Gender Summit 7 - Europe
Berlin, 6 November 2015

Gender gaps in STI in Latin American and the Caribbean

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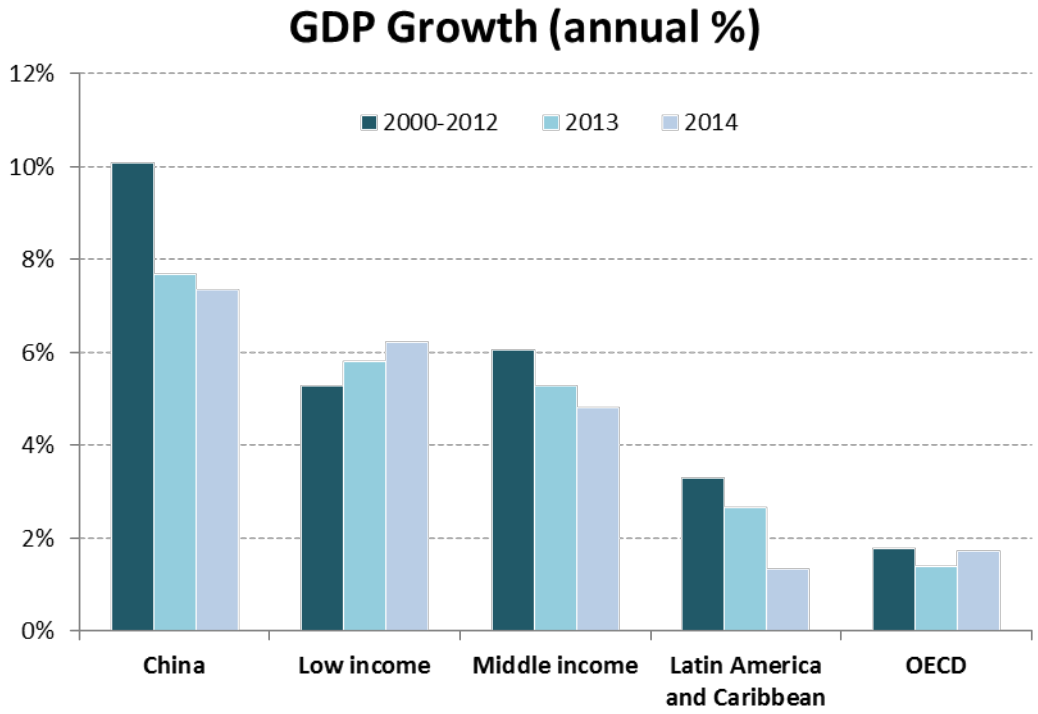
Economic Trends in LAC



1.79%

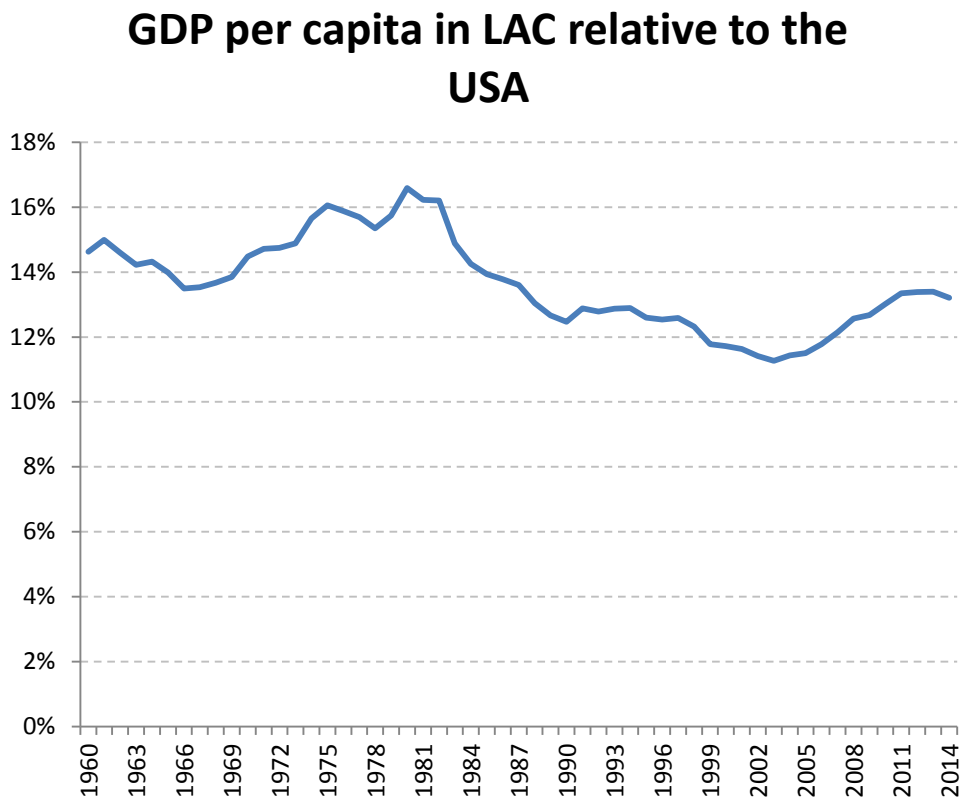
LAC average growth rate of GDP per capita 1960-2011

Strong growth over the past decade

But lower than other emerging regions and slowing down……

Source: World Bank WDI

Economic Trends in LAC



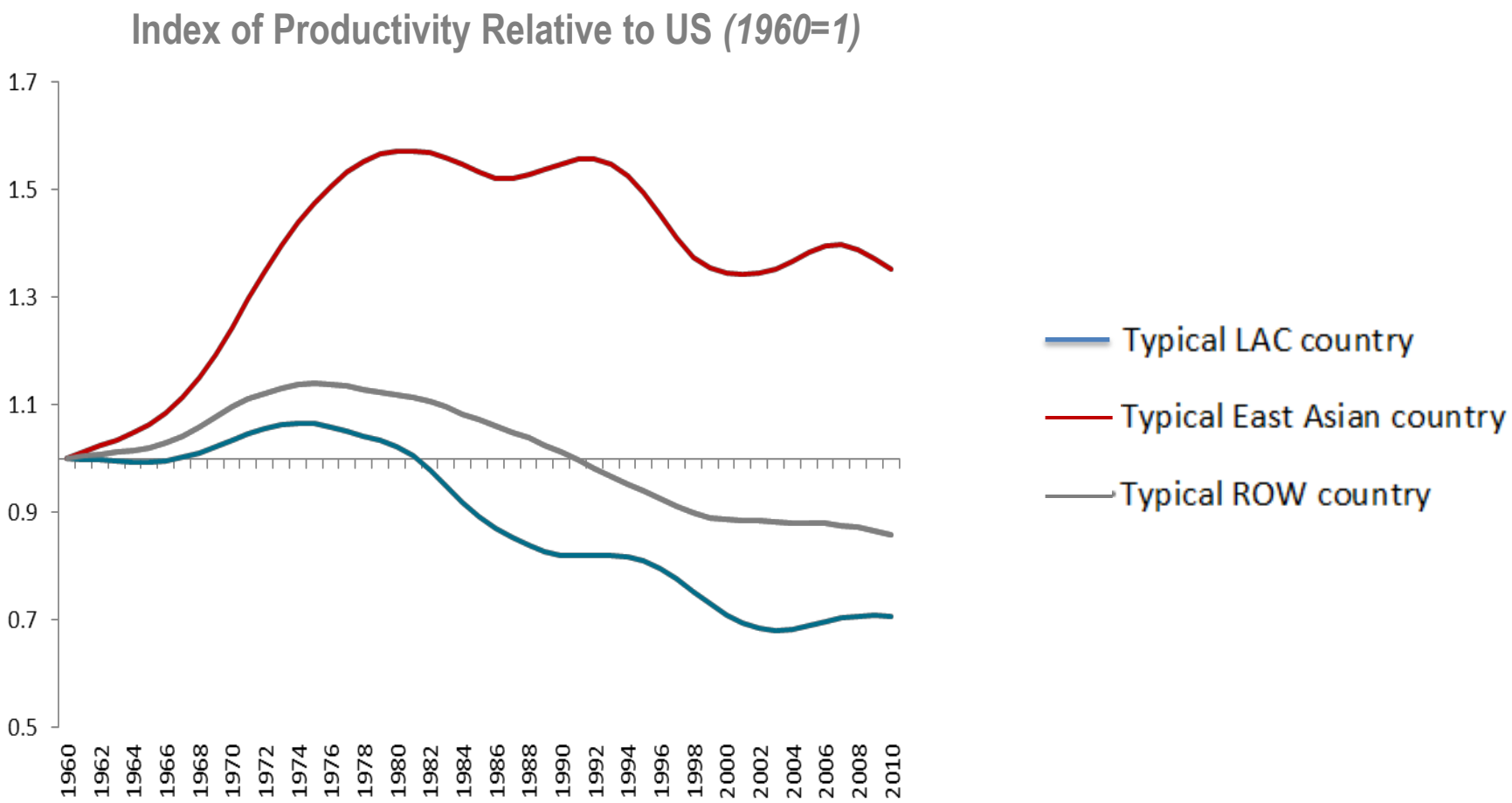
Source: World Bank

Lac GDP pc was 14.8% compared to the US in 1960

Now it is 13.2%

And the region is not catching up

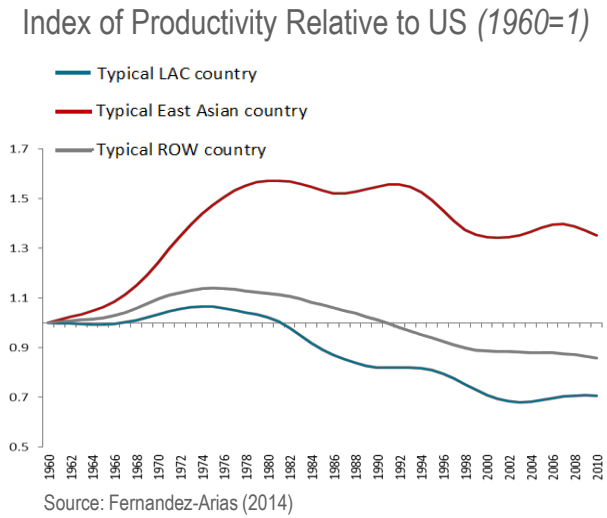
What is the problem?



Source: Fernandez-Arias (2014)

Low Productivity Growth!

What is the problem?



Source: Fernandez-Arias (2014)

Low Productivity Growth

Table 1: Growth Accounting: LAC vs Comparison Countries (1960-2011) (%)

Country/ Region	**D** GDP per capita (a)	**D** Factor Accumulation (b)	**D TFP (c)**	% Share (c) / (a)
LAC	1.79	1.80	**-0.01**	**-0.006%**
East Asia and Pac.	3.69	2.85	**0.83**	22.5%
United States	1.99	1.21	**0.78**	39.2%
China	6.04	4.21	**1.83**	30.3%
Finland	2.74	1.44	**1.30**	47.4%

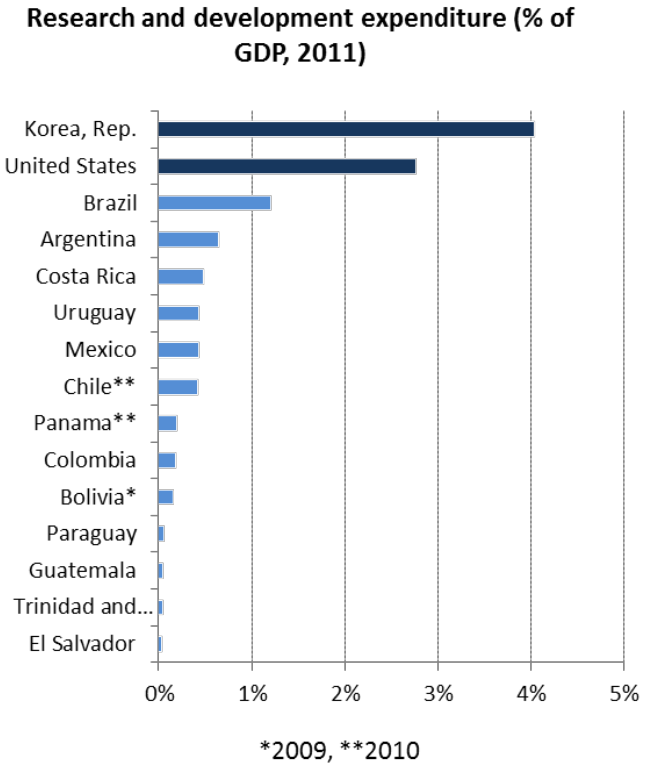
INNOVATION AND PRODUCTIVITY

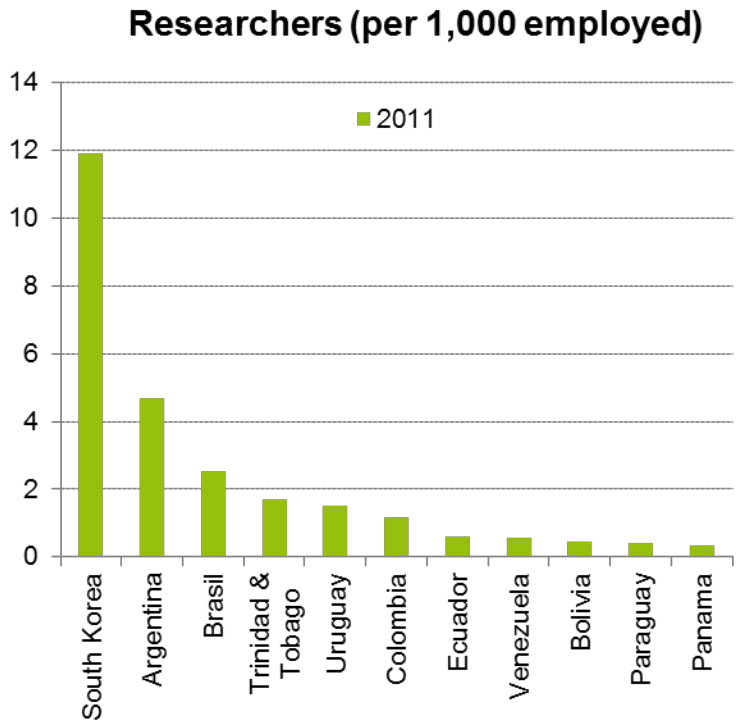
Innovation

Productivity Growth

Economic performance

Innovation Deficit





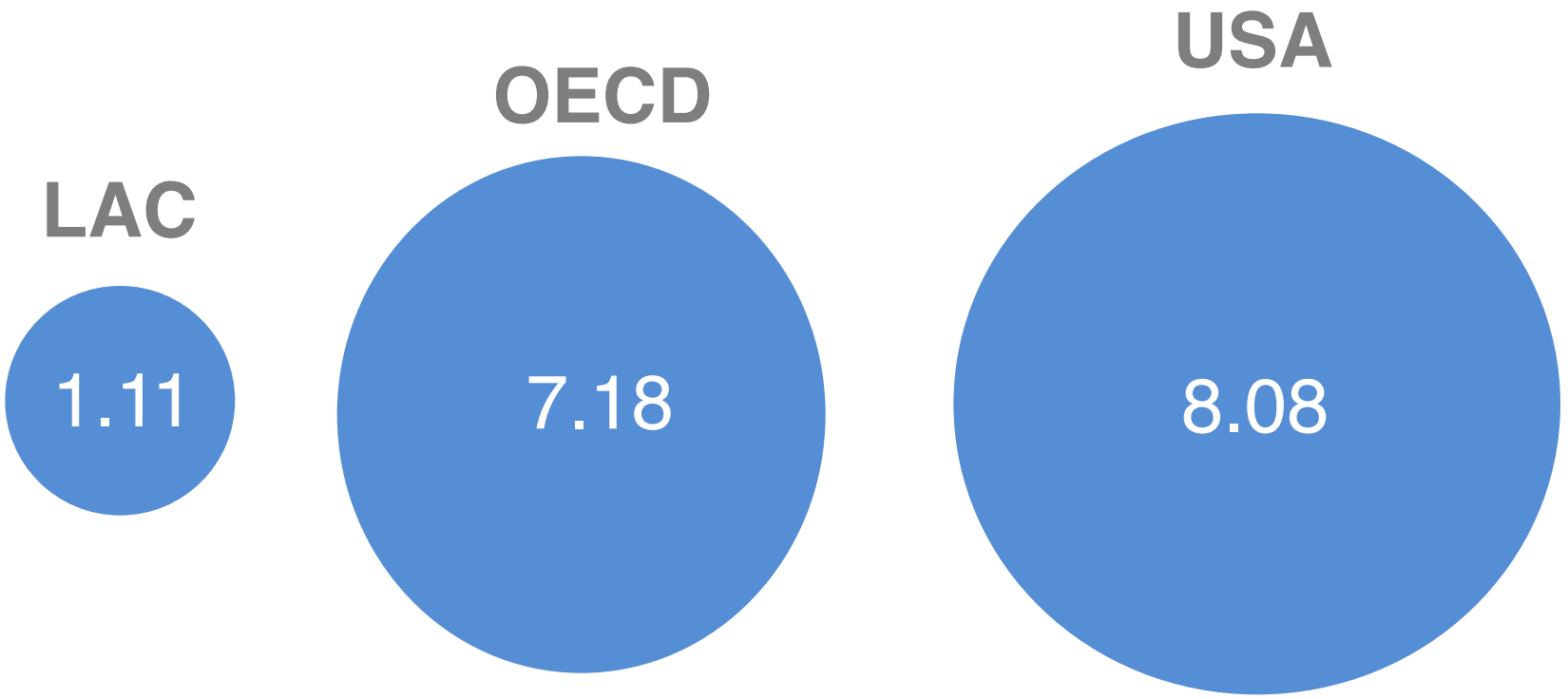
Significant gap in R&D investment

However, there are significant differences across countries in LAC

Source: World Bank WDI, RICYT, OECD

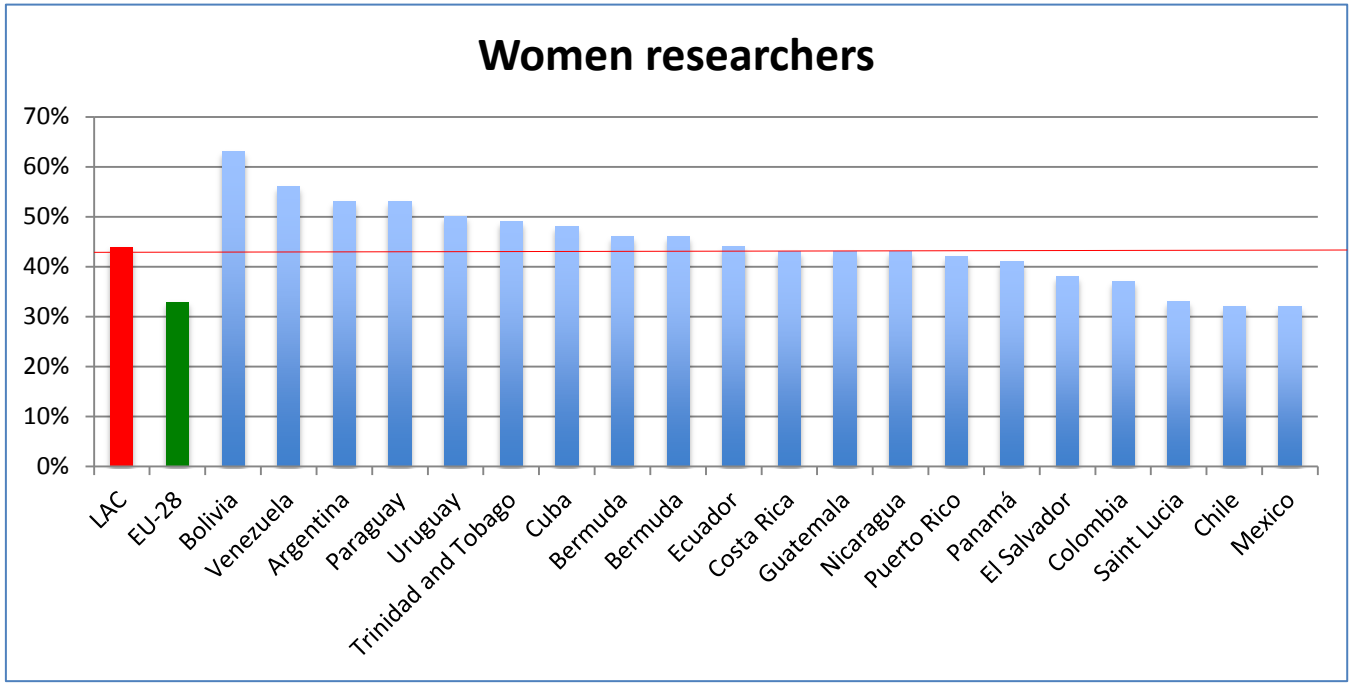
Shortage of human capital for innovation

Researchers per 1,000 in the labor force



Source: RICYT and MISTI, accessed December, 2014.

Also in LAC: women under-represented in STI



Source: Women is Science, UNESCO; SHE Figures 2015, EU.

Situation in LAC looks a bit more promising than in the EU:
43% vs 33%

However, composition matters!

(not enough data)

Women researchers by field in Colombia

- Natural Sciences: 32%
- Engineering & Tech: 21%
- Medical Sciences: 48%
- Agricultural Sciences: 40%
- Humanities: 37%

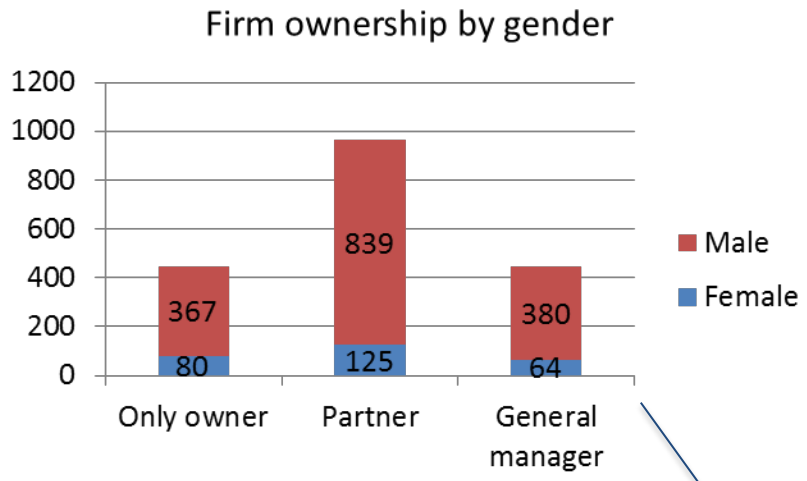
- Low women patent ownership in LAC:
  6.7% women-only
  69.6% men-only

Source: Morales and Sifontes (2014)

Women and innovation
Some evidence about Chile

Country: **Chile**
Data: Longitudinal Firm Survey (ELE)
Year: 2009
Total sample: 7,062 observations
Sample covered in this exercise: **1,855**

- Micro, small and medium sized firms
- With 5 or more employees
- With information about ownership
- With information about innovation



Females are less represented in the business population

Grazzi & Olivari (2015)

But how innovative are female-led firms compared to male-led firms?

Some evidence about Chile

Ownership status	Gender	% of innovator	% of product innovation
Only Owner	Female	50	31
	Male	50	31
General manager	Female	47 ** *	20 *** ***
	Male	58	38

Grazzi & Olivari (2015)

Mean test:
diff = mean(Female) - mean(Male)
Ha: diff < 0
Pr(T < t)
* (10%) ** (5%) *** (1%)

Mean test controlling for firm size and sector:
* (10%) ** (5%) *** (1%)

Few female owners. But are as innovative as male owners.
But not general managers….

Some evidence about Chile

Ownership status	Gender	Proportion of females in overall firm workforce (in %)	Proportion of females in top occupations* (in %)
Only Owner	Female	41 *** ***	55 *** ***
	Male	27	20
General manager	Female	38 *	50 *** ***
	Male	33	21

Grazzi & Olivari (2015)

* Top occupations include: Directors professionals and/or technicians.

Mean test:
diff = mean(Female) - mean(Male)
Ha: diff > 0
Pr(T > t)
* (10%) ** (5%) *** (1%)

Mean test controlling for firm size and sector:
* (10%) ** (5%) *** (1%)

Better gender balance in workforce when female are involved in business ownership and management.

Why does it matter?

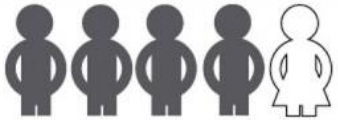
- To **address** the problem of gender gaps in STI, LAC countries need to **acknowledge first** that **there is a problem** and that **it matters**.

- It matters because we are losing valuable talent

- It matters because diversity is productive

  - Socially diverse groups are more innovative and creative than homogeneous groups.
  - New topics into the research agenda; including the integration of gender dimension on research content.

How the IDB is addressing this issue for LAC?



24 month project
(Sept 2015-August 2017)

- Component 1: Measurement
- Component 2: Research
- Component 3: Awareness

Component 1: Measurement

- Objective:
  - Produce a set of gendered indicators in science, technology and innovation (STI) for the Latin American and the Caribe region.

- Activities:
  - What needs to be measured? (Concepts)
  - How do we measure? (Indicators)
  - What data do we need? (Data)
  - Where is the information we need? (Sources)

- Output:
  - A dataset

Component 2: Research

- Objective:
  - Understand the costs the LAC region faces due to the under-representation of women in STI

- Activities:
  - Definition of a conceptual framework to guide **research about costs** derived from gender gaps (to be carried out by an expert advisor).
  - Call for papers: Selection of 5 papers
  - Presentation of papers in a Technical Workshop (Gender Summit 2016)

Component 3: Awareness

- Objective:
  - Promote awareness, dialogue and action for gender equality in STI activities in LAC.

- Activities:
  - Support the organization of the Gender Summit 8 North America – 2016
  - A panel about LAC in the GS8
  - Elaboration, publication and dissemination of the project results
    - Source of robust evidence for policymakers, science leaders, science stakeholders, institutions, gender experts and science strategy decision makers when discussing, designing and evaluating policy actions.
  - Presentation of monograph in a Regional Workshop organized by the IDB

Thank You!!