U.S. Health and Nutrition Programs and Intergenerational Economic Mobility

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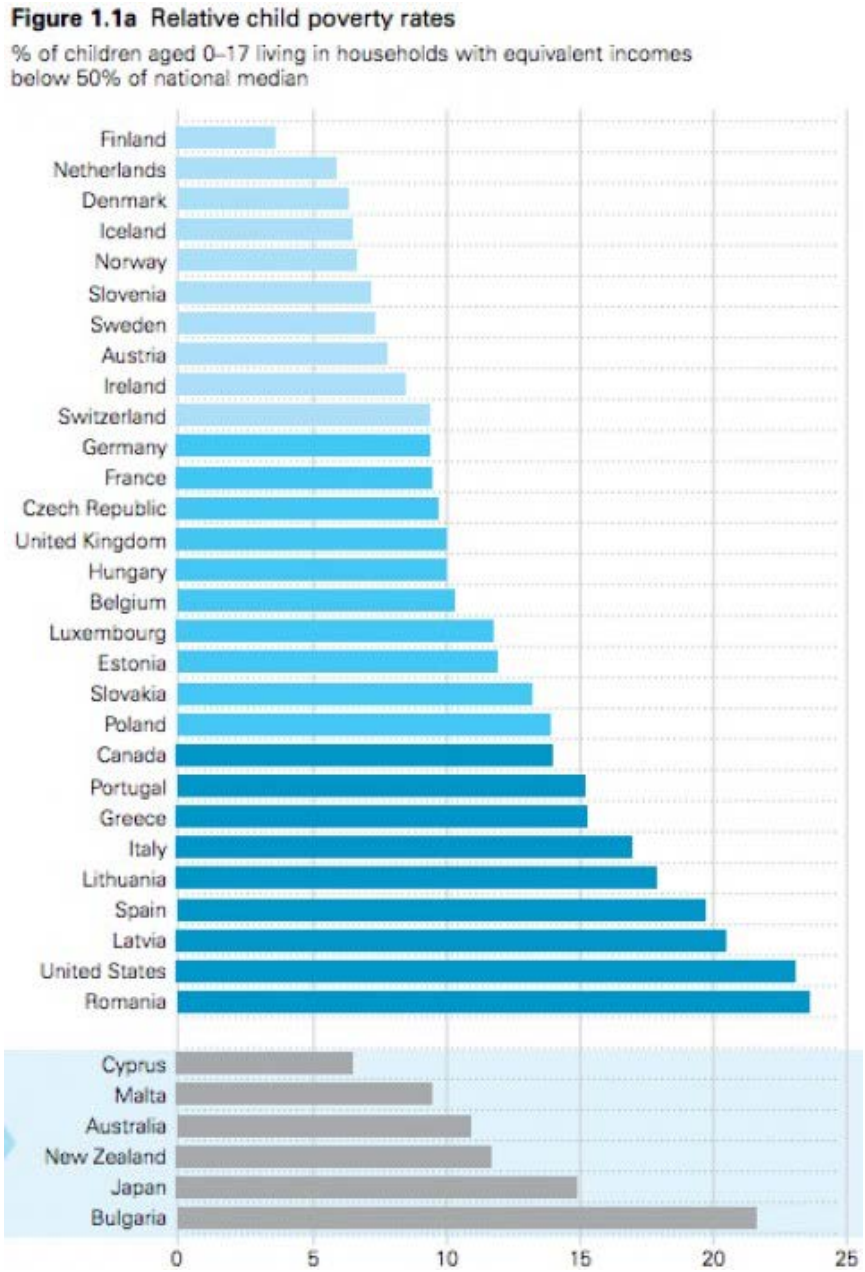
Facts about U.S. Child Poverty

- Child poverty is higher than for other age groups.
  - Child poverty rate 19.7%
  - Adult poverty rate 12.4%
  - Elderly poverty rate 8.8%

- One in ten children spends half of their childhood in poverty *(Wagmiller and Adelman, 2009)*

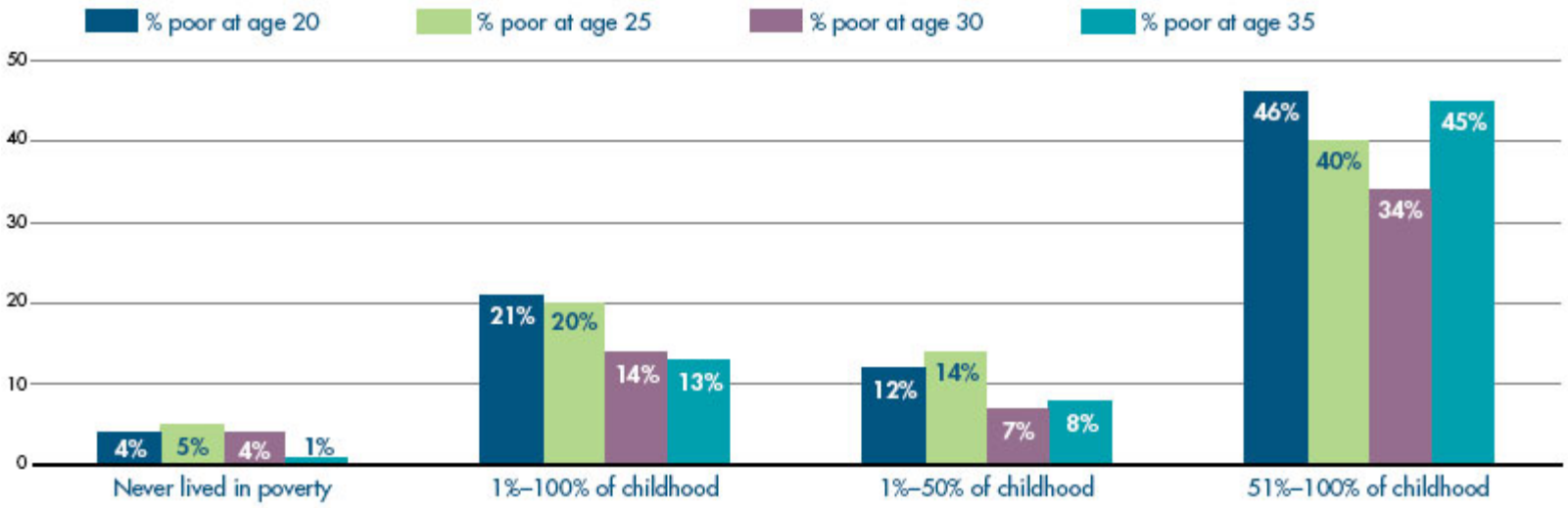
- By many metrics, child poverty is higher in the United States than in most developed countries



Source: United Nations Children's Fund, 2013

Poverty during childhood is a strong predictor of poverty in adulthood

Exposure to poverty from birth to age 15 and the probability of being poor in young and middle adulthood*
Children born between 1970 and 1990



* Poverty rates for more advanced ages apply only to the reduced sample of individuals who reached the age specified.

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Health differences may be part of the story

- Poor children are less healthy than other children
  - Health inequalities appear early in life and widen as children age
- Poor children enter adulthood with more chronic health conditions
  - Asthma and other respiratory problems
  - Digestive disorders
  - Heart Conditions
  - Hearing problems
  - Mental health problems
- Poor children enter adulthood having missed more days of school
- Differences in health and learning are tied to performance in the labor market

Childhood health is predictive of later life outcomes

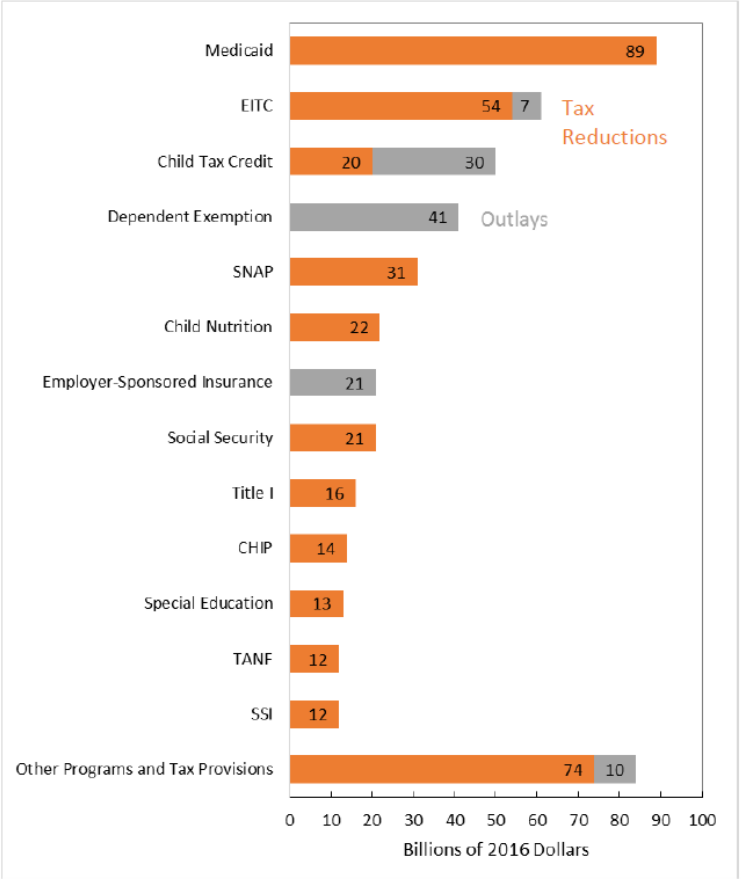
- Research in biological sciences and economics documents that early life health conditions directly affect later life outcomes
  - Nutrition, infectious disease, stress, pollution
  - Later life effects are not confined to health conditions but also include indicators of self-sufficiency (e.g. educational attainment and earnings)

- Research in biological and psychological sciences also makes clear that health and psychological wellbeing –important inputs into economic success-- **are malleable** in early life

- By changing the early life health environment, programs like Medicaid and SNAP may be able to help break the cycle of poverty

Medicaid and SNAP can be thought of as investments

- Medicaid
  - $89 billion (2016)
  - 45 million children
- SNAP
  - $31 billion (2016)
  - 16 million children
  - lifts 3.8 million children out of poverty (Wheaton and Tran 2018)



Source: Hoynes and Schanzenbach, 2018

Challenges to evaluating early life investments

- Credible research design
  - cannot compare recipients to non-recipients
- Need data that provides information about both childhood circumstances and adult outcomes
- Time to measure the impacts of the intervention
  - Time lags required for measuring long term outcomes may mean that program parameters or contextual environment changes

Medicaid-Three Research Designs

- Initial Medicaid rollout (1966-1970)
- Variation in Medicaid eligibility across states and over time due to 1980s and 1990s program expansions
- Comparisons across children born before and after Sept 30, 1983, when there was a sharp change in eligibility

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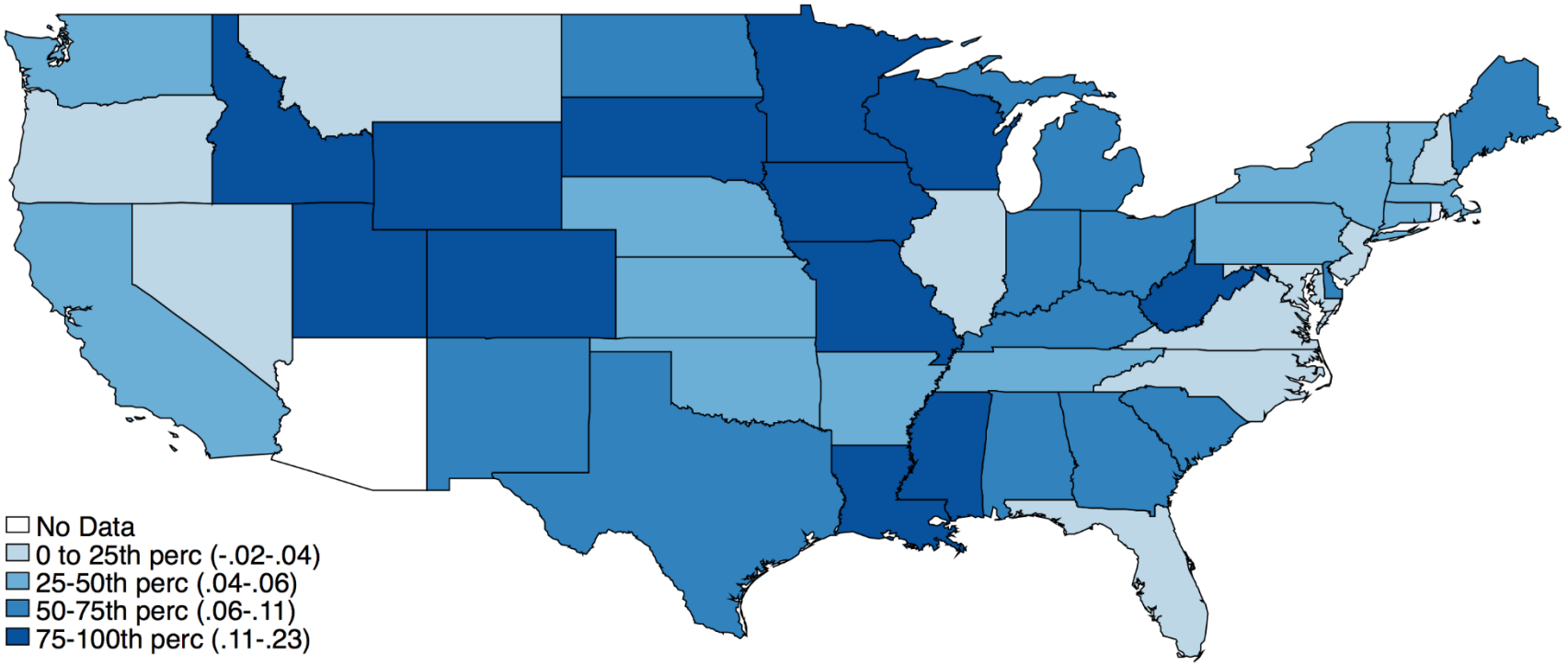
Difference in prenatal coverage across cohorts born 1979-1986



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Difference in eligibility at ages 1-4 between 1979-1986 cohorts

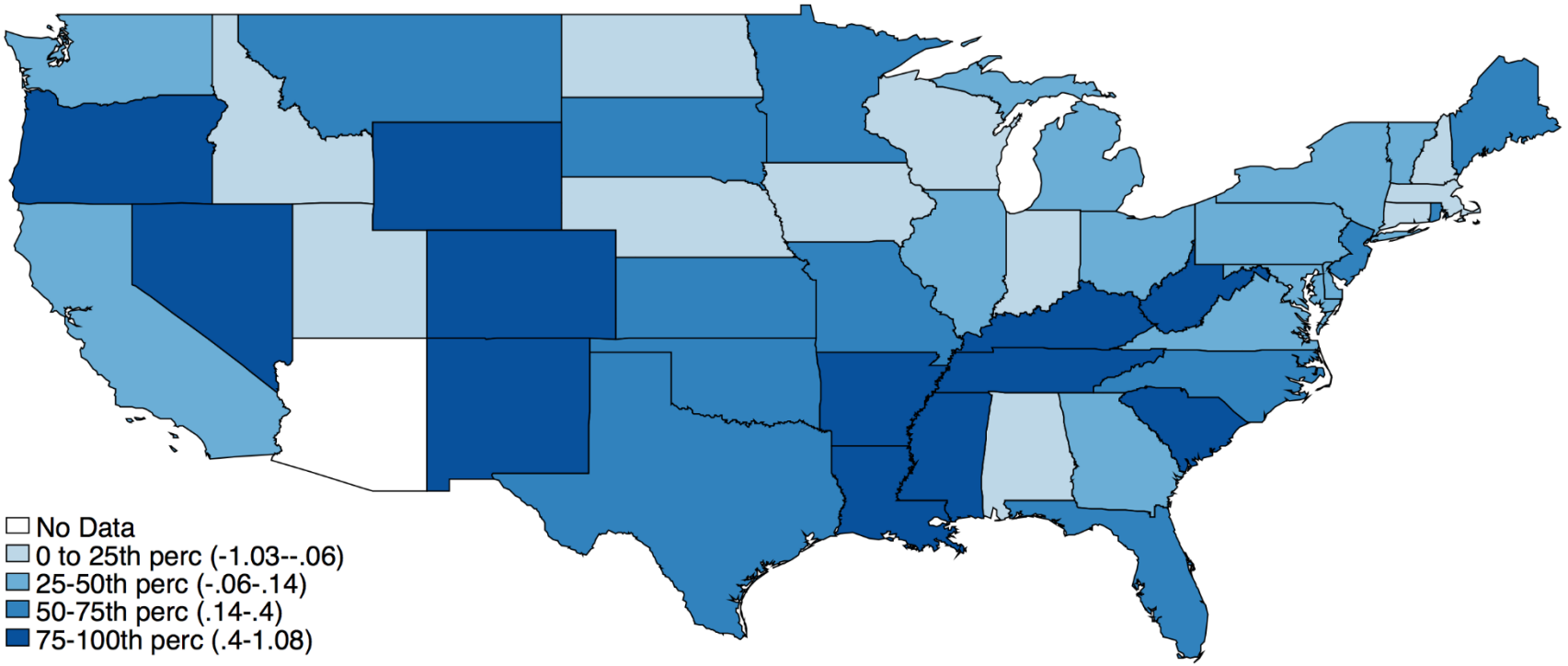

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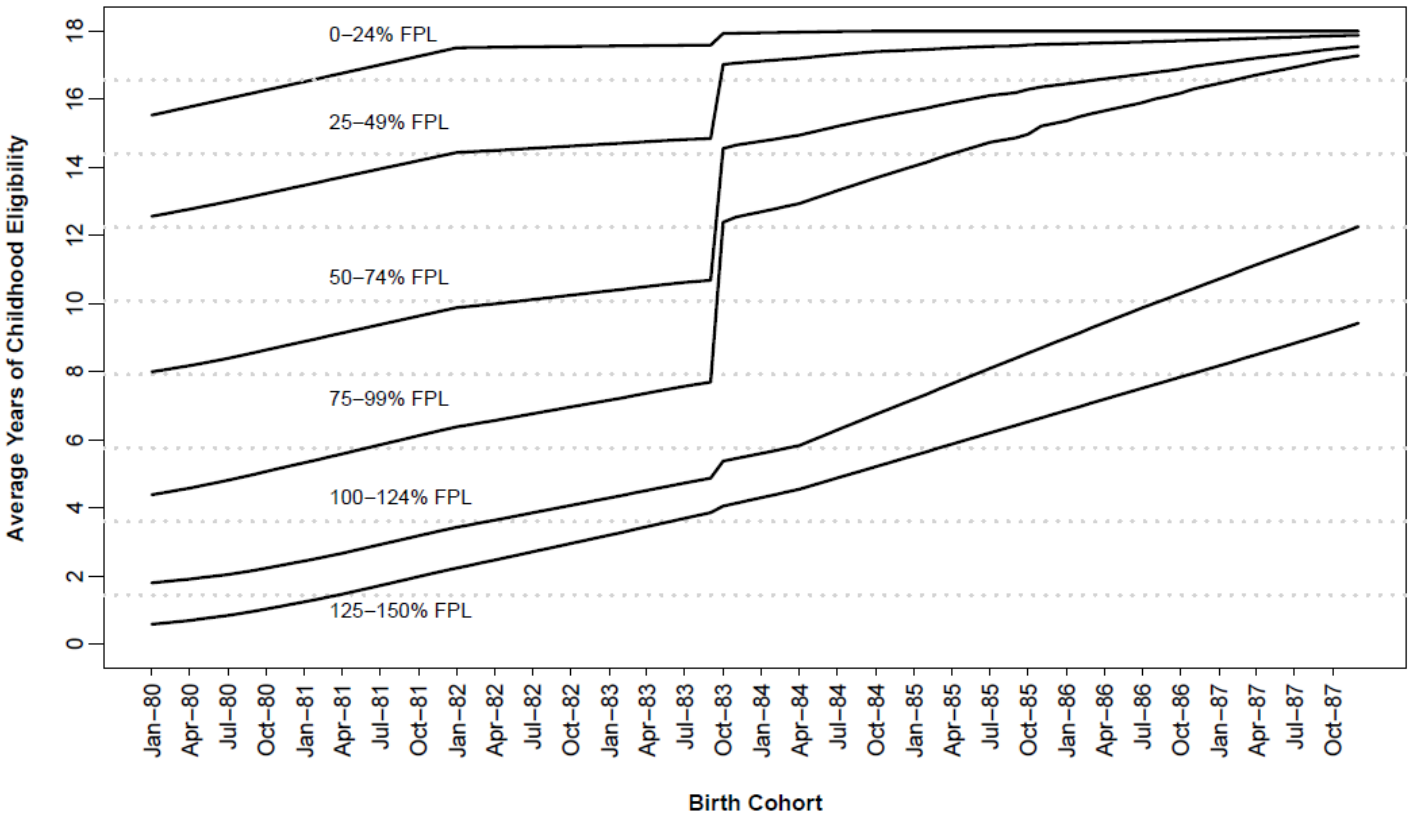
Figure 1. Average Years of Childhood Eligibility for Medicaid/SCHIP by Birth Cohort and Family Income (%FPL)



Childhood Medicaid and Later Life Health

- Lower incidence of high blood pressure *(Boudreaux et al. 2016)*
- Reductions in mortality *(Goodman-Bacon 2017)*
- Reductions in hospital admissions for chronic conditions *(Miller and Wherry 2018)*
- Lower incidence of obesity and related conditions *(Miller and Wherry 2018)*
- Persistent effects to the next generation: reductions in the incidence of pre-term birth and low birth weight in later offspring *(East et al. 2018)*
  - Consistent with biological evidence on the intergenerational transmission of health
  - **Health cost savings in the first year of life alone are about 30% of the cost of the initial investment**

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Childhood Medicaid and Later Life Self-Sufficiency

- Higher test scores *(Levine and Schanzenbach 2009)*
  - Measured in 4th and 8th grade
- Higher levels of educational attainment *(Brown et al. 2017, Cohodes et al. 2016, Miller and Wherry 2018))*
  - High school and college completion
- Higher levels of employment *(Goodman-Bacon 2017)*
- Lower incidence of disability payments *(Goodman-Bacon 2017)*
- Higher earnings and tax payments *(Brown et al. 2017)*

Brown et al (2017)

- Each additional year of Medicaid eligibility from birth to age 18 is associated with
  - Increases in the probability of having attended college of 7 percent (women) and 3.6 percent (men)
  - Additional cumulative wages by age 28 of $656 (for women)
    - This gain is expected to grow as individuals age
  - **Cumulative tax payments by age 28 of $127 (men) or $247 (women)**
  - **Conservative estimate: government recoups 56 cents for every dollar spent by age 60**

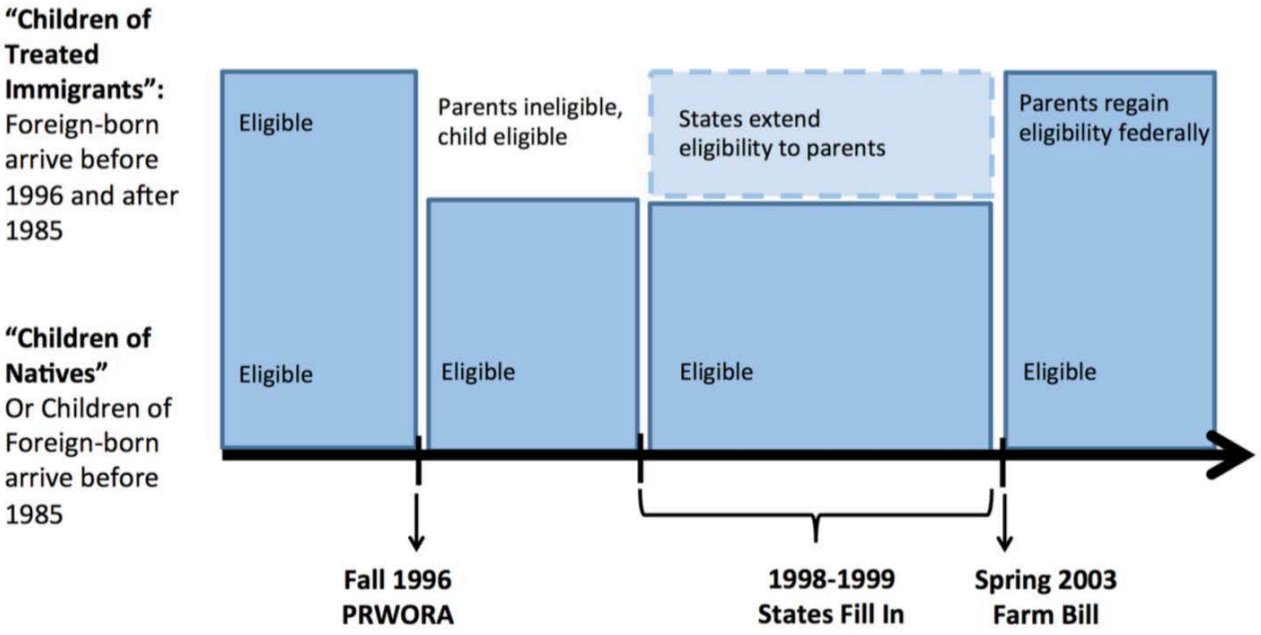
SNAP

- Additional research challenge: very little program variation that can be used to create “treatment” and “control” groups

East (2017)

- Compare health outcomes among U.S. children of immigrants whose access to Food Stamps changed in the years following PRWORA

Figure 2: US-born Children's Eligibility for Food Stamps



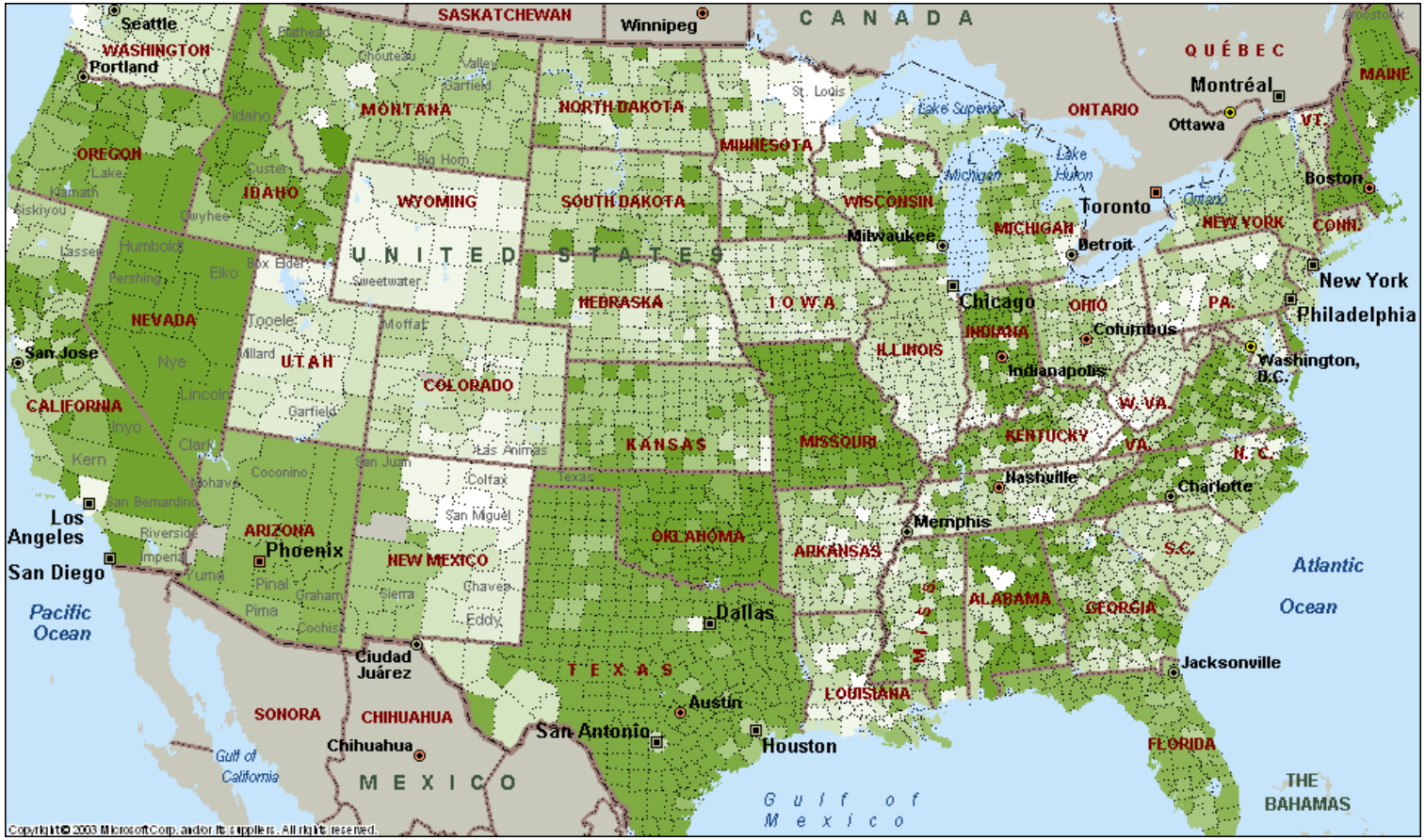
East (2017)

- Parental access to SNAP during pregnancy
  - increases offspring's birth weight
  - reduces the likelihood that a child is reported to be in poor, fair or good health (relative to very good or excellent health) by 6 percent
  - suggestive evidence that SNAP reduces school absences, doctor visits and hospitalizations

  - all of these predict later life improvements in health and self-sufficiency

Food Stamp start date, by county

(Hoynes and Schanzenbach, 2009)



SNAP improves health and self-sufficiency

- Availability of food stamps lowers the incidence of low birth weight by 7 percent (whites) 5-11 percent (blacks) *(Almond, Hoynes and Schanzenbach, 2011)*

- Children fully exposed to Food Stamps between conception and age 5 have better adult outcomes *(Hoynes, Schanzenbach, Almond 2016, Bitler and Figinksi 2018)*
  - 0.3 standard deviation reduction in the incidence of later life metabolic syndrome
  - 0.2 standard deviation increase in the likelihood of being self sufficient in adulthood (women)
    - Largely due to increases in educational attainment
  - 3% increase in earnings (women)

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Additional findings:

- Impacts largest among those who had access at the youngest ages, particularly 0-5, underscoring the importance of providing protection in early childhood

- Impacts largest for those who spent their childhoods in the most disadvantaged counties

How do we weigh program benefits against incentives to reduce work?

- Both programs have built in work disincentives
  - Important to consider since changes in labor force participation change household income and parental time with children

- Effects on parents' work effort appear to be small in practice (Ham and Shore-Sheppard 2005; Meyer and Rosenbaum 2001; Hoynes and Schanzenbach 2009; East forthcoming)

Summary

- Medicaid and SNAP improve child health measures that are predictive of better health and self-sufficiency in adulthood

- Evidence that childhood access to both programs
  - Generate improvements in later life health
  - Increase economic productivity in adulthood
  - Evidence that benefits of Medicaid may persist to later generations

Summary

- Emerging evidence these programs are cost effective investments in the future
  - Benefits are not constrained to improvements in own earnings and health
  - Public benefits are also present due to increased taxes and decreases in health related costs
  - Many additional potential benefits have not yet been quantified – e.g. impacts on criminal activity and very long term impacts on health.
    - *There are large public costs associated with addressing these outcomes, so benefit/cost ratios likely to be even larger*
- Few studies have explored differential returns by child age of exposure, but when they have the evidence points to greater long-run returns to exposure in early childhood
- Benefits appear to be larger for disadvantaged groups, especially blacks