Want to boost U.S. productivity?
Tackle inequality

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A great question of our time: How to boost U.S. productivity and innovation?
A great question of our time:
How to revive the American dream?
The Fading American Dream

People often worry there is a trade-off

To boost productivity, do we need to tolerate higher inequality?

If we focus on projects which improve equity and justice, is that going to cost the economy?

The answer: (mostly) NO
Why reducing inequality can boost productivity

Productivity can be increased by:

- Increasing the rate of innovation & invention
- Having a higher-skilled workforce
- Matching people to the jobs they’re best at

So: we can **boost productivity and innovation** simply by enabling disadvantaged individuals to fulfil their potential
A good shorthand to measure how well we are doing

How well do individuals from poor backgrounds do, relative to those from rich backgrounds?

How well do racial and ethnic minorities do, relative to whites?

The bigger the disparity, the worse we have been at uncovering and realizing people’s potential…

… and so, the bigger productivity gains there are from realizing it
The Connecticut context

Connecticut looks about average for the country as a whole.
The Connecticut context

But upward mobility in parts of Hartford and New Haven is similar to the poorest states: Mississippi, Louisiana
The Connecticut context: one of the richest states - and one of the most unequal

Lots of resources to spare + Lots of opportunities to invest

$2,522,806
Average annual income of the top 1%
What you need to make to be in the top 1%: $700,800

$67,742
Average income of everyone else (the bottom 99%)

37.2x
The top 1% make 37.2 times more than the bottom 99%

Data and chart from Economic Policy Institute (2018)
I. Innovation and inventors
Who becomes an inventor?
Who becomes an inventor?
Factor 1: be good at math

Kids with high 3rd grade math scores are much more likely to go on to be inventors.

From research by Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen (2019)
Chart from Harvard Opportunity Insights (2019)
Who becomes an inventor?  
Factor 2: come from a rich family

But amongst those kids with math talent, it’s mostly the ones from rich families who go on to invent

From research by Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen (2019)
Chart from Harvard Opportunity Insights (2019)
How many “missing Einsteins”?

“If women, minorities, and children from low-income families were to invent at the same rate as white men from high-income families,

the rate of innovation in America would be $4x$ higher”

From research by Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen (2019)
2. Education: early childhood, school, and college
Education: a huge ‘bang for the buck’…

Research suggests that the “internal rate of return” on an extra year of education is 8-11% (this return comes because of higher earnings over a child’s life). Compare this to market investments!

Data on rates of return to government debt, housing, and stocks from Jorda et al (2018), Data on internal rate of return to education from Bhuller et al (2017)
...and even more when we consider the spillovers

For a $1 invested in extra childhood education, or college:

- Benefit to the child → higher earnings as an adult

But also…

- Positive spillovers to family and community
- Increased tax revenue to government
- Reduced expenditure on social programs

→ Hendren and Sprung-Keyser (2019) estimate that for a $1 investment on education, the benefits to the government alone through higher taxes & lower spending are greater than $1!

(even ignoring the benefits to the children themselves, or their families…)
Where do we get ‘bang for the buck’ in education?
Early Childhood

White House Council of Economic Advisers analysis (2014): “expanding early learning initiatives would provide benefits to society of roughly $8.60 for every $1 spent”

Chart from White House Council of Economic Advisers (2014)
Where do we get ‘bang for the buck’ in education? 
School funding

To maximize efficiency, resources should be targeted very heavily towards disadvantaged children. Are they?

Yes, for federal funding – but **often no** for state and local funding

In Connecticut, schools in poor districts receive slightly less state & local funding per pupil than schools in non-poor districts.

*Data and map from* [Baker, Farrie, and Sciarra (2018)](https://example.com)
Where do we get ‘bang for the buck’ in education? College

‘Bang for the buck’ in college education is a function of a few things:

1. **Mobility**: Which colleges do the most to boost mobility for their disadvantaged students?
2. **Access**: Which colleges are accessible to disadvantaged students?
3. **Cost**: How much does an education cost at the college?
Where do we get ‘bang for the buck’ in education?

College

“The colleges with the highest mobility rates have annual instructional expenditures less than $6,500 per student on average, far lower than the $87,000 per student spent on instruction at elite private colleges.”

From research by Raj Chetty, John Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan (2017)
Capital Community College stands out in mobility

Out of all two-year colleges in the country, CCC has students from some of the most disadvantaged backgrounds.

But CCC is in the top 5% of two-year colleges nationwide in terms of the upward mobility of its students.

**Overall mobility index**

This measure reflects both access and outcomes, representing the likelihood that a student at Capital C.C. moved up two or more income quintiles.

33rd out of 600 Two-year colleges

3. Better access to job opportunities
Mass incarceration: a massive waste of human potential

There are **2.2 million people** in prison in the US.
The US imprisons people at a **5x higher rate** than the other developed economies.

Data from [World Prison Brief (2019)](https://www.prisonstudies.org/)
Childcare costs and little or no parental and sick leave make it harder for American women to work.
Legal status for undocumented immigrants would enable millions to access jobs that use their potential.

There are 11 million undocumented individuals in the US. That is approximately 3 out of every 100 people.

**Legal status** for undocumented immigrants would enable:

- Access to better paid jobs & more education
- Better incomes for undocumented immigrants and their families
- Increased productivity through a better use of human potential
- Less under-the-table competition against local workers
- Higher tax revenues
The key point

When people can’t fulfil their potential

-- when they can’t access good jobs or the education, healthcare and support networks needed to thrive in those jobs –

it’s not just justice and equity that lose out.

It’s also the total productivity and prosperity of our nation.

So – if we want to boost productivity, let’s tackle inequality.