THE LONG-RANGE DISABILITY ASSUMPTIONS FOR THE 2025 TRUSTEES REPORT

OFFICE OF THE CHIEF ACTUARY
SOCIAL SECURITY ADMINISTRATION

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DISABILITY

ASSUMPTIONS FOR THE 2025 TRUSTEES REPORT
OFFICE OF THE CHIEF ACTUARY, SSA

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1 Overview

Each year the Board of Trustees of the Federal Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds provides an annual report to the Congress on the financial and actuarial status of the Old-Age, Survivors, and Disability Insurance (OASDI) program. For this report, the Office of the Chief Actuary (OCACT), on behalf of the Board of Trustees, projects future cost and income based on three separate sets of long-range (75-year) assumptions for three key disability variables. The intermediate (alternative II) set of assumptions represents the Trustees' best estimate for future experience, while the low cost (alternative I) and high cost (alternative III) sets of assumptions represent more and less favorable scenarios, respectively, from the perspective of program cost as a percent of taxable payroll. The intermediate assumptions are also used as the point of comparison for sensitivity analysis and the central tendency for the stochastic projections presented in the OASDI annual report to the Board of Trustees (the "Trustees Report"). This memorandum presents the long-range disability assumptions used in the 2025 Trustees Report.

The key disability assumptions are:

- The disability incidence rates by age group and sex,
- The disability death rate improvement factors by age group and sex, and
- The disability recovery rates by age group and sex.

The ultimate disability incidence rate assumptions for the 2025 Trustees Report for all alternatives are slightly higher than those assumed for the 2024 Trustees Report. This increase is due to incorporating the effects of a recent regulation[1] that decreases the number of years used in the consideration of past relevant work (PRW) when making a disability determination. The alternative II age-sex-adjusted ultimate disability incidence rate increased from 4.5 awards per thousand exposed in the 2024 Trustees Report to 4.6 awards per thousand exposed for the 2025 Trustees Report.

Our methodology for projecting disability death and recovery rates has not changed for the 2025 Trustees Report. The disability death rates for the 2025 Trustees Report depend on general population mortality and actual 2024 disabled worker death experience. The ultimate disability recovery rate assumptions for the 2025 Trustees Report are the same as those assumed for the 2024 Trustees Report.

There are no significant method changes in the disability model for the 2025 Trustees Report.

The historical changes in incidence and recovery rates have led to disability prevalence rates for men reaching their lowest level since 1985. Prevalence rates for women are at a similarly low level. The age-sex-adjusted prevalence rate is currently below 32 per thousand insured and is projected to rise to over 41 per thousand by the end of the long-range projection period.

Factors contributing to the recent declines in disability applications, awards, incidence, and prevalence include the changing nature of work, resulting in part from the shrinking share of the

[1] On April 18, 2024, the Social Security Administration published a final rule in the Federal Register titled Intermediate Improvement to the Disability Adjudication Process, Including How We Consider Past Work.

population that is at traditional working ages, and the greater availability of health care because of the Affordable Care Act. The changing nature of work, which was accelerated by the pandemic, allows more people with significant impairments to continue employment. Many employers have been expanding accommodations in recent years, giving workers more flexibility including the option to telework.

The following table shows values for key summary measures for the disability assumptions.[2]

Key Disability Summary Measures for the Long-Range (75-year) Projection Period 2024 Trustees Report and 2025 Trustees Report									
	2024 Trustees Report Alternative			2025 Trustees Report Alternative			2025 Trustees Report Less 2024 Trustees Report		
	I	II	III	I	II	III	I	II	III
Ultimate age-sex-adjusted disability incidence rate per 1,000 exposed workers for the last 65 years of the 75-year projection	3.6	4.5	5.4	3.7	4.6	5.5	0.1	0.1	0.1
Age-sex-adjusted disability death rate per 1,000 beneficiaries for the last year of the 75-year projection	21.5	12.4	6.2	21.4	12.2	6.1	-0.1	-0.2	-0.1
Average age-sex-adjusted disability recovery rate per 1,000 beneficiaries for the last 65 years of the 75-year projection	13.0	10.8	8.6	13.0	10.8	8.6	0.0	0.0	0.0

The disability incidence and recovery rates reach ultimate values for the tenth projection year and thereafter. During the first ten years of the projection period, the long-range model reconciles with projections from the short-range model.

The slightly higher disability incidence rates due to incorporating the effects of the PRW regulation result in a roughly 0.02 decrease (worsening) in the long-range OASDI actuarial balance. Including recent disability data and changes in near-term disability assumptions combine to increase the actuarial balance by less than 0.01 percent of payroll, partially offsetting the effects of the PRW regulation.

The remainder of this memorandum provides details regarding the historical values and future values for each of the disability assumptions, and the basis for the assumptions.

[2] The disability incidence and recovery summary measures shown are for the last 65 years of the 75-year projection period. For the 2024 and 2025 Trustees Reports, this covers years 2034 through 2098 and 2035 through 2099, respectively. The death rates shown are for the last year of the 75-year projection period. For the 2024 and 2025 Trustees Reports, the last years are 2098 and 2099, respectively. There is a small amount of mortality improvement reflected in the death rates between 2098 and 2099.

2 Disability Incidence Rate

2.1 Effects of Economic Cycles and Policy Changes on DI Incidence Rates

Disability incidence rates are the proportion of workers in a given year, insured for but not receiving disabled-worker benefits (exposed population), who file for and are awarded disabled-worker benefits. The age-sex-adjusted historical and short-range projected alternative II incidence rates are shown in Chart 1. A number of specific economic and policy drivers have influenced disability program cost historically and will continue to have an effect on disability incidence. Periodic economic recessions, as indicated by the civilian unemployment rate in red in Chart 1, have been associated with temporary increases in disability incidence. Incidence rates tend to increase temporarily in bad economic times. Some individuals who gradually develop conditions that would qualify for DI benefits based on the severity of their medically-determinable impairment are able to continue work at a level in excess of substantial gainful activity (SGA) given the opportunity and needed assistance during a period of strong economic activity and demand for workers. However, with elevated unemployment rates like those seen in the 2007-09 recession, many of these individuals will lose employment and will seek DI benefits.

The recession that began in December 2007 resulted in an increase in disability applications and incidence to peak levels in 2010 that were exceeded only by the peak in 1975. One apparent exception to the relationship between disability incidence and economic recessions is the strong recession of 1981-82. The effect of that recession appears to have been offset by the net effects of the 1980 amendments, which: (1) sharply increased the levels of pre-effectuation review of disability allowances and continuing disability reviews of current beneficiaries; (2) introduced the extended period of eligibility to encourage work; and (3) lowered the maximum family benefit for DI beneficiaries.

Additional policy changes over the years had significant effects on disability incidence. Double-digit ad-hoc benefit increases in 1970 through 1974 made disability benefits more attractive. The 1984 amendments may have offset the effects of a strong economic recovery with increased emphasis on multiple impairments and mental listings, and the requirement to show medical improvement for benefit cessation. The SSI outreach to disabled adults likely added to the effects of the 1990-91 recession. Also, the effects of a strong economic recovery from 1995 to 2000 on lowering incidence rates may have been enhanced by the 1996 amendments, which eliminated drug addiction and alcoholism as disabling conditions.

Incidence rates have fallen steeply since 2010, concurrent with the recovery from the 2007-09 recession. Incidence rates through 2024 have dropped to levels well below those expected over the long-term, and even below the levels that would be expected from the economic recovery alone. Contributing factors to the decline through 2019 in disability applications and awards include the changing nature of jobs in the economy, the improving economy indicated by the low unemployment rate, the greater availability of health care because of the Affordable Care Act, and increasing job flexibility and accommodation by many employers in an increasingly competitive labor market. Incidence rates declined to an extraordinarily low level in 2019, at the

end of an extended period of economic recovery, resulting in the lowest disability prevalence rate for men since 2001, and a similarly low level for women. Incidence rates dropped even further in 2020 and 2021, and to an all-time low in 2022, partly due to the effects of the COVID-19 pandemic. Future policy changes, technological advancements, and economic cycles will undoubtedly continue to cause fluctuations in disability incidence rates.

2.2 Assumed Future Disability Incidence Rates

In the 2025 Trustees Report, incidence rates are projected to rise to a temporary peak level for 2027 as some of the reduced levels of new benefit awards in recent years are expected to be realized in the next few years. After 2027, incidence rates generally decline from the peak, through the rest of the short-range period to the ultimate assumed level of incidence in 2034. In 2034, at the end of the short-range period, age-sex-specific incidence rates approximate the ultimate rates. These ultimate age-sex-specific disability incidence rates were selected based on careful analysis of historical levels and patterns and expected future conditions, including the impact of scheduled increases in the normal retirement age. The ultimate incidence rates represent the expected average rates of incidence for the future.

For alternative II of the 2025 Trustees Report, the Trustees assume an ultimate age-sex-adjusted disabled-worker incidence rate of 4.6 per thousand exposed workers, a slight increase from the 2024 Trustees Report due to incorporating the expected effects from the PRW regulation. This rate was 4.5 awards per thousand for the 2024 Trustees Report, 4.8 awards per thousand for the 2022 and 2023 Trustees Reports, 5.0 awards per thousand for the 2020 and 2021 Trustees Reports, 5.2 awards per thousand for the 2019 Trustees Report, and 5.4 awards per thousand for the 2012 through 2018 Trustees Reports. The 4.6 per thousand ultimate incidence rate for the 2025 Trustees Report is 4 percent lower than the historical average experienced from 1995 through 2024 (4.8 awards per thousand) and is 24 percent higher than the most recent ten-year historical average experienced from 2015 through 2024 (3.7 awards per thousand). With the assumed ultimate disability incidence rate above the average level over the last 10 years, the resulting projected disability prevalence rates will still rise to sustained levels through 2099 that are higher than recent historical rates.

The ultimate incidence rates are calculated by age group and sex using a no-lag unemployment rate regression model for the years 1995-2019. The regression model uses data beginning in 1995 to capture recent higher levels of female disability incidence rates. For ages 60-64, rates are increased from the regression results to reflect the planned increase in the Social Security Normal Retirement Age from 66 to 67. Rates for ages 65 and older are calculated using a weighted average of the base incidence rates and projected exposure. These rates are further adjusted with a 0.3 percent discount for the reinstatement of the reconsideration step of the disability appeals process and a 0.25 percent discount for the removal of the inability to communicate in English as an education category in the disability determination process. These rates, by age group and sex, were scaled down from the age-sex-adjusted disability incidence rate of 4.8 per thousand assumed in the 2023 Trustees Report to the age-sex-adjusted disability incidence rate of 4.5 per thousand assumed in the 2024 Trustees Report. For the 2025 Trustees Report, these rates were increased slightly to reflect the effects of the PRW regulation, with relatively higher increases for older workers and for women. OCACT will continue to monitor experience closely and review the disability incidence assumption.

The 2015 Technical Panel on Assumptions and Methods, appointed by the independent Social Security Advisory Board, agreed with the then-current ultimate alternative II incidence rate assumption of 5.4 per thousand and suggested that OCACT closely monitor experience. The 2019 Technical Panel suggested lowering the disability incidence rate to 4.9 per thousand, consistent with the panel's lower long-term unemployment rate assumption of 4.8 percent and taking into account some of the recent drop in incidence. The 2019 panel also recommended continued monitoring of trends in the incidence rate (including external consultation with experts in the private disability industry) and linking the disability incidence rate and unemployment rate assumptions.

In a panel discussion on August 25, 2023, set up by the Social Security Advisory Board, panelists indicated that both a changing mix of workers by occupation and changing demands and accommodations by employers within occupations have contributed to fewer workers becoming unable to maintain employment, thus leading to lower levels of disability applications. The panelists noted that this appears to be a permanent change.

The Congressional Budget Office reduced their ultimate disability incidence rate assumption from 5.2 per thousand to 4.7 per thousand for the 2023 Long-Term Budget Outlook. The 2024 and 2025 Long-Term Budget Outlooks do not explicitly mention the disability incidence assumption, so we assume it remains at 4.7 per thousand.

Chart 2 shows age-adjusted historical and long-range alternative II incidence rates for men and women. For men, the age-adjusted incidence rate has averaged 4.8 new disability awards per thousand exposed workers from 1995 through 2024. The female age-adjusted incidence rate has averaged 4.7 per thousand from 1995 through 2024. Since 1980, the age-adjusted incidence rate for women has increased to a level much closer to the rate for men. For the 2025 Trustees Report, the ultimate age-adjusted disability incidence rates for both men and women are 4.6 new disability awards per thousand exposed workers. Factors are applied by age group and sex to capture the effects of the PRW regulation. This regulation is expected to increase disability incidence rates overall, and by relatively more for older workers and for women. Although reflecting the effects of the PRW regulation increases the ultimate age-adjusted disability incidence rate for women so that it is slightly higher than the ultimate age-adjusted incidence rate for men, both rates round up to 4.6[3] per thousand.

Chart 3 and Chart 4 show the historical and long-range alternative II incidence rates by age group for men and women, respectively. The table below shows the 2025 Trustees Report alternative II ultimate disability incidence rates by age group for the last 65 years of the 75-year projection.

[3] The age-adjusted rate for men is 4.56 new disability awards per thousand exposed. For women, this rate is 4.59 new awards per thousand exposed. The total age-sex-adjusted rate is 4.57 new awards per thousand exposed.

Ultimate Disability Incidence Rates per 1,000 Exposed for the Last 65 Years of the 75-Year Projection, 2025 Trustees Report Alternative II											
	Age Group										
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Male	0.3	1.2	1.5	1.8	2.4	3.2	4.5	7.7	13.6	17.2	9.6
Female	0.3	0.9	1.3	1.8	2.6	3.8	5.3	8.5	13.5	15.0	8.4

Because the low-cost and high-cost alternative ultimate disability incidence rates are determined by adjusting the incidence rates from the intermediate alternative down and up by roughly 20 percent, respectively, rates for these alternatives are not included in the charts.

3 Disability Death Rate

Death rates are much higher for the disabled population than the general population, as seen in Chart 5. Base probabilities of death by duration, age, and sex (from Actuarial Study No. 125) are applied to the disabled-worker population. In the first year of the projection period, the death rate is determined by fitting an exponential curve to historical death rates for disabled workers by age group and sex. For the rest of the projection period, death rate improvement factors are applied to the base probabilities of death to reflect the same rate of improvement as the general population for that age group and sex. The age-sex-adjusted death rate decreases from 26.3 per thousand beneficiaries in 2024 to 12.2 per thousand in 2099 under the intermediate assumptions for the 2025 Trustees Report.

The disability death rates for the low-cost and high-cost alternatives are determined by increasing and decreasing by 7.5 percent, respectively, the death rate in the first year of the projection period. Then the general population mortality improvement for that alternative is applied to project death rates for the remainder of the 75-year period.

The 2015 Technical Panel stated that they were comfortable with the Trustees' assumptions for disability mortality rates. The 2019 Technical Panel did not address this assumption.

4 Disability Recovery Rate

Beneficiaries stop receiving disability benefits when they (1) die, (2) convert to a retired-worker benefit at normal retirement age, (3) recover from their medically-determinable disabling condition, or (4) return to work for an extended period. Disabled-worker beneficiaries who return to substantial work for an extended period are deemed to have recovered, and their benefits are then terminated. The recovery rate is the ratio of the number of terminations for reasons (3) and (4) to the average number of disabled-worker beneficiaries during the year. Base probabilities of recovery (from Actuarial Study No. 125) by duration, age, and sex are applied to the disabled-worker population.

Chart 6 shows age-sex-adjusted historical and projected alternative II recovery rates. The rate of recovery is, at times, affected by budget appropriations for continuing disability reviews, with no general upward or downward trend since 1985. The ultimate disability recovery rate under the intermediate alternative is equal to the average recovery rate by age group and sex for the years 1985-2019, excluding 1997. The averaging period begins in 1985, after the Social Security

Disability Benefits Reform Act of 1984 created medical improvement standards for continuing disability reviews. The spike in recoveries in 1997 when drug and alcohol addictions were eliminated as bases for disability entitlement is excluded from the calculation.

The projected age-sex-adjusted recovery rate (medical improvement and return to work) under the intermediate assumptions decreases from the relatively high level of 17.8 per thousand beneficiaries in 2024 to the ultimate level of 10.8 per thousand beneficiaries under the intermediate assumptions for the 2025 Trustees Report. In the 2025 Trustees Report, the recovery rate is expected to decrease as the backlog of disabled worker reviews is assumed to be eliminated over the next several years. Thereafter, the rate decreases toward the expected long-term projected rate.

Because the low-cost and high-cost alternative ultimate disability recovery rates are determined by adjusting the recovery rates from the intermediate alternative up and down by roughly 20 percent, respectively, rates for these alternatives are not included in the chart.

The 2015 Technical Panel recommended reducing the ultimate alternative II recovery rate assumption from 10.4 to 10.1. The 2019 Technical Panel did not address this assumption.

5 Disability Prevalence Rates

The disability prevalence rate is the percentage of the disability insured population that is in receipt of disability benefits. Changes in prevalence rates are a direct result of changes in incidence rates and termination rates. Age-sex-adjusted prevalence rates have increased primarily because: (1) termination rates, in particular death termination rates, have declined; (2) incidence rates at younger ages have increased relative to rates at older ages (new beneficiaries at younger ages have more potential years on the disability rolls); (3) incidence rates have increased substantially for women to parity with men; and (4) the DI program has matured (disabled worker benefits became available to those over age 50 at the start of the program in 1957 and to younger workers in 1960, and disability insured status requirements were eased for those under age 31 in 1968).

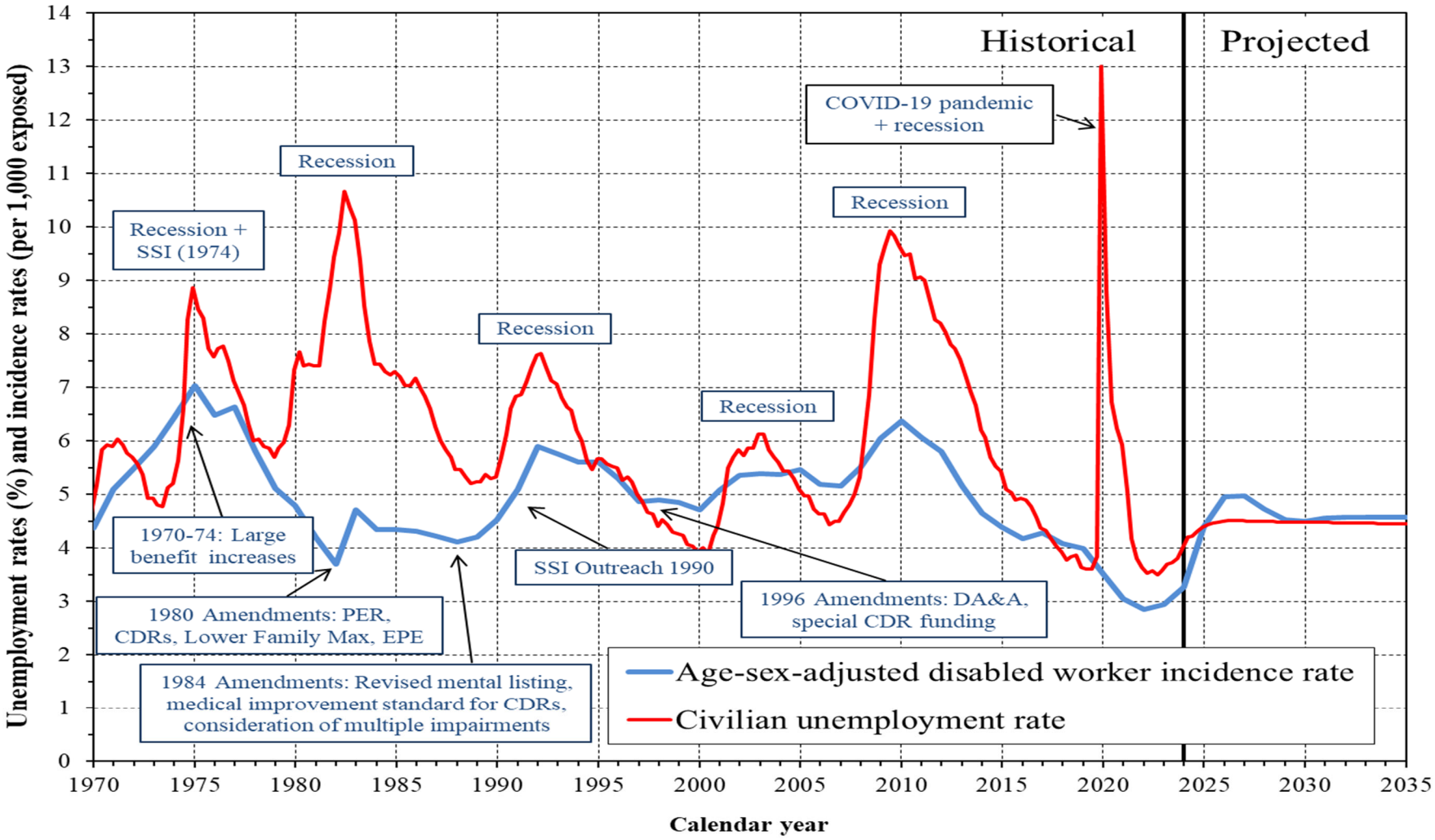
Disability prevalence rates for men rose rapidly prior to 1995 and then less rapidly through 2007, as the program matured. Prevalence rates increased later for women, reaching parity with the rates for men shortly after 2007. Age-sex-adjusted prevalence rates are now at levels below those seen in 2007 and are still declining, in part due to the pandemic. Prevalence rates are projected to grow gradually to levels slightly below those seen in 2007 based on the assumed stabilization in incidence rates by age and sex at levels above those experienced over the past 10 years. As incidence rates gradually stabilize, the declining death termination rate continues to have a small influence toward higher disability prevalence rates, because applying the same rate of reduction in death rates for the disabled as for the general population results in larger declines in the death rate for the disabled.

The projected age-sex-adjusted disability prevalence rate grows from 31.7 per thousand disability insured at the end of 2024 to 41.2 per thousand at the end of 2099. Chart 7 illustrates the historical and projected disabled worker prevalence rates for men and women. The female prevalence rate rose close to the level of the male rate around 2007 and is slightly higher than the

male rate beginning in 2013, because the disability death and recovery rates are generally higher for men than women. In 2099, the age-adjusted prevalence rate is 40.7 for men and 41.8 for women.

The low-cost and high-cost alternative disability prevalence rates are determined using the disability incidence rate, disability death rate, and disability recovery rate assumptions for that alternative.

Chart 1: Effect of the Economy on the DI Incidence Rate



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report.

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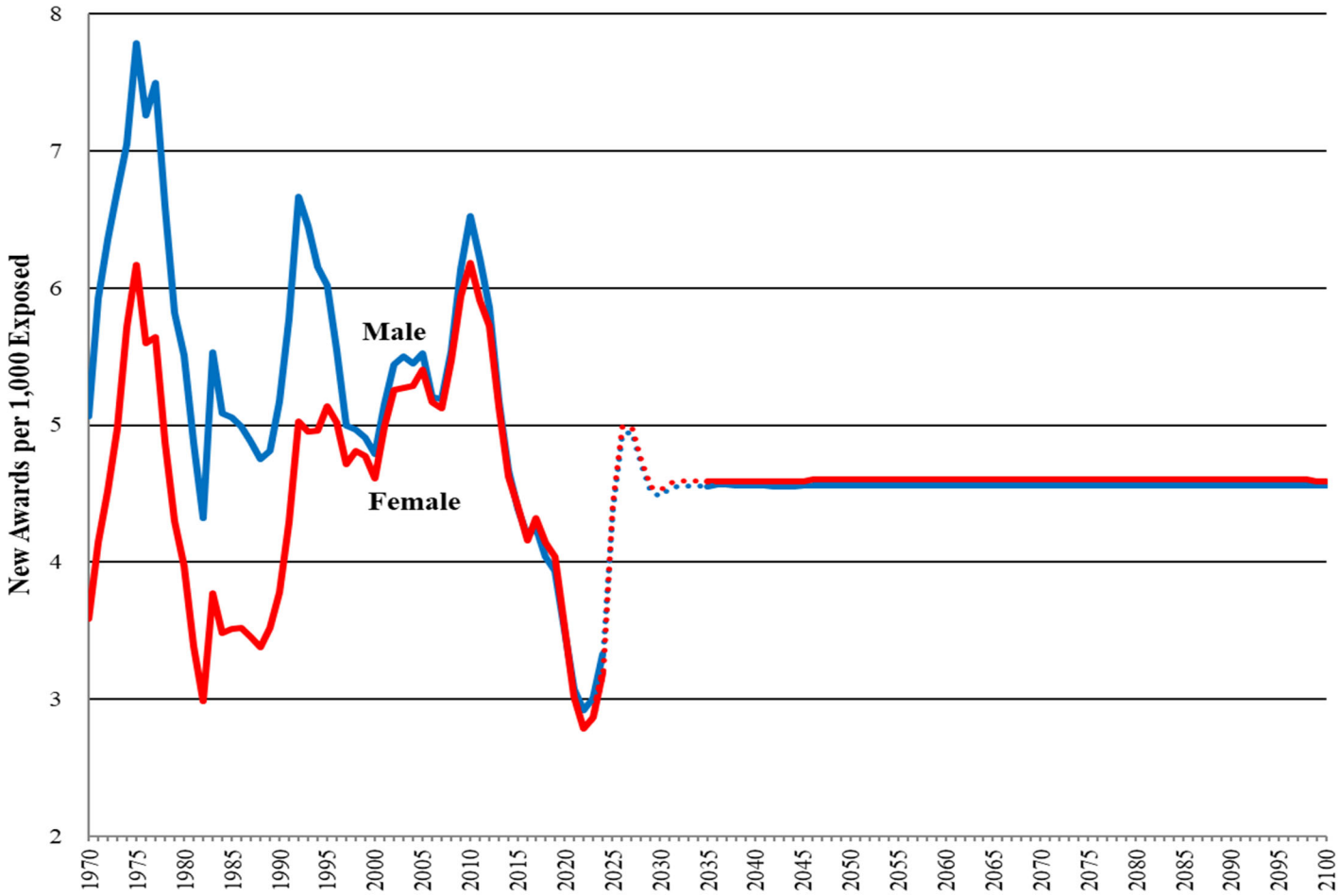
Chart 2: New Disabled-Worker Awards per 1,000 Exposed (Incidence Rate)
Age-Adjusted (2000)



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report. The dotted lines show the short-range assumptions for the 2025 Trustees Report.

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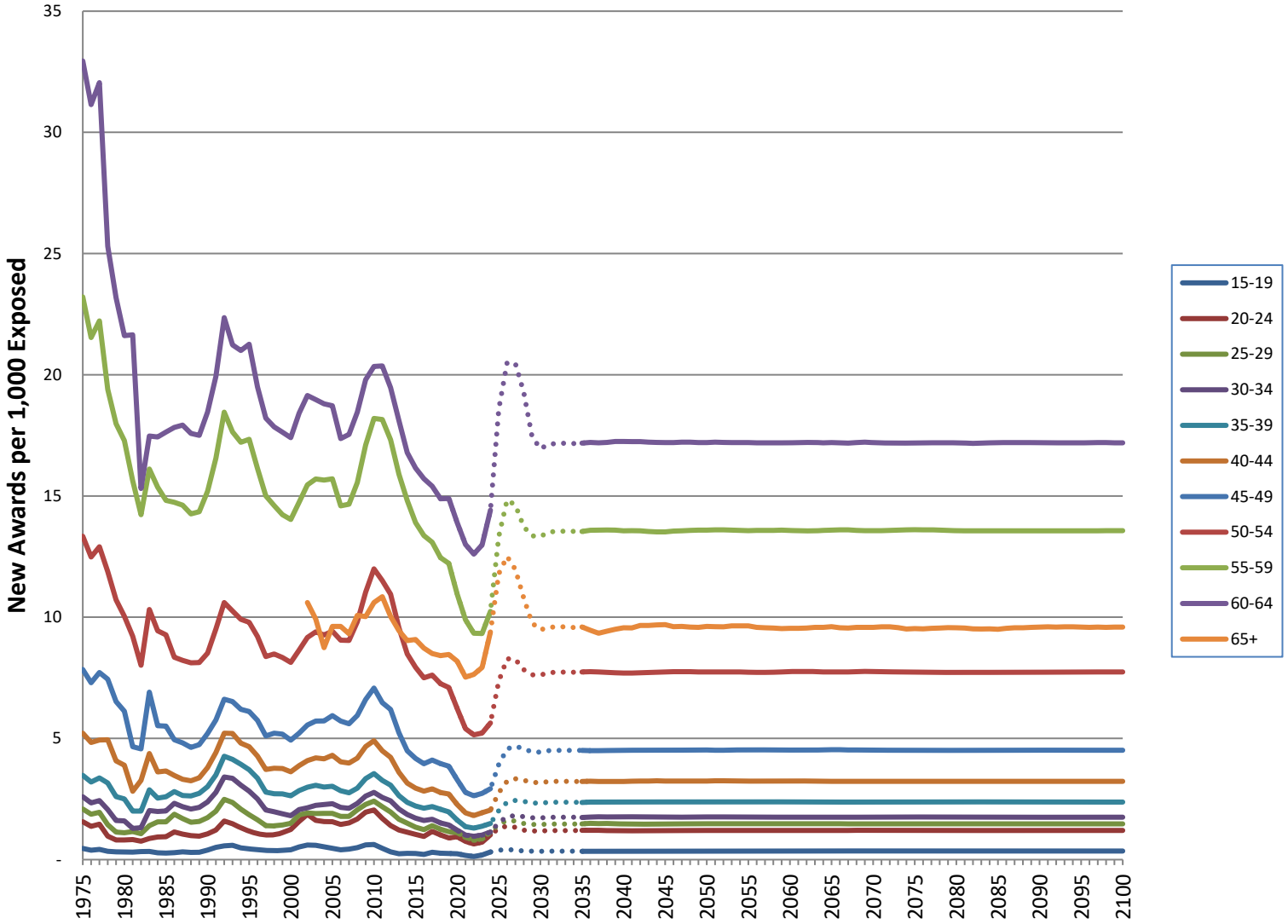
Chart 3: Male Disabled-Worker Awards per 1,000 Exposed (Incidence Rate) by Age Group



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report. The dotted lines show the short-range assumptions for the 2025 Trustees Report.

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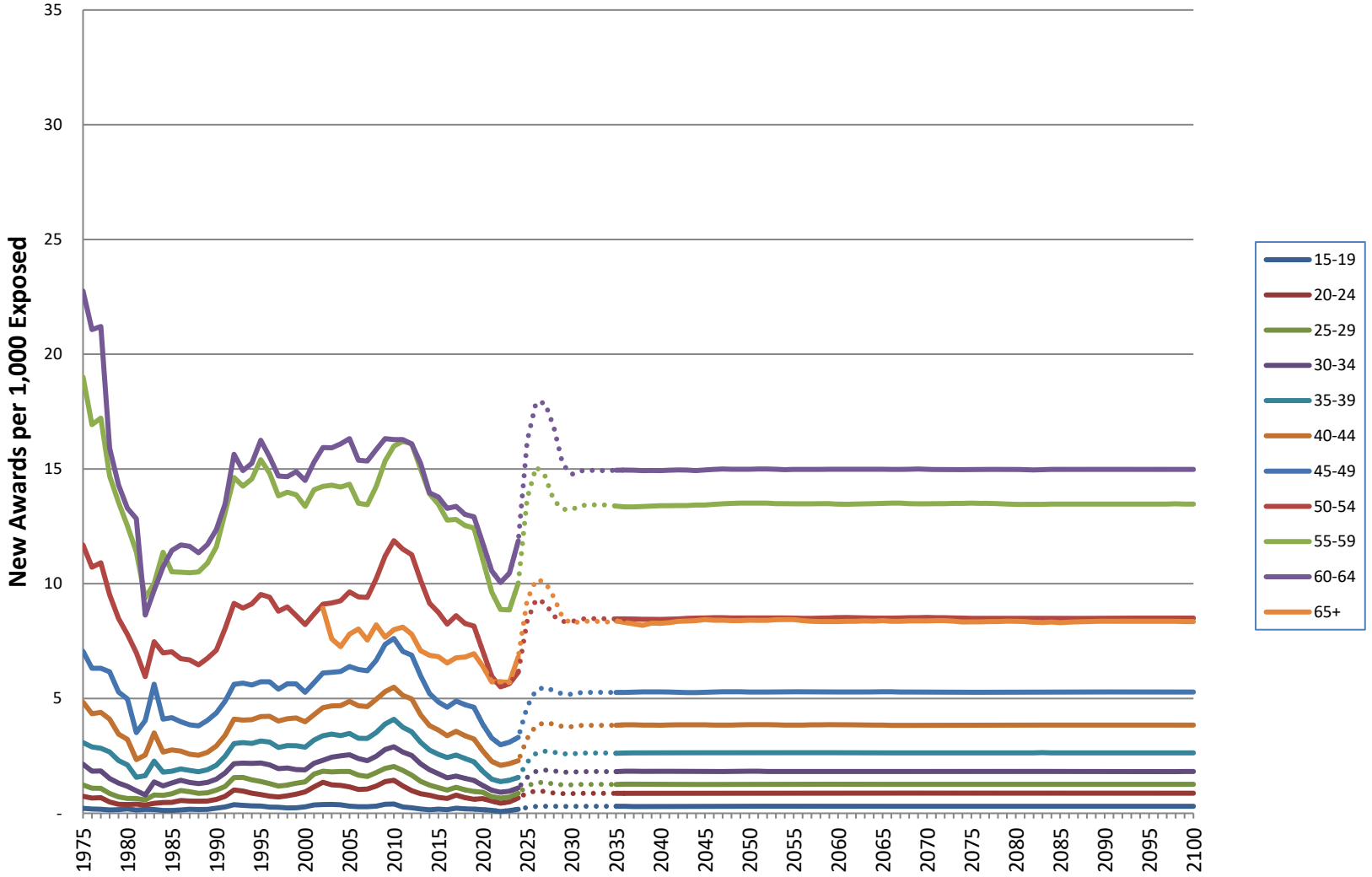
Chart 4: Female Disabled-Worker Awards per 1,000 Exposed (Incidence Rate) by Age Group



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report. The dotted lines show the short-range assumptions for the 2025 Trustees Report.

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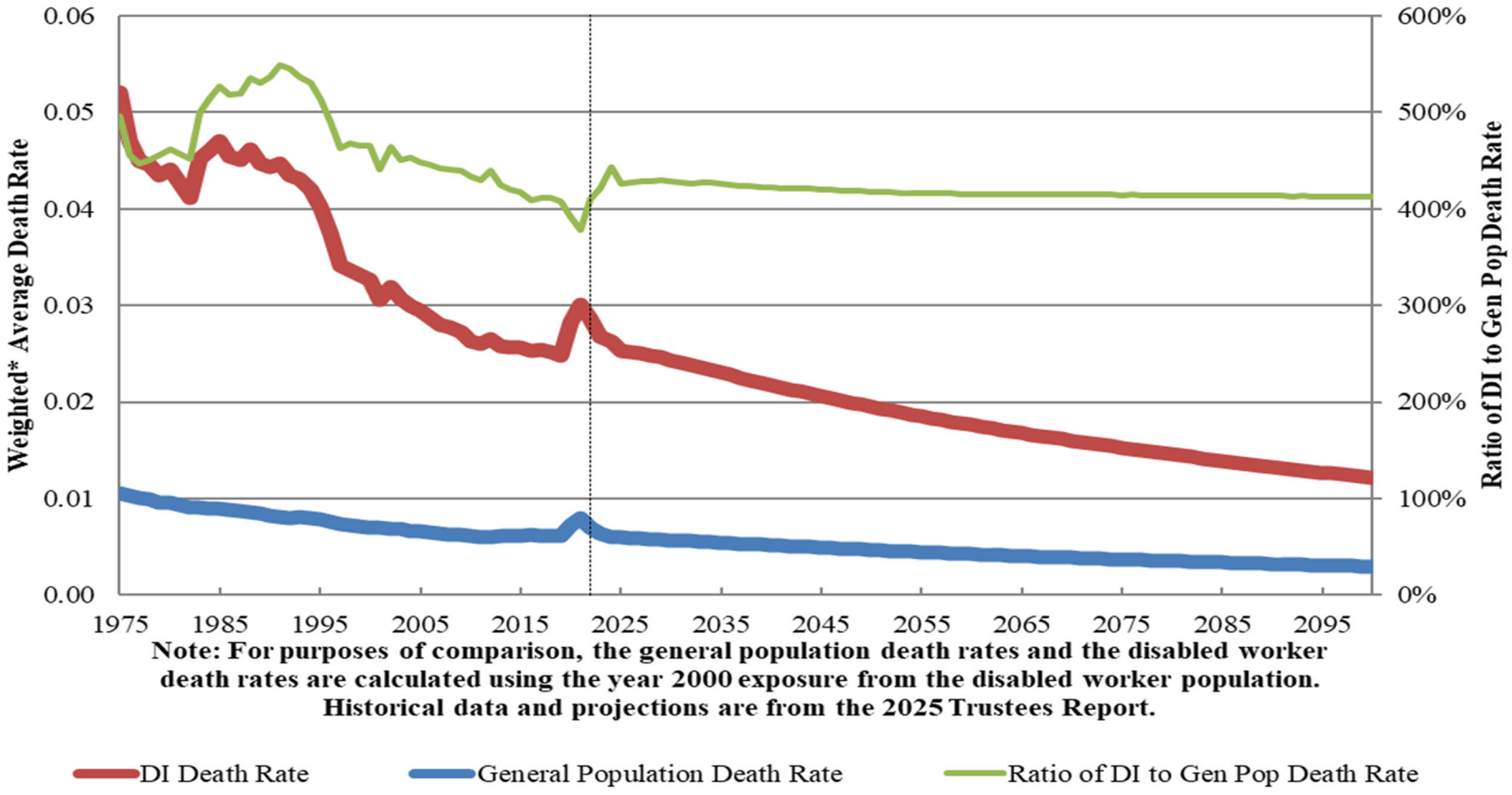
Chart 5: Age-Sex-Adjusted Comparison of SSA General Population Mortality to Disabled Worker Mortality



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report.

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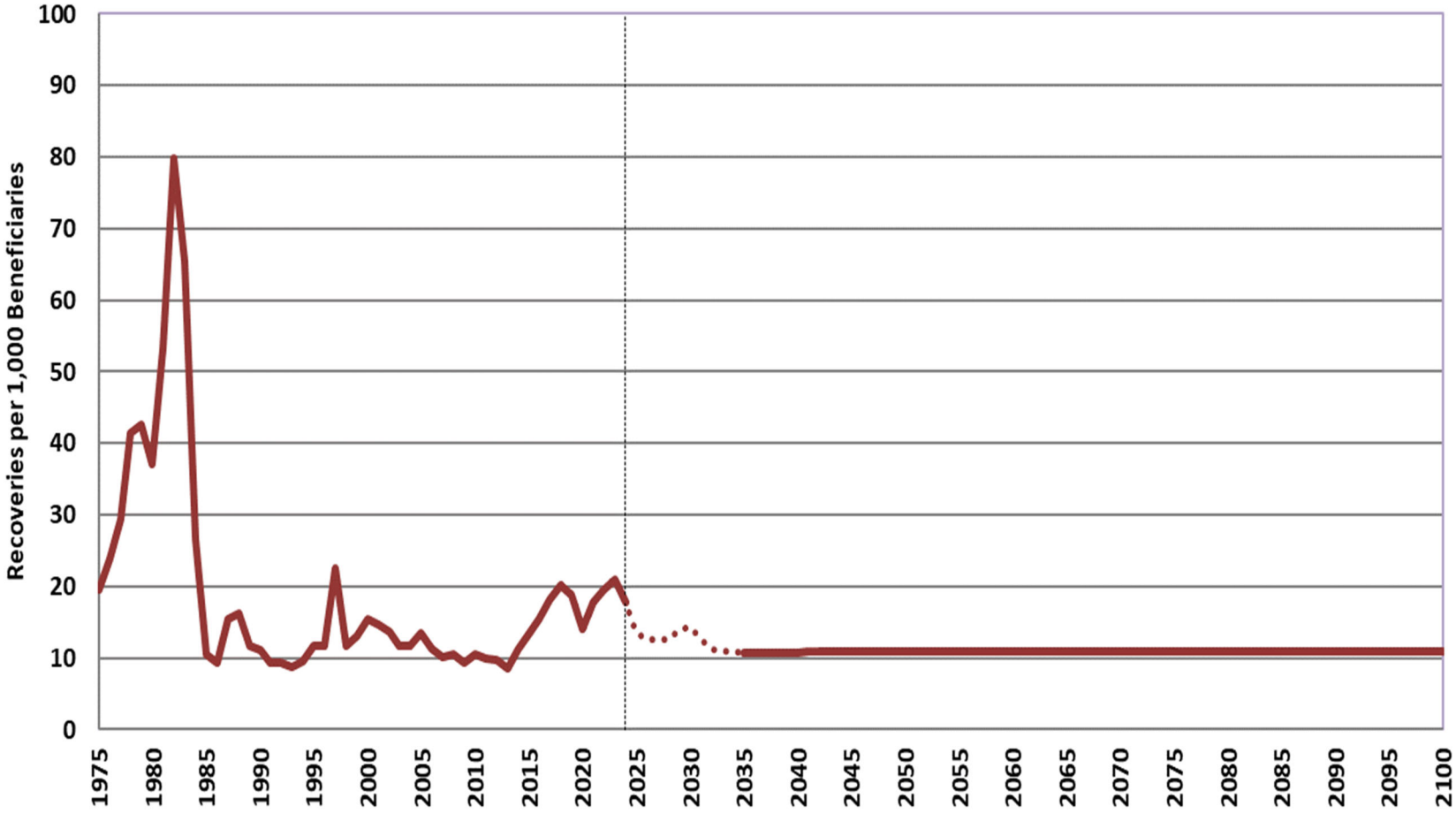
Chart 6: Disabled-Worker Recoveries per 1,000 Beneficiaries
Age-Sex-Adjusted (2000)



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report. The dotted lines show the short-range assumptions for the 2025 Trustees Report.

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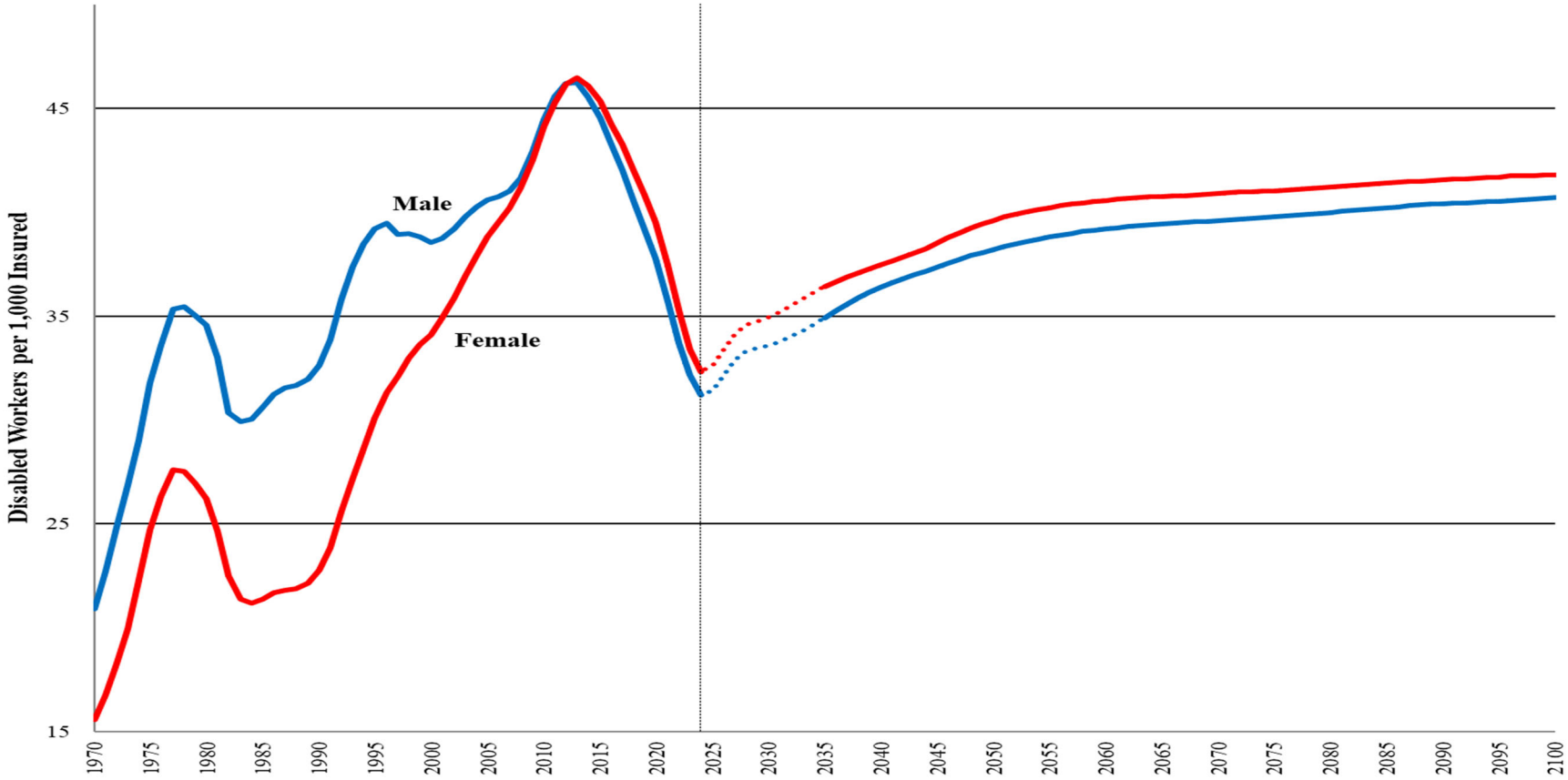
Chart 7: Disabled-Worker Prevalence Rates through NRA (per 1,000 Insured Population)
Age-Adjusted to the 2000 Insured Population



Note: The projections reflect the Trustees' assumptions for the 2025 Trustees Report. The dotted lines show the short-range assumptions for the 2025 Trustees Report.

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