

Intergenerational Effects of Debt Relief: Evidence from Bankruptcy Protection

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Our question: What are the long-term effects of bankruptcy protection that spillover to the children of recipients, if any?

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 - Large literature on \uparrow labor supply \implies \downarrow time for children leading to worse human capital development (e.g., [Hu et al. \(2024\)](#))
 - Positive relation between parental and children's income sensitive to the type of shock on parental income used to estimate it and ranges from less than 1pp per \$100k to over 1pp per \$1k

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- Mechanisms: asset protection, higher investments in children's education, and avoidance of disruptive geographical moves

Literature (Non-exhaustive citations)

- Debt relief and bankruptcy protection
 - [Agarwal et al. \(2017\)](#) show that HAMP increased intensity of renegotiations and prevented a substantial number of foreclosures
 - [Di maggio et al. \(2020\)](#) show that student debt forgiveness leads to decline in delinquencies and increase in income
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- ① Long-run effects that help quantify the gains from parental bankruptcy protection on children
- ② Our results highlight the potential role that bankruptcy protection can play in helping improve intergenerational mobility & homeownership

U.S. Bankruptcy System

- Chapter 7 Bankruptcy:
 - Debtors liquidate all nonexempt assets (house, cars) to discharge eligible debts (credit card loans, medical bills, etc.)
- Chapter 13 Bankruptcy:
 - 3-5 year plan to repay debt, with most assets protected.
 - In our sample, 33% of Chapter 13 filers have their applications accepted
 - Those who do not receive Chapter 13 filing, they can file for Chapter 7 or privately negotiate with the creditor

- PACER bankruptcy filing data
 - From Public Access to Court Electronic Records between 1992 & 2009
 - Provided by [Gross et al. \(2014\)](#)
 - Includes info on judges along with additional borrower characteristics like assets, liabilities, income, expenses, proposed plan etc.

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- Equifax data
 - Credit data: credit line level information and de-identified demographics. We determine parents and children by
 - Address history
 - Last name
 - Age difference
 - Income data: detailed payroll data for over 5000 employers covering about 100 million employees

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- Final sample includes 306.9k children associated with 263.3k parents who filed 201.2k unique bankruptcy cases

Endogeneity

Unobserved factors related to individual outcomes may generate biased OLS estimates.

- People who are perceived to have a higher chance of defaulting the Chapter 13 plan are less likely to receive protection.
- These people may have more previous default records or lower quality assets.
- These factors are either observable or not observable in OLS.
- Needs identification strategy.

Identification Strategy

Identification Strategy

- Use judge heterogeneity in the propensity to approve Chapter 13 bankruptcy protection as an instrument in 2SLS
- Judges are randomly assigned within a bankruptcy court
- Measured as “abnormal” approval rate beyond the average rate in the same district-year ([Dobbie & Song \(2015\)](#))
 - To avoid the mechanical effect of the focal case on the approval rate we follow “leave-one-out” approach

$$ParentalBankruptcyProtection_{i,d,o,j,c,p,f} = \gamma \times JudgeLeniency_{d,j,f} + \alpha_{o,f} + \delta_c + \gamma_p + \epsilon_{i,d,o,j,c,p,f}$$

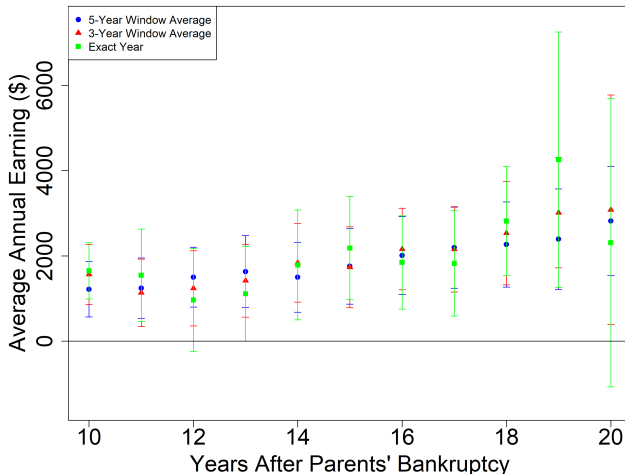
$$y_{i,d,o,j,c,p,f+k} = \beta \times \widehat{ParentalBankruptcyProtection}_{i,d,o,j,c,p,f} + \alpha_{o,f} + \delta_c + \gamma_p + \epsilon_{i,d,o,j,c,p,f+k}$$

- $\alpha_{o,f}$: Office \times filing year fixed effects
- δ_c : Children's age fixed effects
- γ_p : Parent's age fixed effects

Income: 2SLS

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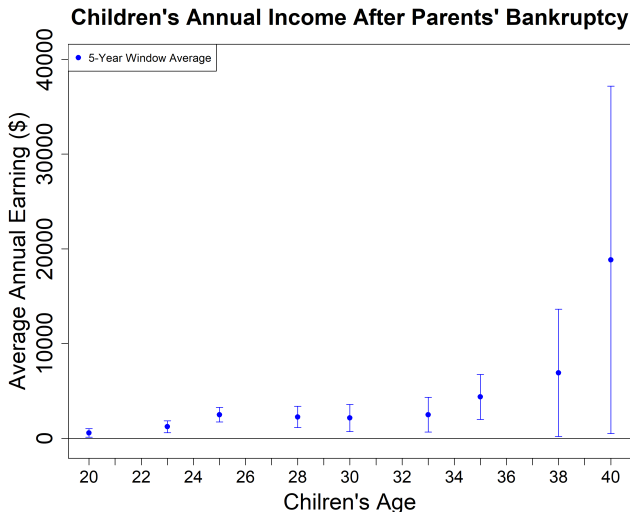
Children's Annual Income After Parents' Bankruptcy



Children whose parents receive protection earn \$1,755 higher annual income 15 years post bankruptcy (~5.6% of the sample mean)

Income over life-cycle

Income over life-cycle



Children whose parents receive protection earn \$4,367 higher annual income by age 35 (~9.1% of the sample mean)

Income over life-cycle: Back-of-the-envelope

- Our goal with this calculation: compare the amount of parental debt relief with the NPV of life time earnings for children

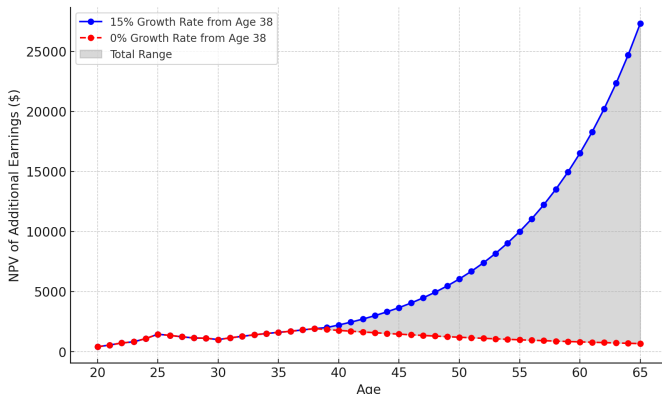
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- Our goal with this calculation: compare the amount of parental debt relief with the NPV of life time earnings for children
- Challenge: the amount of debt relief granted under the Chapter 13 protection not easily observable
- We scrape this data from PACER using "Final Report and Account" document trustees are required to file
 - obtained the amount of debt discharged for over 344k Chapter 13 cases
 - Mean debt relief is \$55,574.90 (i.e., 71.4% of total debt)

Income over life-cycle: Back-of-the-envelope



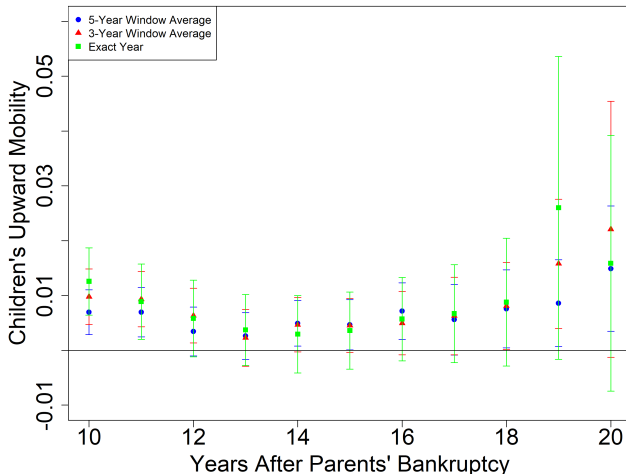
Assumptions: (1) 45 year career span from age 20 to 65; (2) discount factor of 4% (mean inflation over 100 years); (3) as of 11 years of age (children's mean age at filing)

Lower bound: After adjusting for no of children, **\$1 debt relief \implies \$2.45 higher income**

Intergenerational mobility

Intergenerational mobility

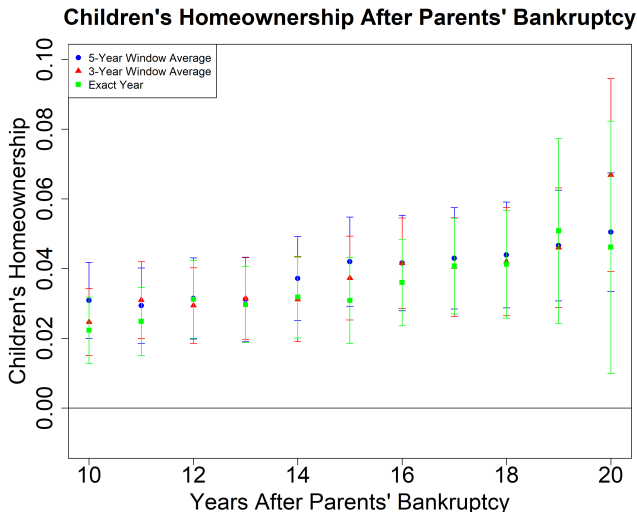
Children's Upward Mobility After Parents' Bankruptcy



Intergenerational mobility 0.5pp higher for households receiving bankruptcy protection ($\sim 16.7\%$ of the sample mean)

Home ownership

Home ownership



Home ownership 4.2pp higher for households receiving bankruptcy protection
(~28.0% of the sample mean)

Mechanisms

- Asset protection
 - Stronger results in non-judicial states, where foreclosing houses is easier.
 - In these states, the cost of losing bankruptcy protection is much higher.
 - Bankruptcy protection helped households much more in these states.

Mechanisms

- Asset protection ✓
- Improved children's education and skill-development
 - Parents more likely to borrow on parent PLUS loans
 - Children work in higher-paying jobs (e.g., industry, firm)
 - Children more likely to go to college
 - Higher educational mobility over generations

Mechanisms

- Asset protection ✓
- Improved children's education and skill-development ✓
- Avoiding forced relocations
 - Evaluate heterogeneity based on whether the control group moves shortly after denial
 - Stronger effects in sub-samples where the control group moves following bankruptcy protection denial

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- Neighborhood effects

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- Neighborhood effects
 - Children grow up in similar neighborhoods post parental bankruptcy filing (e.g., income, school district graduation rate)

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- Neighborhood effects ×
- Experience effects

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- Improved children's education and skill-development ✓
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- Neighborhood effects ×
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 - Limited evidence that recipients' children sort into riskier jobs with higher income volatility

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Heterogeneity/Robustness

- Stronger response for households in states with more strict wage garnishment laws
- Stronger response for smaller families, i.e., those with fewer children
- Stronger response for households that file when children are between 10 and 18 years of age
- Robust to confining to single-time filers and inclusion of different fixed effects

Conclusion

- \$1 of debt relief granted to parents leads to \$2 higher adjusted present value of lifetime earnings for children
- Our results highlight the potential role of bankruptcy protection (and debt relief more broadly) in helping improve intergenerational social mobility and home ownership for low-income distressed households