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Urbanization and (In)Formalization

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Inexorable urbanization and formalization have been the expectations in development discourse. The two are expected to proceed hand in hand. Indeed, measures of urbanization and formalization have been proposed and used as indicators of development. But while urbanization has proceeded apace in developing countries, formalization has slowed significantly over the past quarter century. This disconnect raises questions for development analysis and development policy. Why did we expect urbanization and formalization to go together in the first place? Is the link between urbanization and formalization more complex than what we had once thought? What then explains the recent disconnect between urbanization and formalization? Is formalization a reasonable policy goal? Might urbanization policies and formalization policies conflict? If so, what can be done to resolve the conflicts? These are the questions this paper addresses.

The paper has three core sections. The first section asks what exactly is meant by formality and informality. It argues that part of the policy confusion on urbanization and formalization arises from the many concepts of informality that abound—ranging from poverty itself, through the small scale of enterprise and a lack of maintained written accounts, to whether laws and regulations are complied with. Proposing a definition of formality that relates activity to state regulation, the paper also asks why formalization may have stalled and why informal sectors are large.

The second section turns to urbanization processes and asks how they intersect with and interact with the incentives to formalize. It argues that there are two standard mindsets in development discourse—one that expects urbanization to lead to formalization and one that expects urbanization to be associated with increased urban informality. It looks at the origins of these mindsets in the literature and traces their development to the modern literature. In particular, it examines how informality is treated in discussions of urbanization, structural transformation, and agglomeration externalities and finds that treatment to be somewhat lacking. The section also explores how countries might attempt to integrate agglomeration, urbanization, and formalization.

The third section looks at policy. Each view of how urbanization feeds formalization has distinctive policy conclusions. Early views of industrialization—as leading to an inexorable pull of the rural population into formal employment—saw industrialization, urbanization, and formalization as the same thing, to be encouraged by policy. Later views of rural-urban migration—as leading to a translation of rural poverty into urban poverty in the informal sector—coincided with cautions about urbanization and greater support for rural development. We now find ourselves at a juncture where job creation and agglomeration benefits make a strong case for urbanization as an integral part of development strategy, but concerns about urban poverty in the informal sector are folded into general concerns about congestion costs that run counter to such a policy stance. The section then considers whether any policy packages can harvest the benefits of density that urbanization can offer, while managing the downside. The response to urban informality turns out to be an important part of such a policy package.

Formality: concepts, measurement, and trends

The terms formality and informality are very common in development discourse. Technical and policy discussions are replete with these terms, and their use dates back several decades, intersecting with other terms such as "dual economy" or dualism between a "modern/capitalist" sector and a "traditional" sector. And discussions of the rural-urban transition also overlap with debates on informality. Given this attention in the literature, one might expect the evolution of a clear and consistent conceptualization and measurement of formality and informality. But as argued in Guha-Khasnobis, Kanbur, and Ostrom (2006) and in Kanbur (2009), we do not find this at all. On the contrary, a range of concepts and associated measurements emphasize different features and characteristics. We begin this section with a brief overview of how the discourse has evolved in its various strands.

Concepts

The earliest discussions of a "dual economy" and associated notions of formality and informality—though these terms were not used at the time—have elements still present in the mindsets of many analysts and policy makers. The Dutch anthropologist and colonial administrator Julius Boeke (1943) envisioned a dualism between activities that came under the jurisdiction of colonial law and the traditional sphere outside the ambit of these rules and regulations. The easiest way to capture this mindset is to think of a wall separating the two domains. On one side of the wall was a domain ordered by regulations, on the other, a domain that was not, implying disorder and disorganization. Nearly 50 years later, Elinor Ostrom (1990) would question vigorously the notion that there was indeed disorder on the "other side." Looking more deeply into activities outside the realm of conventional state regulation, her research revealed carefully crafted management mechanisms. But the tension between these perspectives persists to this day.

The Lewis (1954) model of dualistic development has surprisingly little to say about state regulations. Instead, the dualism is between the capitalist mode of production, where profits are maximized and factor payments are according to marginal product, and a traditional mode of production, where they are not. In the Lewis perspective, labor could not be paid its marginal product in the traditional mode of production because the marginal product of labor was zero—some other, "traditional" rules of output allocation applied. Although this traditional sector has typically been associated with the rural/agriculture sector in later discussions, it is clear that such a simple dichotomy was not necessarily what Lewis had in mind. He wrote about "capitalist agriculture" on plantations and the like, but for him elements of the "reserve army of labor" could equally be found in urban settings:

> The phenomenon is not, however, by any means confined to the countryside. Another large sector to which it applies is the whole range of casual jobs—the workers on the docks, the young men who rush forward asking to carry your bag as you appear, the jobbing gardener, and the like. These occupations usually have a multiple of the number they need, each of them earning very small sums from occasional employment;

> frequently their number could be halved without reducing output in this sector. Petty retail trading is also exactly of this type. It is enormously expanded in overpopulated economies, and each trader makes only a few sales. Markets are crowded with stalls, and if the number of stalls were greatly reduced, the consumers would be no whit worse off.[1]

Although Lewis does not use the term "informal sector," it seems clear that for him it would be a sector where the marginal product of labor was close to zero.

The 1970s saw a flurry of analyses and publications. For economists, Harris and Todaro (1970) is seminal from a conceptual point of view. Although it does not use the term formality, it starts by saying that a key feature of the model is a "politically determined urban minimum wage at levels substantially higher than agricultural earnings". Thus implicit is a sector that comes under the purview of state regulations, which underpin a statutory minimum wage. The point for Harris and Todaro (1970), however, is that this wage is not market clearing. Workers displaced then end up getting very low earnings in the urban sector—the "informal" sector. It is this sector that absorbs the excess, and it is this sector that adjusts. This mindset informs at least some of the policy discourse on regulations today. Of course, there is also rural-urban migration in the Harris-Todaro model (see next section).

It is generally recognized that anthropologist Keith Hart (1973) introduced the term "informal sector" to the literature, describing economic activity in an urban slum in Accra, Ghana:

> The main message of the paper (Hart 1973) was that Accra's poor were not "unemployed." They worked, often casually, for erratic and generally low returns; but they were definitely working… Following Weber, I argued that the ability to stabilize economic activity within a bureaucratic form made returns more calculable and regular for the workers as well as their bosses. That stability was in turn guaranteed by the state's laws, which only extended so far into the depths of Ghana's economy. "Formal" incomes came from regulated economic activities, and "informal" incomes, both legal and illegal, lay beyond the scope of regulation. I did not identify the informal economy with a place or a class or even whole persons. Everyone in Accra, but especially the inhabitants of the slum where I lived, tried to combine the two sources of income. Informal opportunities ranged from market gardening and brewing through every kind of trade to gambling, theft, and political corruption.[2]

Hart's conceptualization echoed ILO (1972), and subsequent attempts to systematize the definition of informal activity for national statistical purposes followed closely the notion that entities recognized by the law were formal and those not so recognized were informal. ILO (1993, para. 5) provides the following definition:

> [Informal enterprises] are private unincorporated enterprises…, that is, enterprises owned by individuals or households that are not constituted as separate legal entities independent of their owners and for which no complete accounts are available that would permit a financial separation of the production activities of the enterprise from the other activities of its owner(s).[3]

Since the 1990s, some have moved to broaden the concept of informality, from an enterprise-based perspective as given above in ILO (1993) to a worker-based perspective focused on whether the worker receives certain mandated protections and benefits from the employer. The distinction is made between the informal sector and the informal economy, the former on an enterprise-based definition, the latter on a worker-based definition, so as to:

> extend the focus to include not only enterprises that are not legally regulated but also employment relationships that are not legally regulated or protected. In brief, the new definition of the "informal economy" focuses on the nature of employment in addition to the characteristics of enterprises.[4]

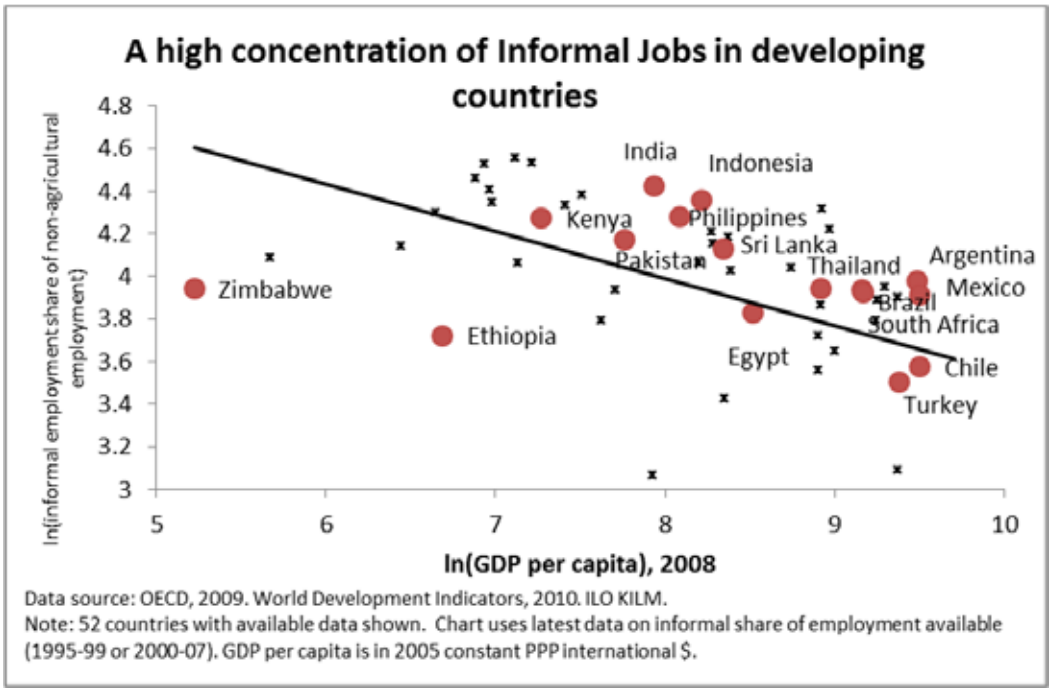
Measurement and trends

With so many different concepts of informality and formality, it is no surprise that getting nationally comparable estimates of informality is difficult. Even if the basic concept is agreed—for example, registered enterprises—the detailed specification may vary across countries, because the registration requirements will vary, too. Estimates by national authorities may differ from those by international agencies because of differing definitions and data sources.

Despite concerns about data and definitions, there is agreement that the informal sector is large in most developing countries and that it is the overwhelming employer of labor in the nonagricultural sector. For developing countries as a group, more than half of all jobs—more than 900 million workers—are in the informal sector.[5] The sector is large not just in employment but also in number of enterprises. Many more new establishments are created in the informal sector than in the formal sector.

Figure 1 plots the share of informal employment in total nonagricultural employment for 50 developing countries against their per capita incomes, using data from the International Labour Organization's Key Indicators of the Labor Market, the Organisation for Economic Co-operation and Development's, and the World Bank's World Development Indicators. For these countries as a group, nearly half of nonagricultural jobs are generated in the informal sector. In India, the share is much higher, at more than 80 percent. Also high in Sub-Saharan Africa, it is slightly lower in Latin America, with Brazil at 42 percent and Mexico at more than 50 percent. The lowest share is in Central and Southeastern Europe, with the share in Poland and the Russian Federation in single digits.

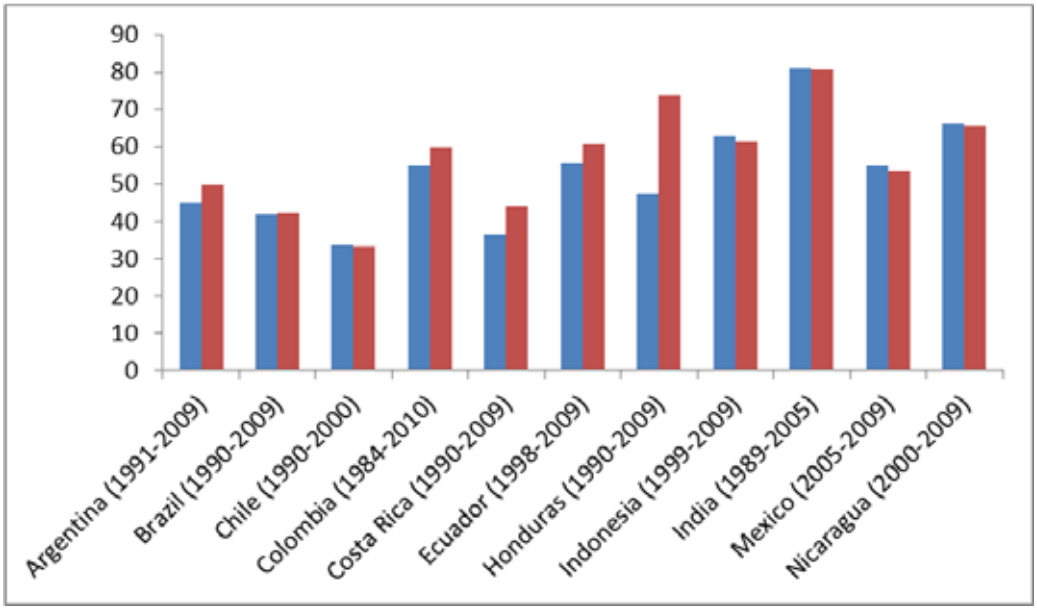
Figure 1. Jobs in developing countries are concentrated in the informal sectors



Source: OECD 2009 [add to references]; World Bank 2010; ILO 2011.
Note: Chart uses latest available data on informal share of employment for 52 countries (1995–99 or 2000–07). GDP per capita is in 2005 purchasing power parity international dollars.

The relationship between the size of informal sector and development in figure 1 slopes down. This stylized cross-section relationship, established many times in the literature, informs the mindset that predicts a decline in informality with development. But notice first a huge dispersion in the cross-country relationship. Second, however, the cross-section relationship is not found in recent time series. Figure 2 compares the trend over time in the share of informal employment in total nonagricultural employment for a dozen developing countries. What is striking is that the size of informal sector has remained exceptionally persistent. It has not contracted over time. To the contrary, it seems to have increased, with few exceptions.

Figure 2. Informal sectors are exceptionally persistent
(share of population in informal employment, earliest and latest data points available)



Source: ILO 2011; Government of India.

This persistence of informality in the face of inexorable urbanization frames the analytical and policy questions in this paper. The stubborn resistance to formalization is a challenge to analysts—why is it happening?—and to policy makers—what, if anything, can and should be done about it? We turn now to these questions in the next two sections.

Urbanization and the transition to formality

Urbanization is proceeding inexorably in the world; formalization is not. Kanbur (2011) explores why informality might persist in many countries despite economic growth. Possible explanations include looser regulations, weaker enforcement of regulations, and technological changes that have made it less inefficient to avoid regulations by operating at a smaller scale. An additional factor could be the changing gender composition of the labor force.[6] The focus of this section, however, is on the connections and interactions between urbanization and formalization. Why might we expect the two to move together at all? Indeed, might there instead be a more intimate connection between urbanization and informality? And what does the literature on agglomeration externalities and congestion costs say about the incentives of enterprises to become formal or to stay informal?

The traditional literature

This section begins with the traditional literature on dualism and on the formal/informal divide reviewed in the last section, to see what different elements of it say about the connections between the rural-urban transition and the informal-formal transition. In Boeke's (1943) view, to the extent that the urban comes under the ambit of colonial regulation while the rural does not,

urbanization is associated with increased formality. In the Lewis (1954) framework, the key distinction is between capitalist and noncapitalist modes of production. As investment takes place in the capitalist (or "modern") sector, labor is drawn away from the traditional sector, the pool of surplus labor. Only if we identify the traditional sector with rural and the capitalist sector with urban do urbanization and formalization go together in the Lewis framework. The Hart (1973) framework focuses on the urban sector and identifies informality as activities outside the reach of state regulation. In this setting, urbanization would lead to an increase in informality if rural migrants went disproportionately into informal activities, as envisioned by Hart. Migration is underexplored in Hart (1973), though there are suggestions that recent migrants may be more likely to be in the informal sector.

The Harris-Todaro (1970) framework, in the original and as developed by many later studies, comes closest to offering the possibility of a systematic link between rural-urban migration and informality. Recall that migration in this model takes place in response to the differential between rural income and expected urban income—the urban sector offers the probability of employment in the formal sector, where the wage is set at a high level, but also the one-minus-this probability of ending up with a very low income in the urban informal sector. Jobs in the formal sector are rationed, and getting one of these high-paying jobs is in effect winning a lottery. Losing the lottery is ending up in the informal sector.

With this setting, consider first the addition of a new job in the formal sector. If all other employment in the economy (urban informal and rural) is classified as informal, the degree of informality will fall. But the increased employment in the formal sector will increase the probability of getting a high-paying formal sector job and thus induce more migration, increasing the absolute size of the urban informal sector. In a full migration equilibrium, when expected urban income is equated to rural income, the relative size of the informal sector in the urban area will remain unchanged. In this scenario, then, informality will either fall or stay the same, depending on how it is measured.

Now consider a scenario where the formal sector wage is increased, holding formal sector jobs constant. Raising the formal sector wage will induce more migration and, since total jobs in this sector are fixed, a higher proportion of the now larger urban population will end up in the urban informal sector. If informality means rural employment plus urban informal, of course the degree of informality will not change. But if informality means simply urban informality, and official definitions of informality focus mainly on the part of the nonagricultural labor force that is informal, the degree of informality will increase with urbanization.

The Harris-Todaro (1970) framework thus provides some insights into possible connections between urbanization and informality, but it is entirely worker-based—the location decision of enterprises is not considered. And yet these decisions are just as important for the overall pattern of urbanization. Considering enterprise behavior links the discussion to the recent literature on agglomeration benefit and congestion externalities.

Enterprise size, geographical density, and formality

Beall, Guha-Khasnobis, and Kanbur (2010) identify the key features of the urban context as proximity, density, diversity, dynamics, and complexity. The origins of this discourse go back at least as far as Lewis Wirth (1938), who said that a city was a "relatively large, dense, and permanent settlement of socially heterogeneous individuals." For economists, starting at least with Marshall (1920), dense proximity of a diverse pool of skills has been the foundation of agglomeration benefits. But such disciplines as sociology and anthropology have emphasized the problems of differences in close proximity—for example, ethnic cleavages—and urban responses to these challenges. Of course, economists have also discussed the costs of agglomeration in the form of congestion costs. The recent literature has discussed the balance between agglomeration benefits and costs to arrive at optimal city concentration.[7]

This section focuses on the interactions among enterprise size, city traits, industry traits, and agglomeration economies in both the formal and informal sectors. It relies on a direct empirical link between enterprise size and formality. Larger enterprises are more likely to be formal, in the sense of coming within the ambit of state regulations and complying with these regulations.[8] Regulations in many countries (India, for example) are written to apply to enterprises of at least certain size (for example, enterprises with 10 workers or more). Further, official statistical definitions of formality (India's definition of the "organized sector," for example) also relate to enterprise size.

With this background, consider the incentives for large and small enterprises to locate within or outside densely populated areas—and what affects these incentives. Larger manufacturing enterprises clearly need more land, which is more easily available in less densely populated areas. One possible cost of moving to less dense areas is the loss of access to public goods like electricity. But technological advances mean that firms can have small generators without a substantial cost increase, and besides, own-generators can guarantee supply where the public electric supply is erratic, as in many urban settings. In addition, large enterprises that operate in industries with mature technology seem to benefit less from agglomeration economies. To the extent that smaller firms are less vertically integrated, it helps to be in a dense ecosystem with forward and backward supply chain links in inputs and outputs in close proximity. And to the extent that larger firms are more likely to be vertically integrated, moving to a less dense location is likely to cost less.

Putting these arguments together, we can construct a rationale for why, all else equal, smaller firms are more likely than larger firms to benefit from agglomeration externalities. This is only a tendency, of course—location decisions will be influenced by many considerations. But the question arises—what may have changed in the last 20 years to increase the advantage of smaller firms locating in more densely populated areas, and the reverse for larger enterprises?

One straightforward reason is the ongoing urbanization, which is increasing density. This puts larger firms at a disadvantage because of their greater need for land. At the same time, problems

in urban governance and infrastructure are well documented. And as suggested above, larger firms are more likely to be able to escape these problems by locating in less dense areas, where they can control power supply through private generators and are perhaps not as hemmed in by land use regulations. Further, smaller enterprises are more likely to benefit from density because they are more likely to not be vertically integrated.

Related to this is another possible reason for smaller (and thus more likely informal) enterprises to migrate to urban areas. If technology is changing to make scale economies less important than in an earlier era, informal enterprises are more able to survive. All else held constant, if technological change or the emergence of a supply chain makes production possible at a smaller and less vertically integrated scale, and especially if the coordination across elements of the previously integrated chain of production is made easier through the physical proximity that urban density makes possible, data on the persistence of informality should not be surprising. On this reasoning, we would expect smaller enterprises to migrate to urban areas and larger enterprises to migrate from urban areas. But what is the evidence for this reasoning? Turn now to some remarkable recent trends in India.

The location of formality in India

As noted, India's official definition of formality, from the enterprise perspective, turns essentially on enterprise size. In manufacturing, the "organized" sector includes establishments with 10 workers or more and that use electricity. If the establishment does not use electricity, the threshold is 20 workers or more. These establishments are required to register under the India Factories Act of 1948. The "unorganized" manufacturing sector, by default, comprises establishments that fall outside the scope of the act.

India is the world's second-fastest growing economy, but it also has a very large informal sector. In manufacturing, nearly 99 percent of enterprises—and 81 percent of employment—are in the unorganized sector. In services, the unorganized sector is an estimated 74–90 percent of employment, depending on the definition. The Indian economy has undergone amazing structural transformation over the last two decades, but the unorganized sector's employment share has remained high.[9] For manufacturing, it was 81 percent in 2005, almost exactly the same as in 1989. So the unorganized sector is also exceptionally persistent. India provides a good case for examining how urbanization and formalization have interacted and evolved over time. Is the formal sector moving out of urban areas? Is the informal sector moving in? Do cities generate agglomeration economies in the informal sector? Has the spatial allocation of plants improved across urban and rural locations?

Ghani, Grover Goswami, and Kerr (2012) examine trends in the spatial location of organized and unorganized enterprises in India. They combine the enterprise data from the Annual Survey of Industries for the organized (formal) sector and from the National Sample Survey for the unorganized (informal). The organized manufacturing sector is surveyed by the Central Statistical Organization every year through the Annual Survey of Industries, while unorganized

manufacturing establishments are surveyed separately by the National Sample Survey Organization at roughly five-year intervals. These surveys identify whether each establishment is in an urban or rural location. Establishments are surveyed with state and four-digit National Industry Classification stratification.

On the whole India's manufacturing became more urbanized, with the share of workers in urban areas rising from 33 percent of employees in 1989 to 41 percent in 2005 (figure 3a). Urbanization growth was most dramatic from 1989 to 1994, slowing to 2000. The urbanized employment share was basically flat from 2000 to 2005. This pattern was also present in manufacturing plant counts, but the opposite trend emerges for manufacturing output, which has moved increasingly toward rural areas.

The differences in the relative movements of the organized and unorganized sectors are striking (figures 3b and 3c). Over 1989–2005, the organized sector moved from urban to rural locations, with its urban employment share declining from 69 percent to 57 percent. By contrast, the urban employment share for the unorganized sector increased from 25 percent to 37 percent. Because the unorganized sector accounts for about 80 percent of employment in India's manufacturing, total urbanization increased for employment. Likewise, the organized sector accounts for more than 80 percent of India's output, such that aggregate output becomes more rural. Large firms in India with high capital and land intensity are more likely to locate in rural areas. There is evidence to support this from within-district and between-district movements, which both tend to work in the same direction for the urbanization of the unorganized sector and the deurbanization of the organized sector.

Could these changing patterns in the urbanization of the informal sector and the deurbanization of the formal sector be explained merely by changing the definition of urbanization? Probably not. India's definition of an urban setting has been mostly stable since the 1961 census, and the country uses more demanding criteria than most countries. For example, substantial parts of U.S. metropolitan areas like Atlanta or Phoenix would be classified as rural in Indian statistical analyses because their population densities fall below 1,000 people per square mile.[10]

Figure 3a. Plants and employment are urbanizing—output deurbanizing

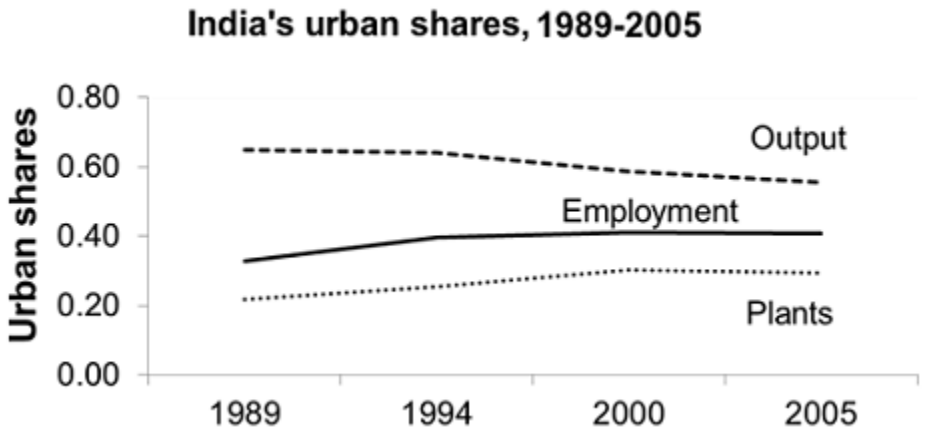


Figure 3b. The organized sector is deurbanizing

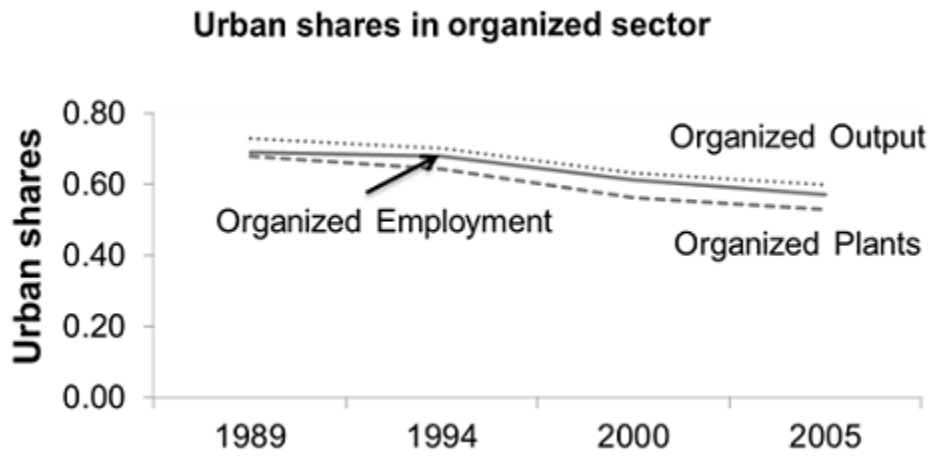
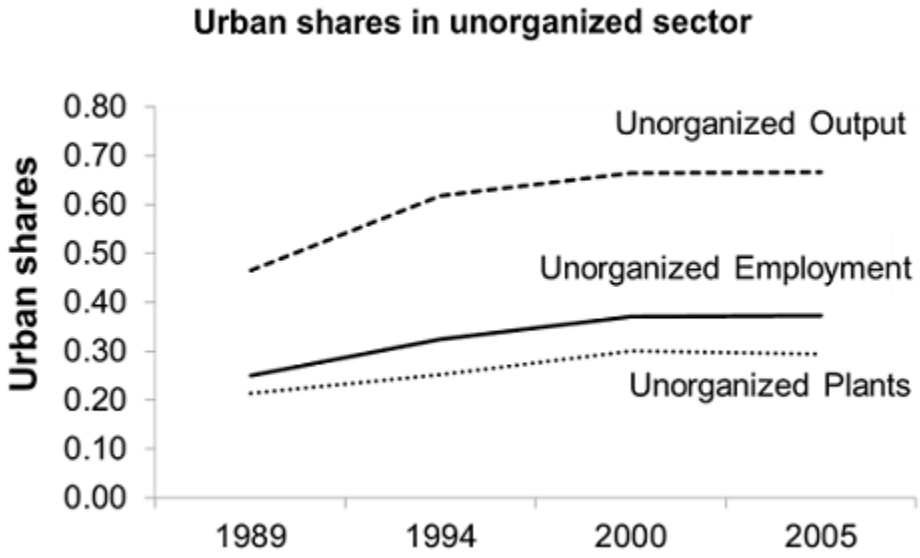


Figure 3c. The unorganized sector is urbanizing



Source: Ghani, Grover Goswami, and Kerr 2012.

Note: The figures plot urban shares of plants, employment, and output for each year using survey data on plants from formal (organized) and informal (unorganized) manufacturing sectors in India.

What attracts new entrepreneurs and workers to cities? Ghani and others (2011b) quantify the factors and traits of cities and industries that systematically predict greater entry of new establishments in the formal and informal sectors. They use cross-sectional establishment surveys in 630 districts in India across 35 states and union territories. They quantify entrepreneurship as firms younger than three years and define entry measures through employment in these new establishments. They examine the role of demographic traits in cities (age profiles, population, population density), structural traits of cities (education of the local labor force, quality of local physical infrastructure, connectivity to major cities), business climate traits (stringency of labor laws, household banking conditions), and the impact of agglomeration economies in formal and informal sectors. They develop metrics that unite the incumbent industrial structures of districts with the extent to which industries interact through the traditional agglomeration channels.[11]

This conceptual approach has also been used to describe location decisions and city structures in several advanced economies. The first agglomeration channel is proximity to customers and suppliers, which reduces transportation costs and thus increases productivity. The second is the Chinitz effect. Chinitz (1961) argued that Pittsburgh's large, integrated steel firms depressed external supplier development. By contrast, New York City's much smaller firms, organized around the decentralized garment industry that then dominated the city, were better suppliers to new firms. The third channel is labor pooling.

Table 1 provides basic spatial results for the organized manufacturing sector. Column 1 includes just district populations, district-industry employments, and industry fixed effects. Not surprisingly, existing district-industry employment strongly shapes the spatial location of entry in the organized sector: a 10 percent increase in incumbent employment raises entry employment into formal sectors by around 2 percent. In addition, a district's population increases entry rates with an elasticity of 0.5. Higher-order population terms are not found to be statistically significant or economically important.

Column 2 includes the district traits. Three factors stand out as discouraging the entry of new plants into the formal manufacturing sector in cities: high population density, strict labor regulations, and greater distance to 1 of India's 10 largest cities. The first factor, observed in many spatial settings, is closely studied by Desmet and others (2012) in India. The traded nature of manufacturing products allows more rural settings for firms, and manufacturers often seek environments with lower wages and cheaper rents than those in high-density areas. The second connects with earlier studies of India arguing that strict labor laws reduce economic growth. These policies are associated with reduced entry even after conditioning on district-industry size. The third highlights that while organized manufacturers avoid the high costs of urban areas, they also avoid the most remote areas in favor of settings nearer to large population centers, likely to access customers directly or to connect to road transport and shipping routes. By contrast, the education of a district's workforce is strongly linked to higher entry rates. This is consistent with the findings for the United States. The elasticity for India is in fact stronger in economic magnitude, if not precision, than that in comparable studies of advanced economies.

Table 2 computes these estimates for the unorganized manufacturing sector. Several distinct differences exist. First, local population has a much greater connection with unit elasticity in column 1's simplest estimate. This greater connection of entry to the overall size of local markets almost certainly reflects unorganized entry's being proportionate to market size and servicing local needs. Unorganized manufacturing clearly conforms much more closely to the overall contours of India's economic geography than does organized manufacturing.

The other two district traits associated with strong entry are the strength of local, within-district physical infrastructure and the strength of local household banking environments. This contrasts with organized manufacturing entry, where education stood out. An intuitive explanation is that these patterns and their differences reflect the factors that each sector depends on most. Organized manufacturing establishments, for example, may have broader resources that reduce their dependence on local infrastructure and household finance. Likewise, it is reasonable to believe that the unorganized sector depends less on educated workers than the organized sector. Finally, measures of input/supplier strength and output/customer strength have a greater impact on employment growth for the unorganized sector than for the organized. Thus, while agglomeration benefits exist in both formal and informal manufacturing, they appear empirically to be stronger for the informal sector. Additionally, input-cost factors are more influential in the

location choices of small startups, while output conditions and labor markets are more important for large entrants.

So economic reasoning, and Indian evidence, would suggest that, from an enterprise-based perspective, the comovement of urbanization and informality should be no surprise. Similarly, a worker-based perspective can also produce, as in the Harris-Todaro framework, a comovement of urbanization and informality. What does this mean for policy? Turn to the next section.

Table 1. Harnessing entrepreneurship and job creation in cities—formal manufacturing

Harnessing Entrepreneurship and Job Creation in Cities-Formal Manufacturing

	Base estimation	District traits	Full estimation	Adding consumption	Using log entry count
	(1)	(2)	(3)	(4)	(5)
	DV is log entry employment by district-industry				
Log of incumbent employment in district-industry	0.229+++	0.186+++	-0.028	-0.030	0.032+
	(0.043)	(0.040)	(0.048)	(0.047)	(0.018)
Log of district population	0.531+++	0.483+++	0.475+++	0.482+++	0.216+++
	(0.179)	(0.155)	(0.156)	(0.161)	(0.056)
District Traits:					
Log of district population density		-0.569+++	-0.563+++	-0.562+++	-0.197+++
		(0.088)	(0.080)	(0.079)	(0.029)
Share of population with graduate education		0.211+	0.235++	0.230++	0.078+
		(0.110)	(0.107)	(0.111)	(0.042)
Demographic dividend for district (age profiles)		0.605	0.567	0.535	0.271
		(0.458)	(0.446)	(0.468)	(0.177)
Index of infrastructure quality for district		0.018	0.096	0.086	0.015
		(0.100)	(0.094)	(0.097)	(0.038)
Strength of household banking environment		0.143	0.095	0.085	0.027
		(0.104)	(0.100)	(0.106)	(0.036)
Stringency of labor laws in district's state		-0.210+++	-0.161++	-0.157++	-0.095+++
		(0.070)	(0.064)	(0.065)	(0.023)
Log travel time to closest large city		-0.275+++	-0.241+++	-0.237+++	-0.091+++
		(0.090)	(0.083)	(0.083)	(0.031)
Log per capita consumption				0.152	
				(0.505)	
Local Industrial Conditions by Incumbent Firms:					
Labor market strength for district-industry			0.161	0.164	0.026
			(0.102)	(0.102)	(0.041)
Inputs / supplier strength for district-industry			0.485+++	0.485+++	0.154+++
			(0.098)	(0.098)	(0.043)
Outputs / customer strength for district-industry			0.388+++	0.387+++	0.167+++
			(0.140)	(0.140)	(0.057)
Chinitz small suppliers metric for district-industry			0.279	0.279	0.337+++
			(0.213)	(0.212)	(0.129)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	4843	4843	4843	4843	4843
Adjusted R-squared	0.128	0.166	0.218	0.218	0.279

Notes: Estimations quantify the relationship between district-industry employment in new establishments and local district conditions. District-level traits are taken from the 2001 Census. Industrial conditions are calculated from 2005-06 using incumbent establishments in the district-industry. Labor regulations are a composite of adjustment and disputes laws. Estimations weight observations by an interaction of district size and industry size, include industry fixed effects, and cluster standard errors by district. Non-logarithm variables are transformed to have unit standard deviation for interpretation. Source: Ghani, Kerr, O'Conell, 2011b

Source: Ghani, Kerr, and O'Connell 2011b.

Note: Estimations quantify the relationship between district-industry employment in new establishments and local district conditions. District-level traits are taken from the 2001 census. Industrial conditions are calculated from 2005–06 using incumbent establishments in the district-industry. Labor regulations are a composite of adjustment and disputes laws. Estimates weight observations by an interaction of district size and industry size, include industry fixed effects, and cluster standard errors by district. Nonlogarithm variables are transformed to have unit standard deviation for interpretation.

Table 2. Harnessing entrepreneurship and job creation in cities—informal manufacturing

Harnessing Entrepreneurship and Job Creation in Cities-Informal Manufacturing

	Base estimation	District traits	Full estimation	Adding consumption	Using log entry count
	(1)	(2)	(3)	(4)	(5)
	DV is log entry employment by district-industry				
Log of incumbent employment in district-industry	0.163+++	0.123+++	-0.075++	-0.078+++	-0.040
	(0.031)	(0.029)	(0.029)	(0.029)	(0.026)
Log of district population	1.051+++	0.878+++	1.010+++	1.025+++	0.866+++
	(0.161)	(0.157)	(0.160)	(0.153)	(0.138)
District Traits:					
Log of district population density		-0.019	-0.044	-0.042	-0.044
		(0.070)	(0.068)	(0.073)	(0.057)
Share of population with graduate education		-0.002	-0.026	-0.079	-0.046
		(0.080)	(0.084)	(0.087)	(0.074)
Demographic dividend for district (age profiles)		0.954+++	1.053+++	0.770++	0.798+++
		(0.326)	(0.330)	(0.326)	(0.285)
Index of infrastructure quality for district		0.386+++	0.365+++	0.259++	0.325+++
		(0.096)	(0.097)	(0.104)	(0.086)
Strength of household banking environment		0.222+++	0.211+++	0.152+	0.193+++
		(0.080)	(0.080)	(0.082)	(0.071)
Stringency of labor laws in district's state		-0.007	0.000	0.020	0.030
		(0.069)	(0.069)	(0.066)	(0.062)
Log travel time to closest large city		-0.004	0.009	0.029	0.017
		(0.069)	(0.074)	(0.074)	(0.065)
Log per capita consumption				1.191+++	
				(0.365)	
Local Industrial Conditions by Incumbent Firms:					
Labor market strength for district-industry			0.263+++	0.271+++	0.228+++
			(0.075)	(0.075)	(0.067)
Inputs / supplier strength for district-industry			0.553+++	0.542+++	0.504+++
			(0.107)	(0.108)	(0.096)
Outputs / customer strength for district-industry			0.291+++	0.292+++	0.246+++
			(0.050)	(0.051)	(0.044)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	6451	6451	6451	6451	6451
Adjusted R-squared	0.195	0.233	0.264	0.267	0.294

Notes: See Table 1.

Source: Ghani, Kerr, and O'Connell 2011b.

Note: Estimations quantify the relationship between district-industry employment in new establishments and local district conditions. District-level traits are taken from the 2001 census. Industrial conditions are calculated from 2005–06 using incumbent establishments in the district-industry. Labor regulations are a composite of adjustment and disputes laws. Estimates weight observations by an interaction of district size and industry size, include industry fixed effects, and cluster standard errors by district. Nonlogarithm variables are transformed to have unit standard deviation for interpretation.

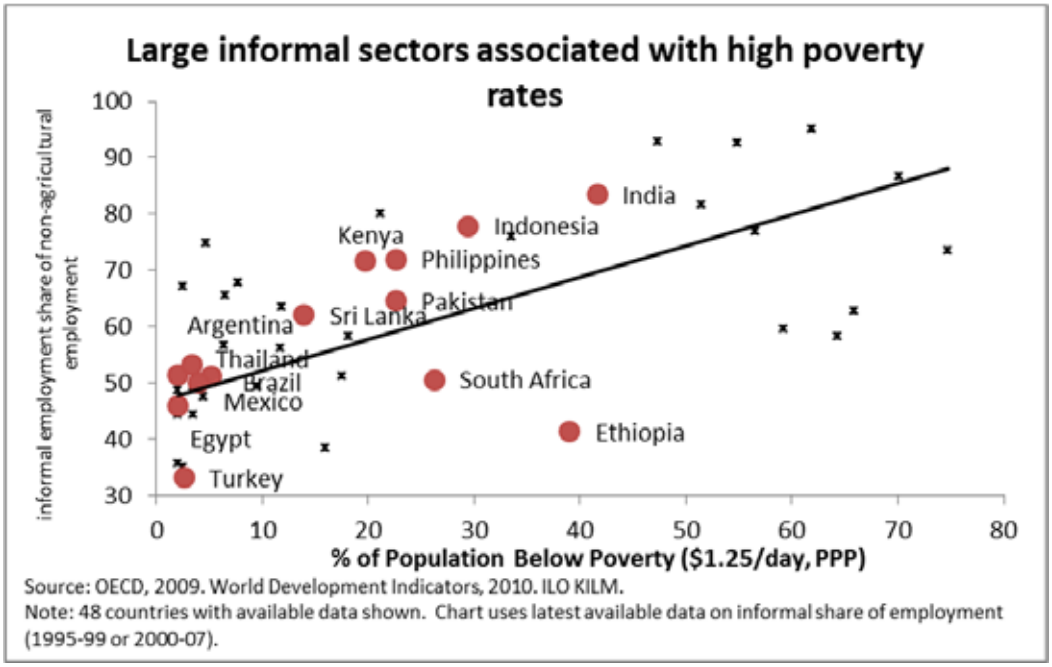
Policy implications

Why worry about informality?

There are (at least) three reasons for informality to be a concern in policy circles—it is associated with higher levels of poverty and vulnerability, lower levels of productivity, and lower contributions to fiscal revenue. Consider each in turn.

Figure 4 plots the share of informal jobs against poverty rates across countries. The line slopes up, suggesting that a larger size of the informal sector is associated with higher poverty rates. The macro-level association is confirmed by almost every micro-level country-specific study that looks at the association between poverty and informality. Workers in the informal sector are predominantly poor in both income and nonincome dimensions. The reason is that informal jobs have low productivity, and some groups, such as women and the young, are overrepresented in the informal sector.[12] In India, workers in the unorganized sector have nearly twice the incidence of poverty (20.5 percent) than their counterparts in the organized sector (11.3 percent).[13] Studies also find lower levels of health, education, and other nonincome achievements in the informal sector.

Figure 4. Large informal sectors are associated with high poverty rates



Source: OECD 2009; World Bank 2010; ILO 2011.
Note: Chart uses latest available data on informal share of employment for 48 countries (1995–99 or 2000–07).

Some caveats are in order. The links between working informally and being poor are not always straightforward. Recent empirical work has emphasized heterogeneity within the informal sector.[14] Not all jobs in the informal economy yield paltry incomes. Indeed, many in the informal

economy, especially some self-employed, earn more than unskilled or low-skilled workers in the formal economy. There also is much innovation and many dynamic growth-oriented segments in the informal economy, requiring considerable knowledge and skills. One is the fast-growing information and communications technology sector in India's large cities. And some evidence suggests that informal sectors have expanded in Indian districts where the formal sectors have expanded. Finally, in the spirit of the Harris-Todaro (1970) analysis, informal sectors in cities attract the poor people. They do not make them poor.

Despite these caveats, the strong association between informality and poverty is the driving concern of policy makers, and their chief worry is persistent informality in the face of rapid growth. In addition to the income, education, and health dimensions of poverty, there is also the exclusion of the informal sector from the city's decision making and outright harassment by police and government agents. The experiences of the Self Employed Women's Association, a union of women who earn their living in the informal sector, are telling. As a recent publication notes:

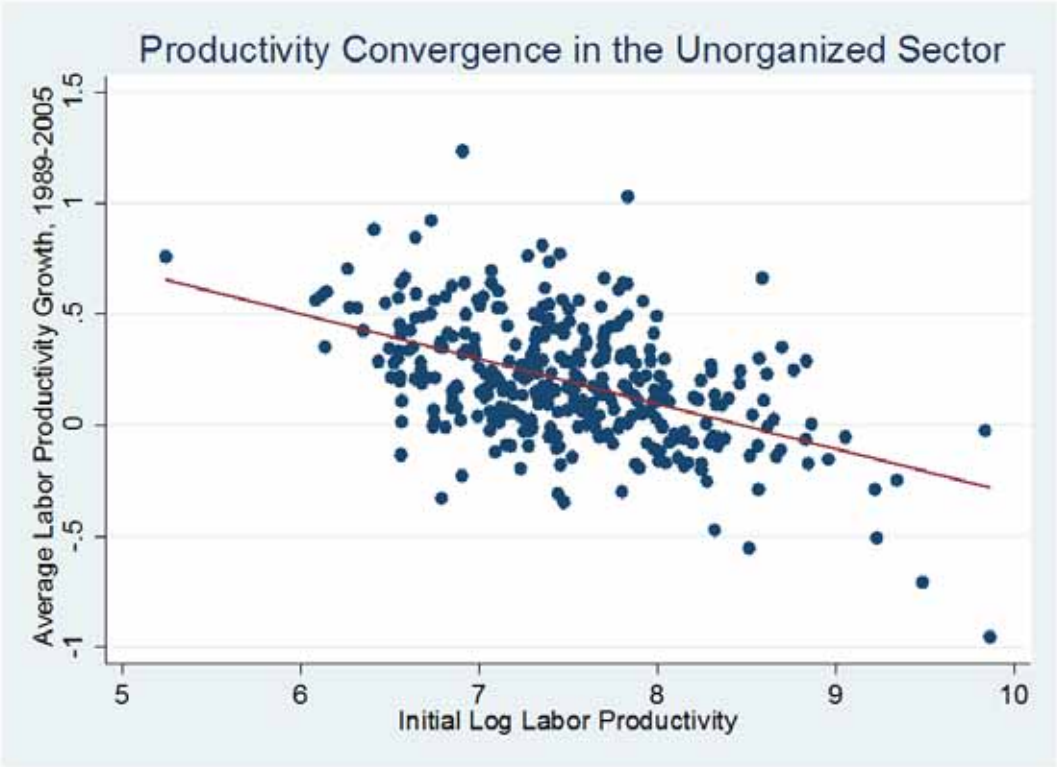
> Delhi is a place where people migrate in search of work. But as each day passes, people become invisible among the crowd and glitter. The less educated migrants find a variety of work like labor work, ironing work, vending work, home-based work, domestic work, and driving rickshaws—and they earn well enough. With rapid development happening in all major cities of India, the poor are displaced ruthlessly. The situation for street vendors is no different. The street vendors are harassed by MCD [Municipal Corporation of Delhi], Police, Goons, and Mafias, in the process of beautification, modernization, and development… The Goons and Mafias, with support from Police and MCD, set up the markets at various places and illegally charge vendors for the space. In desperation, vendors pay R 500–1,000 to Goons or Mafias to make a living. Besides, MCD charges a penalty to vendors for setting up illegal spaces. Thus, vendors are exploited by both Mafias and MCD.[15]

Along with lower incomes, the lower productivity of enterprises in the informal sector is well documented.[16] Most recently, Busso, Fazio, and Levy (2012) argued that in Mexico total factor productivity is much higher in the formal sector than in the informal—so much so that "one peso of capital and labor allocated to formal and legal firms is worth 28 percent more than if allocated to illegal and informal firms, and 50 percent more than if allocated to legal and informal firms". But other studies have pointed out strong evidence for manufacturing convergence. In a study of 100 countries using industry data for formal sectors, Rodrik (2012) finds that industries that start at lower levels of labor productivity grow faster.

Figure 5 plots labor productivity in India's unorganized industry at the district level. Each dot in the scatter plot reflects labor productivity in the unorganized industry in a district. A line sloping down suggests that districts that started with lower labor productivity in the initial period experienced faster productivity growth in later periods. But there is a lot of dispersion. No doubt, the pace of convergence will accelerate with better infrastructure, improved policies, and stronger institutions, as discussed earlier. The convergence in the unorganized manufacturing

sector can have a huge impact on aggregate manufacturing convergence, given that more than 80 percent of India's manufacturing employment is in the unorganized sector. The impact of formal manufacturing on aggregate manufacturing convergence is reduced by its small share of employment.

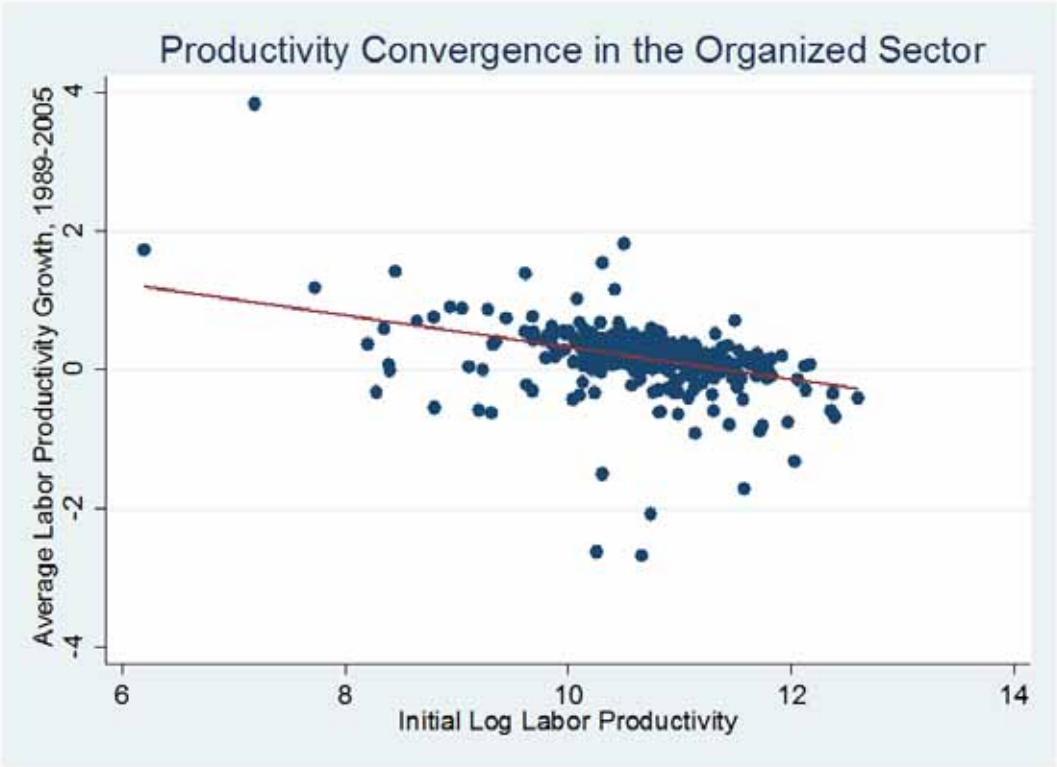
Figure 5. Convergence in productivity in India's unorganized manufacturing, 1989–2005



Note: The horizontal axis is the initial labor productivity of unorganized industry in a district in 1989. The vertical axis is the growth of labor productivity in unorganized industry in that district.

Figure 6 shows manufacturing convergence in India's organized sector at the district level. Districts that started with lower labor productivity in the initial period grew faster in later periods. Formal sectors can converge faster due to the tradable nature of the goods they produce, the benefits of scale economies, and the better connectivity through cities into global production networks. So, cities play a role in manufacturing convergence in both formal and informal sectors.

Figure 6. Convergence in productivity in India's organized manufacturing, 1989–2005



What about the fiscal implications? Policy makers worry that the informal sector is largely outside the tax net. Indeed, in some countries the statistical definition of enterprise informality is based on whether it is registered for tax purposes. Of course, if an exogenous shift in conditions brings more firms into the tax net, that is good fiscally. But if informality increases, the tax net suffers. The important question from a policy perspective, however, is whether policy measures could be taken to induce greater formality and greater revenue.

The answer is not self-evident—and certainly not as simple as relaxing regulations to bring more firms into the formal sector. For example, on taxing profits, Auriol and Warlters (2005) argue that there is a tradeoff between restricting entry to the formal sector, which would raise taxable profits per firm, and increasing the number of formal sector firms by relaxing regulation. The argument is confirmed by their empirical analysis of regulation, taxation, and informality for a cross-section of 64 countries. In a similar vein but focusing on tax collection, Keen and Mintz (2004, 559) model tradeoffs in lowering the tax threshold to bring in more firms into the value added tax net: "Too high a threshold compromises the basic objective of raising revenue; too low a threshold may leave the authorities overwhelmed by the difficulties of implementation and impose excessive compliance costs on taxpayers."

What should be done about informality?

The dominant policy perspective on informality can be illustrated by two quotations, the first from the World Bank, and the second from *The Economist:*

> There are various reasons why governments may be concerned about large informal sectors. These include potentially negative consequences for competitiveness and growth, incomplete coverage of formal social programs, undermined social cohesion and law and order, and fiscal losses due to undeclared economic activity. For most governments, these concerns outweigh any advantages that the informal sector offers as a source of job creation and as a safety net for the poor.[17]

> Thanks largely to baroque regulation, half the labor force toils in the informal economy, unable to reap the productivity gains that come from technology and greater scale.[18]

It would seem that the informal sector is a problem because of low productivity, low contribution of fiscal resources, and high concentration of poverty, vulnerability, and exclusion. Further, the major causes of informality are to be found in "baroque regulations."

The conventional wisdom's headline policy conclusion is thus clear—informality is a problem, it is caused by overly strict regulation of the formal sector, and it can be solved by deregulation. We wish, however, to sound a note of caution, especially given the stubborn persistence of informality across the world, and even in the face of historically high economic growth when regulations have not necessarily been tightened—if anything, they have been relaxed. Yet job creation in the formal sector has slowed, leaving the informal sector to pick up the slack. If these trends continue, the informal sector may need to be viewed not as a problem to be solved by "formalization" but as requiring support to enhance the productivity of the poorest members of society.

Our focus here has not been informality per se—it has been informality in the context of urbanization and the lack of formalization in the face of rapid urbanization. We have shown that the persistence of informality is to be expected as urban formal sector jobs expand, because the expectation of securing these jobs pulls in far more migrants from the rural sector than there are formal jobs, with the surplus ending up in the informal sector. We have also shown that from an enterprise-based perspective, it can be a perfectly rational response to stay small. This can be in response to regulations or to rising urban density and to changes in technology that make operating at a smaller scale less inefficient than before. If this argument has some validity, informality caused by small scale is unlikely to disappear with urbanization. Indeed, it is likely to grow.

The arguments here suggest that caution about the conventional policy perspective is particularly warranted, given that the increase in informality over the last two decades has happened alongside rapid urbanization. Research on interaction between urbanization and informality is still at an early stage, and empirical evidence on why some cities attract more informal activity than others is still sketchy. While the "cost of doing business" clearly is relevant,[19] other factors

can also be important. Agglomeration economies may be more important for the informal sector than the formal, and changes in technology may explain persistent informality despite unprecedented rates of economic growth.

The comovement of informalization and urbanization juxtaposes concerns about growing informality, because of its association with poverty, with the policy drive to urbanize in order to reap agglomeration benefits. Is there a conflict, then, between the growth gains of urbanization and the possible poverty costs of informalization? Our answer: not necessarily. Instead, a policy package is needed to make the best of urbanization's growth potential while addressing issues of informality.

Note that, alongside the benefits of agglomeration, the analytical and policy literature has also highlighted various agglomeration ("congestion") costs. There is already a discussion of how to manage and mitigate these costs—addressing such issues as transportation and infrastructure, residential zoning and land use patterns more generally, and above all, urban governance.[20] Among the urban governance issues is how to tax rising land values in order to provide urban services that could mitigate the congestion costs of agglomeration. As our enterprise-based discussion of informality makes clear, small firms in the informal sector benefit from agglomeration externalities as much, if not more, than larger firms in the formal sector. This is one reason for the migration of informal enterprises into dense urban settlements—and the relative movement of formal enterprises out. Providing urban services to these enterprises is thus as important as the usual focus on the formal sector.

As discussed, informal sectors play a bigger role in the job-enhancing effects of structural transformation. Formalization should not result in overly regulating it, lest the sector's growth be slowed or the incentives to remain informal increase. But not formalizing reduces the informal sector's access to service delivery, which is often linked to fiscal policies. So there are huge tradeoffs. That said, policy makers can consider reducing the cost of becoming formal and increase the cost of staying informal. To reduce the cost of becoming formal, tax structures and rates should be simplified, and tax exemptions and holidays should be reduced. Authorities could improve tax administration and implement a simple presumptive tax—linking payments to the availability of infrastructure services (for example, bulk electricity at an industrial or business tariff). Of course, to make such an offer effective, it should be costly to "steal" electricity.

A value added tax needs to be implemented effectively, and tax credits for previous tax payments need to be made available to those ready to be formalized. Not giving tax credits for previous value added tax payments (especially for imported goods) can be costly to informal sector businesses (and a gift to the tax authority). Cities also need to reduce labor market rigidities that increase the cost of being formalized or becoming big. If governments do initiate some sort of wage or employment subsidies, they should be temporary, transparent, and targeted—and of course available only if employers pay the basic taxes.

The policy response from this perspective is not necessarily to view informality as a threat to productivity and growth and to move to deregulate—or to reduce the costs of regulations so as to reduce the incentives to avoid them. Regulations should be subject to tests of efficiency and equity. For example, if law says that all enterprises with 10 workers or more have to register, and if the cost consequences of registration are relatively high, many enterprises will stay below the critical threshold, and there will be a distortion away from optimal firm size. But if optimal firm size is declining in any case, and this is particularly so in urban areas because of the added benefits of density and agglomeration, then reforming regulations may not be as high a priority as ensuring that the benefits of density are indeed reaped by all enterprises. The focus then turns more to the provision of urban services and to urban governance, which underpins the delivery of these services, rather than the narrow and specific weakening regulation or strengthening enforcement, though they have their place.

An agenda for city mayors to address the challenge of growing informality

It is important for policy makers to recognize that much urbanization in developing countries is thanks to the informal sector. Informality is not going away—it is growing. And the forces leading to its growth go beyond regulations on the formal sector. So deregulation is a tool with limited impact on informality. It is not a panacea—it cannot be the mantra. But the link between urbanization and informalization needs to be better managed. City mayors need to focus on three Is—*integration, intervention, and institutions*—and on one E—*entrepreneurship:*

- *Integration.* Policy makers should take an inclusionary approach to the urban informal economy, not an exclusionary approach. City mayors need to promote better integration of urbanization with the informal sector. The interaction between urbanization and formalization will improve the link between strategies for growth and jobs. City mayors should find ways to ensure that the informal sector is integrated into city planning, budgeting, and financing. The more that cities recognize the link between urbanization and formalization, and design appropriate policies and investments to support it, the more effective the policy interventions will be.
- *Intervention.* Workers in the informal sector are predominantly poor—in both income and nonincome dimensions. The reason is that informal jobs have low productivity, and certain groups, such as women and the young, are overrepresented in the informal sector. Informal sectors lack access to basic services (water, sanitation, electricity). City mayors should improve service delivery in informal sectors and slums. Workers in informal sectors will also benefit from social protection programs.
- *Institutions.* To sustain development, many policy makers and business leaders want to encourage the informal-to-formal sector transition of workers through changes in property rights, business registration procedures, and financial access, often with specific application to whether entrepreneurs enter the formal economy. City mayors need to address these issues at the local level, with a focus on which policies can grow the overall size of the formal sector. What should city mayors do? Engage with organizations of

informal workers as partners in development, and invite them to participate in city management. Understanding how the transition to organized involvement occurs is important for city planning and policy choices.

- *Entrepreneurship.* If job creation is a priority, policy makers should focus on promoting entrepreneurship locally. Of course, many policy levers can promote entrepreneurial growth. To help this, mayors should invest in local education and physical infrastructure. Job growth is predicted by higher concentrations of new and young establishments. The two most consistent factors that predict overall entrepreneurship are the levels of local education and the quality of local physical infrastructure. High-quality goods and services cannot be produced without well-educated workers, and they cannot be delivered without roads, electricity, and telecommunication. And moving people is as important as moving goods, if not more important.

The key point is that policy makers have to change their mindsets and bring small enterprises—their owners and their workers—into urban governance structures. They should be given greater voice in the design and management of urban policies. Today, large enterprises have disproportionate influence on urban decisions. But the urban future appears to be with smaller informal enterprises. This disconnect needs to be addressed.

Conclusion

Two of the great stylized predictions of development theory, and two of the great expectations of policy makers as indicators of progress in development, are inexorable urbanization and inexorable formalization. Urbanization is indeed happening, beyond the tipping point where half the world's population is now urban. Our main conclusions about trends in informality and the interactions between urbanization and formalization can be stated as follows:

- *Cities create the space for structural transformation, entrepreneurship, and jobs.* The world's urban population is expected to swell to more than 60 percent over the next two decades—and continue to rise after that. Almost 90 percent of that growth will happen in the developing world: an expansion of almost 2 billion people. Africa and South Asia, the only regions still mostly rural, will see their urban populations double in that time. Much of the transformation will be in the informal sectors and in small and intermediate cities, which often lack the skills, facilities, and services to cope with the human tide.
- *Informal sectors are large and persistent.* Informal sectors in cities account for more than 50 percent of jobs, and in India, 80 percent of manufacturing employment. They also account for a majority of entrepreneurship—in India, more than 99 percent of establishments in the manufacturing sector. Nearly a billion people live in slums, and most of them work in the informal sector. While the formal sector has grown rapidly and propelled growth in developing countries, the informal sector has kept pace. The informal sector's persistence is not due to some industries becoming less formalized and others more so, though technologically advanced and capital-intensive industries tend to have

lower informal sector shares. Persistence is more systematic and an integral part of urbanization. Many more new enterprises that locate in cities are in the informal sectors, and many more people migrate to cities seeking better paying jobs and living conditions. Indeed, informal sectors seem to thrive in cities with dynamic formal sectors. Fast-growing state industries tend to experience increasing informal activity in India. 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.* Most empirical studies on cities and agglomeration economies have focused on developed economies and formal sectors. But there is emerging evidence that agglomeration economies in developing countries also operate in the informal sector. Related to the agglomeration economies is the fact that entrepreneurs often find it difficult to work with large, vertically integrated suppliers, and small entrepreneurs work better with many more small entrepreneurs. A diverse and large number of entrepreneurs in New York City's garment industry made it more competitive, while Pittsburgh, with one large and vertically integrated steel factory, has become a ghost town.
- *Formal firms are moving out of cities and informal firms are moving in.* Formal firms are moving out of more expensive cosmopolitan cities in search of lower land and labor costs, at an even earlier stage of development in developing countries. The traded nature of manufacturing products allows more rural settings for firms, and manufacturers often seek cheaper environments than the wages and rents associated with large and high-density areas. Indian industries with high capital and land intensity are more likely to locate in rural areas. By contrast, informal firms move into cities in search of better infrastructure and to benefit from externalities generated by thicker labor markets, access to inputs, and proximity to customers. Cities with better education and infrastructure not only attract many more entrepreneurs but also urbanize faster. Has the fast pace of urbanization shrunk informal sectors? Has persistence in informal sectors slowed urbanization? What can be done to integrate informal sectors with urbanization?
- *What can cities do to improve the link between formalization and urbanization?* It is important for policy makers to recognize that much of the urbanization in developing countries is occurring through the informal sector. But the link between urbanization and formalization needs to be better managed. City mayors need to focus on three Is—*integration, intervention, and institutions*—and on one E—*entrepreneurship*.

In conclusion, the growing informality in the face of rapid urbanization is fairly new to the research and policy-making arena. Older findings, older assumptions, and older policy prescriptions will need to be reconsidered as further research identifies the causes underlying the trends. Some of the main topics for exploration include the nature of agglomeration externalities and how they play out in the formal and informal sectors; the precise reasons that productivity in the informal sector is lower than in the formal sector, especially if agglomeration benefits seem to accrue equally if not more to informal enterprises; the reasons that informality in many

countries persists in the face of rapid growth and continued deregulation; how to bring informal enterprises into the tax net so that they can contribute to the services that enable them to flourish; and what policy measures can support the informal sector in creating jobs and addressing poverty, given that it does not look as though job creation in the formal sector has been, or is likely to be, sufficient to meet the employment and poverty challenges of the next two decades. We have begun to raise these questions and to provide preliminary answers. It should be clear that research on urbanization and (in)formalization should be high on the agenda of economists and policy makers.

Notes

[1] Lewis 1954, 2.
[2] Hart 2006, 25.
[3] ILO 1993, paragraph 5.
[4] Chen 2006, 76.
[5] Jutting and de Laiglesia 2009.
[6] Ghani, Kerr, and O'Connell 2011c.
[7] Overman and Venables 2011; Desmet and others 2012.
[8] Levy 2007.
[9] Ghani and others 2011a,b.
[10] Ghani, Grover Goswami, and Kerr 2012.
[11] Marshall 1920.
[12] Jutting and de Laiglesia 2009.
[13] NCEUS 2007.
[14] Chen 2006.
[15] SEWA 2012, 1.
[16] Jutting and de Laiglesia 2009.
[17] World Bank n.d.
[18] *The Economist* 2010.
[19] Levy 2007.
[20] Ahluwalia, Kanbur, and Mohanty 2012.

References

Ahluwalia, Isher, Ravi Kanbur, and P.K. Mohanty, eds. Forthcoming. "Addressing the Challenges of Urbanization in India."

Auriol, Emmanuelle, and Michael Warlters. 2005. "Taxation Base in Developing Countries." *Journal of Public Economics* 89 (4): 625–46.

Beall, Jo, Basudeb Guha-Khasnobis, and Ravi Kanbur. 2010. "Beyond the Tipping Point: A Multidisciplinary Perspective on Urbanization and Development." In *Urbanization and Development: Multidisciplinary Perspectives,* eds. Jo Beall, Basudeb Guha-Khasnobis, and Ravi Kanbur. Oxford, UK: Oxford University Press.

Boeke, Julius H. 1943. *Economies and Economic Policy in Dual Societies*. Haarlem, the Netherlands: Tjeenk Willnik.

Busso, Matias, Victoria Fazio, and Santiago Levy. 2012. "(In)Formal and (Un)Productive: The Productivity Costs of Excessive Informality in Mexico." IDB Workign Paper 341. Inter-American Development Bank, Washington, DC.

Chen, Martha. 2006. "Rethinking the Informal Economy: Linkages with the Formal Sector and the Formal Regulatory Environment." In *Linking the Formal and Informal Economy: Concepts and Policies,* eds. Basudeb Guha-Khasnobis, Ravi Kanbur, and Elinor Ostrom. Oxford, UK: Oxford University Press.

Chinitz, Benjamin. 1961. "Contrasts in Agglomeration: New York and Pittsburgh." *American Economic Review* 51 (2): 279–89.

Dauth, Wolfgang. 2011. "The Mysteries of the Trade: Interindustry Spillovers in Cities: Analyzing the Causes of MAR-Externalities Using Spatial Econometric Techniques." Working Paper. IAB Institute for Employment Research and University of Erlangen-Nürnberg, Erlangen, Germany.

Delgado, Mercedes, Michael Porter, and Scott Stern. 2010. "Clusters and Entrepreneurship." *Journal of Economic Geography* 10 (4): 495–518.

Desmet, Klaus, Ejaz Ghani, Stephen D. O'Connell, and Esteban Rossi-Hansberg. 2011. "The Spatial Development of India." Policy Research Working Paper 6060. World Bank, Washington, DC.

Drucker, Joshua, and Edward Feser. 2007. "Regional Industrial Dominance, Agglomeration Economies, and Manufacturing Plant Productivity." CES Working Paper 07-31. Center for Economic Studies, U.S. Census Bureau, Suitland, MD.

Duranton, Gilles, and Henry Overman. 2008. "Exploring the Detailed Location Patterns of UK Manufacturing Industries Using Microgeographic Data." *Journal of Regional Science* 48 (1): 313–43.

The Economist. 2010. "Nobody's Backyard: Latin America's New Promise—And the Need for a New Attitude North of the Rio Grande.".

Fields, Gary. 1975. "Rural-Urban Migration, Urban Unemployment and Underemployment, and Jobsearch Activity in LDCs." *Journal of Development Economics* 2 (2): 165–87.

Ghani, Ejaz, Arti Grover Goswami, and William R. Kerr. 2012. "Is India's Manufacturing Sector Moving Away From Cities?" NBER Working Paper 17992. National Bureau of Economic Research, Washington, DC.

Ghani, Ejaz, William R. Kerr, and Stephen D. O'Connell. 2011a. "Promoting Entrepreneurship, Growth, and Job Creation." In *Reshaping Tomorrow: Is South Asia Ready for the Big Leap?,* ed. Ejaz Ghani. Oxford, UK: Oxford University Press.

———. 2011b. "Spatial Determinants of Entrepreneurship in India." NBER Working Paper 17514. National Bureau of Economic Research, Washington, DC.

———. 2011c. "Local Industrial Structures and Female Entrepreneurship in India." NBER Working Paper 17596. National Bureau of Economic Research, Washington, DC.

Government of India. Annual Survey of Industries and National Sample Survey (manufacturing only). Ministry of Statistics and Programme Implementation. New Delhi.

Guha-Khasnobis, Basudeb, Ravi Kanbur, and Elinor Ostrom, eds. 2006. *Linking the Formal and Informal Economy: Concepts and Policies*. Oxford, UK: Oxford University Press.

Gundogan, Naci, and Mustafa Kemal Bicerli. 2009. "Urbanization and Labor Market Informality in Developing Countries." MPRA Paper 18247. Munich Personal RePEc Archive, Anadolu University, Eskişehir, Turkey. http://mpra.ub.uni-muenchen.de/18247.

Harris, John, and Michael Todaro. 1970. "Migration, Unemployment and Development: A Two Sector Analysis." *American Economic Review* 60 (1): 126–42.

Hart, Keith. 1973. "Informal Income Opportunities and Urban Employment in Ghana." *Journal of Modern African Studies* 11 (1): 61–89.

———. 2006. "Bureaucratic Form and the Informal Economy." In *Linking the Formal and Informal Economy: Concepts and Policies,* eds. Basudeb Guha-Khasnobis, Ravi Kanbur, and Elinor Ostrom. Oxford, UK: Oxford University Press.

Henderson, J. Vernon. 2010. "Cities and Development." *Journal of Regional Science* 50 (1): 515–40.

ILO (International Labour Organization). 1972. *Incomes, Employment and Equality in Kenya*. Geneva.

———. 1993. *Resolutions Concerning Statistics of Employment in the Informal Sector Adopted by the 15th International Conference of Labour Statisticians.* Geneva.

———. 2011. *Key Indicators of the Labor Market, Seventh Edition.* Geneva.

Jutting, Johannes P., and Juan R. de Laiglesia, eds. 2009. *Is Informal Normal? Towards More and Better Jobs in Developing Countries.* Paris: Organisation for Economic Co-operation and Development.

Kanbur, Ravi. 2009. "Conceptualizing Informality: Regulation and Enforcement." *Indian Journal of Labour Economics* 52 (1): 33–42.

———. 2011. "Avoiding Informality Traps." *In Reshaping Tomorrow: Is South Asia Ready for the Big Leap?,* ed. Ejaz Ghani. Oxford, UK: Oxford University Press.

Keen, Michael, and Jack Mintz. 2004. "The Optimal Threshold for a Value Added Tax." *Journal of Public Economics* 88 (3–4): 559–76.

Levy, Santiago. 2007. Good Intentions, Bad Outcomes: Social Policy, Informality and Economic Growth in Mexico. Washington, DC: Brookings Institution.

Lewis, W. Arthur. 1954. "Economic Development with Unlimited Supplied of Labour." *Manchester School of Economic and Social Studies* 22: 139–91.

Marshall, Alfred. 1920. *Principles of Economics, 8th edition.* London: Macmillan.

NCEUS (National Commission for Enterprises in the Unorganised Sector). 2007. *Report on Conditions of Work and Promotion of Livelihoods in the Unorganised Sector.* New Delhi. http://nceuis.nic.in/Condition_of_workers_sep_2007.pdf.

OECD (Organisation for Economic Co-operation and Development). 2009.

Ostrom, Elinor. 1990. *Governing the Commons*. New York: Cambridge University Press.

Overman, Henry G., and Anthony J. Venables. 2010. "Evolving City Systems." In *Urbanization and Development: Multidisciplinary Perspectives,* eds. Jo Beall, Basudeb Guha-Khasnobis, and Ravi Kanbur. Oxford, UK: Oxford University Press.

Rodrik, Dani. 2011. "Unconditional Convergence." Unpublished.

SEWA (Self Employed Women's Association of India). 2012. "Where Else are Vendors Harassed by Mafias Like Delhi?" SEWA Newsletter 39. Gujarat, India. www.sewa.org/Thirty_nine.asp.

World Bank. 2010. *World Development Indicators 2010.* Washington, DC.

———. n.d. "Workers in the Informal Economy." Washington, DC.