

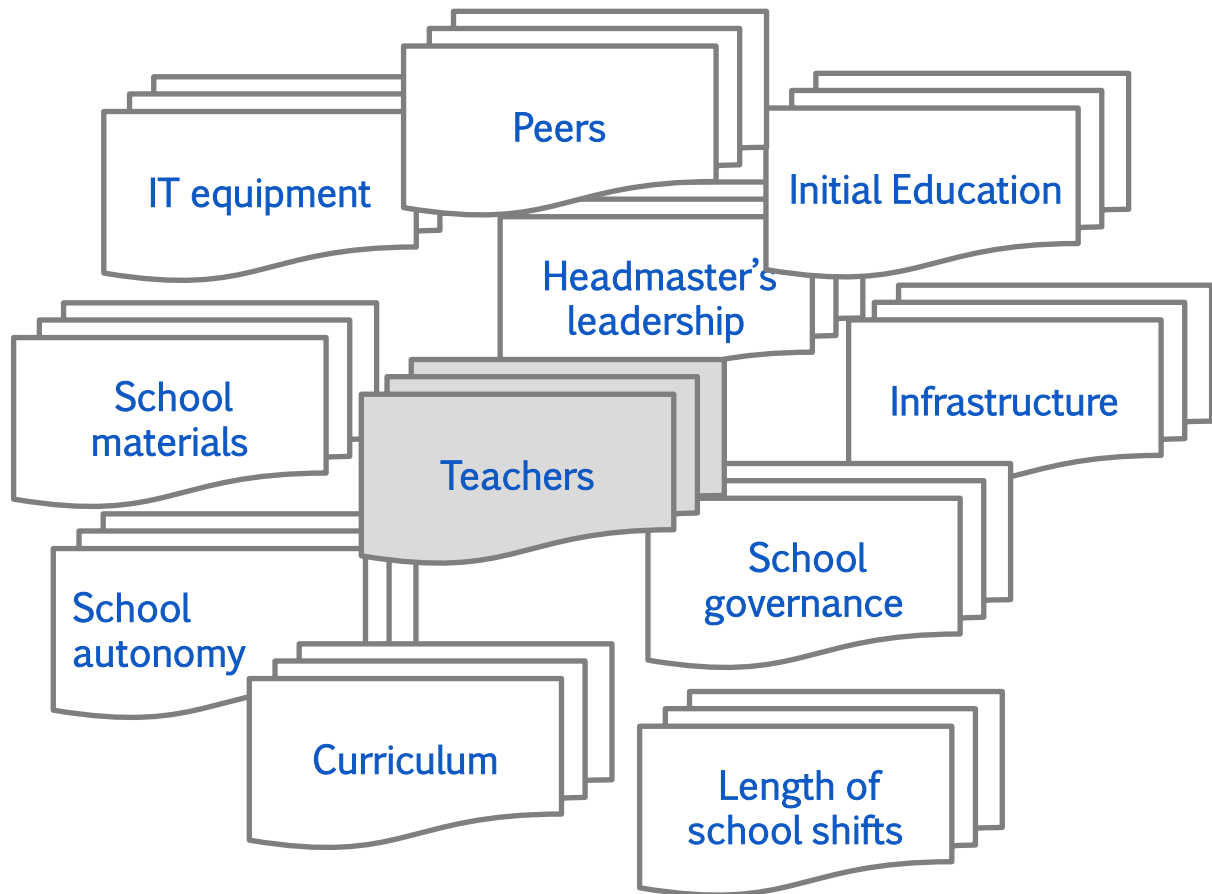
Enhancing education outcomes: Pursuing excellence in the teaching profession

Catherine Rodríguez, Universidad de los Andes

17th GDN Annual Global Development
Conference

Lima, Peru, March 2016

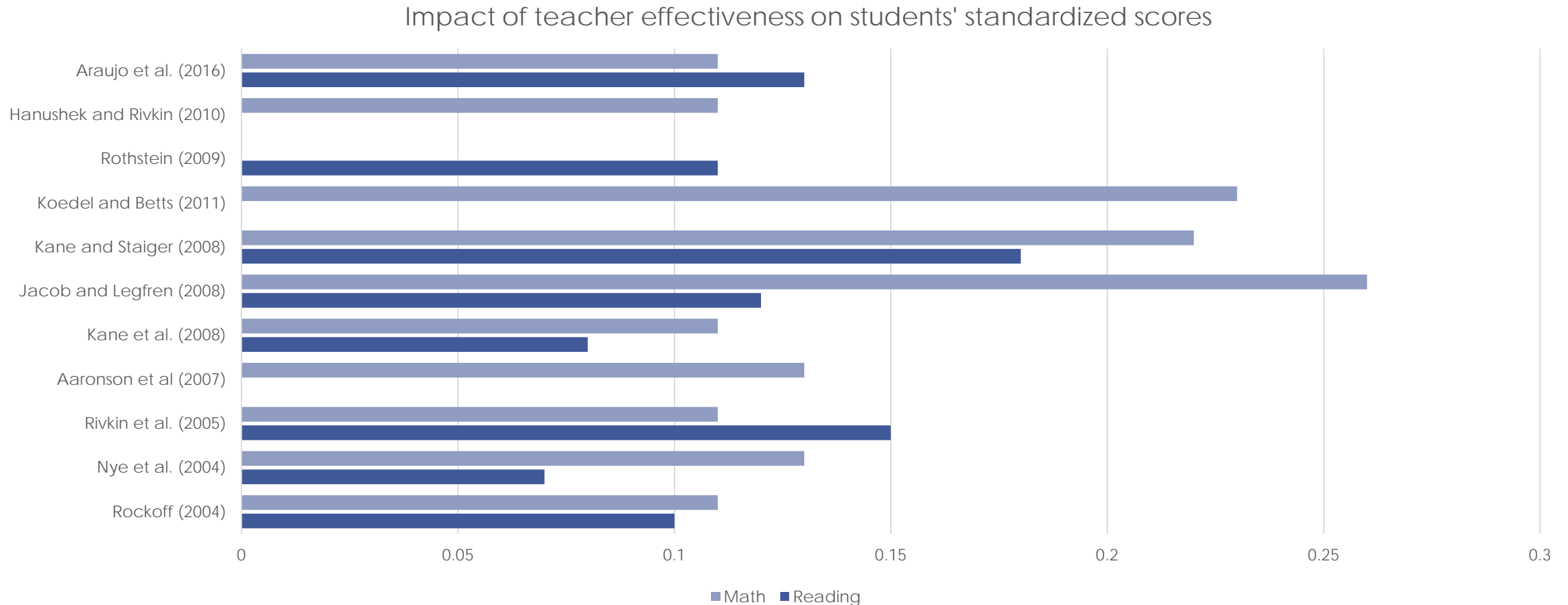
Education quality depends on numerous school inputs:



Recent meta analysis results consistently show that interventions related with teachers (presence, subject knowledge, pedagogical skills, incentives) are among the most effective ones.

(Evans and Popova (2015), McEwan (2015), Glewwe et al. (2014), Murnane and Ganimian (2014), Conn (2014))

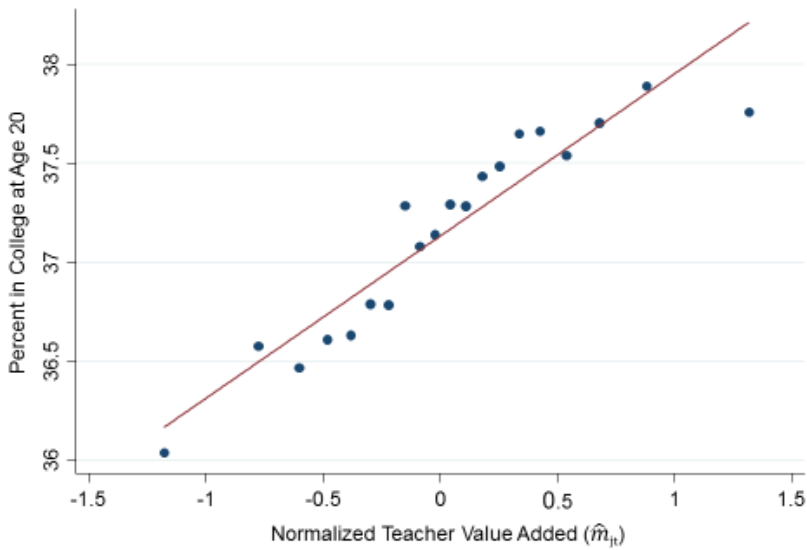
Through VA estimations the impact of teachers on scholastic achievement has been established.



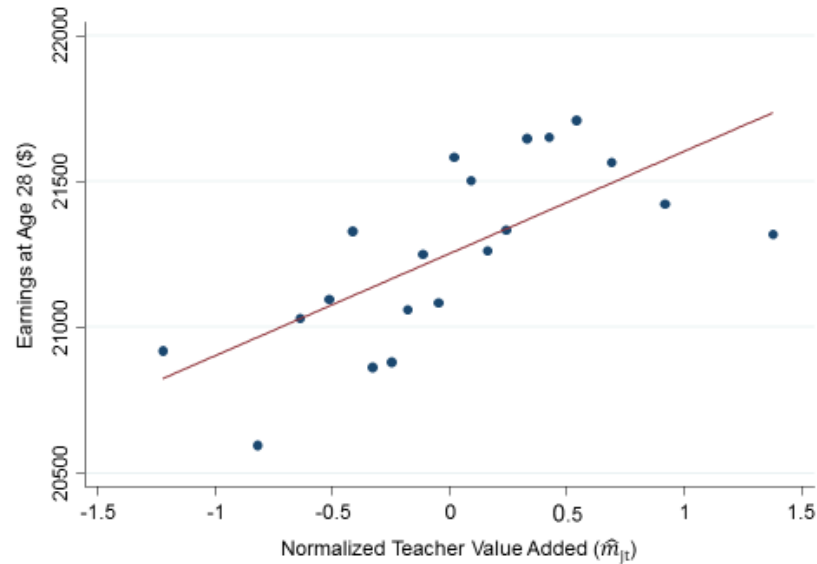
Source: Hanushek and Rivkin (2010), Araujo et al. (2016)

Chetty et al. (2014) estimate the long term impact of good teachers

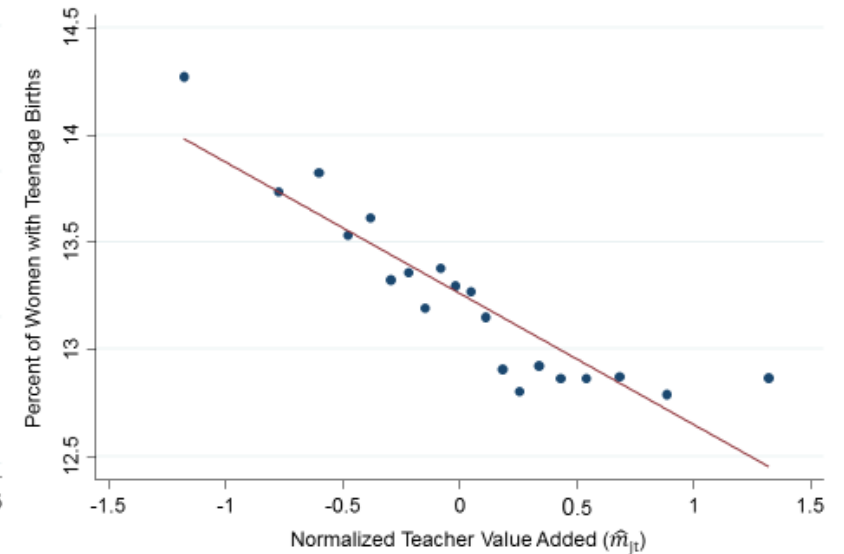
College Attendance at Age 20 vs. Teacher Value-Added



Earnings at Age 28 vs. Teacher Value-Added



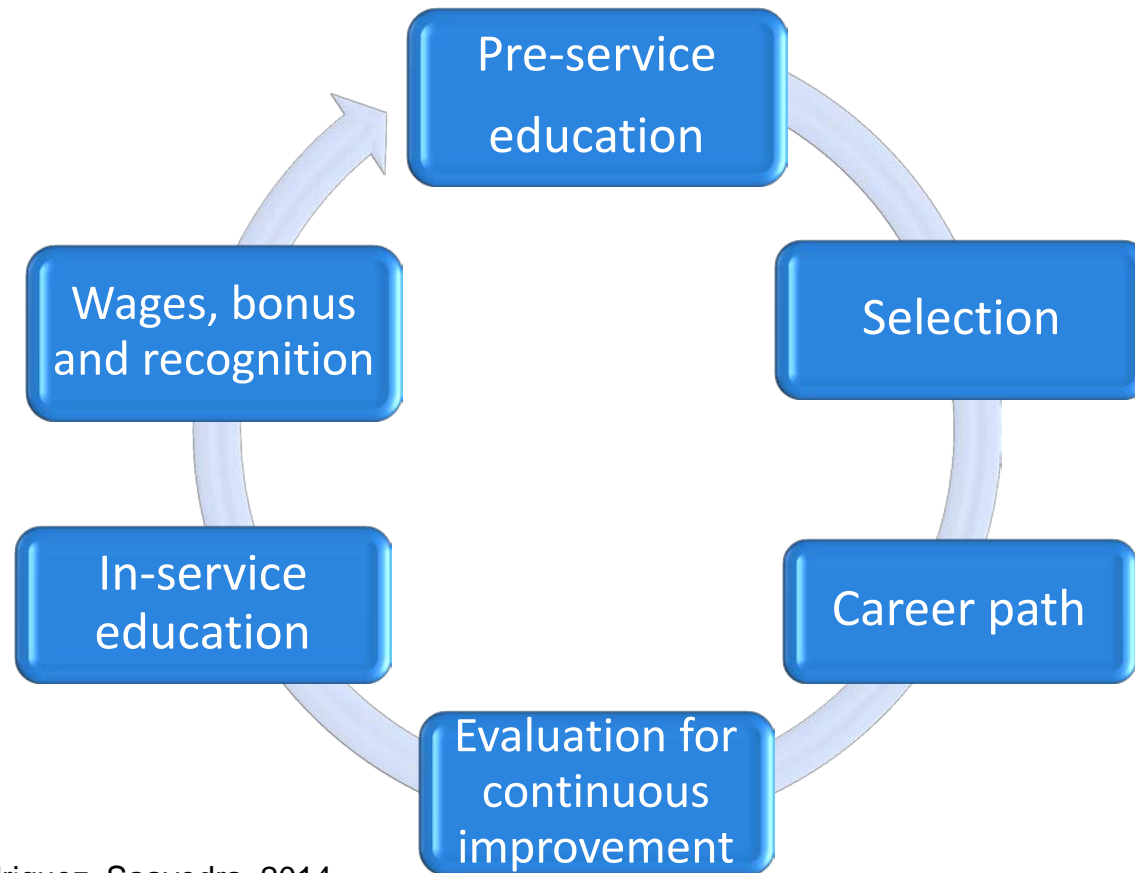
Women with Teenage Births vs. Teacher Value-Added



Policy question:

- Given teachers importance, how can we achieve excellence in the profession?
- There **does not exist a unique policy** around teachers that is both **desirable** and **possible** to implement in every country or context.
- Yet, research has shown that there are **common characteristics** that are desirable along the teachers' career path and countries should seek to implement.

Achieving excellence in the teaching profession requires a systemic approach in six career phases



Source: Garcia, Maldonado, Perry, Rodriguez, Saavedra, 2014.

1. Pre-service education

- Provides the tools to:
 - Master content
 - Master best teaching practices.

Why is it important?

High quality education systems

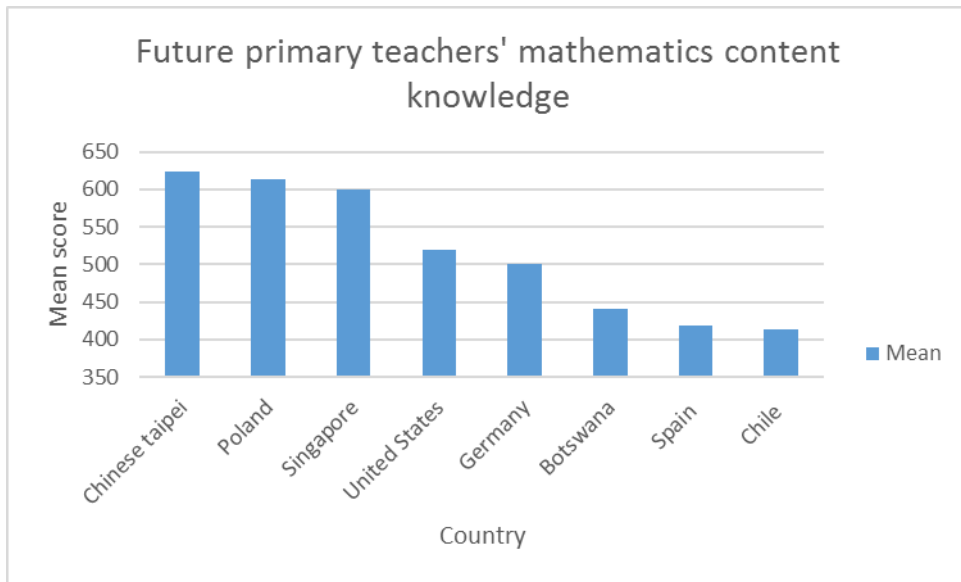
- Few academic programs with an homogeneous high quality curriculum.
- Research and practice are central features.

- **Numerous non homogeneous programs** (i.e.: 400 in Colombia, 900 in Chile).
- **No research** and almost **no practice** in teaching programs.

Latin America

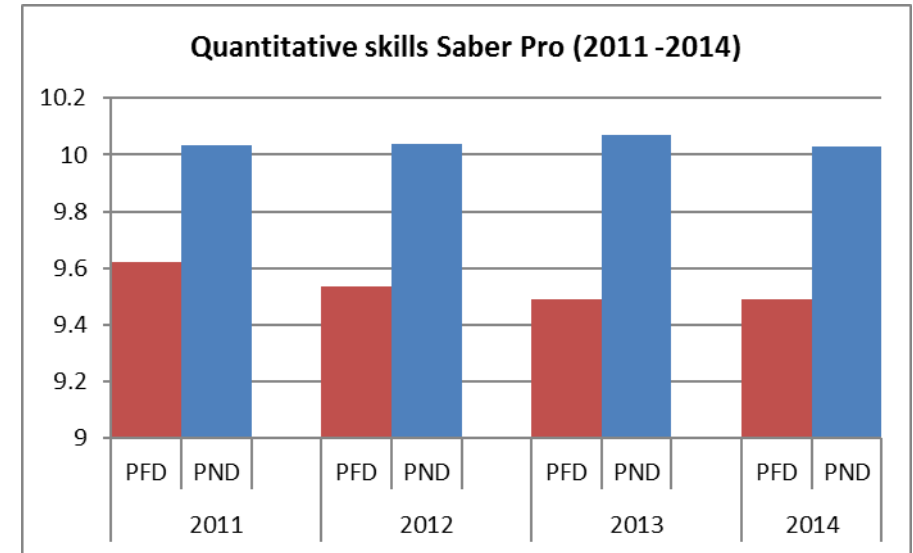
Consequences Low content mastery

Low standards when compared with other countries



Source: TEDS-M, 2008

Low standards in within country comparisons (Teacher programs (red) vs. other professions (blue)).



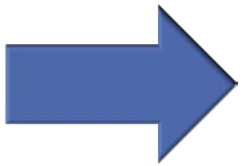
Source: Garcia et al, 2016.

Pre-service education: Policy recommendations

- Investments should flow to these programs in order to improve their quality:
 - Chile: Fortalecimiento de la Formación Inicial Docente, MECESUPs, INICIA
- Homogenization of teaching programs:
 - Ecuador: following Singapore created the Universidad Nacional de la Educación and closed 14 poor quality institutions.
 - Brazil: PARFOR search to incorporate minimum standard in education programs.
 - Uruguay: Plan 2008
 - Peru: in progress
- Accreditation process:
 - Strengthen the requisites to have an accredited program: Colombia: 2015

2. Selection

- In high quality systems:
 - Most able individuals enter teaching programs;
 - Highly competitive entrance;
 - Number of candidates accepted depends on future demand of teachers.
- In Latin America:
 - Students have low scores in national standardized tests (Colombia, Chile)
 - Students come from less educated households.



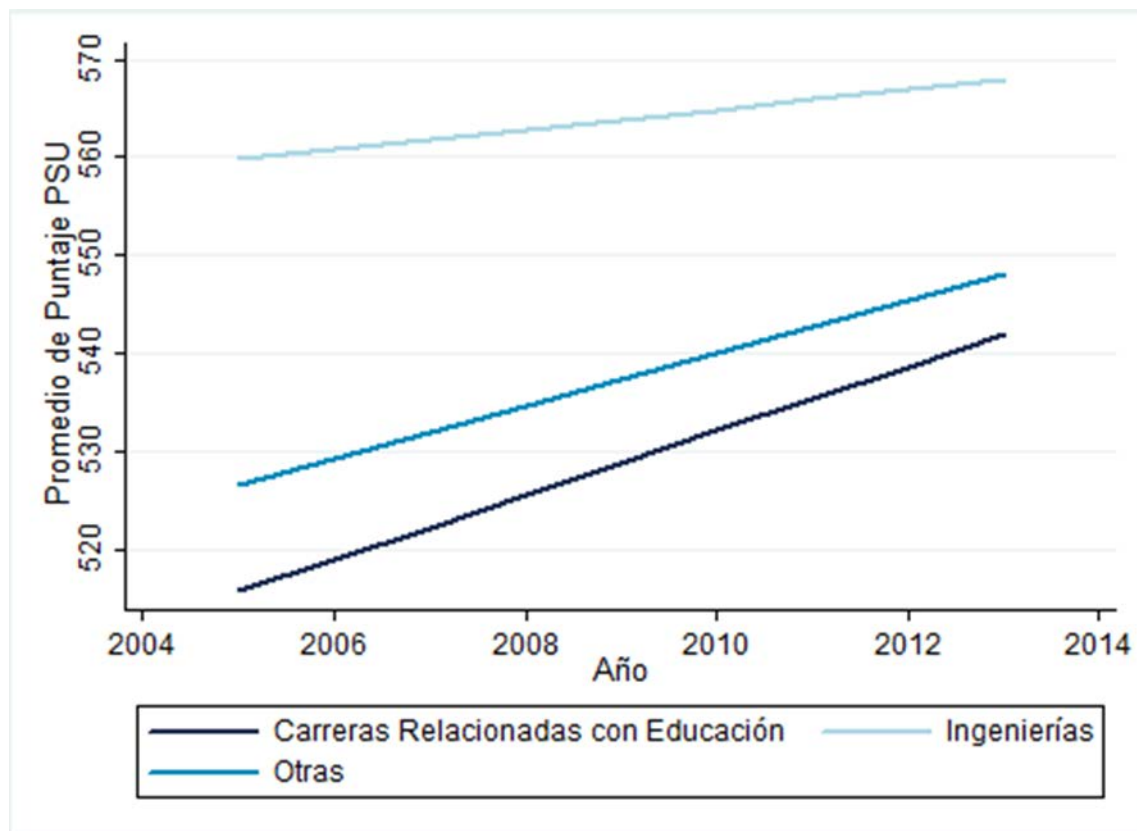
Lower skills in teachers have a causal negative impact on student performance (Hanushek et al., 2014)

Policy recommendations for selection and some positive examples for the region:

- Comprehensive policy across the different phases of the career.
- Specific policies:
 - Funding the costs of undergraduate education for teachers:
 - Chile, Ecuador, Colombia (Ser Pilo Paga Docente)
 - Higher requirements to enter an education program and the career.
 - Chile: INICIA (voluntary), Brazil (for the Federal system), Colombia (Concurso Docente), México (Concurso Nacional de Asignación de plazas docentes); Dominican Republic (Concurso de Oposición); El Salvador (Evaluación de competencias académicas y pedagógicas); Peru (Concurso Docente)
- Large media campaigns that highlights the importance of being a teacher:
 - Chile, Dominican Republic, Ecuador

Progress is possible

PSU scores of prospective students



Source: Rodriguez, 2015

- In Chile:
 - Average number of applications in education programs have increased.
 - This has also increased selection criteria and PSU average scores of students.
- BUT average scores for future teachers remain lower than those from students who select other professions.

3. Clear career path

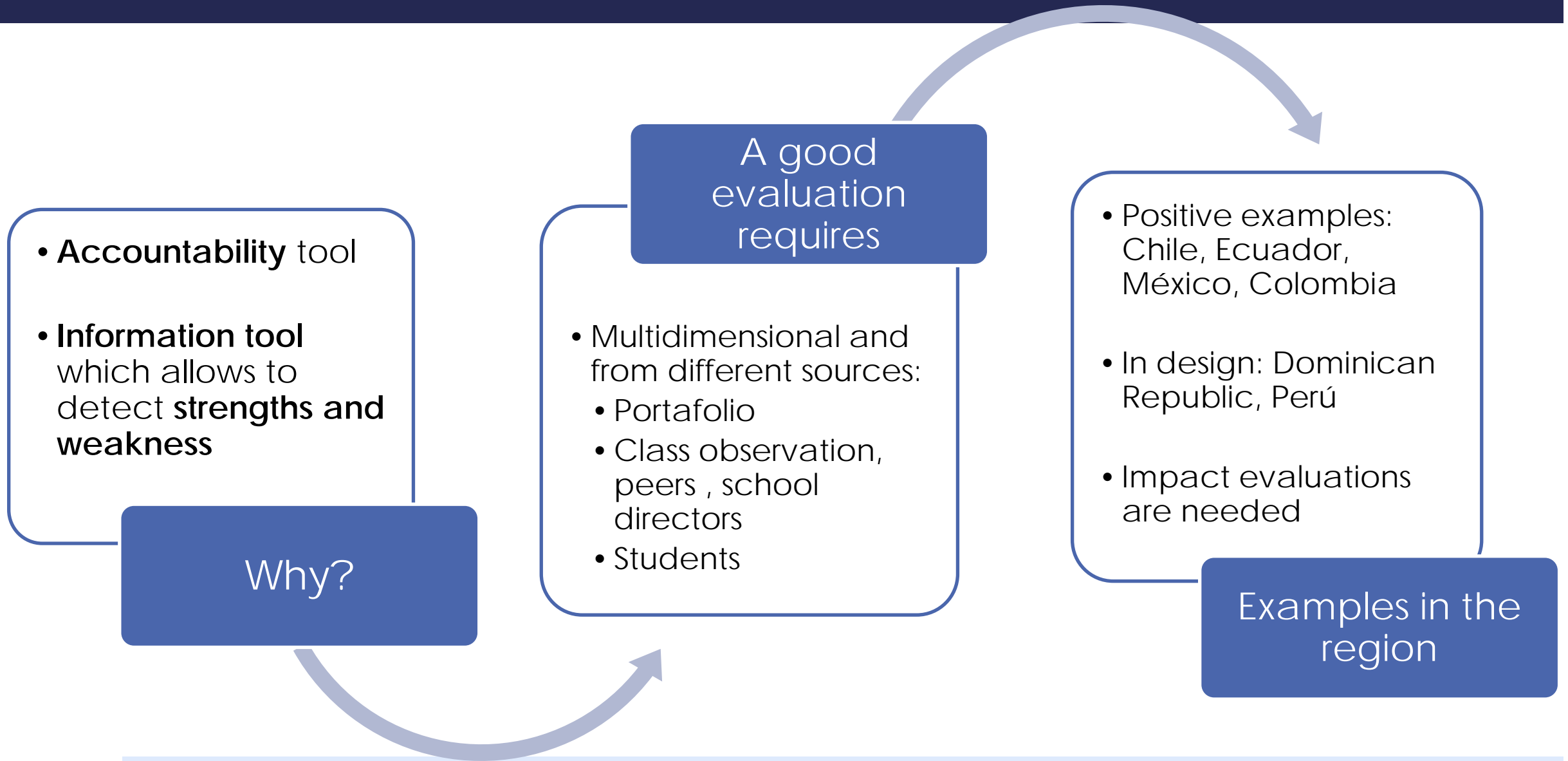
Teacher standards

- They should define:
 - What teachers need to **know** and what they need to **know how to do**.
- Positive examples:
 - **Chile** (Marco del Buen desempeño Docente); **Dominican Republic** (Estándares Profesionales y de Desempeño); **Perú** (Marco del Buen Desempeño Docente); **Guayana** (Estándares profesionales para Docentes)

Career path

- Clear rules are needed in entrance, promotions, dismissals
 - (Colombia (2002), Peru (2008, 2012), Ecuador (2008), Chile (2013), Brazil (Sao Paulo, 2011,2012), Dominican Republic (2014))
- Positive causal positive impact on student academic outcomes for Colombia (Ome, 2013; Brutti and Sanchez , 2015.)

4. Teacher evaluation for continuous improvement



5. In service education

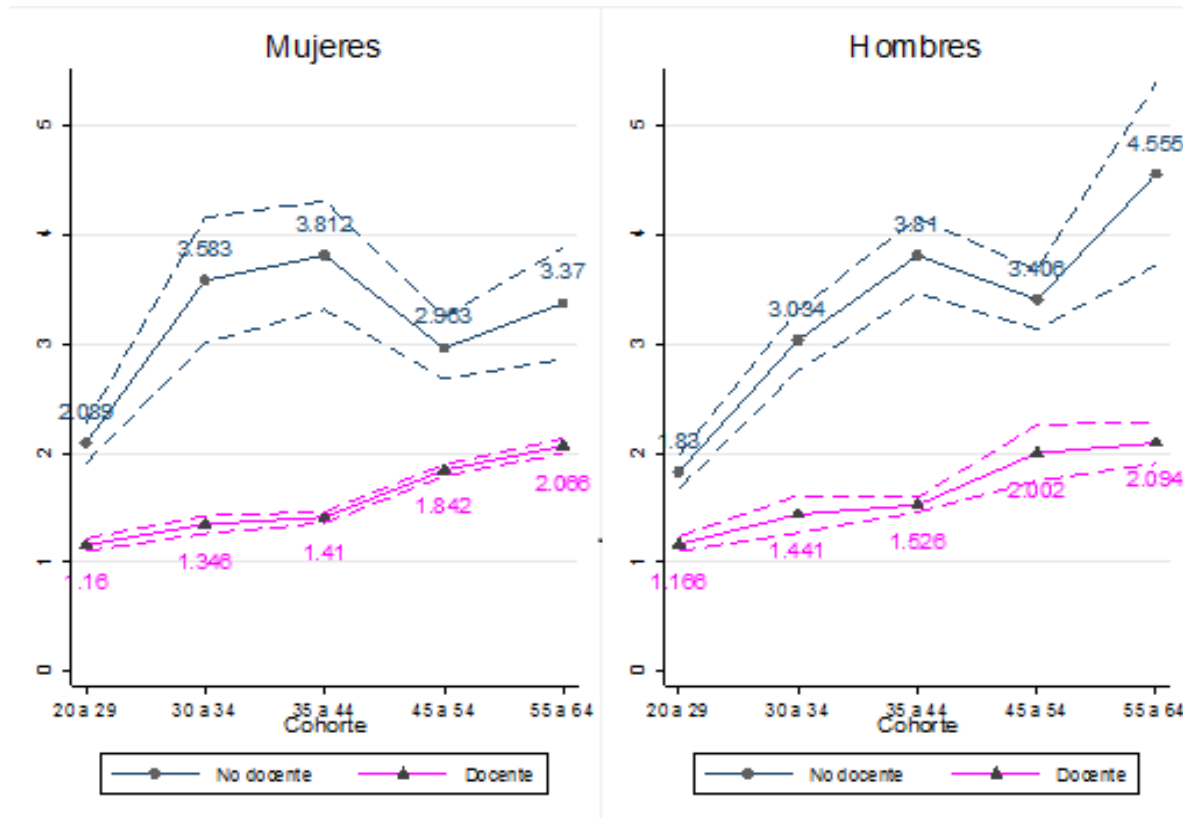
- Why is it important?
- Weakness of current teachers need to be addressed.
 - Low content mastery
 - Deficient pedagogical skills (Bruns and Luque, 2014)
- Learning curve in the teaching profession is particularly important in the first three years.

5. In service education: Policy recommendations

- **Teacher induction:** first three years are critical in the profession but few examples in the region (Uruguay has an established program, recent important efforts in Colombia and the Dominican Republic)
- In service education programs need to **derive from the results of teacher evaluations**
 - Individualized improvement plans (Chile: Planes de Superación Profesional; similar programs in Perú y Ecuador).
 - General in situ programs: scripted training, classroom management (Honduras, Colombia, Brazil, Dominican Republic, Salvador)
 - Profesionalización Docente: Guatemala
- Impact evaluation is scarce and need to increase.
 - i.e: For general in situ programs evaluation shows both positive and null effects (Brazil, Chile vs Colombia)

6. Wages, bonus and recognition

Average total income payment in Colombia



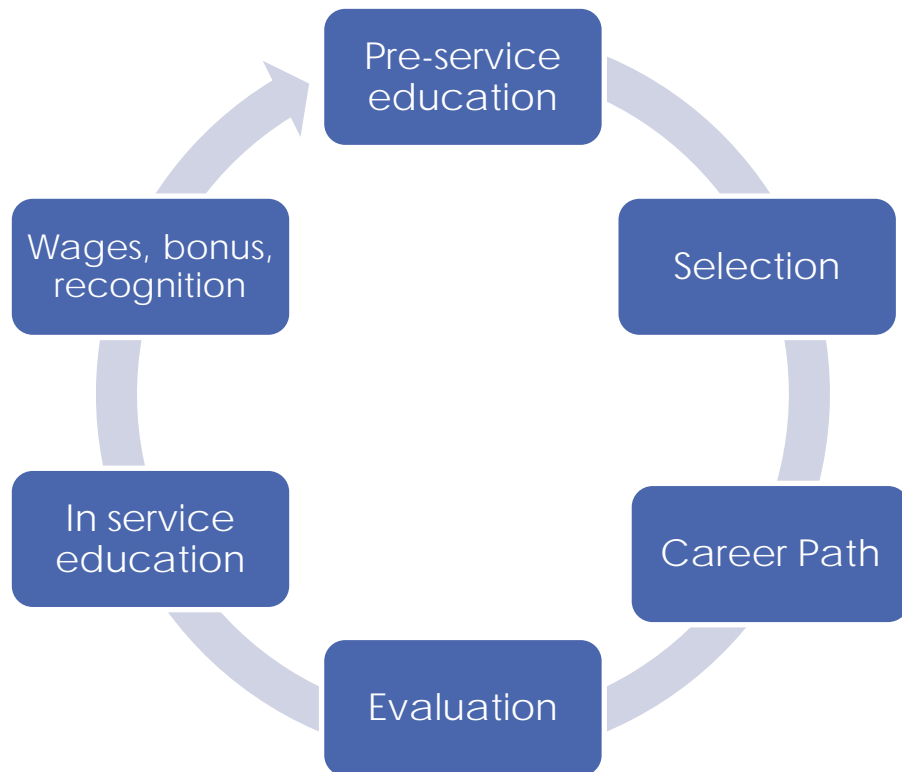
Source: Garcia, Maldonado, Perry, Rodriguez, Saavedra, 2014.

- Garcia et al. (2014) show that for Colombia wages in the teaching profession are:
 - **Lower** than in other professions
 - **Flatter** than in other professions
 - Have a **smaller variance** than in other professions.
- For the region in general wages in the teaching profession are also lower. (Mizala and Nopo, 2011)
- Teacher profession is **socially undervalued** (30% of teachers in Finland feel that profession is not highly valued vs. 87% of teachers in Brazil (TEDS-M)).

6. Wages, teacher bonus and recognition

- In order to attract higher ability candidates monthly average wages need to increase and the slope become steeper (Peru, Colombia).
- Teacher bonus:
 - Evidence for developing countries suggest that both individual and group incentives have positive and significant short term impacts (Bruns, Filmer and Patrinos, 2011)
 - Brazil (Ferraz and Bruns, forthcoming), Chile (Rau and Contrears, 2012), Colombia (in process)
 - However these bonus need to be carefully designed to avoid negative consequences (i.e.: teach for the test)
- Teacher recognition:
 - As with selection the systemic policies will increase social recognition.
 - Awards (Brazil, Colombia, Peru), media campaigns (Chile, Dominican Republic).

Achieving excellence in teaching



- Improving the quality of education in the region requires reaching **excellence in the teaching profession**.
- Difficult task that requires a **systemic approach** on at least six different areas.
- Positive examples in the region has been made. The policies implemented need to be **continuous, additional reforms and evaluations** are in need.

Thank you

cathrodr@uniandes.edu.co