# Effects of Parental Disability on Children's 

# Schooling: The Surprising Role of Parental <br> Education 

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#### Abstract

We show that the effects of parental disability on children's schooling investments are much more negative when parents are highly educated using repeated cross-sectional data from the American Community Survey (ACS) from 2008 to 2019. To isolate the causal effects of parental disability, we focus on children of veterans who become disabled during military service. Within this group, we find that the gradient in children's private school attendance with respect to the severity of parental disability is much steeper for children with college-educated parents than for children with non-college-educated parents. We provide evidence that these heterogeneous effects are driven by differences in foregone earnings across more and less educated parents. Though parental disability generates larger reductions in parental labor supply for less educated parents, the reduction in earnings is greater for more educated parents. These findings illustrate that parental disability may have larger negative impacts on children that are not traditionally considered to be part of a vulnerable group.


## 1 Introduction

A growing body of work documents that children tend to fare worse along health and schooling outcomes when parents are disabled (see, for example, Lakdawala and Bharadwaj (2022)). Conventional wisdom and empirical evidence suggest that the effects of adverse shocks (such as parental disability) may be strongest for children in economically "vulnerable" families ${ }^{1}$

In this paper, we show that negative effects of parental disability on schooling investments are actually larger for economically advantaged families. Specifically, we find that amongst children with a veteran father, private school attendance declines with the severity of a father's disability by more when fathers have completed college relative to when fathers have not. The children of these more-educated, disabled fathers also show reduced mobility as young adults, suggesting that reduced educational investment continues into young adulthood.

We provide evidence of a mechanism for this finding: the income shock associated with paternal disability is larger for highly educated fathers than for less educated fathers. In short, disability reduces paternal labor supply for all families but the foregone earnings are much larger for highly educated fathers. Furthermore, the reduction in earnings is largely offset by transfers such as Veteran's Administration (VA) payments for less educated fathers but not for educated fathers, suggesting that these transfers are not sufficient to buffer children in these families from the adverse effects of parental disability.

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## 2 Data and Methods

We use data from the American Community Survey (ACS) for the years 20082019 (Ruggles et al. (2021)). Our main sample includes all children of the household head between the ages of 5 and 18 who reside with a veteran father. We focus on the effects of father's disability because the sample of children living with disabled veteran mothers is very small.$^{2}$ Our final sample includes nearly 434,000 children across 12 survey years.

Our main covariate of interest is father's service-connected disability rating, SCDR. The SCDR is a physician-assigned composite measure of the severity of disabilities that result from military service. The SCDR reflects both physical and non-physical disabilities (such as post-traumatic stress disorder). The SCDR ranges from $0 \%$ to $100 \%$ though we observe it in bins of 20 percentage points, top-coded at 70 percent.

To focus on the role of parental education, we split our sample by father's education. The "low parental education" group includes children whose father completed less than 4 years of college while the "high parental education" group includes children whose father completed at least 4 years of college. Table A. 1 in the Appendix displays summary statistics of child and household characteristics, separately for each group. Children with less- and moreeducated fathers differ along a number of important dimensions. For example, children in the high parental education group have older and (unsurprisingly) more educated parents. However, children in the two groups are also strikingly similar in many ways (e.g., family size and presence of grandparents).

Our main outcome is "Private School" status, which indicates whether a

[^1]child attends public or private school (conditional on attending school). We use private school attendance to measure schooling investment for two reasons. First, children who attend private schools (whether due to selection or quality) attain higher test scores (see, for example, Figlio et al. (1997)) and rates of high school graduation and college attendance (Altonji et al. (2005); Evans and Schwab (1995); Neal (1997)) than students who attend public schools. Second, private schools are typically more expensive than public schools averaging $\$ 12,420$ in tuition costs annually (U.S. Department of Education, National Center for Education Statistics (2021)). Thus we argue that private school attendance generally reflects greater investment in schooling.

We run the following regression, separately for high and low parental education groups:

$$
\begin{aligned}
Y_{i h t} & =\beta_{1} \cdot \mathbf{1}\left(S C D R_{h t}=10 \text { or } 20 \text { percent }\right) \\
& +\beta_{2} \cdot \mathbf{1}\left(S C D R_{h t}=30 \text { or } 40 \text { percent }\right) \\
& +\beta_{3} \cdot \mathbf{1}\left(S C D R_{h t}=50 \text { or } 60 \text { percent }\right) \\
& +\beta_{4} \cdot \mathbf{1}\left(S C D R_{h t}=70 \text { percent or higher }\right) \\
& +\gamma X_{i h t}+\delta_{t}+\mu_{s}+\varepsilon_{i h t}
\end{aligned}
$$

where $Y_{i h t}$ is private schooling status for child $i$ in household $h$ in survey year $t ; S C D R_{h t}$ is the father's veteran disability score; $X_{i h t}$ are child- and household-level characteristics; and $\mu_{s}$ and $\delta_{t}$ are state and survey year FE. $\beta_{1}, \beta_{2}, \beta_{3}$, and $\beta_{4}$ capture the difference in the probability that a child attends a private school relative to children of veterans without an SCDR, i.e. those whose father is not/less severely disabled. We cluster standard errors at the family level.

Though SCDRs are not randomly assigned, we follow Lakdawala and Bharadwaj (2022) and argue that we capture causal estimates of parental disability because unlike other types of injuries, injuries sustained during military service are likely to be unanticipated and unrelated to most preexisting health measures. We focus on how $\hat{\beta}_{1}, \hat{\beta}_{2}, \hat{\beta}_{3}$, and $\hat{\beta}_{4}$ vary across high and low parental education groups.

## 3 Results

### 3.1 Main Results

We find that children are significantly less likely to attend private school when their fathers are disabled 3 Children with a less educated father are between 1 and 1.4 percentage points less likely to attend private school when their fathers have an SCDR of 30 percent or higher, relative to children whose veteran father is not disabled (column 3; differences significant at the $5 \%$ level). The drop is sharper for children of college-educated fathers; the probability of attending private school declines by 2.4 percentage points when fathers have an SCDR of 70 percent or more (column 4). The gradient in private school attendance is much steeper with respect to father's disability for the more educated group than for the less educated group; the difference across the two groups is statistically significant at the $5 \%$ level $\left.\right|^{4}$

While the effects of father's disability are larger in absolute terms for children with college-educated fathers, this can partially be explained by this

[^2]group's higher private school attendance rates at baseline (for children without disabled fathers). For example, a child whose father has an SCDR of 50-60 percent has a $10 \%$ lower likelihood of attending private school in the low parental education group (column 1) compared to the baseline, whereas this effect is $15 \%$ for the high parental education group (column 2). Thus, children with less educated fathers are less at risk for dropping out of private schools because (in the absence of parental disability) they attend at lower rates than children with more educated fathers. Nonetheless, we argue that the differences in absolute effects are still important, as they still capture potential losses in human capital investment and accumulation.

Additionally, we find evidence suggesting that the effects for the high parental education group persist into young adulthood in the form of reduced mobility. Children with highly educated fathers are more likely to have an older sibling (age 19-25) remain at home when their fathers are more severely disabled (Table 1, column 4); however father's disability does not seem to affect the mobility of older siblings of less-educated fathers (column 3). These results could reflect lower human capital investment and/or accumulation on several dimensions, such as lower rates of college attendance or attending (potentially lower quality) institutions closer to home (e.g., a 4 -year college versus a local community college) $5^{5}$

### 3.2 Mechanisms

To understand what drives these heterogeneous effects, we explore the effects of father's disability on father's employment and household income. As pri-

[^3]Table 1: Effects of Father's Disability on Schooling Outcomes by Father's Education

|  | In Private |  | Has an Older Sibling <br> School |  |
| :--- | :---: | :---: | :---: | :---: |
|  | (19-25) at Home |  |  |  |

Household-level clustered standard errors in parentheses. Significance levels denoted by: *** p<0.01, ** $\mathrm{p}<0.05,^{*} \mathrm{p}<0.1$ Omitted group: Children living with fathers without a disability rating ( $\mathrm{SCDR}=0$ ). Low parental education is defined as father having less than 4 years of college; high parental education corresponds to fathers having at least 4 years of college. Sample for columns 1-2: all children ages $5-18$ living with a veteran father. Sample for columns 3-4: all children ages 14-18 living with a veteran father. Controls: age FE, gender, dummy variables for single race categories, indicators for whether mothers and fathers served in 2001 and later as well as fixed effects for mother's and father's age, education, and marital status; household size; birth order; number of siblings; number of grandparents in household; metro status; state; and survey year. Mean is reported for children living with veteran fathers without an SCDR rating. The final row of the table gives the p-value for the joint test of the equality of all pairs of SCDR coefficients across the high and low parental education groups (i.e., the joint test of $\beta_{1}^{L o w E d}=\beta_{1}^{H i g h E d}$ and $\beta_{2}^{L o w E d}=\beta_{2}^{H i g h E d}$, and so forth).
vate school is a costly investment, we posit that foregone earnings are one important channel through which parental disability can affect private school attendance. Given that more educated fathers may have higher earnings potential, foregone earnings may be higher for this group if disability prevents fathers from working.

Our findings, displayed in Table 2, support this hypothesis. In fact, we find that the effects of father's disability on the extensive and intensive margin of employment are larger for the less educated group. Specifically, while father's probability of working and hours worked decline sharply with father's disability for both groups, the declines in father's labor supply are larger for the less educated group (columns 1 and 2, Panel A versus Panel B; differences statistically significant at the $1 \%$ level) ${ }^{6}$ In contrast, household income per capita falls by more for the more educated group at every level of father's disability (column 3); this is clearly driven by considerable decreases in earned income (column 4).

Income from other sources - which includes disability-related benefits and compensation from the VA - increases with father's disability in an almost identical fashion for both less and high parental education groups (column 5). This is because VA disability payments are indexed only to the SCDR and demographics and are explicitly not a function of foregone earnings.

In sum, while disability reduces father's labor supply for both groups, it reduces earned income by more for the more educated group (consistent with the idea that more educated fathers have higher earnings potential). While transfers from the VA appear to be sufficient to offset the losses in earned income for disabled fathers without a college degree (for all but the most severely

[^4]disabled), they are not enough to offset the larger earnings losses of collegeeducated fathers. This means that households with college-educated fathers have significantly fewer resources to devote to human capital investments when fathers are disabled. 7

[^5]Table 2: The Impact of Father's Disability on Income and Labor Market Outcomes by Father's Education

|  | Father is Employed <br> (1) | Father's Work Hours (2) | HH Income (per capita) <br> (3) | HH Income (Earned) (4) | HH Income (Other Sources) (5) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Panel A: Father has less than 4 years of college Father's SCDR |  |  |  |  |  |
| 10 to 20 | $\begin{gathered} -0.016^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -46.5^{* * *} \\ (8.933) \end{gathered}$ | $\begin{gathered} 62.3 \\ (80.1) \end{gathered}$ | $\begin{gathered} -503.1^{* * *} \\ (78.4) \end{gathered}$ | $\begin{gathered} 390.9^{* * *} \\ (15.3) \end{gathered}$ |
| 30 to 40 | $\begin{gathered} -0.041^{* * *} \\ (0.004) \end{gathered}$ | $\begin{gathered} -151.2^{* * *} \\ (12.298) \end{gathered}$ | $\begin{gathered} 59.1 \\ (105.5) \end{gathered}$ | $\begin{gathered} -1,177.2^{* * *} \\ (102.9) \end{gathered}$ | $\begin{gathered} 1,091.6^{* * *} \\ (23.0) \end{gathered}$ |
| 50 to 60 | $\begin{gathered} -0.097^{* * *} \\ (0.006) \end{gathered}$ | $\begin{gathered} -297.4^{* * *} \\ (15.647) \end{gathered}$ | $\begin{gathered} 152.1 \\ (118.7) \end{gathered}$ | $\begin{gathered} -2,133.8^{* * *} \\ (114.5) \end{gathered}$ | $\begin{gathered} 2,011.6^{* * *} \\ (33.7) \end{gathered}$ |
| 70+ | $\begin{gathered} -0.390^{* * *} \\ (0.005) \\ \hline \end{gathered}$ | $\begin{gathered} -983.0^{* * *} \\ (12.212) \\ \hline \end{gathered}$ | $\begin{gathered} -677.3^{* * *} \\ (82.2) \\ \hline \end{gathered}$ | $\begin{gathered} -5,431.5^{* * *} \\ (80.7) \\ \hline \end{gathered}$ | $\begin{gathered} 4,440.7^{* * *} \\ (45.4) \\ \hline \end{gathered}$ |
| Observations | 298,730 | 298,730 | 298,667 | 298,730 | 298,730 |
| Mean for no disability p-value for test that | 0.910 | 1971 | 14686 | 13585 | 352.1 |
| SCDR 10-20=SCDR 70+ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Panel B: Father has at least 4 years of college Father's SCDR |  |  |  |  |  |
| 10 to 20 | $\begin{gathered} -0.007^{* * *} \\ (0.003) \end{gathered}$ | $\begin{gathered} -43.9^{* * *} \\ (10.492) \end{gathered}$ | $\begin{gathered} -765.3^{* * *} \\ (231.0) \end{gathered}$ | $\begin{gathered} -1,720.9^{* * *} \\ (219.5) \end{gathered}$ | $\begin{gathered} 376.2^{* * *} \\ (20.8) \end{gathered}$ |
| 30 to 40 | $\begin{gathered} -0.019^{* * *} \\ (0.004) \end{gathered}$ | $\begin{aligned} & -96.4^{* * *} \\ & (13.559) \end{aligned}$ | $\begin{gathered} -1,387.7^{* * *} \\ (265.7) \end{gathered}$ | $\begin{gathered} -3,131.8^{* * *} \\ (250.0) \end{gathered}$ | $\begin{gathered} 1,133.9^{* * *} \\ (35.1) \end{gathered}$ |
| 50 to 60 | $\begin{gathered} -0.042^{* * *} \\ (0.005) \end{gathered}$ | $\begin{gathered} -229.8^{* * *} \\ (17.420) \end{gathered}$ | $\begin{gathered} -1,555.6^{* * *} \\ (277.4) \end{gathered}$ | $\begin{gathered} -4,755.2^{* * *} \\ (264.6) \end{gathered}$ | $\begin{gathered} 2,144.1^{* * *} \\ (47.3) \end{gathered}$ |
| 70+ | $\begin{gathered} -0.199^{* * *} \\ (0.006) \\ \hline \end{gathered}$ | $\begin{gathered} -598.8^{* * *} \\ (16.732) \\ \hline \end{gathered}$ | $\begin{gathered} -2,958.2^{* * *} \\ (218.4) \\ \hline \end{gathered}$ | $\begin{gathered} -8,140.6^{* * *} \\ (212.4) \\ \hline \end{gathered}$ | $\begin{gathered} 4,322.7^{* * *} \\ (62.4) \\ \hline \end{gathered}$ |
| Observations | 135,173 | 135,173 | 135,152 | 135,173 | 135,173 |
| Mean for no disability p-value for test that | 0.954 | 2167 | 25974 | 24183 | 285.5 |
| SCDR 10-20=SCDR 70+ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| p-value for test that <br> High Ed = Low Ed | 0.000 | 0.000 | 0.000 | 0.000 | 0.057 |

Household-level clustered standard errors in parentheses. Significance levels denoted by: *** $\mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05$, * $\mathrm{p}<0.1$ Omitted group: Children living with fathers without a disability rating ( $\mathrm{SCDR}=0$ ). The sample includes all children ages 5-18 living with a veteran father who has less than 4 years of college (Panel A) or who has completed at least 4 years of college (Panel B). Controls: age FE, gender, dummy variables for single race categories, indicators for whether mothers and fathers served in 2001 and later as well as fixed effects for mother's and father's age, education, and marital status; household size; birth order; number of siblings; number of grandparents in household; metro status; state; and survey year. Mean is reported for children living with veteran fathers without an SCDR rating. The final row of the table gives the p-value for the joint test of the equality of all pairs of SCDR coefficients across the high and low parental education groups (i.e., the joint test of $\beta_{1}^{L o w E d}=\beta_{1}^{H i g h E d}$ and $\beta_{2}^{\text {LowEd }}=\beta_{2}^{H i g h E d}$, and so forth).

## 4 Conclusion

Overall, we find that children's private school attendance declines by more when highly educated fathers are disabled than when less educated fathers are disabled, and these heterogeneous effects seem to be explained at least in part by the differences in foregone earnings across the two groups. These findings are consistent with some studies that find that children in less-educated or lower socioeconomic status (SES) families are less impacted by parental job loss (e.g., Mörk et al. (2014)). These results are important for understanding how the effects of parental disability might be transmitted intergenerationally and for identifying which children might be most at risk for negative effects when parents become disabled.

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## A Appendix: Additional Results

Robustness Checks. We use a very similar estimating sample and strategy as Lakdawala and Bharadwaj (2022). The only difference is that we focus on children with a veteran father (rather than a veteran parent). This is because we focus on the effects of the earnings of the disabled parent as the primary mechanism, for which we must focus on a specific parent rather than overall parental disability.

Given the nearly identical samples, we do not repeat the robustness checks in Lakdawala and Bharadwaj (2022) here but note that they provide evidence that parental SCDR appears to be uncorrelated with important predetermined household characteristics, does not appear to drive selection into parenthood, or other types of sample selection. Additionally, they test for heterogeneous effects by race and gender but find no evidence that the effects of parental disability varies along these dimensions, suggesting that any correlation between race and parental education does not drive our results.

We perform some additional robustness checks in Table A.3. In columns $1-2$, we demonstrate that the effects of father's disability are similar when we split the sample by father's completion of high school (as opposed to father's completion of college, as in our main results). In columns 3-4, we show that the patterns in the effects of father's disability on hours worked are similar when we restrict the sample to working fathers. However, we interpret these results with caution as our main results indicate that father's employment is affected by disability and thus the sample for columns 3-4 is selected endogenously. Finally, we rule out one form of endogenous family structure as a mechanism in columns 5 and 6 . In particular, we find that father's disability does not impact the likelihood that an adult female (above age 26) is present in the
household for either education group. This suggests that female partners / co-parents do not move in or out of the household in response to a father's disability.

Effects of mother's disability. In columns 1-2 Table A.4 we examine the effects of mother's disability on children's private school attendance, separately for children with less or highly educated mothers (defined by whether a mother has completed at least 4 years of college). We find that the effects of mother's SCDR are very different than of father's SCDR; mother's disability has a much smaller impact than father's disability. This finding echoes the results in Lakdawala and Bharadwaj (2022), who find that private school attendance is strongly affected by father's but not mother's disability, but where the reverse is true when using child disability as an outcome. Second, we find that there is little heterogeneity in the effects of mother's disability across high and low parental education groups.

One potential explanation for these findings is that parental disability affects schooling investment primarily through an income channel, which affects the budgetary aspects of schooling decisions (e.g. private versus public education). If many mothers are secondary earners, the impacts of mother's disability on the financial resources available for private schooling will be smaller. The results in columns 3-8 of Table A.4 are consistent with this explanation. We find that the patterns of effects disability on mother's employment probability and work hours are very similar to those for fathers (columns 3-6); namely, effects on the extensive and intensive margin of labor supply are larger for less educated mothers. However, when we examine the effects of maternal disability on overall household income (columns 7-8), we find that the effects are generally much smaller than the effects of paternal disability and in many cases are not statistically significant. Furthermore, the effects do not appear
to be substantively larger for highly educated mothers than for less educated mothers, in contrast to the findings for fathers. Thus it appears that the lack of effects of mother's disability on children's private schooling are driven by the relatively small contribution that mothers make to household income, on average.

## B Appendix: Figures and Tables

Table A.1: Summary Satistics

|  | Low Parental Education (1) | High Parental Education (2) | p -value for <br> H0: $(1)=(2)$ <br> (3) |
| :---: | :---: | :---: | :---: |
| Female | 1.48 | 1.49 | 0.002 |
| Age | $\begin{aligned} & 12.07 \\ & (3.93) \end{aligned}$ | $\begin{aligned} & 11.89 \\ & (3.90) \end{aligned}$ | 0.000 |
| Birth Order | $\begin{gathered} 1.70 \\ (0.91) \end{gathered}$ | $\begin{gathered} 1.71 \\ (0.90) \end{gathered}$ | 0.021 |
| White | 0.73 | 0.77 | 0.000 |
| Black | 0.12 | 0.08 | 0.000 |
| Hispanic | 0.12 | 0.11 | 0.000 |
| Household Size | $\begin{gathered} 4.53 \\ (1.39) \end{gathered}$ | $\begin{gathered} 4.53 \\ (1.32) \end{gathered}$ | 0.107 |
| Number of Siblings in HH | $\begin{gathered} 1.45 \\ (1.21) \end{gathered}$ | $\begin{gathered} 1.48 \\ (1.19) \end{gathered}$ | 0.000 |
| Number Grandparents in HH | $\begin{gathered} 0.04 \\ (0.21) \end{gathered}$ | $\begin{gathered} 0.03 \\ (0.21) \end{gathered}$ | 0.003 |
| Mother's Age | $\begin{aligned} & 41.08 \\ & (7.58) \end{aligned}$ | $\begin{aligned} & 43.29 \\ & (6.77) \end{aligned}$ | 0.000 |
| Mother's Education (\% in each category) |  |  |  |
| High School or Less | 38.06 | 14.50 | $p$ - value for the joint test that distribution is the same across groups $=0.000$ |
| 1 Year of College | 19.36 | 11.70 |  |
| 2 Years of College | 13.90 | 10.41 |  |
| 4 or More Years of College | 22.18 | 58.73 |  |
| Missing | 6.51 | 4.66 |  |
| Father's Age | $\begin{aligned} & 44.59 \\ & (8.96) \end{aligned}$ | $\begin{aligned} & 46.53 \\ & (8.10) \end{aligned}$ | 0.000 |
| Father's SCDR (\% in each category) (8.0) |  |  |  |
| No Disability Rating | 80.4 | 76.2 | p- value for the joint test that distribution is the same across groups $=0.000$ |
| 10 to 20 percent | 6.93 | 8.27 |  |
| 30 to 40 percent | 3.77 | 5.18 |  |
| 50 to 60 percent | 2.78 | 3.77 |  |
| 70 percent or more | 6.13 | 6.62 |  |
| Household Income Per Capita | $\begin{gathered} 14619.7 \\ (10527.4) \end{gathered}$ | $\begin{gathered} 25416.0 \\ (20162.2) \end{gathered}$ | 0.000 |
| In School (Previous 3 Months) | 0.962 | 0.974 | 0.000 |
| Attending Private School | 0.097 | 0.184 | 0.000 |
| N | 302,207 | 136,613 |  |

Data: American Community Survey (2008-2019). Standard deviations in parentheses below means. Household income per capita trimmed at the bottom and top $1 \%$ within each survey year and is expressed in 1999 dollars using the CPI-U multiplier published by the Bureau of Labor Statistics. Column 3 reports the p-value for the test that the means across high and low parental education samples are the same. Due to large sample sizes, p-values are almost always 0 , even when the difference in means is not economically meaningful. Thus, we interpret these p-values with caution.

Table A.2: Effects of Father's Disability on Schooling Attendance by Father's Education

|  | Currently Attending School |  |
| :--- | :---: | :---: |
|  | Low Parental <br> Education <br> $(1)$ | High Parental <br> Education <br> $(2)$ |
| Father's SCDR |  |  |
| 10 to 20 | 0.001 | -0.000 |
| 30 to 40 | $(0.001)$ | $(0.002)$ |
|  | -0.001 | -0.003 |
| 50 to 60 | $(0.002)$ | $(0.002)$ |
|  | 0.000 | 0.002 |
| $70+$ | $(0.002)$ | $(0.003)$ |
|  | 0.002 | -0.000 |
| Observations | $(0.002)$ | $(0.002)$ |
| Mean for no disability | 298,730 | 135,173 |
| p-value for test that | 0.0986 | 0.193 |
| SCDR 10-20 =SCDR 70+ | 0.523 | 0.988 |
| p-value for test that |  |  |
| High Ed $=$ Low Ed |  | 0.835 |

Household-level clustered standard errors in parentheses. Significance levels denoted by: *** $\mathrm{p}<0.01$, ${ }^{* *} \mathrm{p}<0.05$, * $\mathrm{p}<0.1$ Omitted group: Children living with fathers without a disability rating $(\mathrm{SCDR}=0)$. The sample includes all children ages 5 - 18 living with a veteran father. The sample is split by whether the father has completed at least 4 years of college. Controls: age FE, gender, dummy variables for single race categories, indicators for whether mothers and fathers served in 2001 and later as well as fixed effects for mother's and father's age, education, and marital status; household size; birth order; number of siblings; number of grandparents in household; metro status; state; and survey year. Mean is reported for children living with veteran fathers without an SCDR rating. The final row of the table gives the p-value for the joint test of the equality of all pairs of SCDR coefficients across the high and low parental education groups (i.e., the joint test of $\beta_{1}^{\text {LowEd }}=\beta_{1}^{\text {HighEd }}$ and $\beta_{2}^{\text {LowEd }}=\beta_{2}^{\text {HighEd }}$, and so forth).

Table A.3: Robustness Checks

|  | In Private School |  | Hours Worked (Conditional) |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | | Adult Female in Household |
| :---: |

Household-level clustered standard errors in parentheses. Significance levels denoted by: *** p<0.01, ** p<0.05, * p<0.1 Omitted group: Children living with fathers without a disability rating $(\mathrm{SCDR}=0)$. The sample includes all children ages $5-18$ living with a veteran father. The sample is split by father's education: in (1) and (2), low education is defined as $i=$ high school completion, in (3) - (6) by $i 4$ years of college. Controls: age FE, gender, dummy variables for single race categories, indicators for whether mothers and fathers served in 2001 and later as well as fixed effects for mother's and father's age, education, and marital status; household size; birth order; number of siblings; number of grandparents in household; metro status; state; and survey year. Mean is reported for children living with veteran fathers without an SCDR rating. The final row of the table gives the p-value for the joint test of the equality of all pairs of SCDR coefficients across the high and low parental education groups (i.e., the joint test of $\beta_{1}^{L o w E d}=\beta_{1}^{H i g h E d}$ and $\beta_{2}^{L o w E d}=\beta_{2}^{H i g h E d}$, and so forth).

Table A.4: Effects of Mother's Disability on Private School Status, by Mother's Education

|  | In Private School |  | Mother is Employed |  | Mother's Work Hours |  | HH Income (per capita) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Low Parental Education (1) | High Parental Education (2) | Low Parental Education <br> (3) | High Parental Education <br> (4) | Low Parental Education (5) | High Parental Education <br> (6) | Low Parental Education (7) | High Parental Education (8) |
| Mother's SCDR |  |  |  |  |  |  |  |  |
| 10 to 20 | $\begin{gathered} -0.001 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.014 \\ (0.010) \end{gathered}$ | $\begin{gathered} -0.031^{* * *} \\ (0.012) \end{gathered}$ | $\begin{gathered} -0.007 \\ (0.011) \end{gathered}$ | $\begin{gathered} -89.4^{* * *} \\ (25.491) \end{gathered}$ | $\begin{gathered} -10.8 \\ (27.363) \end{gathered}$ | $\begin{gathered} -45.5 \\ (199.609) \end{gathered}$ | $\begin{gathered} -708.8^{*} \\ (416.708) \end{gathered}$ |
| 30 to 40 | $\begin{gathered} 0.002 \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.011) \end{gathered}$ | $\begin{gathered} -0.079^{* * *} \\ (0.015) \end{gathered}$ | $\begin{gathered} -0.015 \\ (0.012) \end{gathered}$ | $\begin{gathered} -221.6^{* * *} \\ (31.149) \end{gathered}$ | $\begin{gathered} -60.3^{*} \\ (31.465) \end{gathered}$ | $\begin{gathered} -166.8 \\ (222.464) \end{gathered}$ | $\begin{gathered} -290.6 \\ (464.382) \end{gathered}$ |
| 50 to 60 | $\begin{gathered} -0.026^{* * *} \\ (0.009) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.013) \end{gathered}$ | $\begin{gathered} -0.155^{* * *} \\ (0.019) \end{gathered}$ | $\begin{gathered} -0.033^{* *} \\ (0.014) \end{gathered}$ | $\begin{gathered} -391.6^{* * *} \\ (36.746) \end{gathered}$ | $\begin{gathered} -127.7^{* * *} \\ (36.227) \end{gathered}$ | $\begin{gathered} 143.6 \\ (258.755) \end{gathered}$ | $\begin{gathered} 231.3 \\ (568.350) \end{gathered}$ |
| $70+$ | $\begin{gathered} 0.007 \\ (0.008) \\ \hline \end{gathered}$ | $\begin{aligned} & -0.018^{*} \\ & (0.010) \\ & \hline \end{aligned}$ | $\begin{gathered} -0.369^{* * *} \\ (0.014) \\ \hline \end{gathered}$ | $\begin{gathered} -0.248^{* * *} \\ (0.016) \\ \hline \end{gathered}$ | $\begin{gathered} -787.5^{* * *} \\ (27.575) \\ \hline \end{gathered}$ | $\begin{gathered} -625.6^{* * *} \\ (33.894) \\ \hline \end{gathered}$ | $\begin{gathered} 1,031.4^{* * *} \\ (240.306) \\ \hline \end{gathered}$ | $\begin{gathered} -1,084.7^{* *} \\ (427.429) \\ \hline \end{gathered}$ |
| Observations | 42,948 | 27,841 | 44,676 | 28,607 | 44,676 | 28,607 | 44,665 | 28,593 |
| Mean for no disability | 0.0892 | 0.162 | 0.766 | 0.853 | 1346 | 1595 | 13089 | 24026 |
| p -value for test that <br> SCDR 10-20=SCDR <br> 70+ | 0.425 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.496 |
| p-value for test that Low Ed $=$ High Ed | 0.029 |  | 0.000 |  | 0.000 |  | 0.000 |  |

Household-level clustered standard errors in parentheses. Significance levels denoted by: ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,^{*} \mathrm{p}<0.1$ Omitted group: Children living with mothers without a disability rating ( $\mathrm{SCDR}=0$ ). The sample includes all children ages $5-18$ living with a veteran mother. Controls: age FE, gender, dummy variables for single race categories, indicators for whether mothers and fathers served in 2001 and later as well as fixed effects for mother's and father's age, education, and marital status; household size; birth order; number of siblings; number of grandparents in household; metro status; state; and survey year. Mean is reported for children living with veteran fathers without an SCDR rating. The final row of the table gives the p-value for the joint test of the equality of all pairs of SCDR coefficients across the high and low parental education groups (i.e., the joint test of $\beta_{1}^{\text {LowEd }}=\beta_{1}^{\text {HighEd }}$ and $\beta_{2}^{\text {LowEd }}=\beta_{2}^{\text {HighEd }}$, and so forth).


[^0]:    ${ }^{1}$ For example, some find that the impacts of parental unemployment are stronger for children from low SES families (Page et al. (2019); Schaller and Zerpa (2019)), though evidence is mixed (Mörk et al. (2014)).

[^1]:    ${ }^{2}$ We present and discuss the estimated effects of mother's disability on children's school in the Appendix.

[^2]:    ${ }^{3}$ We find no effects of father's disability on the probability that children are attending school in both the low and high parental education groups and at all levels of father's disability (Appendix Table A.2).
    ${ }^{4}$ In columns 1-2 of Table A.3 of the Appendix, we show that the results are very similar when we split the sample by father's high school (rather than college) completion.

[^3]:    ${ }^{5}$ For this outcome, the sample is restricted to children age $15-18$, who are most likely to have an older sibling 19-25. The age structure of siblings is slightly older for children age $5-14$ in the less educated group (results available upon request).

[^4]:    ${ }^{6}$ In columns 3-4 of Table A. 3 of the Appendix, we show that the results hold when we examine hours worked conditional on being employed.

[^5]:    ${ }^{7}$ In columns 5-6 of Table A.3 of the Appendix, we consider family structure as one alternative mechanism but find no evidence that father's disability affects the probability that a female partner is in the household for either education group.

