Management in Schools

Nick Bloom (Stanford)

SNS, Stockholm, June 10th 2015

Long debate over the importance of management for performance

Francis Walker wrote a paper called in 1887 in the Quarterly Journal of Economics called "*The Sources of Business Profits*"

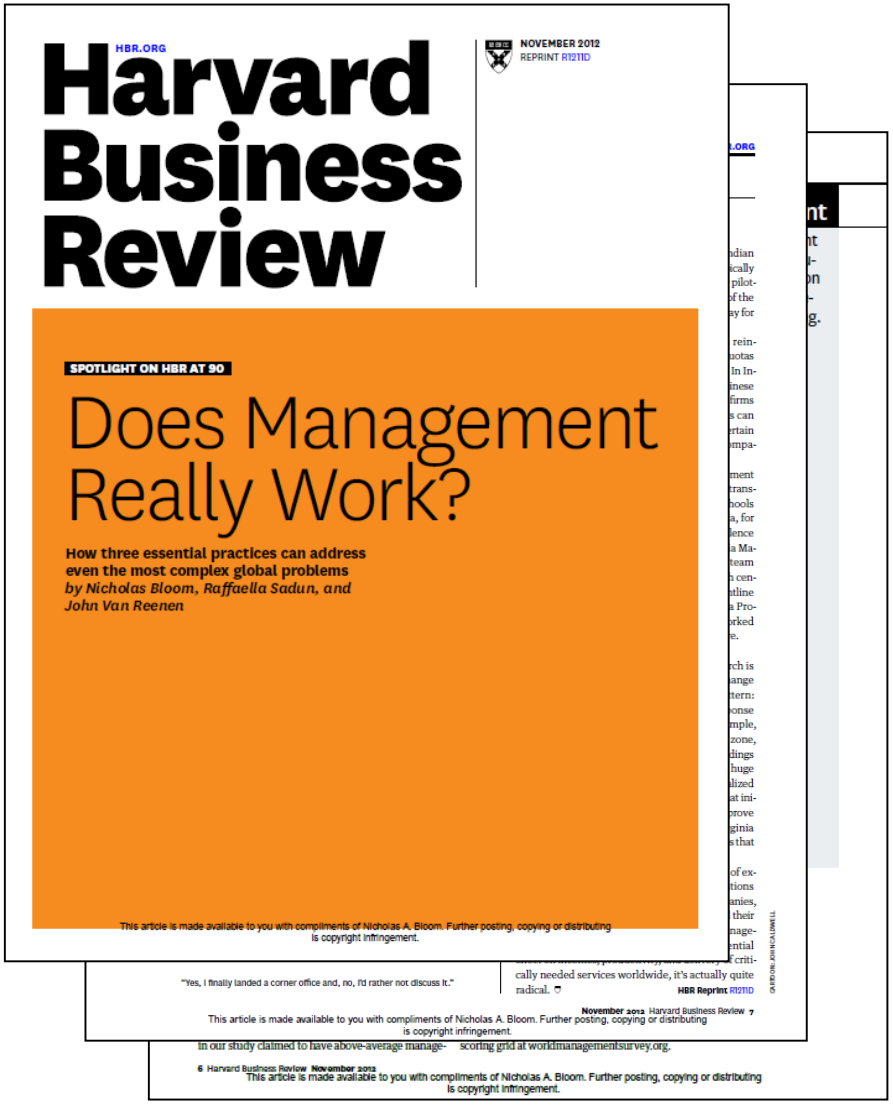
Walker argued that management was the key driver of differences in firm performance

But there is still a wide debate – many people claim management is all “hot air” or “BS”

“*No potential driving factor of productivity has seen a higher ratio of speculation to empirical study*”

- Chad Syversson (2011, Journal of Economic Literature)

This is a key issue for organizations…..



HBR.ORG

Harvard Business Review

NOVEMBER 2012
REPRINT R1211D

SPOTLIGHT ON HBR AT 90

Does Management Really Work?

How three essential practices can address even the most complex global problems
by Nicholas Bloom, Raffaella Sadun, and John Van Reenen

"Yes, I finally landed a corner office and, no, I'd rather not discuss it."

cally needed services worldwide, it's actually quite radical.

HBR Reprint R1211D

November 2012 Harvard Business Review 7

in our study claimed to have above-average manage- scoring grid at worldmanagementsurvey.org.

6 Harvard Business Review November 2012

….and for policy

I will try to summarize 15 years research in 3 areas

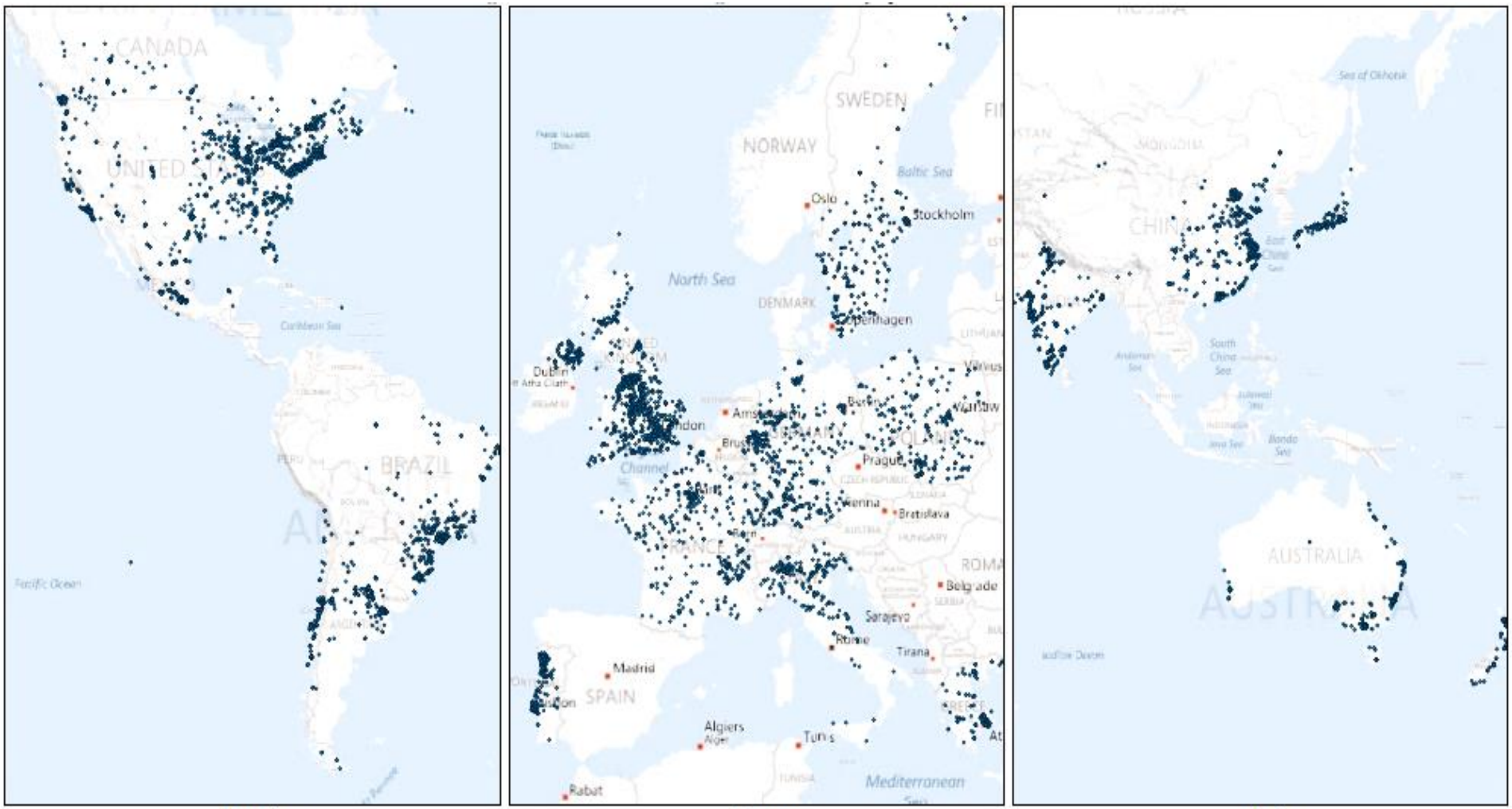
1) Measuring management

2) Impact of management on performance

3) Policy implications (for schools in particular)



World Management Survey has covered about 25,000 organizations (manufacturing, retail, schools and hospitals) globally since 2004



Basic survey methodology – 3 key steps

1) Developing management questions

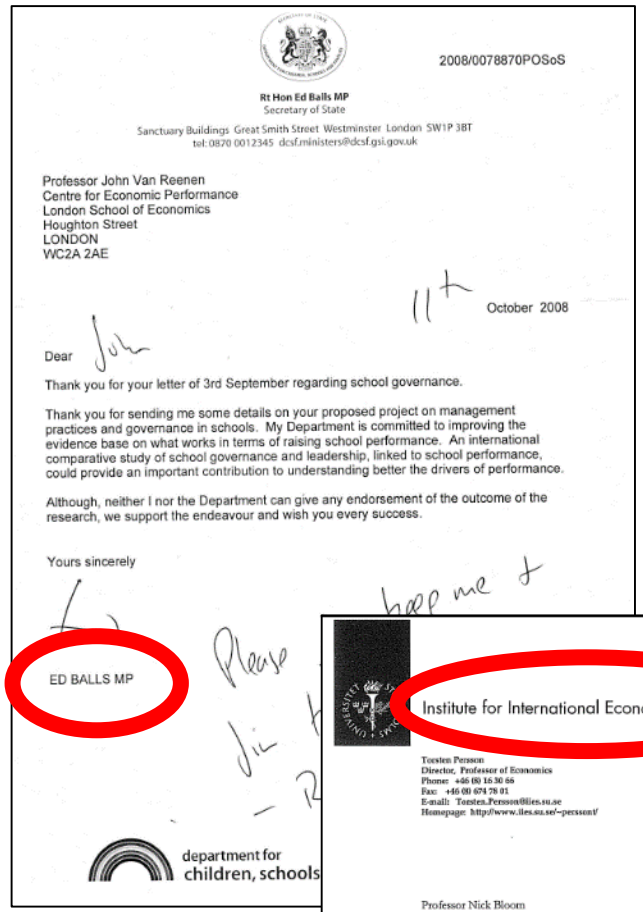
- Scorecard for 20 monitoring and incentives practices in ≈45 minute phone interview of senior managers (e.g. principals)

2) Getting firms to participate in the interview

- Introduced as "Modern-management" interview, no financials
- Official Endorsement: Dept. Education, RBI, World Bank etc.

3) Obtaining unbiased comparable responses, "Double-blind"

- Interviewers do not know the company's performance
- Managers are not informed (in advance) they are scored



2008/0078870POSoS

Rt Hon Ed Balls MP
Secretary of State

Sanctuary Buildings Great Smith Street Westminster London SW1P 3BT
tel: 0870 0012345 dcsf.ministers@dcsf.gsi.gov.uk

Professor John Van Reenen
Centre for Economic Performance
London School of Economics
Houghton Street
LONDON
WC2A 2AE

11th October 2008

Dear John

Thank you for your letter of 3rd September regarding school governance.

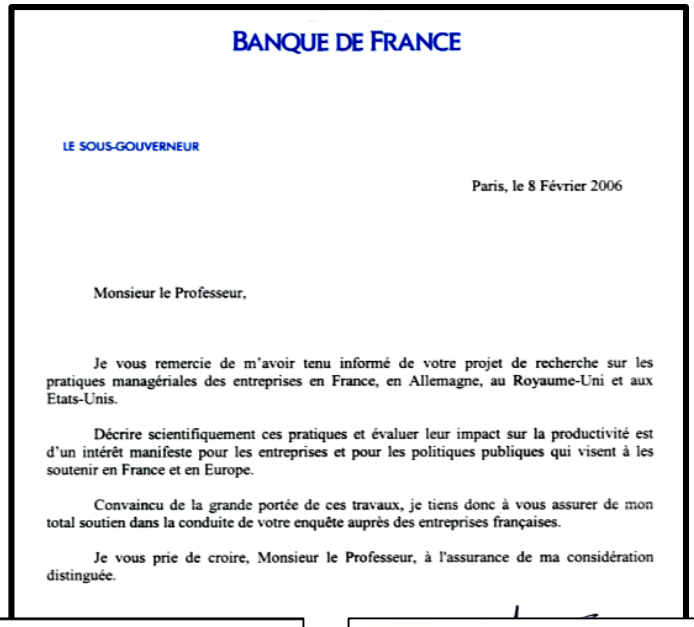
Thank you for sending me some details on your proposed project on management practices and governance in schools. My Department is committed to improving the evidence base on what works in terms of raising school performance. An international comparative study of school governance and leadership, linked to school performance, could provide an important contribution to understanding better the drivers of performance.

Although, neither I nor the Department can give any endorsement of the outcome of the research, we support the endeavour and wish you every success.

Yours sincerely

ED BALLS MP

department for children, schools



BANQUE DE FRANCE

LE SOUS-GOUVERNEUR

Paris, le 8 Février 2006

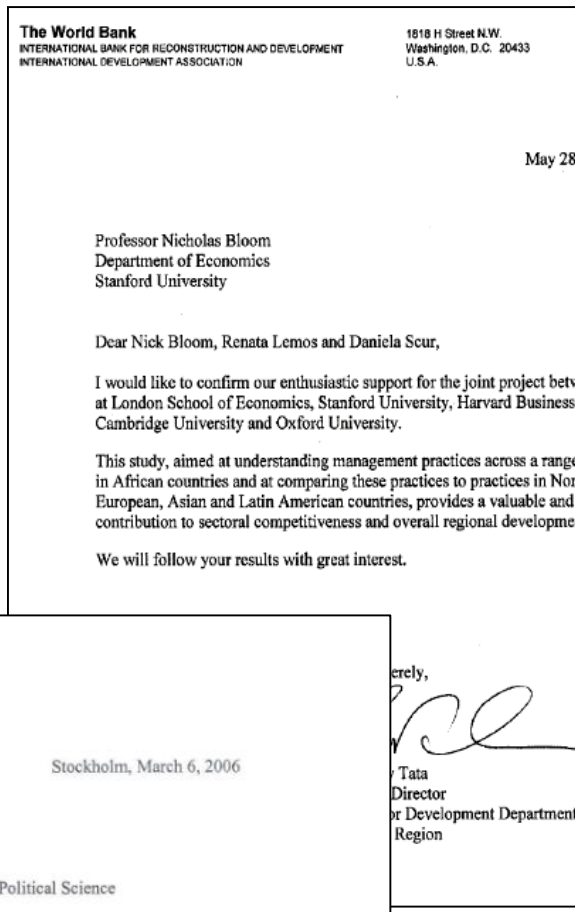
Monsieur le Professeur,

Je vous remercie de m'avoir tenu informé de votre projet de recherche sur les pratiques managériales des entreprises en France, en Allemagne, au Royaume-Uni et aux Etats-Unis.

Décrire scientifiquement ces pratiques et évaluer leur impact sur la productivité est d'un intérêt manifeste pour les entreprises et pour les politiques publiques qui visent à les soutenir en France et en Europe.

Convaincu de la grande portée de ces travaux, je tiens donc à vous assurer de mon total soutien dans la conduite de votre enquête auprès des entreprises françaises.

Je vous prie de croire, Monsieur le Professeur, à l'assurance de ma considération distinguée.



The World Bank
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street N.W.
Washington, D.C. 20433
U.S.A.

May 28

Professor Nicholas Bloom
Department of Economics
Stanford University

Dear Nick Bloom, Renata Lemos and Daniela Scur,

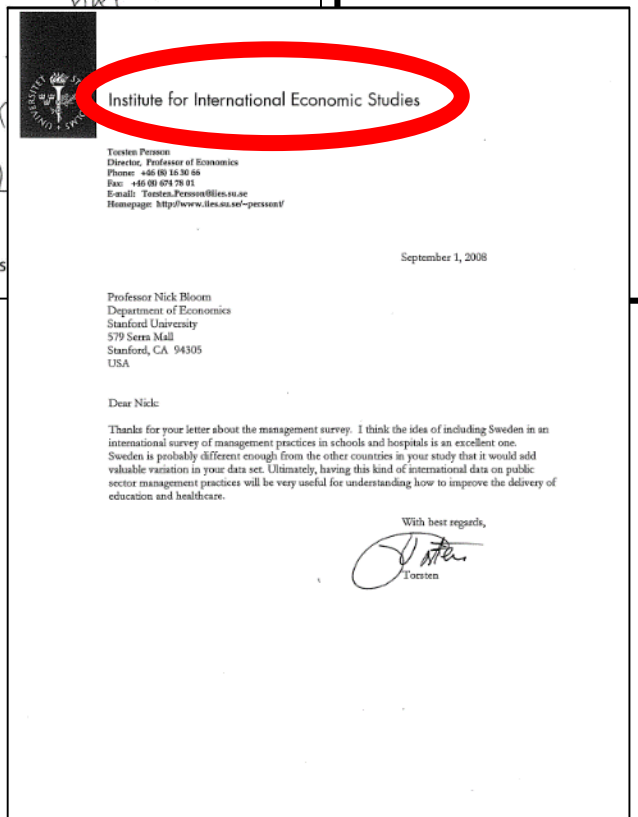
I would like to confirm our enthusiastic support for the joint project betw
at London School of Economics, Stanford University, Harvard Business
Cambridge University and Oxford University.

This study, aimed at understanding management practices across a range
in African countries and at comparing these practices to practices in Nor
European, Asian and Latin American countries, provides a valuable and
contribution to sectoral competitiveness and overall regional developme

We will follow your results with great interest.

erely,

Tata
Director
r Development Department
Region



Institute for International Economic Studies

Torsten Persson
Director, Professor of Economics
Phone: +46 (8) 16 30 66
Fax: +46 (8) 674 78 01
E-mail: Torsten.Persson@ies.su.se
Homepage: http://www.ies.su.se/~persson/

September 1, 2008

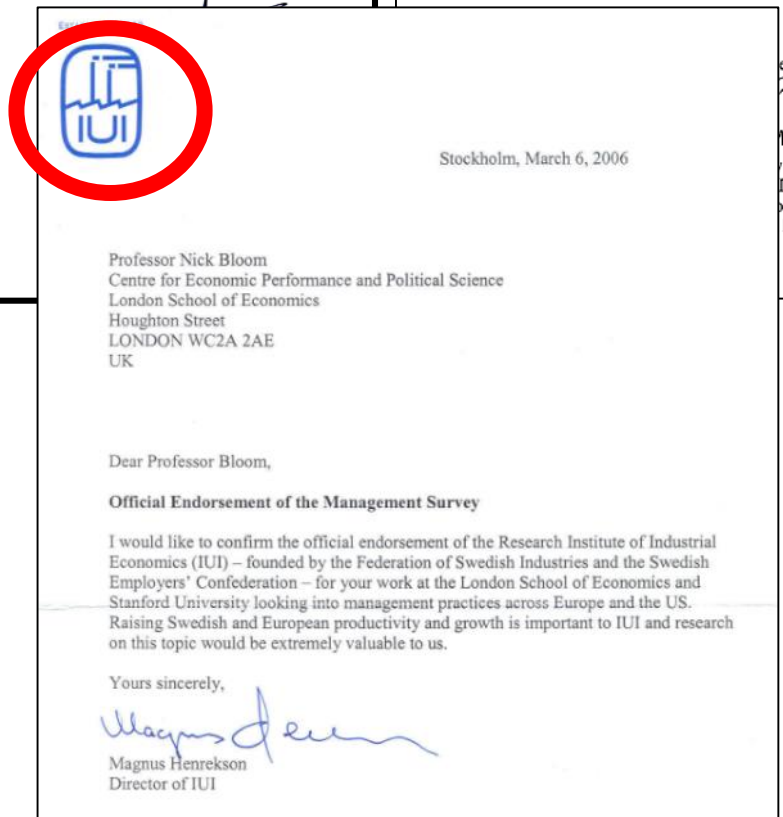
Professor Nick Bloom
Department of Economics
Stanford University
579 Serra Mall
Stanford, CA 94305
USA

Dear Nick:

Thanks for your letter about the management survey. I think the idea of including Sweden in an international survey of management practices in schools and hospitals is an excellent one. Sweden is probably different enough from the other countries in your study that it would add valuable variation in your data set. Ultimately, having this kind of international data on public sector management practices will be very useful for understanding how to improve the delivery of education and healthcare.

With best regards,

Torsten



IUI

Stockholm, March 6, 2006

Professor Nick Bloom
Centre for Economic Performance and Political Science
London School of Economics
Houghton Street
LONDON WC2A 2AE
UK

Dear Professor Bloom,

Official Endorsement of the Management Survey

I would like to confirm the official endorsement of the Research Institute of Industrial Economics (IUI) – founded by the Federation of Swedish Industries and the Swedish Employers' Confederation – for your work at the London School of Economics and Stanford University looking into management practices across Europe and the US. Raising Swedish and European productivity and growth is important to IUI and research on this topic would be extremely valuable to us.

Yours sincerely,

Magnus Henrekson
Director of IUI

Basic survey methodology – 3 key steps

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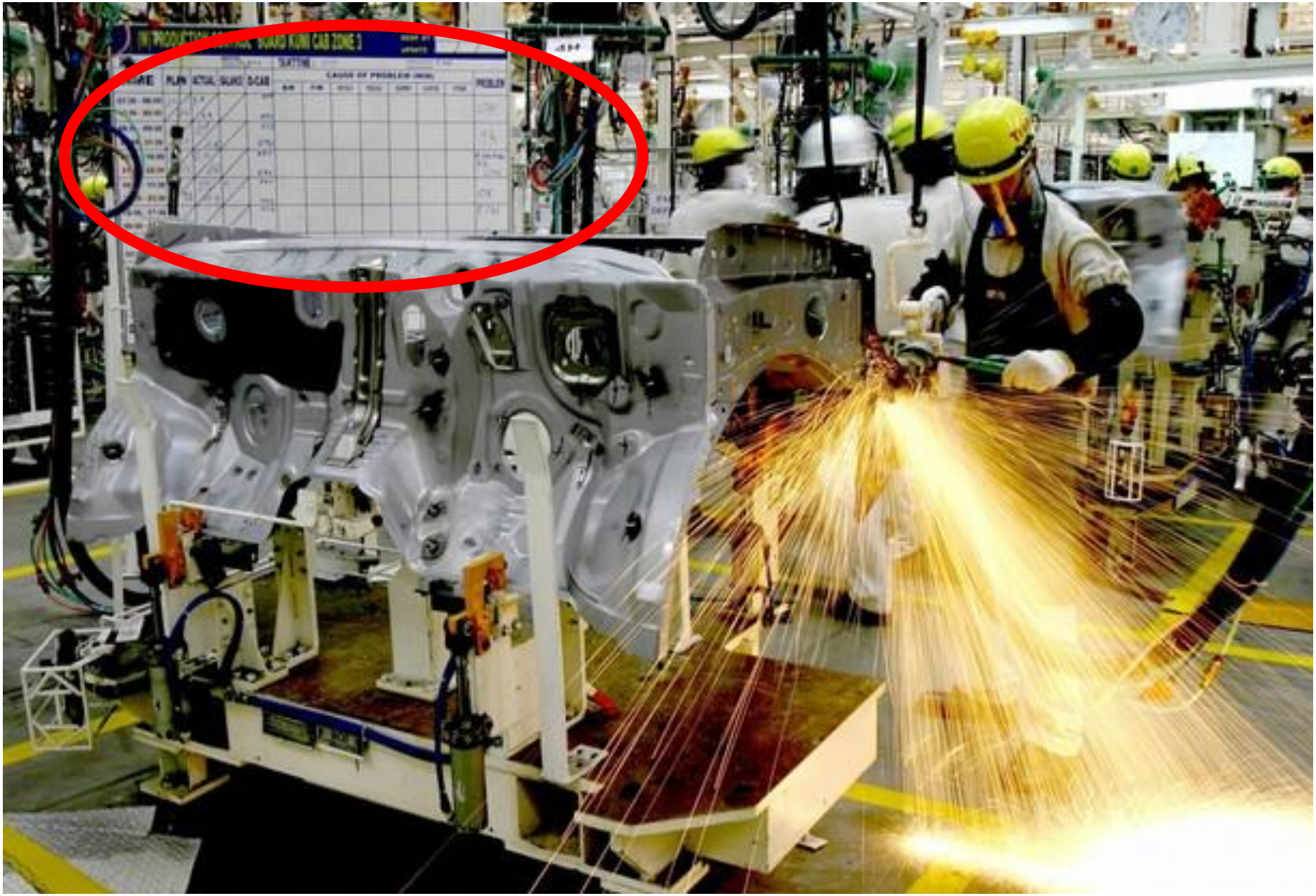
Example monitoring question, scored based on a number of questions starting with "*How is performance tracked?*"

Score	(1): Measures tracked do not indicate directly if overall business objectives are being met. Certain processes aren't tracked at all	(3): Most key performance indicators are tracked formally. Tracking is overseen by senior management	(5): Performance is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools

Examples of performance metrics – Car Plant



Examples of a performance metrics – Hospital

Examples of performance metrics – School

NYC Department of Education

Value-added Data for Teachers Initiative

Teacher: **Swain, Winthrop**

Teacher Performance by Student Characteristics

Teacher's value-added for sub-groups of students compared to teacher's value-added overall for history: up to 3 years

Types of Student	Sample Size / (% of Sample)	Actual Gain	Predicted Gain	Difference from Predicted (Teacher's Value Added)
English Language Arts				
All Students	144 (100%)	0.11	0.04	0.07*
Citywide:				
Bottom Third	94 (62.8%)	0.27	0.16	0.10*
Middle Third	39 (29.3%)	-0.13	-0.14	0.01
Top Third	11 (7.9%)	-0.32	-0.37	0.04
School				
Bottom Third	51 (32.5%)	0.39	0.24	0.16*
ELL	-	-	-	-
Special Education	15 (10.1%)	0.19	0.02	0.17
Mathematics				
All Students	152 (100%)	-0.03	-0.09	0.06
Citywide:				
Bottom Third	106 (64.2%)	0.11	0.01	0.10*
Middle Third	37 (28.4%)	-0.33	-0.30	-0.03
Top Third	9 (7.4%)	-0.46	-0.45	-0.02
School				
Bottom Third	48 (25.2%)	0.24	0.14	0.11
ELL	10 (6.8%)	-0.14	0.01	-0.15
Special Education	15 (9.1%)	-0.01	-0.11	0.11

The (*) means that there is a very high probability that the contribution is positive (or negative).

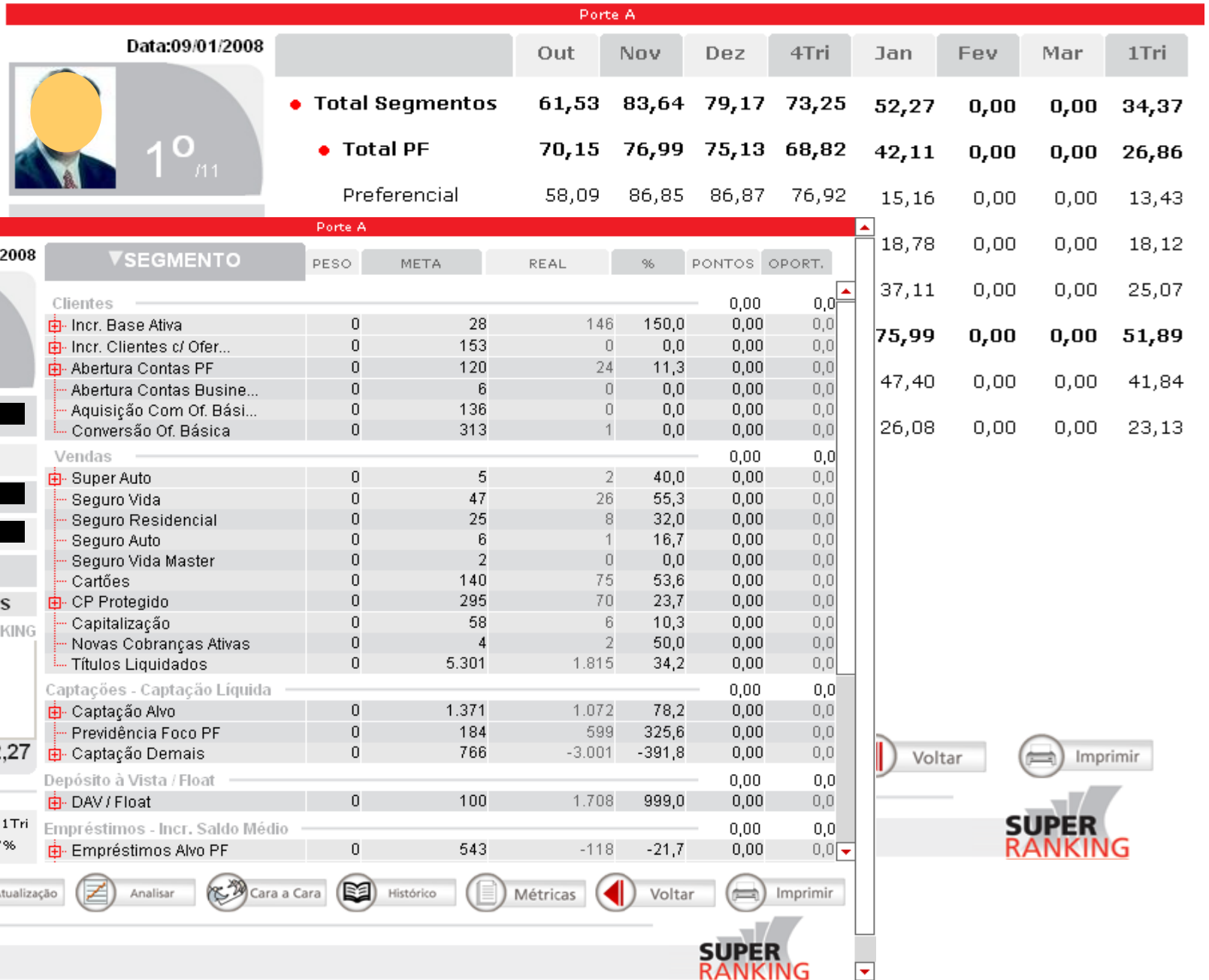
Source: Rockoff, Staiger, Kane and Taylor, AER 2011

Examples of performance metrics – Retail

Example incentives question, scored based on questions starting with "*How does the promotion system work?*"

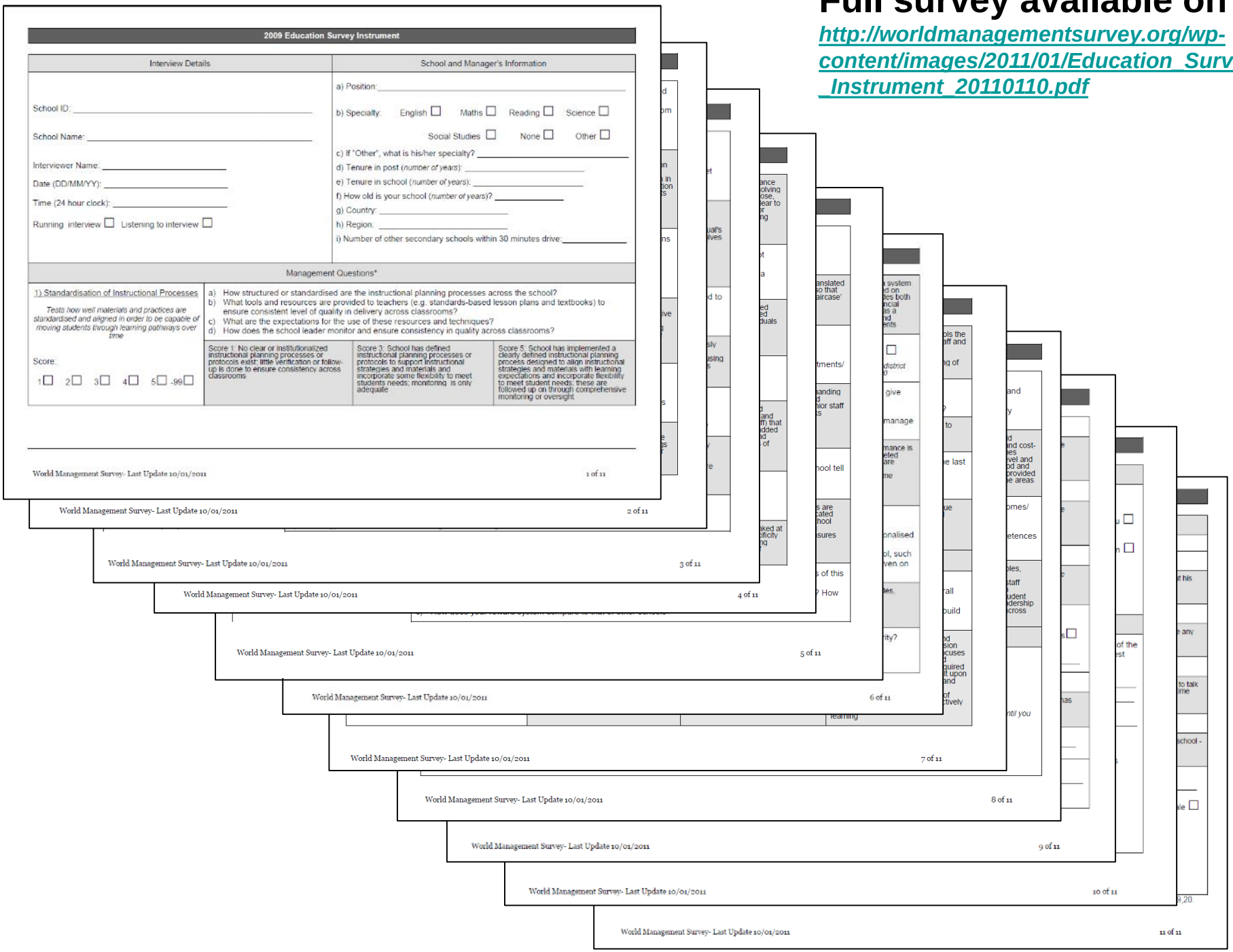
Score	(1) People are promoted primarily upon the basis of tenure, irrespective of performance (ability & effort)	(3) People are promoted primarily upon the basis of performance	(5) We actively identify, develop and promote our top performers

Examples of performance reviews – Retail Bank



Full survey available on

http://worldmanagementsurvey.org/wp-content/images/2011/01/Education_Survey_Instrument_20110110.pdf



2009 Education Survey Instrument

Interview Details

School ID: _____

School Name: _____

Interviewer Name: _____

Date (DD/MM/YY): _____

Time (24 hour clock): _____

Running interview ☐ Listening to interview ☐

School and Manager's Information

a) Position: _____

b) Specialty: English ☐ Maths ☐ Reading ☐ Science ☐ Social Studies ☐ None ☐ Other ☐

c) If "Other", what is his/her specialty? _____

d) Tenure in post (*number of years*): _____

e) Tenure in school (*number of years*): _____

f) How old is your school (*number of years*)? _____

g) Country: _____

h) Region: _____

i) Number of other secondary schools within 30 minutes drive: _____

Management Questions*

1) Standardisation of Instructional Processes

Tests how well materials and practices are standardised and aligned in order to be capable of moving students through learning pathways over time

Score: 1☐ 2☐ 3☐ 4☐ 5☐ -99☐

a) How structured or standardised are the instructional planning processes across the school?
b) What tools and resources are provided to teachers (e.g. standards-based lesson plans and textbooks) to ensure consistent level of quality in delivery across classrooms?
c) What are the expectations for the use of these resources and techniques?
d) How does the school leader monitor and ensure consistency in quality across classrooms?

Score 1: No clear or institutionalized instructional planning processes or protocols exist; little verification or follow-up is done to ensure consistency across classrooms

Score 3: School has defined instructional planning processes or protocols to support instructional strategies and materials and incorporate some flexibility to meet students needs; monitoring is only adequate

Score 5: School has implemented a clearly defined instructional planning process designed to align instructional strategies and materials with learning expectations and incorporate flexibility to meet student needs; these are followed up on through comprehensive monitoring or oversight

World Management Survey- Last Update 10/01/2011 1 of 11

World Management Survey- Last Update 10/01/2011 2 of 11

World Management Survey- Last Update 10/01/2011 3 of 11

World Management Survey- Last Update 10/01/2011 4 of 11

World Management Survey- Last Update 10/01/2011 5 of 11

World Management Survey- Last Update 10/01/2011 6 of 11

World Management Survey- Last Update 10/01/2011 7 of 11

World Management Survey- Last Update 10/01/2011 8 of 11

World Management Survey- Last Update 10/01/2011 9 of 11

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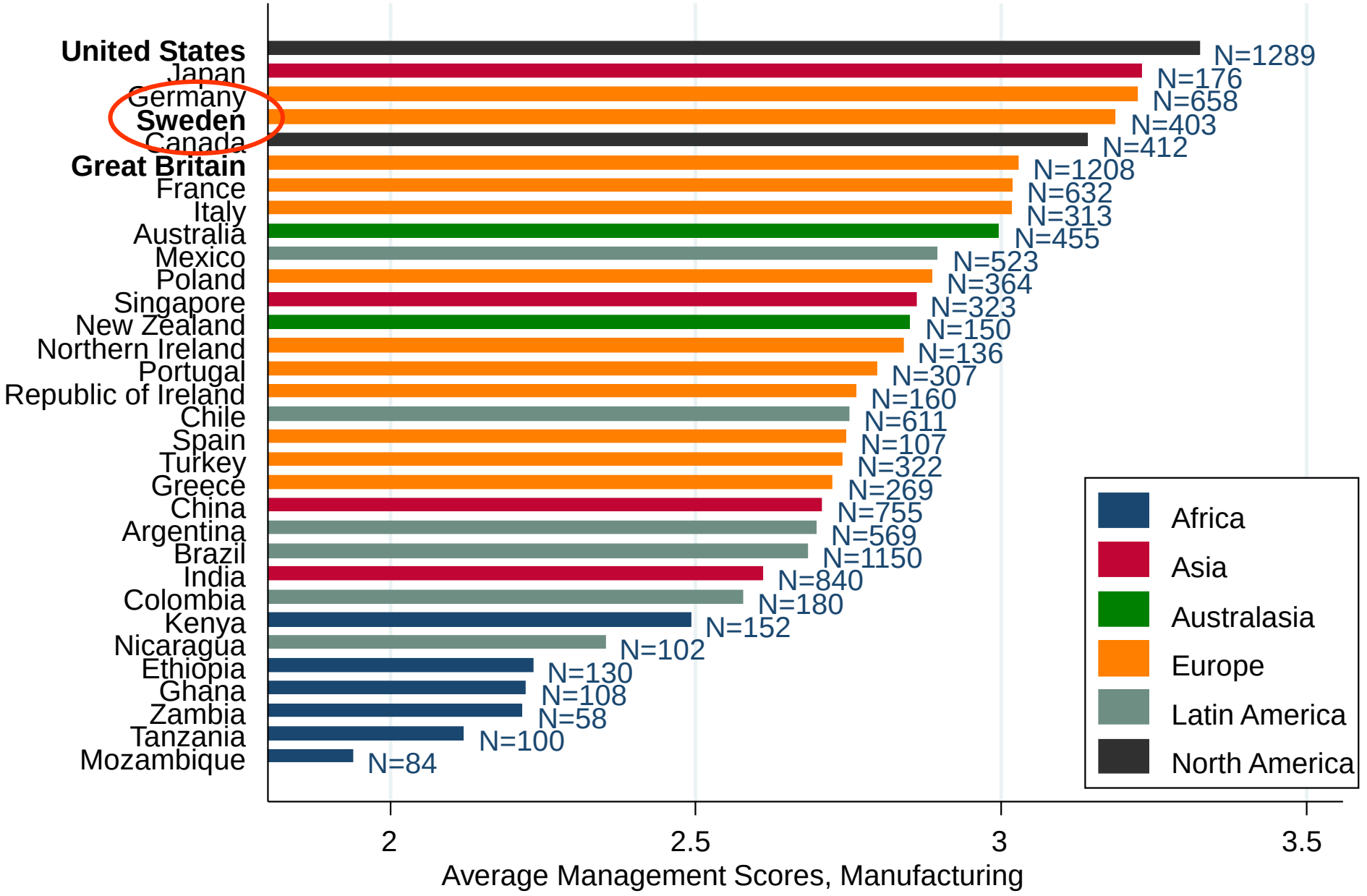
World Management Survey- Last Update 10/01/2011 11 of 11

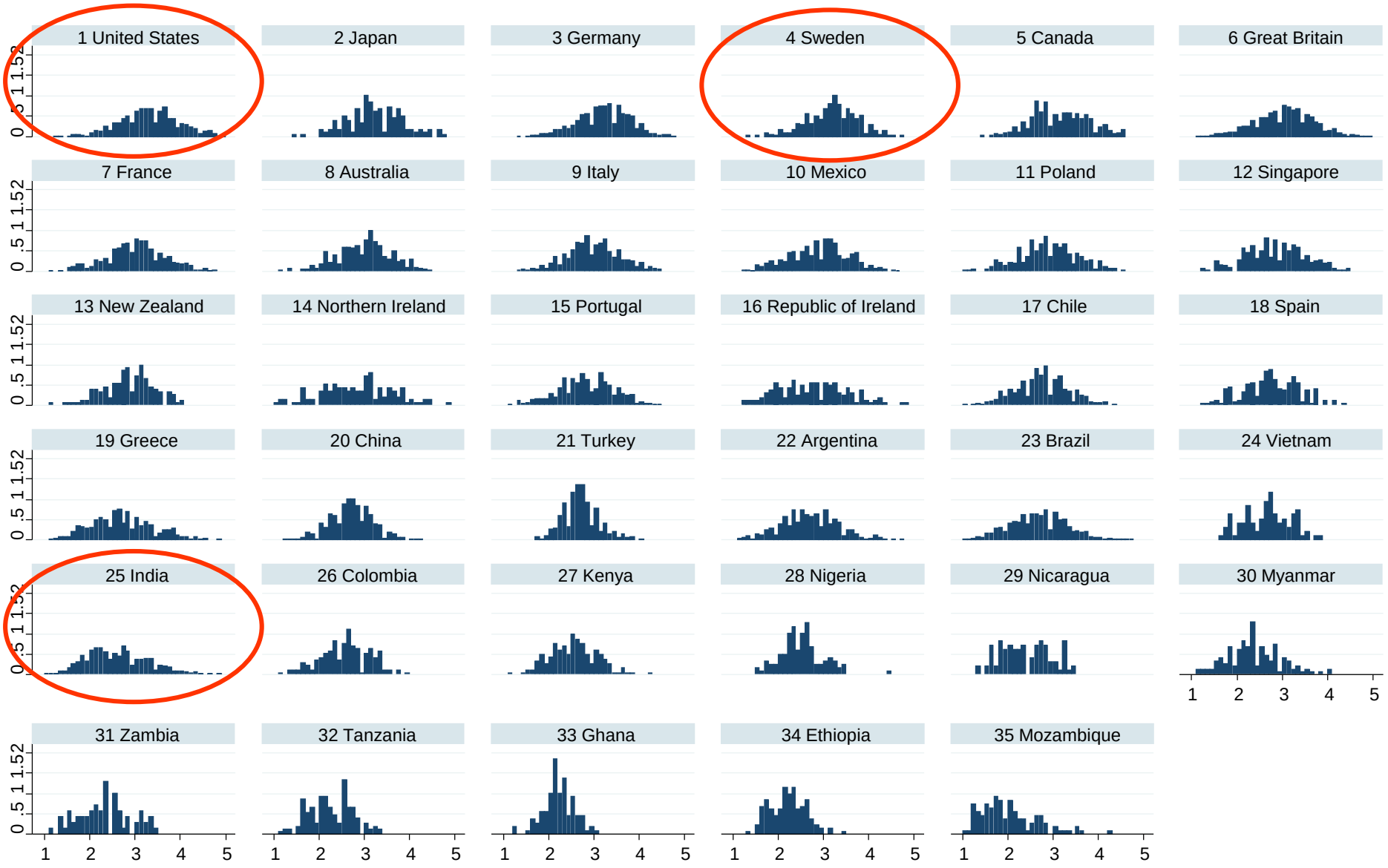
What do we find?

Wide management spread by country: manufacturing



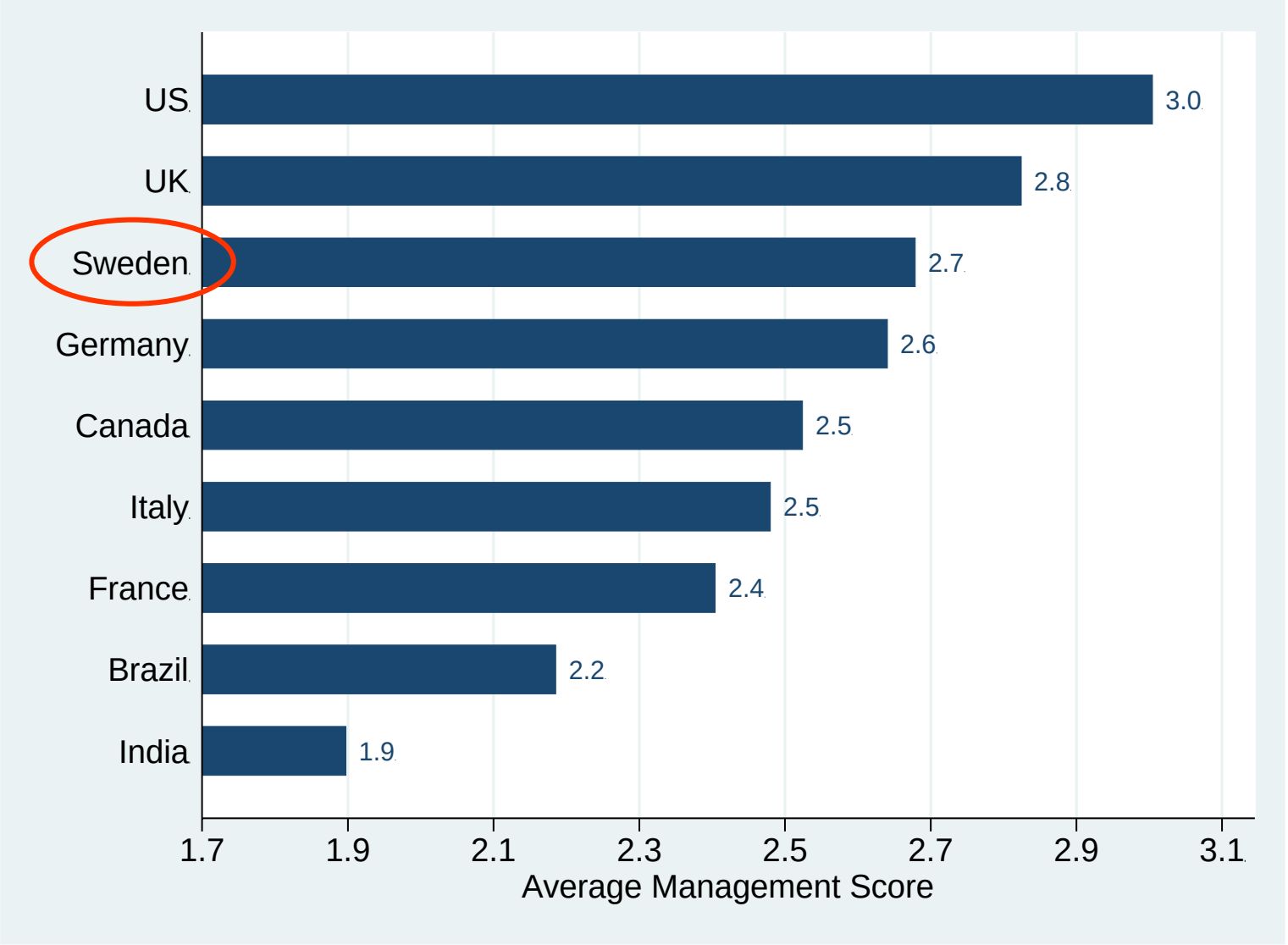
Note: Average management scores with number of observations. All waves pooled totalling 14,722 observations

Management also varies within countries: manufacturing



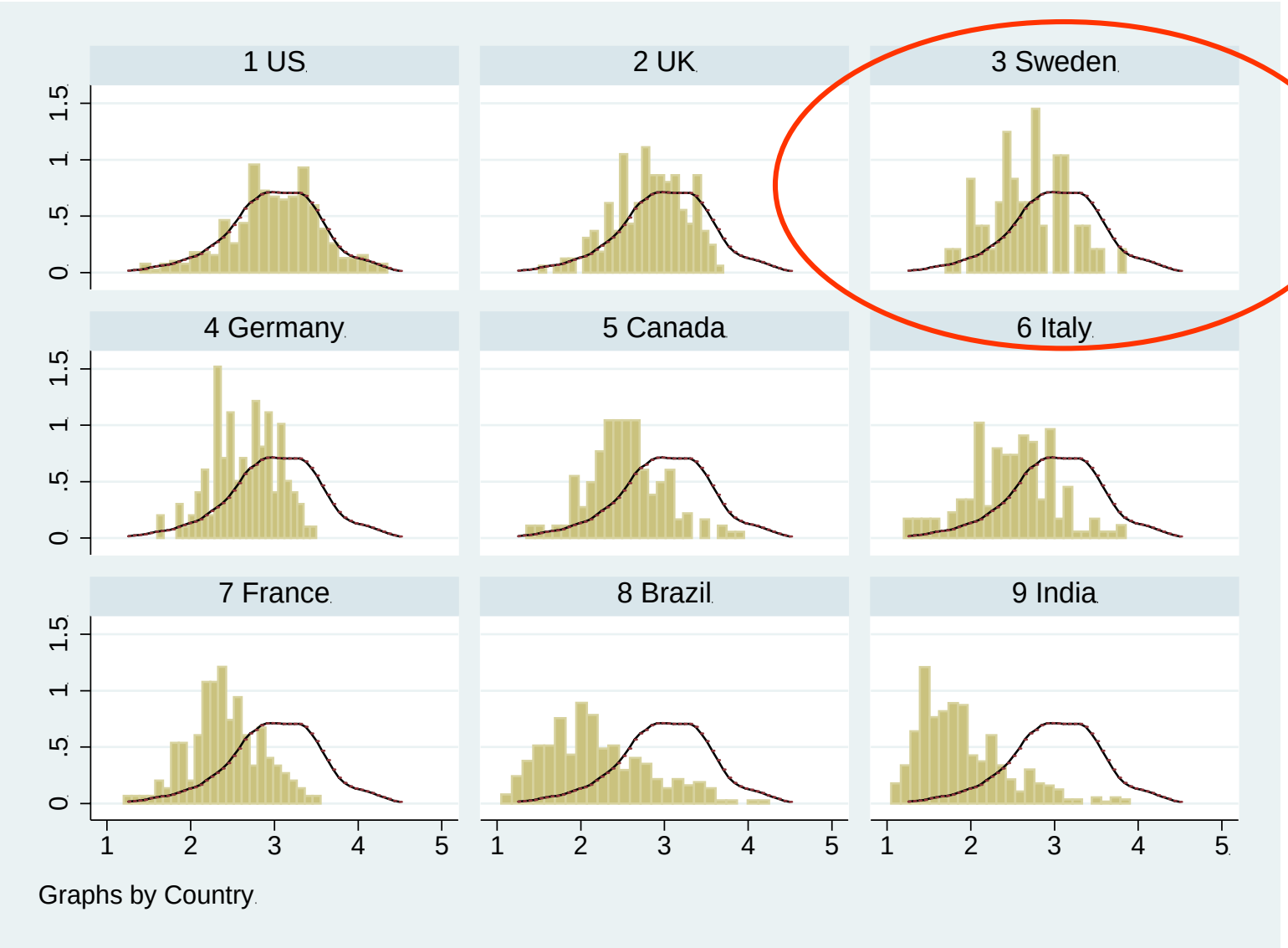
Note: Average management scores with number of observations. All waves pooled totalling 14,722 observations

Wide spread of management across countries: hospitals



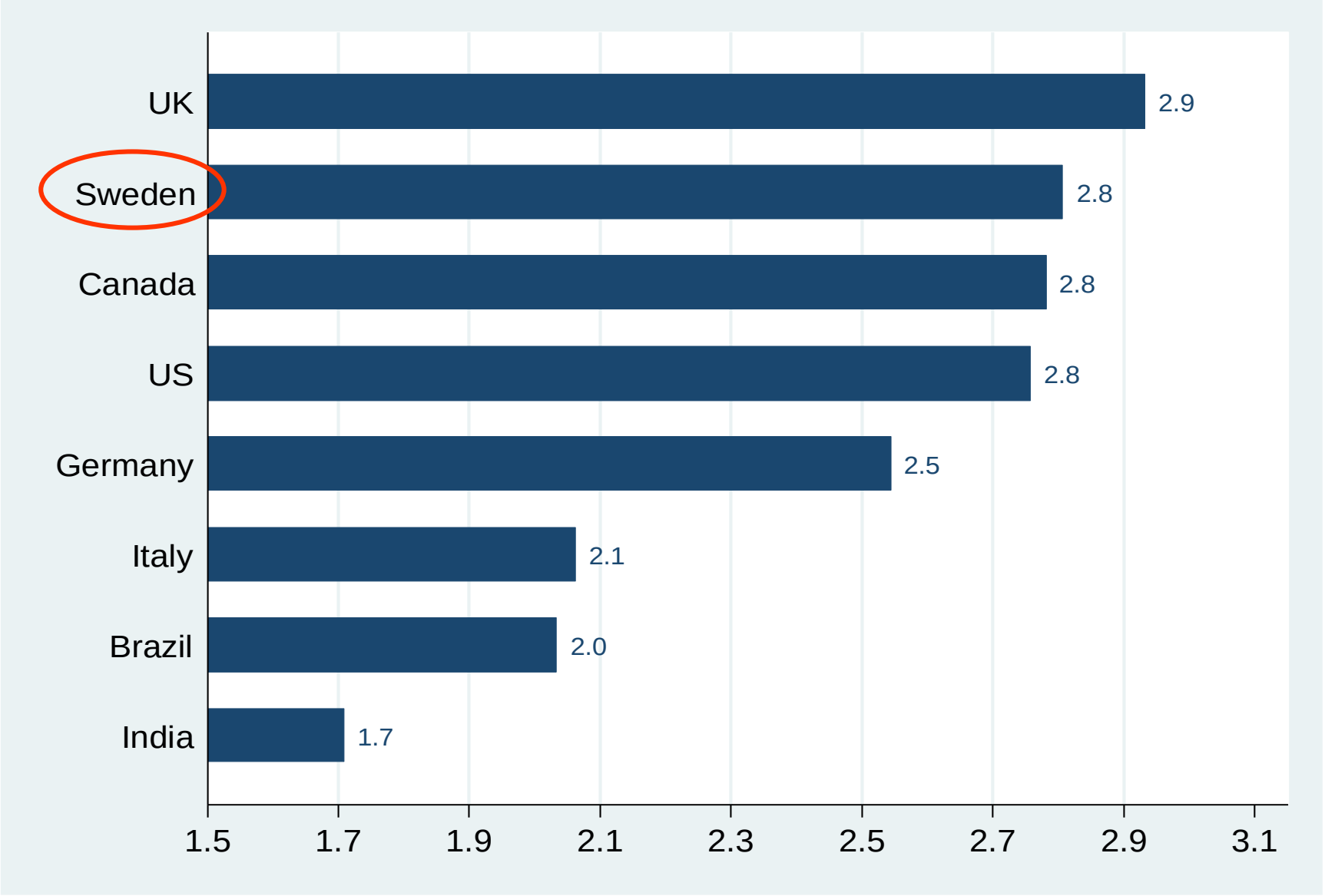
Randomly surveyed population of hospitals in each country that offer acute care (take emergencies), and have an orthopaedics and/or cardiology department. Total of 1687 hospitals.

Again see a very wide spread in countries: hospitals



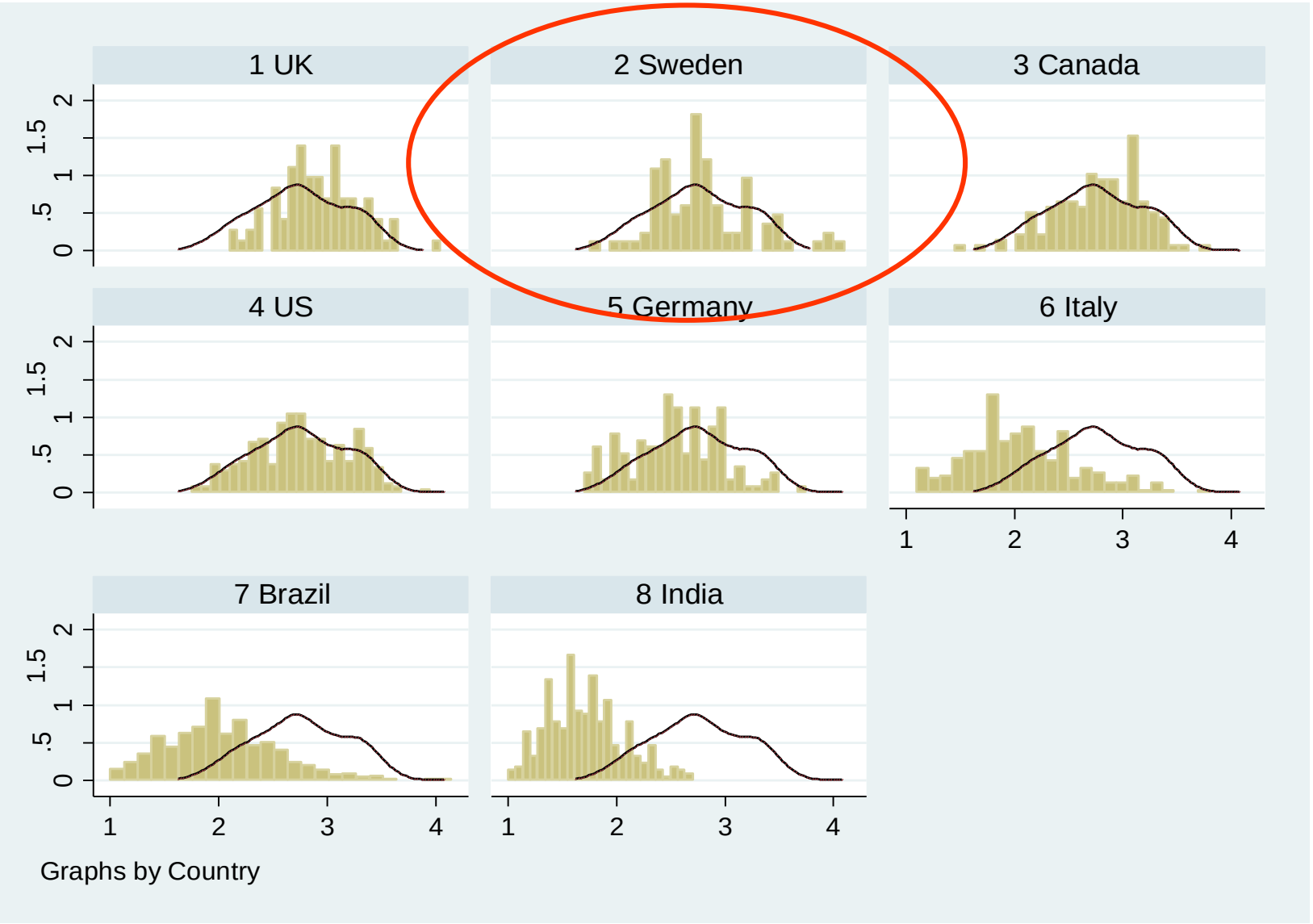
Randomly surveyed population of hospitals in each country that offer acute care (take emergencies), and have an orthopaedics and/or cardiology department. Total of 1687 hospitals.

Wide country spread of management: high-schools



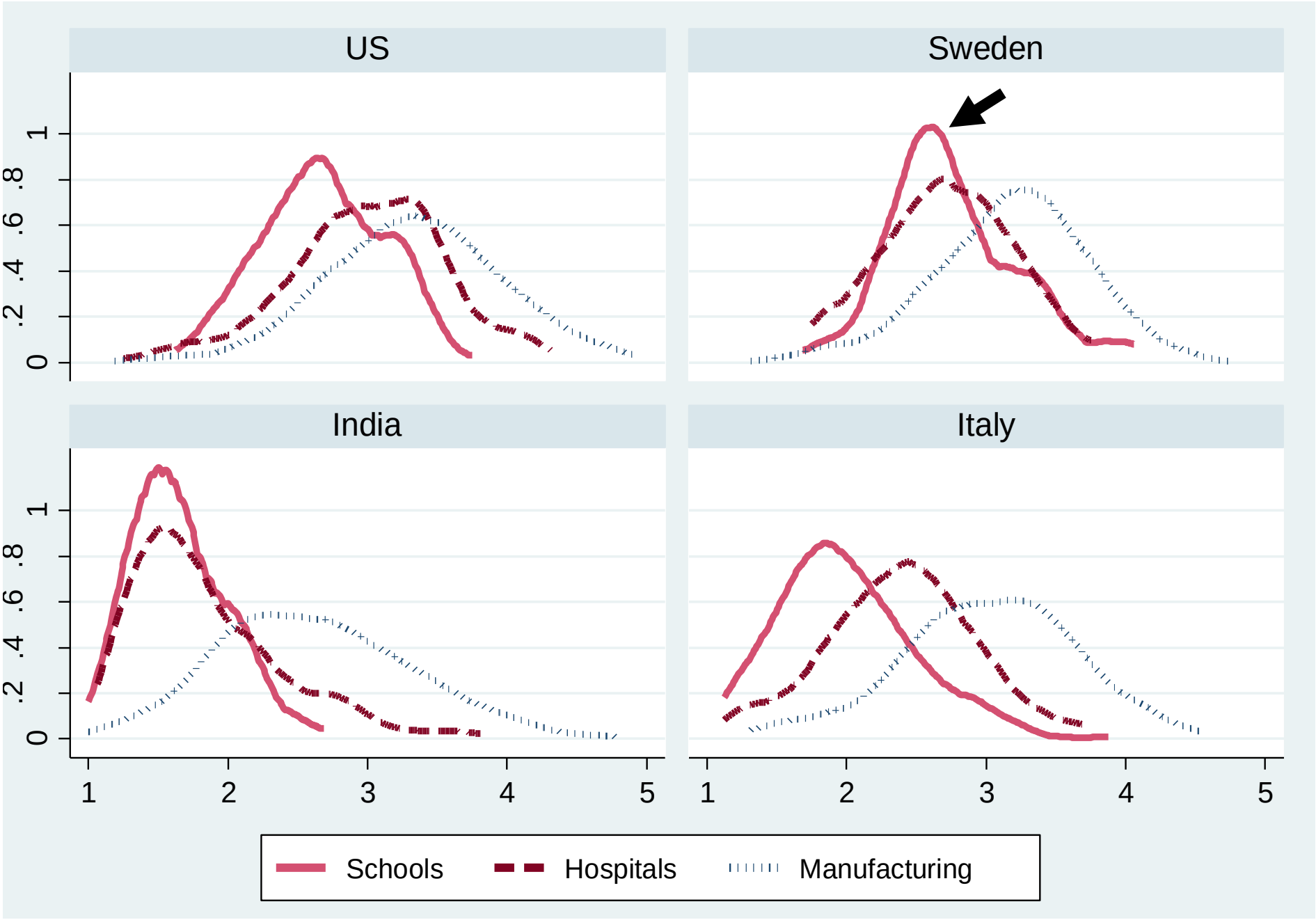
Notes: Data from 1,851 schools: 513 in Brazil; 146 in Canada; 140 in Germany, 318 in India, 284 in Italy, 88 in Sweden, 92 in the UK and 270 in the US. A school level score is the simple average across all 20 questions and the country average (shown above) is the unweighted average of these school level scores within a country.

Within country management spread: high-schools



Notes: Data from 1,851 schools: 513 in Brazil; 146 in Canada; 140 in Germany, 318 in India, 284 in Italy, 88 in Sweden, 92 in the UK and 270 in the US. A school level score is the simple average across all 20 questions and the country average (shown above) is the unweighted average of these school level scores within a country.

On the 16 identical questions schools have lower scores



1) Measuring management

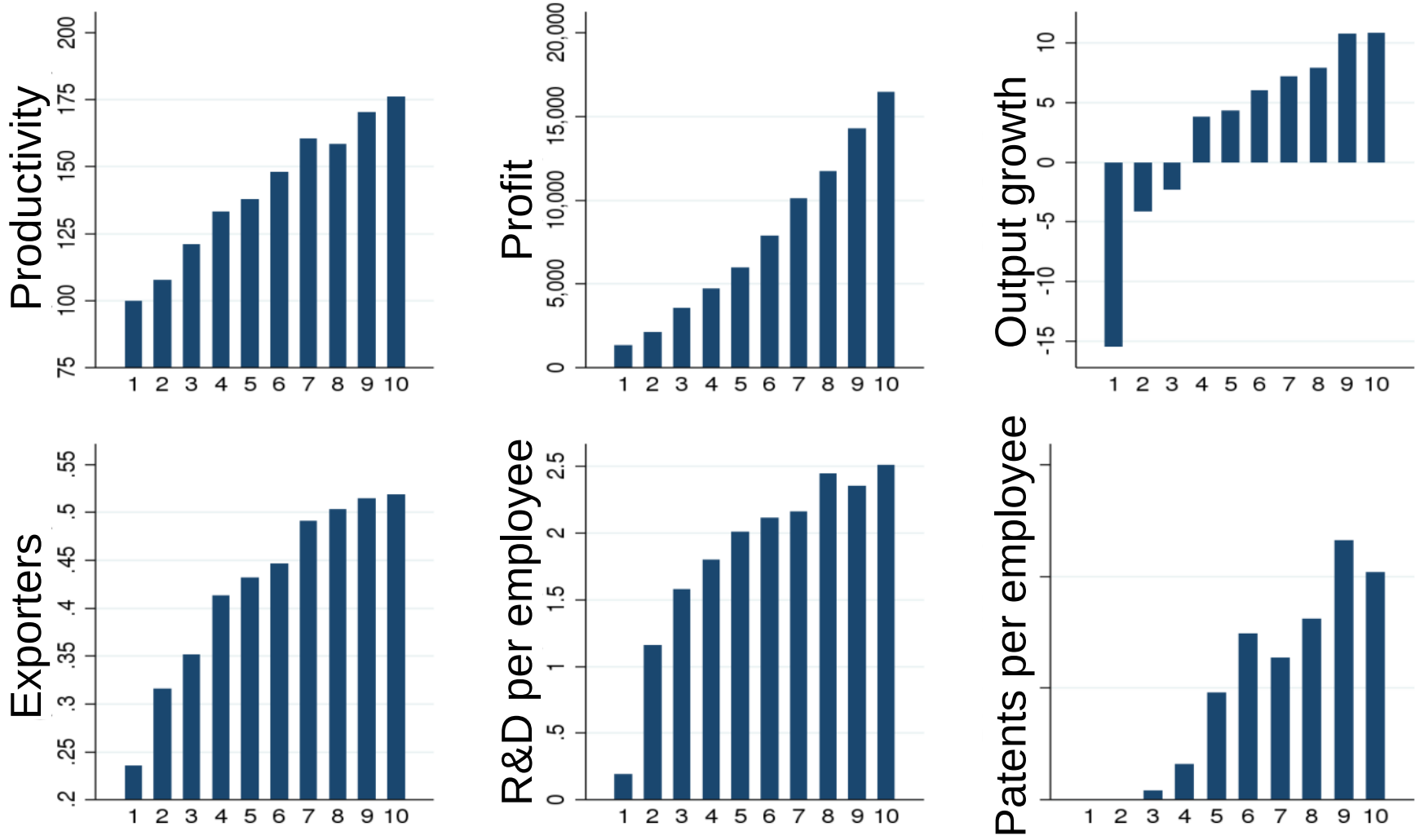
2) Impact of management on performance

- **Regression results**
- Field experiments

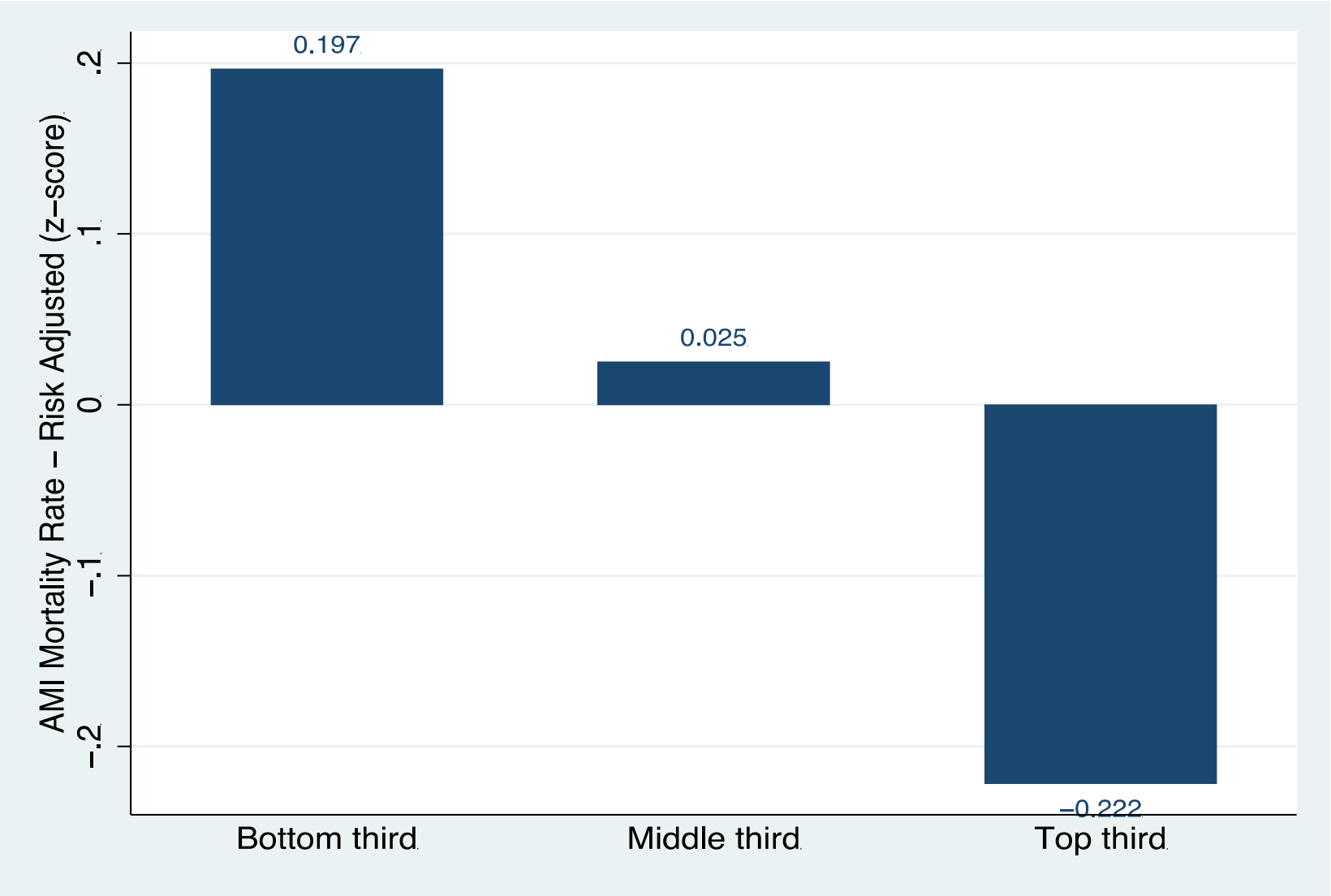
3) Policy



Manufacturing: management scores are all positively *correlated* with firm performance

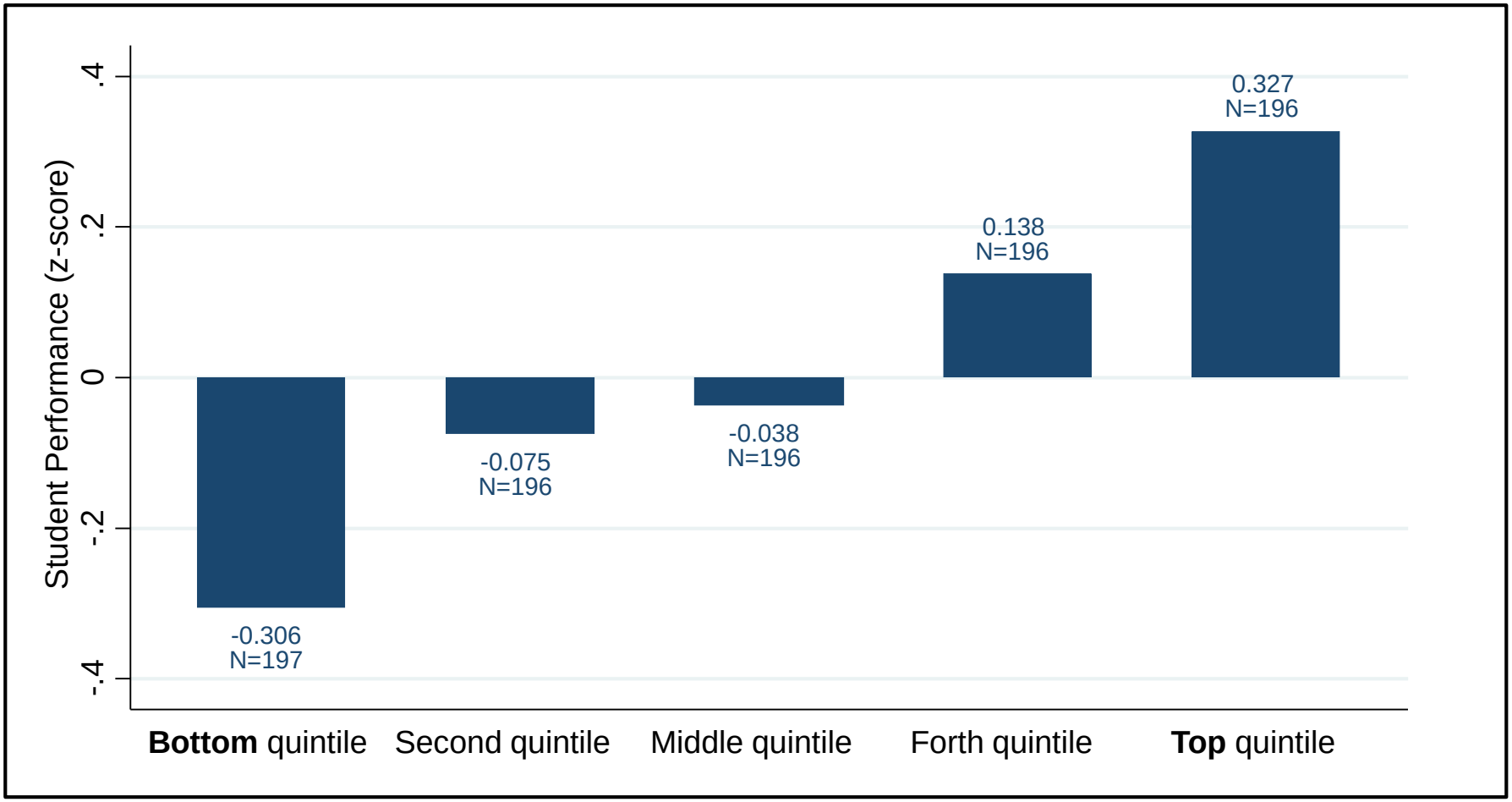


Hospitals: management scores are all positively *correlated* with patient outcomes (e.g. fewer deaths)



Notes: Based on 324 observations with available AMI information (Canada:29; Sweden: 48; UK: 74; US: 178). We z-score the AMI data within country to take into account differences in the way the AMI rates are calculated across countries, and keep only hospitals with at least 20 AMI cases in a year..

Schools: management scores are all positively ***correlated*** with pupil performance (e.g. grades)



Notes: Based on 981 observations with available school performance information. For the cross-country pooled measure of student achievement, we use the math exam pass rate from HSEEs in the United States (available for government funded schools only), the average uncapped GCSE score in the United Kingdom, the school-level rating produced by the Fraser Institute in Canada, **the GPA in the 9th grade in Sweden**, the school-level average in maths in the High School National Exam (Exame Nacional do Ensino Medio, ENEM) in Brazil, and the X Standards Average (%) Math Score in India (see Appendix B for a detailed description of each variable). In order to build this measure, we z-score the student achievement data within country to take into account differences in school performance measures across countries..

Can also analyze in regressions with controls for other factors – for example in schools

Sample of countries:	(1) All	(2) All	(3) All	(4) Brazil	(5) Canada	(6) India	(7) Sweden	(8) US	(9) UK	(10) UK
Dependent variable:	Cross-country pooled pupil achievement			Math Average	Fraser Rating	Average Math	9th grade GPA	HSEE Math Pass	Average GCSE	Context. Value Added
Management (z-score)	0.425***	0.242***	0.232***	0.104**	0.609	0.499**	0.242	0.170**	0.512*	0.881**
	(0.046)	(0.041)	(0.044)	(0.050)	(0.368)	(0.243)	(0.206)	(0.080)	(0.272)	(0.369)
Autonomous government school		0.225*	0.396***	0.235	-0.263	0.211	0.612**	0.123	0.245	-0.309
		(0.129)	(0.114)	(0.289)	(0.467)	(0.216)	(0.291)	(0.229)	(0.319)	(0.428)
Private school		1.246***	1.139***	1.496***	0.937	0.383*			-0.633	
		(0.081)	(0.094)	(0.101)	(0.585)	(0.208)			(1.014)	
Log(pupils)			0.075*	0.126**	0.396*	0.001	0.352	0.206**	-0.620	-0.566
			(0.042)	(0.060)	(0.213)	(0.136)	(0.262)	(0.103)	(0.441)	(0.610)
Log(pupils/teachers)			-0.014	-0.118	-0.473	0.087	-0.103	-0.486	0.456	0.424
			(0.086)	(0.109)	(0.615)	(0.188)	(0.261)	(0.471)	(0.864)	(2.426)
Pupils selected on academic merit			0.477***	0.526***	0.588	0.048	2.368***	0.743**	1.145***	-0.260
			(0.109)	(0.151)	(0.488)	(0.188)	(0.496)	(0.340)	(0.400)	(0.582)
General controls	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pupil controls (cty-specific)	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,002	1,002	1,002	472	77	152	82	133	86	78
Dependent variables (mean)				514.20	5.92	69.23	211.53	69.96	442.78	1002.81

Notes: Significance at the 1% level denoted by *** and ** for 5% and * 10% level. OLS estimates with robust standard errors in parentheses under coefficients. For the cross-country pooled measure, we use the math exam pass rate from HSEEs in US (government schools only), uncapped GCSE score in UK, Fraser Institute school rating in Canada, 9th grade GPA in Sweden, average math score in High School National Exam (ENEM) in Brazil, average math score in X Standards in India. In the UK we also use a **contextual value added** measure (see Online Appendix A for details). Pupil achievement data z-scored within country. Autonomous government schools are *escolas de referência* in Brazil, separate schools in Canada, private *ersatzschulen* in Germany, private-aided schools in India, *friskolor* in Sweden, academies, foundation, and voluntary-aided schools in the UK, and charter and magnet schools in the US. **Management** is z-score of the averaged of the z-scored 20 individual questions. All regressions have country dummies. **General controls:** regional dummies, school curriculum (academic vs. vocational) and noise (job post and tenure of interviewee; interviewer dummies, day of week; time of day and interview duration and reliability measure). **Pupil controls**: Brazil (% of female pupils, % of foreign and naturalized pupils, and % of indigenous pupils), Canada (% of pupils whose 1st language is known/believed to be other than English), India (% of female pupils and % of pupils who are native speakers of the local language),Sweden (% of female pupils and % of pupils whose 1st language is Swedish in Sweden), UK (% of female pupils, % of pupils whose 1st language is not English, % of non-white pupils, and % of pupils eligible for a school meal); and US (% of female pupils, % of non-white pupils, and % of pupils eligible for a school meal).

Of course this correlation may not be causal.

So various groups have been running randomized control trials

Manufacturing Firms

THE
QUARTERLY JOURNAL
OF ECONOMICS

Vol. 128 February 2013 Issue 1

DOES MANAGEMENT MATTER? EVIDENCE FROM INDIA*

NICHOLAS BLOOM
BENN EIFERT
APRAJIT MAHAJAN
DAVID MCKENZIE
JOHN ROBERTS

A long-standing question is whether differences in management practices across firms can explain differences in productivity, especially in developing countries where these spreads appear particularly large. To investigate this, we ran a management field experiment on large Indian textile firms. We provided free consulting on management practices to randomly chosen treatment plants and compared their performance to a set of control plants. We find that adopting these management practices raised productivity by 17% in the first year through improved quality and efficiency and reduced inventory, and within three years led to the opening of more production plants. Why had the firms not adopted these profitable practices previously? Our results suggest that informational barriers were the primary factor explaining this lack of

*Financial support was provided by the Alfred Sloan Foundation, the Freeman Spogli Institute, the International Initiative, the Graduate School of

High-Schools

THE
QUARTERLY JOURNAL
OF ECONOMICS

INJECTING CHARTER SCHOOL BEST PRACTICES INTO TRADITIONAL PUBLIC SCHOOLS: EVIDENCE FROM FIELD EXPERIMENTS*

ROLAND G. FRYER, JR.

This study examines the impact on student achievement of implementing a bundle of best practices from high-performing charter schools into low-performing, traditional public schools in Houston, Texas, using a school-level randomized field experiment and quasi-experimental comparisons. The five practices in the bundle are increased instructional time, more effective teachers and administrators, high-dosage tutoring, data-driven instruction, and a culture of high expectations. The findings show that injecting best practices from charter schools into traditional Houston public schools significantly increases student math achievement in treated elementary and secondary schools—by 0.15 to 0.18 standard deviations a year—and has little effect on reading achievement. Similar bundles of practices are found to significantly raise math achievement in analyses for public schools in a field experiment in Denver and program in Chicago. *JEL* Codes: I21, I24, I28, J24.

I. INTRODUCTION

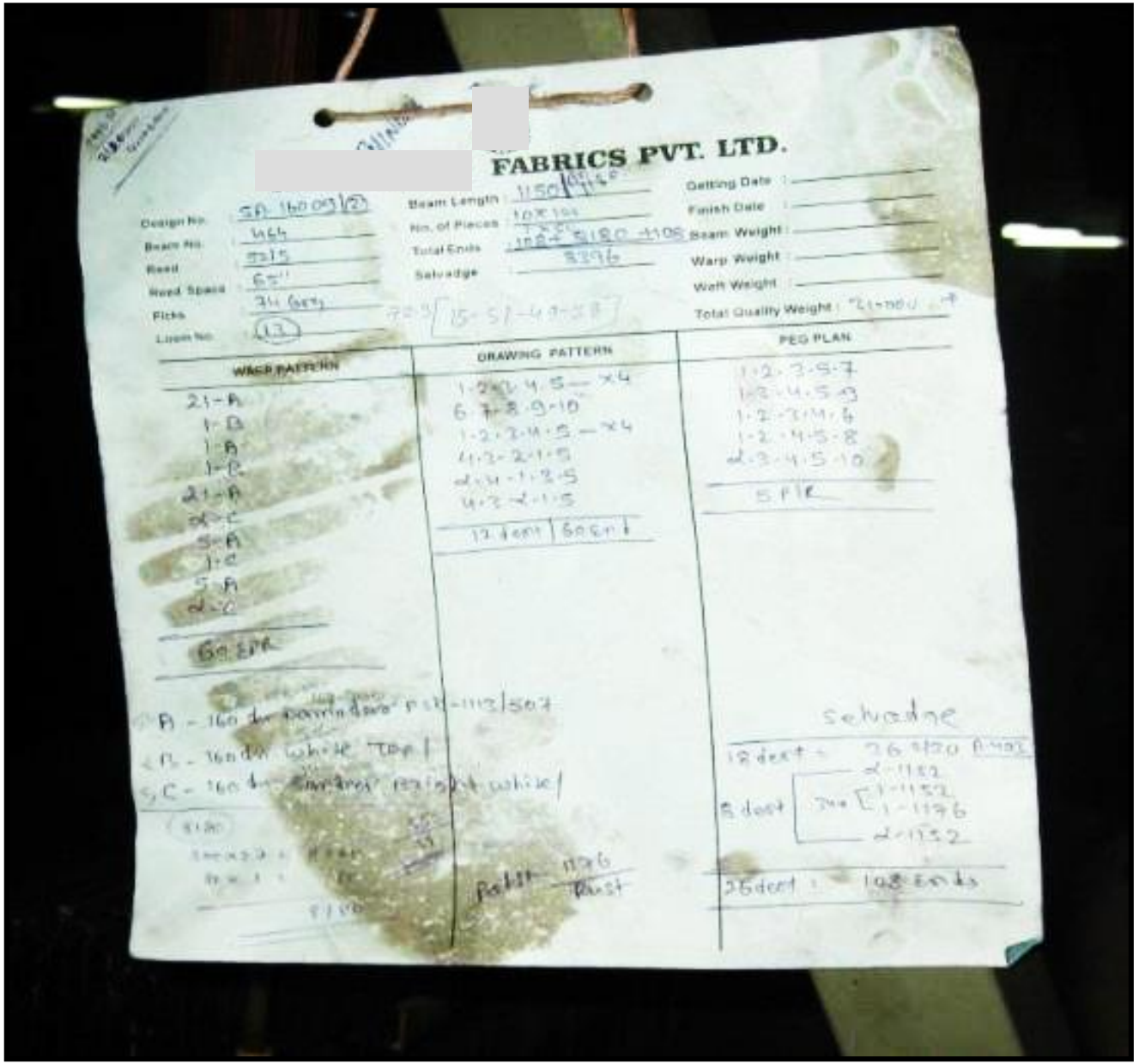
New evidence on the efficacy of certain charter schools dem-

<u>Manufacturing</u>: Took 28 textile plants near Mumbai and randomized into treatment (improved management) & control

Inventory Control: Before

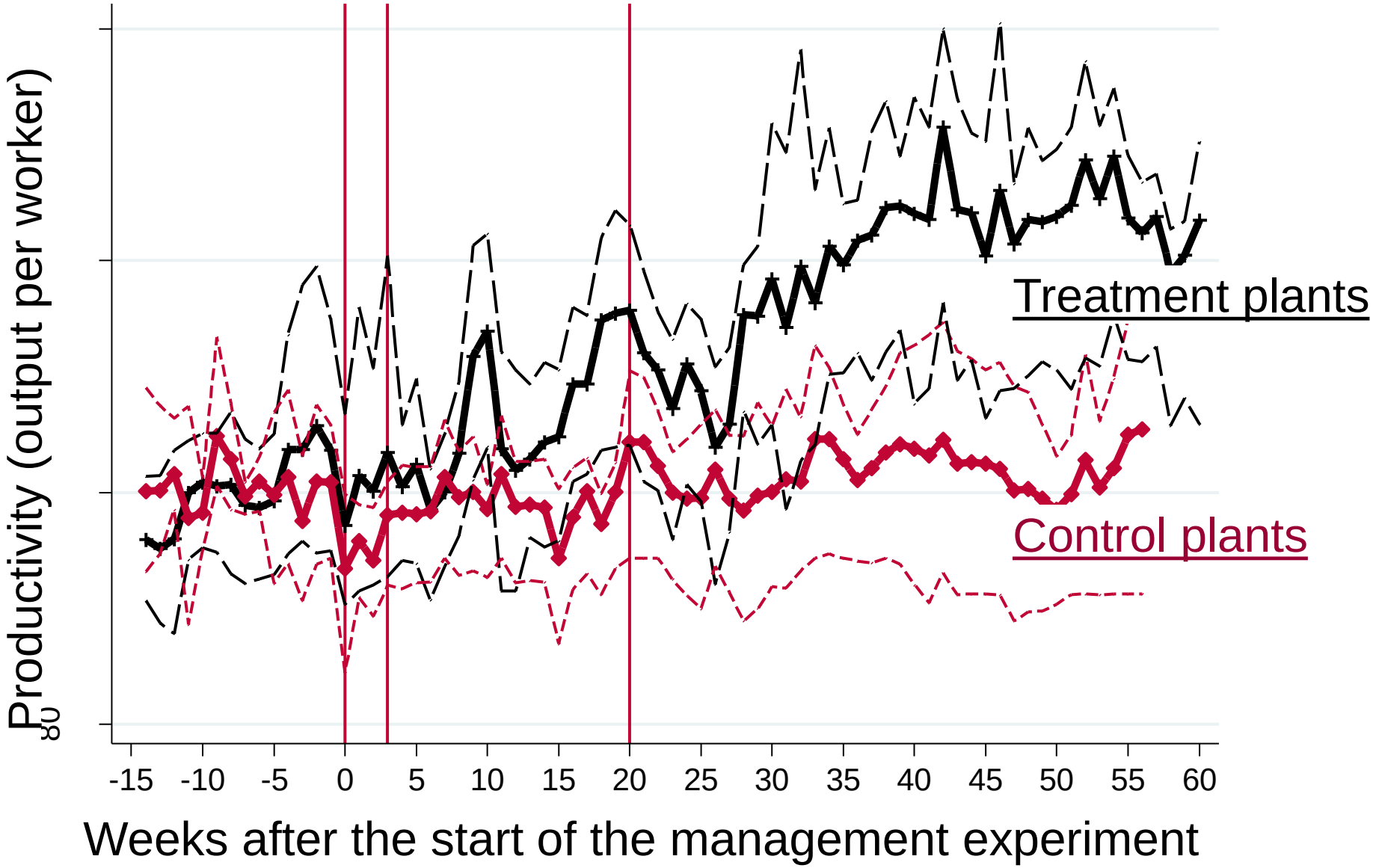
Inventory Control: After

Factory information: Before



Factory information: After

These simple management improvements increased productivity by 20% within 1 year alone



Source: Bloom, Eifert, Mahajan, McKenzie & Roberts, forthcoming *Quarterly Journal of Economics*

<u>Schools</u>: Fryer (2013) took 20 Houston schools and randomized a bundle of "*no excuses*" management practices

In 2011/2012 Introduced 5 practices from US charter schools:

- Increased teaching time
- Higher quality teachers
- Student level differentiation
- <u>Increased data collection and monitoring</u>
- <u>Tough performance targets</u>

He found large positive impacts on maths scores (little impact on reading)

Impact was a highly-significant increase in maths scores of around 0.3σ (similar to the current black-white test gap)

Positive (but small and insignificant) increase in reading

Replicating the study Denver, Colorado with similar findings

1) Measuring management: all sectors

2) Impact of management on performance: all sectors
   - Regression results
   - Field experiments

3) Policy



So how can we work to improve management?

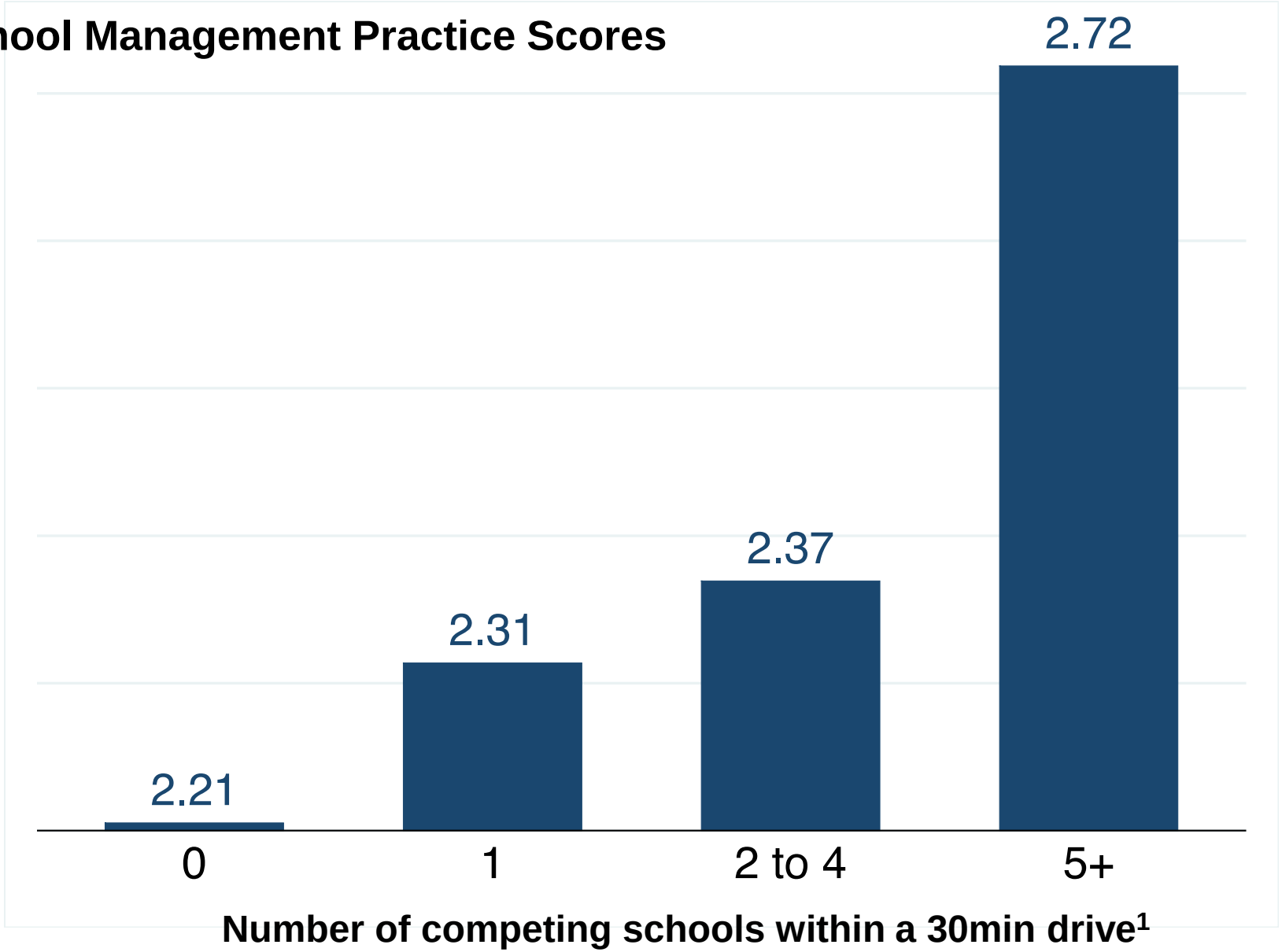
1) **Competition** (competition and strong legal systems)

2) **Autonomy** (reducing government involvement)

3) Professional management (not inherited family-firm CEOs)

4) Light government regulation (little/no labor regulations)

Competition: Associated with better management

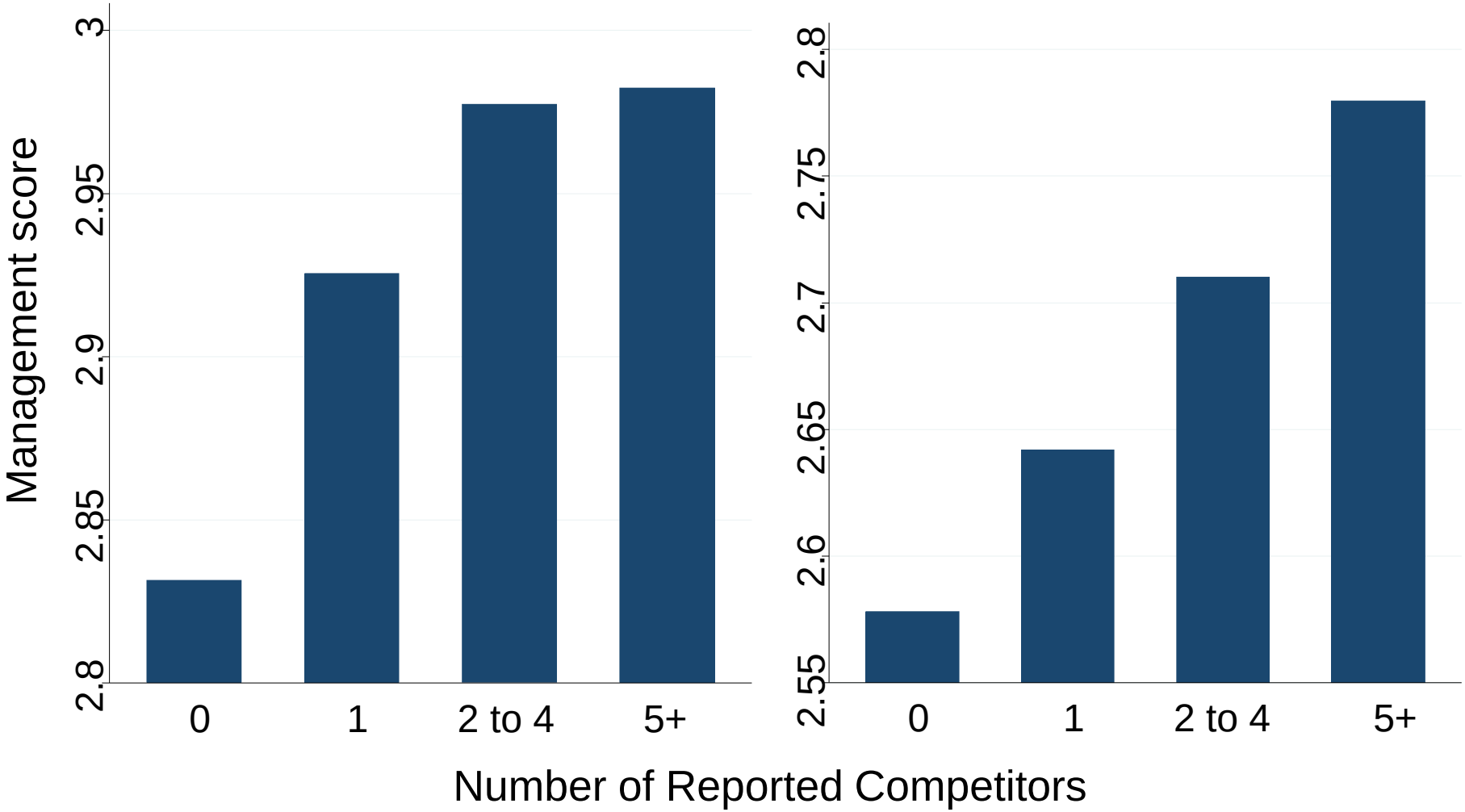


[1]As reported by the Principal

Competition in fact appears linked to better management across all sectors we have examined

Manufacturing and Retail
(the private sector)

Hospitals and Schools
(the public sector)



Autonomy: defined as schools like Friskolor in Sweden and Charter Schools in the US

TABLE 1: Classifications of Autonomous Government Schools

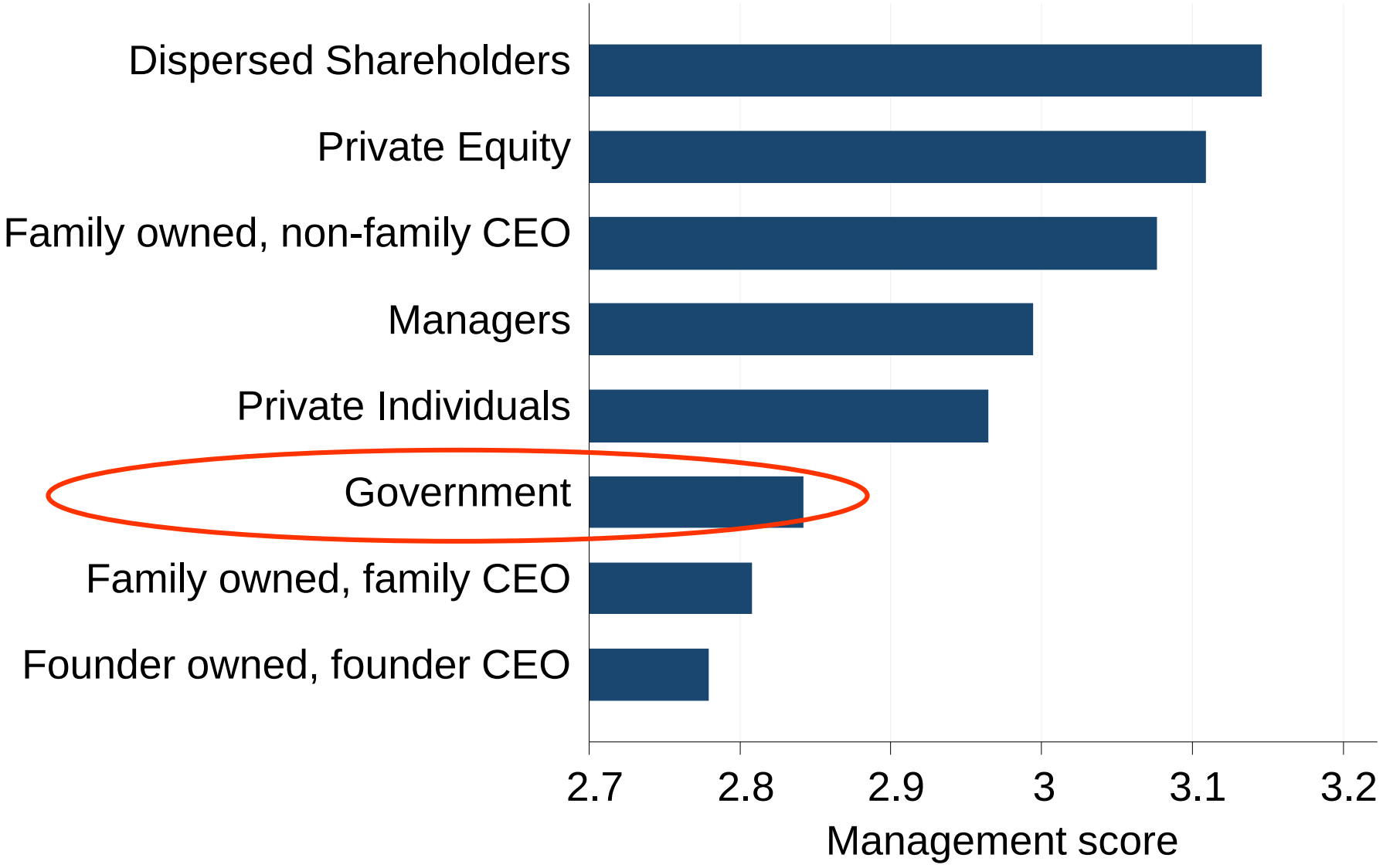
School Type	Government Funding	Curriculum Autonomy	Teacher Selection Autonomy	Pupil Admissions Autonomy
Escolas de Referência, Brazil	Most (1)	Limited (4)	Limited (12)	None
Separate Schools, Canada	All	Limited (5)	Full	Full
Private Ersatzschulen, Germany	Most (2)	Limited (6)	Limited (13)	Limited (16)
Private Aided Schools, India	All	None	None	Limited (17)
Friskolor, Sweden	Most (3)	None	Full	None
Academy Schools, UK	Most (3)	Limited (7)	Full	Limited (18)
Foundation Schools, UK	All	Limited (8)	Limited (14)	Limited (19)
Voluntary Aided Schools, UK	All	Limited (9)	Limited (15)	Limited (20)
Charter Schools, US	Most (3)	Limited (10)	Full	None
Magnet Schools, US	All	Limited (11)	None	Limited (21)

Selected notes: (3) states “May receive private donations”

Autonomy: correlated with better management, particularly on people (incentives) management

OECD Sample	(1)	(2)	(3)	(4)	(5)
Dependent Variable (z-scored)	Management			Non-People	People
Autonomous Government Schools	**0.233*** (0.086)**	**0.273*** (0.076)**	**0.244*** (0.075)**	**0.157** (0.074)**	**0.410*** (0.091)**
Private School	-0.149* (0.078)	0.033 (0.071)	-0.004 (0.076)	-0.185** (0.079)	0.457*** (0.090)
Log(pupils)		0.141*** (0.032)	0.113*** (0.033)	0.089*** (0.034)	0.151*** (0.038)
Log(pupils/teachers)		-0.163** (0.070)	-0.150** (0.070)	-0.085 (0.070)	-0.269*** (0.084)
Pupils selected on academic Merits		0.038 (0.088)	0.034 (0.087)	0.007 (0.087)	0.091 (0.109)
Regular (non-vocational) Curriculum		0.170** (0.073)	0.165** (0.074)	0.175** (0.078)	0.110 (0.075)
Log(population density)			0.057*** (0.018)	0.055*** (0.018)	0.049** (0.021)
Noise Controls	No	Yes	Yes	Yes	Yes
Test Private=Aut. gov. (p-value)	0.000	0.014	0.012	0.001	0.694
Observations	1,020	1,020	1,020	1,020	1,020

Autonomy: Private (non-government) ownership linked with strong people management in all sectors



Notes: Manufacturing scores from www.worldmanagementsurvey.com

Conclusions

1. Management practices for *monitoring* and *incentives* linked to better performance across sectors

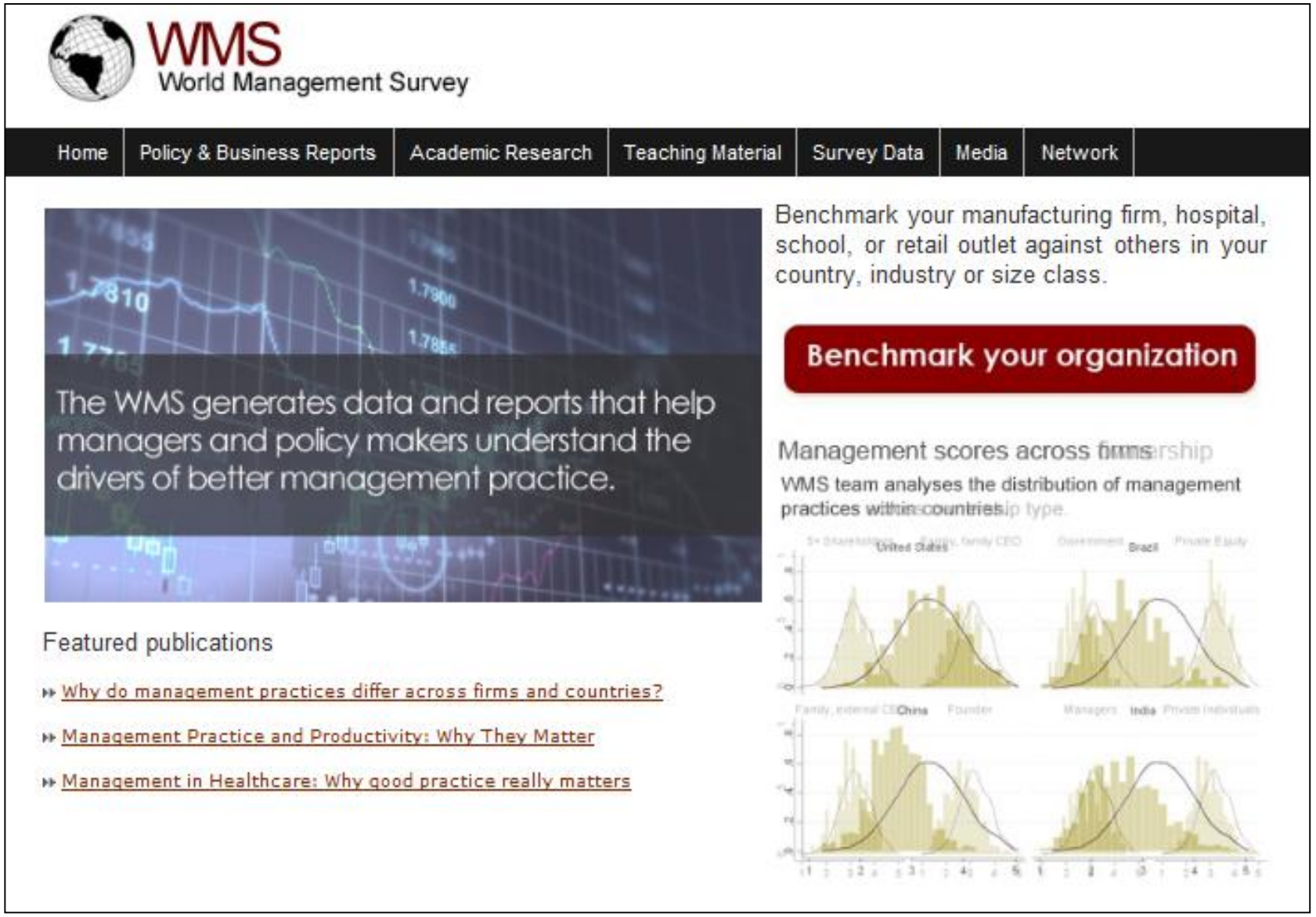
2. Management practices in schools are often poor

3. Policies to support competition and autonomy could help to improve these management practices

Note, work in progress so more research is definitely needed!

Research, policy briefs and media available here

www.worldmanagementsurvey.com



MY FAVOURITE QUOTES:

The difficulties of defining ownership in Europe

Production Manager: "We're owned by the Mafia"

Interviewer: "I think that's the "*Other*" category……..although I guess I could put you down as an "*Italian multinational*" ?"

Americans on geography

Interviewer: "How many production sites do you have abroad?

Manager in Indiana, US: "Well…we have one in Texas…"

MY FAVOURITE QUOTES:

Don’t get sick in Britian

Interviewer : “Do staff sometimes end up doing the wrong sort of work for their skills?

NHS Manager: “You mean like doctors doing nurses jobs, and nurses doing porter jobs? Yeah, all the time. Last week, we had to get the healthier patients to push around the beds for the sicker patients”

Don’t do Business in Indian hospitals

Interviewer: “Is this hospital for profit or not for profit”

Hospital Manager: “Oh no, this hospital is only for loss making”

MY FAVOURITE QUOTES:

Don’t get sick in India

Interviewer : “Do you offer acute care?”

Switchboard: “Yes ma’am we do”

Interviewer : “Do you have an orthopeadic department?”

Switchboard: “Yes ma’am we do”

Interviewer : “What about a cardiology department?”

Switchboard: “Yes ma’am”

Interviewer : “Great – can you connect me to the ortho department”

Switchboard?: “Sorry ma’am – I’m a patient here”

MY FAVOURITE QUOTES:

American management – the power of cuddling

Manager: “I spend most of my time walking around cuddling and encouraging people - my staff tell me that I give great hugs”

The trusted French Secretary

French secretary: “You want to talk to the manager? There are legal proceedings against him, so hurry up!!”

The drive for standardization

Interviewer: “How standardized are your lessons?"

Principal: “Very standardized! For example, I tell all my World History teachers that they must kill Napoleon before Christmas!”


BACK UP

Measuring Performance in Swedish Schools

Sweden

We use the 9th grade GPA and the percentage of pupils qualifying for upper secondary school as the two main performance measures in Sweden. Both of these measures (as well as school and pupil characteristics) are available online at the *Skolverket* website (www.skolverket.se, siris.skolverket.se) for the large majority of the schools in our dataset. The 9th grade GPA measure consists of the sum of points for the 16 best subjects in the pupil's final grade. For each subject, pupils can pass, pass with merit, or pass with distinction. For a pass they receive 10 points, for merit pass 15 points, and for distinction 20 points. The 9th grade GPA is calculated for those pupils who received grades in at least one subject. The percentage of pupils qualifying for upper secondary school measure consists of the percentage of pupils who are eligible to apply to upper secondary school national programs. To be eligible, a pupil needs to receive a minimum pass in three core subjects in Swedish compulsory education: Swedish or Swedish as a second language, English, and math.

Alternative pupil performance measures

Sample of countries:	(1) Brazil	(2) Brazil	(3) India	(4) India	(5) Sweden	(6) UK	(7) US	(8) US
Dependent variable:	Natural Sciences Average (ENEM)	Portuguese & Math Average (Prova Brasil)	Average Science	Average First Language	% qualifying for upper sec. school	% achieving 5 GCSEs A-C*	HSEE Science Pass	HSEE Reading Pass
Management (z-score)	0.120**	0.190*	0.495**	0.402	0.286	0.399	0.079	0.333**
	(0.055)	(0.113)	(0.247)	(0.333)	(0.224)	(0.249)	(0.069)	(0.140)
Autonomous government school	0.064	0.007	0.412*	0.192	0.055	0.040	0.155	-0.182
	(0.361)	(0.390)	(0.223)	(0.237)	(0.345)	(0.246)	(0.146)	(0.349)
Private school	1.535***		0.197	-0.299		0.004		
	(0.105)		(0.205)	(0.313)		(0.892)		
Log(pupils)	0.186***	0.053	0.095	0.332	0.550*	-0.532	0.054	0.195
	(0.059)	(0.127)	(0.119)	(0.201)	(0.286)	(0.340)	(0.074)	(0.167)
Log(pupils/teachers)	-0.132	-0.038	-0.003	0.100	-0.057	0.741	-0.345	-0.652
	(0.104)	(0.222)	(0.212)	(0.274)	(0.287)	(0.765)	(0.224)	(0.658)
Pupils selected on academic merit	0.477***	-0.448	-0.042	-0.225	0.018	1.254***	0.096	-0.794
	(0.155)	(0.334)	(0.172)	(0.218)	(0.611)	(0.322)	(0.242)	(0.485)
General controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pupil controls (country-specific)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	472	263	152	152	82	86	105	72

Sampling Frame in Swedish Schools

C1. The Sampling Frame and Eligibility to Participate in the Survey

In every country the sampling frame for the management survey included all schools offering education to 15 year-olds (excluding special needs schools) with 50 or more pupils in total.[3] In order to ensure comparability across countries, we refrained from saying only "secondary or high schools" because some schools educate children from kindergarten to the end of high school (and we did not want to exclude them from the sample). The source of this sampling frame by country is shown in Table C1.

Interviewers were each given a randomly selected list of schools from the sampling frame. This should therefore be representative of the population of schools in the country. At schools, we either interviewed the principal, head-teacher or school director, that is, the school leader at the top of the organization who is still involved in its management on a daily basis. The school leaders also had to be in the post for at least one year at the time of the interview.

Schools characteristics (all OECD countries: sample mean=1)

	Private	Autonomous Gov.	Regular Gov.
Management	0.98	1.05	1.00
Pupils	0.87	1.00	1.03
Pupils/teachers	0.86	1.03	1.02
Regular curriculum	1.02	1.02	0.99
Academic selection	2.31	0.66	0.75
Population density in region	1.17	1.07	0.96
Number of competitors	1.14	1.00	0.97
Principal tenure (years)	1.44	0.95	0.91
Principal gender (male)	1.00	0.88	1.02
Principal has STEM background	1.03	1.12	0.98

Alternative management measures give similar results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Cross-country pooled measure of pupil achievement (z-scored)						
Management (z-score)	0.232***						
	(0.044)						
Operations (z-scored)		0.093**					
		(0.036)					
Monitoring (z-scored)			0.133***				
			(0.036)				
Targets (z-scored)				0.158***			
				(0.038)			
People (z-scored)					0.257***		
					(0.046)		
Comparable Management (z-scored)						0.248***	
						(0.045)	
Dobbie-Fryer Index							0.134***
							(0.038)
Autonomous government school	0.396***	0.433***	0.428***	0.427***	0.365***	0.391***	0.426***
	(0.114)	(0.117)	(0.117)	(0.115)	(0.113)	(0.114)	(0.117)
Private school	1.139***	1.201***	1.205***	1.224***	1.015***	1.131***	1.175***
	(0.094)	(0.095)	(0.094)	(0.095)	(0.100)	(0.094)	(0.096)
Log(pupils)	0.075*	0.088**	0.093**	0.087**	0.072*	0.077*	0.084**
	(0.042)	(0.043)	(0.043)	(0.043)	(0.042)	(0.042)	(0.043)
Log(pupils/teachers)	-0.014	-0.023	-0.037	-0.022	-0.018	-0.019	-0.016
	(0.086)	(0.087)	(0.086)	(0.087)	(0.087)	(0.086)	(0.086)
Pupils selected on academic merit	0.477***	0.504***	0.512***	0.489***	0.453***	0.473***	0.503***
	(0.109)	(0.111)	(0.109)	(0.110)	(0.109)	(0.109)	(0.110)
Observations	1,002	1,002	1,002	1,002	1,002	1,002	1,002

Sampling details

TABLE C1: SAMPLING FRAME SOURCES

Brazil	Instituto Nacional de Estudos e Pesquisas Educacionais (INEP)
Canada	Scott's Directories (Private company compiling information for all schools in Canada)
India	District Information System for Education (DISE)
	Central Board for Secondary Education (CBSE)
	Indian Council of Secondary Education (ICSE)
Italy	Ministero dell'Istruzione, dell'Università e della Ricerca
Sweden	Skolverket (Swedish National Agency for Education)
Germany	Various state departments
United States	National Center for Education Statistics
United Kingdom	Department for Education

TABLE C2: THE SAMPLING FRAME

	BR	CA	DE	IN	IT	SE	UK	US
Number of schools (#)	28,390	4,122	7,184	49,856	4,954	4,142	4,243	24,301
Pupils (median)	258	300-499	579	218	745	209	845	407
Regular Government Schools (%)	71.5		77.1	65.1	66.5	87.8	45.9	65.4

Autonomy: this correlation with management is particularly strong in Sweden (not sure why)

OECD Sample	All	Canada	Germany	Italy	Sweden	UK	US
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variable (z-scored)	Management						
Autonomous Government	0.244***	0.030	0.237		0.430**	0.213	0.111
Schools	(0.075)	(0.100)	(0.204)		(0.185)	(0.154)	(0.228)
Private School	-0.004	0.176	0.790	0.007		-0.055	-0.194
	(0.076)	(0.189)	(0.498)	(0.144)		(0.448)	(0.143)
Log(pupils)	0.113***	0.028	0.168	0.054	-0.057	0.678***	0.133**
	(0.033)	(0.056)	(0.116)	(0.076)	(0.139)	(0.173)	(0.067)
Log(pupils/teachers)	-0.150**	0.123	-0.167	-0.134	-0.237	-0.545	-0.179
	(0.070)	(0.142)	(0.363)	(0.123)	(0.151)	(0.615)	(0.161)
Pupils selected on academic	0.034	0.153	0.083	-0.032	0.338	0.037	0.084
Merits	(0.087)	(0.134)	(0.285)	(0.184)	(0.309)	(0.240)	(0.272)
Regular (non-vocational)	0.165**		0.134	0.170**			
Curriculum	(0.074)		(0.179)	(0.084)			
Log(population density)	0.057***	0.030	0.080*	-0.014	0.226*	-0.038	0.086**
	(0.018)	(0.029)	(0.048)	(0.057)	(0.132)	(0.051)	(0.035)
Noise Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Test Private=Aut. gov. (p-value)	0.012	0.438	0.303	0.964	0.023	0.503	0.192
Observations	1,020	146	140	284	88	92	270

Autonomy: 50% of the benefits of autonomy link from principal leadership and accountability

Two questions seemed to explain ½ of the autonomy link:

- Accountability: how much the principal is accountable to institutional stakeholders such as external boards

- Leadership: how much the principal communicates a well articulated strategy for the school over the next five years

Leadership vision

a) What is the school's vision for the next five years? Do teachers/ staff know and understand the vision?
b) Who does your school consider to be your key stakeholders? How is this vision communicated to the overall school community?
c) Who is involved in setting this vision/ strategy? When there is disagreement, how does the school leader build alignment?

Score 1: School either has no clear vision, or one defined without substantial stakeholder collaboration and which focuses primarily on meeting state/ national mandates; school leader does not or cannot articulate a clear focus on building an environment conducive to learning	Score 3: School has defined a vision that focuses on improvement in student outcomes, but largely focused on meeting state/ national mandates, and usually defined with limited stakeholder collaboration; school leaders may focus on the quality of the overall school environment, but often in response to specific issues	Score 5: School leaders define and broadly communicate a shared vision and purpose for the school that focuses on improving student learning and outcomes (often beyond those required by law); vision and purpose is built upon a keen understanding of student and community needs, and defined collaboratively with a wide range of stakeholders; school leader proactively builds environment conducive to learning

Accountability

a) Who is accountable for delivering on school targets?
b) How are individual school leaders held responsible for the delivery of targets? Does this apply to equity and cost targets as well as quality targets?
c) What authority do you have to impact factors that would allow them to meet those targets (e.g. budgetary authority, hiring & firing)? Is this sufficient?

Score 1: School leaders are only held accountable for minimal targets (e.g. those set by government), without school-level or individual consequences for good and poor performance; leaders have little or no autonomy to impact the areas of accountability	Score 3: School leaders are held accountable for absolute number of student reaching targets set by government and school internally, with school-level & individual consequences for good and poor performance; leaders are provided some autonomy to impact the areas of accountability	Score 5: School leaders are held accountable for quality, equity and cost-effectiveness of student outcomes within the school, with school-level and individual consequences for good and poor performance; leaders are provided sufficient autonomy to impact the areas of accountability

Survey random sample of the population – e.g. sample all schools with 50+ pupils aged 15

	BR		CA		DE		IN	
	All	Eligible	All	Eligible	All	Eligible	All	Eligible
Interviews completed (%)	37.6	58.1	13.9	19.1	22.7	26.0	35.1	41.5
Interviews refused (%)	8.2	12.7	4.5	6.1	14.3	16.3	7.6	9.0
Scheduling in progress (%)	18.9	29.2	54.5	74.8	50.4	57.7	41.8	49.5
School not eligible (%)	35.4	-	27.1	-	12.7	-	15.6	-
Sample, numb. of firms (#)	1377		1073		631		907	
Interviews completed (#)	517		149		143		318	

	IT		SE		UK		US	
	All	Eligible	All	Eligible	All	Eligible	All	Eligible
Interviews completed (%)	45.2	56.6	29.8	35.6	7.3	7.9	17.2	20.1
Interviews refused (%)	11.8	14.7	1.7	2.0	11.5	12.5	5.5	6.4
Scheduling in progress (%)	22.9	28.7	52.2	62.4	73.6	79.6	63.0	73.5
School not eligible (%)	20.2		16.3	-	7.6	-	14.3	-
Sample, numb. of firms (#)	773		295		1482		1618	
Interviews completed (#)	349		88		108		279	

Other studies – like Bohlmark, Gronqvist and Vlachos (2014) – find school principals matter

They look at about 800 Swedish schools under different principals finding large variations in performance