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# Disability Determination, Employment Histories, and Age at First SSI Receipt

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## Abstract

The disability criteria used to determine Supplemental Security Income (SSI) eligibility varies by age. For people under age 65, SSI is a means-tested disability program; for people aged 65 and older, the disability requirements are eliminated, and SSI becomes a retirement income supplement. Prior to age 65, the disability requirements for SSI are relaxed every five years beginning at age 45. This paper aims to add to the small body of literature on the role of age in the disability determination process by focusing on the most vulnerable group of Social Security Administration beneficiaries: SSI recipients. Using integrated administrative data from Washington state (2010 through 2017), this paper quantifies the changes in SSI uptake that follow each age-based change in the disability rules from age 45 through age 65. For the thresholds with the greatest changes, I examine the population characteristics, employment histories, and public assistance use patterns of people who first received SSI two years before and after each age threshold. I find substantial increases in SSI enrollment following the relaxation of disability rules at age 50, age 55, and age 65. Compared to the younger thresholds, increases in SSI receipt following the end of the disability requirements at age 65 may be more easily explained by observed differences in employment and population characteristics. There are few observed differences in the population characteristics, employment histories, and public assistance use patterns surrounding the age 50 and age 55 thresholds despite the increase in SSI participation immediately following these thresholds.

Keywords: Supplemental Security Income, poverty, older adults, people with disabilities, public assistance, welfare

JEL Classification Codes: I3 Welfare, Well-Being, and Poverty, J1 Demographic Economics, J2 Demand and Supply of Labor

## 1. Introduction

Supplemental Security Income (SSI) is an important resource for low-income older adults and people with work-limiting disabilities, but it is hard to get. In 2021, the SSI monthly grant of \$783 for individuals protected 2.7 million of the 8.5 million total SSI recipients from poverty (Creamer et al. 2022; SSA 2021b). Access to reliable sources of income through Social Security programs like SSI is associated with lower rates of financial distress, better health, and improved longevity—especially among those with the lowest incomes and most severe disabilities (Black et al. 2017; Deshpande et al. 2021; Gelber et al. 2017; Herd et al. 2008). Yet, SSI is difficult to obtain. About 60 percent of applicants are ultimately denied, most of them rejected for not meeting the disability criteria (CBPP 2021).

The disability criteria used to determine SSI eligibility varies by age. For people under age 65, SSI is a means-tested disability program; for people aged 65 and older, the disability requirements are eliminated, and SSI becomes a retirement program. Age is also used in the SSI disability determination process for people under age 65 as a “vocational factor,” considered in conjunction with their functional capacity, education level, and work history to determine whether someone can readjust to new work given their physical or mental impairment (SSA 2011; 2020). The age rules relax disability criteria every five years, beginning at age 45 until the disability requirements end at age 65.

When age matters in disability determinations, it matters for people who are marginally eligible on a disability basis. Age is used to help determine the eligibility of cases when applicants have conditions that are not on the Social Security Administration’s list of conditions that earn immediate award but are still severe enough not to warrant immediate denial on a medical basis. Evidence for Social Security Disability Insurance (SSDI), which uses the same disability determination process as SSI, shows that nearly half of SSDI applications initially make it to the final stage when age is considered, but most of those that make it to the last stage are initially denied (Wixon & Strand 2013). Marginal denials, however, rarely stick. Studies focused on SSDI find that most applicants who are denied at the last stage when age is considered are eventually awarded benefits upon appeal or reapplication (Schimmel Hyde et al. 2020). Few denied applicants ever return to work or earn income at levels that would make them ineligible for SSDI (Schimmel Hyde et al. 2020; Strand & Messel 2019). These findings suggest that age-based disability rules play a factor in delaying benefits for people who are ultimately

deemed disabled rather than definitively excluding able-bodied people from a program for which they are not eligible.

This paper aims to add to the small body of literature on the role of age as a vocational factor in the disability determination process by focusing on the most vulnerable group of Social Security Administration beneficiaries: SSI recipients. To date, no research on vocational factors considers SSI recipients separately from SSDI recipients. Although there is significant overlap between the two programs (in addition to using the same disability determination process, about 28 percent of adult SSI recipients also received income from SSDI in 2020), the financial eligibility requirements for SSI means that SSI recipients are necessarily very low income and have few assets (SSA 2021a).

Using a unique integrated, longitudinal administrative dataset from Washington state (2010 through 2017), this paper contributes descriptive evidence to further our understanding of which groups of older adults are affected by SSI's age-based disability determination rules. To do this, I first identify the change in SSI take-up surrounding the disability determination age thresholds: ages 45, 50, 55, 60, and 65. For the age thresholds with the greatest changes, I then examine the population characteristics, employment histories, and public assistance use patterns of people who first received SSI two years before and two years after each age threshold.

I find substantial increases in SSI enrollment following the relaxation of disability rules at age 50, age 55, and age 65. Compared to the younger thresholds, increases in SSI receipt following the end of the disability requirements at age 65 may be more easily explained by observed differences in employment and population characteristics. There are few observed differences in the population characteristics, employment histories, and public assistance use patterns surrounding the age 50 and age 55 thresholds.

These findings suggest a few possible explanations that should be explored in future analyses. The increase in SSI participation at age 65 following the end of SSI's disability requirements appears to be driven by groups of people (long-term low-earners) becoming newly eligible for the program who otherwise would not have received benefits under the disability requirements. The rise in SSI uptake after ages 50 and 55, on the other hand, may be better explained by characteristics not observed in this analysis that also influence disability determination, such as timing and severity of disability, education level, or occupation type. However, the similarities in pre-SSI employment trajectories and population characteristics for

people who first receive SSI before and after the ages 50 and 55 thresholds could indicate that instead of unlocking SSI eligibility for a new, distinct group of older SSI recipients, the age thresholds artificially delay people who will ultimately receive SSI benefits from receiving them. This explanation would comport with a prior study on SSDI that found that most applications that are denied when age factors into the disability determination are ultimately allowed (Strand & Messel 2019).

This study represents a first step in quantifying the changes in SSI receipt following age-based loosening of the Social Security Administration disability requirements and in describing the population characteristics, employment, and public assistance use histories of people who receive SSI just before and after the disability requirements are relaxed or eliminated. The findings from this study pose questions for future inquiry: What explains the rise in SSI applications following age 50 and age 55 if not labor force participation? Does the vocational grid, which accounts for age in assessing whether someone with a disability can find work, reflect actual labor force opportunities for older people with disabilities? Are the trends described in this paper for Washington state consistent with trends for other states and nationally? Further studies about the role of vocational factors and age thresholds in SSI take-up should include data on additional factors that affect disability determination: age of disability onset and severity; application dates, wait times, and redeterminations; and educational background and past occupations.

## **2. Policy Background**

### **2.1. Supplemental Security Income and the Safety Net**

SSI is the highest-dollar means-tested federal cash assistance program offered in the United States. In 2023, SSI offers eligible individuals monthly federal grants up to \$914, an amount that is supplemented by most states (SSA 2023b). Other means-tested cash assistance programs either have much lower maximum benefit levels (the Supplemental Nutrition Assistance Program [SNAP] has a maximum monthly benefit of \$281 for individuals) or have eligibility rules and benefits that vary widely across states, are time-limited, and impose strict work requirements (Temporary Assistance for Needy Families [TANF]) (CBPP 2023b; 2023a). SSI is also unlike federal-state Unemployment Insurance programs because it is not designed to be a temporary

wage replacement for work. Instead, SSI more closely resembles the social insurance programs it supplements, SSDI and Old Age and Survivor's Insurance (OASI). Like SSDI and OASI, SSI is designed to be a long-term income support for people unable to work due to disability or advanced age. However, unlike SSDI and OASI, SSI does not require recipients to have earned work credits to be eligible, is means-tested, and is financed through general funds rather than a payroll tax.

Because of its unique position within the United States safety net, SSI has been referred to as “the other welfare” and is often considered to be a long-term substitute to Unemployment Insurance. Yet, there is mixed evidence on the association between SSI and employment. A recent study finds most SSI participants entered the program from other public assistance programs rather than from work (Goodman-Bacon & Schmidt 2020). Other studies show that while SSI applications do increase when the unemployment rate rises, when that occurs, initial award rates decrease (Carey et al. 2022; Maestas et al. 2021; Nichols et al. 2017; Rupp 2012). People who are awarded SSI tend to remain on the program instead of exiting when economic times are better. Only 10 to 13 percent of SSI recipients exit the program to employment in their lifetime; this proportion is even lower among older SSI recipients (Anand & Ben-Shalom 2018; Ben-Shalom & Stapleton 2015; Cook et al. 2016). There is also evidence that higher state-supplemented SSI benefits induce men to reduce their pre-retirement labor supply, but this behavior may be confounded by the availability of Social Security benefits prior to full retirement age at 62 (Neumark & Powers 2000).

## **2.2. SSI Eligibility**

SSI eligibility varies by age. For people under age 65, SSI is a means-tested disability program that provides cash assistance to people who have not earned enough work credits to be eligible for Social Security Disability Insurance (SSDI) or whose SSDI benefits are below the SSI financial eligibility thresholds. For people aged 65 and older, the disability requirements are eliminated, and SSI becomes a retirement program known as Old Age and Survivors Insurance (OASI) for people with little-to-no Social Security retirement benefits. Many people receive SSI and SSDI or SSI and OASI at the same time (SSA 2021b). At all ages, SSI recipients must meet strict income and asset limits. Fewer than half of people who apply for SSI receive it. Forty-five percent of SSI applicants are ultimately rejected for disability reasons, and 15 percent are denied

for technical reasons (CBPP 2021). Ten percent who are initially denied are awarded upon appeal (CBPP 2021).

### **2.3. SSI's Age-Based Disability Determination Rules**

SSI applicants under age 65 must be determined to have a severe, long-lasting, work-limiting disability in order to be determined eligible for SSI. The disability determination process for SSI is a sequential, five-step process that is also used for its social insurance counterpart, Social Security Disability Insurance (SSDI) (Wixon & Strand 2013). Applicants are denied in step one if they are engaged in a “substantial gainful activity,” that is, if they are employed and earning more than \$1470 per month in 2023 (SSA 2023a). In step two, applicants are denied if their condition is not expected to last more than 12 months or to result in death. Applications are also denied in step two if disability examiners find the applicant’s physical or mental condition(s) to have “no more than a minimal effect on his or her physical or mental ability(ies) to perform basic work activities,” even if factors like age, education, or work experience are also considered (SSA 2010). In step three, applicants with the most severe impairments that meet a listing maintained by the Social Security Administration are awarded; if an applicant’s impairment(s) isn’t listed, then the applicant moves to step four (SSA 2018). In step four, disability examiners assess if an applicant’s “residual functional capacity” would allow them to perform types of work they had previously done in the past 15 years. If a disability examiner determines an applicant cannot perform their past work given their physical or mental impairments, the application is moved to step five.

When age matters in disability determinations, it matters for people who are marginally eligible on a disability basis. Applicants who make it to stage five are in a contested area of SSI-allowable disability: they are not earning more than a substantial gainful activity amount and they have been determined to have impairments severe and long-lasting enough not to warrant a denial in step two but not severe enough to be immediately awarded without further consideration (SSA 2011). Studies focused on SSDI, which uses the same process as SSI, find that nearly half of people who are ultimately awarded SSDI are awarded in step five (Wixon & Strand 2013). This makes age, along with the other vocational criteria, a crucial factor in disability determinations.

Table 1 summarizes how the age rules are described in the SSA’s Program Operations Manual System (POMS) and how they interact with other vocational factors for SSI disability determinations. Younger workers are less likely to be deemed disabled than older workers with the same education, work experience, and residual functional capacity.<sup>1</sup> For example, for people limited to sedentary work as a result of their impairment, someone 45 years or older who is unable to read or write with no previous work experience will be deemed disabled and allowed benefits, while someone aged 44 or younger will be deemed not disabled and denied benefits.

There is a small body of literature on the role of vocational factors in disability program take-up, although these studies focus on SSDI and do not separately consider SSI. A systematic literature review found that none of the vocational factors—age, education, or prior work experience—are rooted in research evidence about a person’s ability to work or find work in a given labor market (Mann et al. 2014).<sup>2</sup> One study finds that vocational criteria, and especially age, are increasingly important to explaining the growth of the SSDI caseload given population aging (Michaud et al. 2018). Another study finds that being denied SSDI is consequential for the economic paths of older adults. Following the labor force trends of people aged 50 and older who were denied SSDI at various steps, Schimmel Hyde et al. (2020) find that people denied at step five have near 100-percent labor force participation five years prior to SSDI denial, but less than 20 percent of this group returns to work within five years after denial. They also find that among people denied at step five, about one-third appealed and were allowed benefits, while about one-third reapplied (with most eventually allowed), and about one-third never reapplied.

Waiting for disability benefits has serious consequences. In 2022, SSI and SSDI applicants waited an average of 184 days for an initial determination (SSA 2022). Appealing a denial or re-applying takes even longer. Waiting longer for disability benefits is associated with new and worsening disabling conditions and higher mortality rates (GAO 2020; Prenovitz 2021). Applicants who wait longer for a determination are less likely to return to the labor force, and they have lower long-run earnings and are more likely to file for bankruptcy (Autor et al. 2015; Autor et al. 2019; GAO 2020).

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<sup>1</sup> I use the terms “disabled” and “not disabled” in this section and Table 1 for consistency with the terminology used by SSA in their Program Operations Manual System (POMS). However, it is worth noting that there is a rich debate about using “person-first” versus “identity-first” language with regards to disability (Wooldridge 2023). People who prefer the identity-first term “disabled” may reject it when a government entity is making the determination on their behalf.

<sup>2</sup> Labor market conditions are never considered at any step in the SSI eligibility process.



Table 1. Age-Based Disability Determination Rules for SSI

| Age                   | Category                           | Guideline   | Residual Functional Capacity (Work Ability)   |   |  |              |
|-----------------------|------------------------------------|---|---|---|--|--------------|
|                       |                                    |   | Sedentary Work  | Light Work  | Medium Work  | Heavy Work   |
| Deemed Disabled If... |                                    |   |   |   |  |              |
| Under age 45          | Younger person                     | "Age generally does not seriously affect his or her ability to adjust to other work"  | Not disabled  | Not disabled  | Not disabled   | Not disabled |
| Ages 45-49            | Younger person                     | "In some circumstances, consider that people age 45-49 are more limited in their ability to adjust to other work than people who have not attained age 45"            | Unable to read or write with unskilled or no previous work experience   | Not disabled  | Not disabled   | Not disabled |
| Ages 50-54            | Closely approaching advanced age   | "Consider whether the claimant's age, along with a severe impairment(s) and limited work experience, may seriously affect his or her ability to adjust to other work" | Any education level that does not provide for direct entry into skilled work combined with previous work experience that is non-transferrable | Unable to read or write with unskilled or no previous work experience   | Not disabled   | Not disabled |
| Ages 55-59            | Advanced age                       | "Significantly affects a claimant's ability to adjust to other work"  | As above  | Any education level that does not provide for direct entry into skilled work combined with previous work experience that is non-transferrable | Limited or less education with no work experience              | Not disabled |
| Ages 60-64            | Closely approaching retirement age | As above, with other "special rules"  | Not specified   | Not specified   | Limited or less education with unskilled or no work experience | Not disabled |
| Age 65+               | Retirement age                     | Disability not considered   | --  | --  | --   | --           |

Notes. Compiled from the Social Security Administration Program Operations Manual System (SSA 2020).

## 3. Methods

### 3.1. Data: The Washington Merged Longitudinal Administrative Dataset

The Washington Merged Longitudinal Administrative Dataset (WMLAD) is a novel source of administrative data from Washington state that links quarterly employment and earnings history records from the Employment Security Department (ESD) with public assistance benefit records, demographic data, and geographic information from the state Department of Social and Health Services (DSHS). Demographic and geographic information from driver's licenses and voting records augment incomplete DSHS data. Available data elements include employment, earnings, hours, and industry of employment; indicators for SSI participation and other public assistance programs like SNAP and Medicaid; and flags for identifying people known to be homeless and demographic information such as race and ethnicity, binary sex, year of birth, and home Census block. Currently, these data contain individual-level longitudinal records for all quarters from 2010 through 2017.

These data have some important limitations. First, the employment data are limited to workers eligible for Washington's Unemployment Insurance program, which excludes self-employed and contract (gig) workers. This is particularly important for people with disabilities, who are more likely to be self-employed than able-bodied people (Gouskova 2020). In addition, people who live in Washington but work outside of Washington (for example, people who live in southern Washington state but work in Oregon) will appear to be unemployed or out of the labor force in these data. Second, the data contain only year of birth, so estimations of age at initial SSI receipt are imprecise. However, this imprecision is consistent with how age guidelines are applied by Social Security Administration disability examiners in practice: people within "a few days to a few months," generally defined to mean six months or less, of crossing an age threshold are considered under the more relaxed guidelines (SSA 2017).

Despite these limitations, WMLAD's quarterly employment, earnings, and program participation information offer unique insight into intra-year variability that is not observable in studies that rely on earnings information from annual tax records. In addition, these data include demographic information on race and ethnicity that are not available in most studies that use Social Security Administration administrative data. Focusing on Washington state alone may

minimize generalizability to other state contexts, but it also avoids obscuring results with state-level differences in the disability determination process (Gettens 2018; Rupp 2012).

### **3.2. Cohort Selection**

From these data, I focus on SSI beneficiaries for whom five years of employment data are available before initial SSI receipt: those who began receiving SSI from the first quarter of 2015 (2015.1) through the last quarter of 2017 (2017.4). The first quarter of SSI receipt is described as quarter zero. Because the data extend to the first quarter of 2010 through the last quarter of 2017, I am able to construct employment histories of these SSI recipients for five years (20 quarters) before and after initial SSI receipt (quarter zero). The five-year history is long enough to include employment and earnings information prior to a possible “Ashenfelter dip” in employment and earnings immediately prior to SSI receipt (Ashenfelter 1978; Costa 2017; Heckman & Smith 1999).

### **3.3. Analytic Approach**

This study uses descriptive inferential statistics and descriptive regression analysis to compare population characteristics, employment trajectories, and public assistance use histories among people who first receive SSI in the two years before and two years after SSI’s disability determination age thresholds. First, I create a frequency distribution of age at first SSI receipt and estimate percentage change in SSI uptake around each age threshold. For simplicity, I select the thresholds with the greatest percentage change in uptake as analytic cohorts for the remainder of the analysis.

After selecting the analytic cohorts, I describe population characteristics (binary sex, race and ethnicity, and household size) by age group and use two-sample t-tests assuming equal variations to estimate whether the characteristics significantly vary by those who first began receiving SSI before and after each threshold. I also compare pre-SSI employment rates and quarters of employment across age thresholds.

Then, I use a regression analysis framework to better understand how age at first SSI receipt is associated with pre- and post-SSI employment and public assistance use characteristics. For each cohort surrounding an age threshold, I will specify a generalized linear model

$$Y_i = \beta_0 + \beta_1 \text{Age}(\geq \text{Threshold})_i + \beta_2 \text{Age}_i + \beta_3 \mathbf{X}_i + \varepsilon_i$$

where  $Y$  is the outcome and  $\text{Age}(\geq \text{Threshold})$  is a binary variable indicating the group that first received SSI in the two years after the age threshold under less-strict disability rules.  $\text{Age}$  is a continuous variable to control for linear age trends, and  $X$  is a vector of population characteristic covariates. I estimate this equation for several outcomes of interest, including the number of quarters employed prior to SSI receipt and number of quarters employed following SSI receipt. Demographic covariates are measured in the quarter of initial SSI receipt.

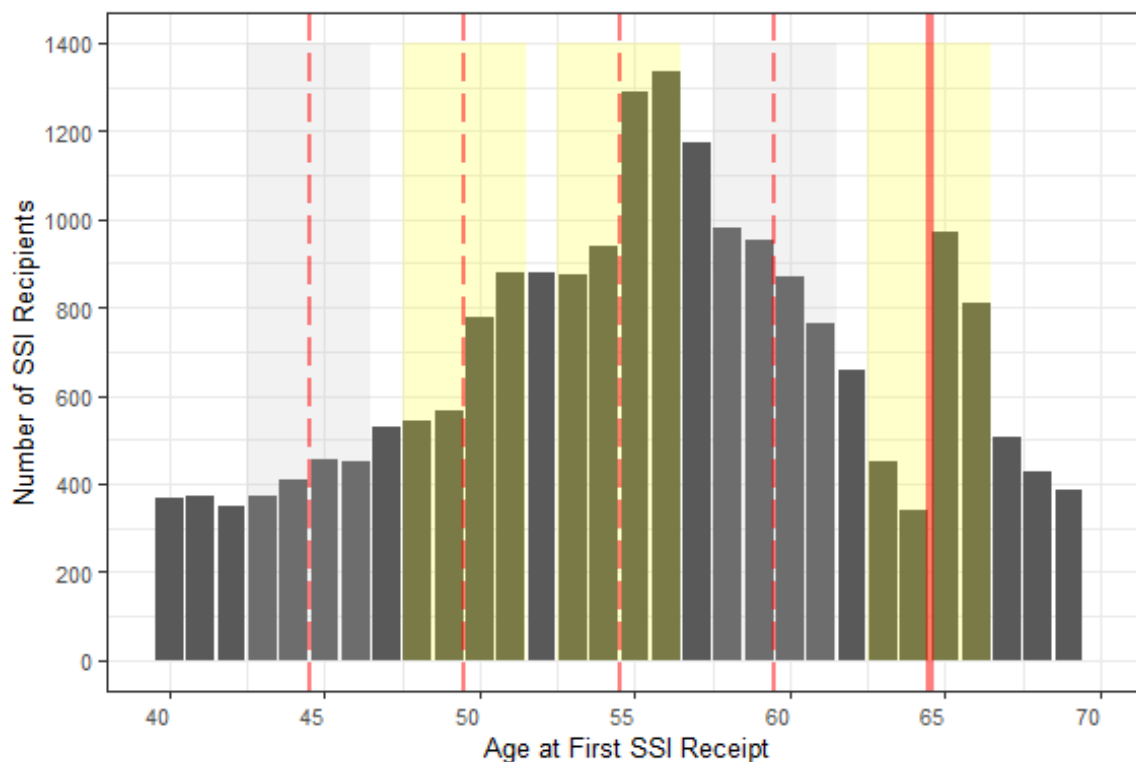
Next, I summarize employment histories in the 20 quarters before and after initial SSI receipt. I estimate proportion of the group employed and average weekly earnings by quarter for each group, and I display the results graphically with 95-percent confidence intervals. Among those with any employment prior to SSI receipt, I describe the mean earnings, hours worked, and wages in the last quarter of employment prior to SSI receipt by age group, and I use two-sample t-tests assuming equal variances to estimate significant differences between those who first began receiving SSI before and those who first began receiving SSI after each threshold.

Finally, I summarize Supplemental Nutrition Assistance Program (SNAP) and Medicaid participation history quarterly by age group and display these results graphically with 95-percent confidence intervals. Additionally, I estimate the proportion of the cohort known by DSHS to be homeless in the 20 quarters leading up to SSI receipt.

## 4. Results

Figure 1 displays a frequency distribution of age at first SSI receipt for the analytic cohort, with vertical lines indicating age-based statutory (solid) and regulatory (dashed) changes to the SSI disability determination rules. The percentage changes in new SSI recipients in the two years before and after each age threshold are presented in Table 2. There are large increases in SSI uptake in the two years following three age thresholds: age 50 (+50 percent), age 55 (+45 percent), and age 65 (+125 percent). These increases correspond to relaxed eligibility for people with any education level and non-transferrable work history whose impairments limit them to sedentary work (age 50) and light work (age 55) and to the end of disability requirements at age 65 (SSA 2020). After the age 45 threshold there is a small increase in new SSI recipients (+16 percent), while there is a small decrease in new SSI recipients following the age 60 threshold (-16 percent).

Figure 1. New SSI Recipients in Washington State by Age at First SSI Receipt, 2015–2017



*Notes.* Data in figure represent all new SSI recipients in Washington state from 2015–2017 by age at first SSI receipt. Dashed lines indicate ages at which disability determination requirements are regulatorily relaxed (ages 45, 50, 55, and 60). The solid vertical line at age 65 indicates the end of disability requirements for SSI eligibility. Shaded vertical bars represent potential analytic cohorts: the yellow shaded bars (48–51; 53–56; 63–66) indicate cohorts in this analysis, while the grey shaded cohorts are excluded.

For this analysis, I choose to compare the population characteristics, employment trajectories, and public assistance use of SSI recipients who first began receiving SSI two years before or two years after the age thresholds with the greatest changes in SSI recipients: age 50, age 55, and age 65. The shaded vertical bars in Figure 1 represent potential analytic cohorts: the yellow shaded bars (48–51, 53–56, 63–66) indicate cohorts in this analysis, while the grey shaded cohorts are excluded from further analysis. Focusing on these three cohorts allows for a comparison among two stages of regulatory easing of disability requirements at ages 50 and 55, and the total elimination of disability requirements at age 65.

Table 2. Percentage Change in SSI Recipients around SSI Disability Determination Age Thresholds

|                          | <b>Freq.</b> | <b>N</b> | <b>Percent Change</b> |
|--------------------------|--------------|----------|-----------------------|
| <b>Threshold: Age 45</b> |              |          |                       |
| 43-44                    | 3.7%         | 782      |                       |
| 45-46                    | 4.3%         | 906      | 16%                   |
| <b>Threshold: Age 50</b> |              |          |                       |
| 48-49                    | 5.3%         | 1110     |                       |
| 50-51                    | 7.9%         | 1660     | 50%                   |
| <b>Threshold: Age 55</b> |              |          |                       |
| 53-54                    | 8.6%         | 1811     |                       |
| 55-56                    | 12.5%        | 2622     | 45%                   |
| <b>Threshold: Age 60</b> |              |          |                       |
| 58-59                    | 9.2%         | 1931     |                       |
| 60-61                    | 7.8%         | 1630     | -16%                  |
| <b>Threshold: Age 65</b> |              |          |                       |
| 63-64                    | 3.8%         | 790      |                       |
| 65-66                    | 8.5%         | 1779     | 125%                  |

*Notes.* Data in table represent all new SSI recipients in Washington state from 2015–2017 by age at first SSI receipt. The denominator for each frequency is the total new SSI recipients during this period aged 40 through 70.

#### **4.1. Population Characteristics**

Table 3 displays population characteristics by age at first SSI receipt. Overall, the elimination of SSI's disability requirements at the age 65 threshold appears to have the greatest influence on the population characteristics of new SSI recipients. People who first receive SSI in the two years following the elimination of the disability requirements at age 65 are significantly less likely to be female (-7 percentage points,  $p < 0.001$ ) and less likely to be white (-21 percentage points,  $p < 0.001$ ), Black (-3 percentage points,  $p < 0.01$ ), or Native American (-3 percentage points,  $p < 0.01$ ) compared to those who first receive SSI in the two years prior to age 65. The

proportion of people identified as Asian or Pacific Islander first receiving SSI significantly increases following the age 65 threshold, from 13 percent to 31 percent ( $p < 0.001$ ).

There is also a slight increase in new SSI recipients without race or ethnicity information following the age 65 threshold (+3 percentage points,  $p < 0.01$ ), indicating that these recipients likely did not have prior contact with Department of Social and Health Services programs or other administrative sources of race and ethnicity data, like the Department of Licensing.

Table 3. Population Characteristics by Age at First SSI Receipt

|   | Threshold: Age 50 |                |        | Threshold: Age 55 |                |        | Threshold: 65  |                |          |
|---|-------------------|----------------|--------|-------------------|----------------|--------|----------------|----------------|----------|
|   | 48-49             | 50-51          | Diff.  | 53-54             | 55-56          | Diff.  | 63-64          | 65-66          | Diff.    |
| Female                                  | 0.51<br>(0.02)    | 0.50<br>(0.01) | -0.01  | 0.49<br>(0.01)    | 0.46<br>(0.01) | -0.02  | 0.62<br>(0.01) | 0.55<br>(0.02) | -0.07*** |
| White, Not Hispanic                     | 0.81<br>(0.01)    | 0.81<br>(0.01) | 0.00   | 0.83<br>(0.01)    | 0.82<br>(0.01) | -0.01  | 0.72<br>(0.02) | 0.51<br>(0.01) | -0.21*** |
| Black, Not Hispanic                     | 0.15<br>(0.01)    | 0.13<br>(0.01) | -0.02  | 0.10<br>(0.01)    | 0.11<br>(0.01) | 0.01   | 0.11<br>(0.01) | 0.07<br>(0.01) | -0.03**  |
| Asian/Pacific Islander,<br>Not Hispanic | 0.07<br>(0.01)    | 0.07<br>(0.01) | 0.00   | 0.05<br>(0.01)    | 0.07<br>(0.00) | 0.01   | 0.13<br>(0.01) | 0.31<br>(0.01) | 0.17***  |
| Native American, Not<br>Hispanic        | 0.09<br>(0.01)    | 0.10<br>(0.01) | 0.01   | 0.09<br>(0.01)    | 0.08<br>(0.01) | -0.01  | 0.05<br>(0.01) | 0.03<br>(0.00) | -0.03**  |
| Hispanic, Any Race                      | 0.08<br>(0.01)    | 0.08<br>(0.01) | 0.00   | 0.10<br>(0.01)    | 0.08<br>(0.01) | -0.01  | 0.08<br>(0.01) | 0.10<br>(0.01) | 0.01     |
| No Race or Ethnicity<br>Information     | 0.02<br>(0.00)    | 0.02<br>(0.00) | 0.00   | 0.01<br>(0.00)    | 0.02<br>(0.00) | 0.00   | 0.04<br>(0.01) | 0.07<br>(0.01) | 0.03**   |
| Household Size                          | 1.37<br>(0.03)    | 1.30<br>(0.02) | -0.07* | 1.36<br>(0.02)    | 1.21<br>(0.01) | -0.15* | 1.31<br>(0.01) | 1.31<br>(0.03) | 0.00     |
| <b>N</b>                                | <b>1,110</b>      | <b>1,660</b>   |        | <b>1,811</b>      | <b>2,622</b>   |        | <b>790</b>     | <b>1,779</b>   |          |

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

*Notes.* P-values obtained from two-sample t-tests assuming equal variances. Household size may be estimated differently for different individuals depending on other program participation. Race and ethnicity data may be imputed. Race and ethnicity proportions sum to greater than 1: people may be identified as belonging to more than one racial or ethnic group.

There are few population differences among people who first receive SSI before and after the age 50 and age 55 disability determination thresholds. For both cohorts surrounding the age 50 and age 55 thresholds, about half of new SSI recipients are female and more than 80 percent are white (non-Hispanic). The only marginally significant differences for these cohorts are in

household size, with people who began receiving SSI after the age 50 and age 55 disability determination thresholds having slightly smaller household sizes than those who began receiving SSI before those thresholds.

## 4.2. Employment Histories and Characteristics

### 4.2.1. Employment Histories Prior to SSI Receipt.

Consistent with the findings for population characteristics, the only significant mean differences in employment history are found in the groups surrounding the age 65 threshold. Table 4 shows the proportion of SSI recipients with any employment history and average number of quarters employed in five years of Washington employment records. People who first received SSI after the age 65 threshold were more likely to have been employed at some point in the prior five years and worked on average for about one quarter more than people who first received SSI before the age 65 threshold. This implies that people who first receive SSI after the disability requirements are eliminated (at ages 65 and 66) are more likely to have worked at all, and for longer, in the five years prior to SSI receipt compared to people who still needed to meet the disability determination requirements (at ages 63 and 64). There are no significant differences in employment history among people who first receive SSI just before or after the age 50 and age 55 disability determination thresholds.

Table 4. Employment History by Age at First SSI Receipt

|  | Threshold: Age 50 |                |       | Threshold: Age 55 |                |       | Threshold: Age 65 |                |         |
|--|-------------------|----------------|-------|-------------------|----------------|-------|-------------------|----------------|---------|
|  | 48-49             | 50-51          | Diff. | 53-54             | 55-56          | Diff. | 63-64             | 65-66          | Diff.   |
| Any Employment History in Records      | 0.34<br>(0.01)    | 0.36<br>(0.01) | 0.02  | 0.34<br>(0.01)    | 0.37<br>(0.01) | 0.03  | 0.24<br>(0.02)    | 0.32<br>(0.01) | 0.07*** |
| Quarters Employed Prior to SSI Receipt | 2.12<br>(0.13)    | 2.36<br>(0.11) | 0.24  | 2.44<br>(0.11)    | 2.62<br>(0.10) | 0.18  | 2.06<br>(0.17)    | 2.96<br>(0.13) | 0.90*** |
| <b>N</b>                               | <b>1,110</b>      | <b>1,660</b>   |       | <b>1,811</b>      | <b>2,622</b>   |       | <b>790</b>        | <b>1,779</b>   |         |

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

*Notes.* P-values obtained from two-sample t-tests assuming equal variances. Employment history limited to 20 quarters. Employment records consist of all workers eligible for Unemployment Insurance in Washington, which excludes self-employed, contract (“gig”) workers, and workers outside of Washington state.



These findings do not change much in a regression framework controlling for demographic factors, household size, and a linear age trend. Table 5 shows that, across all age threshold cohorts, only the group that received SSI after the age 65 threshold was significantly more likely to be employed (B: 0.11, SE: 0.04) at any point in the five years prior to initial SSI receipt compared to the group that received SSI before the age threshold. Similarly, Table 6 shows that people who received SSI after the age 65 threshold were significantly likely to have worked 1.01 quarters more (SE: 0.49) in the prior five years than those in the pre-threshold group did. There were no significant differences between the pre- and post-threshold groups around the age 50 and age 55 thresholds.

Table 5. Estimated Probability of Any Employment in Five Years Prior to SSI Receipt

|   | Threshold       |                   |                   |
|---|-----------------|-------------------|-------------------|
|   | Age 50          | Age 55            | Age 65            |
| Post-Threshold                                      | 0.05<br>(0.04)  | 0.04<br>(0.03)    | 0.11*<br>(0.04)   |
| Age at First SSI Receipt                            | -0.02<br>(0.02) | -0.01<br>(0.01)   | -0.03<br>(0.02)   |
| Race and Ethnicity (Reference: White, Non-Hispanic) |                 |                   |                   |
| Black, Not Hispanic                                 | -0.03<br>(0.03) | 0.03<br>(0.02)    | 0.04<br>(0.03)    |
| Asian/Pacific Islander, Not Hispanic                | 0.03<br>(0.04)  | 0.02<br>(0.03)    | 0.14***<br>(0.02) |
| Native American, Not Hispanic                       | -0.04<br>(0.03) | -0.05*<br>(0.03)  | 0.03<br>(0.05)    |
| Hispanic, any racial identity                       | 0.04<br>(0.03)  | 0.10***<br>(0.03) | 0.10**<br>(0.03)  |
| Female  | -0.01<br>(0.02) | -0.02<br>(0.01)   | -0.01<br>(0.02)   |
| Household Size                                      | 0.01<br>(0.01)  | 0.00<br>(0.01)    | -0.01<br>(0.01)   |
| Intercept   | 1.13<br>(0.88)  | 0.67<br>(0.77)    | 1.98<br>(1.14)    |
| N   | 2,770           | 4,433             | 2,569             |

*Notes.* Linear probability model. Each age threshold (column) represents a separate linear regression. Employment history limited to 20 quarters. Employment records consist of all workers eligible for Unemployment Insurance in Washington, which excludes self-employed, contract (“gig”) workers, and workers outside of Washington state.

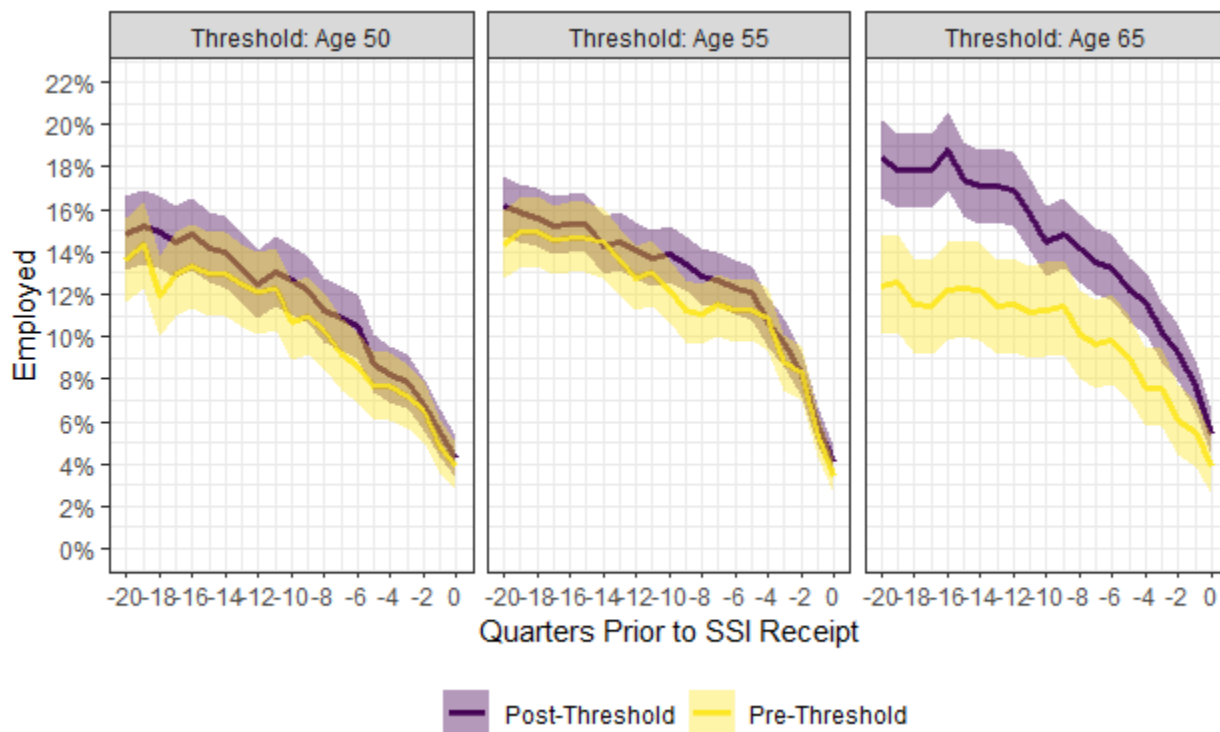
Table 6. Estimated Number of Quarters Employed in Five Years Prior to SSI Receipt

|   | Threshold         |                    |                   |
|---|-------------------|--------------------|-------------------|
|   | Age 50            | Age 55             | Age 65            |
| Post-Threshold                                      | 0.46<br>(0.39)    | 0.29<br>(0.33)     | 1.01*<br>(0.49)   |
| Age at First SSI Receipt                            | -0.10<br>(0.17)   | -0.03<br>(0.15)    | -0.19<br>(0.21)   |
| Race and Ethnicity (Reference: White, Non-Hispanic) |                   |                    |                   |
| Black, Not Hispanic                                 | -0.33<br>(0.25)   | 0.17<br>(0.24)     | 0.44<br>(0.40)    |
| Asian/Pacific Islander, Not Hispanic                | 0.35<br>(0.35)    | 0.05<br>(0.31)     | 1.32***<br>(0.26) |
| Native American, Not Hispanic                       | -0.86**<br>(0.29) | -0.97***<br>(0.26) | -0.59<br>(0.57)   |
| Hispanic, any racial identity                       | 0.29<br>(0.33)    | 1.26***<br>(0.27)  | 0.36<br>(0.37)    |
| Female  | 0.14<br>(0.18)    | 0.05<br>(0.15)     | 0.34<br>(0.22)    |
| Household Size                                      | 0.31**<br>(0.11)  | 0.16<br>(0.11)     | 0.01<br>(0.17)    |
| Intercept   | 6.58<br>(8.45)    | 3.79<br>(7.97)     | 13.54<br>(13.63)  |
| N   | 2,770             | 4,433              | 2,569             |

*Notes.* Linear model. Each age threshold (column) represents a separate linear regression. Employment history limited to 20 quarters. Employment records consist of all workers eligible for Unemployment Insurance in Washington, which excludes self-employed, contract (“gig”) workers, and workers outside of Washington state.

Employment trajectories for each cohort are displayed in Figure 2. The panels show the proportion employed in the 20 quarters prior to initial SSI receipt with 95-percent confidence intervals. For each cohort surrounding an age threshold, the purple/dark lines show the employment trajectories for the groups that first received SSI in the two years after the age threshold under looser disability requirements, while the yellow/light lines represent the groups that first received SSI in the two years before the age threshold under stricter disability requirements.

Figure 2. Employment Prior to SSI Receipt by Age at Initial SSI Receipt



Notes. Shaded areas represent 95-percent confidence intervals.

For all groups, employment is highest five years prior to initial SSI receipt (quarter -20) and steadily declines until the quarter of SSI receipt (quarter zero). For the cohort that began receiving SSI in the two years before the age 50 disability determination threshold, the employment rate began at 13.6 percent (SE: 1.0 percent) 20 quarters prior to SSI receipt and ended at 3.9 percent (SE: 0.6 percent) in the quarter of SSI receipt. The employment rate among people who began receiving SSI in the two years after the age 50 threshold began at 14.9 percent (SE: 0.9 percent) and ended at 4.3 percent (SE: 0.5 percent) in the quarter of SSI receipt. Results for the age 55 threshold are similar. Employment for the group that received SSI in the two years before the age 55 threshold declined from 14.4 percent (SE: 0.8 percent) to 3.3 percent (SE: 0.4 percent) in the 20 quarters prior to SSI receipt, while the group that received SSI two years after the age 55 threshold declined from 16.1 percent (SE: 0.7 percent) to 4.1 percent (SE: 0.04 percent). While the groups that received SSI before the age 50 and age 55 thresholds tend to have slightly lower employment rates in each quarter compared to those that received SSI after the threshold, these differences are only marginally significant in quarter -18 for the age 50 threshold

(3 percentage points,  $p < 0.05$ ) and quarter -9 for the age 55 threshold (2.2 percentage points,  $p < 0.05$ ).

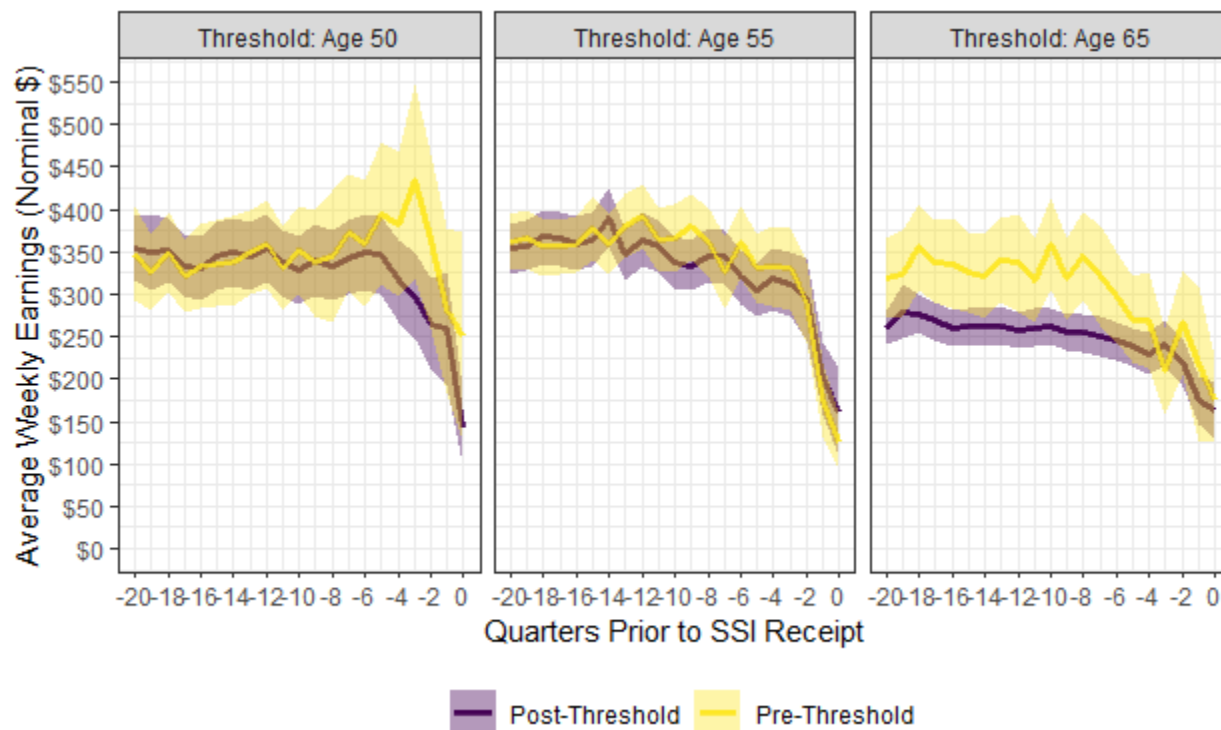
There are significant differences in employment histories between the groups that first began receiving SSI in the two years before and two years after the elimination of disability requirements at age 65. Individuals in the group that received SSI in the two years before age 65, who were thus still required to prove their disability in order to receive SSI, were much less likely to be employed in the five years prior to first receiving SSI. The employment rate for this group began at 12.4 percent (SE: 1.2 percent) 20 quarters prior to SSI receipt and dropped to 3.9 percent (SE: 0.7 percent) in the quarter of initial SSI receipt. In contrast, the group that received SSI following the elimination of the disability requirements at age 65 had significantly higher employment rates, beginning at 18.4 percent (SE: 0.9 percent) 20 quarters prior to SSI receipt. The post-age 65 threshold group had a statistically significant higher employment rate compared to the pre-age 65 threshold group (at least  $p < 0.05$ ) in every quarter prior to SSI receipt. The significant difference was eliminated only in the quarter of SSI receipt (quarter zero) when the employment rate for the post-age 65 group dropped to 5.4 percent (SE: 0.5 percent).

Average weekly earnings per quarter conditional on employment are reported in Figure 3. Similar to the findings for employment rates, there are very few differences between the groups who first received SSI in the two years before or after the age 50 or age 55 disability determination thresholds, while there are significant differences around the age 65 threshold. (Note that these figures do not include \$0 per week earnings for those who were not employed in each quarter.)

Around the age 65 threshold, earnings are significantly higher for the group that first received SSI before age 65 in most quarters prior to initial SSI receipt. Sixteen months (five quarters) before SSI receipt, however, the earnings trajectories for the pre- and post-threshold groups converge and decline. It is also worth noting that both groups who first received SSI around the age 65 threshold have lower weekly earnings 20 quarters prior to SSI receipt (pre-threshold: \$318, SE: \$24; post-threshold: \$261, SE: \$10) than the groups who first received SSI around the age 50 and age 55 thresholds. For the pre-threshold group, earnings begin declining eight quarters prior to SSI receipt, while the post-threshold group sees a consistent slow decline in average weekly earnings from 18 to three quarters prior to SSI receipt. Starting two quarters

prior to SSI receipt, the decline in the average weekly earnings for the post-threshold group accelerates.

Figure 3. Average Weekly Earnings Prior to SSI Receipt by Age at Initial SSI Receipt



*Notes.* Average weekly earnings per quarter conditional on employment. Shaded areas represent 95-percent confidence intervals.

The contrast between the earnings and employment trajectories for the age 65 threshold is notable. While the post-threshold group has lower weekly earnings in most quarters prior to SSI receipt, they are also more likely to be employed prior to SSI receipt. Yet, comparisons between quarterly hours worked and wage histories for these groups yield few significant differences with no discernable pattern (figures available upon request). Higher likelihood of employment coupled with lower earnings implies that those employed in the post-threshold group are working fewer hours or for lower wages than those in the pre-threshold group. This may be due to variability in how quarterly hours worked are administratively reported in Unemployment Insurance records. Further exploration is needed to better understand the drivers of lower earnings but higher employment rates among workers who first received SSI after age 65.

Nevertheless, the differing employment and earnings trajectories between the people who first receive SSI two years before and those who first receive SSI two years after the SSI disability requirements end age 65, along with the significant differences in population characteristics between these groups, suggest that crossing the age 65 threshold allows a different group of people, with different employment histories and population characteristics, to receive SSI for the first time.

#### 4.2.2. Employment Characteristics Prior to SSI Receipt.

Table 7 shows the average earnings, hours worked, and wage rate in the last quarter of employment prior to SSI receipt for those with any employment history. For each age threshold cohort, there are no statistically significant differences between the groups who first received SSI in the two years before or after each age threshold.

Table 7. Employment Characteristics in the Last Quarter of Employment Prior to SSI Receipt among SSI Recipients with Any Employment History by Age at First SSI Receipt

|                             | Threshold: Age 50 |                  |       | Threshold: Age 55 |                  |       | Threshold: Age 65 |                  |       |
|-----------------------------|-------------------|------------------|-------|-------------------|------------------|-------|-------------------|------------------|-------|
|                             | 48-49             | 50-51            | Diff. | 53-54             | 55-56            | Diff. | 63-64             | 65-66            | Diff. |
| Average Weekly Earnings     | 157.54<br>(12.39) | 160.57<br>(8.98) | 3.04  | 154.19<br>(8.68)  | 153.01<br>(7.59) | -1.18 | 148.75<br>(14.04) | 146.02<br>(6.53) | -2.73 |
| Average Weekly Hours Worked | 10.65<br>(0.58)   | 11.12<br>(0.50)  | 0.47  | 10.51<br>(0.47)   | 10.68<br>(0.38)  | 0.17  | 11.51<br>(0.91)   | 12.33<br>(0.56)  | 0.82  |
| Wage Rate (Hourly)          | 17.09<br>(2.75)   | 20.02<br>(4.52)  | 2.93  | 15.48<br>(1.10)   | 21.01<br>(6.73)  | 5.53  | 14.40<br>(1.24)   | 27.57<br>(14.27) | 13.17 |
| <b>N</b>                    | <b>378</b>        | <b>593</b>       |       | <b>609</b>        | <b>959</b>       |       | <b>193</b>        | <b>562</b>       |       |

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

*Notes.* P-values obtained from two-sample t-tests assuming equal variances. Limited to SSI recipients with any employment records in the 20 quarters prior to the quarter of initial SSI receipt. Employment records consist of all workers eligible for Unemployment Insurance in Washington, which excludes self-employed, contract (“gig”) workers, and workers outside of Washington state.

Table 8 displays the most common industries in which SSI recipients worked in their last quarter of employment prior to receiving SSI, conditional on having been employed. People who first received SSI just before or after the age 65 threshold were most likely to have worked in “services for the elderly and persons with disabilities,” which includes in-home personal care

assistants and other non-medical care providers. People who first received SSI before or after the age 50 and age 55 thresholds were most likely to have been recently employed in “temporary help services,” commonly known as “temp agencies.” Full- and limited-services restaurants were also common industries, along with janitorial services.

Table 8. Modal Industries of the Last Quarter of Employment Prior to SSI Receipt among SSI Recipients with Any Employment History by Age at First SSI Receipt

|  | Threshold:<br>Age 50 |            | Threshold:<br>Age 55 |            | Threshold:<br>Age 65 |            |
|--|----------------------|------------|----------------------|------------|----------------------|------------|
|  | 48-49                | 50-51      | 53-54                | 55-56      | 63-64                | 65-66      |
| 624120: Services for the Elderly and Persons with Disabilities | 0.07                 | 0.09       | 0.07                 | 0.09       | 0.17                 | 0.15       |
| 561320: Temporary Help Services                                | 0.13                 | 0.12       | 0.14                 | 0.14       | 0.07                 | 0.07       |
| 722511: Full-Service Restaurants                               | 0.06                 | 0.04       | 0.03                 | 0.04       | 0.02                 | 0.08       |
| 722513: Limited-Service Restaurants                            | 0.04                 | 0.03       | 0.03                 | 0.02       | 0.01                 | 0.03       |
| 561720: Janitorial Services                                    | 0.02                 | 0.01       | 0.02                 | 0.01       | 0.02                 | 0.04       |
| <b>N</b>   | <b>378</b>           | <b>593</b> | <b>609</b>           | <b>959</b> | <b>193</b>           | <b>562</b> |

*Notes.* Numbers are proportion of SSI recipients who first received SSI in that age group identified as working in the listed industry, among all SSI recipients in that age group with any employment history in the 5-year records. Industries identified through NAICS (North American Industry Classification System) codes.

### 4.3. Public Assistance Program Participation and Characteristics Prior to SSI Receipt

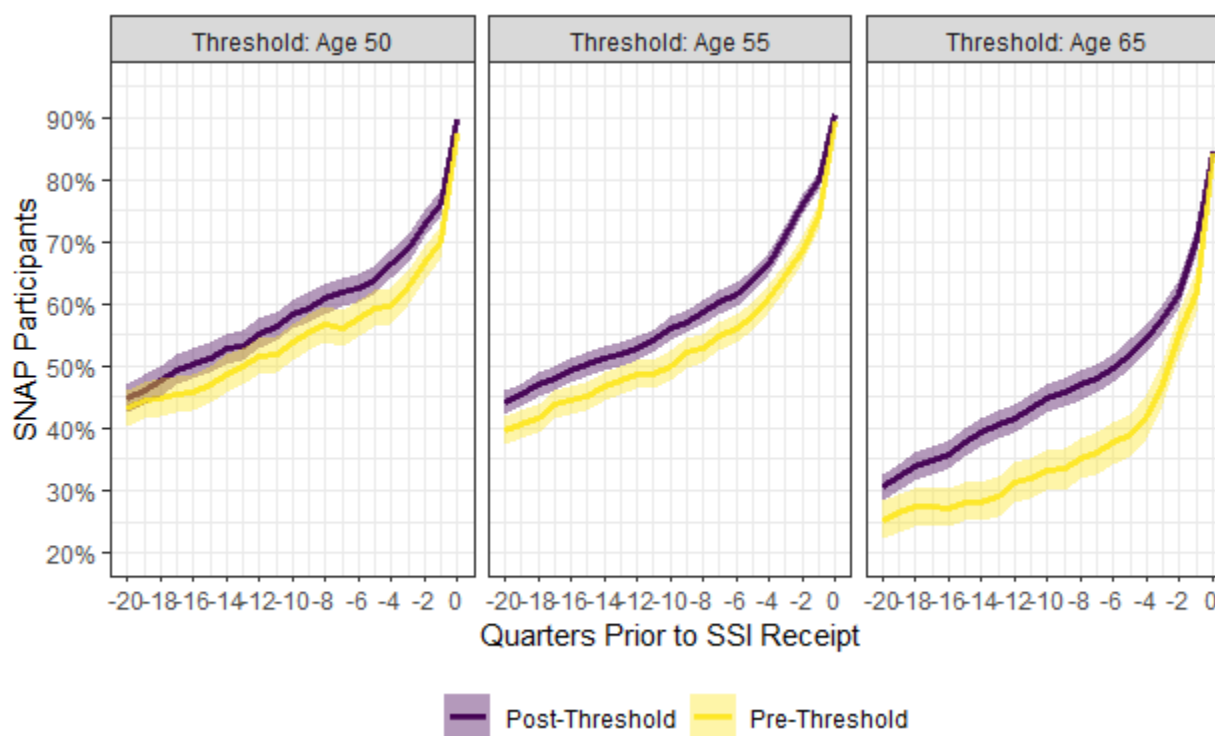
#### 4.3.1. Supplemental Nutrition Assistance Program (SNAP).

There are significant differences in SNAP participation histories across all age thresholds (see Figure 4). For all three age threshold cohorts, people who received SSI prior to the age thresholds (under the stricter disability determination requirements) were, in most quarters, significantly less likely to receive SNAP compared to those who first received SSI after the age thresholds. The gap in SNAP participation in the pre- and post-threshold groups is narrowest around the age 50 threshold, wider around the age 55 threshold, and wider still around the age 65

threshold. For all groups, SNAP participation increases in the five years prior to SSI receipt, with an acceleration in uptake beginning about a year (four quarters) prior to SSI receipt. The differences in SNAP participation for all groups are eliminated by the quarter of SSI receipt (quarter zero). For the age 50 and age 55 threshold cohorts, SNAP participation in the quarter of initial SSI receipt is about 90 percent, while SNAP participation around the age 65 cohort reaches only about 85 percent.

The significant differences in SNAP participation are puzzling. People who first receive SSI prior to the age threshold must meet higher standards of disability compared to those who receive SSI after the threshold. Given the lower (although not always significantly lower) employment rates for the pre-threshold groups, it is counter-intuitive that these groups would also be slower to take up SNAP.

Figure 4. SNAP Participation Histories by Age at First SSI Receipt



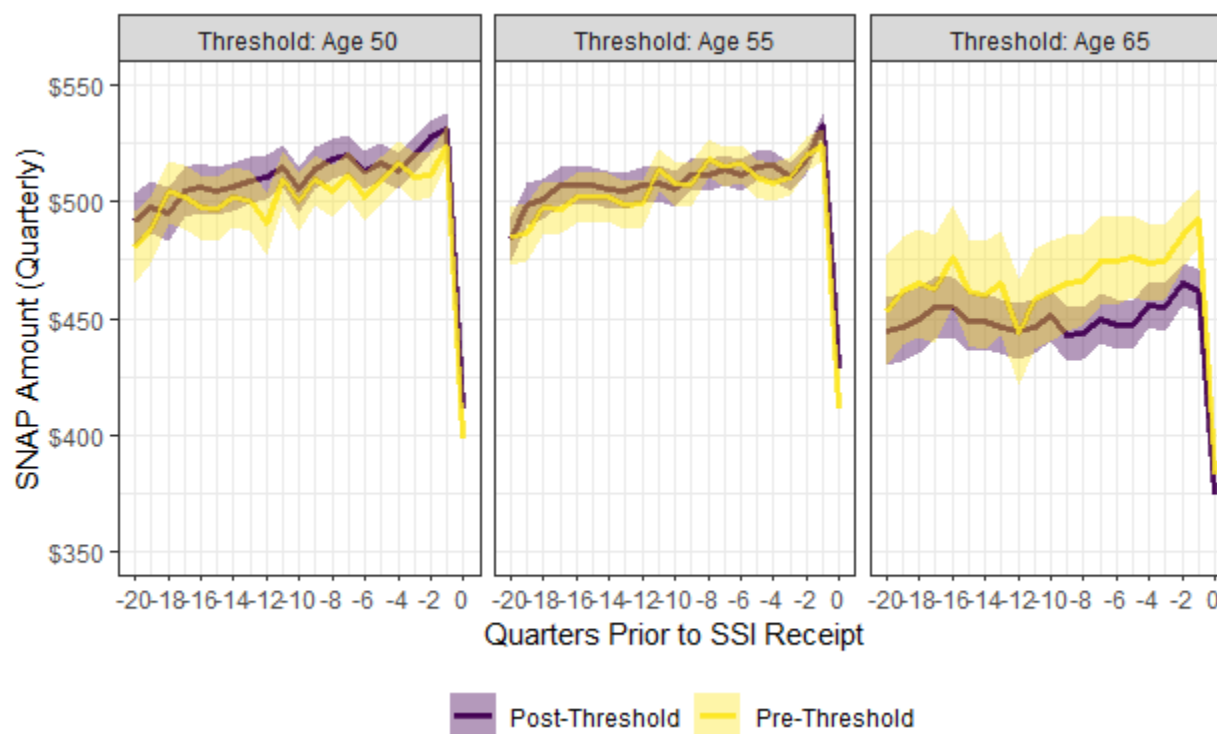
*Notes.* Shaded areas represent 95-percent confidence intervals.

Among the people who participated in SNAP, the average quarterly benefit amounts received were similar for the pre- and post-threshold groups around the age 50 and age 55



thresholds (see Figure 5). For both cohorts, the average quarterly benefits peaked around \$550 (about \$183 per month, or \$42 per week) in the quarter prior to SSI receipt before dropping by about \$100 in the quarter of SSI receipt. SNAP benefits were lower in all quarters for people who first received SSI around the age 65 threshold, with the pre-threshold group receiving higher benefit amounts in most quarters (although the difference is statistically significant only for about a year and a half, or six quarters, prior to initial SSI receipt). As with the other cohorts, average SNAP benefit amounts for the age 65 threshold cohort peak in the quarter prior to SSI receipt and fall significantly in the quarter of SSI receipt.

Figure 5. Quarterly SNAP Benefit Amounts Conditional on SNAP Receipt by Age at First SSI Receipt



*Notes.* Shaded areas represent 95% confidence intervals.

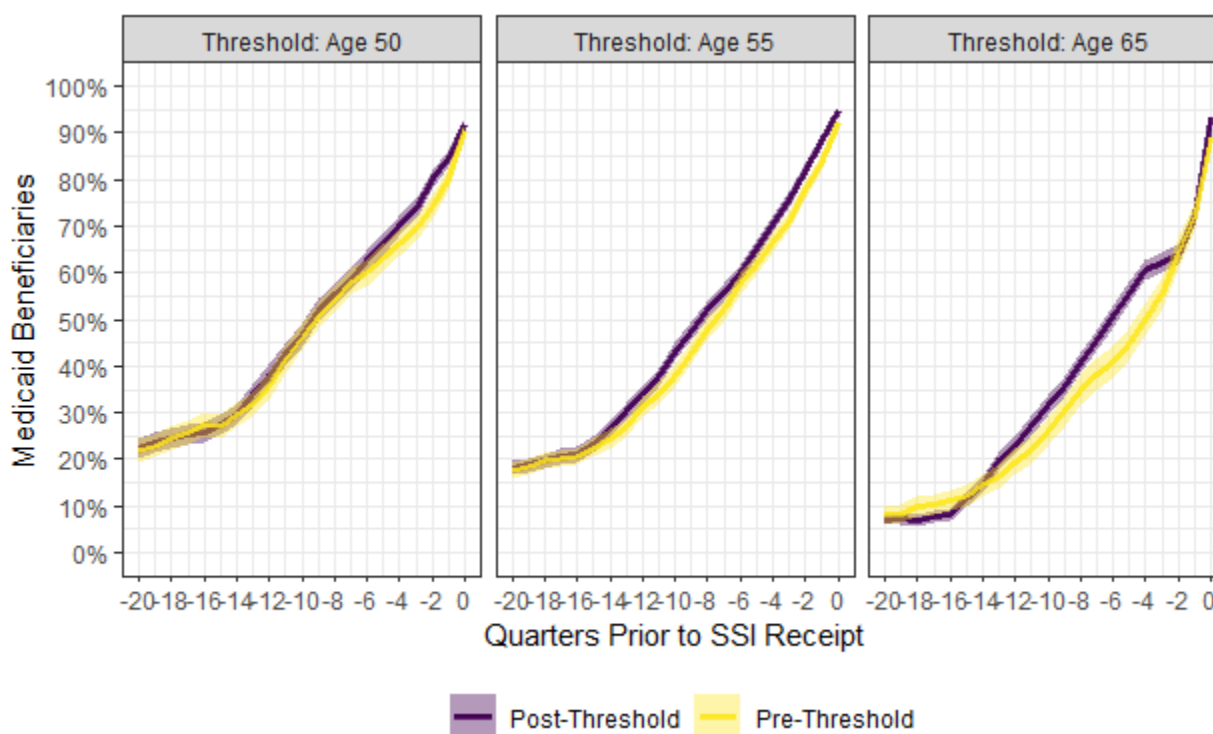
#### 4.3.2. Medicaid.

Similar to the SNAP participation, Medicaid participation for all groups increases in the quarters leading up to initial SSI receipt (see Figure 6). Across the age 50 and age 55 threshold cohorts, people who first received SSI in the two years before the threshold were slightly less likely to

participate in Medicaid than those who first received SSI two years after, although these differences were statistically significant in some quarters but not in others. Around the age 65 threshold, the group that received SSI before the age threshold was slightly more likely to participate in Medicaid 20 to 15 quarters prior to initial SSI receipt, before becoming overtaken by a significant increase in Medicaid participation among the post-threshold group for the next several years. Two quarters before initial SSI receipt, however, the Medicaid participation rates converge.

That no groups reach 100-percent Medicaid participation in the quarter of initial SSI receipt is notable, given that SSI and Medicaid eligibility are categorically linked. Further investigation is needed into why about 10 percent of new SSI recipients in these groups are not recorded as also participating in Medicaid.

Figure 6. Medicaid Participation Histories by Age at First SSI Receipt

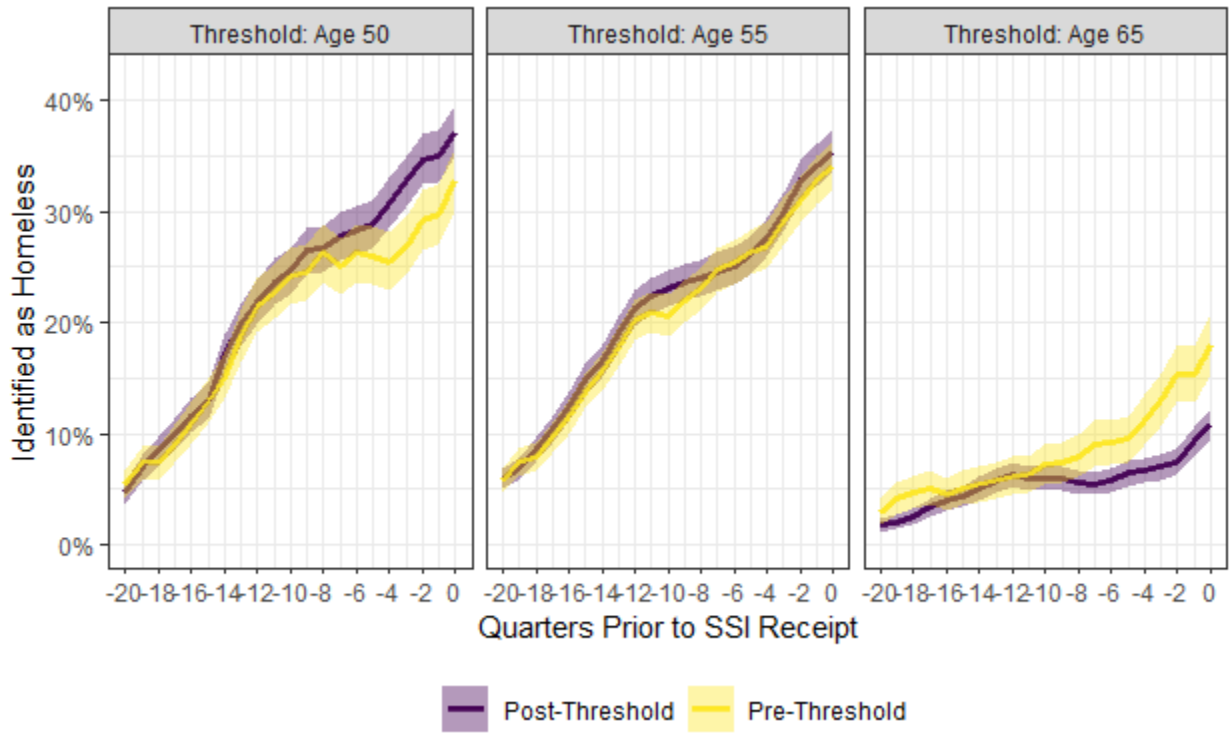


Notes. Shaded areas represent 95-percent confidence intervals.

### 4.3.3. Homelessness.

Figure 7 reports the proportion of people known to be homeless or unstably housed by the Department of Social and Health Services. For people who first received SSI both before and after the age 50 threshold, the likelihood of being identified as homeless is increasing and similar for both groups until about a year prior to initial SSI receipt, when the pre-threshold group becomes less likely to be identified as homeless than the post-threshold group. The proportion identified as homeless for the age 50 cohort grows from about 5 percent for both groups 20 quarters prior to initial SSI receipt to 33 percent (SE: 1.4 percent) for the pre-threshold cohort and 37 percent (SE: 1.2 percent) for the post-threshold cohort in the quarter of SSI receipt. The cohort that first received SSI around the age 55 threshold follows a similar trajectory—increasing in percentage identified as homeless until the quarter of initial SSI receipt—but there are no significant differences between the pre- and post-threshold groups. The proportion identified as homeless for the age 55 cohort grows from about 6 percent for both groups 20 quarters prior to initial SSI receipt to about 35 percent in the quarter of SSI receipt. The people who first received SSI around the age 65 threshold have much lower rates of homelessness than those in the other age threshold cohorts, with a maximum of 18 percent (SE: 1.4 percent) for the pre-threshold cohort and 11 percent (SE: 0.8 percent) for the post-threshold cohort in the quarter of SSI receipt.

Figure 7. Known Homelessness by Age at First SSI Receipt



Notes. Shaded areas represent 95-percent confidence intervals.

## 5. Discussion

I find substantial increases in SSI enrollment following the relaxation of disability rules at age 50 and age 55, as well as following the end of the disability requirements at age 65. There are few differences in the population characteristics, employment histories, and public assistance use patterns in the cohorts that first began receiving SSI two years before and two years after the age 50 and age 55 thresholds. However, there were significant differences in the population characteristics, employment trajectories, and public assistance use histories between people who first received SSI just before and after the disability requirements were eliminated at age 65.

Compared to the younger thresholds, increases in SSI receipt following the end of the disability requirements at age 65 may be more easily explained by observed differences in employment and population characteristics. The increase in SSI participation at age 65 following the end of SSI's disability requirements appears to be driven by groups of people becoming newly eligible for the program who otherwise would not have received benefits under the disability requirements. People who began receiving SSI benefits after the disability requirement from the program was eliminated at age 65 were more likely to work and worked for longer in the five years prior to SSI receipt. Notably, though, those in the post-age 65 threshold group who worked had lower earnings on average than workers who received SSI in the two years before the disability requirements ended. These findings suggest that the age 65 threshold is behaving as intended, with long-term low-earners, likely without a qualifying disability, taking up the program as a retirement supplement rather than as a disability program. An alternate hypothesis, however, is that people with disabilities that do not meet the severity standard are waiting until age 65 to claim SSI benefits (as a product of either initial denial or strategy). The age 65 threshold has not previously been explored in the literature and would benefit from more examination with detailed Social Security Administration data.

The rise in SSI uptake after ages 50 and 55, on the other hand, needs further investigation. Compared to that at the age 65 threshold, increases in SSI participation following the age 50 and 55 thresholds may be better explained by characteristics not observed in this analysis that also influence disability determination, such as timing and severity of disability, education level, or occupation type. Similar employment and public assistance use trajectories prior to SSI receipt for these groups could reflect an unobserved interaction between worsening health conditions and labor force participation that ultimately results in SSI receipt. To explain

the findings in this paper, these unobserved characteristics would also need to correlate with the discontinuity in the rise of SSI receipt at ages 50 and 55.

It is also possible that the rise in SSI receipt following ages 50 and 55 is a function of the relaxed disability determination rules, which allow groups of SSI applicants to become newly eligible for SSI (see Table 1). However, the similarities in pre-SSI employment trajectories and population characteristics for people who first receive SSI before and those who first receive SSI after the ages 50 and 55 thresholds could indicate that instead of unlocking SSI eligibility for a new, distinct group of older SSI recipients, the age thresholds artificially delay people who will ultimately receive SSI benefits from receiving them. This explanation would comport with a prior study on SSDI that found that most applications that are denied when age factors into the disability determination are ultimately allowed and findings from this and prior studies that most SSI recipients enter the program from public assistance rather than employment (Goodman-Bacon & Schmidt 2020; Strand & Messel 2019).

This study represents a first step in quantifying the changes in SSI receipt following age-based loosening of the Social Security Administration disability requirements and in describing the population characteristics, employment, and public assistance use histories of people who receive SSI just before and after the disability requirements are relaxed or eliminated. The findings from this study pose questions for future inquiry: What explains the rise in SSI applications following age 50 and age 55 if not labor force participation? Does the vocational grid, which accounts for age in assessing whether someone with a disability can find work, reflect actual labor force opportunities for older people with disabilities? Are the trends described in this paper for Washington state consistent with trends for other states and nationally? Further studies about the role of vocational factors and age thresholds in SSI take-up should include data on additional factors that affect disability determination: age of disability onset and severity; application dates, wait times, and redeterminations; and educational background and past occupations.

This analysis adds contemporary evidence to a historical finding that most people enter SSI from public assistance programs rather than employment (Goodman-Bacon & Schmidt 2020). For any cohort, no more than 40 percent of new SSI recipients had employment records in the prior five years. In contrast, 80 to 90 percent of people were participating in SNAP and/or Medicaid prior to the quarter of initial SSI receipt. More than one-third of the people who

received SSI in the two years before or after the age 50 threshold were known to be homeless prior to SSI receipt. This suggests that most people who eventually receive SSI are living at or near poverty for months or years prior to participating in SSI. Because access to disability income is positively associated with health improvements and better financial well-being, the social benefits of making it easier to access disability income—like lowering or eliminating age thresholds—should be thoughtfully weighed against the programmatic costs of making people eligible for benefits earlier (Black et al. 2017; Deshpande et al. 2021; Gelber et al. 2017; Herd et al. 2008).

This analysis is primarily limited by the administrative data available. First, because the data only extend back to 2010, the population I identify as first receiving SSI in 2015 and 2017 may have received SSI prior to 2010, lost eligibility, and returned to the program five or more years later. Second, employment data are available only for workers who pay into Washington's Unemployment Insurance system—excluding people who are self-employed or gig workers, who work informal jobs, or who work outside of Washington. This limitation means our estimates of employment are likely understated. Finally, these data include only indicators for SSI participation but do not report SSI grant amount or have detailed information about the application, denials, and appeals processes. Yet, the advantages of these unique data outweigh the limitations and offer unique contributions to the literature. Because these are administrative, population-level data, they overcome the benefit use and income underreporting issues that bias survey data (Bee & Mitchell 2017; Meyer & Wu 2018; Parolin 2019). Linked demographic information gives us a better understanding of who in Washington state takes up SSI under different age-based disability determination rules. Quarterly employment, earnings, and benefit use information offer unique insight into intra-year variability that is not observable in studies that rely on earnings information from annual tax records. Researchers could build on this analysis and contribute to the small literature on the role of age as a factor in disability determinations by using linked Social Security Administration data to focus on the most vulnerable of beneficiaries: SSI recipients.

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