

USING RIGOROUS EVIDENCE TO PROMOTE FEMALE ENTREPRENEURS

PRELIMINARY EVIDENCE FROM MEXICO



WORLD BANK GROUP
Trade & Competitiveness

CONEVAL
Mexico, July 1 2018

OUTLINE

1. Topic #1: Promote female micro-entrepreneurs
2. Topic #2: Promote female high-growth entrepreneurs
3. (Topic #3: Promote “cross-over”)

TOPIC #1. MICRO-ENTREPRENEURS

TOPIC #1: FEMALE MICRO-ENTREPRENEURS

• Motivation

- Micro-enterprises employ a substantial fraction of the population - 47.7% in México (ENOE, 2016)
- Weak effects of trainings (and credit) on female entrepreneurs
 - Interventions have not had a significant effect in increasing the size of female-owned enterprises nor in ensuring their survival. (De Mel et al, 2013)
 - Female-owned enterprises tend to have lower returns to capital than male-owned enterprises. (De Mel et al, 2013)
- Important to understand heterogenous effects
 - Heterogeneity is found in some studies suggesting that impact is higher on those entrepreneurs with lower demand for trainings (Valdivia 2012)

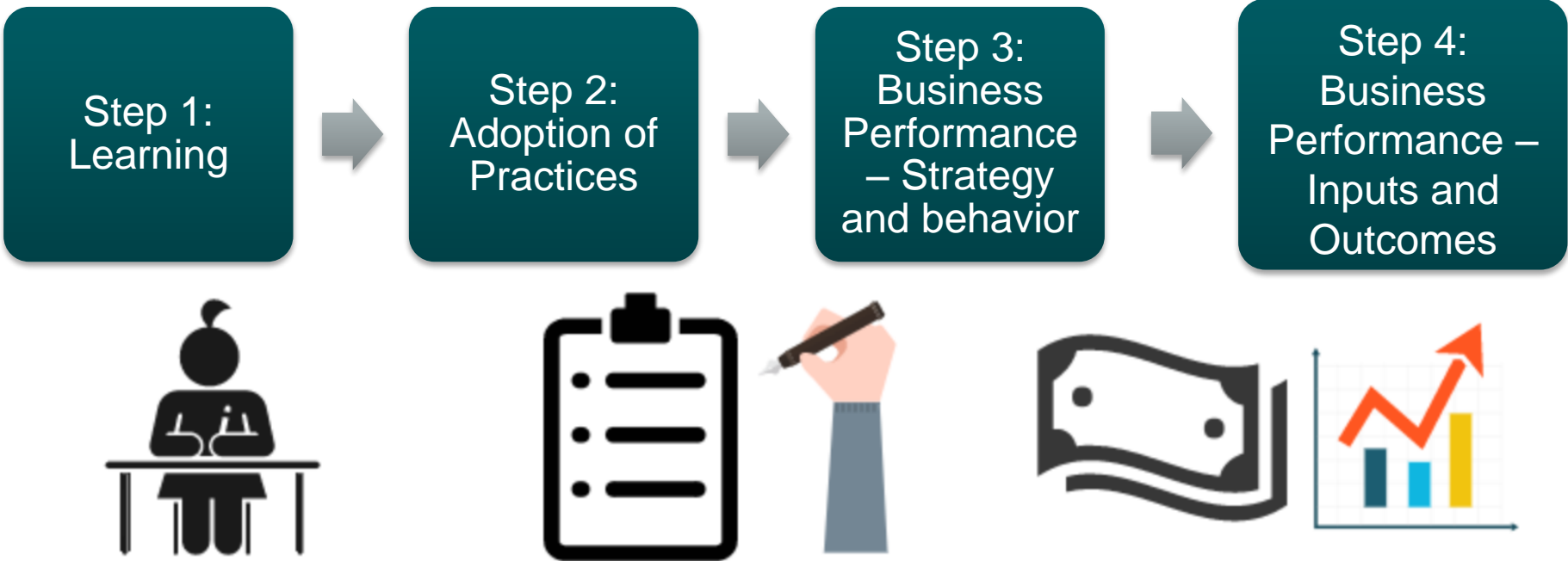
STUDY #1: Mixing soft and hard skills

MAIN CONTRIBUTIONS

- 1. Build on recent evidence about importance of soft skills (Campos et al 2017, 2018)**
- 2. Further builds an intervention that integrates**
 - Traditional business training
 - Psychology based personal initiative training
- 3. Rely on much larger sample (about 4,000 entrepreneurs) to assess heterogenous effects**

WHAT WE EXPECT TO FIND

We are looking at the impact of the program at different levels:



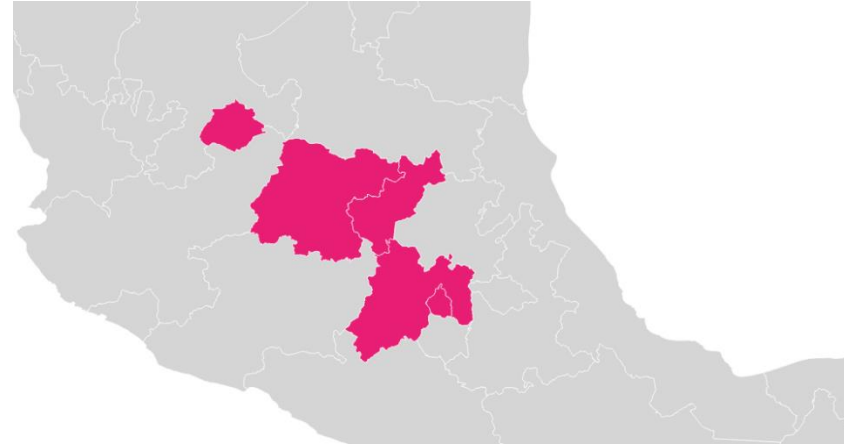
THE INTERVENTION

MUJERES MOVIENDO MÉXICO

Mujeres Moviendo México is a network of INADEM* centers for entrepreneurial development offering business trainings and specialized services to female micro-entrepreneurs.

Crea, Comunidades de Emprendedores Sociales A.C. (CREA) is a Mexican non-for-profit organization implementing the program

*INADEM is the National Institute for Entrepreneurs.



The MMM centers targeted in the evaluation are located in five states:

Aguascalientes
Ciudad de México
Estado de México
Guanajuato
Querétaro

THE INTERVENTION

COMPONENT: 1 – “MANAGERIAL SKILLS”

42 hours of managerial-skills (“hard”) training – 14 weeks

Seven modules:

- Three hours, two times a week each:

1. **COST CALCULATION**
2. **DETERMINATION OF PRICES**
3. **LEGAL AND FISCAL CONCEPTS**
4. **ORGANIZATION & PRODUCTION STRATEGIES**
5. **MARKETING**
6. **SALES STRATEGIES**
7. **CREATION OF A BUSINESS PLAN**

HARD
SKILLS
COMPONENT

THE INTERVENTION

COMPONENT: 2 PERSONAL INITIATIVE

SOFT
SKILLS
COMPONENT

18 hours of soft-skills training throughout three weeks



The Personal Initiative course seeks to promote:



1. Self-starting behavior: changes and innovation by herself promoting **actions instead of reactions**



2. Enhance future orientation: thinking of future market opportunities and to prepare to face possible obstacles.



3. Persistence against obstacles, helping entrepreneurs to preserve and gain competitive advantage.

PERSONAL INITIATIVE TRAINING

Personal Initiative

- *Being self-starting*
- *Future thinking*
- *Overcoming barriers*



Innovation & creativity



Financing
(Bootstrapping)

Successful
small
business

Goal setting

Planning



Feedback



CHARACTERISTICS OF PARTICIPANTS

Results from the baseline



N= 3,995

- Comercio
- Servicios
- Manufacturas



- 42 years
- 11 years of schooling (2nd year of preparatoria)
- 6 years of business experience
- 74% informal
- \$3,884 weekly sales
- \$ 1,459 weekly profits
- Adopts just 45% of managerial practices
- 82% no employees

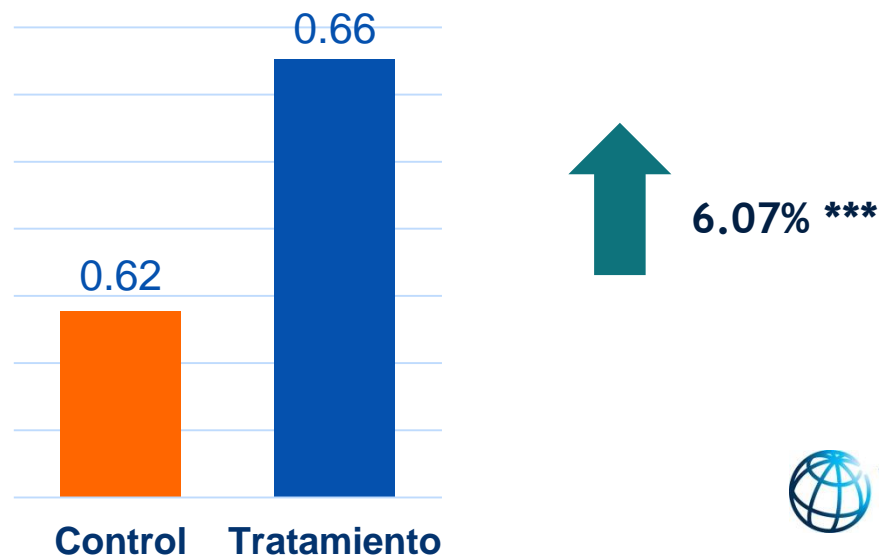
PRELIMINARY RESULTS #1

LEARNING

- Calculation of costs
- Prices setting
- Legal and fiscal concepts
- Strategy for organization and production
- Marketing
- Creation of a business plan

Total
knowledge
index

Total knowledge index



PRELIMINARY RESULTS #2

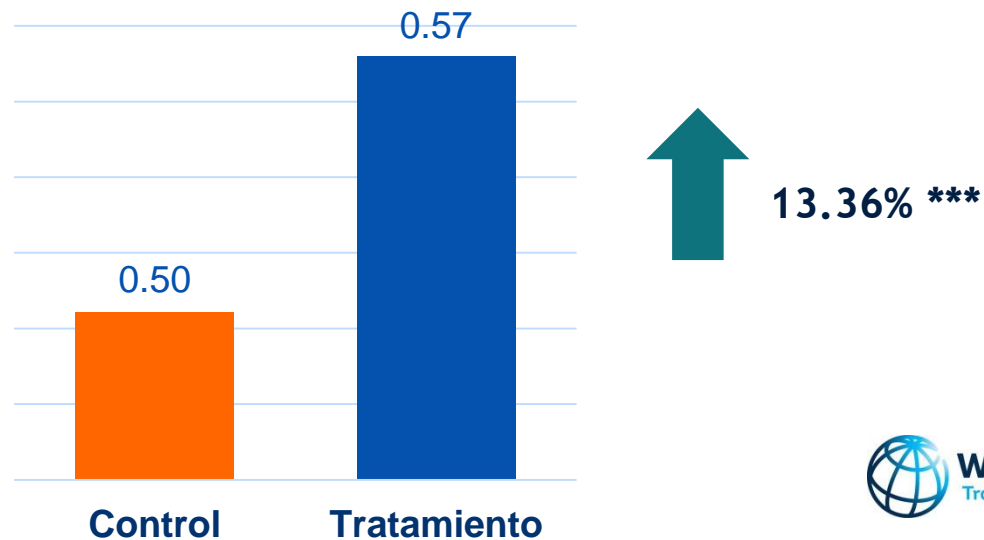
Adopción de prácticas de negocio

Índice de capacidades empresariales

- Mercadotecnia
 - Inventarios
 - Registros
 - Planeación Financiera
 - Uso de TICs
- +
- fijación de precios
 - contabilidad

Índice total de adopción de prácticas de negocio

Índice de prácticas de negocio



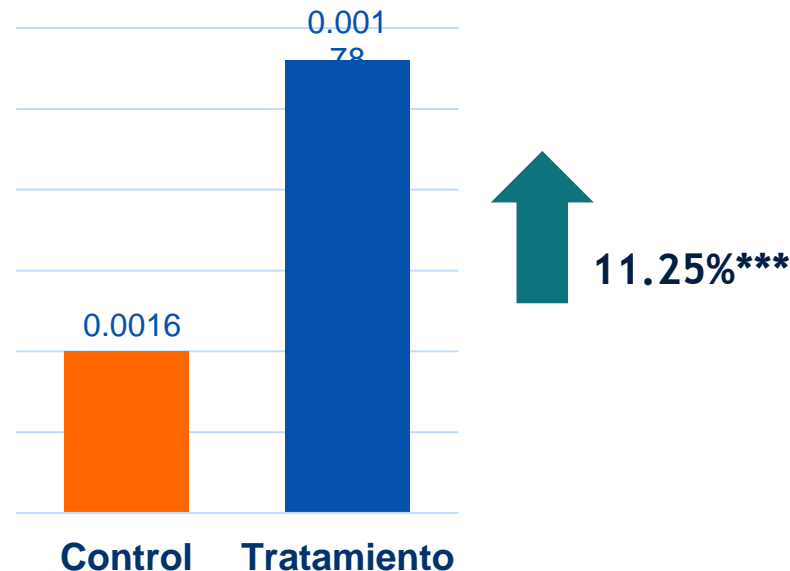
PRELIMINARY RESULTS #3

Iniciativa personal

- cantidad y magnitud de cambios para mejorar el negocio
- esfuerzo involucrado en los cambios
- cambios en los últimos seis meses
- nuevos productos y servicios
- deseo/aspiración de crecer

Índice total de iniciativa personal

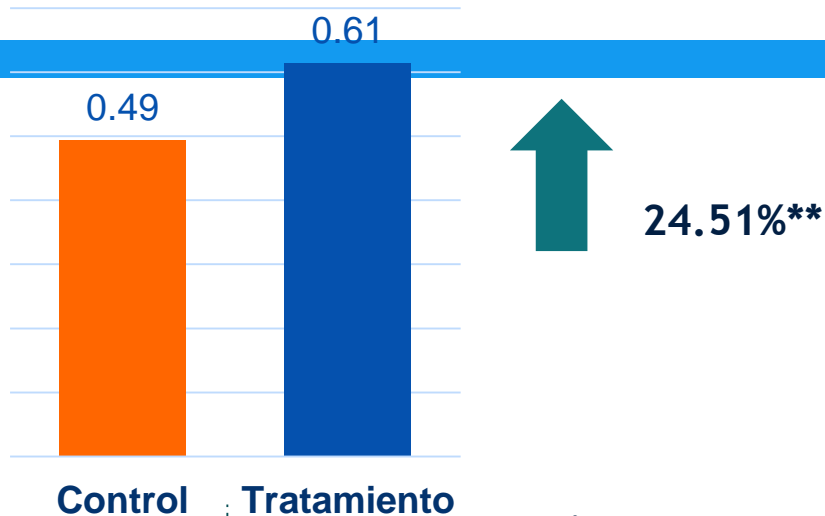
Índice total de Iniciativa Personal



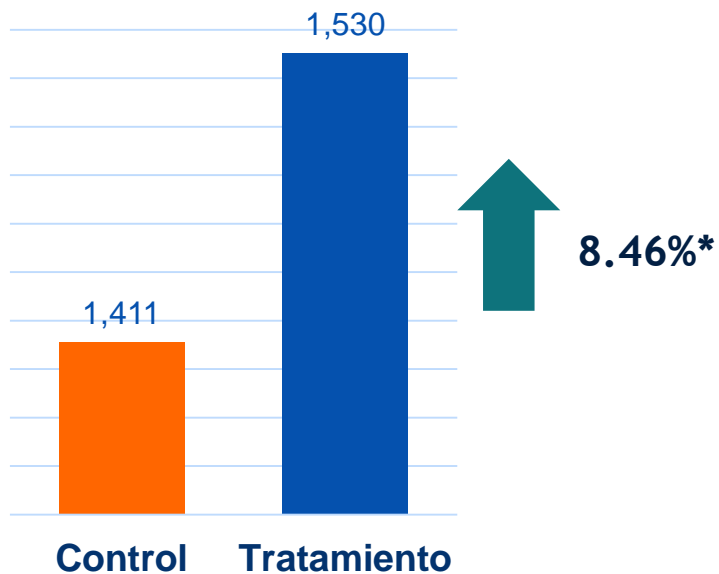
PRELIMINARY RESULTS #4

Número de trabajadores asalariados

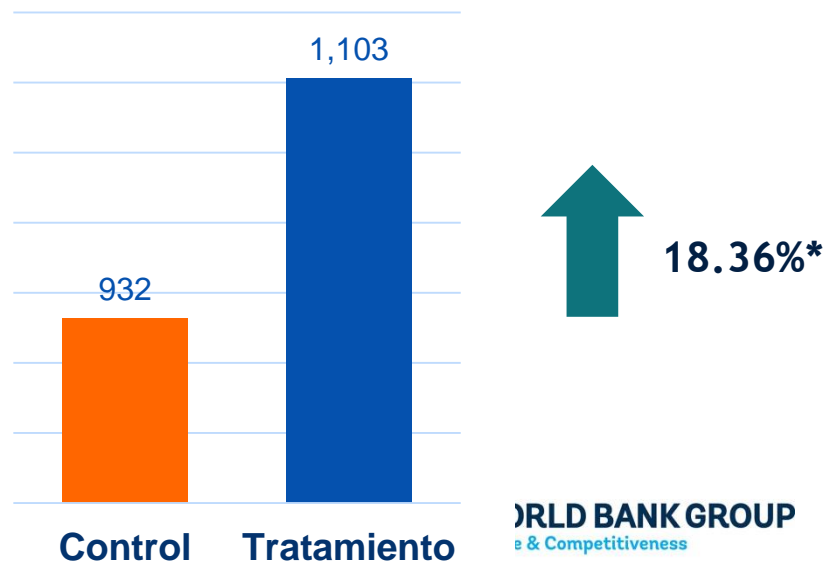
Desempeño del negocio



Ganancias semanales (pesos)



Salarios mensuales (pesos)



PRELIMINARY RESULTS #5

- **Heterogeneity based on skills**

- Skills index = Education + Parents education + Cognitive skills (Raven test + digitspan recall test)

- **Results**

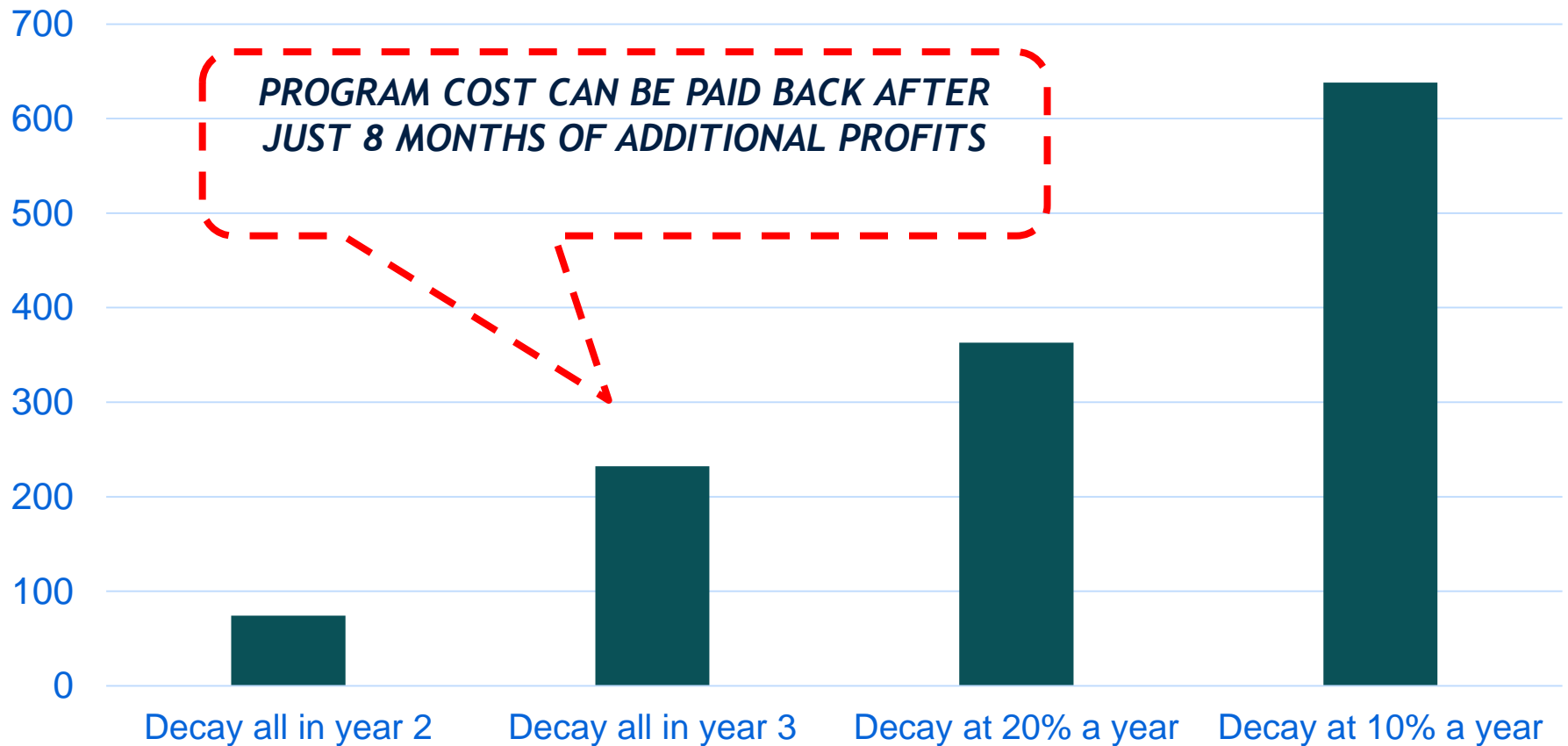
- Heterogenous effects in terms of “learning” and management
- No heterogenous effects for performance, inputs usage, formality, access to credit, likelihood to employ paid workers

- **Other possible dimensions of heterogeneity**

- Initial profits: No differences on performance
- Management: No differences on performance

COST-EFFECTIVENESS

Estimated Return on Investment (%)



STUDY #2: Pathways to “modernization” and formalization

MAIN CONTRIBUTIONS

1. Intensive (but low costs) business support (approx. 40 hours of consulting services) >> focus on “making good practices stick”
2. Separate pathways for “modernization” and formalization
 - a) Focus on “external practices” – marketing, relations with clients, external appearance, etc. (400 businesses)
 - b) Focus on “internal practices” – financial management, costing, inventory mgt, etc. (400 businesses)

TOPIC #2. HIGH-GROWTH ENTREPR.

Frequently discussd in the press

“High-growth enterprises , so called “gazelles”, are young companies that transform markets with radically innovative products, services and processes.”

-- Policy options

"During tough times, the tough get growing."

-- Forbes

"Should the Government Support Only High-Growth Businesses?"

-- The Wall Street Journal

"Entrepreneurs: If in doubt, innovate"

-- The Economist

However, literature remains relatively scarce

- High growth firms play an important role for job creation, innovation and overall economic growth (Olafsen and Cook, 2016).
- Smaller, younger and technology based industries firms might show higher rates of growth (Audretsch, 2012).
- Policies supporting high-growth entrepreneurship can be crucial for firms to survive.
 - Recent US micro data analysis suggests that high-growth entrepreneurship in key sectors (high tech) has been in decline (Decker, et al., 2016).
 - In Nigeria potential high-growth firms were randomly funded. Those firms supported were most likely to survive and grow in employment (Mckenzie, 2015).

BRIEF DESCRIPTION

1. Partner

- INADEM: interested in evaluating on of its largest program...crucial program to promote “high end” entrepreneurs
- CONEVAL
- MIT, Columbia University

2. Identify areas/scope for innovations

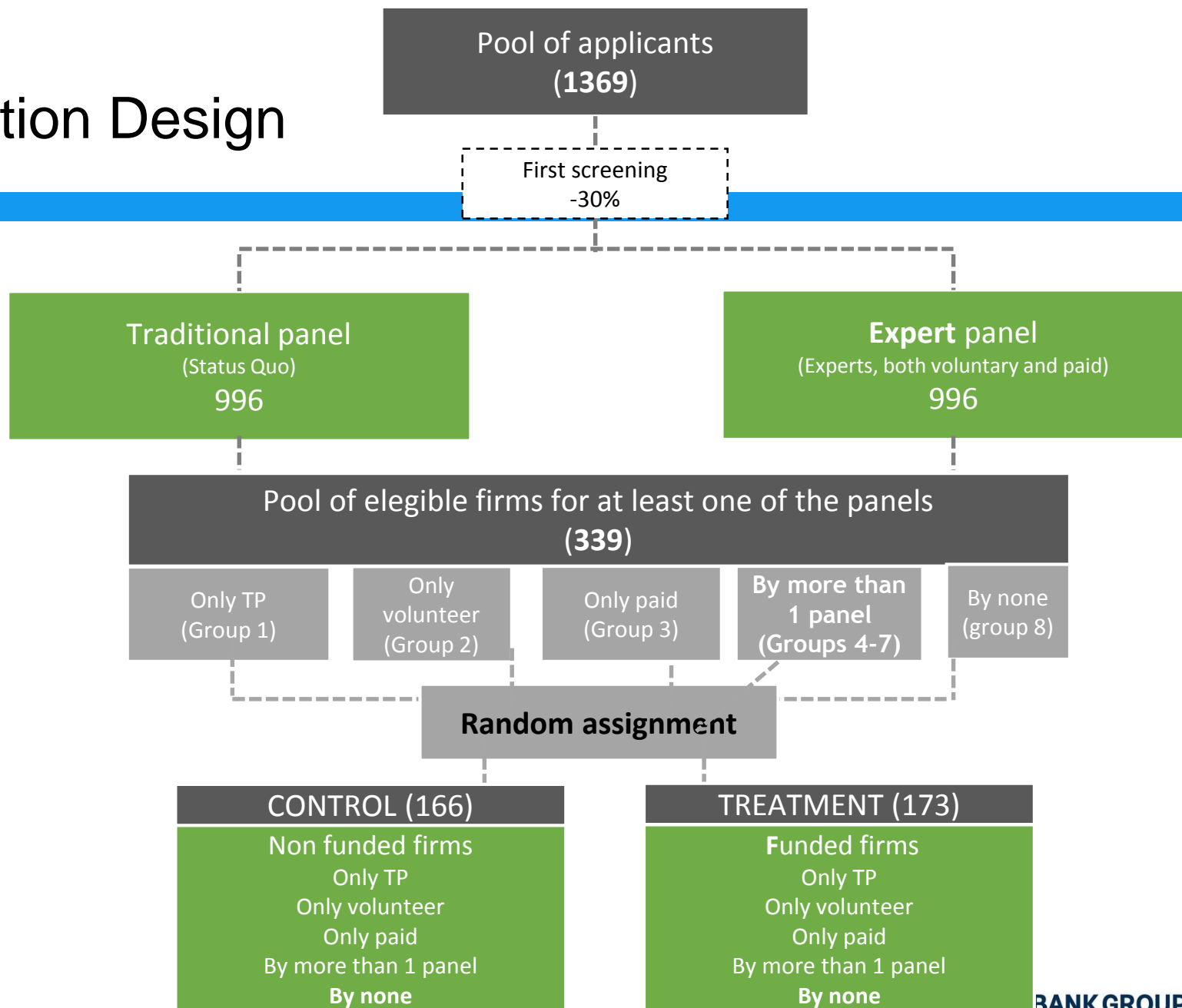
- Assess different mechanisms to choose projects...and maximize impact
- Women are only 22% of the applicants – why?
 - Identify characteristics of “exceptional” women applicants
 - Propose “nudges” to get more women applicants

POLICY QUESTIONS

1. What is the impact of matching grants aimed at high-impact entrepreneurs on firms' performance (productivity, sales, job creation) and on innovation?
 - a) How heterogeneous are the outcomes depending on initial firm characteristics?
 - b) Are effects different for women entrepreneurs (a minority)?

2. Which evaluation/selection model is most effective at identifying high-impact entrepreneurs? Are these the same firms who benefit most from the matching-grant program (i.e. firms with large treatment effects from the program)?
 - a) Does the increased expertise of the expert panel compensate for the greater bias they may have?

Evaluation Design



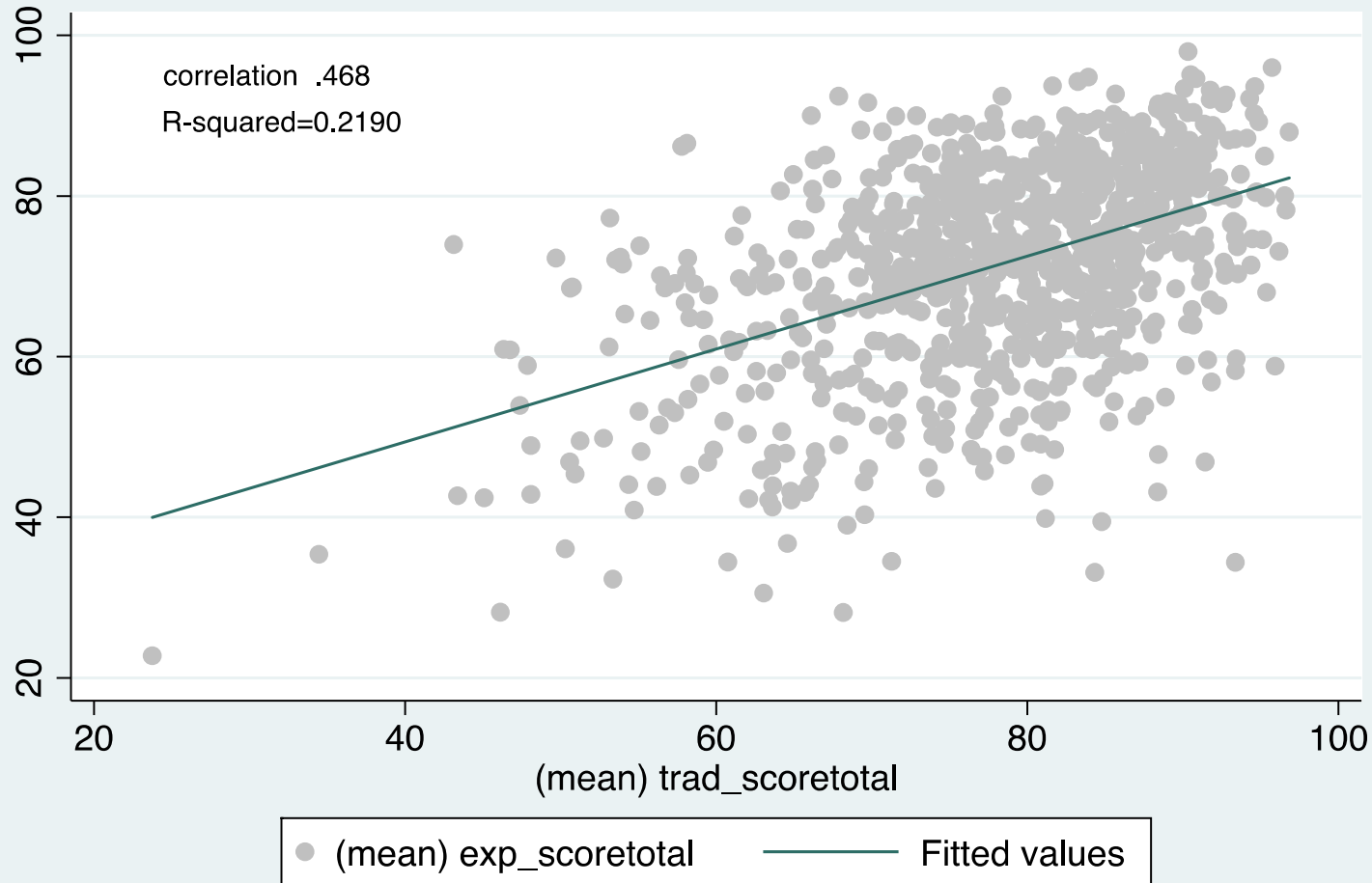
HIEP applicants are relatively young, share of female Project Leaders (PL) is low.

Age range	Entrepreneur's Characteristics			Population Characteristics	
	Number of applicants	% of male	% of female	% males in Mexico	% females in Mexico
18_25	47	72%	28%	49%	51%
26_30	200	77%	22%	48%	52%
31_40	414	81%	19%	48%	52%
41_50	221	84%	16%	48%	52%
>51	116	85%	15%	48%	52%

On average firms are 5 years old, with 15 employees, few are family owned firms...

VARIABLES	(1) N	(2) All sample mean	(3) sd
Age & composition			
Firm-age	862	5.11	7.45
Firm is majority owned by director's family or employee's family	859	0.06	0.23
Firm has a permanent residence dedicated to business	859	0.88	0.33
Firm performance			
Firm-Revenue-winsor, 2017	862	10,263,172.02	16,755,658.17
Firm-Total employment reported-winsor	862	14.98	17.38
Firm-Profits calculated-winsor, 2017	860	1,279,020.43	2,881,955.33
Firm-Proportion of exporting firms	859	0.15	0.36
Innovation , Research & Development			
Firm-R&D expenditure-winsor	847	477,153.34	812,023.44
Proportion of firms that developed or introduced a new product	862	0.68	0.47
Business practices			
Firm-Certification in process or granted	862	0.39	0.49
Proportion of firms with professional accounting	859	0.99	0.10
Proportion of firms with separate business bank account	824	0.96	0.18
Access to finance			
Firm has received other subsidies in the last three years	859	0.24	0.43
Access to finance-formal	857	0.57	0.49
Loan in last year	857	0.21	0.41

Positive correlation between scores of expert & traditional panel



Summary

Reviewers are different from each other:

- Overall mean scores
- Scores given firm & PL characteristics
- Volunteer reviewers seemed to pay more attention to these characteristics

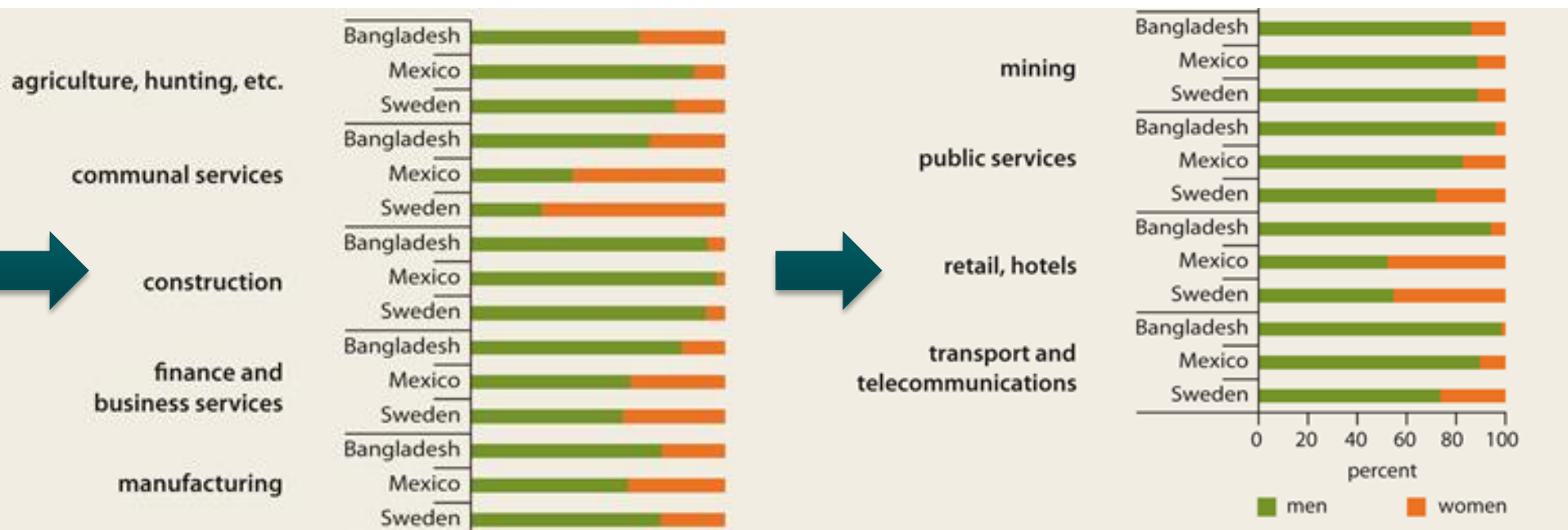
Significant	Not significant
Education level (all sample & eligible)	PL studied abroad
Education sector –IT (eligible)	Education sector-Science
Investment (all sample)	Profits
Revenue (all sample)	Innovation indicators
Employment (all sample & eligible)	
R&D (all sample & eligible)	

TOPIC #3. CROSS-OVER.

Getting more efficient may be not enough for Women entrepreneurs

Across the world...women are concentrated in specific “females dominated sectors”

Industry segregation patterns



Source: World Development Report 2012

This matters a lot...

For economic growth:

- In 1960, 94% of US doctors and lawyers were white men. By 2008 this was 62%
- This decline in segregation contributed 15-20% of the aggregate growth in output per worker (Hsieh, et. al. 2013)

And for enterprise performance

- Once you control for sector of operation, the differences in profits between male and female firms in Sri Lanka disappear (de Mel, et. al. 2009)

DIFFERENCES IN MEXICO

1. Cross-over female entrepreneurs have profits and sales that are more than double those of female entrepreneurs in “traditional female sectors”
2. Employ more than twice employees and pay higher salaries
3. Higher likelihood of being formal and having access to credit

WHAT COULD BE DONE? DESIGN AN INTERVENTION AND RIGOROUSLY EVALUATE IT

1. Define causes

- Information
- Support network
- ...others?

2. Focus on 1-2 possible causes and intervene to modify them

- Focus on providing information
- Focus on providing mentoring and support