The effect of school and peers on dropout behavior

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Crest, Paris Schools of Economics and J-PAL

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Barcelona, June 27, 2013
The dropout problem

Youth Unemployment by Education, in France

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- pink: dropouts
- purple: high-school
- cyan: college
Two views on dropout

Optimal dropout models: this is the right decision given circumstances
- Lack of ability
- Low labor market return
- Low consumption value of education
- Low motivation

Non-optimal behavior: this is an underinformed decision
- Liquidity constraints
- Future benefits of education ignored or too heavily discounted
- Peer influence/imitation
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Two reasons to believe it is underinformed

1. Track choice at the end of 9th grade (middle school) is a complex decision.
2. Options accessible to poor performing students seem to dominate dropout.

Unemployment rate: dropout 42% vs. 2 year vocational 21%

High returns to schooling even at low levels.
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Two meetings between school principal and parents of low performing students

Identify target students in all classes, then randomize classes

Significant impacts on dropout and grade repetition
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Significant impacts on dropout and grade repetition
General research context

Importance of parental involvement (a neglected input in education literature and policy)

Strong effects on behavior of a parents meeting program in a 6th grade program

Significant peer effects

Randomized control trials

Robust and transparent evidence on (in)efficient policies

Experimental Founds for the Youth (150 million euros - but only a minority RCT)

Teaching methods, school boards - also labor market policies
General research context

- Importance of parental involvement (a neglected input in education literature and policy)
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1. The experiment
Institutional context

At the end of 9th grade, 6 possible track choices:

Within National Education:
1. Grade repetition (middle school)
2. High school, 3-year academic programme
3. High school, 3-year vocational programme
4. High school, 2-year vocational programme

Outside National Education:
1. Apprenticeship (either 2-year or 3-year vocational programme)
2. Dropout

Vocational system is complex:
- In district, 64 possible 3-year school programmes
- 46 possible 2-year school programmes
- About 300 apprenticeship training centers
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Application process

Make irreversible choice under incomplete information

- Incomplete information on existing tracks
- Poor knowledge of assignment rules
- Distorted perception of potential benefits and difficulty
- Overwhelming influence of peers ideas, choices, norms

Process

Schools decide who can be admitted to 3-year academic
If not admitted students can ask to repeat or apply to vocational education
List up to 4 choices of vocational education track
Centralized assignment system assigns as many students as possible to their choices
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Design

37 volunteer schools in deprived Paris neighborhoods
Principal selects students at risk of dropping out
avg. mark: 9.4/20
54.5% has repeated a grade
32.2% scholarship beneficiaries
Randomize half of the classes to enter the program
Two group meetings with selected parents (10 families on average)
Understand complexity of choice set
Understand extent of choice set
Understand assignment procedure and strategy
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Timeframe

Selection of students + Randomization

Meetings

Applications

Year 0 (2010-2011)

Year 1

Year 2

Status year 1

Status year 2
Design

Test classes

Selected

Non selected

Control classes

Selected

Non selected

Main Comparison

Comparison
2. Main findings
## Parental attitude (selected students)

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Choice and assignment outcomes (selected students)

- Less repetition, more 2-y vocational
- Specifically less popular tracks
- Confirms lower repetition and higher vocational
- Reduces dropout rate, increases apprenticeship
- Increases proportion assigned to one of their choices

- Year 2 status
- Is the former outcome beneficial? (or postpones dropout?)
- Confirm success in vocational education and lower dropout
Choice and assignment outcomes (selected students)

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*first year completed*

Starting 1st year

- Apprenticeship
- Dropout
Choice and assignment outcomes (selected students)

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Concluding remarks

- Choice complexity: a source of dropout and repetition
- Simple program facilitated by the principal can change behavior significantly
- Network results consistent with principal acting as an antidote against peer pressure: move towards optimal decision
- Strength of RCT to convey such message...