



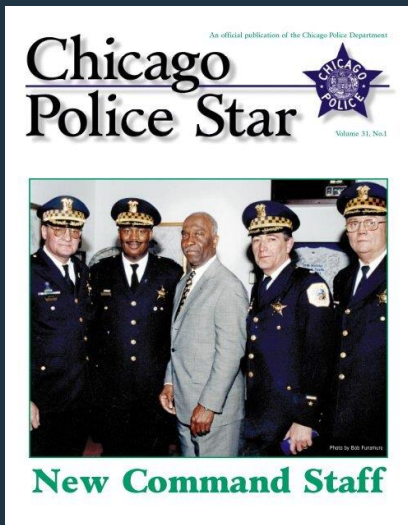
Programme on
Innovation and Diffusion

Discussion of “Policing and Management” by Kapustin, Neuman and Ludwig

CEP/Chicago Economics of Crime Conference
May 28th, 2022

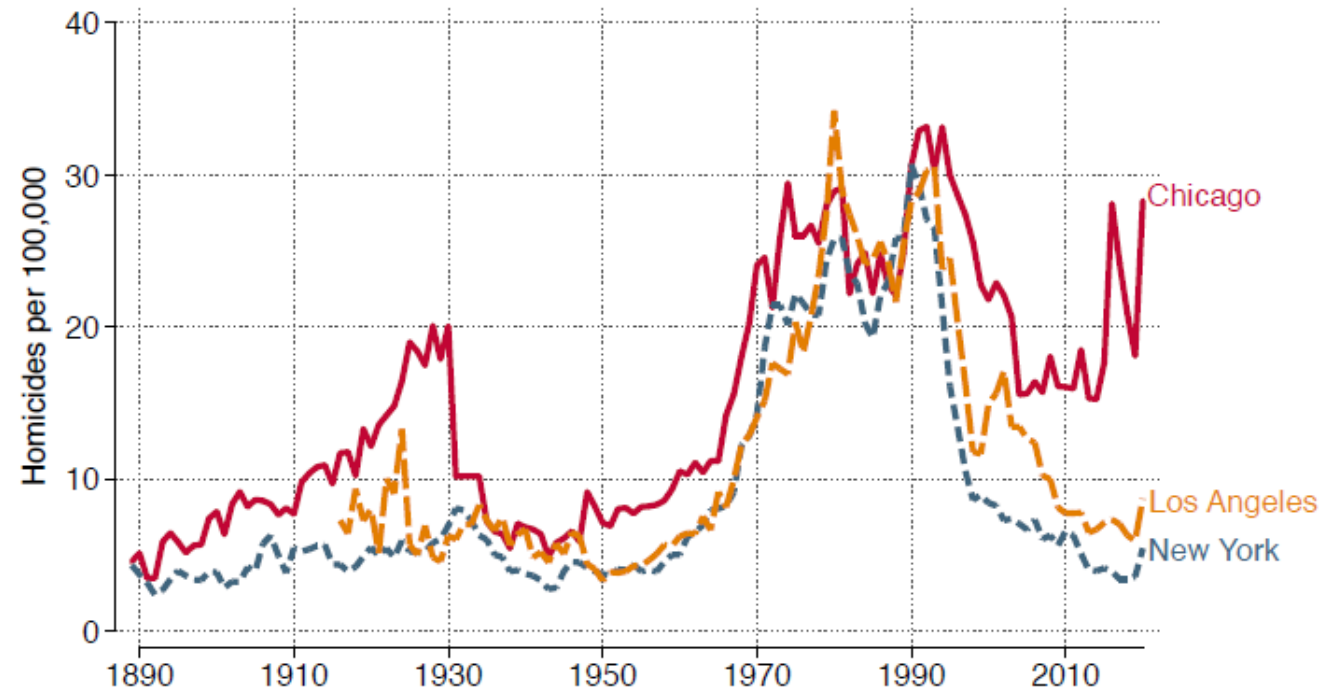
John Van Reenen

LSE and MIT



I just came back from the Windy City... and I can confirm that crime is what people are talking about

Figure 1: Homicide rates in New York City, Los Angeles, and Chicago, 1889–2020



Note: Chicago homicide data for 1889 through 1930 from the [Chicago Historical Homicide Project](#) at Northwestern University. Chicago homicide data for 1930 through 1959 from the FBI's Uniform Crime Reports ([ICPSR 3666](#)). Los Angeles homicide data for 1916 through 1959 from the [Historical Violence Database](#) at the Criminal Justice Research Center, the Ohio State University. New York City homicide data for 1890 through 1959 from the National Institute of Justice ([ICPSR 3226](#)). Homicide data for 1960 through 2019 from the FBI's Uniform Crime Reports ([Open ICPSR](#)). Homicide data for 2020 from the police departments of Chicago, New York City, and Los Angeles.

Motivation of the Paper very important

- How important are **management practices** for policing?
 - Different from police **resources** and policing **strategy**
 - Focus on violent crime & use of police force

OUTLINE OF TALK

What the paper **does**

What the paper **finds**

Where paper **fits** into literature

Issues: (i) endogenous movers; (ii) area selection; (iii) Crime outcomes of HunchLab?

Conclusion

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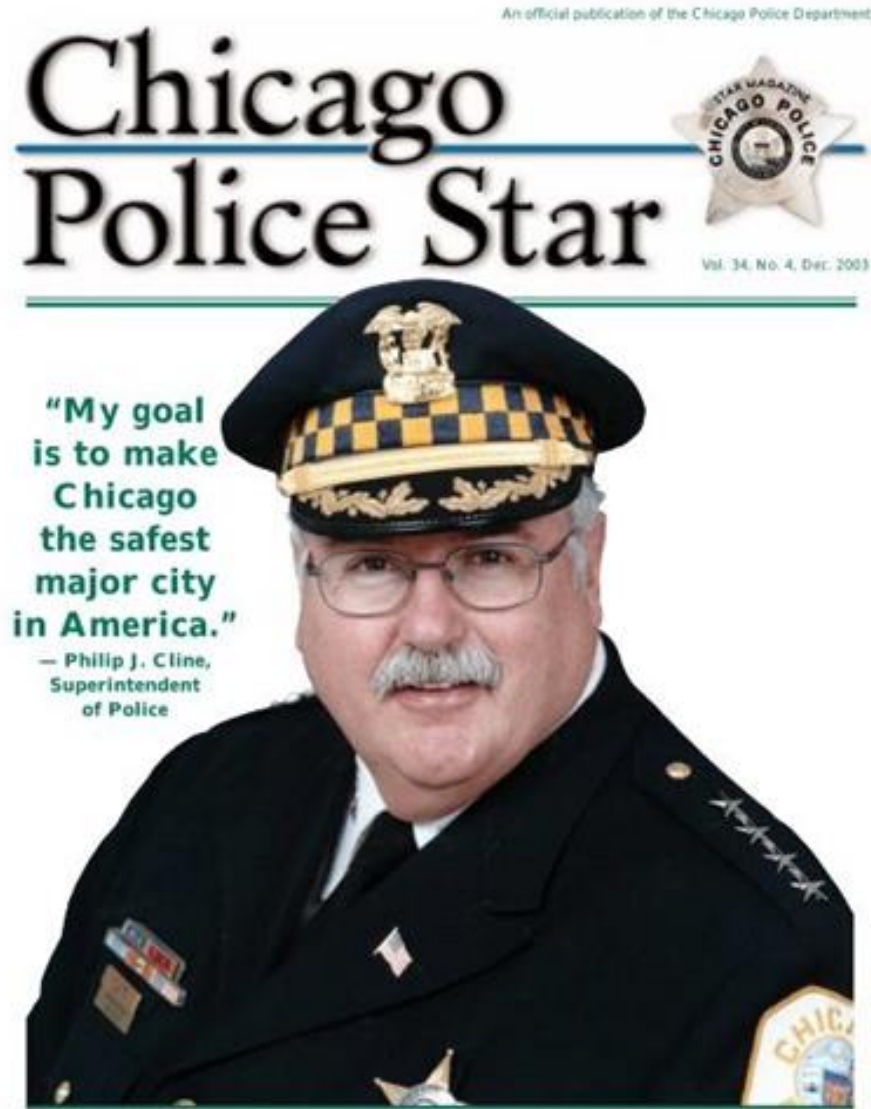
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What the Paper does

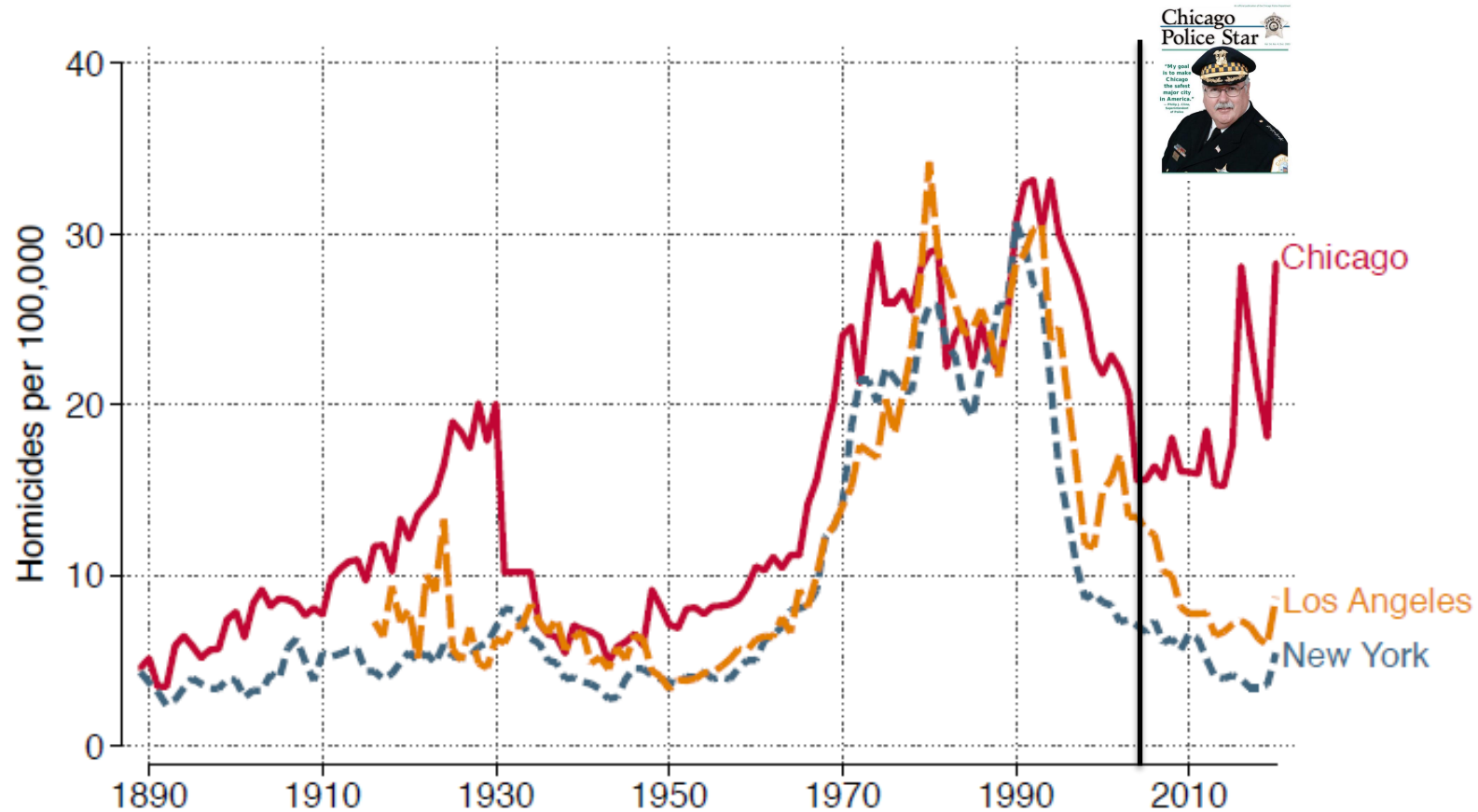
- **City level: 50 departments** serving largest US jurisdictions 2010-19
 - Homicides; violent crime, civilian- police killings (FBI UCR)
 - Look at impact of changing exposure/tenures (of >6 months) of different police chiefs

Example? Philip Cline appointed as Chicago Commander in Chief in 2003



Not so good? Homicide rate stopped falling.....

Figure 1: Homicide rates in New York City, Los Angeles, and Chicago, 1889–2020

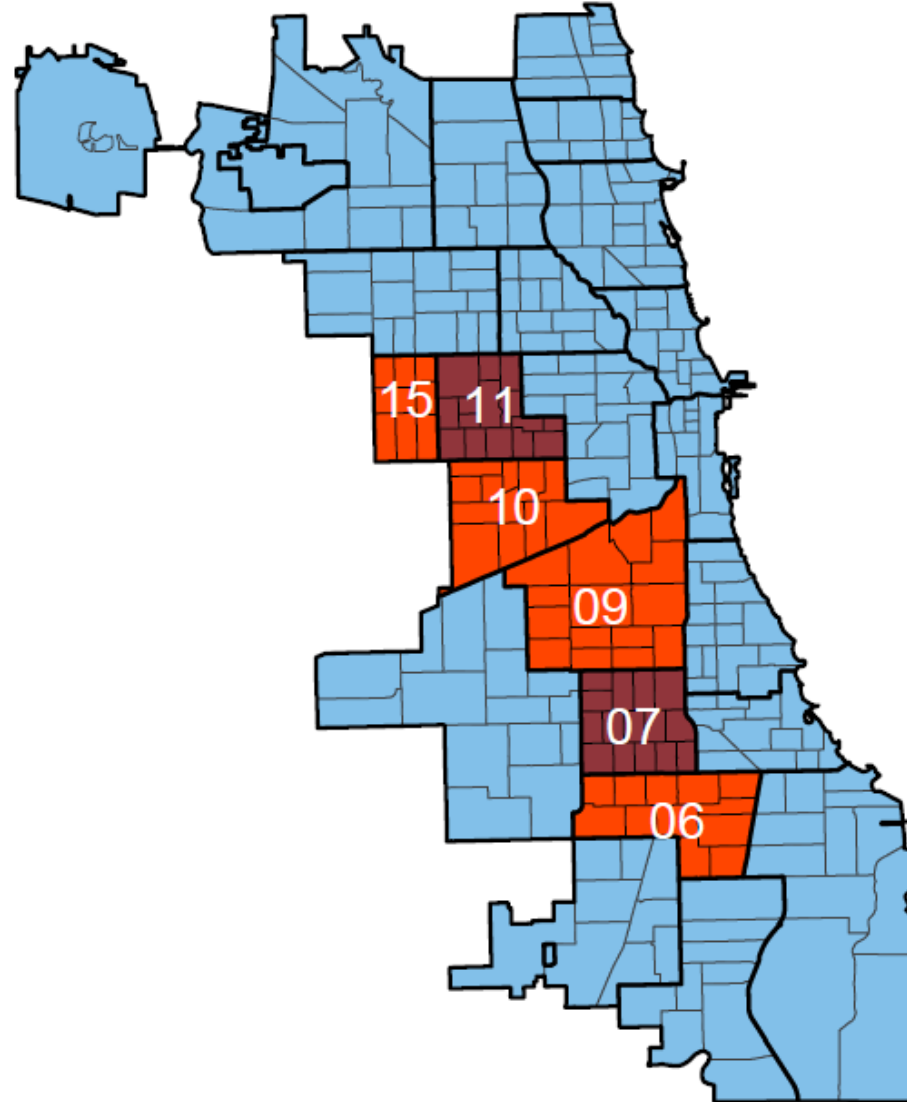


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What the Paper does

- **City level: 50 departments** serving largest US jurisdictions 2010-19
 - Homicides; violent crime, civilian- police killings (FBI UCR)
 - Look at impact of changing exposure/tenures (of >6 months) of different police chiefs
- **District level (22 in Chicago)**
 - Commander-Tenure effects
 - Event study of introduction of **Strategic Decision Support Centers (SDSC)**
 1. In 7th & 11th vs. 4 other “Tier 1” High Crime districts
 2. In Tier 1 vs. other Chicago districts

Figure 5: Chicago police districts and beats



Note: Boundaries of Chicago's 22 police districts (bold) and their beats. The six Tier 1 districts are labeled, and the first two to receive SDSCs—the 7th and 11th—are shaded dark red.

What the Paper does

- **City level: 50 departments** serving largest US jurisdictions 2010-19
 - Homicides; violent crime, civilian- police killings (FBI UCR)
 - Look at impact of changing exposure/tenures (of >6 months) of different police chiefs
- **District level** (22 in Chicago)
 - Commander-Tenure effects
 - Event study of introduction of **Strategic Decision Support Centers (SDSC)**
 - In 7th & 11th vs. 4 other “Tier 1” High Crime districts; In Tier 1 vs. other Chicago districts
- **Beat level**
 - SDSC component: *HunchLab* uses data to predict high crime “hotspots” in a “**boxes**” (300x300 metre). Some random element of which crimes

OUTLINE OF TALK

What the paper does

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What the Paper finds: management matters in policing

1. Persistent & strong city & district crime effects even conditioning on resources (rate of sworn officers), etc.
 2. Police leaders (Chiefs and District Commanders) matter for reducing violent crime
 3. Introduction of SDSC program reduced violent crime
 4. Use of *HunchLab* technology varied a lot due to differential enforcement
- Bottom Line: Convincing combination of evidence from multiple, rich data sources that **management matters in policing**

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Where Paper fits wider literature

- Modern empirical management literature has focused on many sectors, but not policing (exceptions: Banerjee et al, 2021; Devi & Fryer, 2020)
- Examples:
 - Manufacturing
 - Hospitals
 - Schools
 - Retail
 - Universities
 - Civil Service
 - FE/Community colleges
 -

There is still debate on whether management practices really matter

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

Chad Syverson (*Journal of Economic Literature*, 2011)



There is still debate on whether management practices really matter



There is still debate on whether management practices really matter



Enron ex-CEO, Jeff Skilling



There is still debate on whether management practices really matter



World Management Survey (~25,000 interviews, 4 major waves: 2004, 2006, 2009/10, 2013/14; [2022]; 39 countries)



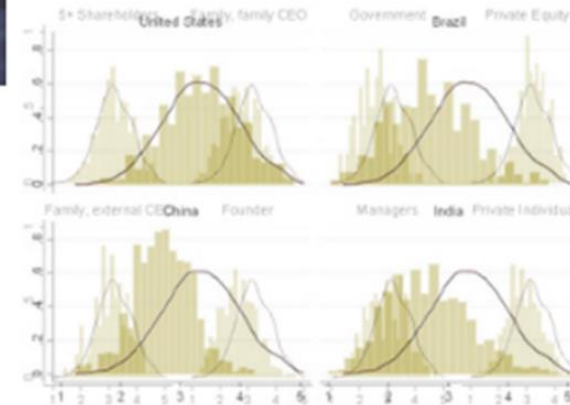
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Benchmark your manufacturing firm, hospital, school, or retail outlet against others in your country, industry or size class.

Benchmark your organization

Management scores across firms: **ownership**
WMS team analyses the distribution of management practices within: **countries** **ship type**.



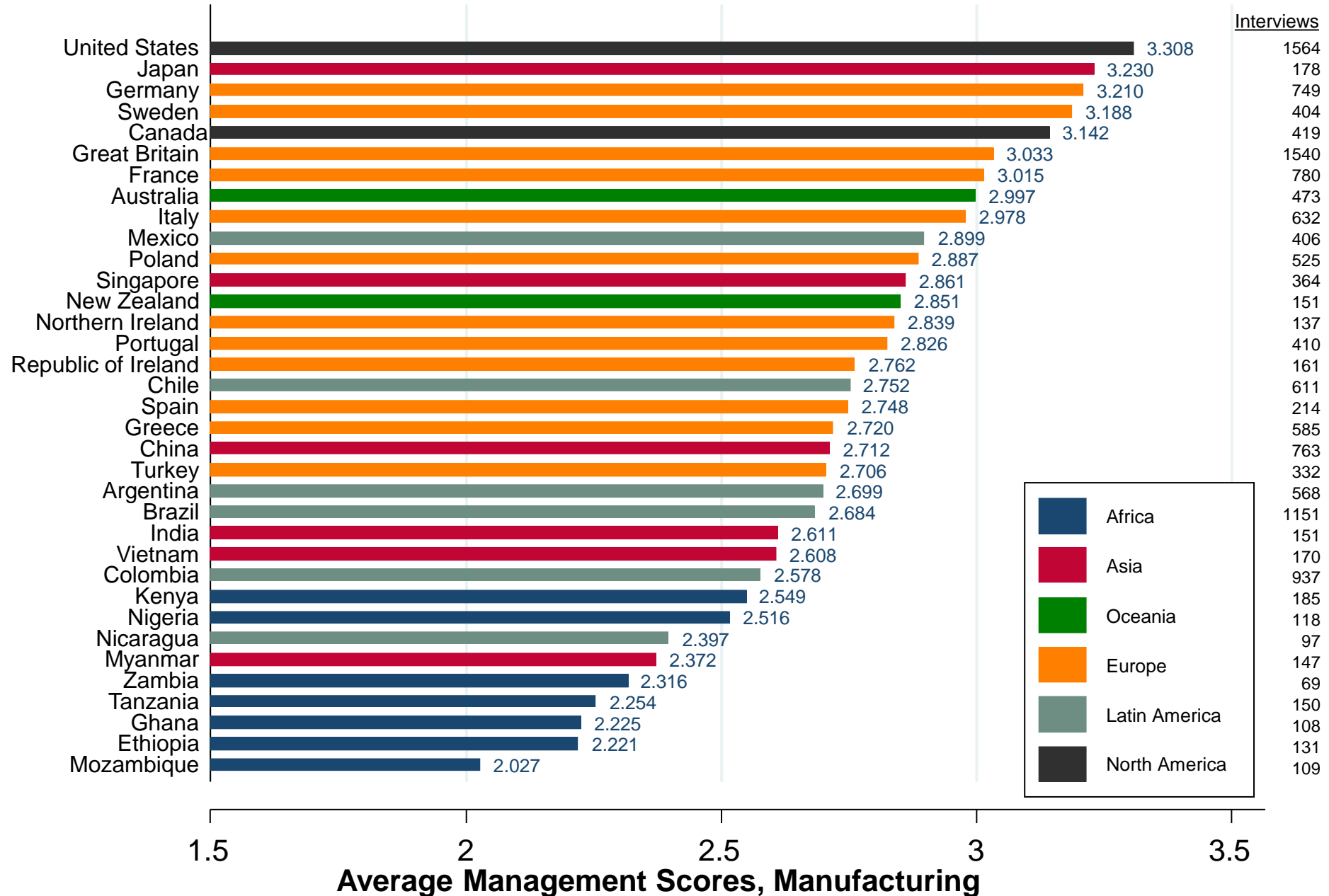
Featured publications

- » [Why do management practices differ across firms and countries?](#)
- » [Management Practice and Productivity: Why They Matter](#)
- » [Management in Healthcare: Why good practice really matters](#)

Medium sized manufacturing firms(50-5,000 workers, median≈250)

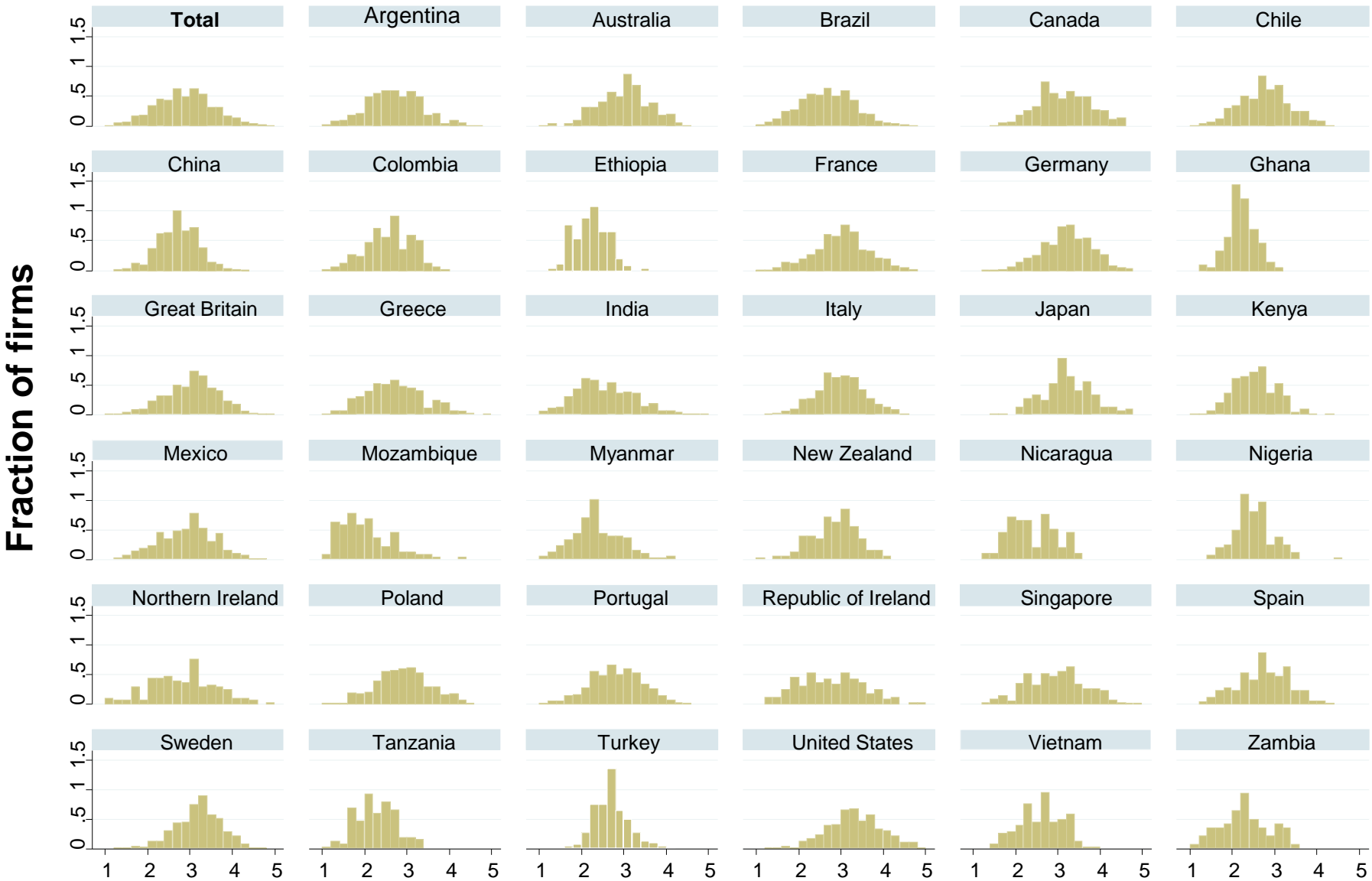
Now extended to Hospitals, Retail & Schools [& more]

Average Management Scores by Country



Source: Bloom, Sadun & Van Reenen (2020). Note: Unweighted average management scores; # interviews in right column (total = 15,489); all waves pooled (2004-2014)

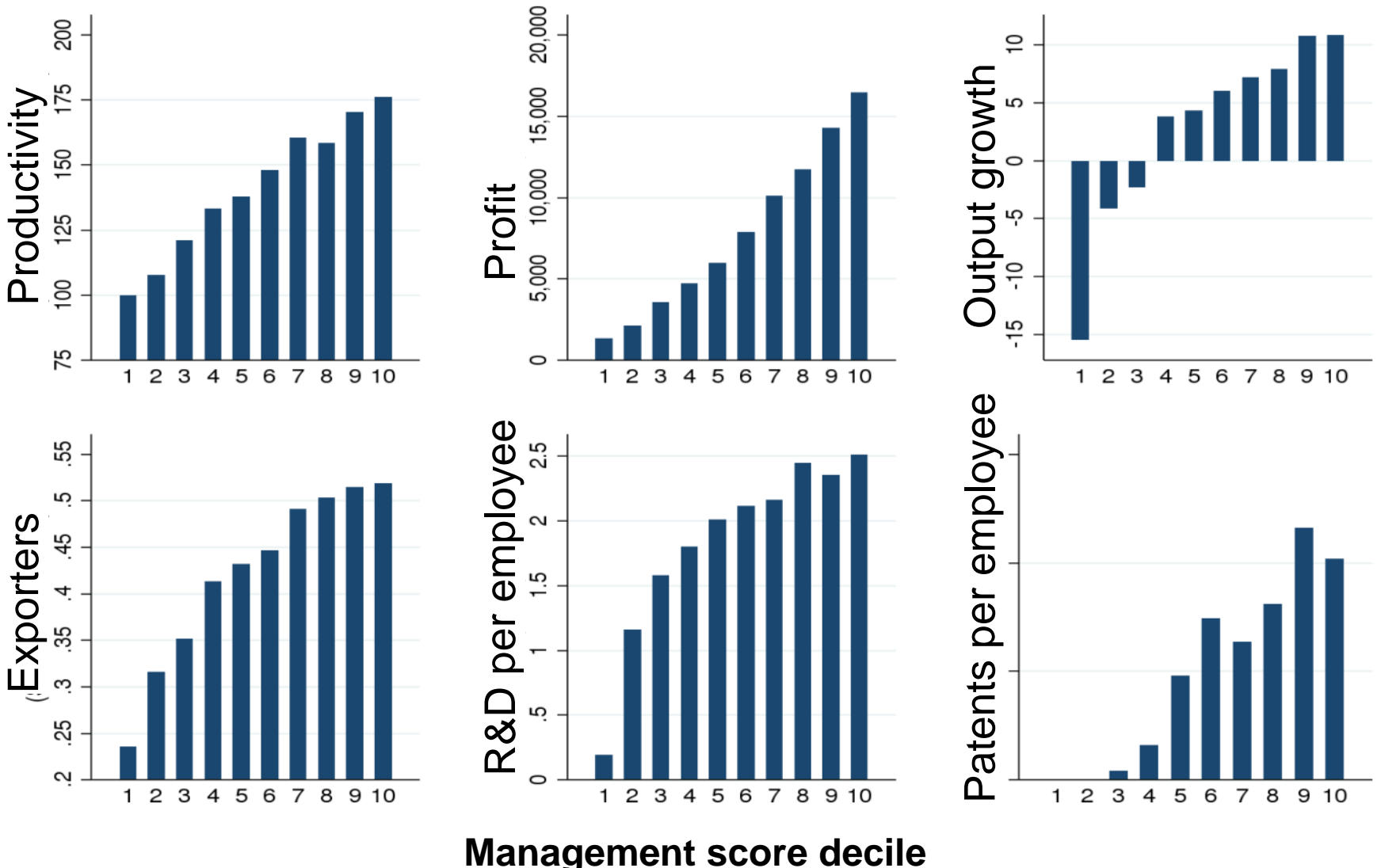
Management also varies heavily within countries



Firm level average management scores, 1 (worst practice) to 5 (best practice)

Source: Scur, Sadun, Van Reenen, Lemos and Bloom (2021)

Management scores positively correlated with many other measures of firm performance



Source: Bloom, Brynjolfsson, Foster, Jarmin, Patnaik, Saporta-Eksten & Van Reenen (2019, AER). MOPS

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(iii) Crime outcomes of HunchLab?**

Conclusion

Issue I: Non-random nature of changes in police leadership?

- Permutation based approach looking at changes in police chiefs & commanders, taking tenure into account (“RIFLE”)
- This is like classic approach to looking at “CEO effects”
 - Why not do this as classic AKM approach to benchmark (e.g. Bertrand & Schoar, 2003)? Is it because of small number of cities/lack of movers across departments?
 - Note **management practices** wider than just identity of **manager**

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Non-random nature of changes in police leadership?



First High Constable (police chief) of Chicago, [Orsemus Morrison](#), served 1835-1837

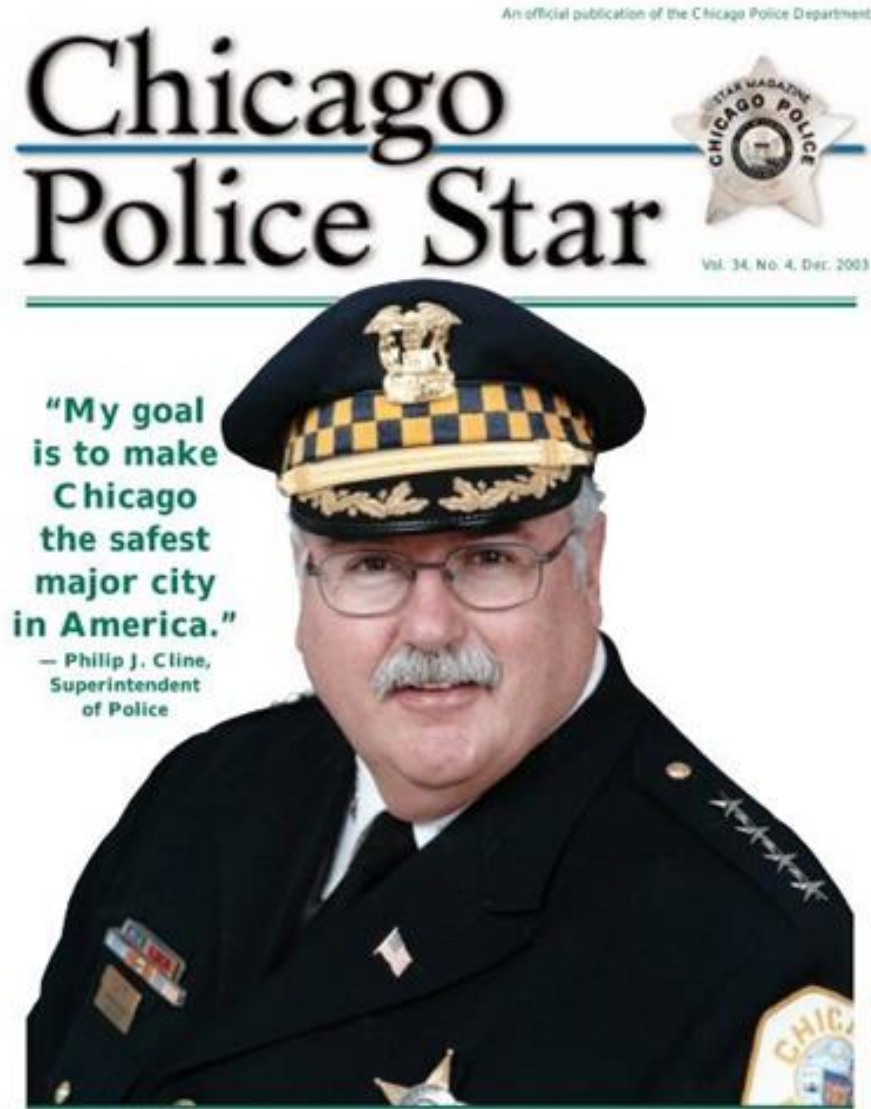


Current police chief, David Brown, April 15 2020-

Changes in Chicago police chiefs don't look entirely random....

*“....on December 2, 2019, Mayor Lightfoot terminated **Johnson's** superintendent contract **for cause**. He was preceded by Garry F. **McCarthy... McCarthy was fired** by Mayor Rahm Emanuel on December 1, 2015, after refusing Emanuel's request that **he resign over the city's high murder rate....**”*

And changes in district commanders too...



Philip Cline appointed as Chicago Commander in Chief in 2003

*"In a major **shakeup** of his top command staff, **police Supt. Philip Cline** named new **leaders** Thursday in several key investigative positions, as well as a **new district commander** in one of the city's most violent areas-- Englewood.*

Chicago Tribune Nov 14 2003

Issue I: Non-random nature of changes in police leadership?

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 - Note **management practices** wider than just identity of manager
- **In any case, main issue is that identity of changes in chiefs (like CEOs) is likely to be non-random**
 - Can you tell us more about system of appointment to convince us that exit/entry identify is unrelated to actual/expected performance?
 - Or use something exogenous like death/illness on the job; change of political power, close elections, pre-existing connections to an incoming chief, etc.

Issue II: Roll-out of SDSC policy change

- More clarity over why certain districts were chosen.
 - Sounds like it is related to pre-policy level of crime
- Time window short (4 weeks for 7th and 11th districts vs. others)
 - Would we really expect such quick results?
 - Homicides, etc. noisy at month level, so SE large
- Longer time window for Tier 1 vs. others but hard to find good matches/dopplegangers
- Concern about crime spillover effects into other districts.
 - Generic identification problem: the closer the matched comparison group is, the better it is for controlling for unobservables. But the more likely it is to have spillovers from treatment group
 - But can look for this explicitly by comparing closer to more distant neighbors

Issue III: Box-Level analysis of HunchLab

- *HunchLab* prediction tool has a randomizes which high crime boxes are shown too officers
- Of all designs in the paper, I found this the most compelling source of variation.
 - The differential degree of district specific implementation is interesting
- **But** really we would like to know if it affected crime or not
 - Measure is whether gunshots heard, but no direct measure of crime
 - Are you thinking of deterrence effect, not clear-up rates?
 - The estimates look very imprecise (probably because of weak first stage as indicated by F-stats)
 - Like to see more here

Other references

- Bloom et al (2019) show that there are significant differences across plants in the same firm in management
 - Consistent with your district fixed effects within Chicago
- Banerjee et al (2021) “Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy, and Training”
<https://www.aeaweb.org/articles?id=10.1257/pol.20190664>
 - also finds a role for management in policing in India
- Complementarity of management practices with new technology – see Giorcelli (2019, AER); Bloom, Sadun & Van Reenen (2012)
[http://cep.lse.ac.uk/textonly/_new/staff/vanreenen/pdf/aer102\(1\).pdf](http://cep.lse.ac.uk/textonly/_new/staff/vanreenen/pdf/aer102(1).pdf)
[Vox](#)
- Draca et al (2007) survey *Handbook of Information of Information and Communication Technologies* Mansell et al (eds) Handbook on ICT
<http://cep.lse.ac.uk/pubs/download/dp0749.pdf>

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Crime outcomes of HunchLab?

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Conclusions

- No one design is very convincing, but the sum of parts makes a plausible cause for the importance of management for policing
- Would like to see a “deeper dive” on at least one design which has the strongest form of identification to look at crime impacts

THANKS!



An official publication of the Chicago Police Department

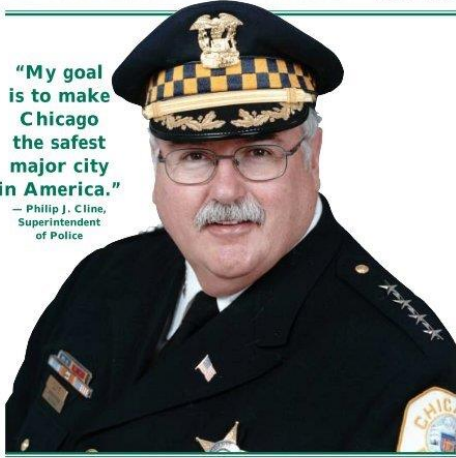
Chicago Police Star



Vol. 34, No. 4, Dec. 2003

"My goal is to make Chicago the safest major city in America."

— Philip J. Cline, Superintendent of Police



An official publication of the Chicago Police Department

Chicago Police Star



Volume 31, No.1



New Command Staff

2019 *Midwest* **BEATBOX BATTLE**

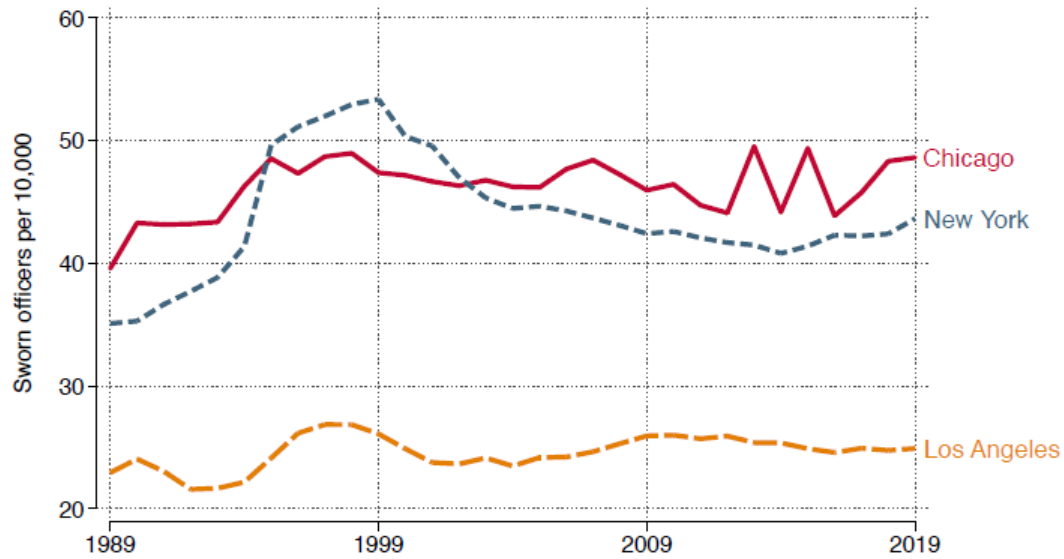
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TICKETS + REGISTRATION + MORE INFORMATION
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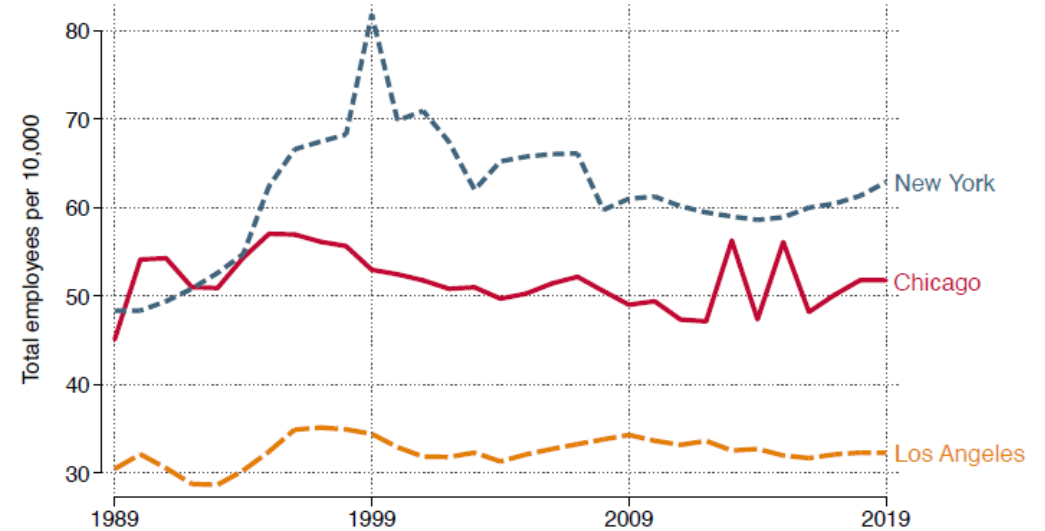
A lot fewer admin staff in Chicago than in NYC?

Figure 2: Police officers in New York City, Los Angeles, and Chicago, 1989–2019



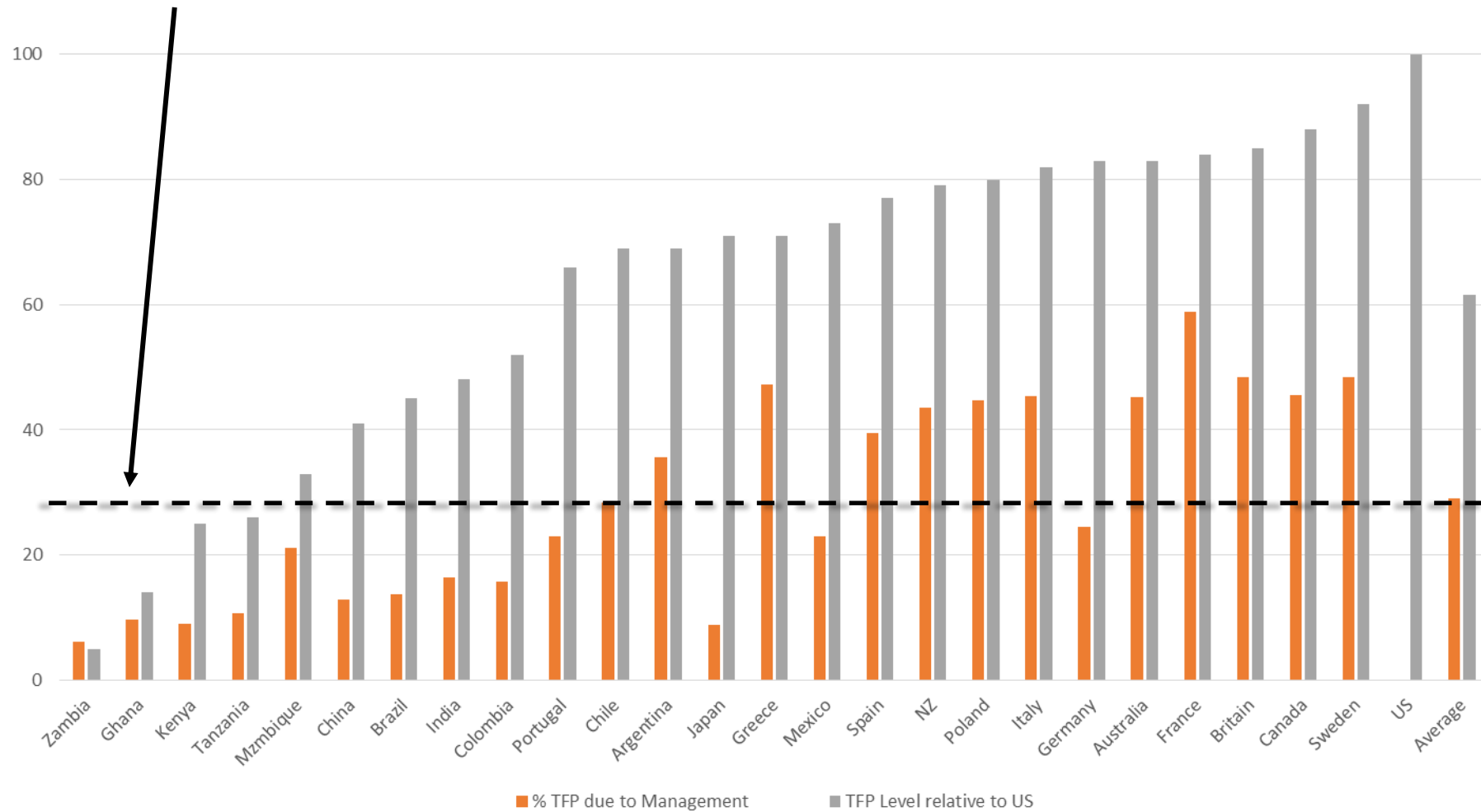
Note: Data from UCR LEOKA and NYPD Office of Management Analysis and Planning (OMAP). NYPD sworn staffing levels from 1990-2009 are based on OMAP data made available by Franklin Zimring (<https://global.oup.com/us/companion.websites/9780199844425/>). For discussion of errors in NYPD's sworn staffing levels in UCR data, see Chalfin and McCrary (2018).

Figure 1: Police employees (sworn & civilian) in New York City, Los Angeles, and Chicago, 1989–2019



Note: Data from UCR LEOKA and NYPD Office of Management Analysis and Planning (OMAP). NYPD sworn staffing levels from 1990-2009 are based on OMAP data made available by Franklin Zimring (<https://global.oup.com/us/companion.websites/9780199844425/>). For discussion of errors in NYPD's sworn staffing levels in UCR data, see Chalfin and McCrary (2018).

Globally, Management accounts for a third of TFP Gap with US (~30% reallocation)



Source: Bloom, Sadun & Van Reenen “Management as a Technology”

Notes: TFP gaps from Penn World Tables; fraction accounted for by management uses the weighted average management scores and an assumed 10% impact of management on TFP