

PEDL Conference 2017





Alfred Marshall described the value of agglomeration as being the ideas that are “...as it were in the air...” Our annual agglomeration of researchers working on issues of private sector development - aka, the PEDL annual conference - provides PEDL researchers the chance to discuss both existing project and new ideas with a large group of people. It is perhaps PEDL’s most important event. The air is, as it were, filled of new ideas generated from presentations and even more from the informal conversations between the presentations. Judging from the difficulty we had getting everyone to end the conversations to restart sessions, I’d judge this year’s conference a complete success! I hope you enjoy reading a summary of the various presentations, and look for many of them soon on VoxDev.org.

- Chris Woodruff (Professor of Development Economics, University of Oxford)



PEDL Presentations

- “If she Builds it, They Won't Come: Experimental Evidence of Demand-side Constraints in the Gender Profit Gap ” by **Morgan Hardy** and Gisella Kagy.
- “Peer Networks and Entrepreneurship” by **Fernando Vega-Redondo**, Cristiana Benedetti-Fasil, Charles Brummitt, Paolo Pin, Gaia Rubera, and Diego Ubfal.
- “Land Mines and Spatial Development” by Giorgio Chiovelli, Stelios Michalopoulos and **Elias Papaioannou**.
- “What Kinds of Chinese “Geese” Are Flying to Africa? Evidence from Chinese Manufacturing Firms ” by Deborah Brautigam, Tang Xiaoyang and **Xia Ying**.
- “Exporting to Fragile States in Africa: Firm Level Evidence ” by **Peter Chacha** and Lawrence Edwards.
- “Contractual Flexibility and Selection into Borrowing: Experimental Evidence from Bangladesh” by Marianna Battaglia, **Selim Gulesci** and Andreas Madestam.
- “Binding Up the Nation's Wounds: An Economic Analysis of the Korean Reunification” by Sang Yoon Lee and **Yongseok Shin**.
- “Gender Wage Gaps and Worker Mobility: Evidence from the Garment Sector in Bangladesh” **Andreas Menzel** and Christopher Woodruff.
- “The long-run effects of industrial work on health: Experimental evidence from Ethiopia” by Chris Blattman, **Stefan Dercon** and Simon Franklin.
- “The Skills to Pay the Bills: Returns to On-the-job Soft Skills Training” by **Achyuta Adhvaryu**, Namrata Kala and Anant Nyshadham.
- “Explaining Worker Productivity: The Roles of Hidden Traits and Weather” by **Atonu Rabbani**, Mushfiqar Rahman, Riya Siddiqua and Mohammad Salim Hossain.
- “Corruption and Firms: Evidence from Randomized Audit in Brazil” by **Emanuele Colonnelli** and Mounu Prem.



If she Builds it, They Won't Come: Experimental Evidence of Demand-side Constraints in the Gender Profit Gap

Morgan Hardy

Data and location - A detailed firm-level panel of garment making firms in Hohoe, Ghana.

- The need to understand the barriers to the economic empowerment of women.

Research motivations - Owning a micro-enterprise is a common and growing form of employment, particularly for women and particularly in Sub-Saharan Africa

- Female-owned micro-enterprises earn less than male-owned micro-enterprises.

Descriptive and experimental evidence thanks to:

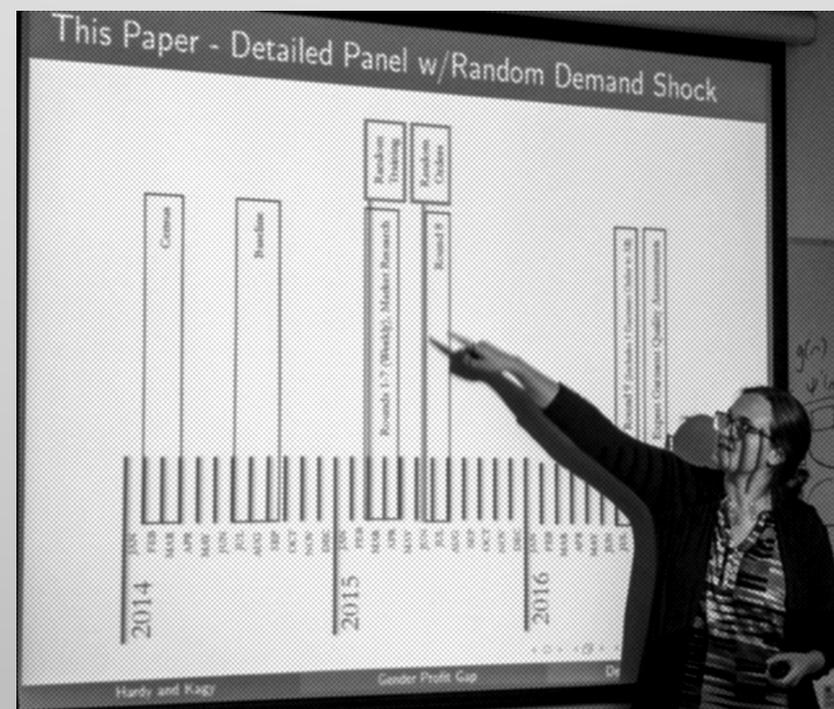
- A market research survey of Hohoe residents.
- A field experiment involving random demand shocks to firms.

Lessons learnt

- The gender profit gap prevails, even within the same industry.
- Supply-side focused observables do not explain the gap.
- Quantity of orders drives the profit gap (over price and cost).
- There is a gender gap in the market size to firm ratio.
- Women are more likely to report “not enough costumers”.
- There is a large displacement effect of random demand shocks in male-owned firms, but in female-owned firms.

Possible policy implications

1. Policy should aim to increase alternative labour market opportunities for women.
2. And create alternative customer sources for female-owned firms.



Peer Networks and Entrepreneurship in Economic Development

Fernando Vega-Redondo

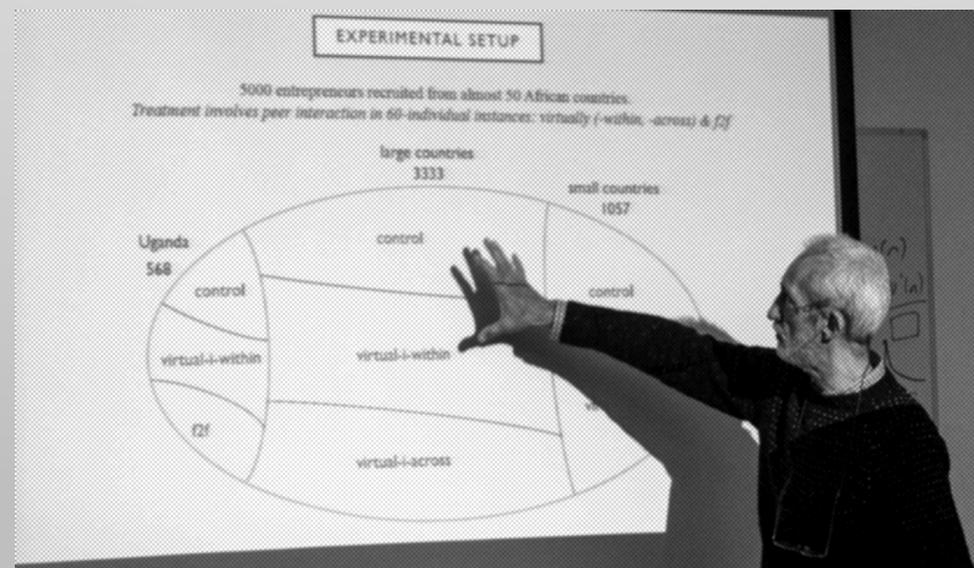
- Data and location** - Experimental set up: 5,000 entrepreneurs recruited from almost 50 African countries.
- Research motivation** - Social networks are a key channel to gather information, be exposed to new stimuli, and find fruitful collaboration opportunities, all of which are key ingredients of true innovation and hence entrepreneurship.
- Research objectives** - Test whether virtual socio-economic networks and training programmes that are focused on business ideation and business design have a significant impact on the amount of entrepreneurship displayed by a population whose individuals have access to finance.

The randomized control trial

- The research team has conducted an RCT, aiming to identify the effect of peer networks (virtual and face-to-face) on innovation and entrepreneurship. So, the analysis is carried out at three different levels: face-to-face (f2f) -- virtual interaction (v-i) within countries -- virtual interaction across countries.
- A randomly chosen subset of the population was given smartphones (treated group), with an application (that delivers high versatility and richness in communication, approximating a dynamic community of entrepreneurs) installed and free internet access for the duration of the experiment. The complementary subset acting as a control group.
- The researchers identify entrepreneurial business projects as those selected by a microcredit programme that will run in parallel alongside the virtual network platform.

Summary of preliminary results

- Positive effect of v-i within a country both in the extensive and (conditionally) intensive margin.
- Negative effect of v-i across countries in the extensive, not intensive – thus operates through submission.
- Positive effect of f-2-f-i within Uganda in the extensive, not intensive – thus operates through submission.
- Preliminary network analysis indicates v-i-across stimulates interaction (degree) compared to v-i within (100K messages exchanged, to be studied systematically). However, clustering and centrality correlated with performance, but not degree.



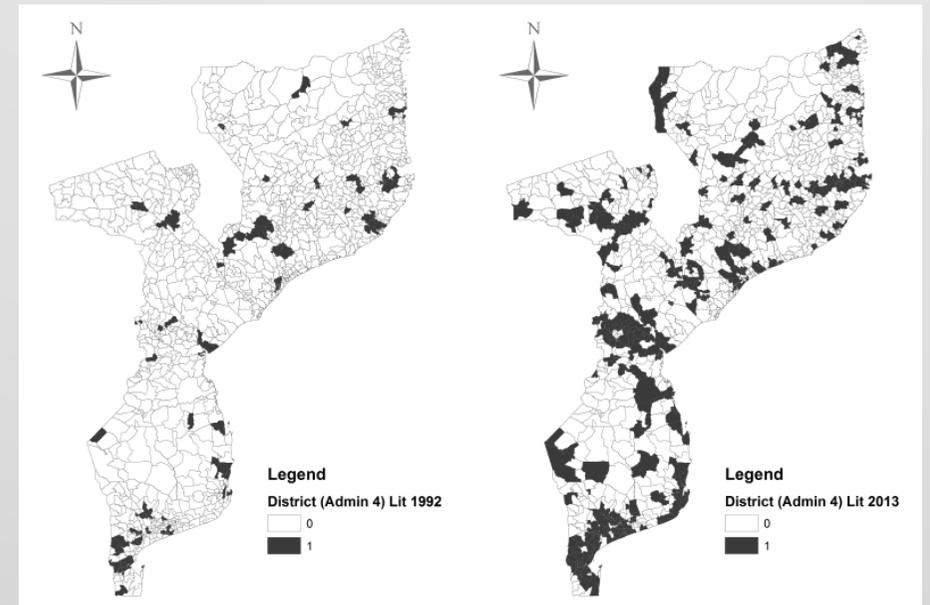
Land Mines and Spatial Development

Giorgio Chiovelli, Stelios Michalopoulos and Elias Papaioannou

Summary

In this paper the authors explore the economic consequences of landmine clearance in Mozambique, the only so-far heavily-mined country (at the end of warfare in 1992), that has been officially declared land-mine-free in 2015.

1. The researchers describe the self-collected geo-referenced data on land mine contamination and their subsequent clearance during 1992-2015. They further examine the correlates of the distribution of minefields at the end of the war and the timing of removal.
2. They exploit variation in the timing of demining across localities to assess its impact on economic activity, as reflected on satellite images of light density at night (difference-in-difference estimation).
3. The team examines the heterogeneous impact of land mine clearance to shed light on the mechanisms and offer some guidance to ongoing demining activities at other parts of the world.
4. They examine the nation-wide implications of land mine clearance recognizing the fact that removal of land mines in one locality may impact other regions through the transportation network.
5. The perform counterfactual policy simulations to estimate the likely gains of demining if it was centrally coordinated and strategically planned targeting the key colonial development corridors or the roads connecting the three main ports.



Notes: Regional development is proxied using satellite image data on lights emission, as reported by the Defense Meteorological Satellite Program's Operational Linescan System. The Figures above map the distribution of lit districts in 1992 (left panel) and 2013 (right panel), which is the last year available. As of 1992, only 11% of the districts had some detectable luminosity. This percentage increases to 36% in 2013.

Findings

The removal of landmines increased market access for an average district by 76%. Naturally, those that had at least one minefield in their territory benefited more enjoying an increase of roughly 118% but also those districts with zero initial exposure to minefields saw their market potential increase by 38% by the time Mozambique was declared land mine free.

What Kinds of Chinese “Geese” Are Flying to Africa? Evidence from Chinese Manufacturing Firms

Xia Ying

Data and location

- Ghana, Nigeria, Tanzania and Ethiopia.
- Nearly 90 Chinese firms interviewed across the four countries. Interviewed a small number of African firms that had “technical partnerships” with Chinese companies that supplied expertise and temporary technical assistance on a contract basis.
- What kinds of Chinese firms have set up manufacturing in Africa?

Research objectives

- What products are they producing?
- Are they targeting local (including regional) or export markets?

Preliminary analysis

- The Chinese firms interviewed had hired over 20,000 African workers and also employed over 1300 Chinese staff. A significant percentage (at least 28%) of Chinese firms had originally come to Africa as traders and later decided to invest in production.
- A large majority of firms sold their output primarily in local markets. Yet Chinese factories in our survey stated that their main competitors were other foreign firms in Africa or imports, not local African firms.



Challenges and opportunities

- Import substitution.
- Adding value to raw materials and local inputs.
- Industrial zones
- Economic instability and inefficiency.
- Labour relations and safety.
- Environmental issues.

Qs for future research

- Impact on African Firms.
- Technology transfer and skills diffusion.
- Implications for different categories of Chinese “geese”.

Exporting to Fragile States in Africa: Firm Level Evidence

Peter Chacha

Data and location - Detailed transaction level dataset from the Kenyan revenue authority, Kenya (2004-2013).

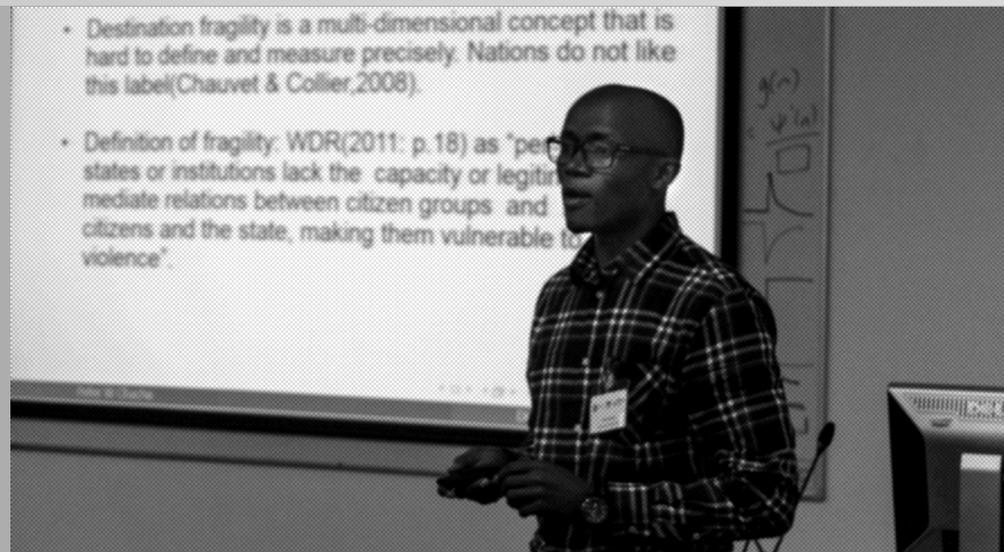
Research question - To examine the effect of destination country fragility on a firm's decision to serve a given destination with exports.

Destination fragility is a multi-dimensional concept that is hard to define and measure precisely, here is defined as “periods when states or institutions lack the capacity or legitimacy to mediate relations between citizen groups and between citizens and the state, making them vulnerable to violence”.

The analysis is conducted using firm transaction data on Kenyan exports to Africa over the period 2004 to 2013. The empirical strategy controls for endogeneity of destination choice by the firm through firm-destination country fixed effects.

Findings

- Fragility negatively affects a firm's decision to be active in a destination market, lowering Kenya's bilateral trade.
- The main channel of influence is through reduced number of exporters.
- Larger firms are less likely to exit in response to destination shocks in fragility.
- Decomposition of the fragility indicator into parts reveal that the effect of business fragility dominates political fragility, although both effects are negative and significant.



Contractual Flexibility and Selection into Borrowing: Experimental Evidence from Bangladesh

Marianna Battaglia, Selim Gulesci and Andreas Madestam

Summary

The researchers study how greater repayment flexibility in microfinance affects the pool of borrowers who select into borrowing as well as the growth of firms taking up the flexible contract. Using a cluster-randomized design, they track the borrowing decisions of a representative sample of microenterprises in treatment and control areas to study which types of firms become microfinance clients after the introduction of the new loan.

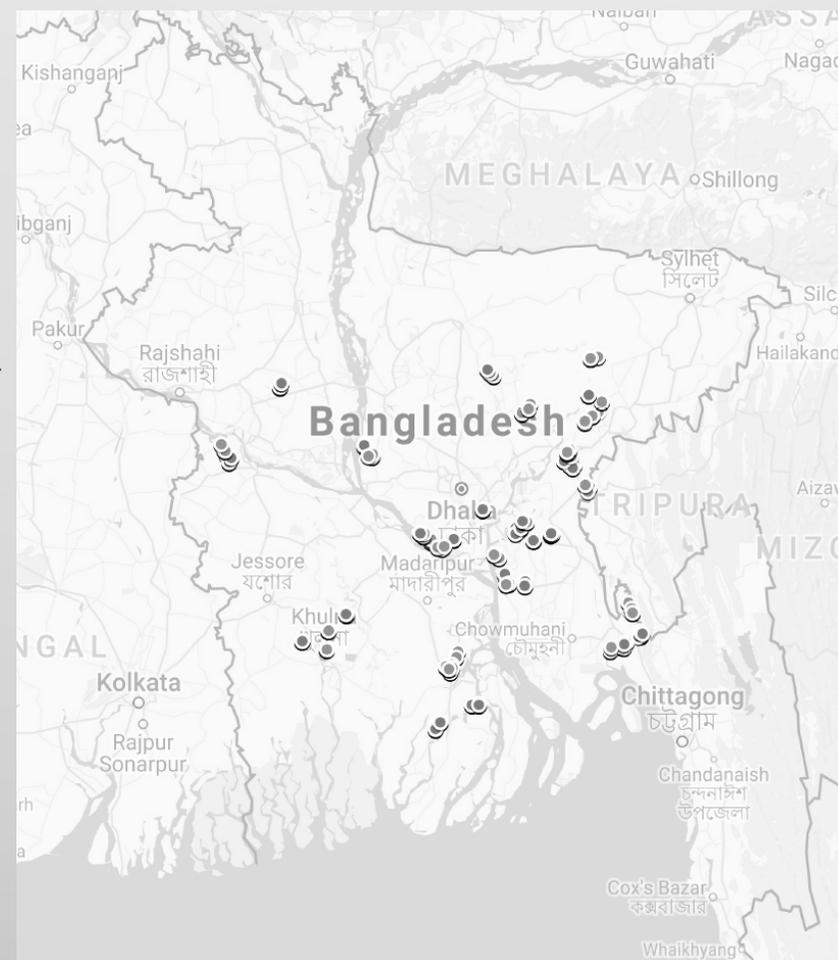
Findings

Flexible loan products are particularly likely to attract entrepreneurs with highly productive businesses, who want to diversify and expand their activities by starting up additional new businesses. This suggests that the introduction of such a loan may have a significant impact on the pool of borrowers who are attracted to microfinance. In particular, they are likely to attract clients who have lower risk aversion and greater desire to expand their entrepreneurial activities.

Possible policy implications

Microenterprises are an important source of employment, and developing such enterprises is a key policy concern in most countries, and especially in low-income countries where they employ more than half of the labour force.

These findings imply that offering a loan with greater repayment flexibility to borrowers with good credit histories may lead to business growth, while maintaining the low repayment rates that microfinance institutions are renowned to have. Moreover, such products are likely to attract more productive firms in becoming microfinance clients. Both of these effects should increase the growth of SMEs and generate economic growth in the long run.



Note: Location of study.

Binding Up the Nation's Wounds: An Economic Analysis of the Korean Reunification

Yongseok Shin

Data and location - Data on North Korean (NK) refugees in the South and South Korean (SK) firms that operated in the North employing NK workers.

Research objective - Construct a model of integration with emphasis on labour market heterogeneity.
- Simulate post-reunification paths under different integration scenarios and policy regimes.

To varying degrees, economic integration is interpreted as the removal/reduction of barriers to the flow of goods, capital, labour and technology across economies.

Enhance model features?

- Occupation switching costs
- Lifecycle and OJT effects
- Extensive margin labour supply (home production, transfer)
- Capital accumulation dynamics (adjustment costs, incomplete markets)

Next steps

- Calibrate model to data (SK workers, NK refugees).
- Simulate more scenarios and policies.

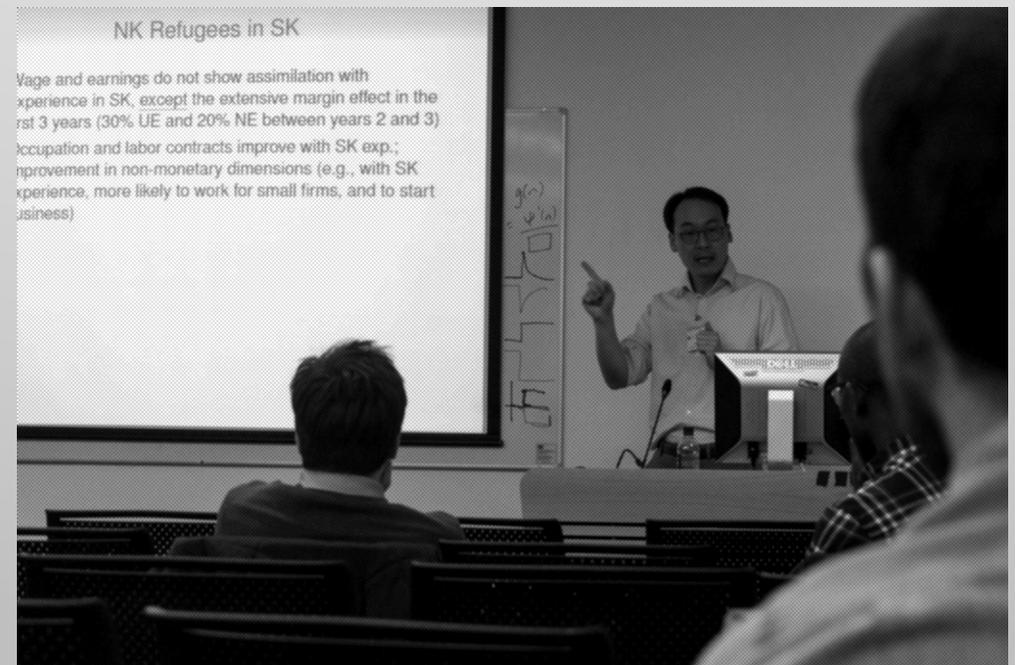
Analysis on:

NK refugees in the South

- Little catch-up in wage and extensive-margin labour supply.
- Occupation and labour contracts improve with SK experience.
- Mixed evidence on young arrivals (especially in school).
- Arrivals since 2014 exhibit positive selection, but not in the expected dimension.
- Convergence likely through successive cohorts rather than skill accumulation during work years (cf. Germany).

SK firms that employed NK workers

- Data from the Kaesong Industrial Complex that closed after NK's 4th nuclear test in February, 2016.
- Production began in 2004.
 - Approximately 120 SK firms, revenue \$3 billion in 2010.
 - 75%+ textile, sewn apparel. Shoes, plastic products.
 - 800 SK managers and 45k NK production workers.
 - Annual salary 1,400 USD in 2015 (almost double if include personal sales of in-kind benefits).



Gender Wage Gaps and Worker Mobility: Evidence from the Garment Sector in Bangladesh

Andreas Menzel

Data and location - Administrative data from 44 large export-oriented garment factories, Bangladesh.

Research motivation - Pay differences between men and women have fallen in the past three decades in many places, but a significant gap remains.

Research objective - Examine pay differentials between female and male production workers.

Findings

Wage gap

- Men are paid 5-8 percent more than women.
- Higher wages and grades even conditioning on skills.

Promotions

- Men are not more often promoted than women.
- Most promotions are “external” that take place when workers leave one factory for a better paid position in another factory.

Mobility

- Across their careers, males are more mobile, with average firm tenure rates 25 percent shorter than those for females.

Possible explanations

- The root cause of this wage gap is higher mobility of male workers.
- Factory rates are low, and most promotions occur when workers move across factories. Males have higher exit rates, and higher wages conditional on grades when they enter new factories.
- The researchers further explore whether differential mobility is related to women facing higher costs of changing factories, or men receiving more benefits from moving. They find evidence that both of the channels play a role in the differential mobility rates.



The Skills to Pay the Bills: Returns to On-the-job Soft Skills Training

Achyuta Adhvaryu, Namrata Kala and Anant Nyshadham

Summary

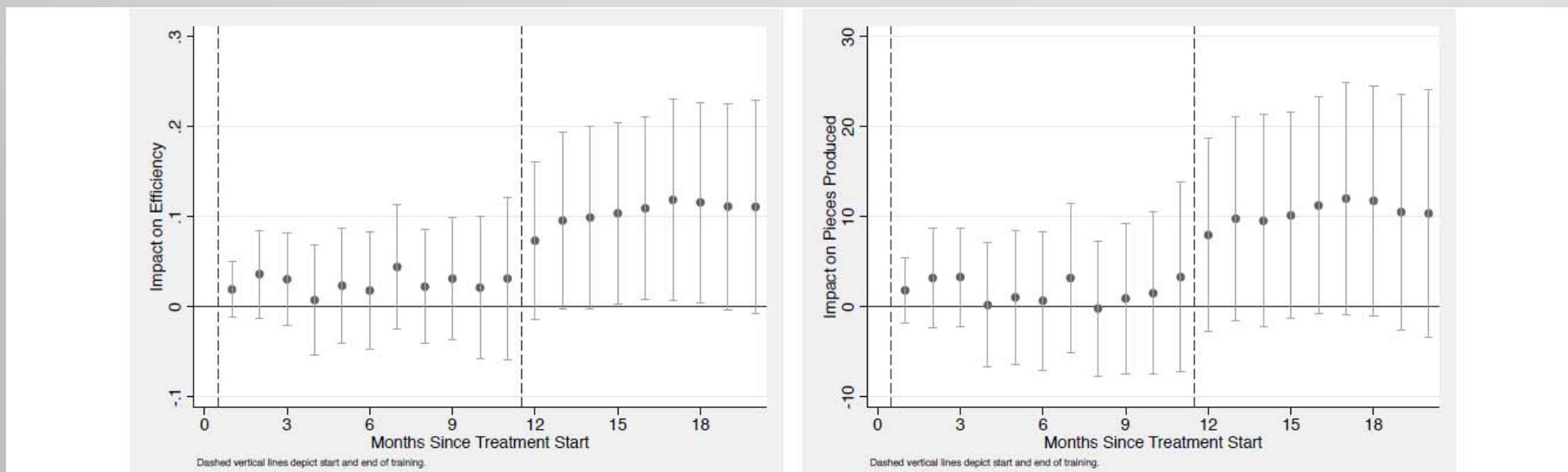
In imperfectly competitive labour markets, the rents from general training are divided between workers and firms, making training investments potentially profitable for firms.

The researchers test this theory via a randomized evaluation of soft skills training for female garment workers in India. The programme increased women's extra-version and communication, and spurred skill upgrading.

Findings

Treated workers were 20 percent more productive than controls post-program, yet wages rise very modestly with treatment (by 0.5 percent), with no differential turnover, suggesting substantial labour market frictions.

Consistent with these results, the net return to the firm was 258 percent eight months after the programme.



Notes: The figures above depict impacts of the Personal Advancement and Career Enhancement treatment on productivity in the factory. The left panel shows impacts on efficiency (i.e., actual pieces produced / target pieces), while the right panel focuses on pieces produced.

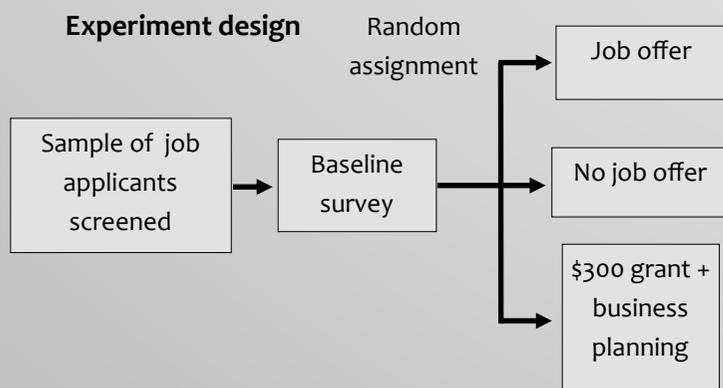
The Long-run Effects of Industrial Work on Health: Experimental Evidence from Ethiopia

Stefan Dercon

Data and location - Experimental data on job applicants, Ethiopia.

Research question What are the effects of low-skill industrial jobs?

- Simply another job in a competitive, low-skill labour market?
- Industrial jobs could be welfare improving - More stable employment opportunities than informal sector - Could offer rents
- Possibly, adverse effects for short-sighted or uninformed workers - Unknown health risks - School drop-out or on-the-job injury - Marx's "exhaustive drudgery"



2 year findings - preliminary conclusions

- Further convergence in occupational choice, albeit not entirely.
 - Control and job offer group now indistinguishable
 - Those offered grant still less likely to seek out factory jobs
- "Convergence" in earnings and in living standards.
 - No impact of industrial job offer on earnings
 - No further positive effects for the grants group, decline in earnings differential to zero now.
 - Stagnant hourly earnings in job offer group.
 - All groups seem to have rising consumption per capita but no differences between groups either.
- Remains a low wage economy, "Marshallian" labour market.
- No further negative impacts of industrial job offer on health outcomes.



Explaining Worker Productivity: The Roles of Hidden Traits and Weather

Atonu Rabbani

Data and location - Tailor level data collected across 13 different locations in Bangladesh.

Research motivations - High productivity differentials between seemingly similar firms.
- What about workers' productivity?

Research objectives - Measure productivity for a set of workers who are involved in very similar tasks to produce homogeneous products and test how factors such as cognitive traits, fine motor skills and weather influence workers' productivity.

Research description

- The team worked with a supplier of a very popular local brand that has a network of tailors and artisans.
- The focus is on tailors because they have very homogeneous tasks and supplier keeps track of production because they are paid at pieces rates.
- The focus is on certain (typically unobserved) traits (cognitive abilities, fine-motor skills, formal education etc) and some variation in weather.

Findings

- In accordance to the literature, the researchers find considerable variation in productivity and hourly wage rates in a semi-formal manufacturing setting in Bangladesh.
- Typically unobserved traits such as cognitive ability and fine-motor skills are associated with observed productivity differences.
- Productivity also varies with weather change, as the facilities are not very well weatherproofed, perhaps an obvious way to improve worker productivity.
- Workers have less trust over their fellow colleagues even if, on average, they are more trustworthy.
- There is some positive correlation between worker level stress and productivity.



Corruption and Firms: Evidence from Randomized Audit in Brazil

Emanuele Colonnelli

- Data and location** - Novel micro-data: manually collected corruption data combined to administrative data at individual-, firm-, contract-, loan-level in Brazil.
- Randomized anti-corruption audits across municipalities over 2003-2014.
- Research motivations** - Corruption often considered one of main barriers to economic growth.
- Despite importance of corruption for both economy and firms, and pervasiveness of anti-corruption efforts, there are open questions:
- Does removing corruption have a causal impact on firms and economy? If so, how?
- Research objectives** - To estimate effects of randomized anti-corruption audit programme in Brazil at macro (regional) level and micro (firm) level. First causal evidence of impact of anti-corruption policy on local economy and firms, and tease out mechanism linking corruption to real outcomes.

Findings

1. Anti-corruption audits significantly improve regional real economic outcomes (employment, firms, entrepreneurs, access to finance), especially in government dependent sectors.
2. Anti-corruption audits improve performance of firms directly involved in corruption cases (survival, employment, sales), and firms reallocate resources within the organization.

Conclusions

- Anti-corruption programme in Brazil benefits local economy and performance of firms doing (corrupt) business w/ government.
- First causal evidence isolating channels driving key relationship between corruption and economic growth.
 - Evidence inconsistent with “grease the wheel” theories.
 - In local public procurement, most efficient firms paying bribes, and corruption is like a tax and introduces distortions in way firms allocate resources.
 - Shed light on how changes to institutional environment might impact firms’ boundaries and how they operate within boundaries.
- Anti-corruption policy debates: bring firms into the picture?

