Measuring and Evaluating Determinants of Public Administration Productivity

Bureaucracy Lab
Development Impact Evaluation | Global Governance Practice
October 22-25, 2019, Brussels, Belgium
Measuring Productivity Innovatively…
…in Public Procurement
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Public Procurement

- **Large Stakes:**
  - ~10-15% of GDP in OECD
  - Huge part of what government spends money on
  - Inefficiency is widespread, so potentially huge scope for savings

- **Performance measurable(ish)**
  - Main goals: Timely purchase, fair process, price paid
  - Prices can be used to measure performance for homogeneous goods...
  - ...if you can measure exactly what people are buying
Best, Hjort & Szakonyi (2019) study Russian procurement. 16 million purchases over 6 years.

Text of procurement contracts contains extremely detailed description of the item that has been purchased.

Apply tools from natural language processing to train classification algorithm to create homogeneous groups of purchases.

=> within groups, purchases can be compared on their price (with suitable controls) to generate performance measures for 55K bureaucrats and 60K public agencies in Russian bureaucracy.
What happens when an agency changes the bureaucrat doing their procurement?

Implies enormous scope for savings from improving performance: Moving bottom-25% performers to 75th %ile -> Total savings of 11% of expenditure
Example 2: Detailed Surveying Approach

- Bandiera, Best, Khan & Prat (2019) take a different approach: Gather detailed data of purchases of very homogeneous, off-the-shelf products.
- Use detailed data on 21,000 purchases to construct measures of item type to use as controls. -> Performance measure
- Conduct experiment with 600 offices in Punjab, Pakistan to test
  - Giving greater autonomy to procurement officers
  - Pay for performance scheme as benchmark
Example 2: Detailed Surveying Approach

- Autonomy treatment reduces prices by 8%
- Effects largest where monitoring agencies least efficient
- Intensive monitoring doesn’t help if monitors are less effective than the implementing bureaucrats. Instead empower implementing bureaucrats and audit ex post.
Tradeoffs and Future Work

• Big Data approach requires massive data to work. Rely on external data (customs in Russian case) to train algorithms.

• Intense surveying is costly, requires monumental effort to clean data without detailed ex ante knowledge of what government buys.

• Neither approach:
  • Gap between what end user/citizens want and what offices end up buying.
  • Private sector:
    • Direct comparison with private sector performance (Best, Naritomi Szerman 202?)
    • Effect of government’s market power (ibid)
  • Government effectiveness and citizen faith in government.