Quality of Education in Mexico

Determinants of Learning and Impact Evaluations

Harry Anthony Patrinos
Phase I
Determinants of Learning
Key Findings from PISA 2003: Positive factors (1)

- Homework
- Interest in topics
- Student perceives good relationship with teacher
- Student thinks math and science is important
- Mother’s level education
- Educational resources at home
Key Findings from PISA 2003: Positive Factors (2)

- Private schools
- More female students
- Localization (urban/rural)
- Good student-teacher relations
- Highly motivated teachers
- Behavior of teachers & school climate
Key Findings from PISA 2003: Negative Factors

- Memorization
- Mother’s employment
- Number of siblings
- High student/teacher ratios
First Phase
Recommendations

● Autonomy
  – Schools can execute the appropriate educational policies

● Accountability
  – Motivate more active participation of parents

● Evaluation
  – Continuous evaluation & participation in international tests
Phase II
Program Evaluations
Mexico’s Compensatory Programs

- Supply-side intervention started in 1991
- Managed by SEP, implemented by CONAFE
- Channel resources to the worst performing schools:
  - Reach the most disadvantaged
  - Reduce schooling inequalities
- Increase schooling availability and school quality
- Fine targeting of rural areas according to marginality
- Since 1991 program has evolved targets & interventions
Compensatory Interventions

- Learning Materials Provision:
  - Provision of school and student supplies
- Teacher Training
- AGEs (*Programa de Apoyo a la Gestión Escolar*, or School Management Support Program):
  - Monetary incentives to increase parental involvement in school management
    - Parental Associations exist by law
- Other interventions (not evaluated):
  - Improved technology and infrastructure
  - Teacher monetary incentives
Program is Low-cost

- $50/student
  - Compare to $477 to $527 middle school
Oportunidades/Compensatory

- Oportunidades’ positive impacts:
  - Dropout
  - Repetition
  - Failure

- Compensatory education on own do not have a large impact

- Effect of empowering parents’ associations (AGEs) on educational outcomes is likely to persist even after controlling for Oportunidades

- AGEs empower parents and the increased school participation motivates parents and teachers to focus on weaker students
AGEs

- Support & finance training for Parents Associations (APFs)
- Parents trained in school management of funds transferred to APFs, participatory skills, information on achievements of students & ways parents can help improve learning
- Financial support to AGEs consists of annual grants transferred quarterly to APFs’ school accounts, from $500-$700 a year
- Form of School-Based Management (SBM)
Figure 2: Failure Rate Trends

AGEs vs. Non-AGEs Schools

- **Failure Rate**
- **Year**
- **AGEs Treatment**
- **AGEs Control**
Figure 3: Repetition Rate Trends

AGEs vs. Non-AGEs Schools

![Graph showing repetition rate trends from 1995 to 2001 for AGEs Treatment and AGEs Control groups. The graph illustrates a downward trend in repetition rates over time, with a notable increase in 1997 followed by a decrease.]
Figure 4: Drop Out Rate Trends
AGEs vs. Non-AGEs Schools
Impact of AGEs

Figure D: Estimated Percentage Effect on Failure, Repetition and Drop Out Rates. Sub-Sample of All General Rural Schools
Programa Escuelas de Calidad, PEC

- PEC reduced dropout, failure and repetition rates
- But differences, after 3 years, not yet significant
- PEC improves school climate, correlated with test scores
- Bigger impact in marginal schools
- Only 2 years, given AGEs experience, will take time to see significant results, but will see results
Compensatory Programs

Positive impact on:
- Primary school math outcomes
- Secondary school reading outcomes
- Equity (less dispersion in test scores within supported schools)
- Test scores for indigenous students (in supported schools)
AGEs Benefits

Strength of Evidence
- Participation
- Transparency
- Reduced repetition
- Reduced dropout
- Cost-effectiveness
- Sustainability
New Study on Educational Institutions

State-level analysis:
- Includes variables on decentralization, participation, the use of evaluation, the impact of unions
- Decentralization: administrative and pedagogical
- Participation: high, medium and low
- Evaluation: Any, Use of results, Feedback, Strategy formulation
- Unions: the power to assign teachers and levels of conflict
# State Actions as Determinants of Student Learning

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Average PISA Math Score by Teacher Wage and Union-State Conflict

Score

Conflict-Wage status

Low-Low: 383
Low-Medium: 391
Low-High: 410
Medium-Low: 382
Medium-Medium: 385
Medium-High: 377
High-Medium: 351
High-High: 346
Conclusions

- States can influence results
- Institutions are important
  - Priority: accountability systems at state level
- Experiment with more school autonomy
- Expand parental participation & school-based management
  - But evaluate pilots
- Experiment with combined conditional cash transfers (with quality incentive) & school-based management
  - But evaluate pilots
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