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The Effect of the SSI Student Earned Income Exclusion on Education and Labor Supply

Abstract

The SSI program requires recipients earn less than $1,673 per month to remain eligible. This income threshold can be onerous to young adults attending college who need money for basic needs. This paper studies the Student Earned Income Exclusion (SEIE) which allows young SSI recipients to attend school while working. SSI beneficiaries receive up to $794 per month but this amount usually decreases by 50 cents for each dollar of earned income. However, SEIE allows SSI recipients under age 22 who attend school to exclude up to $1,930 of their monthly earnings before SSI benefits are reduced. In this paper, I will study whether SEIE affects education and labor supply. Using the Survey of Income and Program Participation (SIPP), I compare changes in the education and labor decisions of SSI recipients around the SEIE eligibility cutoff at age 22. Findings show that SSI beneficiaries a few months older than 22 – and therefore ineligible for SEIE – are less likely to enroll in school, less likely to work, and less likely to work while enrolling in school compared to those who are a few months shy of 22.

1. Introduction

About 20 percent of working-age Supplemental Security Income (SSI) beneficiaries are young adults under the age of 30. Unlike older age groups, their caseloads have been increasing over the last two decades. Due to the dual intersection of health and financial challenges affecting SSI youth, they could remain on the disability rolls in the future, experience a lifetime of poverty, and incur large federal expenses. Programs designed to promote human capital development and employment of young SSI recipients could facilitate their transition to economic self-sufficiency, as well as yield substantial savings to the federal government. How to design effective interventions to target young adult SSI beneficiaries remains an open question.

The Student Earned Income Exclusion (SEIE) is the only work- and education-oriented incentive administered by the Social Security Administration (SSA), focusing specifically on young adult SSI recipients. This paper is the first to study the effect of SEIE on the educational and labor market choices of SSI recipients. In the absence of SEIE, SSI beneficiaries receive a maximum of $794 per month but this amount decreases by 50 cents for each dollar of earned income. As such, tying SSI benefits to earned income can discourage work among young adult SSI recipients and distort their decisions in human capital investment – especially when it is challenging to supplement their education costs with additional earnings. SEIE allows SSI recipients under age 22 who attend school regularly to exclude up to $1,930 of their monthly earnings before SSI benefits are reduced, eliminating the benefit reduction rate on this income. SEIE builds on the premise that education integrated with work helps young SSI beneficiaries gain skills needed to secure economic self-sufficiency and transition off welfare programs as adults (Benz et al. 1998; Blackorby and Wagner 1996; Hoffman et al. 2018). In this paper, I study whether SEIE affects education and labor supply decisions by removing these employment disincentives.

Using the Survey of Income and Program Participation (SIPP), I compare changes in the education and labor decisions of SSI recipients around the SEIE eligibility cutoff at age 22. I find that SSI recipients a few months older than 22 – and therefore ineligible for SEIE – are less likely to enroll in school, less likely to work, and less likely to work while enrolling in school compared to those who are a few months shy of 22. This shows that SEIE helps SSI beneficiaries increase educational enrollment and labor supply.

The findings in this paper inform the debate on young adult SSI beneficiaries remaining dependent on SSI benefits in the long run. A benefit of SSI is that it provides a basic level of

income and other important benefits to youth with disabilities. On the other hand, the embedded earned income rules could hold young beneficiaries from accumulating human capital, testing labor market skills, and achieving self-sufficiency. The literature refutes that SSI inhibits success among the youth. Deshpande (2016) finds that youth who are removed from the SSI disability program at age 18 recover only one-third of their lost SSI cash income in earning. She suggests that not only does a disability possibly explain the low earnings levels of removed SSI youth but also their low education levels could confine them to low-wage jobs. My paper builds on this hypothesis. I examine whether SEIE can improve young SSI recipients' investment in education and ease their transition from education to employment by supplying the basic consumption needs of SSI students with limited income and family assistance.

Although this paper does not examine long-term outcomes, SEIE intends to ease their transition to adulthood by increasing their total income. The ability of young adults to pursue education increases when their basic needs of nutrition, health, and housing are met (National Academies of Sciences, Engineering, and Medicine 2019). SEIE does not only grant the continuation of SSI income but also eliminates the fear of losing its related benefits that are indispensable for education: Medicaid health insurance and Supplemental Nutrition Assistance Program (SNAP) food vouchers. Previous studies found correlational evidence of a link between SSI benefits and educational outcomes; SSI beneficiaries ages 19 to 23 are nearly four times more likely to be enrolled in school than their counterparts who had formerly received SSI (Loprest and Wittenburg 2017). To the best of my knowledge, this is the first paper to estimate the causal impact of the SEIE eligibility on the educational choices of young SSI beneficiaries. I also contribute to the literature documenting the positive association between education and labor market outcomes for individuals with disabilities. Research shows that college students with disabilities are more likely to be employed if they obtain a college degree and have work experience before or during college (Qian et al. 2018; Grigal et al. 2019). Moreover, postsecondary students who receive Vocational Rehabilitation (VR) training and work services report higher earnings and less reliance on SSI benefits relative to those who do not participate in postsecondary education or in VR (Berry and Caplan 2010; Sannicandro et al. 2018; Hoffman et al. 2018). SEIE integrates education with work and aims to help young adults with disabilities become effective workers in their future careers and secure financial independence.

2. Policy Background

The SSI program provides monthly cash benefits to disabled low-income children below age 18 and nonelderly adults, and low-income individuals aged 65 and older regardless of their disability status. SSI is the largest means-tested cash transfer program in the US paying more than $56 billion to 8.7 million Americans (SSI Annual Statistical Report 2020). The maximum possible federal SSI benefit amount for an eligible individual – the Federal Benefit Rate (FBR) – is $794 per month in 2021 and is adjusted each year for inflation. Some states supplement the FBR with small additional payments. In addition to the monthly cash benefits, SSI provides SNAP eligibility in all states and categorical Medicaid eligibility in most states.

The rationale for the SSI payments to nonelderly adults is to provide an income floor to low-income individuals with disabilities who are unable to engage in substantial gainful activity (SGA)[1] and help them pay for disability-related expenses. If the SSI recipient has income other than SSI benefits, then depending on its type and amount, actual SSI payments will typically be lower than the FBR. An eligible adult's monthly SSI benefit amount ($SSIBen_{it}$) is calculated as the difference between the FBR and their "countable income." Countable income consists of the sum of the recipient's unearned income ($UnEarn_{it}$)[2] and half of earned income ($Earn_{it}$) after including a $20 general income exclusion and a $65 earned income exclusion:

$$SSIBen_{it} = FBR_t - max(UnEarn_{it} - 0.5\,max(Earn_{it} - 65, 0) - 20, 0)\ (1)$$

If an SSI recipient's countable income exceeds the FBR, they do not receive any SSI benefits for that month and their SSI eligibility, along with SNAP and Medicated, may be terminated if this persists. SSI beneficiaries receive a maximum of $794 per month but this amount decreases by 50 cents for each dollar of earned income, as shown by the black line in Figure (1). As such, low-income SSI beneficiaries are essentially taxed at a rate of 50 percent, so a minimum wage worker would only take home $3.63 per hour instead of $7.25.

SSA administers several work incentives inherent in the SSI program; an example is SEIE, which promotes employment and self-support among current SSI beneficiaries. SEIE allows SSI recipients under age 22 who attend school regularly to exclude up to $1,930 of their monthly earnings before SSI benefits are reduced eliminating taxes on this income (blue line in Figure (1)).

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[1] The monthly SGA amount for non-blind individuals for 2021 is $1,310.
[2] Unearned income consists of unemployment benefits, social security, disability benefits, or family transfers.

Consider an SSI recipient who is a full-time minimum wage worker. They would earn $870 per month ($7.25 per hour, 30 hours per week, x4 weeks per month) and receive $274[3] as SSI benefits if ineligible for SEIE. Conversely, with SEIE, this person would receive the maximum monthly federal SSI benefit amount of $794, a difference of $520 per month. Thus, SEIE allows eligible SSI students to exclude earned income[4] and retain all or some of their SSI benefits.

SSA considers an SSI recipient to be in regular school attendance if they take one or more courses of study and attend classes in: 1. college or university for at least eight hours per week; 2. school (grades seven through 12, including homeschool) for at least 12 hours per week; 3. other training course designed to prepare for a paying job for at least 12 hours a week, for example, vocational or technical training and government anti-poverty programs (e.g., Job Corps). SSI recipients below age 22 must report changes in their student status along with changes in their income. SEIE applies automatically each month when an SSI recipient meets the age, student status, and earnings criteria as long as the SEIE annual maximum of $7,700 has not been reached.

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[3] 794-20-65-0.5*870 = 274
[4] Earned income consists mostly of gross wages but also net earnings from self-employment, sheltered workshop earnings, royalties, and honoraria.

Figure 1. SSI Benefits in function of Earned Income
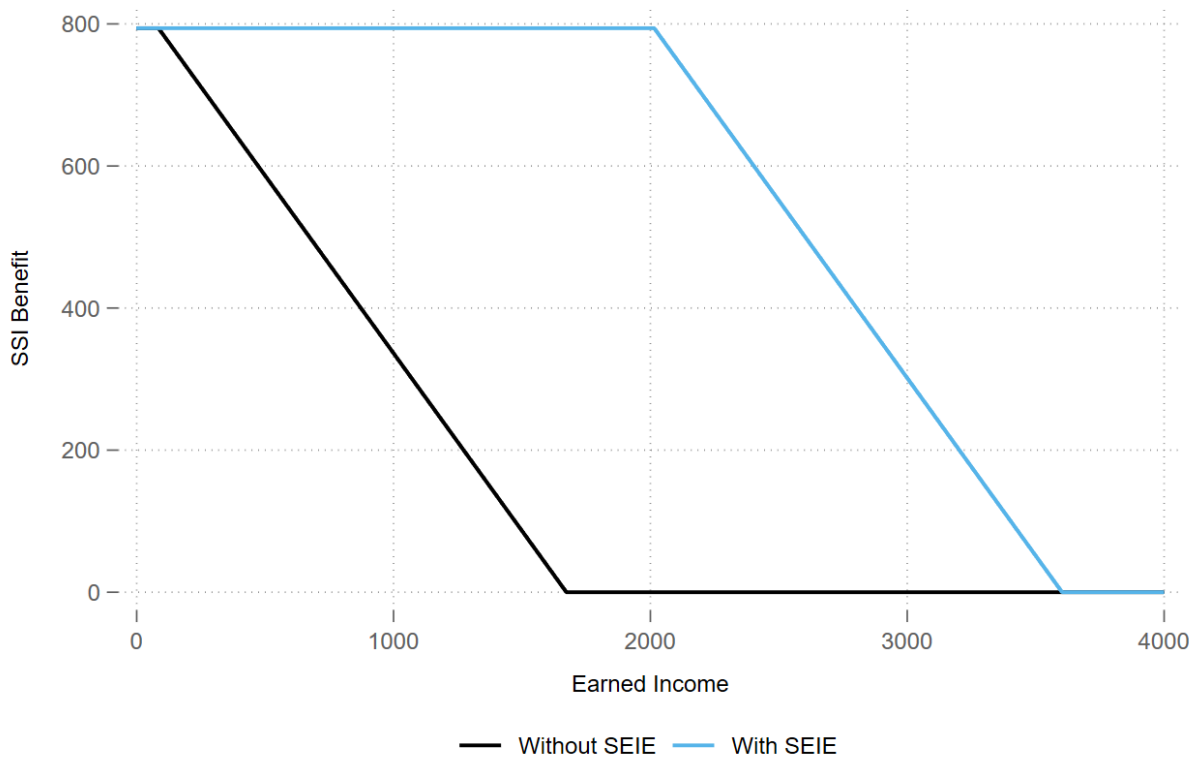
Notes: The horizontal axis indicates an SSI recipient's monthly earned income. The vertical axis indicates monthly SSI benefits. The black line shows that monthly SSI benefits in the absence of SEIE decrease by 50 cents for each dollar of earned income. The blue line shows that SEIE excludes up to $1,930 of the monthly earnings of SSI beneficiaries under age 22 who attend school regularly before SSI benefits are reduced.

From the inception of SSI in 1975 to 2000, the SEIE maximum monthly exclusion amount remained fixed at $400 and the maximum annual exclusion amount at $1,620. In 2001, they increased to $1,290 and $5,200 respectively and since then they have been adjusted annually based on the cost-of-living index (Appendix Figure (A1)). Starting in 2005, SEIE also applies to earnings deemed from an ineligible spouse or parent(s). This might alter incentives and create endogeneity in the decisions young SSI beneficiaries make. This paper studies the effect of the eligibility of SEIE (extensive policy margin) in the post-expansion period from 2001 to 2004. In future work, I will explore the intensive policy margin of changing the SEIE amounts by comparing the effect of SEIE on the educational and labor market choices of SSI recipients pre- and post-2001. I will also investigate whether the extended SEIE has persistent effects on the postsecondary degree

attainment of SSI beneficiaries by comparing the change in their share with a postsecondary degree before and after 2001 to the change in the share of their counterparts without disabilities.

3. Data

To examine the effect of the SEIE eligibility on educational and labor market choices of SSI recipients, I use SIPP. SIPP is the principal source of publicly available individual-level data on the dynamics of participation in government assistance programs, such as SSI. SIPP is administered in panels and conducted in waves and rotation groups. For each panel, SIPP interviews a large nationally representative sample of US households and individuals every four months – called "waves" – over a period of three to four years.[5] Sample members within each panel are randomly divided into four subsamples of approximately equal size and each subsample is referred to as a "rotation group." Each rotation group is interviewed in a separate calendar month about the previous four months. Over the course of four months, all rotation groups are interviewed, providing data for one wave.

Examining whether loss of the SEIE eligibility affects education and labor supply requires individual-level information on SSI benefit receipt in addition to year and month of birth. SIPP is ideal for this analysis. First, it is the only source of data that reliably distinguishes the household member(s) receiving SSI benefits. Second, SIPP collects the respondent's month of birth, providing age precision in relation to the SEIE eligibility cutoff at age 22. Third, SIPP provides detailed information on income sources and amounts, school enrollment, labor force participation, and demographic characteristics.

In this paper, I use the 2001 and 2004 SIPP panels. The primary analysis sample is all SSI recipients within 12 months of their 22nd birthday between 2001 and 2004. An SSI recipient is defined as an individual – in this age range and time frame – receiving SSI benefits in a given month. I identify 181 unique individuals in my primary analysis sample. If each of the 181 individuals were on SSI disability assistance and observed in SIPP every month within 12 months of their 22nd birthday, the balanced panel dataset would have 4,525 observations. My sample consists of 1,468 individual-month observations because 509 observations fall outside of the 2001-

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[5] This increases the accuracy of the data as respondents need only to recall their participation in government assistance programs during the preceding four months (Ham and Shore-Shepard 2005); however, underreporting is still a potential limitation of SIPP measuring SSI enrollment (Huynh et al. 2001; Ireys et al. 2004).

2004 timeframe, 476 observations do not receive SSI benefits in that specific age range, and 2,072 of them are missing in the data. Therefore, the SIPP data is treated as a repeated-cross section in order to maximize the number of observations.

Table (1) displays descriptive statistics for the main analysis sample of SSI beneficiaries in the age range of 12 months from their 22nd birthday and their counterparts not receiving any SSI income and earning less than \$3,000 per month. The SSI sample has lower school enrollment and employment rates. The gap between the share of SSI recipients working while in school relative to their counterparts is large, 4.47 percent versus 20.659 percent. As the table shows, SSI income seems to be an important economic resource for the beneficiaries as their average earned income is \$204 per month – substantially lower than other young adults' at \$1,208.

Table 1. Summary Statistics by SSI Status

	(1) SSI		(2) Non-SSI	
Enrolled in School (%)	19.683	(39.774)	35.895	(47.969)
Employed (%)	18.056	(38.478)	65.680	(47.478)
Employed & In School (%)	4.470	(20.672)	20.659	(40.486)
Monthly Earnings	203.609	(678.835)	1,208.410	(1,186.548)
Weekly Hours	4.074	(10.475)	21.961	(18.240)
SSI Benefits	737.966	(443.039)	0.000	(0.000)
Male (%)	51.566	(49.993)	48.226	(49.969)
White (%)	64.509	(47.865)	78.886	(40.812)
Black (%)	29.838	(45.770)	14.774	(35.485)
Obs	1,468		92,342	

Notes: Descriptive statistics for young adults within 12 months of their 22nd birthday by SSI status. Column (1) shows the SSI recipients, while Column (2) shows their counterparts who do not receive any SSI benefits and earn less than \$3,000/month.

4.   Methodology

SEIE allows SSI students under age 22 to exclude earnings from income. Before their 22nd birthday, SSI students can earn up to \$1,930 per month without reducing their SSI benefits. As young SSI recipients age out of SEIE, each dollar of earned income reduces their SSI benefits by 50 cents. This institutional set-up plausibly alters human capital investment and employment decisions of SSI recipients around age 22. I employ an event-study design to examine the effect of

losing eligibility for SEIE on the educational and labor market choices of SSI beneficiaries. Formally, I estimate the following non-parametric regression equation:

$$Y_{it} = \alpha + \sum_{m=-12}^{-2} \beta_m D_{im} + \sum_{m=0}^{12} \beta_m D_{im} + (\theta X_i + \gamma_s + \delta_t) + \epsilon_{it} \quad (2)$$

where Y_{it} denotes outcomes for an SSI beneficiary i in month-year t. The explanatory variables of interest are the event-time indicators, D_{im}, a set of dummy variables that capture the months before and after SSI recipient i turns 22. Dummy D_{im} equals one if individual i receives SSI benefits in month m.[6] The dummy variable indicating the month prior to the SSI recipient turning 22 is omitted from the estimation, implying that all effects are relative to the month before the 22nd birthday. The state and calendar month-by-year fixed effects (γ_s, δ_t) allow to take the non-SEIE related across-state differences and time trends in educational and labor supply outcomes into account. The baseline covariates X_i are a gender dummy and two race dummies: White and Black. The inclusion of covariates and fixed effects in Equation (2) improve precision. All regressions weight observations by the inverse sampling probabilities.

I look at three main outcomes: the likelihood of enrolling in school, the probability of working, and the chance of working while in school. The coefficients for the dummy variables capturing months before the SSI recipient turns 22 allow for checking any trends that might be apparent before reaching the 22nd birthday. The coefficients for the dummy variables capturing months after the SSI recipient turns 22 indicate changes in their education or labor outcomes due to the loss of the SEIE eligibility.

One might be worried that finding an effect of losing the SEIE eligibility on education and labor supply reflects a change in sample size or sample composition. If there were significant differences in SSI recipients' predetermined characteristics across age 22, then there may be a selection issue: SSI beneficiaries with certain characteristics might be able to qualify for SEIE to avoid the 50 percent benefit reduction rate of earned income, which could be driving any differences in outcomes across age 22. Firstly, Appendix Figure (A2) shows no evidence of a difference in the density of observations around age 22. Secondly, Appendix Table (A1) shows SSI beneficiaries close to age 22 are relatively similar on pre-determined characteristics: gender and race. More importantly, Figure (2) plots the mean SSI enrollment rate for each age group and shows that young adults are not manipulating their SSI status below age 22 to become eligible for

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[6] The month individual i turns 22 $m = 0$.

SEIE. If anything, there is an increasing trend in SSI status over age and the share of young adults receiving SSI benefits right above age 22 is slightly higher – yet statistically not significant – relative to the share just below age 22. It would be very difficult for an individual to perfectly manipulate their SSI status around age 22. In the SSI institutional setting, it is nearly impossible for SSI applicants to time their applications to receive an award in a specific month because of the considerable variation in SSI determination processing and waiting times (Maestas et al. 2015). Transitioning on and off SSI is not easily realized as the SSI award rate is low at 30.8 percent for working-age applicants (SSI Annual Statistical Report 2020) and the rate of successful appeal or reapplication for SSI payments decreases further for youth with work history (Hemmeter and Gilby 2009). This institutional set-up supports the empirical conclusion that there is no change in sample composition or sorting across the age 22 SEIE eligibility cutoff.

Figure 2. Mean SSI Enrollment around Age 22
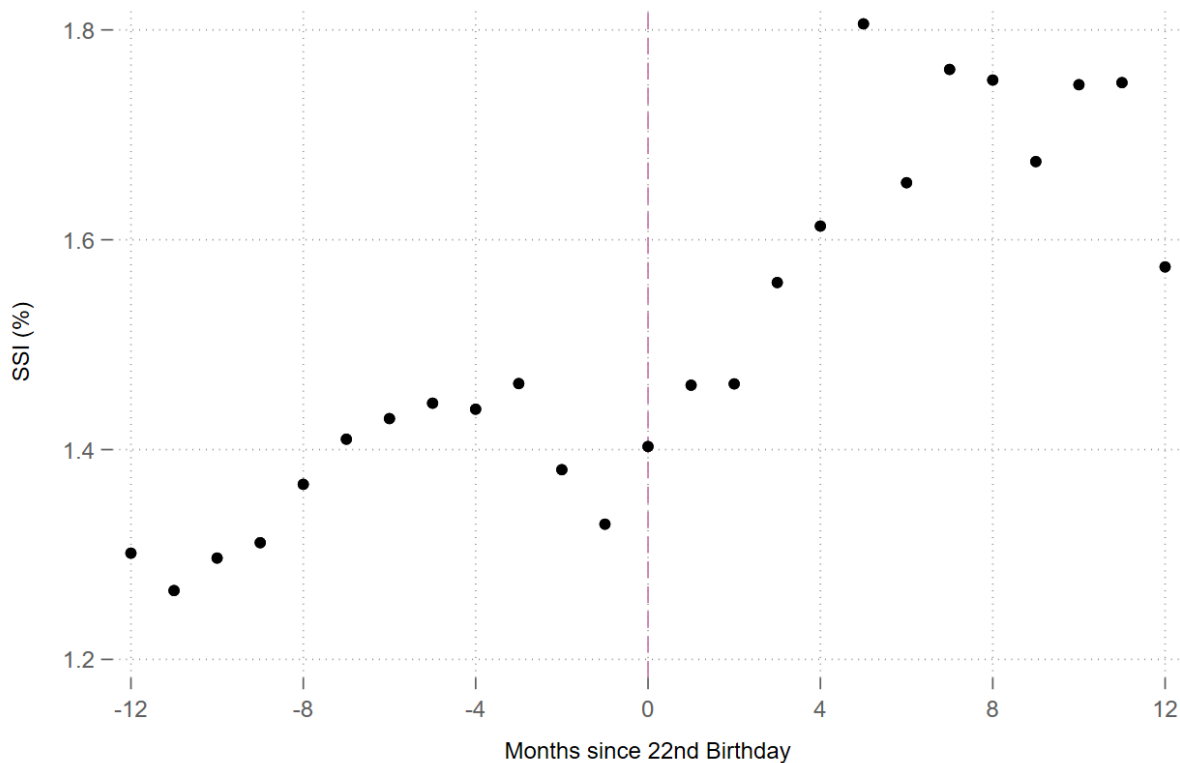
Notes: The horizontal axis indicates an individual's age in months relative to 22. The vertical axis indicates the fraction of individuals on SSI. Each point is the mean of the probability of being on SSI within non-overlapping one-month bins.

Another threat to the event-study analysis is that changes in education and employment decisions of SSI recipients above 22 might be a mere age effect of graduating from school and increasing employment over the life cycle. Firstly, why would their choices change exactly after they turn 22? Other than checking for pre-trends in the event-study regressions, I also examine whether there are any changes in SSI recipients' outcomes at another age cutoff, 21. To preview my findings, I find no effects. Secondly, the event-study regressions condition on month-by-year fixed effects, which implicitly control for age effects.

Because of the small sample size per month, I estimate a static version of Equation (2) and report the estimates in tables:

$$Y_{it} = \alpha' + \beta' Above22_{it} + f(Age_{it}) + f(Age_{it}) * Above22_{it} + (\theta'X_i + \gamma_s + \delta_t) + \epsilon'_{it} \text{ (3)}$$

where Age_{it} is the age of an SSI beneficiary i in month t and normalized so that the month individual i turns 22 is zero. The indicator $Above22_{it}$ is equal to one if an SSI recipient is 22 years old or older. I apply a linear regression, fitting a linear function in Age_{it}, and allow the slope to differ on either side of the age 22 cutoff.

5. Results

I estimate event-study regressions controlling for month-by-year fixed effects to not confound the findings with age effects as discussed before. The results on educational and labor market choices of SSI recipients are shown in Figures (3) to (7). Tables (2) to (5) present the average static estimates.

5.1 Educational Outcomes

Figure (3) depicts the event-study coefficients from Equation (2) with school enrollment as the outcome variable. I observe small, positive, and insignificant estimates for the months before SSI beneficiaries turn 22. For the months after their 22nd birthday, the coefficients become negative but stay indistinguishable from zero, likely because of the small number of observations per month. The effect is -7.083 percentage points in the first month after their 22nd birthday. The coefficients remain negative and mostly constant for the next 11 months, ranging between a minimum magnitude of 6.992 percentage points to a maximum of 11.889. Column (1) of Table (2) shows the analogous average static estimate from Equation (3): SSI beneficiaries are 9.474 percentage

points less likely to enroll in school just after reaching their 22nd birthday and losing the SEIE eligibility. This is a 48.133 percent decrease relative to the baseline mean since only about 19.683 percent of SSI beneficiaries around age 22 are enrolled in school in any given month. I explore heterogeneity in the educational choices of SSI recipients by type of school enrollment in Table (2). The results in Columns (3) and (5) show that the effect on part-time school enrollment is larger and statistically significant relative to the effect on full-time school enrollment. The results are robust to including state fixed effects and other pre-determined characteristics of SSI recipients. All corresponding regression results are shown in Columns (2), (4), and (6) of Table (2).

Figure 3. Event-Study Estimates on SSI Beneficiaries' School Enrollment around Age 22
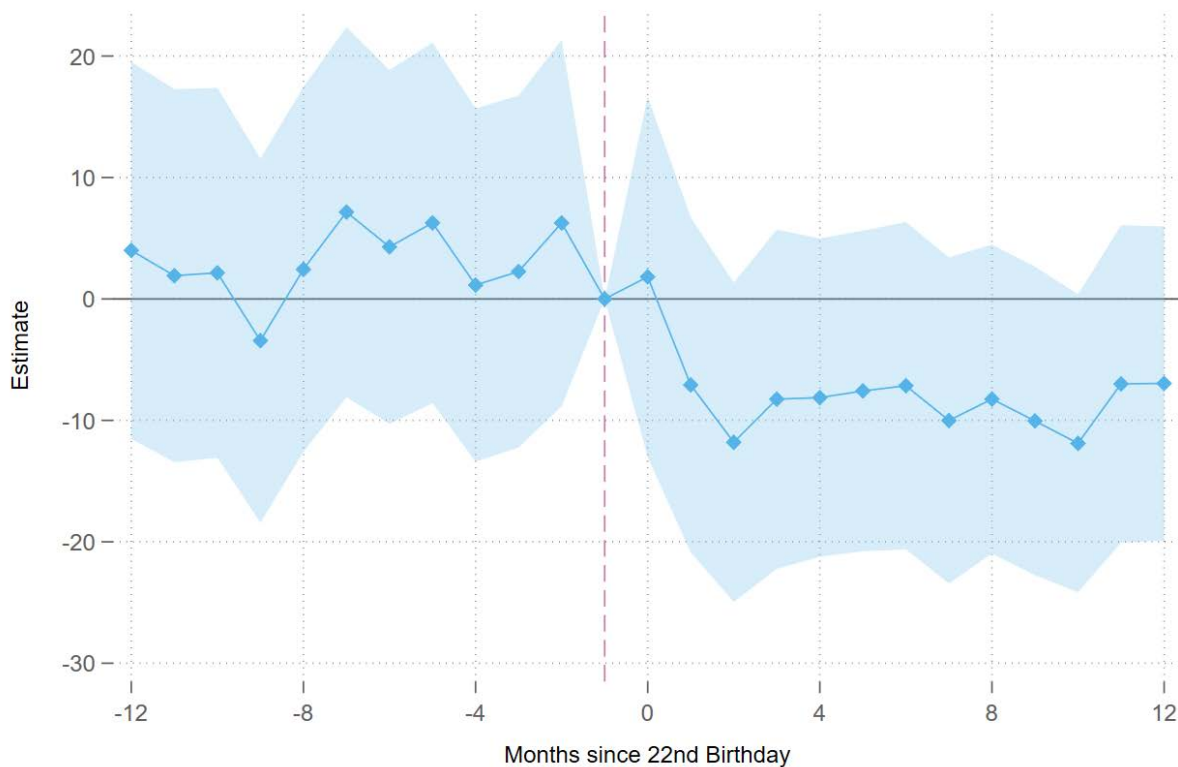
Notes: The horizontal axis indicates an SSI recipient's age in months relative to 22, when the SEIE is eliminated. The figure plots estimates of the effect of losing the SEIE eligibility on school enrollment in the months before and after the 22nd birthday of SSI recipients. Specifically, the figure plots estimates of β_m coefficients from Equation (2), which is a regression of school enrollment on month indicators and month-by-year fixed effects.

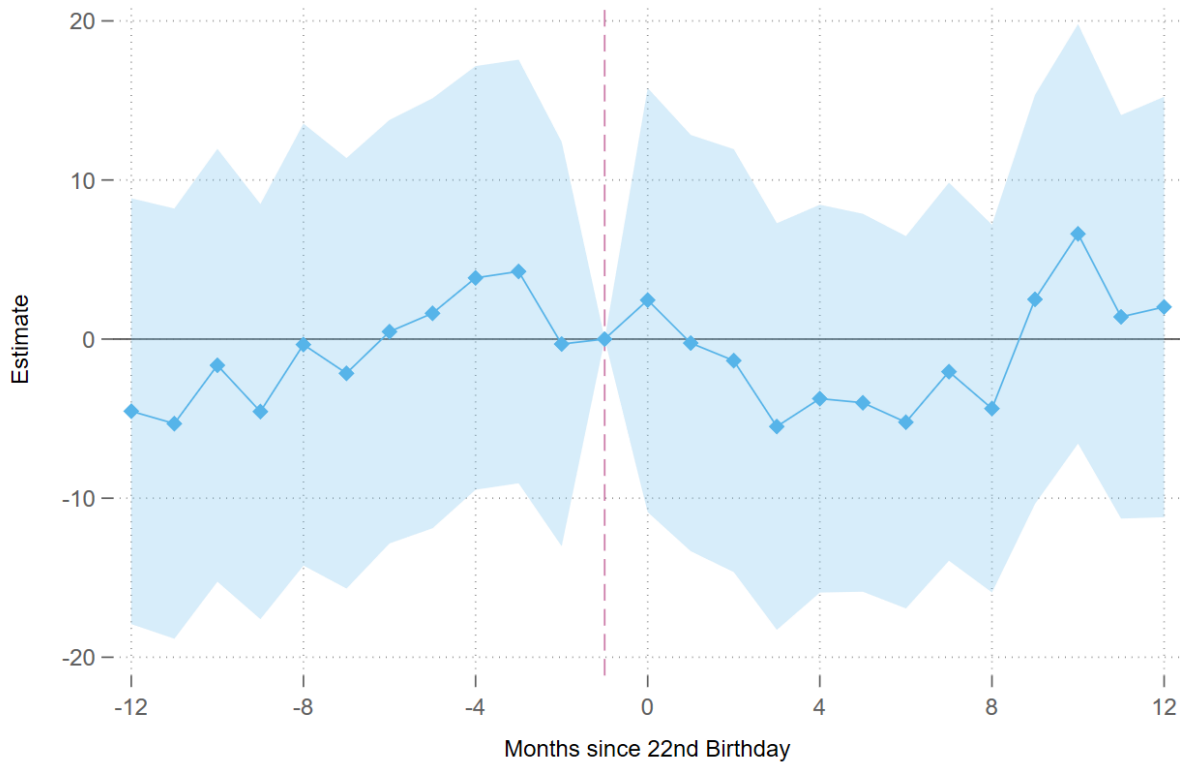Table 2. Effects of Losing SEIE Eligibility on Education

	(1) In School (%)	(2) In School (%)	(3) Full-time (%)	(4) Full-time (%)	(5) Part-time (%)	(6) Part-time (%)
Above 22	-9.474*	-8.643*	-3.118	-3.490	-6.357**	-5.153**
	(4.867)	(4.508)	(4.463)	(4.185)	(2.558)	(2.128)
Mean	19.683	19.683	15.447	15.447	4.235	4.235
Obs	1,468	1,468	1,468	1,468	1,468	1,468
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: Regression estimates of Equation (3) using educational outcomes as the dependent variables. The sample is SSI recipients within 12 months of age 22. Above22 is an indicator for 22 years old or older. * p<.10, ** p<.05, *** p<.01

5.2 Labor Market Outcomes

Since SEIE lets SSI beneficiaries below age 22 have earned income without reducing their SSI benefits, I examine whether they alter their labor market choices in response to losing their eligibility for SEIE. Figure (4) shows the event-study estimates on the likelihood of employment from Equation (2). I observe an upward pre-trend before the age-22 cutoff, but the probability of employment starts decreasing the first month after SSI beneficiaries age out of the SEIE eligibility. Their likelihood of employment is lower by 1.354 to 5.495 percentage points between their second and eighth month relative to the month before their 22nd birthday. Corresponding mean estimate is shown in Column (1) of Table (3). The loss of the SEIE eligibility decreases the probability of employment by 6.724 percentage points or by 37.24 percent relative to those just below the age of 22. This estimate is statistically significant at the 95 percent confidence interval (and larger in magnitude) only when state fixed effects and other controls are included in the model as shown in Column (2). Notice that the static version estimate is larger compared to the event-study estimates because Equation (3) imposes linearity in the outcome variable on the two sides of age-22 cutoff. Columns (3) to (6) of Table (3) splits the employment outcome by part-time and full-time employment. The decrease in the employment rate after age 22 is mainly driven by SSI recipients above age 22 decreasing their part-time employment as opposed to their full-time employment.

Figure 4. Event-Study Estimates on SSI Beneficiaries' Employment around Age 22

Notes: The horizontal axis indicates an SSI recipient's age in months relative to 22, when the SEIE is eliminated. The figure plots estimates of the effect of losing the SEIE eligibility on employment in the months before and after the 22nd birthday of SSI recipients. Specifically, the figure plots estimates of β_m coefficients from Equation (2), which is a regression of employment on month indicators and month-by-year fixed effects.

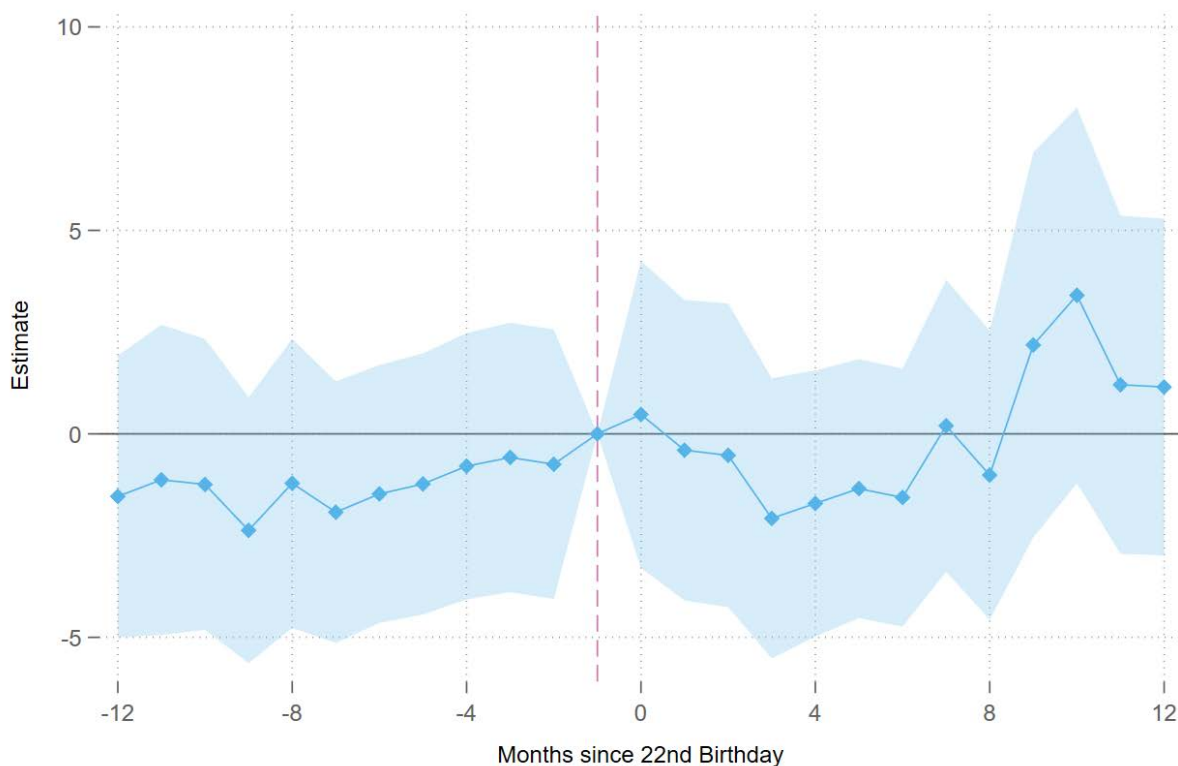## Table 3. Effects of Losing SEIE Eligibility on the Extensive Margin of Labor Supply

	(1) Employed (%)	(2) Employed (%)	(3) Full-time (%)	(4) Full-time (%)	(5) Part-time (%)	(6) Part-time (%)
Above 22	-6.724	-8.408**	-.172	.682	-6.552	-9.089**
	(4.639)	(3.983)	(2.446)	(2.370)	(4.192)	(3.533)
Mean	18.056	18.056	4.034	4.034	14.022	14.022
Obs	1,468	1,468	1,468	1,468	1,468	1,468
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: Regression estimates of Equation (3) using employment outcomes as the dependent variables. The sample is SSI recipients within 12 months of age 22. Above22 is an indicator for 22 years old or older. * p<.10, ** p<.05, *** p<.01

Next, I investigate whether SEIE has an effect on the intensive margin of labor supply: the number of hours worked per week and monthly earnings. The event-study results in Figures (5) and (6) and the mean estimates in Table (4) show that the loss of the SEIE eligibility has no effect on the intensive margin of labor supply.

Taken together, young adult SSI beneficiaries respond to being ineligible for SEIE only on the extensive margin of labor supply, which is consistent with the literature on the labor supply effects of the Earned Income Tax Credit (EITC). The general consensus of EITC studies is that the labor supply response to EITC for single mothers is substantial on the extensive margin and negligible on the intensive margin (Hotz and Scholz 2003; Eissa and Hoynes 2006; Meyer 2010; Nichols and Rothstein 2015).

Figure 5. Event-Study Estimates on SSI Beneficiaries' Weekly Hours Worked around Age 22

Notes: The horizontal axis indicates an SSI recipient's age in months relative to 22, when the SEIE is eliminated. The figure plots estimates of the effect of losing the SEIE eligibility on weekly hours worked in the months before and after the 22nd birthday of SSI recipients. Specifically, the figure plots estimates of β_m coefficients from Equation (2), which is a regression of weekly hours worked on month indicators and month-by-year fixed effects.

Figure 6. Event-Study Estimates on SSI Beneficiaries' Monthly Earnings around Age 22
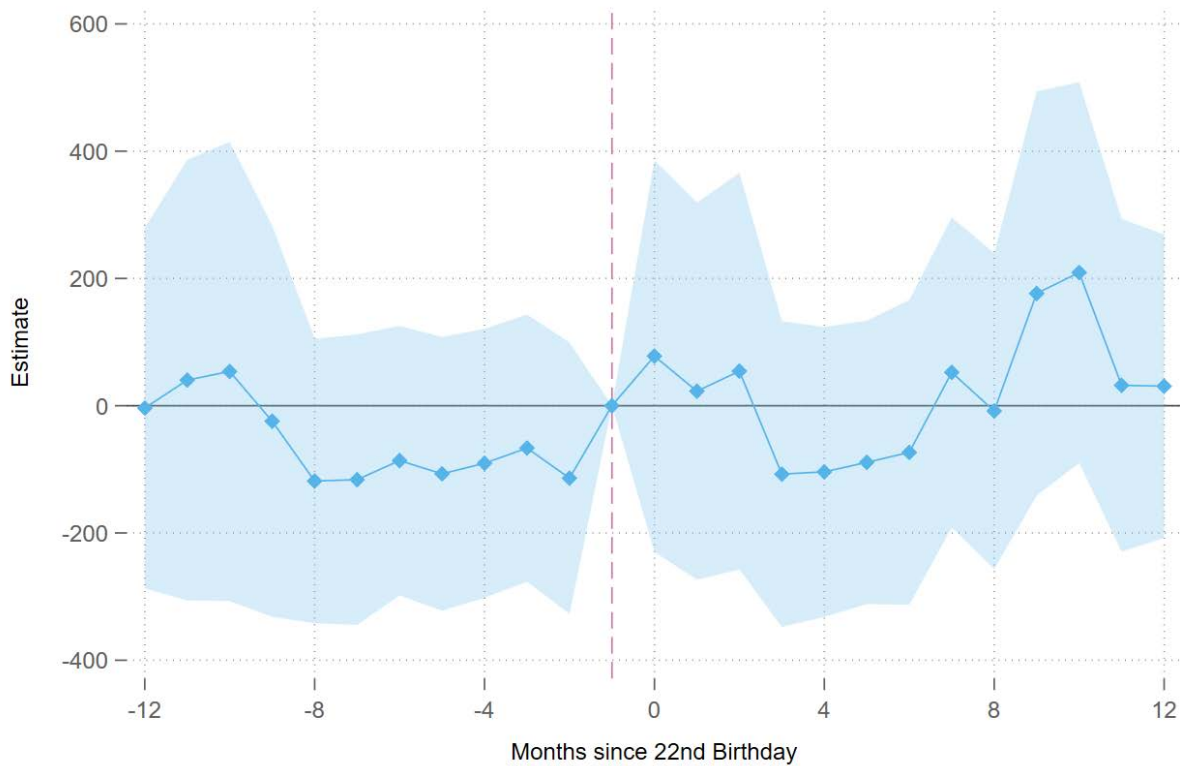
Notes: The horizontal axis indicates an SSI recipient's age in months relative to 22, when the SEIE is eliminated. The figure plots estimates of the effect of losing the SEIE eligibility on monthly earnings in the months before and after the 22nd birthday of SSI recipients. Specifically, the figure plots estimates of β_m coefficients from Equation (2), which is a regression of monthly earnings on month indicators and month-by-year fixed effects.

Table 4. Effects of Losing SEIE Eligibility on the Intensive Margin of Labor Supply

	(1) Weekly Hours	(2) Weekly Hours	(3) Monthly Earnings	(4) Monthly Earnings
Above 22	-1.088	-1.073	72.128	68.694
	(1.182)	(1.077)	(82.378)	(81.417)
Mean	4.074	4.074	203.609	203.609
Obs	1,468	1,468	1,468	1,468
Time FE	Yes	Yes	Yes	Yes
State FE	No	Yes	No	Yes
Controls	No	Yes	No	Yes

Notes: Regression estimates of Equation (3) using employment outcomes as the dependent variables. The sample is SSI recipients within 12 months of age 22. Above22 is an indicator for 22 years old or older. * p<.10, ** p<.05, *** p<.01

5.3 Working While in School

SEIE is relevant when SSI recipients under age 22 meet two conditions: they simultaneously attend school regularly and earn income. I, therefore, estimate the effect of the SEIE availability on the likelihood of working while in school around age 22. Although there is an upward pre-trend in the outcome of interest as Figure (7) shows, SSI beneficiaries are 1.428 to 3.711 percentage points less likely to work and go to school in the seven months after reaching their 22nd birthday and losing the SEIE eligibility. Table (5) shows that the analogous average static estimate is higher than the event-study estimates (Column (1)) and robust to the inclusion of state fixed effects and other controls (Column (2)). Columns (3) to (6) of Table (5) show that the decrease in the likelihood of working and enrolling in school post-age 22 is not driven by SSI recipients who realize only one of the two outcomes: either working or enrolling in school. This confirms that SSI beneficiaries above age 22 are indeed altering their education and labor market choices because of the SEIE eligibility, which is satisfied only when they both enroll in school and earn income.

Figure 7. Event-Study Estimates on SSI Beneficiaries' Working while in School around Age 22
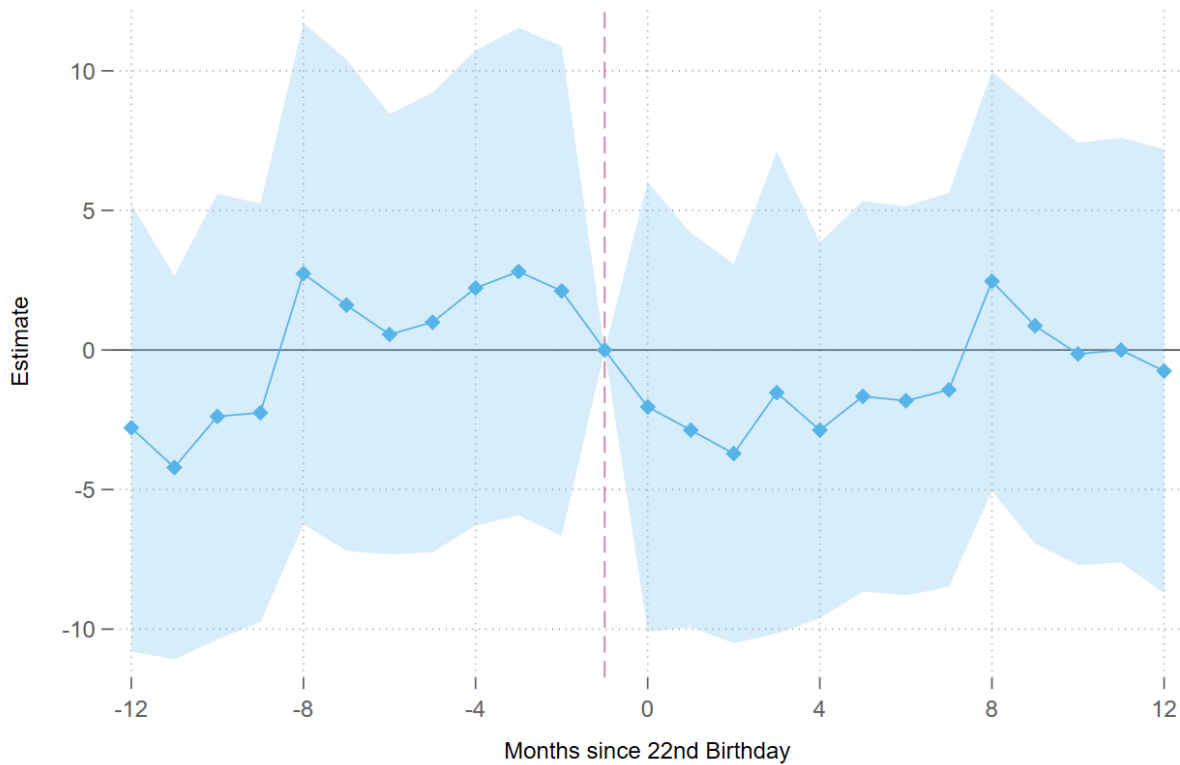
Notes: The horizontal axis indicates an SSI recipient's age in months relative to 22, when the SEIE is eliminated. The figure plots estimates of the effect of losing the SEIE eligibility on working while in school in the months before and after the 22nd birthday of SSI recipients. Specifically, the figure plots estimates of β_m coefficients from Equation (2), which is a regression of working while in school on month indicators and month-by-year fixed effects.

Table 5. Effects of Losing SEIE Eligibility on Working while in School

	(1) Employed & In School (%)	(2) Employed & In School (%)	(3) Only Work (%)	(4) Only Work (%)	(5) Only Enrolled in School (%)	(6) Only Enrolled in School (%)
Above 22	-6.340**	-6.267**	-.384	-2.140	-3.135	-2.376
	(2.703)	(2.600)	(4.027)	(3.556)	(4.461)	(4.146)
Mean	4.470	4.470	13.585	13.585	15.212	15.212
Obs	1,468	1,468	1,468	1,468	1,468	1,468
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: Regression estimates of Equation (3) using working while in school outcomes as the dependent variables. The sample is SSI recipients within 12 months of age 22. Above22 is an indicator for 22 years old or older. * p<.10, ** p<.05, *** p<.01

5.4 Robustness Checks

I test the robustness of the main results in three ways. First, I conduct a falsification exercise where I look at changes in the education and labor market outcomes of SSI beneficiaries around age 21. Figure (8) shows the event-study estimates using age 21 as the cutoff value. I do not observe any changes in the school enrollment and employment outcomes after SSI beneficiaries reach their 21st birthday. Although the likelihood of working while being enrolled in school goes up, it is the opposite direction relative to the changes after the SEIE age cutoff. All the static estimates are indistinguishable from zero as shown in Columns (1) and (2) of Table (6).

Figure 8. Event-Study Estimates on SSI Beneficiaries' Outcomes around Age 21
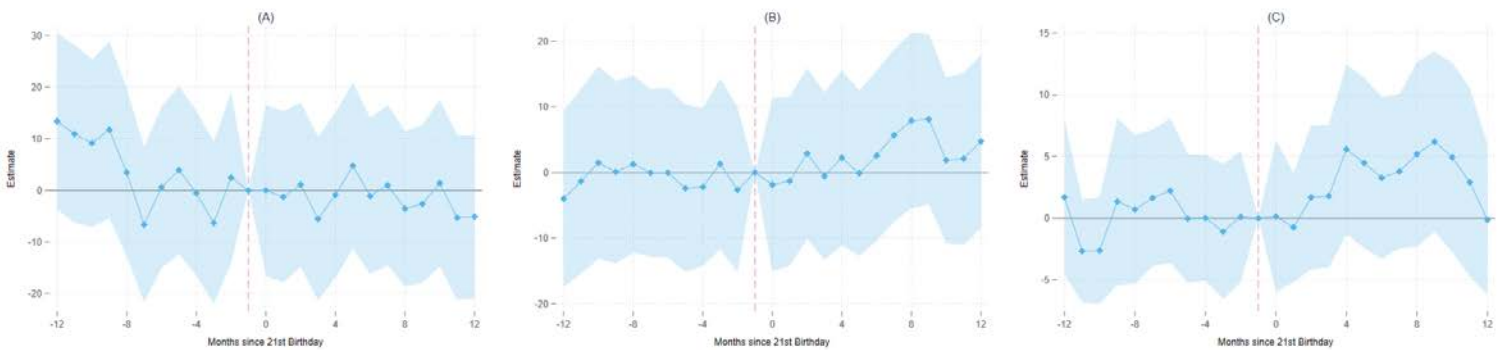
Notes: The horizontal axis indicates an SSI recipient's age in months relative to 21. The figure plots estimates of β_m coefficients from Equation (2), which is a regression of (A) school enrollment, (B) employment, and (C) working while in school on month indicators and month-by-year fixed effects.

Second, I present the average results using Equation (3) for young adults not receiving any SSI benefits around age 22 in Columns (3) and (4) of Table (6). If there are any statistically significant changes in the education and labor market choices of these young adults, then the main results of the SSI sample cannot be attributed to the eligibility for SEIE. Reassuringly, the estimates are close to zero and statistically not significant.

As another robustness check, I estimate the effects of aging out of SEIE eligibility using a difference-in-differences (DiD) methodology instead of the event-study approach:

$$Y_{it} = \beta_0 + \beta_1 SSI_{it} + \beta_2 Above22_{it} + \beta_3 SSI_{it} * Above22_{it} + (\theta'' X_i + \gamma_s + \delta_t) + \epsilon''_{it}$$

(4)

where the indicator SSI_{it} is equal to one if individual i receives SSI benefits in month-year t. The interaction of SSI_{it} and $Above22_{it}$ yields the coefficient of interest, β_3, which reveals how much education and labor market outcomes change among young adult SSI recipients relative to their counterparts following their 22nd birthday. Columns (5) and (6) of Table (6) reveal that SSI beneficiaries decrease their part-time school enrollment and employment – both on the intensive and extensive margins – relative to non-SSI adults when they age out of the SEIE eligibility. Nevertheless, the probability of SSI beneficiaries working while being enrolled in school is the only outcome that goes in the opposite direction as expected.

Table 6. Robustness Checks

	(1) Above 21	(2) Above 21	(3) Non-SSI	(4) Non-SSI	(5) DiD	(6) DiD
In School (%)	.055	.058	-.007	-.006	-.024	-.012
	(.056)	(.054)	(.007)	(.007)	(.024)	(.024)
In School Full-time (%)	.057	.059	-.007	-.006	-.005	.008
	(.054)	(.053)	(.007)	(.007)	(.022)	(.022)
In School Part-time (%)	-.002	-.001	.001	.000	-.019*	-.020*
	(.020)	(.020)	(.004)	(.004)	(.011)	(.011)
Employed (%)	.002	-.029	-.004	-.004	-.039*	-.044**
	(.046)	(.035)	(.007)	(.007)	(.022)	(.022)
Weekly Hours	-.690	-1.240	-.048	-.093	-1.430**	-1.947***
	(1.179)	(1.063)	(.263)	(.256)	(.603)	(.648)
Monthly Earnings	140.616	115.951	-16.296	-19.272	-126.215***	-148.632***
	(119.070)	(113.985)	(17.137)	(16.700)	(40.800)	(43.454)
Employed & In School (%)	.014	-.006	-.006	-.006	.032***	.038***
	(.021)	(.021)	(.006)	(.006)	(.012)	(.012)
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	No	Yes	No	Yes
Controls	No	Yes	No	Yes	No	Yes

Notes: Columns (1) and (2) show the estimate of Above22 from Equation (3) for SSI beneficiaries within 12 months of their 21st birthday. Columns (3) and (4) show the estimate of Above22 from Equation (3) for non-SSI beneficiaries within 12 months of their 22nd birthday. Columns (5) and (6) show the estimate of β_3 from Equation (4). * p<.10, ** p<.05, *** p<.01

6. Conclusion

Young adult SSI beneficiaries have significantly higher unemployment rates compared to young adults without disabilities. However, half of them have a desire and capacity to engage in

employment (Livermore, Sevak, and Shenk 2018). SSI recipients younger than 30 are more than twice as likely to seek employment and much more likely to have worked in the last year relative to older SSI recipients (SSA 2018).

It is challenging for young SSI beneficiaries to enter the labor market. First, they have low education levels. Second, the SSI program embeds work disincentives: SSI benefits decrease by 50 cents for every dollar of earned income. Young SSI recipients with low levels of education and no work experience could remain on SSI disability rolls for decades and experience a lifetime of poverty. This translates into large federal and state expenditures on SSI and its related programs, Medicaid health insurance and SNAP food vouchers.

The provision of intensive support to promote human capital development and employment could enhance the economic self-sufficiency of young adults with disabilities and yield an overall decrease in welfare spending over time. One such policy is SEIE, which specifically targets young SSI recipients under age 22. SEIE is designed to potentially encourage work and help defray the cost of educational training. SEIE increases the monthly earned income disregard of $65 and allowed SSI students under age 22 to earn $1,930 a month in 2021 before their SSI benefits begin to be reduced. This enables young SSI recipients to supplement their SSI benefits with earnings and boost their total income above the federal poverty level.

I studied the effect of the SEIE eligibility on the educational and labor market choices of young SSI beneficiaries around the SEIE eligibility cutoff at age 22. My findings show that SSI recipients a few months older than 22 – and therefore ineligible for SEIE – are less likely to enroll in school, less likely to work, and less likely to work while enrolling in school compared who are a few months shy of 22. The findings suggest that SEIE helps youth with disabilities achieve early adult key milestones but whether SEIE leads to long-term financial independence remains unclear.

Overall, this study adds to empirical support for SEIE as a critical evidence-based policy for promoting better school enrollment and employment outcomes for young adult SSI beneficiaries. The results suggest that some aspects of the SSI program could be updated to better support beneficiaries. First, increasing the $65 earned income disregard to the inflation-indexed level could help SSI beneficiaries fully benefit from their additional work effort and raise their total income by keeping more of their SSI benefit per dollar earned income. Second, additional income could defray the cost of education and encourage young SSI recipients to invest in their

human capital. Education and employment can secure financial independence and improve the well-being of SSI recipients and their quality of life.

7.   References

Benz, Michael R., Bonnie Doren, and Paul Yovanoff. "Crossing the great divide: Predicting productive engagement for young women with disabilities." *Career Development for Exceptional Individuals* 21, no. 1 (1998): 3-16.

Berry, Hugh G., and Leslie J. Caplan. "Employment and earnings growth among transition-age Supplemental Security Income program participants." *Journal of Disability Policy Studies* 21, no. 3 (2010): 152-159.

Blackorby, Jose, and Mary Wagner. "Longitudinal postschool outcomes of youth with disabilities: Findings from the National Longitudinal Transition Study." *Exceptional children* 62, no. 5 (1996): 399-413.

Deshpande, Manasi. "Does welfare inhibit success? The long-term effects of removing low-income youth from the disability rolls." *American Economic Review* 106, no. 11 (2016): 3300-3330.

Eissa, Nada, and Hilary W. Hoynes. "Behavioral responses to taxes: Lessons from the EITC and labor supply." *Tax policy and the economy* 20 (2006): 73-110.

Grigal, Meg, Clare Papay, Frank Smith, Debra Hart, and Rayna Verbeck. "Experiences that predict employment for students with intellectual and developmental disabilities in federally funded higher education programs." *Career Development and Transition for Exceptional Individuals* 42, no. 1 (2019): 17-28.

Ham, John C., and Lara Shore-Sheppard. "The effect of Medicaid expansions for low-income children on Medicaid participation and private insurance coverage: evidence from the SIPP." *Journal of Public Economics* 89, no. 1 (2005): 57-83.

Hemmeter, Jeffrey, and Elaine Gilby. "The age-18 redetermination and postredetermination participation in SSI." *Soc. Sec. Bull*. 69 (2009): 1.

Hoffman, Denise, Jeffrey Hemmeter, and Michelle Stegman Bailey. "The relationship between youth services and adult outcomes among former child SSI recipients." *Journal of Vocational Rehabilitation* 48, no. 2 (2018): 233-247.

Hotz, V. Joseph, John Karl Scholz, and Robert A. Moffitt. "Means-tested transfer programs in the United States." *Means* (2003): 141-197.

Huynh, Minh, Kalman Rupp, and James Sears. "The assessment of Survey of Income and Program Participation (SIPP) benefit data using longitudinal administrative records." *Social Security Administration* (2002).

Ireys, Henry, Daniel Kasprzyk, Ama Takyi, and Jennifer Gillcrist. *Estimating the size and characteristics of the SSI child population: A comparison between the NSCF and three national surveys*. No. 4254809d0258435784139e499ab40e43. Mathematica Policy Research, 2004.

Livermore, Gina, Marisa Shenk, and Purvi Sevak. *Profile of SSI and DI Beneficiaries with Work Goals and Expectations in 2015*. No. 97cafc08c8504d2998399a9f36966a34. Mathematica Policy Research, 2020.

Loprest, Pamela J., and David C. Wittenburg. "Posttransition experiences of former child SSI recipients." *Social Service Review* 81, no. 4 (2007): 583-608.

Maestas, Nicole, Kathleen J. Mullen, and Alexander Strand. *Does delay cause decay? The effect of administrative decision time on the labor force participation and earnings of disability applicants*. No. w20840. National Bureau of Economic Research, 2015.

Meyer, Bruce D. "The effects of the Earned Income Tax Credit and recent reforms." *Tax policy and the economy* 24, no. 1 (2010): 153-180.

National Academies of Sciences, Engineering, and Medicine. *The promise of adolescence: Realizing opportunity for all youth*. National Academies Press, 2019.

Nichols, Austin, and Jesse Rothstein. "The earned income tax credit." In *Economics of Means-Tested Transfer Programs in the United States, Volume 1*, pp. 137-218. University of Chicago Press, 2015.

Qian, Xueqin, David R. Johnson, Frank A. Smith, and Clare K. Papay. "Predictors associated with paid employment status of community and technical college students with intellectual disability." *American journal on intellectual and developmental disabilities* 123, no. 4 (2018): 329-343.

Sannicandro, Thomas, Susan L. Parish, Steve Fournier, Monika Mitra, and Maria Paiewonsky. "Employment, income, and SSI effects of postsecondary education for people with intellectual disability." *American Journal on Intellectual and Developmental Disabilities* 123, no. 5 (2018): 412-425.

SSI Annual Statistical Report 2020. https://www.ssa.gov/policy/docs/statcomps/ssi_asr/2020/

8.   Appendix

Figure A1. SEIE Maximum Amounts
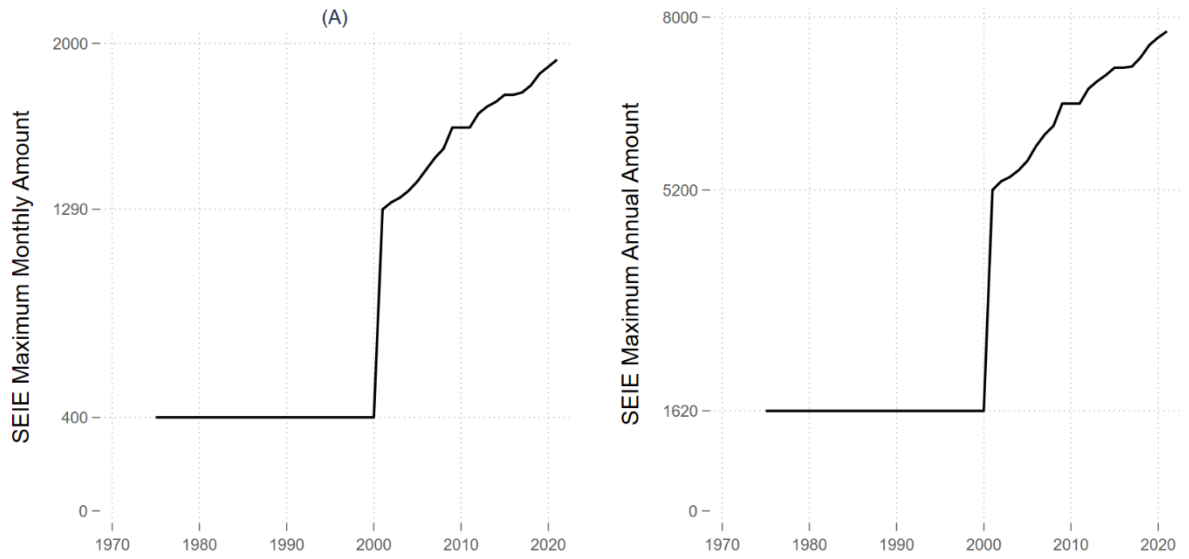
Notes: Panel (A) and Panel (B) show the SEIE maximum monthly and annual exclusion amount over time respectively. They remained fixed from 1975 to 2000 and increased substantially in 2001. Since then, they have been adjusted annually based on the cost-of-living index.

Figure A2. Histogram of Age in Months
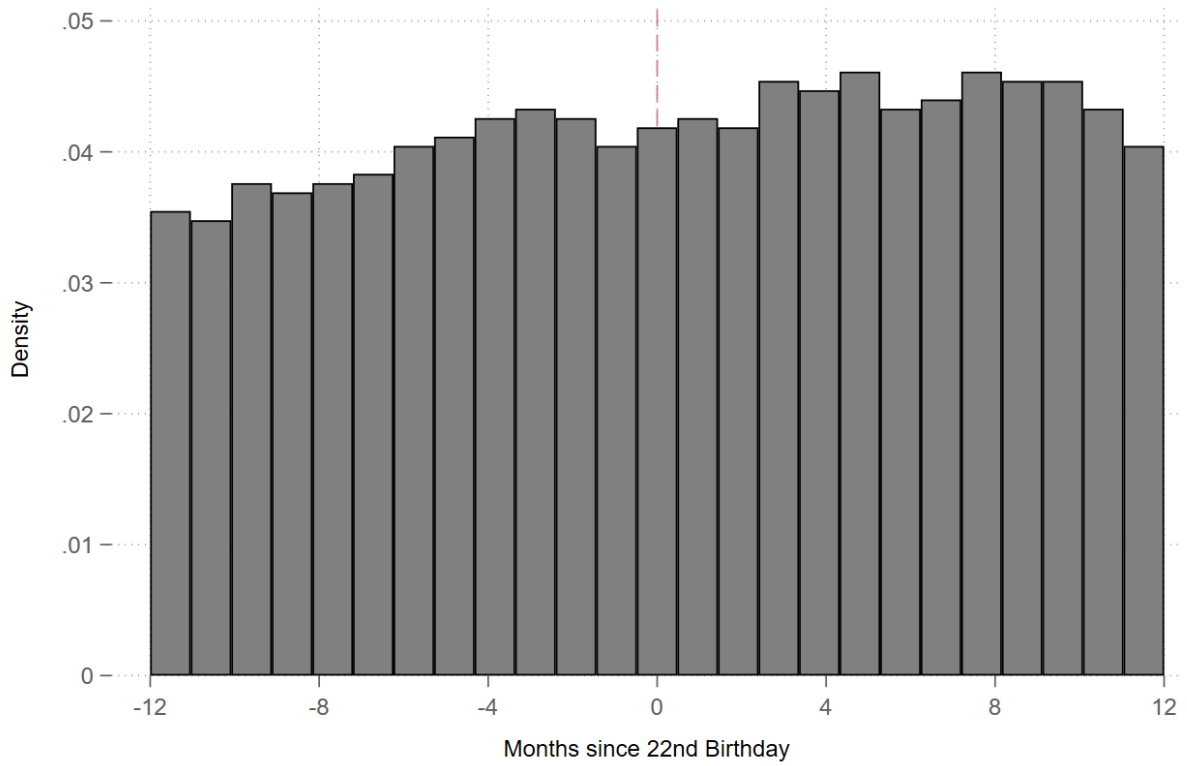
Notes: The horizontal axis indicates the normalized age in months with respect to 22 years old. The figure plots the distribution of the number of SSI beneficiaries by density in each month bin.

Table A1. Covariates Balanced Test of SSI Beneficiaries around Age 22

	(1) Below 22	(2) Above 22	(3) ttest
Male (%)	47.440	46.891	0.549
White (%)	61.295	62.065	-0.769
Black (%)	30.873	30.348	0.525
Obs	664	804	1,468

Notes: The sample in Column (1) is SSI beneficiaries within 12 months below age 22, while the sample in Column (2) is SSI recipients within 12 above age 22. Column (3) tests whether the means in the two groups are equal.

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