

Rethinking Schooling and Economic Growth: A More Inclusive Role for Education

David B. Bills
University of Iowa
September 2016

A few quotes from around the world

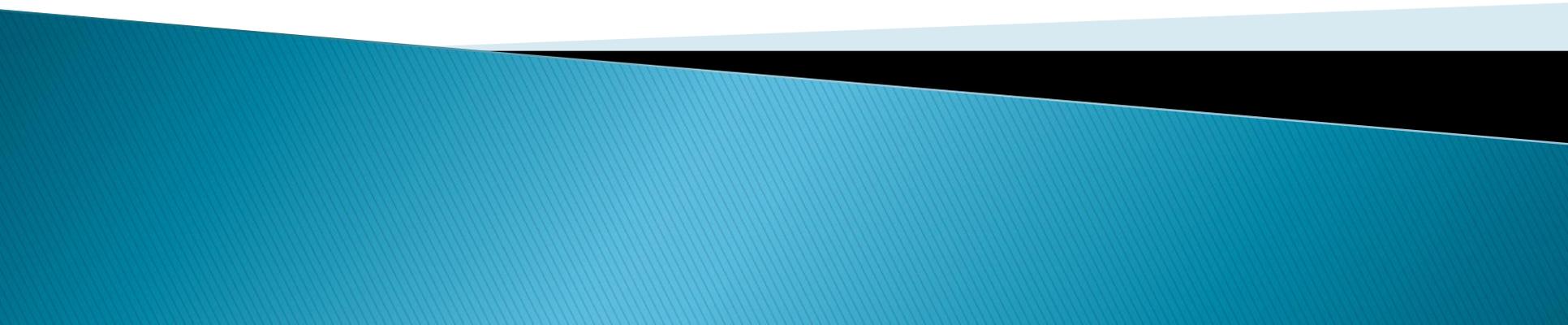
United States

- ▶ Given the strong evidence pointing to the positive impact that education has on the lives of American workers and our economy, our nation must renew its commitment to these investments. Abandoning our commitment to education -- especially at a time when the future standard of living for American workers and the strength of the American economy depends on an educated workforce -- is shortsighted and could have long-term damaging consequences to this nation's economic health and strength.
- 

OECD (Office for Educational Co-Operation and Development)

- ▶ People must have a solid education. The generation now entering work can perhaps expect six or more job changes in a working life, meaning that part of that education will
 - ▶ have to take the form of "learning how to learn" throughout the working lifetime. Workers will have to acquire and later re-acquire skills through training.
- 

How did this happen?



Historically, “education as the engine for economic growth” made little sense

- ▶ Until recently, schooling was for the elite, not for the masses

Rather, education was for the purpose of

- ▶ nation building
 - ▶ military might
 - ▶ religious orthodoxy
 - ▶ political fealty
- 

Sources of growth were

- ▶ Families
 - ▶ Entrepreneurs
 - ▶ Apprenticeships
 - ▶ Workplaces
 - ▶ Cities
-
- ▶ Schools are latecomers to the project of economic development
- 

- ▶ But “education for economic growth” is now everywhere

Some Context

- ▶ Huge Expansion of Educational Enrollments around the Globe: The World Educational Revolution
 - ▶ The Gender Reversal
- 

Expansion

- ▶ Formal schooling is now *the* basis of social mobility and status attainment
 - ▶ Increase in years of schooling completed
 - ▶ Changes in quality of schooling
- 

Gender Reversal

- ▶ Females now outperform men at all levels of schooling throughout the world
 - ▶ Are some exceptions to this, but it is a general trend, maybe the most important of our era
- 

- ▶ But the way we think about the relationship between education and economic development is too simple. There are many conceptual problems.

▶ EDUCATION  ECONOMIC GROWTH

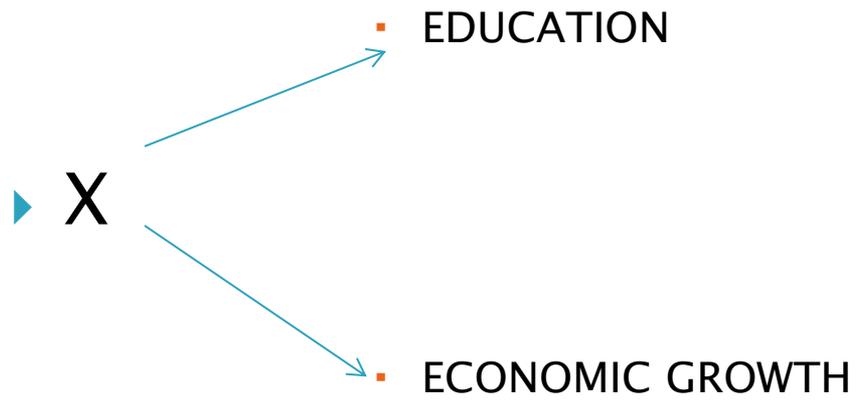
But what causes what?

- ▶ ECONOMIC GROWTH  EDUCATION
- ▶ Causal direction – Cvrcek and Zajicek “the whole education-growth nexus is riddled with endogeneity”
- ▶ Rich areas more likely to invest in education

Some Turkish Evidence for this

- ▶ From 1973–2009, economic growth produced public education expenditures, but public education expenditures did not produce economic growth (Yildirin et al, 2011).

- ▶ Maybe both educational expansion and economic growth are caused by something else



- ▶ Urbanization
 - ▶ development of sanitation and other measures of public health
 - ▶ demographic shifts
- 

Or maybe the effect is indirect

▶ EDUCATION → X → ECONOMIC GROWTH

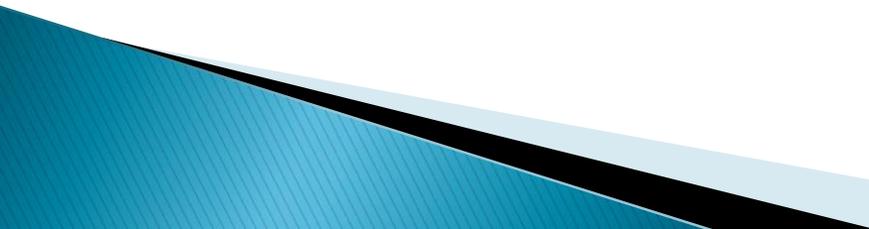
- ▶ Skilled workers
 - ▶ Better health
 - ▶ Attitudes and beliefs
 - ▶ Smaller families
 - ▶ Social capital and social networks
- 

- ▶ Also enormous problems of data, measurement, and design

What Do We Know about Education and Economic Development?

- ▶ Quite a lot, but less than you might think

What Does Schooling “Produce?”

- ▶ Nobody really believes that “years of schooling” is sufficient to drive growth
 - ▶ Skills (Hanushek)
 - ▶ Skilled people
 - ▶ Social capital
 - ▶ Modern attitudes
 - ▶ Knowledge, processes, products
 - ▶ Complementarities, externalities, spillovers
 - ▶ Categories
- 

Schooling and Economic Development as a Nested Process

- ▶ Individual level
 - ▶ Workplace level
 - ▶ Regional level
 - ▶ National level
- 

Individual level

- ▶ There is no better investment people can make than in their own schooling
 - ▶ But, schooling is not a guarantee of economic success
 - ▶ Empirical generalizations are clear, but mechanisms vary across time and space and are often ambiguous (human capital, signalling, credentialism, etc)
- 

Workplace level

- ▶ More educated workplaces are more productive
 - ▶ More educated workers make less educated workers more productive (i.e., positive externalities)
 - ▶ But, for this to happen, workplaces have to be organized and managed intelligently
- 

- ▶ in its microfoundations, economic growth happens when a particular individual applies a particular skill to a particular task in a particular setting
 - ▶ Highly educated dunces can fool employers for a while, but highly educated but stupidly organized firms can't beat the market for long.
 - ▶ Sociologists should have a comparative advantage here, but haven't really exploited that
- 

- ▶ While it is probably true that more educated workers are attracted to more productive workplaces (thus raising the selection problem), the influence of educated workers on the productivity of the less educated is almost certainly largely causal.
- 

Regional level

- ▶ For the most part, more educated regions (cities, states, provinces, etc.) are wealthier than less educated regions
 - ▶ But, the local ecology of businesses, public institutions, networks, infrastructure, and so on has to be in place
- 

- ▶ Here too sociologists have underachieved

- ▶ If schooling leads to growth at the regional level, how might this happen? This is in many ways a more difficult question than the comparable question on the organizational level. At least in a stylized sense, organizations have boundaries in ways that regions do not. Cities blend into metropolitan areas, which in turn blend into states and then into multi-state regions. Counties, school districts, or labor market areas intersect these agglomerations in often haphazard ways. Defining the proper regional unit is crucial, but this is not always fully acknowledged

Two Crucial Points on Regions

- ▶ First, the effects of schooling on economic growth may be more or less localized
 - ▶ The magnitude and scope of any effects depend on the broader ecology – the specific mix of industries, other educational institutions, networks, and demography – of the area.
- 

- ▶ Second, getting the counterfactual right is fundamental. Assessing the effects of an educational institution on a region (keeping in mind that those effects run both ways) demands thinking about what the region would be like in the absence of the institution.
- ▶ Example – University of Montana (Missoula) probably means more to its region than MIT does to its

- ▶ Context makes an enormous difference at the regional level. Strong and supportive networks have to be in place before universities can have their optimal impact on economic growth. Efforts to synthesize and make sense of these regional contextual matters would seem a promising road for sociologists to travel.
- 

National level

- ▶ Empirical evidence is less convincing here because every situation is so different
 - ▶ Still, with all sorts of qualifications, investing in schooling is good for economic growth
 - ▶ But, there is no “one size fits all”
- 

- ▶ Relationship Between Educational Expansion and Economic Growth is Ambiguous and Contingent

- ▶ primary and secondary schooling have stronger effects on economic development than does higher education
 - ▶ economic effects of expanded schooling are stronger for poorer countries
 - ▶ Vocational schooling often has more payoff than does academic education.
 - ▶ greater enrollments in science and engineering positively influence economic development
- 

- ▶ In a sample of 98 countries from 1960–1985, economic growth was more an outcome of the *initial level* of human capital in the society than it was a result of the *expansion* of any level of the educational system.
 - ▶ Having lots of educated people around enhances economic growth
- 

Example of a National Case

- ▶ Russia and Ukraine (1990–2007)
- ▶ Increasing the number of college-educated specialists leads to sustainable economic growth.

- ▶ We can conclude that the relationship between schooling and economic growth is real, strong, and causal
 - ▶ But also contingent and conditional
- 

So Why Should We Worry?



First, schooling produces negative as well as positive externalities

- ▶ Schooling is costly
 - Tuition, fees, etc.
 - Debt
 - Opportunity costs

- ▶ Second, educational expansion may increase wealth, but it may also increase the unequal distribution of that wealth
 - ▶ Schooling can produce winners and losers
- 

- ▶ Evidence from Turkey that the unequal distribution of education has slowed down economic growth, even as schooling has expanded (Gungor 2010)

- ▶ Third, focus on economic outcomes can deflect attention from other important outcomes of schooling

- ▶ Health
 - ▶ Family decisions
 - ▶ Political and civic engagement
 - ▶ Cultural richness
 - ▶ Overall social well-being
- 

- ▶ These various dimensions can establish a “virtuous cycle”
 - ▶ For example, there is evidence from the US that people who have extensive exposure to arts and crafts are more innovative and entrepreneurial (LaMore et al. 2013)
- 

Fourth, economic growth is not the only social value

STEM – why should “manpower needs” trump “scientifically literate population?”

Should STEM be for the elite or the masses?



We need much more research

- ▶ At individual level
 - ▶ How to move students into sustainable and rewarding careers
 - ▶ But without sacrificing their full development and capacities
- 

- ▶ At workplace level
- ▶ How to design workplaces to permit ongoing learning and full utilization of people's skills

- ▶ At regional level
 - ▶ How to build an ecology of schools, colleges and universities, employers, and government
- 

- ▶ At national level
 - ▶ How to align pre-school through life-long learning into a national commitment to skill enhancement, personal growth, and economic and social prosperity
- 

Moving ahead

- ▶ As a development policy, educational expansion has distributional effects as well as productive effects. Can expect winners and losers.

- ▶ Educational policies of any sort have to be coupled with employment and welfare policies.

- ▶ “What works” will vary across settings.

- ▶ We need to think about other things that we value – art, music, civic life, personal development, health, happiness

- ▶ In short, we need a vision of “The Good Society”

▶ Thank you for your attention



Extra slides



- ▶ To ensure social development, productive and creative individuals who are of the information age with advanced thinking, perception and problem solving abilities, who are loyal to Atatürk's principles, believe in democracy and freedom and have absorbed national and spiritual values, open to new ideas, with sense of responsibility, able to contribute to civilization, familiar with scientific and technological usage and production, appreciation for the arts, and have high level of skills will be brought up.



Example of a national case

- ▶ Investing in women's education in Turkey (1975–2000) paid off in provinces where women could move into good jobs, but not in provinces where they could not (Tansel and Gungor 2012)

Turkey

- ▶ “further progress with education reform, from pre-school all the way to the tertiary level and vocational training, is needed to boost growth and bring about employment gains in the formal sector.”

We still need some critical research

- ▶ What if the links between education, productivity, and prosperity and growth aren't what we (and Obama) think they are?
 - ▶ What if universities select on class more than on ability?
 - ▶ What if employers use credentials for prestige more than for skills (or even trainability)?
 - ▶ What if gatekeepers keep talented people out?
- 

- ▶ These processes are probably less prevalent than they once were, but they are operative in some markets.

- ▶ What sociologists can bring to this vast literature is a big canvas that focuses on context, that is, the ecology of education and development. Sociology can pay particular attention to the unexpected consequences of the linkages between schooling and development, and to the mechanisms that instantiate these linkages.
- 