



Demographic and Non-demographic Challenges to Education Systems

Martin Kreidl

To be presented at the 8th international post-graduate course “Challenges of Europe”, Inter University Center Dubrovnik, April 16-20, 2012

Overview

- (In)equality and exclusion in education
- Education as a stratification variable
- Trends and cross-national differences in education inequality
- The role of education systems
 - Tracking, financing, and central exams
- Challenges...

Equity in education

- 2 approaches
 - **Fairness**: personal and social circumstances such as gender, SES, ethnicity, and migration background shall not influence the odds of success in education
 - **Inclusion**: implies a minimum standard of education for all

Both relate to the general topic of this course (exclusion), I emphasize **the former** (fairness)

What matters for equity in education?

- **Design of the system**
- **Financing**
- Practices

Background: the role of education in modern stratification

- Classical statement: Blau & Duncan (1967)
- Education plays a dual role
 - Main avenue of intergenerational mobility
 - Main instrument of intergenerational status inheritance

The basic stratification model

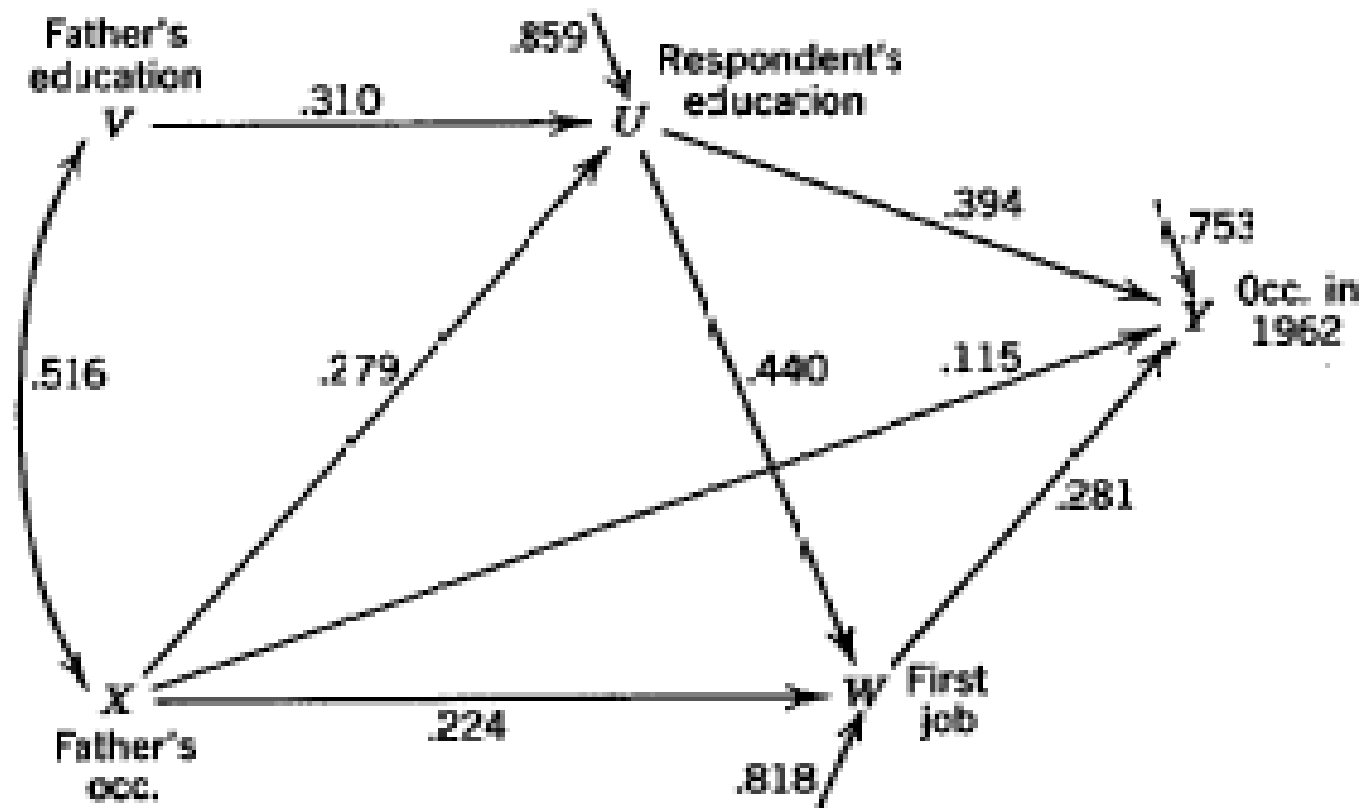


Figure 5.1. Path coefficients in basic model of the process of stratification.

Key questions of stratification

- Is the role of education stable over time?
- Is the role of education identical across societies?
- Does the role of education depend on the institutional context?

Today

- I focus on inequality of education opportunity (i.e. **inequality in access to education**)
- I leave consequences of education aside
- This leaves us with
 - Is inequality in access to education stable over time?
 - Does it differ across institutional contexts?

Extensions of the basic model – dimensions of inequality

- Post-Blau & Duncan: Expanding the set of explanatory variables to include along with father's education and occupation
 - Family size (number of siblings)
 - Gender
 - Family structure (intact vs. non-intact)
 - Migration
 - Cohort

Empirical answers - Stability over time

- Moderate amount of evidence – access to education tends to become **somewhat more equal**
 - Significantly declining gender inequality
 - Declining inequality with respect to parental education and occupation
 - Primarily at the lower levels of education
 - Equality is achieved when demand is saturated

Stability over time, cntd.

- Primary source of change – **educational expansion**
 - Sweden, Netherlands, Germany, Italy, USA...(growing equality is possible across systems)
- Persistent inequality within levels of education (field of study, prestigious tracks,...)
- Effects of reforms – limited and short-lived (if any)
 - China during Cultural revolution, CEE in the 1950s

Stability over time, cntd.

- Reversal of the long-term trend is possible (Lucas 1996)
- E.g. 1980s in the U.S.
 - Tuitions rose, public support for higher education declined
 - The importance of social background for college entry increased

Empirical answers - cross-national comparisons

- Crucial **dimensions** of the education systems
 - Extent of tracking (ability grouping at school level)
 - Existence of dead ends
 - Second chances
 - Tuition and fees
 - Centrally administered school leaving examinations

Differentiation across systems

- Some systems are more **conducive of equality**
 - I will consider examples later
- More equality can be achieved in **all systems**

What aspects of education systems receive most research attention?

Tracking

- Parallel streams/**types of education**, mostly at secondary levels
 - Differences in curricula, final qualifications, different expectations to transit to the next level
 - Typically: academic tracks, vocational tracks,...

May begin as early as age 12

Consequences of tracking for inequality

- Systems with high horizontal differentiation tend to be **more unequal**
 - There is higher association between the characteristics of the family of origin and school outcomes
- **Early tracking produces more inequality**
 - Early decisions are typically more strongly influenced by the parents (life-course change)

School choice

- Risk to equity if parents are given too much freedom to exploit choice
 - Better educated parents make shrewder choices
- Typically results in **increased differences** in school composition between schools

How tracking influences school outcomes?

- Through **teaching** and **learning** environments and practices
 - Curriculum, teacher quality, teaching resources
 - Peer-effects
- e.g. PISA: school composition is strongly related to individual outcomes event net of students' individual (and family) characteristics
- Existence of **positive role-models** most important
- Tracking **positively influences** the performance of the top decile of students and **negatively** of everyone else

Dead ends in the system

- Choices that have no (obvious) follow up school continuation options
- Lead one out of the school system
- Typically exist in highly tracked and selective systems
 - Vocational training leading “only” to a job
- Associated with **higher levels of inequality**

Second chances

- let someone enroll even without possessing formal prerequisites
 - Recognition of job experience as an equivalent of formal training
 - Other ways of obtaining credentials: GED, ...

A productive way of overcoming dead ends

other: **adult learning**

Typically – a combination of both

Tuition and fees

- Complex effects on equity (Shavit, Arum, Gamoran 2007)
 - A set of direct and indirect influences
 - **Indirect**
 - More private funding -> higher attendance rates
 - Higher attendance rates -> less inequality
 - **Direct:** higher private funding -> more inequality (net of attendance rate)
- overall: these **cancel out** to produce **no total effect**

Centrally administered exams

- Play an important role to **enhance equity** in tracked education systems
- Function to **reduce the association between parental statuses and school outcomes**
- Keep schools **accountable**

Challenges to education systems

Demographic challenges

- Raising **divorce rates** -> raising share of disadvantaged kids
- Declining **fertility** -> raising aspirations and thus raising competition (and inequality)
- Growing **economic segregation** -> perpetuates inequality
- Growing **immigration** -> larger shares of disadvantaged kids

Non-demographic challenges

- Funding – **budget cuts** reduce supply of education, may produce increasing inequality
- Growing **economic inequality**

Think about equity and education systems

- Ideally
 - Limit **tracking** (particularly early tracking)
 - Limit the influence of parents over **school choice**
 - Have oversubscribed schools hold a lottery
 - Combine tracking with **centrally administered exams**

Thinking...

- **Remove dead ends** within the system
- Provide **second chances**
- **Tuition and fees** (if paid) need to complement (not replace) the funding from the state
 - Must be used to increase enrollments