

"Inequality and Intergenerational Mobility: Looking Ahead, Not Behind" for

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Abstract

"Inequality and Intergenerational Mobility"

This lecture considers what we know about the methods by which the intergeneration transmission of advantage and disadvantage work their way through the lifecycle. It shows how inequality affects mobility, and it offers a perspective on when and how public policy can intervene to alter the time path of child development from birth through adulthood. The steps in the life course are illustrated with cross-national and USA examples of parent-child gradients in multiple child outcome domains

Inequality of outcome (Y, W) or Inequality of opportunity?

- Americans (and Europeans?) care much more about inequalities in opportunity than inequalities in outcomes (Y income; W wealth)
- Intergenerational mobility (IGM) is determined by two forces:
- 1. differences in opportunities
- 2. differences in taking advantage of opportunities (personal agency)
- Both are important and policy relevant for relative and absolute mobility

Outline of Seminar

- 1. Three ways to look at IGM and connect to policy
- 2. Way #1: traditional looking back-is the trend important, has it changed and why?
- 3. Way #1: how about the outcome of even a constant IGM in an increasingly unequal society?
- 4. Way #2- developmental approach -looking forward, parents/families are VERY important, from the start and economic and social inequalities matter over and above income and earnings alone
- Way #3-- new tools for mobility research –go back as well as forward using public administrative data
- Policy: IGM and inequality and what to do about it? (time permitting)



1. "Looking Ahead, Not Behind" Three Ways to Go with IGM Research

- Way #1 Traditional IGM: start back (observe parents in 60's,70's) and then observe their grown children (when they are older, e.g., at age 40)
- Way #2 Developmental Perspective:
 determine what attributes, institutions and
 policies today's children will need to be successful
 tomorrow, the best approach for policy purposes.
- Way #3 Start now (observe cross-section of parents and kids today) and look back to parental status using administrative data

Way #1. The usual "looking back" view of IGM and its metrics

 The usual relative IGM approach is to estimate social 'destination' for kids based on social 'origin' of parents, using income:

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(1) \ln Y_i^{\text{children}} = \alpha + \beta \ln Y_i^{\text{parent}} + \epsilon_i
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- Beta is the persistence coefficient (1-Beta is IGM coefficient) for society as a whole.
- Can also look at mobility at various points in the distribution, "stickiness" in top and bottom quintiles for parents and their children

Way #1 --existing estimates of Beta — 'usual' view has some flaws

- Even carefully compared estimates have large ranges of outcomes depending on: dataset; years and ages where fathers/sons or parents/children are observed (usually at ages 37-40); years over which averaged (usually 3-5); data quality; index of adult well-being: family income, men's earnings, wealth, education
- Almost all studies also show less relative mobility from the bottom up or the top down vs. middle
- All exclude the majority who have emigrated since the start of the panel (40 m. total /11 m. undocumented immigrants in USA alone since 1980) and also those who are incarcerated (a major US issue)

Intergenerational Mobility: The Correlation (Elasticity) Coefficient Ranges Relating Parental Status to Child Status, with 90 percent confidence intervals, Jo Blanden, (2011)

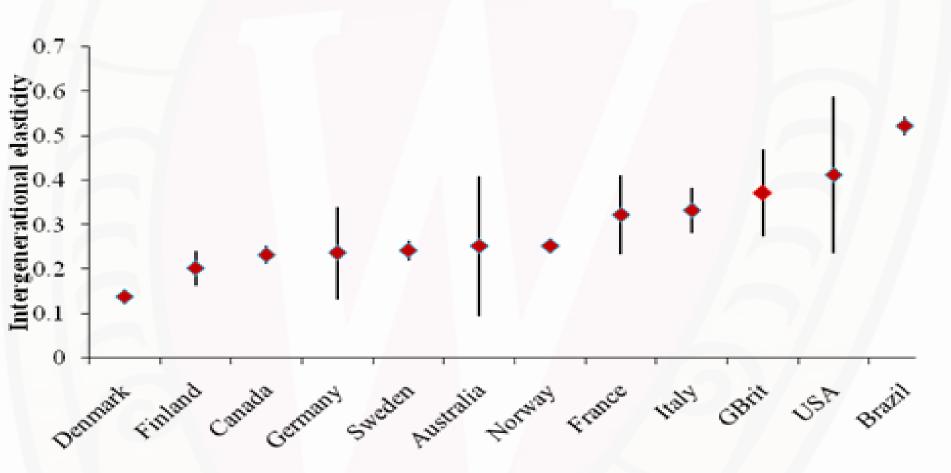
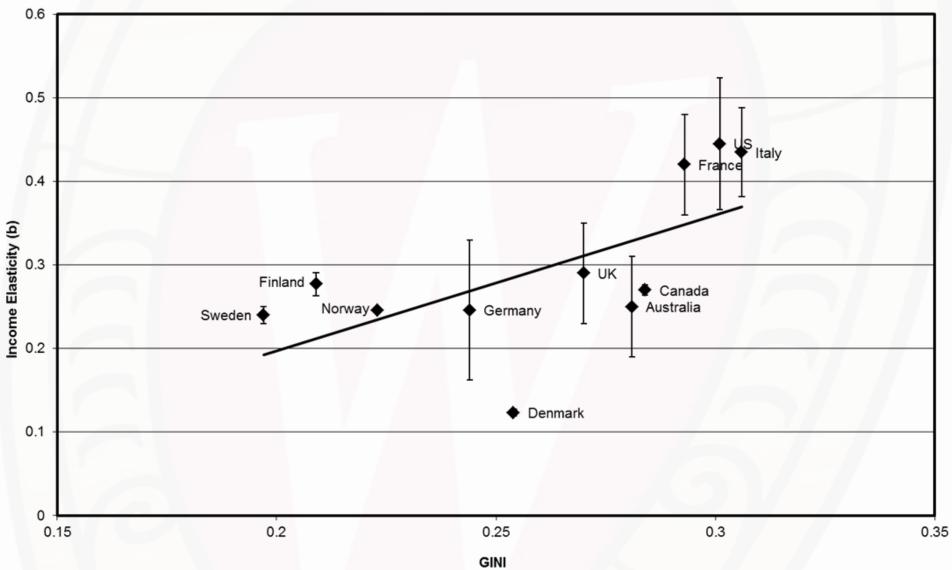


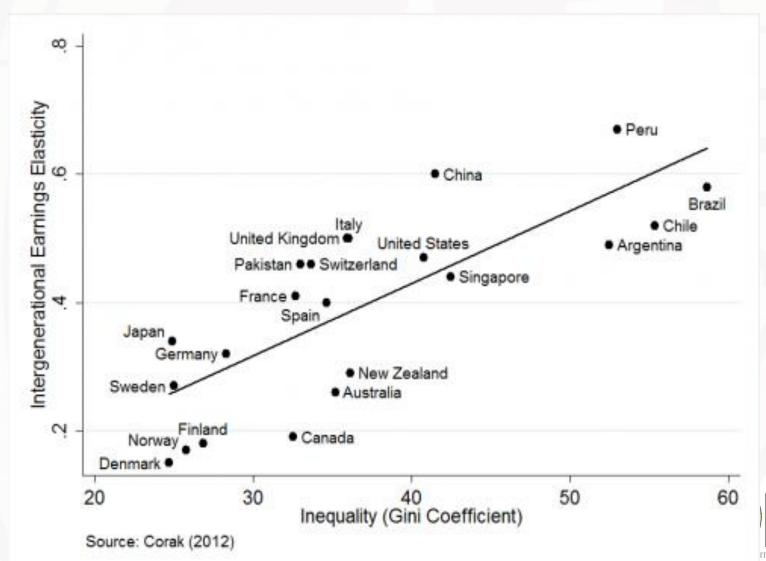


Figure 1. Estimates of Intergenerational Income Elasticities for Fathers and Sons Plotted with GINI Coefficients for Eleven Developed Countries during the Early 1980s.



Data provided by M. Jantti from Figure 20.1, Bjorklund, A., and M. Jantti. 2009. Intergenerational Income Mobility and the Role of Family Background. In W. Salverda, et al. (eds.), The Oxford Handbook of Economic Inequality. Oxford: OUP.

The "Gatsby" (Correlation) Curve





So What?

- Clearly inequality and mobility(IGM) are related, but there is not a one to one correspondence
- Some relatively high inequality countries also have high IGM (AU, CN) while others do not; same with medium inequality countries (GE vs DK)
- Low inequality and high IGM are only found in SW, NO, FI (though that may have changed with the growth in SW inequality recently)
- And so the "Gatsby Curve" needs some confidence intervals !!!



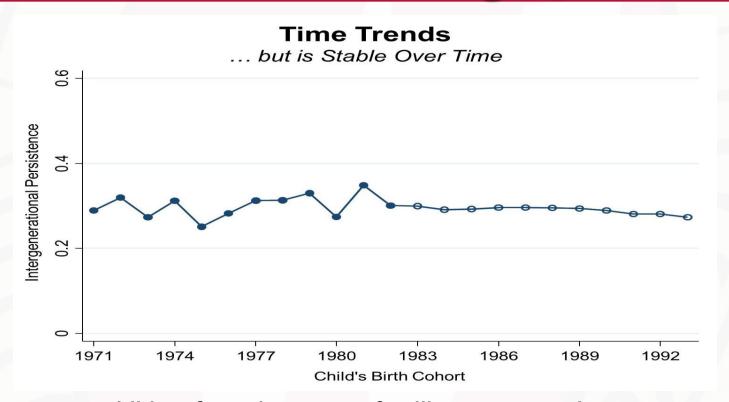
2. How about TRENDS in IGM—the recent Chetty, et. al.(2014/2015) study?

- Many think overall IGM has fallen BUT ---
- Chetty, Saez, et al.(2014, NBER 19844/QJE, 2015) confirm much older Lee and Solon (2009) results that using Way #1, IGM is flat, through the 1993 birth cohort –next slide
- BUT, wait a minute—if you were born in 1993, you just turned or will turn 22 this year! How can they know your adult economic status?
- Measure destination age at 30 and 'project' the rest from age 21 on --hmmm??

Chetty (et al) on trends in mobility

"When we actually looked at the data over the past 30 to 40 years or so, we find that, much to our surprise, there isn't that much of a difference in social mobility in the United States today relative to kids who were entering the labor force in, say, the 1970s or 1980s. That is, children's odds of moving up or down in the income distribution relative to their parents have not changed a whole lot in the past few decades."

Chetty, et. al., results — flat IGM at age 30?



On average, children from the poorest families grow up to be 30 percentiles lower in the income distribution than children from the richest families, a gap that has been stable over time. For children born 1983-86 estimates are based on income at age 26; after 1986, estimates are predictions based on college attendance rates.

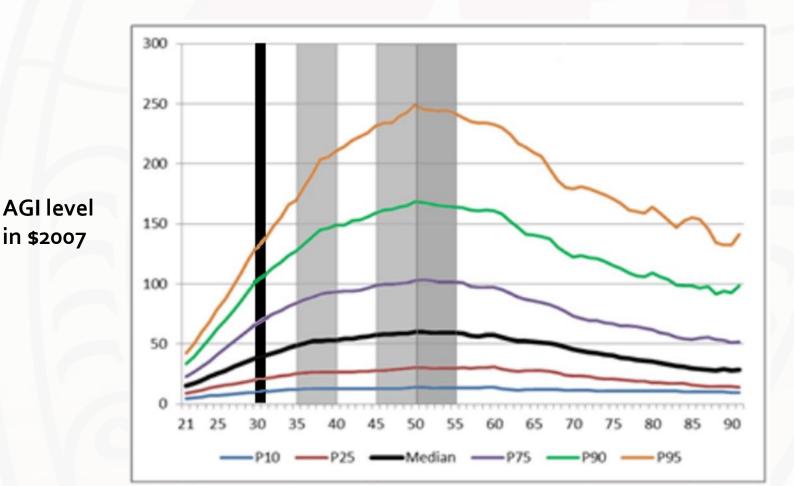


To measure IGM conventionally, at what age to observe grown kids in the 2000's?

- Before ages 35-40? (no one believes this, Chetty, et al. use 30 as the oldest ages at which we can observe children who grew up in the inequality era !!- rest is "projection")
- Ages 40- better (some do this, but 40 is top age in literature)
- What if US incomes peak about age 50 now? (next slide)
- And what if the peak for the highest income units is rising more steeply beyond age 30 or 40 than those at the bottom?
- Answer: If education and parental income/status are correlated, you understate persistence of status for the most well off kids by observing them before their incomes are near their peak (about age 45 on average) and so far all IGM studies have done this, and the ones that "project" or measure kids status at age 30 are the most biased, especially if career earnings paths cross.

2007 IRS data on peak AGI by age of main filer and percentile of IRS tax return data

(Auten, Gee, et al., May 2013, AER)



And so the usual IGM look back can't capture the inequality boom

- If inequality takes off in early/late 8o's, and you wait until 45 for your LR average adult status, you must wait until 2025 or later to capture these effects
- A different way (Way #2), to look at youth and adults under ages 30-35 today and ask how they are moving through their lives, and how likely they are to hit success markers for IGM compared to older cohorts
- Another (future) way is to take a current cross-section or cohort of adults and go back to find their parental situation when they were children (Way #3)



Another important question: is a single Beta enough?

- Not really—like the Gini for inequality, the Beta for IGM is a one number summary
- Regardless of the trend in mobility, we know that the USA has the lowest mobility at the ends of the distribution (especially from the bottom up where 36-40 percent of sons end up in same bottom quintile as do their fathers using PSID or NLSY)



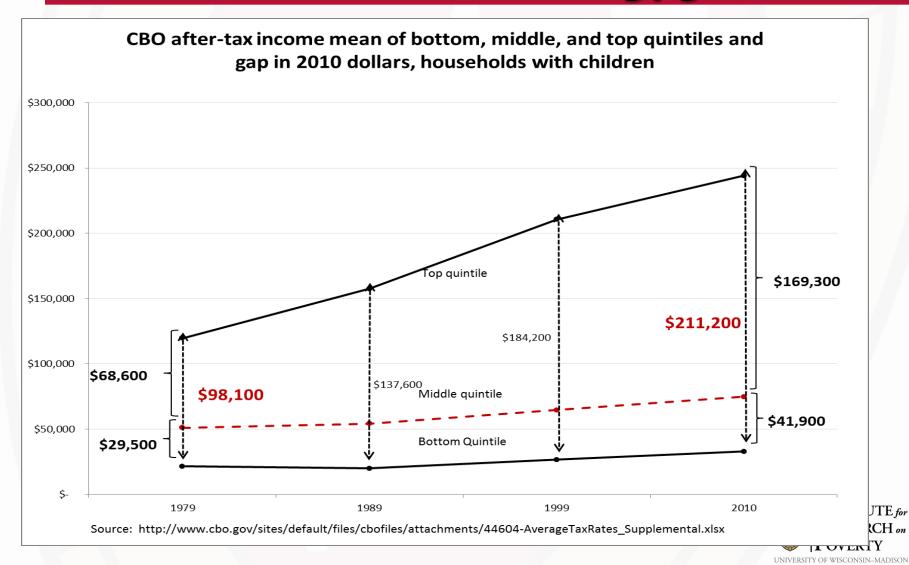
3. Regardless of trend beliefs, the INCOME gap bottom, middle, top has exploded, e.g. in USA

- The rungs of the ladder have gotten wider so even if mobility stays the same generation to generation, the gap between the top and the bottom has widened enormously, by over \$100,000 since 1979
- Mobility in USA today is too low compared to other nations and compared to our normative standards and may well be falling if we look forward (see below)
- Moral of my story: Looking back is not always a good guide to the future and not a good guide to policy to increase mobility today, and the gaps between the rungs have widened

The REAL/ absolute income gap for US households with kids has exploded

- Even with constant IGM, moves from the bottom 40 % of the US distribution upward is only 60 % (downward from the top 40 to the lower 60, is 65%)
- Inequality amongst families with kids has risen more than overall inequality since 1980 (Jencks, et. al., 2014)
- The absolute and relative quintile rungs of the income ladder for families with children have ben expanded and so the stakes for staying in top vs. being trapped at bottom are larger, even if IGM patterns stay the same
- Absolute & relative mobility are both important to the middle class too—and their incomes have been almost flat and falling since 2008 (hence calls for 'inclusive growth', 'shared prosperity', etc.)

Mean CBO incomes for top, bottom, middle income kids: 1979-2010



Gaps: Middle vs Top INCOME gap Exceeds Middle vs. Bottom

- Middle (median family with children) is losing more ground vs. top than is bottom (bottom growth is mostly from rising health insurance benefits which are counted as income by CBO)!
- Middle has suffered real income declines since 2008— "negative" absolute mobility
- So the top is leaving the middle behind and this is why most "middle class" Americans worry about their children's future socio-economic Status

Why? Wages have diverged markedly by education level, plus assortative mating

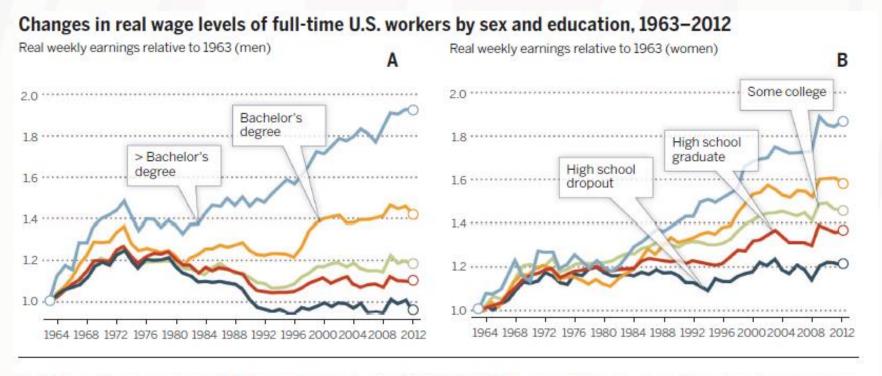


Fig. 6. Change in real wage levels of full-time workers by education, 1963–2012. (A) Male workers, (B) female workers. Data and sample construction are as in Fig. 3.

Autor, David H. 2014. "Skills, education, and the rise of earnings inequality among the 'other 99 percent". *Science* 344(6186), pp. 843-851. Source is CP\$

And finally, Way #1 offers a poor guide for policy

- In the end the debate about trends in IGM-whether mobility and opportunity have declined for previous generations offers only a window on the past, not a way forward
- There is greater concern to bring the bottom up than the top down as a matter of policy, so what policy levers will work to improve opportunity an mobility for the next generation?
- Traditional IGM research offers few clues, but INSTITUTE for some parameters that we can measure POVERTY

4. Way #2, developmental approach-- ' looking forward'

Life course approach— as a heuristic ---

First--CRITA model and some cross-national results

Then USA's "Social Genome stages" (what can we learn?)

Q: Given trends in key parameters for child mobility, are we making progress?

A: In general, no



Figure 1: A Model of Intergenerational Transmission of Advantage by Life Stage

*It is implicit in the model that outcomes at any life stage can be associated with outcomes at any subsequent life stage.

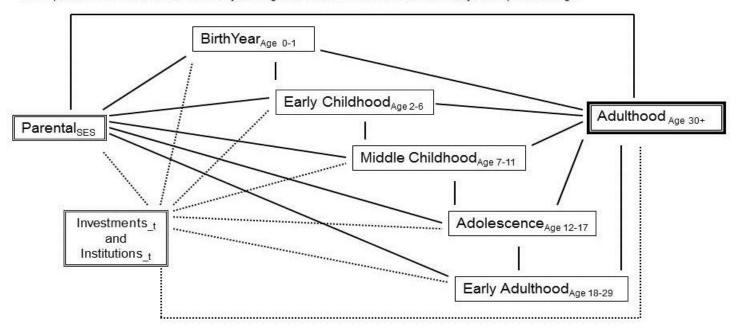


Table A. Variable Definitions and Examples of Proposed Measures at Different Points in the Life Course

Parental SocioEconomic Variables (Parental_{SES}) Measures: Education,

Measures: Education, Income, Earnings, SES, Occupation, Wealth, Employment Childhood/Early Adulthood Life Stages
BirthYear (age 0-1), Early Childhood (age 2-6)
Middle Childhood (age 7-11), Adolescence
(age 12-17), Early Adulthood (age 18-29)
Measures: Educational attainment, cognitive
measures, socio-emotional behavior,
employment/labor market, health/physical

Investments_t and Institutions_t
Are assumed to be different public
and private investments and
institutions contributing to
children's development that vary
by country.

Adulthood (Age 30+)
Measures: Child SES,
Income, Education,
Employment, Labor Market
Attachment

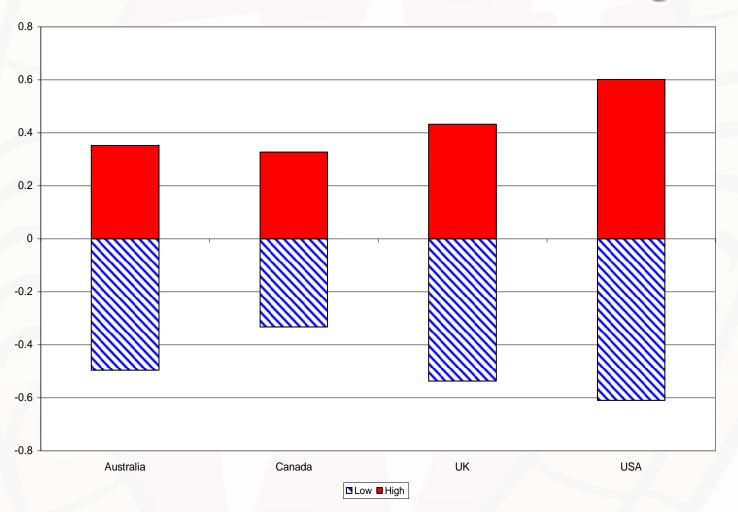


Applying the life cycle model cross-nationally: when do differences by parental SES emerge?

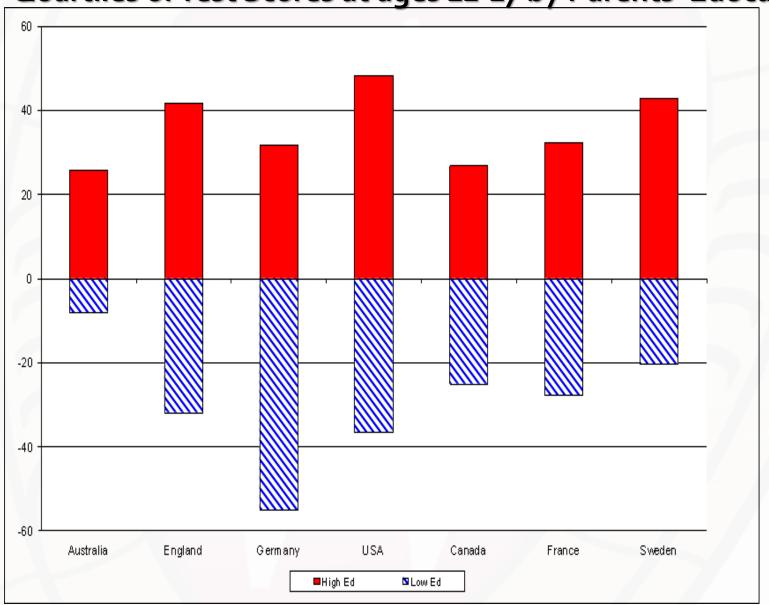
- Gaps in outcomes by parental SES (parental education & income) emerge early in childhood in all countries, by the time that a child's characteristics/abilities are first measured
- Gaps are apparent in health, cognitive, and socio-behavioral domains from the start
- They result from a combination of the influences of parenting and heredity (environment, including in-utero environments, and genes) and are especially large for boys and children in complex and unstable families
- In no country do we find that high-and low-SES children start out equally prepared for schooling and in the USA the gap is widest across parent education levels (see example below)



Vocabulary Scores at age 5: Difference between Average Scores of Children by Parents Education (circa 2003)



Differences in the Percentage in the Top and Bottom Quartiles of Test Scores at ages 11-17 by Parents' Education



Brookings USA "Social Genome" ingredients for lifecycle stage markers of progress

Measure whether or not one achieves having a "middle class" life –what are the stepping stones in child development?

- 1.Born at normal birth weight to a *non-poor, married mother* with at least a HS diploma
- 2. Acceptable preparation for formal schooling: reading and math skills and generally school appropriate behavior
- 3. Cumulatively adding to "basic" skills: reading and math and socio-emotional skills rise as child progresses through school
- 4. Graduate from HS with 2.5 GPA and not convicted of a crime
- 5. Live independently and with post-secondary degree (late 20s)
- 6. Reach middle class (earnings and family income at least 300 percent poverty, with adjustments for family size)

What can you learn from this approach? The key factors in child development

- 1. Parents and 2. Family Structure early in life –'diverging destinies hypothesis': birth conditions, age and education of mom; stability of family; human and material resources available for kids are very important
- 3. Money: economic status of families (and growing inequality) -- differences in human capital returns mean big differences in financial ability to raise children and provide a private safety net (W and the "glass floor")
- 4. Social Institutions education and also health care
- 5. Role of place amplifies parenting differences and money differences

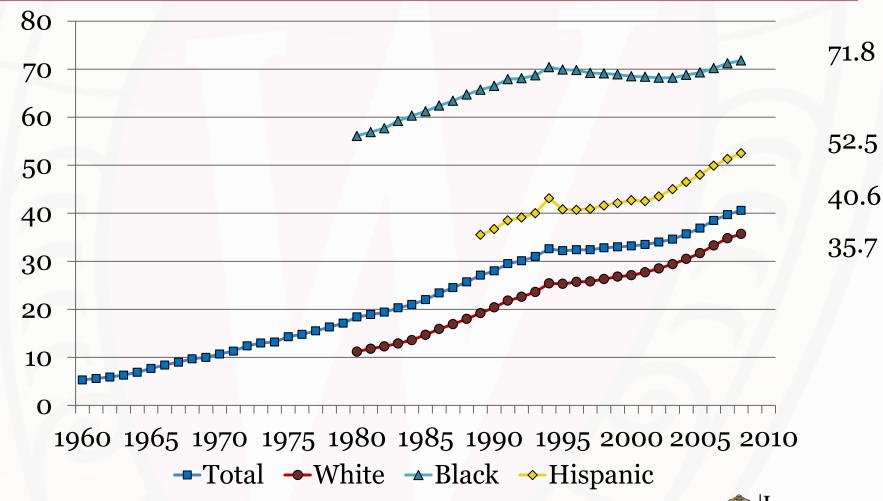
First step: birth status, family stability and parental education

- USA—not good, marriage is the marker and cohabitation at early ages or marriage at early ages does not predict stability, especially vs. two older married, well- educated parents
- Europe-not much better, even if cohabitation is somewhat different than in US
- BUT with more cushions in Europe due to more and better early childhood education (ECE) and continuous health care access

The first steps (and part of all steps beyond): parents' money and skills

- Almost all parents want to do everything they can for their kids, but some are better able and more skilled at navigating life's challenges than are others— money and skills are both important
- In 2013, children born to a family at the 90th percentile (middle of the top quintile) had \$55,000 per child to spend on each kid; children born to a family at the 10th percentile (middle of the bottom quintile) had \$7,000 per child to spend on each kid
- Top-quintile spending on kids' enrichment is now multiple times that of low-income quintile
- Top quintile activities spent on literacy and other investments also vary enormously

Unmarried Births as a Percent of All Births in the U.S.

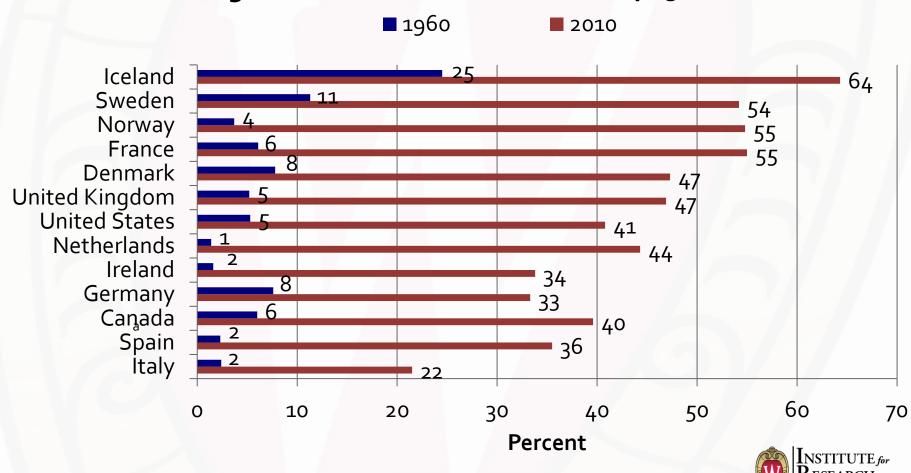






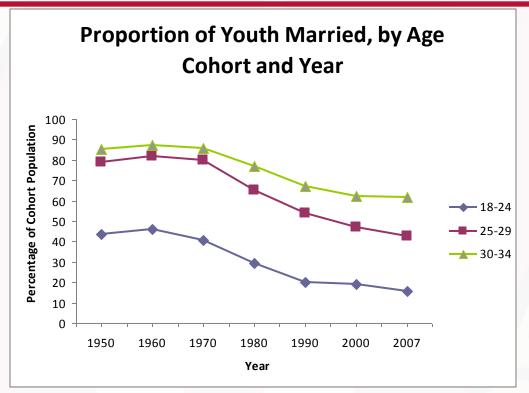
Growth in Children Born to Unmarried Parents in Rich Nations

Percentage of births to unmarried women, 1960 to 2010



Sources: CDC/NCHIS Vital Statistics; Stat Canada; Eurostat, European Commission. a. Earliest year available is 1974.

Decline in US Marriage

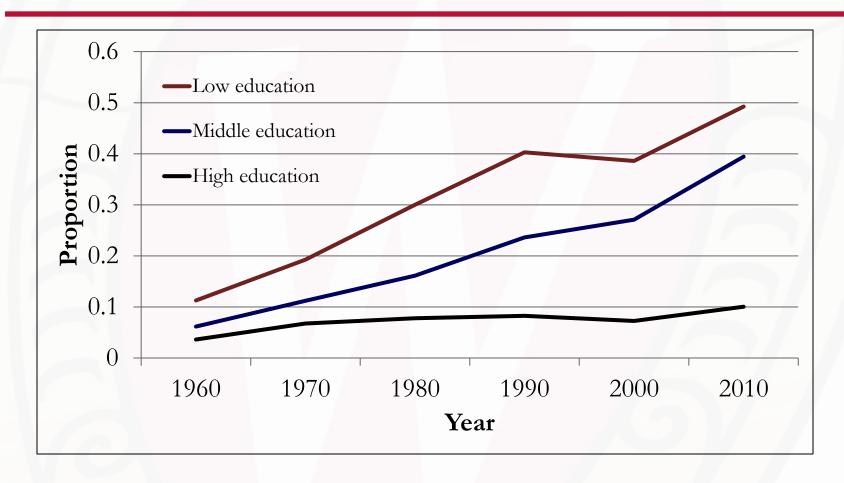


Bottom line: all falling and not too many married young, see also Cherlin, 2014, and Cherlin 2011 at

http://www.irp.wisc.edu/newsevents/seminars/Presentations/2010-

2011/Cherlin_4-14-11.pdf

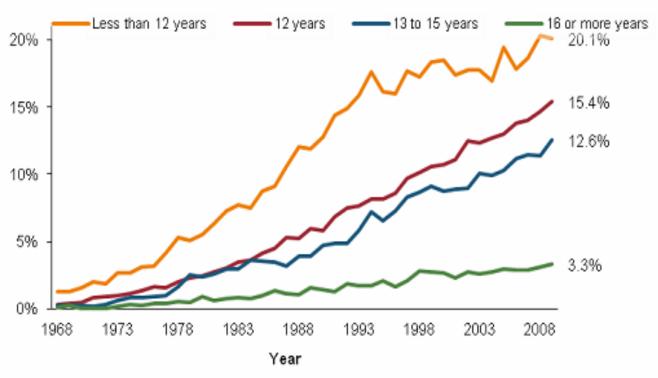
USA Unmarried Births by Mothers' Education





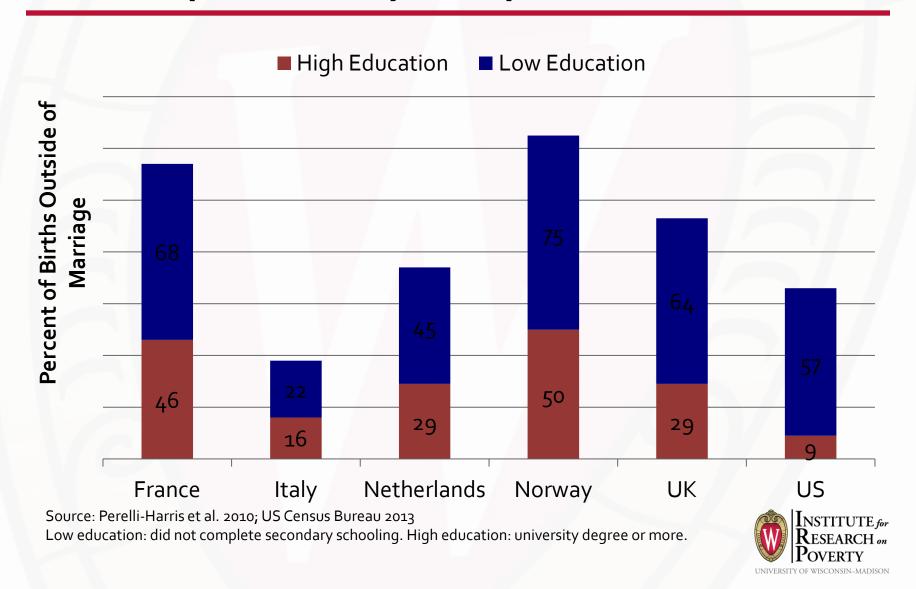
Never married moms in USA by education status

Never-Married Mothers by Educational Attainment: 1968-2009



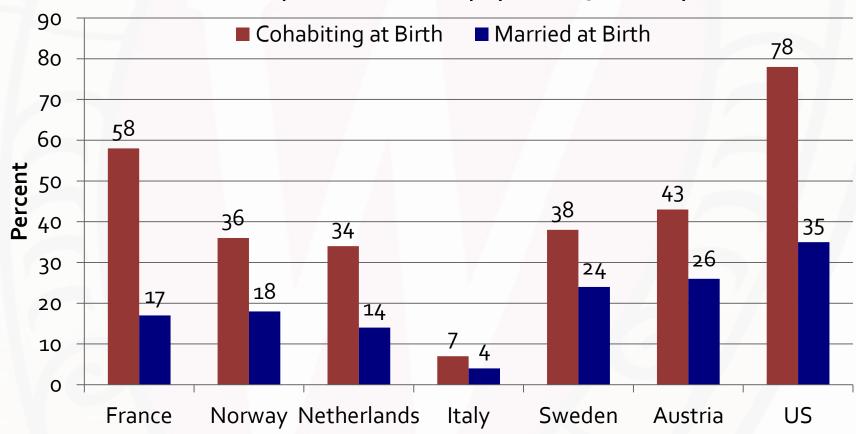


... AND The Experience of Unmarried Parents is Unequal in Many European Countries Too



Many Children Experience Unstable Parental Relationships in Rich Countries



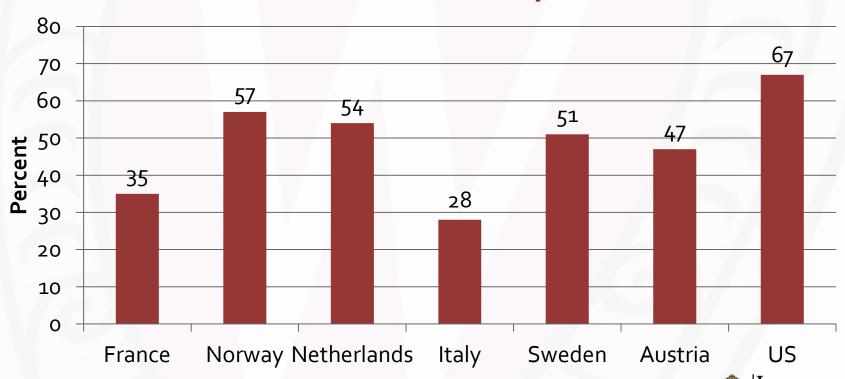


Source: Andersson, G. 2002. Sample is parents in a marital or cohabiting union at child's birth.



Family Instability Leads to Complexity: Step-Parents in 7 Rich Nations

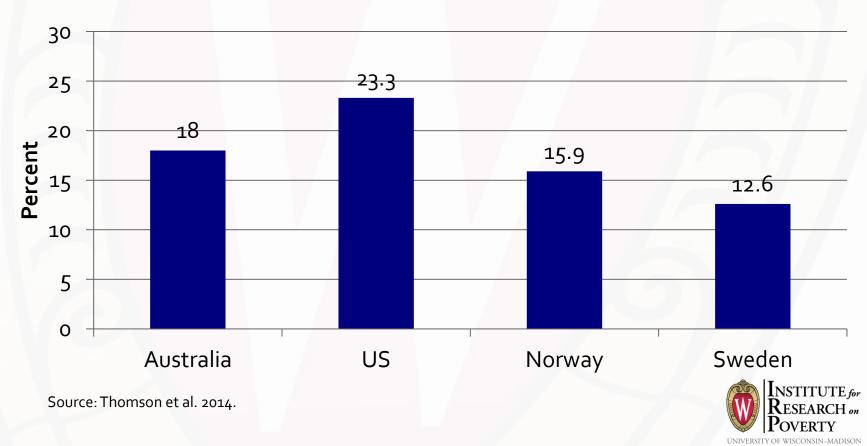
Percent of separated parents who enter a new union within 6 years



Source: Andersson, G. 2002.

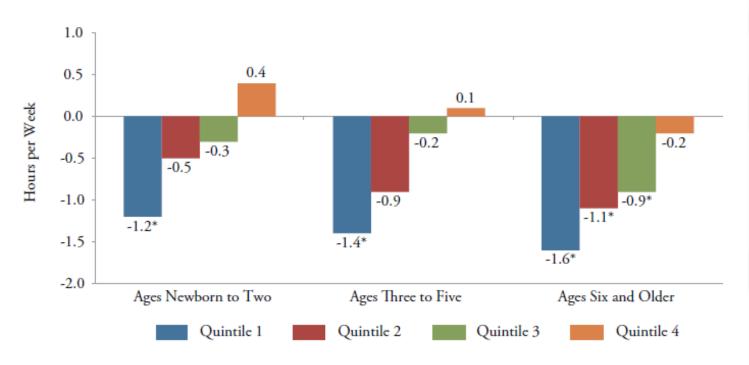
Family Instability Leads to Complex Families: Half-Siblings in 4 Countries

Percentage of all mothers who had children with two or more fathers



Phillips: parents to kids literacy skills, -relative to top quintile

Figure 21: Disparities in Weekly Time Spent in Literacy Activities by Age and Household Income Quintile¹⁰¹



Source: Meredith Phillips, based on Panel Study of Income Dynamics, 2009. Bars show difference relative to children whose family is in the top quintile, adjusted for child's age in month and gender. *Denotes statistically significant difference at the p<0.05 level.



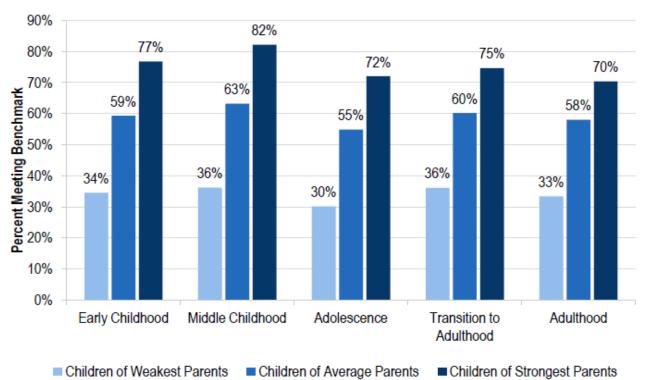
Bottom line strong parents matter all the way to adulthood (and beyond)

- Basis: CNLSY 'HOME' assessments at various life stages (includes pictures, observation, interviews, etc.)
- 'Weak Parents' bottom 25 percent
- 'Strong Parents' top 25 percent
- 'Average parents' middle 50 percent
- And number of parents and parental stability matter too (as above)



Parenting quality at Social Genome life stages

Figure 4. Percent of Children Succeeding at Each Life Stage by Quality of their Parents



Source: Reeves, R., and K. Howard, "The Parenting Gap," Center on Children and Families at Brookings. Available at http://www.brookings.edu/research/papers/2013/09/09-parenting-gap-social-mobility-wellbeing-results.com/

Money Matters and not just INCOME: The Demography of Inequality

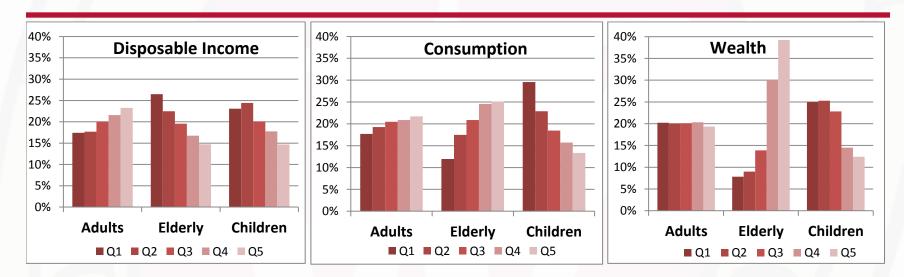
- Who lies where in the overall distributions of C, Y and W in the USA?
- IMPORTANT We rank everyone in each dataset by overall Y,C,W (just one ranking for each component, Y,C,W)
- Who lies where in each distribution?
- Examine age, race, children's family structure and adult educational status

Start with Age Alone

- Children (under age 18) with C, Y and W from their living arrangements
- Adults (ages 18-64) including parents and childless adults
- Elders (age 65 plus)
- Start with overall 2010 snapshot picture
- -- then move to vulnerable groups



The Demography of Inequality by Age: Income, Consumption, and Wealth by Quintiles, 2010*



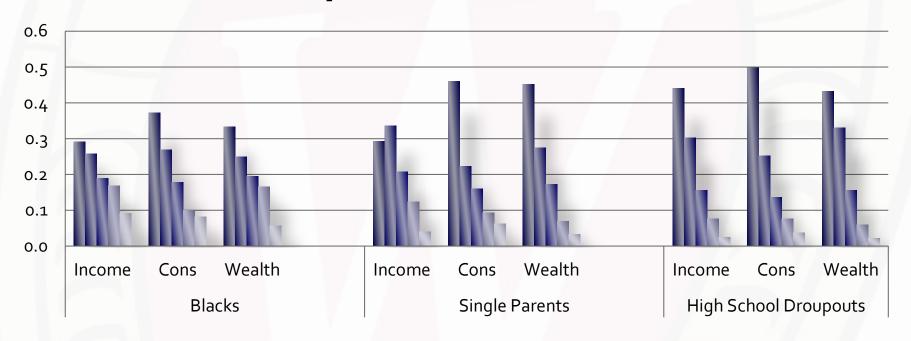
Sources: As calculated by Fisher, Johnson, and Smeeding (2013) for disposable income and consumption; Thompson 2013 for wealth.

*Note: The data are for number of persons by age: children (less than 18); elders (65 and over), so person weighted. Overall inequality is not shown, but if so, it would be at 20 percent of the population overall in each quintile. Each quintile is ranked by its own measure (income, consumption, or wealth) with an equivalence scale adjustment using the square root of household size. Adults include those currently living with elders or children under 18, as well as childless adults.

How about vulnerable groups?

- Who are they in USA (and EU?) on next slide
- -- Panel A: minorities, especially US blacks
- --Panel B: single parents, and unstable families-- in EU too as shown above
- --Panel C: least educated, as in high school dropouts in US and EU
- And the differences matter for IGM, e.g.,
 for child enrichment spending

Figure 3: "Vulnerable Groups ranked by Y, C, and W in 2010"*



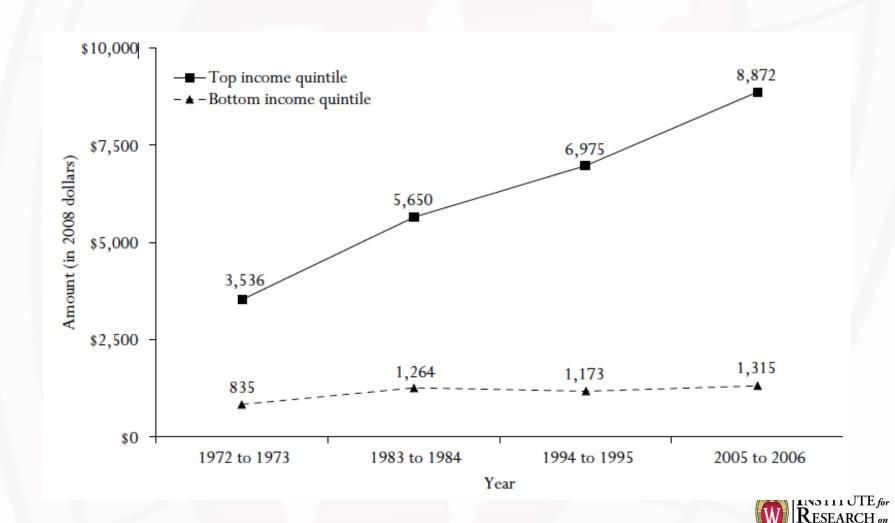
Source: Fisher, Johnson, Smeeding and Thompson (2015)

* Note: The data are for number of persons by race, all blacks; all children and adults who are single parents with children less than age 18; and all adults (21 and over) who did not finish high school. Each quintile is ranked by its own measure (income, consumption, or wealth) for the whole population with an equivalence scale adjustment using the square root of household size. Hence the figure shows where each group is located in the overall distributions of income, consumption and wealth.

And so what else besides Y matters for IGM: C (and especially) W

- Most children are concentrated in low C and W quintiles, even more so than in terms of income quintiles
- Means fewer advantaged (high W and high C) kids—more disadvantaged kids, and 'family safety' net at the top
- Elders at other end with high consumption and wealth vs lower income
- Wealth inequality widening, and it may well be wealth that matters most

Kaushal, Magnuson and Waldfogel (2011): US Annual Spending on Children's Enrichment

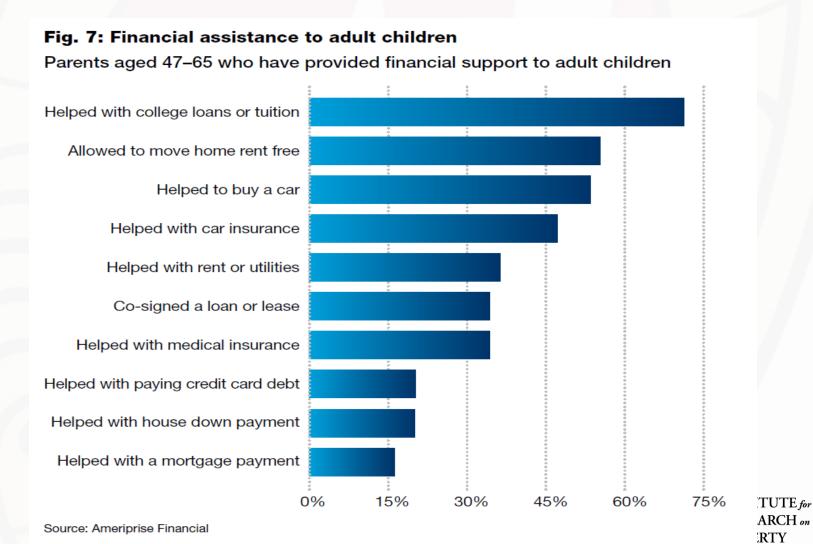


US "rich kid" (Y,W) family safety net - the role of inter-vivos "strategic transfers"

- US top quintile Y and W parents have their own built-in private kid safety nets
- 1. Buy expensive home in good/safe school district
- Graduate college and often post grad degrees, with no debt (EU tuition better)
- 3. Intern in expensive cities to overcome high end spatial job mismatch
- 4. Help buy a first home at favorable interest rates by co-signing the mortgage
- 5. Plus direct lifetime jobs for kids (US,DK evidence on top 5 percent)



Consider the source – but- see the numbers too



Finally, back to the "Gatsby" question—economic inequality and IGM, which one drives the other?

- Does inequality affect IGM? Yes
- Do factors that affect IGM, such as changes in the economy favoring more education, changing family complexity and instability, and economically segregated neighborhoods, also affect inequality? Yes
- So, avoid the 'chicken and egg 'problem, both types of effects are important!!
- -- e.g. parents with out of wedlock births at younger ages will live in complex families, have less education, poorer economic outcomes, live in worse neighborhoods, and increase inequality in both their generation

 [Institute for Research on Poverty or WISCONSIN-MADISON]

Summary: IGM, child development and inequality

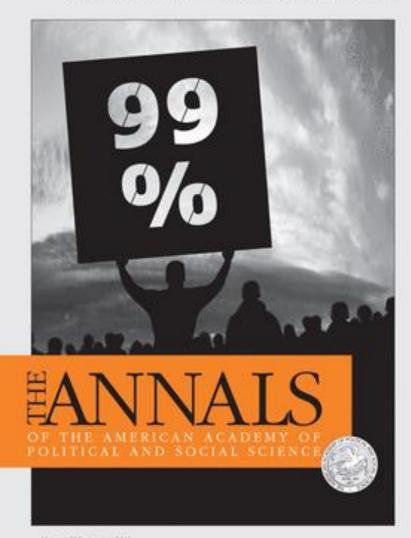
- Most all of the ingredients for healthy child development are very much affected by parental inequality at a point in time, and the trends in inequality of development by parental incomes, education and SES that we can observe are almost all on the upswing
- Even if trend is questioned, level of mobility is too low, especially from the bottom, and rungs of the ladder have moved much farther apart



5. Way #3. Better data systems to go forward or backward in IGM or other studies?

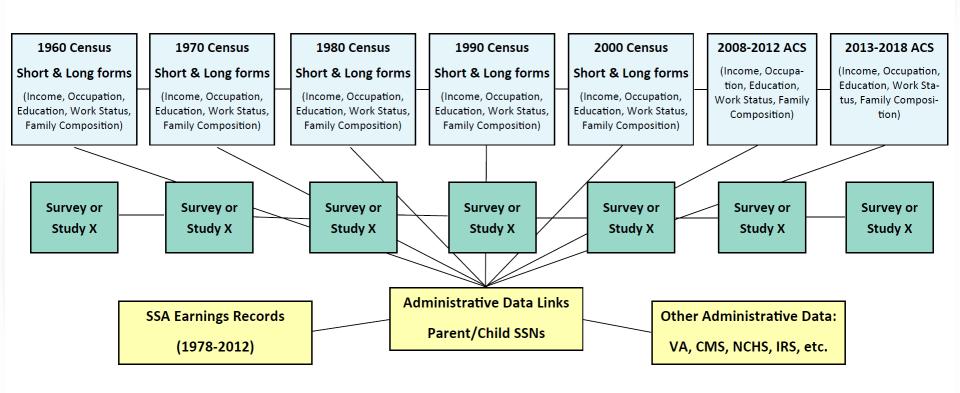
- USA NAS team plans to improve measures of social mobility – build a social mobility architecture or "mini-registry" using Census and public administrative data
- See January 2015 ANNALS volume for background on the American Opportunity Study (AOS) to monitor IGM
- Dream-vision' on next slides
- Idea is popular in many nations (OECD, UK)
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Monitoring Social Mobility in the Twenty-First Century Special Editors: David B. Grusky, Timothy M. Smeeding, and C. Matthew Shipp



Volume 657 January 2015

A Three-tiered Plan for Linking Census and Survey Data with Administrative Records



Tier 1 = Censuses linked by person record or panel

Tier 2 = Independent study, panel, evolution, treatment, etc.

Tier 3 = Person linkages to public administrative records

Steps along the way

- KEY— Personal Identity Keys --" PIK" the Census to get SSN from name, address, occupation and so on in Censuses
- Then link across Censuses and ACS (5 year summaries post 2000)
- Use SSN to link to SSA and then IRS and other administrative data as have Chetty and others
- Put your study/survey in the middle to add data on specific issues

Slide in/plug in survey possibilities

- WITH permission to link one can 'look back':
- 1. at parents/ grandparents as well as current generation :
- -- with SIPP, or --NHANES/AdHealth/NES/GSS/Fragile Families, etc. —as in Way #2
- 2. at children and grandchildren of a current generation :
- --with HRS, PSID, NLS (e.g. find the ones you didn't follow in your survey and get at effects of complexity in LR), etc.
- 3. Or you can take an older sample of any outcomes, e.g. kids, and 'look forward' to see LR effects of 'treatments':
- -STAR/any job training program/any child care dataset, etc.
- 4. Link to any state or national survey/ admin. data where one can skip 'economic' reporting and get better income and earnings data from the federal registers in many cases.

6. Finally-- What to do about IGM : policy lessons-- modesty?

- It is *possible* to provide more equal life chances than is the case in the USA and some other rich countries, in ways that do not violate family autonomy or the principle of merit in assigning 'income positions' (e.g., jobs) in society.
- But there are also *limits* to such policies as parental influences are evident at every stage of the life course
- Self-interested parents have reason to fight against such policies to give their children better advantages; and so such polices are difficult to establish and after that, they will be difficult to sustain

First policy steps: Early childhood policy and IGM

- Do our best to eliminate out-of-wedlock childbirth for those who have not finished school or found employment
- In France and Denmark there is causal evidence that universal preschool programs partially close the SES gap in school achievement and subsequent wages and therefore the high-child poverty countries might benefit from policies to improve economic well-being for low-income families, especially single parents
- Support for parents to improve their parenting skills in the general context of intervening early in a child's life (nurse home visiting) is about to take place in the USA as part of health care and health reform and efforts by Am. Pediatrics Association (above)
- Higher child allowances and comprehensive policies to reduce disadvantage for low-income families with children are two such options which work well in Canada
- Increasingly money seems to matter for child achievement and higher child allowances may be the cheapest way to help young kids, under age 5

Next policy steps: K-12 education

- The educational system is likely to be the most widely used and most acceptable policy tool we have for equalizing life chances, especially for working class and low-SES kids. But the education system does not seem, so far, to achieve this goal.
- The net effect of education systems so far is not to reduce the relationship between parental SES and child achievement. At best, education systems may be offsetting existing processes of cumulative advantage in keeping the overall IGM gradients stable as children age. At worst they reinforce these differences.
- Schooling reforms (Schools for All, socio-emotional learning tools) can help reduce the disadvantages of having low-SES parents but not eliminate them

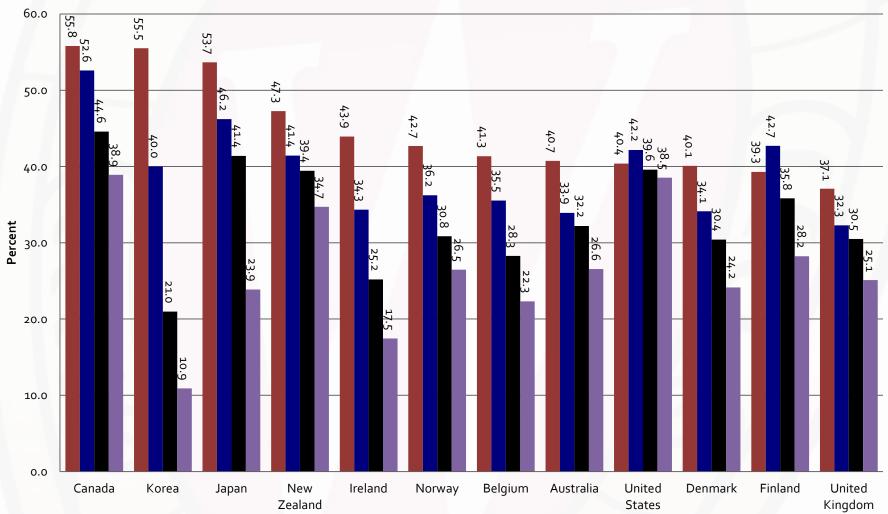
Finally: Tertiary education policy

- Activist educational efforts for school completion and tertiary degrees amongst low-SES kids are needed to overcome high SES parental advantages: money, know-how and place
- Lower-SES graduates from tertiary education do much better and there is less association between parental SES and later jobs for these graduates. The trick is to produce more college graduates and tertiary degrees from low-SES families.
- Even those with 'career and technical training' have to be able to use computing and understand basic mathematics, science, technology and engineering
- And US technical schooling needs an upgrade in quality and curriculum, as in EU ALMPs



USA is Losing the Race: Percent of Adults with an Associate's Degree or Higher by Age Group: Selected Top Countries





Source: OECD Education at a Glance, 2009.

Conclusions

- I cannot for the life of me see how IGM can be even constant, much less increasing, given what we know about growing inequality and the increasingly high hurdles of the next generations whose parents are below the 40th percentiles of Y, C and W
- In the end, we will never be able to eradicate SES differences in child outcomes, especially in highly unequal societies, and we will never be able to, and may not wish to, override parental autonomy.
- This specter of unequal opportunity and falling IGM is the biggest negative social outcome of the continuing American and EU? inequality boom in income, neighborhoods, wealth and parentim [Institute]

Thanks!

- Looking forward to questions and write if you want references and copies of papers ans supporting documents
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