Assessing the Long-Run Benefits of Transfers to Low-Income Families

Kristin F. Butcher
Wellesley College
and NBER

Government investments

- Research
- Infrastructure
- There are upfront costs….

Government investments

Government investments

- …and long term payoffs
- These investments increase productive capacity

Government investments

Transfers to low-income families

- Usually not thought of as investments
- Usually thought of as a way of ensuring that current consumption does not fall too low

Transfers to low-income families

- Are these investments in *human capital*?
- Do transfers to low-income families change the productive capacities of children in those families when they are adults?
- Are they characterized by upfront costs with a long term payoff?
- Are the long-term benefits greater than the costs?

Why might transfers to be investments?

- Cash transfers
  - Provide more resources; Buffer families from financial strain and related stress
- Supplemental Nutrition Assistance Program (SNAP)
  - Ensures adequate nutrition at critical points in development
  - Provide more resources
- Health Insurance
  - Ensures access to health care: preventive care and treat ailments when they arise
  - Provide more resources
- Housing
  - Ensure safer environment (no lead paint? Better neighborhood?)
  - Provide more resources

Effect of Early Life Conditions on Later Outcomes

- There are critical and sensitive periods of development where certain inputs affect development of particular capacities
  - *In utero* – Fetal Origins Hypothesis
  - Neonatal
  - Early Childhood
  - Later in Childhood
- Fundamental neurological architecture is developed very early
- Cognitive skills are malleable in early childhood
- Non-Cogntive skills (e.g., ability to get along with others) malleable for longer periods

Effect of Early Life Conditions on Later Outcomes

- The platform for the fetal origins hypothesis is that, like other living creatures in their early life, human beings are “plastic” and able to adapt to their environment. The development of the sweat glands provides a simple example of this. All humans have similar numbers of sweat glands at birth, but none of them function. In the first 3 years after birth a proportion of the glands become functional, depending on the temperature to which the child is exposed. The hotter the conditions, the greater the number of sweat glands that are programmed to function. After 3 years the programming is complete and the number of sweat glands is fixed. Thereafter the child who has experienced hot conditions will be better equipped to adapt to similar conditions later in life, because people with more functioning sweat glands cool down faster – Barker (2001)

Effect of Early Life Conditions on Later Outcomes

- Evidence that exposure *in utero* has long-term causal consequences (see Almond and Currie 2011 for review)
  - Nutritional (e.g., Almond and Mazumder 2011)
  - Infectious disease (e.g., Almond 2006)
  - Maternal Stress (e.g., Aizer et al 2015)
- Evidence that other periods in childhood affect long-term outcomes (Duncan et. al. 2010, Heckman et al.)
- Plausible that poverty can affect nutrition, disease, and stress in ways that are deleterious to *in utero*, neonatal, early childhood etc. environments
- Can transfers affect the early in life environments in ways that help?

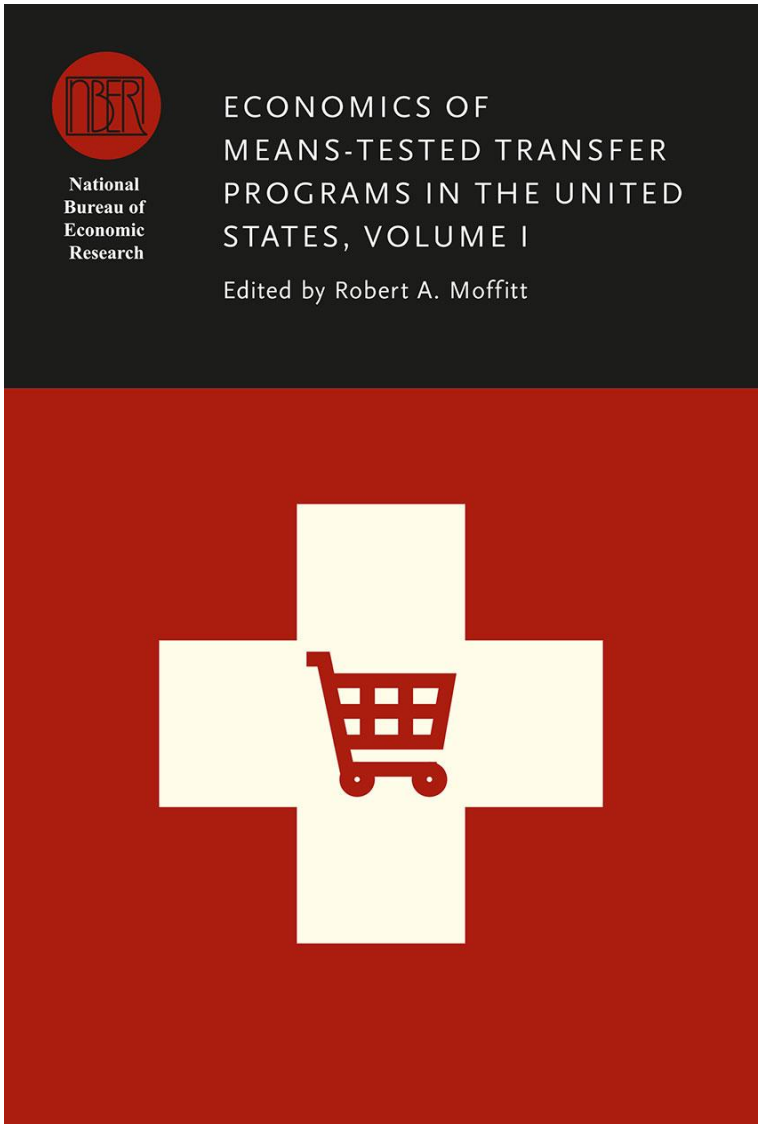
Why might transfers *not* help long-term prospects?

- Transfers not on a large enough scale to meaningfully change the childhood environment
- Parents might undo the transfer
  - Might reduce labor supply
    - Poverty Trap
  - Might change spending or time use toward things that are not productive

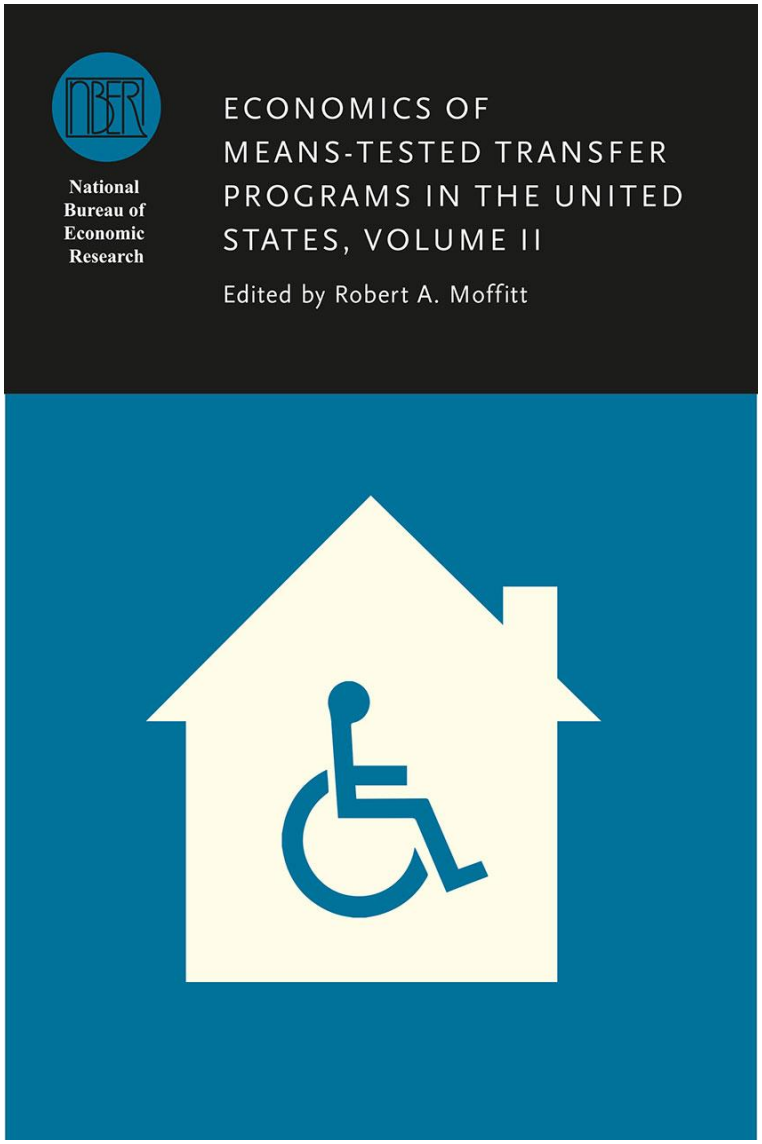
Lots of research on…

- Are in-kind transfers the same as cash?
  - Depends on what the family would have done if they had cash
- What are the labor supply effects of transfers?
  - People respond to incentives (The rest is commentary).
  - But how *much* do they respond?

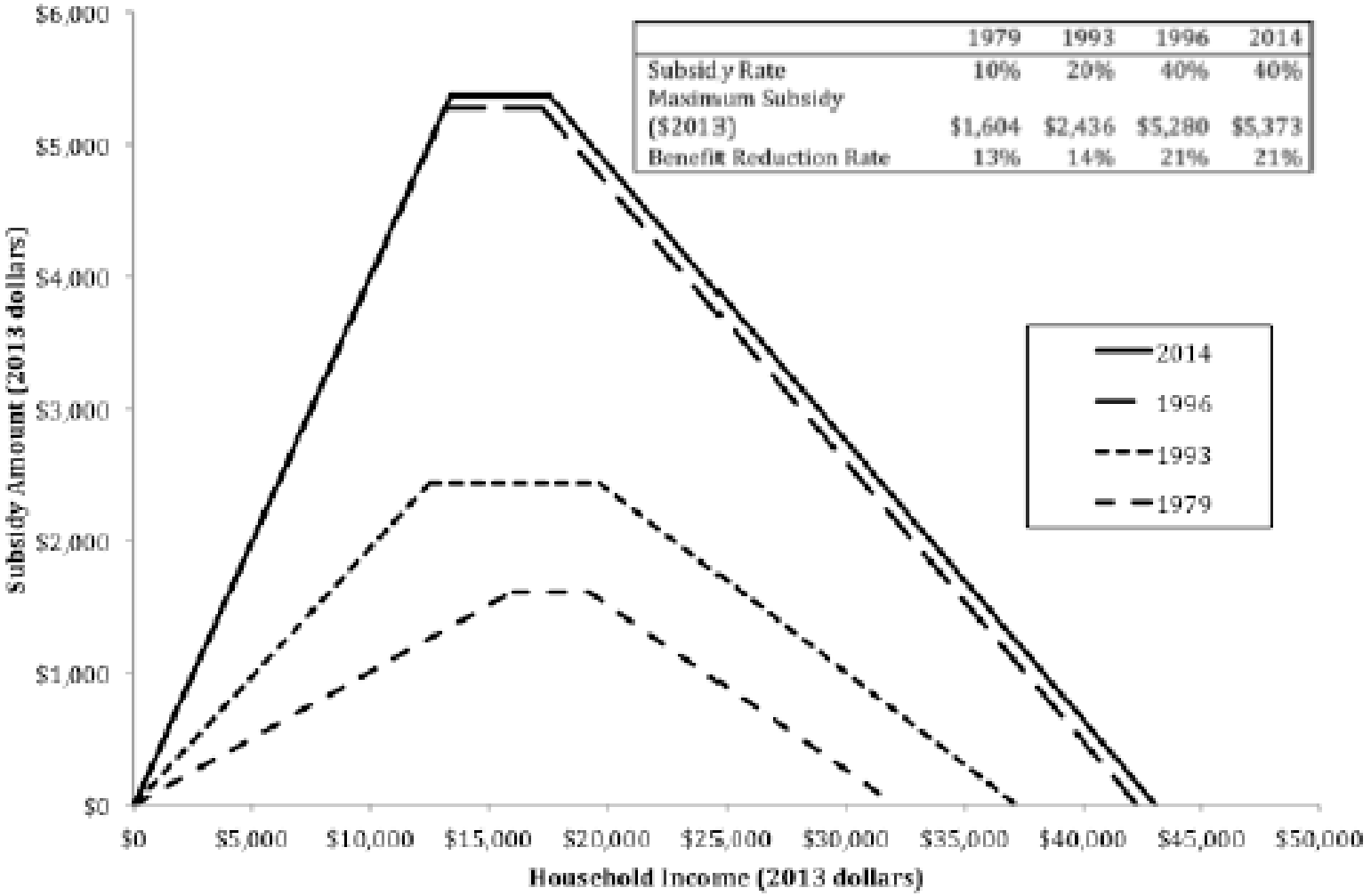
Moffitt 2016, vol. 1



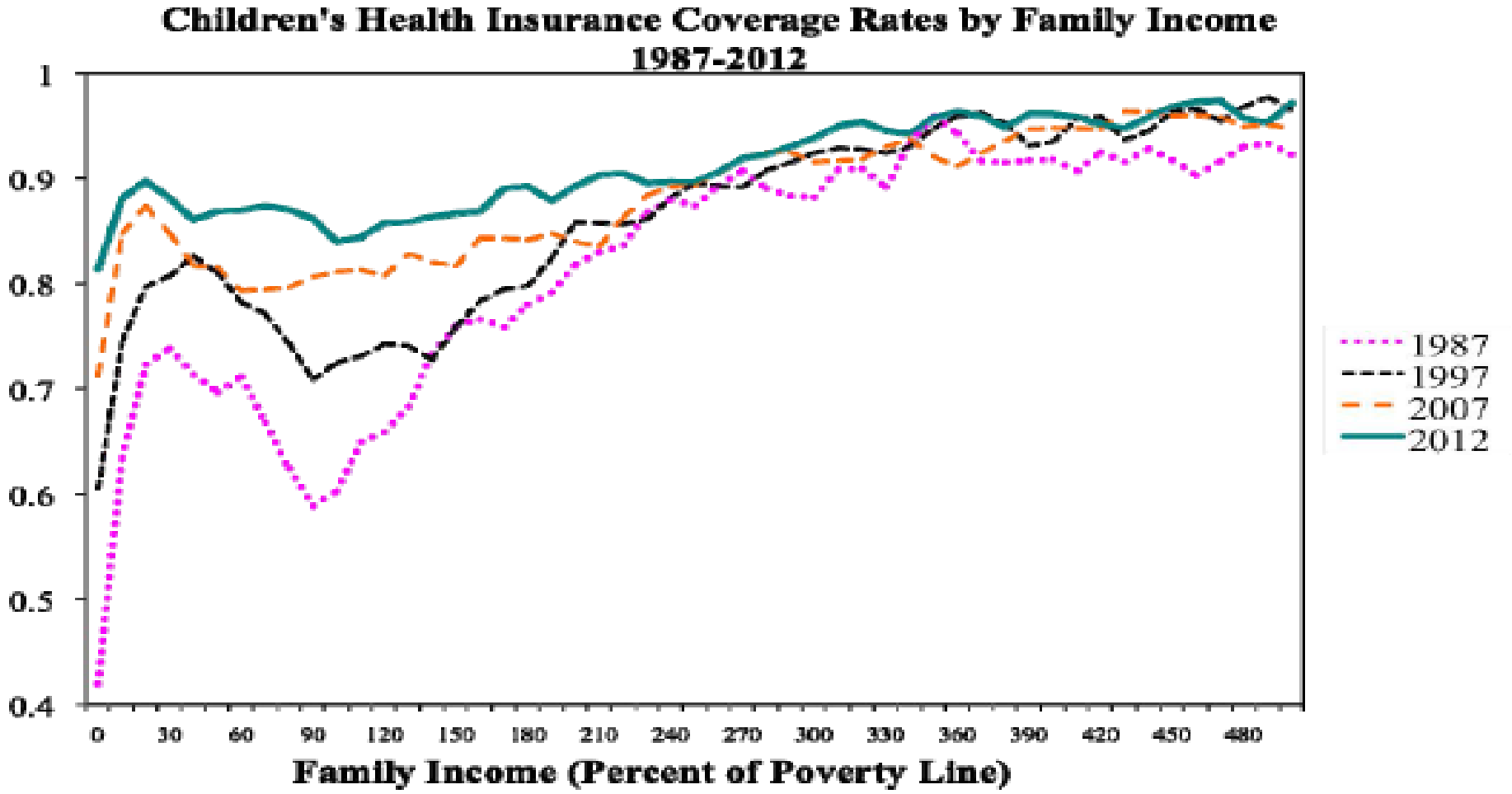
Moffitt 2016, vol. 2



Potential labor supply effects?



Poverty trap?



Notes: Updated version of Figure 1 from Card and Shore-Sheppard (2004). Data from Current Population Survey Annual Demographic File.

More snares in the poverty trap?

- Labor supply disincentives keep parents from building their human capital
- Potential for intergenerational welfare "transmission."
  - (Dahl, Kostol, Mogstad 2014: Norway)

Challenges to Understanding the Long-Term Effects

- Data
- Correlation is not causation

Challenges to Understanding the Long-Term Effects

- Data: Need to connect early life with later outcomes
  - Completed education: Age 25
  - Marriage/Fertility: Age 35-40
  - Peak earnings: Age 45-50
  - Morbidity: Age 30+
  - Mortality: Age 60+

Start Dates of Current Programs

- Cash
  - TANF 1996
  - EITC 1975
- Food Stamps/SNAP
  - Pilot 1961
  - Permanent Program 1975
- Health Insurance
  - Medicaid 1966
  - SCHIP 1997
- Housing
  - Public Housing 1937
  - Housing Voucher program 1974

Challenges to Understanding the Long-Term Effects

- Correlation is not Causation
  - Knowing whether or not someone received a transfer and how they did later is not enough
  - We want to know whether the person's long-term outcome is better than it would have been without the transfer
    - Getting the counterfactual right: Randomized Controlled trials, Difference-in-Differences, Regression Discontinuity Design

(Very) Recent Studies on the Long-Term Effects

- Cash Assistance (Mothers' Pension Program 1911-1935)
  - Aizer et al. 2016
    - Treatment vs. Control group
- Food Stamp/SNAP (1960s/70s)
  - Hoynes, Schanzenbach, Almond (2016)
    - Difference-in-Differences
- Medicaid expansions
  - Brown et al. 2015 (Medicaid SCHIP expansions 1980s/90s)
  - Goodman-Bacon 2016 (Medicaid introduction 1960s)
    - Difference-in-Differences
- Housing
  - Chetty et al. 2016 (MTO study Mid-1990s)
    - Random Assignment Treatment vs. Control

(Very) Recent Studies on the Long-Term Effects

- Cash Assistance (Mothers' Pension Program 1911-1935)
- Aizer et al. 2016
- Among applicants, all initially deemed eligible, then some found to be ineligible
  - Recipients: Treatment group
  - Denied: Control group
- Recipients were:
  - 50% less likely to be underweight
  - 0.3-0.4 more years of education
  - 14% higher earnings
  - Lived one year longer

(Very) Recent Studies on the Long-Term Effects

- Food Stamps/SNAP
- Hoynes, Schanzenbach, Almond (2011, 2016)
- Introduction of food stamps 1961-1975
- Compare people who were children in counties where food stamps were available to people for whom this wasn't the case
- Share of time FS available from 0-5
- More time with FS available, improved health (metabolic syndrome) for everyone, improved economic self-sufficiency for women.

(Very) Recent Studies on the Long-Term Effects

- Health Insurance: Brown, Lurie, and Kowalski (2015)
- Study the expansions in Medicaid and SCHIP in 1980s & 1990s, comparing those in states that did & didn't expand
- Linked to IRS records
- Medicaid eligibility for children increased income and payroll taxes paid (especially for women), decreased EITC receipt (especially for women), reduced mortality (by age 28), and raised the likelihood of any college by age 22 for women.
- Cost-Benefit Analysis: Estimate Government will recoup 56% of each dollar spent by the time recipients are 60, due to increased income and lower EITC payout

(Very) Recent Studies on the Long-Term Effects

- Health Insurance: Goodman-Bacon (2016)
- Introduction of Medicaid in 1966-1970
- Exploits cross-state variation in categorical mandate: states with more welfare recipients had bigger increases in eligibility; those born closer to start date had more coverage during childhood
- Medicaid eligibility early in life reduced adult mortality and disability. Government saves money due to more taxes on higher earnings, and lower benefit payout (2-7 % discounted annual return).
- Between 2000-2014 government recouped 28 percent of the original investment

(Very) Recent Studies on the Long-Term Effects

- Housing
- Chetty et al. 2016 – Follow-up on Moving To Opportunity Study.
- Link children in households to IRS records as adults
- MTO: Mid-1990s, families randomly assigned
  - Control group or section 8 voucher
  - Or section 8 voucher to move to low-poverty neighborhood + counseling on how to do that

(Very) Recent Studies on the Long-Term Effects

- Children who were under 13 when randomly assigned to voucher for low-poverty neighborhood, as adults:
  - Have higher earnings; live in higher income households
  - More likely to go to college and attend higher quality colleges
  - Live in lower poverty neighborhoods
  - Women are more likely to be married
- Children randomly assigned at 13+ did not have same benefits
- Cost-benefit analysis: If a family has two young children, those kids' estimated increased adult earnings generate enough additional tax to pay for the program. (Saves government money).

Conclusions

- Research from the dawn of social safety net programs, using rigorous methods to establish causal links between programs show consistent evidence that access to the social safety net changed adult outcomes for the better
  - Consistent with evidence on importance in childhood environments
  - Consistent evidence between long-term and short-term studies of importance of health insurance coverage
- Benefits>Costs (and some may even pay for themselves)
- That was then, this is now?
  - Do these types of programs continue to have the same effects as with their introduction?

Thank You!

Idealized Cost-Benefit Analysis

- Add up all the costs of the program
  - Direct cost of transfer
  - Cost of administering
  - Deadweight losses
- Add up all the benefits of transfer: current consumption/improvement in quality of life of the recipient
  - Future benefits that may accrue from investing in children
    - (Relatively) easy to measure and monetize: labor market outcomes
    - (Relatively) easy to measure and monetize: healthcare utilization costs
    - Very hard to measure and monetize: quality of life improvements from improved health
    - Agree on a discount rate

(Not) Idealized Cost-Benefit Analysis

- Was there a long-term *causal* effect of the program on something we care about?
- Some studies do examine the effects of programs on relatively easily monetized outcomes. Ex: Wages
  - Under some assumptions (e.g. wage effects at given age will persist over working life), can calculate present discounted value of benefits
  - Compare these to costs of program
- Underestimate of benefits?