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Employment Among Adolescent Children of SSDI Recipients

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Abstract

I explore the association between parental work-limiting disabilities (WLD) and Social Security Disability Insurance (SSDI) receipt and the labor supply of their adolescent children. Using the 2014-2021 waves of the Survey of Income and Program Participation, I estimate that having a parent who receives SSDI benefits is associated with a 22 percent reduction in the odds that the child worked during the school months of the previous calendar year relative to teens whose parents did not receive benefits. Along the intensive margin, parental SSDI receipt is correlated with a more than 20 percent reduction in total hours worked over the previous year. These effects are almost entirely driven by teenage boys, suggesting a gendered response to parental disability and SSDI benefit receipt.

JEL Classifications: I38, J13, J22

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1 Introduction

Approximately 6 percent of teenagers live with a parent with a work-limiting disability (WLD) severe enough to prevent them working for the next six months (Kalenkoski and Pabilonia, 2022). These disabilities negatively affect the well-being of not only the parents but also their children. Importantly, these households have lower income that is often below the poverty line even when transfer income is taken into account (Olkin et al., 2006; Meyer and Mok, 2019; Lakdawala and Bharadwaj, 2022). Adolescents in these households face potentially competing uses of their time. These children may choose to enter into the labor force or work additional weeks of the year to help contribute to the family financial resources. Alternatively, they may need to spend less time working in order to focus more on home production such as cooking, cleaning, shopping, or caring for the parent with a disability (Hunt et al., 2005). This time spent working or on additional housework potentially comes at the expense of time spent on educational activities (Kalenkoski and Pabilonia, 2022). These differences in childhood outcomes can persist into adulthood as well. Jajtner (2020) finds that children of parents with a WLD experience lower economic mobility.

Social Security Disability Insurance (SSDI) may play an important role within these households with parental disability. For those parents who qualify, SSDI provides cash benefits based on their previous earnings. SSDI benefits have been shown to alleviate family financial burdens and improve mortality (Deshpande et al., 2021; Gelber et al., 2018), but relatively little is known about how the benefits affect the well-being of children, despite the number of children receiving SSDI benefits roughly equaling the number of children who receive Supplemental Security Income. Children may also qualify to receive benefits if they are unmarried, 19 years old or younger, and are enrolled in an elementary or secondary school full-time. Children may use their benefits to replace some of the earnings from working and reduce their labor supply. Benefits to the parents may also reduce the need for children to perform home production.

This paper aims to provide insight into the associations between parental disability and adolescent labor force participation. Demographically, approximately one out of every five SSDI beneficiaries is a parent to children under the age of 18, and compared to non-parent beneficiaries, these individuals are more likely to be under 50, female, and nonwhite (Messel and Trenkamp, 2022; Livermore and Bardos, 2015). Additionally, this research topic may become more pertinent in the coming years due to demographic changes. Given that fertility rates have increased for women in their 30s and 40s, and that the majority of SSDI recipients are 50 and older, we may begin to see more SSDI recipients with adolescent children (Morse, 2022; Messel and Trenkamp, 2022). Adolescent labor force participation has important implications for their human capital development and long-run well-being (Apel et al., 2008; Staff et al., 2010; Lee and Orazem, 2010; Schwartz et al., 2015) and has been recently explored in the literature with mixed findings. This is particularly true of children from disadvantaged households such as those experiencing parental disability, though our knowledge of adolescents in these households is limited.

Using the 2014-2021 waves of the Survey of Income and Program Participation (SIPP), I find that having a parent with a WLD has little effect on teenage labor supply relative to all other teenagers. However, parental SSDI receipt is associated with a 22 percent decline in the odds of working during school months among all children compared to children whose parents do not receive benefits. Parental SSDI receipt is also correlated with a reduction in hours worked among

those who worked during the past year. Specifically, parental SSDI receipt is associated with a 22 percent reduction in total hours worked over the past year and a 26 percent reduction in total hours worked during school months. Among those children with a parent with a WLD, SSDI receipt does not significantly impact labor force participation but does reduce the total annual hours worked. The reduction in labor supply is driven almost entirely by teenage boys, suggesting a gendered household response to parental disability. It should be noted that this paper is descriptive in nature and is unable to make any causal claims about the impact of parental disability and SSDI benefit receipt on adolescent well-being. It does not exploit exogenous sources of variation in disability or benefit receipt and there is a concern about selection into those two categories being associated with child outcomes as well. Despite this, the paper is an important step in our understanding of how these parental conditions affect child well-being.

Compared to the literature on the impact of disability in childhood and adulthood, relatively little is known about the impact of parental disability on child outcomes. Much of the existing work is qualitative and focuses on the children's role as caregivers and how to address the emotional toll it can have (Aldridge and Becker, 1999; Gray et al., 2008). There is new literature that explores parental disability and child well-being, and the evidence is slightly mixed on teen labor force participation. Kalenkoski and Pabilonia (2022) explore the impact of "severe" parental WLDs that prevent the parent from working for at least six months on the time use of adolescent children. Using the American Time Use Survey, they find a gendered response to parental disability. Teenage girls living with a disabled parent spend less time on educational activities and more time on pet care and leisure, while boys spend less time sleeping on schooldays compared to teenagers with non-disabled parents. They also find a positive but statistically insignificant relationship between parental disability and the labor supply of the teenage children during the school year. Given their findings and previous examinations of the gendered role of housework (Schulz, 2021), I also explore the impact of a disabled parent by the gender of the child.

Lakdawala and Bharadwaj (2022) also explore the impact of parental disability but focus on disabled veterans, whose disability status is more plausibly exogenous to child outcomes. In contrast to Kalenkoski and Pabilonia (2022), they find that veteran parental disability is associated with an 11 percent decrease in the likelihood that the child worked in the past year. These children are also less likely to be late for grade and are more likely to have a disability themselves. The authors fail to find a difference in impact of parental disability by the gender of the child. The authors also compare their results to those of the broader population of children of parents with disabilities, but do not estimate labor force participation for this group.

However, despite this recent analysis, the role of SSDI is largely unexplored. SSDI provides earned benefits for workers who can no longer support themselves through work due to severe impairments. To qualify, individuals must have worked for at least one-fourth of their adult life and have worked in at least five of the last 10 years. Beneficiaries must also be unable to perform "substantial work" based on their age, education, and work experience. "Substantial work" in 2022 meant monthly earnings of \$1,350. Other family members may also be eligible for benefits, most notably minor children of the beneficiary who are 19 years old or younger and who are still enrolled in K-12 education full-time. A child can receive up to half of the parents full disability benefits. However, the maximum payment to the family of the disabled parent is capped at 150-180 percent of the parents full benefit amount (SSA, 2022b). From a teenager's perspective these payments can

be quite substantial. In 2021, the average monthly payment to children of disabled workers was approximately \$400 (SSA, 2022a). For a teen earning a \$10 hourly wage, this would be a week's worth of full-time work, even longer at the federal minimum wage or if they only work part-time.

It is unclear if these cash payments to the family are enough to outweigh the negative effects of a parent with a severe disability on child well-being. Jajtner (2020) finds that children of parents with a work-limiting disability experience lower economic mobility as adults. Jajtner also presents suggestive evidence that SSDI benefits could mitigate the decline in mobility, noting that the children of the most limited parents experience a decline similar in magnitude to those with a median level of limitation, though the effect is imprecise. However, this same pattern is not found by Lak-dawala and Bharadwaj (2022) who find that more severe disability among veterans is associated with worse childhood outcomes despite veteran benefits increasing with disability severity.

In this paper, teenage labor force participation is the outcome of interest due to its connection with other aspects of child well-being in both the short-run and long-run. Teenage labor force participation is potentially at odds with school performance and engagement given the time commitments necessary for both. The literature finds high school employment is associated with more dropouts but less delinquency, worse academic performance, and higher intensity work leads to less college attendance (Apel et al., 2008; Staff et al., 2010; Kalenkoski and Pabilonia, 2009; Lee and Orazem, 2010), though the effect may be minimal or even positive if the work is modest or occurs during the summer (Lillydahl, 1990; Schwartz et al., 2015). However, work experience may be beneficial in developing important "soft skills" such as time management and handling "adult" responsibility, again particularly if the work is moderate and steady (Mortimer, 2010). These skills can play an important role in later life success (Duckworth et al., 2007; Heckman and Kautz, 2012).

This paper expands upon this existing literature by examining the impact of both parental disability and SSDI receipt on adolescent well-being, specifically their labor force participation. Given the connection between parental disability and overall health status and employment, this paper also informs the broader literature on the effects of parental health and employment and family income on child well-being (Bratti and Mendola, 2014; Halliday et al., 2019; Berger et al., 2005; Gennetian et al., 2010; Heinrich, 2014; Reinhold and Jürges, 2012; Duncan et al., 2014).

2 Methodology

Data for this project comes from the 2014-2021 waves of the SIPP. The SIPP is a nationally representative longitudinal survey that provides comprehensive information on the dynamics of income, employment, household composition, and government program participation. Households are followed for at most four years, with overlapping panels occurring each year. The SIPP oversamples low-income households and as such survey weights are used throughout the analysis. The 2014-2021 waves are the redesigned waves of the SIPP that make use of the event history calendar for recalling activities over the previous reference year, therefore these waves cover the calendar years 2013-2020. Unfortunately, the SIPP has struggled with response rates in recent years partly due to the Covid-19 pandemic. I do still include these years in my analysis but use survey weights to adjust for this nonresponse bias, and in the empirical models, survey year fixed effects are included as well. Given the structural differences between the original SIPP and redesigned SIPP, I do not include years prior to 2014 in this analysis.

My analysis sample comprises of adolescent children ages 15 to 19. For each teen, I have information on work history over the previous year, disability information on each parent present, and family demographic information. Age 15 is the lower bound because this the earliest age at which SIPP respondents are asked about their work histories, and age 19 is used as a cutoff due to the SSDI benefit eligibility rules outlined in Section 1. However, 18- and 19 year-olds are included only if they report not yet having a high school degree and are also currently enrolled in high school.

Parents are said to have a WLD if they report having difficulty finding a job or remaining employed due to a physical, mental, or emotional problem; having a physical, mental, or health condition that limits the kind or amount of work they can do; or if they are prevented from working due to a physical, mental, or emotional problem. This is a slightly broader measure than that used by Kalenkoski and Pabilonia (2022), who limit the sample to those with a WLD severe enough to prevent them from working for the next six months. Unfortunately, this specific measure of disability is not available in the SIPP. Further, unlike work history, I am unable to observe the exact onset of the disability, only that it was present at the time of the interview. Therefore it is possible that I am observing adolescent labor supply that occurs prior to the disability condition, but that observation would be treated the same as a teen who had a parent with a disability for the entire reference period. SSDI receipt is measured for parents and is a self-reported measure.

Survey weighted descriptive statistics are shown below in Table 1. The data shows averages for the entire sample, the sample of children whose parent does not have a WLD, children whose parent has a WLD, children of parents who do not receive SSDI, and the children of parents who do report SSDI benefits. The data is an unbalanced panel with approximately 10,500 unique child observations where the unit of analysis is a child-year observation. Most pairs are only observed once. This is partly due to the short time frame of adolescence and also the relatively short panel lengths. The 2014 and 2018 panels both have four waves of data while the 2020 panel has two waves and the 2019 and 2021 panel each have one wave in the analysis sample. For each child, information on one parent is also recorded. If no parent in the household has a WLD, then the information comes from the parent who self reports as the reference parent. For most children, this tends to be their mother. If one parent has a WLD, then the information comes from that parent. In the case that there are two parents who report a WLD, then the information comes from the one that is also the reference parent.

In the sample, 16 percent of adolescents report working in the past year with nearly as many reporting working during school months (September – May). This labor force participation rate is comparable across each subgroup. Seventeen percent have at least one parent with a WLD and 4 percent have a parent that reported receiving SSDI benefits in the past year. Approximately a quarter of children whose parent has a WLD also receive SSDI benefits. Of those who report receiving SSDI benefits, roughly 7 percent do not report having a WLD, potentially due to previously mentioned timing concern.

Compared to the adolescent employment rates reported in Lakdawala and Bharadwaj (2022) and Desilver (2022), children in my sample are less likely to have worked in the past year. This is primarily due to sample definitions. If I limit my sample to be 16 and older as they do, then the

Table 1: Descriptive Statistics

	(1)	(2)	(3)	(4)	(5)
	Whole Sample	No WLD	WLD	No SSDI	SSDI
	Mean	Mean	Mean	Mean	Mean
<i>Teen Employment</i>					
Worked During Reference Year	0.16	0.16	0.16	0.16	0.16
Worked During School Months	0.15	0.15	0.15	0.15	0.14
Annual Hours Worked	87	86	89	87	78
School Year Hours Worked	59	59	61	59	52
<i>Parental Disability</i>					
Parent with WLD	0.17	0.00	1.00	0.14	0.93
Parent Receives SSDI	0.04	0.00	0.23	0.00	1.00
<i>Demographics</i>					
Child Age	16.1	16.1	16.4	16.1	16.4
Male	0.51	0.52	0.49	0.51	0.49
White	0.74	0.75	0.68	0.74	0.67
Black	0.14	0.13	0.20	0.14	0.22
Asian	0.05	0.06	0.04	0.06	0.02
Other Race	0.06	0.06	0.08	0.06	0.09
Household Size	4.54	4.53	4.57	4.54	4.46
Two Parent Household	0.67	0.68	0.63	0.68	0.65
Parent Age	45.1	44.8	46.9	45.0	48.1
Male Parent	0.13	0.08	0.35	0.11	0.41
Parent Less than High School Education	0.14	0.12	0.23	0.14	0.21
Parent High School Education	0.23	0.22	0.30	0.23	0.31
Parent Some College	0.18	0.17	0.20	0.17	0.22
Parent College Degree	0.32	0.34	0.21	0.32	0.23
Parent Postsecondary Degree	0.13	0.15	0.05	0.14	0.04
Reside in Metro Area	0.87	0.88	0.83	0.87	0.81
<i>State Controls</i>					
Unemployment Rate	5.51	5.51	5.52	5.51	5.56
Minimum Wage	8.38	8.39	8.31	8.39	8.19
Observations	15927	13048	2879	15235	692

rate increases to a comparable 21 percent. My rate of parental disability is also higher than that of Kalenkoski and Pabilonia (2022). This is likely due to my broader definition of disability, though it has been noted by the US Census Bureau that the redesigned SIPP panels exhibit higher rates of disability than other nationally representative surveys (Jackson and Taylor, 2018). The reported averages for total hours worked are low but include zeroes for those children who don't work. Among those that report working any positive hours, the averages are approximately 540 hours over the entire year and 370 hours during school months. This would correspond to roughly 10 hours worked a week for both the entire year and during school months specifically. Children of parents who receive SSDI report working fewer hours than those whose parents do not receive benefits.

Information on the child's age, gender, and race is included as are the age, gender, and education of the reference parent. The children in the sample are predominantly white and the modal parent is their mother and has either a two or four-year college degree. While the labor force measures are relatively close between the subgroups, there are key demographic differences. Parents with a

WLD or who receive SSDI tend to be male, older, more likely to be black, less likely to have any college degree, and less likely to live in a metro area. Given their importance for teenage labor force participation, unemployment rates and minimum wage are collected to measure the strength of the local macroeconomy. The minimum wage is reported in 2021 dollars.

My baseline results are obtained by estimating the following regression:

$$Y_{ikt} = \beta WLD_{kt} + \gamma X_{ikt} + \epsilon_{ikt} \quad (1)$$

where i denotes an adolescent from family k in year t . Y_{ikt} is the labor supply outcome of interest, WLD_{kt} is a binary variable indicating a family that has a parent with a work-limiting disability, and X_{ikt} is a vector of demographic and macroeconomic controls listed in Table 1. When estimating the impact of SSDI, WLD_{kt} is replaced with a binary variable that indicates SSDI receipt. SIPP survey weights and heteroskedastic-robust standard errors are used in each specification. For the binary labor force participation outcomes, the model is estimated using a logit specification and odds ratios are reported. For hours of work, the model is estimated using OLS.

3 Results

3.1 Main Results

I first consider the impact of parental disability and SSDI receipt on the labor force participation decisions of adolescent children. The results are shown in Table 2. The results show that disability and DI receipt are associated with lower rates of labor force participation, but the effects are often imprecisely determined. Having a parent with a WLD is associated with an approximately 10 percent reduction in the odds that the adolescent worked in the past year. However, this reduction is not statistically significant. Parental SSDI receipt is associated with a larger reduction in labor force participation than is parental disability. Particularly when it comes to working during the school year, teens in households where the parent reports receiving SSDI have a 22 percent reduction in the odds of having worked during school months.

Table 2: Parental WLD and SSDI Receipt on Teen Labor Force Participation - Logit Odds Ratios

	Job Ever	Job School	Job Ever	Job School
Parental WLD	0.928 (0.07)	0.897 (0.07)		
Parental SSDI Receipt			0.877 (0.13)	0.782* (0.12)
Sample Mean	0.16	0.15	0.16	0.15
Obs.	15,927	15,927	15,927	15,927

Job Ever: Worked at any point in past year. Job School: Worked during school months. Note: Huber-White standard errors used, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. SIPP survey weights used. Controls include child age FE, child sex, child race, household size, two parent household, parent age, parent age squared, parent sex, parent education, metro residency, unemployment rate, and minimum wage. Survey year fixed effects included.

Given the strict eligibility requirements, the larger estimated effect of SSDI receipt could reflect worse parental health as compared to those who report a WLD but no SSDI receipt. These parents with more severe disabilities would potentially need more caretaking from their children, leaving the children less time to work. Additionally, the cash benefit received by the entire family may allow the children to forgo earnings from working. This may be particularly beneficial during school months, allowing the child to balance between caretaking and their own education.

I next consider the effect of parental WLD and SSDI receipt on the intensive margin of teenage labor supply. Here, the sample consists of teens who report working any nonzero hours over the course of the year and the outcomes are the total number of hours working during the year and during school months. These results are shown in Table 3 below. As with the extensive margin in Table 2, both parental disability and SSDI receipt are associated with reduced labor supply.

Table 3: Parental WLD and SSDI Receipt on Teen Hours Worked

	Total Hours	School Hours	Total Hours	School Hours
Parental WLD	-30.4 (30.8)	-22.7 (24.2)		
Parental SSDI Receipt			-116.1** (48.5)	-96.1** (38.4)
Sample Mean	536	366	536	366
Percent Change	-5.67	-6.2	-21.67	-26.23
Obs.	2,484	2,484	2,484	2,484

Total Hours: Total hours worked over past year. School Hours: Total hours worked during school months. Note: Huber-White standard errors used, * p < 0.10, ** p < 0.05, *** p < 0.01. SIPP survey weights used. Controls include child age FE, child sex, child race, household size, two parent household, parent age, parent age squared, parent sex, parent education, metro residency, unemployment rate, and minimum wage. Survey year fixed effects included.

Among teens who reported working in the past year, parental disability is associated with a statistically insignificant 6 percent decline in hours worked in total and during school months. As was the case for the extensive margin, the effect of parental SSDI receipt is larger than that of parental disability. Among these adolescents, parental SSDI receipt corresponds to 116 fewer hours worked annually and 96 fewer hours worked during the school year, a 22 percent and 26 percent reduction in hours, respectively. It is interesting to note that the reduction in work hours is relatively greater during the school year, 26 percent compared to a statistically different 11 percent reduction in summer hours, despite this being the time when teens are able to work the most. This is supportive of the SSDI benefits themselves rather than disability severity driving the labor supply reductions. The disability is equally severe over the entire year, but it is primarily during school months, when their time is more valuable, that the children are working less.

Table 4 explores this in more detail. Here, the sample is restricted to just those adolescents who have a parent with a WLD and the independent variable of interest is just SSDI receipt. This helps isolate the impact of the SSDI benefits, specifically through the use of a more comparable sample. Here again, the labor force participation outcomes are estimated using a logit model with the odds ratios reported in the table. The hours of work outcomes are estimated using OLS.

Table 4: Parental SSDI Receipt Among Teens of Parents with a WLD

	Job Ever	Job School	Total Hours	School Hours
Parental SSDI Receipt	1.005 (0.163)	0.892 (0.147)	-155.6*** (59.9)	-119.1** (46.7)
Sample Mean	0.16	0.15	543	372
Percent Change			-28.64	-32.02
Obs.	2,879	2,879	438	438

Job Ever: Worked at any point in past year. Job School: Worked during school months. Total Hours: Total hours worked over past year. School Hours: Total hours worked during school months. LFP estimated using logit with odds ratios reported. Note: Huber-White standard errors used, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. SIPP survey weights used. Controls include child age FE, child sex, child race, household size, two parent household, parent age, parent age squared, parent sex, parent education, metro residency, unemployment rate, and minimum wage. Survey year fixed effects included.

Among adolescents who have a parent with a disability, SSDI receipt is not associated with a change in labor force participation but instead with a reduction in the number of hours worked. For these children, parental SSDI receipt corresponds to 156 fewer hours worked annually and 119 fewer hours worked during the school year, a 29 percent and 32 percent reduction in hours, respectively. These reductions appear even greater when comparing to the general population of teenagers. However, some caution should be exercised when interpreting these results as the sample sizes are quite small.

3.2 By Gender

The results in Section 3.1 show that parental SSDI receipt is associated with a reduction in the number of hours worked by the recipient's adolescent child, particular during the school year but with little overall change in the likelihood of having a job. However, given the gendered role of housework and the findings from Kalenkoski and Pabilonia (2022) on the gendered response to parental disability, it is important to consider if the effect of parental WLD and SSDI receipt also varies by gender. To test this, I modify equation (1) to include an interaction term between WLD/SSDI receipt and a binary indicator for if the child is male. The full equation is shown then:

$$Y_{ikt} = \beta_1 WLD_{kt} + \beta_2 WLD_{kt} * Male_i + \gamma X_{ikt} + \epsilon_{ikt} \quad (2)$$

where the vector of controls X_{ikt} still includes a binary indicator if the teenager is a boy. β_1 then represents the impact of parental disability for teenage girls, and the marginal effect for teen boys is then given by the linear combination of β_1 and β_2 and is reported in each of the tables below. Table A1 in the Appendix compares the descriptive statistics of teenage girls with those of teenage boys. Between the two genders, the differences are minimal. The parents of boys and girls experience disability and receive SSDI benefits at the same rate and are otherwise demographically identical.

The biggest difference comes from work hours. Although boys and girls are equally likely to have worked, omitting those with no work hours, boys work an average of 100 hours more during the year than girls, 583 hours to 487 hours, respectively.

Table 5: Parental WLD and SSDI Receipt on Teen Labor Force Participation By Gender - Logit Odds Ratios

	Job Ever	Job School	Job Ever	Job School
Parental WLD	1.050 (0.11)	1.003 (0.11)		
Parental WLD * Male	0.777* (0.11)	0.794 (0.11)		
Parental SSDI Receipt			0.946 (0.19)	0.978 (0.20)
Parental SSDI Receipt * Male			0.860 (0.24)	0.626 (0.18)
Male Marginal Effect	0.82** (0.08)	0.80** (0.08)	0.81 (0.17)	0.61** (0.13)
Obs.	15,927	15,927	15,927	15,927

Job Ever: Worked at any point in past year. Job School: Worked during school months. Note: Huber-White standard errors used, * p <0.10, ** p <0.05, *** p <0.01. SIPP survey weights used. Controls include child age FE, child sex, child race, household size, two parent household, parent age, parent age squared, parent sex, parent education, metro residency, unemployment rate, and minimum wage. Survey year fixed effects included.

Table 5 shows that any decline in labor force participation from parental disability or SSDI receipt is concentrated among teenage boys. For teenage girls, the odds ratios for parental disability and SSDI receipt are close to one, suggesting no change in their labor force participation. However, among teenage boys a parent with a WLD is associated with a 20 percent reduction in the odds of working at all during the year or during school months specifically. For school months, parental SSDI benefits are associated with an even larger decline in labor force participation. Parental SSDI receipt for teenage boys is correlated with a 40 percent reduction in the odds of having worked during school months.

In Table 6, we see that the intensive margin follows the same pattern as the extensive margin in Table 5. Among those who work, teen girls report minimal changes in work hours when they have a parent with a WLD or SSDI receipt. Boys who have a parent with a WLD also do not show a change in hours worked. Alternatively, boys who have a parent that receives SSDI exhibit dramatic decreases in work hours.

Table 6: Parental WLD and SSDI Receipt on Teen Hours Worked By Gender

	Total Hours	School Hours	Total Hours	School Hours
Parental WLD	-24.9 (34.3)	-16.6 (27.0)		
Parental WLD * Male	-11.7 (58.4)	-13.0 (46.2)		
Parental SSDI Receipt			-0.3 (54.9)	-13.7 (43.8)
Parental SSDI Receipt * Male			-237.5*** (88.9)	-168.9** (70.8)
Male Marginal Effect	-36.6 (50.0)	-29.6 (39.4)	-237.8*** (71.9)	-182.7*** (57.3)
Obs.	2,484	2,484	2,484	2,484

Total Hours: Total hours worked over past year. School Hours: Total hours worked during school months. Note: Huber-White standard errors used, * p <0.10, ** p <0.05, *** p <0.01. SIPP survey weights used. Controls include child age FE, child sex, child race, household size, two parent household, parent age, parent age squared, parent sex, parent education, metro residency, unemployment rate, and minimum wage. Survey year fixed effects included.

Among boys, parental SSDI receipt is associated with a 238-hour reduction in hours worked during the entire year and 183 fewer hours worked during school months. With baseline means of 583 hours and 399 hours, these numbers would correspond to 41 percent and 46 percent reductions, respectively. As with Table 3, these results suggest relatively smaller decreases in hours worked during the summer.

Taken together, these results suggest that teenage boys are impacted the most by parental WLD and SSDI receipt. Parental WLD is associated with a decreased likelihood of working a job, and SSDI receipt correlates to being less likely to work during school as well as fewer hours worked among those who continue to hold jobs. There are important implications for this labor supply reduction. Given the evidence presented in Section 1 and that boys graduate high school at a lower rate than girls (Reeves et al., 2021), the parental SSDI benefits potentially allow boys to focus more on school which could help increase school completion and performance. Though as also described above, these boys may be missing the opportunity to develop important later life skills such as time management.

4 Conclusion

The impact of parental WLD on the well-being of the children is a relatively understudied area. These household experience higher rates of poverty which places additional strain on the teenage children of the family as their time is now split among school, socializing, housework/caretaking, and their own employment. This paper explores the associations of one safety program aimed at alleviating this hardship, SSDI. Specifically, I use the 2014-2021 waves of the SIPP to examine associations between parental WLD and parental SSDI receipt and teenage labor supply. Teenage

labor decision have important implications for how teens' time is spent as well as the economic resources available to them and their families.

I find that while parental WLD has little correlation with adolescent labor supply, parental SSDI receipt is associated with a 22 percent reduction in total hours worked over the past year and a 26 percent reduction in total hours worked during school months. Among those children with a parent with a WLD, SSDI receipt does not significantly impact labor force participation but does reduce the total annual hours worked. The reduction in labor supply is driven almost entirely by teenage boys, suggesting a gendered household response to parental WLD and SSDI receipt. Given the graduation gap between boys and girls in high school, SSDI receipt has the potential to help boys spend more time on school and graduate. Considering these boys already come from economically disadvantaged families, even with benefit receipt accounted for (Meyer and Mok, 2019), the benefits of high school graduation can be important for helping to alleviate intergenerational poverty.

These findings are descriptive in nature and should not be used to make causal claims about the impact of SSDI on adolescent well-being. However, this paper plays an important part in furthering our understanding of how SSDI receipt may affect child well-being, an area previously unexplored in the literature. The paper also contributes to our understanding of the associations between parental work-limiting disabilities and adolescent well-being as initially explored by Kalenkoski and Pabilonia (2022) and Lakdawala and Bharadwaj (2022).

Lastly, it is important to consider what role SSDI will have in alleviating child poverty in the future. In 2020, 1.4 million children received SSDI benefits as a result of their parent collecting benefits. Given demographic changes in the timing of fertility later in life, the number of children collecting SSDI benefits will also likely increase in the future given that the likelihood of disability benefit receipt also increases with age. As noted in Meyer and Mok (2019), by age 50 a male househead has a 36 percent chance of being disabled at least once with 9 percent having a chronic or severe disability. This suggests that SSDI may play a larger role in the social safety net for children than currently envisioned. Understanding the ways these benefits can affect the well-being of children is of crucial policy importance, particularly during times when it seems the solvency of the fund is in doubt.

References

- Aldridge, J. and S. Becker (1999). Children as carers: the impact of parental illness and disability on children's caring roles. *Journal of Family Therapy* 21(3), 303–320.
- Apel, R., S. D. Bushway, R. Paternoster, R. Brame, and G. Sweeten (2008). Using state child labor laws to identify the causal effect of youth employment on deviant behavior and academic achievement. *Journal of Quantitative Criminology* 24(4), 337–362.
- Berger, L. M., J. Hill, and J. Waldfogel (2005). Maternity leave, early maternal employment and child health and development in the US. *The Economic Journal* 115(501), F29–F47.
- Bratti, M. and M. Mendola (2014). Parental health and child schooling. *Journal of Health Economics* 35, 94–108.
- Deshpande, M., T. Gross, and Y. Su (2021). Disability and distress: The effect of disability programs on financial outcomes. *American Economic Journal: Applied Economics* 13(2), 151–78.
- Desilver, D. (2022, June). After dropping in 2020, teen summer employment may be poised to continue its slow comeback. Pew Research Center, <https://www.pewresearch.org/fact-tank/2022/06/21/after-dropping-in-2020-teen-summer-employment-may-be-poised-to-continue-its-slow-comeback/>.
- Duckworth, A. L., C. Peterson, M. D. Matthews, and D. R. Kelly (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology* 92(6), 1087.
- Duncan, G. J., K. Magnuson, and E. Votruba-Drzal (2014). Boosting family income to promote child development. *The Future of Children*, 99–120.
- Gelber, A., T. Moore, and A. Strand (2018). Disability insurance income saves lives. *Stanford Institute for Economic Policy Research Working Paper* 18-005..
- Gennetian, L. A., H. D. Hill, A. S. London, and L. M. Lopoo (2010). Maternal employment and the health of low-income young children. *Journal of Health Economics* 29(3), 353–363.
- Gray, B., C. Robinson, and D. Seddon (2008). Invisible children: Young carers of parents with mental health problems-the perspectives of professionals. *Child and Adolescent Mental Health* 13(4), 169–172.
- Halliday, T., B. Mazumder, and A. Wong (2019, January). Intergenerational health mobility in the U.S. Working Paper.

- Heckman, J. J. and T. Kautz (2012). Hard evidence on soft skills. *Labour Economics* 19(4), 451–464.
- Heinrich, C. J. (2014). Parents' employment and children's wellbeing. *The Future of Children*, 121–146.
- Hunt, G. G., C. Levine, and L. Naiditch (2005). *Young Caregivers in the US: Findings from a National Survey*. National Alliance for Caregiving, in collaboration with United Hospital Fund.
- Jackson, H. and D. Taylor (2018). Understanding changes in the disability prevalence in the 2014 survey of income and program participation: three explanations considered. Technical report, U.S. Census Bureau. SEHSD Working Paper Number: 2018-04, SIPP Working Paper #283.
- Jajtner, K. M. (2020). Work-limiting disability and intergenerational economic mobility. *Social Science Quarterly* 101(5), 2001–2016.
- Kalenkoski, C. M. and S. W. Pabilonia (2009). Does working while in high school reduce US study time? *Social Indicators Research* 93, 117–121.
- Kalenkoski, C. M. and S. W. Pabilonia (2022, July). Parental disability and teenagers time allocation. *Review of Economics of the Household*, 1–29.
- Lakdawala, L. K. and P. Bharadwaj (2022). The relationship between parental disability and child outcomes: Evidence from veteran families. *PLOS One* 17(11), e0275468.
- Lee, C. and P. F. Orazem (2010). High school employment, school performance, and college entry. *Economics of Education Review* 29(1), 29–39.
- Lillydahl, J. H. (1990). Academic achievement and part-time employment of high school students. *The Journal of Economic Education* 21(3), 307–316.
- Livermore, G. and M. Bardos (2015). Characteristics of SSI and SSDI beneficiaries who are parents. Technical report, Mathematica Policy Research, Washington DC. Disability Research Consortium Data Brief.
- Messel, M. and B. Trenkamp (2022, April). Characteristics of noninstitutionalized DI, SSI, and OASI program participants, 2016 update. *Social Security Administration Research and Statistics Note* (2022-01).
- Meyer, B. D. and W. K. Mok (2019). Disability, earnings, income and consumption. *Journal of Public Economics* 171, 51–69.
- Morse, A. (2022, April). Stable fertility rates 1990-2019 mask distinct variations by age. United

States Census Bureau, <https://www.census.gov/library/stories/2022/04/fertility-rates-declined-for-younger-women-increased-for-older-women.html>.

Mortimer, J. T. (2010). The benefits and risks of adolescent employment. *The Prevention Researcher* 17(2), 8.

Olkin, R., K. Abrams, P. Preston, and M. Kirshbaum (2006). Comparison of parents with and without disabilities raising teens: Information from the NHIS and two national surveys. *Rehabilitation Psychology* 51(1), 43–49.

Reeves, R. V., E. Buckner, and E. Smith (2021, January). The unreported gender gap in high school graduation rates. Brookings Institute, URL: <https://www.brookings.edu/blog/up-front/2021/01/12/the-unreported-gender-gap-in-high-school-graduation-rates/>.

Reinhold, S. and H. Jürges (2012). Parental income and child health in Germany. *Health Economics* 21(5), 562–579.

Schulz, F. (2021). Mothers', fathers' and siblings' housework time within family households. *Journal of Marriage and Family* 83(3), 803–819.

Schwartz, A. E., J. Leos-Urbel, J. McMurry, and M. Wiswall (2015). Making summer matter: The impact of youth employment on academic performance. *NBER Working Paper*. No. w21470.

SSA (2022a, December). Annual statistical supplement to the social security bulletin, 2022. Technical Report Publication No. 13-11700, Social Security Administration.

SSA (2022b, June). Benefits for children. Technical Report Publication No. 05-10085, Social Security Administration.

Staff, J., J. E. Schulenberg, and J. G. Bachman (2010). Adolescent work intensity, school performance, and academic engagement. *Sociology of Education* 83(3), 183–200.

Appendix A

Table A1: Descriptive Statistics By Gender

	Teen Girls			Teen Boys		
	Mean	SD	Count	Mean	SD	Count
<i>Teen Employment</i>						
Worked During Reference Year	0.16	0.37	7754	0.16	0.37	8173
Worked During School Months	0.15	0.36	7754	0.15	0.35	8173
Annual Hours Worked	79	249	7754	93	311	8173
School Year Hours Worked	54	181	7754	64	227	8173
<i>Parental Disability</i>						
Parent with WLD	0.18	0.38	7754	0.17	0.37	8173
Parent Receives SSDI	0.04	0.20	7754	0.04	0.20	8173
<i>Demographics</i>						
Child Age	16.1	0.95	7754	16.1	0.96	8173
White	0.73	0.44	7754	0.74	0.44	8173
Black	0.15	0.35	7754	0.14	0.35	8173
Asian	0.06	0.23	7754	0.05	0.23	8173
Other Race	0.07	0.25	7754	0.06	0.24	8173
Household Size	4.52	1.67	7754	4.56	1.64	8173
Two Parent Household	0.67	0.47	7754	0.68	0.47	8173
Parent Age	45.3	7.06	7754	45.0	7.00	8173
Male Parent	0.12	0.33	7754	0.13	0.34	8173
Parent Less than High School Education	0.14	0.35	7754	0.14	0.35	8173
Parent High School Education	0.23	0.42	7754	0.23	0.42	8173
Parent Some College	0.18	0.38	7754	0.17	0.38	8173
Parent College Degree	0.32	0.47	7754	0.32	0.47	8173
Parent Postsecondary Degree	0.13	0.34	7754	0.13	0.34	8173
Reside in Metro Area	0.87	0.39	7754	0.87	0.40	8173
<i>State Controls</i>						
Unemployment Rate	5.52	1.82	7754	5.50	1.76	8173
Minimum Wage	8.39	1.46	7754	8.36	1.44	8173



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