The Long-Run Impact of Cash Transfers to Poor Families

A. Aizer, S. Eli, J. Ferrie and A. Lleras-Muney
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Yana Radeva

Topics in Applied Microeconomics

"More than 20% of children in the United States were living in poverty as recently as 2010."

- Evidence of Parental Income influencing children's income, educational attainment and health
- **Research Question:** What is the long-run impact of cash transfers to poor families on children's longevity, educational attainment, income and health?

Contribution

- Identifies a plausible counterfactual
- Data on long-term outcomes
- No eligibility for other programs
- Result: **Isolating the effect of cash transfers**

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Data

Mother's Pension Program (MP)

- **Needs-based** program in the US (1911-1935)
- Target group: **Female-headed** households
- Aim: Home care provided by the mother
- Size: 10-30\$ per month (**29-39%** of maternal income)
- Duration: 3 years
- Eligibility: Differs with states

Sample Selection

MP Program

- 16 000 males, 11 states, 75 counties
- Born: 1900-1925
- 14% rejected applicants (passed preliminary evaluation)

Matched with

- Social Security Death Master File (DMF) from 1975 - 2012
- Census records
- World War II enlistment (WWII) from 1938 - 1946

Attrition

- Mortality-driven attrition:
    - 48% matched to a unique death record
    - 4% matched to multiple death records
    - 48% no match
- Calculated longevity by using life tables

Empirical Strategy

Accelerated failure time hazard model (AFT)

$$log(\textit{Age at death})_{ifts} = \theta_0 + \theta_1 MP_f + \theta_2 \mathbf{X}_{if} + \theta_3 \mathbf{Z}_{st} + \theta_c + \theta_t + \epsilon_{if}$$

, where θ_1 is the effect of the program, identified by comparing the average age at death of accepted to rejected boys within county and year of birth, conditional on other observables

Survival regression using a logit model

$$P(\text{survived to age } a = 1)_{iftcs} = f(\theta_0 + \theta_1 MP_f + \theta_2 \mathbf{X}_{if} + \theta_3 \mathbf{Z}_{st} + \theta_c + \theta_t + \epsilon_{if})$$

- Accounts for attrition by imputing 0 for the unmatched individuals
- If the missing data is entirely explained by early mortality then the full-sample estimates will be correct

Identification

Use rejected applicants as a **counterfactual**.

Assumption: Accepted and rejected applicants are similar on observable and unobservable characteristics.

Testing the assumption:

- Compare characteristics between groups
- Compare pretreatment characteristics between groups
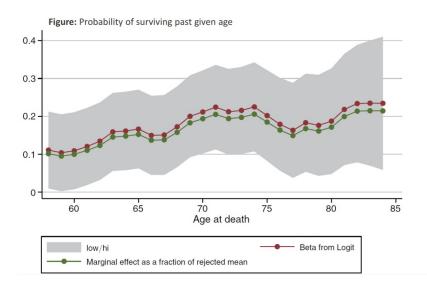- Examination of reasons for rejection and discontinuation
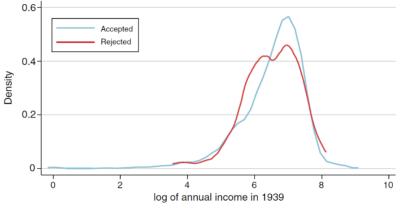
Results

TABLE 4—CASH TRANSFERS AND LONG-TERM MORTALITY

	(1)	(2)	(3)	(4)	(5)
Panel A. log age at death					
Accepted	0.0157**	0.0158**	0.0182**	0.0167**	
	[0.006]	[0.007]	[0.007]	[0.007]	
Mean of rejected	72.44	72.44	72.44	72.44	
Effect in years	1.14	1.16	1.32	1.2	
Observations	7,860	7,860	7,860	7,860	
P(survived past 70)					
Accepted	0.265***	0.205***	0.211***	0.199***	0.267***
	[0.052]	[0.053]	[0.056]	[0.056]	[0.071]
Mean of rejected	0.287	0.287	0.287	0.287	0.596
Percent effect	19	15	15	14	11
Observations	16,069	16,069	16,069	16,069	7,858

Figure: Probability of surviving past given age

Legend:
- low/hi
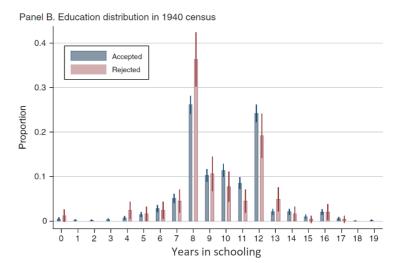- Marginal effect as a fraction of rejected mean
- Beta from Logit

Panel A. Distribution of log income 1940 census

Kernel = epanechnikov, bandwidth = 0.1668

- MP recipients have **14% higher incomes**.

Results: Educational Attainment

Panel B. Education distribution in 1940 census

- Accepted boys result in **0.3–0.4 more years of schooling**.

Results: Health

TABLE 7—THE MP PROGRAM AND MEDIUM-TERM OUTCOMES FROM WWII RECORDS

	Models	No controls	All controls	Observations	Mean rejected	Percent effect
Panel A. Education						
Has exactly eight years of school	Logit	−0.326** [0.137]	−0.206 [0.170]	2,446	0.33	20
Education: left and right censored	Censored regression	0.348* [0.197]	0.249 [0.201]	2,446	10.38	2
Panel B. Anthropometrics						
Height (cms)	OLS	1.346 [0.827]	1.142 [1.248]	1,844	174.5	1
Weight (pounds)	OLS	3.879* [1.955]	3.417* [1.984]	1,817	144.7	2
BMI	OLS	0.537** [0.215]	0.464* [0.239]	1,706	22.06	2
Underweight	Logit	−0.690** [0.298]	−0.638 [0.411]	1,706	0.09	58
Obese	Logit	0.416 [0.496]	0.998 [0.751]	1,706	0.03	98
Panel C. Race						
Black = 1	Logit	0.282 [0.289]	0.0284 [0.274]	1,691	0.038	3

Conclusion

Conclusion

"Cash transfers to poor families ameliorated early life conditions enough to improve both medium- and long-term outcomes of boys growing up in poverty."

- First assessment on unconditional cash transfers
- New approach for identification and long-term data accessibility
- Short- and medium-term effects are in line with contemporary research about the impact of cash transfers on education and health outcomes

Critique

- **External validity**
  - Women have more labor market opportunities today
  - Conditions without transfers might differ today
  - Families receiving cash assistance today could have changed their behavior
- **Effectiveness**
  - Receivers might not maximize their children's well-being with the additional money

Thank you for your attention!
Questions?