Éducation et changement dans les inégalités économiques

Conférence "Statistiques sociales, pauvreté et exclusion sociale"

Thomas Lemieux University of British Columbia

A few motivating facts

- Major rise in labor market inequality in many advanced industrialized countries since about 1980.
- Staggering increase in the concentration of income/earnings at the top (the now famous top 1%) in "english-speaking" countries
- Returns to education have also increased in many countries, including Canada (probably) and the United States (certainly)
- Raises the question of whether these two phenomena are connected?

Plan of the talk

- Given all the recent talk about the "top 1%", I will first show a few facts about the evolution of top income shares based on tax data that have been at the forefront of the recent developments (Occupy Wall Street, etc.)
- I will then switch to standard micro data (census, LFS/CPS) to show that a similar phenomena can be observed there for both Canada and the United States
- Finally I will show the evolution in the earnings gap between more and less educated workers (i.e. the "return" to education) to see whether this can account for some of the increase in inequality

Top incomes: tax data

- Advantage:
 - Long and comparable series for a large number of countries
 - Not affected by top-coding
- Disadvantages:
 - Typically no micro data with rich covariates available: test of hypotheses based on cross-country or cross-time differences only.
 - For instance, we cannot look at the role of education using these data
 - Does not historically cover the whole workforce (explains the focus on "top incomes")
 - Overall measure of earning or income: mixes wage rates and hours of work

The top 0.01%

Morgan Stanley's John Mack





Citigroup's Pandit, Prince, and Rubin



Merrill Lynch's Thain and O'Neal





A.I.G.'s Edward Liddy and Martin Sullivan

Goldman Sachs's Lloyd Blankfein

A. Top 0.1% income share in English Speaking Countries



Source, Piketty and Saez, AER May 2006



B. Top 0.1% income share in France and Japan

Source: Piketty and Saez, AER May 2006



FIGURE 10.

Top 0.1% Income Shares in Anglo-Saxon Advanced Countries Source: Alvaredo and Piketty, 2008



FIGURE 11.

Top 0.1% Income Shares in Continental Europe and Japan

Source: Alvaredo and Piketty, 2008

Switching to micro data

- United States: Wage data from the outgoing rotation group (ORG) supplement of the Current Population Survey CPS.
 - Available since 1979 (1973 in May Supplement) and contains a wealth of information on socio-economic characteristics of workers
- More difficult to get comparable data over time for Canada
 - SCF was used in the past but was discontinued in the 1990s.
 Coding of education also changes in the late 1980s.
 - SLID has replaced it but issues about comparability
 - We now have data similar to the ORG supplement in the LFS, but only since 1997
- I will thus focus on the census (long form) that asked the exact same questions on earnings and education between 1981 and 2001.
 - I will also used the 2006 data despite differences in the coding of education and earnings collection (tax data)

Whole wage distribution

- A simple way of summarizing changes in the wage distribution is to plot the changes in (real log) wages at each percentile of the wages distribution
 - Can think of those as percentage changes
- If only the "top 1%" was doing well while the "other 99%" were equally losing ground, we should see a flat function up to the 99th percentile and then a huge jump at the very top

Change in Real Wages by Percentile, U.S. Males



Source: Lemieux, Journal of Population Economics, 2008





-

Education wages gaps in Canada and the United States

- Look at specific wage differentials from the Census
 - Wages measured as weekly earnings of full-time workers
 - Mostly from Boudarbat, Lemieux, and Riddell 2010 (CPP)
- Similar numbers for the U.S. for the ORG CPS
- Also present the evolution in the variance of (log wages).
 Sum of two components:
 - Within-group variance (wage dispersion within workers with the same age, gender, and education)
 - Between-group variance (wage inequality due to differences in average wages for difference age-education-gender groups)
 - Changes in returns to education will only affect the betweeengroup component

Education Wage Differentials Relative to High School Graduates, U.S. Men



Source: Lemieux, Journal of Population Economics, 2008

Figure 1b: Regression-Adjusted Wage Gap in Log Weekly Earnings of Full-time Men (Relative to High School Graduates)



Figure 1d: Regression-adjusted Wage Gap in Log Weekly Earnings of Full-time Women (Relative to High School Graduates)



Appendix Figure 2a: BA-High School Wage Gap by Experience Group, Men



Appendix Figure 2b: BA-High School Wage Gap by Experience Group, Women



Figure 3a: Between- and Within-Group Variance of Log Weekly Earnings of Full-time Men



Figure 3b: Between- and Within-Group Variance of Log Weekly Earnings of Full-time Women



Education differentials: summary

- Relative wages of more educated workers going up
 - Particularly striking increase for young university graduates
- Suggests a strong demand for young college and university graduates, despite increasing supply
- But most of the change is happening within groups, suggesting that growing education differentials are not a big part of the inequality story in Canada.
- Quite different from the U.S. situation where the growth in education wage differentials plays a sizable role in inequality growth, especially at the top

If not education, then what may

explain the growth in inequality?

- Overall labor market
 - More nuanced version of skilled-biased technological change (SBTC), based on routine vs skilled tasks (Autor, Levy, and Murnane, 2004)
 - Institutions: unionization, minimum wage, deregulation, etc.
 - Compensation structure: performance pay.
 - Globalization / offshoring
- The very top (CEOs)
 - Market explanation (Gabaix and Landier, QJE 2008). Managerial skills becoming more general => more competition.
 - Social norms / institutions (Piketty and Saez)
 - Governance: Executives better at setting their own pay (Bebchuk, Bertrand and Mullainathan)
 - Taxes (Piketty and Saez)

The big puzzle: why has inequality changed so differently in different countries?

- As we saw with tax data, there is a large increase in top income shares / inequality in "english-speaking" countries.
- But almost nothing has happened in other rich countries (Continental Europe and Japan)
- We quickly run out of economic-based explanations since the same global economic factors (globalization, technological change, etc.) are affected these different countries
- Social norms and pay-setting institutions are appealing, but hard to test, alternative explanations

THANK YOU!