

Disability Insurance 101

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How Does DI Work in the U.S.?

	SSDI	SSI
Type of Program	Social insurance program	“Welfare” program
Financing	Social Security payroll tax, 12.4% split between workers and their employers (SSDI receives 1.8 pp)	General fund tax revenues
Size	<ul style="list-style-type: none">• 7.6 million disabled workers• 1.2 million dependents (spouses and children)• \$160 billion annually (all)	<ul style="list-style-type: none">• 4.0 million non-elderly disabled adult recipients• 985 thousand disabled children• 2.4 million elderly (some disabled)• \$66 billion annually (all)

How Does DI Work in the U.S.?

	SSDI	SSI
Cash Benefits	Progressive benefit formula based on average career earnings—same as Social Security retirement benefits (but no penalty for early claiming) \$1,483/mo, on average	Federal benefit rate \$943/mo Most states supplement (e.g., MA adds \$114)
Applicants can receive both SSDI & SSI benefits if qualify		
Health Insurance	Medicare , 29-month waiting period	Medicaid , no waiting period

How Does DI Work in the U.S.?

	SSDI	SSI
Eligibility	Ages 18-66 (66 is Full Retirement Age)	All ages (disabled kids & adults, aged)
	Work Duration & Recency <ul style="list-style-type: none"> • Age<31: need to work 1/2 the yrs btwn age 21 & disability onset • Ages 31-42: 5 yrs tot., 5 of last 10 yrs • Age=50: 7 yrs tot., 5 of last 10 yrs • Age=62+:10 yrs tot., 5 of last 10 yrs 	Means-tested <ul style="list-style-type: none"> • Countable income < federal benefit rate \$943/mo (\$1,371 couple) • Assets < \$2,000 (\$3,000 couple)
	Health condition that prevents work for at least 12 months or results in death No “partial” disabilities	
	To apply , earnings must be < Substantial Gainful Activity (SGA)= \$1,550/month	
	Earnings > SGA result in suspension of cash benefits	Earnings reduce benefits (by \$1 for every \$2 earned after \$65 disregard)

How Does SSDI Determine If Applicant's Health Conditions Prevent Work?

- Is applicant's medical condition **automatically qualifying** ("[Listings](#)")?
 - If Yes, then "Disabled"
 - If No, then ask...
- Can applicant do any **past jobs**?
 - If Yes, then "Not Disabled"
 - If No, then ask...
- Can applicant do **any job** in national economy?
 - Use the [Grid](#)
 - Grid decision="Not Disabled" meant to imply existence of unskilled jobs

Regulatory Definitions

Dimension	Categories (Ordered from Least to Most Transferable)
Residual Functional Capacity	Sedentary, Light, Medium, Heavy or Very Heavy work
Age	"Closely approaching retirement age" (60+), "Advanced age" (55-59) "Closely approaching advanced age" (50-54), "Younger individual" (18-49)
Education	"Illiterate," "Limited" (high school non-graduate), "High school graduate or more"
Work Experience	"Unskilled or none," "Skilled or semiskilled—skills not transferable," "Skilled or semiskilled—skills transferable"

Excerpt from the Medical-Vocational "[Grid](#)"

Residual Functional Capacity	Education	Previous Work Experience	Age	Rule	Decision
Sedentary work	Limited or less	Skilled or semiskilled—skills not transferable	45-49	201.19	Not Disabled
			50-54	201.10	Disabled
Sedentary work	Illiterate	Unskilled or none	18-44	201.23	Not Disabled
			45-49	201.17	Disabled
Light work	Limited or less	Skilled or semiskilled—skills not transferable	50-54	202.11	Not Disabled
			55-59	202.02	Disabled
Light work	Illiterate	Unskilled or none	18-49	202.16	Not Disabled
			50-54	202.09	Disabled

Social Security denies disability benefits based on list with jobs from 1977

Despite spending at least \$250 million to modernize its vocational system, the agency still relies on 45-year-old job titles to deny thousands of claims a year.



By [Lisa Rein](#)

December 27, 2022 at 10:15 a.m. EST



Pneumatic tube operator is among the sedentary, unskilled jobs on a list the Social Security Administration uses when considering disability claims, even though the job barely exists in the modern economy. Four of five occupations in the Dictionary of Occupational Titles were last updated in 1977. (Bettman Archive)

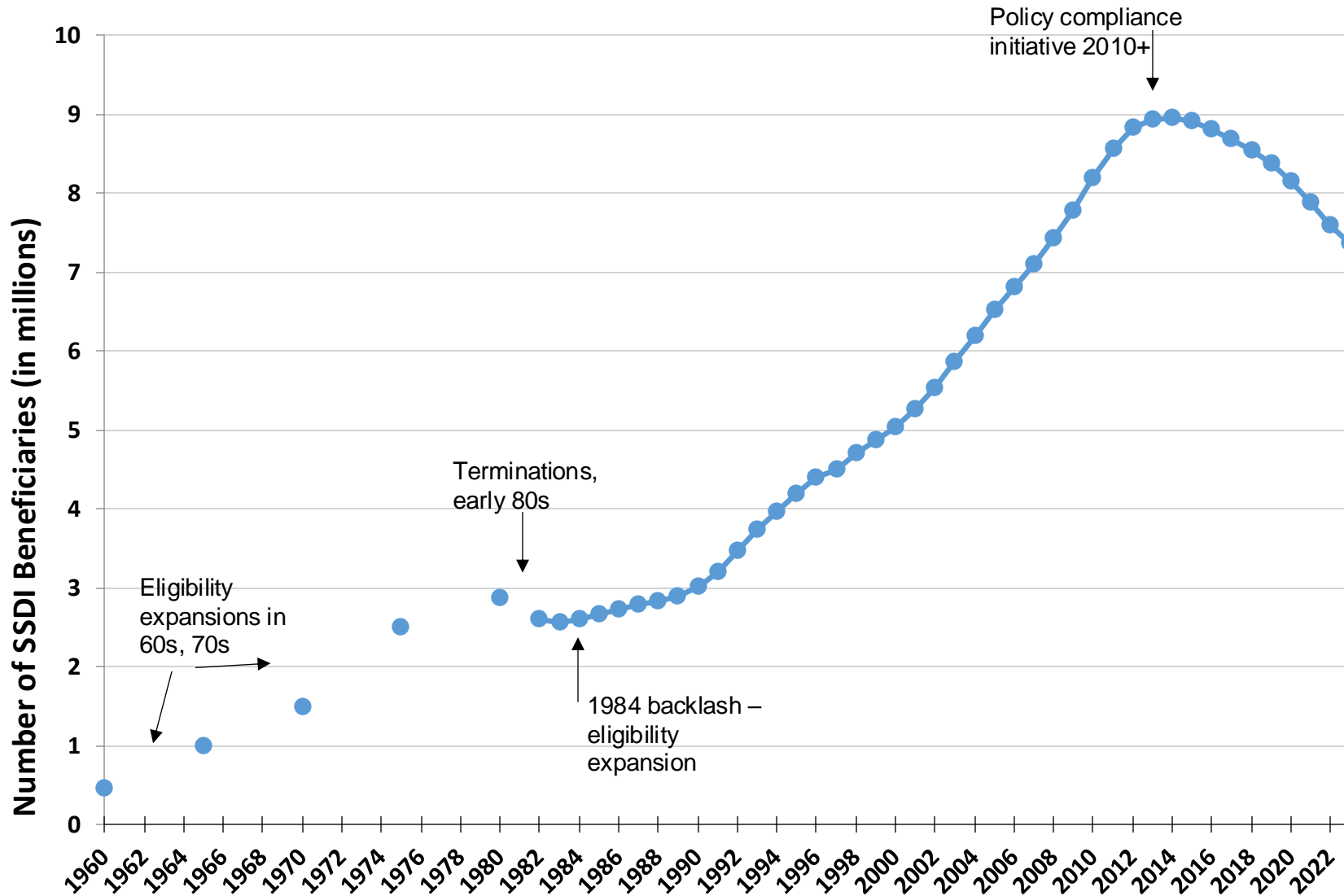
[The Post's Lisa Rein shared stories](#) of people who have been denied benefits because Social Security claimed they could do jobs such as nut sorter, egg processor or dowel pin inspector that, for all intents and purposes, don't exist in this country today. Also on the list: microfilm preparer, telephone quotation clerk, sack repairer, tube operator, eyeglass frame polisher, touch-up screener for printed circuit boards and stem mounter for lighting fixtures. Appeals courts increasingly overturn these decisions, which are based on jobs that are not really available because they no longer exist, are now automated or have been offshored.

Caseload Trends



Caseload trends: Dramatic growth...until lately

Number of SSDI Disabled Worker Beneficiaries, 1960-2023



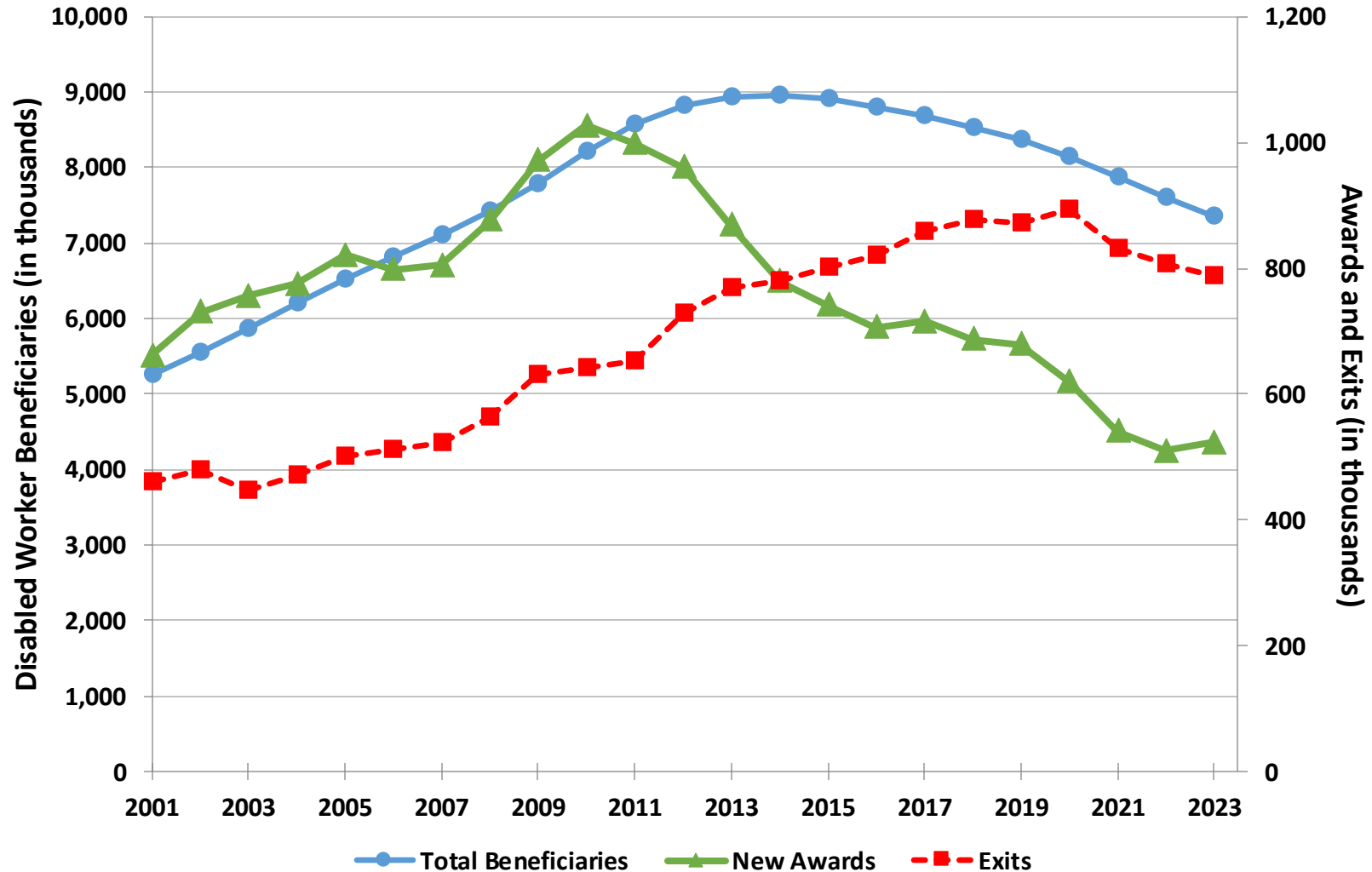
At peak, SSDI caseload equivalent to 5.8% of labor force

Source: SSA, Annual Statistical Report on the Social Security Disability Insurance Program, 2023, Table 1

Recent SSDI Caseload Decline Due to More Exits...and Fewer Awards

Number of SSDI Awards and Exits, 2001-2023

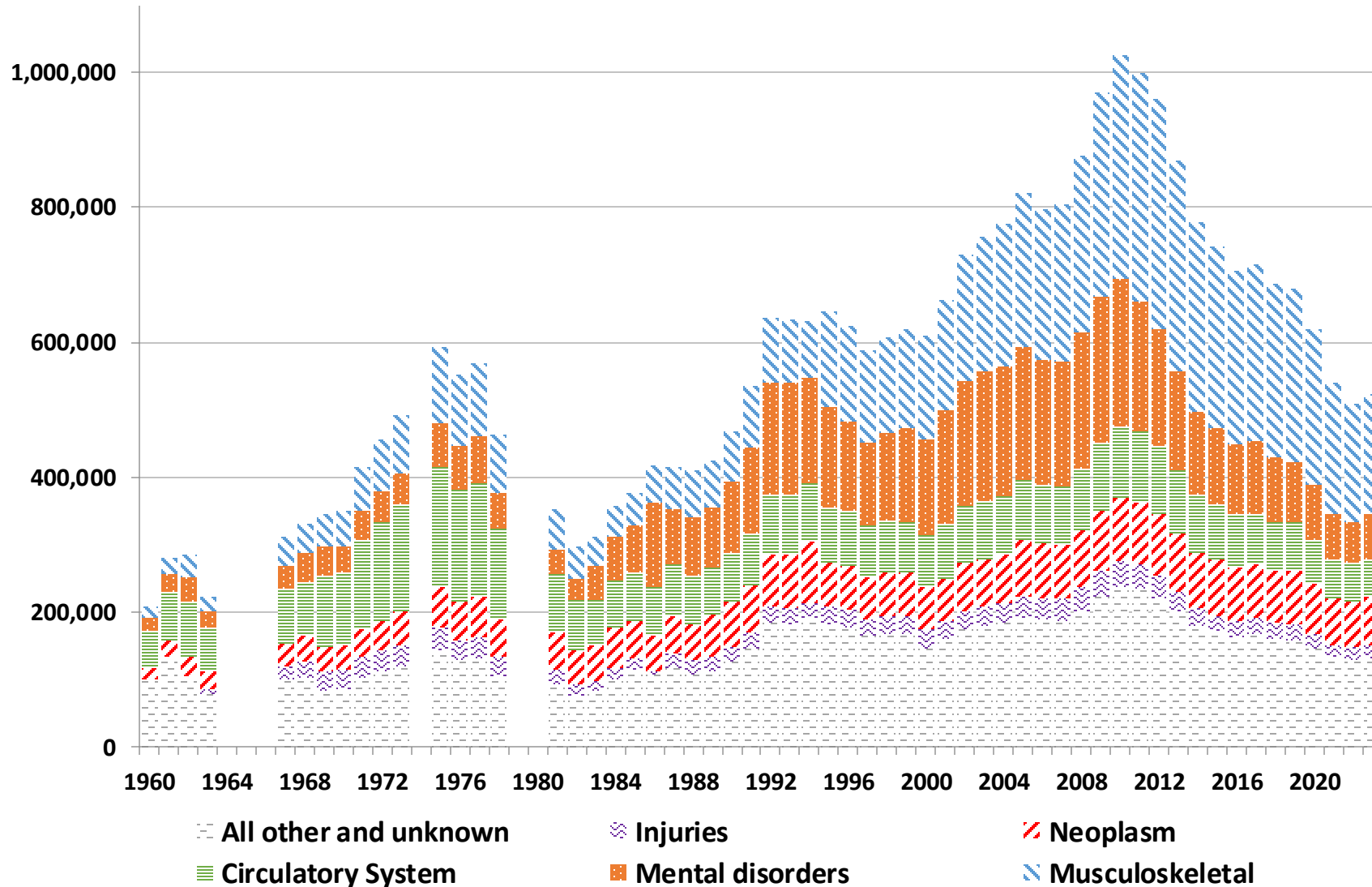
Number of SSDI Awards and Exits, 2001-2023



Source: SSA, Annual Statistical Report on the Social Security Disability Insurance Program, 2023, Tables 1, 35, and 49

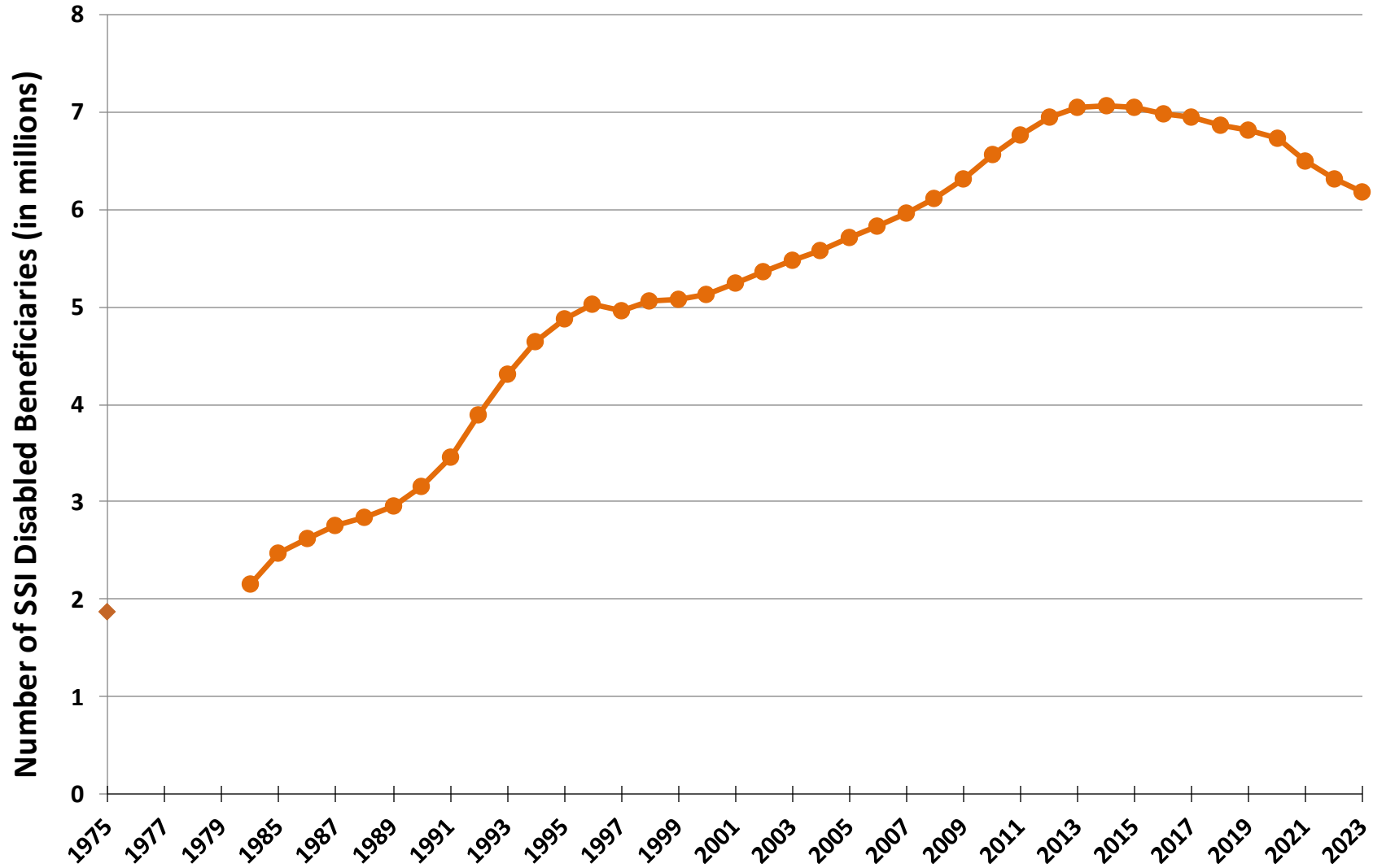
Decomposing SSDI Awards

Number of New SSDI Awards to Disabled Workers by Diagnostic Group, 1960-2023



Similar Pattern of Growth for SSI

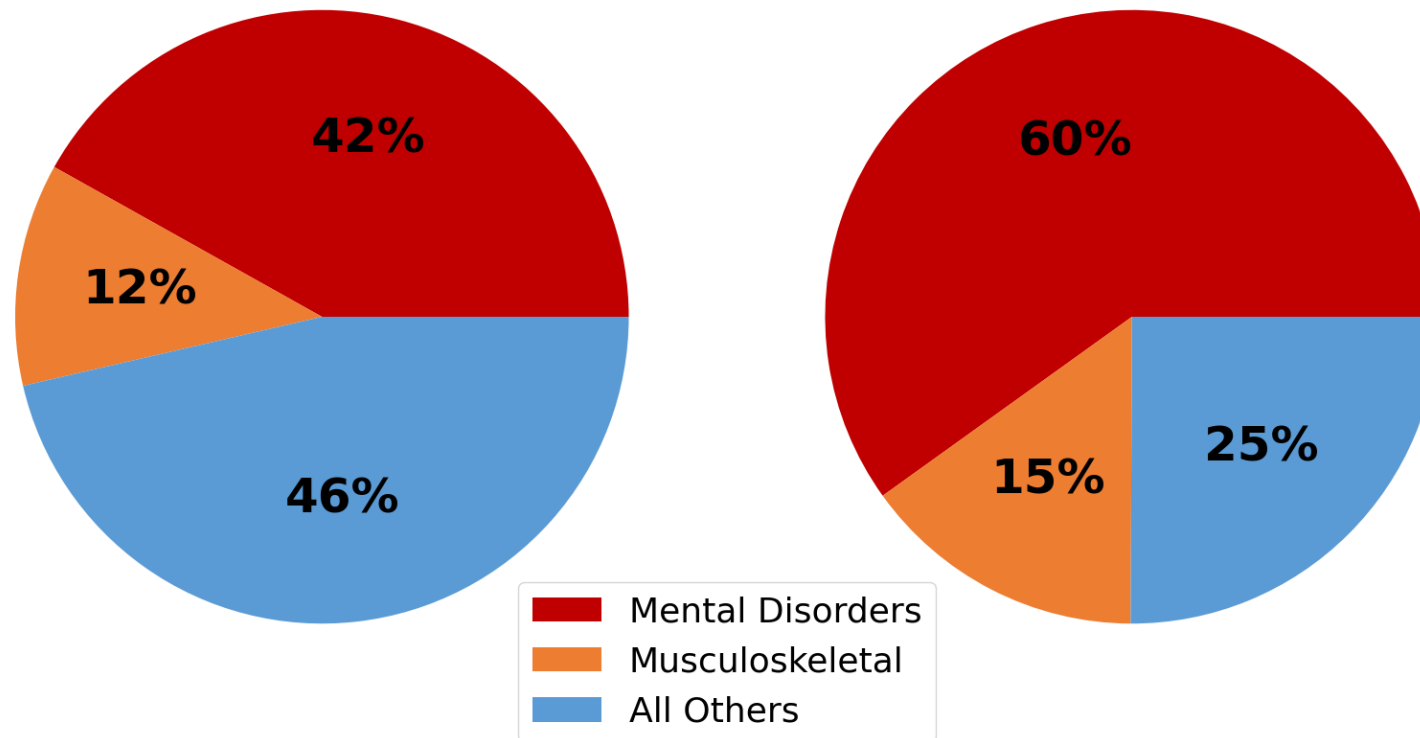
Number of SSI Disabled Beneficiaries (Adults + Kids), 1975-2023



Source: 2024 Annual Report of the SSI Program, Table IV.B6

SSI Growth Driven by Mental Disorder Claims

Beneficiary Distribution by Diagnostic Group
1991 2023



Source: Social Security Administration

What Factors Drive Caseload Trends? *[Nicole's list, in order of importance]*

1. Disability policy

- Eligibility expansions in 1960s and 1970s (to adults <50, non-permanent disabilities, dependents)
- Eligibility revisions in 1984 made it easier for people with mental impairments and pain to qualify
- Policy compliance initiative at appellate level in 2010 reduced award rate (in part)

2. Demographic shifts

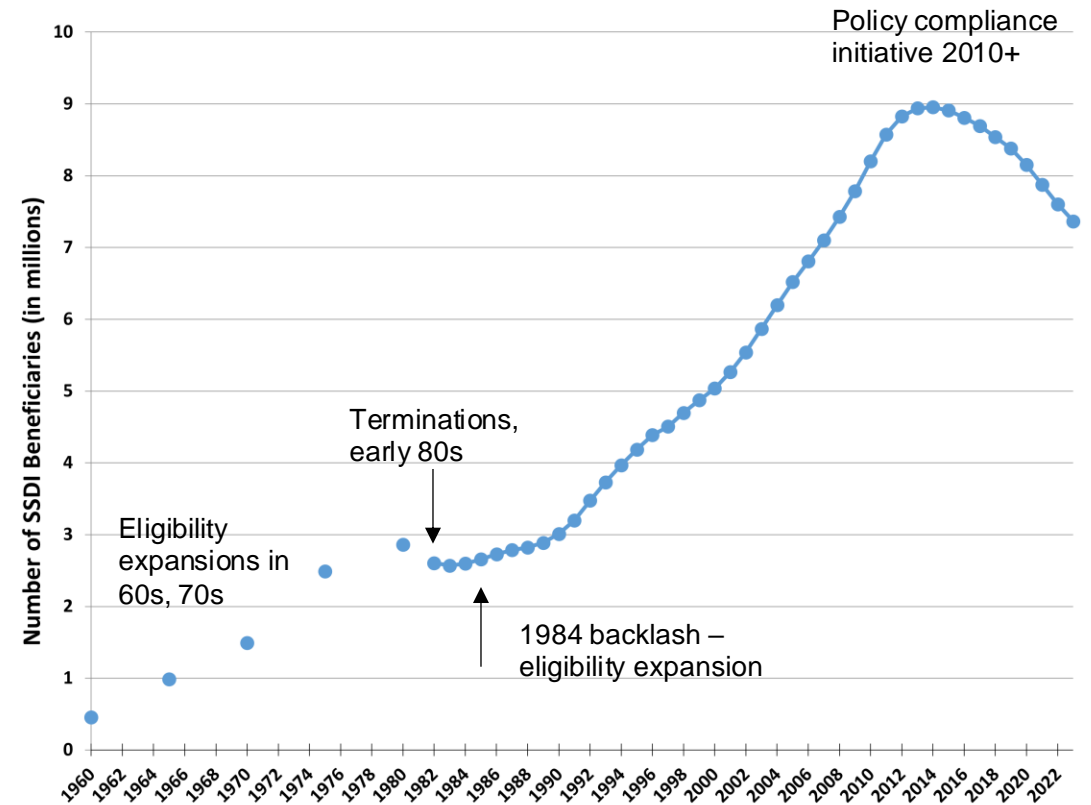
- Population aging—large Baby Boom cohort (b. 1946-1964) passing through the age distribution
- Rise in female labor supply—as women entered labor force they earned work credits to be insured for SSDI
- Mortality decline—people who might have died early in a past era, live to claim disability benefits and for longer

3. Labor market opportunities

- Structural changes
- Cyclical changes

4. Health

5. Health insurance



Optimal DI Benefits



Insurance-Incentive Tradeoff

- Optimal DI benefits balance value of insurance against incentives that distort behavior
 - Goal: Insure workers against disability-related consumption drops (consumption-smoothing)
 - But try not to incentivize non-work by people who could otherwise work
- Individuals with disabilities privately choose DI receipt or work, trading off net benefits
 - Have private information about **their true work capacity**
 - If value of DI is greater than value of work, individuals will apply for DI
- Employers privately choose to accommodate them or not, trading off net costs
 - Have private information about **true costs of accommodation**
 - If cheaper not to accommodate than to accommodate, employers will not accommodate
 - Employers do not bear the cost of an employee entering SSDI (recall all pay the same DI payroll tax rate)
 - Americans with Disabilities Act requires reasonable accommodation, but hard to enforce
- Competitive equilibrium results in more DI participation than is socially efficient
- Asymmetric information gives rise to moral hazard, potentially two-sided
- Research finds evidence of moral hazard (though not clear if it's moral hazard by employers or individuals, or both)

Targeting

Target Efficiency - The extent to which a program focuses its benefits on the target group Garfinkel & Haveman 1974

- What is the target of SSDI?
- Is there a reason to worry about misclassification (“imperfect tagging”)? Why?
- What are the consequences of misclassification?
 - Type I Error (false denial): Deny those who are truly eligible (less moral hazard)
 - Type II Error (false allowance): Allow those who are truly ineligible (more moral hazard)
- Use of screens and ordeals to improve target efficiency (Diamond & Mirlees 1978, Nichols & Zeckhauser 1982, Parsons 1990; 1991)
 - “Active screening policies” (e.g., work capacity assessment via medical records, grid)
 - “Ordeals” as “self-screening” mechanisms (e.g., no work, lengthy application, wait times, appeals, complexity)

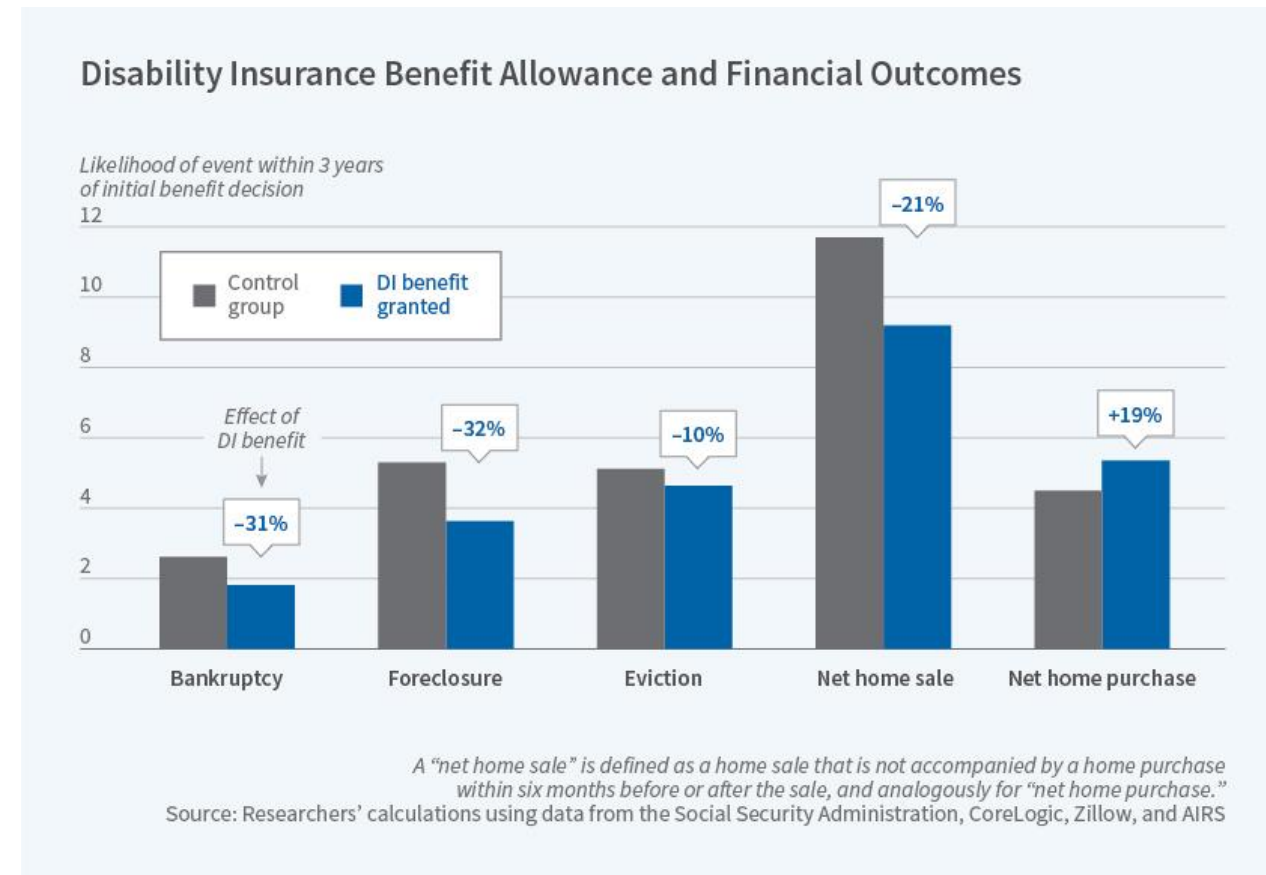
Research Has Focused on Fiscal Costs (esp. Moral Hazard) but Benefits May Be Substantial

MVPF for DI=0.78
(Hendren & Sprung-Keyser QJE 2020)

→ WTP < Transfer cost + **lost earnings** + lost taxes

But WTP doesn't incorporate insurance value, which new research suggests is important:

- Low & Pistaferri (AER 2015)
 - Structural model, benefits of SSDI may exceed distortionary costs
- Deshpande, Gross, & Su (AEJ: Applied 2021)
 - SSDI reduces financial distress; increases optimal benefit
- Deshpande & Lockwood (Econometrica 2022)
 - Protection against non-health risk accounts for half of DI's insurance value
- Deshpande & Mueller-Smith (QJE 2022)
 - SSI prevents youth criminal activity

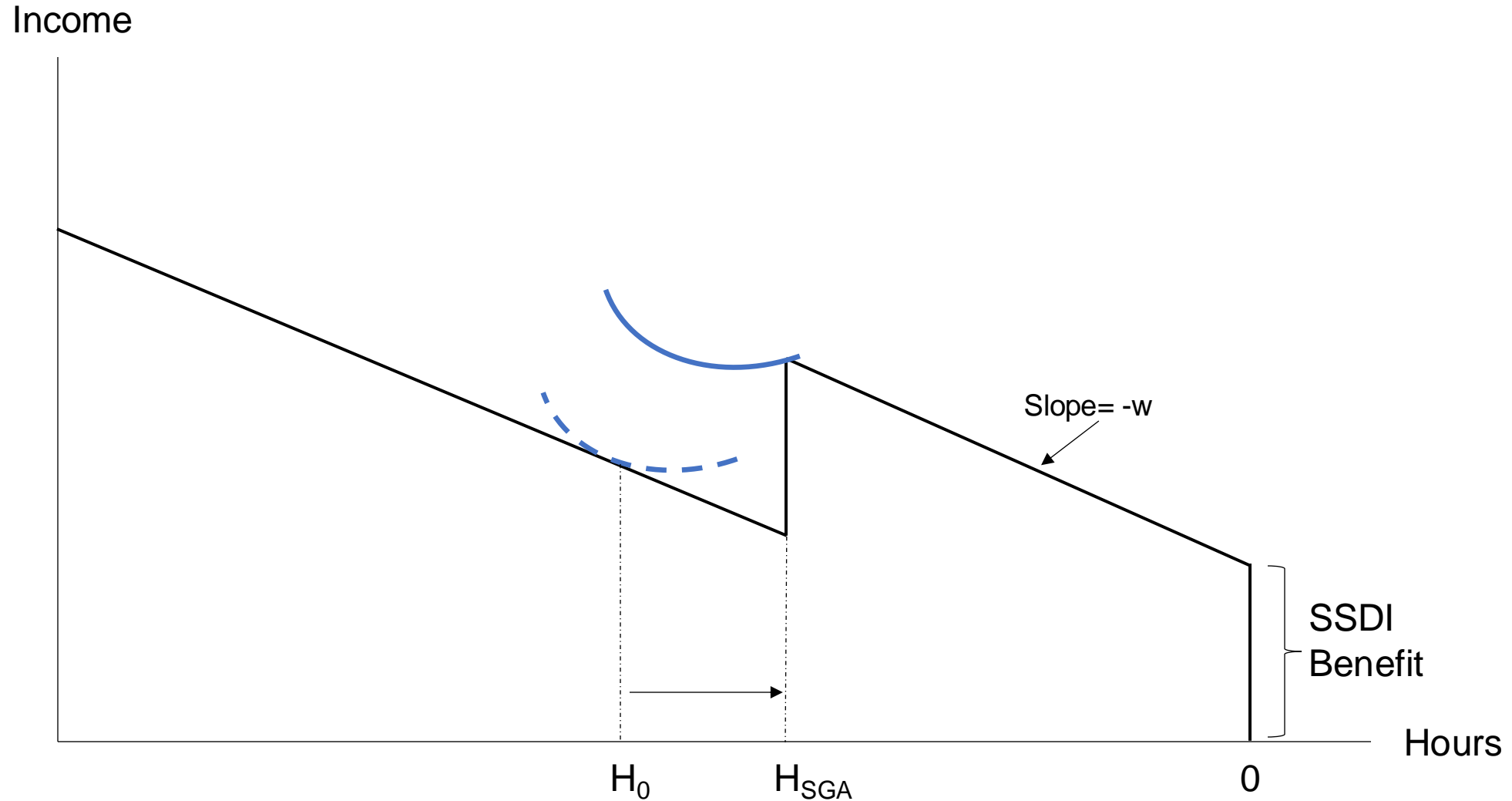


Deshpande, Gross, & Su AEJ: Applied 2021

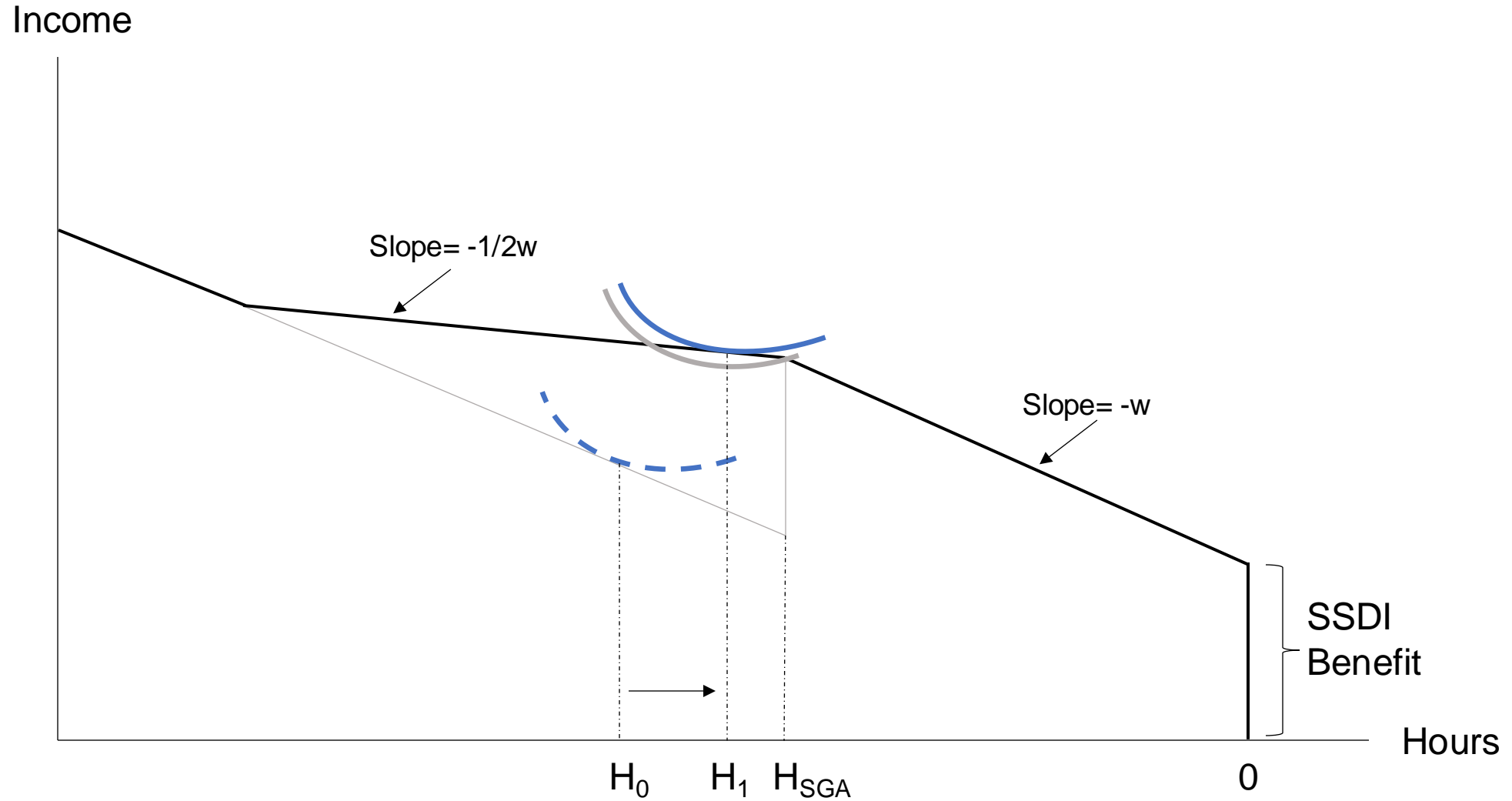
Work Disincentives & Moral Hazard



SSDI Budget Constraint Has a Notch ("Cash Cliff"), Creates Labor Supply Distortions



Benefit Offset/Phase-Out would Reduce Labor Supply Distortions

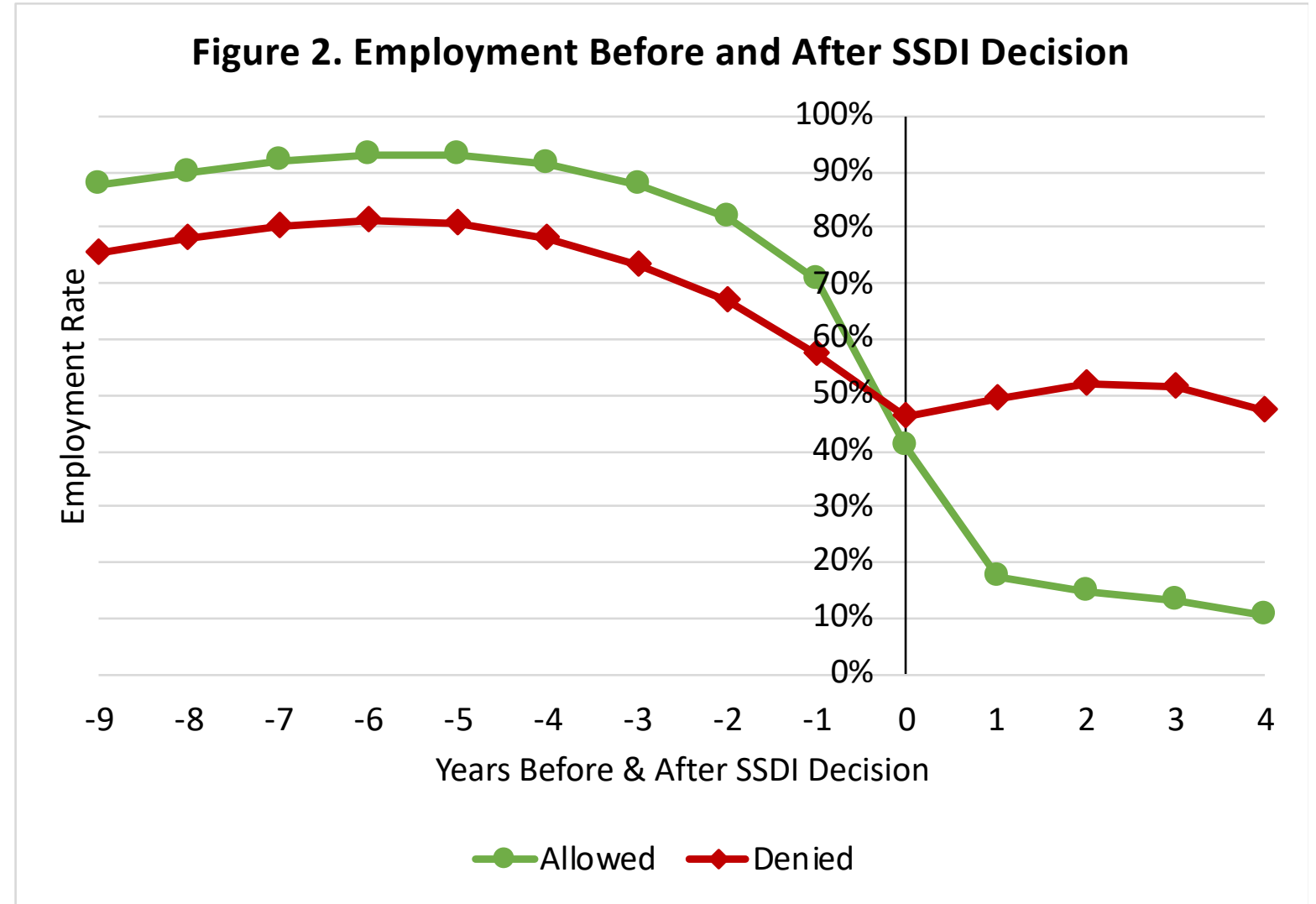


How much would people work in the absence of receiving SSDI benefits?

(Maestas, Mullen and Strand 2013)

Research Goals:

- Estimate the size of DI's work disincentive effect
- Infer latent work capacity of DI beneficiaries



Examiner-Assignment Quasi-Experimental Research Design (Maestas, Mullen and Strand AER 2013)

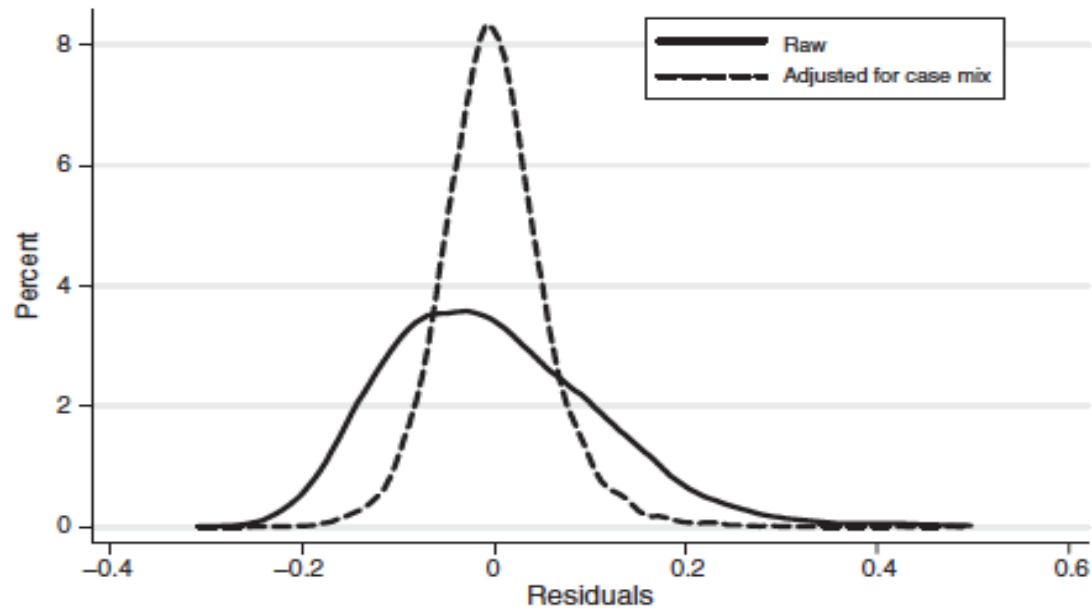


FIGURE 3. DISTRIBUTION OF EXAMINER DEVIATIONS FROM DDS MEAN INITIAL ALLOWANCE RATE

Note: Caseload characteristics include DDS office, age, preonset earnings, body code, three-digit zip code, terminal illness diagnosis, and decision month.

Source: 2005–2006 DIODS data.

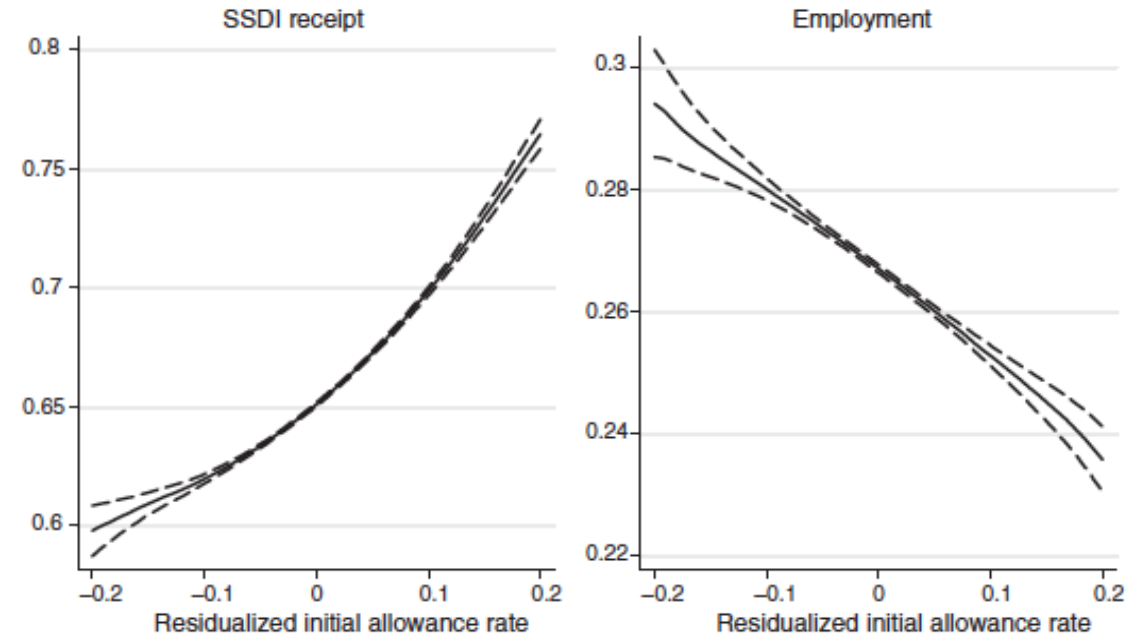


FIGURE 4. SSDI RECEIPT AND LABOR SUPPLY BY INITIAL ALLOWANCE RATE

Notes: Ninety-five percent confidence intervals shown with dashed lines. Employment measured in the second year after the initial decision. Bandwidth is 0.116 for DI and 0.130 for labor force participation.

Source: DIODS data for 2005 and 2006.

How much would the marginal entrant work in the absence of receiving disability benefits?

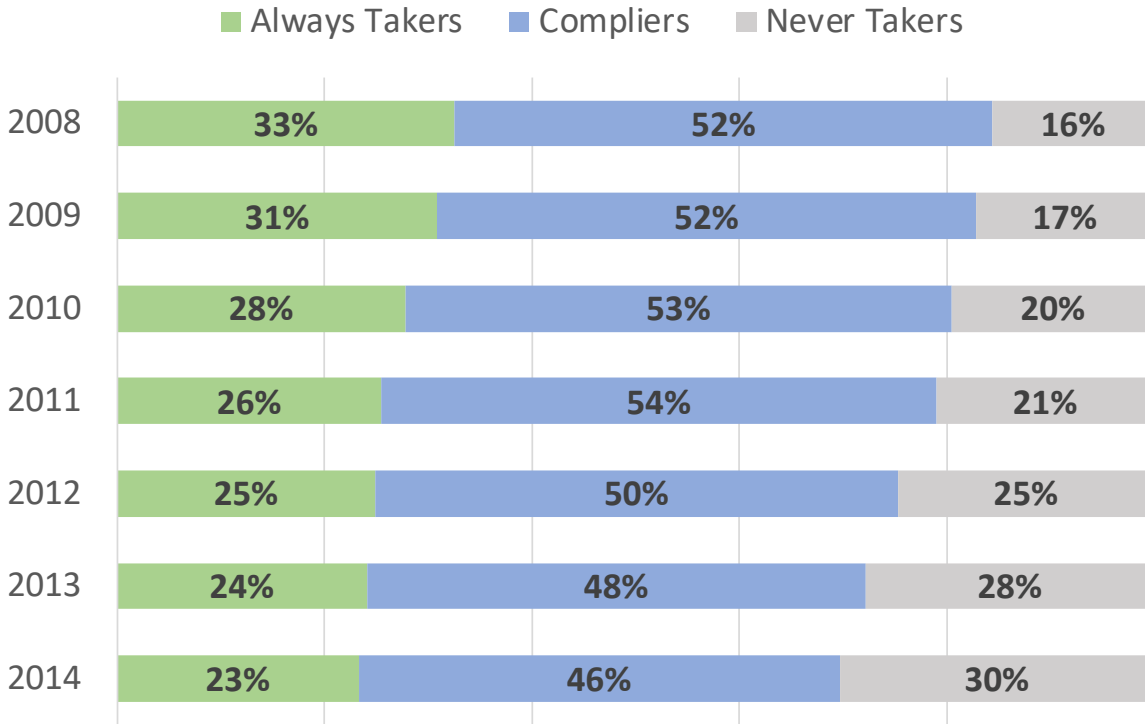
	Mean		OLS	IV
	Allowed	Denied		
LFP: Earnings \geq \$1000	0.15	0.52	-0.35***	-0.28***
LFP: Earnings \geq SGA	0.05	0.29	-0.24***	-0.19***
Earnings	\$1,951	\$8,928	-\$7,435***	-\$3,781***

KEY FINDINGS

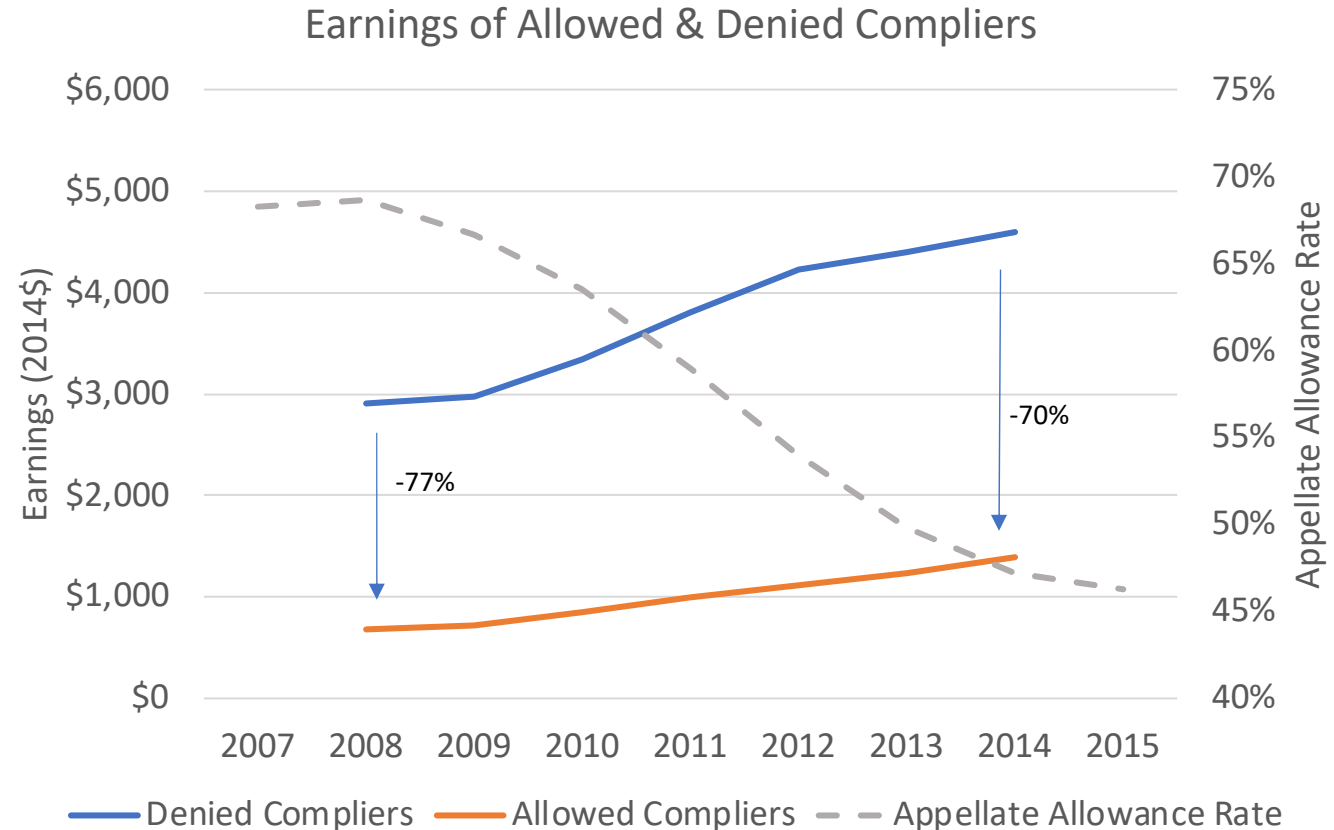
SSDI receipt causes a 28pp reduction in any employment, a 19pp reduction in employment above SGA and \$3,781 loss in earnings among beneficiaries on entry margin

Sample: 2005 initial decisions; Control variables include indicators for body system, terminal illness, age group, prior earnings quintile, DDS, 3-digit zip code, and decision month.

SSDI has become stricter; people on margin earn way less than SGA



- Complier share falls → eligibility margin narrows, less ALJ discretion
- Fewer “always takers,” more “never takers”



- Treatment effect grows in abs. value but declines in % terms → less work capacity at margin
- People on eligibility margin earning way less than SGA

Research Frontier

A Selective Tour of Some Interesting Topics



Research Frontier: Some Topic Ideas

- Insurance value of DI (e.g., other benefits, spillover effects on children)
 - New NBER paper by Hawkins et al. 2023 finds no health benefits of SSI for kids
- Moral hazard by employers
 - New NBER paper by Aizawa et al. 2023 finds incentivizing accommodation thru wage subsidies leads to welfare gains
- Disability and racial health equity—what policies improve equity?
 - Initiative at NBER to investigate this in Medicaid claims data
- Reasons for the historic turnaround in disability employment
- Changing nature of work and working conditions, implications for DI
- Home- and community-based services
 - Understudied, can use Medicaid claims data
- Effectiveness of Vocational Rehabilitation Services
 - Understudied, U.S. data not great
- Target efficiency: Reducing burdens, getting the “right decision earlier”
 - Hoynes-Maestas-Strand study of disability attorneys, ongoing work on 2010 reform

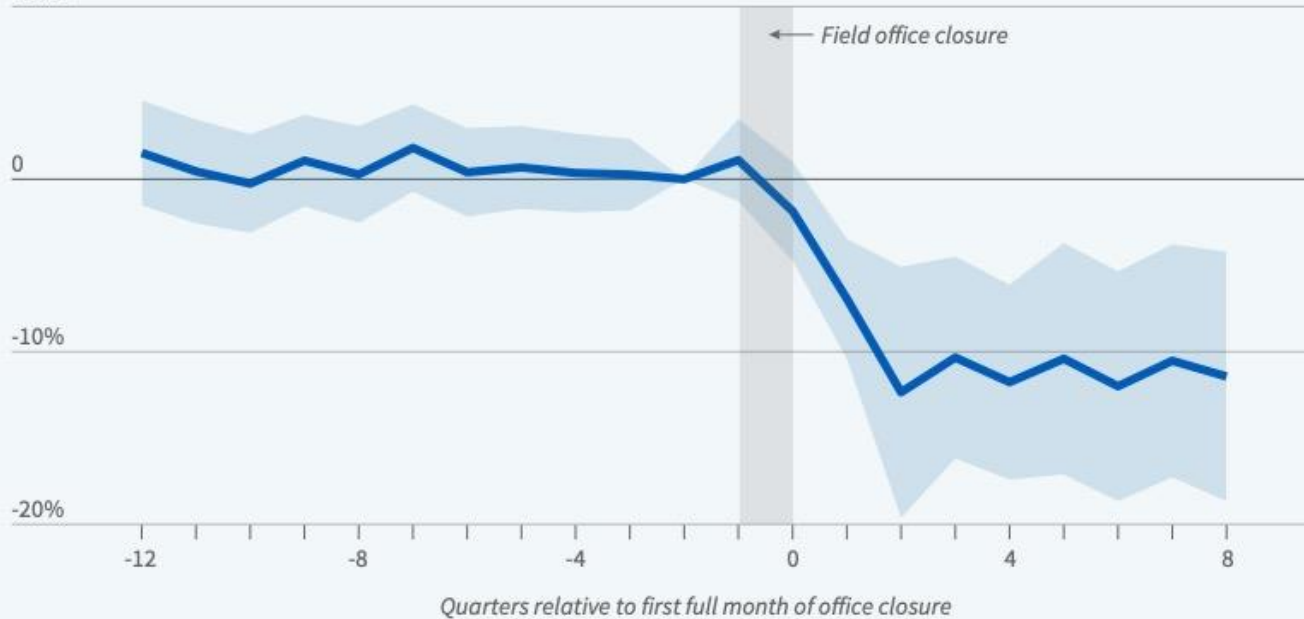
Disability Health Equity

- Disparities in access to care, treatment (Iezzoni et al. 2021) for PWD v. non-PwD
- People with disabilities just became a NIH-designated health equity population in 2023
- Intersectionality between disability and race/ethnicity, LGBTQIA+, age
- PWD overrepresented in public insurance programs, heavily affected by policy
- Important to evaluate policy by its effects on equity across these dimensions
- Challenge: SSA's data doesn't systematically record race/ethnicity
- Research efforts underway to remedy
 - Use Medicare & Medicaid data as a lens—NBER Medicaid Data Initiative

Field Office Closures Reduce Access

Closing of SSA Field Offices and Number of Disability Applications

Number of applicants relative to before office closure
+10%



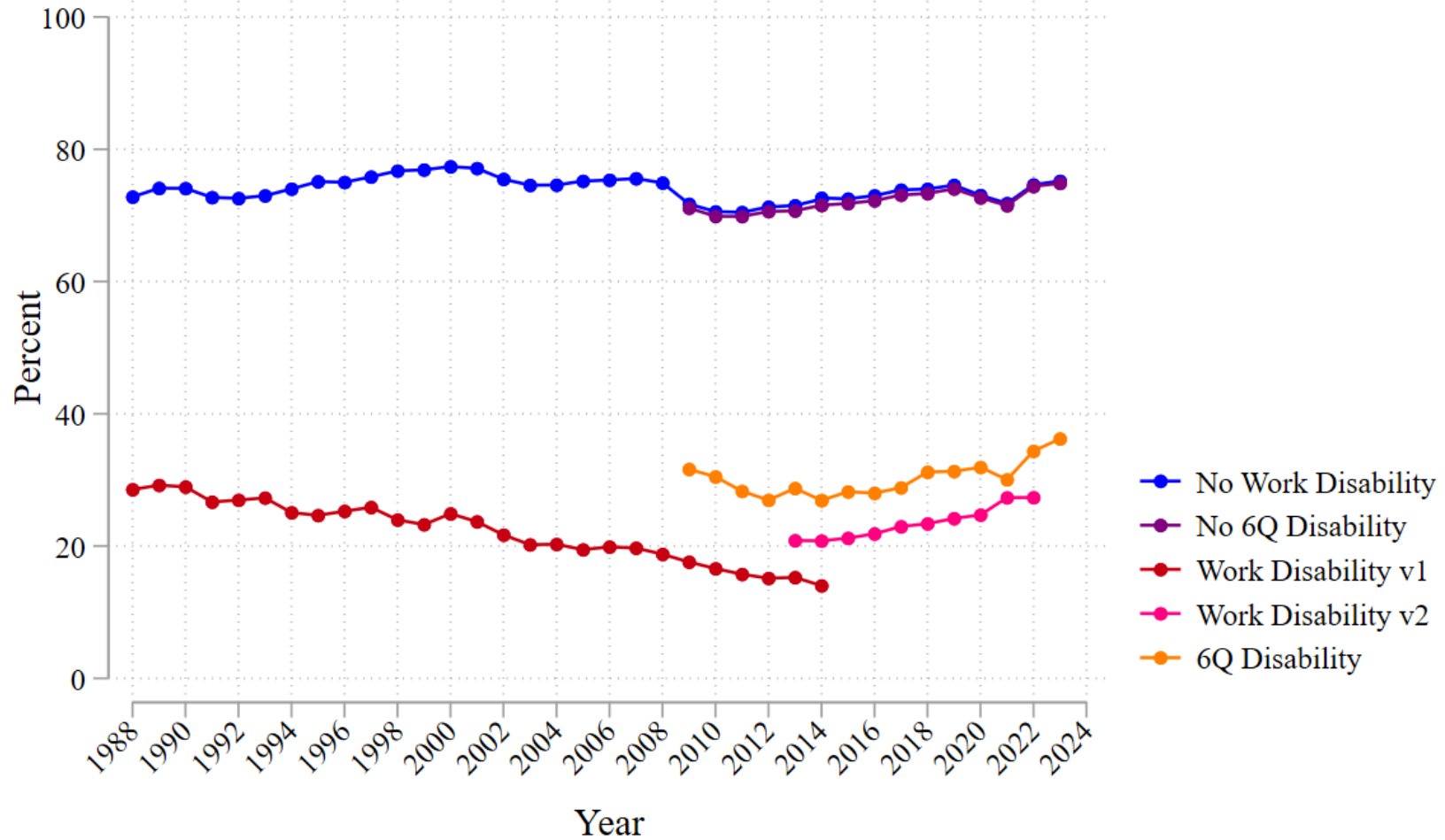
Shaded region represents 95% confidence interval
Source: Deshpande M and Li Y, NBER Working Paper 23472

- Closing a Social Security field office leads to a persistent 16% decline in the number of SSDI beneficiaries in the surrounding communities
- Disability applications fell by only 10%, and congestion increased at neighboring offices

Historic Turnaround in the Employment Rate of People with Disabilities

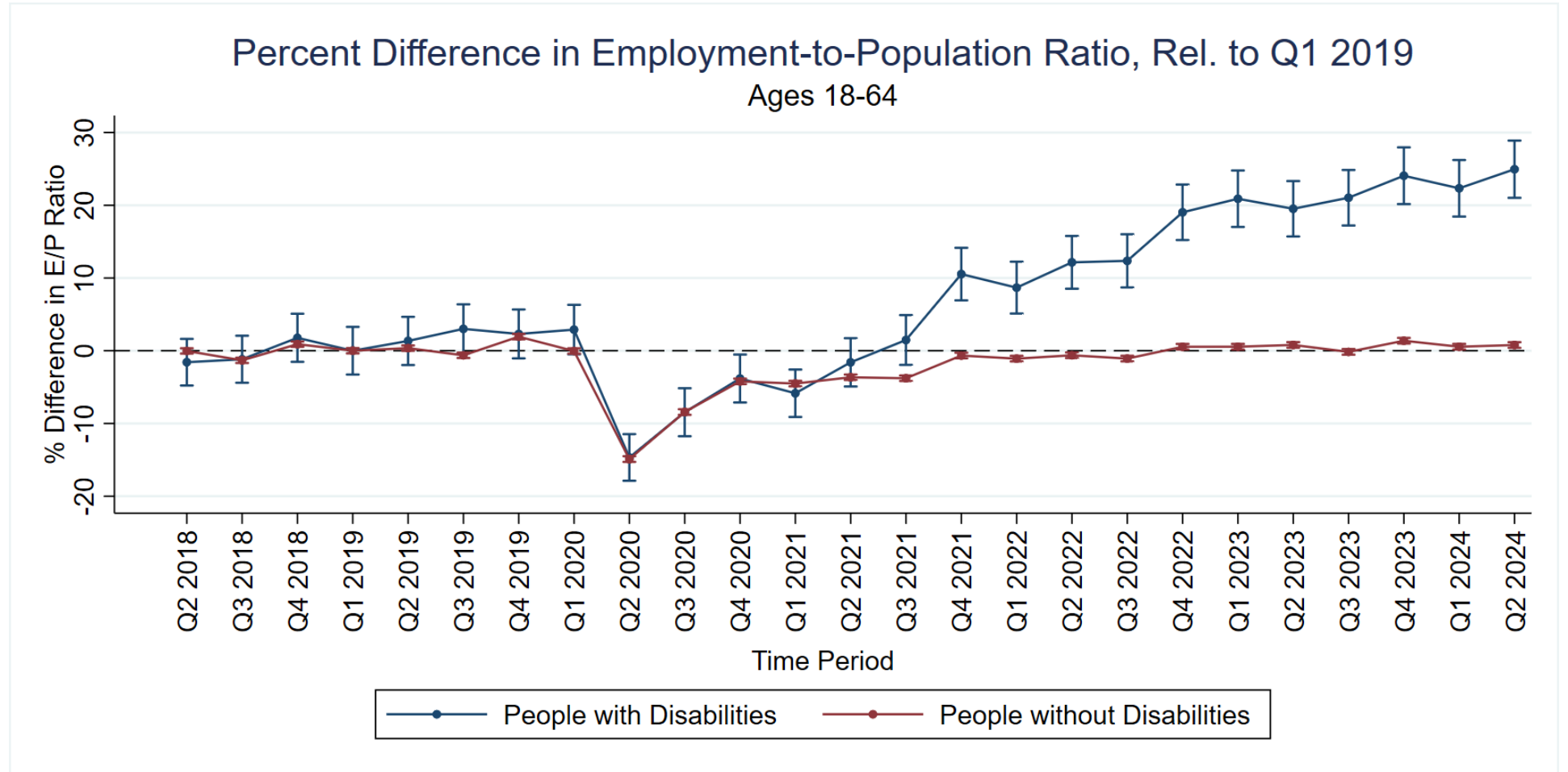
Employment Rate of People Ages 16-64 with and without Disabilities, 1988-2023

Employment-to-Population Ratio for People with and without Disabilities



People with Disabilities Recovering Faster from COVID Employment Losses

Percent Difference in Employment-to-Population Ratio, Rel. to Q1 2019 – People with v. without Disabilities



More Fun Stuff

- Predoctoral & Postdoctoral Fellowships in Retirement & Disability Research at the NBER Retirement & Disability Research Center
 - Application deadline: first week of December
 - Announcement in *Job Openings for Economists*



<https://disabilityinclusiveemployment.org>

DEPARTMENT OF HEALTH CARE POLICY
HARVARD MEDICAL SCHOOL

Thank you!
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