.68	16.94	64.53	72.10
2077	22.01	47.18	73.49	88.65	91.08	91.05	91.20	89.28	85.80	79.41	66.34	45.66	16.99	64.48	72.10
2078	22.01	47.18	73.49	88.65	91.08	91.05	91.19	89.27	85.78	79.41	66.36	45.68	17.03	64.44	72.10
2079	22.01	47.18	73.48	88.65	91.09	91.04	91.18	89.26	85.76	79.42	66.33	45.77	17.05	64.41	72.10
2080	22.01	47.18	73.48	88.65	91.09	91.04	91.18	89.26	85.75	79.46	66.27	45.89	17.02	64.38	72.11
2081	22.01	47.18	73.48	88.65	91.09	91.04	91.17	89.25	85.75	79.51	66.12	46.02	16.96	64.35	72.10
2082	22.01	47.18	73.49	88.65	91.09	91.04	91.17	89.24	85.75	79.54	65.95	46.11	16.90	64.33	72.10
2083	22.01	47.18	73.49	88.65	91.09	91.05	91.17	89.23	85.74	79.55	65.93	46.14	16.87	64.33	72.11
2084	22.01	47.18	73.49	88.65	91.09	91.05	91.17	89.22	85.73	79.55	66.00	46.12	16.85	64.33	72.11
2085	22.01	47.18	73.49	88.65	91.09	91.05	91.17	89.22	85.72	79.55	66.14	46.08	16.86	64.34	72.12
2086	22.01	47.18	73.49	88.65	91.09	91.05	91.17	89.21	85.71	79.55	66.32	45.92	16.86	64.35	72.13
2087	22.01	47.18	73.49	88.65	91.09	91.05	91.18	89.21	85.70	79.56	66.46	45.76	16.84	64.37	72.13
2088	22.01	47.18	73.49	88.65	91.09	91.06	91.18	89.21	85.69	79.58	66.52	45.76	16.82	64.39	72.14
2089	22.01	47.18	73.49	88.65	91.09	91.06	91.18	89.21	85.68	79.59	66.55	45.87	16.79	64.41	72.15
2090	22.01	47.18	73.49	88.64	91.09	91.06	91.19	89.21	85.67	79.60	66.58	46.11	16.76	64.44	72.17
2091	22.01	47.18	73.49	88.64	91.09	91.06	91.20	89.21	85.66	79.62	66.62	46.37	16.71	64.47	72.19
2092	22.01	47.18	73.49	88.64	91.08	91.06	91.20	89.22	85.65	79.64	66.67	46.56	16.68	64.50	72.20
2093	22.01	47.18	73.49	88.64	91.08	91.06	91.21	89.22	85.65	79.65	66.74	46.66	16.70	64.53	72.22
2094	22.01	47.18	73.50	88.65	91.08	91.06	91.22	89.23	85.65	79.65	66.80	46.74	16.78	64.55	72.24
2095	22.01	47.18	73.50	88.65	91.08	91.06	91.22	89.24	85.65	79.67	66.86	46.81	16.91	64.57	72.26

Note: For compactness, the table displays annual values. Annual values are averages of the quarterly values. Quarterly values are available on request.

Table 5. Civilian Labor Force Participation Rates, Women
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+ Age-Adj (2011 pop.)	
Historical															
1981	42.47	60.90	69.62	67.56	65.85	66.36	67.41	64.22	58.14	49.28	32.60	14.86	4.61	52.11	50.37
1982	41.04	61.19	69.83	68.99	66.85	67.44	68.62	65.28	58.04	49.63	33.37	14.90	4.49	52.63	50.90
1983	39.96	60.73	69.90	69.81	68.03	68.23	69.28	65.35	58.51	48.78	33.83	14.74	4.55	52.90	51.15
1984	41.19	61.80	70.44	70.39	69.08	70.19	70.07	66.25	59.38	49.84	33.39	14.17	4.42	53.58	51.80
1985	42.09	61.76	71.85	71.37	70.31	71.69	71.86	67.78	60.83	50.32	33.44	13.50	4.29	54.46	52.66
1986	43.69	62.28	72.41	72.31	70.91	73.04	73.21	69.53	62.03	51.34	33.21	14.33	4.13	55.29	53.49
1987	44.56	62.26	73.03	73.26	71.52	73.98	75.14	70.64	63.17	52.17	33.18	14.30	4.12	55.98	54.21
1988	44.03	62.93	72.74	73.57	71.88	74.55	75.88	72.53	64.81	53.29	33.84	15.39	4.37	56.58	54.90
1989	44.46	62.49	72.41	73.94	73.07	75.00	77.15	74.33	65.91	54.79	35.62	16.34	4.55	57.39	55.74
1990	41.64	60.26	71.32	73.59	73.33	75.47	77.47	74.73	66.88	55.29	35.50	16.98	4.74	57.53	55.75
1991	39.85	59.45	70.11	73.20	72.96	75.56	77.63	75.37	67.78	55.67	35.05	16.95	4.74	57.38	55.65
1992	39.08	58.77	70.91	74.12	73.65	75.54	78.06	75.76	68.67	56.77	36.42	16.22	4.83	57.83	56.12
1993	39.10	60.19	70.93	73.55	73.27	75.34	77.95	76.42	69.80	57.09	37.00	16.08	4.75	57.92	56.28
1994	42.64	60.07	71.05	74.33	73.68	75.98	78.31	77.64	70.66	59.18	37.81	17.95	5.49	58.80	57.20
1995	43.10	61.55	70.34	74.84	75.01	76.34	78.12	77.24	70.74	59.49	38.01	17.55	5.29	58.94	57.33
1996	42.95	59.95	71.32	75.83	74.68	76.55	78.62	78.04	71.86	59.80	38.15	17.18	5.18	59.27	57.65
1997	41.00	61.21	72.70	77.32	74.87	76.65	78.92	78.09	73.50	60.73	39.51	17.60	5.08	59.80	58.26
1998	41.92	62.60	73.00	77.31	75.38	75.60	78.61	78.81	73.00	61.28	39.13	17.84	5.17	59.86	58.35
1999	41.04	60.91	73.25	76.91	75.90	76.22	78.24	78.94	74.02	61.83	38.82	18.39	5.50	60.04	58.52
2000	40.88	61.31	73.05	76.74	75.49	75.72	78.72	79.13	74.15	61.37	40.22	19.52	5.76	59.94	58.65
2001	38.82	59.15	72.77	75.76	75.35	76.10	78.08	78.46	74.13	61.70	42.48	19.99	5.86	59.80	58.52
2002	36.35	58.52	72.12	75.66	74.62	75.29	77.52	77.77	73.98	63.81	44.07	20.75	5.99	59.62	58.46
2003	34.54	56.29	70.72	74.36	73.84	74.47	77.41	78.56	74.71	65.46	45.33	22.68	6.39	59.49	58.48
2004	33.28	55.73	70.44	73.12	74.01	74.45	76.71	78.22	74.48	64.96	45.39	23.34	6.74	59.15	58.24
2005	33.88	55.95	70.06	73.98	73.87	74.61	76.78	77.70	74.04	65.62	45.80	23.74	7.08	59.25	58.38
2006	33.46	55.81	69.44	75.21	73.56	74.54	77.09	77.20	74.71	66.71	46.95	24.21	7.09	59.36	58.63
2007	31.01	54.15	70.16	74.86	74.13	73.97	76.96	77.22	74.69	66.65	47.94	25.67	7.65	59.31	58.73
2008	29.16	53.00	69.98	75.88	74.44	75.18	77.08	77.22	74.85	67.74	48.71	26.44	8.06	59.48	59.09
2009	25.58	50.88	69.64	75.23	74.77	74.96	76.77	77.28	74.70	68.45	49.87	26.63	8.34	59.20	58.97
2010	23.03	48.56	68.28	75.56	73.76	74.14	76.16	76.85	74.61	68.43	50.72	26.97	8.32	58.63	58.55
2011	22.54	47.43	67.77	74.36	73.36	73.69	75.60	76.45	74.31	67.75	50.28	27.35	8.37	58.11	58.11
2012	23.04	47.26	67.40	74.40	73.72	73.65	75.83	75.64	73.72	67.31	50.38	27.60	8.47	57.69	58.00
2013	23.60	47.56	67.53	73.65	73.32	73.77	74.23	75.30	73.03	67.20	49.98	27.60	9.07	57.21	57.74
2014	23.10	47.76	67.74	74.14	73.54	73.60	74.64	74.90	72.85	66.39	50.19	27.50	9.25	56.97	57.74
2015	22.81	47.44	68.30	73.83	72.91	73.58	74.95	74.51	72.45	66.31	49.77	27.92	9.17	56.68	57.61
2016	24.50	47.83	67.99	75.37	73.56	74.11	74.98	75.40	72.52	65.94	50.14	28.00	9.34	56.80	57.99
2017	26.31	47.20	68.52	76.42	74.50	74.29	75.66	75.80	73.18	66.21	51.04	27.93	9.77	57.03	58.53
2018	25.73	47.59	68.99	76.90	74.87	74.64	75.58	76.20	73.54	66.14	51.79	28.89	9.89	57.08	58.84
2019	24.26	48.47	70.37	77.80	75.49	75.31	76.14	77.29	74.10	67.11	51.84	29.82	10.31	57.43	59.49
2020	25.37	45.79	67.53	76.75	74.61	74.31	75.70	76.00	73.38	66.56	51.47	28.01	10.18	56.20	58.56

Table 5. Civilian Labor Force Participation Rates, Women (Cont.)
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
Projected															
2021	25.80	46.24	67.32	76.26	75.09	74.68	75.46	75.61	75.08	66.76	49.54	28.83	10.95	56.12	58.70
2022	25.38	46.62	68.23	77.29	75.86	75.51	76.41	76.71	76.49	67.60	50.30	30.33	11.94	56.80	59.63
2023	25.29	46.92	68.61	77.78	76.05	75.64	76.65	77.00	76.93	68.34	51.53	30.81	12.20	56.96	60.04
2024	24.82	46.94	68.77	78.00	76.08	75.68	76.73	77.10	77.12	69.43	52.03	30.94	12.35	56.93	60.25
2025	24.18	46.86	68.84	78.08	76.00	75.64	76.71	77.09	77.18	70.36	52.35	31.12	12.48	56.82	60.37
2026	23.40	46.67	68.91	78.12	75.90	75.58	76.64	77.07	77.20	71.11	52.61	31.15	12.59	56.69	60.42
2027	22.91	46.50	68.98	78.14	75.78	75.48	76.54	77.07	77.21	71.39	53.08	31.35	12.72	56.59	60.47
2028	23.01	46.49	69.01	78.15	75.66	75.36	76.44	77.06	77.23	71.51	53.66	31.86	12.71	56.51	60.54
2029	23.03	46.48	69.02	78.15	75.55	75.23	76.35	77.02	77.27	71.50	54.80	32.20	12.69	56.44	60.62
2030	23.06	46.48	69.01	78.14	75.47	75.15	76.35	77.06	77.41	71.57	55.87	32.53	12.70	56.39	60.73
2031	23.09	46.47	69.00	78.13	75.40	75.06	76.35	77.09	77.54	71.64	56.68	32.79	12.72	56.32	60.82
2032	23.11	46.47	69.00	78.14	75.32	74.94	76.32	77.06	77.76	71.73	56.88	33.31	12.68	56.26	60.87
2033	23.14	46.48	68.99	78.14	75.25	74.84	76.28	77.04	77.97	71.86	56.86	33.97	12.68	56.23	60.93
2034	23.16	46.49	69.00	78.11	75.20	74.73	76.22	77.02	78.06	71.95	56.79	34.99	12.70	56.23	60.98
2035	23.18	46.48	69.00	78.07	75.13	74.64	76.15	77.01	78.01	72.24	56.90	35.93	12.70	56.23	61.04
2036	23.19	46.48	69.00	78.02	75.08	74.55	76.09	77.00	77.96	72.64	57.06	36.54	12.68	56.23	61.11
2037	23.21	46.48	69.00	77.98	75.06	74.46	76.02	76.98	77.87	73.08	57.26	36.71	12.71	56.25	61.15
2038	23.22	46.49	68.99	77.94	75.04	74.38	75.94	76.97	77.79	73.44	57.38	36.73	12.77	56.27	61.19
2039	23.22	46.49	68.99	77.91	75.00	74.30	75.87	76.95	77.73	73.57	57.52	36.80	12.87	56.25	61.21
2040	23.22	46.45	68.99	77.89	74.94	74.21	75.80	76.93	77.71	73.38	57.93	37.00	12.99	56.20	61.24
2041	23.23	46.44	68.98	77.88	74.89	74.13	75.72	76.89	77.70	73.15	58.36	37.21	13.11	56.14	61.25
2042	23.23	46.44	68.98	77.86	74.82	74.09	75.65	76.85	77.68	72.89	58.86	37.41	13.19	56.10	61.27
2043	23.23	46.46	68.98	77.84	74.76	74.07	75.59	76.80	77.67	72.62	59.14	37.55	13.28	56.08	61.27
2044	23.23	46.47	68.99	77.82	74.72	74.04	75.53	76.76	77.66	72.41	59.11	37.75	13.36	56.08	61.27
2045	23.23	46.47	69.00	77.81	74.71	74.02	75.48	76.71	77.67	72.40	58.86	38.18	13.44	56.07	61.28
2046	23.23	46.47	69.00	77.77	74.70	73.99	75.44	76.67	77.67	72.43	58.63	38.54	13.48	56.04	61.28
2047	23.23	46.46	69.00	77.73	74.69	73.94	75.41	76.63	77.67	72.43	58.34	38.96	13.52	56.01	61.27
2048	23.23	46.46	68.99	77.74	74.68	73.88	75.40	76.61	77.65	72.41	58.09	39.20	13.60	55.98	61.26
2049	23.23	46.46	68.99	77.78	74.66	73.85	75.39	76.59	77.63	72.37	57.92	39.18	13.73	55.96	61.25
2050	23.23	46.46	68.99	77.81	74.65	73.84	75.39	76.58	77.60	72.35	57.99	39.08	13.90	55.95	61.26
2051	23.23	46.46	68.99	77.84	74.61	73.84	75.38	76.57	77.58	72.36	58.04	38.98	14.07	55.94	61.27
2052	23.23	46.46	68.99	77.86	74.56	73.84	75.36	76.57	77.57	72.39	58.00	38.87	14.22	55.93	61.27
2053	23.22	46.46	68.99	77.86	74.56	73.84	75.34	76.56	77.57	72.42	57.88	38.82	14.37	55.90	61.28
2054	23.22	46.46	68.99	77.86	74.59	73.83	75.32	76.55	77.57	72.43	57.77	38.84	14.49	55.89	61.28
2055	23.22	46.46	68.99	77.86	74.62	73.83	75.32	76.54	77.59	72.44	57.72	39.01	14.61	55.87	61.30
2056	23.22	46.47	68.99	77.85	74.67	73.79	75.32	76.53	77.60	72.44	57.72	39.13	14.71	55.86	61.33
2057	23.22	46.47	68.99	77.85	74.71	73.75	75.32	76.53	77.61	72.44	57.76	39.20	14.79	55.84	61.34
2058	23.22	46.47	68.99	77.85	74.72	73.72	75.32	76.53	77.61	72.44	57.80	39.22	14.86	55.82	61.35
2059	23.22	46.47	68.99	77.85	74.72	73.72	75.31	76.53	77.60	72.45	57.84	39.24	14.91	55.79	61.36
2060	23.22	46.47	68.99	77.84	74.72	73.73	75.32	76.54	77.61	72.47	57.91	39.33	14.97	55.76	61.38
2061	23.22	46.47	68.99	77.84	74.71	73.77	75.31	76.53	77.61	72.50	57.93	39.49	15.03	55.73	61.40
2062	23.22	46.47	68.99	77.84	74.71	73.83	75.28	76.53	77.64	72.54	57.90	39.70	15.09	55.71	61.42

Table 5. Civilian Labor Force Participation Rates, Women (Cont.)
2021 Trustees report (intermediate assumptions), percent

Year	16-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	16+	16+ Age-Adj (2011 pop.)
2063	23.22	46.47	68.99	77.84	74.71	73.86	75.26	76.52	77.68	72.57	57.90	39.88	15.11	55.68	61.44
2064	23.22	46.47	68.98	77.84	74.71	73.86	75.24	76.51	77.72	72.58	57.93	39.97	15.14	55.65	61.46
2065	23.22	46.47	68.98	77.83	74.71	73.86	75.24	76.51	77.74	72.55	57.98	40.03	15.17	55.61	61.47
2066	23.22	46.47	68.98	77.83	74.70	73.84	75.26	76.51	77.74	72.53	58.04	40.12	15.17	55.58	61.49
2067	23.22	46.47	68.98	77.83	74.70	73.84	75.29	76.51	77.74	72.53	58.13	40.19	15.18	55.54	61.51
2068	23.22	46.47	68.98	77.82	74.70	73.84	75.30	76.51	77.74	72.57	58.18	40.27	15.17	55.50	61.53
2069	23.22	46.47	68.98	77.82	74.70	73.84	75.30	76.51	77.75	72.62	58.13	40.36	15.18	55.45	61.54
2070	23.22	46.47	68.98	77.81	74.69	73.84	75.29	76.51	77.78	72.68	58.04	40.49	15.20	55.41	61.54
2071	23.22	46.46	68.98	77.81	74.69	73.84	75.28	76.51	77.81	72.71	57.95	40.64	15.20	55.37	61.55
2072	23.22	46.46	68.98	77.80	74.68	73.84	75.28	76.50	77.85	72.72	57.91	40.76	15.21	55.33	61.56
2073	23.22	46.46	68.98	77.80	74.68	73.84	75.28	76.49	77.86	72.73	57.97	40.84	15.24	55.29	61.57
2074	23.22	46.46	68.98	77.80	74.67	73.83	75.28	76.48	77.85	72.72	58.05	40.84	15.30	55.27	61.59
2075	23.22	46.46	68.98	77.79	74.66	73.83	75.27	76.47	77.85	72.75	58.13	40.83	15.34	55.24	61.60
2076	23.22	46.46	68.99	77.79	74.66	73.83	75.27	76.46	77.83	72.76	58.19	40.83	15.38	55.23	61.61
2077	23.22	46.46	68.99	77.79	74.65	73.83	75.27	76.46	77.81	72.77	58.19	40.90	15.44	55.22	61.61
2078	23.22	46.46	68.99	77.79	74.65	73.82	75.26	76.46	77.80	72.81	58.18	41.10	15.51	55.22	61.63
2079	23.22	46.46	68.99	77.79	74.64	73.81	75.26	76.45	77.80	72.89	58.16	41.30	15.54	55.23	61.65
2080	23.22	46.46	68.99	77.80	74.64	73.81	75.26	76.45	77.80	72.98	58.17	41.45	15.56	55.25	61.67
2081	23.22	46.46	68.99	77.80	74.64	73.80	75.26	76.44	77.80	73.01	58.12	41.57	15.57	55.27	61.68
2082	23.22	46.46	68.99	77.80	74.63	73.80	75.26	76.44	77.80	72.98	58.10	41.63	15.58	55.30	61.69
2083	23.22	46.46	68.99	77.81	74.63	73.79	75.26	76.43	77.80	72.95	58.26	41.67	15.58	55.34	61.71
2084	23.22	46.46	68.99	77.81	74.63	73.79	75.25	76.43	77.80	72.93	58.50	41.70	15.59	55.38	61.73
2085	23.22	46.46	68.99	77.82	74.64	73.78	75.25	76.43	77.81	72.94	58.71	41.79	15.59	55.42	61.76
2086	23.22	46.46	68.99	77.82	74.64	73.78	75.25	76.42	77.82	72.97	58.81	41.87	15.60	55.47	61.78
2087	23.22	46.46	68.99	77.82	74.64	73.78	75.24	76.42	77.83	73.00	58.79	41.99	15.59	55.52	61.78
2088	23.22	46.46	68.99	77.82	74.65	73.77	75.24	76.42	77.83	73.01	58.75	42.15	15.59	55.56	61.79
2089	23.22	46.46	68.99	77.82	74.65	73.77	75.24	76.42	77.84	73.01	58.76	42.36	15.58	55.61	61.81
2090	23.22	46.46	68.99	77.82	74.66	73.77	75.23	76.42	77.85	73.03	58.81	42.63	15.57	55.66	61.83
2091	23.22	46.46	68.99	77.82	74.66	73.77	75.23	76.41	77.86	73.04	58.86	42.71	15.54	55.70	61.85
2092	23.22	46.47	68.99	77.82	74.66	73.77	75.22	76.41	77.87	73.06	58.89	42.61	15.52	55.73	61.85
2093	23.22	46.47	68.98	77.82	74.67	73.77	75.22	76.41	77.88	73.08	58.90	42.54	15.54	55.76	61.86
2094	23.22	46.47	68.98	77.82	74.67	73.77	75.22	76.41	77.89	73.09	58.91	42.54	15.58	55.77	61.86
2095	23.22	46.47	68.98	77.82	74.67	73.77	75.22	76.40	77.90	73.11	58.94	42.61	15.64	55.79	61.87

Note: For compactness, the table displays annual values. Annual values are averages of the quarterly values. Quarterly values are available on request.

Table 6. Civilian Labor Force Participation Rates
2021 Trustees Report (intermediate assumptions), percent

year	16+	16+ age-sex-adjusted ¹	year	16+	16+ age-sex-adjusted ¹	year	16+	16+ age-sex-adjusted ¹
Historical			2019	63.10	65.22	2057	60.46	66.43
1981	63.88	62.54	2020	61.75	64.15	2058	60.44	66.44
1982	63.99	62.63	Projected			2059	60.40	66.45
1983	64.01	62.57	2021	61.63	64.33	2060	60.37	66.47
1984	64.37	62.81	2022	62.39	65.32	2061	60.33	66.48
1985	64.79	63.20	2023	62.58	65.76	2062	60.30	66.50
1986	65.26	63.58	2024	62.47	65.89	2063	60.27	66.52
1987	65.58	63.93	2025	62.28	65.93	2064	60.24	66.53
1988	65.91	64.26	2026	62.09	65.92	2065	60.20	66.55
1989	66.45	64.77	2027	61.92	65.91	2066	60.16	66.57
1990	66.53	64.62	2028	61.80	65.94	2067	60.13	66.59
1991	66.18	64.27	2029	61.68	65.97	2068	60.09	66.61
1992	66.44	64.53	2030	61.56	66.03	2069	60.04	66.62
1993	66.30	64.41	2031	61.45	66.07	2070	60.00	66.63
1994	66.58	64.71	2032	61.34	66.10	2071	59.96	66.64
1995	66.63	64.80	2033	61.28	66.11	2072	59.92	66.66
1996	66.78	65.01	2034	61.23	66.13	2073	59.88	66.67
1997	67.10	65.39	2035	61.19	66.16	2074	59.84	66.68
1998	67.09	65.43	2036	61.16	66.20	2075	59.81	66.70
1999	67.09	65.50	2037	61.15	66.23	2076	59.78	66.70
2000	67.08	65.59	2038	61.16	66.24	2077	59.76	66.70
2001	66.84	65.38	2039	61.12	66.26	2078	59.74	66.71
2002	66.58	65.22	2040	61.05	66.28	2079	59.73	66.72
2003	66.24	65.02	2041	60.96	66.29	2080	59.72	66.74
2004	65.98	64.84	2042	60.90	66.30	2081	59.72	66.74
2005	66.03	64.99	2043	60.86	66.31	2082	59.73	66.74
2006	66.17	65.26	2044	60.84	66.30	2083	59.75	66.76
2007	66.04	65.28	2045	60.81	66.31	2084	59.77	66.77
2008	66.01	65.48	2046	60.78	66.33	2085	59.80	66.79
2009	65.39	65.04	2047	60.74	66.34	2086	59.83	66.80
2010	64.70	64.50	2048	60.70	66.33	2087	59.87	66.81
2011	64.11	64.11	2049	60.67	66.33	2088	59.90	66.81
2012	63.70	64.12	2050	60.65	66.34	2089	59.94	66.83
2013	63.25	63.89	2051	60.63	66.35	2090	59.97	66.85
2014	62.88	63.76	2052	60.60	66.37	2091	60.01	66.87
2015	62.65	63.73	2053	60.58	66.37	2092	60.05	66.88
2016	62.79	64.08	2054	60.55	66.38	2093	60.07	66.89
2017	62.85	64.45	2055	60.52	66.40	2094	60.10	66.90
2018	62.87	64.72	2056	60.49	66.41	2095	60.11	66.91

¹ Adjusted to the 2011 age-sex-distribution of the U.S civilian noninstitutional population.

Note: For compactness, the table displays annual values; quarterly values are available on request.

Table 7. Labor Force Participation Rates (adjusted for age, sex, marital status, and presence of children, 2011 base): 2021Q2 to 2030Q4
(2021 Trustees Report, intermediate assumptions)

Age-Sex Group ¹	Decomposition of Cumulative OCACT Model Change from 2021Q2 to 2030Q4 (percentage points)											Adjustment to link model to latest data and model addfactors (m)	2030 Q4 OCACT Model (n)
	Regression Factors												
	Components												
	2021 Q2 OCACT Model (b)	Business Cycle (c)	Disability Prevalence (d)	Education (e)	Replacement Rate (f)	Earnings Test (g)	Lagged Cohort (75+) (h)	Time Trend (i)	Subtotal (j)	Life Expectancy (k)	Total (l)		
								sum (c:i)		(j+k)		(b+l+m)	
16+	63.93	0.62	-0.05	0.34	0.08	-0.01	0.08	0.00	1.05	0.25	1.30	0.66	65.89
M16+	69.92	0.47	0.03	-0.11	0.08	-0.01	-0.04	0.00	0.43	0.29	0.72	1.00	71.63
M1617	24.05	-2.03	-0.00	--	--	--	--	0.00	-2.04	--	-2.04	0.00	22.01
M1819	47.31	-0.13	-0.00	--	--	--	--	0.00	-0.13	--	-0.13	0.00	47.18
M2024	73.25	0.95	-0.07	--	--	--	--	0.00	0.88	--	0.88	0.00	74.13
M2529	87.99	1.46	-0.23	--	--	--	--	0.00	1.23	--	1.24	0.00	89.23
M3034	90.86	0.83	-0.18	--	--	--	--	--	0.65	--	0.65	0.00	91.51
M3539	91.00	0.65	0.09	--	--	--	--	--	0.73	--	0.73	0.00	91.73
M4044	91.29	0.25	0.08	--	--	--	--	--	0.32	0.04	0.36	0.09	91.74
M4549	88.81	0.63	-0.29	--	--	--	--	--	0.35	0.08	0.43	0.18	89.42
M5054	84.49	1.42	-0.16	--	--	--	--	--	1.26	0.20	1.46	0.36	86.31
M5559	77.04	--	0.31	-0.02	--	--	--	--	0.30	0.66	0.96	1.41	79.41
M6064	55.39	--	0.52	0.57	0.31	0.00	--	--	1.40	1.35	2.74	4.57	62.70
M6569	30.01	--	0.41	-0.80	1.15	-0.12	--	--	0.64	1.28	1.92	5.73	37.66
M70+	15.97	--	0.17	-1.08	--	--	-0.43	--	-1.34	0.46	-0.87	2.07	17.17
F16+	58.27	0.75	-0.13	0.77	0.07	-0.01	0.19	0.00	1.64	0.22	1.86	0.35	60.48
F1617	24.28	-2.38	-0.00	--	--	--	--	0.00	-2.38	--	-2.38	0.00	21.90
F1819	44.18	0.15	-0.00	--	--	--	--	0.00	0.15	--	0.15	0.00	44.33
F2024	65.97	2.09	-0.05	--	--	--	--	0.00	2.04	--	2.04	0.00	68.01
F2529	73.67	1.73	-0.15	--	--	--	--	0.00	1.59	--	1.59	0.00	75.26
F3034	74.64	0.50	-0.16	--	--	--	--	--	0.34	--	0.34	0.00	74.97
F3539	75.39	0.59	-0.01	--	--	--	--	--	0.58	--	0.58	0.00	75.96
F4044	75.70	1.21	0.05	--	--	--	--	--	1.25	0.00	1.25	0.00	76.95
F4549	75.40	1.96	-0.08	--	--	--	--	--	1.87	0.00	1.87	0.00	77.27
F5054	75.58	1.49	-0.29	0.55	--	--	--	--	1.75	0.12	1.87	0.15	77.59
F5559	67.12	--	-0.40	4.39	--	--	--	--	3.99	0.46	4.45	0.45	72.02
F6064	48.91	--	-0.40	4.79	0.26	--	--	--	4.66	1.07	5.74	2.30	56.94
F6569	28.78	--	0.03	0.11	0.97	-0.12	--	--	0.99	0.94	1.93	1.78	32.49
F70+	10.17	--	-0.07	0.02	--	--	1.49	--	1.43	0.29	1.72	0.27	12.16

¹ Classified by sex and age span of target group. In this classification, “M” represents men, “F” represents women, “1617” represents ages 16 and 17, “2024” represents ages 20, 21, 22, 23, and 24, “70+” represents ages 70 and over, “16+” represents ages 16 and over, etc.

Note: “--” indicates that the model factor does not apply to the given age-sex group.

Table 8. Labor Force Participation Rates (adjusted for age, sex, marital status, and presence of children, 2011 base): 2030Q4 to 2095Q4
(2021 Trustees Report, intermediate assumptions)

Decomposition of Cumulative OCACT Model Change from 2030Q4 to 2095Q4 (percentage points)														
Age-Sex Group ¹	2030 Q4 OCACT Model (b)	Regression Factors										Adjustment to link model to latest data and model addfactors (m)	2095 Q4 OCACT Model (n)	
		Components								Subtotal (j)	Life Expectancy (k)			Total (l)
		Business Cycle (c)	Disability Prevalence (d)	Education (e)	Replacement Rate (f)	Earnings Test (g)	Lagged Cohort (75+) (h)	Time Trend (i)	sum (c:i)					
												(j+k)	(b+l+m)	
16+	65.89	0.00	-0.45	0.26	-0.02	0.00	0.09	0.00	-0.11	1.24	1.13	-0.01	67.01	
M16+	71.63	0.00	-0.47	0.12	-0.02	0.00	-0.03	0.00	-0.40	1.34	0.94	-0.04	72.54	
M1617	22.01	0.00	0.00	--	--	--	--	0.00	0.00	--	0.00	0.00	22.01	
M1819	47.18	0.00	-0.00	--	--	--	--	0.00	-0.00	--	-0.00	0.00	47.18	
M2024	74.13	0.00	-0.01	--	--	--	--	0.00	-0.01	--	-0.01	0.00	74.12	
M2529	89.23	0.00	-0.04	--	--	--	--	0.00	-0.04	--	-0.04	0.00	89.19	
M3034	91.51	0.00	-0.13	--	--	--	--	--	-0.13	--	-0.13	0.00	91.38	
M3539	91.73	0.00	-0.36	--	--	--	--	--	-0.36	--	-0.36	0.00	91.37	
M4044	91.74	0.00	-0.54	--	--	--	--	--	-0.54	0.21	-0.33	0.00	91.41	
M4549	89.42	0.00	-0.64	--	--	--	--	--	-0.64	0.41	-0.23	0.00	89.19	
M5054	86.31	0.00	-1.10	--	--	--	--	--	-1.10	0.55	-0.54	0.00	85.77	
M5559	79.41	--	-1.39	0.02	--	--	--	--	-1.38	2.12	0.74	0.00	80.15	
M6064	62.70	--	-0.93	0.07	-0.06	0.00	--	--	-0.92	5.31	4.39	0.00	67.09	
M6569	37.66	--	-0.37	1.11	-0.23	0.00	--	--	0.51	7.17	7.68	0.00	45.34	
M70+	17.17	--	-0.19	0.55	--	--	-0.30	--	0.05	3.18	3.23	-0.38	20.02	
F16+	60.48	0.00	-0.43	0.40	-0.02	0.00	0.21	0.00	0.16	1.15	1.31	0.02	61.80	
F1617	21.90	0.00	0.00	--	--	--	--	0.00	0.00	--	0.00	0.00	21.90	
F1819	44.33	0.00	-0.00	--	--	--	--	0.00	-0.00	--	-0.00	0.00	44.32	
F2024	68.01	0.00	0.00	--	--	--	--	0.00	0.00	--	0.00	0.00	68.01	
F2529	75.26	0.00	-0.03	--	--	--	--	0.00	-0.03	--	-0.03	0.00	75.23	
F3034	74.97	0.00	-0.10	--	--	--	--	--	-0.10	--	-0.10	0.00	74.87	
F3539	75.96	0.00	-0.31	--	--	--	--	--	-0.31	--	-0.31	0.00	75.65	
F4044	76.95	0.00	-0.53	--	--	--	--	--	-0.53	0.00	-0.53	0.00	76.42	
F4549	77.27	0.00	-0.66	--	--	--	--	--	-0.66	0.00	-0.66	0.00	76.62	
F5054	77.59	0.00	-0.64	-0.17	--	--	--	--	-0.81	0.77	-0.04	0.20	77.76	
F5559	72.02	--	-0.81	0.08	--	--	--	--	-0.73	2.09	1.36	-0.10	73.28	
F6064	56.94	--	-0.75	1.11	-0.05	--	--	--	0.31	4.29	4.60	0.01	61.55	
F6569	32.49	--	-1.26	3.90	-0.20	0.00	--	--	2.44	5.98	8.42	-0.16	40.75	
F70+	12.16	--	-0.32	0.90	--	--	1.61	--	2.19	2.13	4.32	0.14	16.61	

¹ Classified by sex and age span of target group. In this classification, “M” represents men, “F” represents women, “1617” represents ages 16 and 17, “2024” represents ages 20, 21, 22, 23, and 24, “70+” represents ages 70 and over, “16+” represents ages 16 and over, etc.

Note: “--” indicates that the model factor does not apply to the given age-sex group.

Table 9. Labor Force Participation Rates: 2021Q2 to 2030Q4
(2021 Trustees Report, intermediate assumptions)

Age-Sex Group ¹	Decomposition of Cumulative OCACT Model Change from 2021Q2 to 2030Q4 (percentage points)																	Adjustment to link model to latest data and model addfactors (r)	2030 Q4 OCACT Model (s)
	Regression Factors																		
	Components																		
	2021 Q2 OCACT Model (b)	Age (c)	Gender (d)	Marital Status (e)	Child Presence (f)	Demographic Total (g)	Business Cycle (h)	Disability Prevalence (i)	Education (j)	Replacement Rate (k)	Earnings Test (l)	Lagged Cohort (75+) (m)	Time Trend (n)	Subtotal (o)	Life Expectancy (p)	Total (q)			
					sum(c:f)								sum (g:n)		(o+p)	(b+q+r)			
16+	61.52	-1.96	0.00	-0.08	-0.01	-2.05	0.55	-0.04	0.25	0.09	-0.01	0.12	0.00	-1.08	0.28	-0.80	0.80	61.52	
M16+	67.34	-2.00	--	-0.16	--	-2.16	0.43	0.05	-0.20	0.10	-0.01	-0.07	0.00	-1.86	0.33	-1.53	1.21	67.01	
M1617	24.05	--	--	--	--	0.00	-2.03	-0.00	--	--	--	--	0.00	-2.04	--	-2.04	0.00	22.01	
M1819	47.31	--	--	--	--	0.00	-0.13	-0.00	--	--	--	--	0.00	-0.13	--	-0.13	0.00	47.18	
M2024	72.69	--	--	-0.18	--	-0.18	0.95	-0.07	--	--	--	--	0.00	0.70	--	0.70	0.00	73.39	
M2529	87.37	--	--	-0.10	--	-0.10	1.46	-0.22	--	--	--	--	0.00	1.13	--	1.13	0.00	88.51	
M3034	90.32	--	--	-0.03	--	-0.03	0.83	-0.18	--	--	--	--	--	0.62	--	0.62	0.00	90.94	
M3539	90.41	--	--	-0.14	--	-0.14	0.65	0.09	--	--	--	--	--	0.60	--	0.60	0.00	91.01	
M4044	90.92	--	--	-0.24	--	-0.24	0.25	0.08	--	--	--	--	--	0.08	0.04	0.12	0.09	91.13	
M4549	88.79	--	--	-0.25	--	-0.25	0.63	-0.29	--	--	--	--	--	0.10	0.08	0.17	0.18	89.14	
M5054	84.26	--	--	-0.06	--	-0.06	1.42	-0.16	--	--	--	--	--	1.19	0.20	1.39	0.36	86.01	
M5559	77.38	-0.02	--	-0.57	--	-0.59	0.00	0.31	-0.01	--	--	--	--	-0.29	0.67	0.39	1.44	79.20	
M6064	58.42	0.05	--	-1.01	--	-0.97	0.00	0.52	0.57	0.31	0.00	--	--	0.43	1.35	1.78	4.56	64.76	
M6569	34.70	-0.18	--	0.72	--	0.54	0.00	0.41	-0.87	1.15	-0.11	--	--	1.12	1.26	2.39	5.70	42.78	
M70+	16.34	-0.62	--	-0.10	--	-0.72	0.00	0.17	-1.10	--	--	-0.43	--	-2.07	0.47	-1.60	2.22	16.96	
F16+	56.06	-1.92	--	-0.01	-0.02	-1.95	0.67	-0.12	0.68	0.09	-0.01	0.29	0.00	-0.35	0.24	-0.11	0.42	56.37	
F1617	24.98	--	--	--	0.48	0.48	-2.38	-0.00	--	--	--	--	0.00	-1.91	--	-1.91	0.00	23.07	
F1819	45.55	--	--	--	0.78	0.78	0.15	-0.00	--	--	--	--	0.00	0.93	--	0.93	0.00	46.47	
F2024	66.78	--	--	0.04	0.15	0.18	2.09	-0.05	--	--	--	--	0.00	2.23	--	2.23	0.00	69.00	
F2529	76.15	--	--	0.21	0.19	0.40	1.73	-0.15	--	--	--	--	0.00	1.98	--	1.98	0.00	78.14	
F3034	75.41	--	--	0.02	-0.31	-0.30	0.50	-0.16	--	--	--	--	--	0.04	--	0.04	0.00	75.45	
F3539	75.07	--	--	-0.11	-0.41	-0.52	0.59	-0.01	--	--	--	--	--	0.06	--	0.06	0.00	75.12	
F4044	75.51	--	--	-0.12	-0.28	-0.40	1.21	0.05	--	--	--	--	--	0.85	0.00	0.85	0.00	76.36	
F4549	75.34	--	--	-0.12	--	-0.12	1.96	-0.08	--	--	--	--	--	1.75	0.00	1.75	0.00	77.09	
F5054	75.50	--	--	-0.07	--	-0.07	1.49	-0.29	0.55	--	--	--	--	1.68	0.12	1.80	0.15	77.45	
F5559	66.70	-0.03	--	0.01	--	-0.02	0.00	-0.40	4.39	--	--	--	--	3.97	0.47	4.44	0.48	71.62	
F6064	48.72	0.06	--	-0.56	--	-0.50	0.00	-0.40	4.83	0.26	0.00	--	--	4.19	1.07	5.26	2.29	56.27	
F6569	28.88	-0.23	--	0.23	--	-0.00	0.00	0.02	0.08	0.97	-0.11	--	--	0.96	0.94	1.90	1.78	32.56	
F70+	10.98	-0.44	--	0.12	--	-0.32	0.00	-0.08	0.03	--	--	1.52	--	1.15	0.30	1.45	0.31	12.73	

¹ Classified by sex and age span of target group. In this classification, "M" represents men, "F" represents women, "1617" represents ages 16 and 17, "2024" represents ages 20, 21, 22, 23, and 24, "70+" represents ages 70 and over, "16+" represents ages 16 and over, etc.

Note: "--" indicates that the model factor does not apply to the given age-sex group.

Table 10. Labor Force Participation Rates (unadjusted): 2030Q4 to 2095Q4
(2021 Trustees Report, intermediate assumptions)

Decomposition of Cumulative OCACT Model Change from 2030Q4 to 2095Q4 (percentage points)																		
Regression Factors																		
Components																		
Age-Sex Group ¹	2021 Q2 OCACT Model	Age	Gender	Marital Status	Child Presence	Demographic Total	Business Cycle	Disability Prevalence	Education	Replacement Rate	Earnings Test	Lagged Cohort (75+)	Time Trend	Subtotal	Life Expectancy	Total	Model addfactors	2030 Q4 OCACT Model
	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
						sum(c:f)								sum (g:n)		(o+p)		(b+q+r)
16+	61.52	-2.82	0.10	-0.10	-0.04	-2.86	-0.04	-0.41	0.33	-0.02	0.00	0.19	0.00	-2.81	1.43	-1.38	-0.02	60.12
M16+	67.01	-3.37	--	-0.24	--	-3.61	-0.03	-0.42	0.19	-0.03	0.00	-0.07	0.00	-3.97	1.59	-2.38	-0.05	64.58
M1617	22.01	--	--	--	--	0.00	0.00	0.00	--	--	--	--	0.00	0.00	--	0.00	0.00	22.01
M1819	47.18	--	--	--	--	0.00	0.00	-0.00	--	--	--	--	0.00	-0.00	--	-0.00	0.00	47.18
M2024	73.39	--	--	0.11	--	0.11	0.00	-0.01	--	--	--	--	0.00	0.10	--	0.10	0.00	73.50
M2529	88.51	--	--	0.18	--	0.18	0.00	-0.04	--	--	--	--	0.00	0.14	--	0.14	0.00	88.65
M3034	90.94	--	--	0.26	--	0.26	0.00	-0.13	--	--	--	--	--	0.13	--	0.13	0.00	91.08
M3539	91.01	--	--	0.41	--	0.41	0.00	-0.35	--	--	--	--	--	0.05	--	0.05	0.00	91.06
M4044	91.13	--	--	0.42	--	0.42	0.00	-0.54	--	--	--	--	--	-0.12	0.21	0.10	0.00	91.23
M4549	89.14	--	--	0.34	--	0.34	0.00	-0.64	--	--	--	--	--	-0.31	0.41	0.11	0.00	89.24
M5054	86.01	--	--	0.18	--	0.18	0.00	-1.09	--	--	--	--	--	-0.92	0.55	-0.36	0.00	85.65
M5559	79.20	0.08	--	-0.36	--	-0.27	0.00	-1.39	0.01	--	--	--	--	-1.65	2.13	0.48	0.00	79.67
M6064	64.76	-0.13	--	-2.17	--	-2.30	0.00	-0.93	0.07	-0.05	0.00	--	--	-3.20	5.32	2.12	0.00	66.88
M6569	42.78	0.08	--	-3.72	--	-3.65	0.00	-0.36	1.13	-0.23	-0.00	--	--	-3.11	7.16	4.06	0.00	46.84
M70+	16.96	-2.50	--	0.15	--	-2.35	0.00	-0.19	0.72	--	--	-0.25	--	-2.07	2.47	0.40	-0.40	16.96
F16+	56.37	-2.29	--	0.04	-0.08	-2.32	-0.04	-0.41	0.49	-0.02	0.00	0.44	0.00	-1.86	1.28	-0.58	0.01	55.79
F1617	23.07	--	--	--	0.14	0.14	0.00	0.00	--	--	--	--	0.00	0.14	--	0.14	0.00	23.22
F1819	46.47	--	--	--	-0.01	-0.01	0.00	-0.00	--	--	--	--	0.00	-0.01	--	-0.01	0.00	46.47
F2024	69.00	--	--	-0.03	0.01	-0.02	0.00	0.00	--	--	--	--	0.00	-0.02	--	-0.02	0.00	68.98
F2529	78.14	--	--	-0.38	0.09	-0.29	0.00	-0.03	--	--	--	--	0.00	-0.32	--	-0.32	0.00	77.82
F3034	75.45	--	--	-0.47	-0.20	-0.68	0.00	-0.10	--	--	--	--	--	-0.78	--	-0.78	0.00	74.67
F3539	75.12	--	--	-0.40	-0.64	-1.04	0.00	-0.31	--	--	--	--	--	-1.35	--	-1.35	0.00	73.78
F4044	76.36	--	--	-0.20	-0.43	-0.62	0.00	-0.52	--	--	--	--	--	-1.15	0.00	-1.15	0.00	75.22
F4549	77.09	--	--	-0.04	--	-0.04	0.00	-0.65	--	--	--	--	--	-0.69	0.00	-0.69	0.00	76.40
F5054	77.45	--	--	0.26	--	0.26	0.00	-0.65	-0.13	--	--	--	--	-0.52	0.77	0.26	0.20	77.90
F5559	71.62	0.12	--	0.08	--	0.20	0.00	-0.82	0.11	--	--	--	--	-0.52	2.11	1.59	-0.10	73.11
F6064	56.27	-0.10	--	-1.80	--	-1.90	0.00	-0.76	1.10	-0.05	0.00	--	--	-1.60	4.29	2.69	-0.01	58.95
F6569	32.56	0.13	--	1.75	--	1.87	0.00	-1.26	3.89	-0.20	-0.00	--	--	4.30	5.97	10.27	-0.18	42.65
F70+	12.73	-1.65	--	0.60	--	-1.05	0.00	-0.22	0.68	--	--	1.70	--	1.12	1.72	2.83	0.10	15.67

¹ Classified by sex and age span of target group. In this classification, “M” represents men, “F” represents women, “1617” represents ages 16 and 17, “2024” represents ages 20, 21, 22, 23, and 24, “70+” represents ages 70 and over, “16+” represents ages 16 and over, etc.

Note: “--” indicates that the model factor does not apply to the given age-sex group.

APPENDIX 2:
OCACT'S LABOR FORCE MODEL

OCACT's Labor Force Model

OCACT's labor force model projects labor force participation rates based on 153 separate age-sex-specific LFPR equations: 69 equations for men and 84 for women. For men and women, there are 55 age groups, as follows: 16-17, 18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55, 56, ... 99, and 100+.

For the 7 age groups encompassing ages 20 through 54, the equations are further disaggregated by marital status. Marital status categories include: never married, ever married with spouse present, and ever married with spouse absent (which includes separated, widowed, and divorced). This adds 14 equations for men and 14 equations for women.

The equations for ages 55 and older, for both men and women, are not disaggregated by marital status. Instead, the effect of marital status on labor force participation at these ages is captured by a special variable in the equations: the proportion of those in a given age group who are married with spouse present. The coefficient on this variable, for men and women of every age between 55 and 74, is estimated from the historical data via regression.

Finally, for the five age groups of women encompassing ages 20 through 44, and for each marital status category within these age groups, we include separate equations for the presence of children under the age of 6. Here there are two categories: (any number of) children under 6 present, and no children under 6. This adds another 15 equations for women.

A detailed listing of the 69 equations for men and 84 equations for women can be found in tables A1 and A2, respectively, of this appendix.

Projections are made for each age-sex group separately. The aggregate LFPRs are calculated based on the projected demographic proportions of each of the age-sex groups in the aggregate population.

In general, in addition to age, sex, marital status, and the presence of children, LFPRs are assumed to be influenced by:

- The state of the economy: a more robust economy is expected to boost LFPRs, as people are more likely to enter the labor force when prospects for employment are better. The state of the economy is captured by the unemployment rate specific to each age-sex group.
- Additional demographic variables:
 - Disability prevalence: higher disability prevalence is expected to lower LFPRs.
 - Educational attainment: higher educational attainment tends to increase LFPRs.
- Variables that are likely to affect the timing of the retirement decision, and thus LFPRs of people close to retirement age:
 - Replacement rate associated with Social Security benefits: as Social Security's normal (full) retirement age increases to age 67, the age-specific Social Security benefit replacement rate will decline due to the additional reduction for early retirement for those retiring prior to normal retirement age. These decreases in age-specific replacement rates are expected to lead to increases in LFPRs for ages between 62 and 69.
 - Retirement earnings test for Social Security: Social Security benefits of those who choose to continue to work and to collect Social Security benefits before reaching the normal retirement age can be reduced if earnings from employment exceed certain amounts. The increase in the normal retirement age from 66 to 67 subjects those age 66 to the earnings test and to the possibility of a reduction in benefits should they choose to continue to work. This, in turn, leads to a decrease in their LFPR.
- Cohort effects: lagged cohort effects for those age 75 and older are used to capture the future evolution of LFPRs at older ages, which cannot be observed sufficiently in historical data; the LFPR at age 74 is used to project the LFPRs at ages 75 and beyond, assuming that the LFPRs will gradually decline with age.
- Time trend: used only for some (younger) groups.

Not all variables are included in every equation. Different demographic groups have distinct subsets of variables affecting their LFPRs. Tables A1 and A2 summarize which variables are included in the equations for each demographic group.

To determine the influence of each variable on LFPRs, we use quarterly and annual data on labor force participation from the Current Population Survey (CPS). The Census Bureau conducts the CPS monthly for the Bureau of Labor Statistics. It is based on a sample of approximately 60,000 households that are representative of the civilian noninstitutional population age 16 years and older in the United States. The purpose of the CPS is to collect data on labor force participation, employment, unemployment, persons not in the labor force, hours of work, earnings, and other demographic and labor force characteristics. We use quarterly and annual CPS data as inputs for each of our 153 equations.

The assumed effects of each of the variables on the LFPR of a given demographic group are derived from historical data. Several of the effects are estimated from regression equations of LFPRs on the variables in question, using CPS data. This method is used to determine the effects on LFPRs of the state of the economy, educational attainment, marital status, and the time trend.

Other effects are estimated by tabular relationships in past data. These include the effect on LFPRs of replacement rates and the retirement earnings test. Yet other effects are imputed on the basis of a priori assumptions, which is done for the effect of disability prevalence and the lagged cohort effects for older ages.

Once the effects of the various factors on LFPRs of each demographic group are estimated, future LFPRs are projected by applying the estimated effects to the projected population. The unadjusted LFPRs, for example the LFPR for the civilian population age 16 and older, change over time both because LFPRs of various demographic groups evolve and because the shares of each demographic group in the total population change. To isolate the effects that are independent of the shift in the demographic composition of the population, we prefer to focus on the age-sex-adjusted LFPRs. These adjusted rates reflect the 2011 distribution of the civilian noninstitutional U.S. population.

Finally, we apply two adjustments to the projected LFPRs. The life expectancy adjustment is intended to capture the effects of changing (lengthening) life expectancy. The total labor force adjustment (“addfactor”) brings the model values in line with the most recent observed historical data, and it is phased out within the first several years of the projection period.¹

Projections for the last 65 years of the 75-year projection period generally assume away any business-cycle fluctuations. Therefore, there is no effect of economic cycles on the projected LFPRs far into the future.

¹ The OCACT labor force model also includes addfactors for certain age-sex groups that are used to smooth the age profile of LFPRs and other idiosyncrasies. These addfactors are not phased out over time and thus their effect persists throughout the projection period. Their effect on the projected aggregate LFPRs is extremely small.

Table A1. OCACT Labor Force Model; LFPR Estimated Equations, Men (Cont.)
2021 Trustees Report

Group ¹	Adjustments				Base											
	Total LF	LE	Individual	Total	Change in Demographic Distribution				Business Cycle	Disability Prevalence	Education	Replacement Rate	Earnings Test	Lagged Cohort (75+)	Trend	
					Age	Gender	Marital Status	Child Presence								
M77	•	•		•										•		
M78	•	•		•										•		
M79	•	•		•										•		
M80	•	•		•										•		
M81	•	•		•										•		
M82	•	•		•										•		
M83	•	•		•										•		
M84	•	•		•										•		
M85	•	•		•										•		
M86	•	•		•										•		
M87	•	•		•										•		
M88	•	•		•										•		
M89	•	•		•										•		
M90	•	•		•										•		
M91	•	•		•										•		
M92	•	•		•										•		
M93	•	•		•										•		
M94	•	•		•										•		
M95	•	•		•										•		
M96	•	•		•										•		
M97	•	•		•										•		
M98	•	•		•										•		
M99	•	•		•										•		
M100	•	•		•										•		

¹ Classified by sex, age span, and marital status of target group. In this classification, “M” represents men, “F” represents women, “1617” represents ages 16 and 17, “2024” represents ages 20, 21, 22, 23, and 24, “55” represents age 55 only, etc., “NM” represents “never married”, “MS” represents “married with spouse present”, and “MA” represents “married with spouse absent” (comprised of widowed, divorced, and separated).

Table A2. OCACT Labor Force Model; LFPR Estimated Equations, Women
2021 Trustees Report

Group ¹	Adjustments				Base											Trend
	Total LF	LE	Individual	Total	Change in Demographic distribution				Business Cycle	Disability Prevalence	Education	Replacement Rate	Earnings Test	Lagged Cohort (75+)		
					Age	Gender	Marital Status	Child Presence								
F1617	•	•	•	•				•	•	•						•
F1819	•	•	•	•				•	•	•						•
F2024NMNC6	•	•	•	•					•	•						•
F2024NMC6U	•	•	•	•					•	•						•
F2024MSNC6	•	•	•	•					•	•						•
F2024MSC6U	•	•	•	•					•	•						•
F2024MANC6	•	•	•	•					•	•						•
F2024MAC6U	•	•	•	•					•	•						•
F2529NMNC6	•	•	•	•					•	•						•
F2529NMC6U	•	•	•	•					•	•						•
F2529MSNC6	•	•	•	•					•	•						•
F2529MSC6U	•	•	•	•					•	•						•
F2529MANC6	•	•	•	•					•	•						•
F2529MAC6U	•	•	•	•					•	•						•
F3034NMNC6	•	•	•	•					•	•						•
F3034NMC6U	•	•	•	•					•	•						•
F3034MSNC6	•	•	•	•					•	•						•
F3034MSC6U	•	•	•	•					•	•						•
F3034MANC6	•	•	•	•					•	•						•
F3034MAC6U	•	•	•	•					•	•						•
F3539NMNC6	•	•	•	•					•	•						•
F3539NMC6U	•	•	•	•					•	•						•
F3539MSNC6	•	•	•	•					•	•						•
F3539MSC6U	•	•	•	•					•	•						•
F3539MANC6	•	•	•	•					•	•						•
F3539MAC6U	•	•	•	•					•	•						•
F4044NMNC6	•	•	•	•					•	•						•
F4044NMC6U	•	•	•	•					•	•						•
F4044MSNC6	•	•	•	•					•	•						•
F4044MSC6U	•	•	•	•					•	•						•
F4044MANC6	•	•	•	•					•	•						•
F4044MAC6U	•	•	•	•					•	•						•
F4549NM	•	•	•	•					•	•						•
F4549MS	•	•	•	•					•	•						•
F4549MA	•	•	•	•					•	•						•
F5054NM	•	•	•	•					•	•						•
F5054MS	•	•	•	•					•	•		•				•
F5054MA	•	•	•	•					•	•		•				•
F55	•	•	•	•			•			•		•				•
F56	•	•	•	•			•			•		•				•
F57	•	•	•	•			•			•		•				•
F58	•	•	•	•			•			•		•				•
F59	•	•	•	•			•			•		•				•
F60	•	•	•	•			•			•		•				•
F61	•	•	•	•			•			•		•				•

Table A2. OCACT Labor Force Model: LFPR Estimated Equations, Women (Cont.)
2021 Trustees Report

Group ¹	Adjustments				Base										
	Total LF	LE	Individual	Total	Change in Demographic distribution				Business Cycle	Disability Prevalence	Education	Replacement Rate	Earnings Test	Lagged Cohort (75+)	Trend
					Age	Gender	Marital Status	Child Presence							
F62	•	•	•	•			•				•	•	•	•	
F63	•	•	•	•			•				•	•	•	•	
F64	•	•	•	•			•				•	•	•	•	
F65	•	•	•	•			•				•	•	•	•	
F66	•	•	•	•			•				•	•	•	•	
F67	•	•	•	•			•				•	•	•	•	
F68	•	•	•	•			•				•	•	•	•	
F69	•	•	•	•			•				•	•	•	•	
F70	•	•	•	•			•				•	•	•	•	
F71	•	•	•	•			•				•	•	•	•	
F72	•	•	•	•			•				•	•	•	•	
F73	•	•	•	•			•				•	•	•	•	
F74	•	•	•	•			•				•	•	•	•	
F75	•	•		•										•	
F76	•	•		•										•	
F77	•	•		•										•	
F78	•	•		•										•	
F79	•	•		•										•	
F80	•	•		•										•	
F81	•	•		•										•	
F82	•	•		•										•	
F83	•	•		•										•	
F84	•	•		•										•	
F85	•	•		•										•	
F86	•	•		•										•	
F87	•	•		•										•	
F88	•	•		•										•	
F89	•	•		•										•	
F90	•	•		•										•	
F91	•	•		•										•	
F92	•	•		•										•	
F93	•	•		•										•	
F94	•	•		•										•	
F95	•	•		•										•	
F96	•	•		•										•	
F97	•	•		•										•	
F98	•	•		•										•	
F99	•	•		•										•	
F100	•	•		•										•	

¹ Classified by sex, age span, marital status, and presence of children for the target group. In this classification, “M” represents men, “F” represents women, “1617” represents ages 16 and 17, “2024” represents ages 20, 21, 22, 23, and 24, “55” represents age 55 only, etc., “NM” represents never married, “MS” represents married with spouse present, “MA” represents married with spouse absent (comprised of widowed, divorced, and separated), “C6U” represents the presence of any number of children under the age of 6, and “NC6” represents no children present under the age of 6.