

Disability Experience Trends: Social Security and GLTD/IDI Private Programs: Session 11B

October 28, 2021

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Steve Goss; ASA, MAAA

Presenters:

Mike Stephens; ASA
Steve Goss; ASA, MAAA
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Agenda

- Compare Disability Experience Trends over the past decade
 - Social Security DI applications, awards, and prevalence have been declining
 - Private IDI experience shared in 2019 SOA session (Nashville) looked similar [Session 093PD: Individual Disability Experience Committee Update \(soa.org\)](#)
 - How about Group Long Term Disability Insurance (GLTD)
- Insured groups differ, but what do the trends have in common?
 - Has the nature of work, or the composition of the insured group changed?
 - Have criteria for awarding benefits changed?
 - Are trends over the past 10 years indicative for the future?
 - Will the recent trends continue, stabilize, or reverse?

Social Security Disability Experience

Presenters:

Mike Stephens; ASA

Steve Goss; ASA, MAAA

Social Security Administration
Office of the Chief Actuary

Recent Social Security Disability Experience

- Incidence rates averaged 5.0 per thousand from 1995 through 2020, but 4.6 over the last 10 years, and dropped through 2019 to less than 4.0 per thousand ... prevalence rates have dropped as well
- The drop in incidence appears to indicate a fundamental shift
- Possibilities:
 - Economy and distribution of jobs
 - Demographics—diminishing share of adults under 65, reducing labor supply
 - Increased health care (ACA), and ADA accommodations
 - Social Security criteria and determination process?
 - More fundamental? Changing nature of work

Changing Nature of Work: Trends in Employment by Occupation

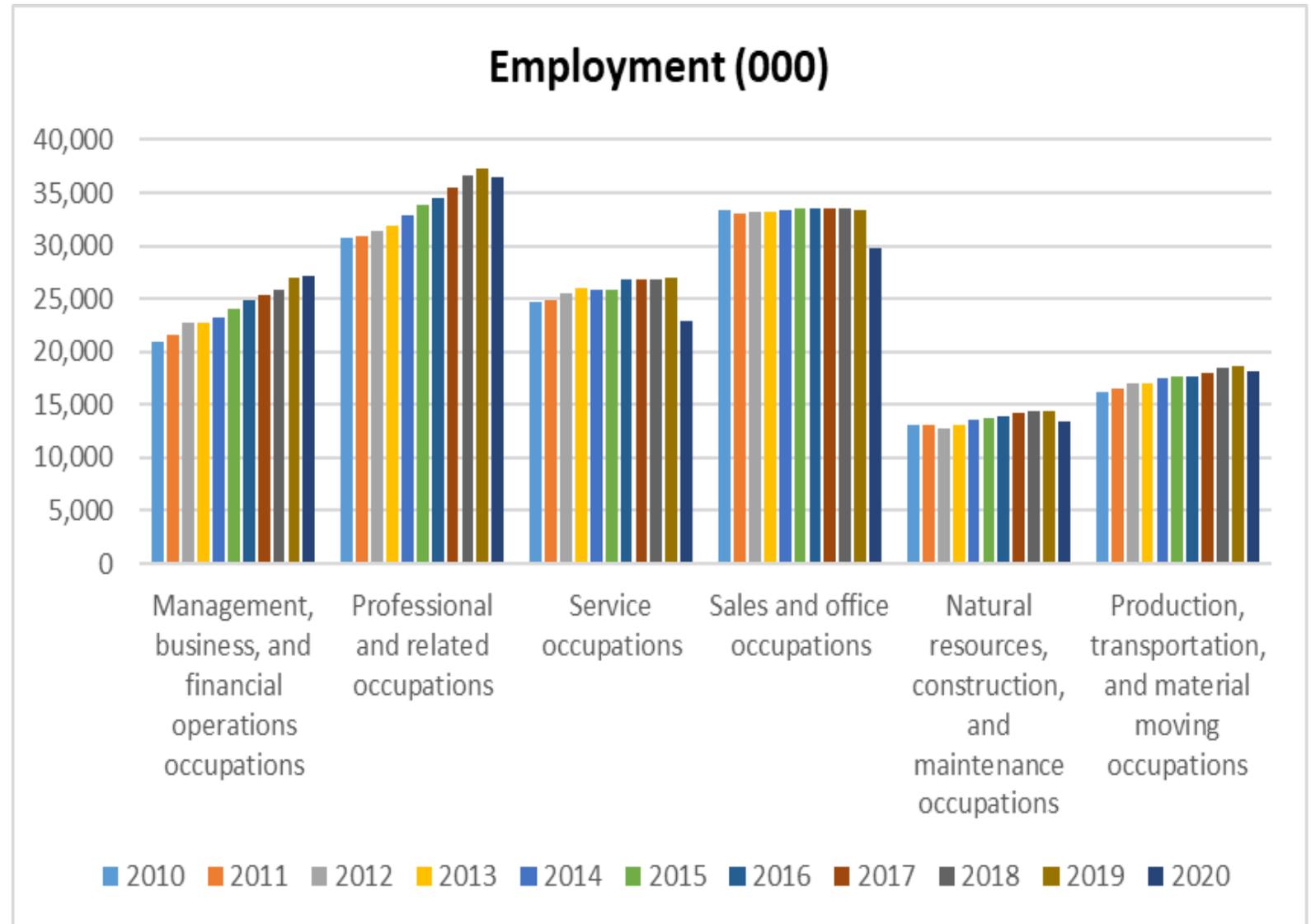
Employment effects in all areas in 2020; share for management and professional, highly paid, increased (BLS cpsaat09)

Will trends of 2010-19 return, and continue?

Will these shifts continue with technology, automation, and increasing education levels?

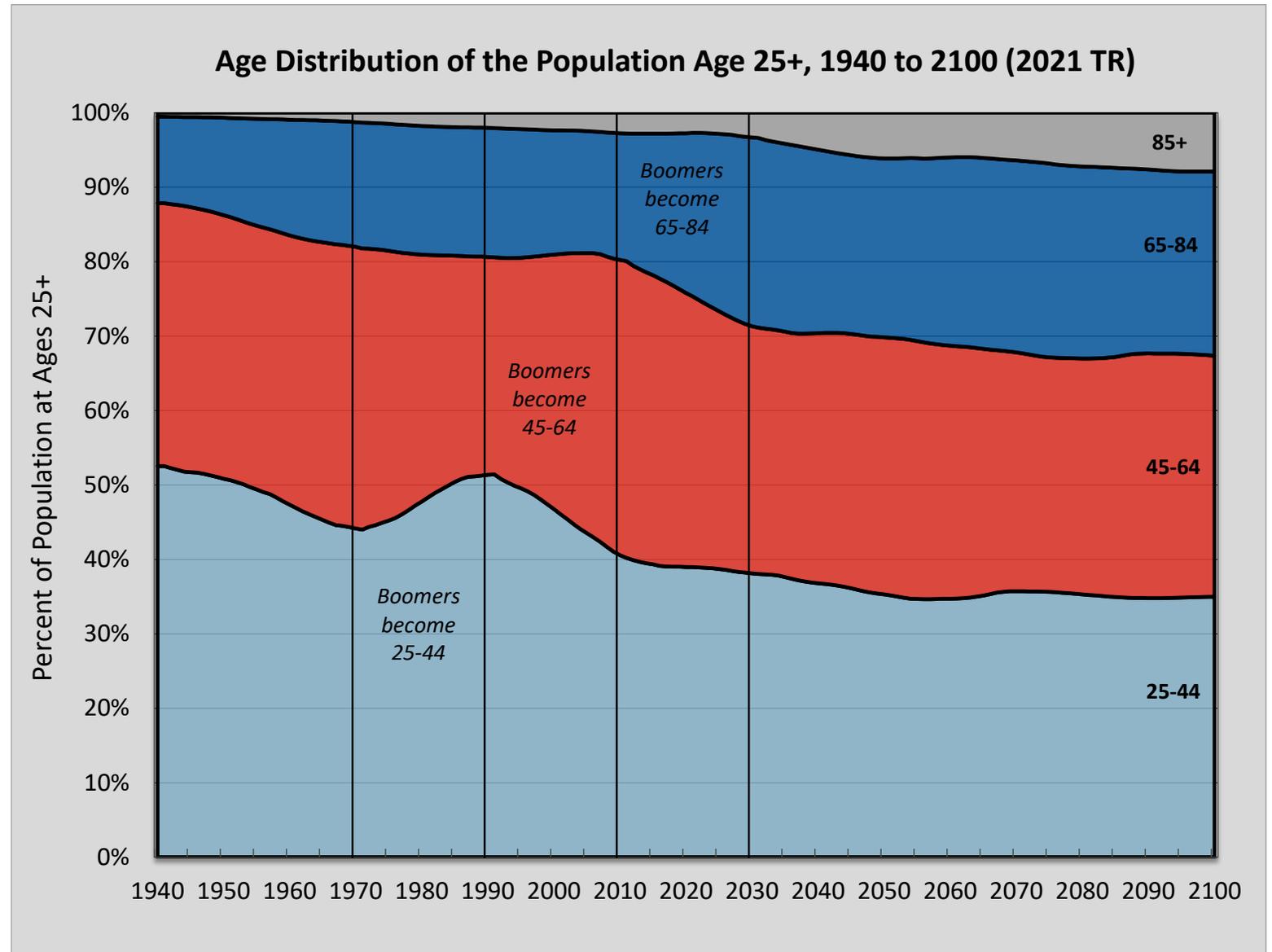
Might increases in infrastructure spending change these trends?

Also, changes in how job-specific tasks are performed



Changing Age Distribution Over Last 20 and Next 20 Years Mainly Due to Macro Aging

Permanent level shifts in labor supply as a share of the adult population.



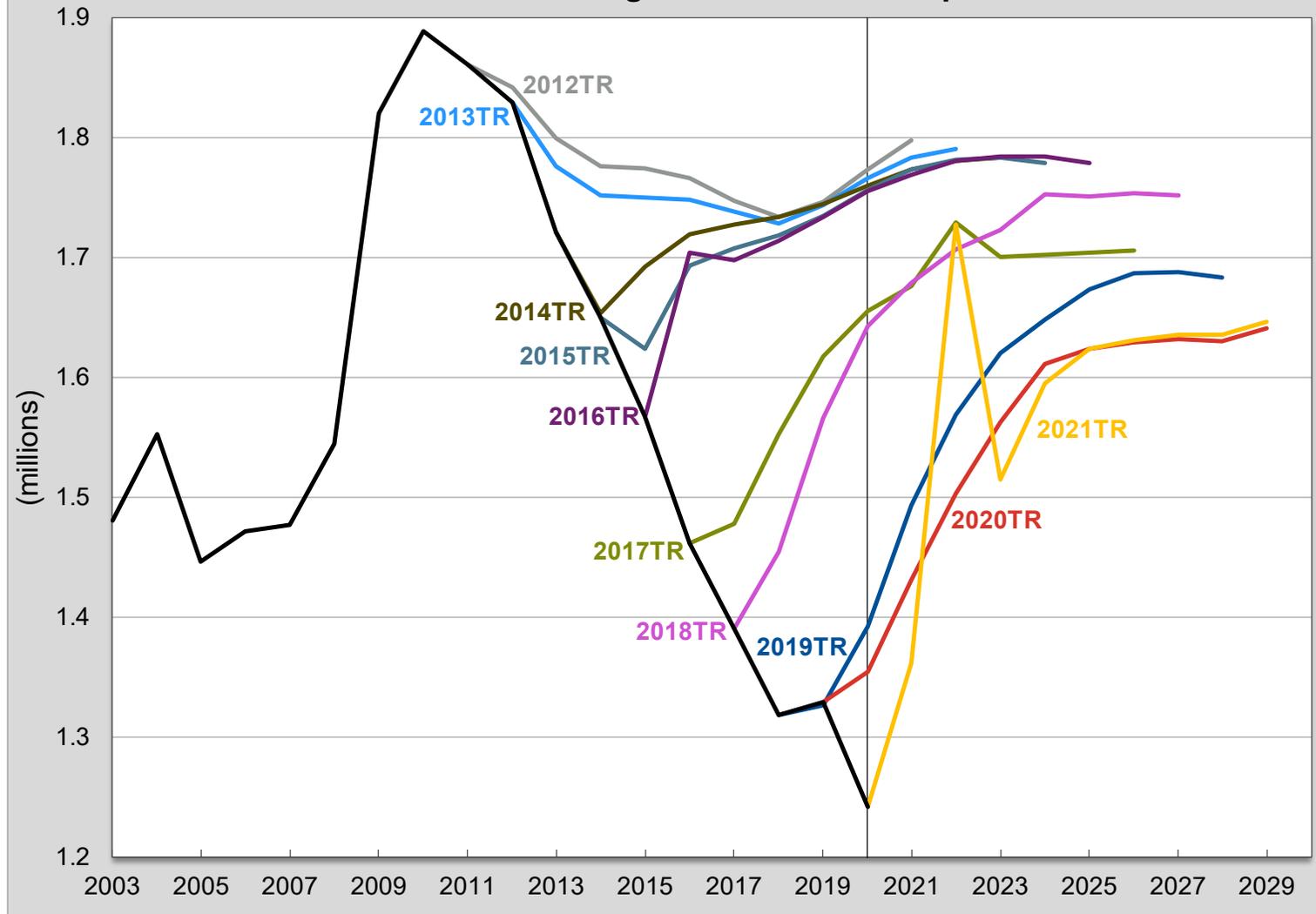
Applications for Disability Benefits Remain Historically Low

At the peak of the last economic cycle in 2007, applications were low, but increased rapidly in the 2008 recession from 1.5 million in 2007 to 1.9 million in 2010.

In 2016 through 2019, applications have dropped below the 2007 level; dropped further in 2020 during the pandemic.

For the FY 2022 Mid-Session Review released last month, we assumed 2021 applications would be below 1.2 million.

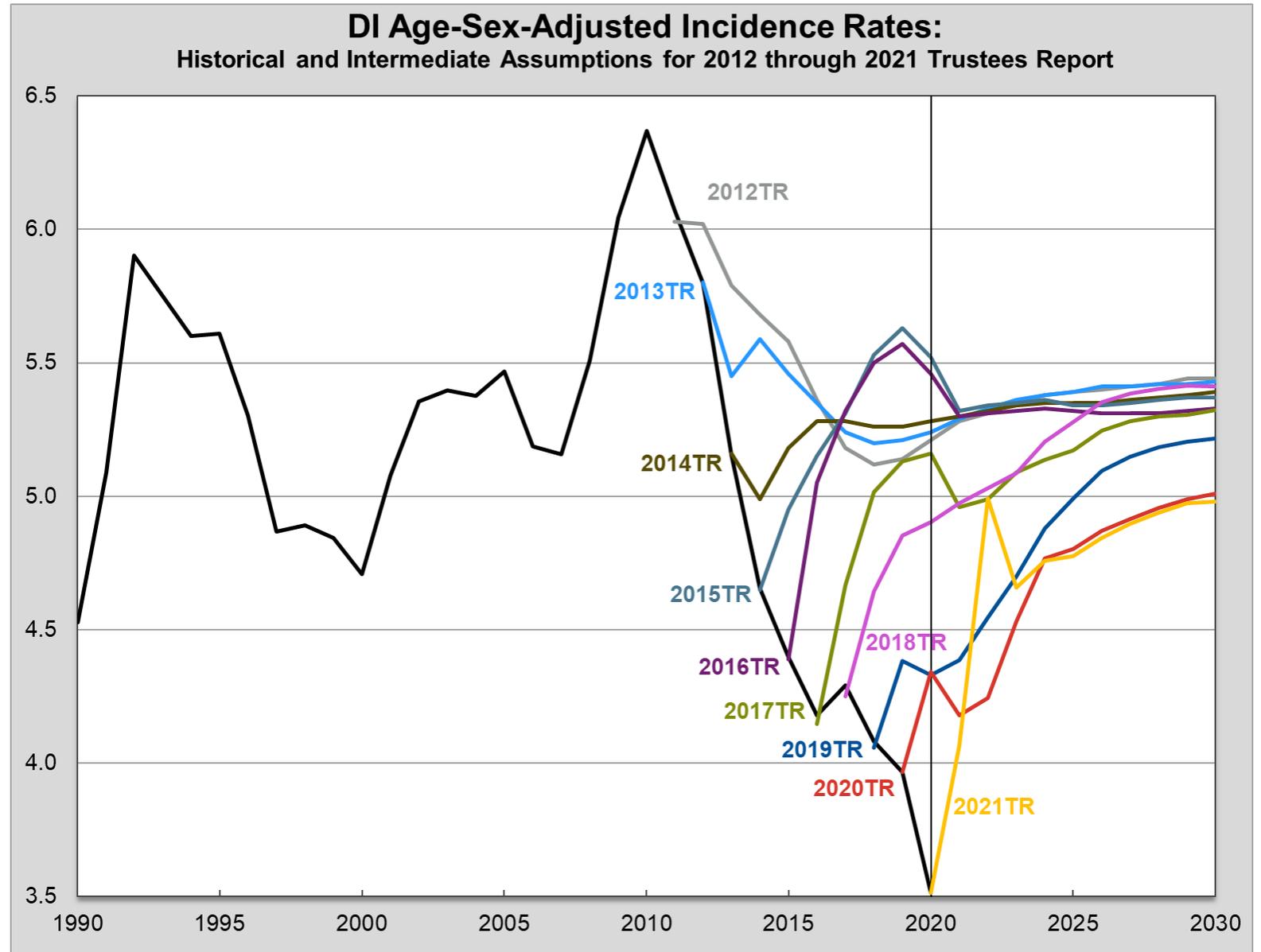
Social Security Disabled Worker Receipts at Disability Determination Services by Calendar Year: Historical and Intermediate Assumptions for 2012 through 2021 Trustees Reports



Disability Incidence Rate Also Remains Historically Low

DI disabled worker incidence rate rose sharply in the 2008 recession, and has declined since the peak in 2010 to extraordinarily low levels in 2016 through 2019; remained very low in 2020 during the pandemic.

For the FY 2022 Mid-Session Review, we assumed the incidence rate for 2021 would be 3.6 per thousand.



Definition of Disability

- Inability to engage in substantial gainful activity (SGA) due to a medically determinable impairment expected to result in death or last a continuous period of at least 12 months
 - Includes mental and physical impairments
- SGA = \$1,310 per month in 2021. Adjusted by average wages each year
- Working at or above SGA generally results in a finding of not disabled at application
 - Post-entitlement: Periodic reviews to ensure beneficiaries still meet the definition of disability (based on medical improvement)
 - Post-entitlement: Rules regarding working at or above SGA are different

Decision Process

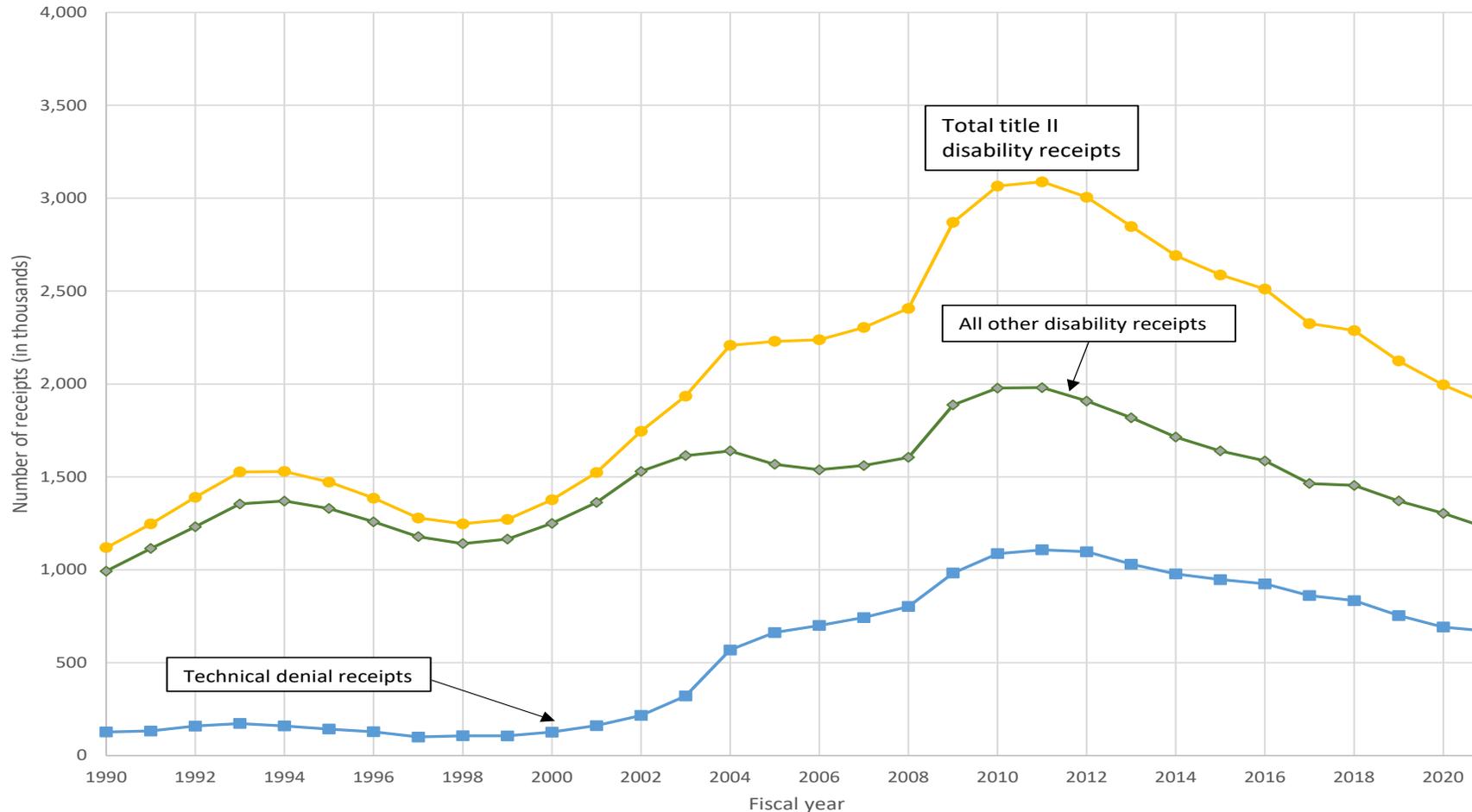
- Five-step sequential evaluation process
 - Step 1: Working at or above SGA?
 - Step 2: Impairment severe?
 - Step 3: Impairment meets/equals listing of impairments?
 - Severe impairments that generally preclude work: ALS, cancer, heart failure, etc.
 - Step 4: Perform past relevant work?
 - As performed by applicant
 - Step 5: Adjust to performing other work in the national economy?
- Application can be denied at any step except 3
- Application can only be allowed (determined disabled) at steps 3 and 5

Appeals Process

- For denials, there is an administrative appeals process
 - Reconsideration at the DDSs
 - Hearing before an Administrative Law Judge
 - Appeals Council
- After all appeals are exhausted, claimant can appeal to the Federal Court system

Field Office Disability Application Experience

Figure 3: Disability Receipts at SSA Field Offices for Title II (Social Security)
Fys 1990-2021



- Total volumes of numbers of applications have fluctuated with economic cycle
- The changing age/sex distribution of the insured population has also driven changes
- Technical denials are individuals who apply but are not insured for disability benefits. The increase in the mid 2000's is due to changes in administrative procedures.

Source: SSA, Office of the Chief Actuary.

Field Office Disability Application Experience by ACA Expansion Status

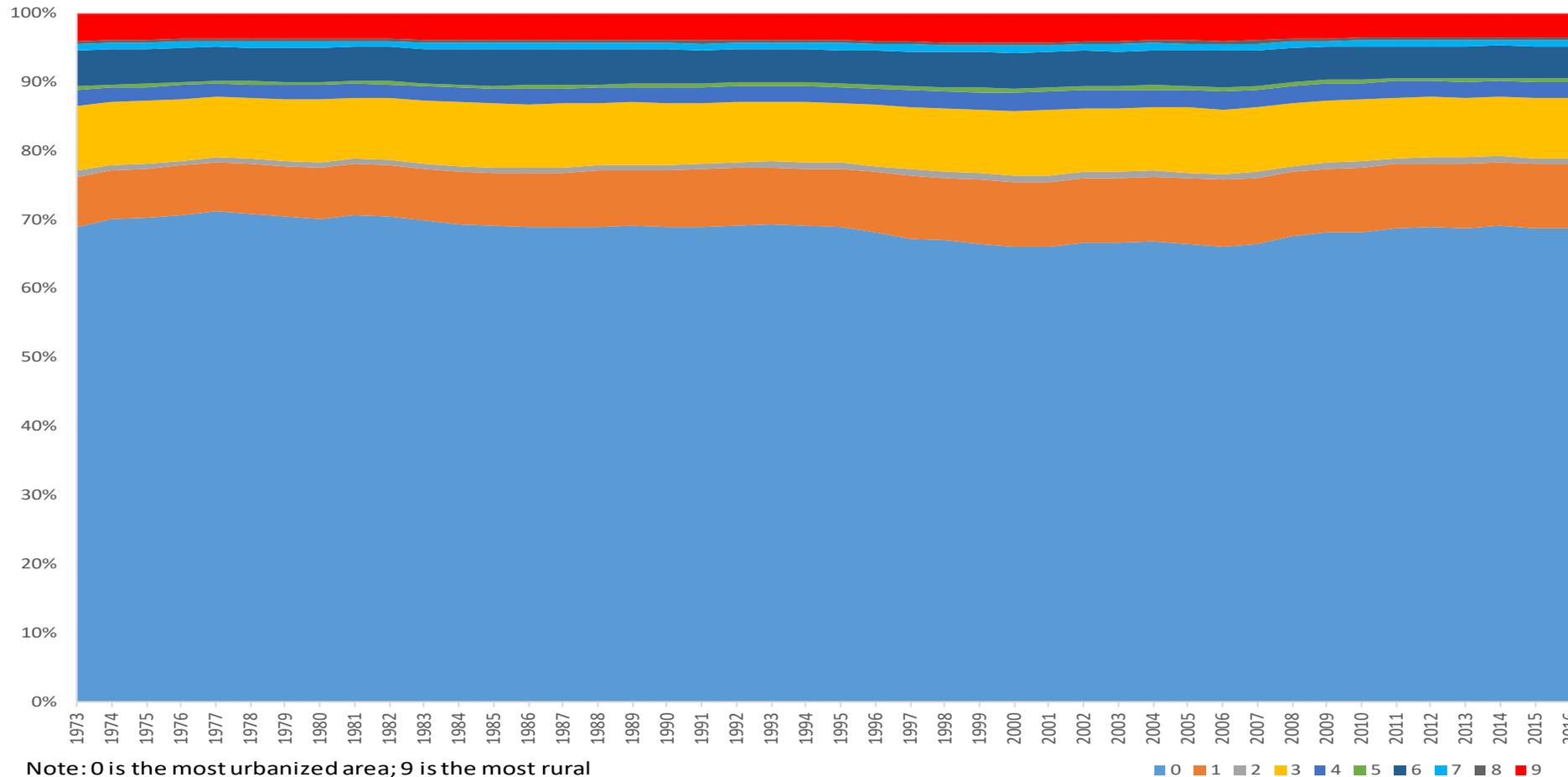
Table 1.—Percentage change in disability field office receipts relative to the prior fiscal year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<i>Title II disabled worker field office receipts (excluding technical denials)</i>												
All Title II DIBs	5.1%	-1.8%	-5.6%	-5.2%	-2.8%	-6.0%	-6.1%	-6.3%	-1.5%	-6.0%	-3.6%	-11.7%
States not expanding	7.1%	0.4%	-4.3%	-5.3%	-4.6%	-7.2%	-6.2%	-5.4%	-2.5%	-4.3%	-3.5%	-8.4%
States expanding in 2014	3.8%	-3.5%	-6.6%	-5.3%	-2.0%	-6.3%	-7.4%	-6.8%	-0.8%	-6.6%	-4.5%	-14.9%
States expanding in 2015	4.3%	1.7%	-3.2%	-5.2%	-1.6%	-8.0%	-7.2%	-7.5%	-0.6%	-7.0%	4.6%	-7.8%
States expanding in 2016	11.6%	-3.6%	-4.9%	-2.1%	-2.8%	-4.5%	6.0%	-3.5%	-6.9%	-10.4%	-3.0%	-3.9%
States expanding in 2017	—	—	—	—	—	—	—	—	—	—	—	—
States expanding in 2018	—	—	—	—	—	—	—	—	—	—	—	—
States expanding in 2019	1.4%	-6.5%	-9.0%	-6.3%	-1.5%	-0.9%	-7.1%	-6.4%	-4.3%	-13.3%	-6.6%	-4.6%
States expanding in 2020	5.6%	0.3%	-2.3%	-3.6%	1.3%	-9.6%	-4.5%	-7.1%	0.0%	-11.0%	10.9%	-11.7%
States expanding in 2021	5.5%	-1.5%	-6.1%	-5.2%	-2.4%	3.6%	1.9%	-6.9%	0.8%	-3.1%	-7.2%	-15.5%

Source of Medicaid expansion status: <https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/>

Field Office Disability Application Experience by Rural vs Urban

Figure 8: DI Disabled Worker Applications
By year of application and rurality indicator



Note: 0 is the most urbanized area; 9 is the most rural

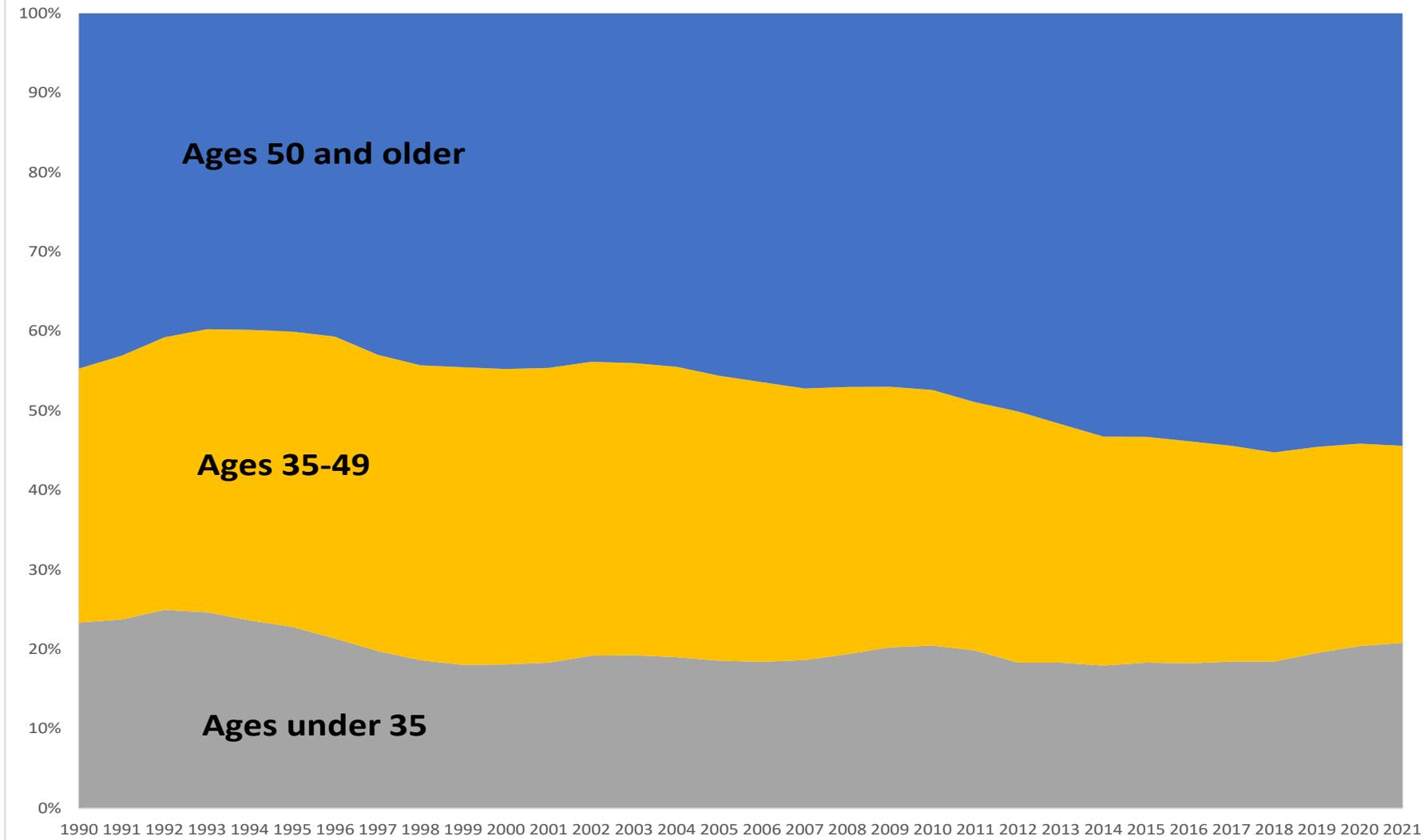
Legend: 0 1 2 3 4 5 6 7 8 9

- Another perspective on geographic residence of applicants is urban versus rural.
- As expected, most applicants come from the most urban areas (~ 70%)

Source: SSA, Office of the Chief Actuary.

DDS Disability Receipts by Age

Figure 12: Percentage distribution of all OASDI disability applications by age group and fiscal year

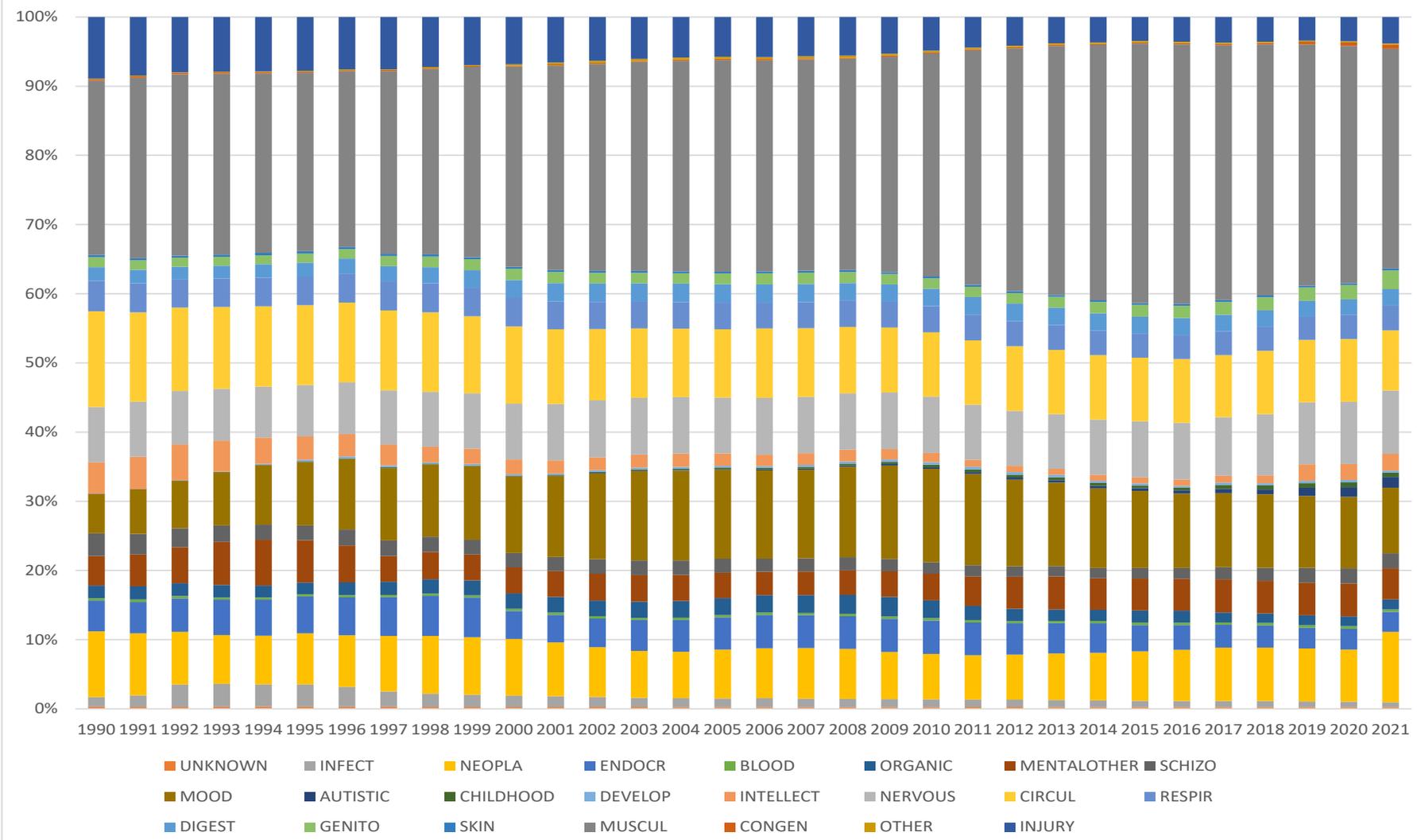


- The age distribution of disability applicants has changed since the early 1990's.
- The growth in the group aged 50 or older is due to the aging of the baby boom generation into the disability-prone ages.

Source: SSA, Office of the Chief Actuary. Data for 2021 is preliminary as of 9/10/21.

DDS Disability Receipts by Impairment

Figure 14: Percentage distribution of OASDI disability claims filed by major impairment category and fiscal year

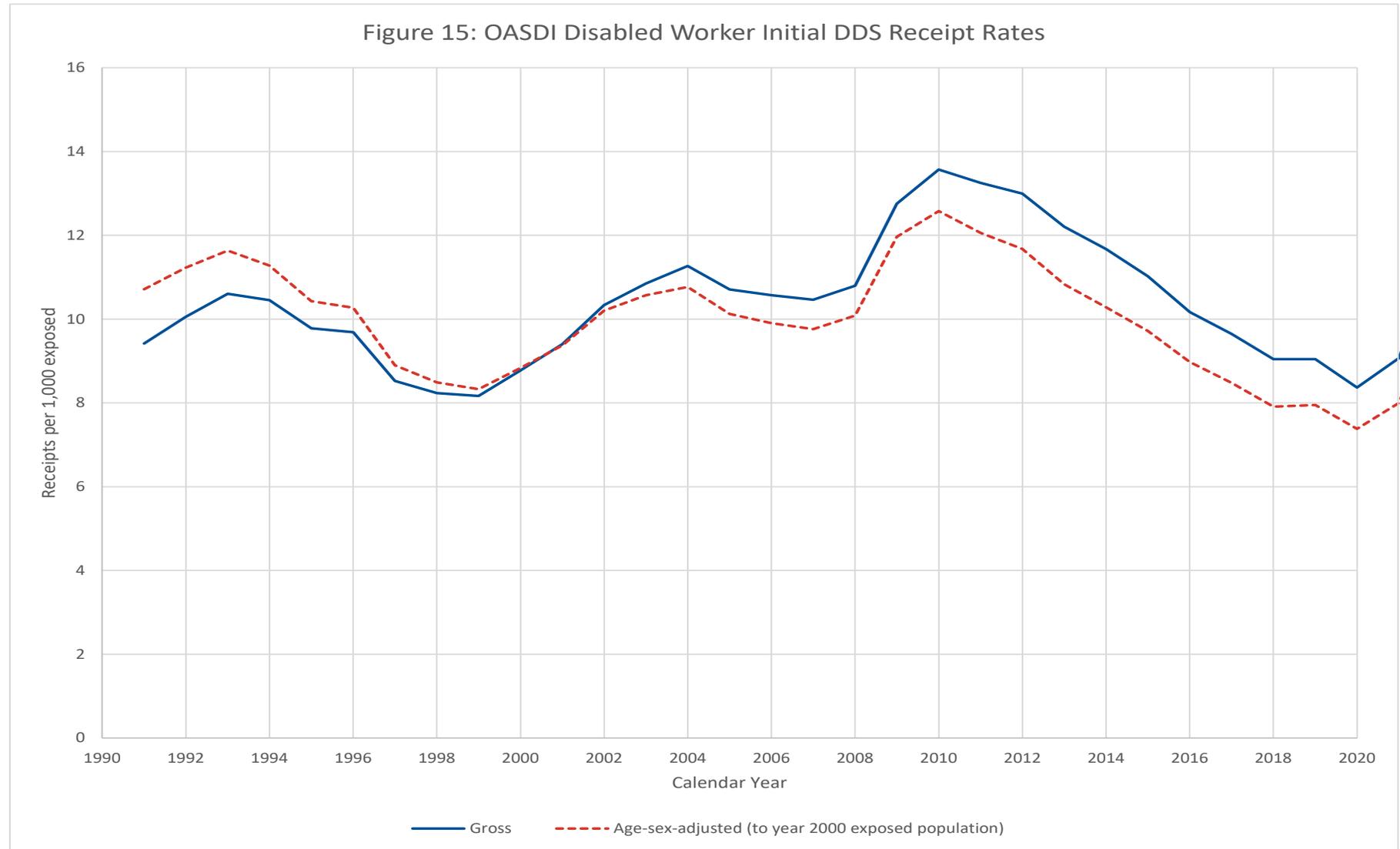


- The distribution of applications by primary alleged impairment has generally not changed significantly.
- The share of applications alleging musculoskeletal impairments has increased somewhat, largely due to the aging of the baby boom generation (the dark gray series).
- Mood disorders have also increased as a share since the early 1990s.

Source: SSA, Office of the Chief Actuary. Data for 2021 is preliminary as of 9/10/21.

Application Receipt Rates

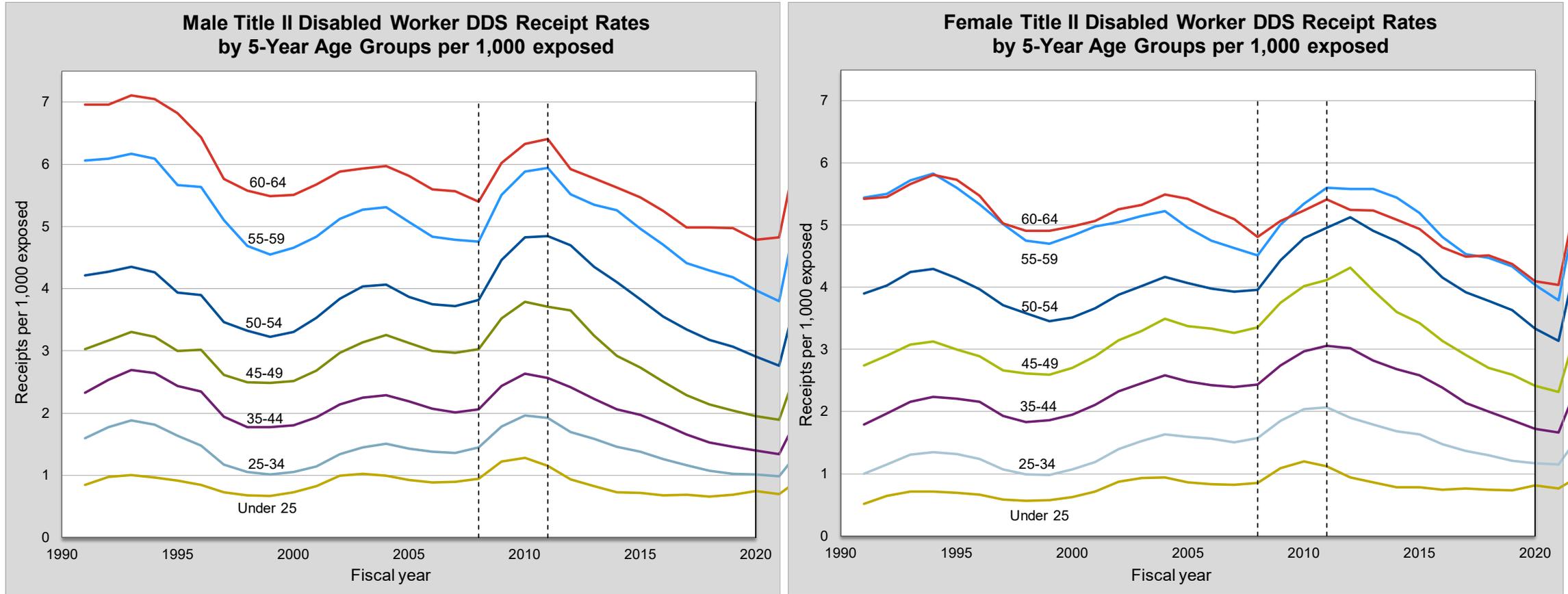
- The experience of application numbers have been driven mainly by declining rates, and not just the aging of the baby boomers into retirement ages.
- Rates are measured as applications per 1,000 individuals exposed.
- Gross rates have been declining since 2010.
- Age-sex-adjusted rates have also been following a similar pattern.



Source: SSA, Office of the Chief Actuary.

Disabled Worker Receipt Rates (at DDS) Have Been Dropping Since 1990 at Older Ages, and at Most Ages Lately

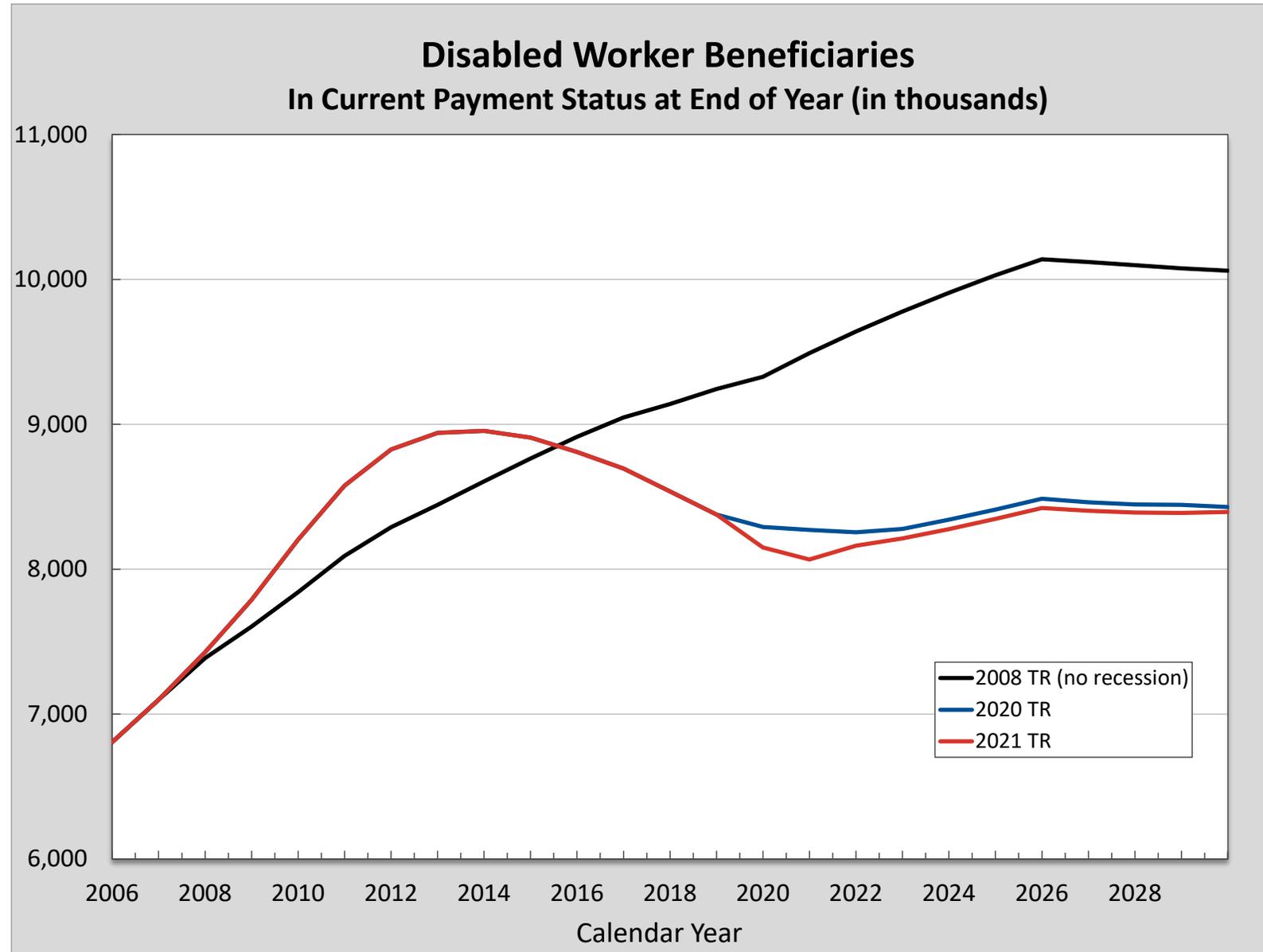
Figures 16a and 16b: DI Disabled Worker Receipt Rates, by sex and age group



Bottom Line: Fewer Disabled Worker Beneficiaries

Fewer now and in near term based on recent applications and incidence rates.

Increase shown by 2030 assumes incidence rises back to 5.0 per thousand by then.



Group Long-term Disability Insurance Experience

Presenter:

David Wall, FSA, MAAA

Willis Towers Watson

Group Long-term Disability Insurance - Introduction

- Today's presentation includes results from the Society of Actuaries 2019 group long-term disability (GLTD) experience study
 - The 2019 SOA GLTD study is the first version of the study to collect information on SSDI approval status for GLTD claims.
 - Material shown today focuses on experience related to SSDI approvals and claim terminations
 - Background on the 2019 SOA GLTD study is available on the SOA's website:
<https://www.soa.org/resources/experience-studies/2019/group-ltd-experience-study>
- I will also provide a brief overview of GLTD insurance in the United States including:
 - Benefits – overview of typical product design
 - Market size – Summary of In-force premium and covered lives in the United States
 - High level trends in GLTD reported claims

GLTD - U.S. Market Overview

- Employees covered by GLTD are a subset of the approximately 150 million U.S. employees covered by SSDI.
- GLTD In-force premium has grown at a rate of approximately 2.6% since 2013
- Premium growth primarily driven by increases to premium per life
- Total covered lives have grown relatively slowly

U.S. GLTD In-force Exposure *

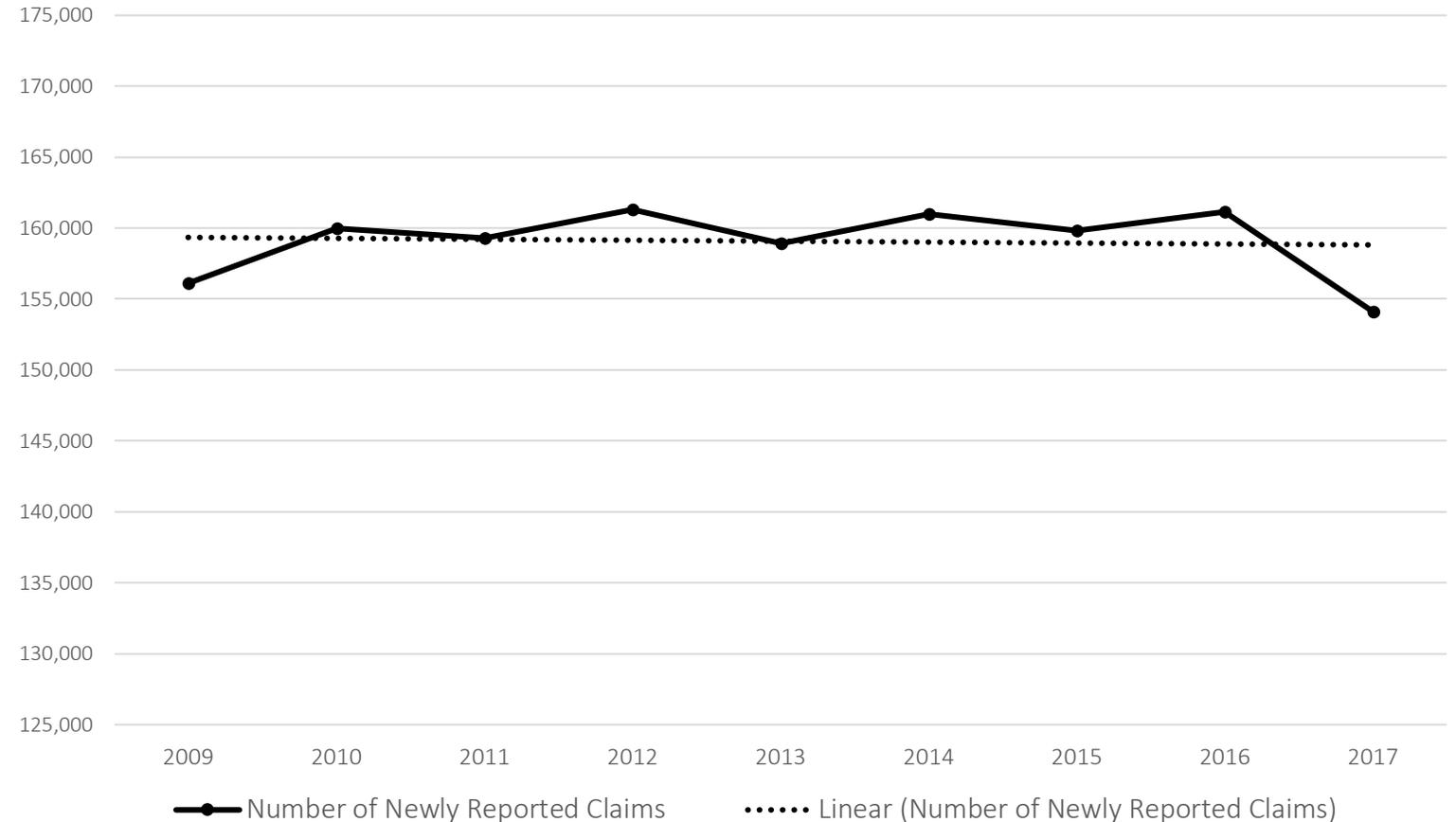
	2013	2014	2015	2016	2017	2018	2019	Cumulative Annual Growth Rate
In-force premium (\$ Billions)	10.7	11.0	11.4	11.6	11.8	12.2	12.5	2.6%
Covered Lives (millions)	43.7	43.4	44.9	44.7	44.0	44.9	45.0	0.5%
Premium per Life \$	245	253	253	260	267	271	278	2.1%

* Source: Milliman 2013 through 2019 Group Disability Market Surveys

GLTD New Reported Claims by Year

- Number of new reported claims per year* in the U.S. developed from the 2019 SOA GLTD Claim Experience Study.
- Exposure data is not currently available for the SOA GLTD study, so we are not able to use the claim data shown here to develop incidence rate assumptions.
- However, we can observe that:
 - Trend in the total number of new GLTD claims was relatively flat from 2009 to 2017.
 - The number of new GLTD claims in the U.S. per year is approximately $\frac{1}{4}$ the number of new SSDI claims. (GLTD coverage is provided to less than $\frac{1}{3}$ of all U.S. workers.)
 - GLTD claim incidence appears to be more stable than incidence for SSDI during the same period (see Slide 34 for historical SSDI incidence).

GLTD New Reported Claims in United States *

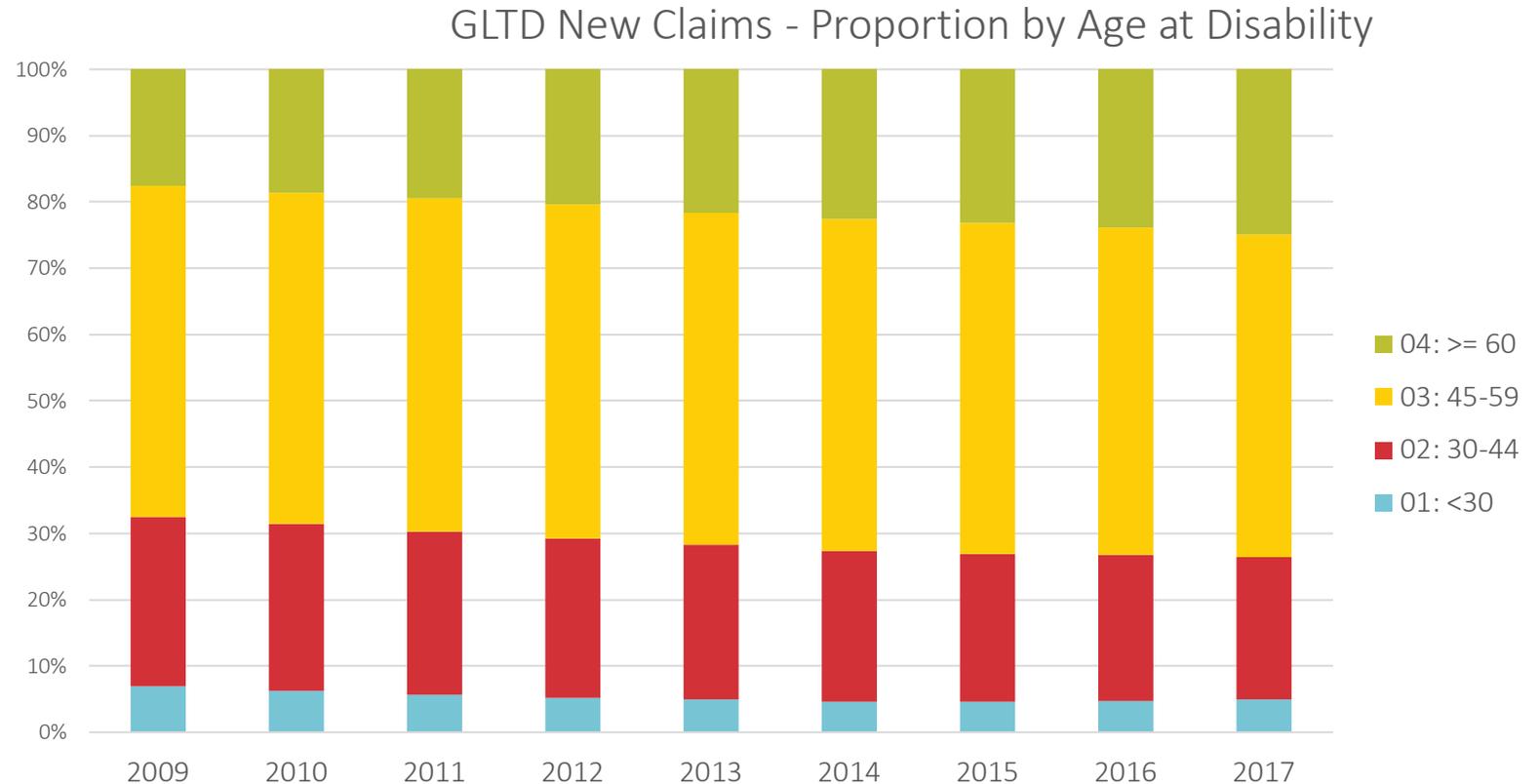


* Claim reported year is based on the calendar date as of the end of a claim's elimination period.

Source: 2019 SOA Group Long-term Disability Claim Experience Study

GLTD New Reported Claims by Age at Disability

- The average insured age for new GLTD claims in the U.S. has increased between 2009 and 2017
- Due to unavailability of exposure data for GLTD, we cannot measure how much of this shift in age is due to changes in incidence rates by age versus aging of the insured population.
- The increase in average age for GLTD claims is consistent with the trend seen for new SSDI claims (See slide 27).

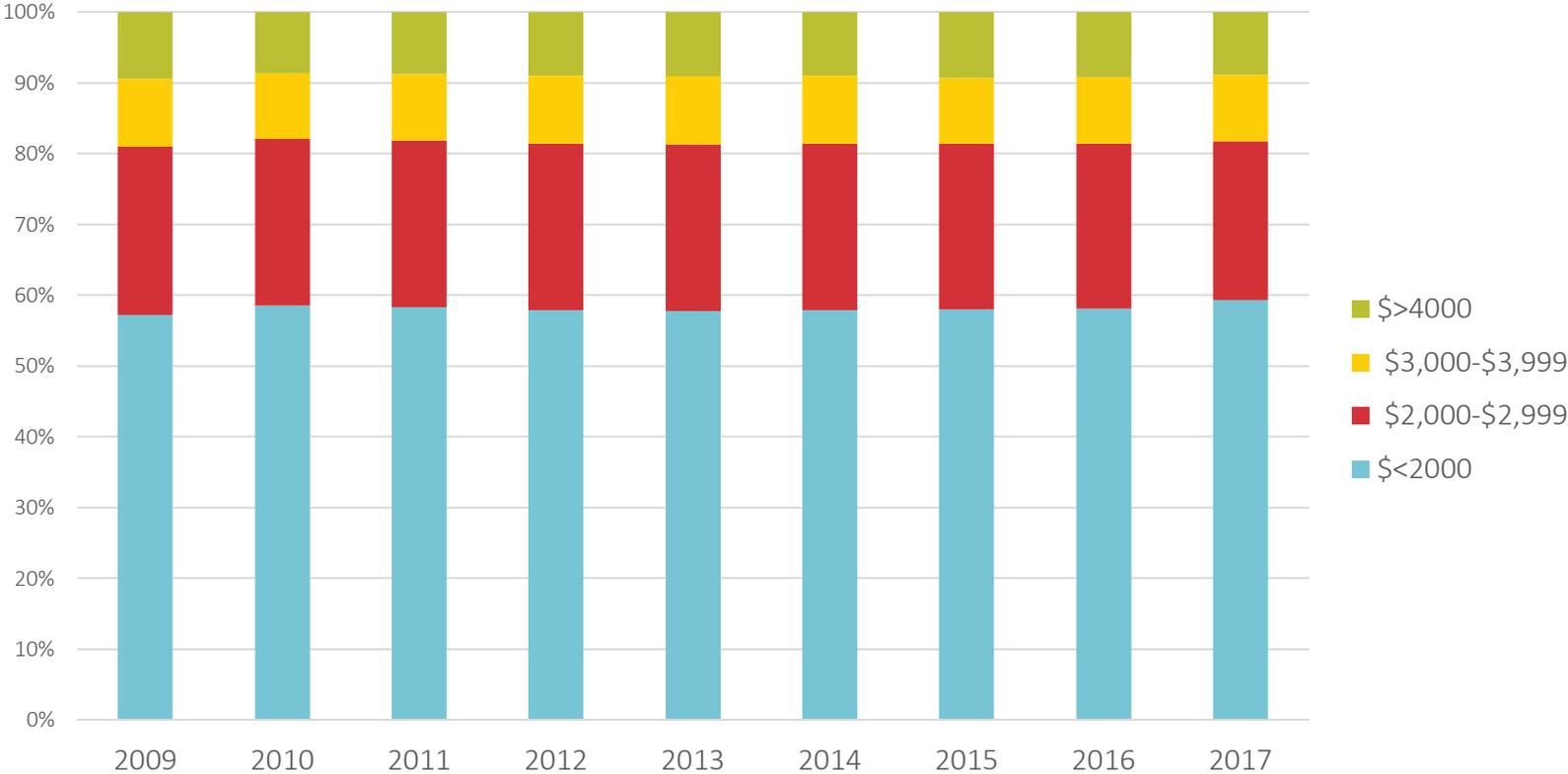


Source: 2019 SOA Group Long-term Disability Claim Experience Study

GLTD New Reported Claims by Gross Monthly Benefit

GLTD New Claims - Proportion by Monthly Gross Benefit

- The distribution of gross benefit amount for new GLTD claims in the U.S. was stable between 2009 and 2017
- Modest increase in the proportion of claims with monthly benefit below \$2000
- Gross benefit amounts shown are indexed to inflation



Source: 2019 SOA Group Long-term Disability Claim Experience Study

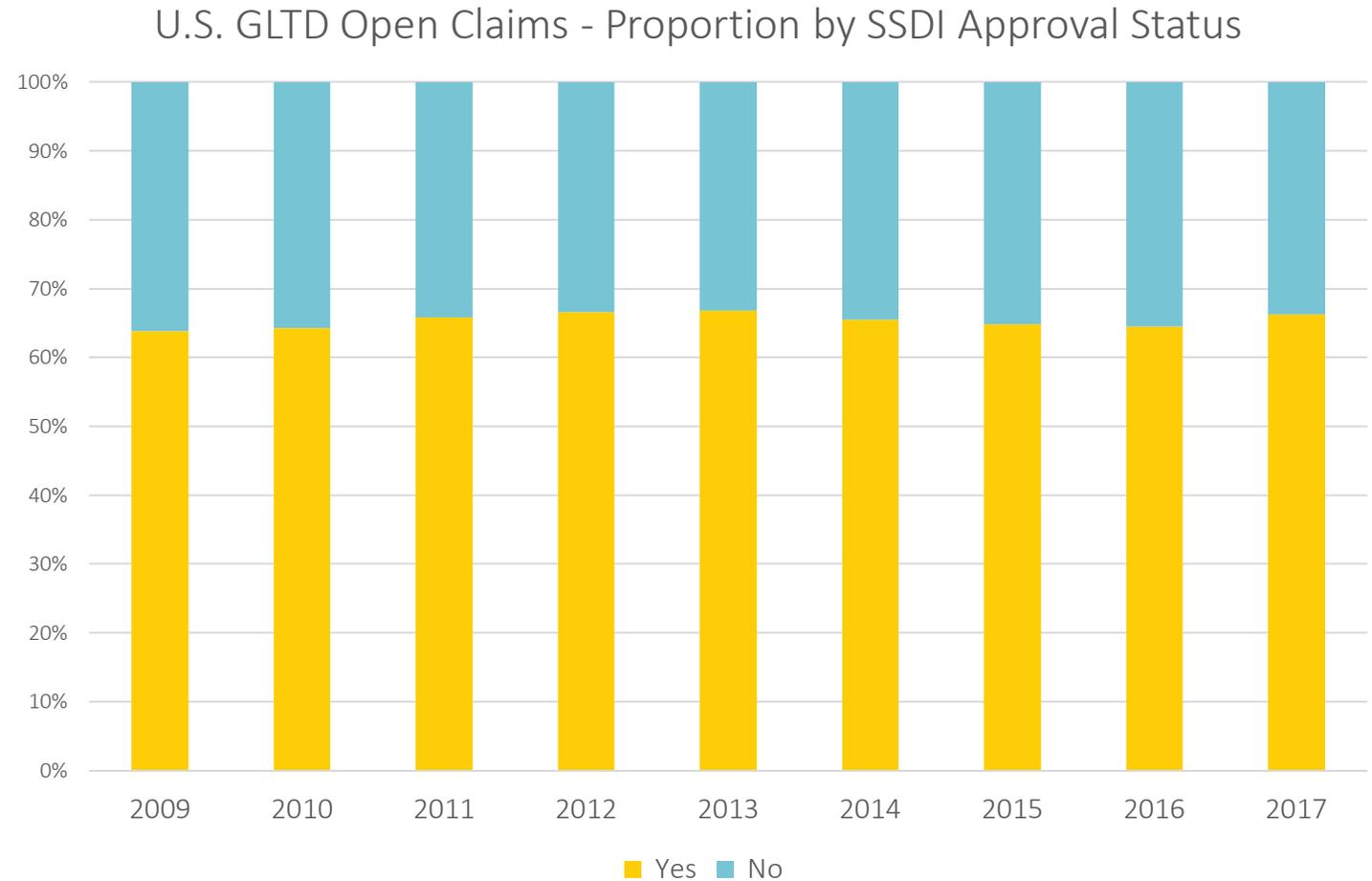
GLTD Plan Designs, Impact of SSDI Offsets

The most common plan designs include:

- Replacement of 60% of salary up to a maximum amount
- Benefits payable through retirement age
- Elimination periods of 3 or 6 months
- Definition of disability is typically less restrictive than for SSDI, and for most plans, changes from own occupation to any occupation after one to three years of benefits are received
- **SSDI Offsets:** GLTD policies typically specify that the benefits paid by the insurer will be reduced by the amount of SSDI benefits and other benefits received by the insured.
 - **Offsets have a major impact on the amount of benefits paid by GLTD insurers**
 - Impact very significant for claims with gross monthly benefit amounts below \$2,000 (which comprise more than half of new GLTD claims – previous slide).

SSDI Approval Status by Calendar Year

- Offsets for SSDI and other benefits significantly impact the level of GLTD benefits paid by insurers.
- Estimating the value of offsets is critical to estimating GLTD claim costs
- Approximately 65% of open GLTD claims are also approved for SSDI benefits, and this proportion has been stable over time.
- While the overall proportion of open GLTD claims that are approved for SSDI benefits has been stable, the probability of SSDI approval varies materially based on claim duration as well as other claim characteristics.



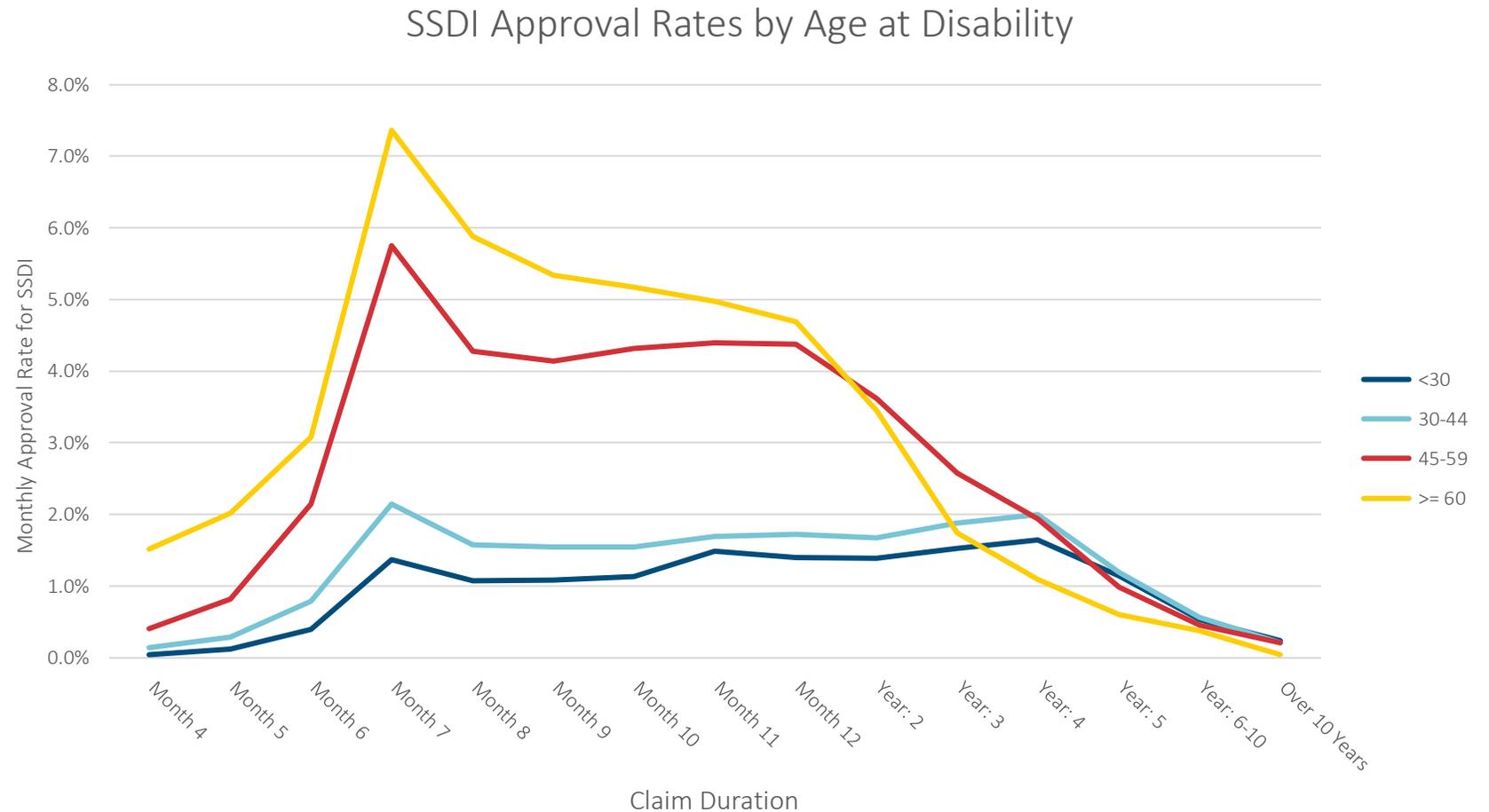
* Source: 2019 SOA Group Long-term Disability Claim Experience Study

SSDI Approval Rates by Age at Disability

- Approval Rate defined as:

$$\frac{\text{Approvals}}{\text{Not Yet Approved}}$$

- Higher approval rates for higher ages at disability, especially in early durations
- By Year 4, the differences in approval rates by age are much smaller.

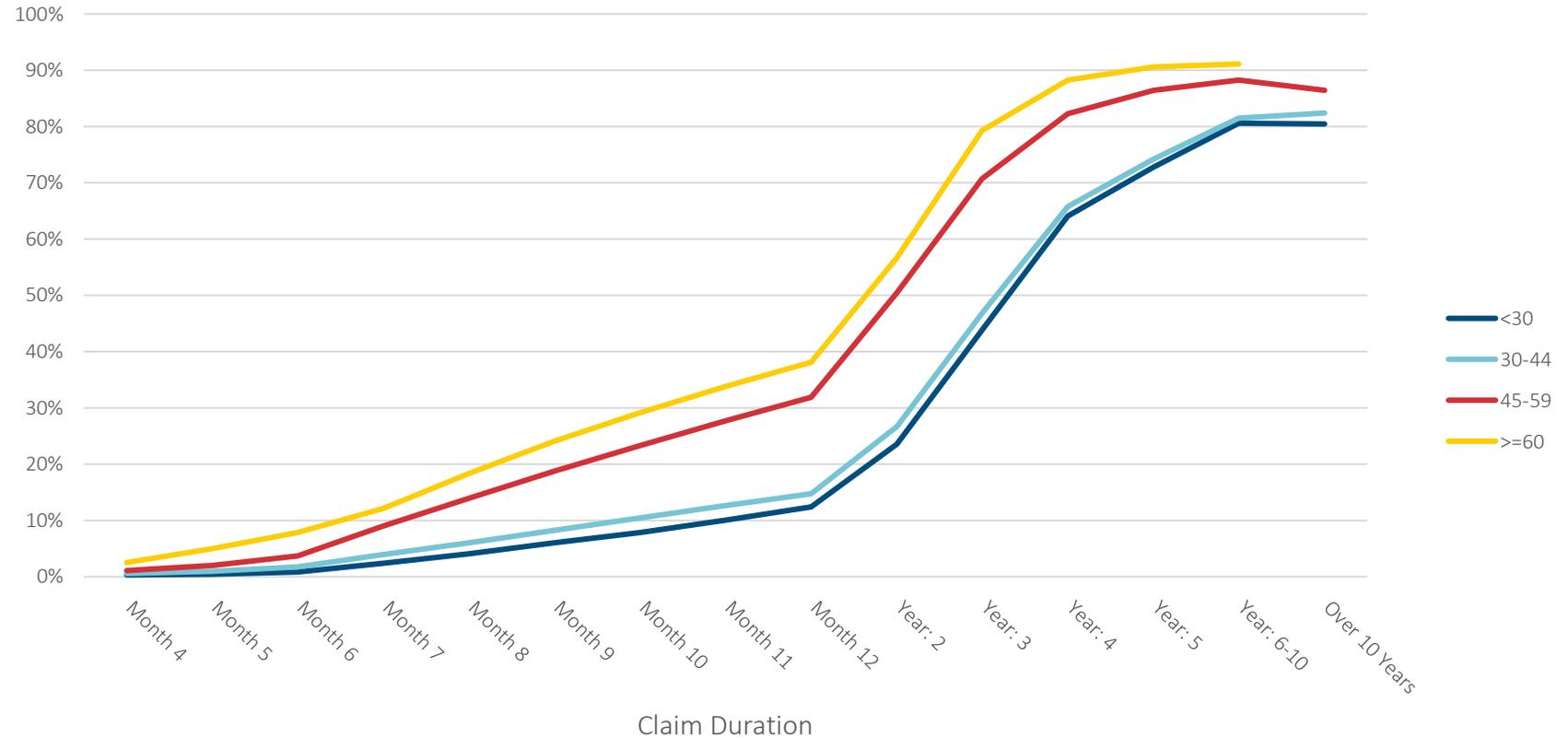


* Source: 2019 SOA Group Long-term Disability Claim Experience Study

Proportion of Claims Approved for SSDI by Age

- Proportion of claims approved defined as:
Approved Claims / Open Claims
- Differences in proportion of claims approved decline over time.
- However, significant differences by age at disability remain in all claim durations

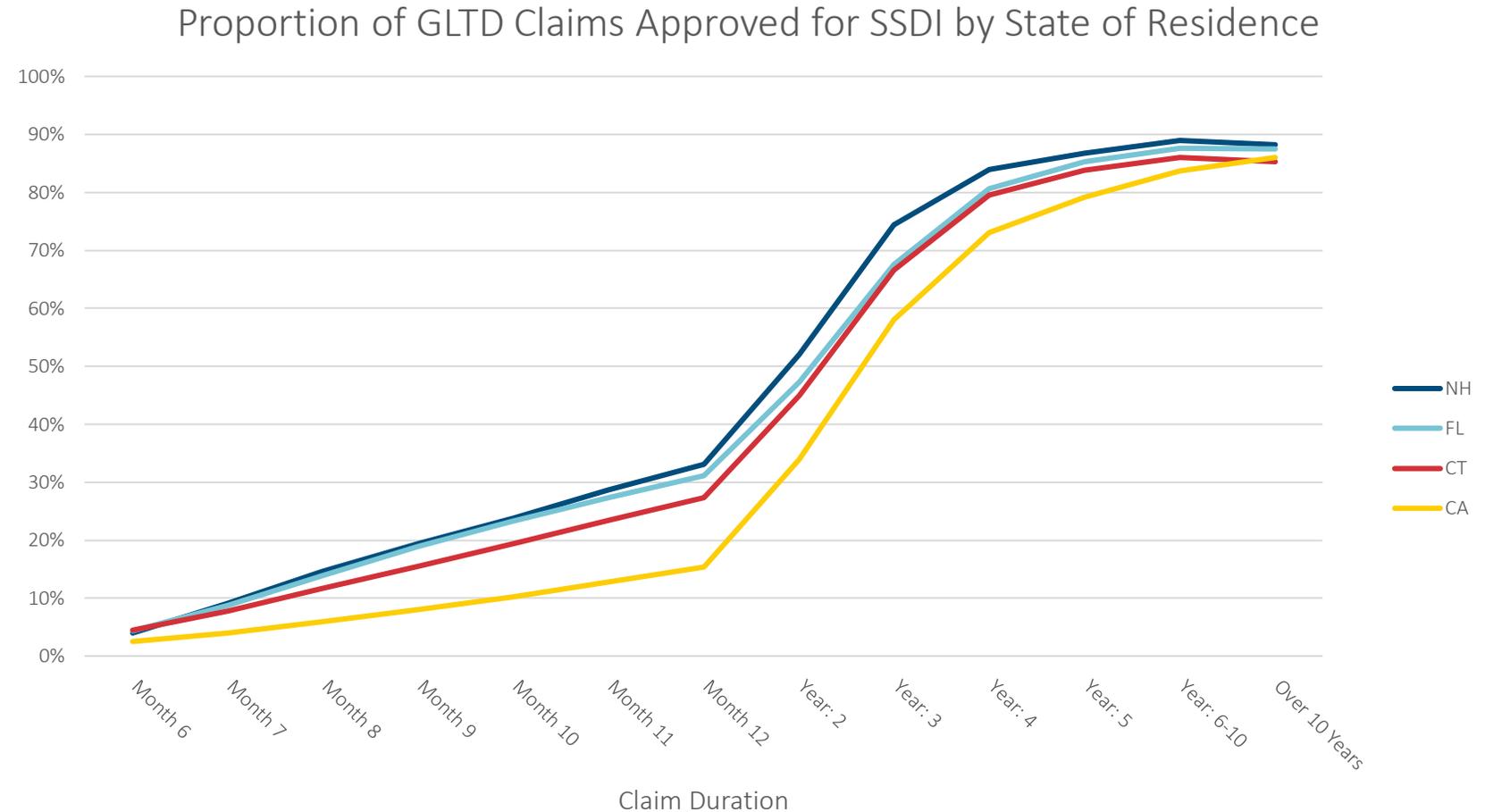
Proportion of GLTD Claims Approved for SSDI by Age at Disability



* Source: 2019 SOA Group Long-term Disability Claim Experience Study

Proportion of Claims Approved for SSDI by State

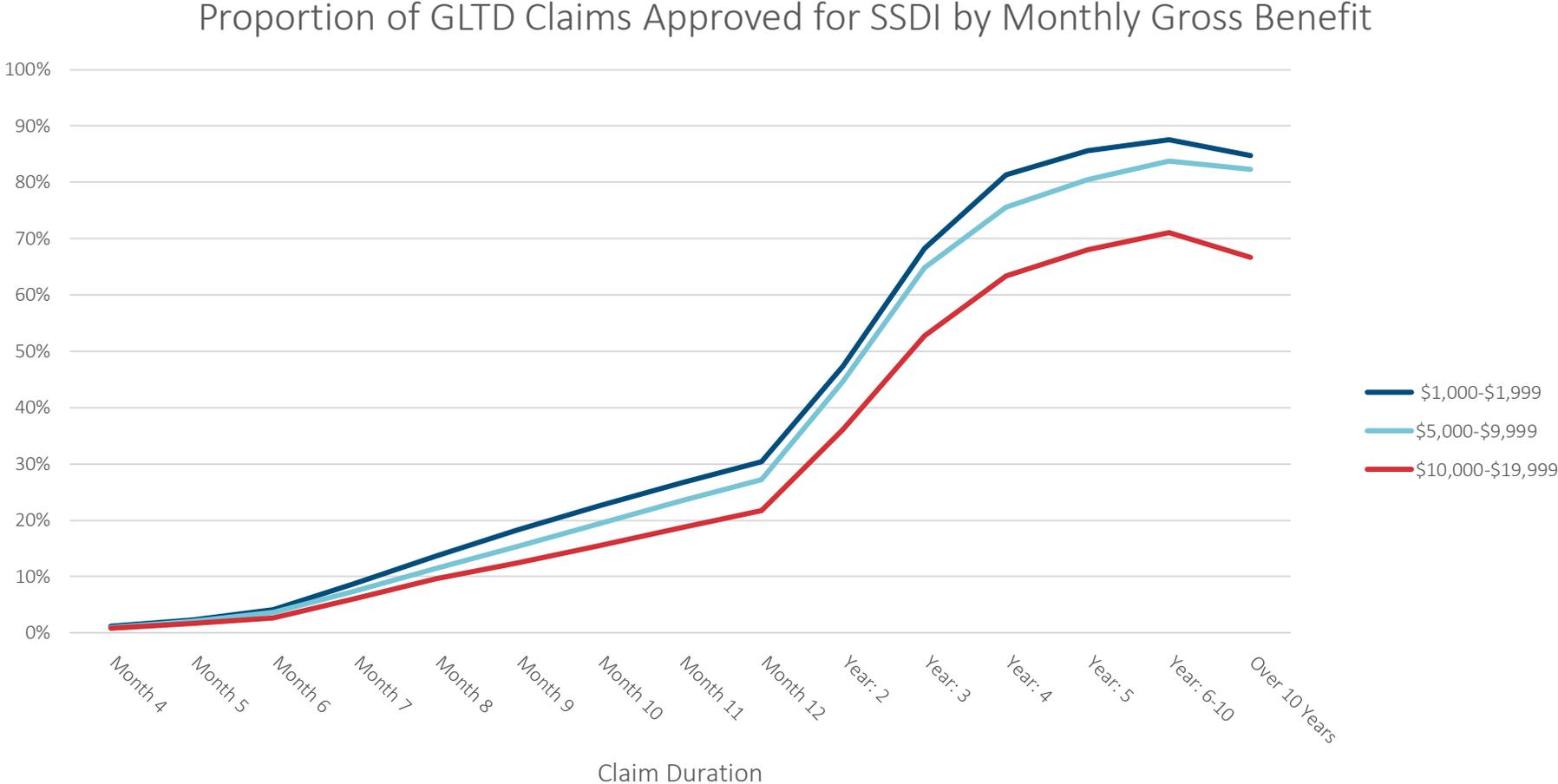
- Differences between states in the proportion of claims approved decline over time
- However, CA remains significantly lower than other states over the first 5 years of claim duration
- CA is one of six states with a statutory disability plan. CA's statutory benefits are generous compared to other states, and the existence of generous statutory benefits may have an impact on GLTD claim experience, including SSDI approval rates



* Source: 2019 SOA Group Long-term Disability Claim Experience Study

Proportion of Claims Approved for SSDI by Gross Benefit

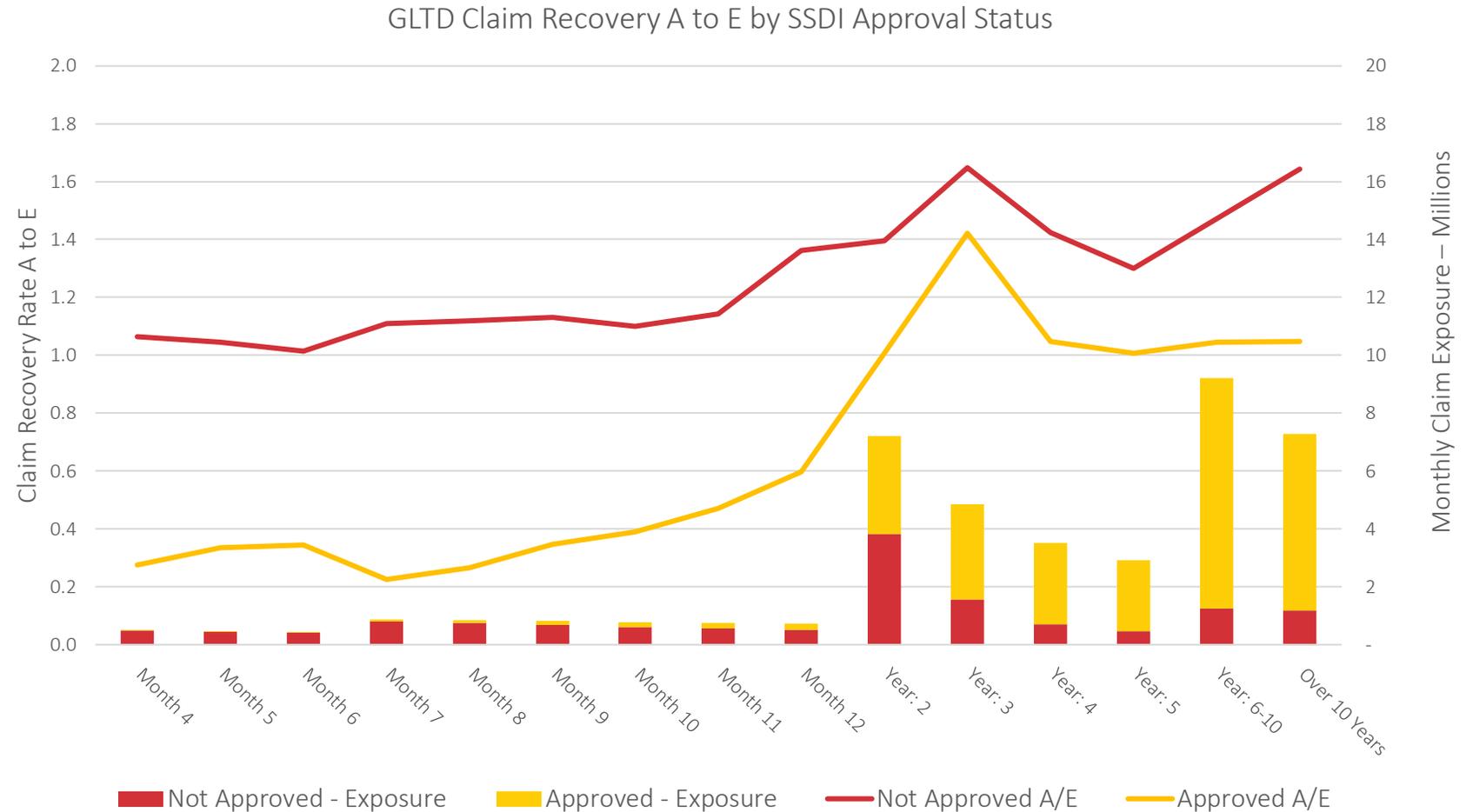
- Differences by gross benefit amount decline as claims reach older durations.
- However, proportion of claims approved remains lower in all durations for claims with higher benefit amounts.



* Source: 2019 SOA Group Long-term Disability Claim Experience Study

GLTD Claim Recovery Rates and SSDI Status

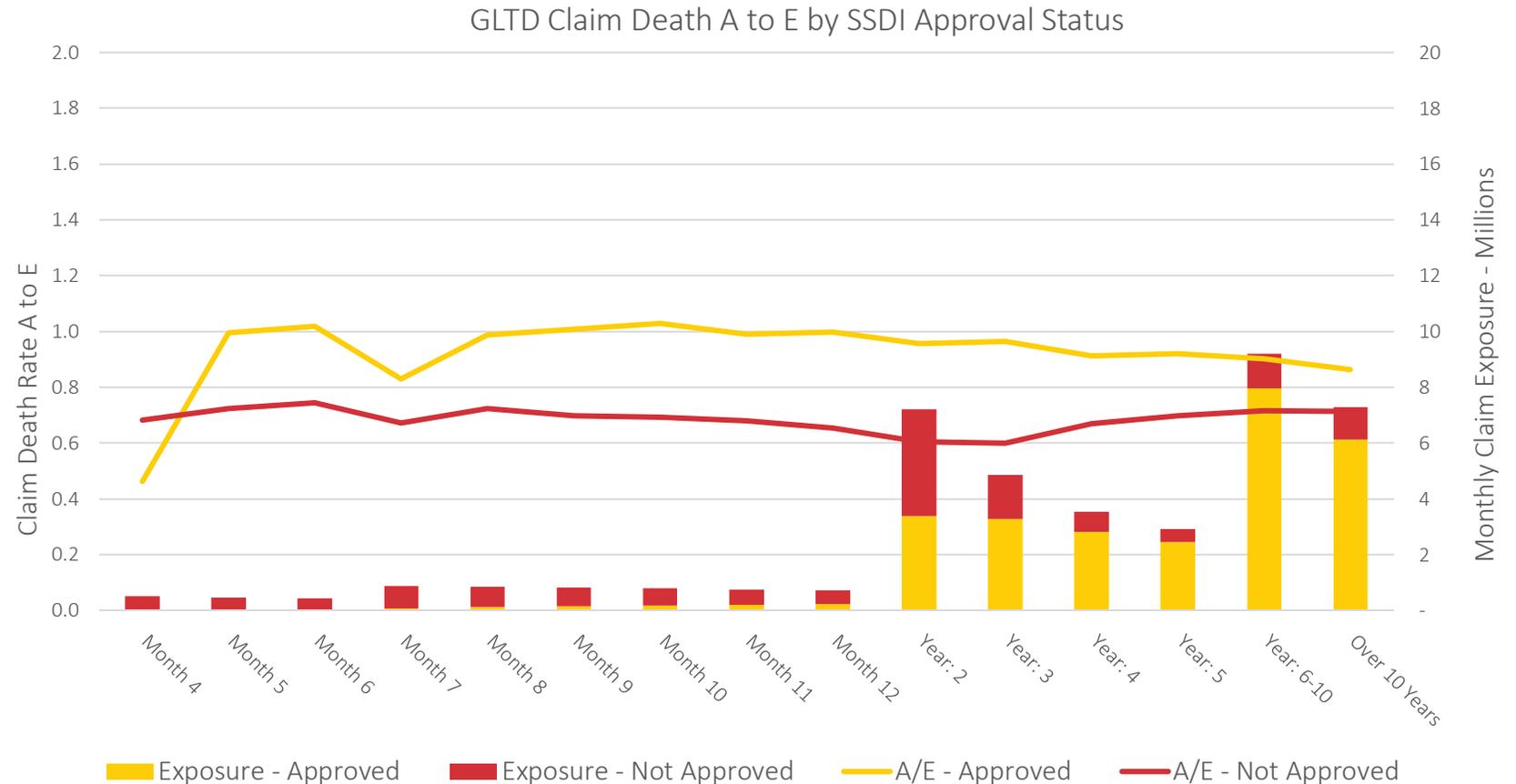
- Actual to expected recovery rates for GLTD claims are materially lower for claims that are approved for SSDI.
- Differences in A/E are greatest in first year of claim duration but remain significant in all durations.
- Expected basis is the 2008 GLTD Experience Table
- Implications for GLTD reserving and pricing.



* Source: 2019 SOA Group Long-term Disability Claim Experience Study

GLTD Claim Death Rates and SSDI Status

- Actual to expected death rates for GLTD claims are materially higher for claims that are approved for SSDI.
- Opposite of relationship for recovery rates
- Differences in A/E are consistent across all durations.
- Expected basis is the 2008 GLTD Experience Table
- Implications for GLTD reserving and pricing.



* Source: 2019 SOA Group Long-term Disability Claim Experience Study

Conclusions

- GLTD covers approximately 45 million workers in the United States. The GLTD market is mature, and recent growth in covered lives has been limited
- Recent claim incidence experience for GLTD appears to be relatively stable when compared to SSDI
- However, SSDI has a major impact on GLTD due to the impact of offsets on GLTD claim costs
 - The drivers of SSDI approval rate experience for GLTD claims are complex – the results presented here provide a snapshot of some of the key variables to consider
 - GLTD claim recovery rates are much lower for claims that have been approved for SSDI than for unapproved claims
 - Opposite is true for Death A/E
- Pricing and Reserving Implications:
 - Models and assumptions used for pricing and reserving may need to be updated to accurately estimate the impact of SSDI approval experience on GLTD claim costs
 - SSDI approval status should be considered as a variable when developing assumptions for GLTD claim recovery and death rates.

Individual Disability Insurance/IDI Experience

Presenter:

Jay Barriss, FSA, MAAA

General Reinsurance – Gen Re

Chairperson of SOA
Individual Disability Experience Committee

IDI Product Background

- IDI experience is highly concentrated in several large carriers which represent 85% of overall market.
- IDI contracts tend to have own occupation definition of disability which is much lower threshold of claim approval than SSA's substantial gainful activity definition.
- IDI business is highly concentrated in white collar, and in particular , medical occupations.
- Most IDI policies are fully underwritten. Recent increase in worksite product has led to more guaranteed issue/minimal underwriting issues.

Individual Experience Committee/IDEC

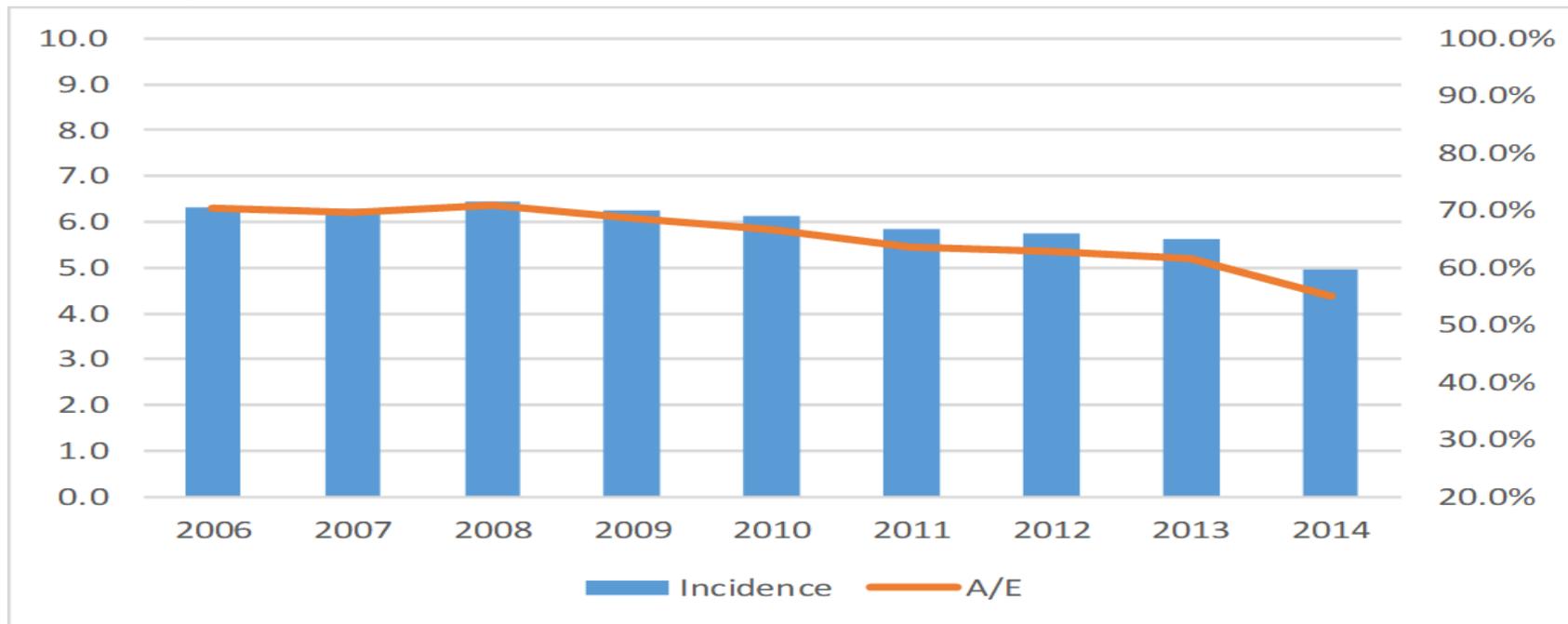
- Voluntary committee with major carriers, reinsurers and consulting firms represented.
- Many members have over 20 years of industry experience.
- Committee work lead to implementation of new valuation standards for active life and disabled life reserves. New standard is required for all carriers as of 2020. Table is named the 2013 IDIVT table, the individual disability valuation table.
- Data presented here will be experience compared to the 2013 IDIVT.

2013 IDIVT table background

- Based on experience from 1990 to 2007
- Retired the prior industry table, 1985 CIDA table
- Major improvements
 - Moved experience from 1960-70's to more current date
 - Added medical occupation split to valuation standard
 - Added key plan provisions (COLA, lifetime) to valuation standard
 - Added diagnosis to DLR valuation

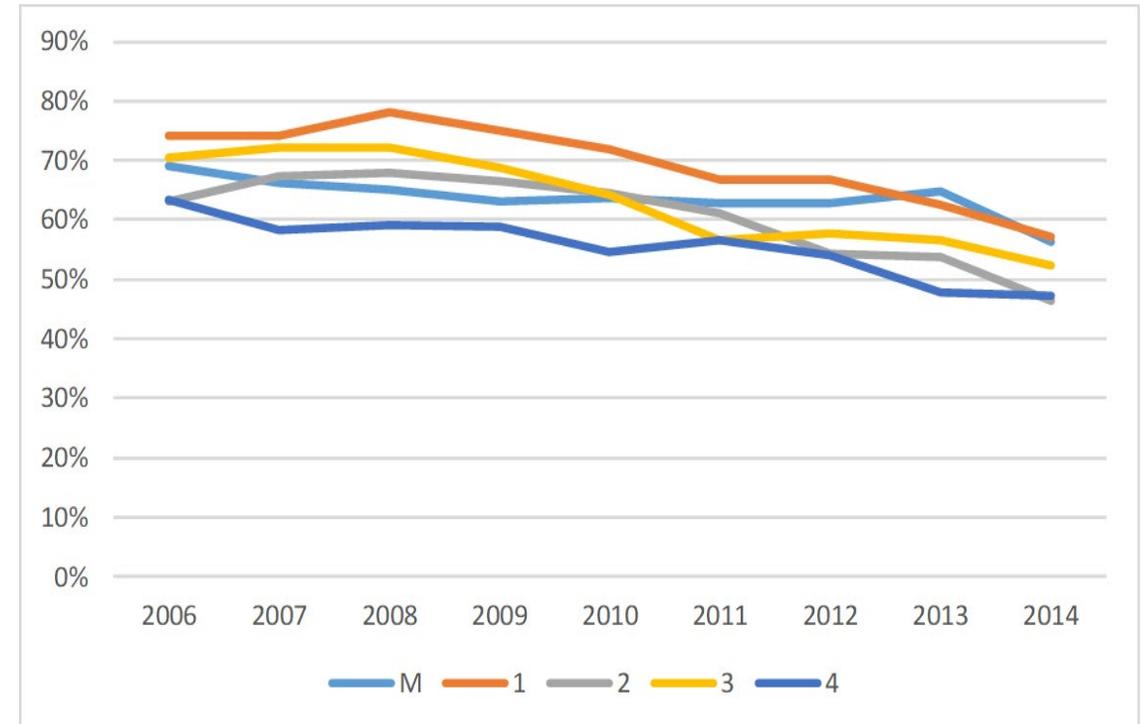
Incidence rate by year

- Overall incidence rate (bars) have decreased in recent year.
- Rate of decay is 2.8% per annum
- Note A/E is 30 to 40% better than the 2013 IDIVT



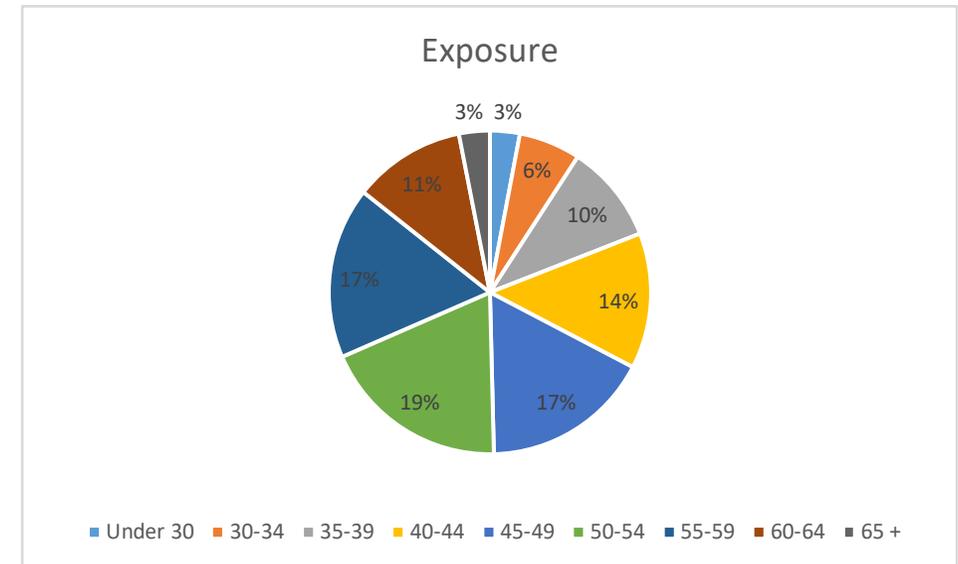
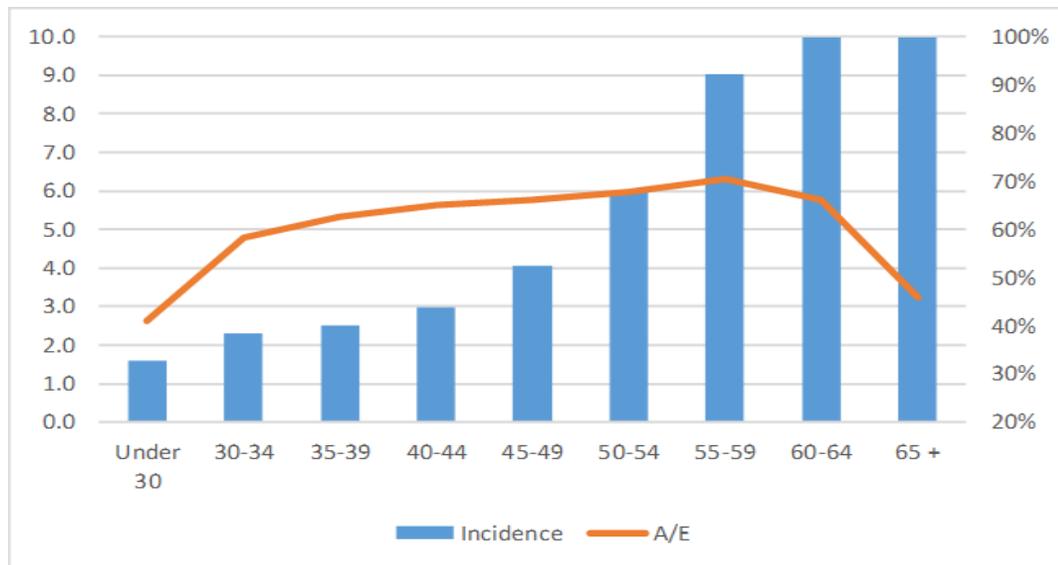
Occupation observations

- All Occupations show improvement over study period
- Important considerations
 - Industry data is now 7 years old.
 - Hope to update study in 2022.
 - Will improvement continue?



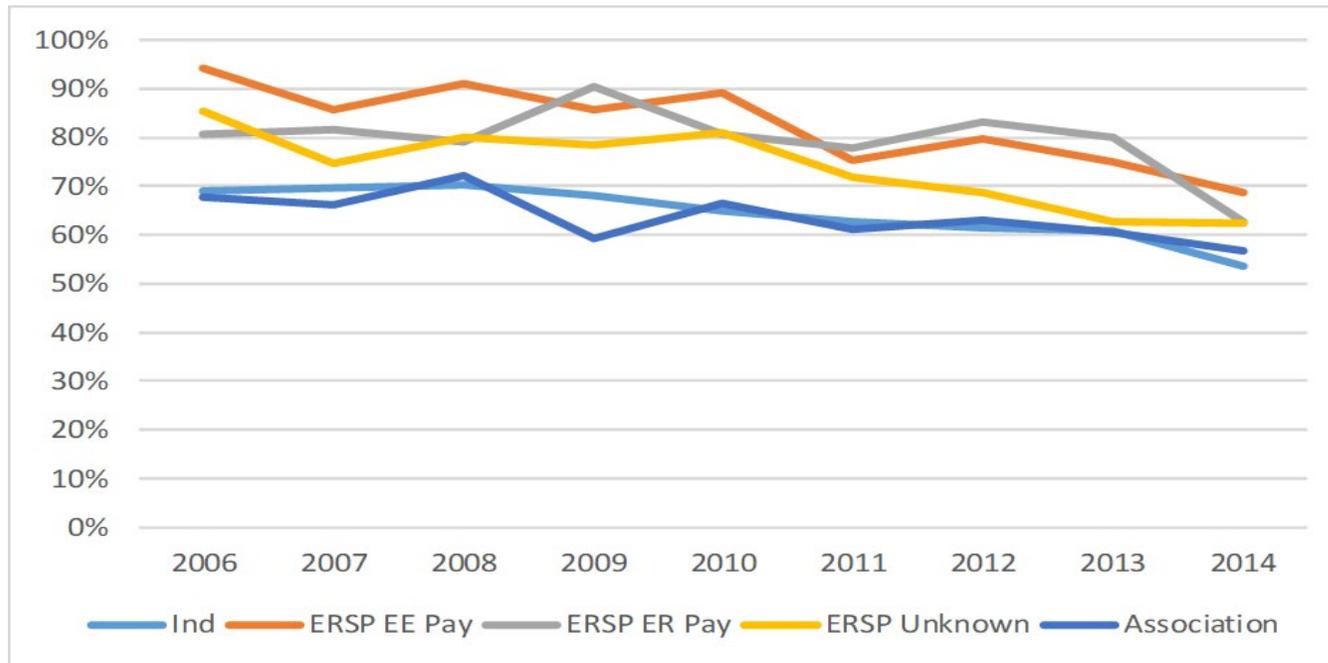
Attained Age observations

- Most ages are close to total results, 65%
- Not much experience on the upper and lower cells
- Industry struggles to connect with younger ages, <20% of exposure under age 40



Market observations

- All markets (ERSP = Employer Sponsored) so improvement
- ERSP market is growing, and is showing most improvement



2022 Individual Disability Experience plans

- Release report on claim terminations
 - Early duration claims close to 2013 IDIVT
 - However longer durations (Years 5+), show industry experience much lower than 2013 IDIVT
- Consider data call to bring in more current data (we're through 2014)
- As industry experience is so much better than current valuation standard, does 2013 IDIVT need an update?

Questions?

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