

Back to the Sweatshop or Ahead to the Informal Sector?*

ROGER WALDINGER AND MICHAEL LAPP

The concept of the 'informal sector', first introduced in the early 1970s in studies of Africa, has recently gained currency as a tool for understanding the changes under way in the advanced industrial societies. Originally, the concept was used to describe the variety of third world business enterprises characterized by their small scale, ease of entry, labour intensiveness and the evasion of government regulation. The first wave of studies identified the informal sector as a leftover from precapitalist modes of production; subsequent work portrayed the informal sector as an increasingly integral aspect of industrializing third world economies. But the most recent evidence suggests that the informal sector is a first world phenomenon as well. Increasingly, social scientists draw our attention to the growing proportion of persons working on their own account, the shift toward smaller firm size, the expanding scope of economic activities whose existence is concealed from the state, the revival of homework and the burgeoning of sweatshops. They conclude from this disparate set of phenomena that the informal sector is alive, well and growing in the postindustrial West.

This paper takes a sceptical look at this new version of the informal sector idea by examining a case that is critical for the informal sector claims — the 'sweatshop' phenomenon in New York's garment industry. That the garment industry has gone 'back to the sweatshop' is a crucial piece of evidence in the entire informal sector story. As Portes and Castells argue in their recent edited book on the subject:

Furthermore, it is the *expansion* of informal activities in a largely regulated context that gives a new historical meaning to the current process of a *rising* informal economy. It is often argued that uncontrolled, exploitative relationships are the oldest story, so that sweatshops represent classical capitalism, not advanced capitalism. But it is precisely the development of sweatshops and of other unregulated activities after a long period of institutional control that causes old forms of production to become new ones. An old form in a new setting is, in fact, new ... (Portes and Castells, 1989: 13; italics added)

Indeed, the sweatshop revival in New York's garment industry figures prominently and frequently in accounts of the growth of the 'informal economy' in the United States.¹

* The first author gratefully acknowledges funding from the Division of Immigration Policy and Research, US Department of Labor, the Ford Foundation and the Robert F. Wagner, Sr. Institute at the CUNY Graduate School. Earlier versions were presented at the Seminar on Small Business, Entrepreneurship, and the Informal Economy, Johns Hopkins University, November 1989 and the Annual Meetings of the American Anthropological Association, November 1989. We wish to thank Thomas Bailey, Lauren Benton, Alejandro Portes, Marta Tienda, Meg Weaver and Sharon Zukin for their helpful, but highly critical, comments. Needless to say, the views expressed herein are those of the authors alone. Please address all correspondence to the first author at: Department of Sociology, UCLA, Los Angeles, CA 90024.

1. Examples from the scholarly literature include: Boris, 1988; Dengler, 1986; Feagin and Smith, 1987;

That the New York sweatshop revival should be treated as a matter of more than local interest is no surprise. If the sweatshop was emblematic of the conditions imposed on urban workers during the second industrial revolution, its demise is attributed both to the new regime of industrial regulation that arose with the New Deal and to the consolidation of an economy based on high-wage, standardized production. Hence, the sweatshop's return can be taken as evidence, both of the collapse of the social contract that underlay the New Deal regime, and of a shift from fordism to an industrial era in which flexible, small-scale production techniques prevail (Harvey, 1990). The presence of third world immigrants labouring in an underground economy at a time when highly educated white workers should be enjoying the vanities of the FIRE sector points to the unequal distributional consequences of the emerging economic arrangements. Finally, the growth of sweatshops explains the mystery of why third world immigrants should have come to cities at a time when low-level jobs of the type that immigrants have traditionally secured were apparently disappearing.

This article offers a different perspective. The central contention is that the sweatshop phenomenon, as conventionally interpreted, simply isn't so. Once the phenomenon is subjected to careful scrutiny, there is little evidence to support the view that massive and growing numbers of immigrants are employed in a 'rising' unregulated, informal sector. The absence of empirical support in this case is particularly damaging for the argument of growing informalization: where else, if not in garments, do the conditions of production lend themselves so easily to informal production? Furthermore, since arguments about informalization in the United States lean so heavily on the sweatshop case, the methodology developed here provides a template for other assessments of these claims.

We go on to show that the significance of the 'sweatshop' is quite different from what the literature suggests. Informal activities are not in fact principally associated with low-income, low-status groups like immigrants. Rather, the distribution of opportunities for underground income generation reflects the unequal distribution of opportunities for income generation of all types. Thus, the 'return of the sweatshop' is yet another socially constructed problem that focuses on the misfeasance of the poor and displaces interest and attention from the economic deviance of wealthier and more powerful groups. The ultimate result is to obscure the much broader reality of legal employment at indecently low wages and in abhorrent conditions.

The paper is organized in the following way: we first briefly review the reports of the sweatshop revival; we discuss the various scholarly interpretations of the sweatshop phenomenon; we then attempt to assess contentions about the size of the 'sweatshop sector'. After this review, we provide a revisionist interpretation of the 'return of the sweatshop'.

The return of the sweatshop: reports from the 'field'

We begin with the origins of the sweatshop story, since the circumstances under which it has been created, told and retold has strongly affected the social science response. New York in the late nineteenth century became the centre for a garment industry based on the labour of immigrants toiling in the dark, crowded tenement rooms that appalled reformers dubbed 'sweatshops'. The last 15 years have seen a growing outcry that the grim labour system of the late nineteenth century has returned. The increasing number of sweatshops began to gain press attention almost 15 years ago: investigative journalists (Koepfel, 1978; Buck, 1979; Yeager, 1978) and local newspaper reporters (Kerr, 1977a; 1977b; Greenhouse, 1978) were the first to document the phenomenon. This publicity then attracted the attention

Harvey, 1990; Matterna, 1985; Parsons, 1988; Portes and Sassen-Koob, 1987; Ross and Trachte, 1983; Sassen-Koob, 1984; Sassen, 1989a; 1989b; M.P. Smith, 1987; 1988; USGAO, 1988; 1989. Furthermore, each of the three US case studies in Portes *et al.*'s recently published *The Informal Economy* (1989) use sweatshops in the garment industry as prime examples of the growth of the informal economy.

of the industry press (DeStefano and Richardson, 1979) and lastly, the mainstream news media.

As the sweatshop issue was pushed into the policy arena, it received heightened levels of attention. New York State Senator Franz Leichter, who introduced legislation in 1979 to license garment contractors, issued several reports asserting that sweatshops were growing at an alarming rate; these drew substantial public attention (USGAO, 1989: 22). Two pilot surveys conducted by the New York State Department of Labor in 1981 found evidence of a wide array of labour standards violations, including industrial homework, non-compliance with overtime provisions and inadequate record-keeping.² In 1986, New York State amended its labour laws, making it mandatory for garment firms to register with the state's Labor Department as of 1 April 1987, and establishing an Apparel Industry Task Force charged with enforcing the registration requirement and general labour standards (New York State, Department of Labor, 1987). The onset of enforcement activities has generated a new torrent of reports about the sweatshop's return.

Tied to the question of sweatshops is that of homework. Both journalists and scholars have tended to view homework as the sweatshop's logical extension. Homework also evokes images of an era of exploitation that was thought to be long gone. And as in the case of sweatshops, the issue carries weighty symbolic baggage. For the left, the federal and state legislation of the 1930s outlawing homework marked a triumph of labour activism and political progressivism. For the right, homework bolsters family relationships while anti-homework laws typify liberal interference with the free market and infringement of personal rights. Despite their differences, however, observers on both the left and the right have tended to agree that homework is on the rise. Sassen (1989a), for example, claims that there are 'some 10,000 homeworkers' in New York City's apparel industry.³ Silver (1989: 111) cites the New York State Labor Department for an estimate that puts the number of homeworkers at 50,000! Boris offers an explanation that appears through the literature:

[the] resurgence of homework . . . issues from the unstable economy of the 1970s. As the garment unions weakened and economic and political refugees from the Americas and Asia entered the workforce in increasing numbers, garment manufacturers and their contractors began to pay less for homework, much of which had been taken on by new immigrants. (Boris, 1989: 239)

Sweatshops, immigrants and urban change

These reports from the 'field' have filtered into the academic literature. This section summarizes the social science interpretations of the sweatshop's apparent revival.

Sweatshops and the informal sector

As we have already noted, sweatshops figure prominently in the literature on those economic activities that escape state regulation. Just what those activities are and how one should characterize them are matters of considerable debate. Indeed, social scientists cannot even

- Referring to these surveys, Ports and Sassen-Koob write that 'Studies by various state agencies . . . have found a rapid proliferation of informal operations, particularly of industrial homework' (1987: 46). The reports of the surveys do not present data on the prevalence of violations. Moreover, the Labor Department drew opportunistic samples and therefore concluded that the procedures 'do not allow for the projection of findings and the determination of whether such findings are representative' (New York State, Department of Labor, 1982a: 16). See also n. 3 below.
- Though Sassen cites two New York State Labor Department Reports as the source of this estimate, she does not provide a page citation, and our own reviews of the documents did not uncover any such point estimate. The Labor Department only investigated 65 garment firms for the purpose of evaluating the level of employer compliance with homework prohibitions (New York State, Department of Labor, 1982b: 40). And as noted in n. 2 above, the Labor Department eschewed any attempt to generalize from its convenience samples.

agree on a name — are we talking about an 'economy' or 'sector'? Is it 'underground', 'irregular', 'informal', 'black' or 'shadow'? Notwithstanding difficulties in nomenclature, a consensus holds that a not insignificant proportion of employment is 'concealed' and that a somewhat smaller proportion of total production may not appear in the national accounts (Carson, 1984a; 1984b).

Whereas the underground economy includes both non-market activities embedded in reciprocal relations among kin and neighbours (Gaughan and Ferman, 1987) as well as criminal activities, sweatshops fall into the OECD categorization of 'concealed employment':

employment, which while not illegal in itself, has not been declared to one or more administrative authorities to whom it should be made known, thereby leading to evasion of legal regulations, the evasion of taxes, or the evasion or a reduction of social security entitlements. (OECD, 1986: 67)⁴

Analysts have offered both supply- and demand-side explanations for the growth of sweatshops. Supply-side arguments emphasize the motivations that lead workers to seek underground employment. Here the central contention bears on the consequences of illegality: one possibility is that illegal status will deter immigrants from seeking work in the regular economy, opting for concealed employment instead (OECD, 1986); an alternative emphasizes the vulnerability of illegals to exploitation (USGAO, 1988). Such views are reiterated in academic (Grasmuck, 1985; M.P. Smith, 1988), union (Mazur, 1979), government (Leichter, 1981) and journalistic (Ross, 1978) accounts.⁵

Demand-side arguments, by contrast, tend to explain the growth of sweatshops as part of a broader process of 'informalization'. In this view, informalization in the garment industry and elsewhere in the US economy is a response to several factors: (1) the severity of international competition; (2) the pressure it imposes on wages, work rules and large investments in plant and capital; (3) the opportunities that arise to small employers who can simultaneously cut production cycles and lower labour costs (Mattera, 1985; Parsons, 1988; Portes and Sassen-Koob, 1987; M.P. Smith, 1988).⁶

Sweatshops and economic polarization

'There is a close association between areas of high immigrant concentration', note Portes and Castells, 'and those in which the US informal sector seems most vigorous' (1989: 23). Proponents of 'informalization' contend that this close association stems, in part, from changes in the urban manufacturing complex. The growth of the so-called 'downgraded manufacturing sector' is one such shift, claims Sassen, involving 'the social reorganization of the work process, notably the expansion of sweatshops and industrial homework' (Sassen, 1988: 145; see also Ross and Trachte, 1983: 413–16). Smith echoes this argument in his (M.P. Smith, 1988) book on *City, state, and market*, where he maintains that 'new patterns of inequality have emerged in cities experiencing rapid economic growth' because 'low paid service workers are taking their place alongside a growing number of poorly paid industrial workers from the Third World who account for another major US central

- ILO uses the term 'clandestine employment', which it defines in virtually identical ways (De Grazia, 1984: 9).
- Similar arguments are advanced in other countries with a substantial illegal immigrant population; for France, see Moullet-Boutang *et al.*, 1986. Though illegality is most frequently stressed as a condition for employment in underground sweatshops, the same arguments about vulnerability and a preference for concealed work are often extended to legal immigrants as well.
- In reality, the contrast between supply- and demand-side explanations is not quite as sharp as presented here. Thus, demand-side explanations also emphasize the availability of an appropriate labour force as a condition of informalization. Though immigrants, and in particular illegal immigrants, are seen as groups that facilitate informalization, their presence is only a sufficient, but not necessary, condition of the growth of informal enterprises.

city employment growth sector in the past decade — the new immigrant sweatshop' (p. 200).⁷

How many sweatshops?

Current estimates and definitions

Though there are numerous and varying estimates of the number of sweatshops, a recent GAO report notes that 'the most frequently cited estimate of 3,000 sweatshops employing 50,000 workers originated from a series of investigations conducted by the staff of New York State Senator Franz S. Leichter during the late 1970s (USGAO, 1988: 23).' For example, Leichter's estimates are cited as evidence of the size of the sweatshop sector by Sassen (1989a: 66), Mattera (1985), Ross and Trachte (1983: 413–16), Dengler (1986: 268), and *New York Times* reporter William Serrin (1983a), whose article is in turn quoted at length by M.P. Smith (1988: 216). The evidentiary basis for Leichter's evidence, however, has never been established. In his first report, Leichter speaks of 'thousands of undocumented workers' employed in 'horrendous surroundings' (Leichter, 1979: 1) and then zeroes in on the northern Manhattan area, where he claimed to have found 'well over one hundred' sweatshops. In his second report, Leichter contends that 'Citywide there are now at least 3,000 garment factory sweatshops in existence, according to the *ILGWU* [International Ladies' Garment Workers' Union]' (Leichter, 1981: 4; italics added) with the result that 'in excess of 50,000 New Yorkers work in a state of peonage . . . ' (ibid.: 31). By report number 3, Leichter ups his estimate to 60,000.

Virtually identical estimates of more than 3,000 sweatshops employing over 50,000 workers have been made by the director of the New York State Apparel Industry Task Force, who further contends that there are 2000 more apparel establishments than are reported in government statistics (P. Smith, 1989; USGAO., 1989). A 1989 GAO report on sweatshops in New York City endorses these figures as the 'most credible estimate of the number of sweatshops and people working in them' (USGAO, 1989: 22).

These estimates have been recorded time and again by the press (La Rosa and Thompson, 1988; Lum, 1988; Mort, 1988; Bagli, 1989; Powell, 1989). Obtaining extensive publicity is in fact an explicit component of the Task Force's strategy, since highlighting the misfortunes of employers who get caught is thought to deter other would-be exploiters.⁸ However, the Task Force's estimates are based not on a survey, but simply on extrapolating from the violations uncovered during enforcement campaigns. Since the investigations are by no means random, but deliberately focus on those sub-industries and geographical areas where violators are believed to concentrate, this extrapolation leads to an inflated estimate. It is unlikely that the rate of violations among all firms equals the rate among those that have been targeted by the task force. Furthermore, comparing the number of violators to registered firms is inappropriate, since the base of registered firms is far more stable than the number of sweatshops, which normally move in and out of existence at a very high rate. As we shall suggest later, other contextual considerations give further reasons for doubt.

7. Both Smith and Sassen have reiterated these arguments in other publications. See, for example, Sassen, 1989b; Sassen-Koob, 1984; M.P. Smith, 1987: 239–44. In an article co-authored with Feagin, Smith claims that 'in the 1970s and 1980s an estimated 6,000 manufacturing "sweatshops" were opened in New York, Los Angeles, and Chicago, employing a total of 85,000 workers' (Feagin and Smith, 1987: 14). These contentions about the relationship between restructuring and the growth of sweatshops have now entered the broader debate about changing patterns of inequality in the United States: see Harrison and Bluestone, 1988: 70.
8. Publicity is also an element in the Task Force's internecine bureaucratic conflicts: the more visible the problem, the greater the pressure on money-disbursers for funding. Clearly, one cannot ask officials to act otherwise: but one can expect social scientists and journalists to take these motivations into account in their own reporting.

Taking a more careful look at the size of the sweatshop sector, one immediately runs up against the confusion over what the term means. If, as one union leader says, 'sweatshops are a state of mind' (Mort, 1988), then little progress can be made. Sometimes, the term 'sweatshops' is a synonym for garment contractors generally (Leichter, 1979: 2, 3); in other cases, it refers to 'hazardous and unsanitary' working conditions (New York State, Department of Labor, 1982a) or to businesses 'that regularly violate both safety or health and wage or child labor laws' (USGAO, 1988: 16). To add to this confusion, some have charged that unionized shops include the worst examples of sweatshop conditions (Kwong, 1987)! The imprecision of such definitions has made it more difficult to gain an accurate picture of the sweatshop sector's size.

In this paper we define sweatshops according to the OECD definition of 'concealed employment' offered above. This seems consistent with the usage of other researchers in the field, who stress that the informal sector makes its products 'underground'.⁹ An alternative is a less restrictive definition, such as that employed by the GAO (above), but we think this undesirable for several reasons. Clearly, 'sweatshops' are of interest because they portend either the revival of old tendencies thought dead or an entirely new direction of economic development (e.g. Piore and Sabel, 1984). Journalistic and scholarly accounts also associate the sweatshop with particular sectors of the economy that have experienced a marked immigrant influx. Yet research on labour standards compliance indicates that violations can be found in many industries, not just those with a high immigrant presence (Gramlich, 1976; Ashenfelter and Smith, 1979).¹⁰ Furthermore, evidence shows that violations of minimum wage requirements were a serious problem by the early 1970s (Levitan and Belous, 1979: 48), before immigrants could reasonably be expected to have greatly affected working conditions. Hence, a restrictive definition is warranted if we are to capture the sweatshop as the distinctive phenomenon so many observers claim it to be.

Evidence reviewed

In our review of the literature we have found three propositions that support the contention that a large and revived sweatshop sector has emerged:

9. Although Portes and Sassen-Koob (1987) entitle their article on the informal economy 'Making it underground', they actually use official data on 'very small establishments' as indirect indicators of informal activity (a practice for which they are sternly criticized by Pahl, 1989: 247). Small concerns, argue Portes and Sassen-Koob, are forced to obtain licences and therefore appear in aggregate statistics on number of establishments; small size enables them to conceal employment or to suddenly close down and operate entirely underground. This point cannot hold for manufacturing firms that appear in the statistics on 'very small establishments', since manufacturing firms are exempted from licensing requirements, since in New York City a licence is not required to establish a manufacturing business (New York City, Department of Consumer Affairs, 1987: 2–4). While licences may be needed for certain production processes in specific manufacturing industries, no such requirement applies to any process in any of the clothing industries.

Whether firms are subjected to licensing requirements or not, increasingly tight linkages among record-keeping systems are another obstacle to invisibility. For example, issuance of a business licence, incorporation or receipt of business taxes in turn triggers a request from the state employment insurance for coverage of all employees in the unemployment insurance system, and later investigations of those firms who refuse to comply. Linkages to non-governmental record-keeping systems, which might occur because an owner uses a credit card to buy business supplies or simply pays a cheque for some service or rent of a facility, will also bring a small firm into the purview of state authorities (Kagan, 1989). Finally, the logic of the argument that small firms can conceal employment strictly because they are small sets a very low upper bound on the amount of informal employment in small firms — since any sizeable increase in employment also increases visibility and thereby exposure to state regulation.
10. Using data from a 1975 Current Population Survey, Ashenfelter and Smith calculated a compliance ratio which they defined as the ratio of workers earning the minimum wage to those earning the minimum and those earning less than the minimum. Finding a compliance ratio of .60, they concluded that 'while substantial, compliance with minimum wage laws is anything but complete' (Ashenfelter and Smith, 1979: 349).

- (1) A substantial segment of production has shifted underground;
- (2) a substantial shadow labour force is available for these underground production facilities;
- (3) a substantial portion of production has been further dispersed to a large and growing force of homeworkers.

In the remainder of this section, we shall submit each of these propositions to critical scrutiny. Our basic strategy is a multiple indicators approach. Because sweatshops, even more than other social phenomena, are inherently difficult to measure, each proposition will be examined using as many different sources of data as possible. Moreover, we treat these propositions holistically, not seeking just to falsify individual propositions, but rather looking for patterns of consistency or inconsistency among many different pieces of evidence.

We will also agree with our critics that an underground phenomenon like sweatshops is inherently difficult to measure, especially with the types of official statistics on which we will frequently rely. Yet there are theoretical and methodological considerations that support our strategy. Since the literature constantly stresses the manifold linkages of individuals and firms in the informal sector to components of the formal sector (see Portes and Castells, 1989: 12), data on the formal sector should provide indirect evidence about the size of the informal sector to which it is attached. Given our knowledge of the formal sector, we will ask whether estimates of a sizeable underground sector can be plausibly maintained. Second, official statistics are drawn from many different sampling and enumeration frames. Consequently, the likelihood that an employed individual is not enumerated in the Census of Population is much higher than the joint probability of that same individual escaping enumeration by the Census of Population, failing to report income to the IRS, and working in an establishment undetected by the Census of Manufacturers. Serial examination of various official statistics should allow us to search for the existence of a large underground sector. Finally, the findings of official statistics are more believable when supported by other types of data. Whenever possible, we will use reports from administrative records and field surveys.

Proposition 1: Underground production facilities

This proposition is central to the argument about a sweatshop revival. But how are we to know that production has gone underground? One indicator would be the ratio of production to non-production workers. The bulk of production workers in the garment industry are employed in contracting shops, specialized production facilities that make up garments to the specifications set by manufacturers or jobbers.¹¹ While sweatshop contractors may be operating underground, their production is delivered to manufacturers or jobbers that all operate in a formal economy. The highly publicized case of Norma Kamali (Mort, 1988), the well-known designer-label firm that was found to use homeworkers, is just the most prominent example of the pervasive linkages between the formal and informal garment industry uncovered in the various labour standards enforcement campaigns. Without such linkages, one would be forced to argue that the infrastructure for a massive underground garment industry had been created, complete with underground managers, designers, salespeople, textile buyers, bookkeepers, accountants and receptionists.

This reasoning suggests the following hypotheses. If there is a large sweatshop sector, the ratio of production to non-production workers in the industry should be low; if the sweatshop sector is small, the ratio should be high. Furthermore, if the informal sector

11. Manufacturers perform all operations — textile purchase, apparel design, clothing production and sale of finished garments; jobbers undertake all of the above operations, with the exception of production, which they contract out to specialized production facilities; contractors sew garments into final production. In New York, virtually all production of women's and children's garments is undertaken by contractors working for jobbers.

has expanded, as the literature claims, then the ratio of production to non-production workers should have declined.

These are precisely the points made by Sassen, who claims that 'a detailed occupational analysis of these employment figures for the [1982 New York metropolitan] area shows that over half of all the workers in registered firms were white-collar employees' (1989a: 66). Sassen fails, however, to indicate the source of this figure. A review of a variety of statistical sources, each collected on a different basis, shows a strikingly different pattern. Tabulations from the 1980 Census of Population indicate that production workers accounted for 75% of employment in New York City; comparable figures from the 1982 US Census of Manufacturers and the New York State Occupational-Employment Survey are 79% and 70% respectively.

Time-series data for the period of purported sweatshop growth also indicate no marked shift in the production worker ratio for New York City. According to the Census of Population, the proportion of production workers declined 1.5 percentage points between 1970 and 1980; OES data show a drop of just under 5 percentage points between 1973 and 1980; the Census of Manufactures indicates a 3.4 percentage point decline between 1972 and 1982.¹²

A related strategy that also exploits the above-ground location of the manufacturers and jobbers is to make use of the double-entry bookkeeping system of the National Accounts (OECD, 1986). As Carson (1984b) points out, individuals may not report or may under-report income for services or goods provided; yet those same services or goods will be recorded in the national accounting system. While small sweatshop-type employers in the garment industry may under-report the money paid for production workers' wages, it is less likely that there will be systematic under-reporting of total receipts, inventories, cost of raw materials etc. — especially since final sales and raw materials purchases are all made by jobbers or manufacturers. Consequently, one indicator of a steadily growing underground labour force would be a sharp decline in the ratio of wages for production workers to total value added by manufacturing.¹³ Figure 1 shows the changes from 1967 to 1982 in this ratio for New York City, for the United States as a whole, and for the United States without California and New York State — the two areas where sweatshop production is supposedly concentrated. The figure shows that the ratio of production workers' wages to value added by manufacturing has indeed declined. But the decline is constant, with no sudden shift in the late 1970s when the number of sweatshops and illegal immigrants purportedly burgeoned. There is no difference in the trendline between New York and those other 48 states where there are few immigrant garment workers — suggesting that the downward shift is caused by productivity changes that are broadly shared throughout the industry and *not* by an increase in sweatshops.¹⁴ Finally, that this indicator indicates no distinctive New York effect is a particularly strong finding against the informalization hypothesis, since it would be easier to conceal a portion of wages than to conceal employment outright.

Proposition 2: A shadow labour force

A common theme in writings on the underground economy is the availability of a shadow labour force recruited for informal types of employment. The shadow labour force may

12. Production workers are classified consistently for the years cited in the above two paragraphs. Data from the US Census of Population are calculated from the Public Use Microdata Samples (see Waldinger, 1986: 107); OES data are from New York State, Department of Labor, *Occupational employment statistics: manufacturing*, various issues; Census of Manufactures data are from US Census of Manufactures, *Geographic area reports: New York*, various issues.
13. Value added is a residual figure calculated by the Census Bureau after subtracting the cost of raw materials, fuels, outside contract work and suchlike from total receipts reported.
14. The decline is exactly the same for New York and for the United States without New York and California — 10 percentage points down from 1967 to 1982.

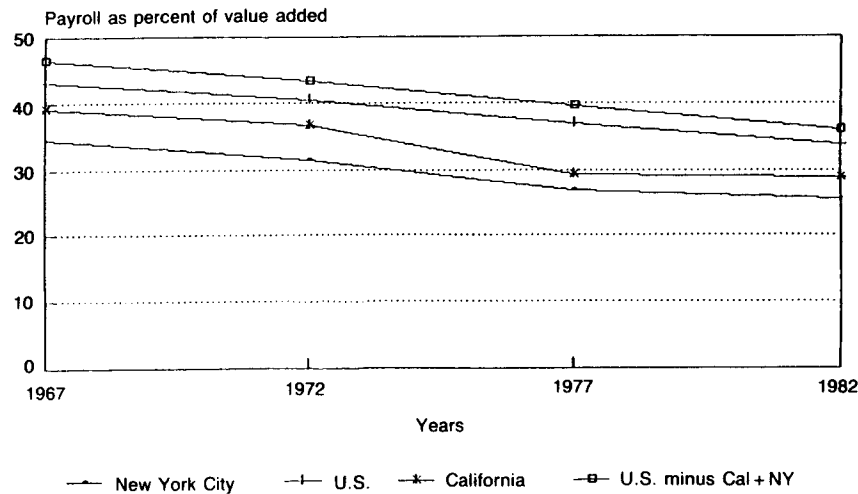


Figure 1 Production workers' payroll as percent of value-added (apparel) (source: *Census of Manufactures, various*)

consist of women, youth, or immigrants and ethnic minorities, who are under-represented in the recorded or formal labour market, but none the less appear to be engaged in the production of goods and services.

OECD (1986) notes that employment-to-population rates and hours of work recorded are indirect indicators of the presence of such a shadow labour force. In Europe, for example, comparatively low employment-population ratios and low recorded hours of work in the Mediterranean basin countries suggest a sizeable informal sector. Contini (1981) points out that while official data on labour force participation rates in Italy show considerable decline from the late 1950s to the mid-1970s, field studies found that a much higher proportion of the population was economically active.¹⁵ Writing about the Spanish informal sector, Benton (1990: 35) noted that 'the percentage of the population that was economically active actually showed a slight decline between 1975 and 1981, an exceptional trend among OECD countries' and that the proportion of unemployed workers collecting unemployment payments dropped in the early 1980s, 'swelling the ranks of potential participants in unregulated activities'.¹⁶

Journalistic and academic accounts uniformly depict the sweatshop labour force as an immigrant labour force. If this is indeed the case, the above reasoning would suggest the following hypotheses: immigrants would experience below average labour force participation rates; they would also be under-represented in the garment industry overall; and those immigrants employed in the garment industry would be expected to report lower than average hours of work.

Table 1, which presents data comparing the ten largest groups in the garment industry as of 1980 to native whites, shows that the opposite is true. Immigrants are in fact greatly

15. Contini then used these discrepancies to construct a measure of the size of the Italian informal sector.
 16. For a review of other 'indirect' approaches to estimating the size of the informal economy in European countries, see Biedermann-Livieratou, 1987: 55-86. A similar approach was applied to the United States by a Census Bureau study which found that black teenagers were the only group among whom there appeared to be a pronounced increase in the potential size of the shadow labour force. See United States Congress (1983: 14).

Table 1 Immigrant representation in the New York apparel industry

	Garment industry			Total labour force		
	Ratio of immigrant to native white					
	Index rep ¹	Hours worked		Labour force participation		Hidden female workforce ²
Men		Women	Men	Women		
China	6.77	0.99	1.08	1.05	1.24	
Dominican Republic	4.92	1.02	1.05	1.00	0.89	2886
Italy	3.40	0.99	1.01	1.01	0.74	6355
Ecuador	3.70	0.90	1.05	1.07	0.98	109
Greece	2.91	1.02	1.06	1.03	0.76	1765
Colombia	2.68	1.04	1.06	1.07	1.08	
Poland	2.04	0.94	0.99	0.99	0.88	1252
Cuba	1.88	1.03	1.03	1.03	1.04	
Haiti	1.61	1.05	1.06	1.06	1.22	
Jamaica	0.57	0.84	1.01	1.04	1.41	

Employment to population rates for 25-65 year olds only.

¹ Index of representation = group share of employment in garment industry/group share of total employment.

² Hidden female labour force: additional workers if labour force participation rates for group were equal to rate for native whites.

Source: 1980 Census of Population, 5% Public Use Microdata Sample

over-represented in the garment industry: Chinese, for example, are over-represented by a factor of almost 7; Dominicans by a factor of almost 5. Low work-hours are not a characteristic of immigrant workers either: immigrants highly over-represented in the industry worked almost as many or more hours than native white production workers. As to labour force participation, under-representation is mainly a phenomenon of old, not new, immigrant groups; relative to native whites, Dominican women in 1980 comprised the only new immigrant group that was under-represented in the labour force, but over-represented in the garment industry. If we assumed that the entire Dominican-native white disparity in labour force participation could be accounted for by 'shadow' workers employed in sweatshops or by home-sewers, the net increment would be less than 2500 — less than one worker for each of the reputed 3000 sweatshops! Of course, it is possible that these official statistics miss out on the employment of immigrants in sweatshops. But a simple thought experiment — in which the reader calculates the effect of 10, 20, or 30,000 missing sweatshop workers on the representation levels of new immigrant groups — makes that scenario highly implausible.

Cross-checking official statistics against other types of data casts further doubt on recent estimates of a shadow immigrant labour force. Morrison Wong (1983), Sassen (1988), and Kwong (1987) all indict New York's Chinatown as a concentration of sweatshops. While Chinatown's garment contractors may include many firms that cheat on hours and wage laws, they are clearly not underground. Data from the New York State Labor Department's 'Covered Employment Series', which come from employers' unemployment insurance reports and can be disaggregated to the zip code level, show that women's outerwear employment in Chinatown rose from 8095 in 1969 to 15,567 in 1988, a gain of 92%. During the same period, women's outerwear employment in the rest of Manhattan fell by almost 55%.¹⁷ These official data are entirely consistent with administrative data

17. Unpublished data for SIC 233 available from Division of Research and Statistics, New York State Department of Labor.

from the garment workers' union, which trace the explosion of Chinese-owned firms, from 8 in 1960 to 485 in 1985 (Waldinger, 1986: 117), as well as with anthropologist Bernard Wong's estimate of 500 Chinese shops employing 20,000 Chinese workers (Wong, 1987: 266). Further indication of the above-ground status of the Chinatown garment industry comes from a count of the more than 400 garment firms listed in the *New York Chinatown Business Guide and Directory* (1984), available for purchase in any Chinatown bookstore.

But journalistic and scholarly accounts of the sweatshop do not simply contend that immigrants furnish the needed exploitable labour force: the key, rather, is the presence of *illegal* immigrants, who are supposedly so vulnerable and desperate for employment that they will accept any job, no matter how bad the conditions. Such logic has added plausibility to the claim by some researchers (Hill and Pierce, 1987) that the apparel industry is actually the nation's largest employer of illegal immigrants.

But support for these contentions is weak. We now know that earlier guesstimates widely inflated the size of the undocumented population and that the 1980 Census of Population succeeded in enumerating the great majority of illegal immigrants then resident in the country (Warren and Passel, 1987). Similarly, a decade and a half of research on illegal aliens has shown that their economic, demographic and human capital characteristics differ little from those of legal immigrants of similar ethnic backgrounds. According to a recent US Department of Labor report, 'in many instances, illegal status does not lead to significantly lower earnings, nor does it appear to impede mobility substantially' (US Department of Labor, 1989: 158). In a case of particular relevance to the question at issue here, Gill and Long (1989) analysed data from a survey of immigrant garment and restaurant workers in Los Angeles, many of whom were illegals, and concluded that illegality had no significant effect on earnings after controls for human capital and industry characteristics. Comparing results from this survey with the Ashenfelter-Smith data discussed earlier, Bailey argued that 'compliance in the restaurant and garment industries (both of which employ many undocumented workers) is not much different from compliance in the country as a whole' (Bailey, 1987: 140).

Data about the characteristics of persons who applied for legalization under the amnesty provisions of the 1986 Immigration Reform and Control Act (IRCA) further undermine the contention that the New York garment industry is particularly dependent on undocumented workers. Table 2 compares the occupational distribution of employed legalizes with all New York City workers. Women legalizes — the key labour force group for the garment industry — were overwhelmingly concentrated in service occupations (over 50%), contrary to expectations. And though they were also over-represented among operatives, this category accounted for only a fifth of their employment. Moreover, the

Table 2 Occupational distribution, all employed, New York City; employed New York City legalizes

	All workers (%)		Legalizes			
	Men	Women	Men		Women	
			No.	%	No.	%
Total	99.5	99.9	40 972	100.0	30 181	100.0
Exec., managerial	14.7	11.6	1 654	4.0	1 038	3.4
Prof. speciality & tech	16.2	20.1	4 050	9.9	956	3.2
Sales	10.6	9.1	2 938	7.2	2 097	6.9
Admin. support	12.5	33.4	3 635	8.9	3 187	10.6
Precision product	14.3	1.4	9 583	23.4	1 273	4.2
Operators	15.6	8.5	15 534	37.9	5 934	19.7
Service	15.6	15.8	3 578	8.7	15 696	52.0

Source: Total New York City: Geographic Profile of Employment and Unemployment, 1986, *BLS Bulletin* 2279; Legalizes: New York City Department of City Planning.

number of operatives was modest: even if all 6000 had been working in sweatshops prior to applying for legalization, they could hardly have filled the famous 3000 sweatshops.

Even more telling are the results of the ILGWU's attempt to provide legalization services to its members. Although there are more than 15 times as many ILGWU members in New York as in Los Angeles, only 245 union members and 355 of their relatives applied for amnesty in New York, in contrast to the 1000 members who applied in Los Angeles. Furthermore, the national origins of those workers who applied for legalization appear highly distinctive. The 245 members who applied for legalization came from countries that comprised 32% of the industry's 1980 employment. Chinese were highly over-represented among these 245 applicants whereas Dominicans were greatly under-represented, a contrast of considerable interest since a variety of indicators suggest that the proportion of undocumented is higher among the Dominicans than among the Chinese. Moreover, the hispanic groups most numerous among the applicants were Ecuadorians and El Salvadorans, immigrants who comprise a very small portion of the industry's labour force.¹⁸

Adding further credence to the argument that undocumented workers do not play a major role in New York's apparel industry are results from a survey of employers' associations and union officials that we conducted in summer 1988 inquiring into the effect of the employer sanctions provision of the 1986 Immigration Reform and Control Act (IRCA). Five of the seven employer associations contacted said that IRCA had little impact on the labour supply, adding that their industries hired few undocumented workers. Four of six union officials predicted that IRCA would have no appreciable impact on the labour supply, citing the small total number of undocumented workers in their unions. An ILGWU vice-president said that labour was in short supply in the suburban and exurban areas of the New York region, but *not* in the city, where most immigrants are concentrated. One ACTWU (Amalgamated Clothing and Textile Workers' Union) official provided the following perspective: 'Employers in this trade uniformly ignore laws. But I have gotten no questions or disputes over the law. No one has ever said anything about [the new immigration reporting requirements]. There's no hubbub over this.' The New York City economic development official with responsibility for the apparel industry commented similarly: 'From what I understand, New York City hasn't had problems. I've had zero phone calls regarding this subject.'¹⁹

Proposition 3: From factory to home

Inseparable from claims that sweatshops are proliferating is the contention that homework, once almost extinct, has experienced a massive rebirth. These arguments are subject to the cross-checks already developed above. If the number of homeworkers burgeoned during the 1970s to the 10,000 level, as Sassen maintains, then we should have found a much greater decline in the various ratios discussed in the previous section than we actually observed.

More direct evidence on homework comes from answers to the place of work question in the Census of Population, to which 'home' was a possible answer. Tabulations for women workers in the five largest immigrant-receiving Standard Metropolitan Statistical Areas (SMSAs) — New York, Chicago, Miami, Los Angeles and San Francisco, all of which had sizeable garment industries — provide results that run contrary to the conventional

18. Interview with Muzaffar Chishti, director, ILGWU Immigration Project. National origins data reported on in this paragraph are from the ILGWU files; we are deeply grateful to Mr Chishti for making these data available to us.

19. A follow-up study conducted in 1989, which included a survey of 28 garment firms, found no change in the view of union officials and employers' representatives. The employer survey showed that IRCA had exercised differential effects on the industry — with little impact among larger, non-immigrant firms, and much greater force among smaller, immigrant firms which are limited in their ability to draw on the broader, legal labour force (Waldinger, 1990).

Table 3 Female workers reporting employment 'at home', major immigrant-receiving metropolitan areas, 1980

	Chicago	New York	Miami	Los Angeles	San Francisco
All employed (%)	1.4	1.7	1.5	1.8	2.5
<i>Specific sectors (%):</i>					
Construction	5.2	4.8	8.2	4.2	6.4
Manufacturing	0.7	1.1	1.0	0.8	1.9
Apparel	0.2	0.7	1.9	1.1	2.5
TCU	0.6	0.7	0.3	0.4	0.6
Wholesale	1.7	1.2	0.9	1.1	2.3
Retail	1.2	1.1	0.8	1.0	1.4
FIRE	0.8	0.8	2.1	2.5	1.9
Business services	3.7	3.5	4.1	4.7	5.7
Personal services	7.5	7.4	4.3	9.4	9.1
Professional services	1.6	2.5	1.6	2.3	3.6
Public sector	0.2	0.4	0.3	0.4	0.8
<i>Specific ethnic groups (%):</i>					
Native whites	1.6	1.9	1.8	2.2	2.8
Hispanic immigrants	0.7	1.5	1.5	2.2	2.2
Asian immigrants	1.3	2.2	2.5	1.5	1.5
White immigrants	2.0	3.1	2.5	2.2	3.5
<i>Ratios of apparel relative to:</i>					
All industries	17.9	42.2	127.3	61.0	98.1
Business services	6.5	20.1	45.7	23.9	43.3
Personal services	3.3	9.5	43.3	12.0	27.2
<i>Ratios of native white employment in homework to:</i>					
Hispanic immigrants	2.5	1.3	1.2	1.0	1.3
Asian immigrants	1.3	0.9	0.7	1.4	1.9
White immigrants	0.8	0.6	0.7	1.0	0.8

Source: 1980 Census of Population, 5% Public Use Microdata Sample.

wisdom, as can be seen from Table 3. In none of these metropolitan areas did home-sewers figure prominently among workers in the apparel industry. The highest proportion of homeworkers was recorded in San Francisco — at 2.5%. That share was exactly equal to the share of homeworkers for all industries in San Francisco, and less than half the share of business services, the leading local employer of homeworkers. Nor is homeworking a phenomenon distinctive to new immigrants. In every metropolis white immigrants ranked at the top in percent employed at home; and the proportion of homeworkers among native whites was above the hispanic rate in four areas and at parity with the hispanic rate in one (Los Angeles). Despite widely publicized claims that homework has burgeoned in New York, the Census data suggest that New York in fact lags behind most of these other immigrant-receiving areas: only 0.7% of the apparel workers in New York reported working at 'home' (Table 3).

But does the same pattern hold once one takes other factors, beside immigrant status, into account? To answer this question, we used logistic regression to estimate the probability of working at home for all employed workers in New York City in 1980.²⁰ Drawing on the literature on the labour supply, as well as on other analyses of the determinants of

20. The data source for this estimate was the 1980 Census of Population, 5% Public Use Microdata Sample.

homeworking (Kraut and Grambsch, 1988), we ran separate equations for men and women in all industries, and then a second set of separate equations for men and women employed in manufacturing only. The dependent variable in the equation is HOMEWORK, coded 1 if the person reported working at home, and 0 if the person reported working at any other site. The variables used in the analysis included age (AGE); education measured in years of school completed (ED); dummies for sectors of employment of particular interest (SERVICE, PERSERV, APPAREL, OTHMFG) and for employment in a blue-collar occupation (NUBLU); children under five at home (KIDS); children between five and eighteen at home only (KIDS2); marital status (MARRIED); and two ethnicity dummies, WHIFOR (white foreign born) and NEWIMM (Asian, hispanic and black immigrants). Although we would have preferred separate dummies for the specific ethnic groups of interest (e.g. hispanic foreign-born, Asian foreign-born, etc.), these variables produced convergence problems in earlier models, possibly due to their limited dispersion. Further details on coding and analysis are offered in the Appendix. The results for women are of greater interest, since women comprise the great bulk of the production labour force in the apparel industry. We will therefore focus the remainder of our remarks on these equations. However, it is worth noting that the equations for men produce no support at all for the contention of heavy immigrant employment in home-based industries and are entirely consistent with the results for women.

The coefficients for the equation for all employed women run contrary to claims of a burgeoning population of immigrant homeworkers with a particular concentration in apparel. As Table 4 shows, the signs for APPAREL, OTHMFG and NEWIMM all have a negative sign, with the coefficients for the first two strongly significant at the .05 level. By contrast, WHIFOR and ED are both positive and significant. The coefficient for SERVICE is also positive, though slightly above the .05 level of significance.

The equation for workers employed in manufacturing is an even more stringent test, since the nature of manufacturing industries severely reduces the potential for homework.²¹ While neither APPAREL nor either of the ethnic variables produce significant coefficients in this equation, the signs run in the same direction as in the equation for all employed. Furthermore, ED is strongly and positively related to the probability of working at home. Thus, multivariate analysis confirms the conclusions drawn on the basis of descriptive statistics alone: the probability of employment at home is negatively related to employment in apparel and to immigrant status.

This discussion of Census data can always be criticized on the grounds that individuals engaged in homework are aware that the practice is illegal and hence under-report their homework activities. But the patterns among those who *do* report cannot so easily be swept aside: why should apparel workers be so much less likely than workers in business services to report their employment at home? It is unlikely that immigrant status would be a deterrent to reporting employment at home, since the category personal services, a chief employer of immigrants, also includes a high proportion of homeworkers. If apparel workers do under-report their homework activities one might also expect variations in the level of homework among the five metropolitan areas for which we have tabulated data — especially since these areas differ so markedly in the ethnic composition of their immigrant populations and in the proportion of immigrants who are undocumented. Yet the differences are modest indeed, as can be seen from Table 4.

Furthermore, the apparel case is consistent with what we know about the incidence of homework in general as well as in specific occupations or industries. There is no evidence of rising levels of homework. On the contrary, as Silver (1989) notes, the proportion of workers employed at home actually declined between 1960 and 1980, with other surveys — the 1977 Quality of Employment Survey and a special 1985 Current Population Survey

21. We all know about the potential for telecommuting; metal finishing at home is presumably a somewhat more complicated matter.

Table 4 Logistic regression estimates of determinants of probability of employment at home (New York City, employed, 1980)¹

	All industries				Manufacturing only			
	Men		Women		Men		Women	
	Beta	S.e.	Beta	S.e.	Beta	S.e.	Beta	S.e.
Intercept	-5.018	0.210	-6.064	0.265	-6.527	0.964	-5.265	0.778
Education	0.055*	0.009	0.109	0.011	0.133*	0.046	0.094*	0.037
Age	0.020*	0.003	0.012*	0.003	0.027**	0.012	-0.003	0.010
Service	-0.079	0.079	0.169	0.087				
Perserv	0.611*	0.079	-0.676*	0.148				
Apparel	-1.500*	0.451	-0.683*	0.200	-1.001**	0.476	-0.379	0.270
Other Mfg	-0.485*	0.118	-0.277**	0.127				
Blue-collar	-0.860	0.085	0.346*	0.090	-1.624*	0.437	-0.360	0.308
Kids under 5	-0.181	0.110	0.678*	0.112	-0.826	0.638	1.009	0.341
Kids over 5	-0.347*	0.094	0.001	0.092	-0.065	0.456	0.344*	0.289
Disabled	0.637*	0.124	0.563*	0.161	-0.054	0.735	0.408	0.598
Married	-0.536*	0.073	-0.170**	0.073	-0.332	0.302	0.053	0.238
White Foreign	0.534*	0.083	0.626*	0.098	0.124	0.414	0.165	0.349
New (non-wh) imm	-0.032	0.098	-0.017	0.015	-0.666	0.605	-0.107	0.032
	ChiSq=680.63, 13df (p=0.0)		ChiSq=249.05, 13df (p=0.0)		ChiSq=86.54, 10df (p=0.0)		ChiSq=37.2, 10df (p=0.0)	

¹ For variable definitions and descriptive statistics, see Appendix. * $p < .01$; ** $p < .05$.

Source: 1980 Census of Population, 5% Public Use Microdata Sample.

— indicating that only a very small proportion of the labour force is engaged in home labour on a full-time basis.²² In general, homeworking is associated with older age, rural place of residence and greater non-wage and salary household income (Kraut and Grambsch, 1988) — characteristics most definitely *not* shared by the new immigrant population. Non-governmental data sources, such as Christensen's (1988) survey of white-collar homeworkers, closely match the Census profile for homeworkers in these occupations, thus providing further evidence of the reliability of the census patterns. Similarly, Olsen's (1988) study of teleworking, which includes both field studies and surveys, concludes that telework has yet to experience significant growth. As Silver concludes, 'despite changes in the economy, growth in immigrant labor, and new technologies, homework is not significantly on the rise in the United States' (1989: 112).²³

Re-locating immigrant informal activity

If there is little evidence of a substantial underground garment industry, what are the implications for theories of 'informalization' in the United States? In this section, we answer

22. In contrast to the Census, which asks about the place of work of the principal employer, the May 1985 Current Population Survey asked whether respondents did any work at home for their principal employer. Less than 8% of non-farm respondents reported that they work at least 8 hours per day at home. Black and hispanic respondents were considerably less likely to report working 8 hours or more at home than white or non-hispanic respondents respectively. Tabulations from the Public Use Sample show that less than 4% of workers in the apparel industry reported working 8 hours or more at home. Hispanic and black apparel workers were also less likely than other apparel workers to report working 8 hours or more at home, although we should treat these findings with caution due to sampling size. For further details on the findings from this survey, see Horvath (1986).
23. See also the essays in Christensen (1989), for generally consistent conclusions.

this question by first returning to the intellectual context in which the arguments about the sweatshop's revival have been made and then suggesting an alternative interpretation of the 'sweatshop's' significance.

Sweatshops, immigration and urban economic change

As noted earlier, the apparent revival of sweatshops offered scholars a clue to unravelling the puzzling coincidence of large-scale immigration and the rapid post-industrial transformation of the immigrant-receiving cities. In essence, informalization arguments explain the demand for immigrant labour in light of the emergence of new production forms, of which a major instance is the 'sweatshop'.

But such claims do not only clash with the findings of this paper; they are inconsistent with what we know about the broader economy. The available evidence does not indicate that changes in the organization of manufacturing have yielded a growing underground production sector in the United States. Rather than being a centre of goods production, the underground economy mainly involves the purchases of final goods by consumers (Witte, 1987). IRS audits indicate that the construction, retail trade and service industries accounted for more than 80% of the understatement of business receipts and profits (DeLeeuw, 1985: 64).

Since production forms have remained stable, we suggest an alternative explanation of the puzzling relationship between immigration and urban change: the critical shift has been not on the demand but on the supply side. In New York, compositional changes — resulting from disproportionate declines in the local white population — created vacancies for immigrants at the bottom of the job ladder in industries like garments. Further openings for immigrants emerged because native-born workers dropped out of the effective labour supply in reaction to declining relative wages and working conditions. Thus, the basic structure of New York's apparel industry did not change; rather, old positions and functions were vacated and in this way entry-level opportunities for immigrant workers were created.

A similar process of ethnic succession created opportunities for immigrant entrepreneurs. High death rates among established firms owned by white ethnics and low start-up rates have provided replacement opportunities for Chinese, Dominican and Korean contractors (Waldinger, 1986). This pattern of replacement labour and entrepreneurship holds true more generally for the immigrant-receiving economies of New York and Los Angeles (Muller and Espenshade, 1985; Waldinger, 1989).

The sweatshop in the class structure: distributional aspects of informality

Exploitation is almost a synonym for sweatshops. In the social science literature, Sassen-Koob's (1984) concept of *downgraded labour* highlights the vulnerability of sweatshop workers and the collapse of working standards associated with the growth of sweatshops (see also Portes and Castells, 1989). By contrast, we will argue that the distribution of opportunities for informal income generation closely parallels the distribution of opportunities for income generation of any type. Hence, the distribution of opportunities for informal income generation is simply an instance of stratification in the most general sense. As we shall show, this line of argument is consistent with broader findings on the underground economy.

Much of the literature on the underground economy emphasizes the incentives for workers or employers to escape state regulation. As Carson noted (1984a), incentives are a necessary but not sufficient condition for underground income generation: one must also have opportunities to evade or circumvent regulations. But not all opportunities for underground earnings are equally remunerative. For example, the first wave of research on the underground economy in the United States identified an 'irregular economy' in black ghetto communities where workers engaged in pseudo-entrepreneurial activities from which they were barred in the regular economy (Ferman and Ferman, 1973; Bluestone, 1969). Since these transactions were confined to a ghetto clientele of severely depressed

incomes, the irregular economy offered little chance for surplus generation and amounted to exchanging one another's wash.²⁴

While economic marginalization confines black ghetto-dwellers to communities poor in informal resources, persons higher in the class structure than immigrants appear to enjoy even greater opportunities for participation in informal economic activities. As marxists would predict, ownership increases both access to informal income-generating activities and the potential for hiding income from the state. Thus in the United States, it is income from rental property that is reported to the Internal Revenue Service (IRS) at the lowest rates of all (Simon and Witte, 1982: 6). The next worst offenders, as shown by European and US data, are the self-employed (OECD, 1986; Pahl, 1988; Carson, 1984a; Jencks, 1987; US Congress, 1983). Business ownership, it turns out, confers an aspect of autonomy not fully appreciated by sociologists: namely, greater opportunity to conceal one's income. To get a feel for what these opportunities involve, consider the findings from a 1989 New York State investigation of lawyers. Their research discovered that 10% of law partners, but only 0.5% of law firm employees, failed to file state income tax returns during one of the previous three years (Kollert, 1989)! According to the IRS, under-reported income by 'nonfarm proprietors' accounted for 19.6% of the 1987 'tax gap', more than twice the share of so-called 'informal suppliers' (United States, Internal Revenue Service, 1988).²⁵

Furthermore, a variety of studies has found that both participation in informal economic activities and tax evasion are *positively* associated with socio-economic status. James Smith (1987) has shown that the probability of consumption of informal services and goods increases with education and income. Analysis of IRS data has found that higher mean income is associated with a lower proportion of taxable income reported (Witte and Woodbury, 1983). Research using both IRS and self-report data from surveys finds that level of formal education is consistently negatively related to tax compliance (Yankelovich *et al.*, 1984; Mason and Lowry, 1981; Witte and Woodbury, 1985). Consequently, a National Academy of Sciences report concludes that the thesis that higher socio-economic status leads to 'greater opportunities to commit economic crime' finds support from the research on taxpayer compliance (Roth *et al.*, 1989: 137).

The social construction of a social problem

If there is as little to the sweatshop phenomenon as we have maintained, how then to account for its emergence as a social problem, in turn making the 'informal sector' an object of legitimate study? One clue is that the problems of the sweatshop and of undocumented immigration have been formulated in strikingly similar ways. From the start, wildly inflated estimates of the undocumented population were a major feature of the illegal immigration debate. That so many illegal immigrants were flowing into the country inexorably led to the conclusion that the problem was essentially one of social control. On the one hand, the massive illegal inflow was eroding control over movement across borders — a basic aspect of sovereignty; on the other hand, the illegals were creating or threatening to create 'an underclass outside the law' (Keely, 1982: 42).

Not only do very same themes — burgeoning numbers, loss of control (now over labour markets), growth of an underclass — emerge in journalistic and scholarly writings on the sweatshops, but the phenomena are frequently intertwined. Right from the beginning of the underground economy debate, questions were raised about the jobs and income concealed by illegal immigrants (Simon and Witte, 1982). Moreover, the tendency to link

24. More recent work, such as Williams and Kornblum's (1984) study of youth and Jones's (1988) research on ghetto street peddlers, is entirely consistent with these earlier studies.
25. Furthermore, estimates of under-reporting do not take into account the extraordinary opportunities for legal income concealment that the self-employed enjoy under most tax codes. As Steven Smith (1986) notes, the self-employed are able to offset a much wider range of expenses against income than can people taxed as employees.

sweatshops with uncontrolled undocumented immigration overrides usual ideological divides. Thus, on the right, Lamm and Imhoff contend that 'during the 1970s sweatshops made a big comeback' thanks to 'the influx of illegal immigrants — willing and able workers who will endure sweatshop working conditions and wages' (Lamm and Imhoff, 1985: 144). And on the left, Castells and Henderson describe the growth of sweatshops as the result of a 'massive immigration of undocumented workers fuel[ing] the process of the increasing penetration of the center by the periphery' (Henderson and Castells, 1987: 4).²⁶

Linked to undocumented immigration, the sweatshop was thus ready-made for identification as a pseudo-problem of social control. As we have already suggested, there has been no shortage of parties with a material interest in the process. As many journalists have discovered, the sweatshop is a good story.²⁷ Nor are government officials averse to a little bit of drama: witness the widely publicized spectacle of former Labor Department Secretary Raymond Donovan joining a raiding party in New York's Chinatown. On a more mundane level, the sweatshop has been grist for the bureaucratic mill. Once decimated by staff cuts, the Wage and Hour division of the New York State Labor Department has gained a mission, and with it new personnel, greater funding, and higher visibility. For the garment workers' unions, the sweatshop has been convenient as a tool for prodding government into stamping out those low-wage, non-union firms that the unions have failed to organize.

As for academics, our inclination to play up the sweatshop phenomenon might best be explained in somewhat different terms. The crucial factor is the continued, possibly even growing, dominance of problems defined in terms of the misfeasance or incompetence of lower classes over our research agenda. Not only are we organized to study the poor, but it is relatively easy to do so. We know, from personal experience, that one can locate 'sweatshops' and talk with owners and workers about employment conditions, discussing whether they pay in cash or by cheque, whether they use homeworkers and whether they employ illegal immigrants. Whereas 'sweatshop' owners will often talk about these matters with strangers who walk in their factories' doors, top partners in law or accountancy firms do not appear inclined to provide the same kind reception.

But if the sweatshop revival is a pseudo-problem, not so the conditions under which too many immigrant garment workers labour. Listen to the voice of a seasoned observer of the needle trades:

These newcomers tend to settle in ghettos — by choice or necessity — and to create pockets of cheap labor. Light industry entrepreneurs (and New York City manufacture is predominantly light industry) tend to set up shop in the midst of or in walking distance of these newcomers' communities. They reach out for unskilled, often female labor — offering a special inducement in the form of proximity, late arrival, early departure, and minimal penalties for days off when family life becomes demanding. In exchange, these women work for sub-standard wages.

That the date of the observation is not 1992 but 1961 offers a clue as to what the dilemma really is.²⁸ After all, the existence of sweatshops presents quite a different moral and political issue from the constant depression of wages and working conditions that none

26. So embedded is the linkage between undocumented immigration and 'informalization' that Portes and Sassen-Koob maintain that 'the required labor force' for informalization 'has been provided, to a large extent, by a surge of immigrants coming from Third World countries', and then go on to note a 75% increase in legal immigrants between 1970 and 1976, a 'figure, which, of course, does not include the undocumented, whose number is estimated at being *several times that of legal arrivals*' (1987: 54; italics added). As we have already pointed out, the empirical evidence provides little support for this inflated estimate of the illegal immigrant flow; moreover, one of the articles that Portes and Sassen-Koob cite to support this contention, Passel and Woodrow (1984), actually shows the opposite.
27. Our own informal list includes over 70 articles, to which should be added numerous news reports and documentaries.
28. The author is Gus Tyler (1961), long-time official of the ILGWU.

the less hover just above the legal minimum. Illegal, underground 'sweatshops' are a scandal and scandals help sell the news. But the real sweatshop story is the scandal of legally low wages that do not provide an adequate standard of living. The tragedy is that low wages are an old and bitter story. After all, who wants to confront reality when the price of maintaining an industry employing several hundreds of thousands are conditions and wages that we all abhor?

Roger Waldinger, Department of Sociology, University of California at Los Angeles, Los Angeles, CA 90024, USA, and Michael Lapp, Department of History, College of New Rochelle, New Rochelle, NY, USA

References

- Ashenfelter, O. and R. Smith (1979) Compliance with the Minimum Wage Law. *Journal of Political Economy* 87 (April), 333–50.
- Bagli, C. (1989) Some 'hard workers' in garment district are just 12 or 14. *New York Observer*, 9 January.
- Bailey, T. (1987) *Immigrant and native workers: contrasts and competition*. Westview, Boulder, Co.
- Benton, L. (1990) *Invisible factories: industrial development and the informal economy in Spain*. SUNY Press, Albany, NY.
- Biedermann-Livieratou, Y. (1987) *Les Activités économiques non-officielles et leur impact sur le secteur officiel*. Peter Lang, Geneva.
- Bluestone, B. (1969) The tripartite economy: labor markets and the working poor. *Poverty and Human Resources* 5.4, 15–36.
- Boris, E. (1988) Homework and women's rights: the case of the Vermont knitters. In E. Boris and C.R. Daniels (eds), *Homework: historical and contemporary perspectives on paid labor at home*. University of Illinois Press, Urbana, IL.
- Buck, R. (1979) New sweatshops: a penny for your collar. *New York* 12, 40–1 (29 January).
- Carson, C. (1984a) The underground economy: an introduction (part 1). *Survey of Current Business* 84.5, 21–37.
- (1984b) The underground economy: an introduction (part 2). *Survey of Current Business* 84.7, 106–19.
- Christensen, K. (1988) Home-based clerical work: no simple truth, no single reality. In E. Boris and C.R. Daniels (eds), *Homework: historical and contemporary perspectives on paid labor at home*. University of Illinois Press, Urbana, IL.
- Contini, B. (1981) Labor market segmentation and the development of the parallel economy — the Italian case. *Oxford Economic Papers* 33.3, 401–12.
- De Grazia, R. (1984) *Clandestine employment: the situation in the industrial market economy*. International Labour Office, Geneva.
- DeLeeuw, F. (1985) An indirect technique for measuring the underground economy. *Survey of Current Business* 85.5, 64–72.
- Dengler, J.F. (1986) Industrial homework in the modern world-economy. *Contemporary Crises* 10, 257–79.
- DeStefano, T. and A. Richardson (1979) SA firms, haulers back Chinatown's sweatshop growth. *Women's Wear Daily*, 16 May.
- English, C. (1984) Sweatshops are back — and they're thriving. *US News and World Report*, 16 January.
- Feagin, J. and M.P. Smith (1987) Cities and the New International Division of Labor: an overview. In J. Feagin and M.P. Smith (eds), *The capitalist city*, Blackwell, New York.
- Ferman, P.R. and L. Ferman (1973) The structural underpinnings of the irregular economy. *Poverty and Human Resources Abstracts* 8.1, 3–17.
- Gaughan, J. and L.A. Ferman (1987) Toward an understanding of the informal economy. *Annals of the American Academy of Political and Social Science* 493 (September).
- Gill, A. and S. Long (1989) Is there an immigration status wage differential between legal and undocumented workers? Evidence from the Los Angeles garment industry. *Social Science Quarterly* 70.1 (March), 164–73.
- Gramlich, E. (1976) The impact of the minimum wage on other wages, employment and family incomes. *Brookings Papers on Economic Activity* 2.
- Grasmuck, S. (1985) Immigration, ethnic stratification, and native working class discipline: comparisons of documented and undocumented Dominicans. *International Migration Review* 18.3.
- Greenhouse, S. (1978) In sweatshops, toil comes cheap. *Bergen Record*, 24 October.
- Harrison, B. and B. Bluestone (1988) *The great U-turn*. Basic Books, New York.
- Harvey, D. (1990) *The condition of post-modernity*. Blackwell, New York.
- Henderson, J. and M. Castells (1987) *Global restructuring and territorial development*. Sage, London.
- Herberg, W. (1953) The Old-timers and the Newcomers. *Journal of Social Issues* 9.1.
- Hill, J.K. and J.E. Pierce (1987) Enforcing sanctions against employers of illegal aliens. *Economic Review*, Federal Reserve Bank of Dallas, 1–5 May.
- Horvath, F. (1986) Work at home: new findings from the Current Population Survey. *Monthly Labor Review* 109 (November).
- Jencks, C. (1987) The politics of income measurement. In W. Alonso and P. Starr (eds), *The politics of numbers*, Russell Sage, New York.
- Jones, Y. (1988) Street peddlers as entrepreneurs: economic adaptation to an urban area. *Urban Anthropology* 17, 2–3.
- Kagan, R.A. (1989) On the visibility of income tax law violations. In A. Roth and J.T. Scholz (eds), *Taxpayer compliance, vol 2: Social science perspectives*, University of Pennsylvania Press, Philadelphia.
- Kasarda, J. (1988) Jobs, migration, and emerging urban mismatches. In M.G.H. McGeary and L. Lynn (eds), *Urban change and poverty*, National Academy Press, Washington, DC.
- Keely, C. (1982) Immigration and the American future. In L. Liebman (ed.), *Ethnic relations in America*, Prentice Hall, New York.
- Kerr, K. (1977a) NJ sets Hudson sweatshop probe. *Hudson Dispatch*, 22 July.
- (1977b) NJ backs ILG exposé of Hudson sweatshops and illegal homework. *Hudson Dispatch*, 15 August.
- Koepfel, B. (1978) The new sweatshops. *The Progressive* 42 (November), 22–6.
- Kollert, E. (1989) Nearly 10 percent of law partners fail to file New York taxes. *New York Times* (23 March), 1.
- Kraut, R. and P. Grambsch (1988) Home-based white-collar employment: lessons from the 1980 Census. *Social Forces* 66.2, 410–26.
- Kwong, P. (1987) *The new Chinatown*. Hill and Wang, New York.
- La Rosa, P. and M.W. Thompson (1988) Sweatshop shame: an exploited way of life in death traps. *Daily News*, 20 March.
- Lamm, R. and D. Imhoff (1985) *The immigration time bomb*. Dutton, New York.
- Leichter, F. (1979) *Return of the sweatshop: a call for state action*. New York Xerox.
- (1981) *Return of the sweatshop: part II of an investigation*. New York Xerox.
- (1982) *Sweatshops to shakedown: organized crime in New York's garment industry*. New York Xerox.
- Levitan, S. and R.S. Belous (1979) *More than subsistence: minimum wages for the working poor*. Johns Hopkins University Press, Baltimore, MD.
- Lum, J. (1988) Remnants of the past. *Savvy* (August).
- Mason, R. and H. Lowry (1987) *An estimate of income tax evasion in Oregon*. Survey Research Center, Oregon State University, Corvallis.
- Mattera, P. (1985) *Off the books: the rise of the underground economy*. St Martins Press, New York.
- Mazur, J. (1979) Return of the sweatshop. *New Leader* 62 (13 August), 7–10.
- (1989) Families that slave together. *Newsday*, 31 January.
- Mort, J. (1988) Return of the sweatshop: *Déjà Vu* in the garment industry. *Dissent* (Summer).
- Moulier-Boutang, Y., J.-P. Garson and R. Silberman (1986) *Economie politique des migrations clandestines de main-d'oeuvre*. Publisud, Paris.
- Muller, T. and T.B. Espenshade (1985) *The fourth wave*. Urban Institute Press, Washington, DC.
- New York City Department of Consumer Affairs (1987) *Guide for people in business*. City of New York Department of Consumer Affairs, New York.
- New York State Department of Labor (1982a) *Report to the governor and the legislature on the garment manufacturing industry and industrial homework*. New York State, Department of Labor, Albany, NY.

- _____. (1982b) *Study of state—federal employment standards for industrial homeworkers in New York City*. New York State, Department of Labor, Albany, NY.
- _____. (1987) Article 12-A: special task force for the apparel industry. New York State Department of Labor, Albany, NY.
- Olsen, M. (1988) Organization barriers to professional telework. In E. Boris and C.R. Daniels (eds), *Homework: historical and contemporary perspectives on paid labor at home*, University of Illinois Press, Urbana, IL.
- Organization for Economic Cooperation and Development (OECD) (1986) Concealed employment. Chapter 3 in *Employment outlook 1986*. OECD, Paris.
- Pahl, R.E. (1988) Does jobless mean workless? Unemployment and informal work. *Annals of the American Academy of Political and Social Science* 493 (September).
- _____. (1989) Some remarks on informal work, social polarization, and the social structure. *International Journal of Urban and Regional Research* 13, 246–65.
- Parsons, C. (1988) The domestic employment consequences of managed international competition in apparel. In L. Tyson, W.T. Dickens and J. Zysman (eds), *The dynamics of trade and employment*, Ballinger, Cambridge, MA.
- Passel, J. and K. Woodrow (1984) Geographic distribution of undocumented immigrants: estimates of undocumented aliens counted in the 1980 Census by state. *International Migration Review* 18, 642–71.
- Piore, M. and C. Sabel (1984) *The second industrial divide*. Basic Books, New York.
- Portes, A. and R. Bach (1985) *Latin Journey*. University of California Press, Berkeley, CA.
- _____. and M. Castells (1989) World underneath: the origins, dynamics and effects of the informal economy. In Portes *et al.* (1989).
- _____. M. Castells and L. Benton (eds), (1989) *The Informal Economy: Studies in advanced and less developed countries*, Johns Hopkins University Press, Baltimore, MD.
- _____. and S. Sassen-Koob (1987) Making it underground: comparative material on the urban informal sector in western market economies. *American Journal of Sociology* 93, 30–61.
- Powell, M. (1989) Illegal labor flourishes again: children working in many sweatshops. *Newsday*, 8 January.
- Ross, I. (1978) Why the underground economy is booming. *Fortune*.
- Ross, R. and K. Trachte (1983) Global cities and global classes: the peripheralization of labor in New York City. *Review* 6.3, 393–431.
- Roth, J.A., J. Scholz and A.D. Witte (eds) (1989) *Taxpayer compliance, vol. I: An agenda for research*. University of Pennsylvania Press, Philadelphia.
- Sassen-Koob, S. (1984) The new labor demand in world cities. In M.P. Smith (ed.), *Cities in transformation: Capital, class and urban structure*, Sage, Beverly Hills, CA.
- Sassen, S. (1988) *The mobility of capital and labor*. Cambridge University Press, New York.
- _____. (1989a) New York City's informal economy. In Portes *et al.* (1989).
- _____. (1989b) New trends in the sociospatial organization of the New York City economy. In R. Beauregard (ed.), *Economic restructuring and political response*. *Urban Affairs Annual Review* 34, 8.
- Serrin, W. (1983) Combating garment sweatshops is an almost futile task. *New York Times*, 12 October.
- Silver, H. (1989) The demand for homework: evidence from the US Census. In E. Boris and C.R. Daniels (eds), *Homework: historical and contemporary perspectives on paid labor at home*, University of Illinois Press, Urbana, IL.
- Simon, C. and A. Witte (1982) *Beating the system: the underground economy*. Auburn House, Cambridge, MA.
- Smith, J.P. (1987) Measuring the informal economy. *Annals of the American Academy of Political and Social Science* 493 (September).
- Smith, M.P. (1987) Global capital restructuring and local political crises in the United States. In Henderson and Castells (1987).
- _____. (1988) *City, state and market*. Blackwell, New York.
- Smith, P. (1989) Crackdown has not yet dried off sweatshops. *New York Post*, 7 February.
- Smith, S. (1986) *Britain's shadow economy*. Clarendon Press, Oxford.
- Tyler, G. (1961) Marginal industries, low wages and high risks. *Dissent* 8.3, 321–5.
- _____. (1979) Garment union ferreting out new generation of sweatshops. *AFL-CIO News*, 7 April.
- United States Congress (1983) *Growth of the underground economy, 1950–1981: some evidence*

- _____. *from the Current Population Survey*. Study prepared for the Joint Economic Committee. GPO, Washington, DC.
- United States Department of Labor (1989) *The effects of immigration on the US economy and labor market*. GPO, Washington, DC.
- United States, General Accounting Office (USGAO) (1988) *Sweatshops in the US: opinions on their extent and possible enforcement options*. GPO, Washington, DC.
- _____. (1989) 'Sweatshops' in New York City: a local example of a nationwide problem. GPO, Washington, DC.
- United States, Internal Revenue Service (1988) *Income tax compliance research: gross tax gap estimates and projections for 1973–1992*. Internal Revenue Service, Washington, DC.
- Waldinger, R. (1986) *Through the eye of the needle: immigrants and enterprise in New York's garment trades*. New York University Press, New York.
- _____. (1989) Immigration and urban change. *Annual Review of Sociology* 15, 211–32.
- _____. (1990) The impact of IRCA on the New York garment industry. Report prepared for the US Department of Labor, May.
- Wallace, C. and R. Pahl (1986) Polarisation, unemployment and all forms of work. In S. Allen (ed.), *The experience of unemployment*, Macmillan, London.
- Warren, R. and J. Passel (1987) A count of the uncountable: estimates of undocumented aliens counted in the 1980 United States Census. *Demography* 24.3, 375–93.
- Weiner, E. and H. Green (1984) A stitch in our time: New York's hispanic garment workers. In J. Jensen and S. Davidson (eds), *A needle, a bobbin, a strike: women needleworkers in America*. Temple University Press, Philadelphia.
- Williams, T. and W. Kornblum (1984) *Growing up poor*. Heath, Lexington, MA.
- Witte, A. (1987) The nature and extent of unrecorded activity: a survey concentrating on recent US research. In S. Alessandrini and B. Dallago (eds), *The unofficial economy*, Gower, London.
- _____. and D.F. Woodbury (1983) What we know about the factors affecting compliance with the tax laws. In *Income tax compliance: a report of the ABA Section of the International Conference on Income Tax Compliance*.
- _____. and _____. (1985) The effect of tax laws and tax administration on tax compliance: the case of the US individual income tax. *National Tax Journal* 38.1, 1–14.
- Wong, B. (1987) The Chinese: new immigrants in New York's Chinatown. In N. Foner (ed.), *New immigrants in New York City*, Columbia University Press, New York.
- Wong, M. (1983) Chinese sweatshops in the US: a look at the garment industry. In I.H. Simpson and R.L. Simpson (eds), *Research in the Sociology of Work*, Vol. II, JAI Press, Greenwich, CT.
- Yankelovich, Skelly and White, Inc. (1984) Taxpayer attitudes study: final report. Public opinion survey prepared for the Public Affairs Division, Internal Revenue Service.
- Yeager, D. (1978) Threadbare lives: New York's Chinese man apparel factories much like sweatshops. *Wall Street Journal*, 31 May.

Appendix A: Definitions and coding of variables used to estimate probability of employment at home

Dependent variable

HOMEWORK: Response to means of travel to work question, 'worked at home' (1 = homeworker; 0 = other)

Independent variables

ED: Years of schooling completed

AGE: Years of age

SERVICE: All 1-digit service industries, *except* personal services (1 = employment in SERVICE; 0 = not employed in SERVICE)

PERSERV: Personal service sector (1 = employment in PERSERV; 0 = not employed in PERSERV)

APPAREL: Apparel industry (1 = employment in APPAREL; 0 = not employed in APPAREL)

OTHMFG: All other manufacturing industries *except* apparel (1 = employed in OTHMFG; 0 = not employed in OTHMFG)

NUBLU: Employed as blue-collar worker, using 1970 occupational coding scheme (1 = employed in NUBLU; 0 = not employed in NUBLU)

KIDS: Children under 5 at home (1 = children under 5 at home; 0 = no children under 5 at home)

KIDS2: Children between 6 and 18 at home, but *no* children under 5 at home (1 = Children between 6 and 18 at home; 0 = no children between 6 and 18 at home)

DISABLE: Any work or transportation disability status (1 = any disability; 0 = none)

MARITAL: Now married, except separated (1 = now married, except separated; 0 = other)

WHIFOR: White foreign-born (1 = WHIFOR; 0 = other)

NEWIMM: Asian, hispanic and black immigrants, regardless of time of arrival (1 = NEWIMM; 0 = other)

Source: 1980 Census of Population, 5% Public Use Microdata Sample.

Descriptive statistics, place of work (home/not at home) by sex, NYC, 1980 (25–64)

Table A1 % employed in category by place of work by sex (New York City, 1980: 25–64-year-olds)

	All employed				Employed in manufacturing only			
	Men		Women		Men		Women	
	Out/home % emp'd in category	Home % emp'd in category	Out/home % emp'd in category	Home % emp'd in category	Out/home % emp'd in category	Home % emp'd in category	Out/home % emp'd in category	Home % emp'd in category
SERVICE*	25.6	22.4	18.4	22.5				
PERSERV	10.6	22.1	12.5	6.1				
APPAREL	2.5	0.5	7.1	3.4	24.9	8.3	52.1	32.9
OTHERMFG	15.0	7.7	11.1	8.7				
NUBLU	44.5	19.1	28.1	27.5	55.2	11.7	59.6	37.7
KIDS	18.3	11.7	10.0	15.0	16.5	5.0	9.0	17.7
KIDS2	22.8	14.1	24.2	20.0	23.3	10.0	24.6	22.4
DISABLE	3.5	6.4	3.0	5.0	3.5	3.3	3.0	3.5
MARRIED	67.6	51.8	48.9	46.3	69.1	51.7	53.2	51.8
WHIFOR	12.3	16.7	9.3	15.2	12.2	11.7	13.7	12.9
NEWIMM	17.0	11.2	18.2	13.8	20.0	5.0	30.3	21.2
	61,198	1,112	49,496	856	6,029	60	6,732	85

* SERVICE includes all 1-digit service industries, except personal service.

Table A2 Mean education and age by place of work by sex

	All employed				Employed in manufacturing only			
	Men		Women		Men		Women	
	Out/home	Home	Out/home	Home	Out/home	Home	Out/home	Home
Mean education	12.7	14.2	12.6	13.7	11.8	14.9	10.5	12.6
Mean age	41.5	42.7	41.9	42.1	42.8	44.8	43.1	40.4

Table A3 Means and standard deviations for all variables by sex

	All employed				Employed in manufacturing only			
	Men		Women		Men		Women	
	Means	SD	Means	SD	Means	SD	Means	SD
ED	12.68	3.91	12.62	3.58	11.79	3.90	10.51	4.21
AGE	41.72	11.49	41.87	11.59	43.07	11.72	43.28	11.61
SERVICE*	0.26	0.44	0.19	0.39				
PERSERV	0.11	0.31	0.12	0.33				
APPAREL	0.02	0.15	0.07	0.26	0.25	0.43	0.52	0.50
OTHERMFG	0.15	0.36	0.11	0.31	0.75	0.43	0.48	0.50
NUBLU	0.44	0.50	0.28	0.45	0.56	0.50	0.59	0.49
KIDS	0.18	0.38	0.10	0.30	0.16	0.37	0.09	0.29
KIDS2	0.23	0.42	0.24	0.43	0.23	0.42	0.24	0.43
DISABLE	0.04	0.19	0.03	0.17	0.04	0.18	0.03	0.17
MARRIED	0.67	0.47	0.49	0.50	0.69	0.46	0.53	0.50
WHIFOR	0.12	0.33	0.09	0.29	0.12	0.33	0.14	0.34
NEWIMM	0.17	0.37	0.18	0.38	0.20	0.40	0.30	0.46

*SERVICE includes all 1-digit service industries, except personal service.