

Gender & Competitiveness

What matters for female entrepreneurs in India? Lessons for Developing Countries

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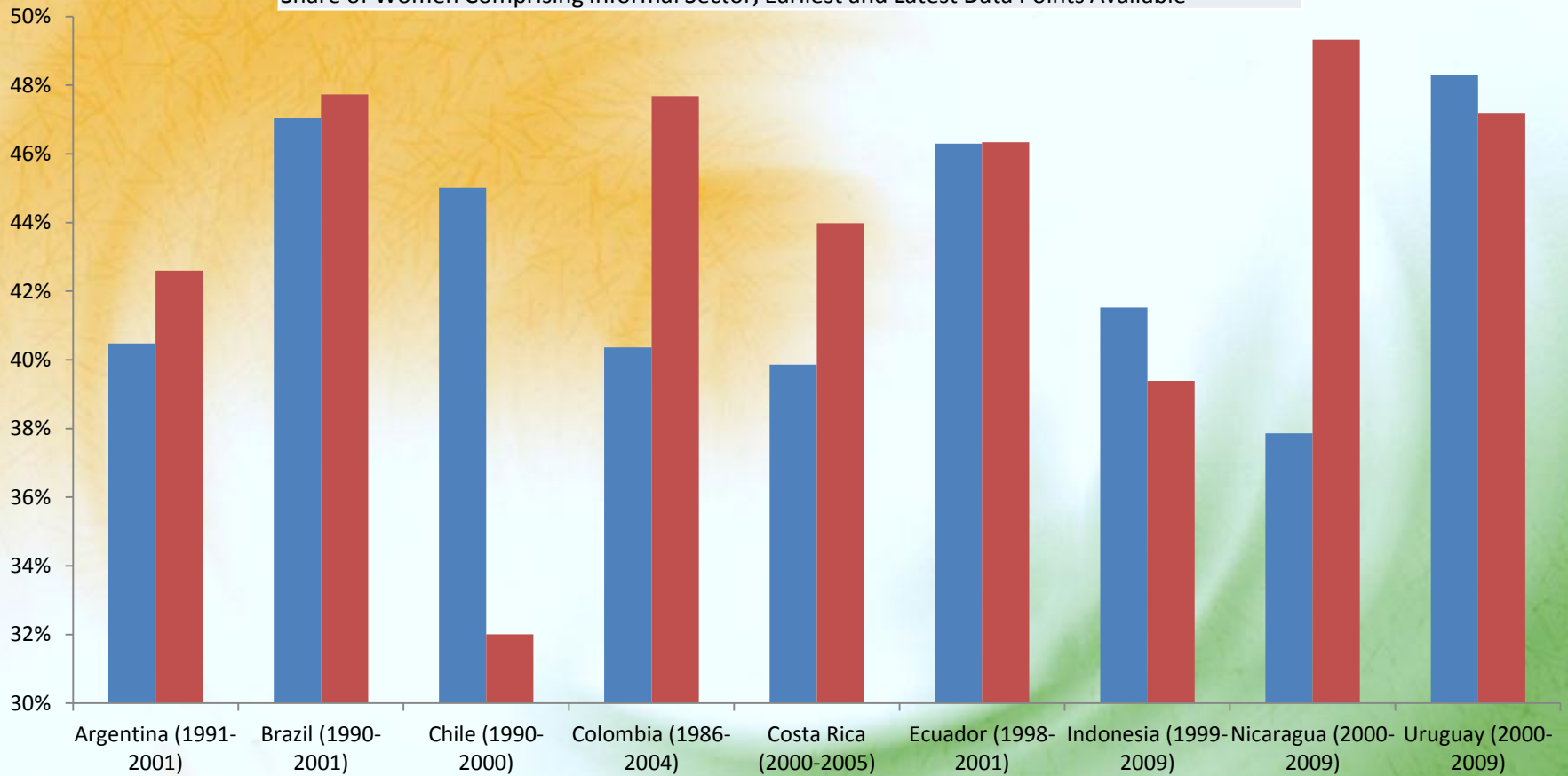
Big Questions

(This presentation draws upon papers co-authored with Ravi Kanbur, William Kerr, and Stev O'Connell)

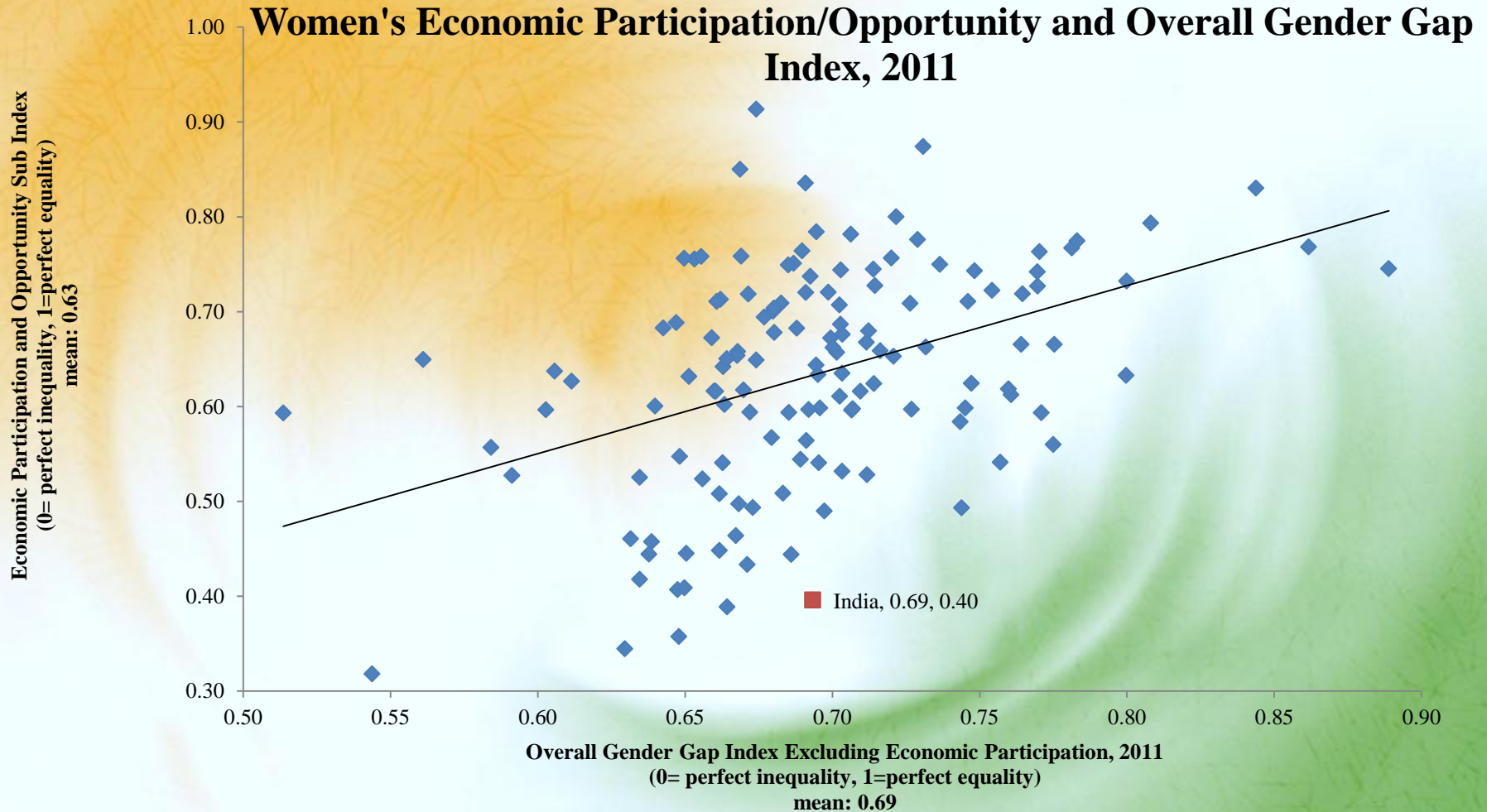
- **Is the world foregoing shared prosperity** with less than half of the world's women participating in economic activities?
- **Is women's increased economic participation behind the persistence of informal sector?**
- **What drives female entrepreneurs?** Is it better infrastructure, education, composition of the labor force/industries, or networking?
- **Has urbanization helped?**
- **Which view is correct?** De Soto view (1989) that informality will be eliminated by good property rights? McKinsey view that informal firms will remain small & unproductive? Harris and Todaro (1970) view that informality is not a threat but a safety net and livelihood to millions of poor people.
- **Is there a one size fits all?** Or do we need a combination of policy solutions?

Is the world foregoing shared prosperity with half of the women's population not participating in economic activity?

Share of Women Comprising Informal Sector, Earliest and Latest Data Points Available



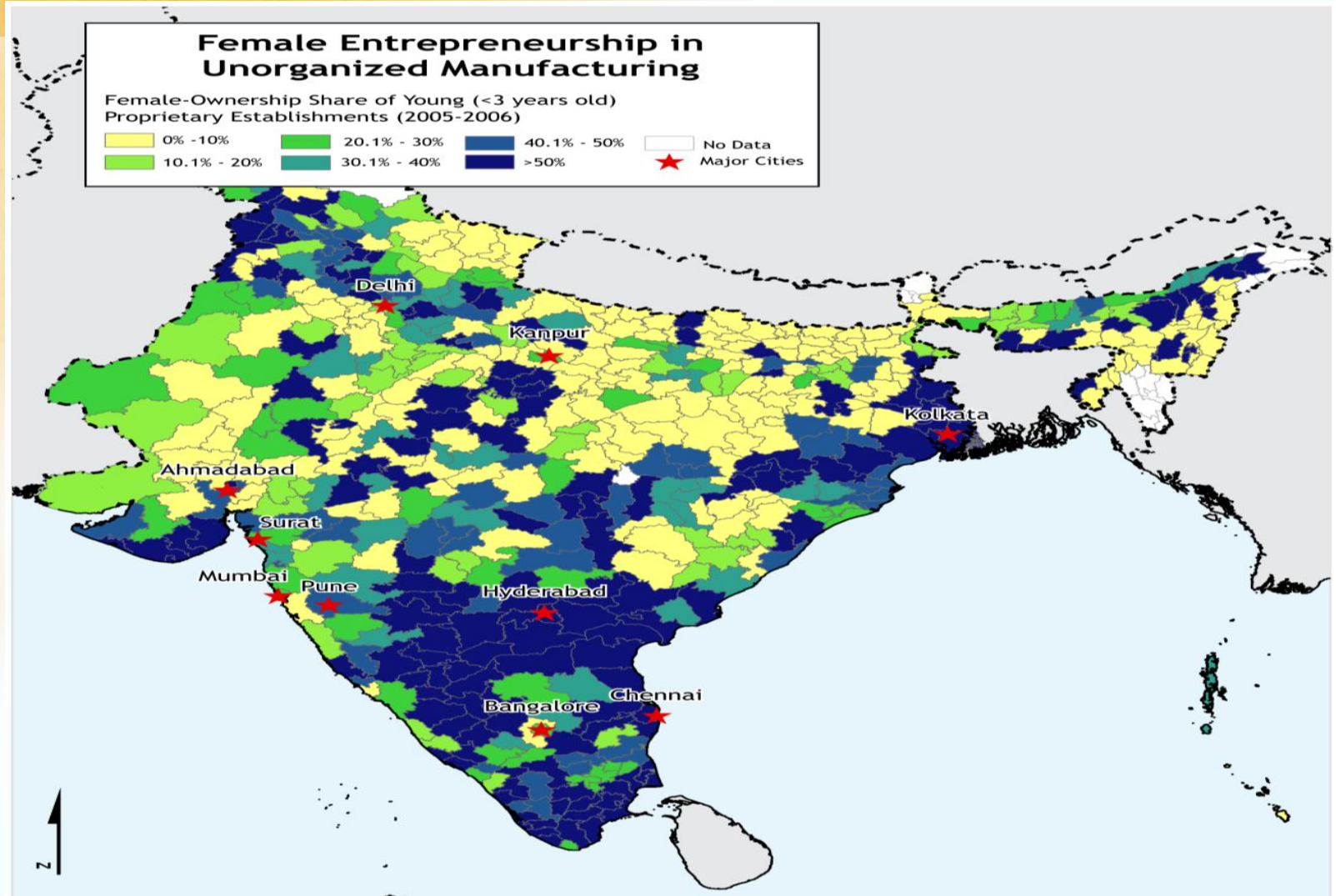
Is economic gender gap lagging behind overall gender gap?



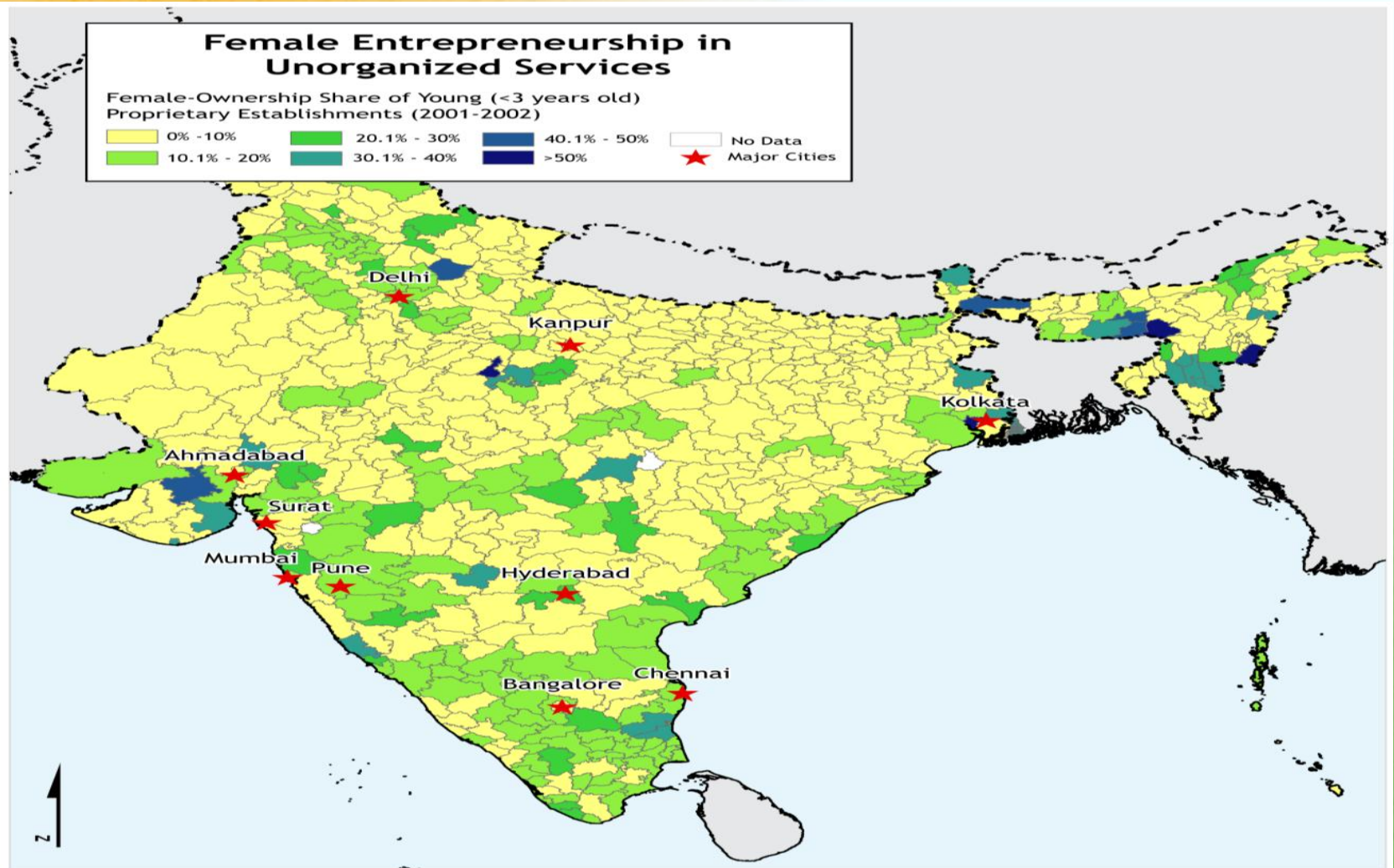
Is informal sector shrinking or expanding? Which industries attract women?

- **Informal sector would have shrunk had women's participation not increased.** Had the rate of female businesses not increased in India, the share of total employment in the informal manufacturing sector would have decreased by nearly ten percentage points.
- **There has been a massive growth in women's employment in informal sectors.**
- **Which industries attract female entrepreneurs?** The overall average female business ownership share has improved over time from 26% in 2000 to 37% in 2005 in India.
- **Within the manufacturing sector**, female shares are highest and exceed 50% in industries related to paper and tobacco products. At the opposite end, female shares of 2% or less are common in industries related to computers, motor vehicles, fabricated metal products, and machinery and equipment.
- **In services**, female business ownership rates in major cities tend to be higher than overall state averages and exceed 30% in service industries related to sanitation and education. Industries related to research and development and transportation have the lowest rates at 1% or less.
- **There is huge spatial variation in female entrepreneurship.** The states with the highest female service sector ownership rates are Kerala, Tamil Nadu and Andhra Pradesh.

What explains huge spatial variation in female entrepreneurship in manufacturing?



What explains huge spatial variation in female entrepreneurship in services?



What drives female entrepreneurs?

- **More incumbent female employment** in an industry/district is associated with a greater female entry share.
- **Among district-level traits**, a higher female-to-male sex ratio, a higher working-age to non-working age population ratio (demographic dividend), and better quality infrastructure appear important.
- **Inadequate infrastructure affects women more than men**, perhaps because women often bear a larger share of the time and responsibility for household activities. Transport infrastructure and paved roads within villages are especially important, as women face greater constraints in geographic mobility.
- **Agglomeration metrics suggest that female connections in labor markets and input-output markets are much stronger than in male owned enterprises.**

Drivers of new female entrepreneurship in India

Unconditional estimations of female entrant share manufacturing and service sectors

	Manufacturing (2005-06)	Services (2001-02)
log female-owned incumbent businesses in district	+++	++
log female-owned incumbent businesses in district-industry	+++	+++
<u>District Traits:</u>		
Female literacy rate	0	++
Sex ratio	+++	0
Population density	---	--
Education level	0	0
Age profile	+	+
Infrastructure level	+++	++
Labor regulations stringency	+	++
<u>Local Industrial Conditions of Incumbent Firms:</u>		
Index of labor market strength, female-owned businesses	+++	n/a
Index of input-output strength, female-owned businesses	+++	n/a
Observations	4,336	4,458
Adjusted R-squared	0.328	0.220

Source: Authors.

Is Urbanization helping female entrepreneurs?

- **Cities create the space for structural transformation, entrepreneurship, jobs as well gender equality.** The only regions still mostly rural, will see their urban populations double in that time. Much of this transformation will take place through increased participation of women in the informal sectors, and in small and intermediate-size cities which often lack the skills, facilities, and services necessary to cope with the human tide.
- **Informal sector is large.** Informal sectors in cities account for more than 50 percent of jobs. The persistence of informal sector is not due to some industries becoming less formalized and others more so. The persistence is due to many more new enterprises that locate in cities are in the informal sectors, and many more people who migrate into cities seeking better paying jobs and living conditions, and thus create persistence. Indeed, informal sectors seem to thrive in cities that have dynamic formal sectors. All in all, informal sectors have become an integral part of urbanization and structural transformation.
- **Cities provide the ecosystem and generate agglomeration economies in the informal sector.** There is emerging evidence that agglomeration economies in developing countries also operate in the informal sector. Related to the agglomeration economies, is the fact small entrepreneurs work better with many more small entrepreneurs.

Is Urbanization helping female entrepreneurs?

- **Agglomeration economies are stronger in developing than in developed countries. Much stronger in informal sectors. Strongest in women owned informal enterprises in urban areas.** The "urbanization gradient" exists separately for the creation of female owned enterprises and male owned enterprises. Effect of market access to inputs, on creation of new enterprises in the informal sector, is greater in more urbanized areas.
- **Networking makes up for market failures and exclusion faced by informal sectors and women owned enterprises.**
- **Informal enterprises are moving into urban areas in search of better infrastructure** while formal enterprises are moving into secondary cities in search of lower land and building costs.
- **New enterprise creation by females is encouraged by urbanization**, but the effect can be stronger by improving female specific market access, especially to inputs.

Agglomeration and Networking are much stronger in informal sectors.

Because informal firms are excluded from markets, that are accessible to organized sector firms, they rely on local networks to get over this market failure.

Table 6: Conditional entrepreneurship estimations - Manufacturing

	Organized Manufacturing			Unorg. Manufacturing	
	Base estimation	Including Marshallian	Including Chinitz	Base estimation	Including Marshallian
	(1)	(2)	(3)	(4)	(5)
	<i>DV is log entry employment by district-industry</i>				
Log of incumbent employment in district-industry	0.155+++ (0.025)	-0.064+++ (0.031)	-0.063++ (0.030)	0.109+++ (0.026)	-0.100+++ (0.026)
Labor market strength for district-industry		0.515+++ (0.089)	0.496+++ (0.089)		0.370+++ (0.066)
Inputs / supplier strength for district-industry		0.344+++ (0.080)	0.263+++ (0.088)		0.448+++ (0.108)
Outputs / customer strength for district-industry		0.291+++ (0.113)	0.304+++ (0.111)		0.264+++ (0.045)
Chinitz small suppliers metric for district-industry			0.597+++ (0.203)		
District and industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	4843	4843	4843	6451	6451
Adjusted R-squared	0.259	0.306	0.309	0.308	0.340

Notes: See Table 4A. Estimations consider entry patterns conditional on industry and district fixed effects.

Women rely especially heavily on local networks to overcome various dimensions of exclusion they face.

Table below shows that Marshallian metrics based only on local female enterprises completely wash out the overall local Marshallian metrics (male + female) in predicting the relative rate of female entry)

Table 6: Conditional estimations for manufacturing sector

	DV: Female-owned entrant share							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log total incumbent employment in district-industry	0.010+++ (0.003)	0.005 (0.003)	-0.000 (0.003)	0.003 (0.003)	-0.001 (0.003)	-0.006+ (0.003)	-0.006+ (0.003)	-0.007++ (0.003)
Log female-owned incumbent businesses in district-industry						0.027+++ (0.002)	0.027+++ (0.002)	0.023+++ (0.002)
<u>Local Industrial Conditions by Incumbent Firms:</u>								
Index of labor market strength for district-industry		0.002 (0.008)		-0.026+++ (0.009)			-0.010 (0.008)	
Index of input-output strength for district-industry		0.023++ (0.011)		0.006 (0.012)			0.015 (0.011)	
Index of labor market strength, female-owned businesses			0.036+++ (0.006)	0.044+++ (0.007)	0.019+++ (0.007)			0.016++ (0.006)
Index of input-output strength, female-owned businesses			0.027+++ (0.007)	0.025+++ (0.008)				0.010 (0.007)
Index of input market strength, female-owned businesses					0.137+++ (0.033)			
Index of output market strength, female-owned businesses					0.010+++ (0.004)			
Observations	4,336	4,336	4,336	4,336	4,336	4,336	4,336	4,336
Adjusted R-squared	0.321	0.322	0.339	0.341	0.343	0.355	0.355	0.357

Notes: See Table 4. Conditional estimations include district-year and industry-year fixed effects.

Promoting shared prosperity through informal sectors

- Informal sector firms get excluded from markets, technology, inputs that are accessible to organized sector firms. So informal firms rely on local networks to get over this market failure.
- This is especially important for female entrepreneurs— women may rely especially heavily on local networks to overcome various dimensions of exclusion they face.
- High networking can coexist with low productivity (actually, due precisely to the low productivity induced by market exclusion faced by informal and/or women-owned enterprises).
- Promoting networking in women owned enterprises can provide effective mechanisms to get over exclusion/market failure.

Policy Implications

- **Empowering half of the potential workforce has significant economic benefits beyond promoting gender equality.**
- **Underinvestment in infrastructure, human capital, institutions, and networking reduces long-term growth. It also blocks gender parity.**
- **Inadequate infrastructure affects women more than men**, perhaps because women often bear a larger share of the time and responsibility for household activities
- **Evidence of agglomeration economies in both manufacturing and services**, and strongest in female entrepreneurs in informal sectors.
- **Despite its recent economic advances, India's gender balance for entrepreneurship remains among the lowest in the world.** Improving this balance is an important step for India's development and its achievement of greater economic growth and gender equality. While achieving economic equality sometimes requires tough choices (e.g., progressive taxation that may discourage effort), the opposite is true here.

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Annex 1: Examining micro data on female entrepreneurs

- In a [recent paper](#), Ghani, Kerr, and O'Connell, explore the factors that encourage female entrepreneurship in India. A representative sample of the Indian economy was captured using micro-data on the unorganized manufacturing and services sectors during 2000-01 and 2005-06, respectively.
- From the survey data, we are able to identify the presence of new entrants as well as the gender of the owner of proprietary establishments. This information was analyzed to develop relative rates of female entrepreneurship and business ownership at the district-industry-year level, visually represented in Figure 2 by district.
- The female ownership rates across major cities have a distribution that is mostly similar to the distribution across states.
- The districts containing India's major cities have higher than average rates of female entrepreneurship. Karnataka, Kerala, and Tamil Nadu have relatively high female business ownership rates in unorganized manufacturing, with an average female establishment ownership rate exceeding 45 percent. In contrast, Delhi, Bihar, Haryana, and Gujarat have low female ownership and entrepreneurship shares.
- Within the manufacturing sector, female ownership shares are highest and typically exceed 50 percent in industries related to chemicals and chemical products, tobacco products, and paper and paper products. At the opposite end, female ownership shares are 2 percent or less in industries related to computers, motor vehicles, fabricated metal products, and machinery and equipment.