

Improving SME Management

David McKenzie, *World Bank*

Why can some firms get so much more output out of the same inputs?

$$Y = f(A, K, L)$$

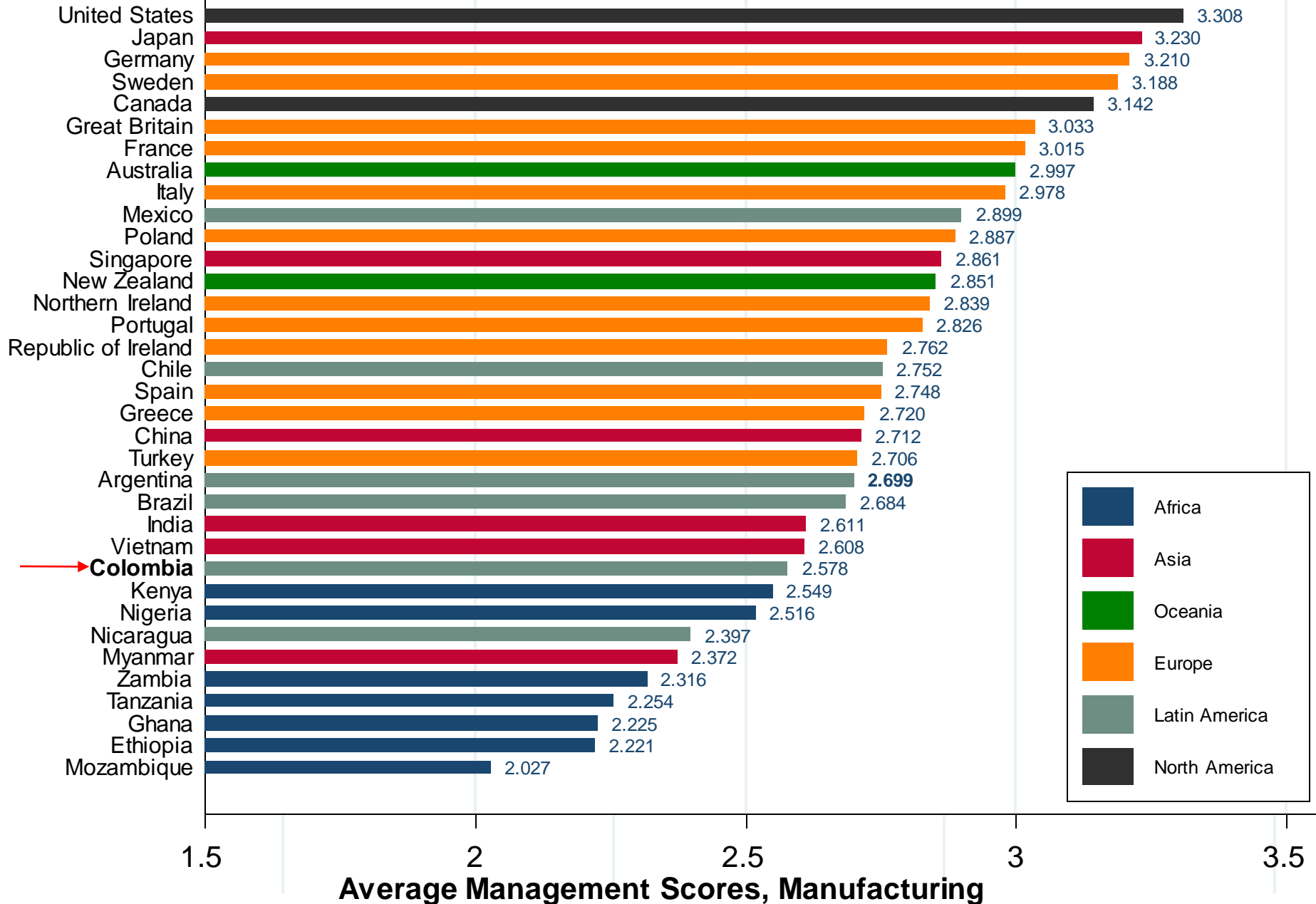


**Efficiency in using inputs
to produce output**
**- Management/Business
skills one possible factor**

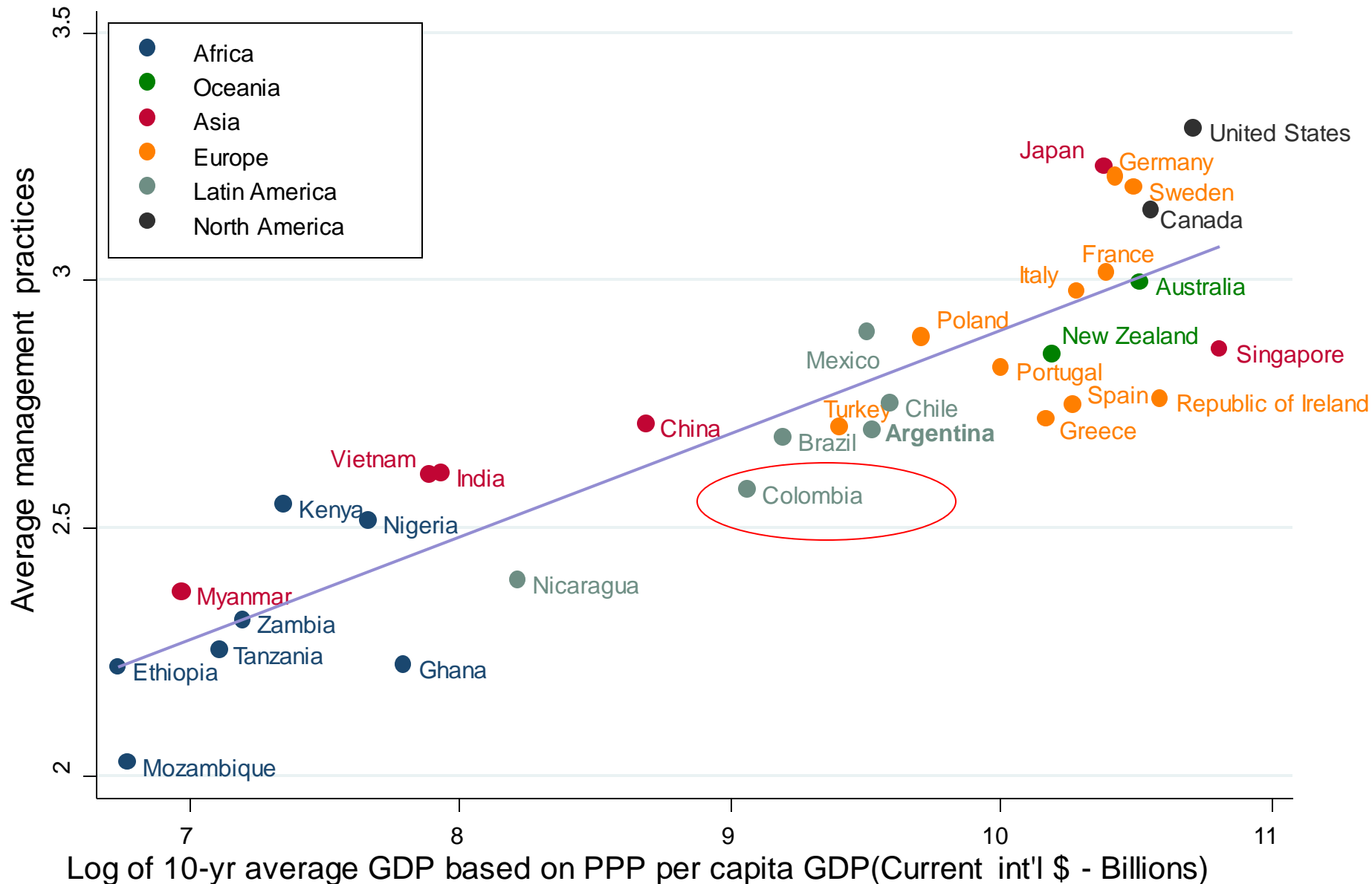
What is good management?

- Bloom and Van Reenen (2007) approach
- Score 18 standard practices
 - **Operations:** e.g. use of lean processes; formal system for detecting and improving problems.
 - **Monitoring:** e.g. tracking KPIs, performance reviews.
 - **Targets:** e.g. concrete non-financial goals, long-term goals, stretch goals
 - **People:** e.g. poor performers quickly identified and helped to improve or released; effective rewards for good performers.

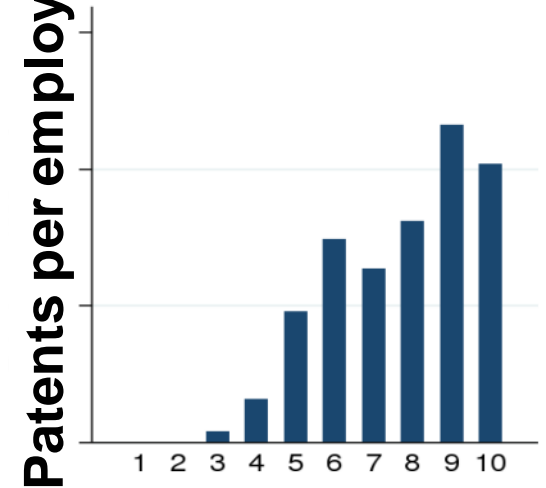
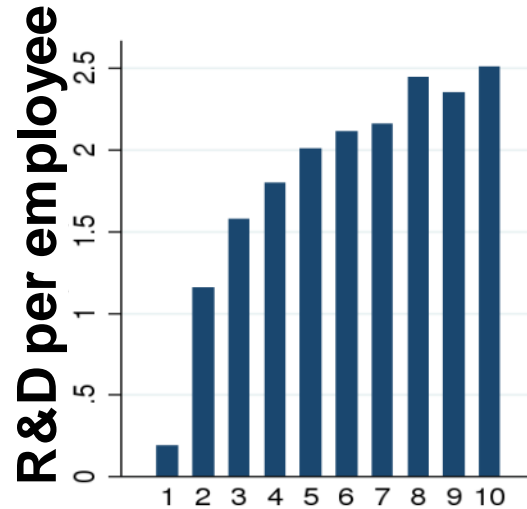
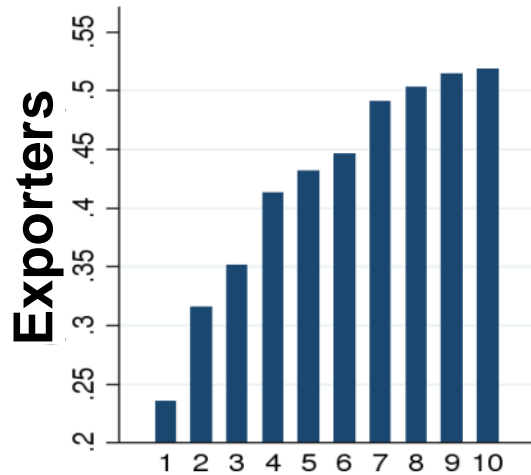
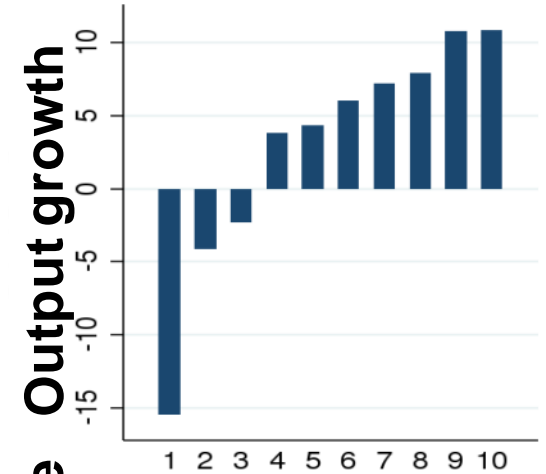
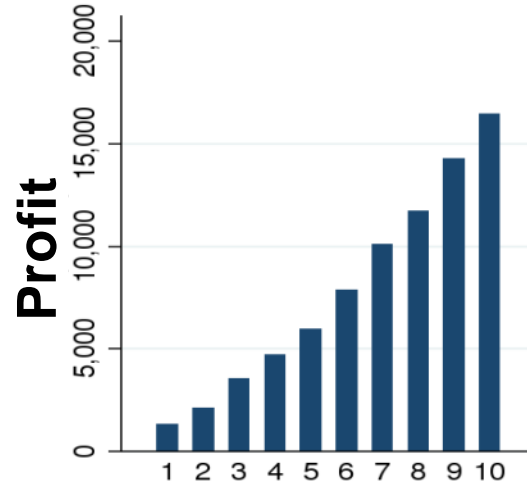
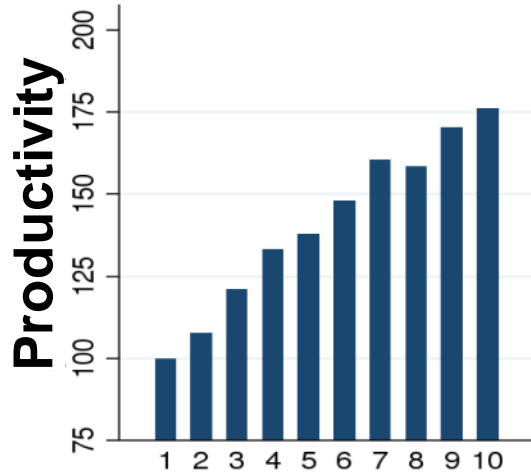
Wide spread of management in manufacturing



Average management scores across countries are strongly correlated with GDP per capita



These management scores are positively *correlated* with firm performance



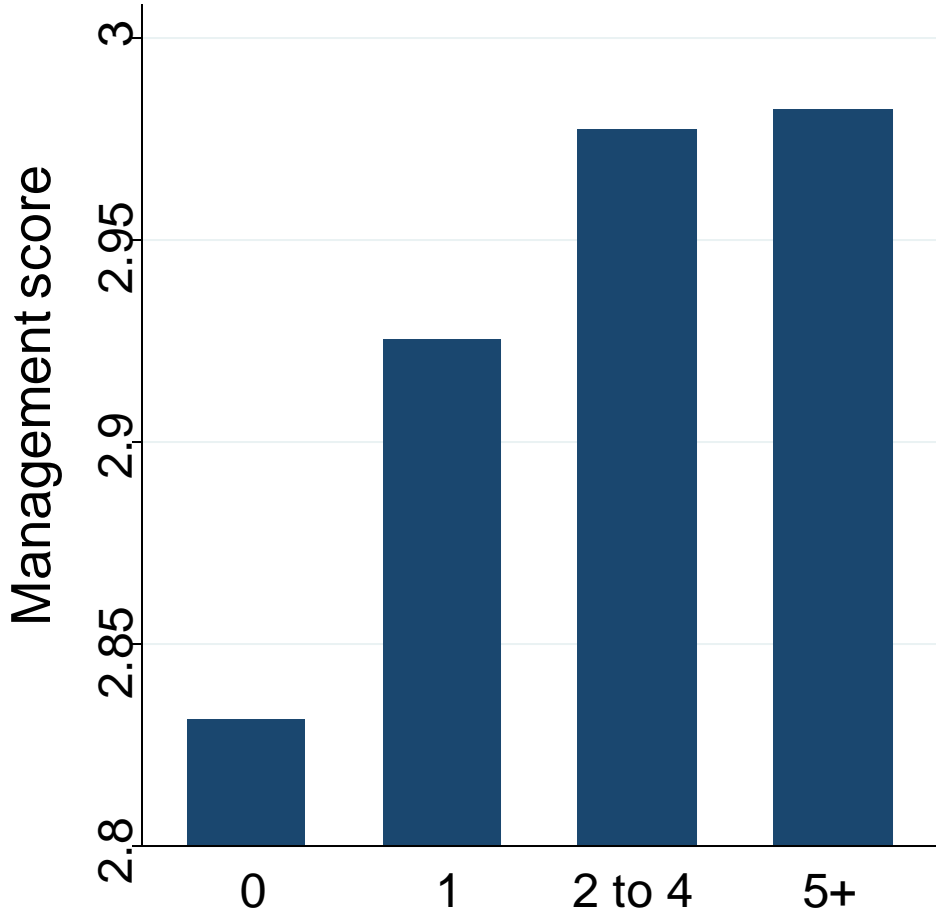
Management score decile (worst=1, best=10)

How can we improve management?

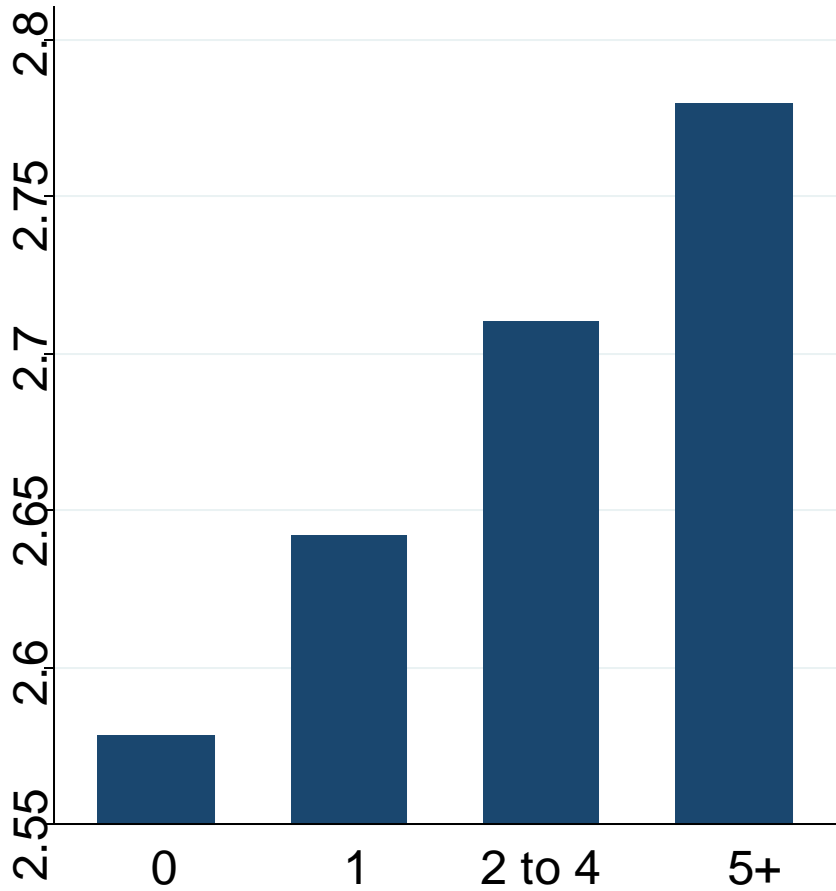
- Broad policy factors
 - Competition
 - Family ownership
 - Multinationals
- Direct policy interventions:
 - Consulting services
 - Other options

Figure 9: Competition Appears Linked to Better Management

Manufacturing and Retail
(the private sector)



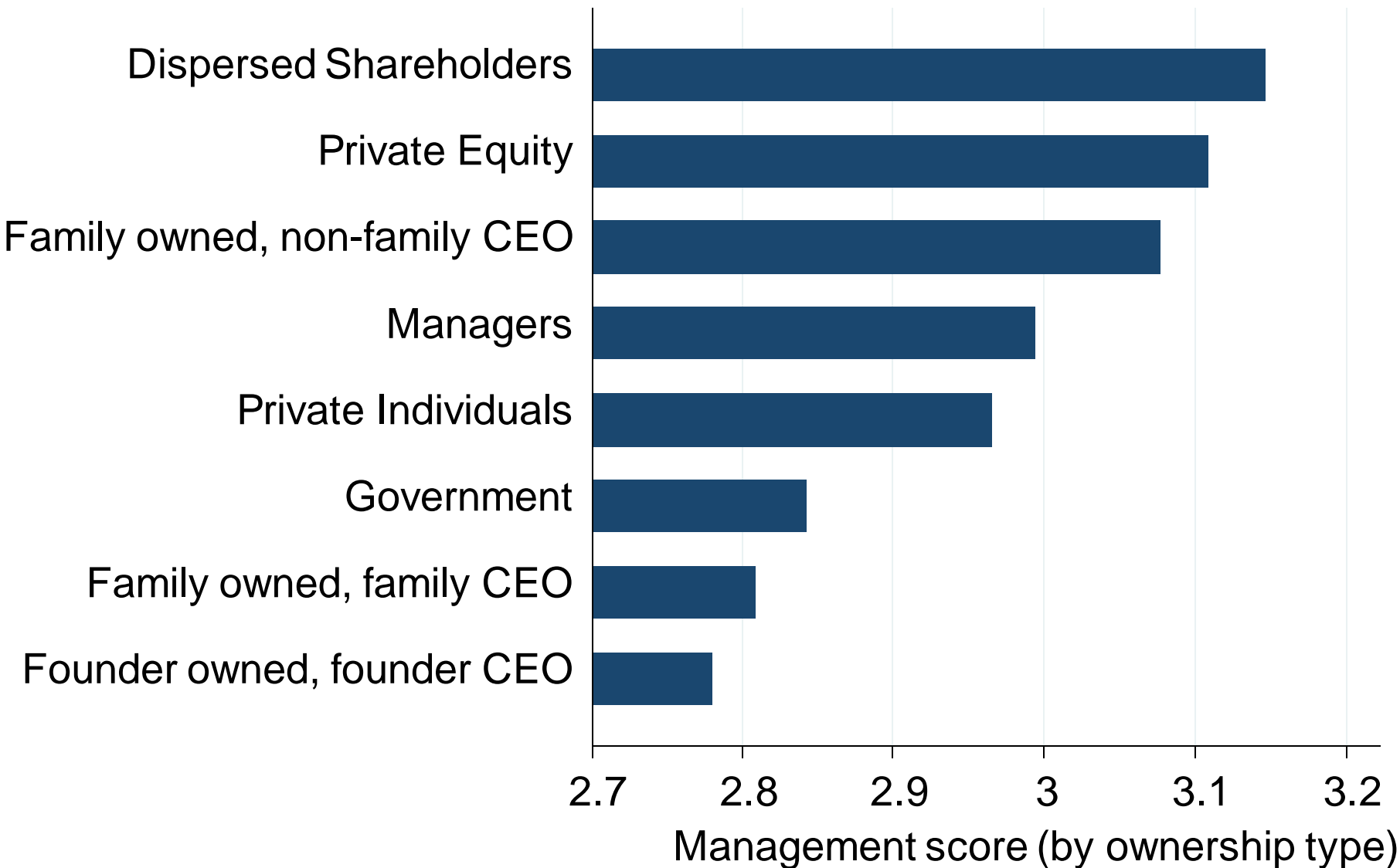
Hospitals and Schools
(the public sector)



Number of Reported Competitors

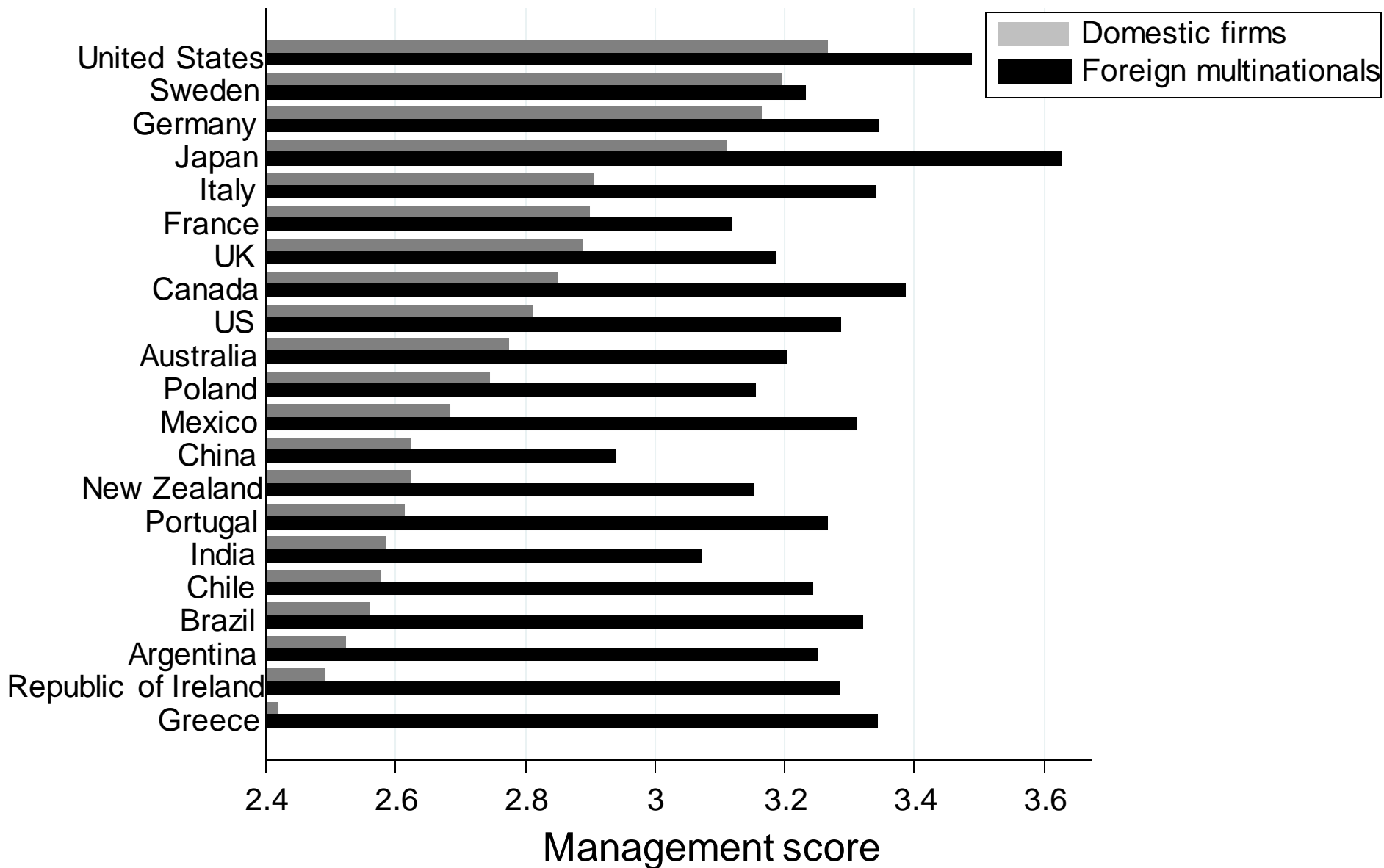
Sample of 9469 manufacturing and 661 retail firms (private sector panel) and 1183 hospitals and 780 schools (public sector panel). Reported competitors defined from the response to the question “How many competitors does your [organization] face?”

Figure 7: Family and founder owned and managed firms (in manufacturing and retail) typically have the worst management



Management scores after controlling for country, industry and number of employees. Data from 9085 manufacturers and 658 retailers. “Founder owned , founder CEO” firms are those still owned and managed by their founders. “Family firms” are those owned by descendants of the founder “Dispersed shareholder” firms are those with no shareholder with more than 25% of equity, such as widely held public firms.

Figure 8: Multinationals (in manufacturing and retail) Appear to Achieve Good Management Practices Wherever They Locate



Sample of 7,262 manufacturing and 661 retail firms, of which 5,441 are purely domestic and 2,482 are foreign multinationals. Domestic multinationals are excluded – that is the domestic subsidiaries of multinational firms (like a Toyota subsidiary in Japan).

Policy implications

- Competition policy important for inducing good management
 - This includes import competition
- Ownership regimes important
- Not putting barriers in place to multinationals important
 - Multinationals are also a useful training ground for domestic stock of management

DIRECT POLICY INTERVENTIONS

A management experiment on larger firms

Bloom, Eifert, Mahajan, McKenzie and Roberts (QJE, 2013).

Randomize management practices delivered by Accenture to 20 plants in large (300 person) textile firms in Mumbai, India

Control firms get one month of diagnostic. Treatment firms get one month of diagnostic, four months of intervention.

Expensive intervention (\$75,000/firm)

Collect weekly data for all plants from 2008 to 2010

Exhibit 2b: Plants operate continuously making cotton fabric from yarn

Warp
beam



Fabric weaving

Exhibit 2c: Plants operate continuously making cotton fabric from yarn



Quality checking

Exhibit 4: The plant floors were often disorganized and aisles blocked

Instrument
not
removed
after use,
blocking
hallway.



Old warp
beam, chairs
and a desk
obstructing the
plant floor

Dirty and
poorly
maintained
machines



Tools left on
the floor
after use



Exhibit 5: The inventory rooms had months of excess yarn, often without any formal storage system or protection from damp or crushing



Yarn without labeling, order or damp protection



Yarn piled up so high and deep that access to back sacks is almost impossible



Different types and colors of yarn lying mixed

A crushed yarn cone, which is unusable as it leads to irregular yarn tension

Intervention aimed to improve 38 core textile management practices in 5 areas

Area	Specific practice
Factory Operations	Preventive maintenance is carried out for the machines
	Preventive maintenance is carried out per manufacturer's recommendations
	The shop floor is marked clearly for where each machine should be
	The shop floor is clear of waste and obstacles
	Machine downtime is recorded
	Machine downtime reasons are monitored daily
	Machine downtime is analyzed at least fortnightly & action plans created and implemented to try to reduce this
	Daily meetings take place that discuss efficiency with the production team
	Written procedures for warping, drawing, weaving & beam gaiting are displayed
	Visual aids display daily efficiency loomwise and weaverwise
	These visual aids are updated on a daily basis
	Spares stored in a systematic basis (labeling and demarked locations)
Quality Control	Spares purchases and consumption are recorded and monitored
	Scientific methods are used to define inventory norms for spares
	Quality defects are recorded
	Quality defects are recorded defect wise
	Quality defects are monitored on a daily basis
	There is an analysis and action plan based on defects data
	There is a fabric gradation system
	The gradation system is well defined
	Daily meetings take place that discuss defects and gradation
	Standard operating procedures are displayed for quality supervisors & checkers

Targeted practices in 5 areas:
operations,
quality,
inventory, HR
and sales & orders

The adoption of key textile management practices over time

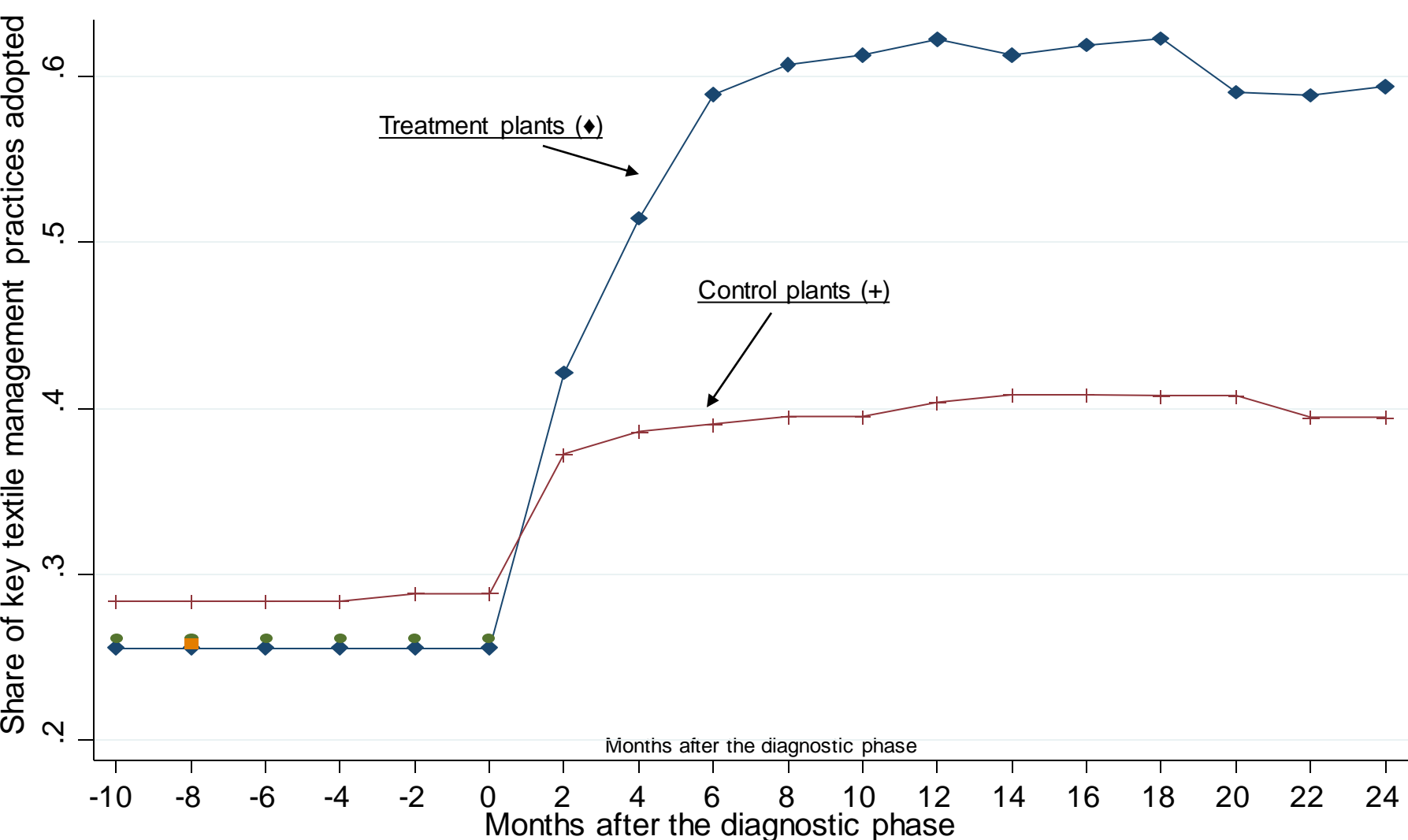


Figure 3: Quality defects index for the treatment and control plants

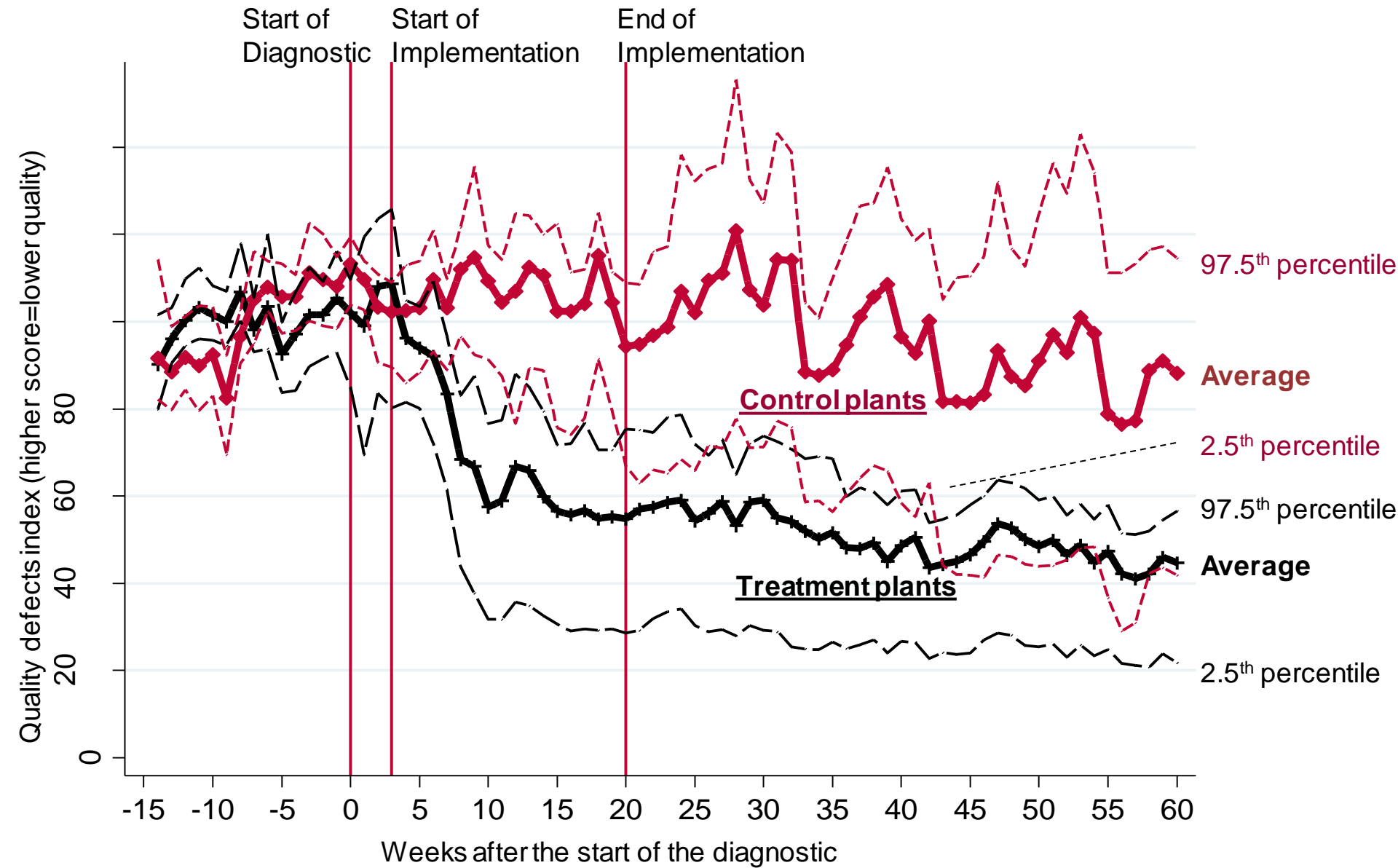
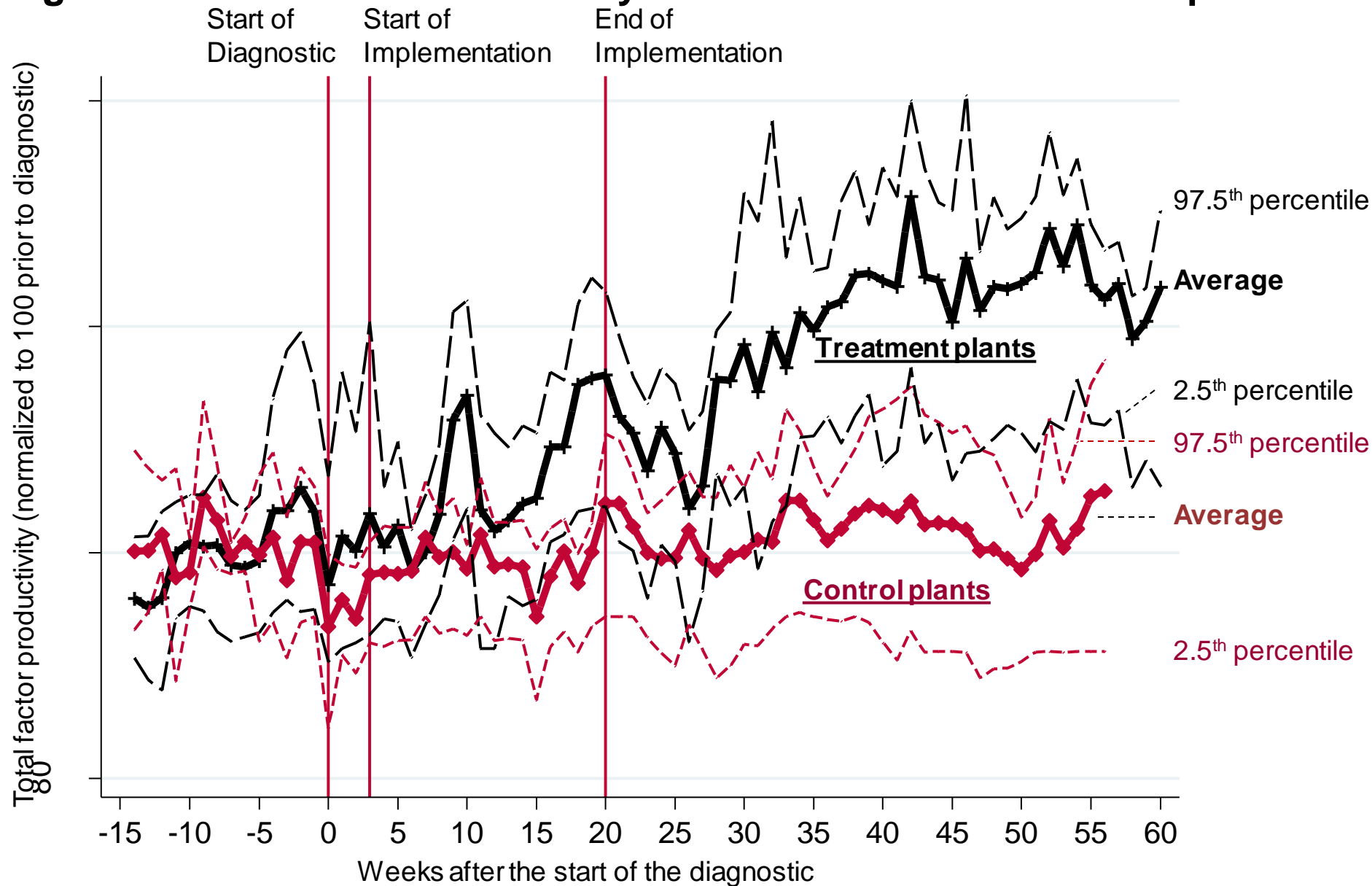


Figure 5: Total Factor Productivity for the treatment and control plants



Can this be done more cost-effectively?

- Work (with DNP/SENA) on autoparts sector in Colombia
- 159 firms, divided into three

Groups:

- 1) Control
- 2) Individual Consulting
- 3) Group Consulting

Appendix 2: Examples of Products Manufactured



Air Filters



Glass Panels



Rubber parts



Metal parts



Plastic parts



Tires



Injection molding/cushioning



GPS tracking services

Diagnostic phase (all three groups)

- analyze 141 management practices in 5 areas (June-Oct 2013):
 - production,
 - logistics,
 - human resources,
 - finance,
 - marketing & sales.
- team of 6 consultants, 5 of them specialists in each specific area analyzed and one team leader coordinating the process. This diagnostic phase lasts 2 full-time weeks.
- *Cost approx: US\$3,500 per firm.*

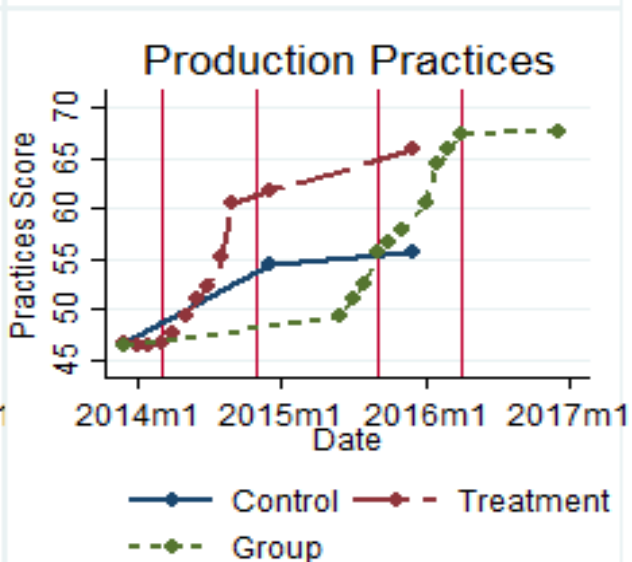
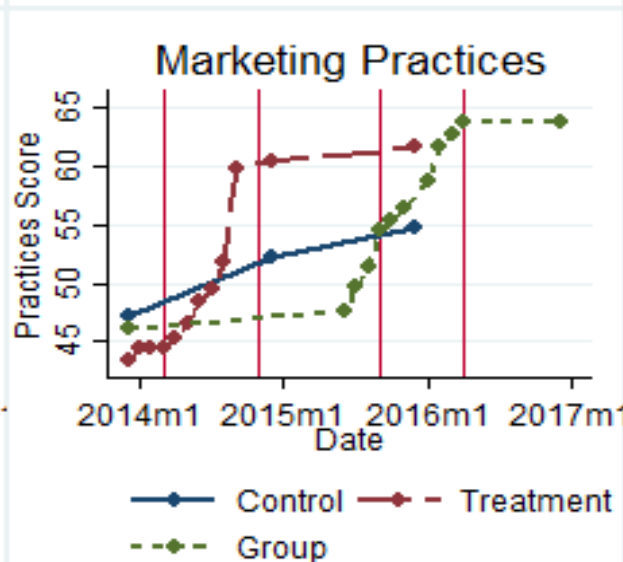
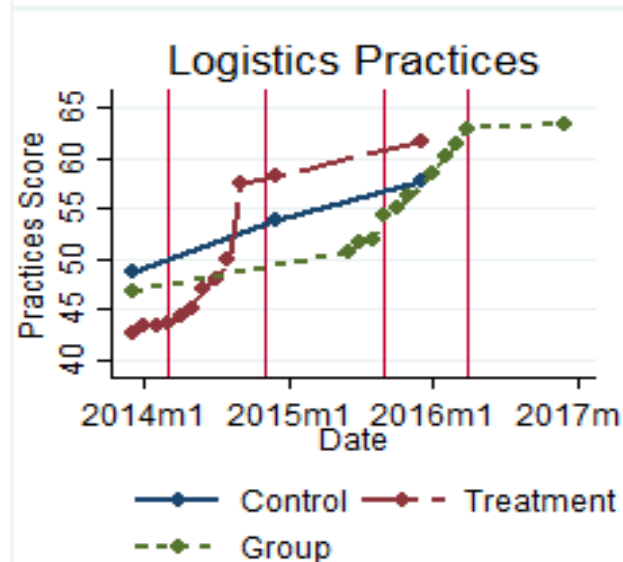
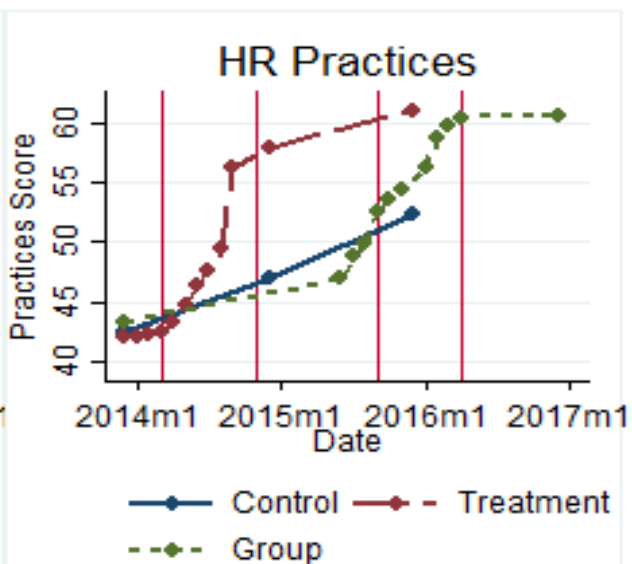
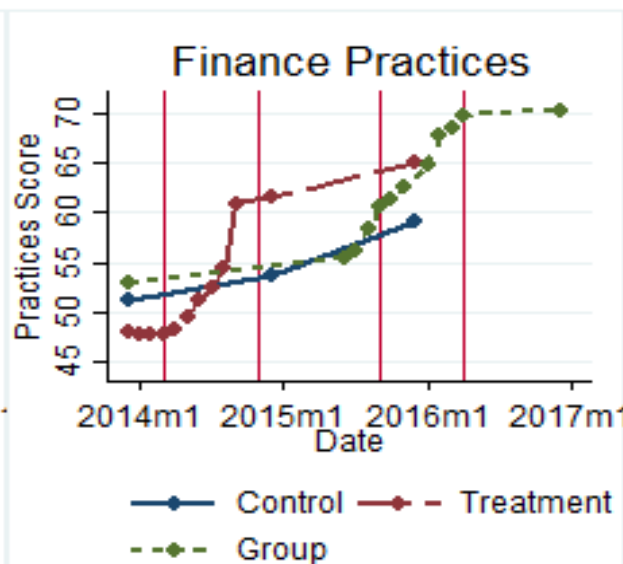
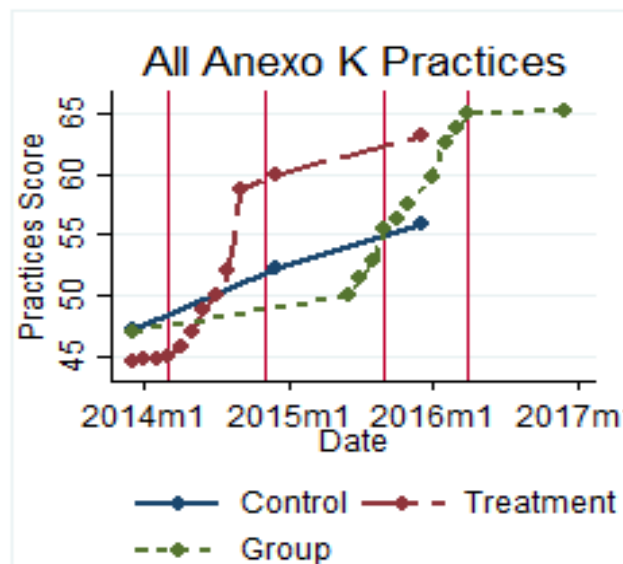
Individual Treatment

- Six months – April-Nov 2014
- Team of five consultants, one for each of the five processes (logistics, human resources, finance, marketing and sales, and production), along with a leader.
- Goal was to help the firms implement the managerial practices that were identified as priorities for the firm.
- weekly visits by the different specialists to work on the specific process areas. Firms were assigned to receive at least 20 hours of visits per process area.
- This was then followed by individualized consulting over 3-5 months per area.
- ***COST: US\$29,000 per firm receiving treatment***

Group Treatment

- Six months (Sept 2015-May 2016, with Christmas break)
- Groups are formed of 3 to 8 firms in a region so that members are not direct competitors to one another, but instead are producing complementary products with similar management problems
- Key ideas:
 - Have firms learn from one another's experiences
 - Lower costs- bring firms together in hotel rooms
- Monthly meeting with highest level of firm, takes place at plant.
- **COST: \$10,500 per firm receiving treatment (i.e. almost one-third of the cost of the individual treatment)**

Similar improvement in practices from both

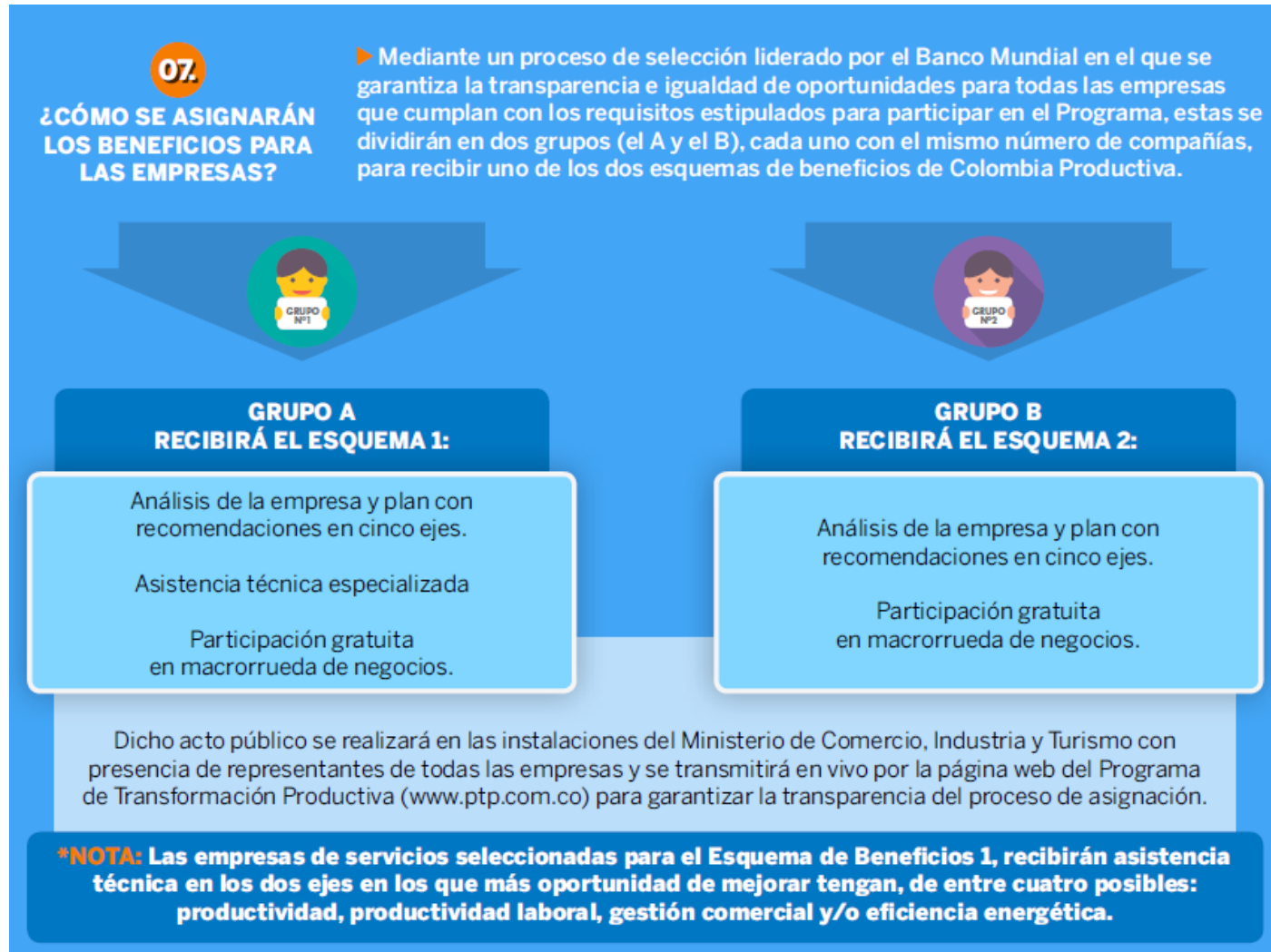


Implications

- Local consultants don't deliver as much of an improvement in management as top international consultants, but some improvement.
- Group-based approach has improvement on cost-benefit basis over individual approach
- Lots of implementation issues and measurement issues – lessons for future work in Colombia.

Other approaches 1: focus on exporters

- New intervention with Colombia Productiva program – focus on improving management for exporters



Other approaches 2: Market-based solutions

- Aim: build market for professional services, so that firms demand and pay for these services themselves.
- Example experiment underway in Nigeria: firms allocated into five groups:
 - Control
 - Traditional Business Training
 - Standard Business Consulting
 - *Outsourcing*: firm given money it can take to market and hire marketing/accounting *firms*
 - *Insourcing*: firms linked to HR providers and given money they can take to hire marketing/accounting *workers*

Market-based solutions working better than training at improving management

Impacts on Business Practices

	Finance Practices	Marketing Practices	Digital Marketing	Operations & HR Practices	Overall Business Practices Index	Verified Practices Index
Insourcing	0.106*** (0.035)	0.081** (0.035)	0.087*** (0.026)	0.033* (0.020)	0.077*** (0.021)	0.105*** (0.031)
Outsourcing	0.073** (0.035)	0.082** (0.033)	0.094*** (0.026)	0.018 (0.021)	0.069*** (0.020)	0.098*** (0.029)
Training	0.001 (0.037)	-0.033 (0.037)	0.011 (0.026)	-0.015 (0.020)	-0.005 (0.021)	0.016 (0.027)
Consulting	0.075** (0.035)	0.017 (0.035)	0.060** (0.025)	0.017 (0.019)	0.044** (0.021)	0.094*** (0.031)
Mean of Control Group	0.622	0.579	0.231	0.466	0.466	0.243
Sample Size	605	605	605	605	605	605

Final notes on improving management

- *Look beyond manufacturing and private sector:*
 - Poor management also an issue in public sector, schools, hospitals etc.
- *Improvements can take time*
 - Govt. in Puebla, Mexico cut funding to program because didn't increase employment after 1 year – but 4-5 years later were sizeable effects.
- *Experimentation and government support important*
 - Firms often don't know they are badly managed
 - Lots of constraints on functioning markets for services
 - Not all good-sounding efforts to improve management will work, so need to pilot and test