

# The Long Term Impact of Welfare

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# Question: do means-tested cash transfers to poor families help children?

- Why don't we know the answer?
  - Need long term follow-up data
    - Survey data: problems of attrition (PSID/NLSY: 40% after 20 years)
  - Cash transfers bundled with many other programs today (Medicaid, housing subsidies, food stamps)
  - Usual problem of causal inference/endogeneity/confounding
    - Children whose families receive welfare more disadvantaged than those who do not

# Ideal Data to Answer this Question

- Historical administrative data on welfare receipt in childhood
  - Welfare receipt not linked with other transfers
- Linked with long term outcomes
- Includes a convincing control group

# This paper: Cash-transfers from Mother's Pensions (MP)

- Large data set of MP applicants from admin data
  - Born 1900-1925
  - No other transfers
  - “linkable” information (full name, date of birth, county of residence)
- Long term effects: match individuals to
  - Mortality (SS Death Master File or DMF)
  - Education (1940 Census and WWII enlistment)
  - Income (1940 Census)
  - Anthropometrics (WWII enlistment)
- Compare rejected and accepted applicants
  - Same circumstances, knowledge and motivation
  - Rejected seem to be better off – yields a lower bound estimate

# Challenges

- Data quality:
  - Match rates not 100%
  - Measurement error in matching and multiple matches
- Controls: are children of rejected mothers a good comparison group?
  - Look at reasons for rejection
  - Document how SES differs across accepted and rejected
  - Use alternative counterfactuals
- External validity: are these results generalizable?
  - Document mechanisms
  - Income still determines health and schooling outcomes today.
  - Single headed households are still the poorest groups.

# The First Welfare Program in the US: Mother's Pension

- IL first passed in 1911. By 1930: 47 states had program.
- To reduce placement of poor children in orphanages/training schools

*“An act to provide for the partial support of mothers whose husbands are dead or have become permanently incapacitated for work by reason of physical or mental infirmity when such mothers have children under fourteen years of age, and are residents of the county in which application for relief is made; and, also, to provide for the probationary, visitation, care, and supervision of the family for whose benefit such support is provided.”*

# Data: Individual records of recipients

- From county ledgers. Hired undergrads from local institutions to collect the information and record in a spreadsheet.
- Typically have: Mother's name, child name, DOB, sibs' names and DOB, date applied, amount of transfer, duration, reason.
  - Subset of counties have more
  - Not all counties had program, or have records.
  - Generalizable? Characteristics of counties in our sample (from 1910 Census data) are very similar to national averages (literacy, poverty, share rural/farming)
- Collected approx. 80,000 records of children born between 1890 and 1935, living in 14 states

# Confidentiality

- Federal law – 72 years
- Mortality records publicly available (SS DMF)
- 1940 Census records just released publicly (post 72 years)
- WWII enlistment records publicly available
- Most of the Mothers Pension records were publicly available
- 2 exceptions: York County, PA and the State of Washington
  - Received a waiver, with assurance that we would not release identifying information



**Mother's Application for Allowance of Pension.**

Gen'l Code, Secs. 1685-2 to-9

Juvenile Court, Crawford County, Ohio.

IN THE MATTER OF

A MOTHER'S PENSION FOR

Elizabeth May

No. \_\_\_\_\_

APPLICATION.

To the Honorable Judge of the Juvenile Court of said County:

The undersigned respectfully states:

That she is a poor woman and the mother of 3 children not entitled to receive an age and schooling certificate.

That the full name, date and place of birth of <sup>each of</sup> said children is as follows:

FULL NAME	DATE OF BIRTH	PLACE OF BIRTH
<u>Flossie May</u>	<u>Aug 25 1908</u>	<u>Crawford Co. O.</u>
<u>Joe May</u>	<u>June 6 1911</u>	<u>Marion Co. O.</u>
<u>Viola May</u>	<u>Mar 31 1918</u>	<u>"</u>
	19	
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That she and her said children have been legal residents of Hyandot, Crawford County of this State for more than two years.

That she was born in Hyandot Co. O. on the 12 day of May 1874 and became a resident of said County May 12 1874 and she and her said children have continued to reside therein since that time. Moved to Crawford Co. Mar 8, 1922

That her present place of residence is, with her children, at Texas St. P. O. Separation Rd 3

That the only property owned by her consists of \_\_\_\_\_

Personal property, Household goods of the value not exceeding three hundred Dollars.

That her occupation is housekeeper keeping house for herself and children and the care and training of the children

Your applicant further states:

That she was married to John J. May on the 21st day of June 1893 at Marion County and that the children above named were born of that marriage.

That her said husband died May 19, 1923 in Texas of Crawford Co. O.

Your applicant therefore asks that an allowance for her partial support be made by the Court for the benefit of her said children as may be just and reasonable, for in the absence of such allowance, she will be required to work regularly away from her home and children while by means of it she will be able to remain at home with her children except such time for work as the Court deems advisable; and that such allowance is necessary to save the children from neglect and to avoid the breaking up of the home.

x Elizabeth May

The State of Ohio, Crawford County, ss.

Elizabeth May being duly sworn says that the statements made in the foregoing application are each and all true and correct as she verily believes.

x Elizabeth May

Sworn to before me and signed in my presence this 29<sup>th</sup> day of

May 1923

W. H. Fisher

Journal Entry—Findings and Orders on Making Allowance.

Gen'l Code, Sec. 1653-79

Juvenile Court, Crawford County, Ohio.

Sept. 1, 1923

In the Matter of

A MOTHER'S PENSION FOR

Elizabeth May

No. 208

Findings and Orders on  
Making Allowance.

This day this case came on for hearing, and the written report of the preliminary examination of the home of said Elizabeth May heretofore directed to be made, being filed herein, and the Court having examined said applicant and considered said report, and having heard all the evidence and testimony, and being fully advised in the premises finds that the statements in the application are true, and that said Elizabeth May is a poor woman and the mother of 3 children, not entitled to receive an age and schooling certificate; that she and her said child are living together and have been legal residents of this county for more than two years; that she was married to St. M. J. May the father of said child who died May 19, 1923

as set forth in said application; that in the absence of an allowance the mother would be required to work regularly away from her home and children, while by means of it she will be able to remain at home with her children; that the said mother is a proper person, morally, physically and mentally, for the bringing up of her children; that an allowance is necessary to save the children from neglect and to avoid the breaking up of the home, and that it is for the benefit of the children to remain with their said mother.

It is therefore ordered that the sum of Twelve Dollars a month be and is hereby allowed to said Elizabeth May for the one child and one Dollars a month for one the other one child are, not entitled to an age and schooling certificate, and that the County Auditor issue a warrant upon the County Treasurer to said Elizabeth May for the payment of such allowance each month for six months from and after this date. It is ordered that this proceeding be recorded in the records of this Court.

J. D. Hark  
Judge of the Juvenile Court.

# 1. Mortality and matching

- Match administrative records among males using 6 variables: first name, middle initial, last name, day, month and year of birth.
  - Unique matches 48%
  - Multiple matches 4%
  - No matches: 48%
- Using life tables, we calculate that 32% of our sample should have died prior to 1975 (therefore no match)
  - We match 84% of the at-risk population

## 2. Missing data

1. Assume all unmatched died prior to 1970s in survival models
  - We are more likely to find accepted boys in the DMF (consistent with their living longer)
2. Drop the unmatched, estimate hazard models on the sample with a known date of death
  - Log(age at death) is the outcome
3. For a subset of records (Ohio – 38% of our sample) match records by hand
  - State death records go back to 1958
  - Cemetery records in Ancestry.com
  - Find a match for 60% of our sample in Ohio
  - If, when we collect more data, the results don't change, have more confidence in our results

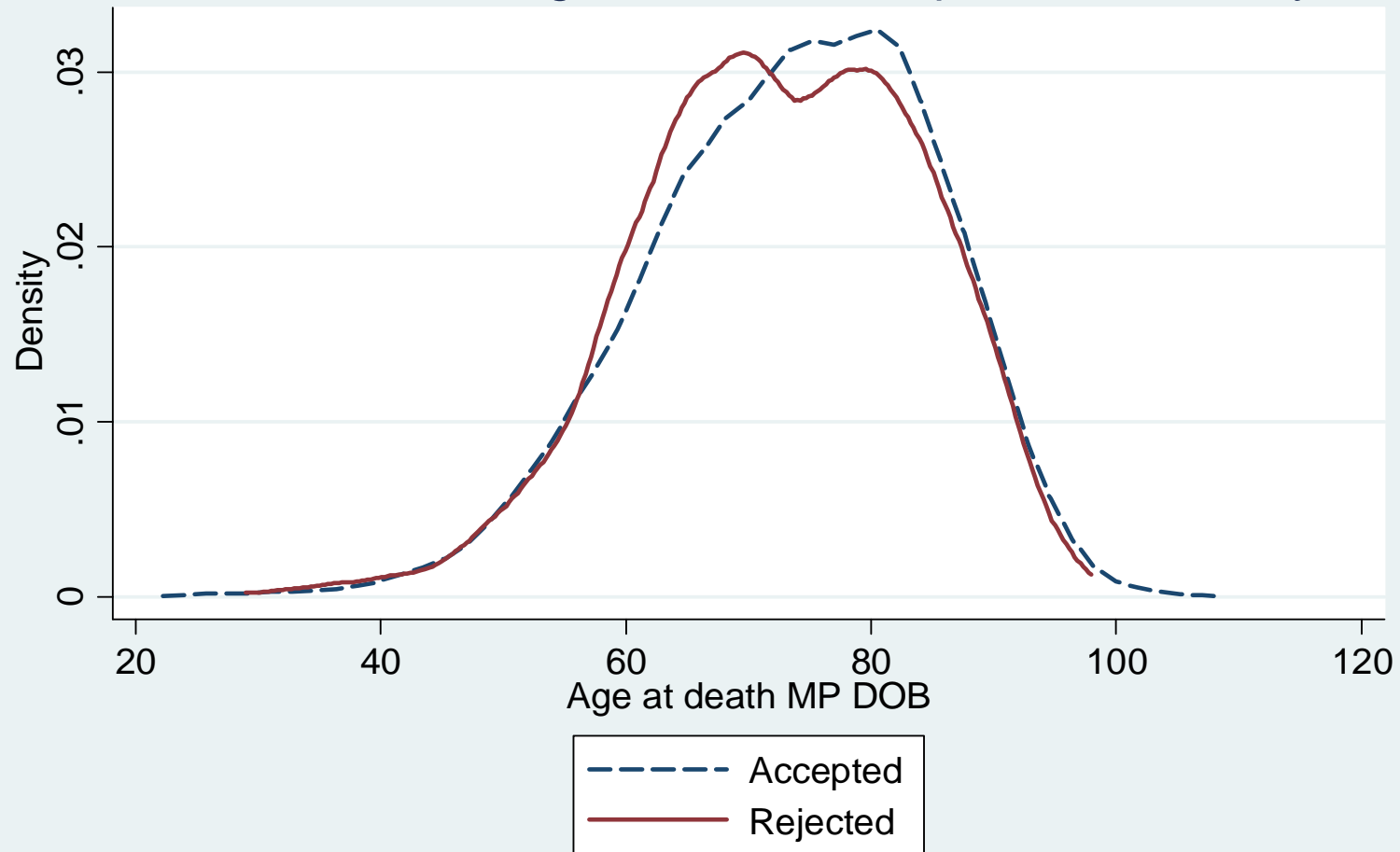
# Other matching issues

- Multiple matches?
  - Use methods in Bugni, Honoré and Lleras-Muney (2015)
- Measurement error in matching?
  - Generate an index of the quality of the match
  - Do results change when restrict to only the highest quality matches?

# 3. Are rejects a good “control”?

- Compare rejected with accepted on observable characteristics (family size, age of children, marital status of mother)
- Look at reasons for rejection
- For Iowa boys, can link to their 1915 state census records, compare pre-treatment characteristics of accepted and rejected: income, home ownership, paternal education
- Did the same for Ohio boys (linked to 1900-1920 census records), compare occupation, nativity
- Alternative control groups from census
  - Children in institutions
  - Children of ineligible mothers (based on marital status, eg, divorced, abandoned)

## Distribution of age at death - unique matches only



kernel = epanechnikov, bandwidth = 1.7832

Mean difference: 0.8 year

# Results

- Acceptance increases probability of survival to age 70 by 10-29% and age 80 by 10-20%
- Acceptance increases longevity by 1 year, more for poorest



# Alternative counterfactuals census 1900-1930 from MP states

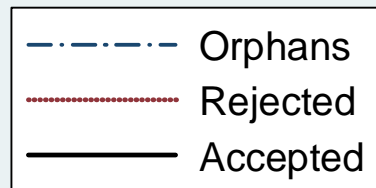
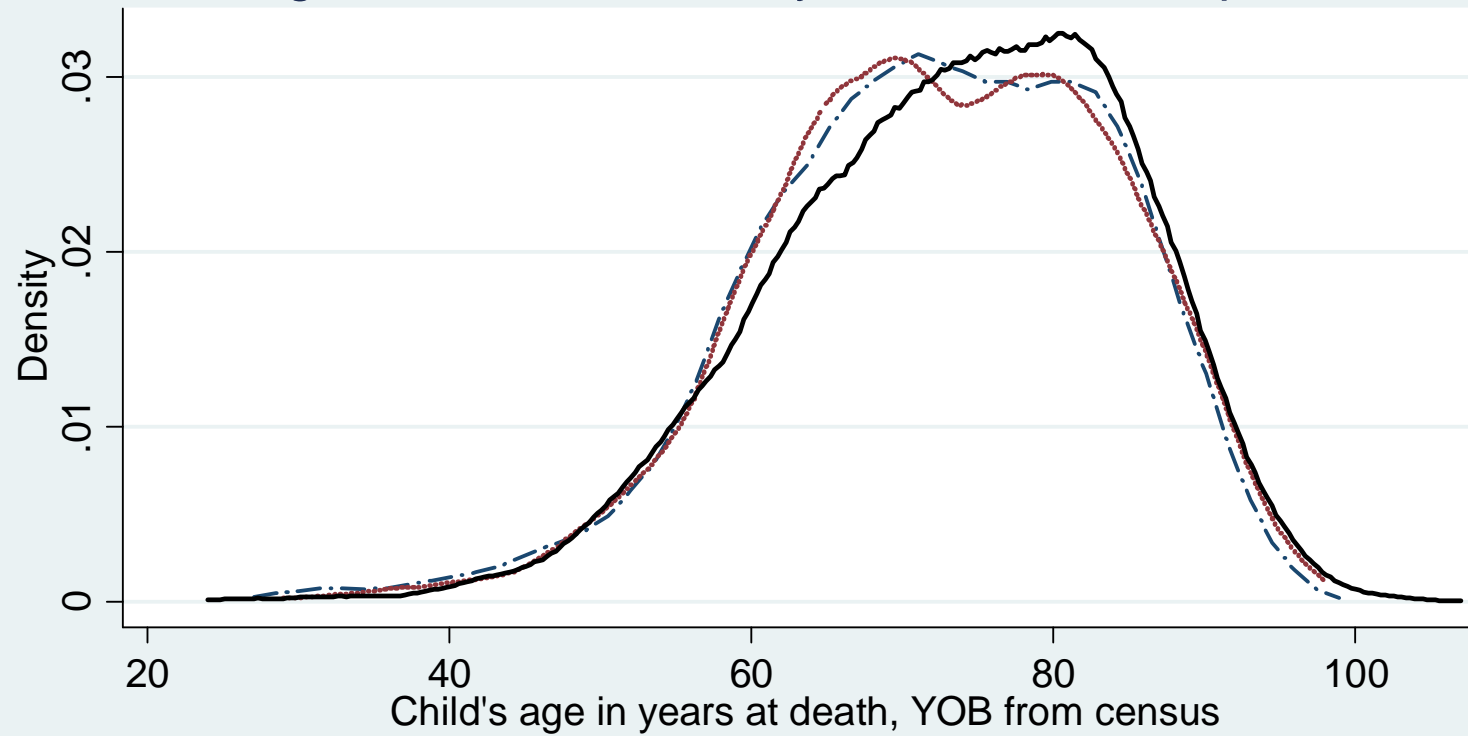
1-boys living in institutions - orphans

Historical counterfactual

2-Poor children from 1910 and 1920 Censuses who were ineligible for the MP program

- All children 18 and younger
  - Because mother's marital status was "single/never married" "divorced" or "abandoned", not eligible for the MP program in that county (but eligible in other nearby counties)
  - Matched by propensity score to similar MP recipients (ie, a divorced mother in a nearby county in which divorce did not preclude one from eligibility)
- 
- Caveat: match rates lower (no exact DOB in census)

## Age at death of MP boys and Census orphans



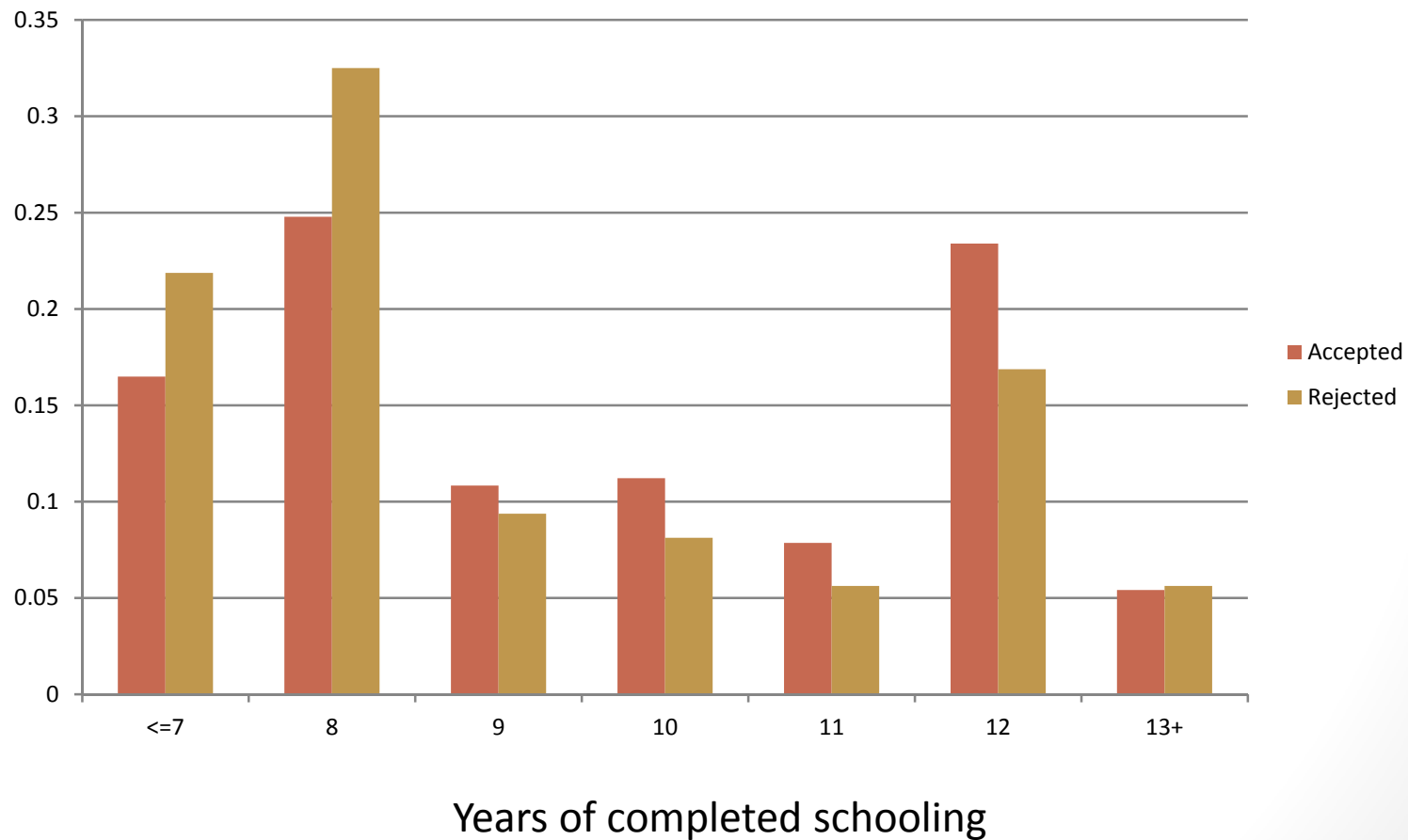
Unique matches only. Orphans defined as children living in institutions.

# Medium-Term Outcomes: 1940 Census records

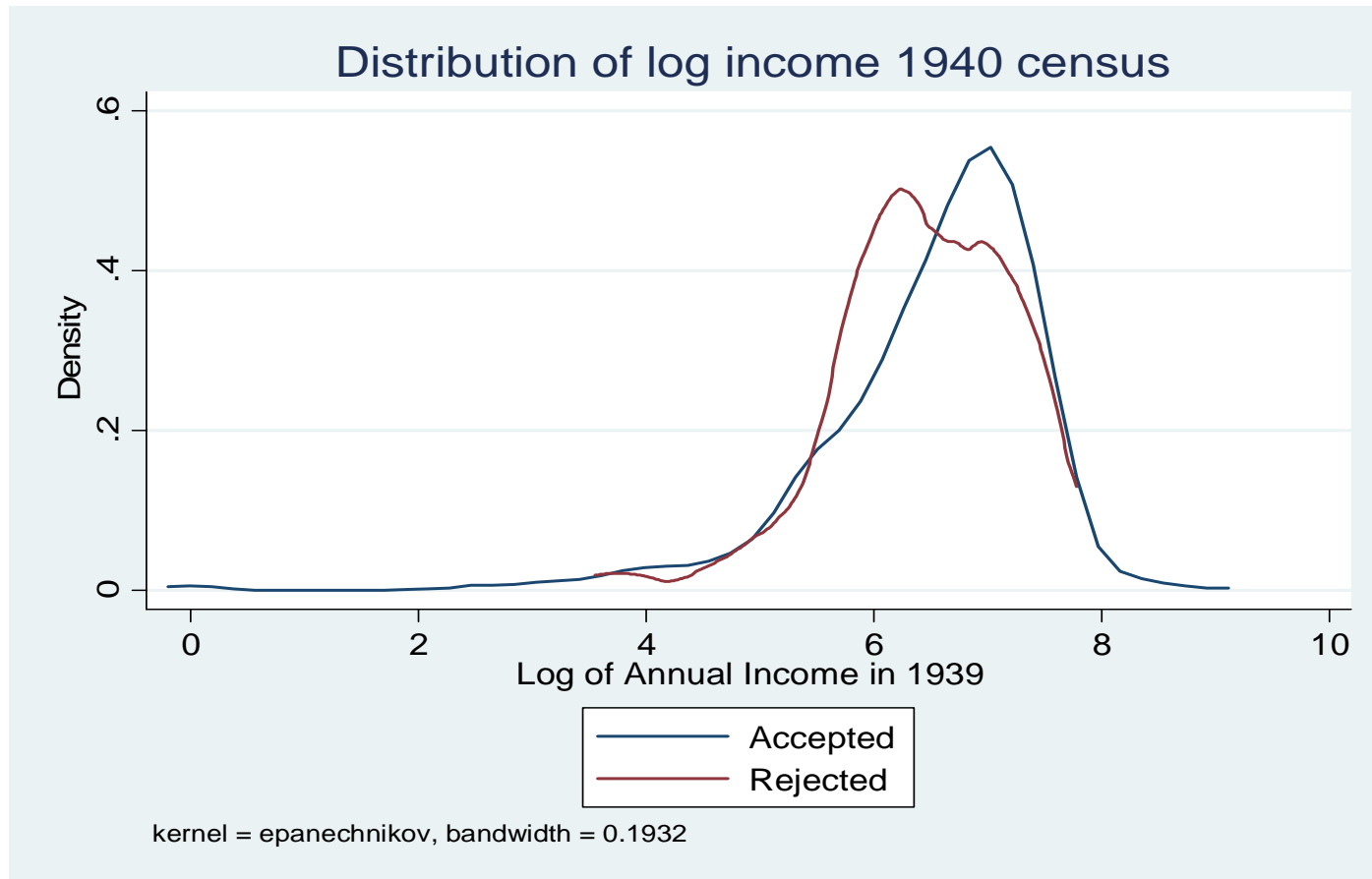
- Does not have month or day of birth—match by state, full name and year of birth
  - Poor match rate without a date of birth
  - Check that the sample of MP applicants we did match is representative of the general population of MP applicants
- Outcomes
  - Education
  - Income
  - Race

# 1940 Census: Education

## Distribution of Years of Schooling - 1940 Census



# 1940 Census: Log Income



# WWII enlistment records

- Records for 9 M individuals served in the Army (out of 16.5M who served)
- Have anthropometrics and race

But

- Not all cohorts are well represented, and some groups were less likely to serve.
- Find about 18% of individuals
  - Accepted again more likely to be found, likely because healthier than the rejected
- Results: Accepted significantly less likely to be undernourished

# Conclusions

- Even modest cash transfers in childhood have significant long term benefits:
  - Live one year longer (SS Death Master File)
  - Earn 14% more in early adulthood (1940 Census)
  - 50% less likely to be underweight in early adulthood (WWII Enlistment records)
  - 0.4 more years of schooling (1940 Census and WWII Enlistment records)
- Passes a cost-benefit calculation

# Relevance today?

- Current relevance?
  - Strong relationship between income and health then and now
  - Also for family income and child education
  - Single moms still the poorest group
- Conditional Cash Transfer (CCTs) in developing countries likely to have long term benefits