The role of Iran’s education system in human capital formation

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Basic questions

• Does education improve labor market outcomes?
  ■ Probability of employment?
  ■ Earnings?
• Is Iran’s education system effective in enhancing skills?
• What are potential barriers to skill formation?
• What is the role of labor and education institutions?
Outline

Introduction

Stylized Facts

Conceptual Framework

Higher Education

TVE

Reform policies
By and large Iran was successful in increasing educational attainment.
Even in a regional and global context

![Graph showing the relationship between average years of schooling and GDP per capita. The graph includes a scatter plot with fitted values and confidence intervals.]
But achievement is lower than global average (500), and lower deciles are falling behind

Table: Changes in TIMSS Math and Science Scores, 1995-2015

<table>
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<th></th>
<th>Average</th>
<th>p10</th>
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<th>p50</th>
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Labor market outcomes also disappointing:
High and rising unemployment of educated workers

*HS_Academic= Diploma in Humanities, Experimental and Mathematics
Declining share of public sector employment

*Note: Private sector contains employers, self-employed, family workers and cooperative sector*
Convexity of returns to education

All Sample Years

Coefficient of years of education (%) vs. Years of education for different education levels.
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Reform policies
A simple conceptual framework

How should we think about the process of human capital accumulation? Is there a model that could explain the stylized facts?

- Interaction of markets for *Education* and *Labor*
- Actors
  - Individuals: How much to invest in human capital?
  - Employers: What types of skills to demand and how to reward them?
  - Educational institutions: What types of skills to supply?
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Ideally signals sent from employers to individuals and educational institutions coordinate actions. Educational institutions amplify labor market signals.
Presence of market failures

- Externalities: mostly in basic education.

- Imperfect information:
  - Employers have imperfect information about ability and skills of workers.
  - Education as a signal of innate ability.
  - On-the-job training and screening.
  - Workers lack knowledge of how education affects their employment prospects.

- Credit constraints: poor individuals cannot borrow to invest in human capital.

All these justify state intervention in both markets not just to alleviate market failures but also to increase equity and social mobility.
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State intervention in education and labor markets in Iran

- State-led expansion of primary and secondary formal education.
  - Free with near universal access at primary stage.
  - Increasing role for private schools.

- State-led expansion of higher education.
  - Good quality free public universities coexist with lower quality private universities.

- Historically the government was the main employer of graduates.
  - Well-paid, secure jobs offered to those with "acceptable credentials".

- A mandate to protect workers resulted in rigid labor regulations.
  - Employers put greater weight on ex ante signals of quality: credentials.
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- Government response to this was/is
  1. Expand higher education.
  2. Track out less able students to non-academic routes.
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The heavy weight of state in higher education

- Sluggish labor demand from the public sector increased market tightness for university graduates.
  - Raised the bar in employment, ratcheting up demand to M.Sc. and Ph.D. → further expansion of higher education.
  - Competitive recruitment examinations!

- Leading universities are public and hence have poor incentives to engage with employers and almost all lack a career service unit!
- Radical expansion of B.Sc. and later M.Sc. resulted in a) deterioration quality, b) entry of less able students, c) higher reservation wages.
- Resources needed to survive in this competition is a killer of social mobility.
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Intense competition to enter university
Sharp increase in higher education
Followed by sharp increase in post-graduate degrees
Expansion mainly coming from new and private universities
A gentle rise in student to staff ratio in universities
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Technical and Vocational Education

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- Poor career guidance and de facto selection based on academic record (not aptitude and interest) reinforce employer perceptions that TVE graduates are less able and less motivated.
- Most TVE graduates work in micro enterprises or remain self-employed. This reduces returns and job security.
The work place

- Public sector labour demand has been sluggish.
- Self-employment and micro enterprises are responsible for the bulk of new jobs.
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- Self-employment and micro enterprises are responsible for the bulk of new jobs.
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- SMEs and larger enterprises are better off investing in rent-seeking than in establishing links with education entities.
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Reform policies
Coordinated education and labor market reform policies

- Create a coherent skill quality assurance system to improve information flows between employers and workers.
- Rank schools and universities according to job placement to create competition and better responsiveness to market signals.
- Pull out current form of government funding and move towards a pupil-linked funding format: school vouchers and student loans are some examples.
- Add a wider range of skills to concour: writing and listening.
- Removing numerical grades for the first four levels was in the right direction but the recent restructuring was not aimed at the right issues.
- Rigid labor laws weaken the signals sent from private employers to students and educational institutions.
Key questions to be answered

- What should the government do to promote employment of TVE and high school graduates? INSTEAD of What should the government do about high unemployment rate of graduates?
- How to deal with the current stock of graduates not to distort incentives for future students? Do not give priority to higher education over high school or TVE graduates.
- What is the best way to guide students to careers that suit them best?