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Worker Advancement in the Low-Wage Labor Market: The Importance of Good Jobs

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Worker Advancement in the Low-Wage Labor Market: The Importance of “Good Jobs”

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Findings

Our analysis of the extent to which persistently low earners ultimately advance in the labor market, and how they manage to do so, reveals that:

- **Controlling for the characteristics of workers, smaller firms and/or those in the retail trade and service industries pay lower wages than other employers.** Worker turnover is also closely associated with wages: three-fourths of low-wage firms experience at least 100 percent turnover on an annual basis versus about one third of high-wage firms.
- **Almost half of workers who persistently had low earnings from 1996-98 earned somewhat higher incomes in 1999-2001.** Low earners who changed jobs during that time were considerably more likely to garner higher earnings in the latter period than those who stayed at the same job.
- **Low earners were much more likely to increase their pay if they gained employment at a higher-wage firm.** Low-earning white males improve their subsequent earnings more frequently than other groups because of their greater ability to gain employment at high-wage firms. Low earners who began working at “temp” agencies were also more likely to gain employment subsequently at high-wage firms than were other low earners.
- **Medium- and high-wage firms are more heavily concentrated in urban counties than in suburban or rural ones.** Yet certain better-paying industries that employ large numbers of less-educated workers, such as construction and manufacturing, are located outside urban counties relatively more often than are other industries.

I. Introduction

The need to improve the earnings of low-wage workers remains a challenge for current welfare policy. Despite early concerns about the effect of a surge of workers into the labor market in the late 1990's, the ability of current and former welfare recipients to become employed and retain their jobs has been impressive. But the ability of these workers to advance out of entry-level, low-wage employment has been quite limited. Average hourly earnings of welfare recipients remains in the range of \$7-8 per hour, even after years in the labor market. And earnings advancement with work experience among low earners more broadly appears limited as well.ⁱ

How might policy-makers improve the earnings of low-wage workers over time, and help them achieve a greater degree of self-sufficiency? One traditional method of improving earnings has been to educate and train workers. In many ways, this strategy seemed sensible in a labor market where the level of skills needed for success has continuously grown. But a large-scale investment in education and training is unlikely to occur at this time; and the effects of remedial education and training on the earnings of low-wage workers have generally been fairly modest.ⁱⁱ

This paper focuses on another method of improving earnings – namely, improving the extent to which less-skilled workers are matched to “good” jobs. This approach has its roots in both theory and practice. Among economists, it is well known that workers of any given skill level earn a wide range of wages; and that these wages depend not only on the characteristics of the workers themselves, but also of the firms for whom they work.ⁱⁱⁱ It is also well-established that the access of some groups of workers to these better firms and jobs, especially among minorities, is limited – because of weaker work credentials, discrimination, weaker employment networks, geographic factors, and the like.^{iv} As a practical matter, local workforce boards and “One-Stop” offices often invest considerable resources in job placement programs – and any information that helps improve the quality of the jobs at which they place low earners would raise the return on that investment.

Within the policy world, there have been at least a few prominent examples of efforts to match low-wage workers to better jobs. For instance, in a national evaluation of welfare-to-work strategies at sites across the country, low-wage workers in Portland Oregon had considerably higher levels of earnings than those at any other site. At least part

of the reason for their success appears to be an explicit policy in Portland of urging welfare recipients not to accept the first low-wage job that they found, and in which efforts were made to help place them into better jobs.^v Elsewhere, the efforts of labor market “intermediaries” and/or local economic development have been touted as ways of improving both the kinds of jobs that less-skilled workers obtain and their performance on those jobs.^{vi}

Before a placement-oriented approach can be implemented, however, there are a number of questions which must be addressed. These include:

Definitions: Exactly what is a “good job” for low-wage workers? How should we define low-wage workers?

Measurement: What commonly observed characteristics of firms might indicate which matches are best for these workers? How do we measure success? How much does the quality of the firm matter in accounting for success rates of workers in the low-wage labor market?

Access to Good Jobs and Routes to Success: How important is access to particular types of firms for low-wage workers? What are their most successful routes out of low earnings - gaining experience *within* low-wage firms or moving *across* firms in search of better jobs? Can labor market intermediaries such as “temp agencies” help match low earners to better jobs over time? What is the role of location in determining access to good jobs?

Policy Implications Should states and localities implement policies to raise the tendency of low earners in their areas to get good jobs – either by attracting more such jobs to their jurisdictions or by improving the access of low earners to those jobs that are already there?

II. Methodology

To answer these questions, we use a new source of data that is currently being compiled at the U.S. Census Bureau: the Longitudinal Employer Household Dynamics (LEHD) data. These data are based primarily on state-level Unemployment Insurance (UI) quarterly earnings records and ES-202 data on employers, which are also merged with other administrative and survey records on workers and employers. These data, which constitute longitudinal data on almost the universe of employees in a state and all of their em-

ployers over long periods of time, enable us to study the interactions between workers and firms that generate success for low-wage workers over time.

Below we use LEHD data for five states – Florida, Illinois, Maryland, Minnesota and Texas – over the period 1996-2001. The data include all workers who are covered by the Unemployment Insurance system in each state; so those excluded are primarily agricultural workers (in some states), the self-employed, private household workers earning less than \$1000 per quarter, and employees of religious organizations. Those who leave the sample within the given time period – perhaps because they have moved to other states – are also excluded from our analysis.

In order to deal with the **definition** issue regarding “good jobs” for low earners – which involves disentangling the effects of firms on wages from those of workers and their characteristics - the LEHD staff has calculated a *wage premium* for each firm in our data.^{vii} This premium is based on a statistical analysis that controls for the characteristics of each worker at a firm, and then generates a measure of the wage markup at that firm relative to others over time.^{viii}

In order to address the question of whether **access** to jobs at high-wage employers influences outcomes among low earners, we also need to address two **measurement** issues: defining low-wage workers and defining “success” in transitioning out of low-wage work. We address both by exploiting the longitudinal nature of the data and by analyzing both earnings levels and earnings changes over time for persistently low earners.^{ix} In defining low-wage workers, we would ideally like to focus on the “working poor” – i.e., low-wage workers in low-income families who face serious obstacles at improving their livelihoods. Unfortunately, our data limitations restrict our ability to clearly identify such workers and their families.^x

Accordingly, we have used our data to identify persistently low earners as those *prime-age workers who are consistently attached to the labor market but whose annual earnings never exceed \$12,000 over a 3-year period.*^{xi} By this definition, we avoid many of those who have low earnings due to their position in the life-cycle (i.e., students or the elderly) or whose low earnings are quite transitory (such as those who have recently been displaced from a good job). We still might capture others, like middle-income homemakers, who are consistently choosing to work part-time; but much of our analysis dis-

gregates our sample by gender as well as race, which better enables us to separate out homemakers from others whose low earnings are likely to be less voluntary.

In order to measure whether individuals succeed in transitioning out of low-wage status, we consider low earners during a recent 3-year period – i.e., 1996-98 - and then estimate how many have made “partial” or “complete” transitions out of low earnings during the subsequent 3-year period (i.e., 1999-2001). We define “partial” escapes as those in which individuals now make over \$12,000 in at least some years, but do not consistently earn over \$15,000. In contrast, “complete” escapes are those who consistently earn more than \$15,000 a year in the subsequent period.

III. Findings

A. Smaller firms, those with higher turnover, and/or those in the retail trade and service industries pay lower wages than other employers.

In Tables 1 and 2 we present data on the characteristics of firms in the top and bottom quartiles of the wage premium distribution. The first of these tables considers the industries in which each type of firm is found; the second looks at firm size and turnover rates.

The results show that there are marked differences in the proportions of high-wage and low-wage firms by industry, firm size and turnover rates. But these characteristics, while important, are not the only predictors of whether a firm is high-wage or not. For instance, Table 1 shows that some industries – such as construction, manufacturing, transportation/utilities and wholesale trade – have relatively high proportions of low-wage firms, whereas others - such as retail trade – have higher proportions of low-wage firms. But, within these broad industry aggregates, there is a good deal of variation in wages. Thus, some manufacturing industries (such as textiles and garments) pay quite low wages. Within retail trade, eating and drinking establishments pay quite poorly while supermarkets and department stores pay somewhat better. And, within the service sector, health care and parts of business services pay fairly high wages, as does the separate finance/insurance/real estate sector.

The wage premium of the firm is also systematically related to other firm characteristics. Table 2 clearly shows that high-wage firms tend to be larger in size and to have

much lower rates of worker turnover – even controlling for worker characteristics. This suggests that the tendency of high-wage firms to pay more might reflect their better resources and/or higher-quality personnel policies, which are also reflected in lower turnover rates.^{xii}

The above results suggest that one of the important **measurement** issues has been addressed: turnover rates as well as size and industry are easily-identifiable characteristics that might enable local labor market practitioners to infer something about compensation policies at an establishment relative to the skills and needs of its employees.

How important is the quality of the firm to the earnings of low-wage workers? In Figure 1 we graph the distribution of our persistent low earners across firms by quartile of the wage premium in which the firm is located. The graph strikingly illustrates that *most persistent low earners are found in the bottom quartile of firms* in terms of pay premia. While this might, of course, reflect the fact that high-wage firms seek out workers whose personal skills and other characteristics make them better workers, it might also reflect the limited access of low earners to better jobs.

B. Almost half of workers who had persistently low earnings from 1996 to 1998 earned somewhat higher incomes in 1999 to 2001.

In Table 3, we present earning status in the period 1999-2001 for those who were persistently low earners in 1996-98. According to Table 3, about 39% of all workers who were persistently low earners in the earlier period “partially escaped” this status in the subsequent period – earning above \$12,000 and perhaps even above \$15,000 in some years but not consistently above the latter level. Only 7% of the initial low earners “completely escaped” that status, and consistently earned above \$15,000 per year.

One can imagine two different routes out of low earnings – one in which the employee stays with the same establishment and “climbs the ladder,” being increasingly compensated for higher experience and seniority; and the other in which (s)he changes jobs and moves to another, perhaps higher-paying firm. We also examine these two **routes to success** in Table 3, which shows transition rates out of low earnings for job-changers v. job-stayers during the subsequent 3-year period in the labor market.^{xiii}

The data show that rates of escape out of low-earning status are higher for those changing jobs than for those staying with the same employer. In fact, if we ask a slightly different question – what percentage of “escapers” accomplished this by changing jobs as opposed to staying with the same employer – the results are even more striking: fully two-thirds of partial escapers, and three-fourths of full escapers, changed their primary employers across the 3-year periods under consideration.^{xiv}

Thus, it is not impossible to rise about poverty-level earnings by staying with the same employer and climbing the experience/seniority ladder. But most who achieve success in (or getting out of) the low-earnings labor market do so with a change of employer. Furthermore, we must also note job-changing can certainly have its “down side” as well as its “up side”; job-changers sometimes suffer larger losses, as well as larger gains, relative to job-stayers.^{xv} Finally, we note that these results hold up for smaller samples of workers for whom we have greater detail on personal characteristics and family income.^{xvi}

C. Low earners were much more likely to increase their earnings if they gained employment at a higher-wage firm.

The importance of **access** to high-wage firms in transitions out of low earnings appears in Table 4, where we show the distributions of job-changers and job-stayers across different kinds of firms (in terms of wage premia) in 1999-2001, by their degree of labor market success in that period. The results here are quite striking: *one’s tendency to escape low-earnings status depends heavily on one’s ability to get into a high-wage firm.* Among those who have stayed with their original employer, over 60% of those who still have low earnings are with low-wage firms; in contrast, only 35% of the “complete escapers” out of low earnings are with low-wage firms. Among those who changed employers, the contrast is even more striking: over half of those who still have low earnings ended up with another low-wage employer, while only 14% of those who completely escape this status are with low-wage employers. For both groups, the ability to rise out of low earnings is strongly associated with gaining employment at a medium- or high-wage firm.

But how can low earners get better access to these jobs? A great deal of discussion these days involves the question of whether third-party institutions in the labor market – often known as “intermediaries” – can play a positive role in the process of matching low-wage workers to better jobs. One such intermediary is the private “temp” agency. Critics have often claimed that temporary jobs are associated with low wages and benefits. But do they enable low earners to access better jobs, especially after the early period of employment for the temp agency ends?

Our longer report provides evidence on the success of low earners who work for “temp” agencies as opposed to all other groups of low earners. The results show that those who work for the temp agencies enjoy about 8% higher earnings in the subsequent period than other job-changers who are initially low earners. Furthermore, our data (not presented here) also show that all of this gain is due to the fact that temp agencies help low earners get more jobs with medium- and high-wage firms, especially in manufacturing.

Of course, it is possible that temp agencies are simply helping these firms “cream” the best workers among those who are low earners, and that these strong workers might have done well even on their own. But, given that we have controlled for some personal characteristics in our analysis, we find it unlikely that this explains the entire temp effects. It is more likely that the temp agencies provide access for workers to the kinds of high-wage sectors that they would have difficulty gaining on their own. Thus, intermediaries in the labor market have the potential to play a fairly positive role in improving the access of low earners to better jobs at better firms.

One other finding that emerges from our work is that women and minorities have more difficulty escaping low earnings than do white men. Indeed, about 10% of white men with low earnings in the initial period completely escape this status in the subsequent period, and about 45% do so at least partially – which are higher rates of “escape” than achieved by any other group. Furthermore, at least part of the reason for this is that white men are better able than others to gain access to high-wage firms. This might reflect employer discrimination at some of these firms, better information and labor market “contacts” among white males, or perhaps geographic factors that make it easier for them than for minority groups to access these jobs.

D. While medium- and high-wage firms are more heavily concentrated in urban counties than elsewhere, some better-paying industries – like construction and manufacturing – are relatively less concentrated there.

One possible barrier to accessing good jobs might be location. If those high-wage firms that are likely to hire low-wage workers are relatively dispersed, and public transportation is either not available or inconvenient, then this might be a substantial barrier to matching workers (especially minorities residing in inner-city areas) to jobs that facilitate successful transitions out of low-earning status. Lack of information about these firms and/or lack of access to them through informal networks and “contacts” might also limit the ability of low earners to obtain these jobs.^{xvii}

The data in Tables 5 and 6 provide somewhat crude evidence on this issue. Table 5 presents the distribution of low-, medium- and high-wage firms across different types of counties: the “central counties” in metropolitan areas, other counties in metropolitan areas, and those in non-metropolitan areas. The data show, not too surprisingly, that all kinds of firms are quite heavily concentrated in central counties of metropolitan areas, while very few are left in the non-metropolitan areas. But medium- and especially high-wage firms are even more heavily concentrated in central counties than are low-wage firms.

Interestingly, this pattern is somewhat less pronounced for some important subgroups of firms. For instance, among firms that employ those with lower earnings capacity – which we define as a low “person premium” that we can estimate from these data – the concentration of high-wage employment in the central county is somewhat less pronounced than it is for workers with higher personal earnings capacity.^{xviii} And when we look at certain high-wage industrial sectors that employ lots of less-educated workers – such as construction and manufacturing – in Table 6, the concentration in the central county is considerably weaker.

This geographic cut is very crude, since it doesn’t distinguish between central-city and suburban areas within the central county, and does not take transportation networks into account. While these distinctions could be particularly crucial for the large group of low earners who live in lower-income neighborhoods within central cities and rural areas, the data do suggest that good jobs for low earners are not as centrally located as those for

high earners, and that improving the access of some low earners to these jobs might have to take the local geography, among many other factors, into account.

IV. Conclusion

The data presented above strongly show that one of the most effective ways of improving the status of low earners is to increase their ability to become employed in high-wage firms. These firms appear to provide more opportunities for upward wage growth (perhaps through on-the-job training and subsequent promotions) over time as well.^{xix}

But how can public policy encourage the development of more such firms and jobs, especially at the state and local level? There are essentially two broad strategies for doing so. One involves improving the access of low earners to existing high-wage jobs; the other involves attempts to create more such jobs, particularly within areas where few might now exist.

Improving the access of low earners to existing high-wage jobs is critically important. Our evidence suggests that at least one kind of “intermediary” agency in the labor market – the “temp” agency – already does so. A growing role for both for-profit and non-profit agencies that help place low earners into good jobs, and help them to overcome problems with transportation, information, employer discrimination, and the like, would be useful in this regard.

One complaint about this type of policy might be that, for every such additional job that goes to a low earner, someone else loses access to a good job. However, this is not necessarily the case. If we can improve the process by which workers are matched to jobs and make this process more efficient, the costs of recruitment and turnover to employers will be reduced and they might be able to generate more such jobs overall. Furthermore, those higher-skilled employees who might have lost access to a particular good job are presumably better able to find another one than was the low earner who obtained some assistance in the job search process, generating net improvements overall in employment outcomes.

Still, improving the overall stock of good firms and jobs, especially in particular areas, is an appealing prospect. But are there effective ways of doing so? Local economic development policies have long been based on the premise that it is possible to attract

high-wage firms to local areas, especially through the provision of tax breaks and other special services. But the cost-effectiveness of these kinds of policies appears to be weak, especially when one considers the small percentages of these new jobs that go to low-income workers. Furthermore, cities and states get into bidding wars over high-wage companies that generate little net gain for anyone except the companies in question.^{xx}

Recognizing these drawbacks, some observers have suggested a different approach to local economic development - one that combines service provision and technical assistance to companies, especially in the area of human resources, with efforts to improve the skills and access of low-income workers to those jobs. The Jobs Initiative undertaken by the Annie E. Casey Foundation in six major cities around the country is one example of a more comprehensive approach aimed at employers as well as low-income workers in local labor markets. Other examples with a strong focus on key sectors include QUEST in San Antonio, the Wisconsin Regional Training Partnership, and the Cleveland Jobs and Workforce Initiative.^{xxi} These efforts build local partnerships between employers, worker and community groups, skills providers, and other agencies to encourage better workforce preparation, more job training and better career ladders at firms, and ultimately better performance and advancement of workers in their jobs – which benefits all involved.

Of course, a lot more experimentation and rigorous evaluation of these approaches are needed before we can advocate for their expansion and replication. Still, the idea of encouraging better employers and jobs along with more highly-skilled workers at the local level is certainly appealing and deserves to be pursued and developed.

ⁱ See Tricia Gladden and Christopher Taber, 2000. “Wage Progression Among Less-Skilled Workers,” in D. Card and R. Blank eds. *Finding Jobs: Work and Welfare Reform*. New York: Russell Sage Foundation.

ⁱⁱ James Heckman, Robert Lalonde and Jeffrey Smith. 2000. “The Economics and Econometrics of Active Labor Market Programs.” In O. Ashenfelter and D. Card eds. *The Handbook of Labor Economics, Volume 3A*. Amsterdam: North Holland.

ⁱⁱⁱ Alan Krueger and Lawrence Summers. 1997. “Reflections on the Inter-Industry Wage Structure.” In K. Lang and J. Leonard eds. *The Structure of Labor Markets*. New York: Basil Blackwell.

^{iv} Harry J. Holzer, 1996. *What Employers Want: Job Prospects for Less-Educated Workers*. New York: Russell Sage Foundation.

^v Manpower Demonstration Research Corporation. 2002. *The National Evaluation of Welfare-to-Work Strategies: Final Report*. New York.

^{vi} See Robert Giloth ed. 2003. *Workforce Intermediaries for the 21st Century*. New York: The American Assembly, Columbia University.

^{vii} See John Abowd, Francis Kramarz and David Margolis “High Wage Workers and High Wage Firms”, *Econometrica* 67: 251-333.

^{viii} The firm premium, otherwise known as the firm “fixed effect”, is the coefficient on a dummy variable for each firm in a regression of the natural log of quarterly earnings that also includes dummies for each person, state and year, using the same methodology described in detail in John Abowd, Robert Creecy and Francis Kramarz. 2002. “Computing Person and Firm Fixed Effects Using Linked Employer-Employee Data”. LEHD Technical Paper No. TP-2002-06. The sample on which the regression is based pools all quarterly observations on workers and their firms in all years and states. The firm premium thus represents the average wage level at each firm, controlling for the quality of the people who are hired there.

^{ix} Fredrik Andersson, Harry Holzer and Julia Lane. 2002. “The Interactions of Workers and Firms in the Low-Wage Labor Market.” Report to the Assistant Secretary for Policy Evaluation, U.S. Department of Health and Human Services.

^x The estimates here are based only quarterly earnings, and therefore do not allow us to distinguish workers with low wages from those working few hours. We also have no direct controls for the person’s education level or their family income. However, the person effects for which we control in our regression equations effectively capture skill or earnings capacities.

^{xi} The sample has been limited to those aged 25-54, to avoid students or the elderly choosing to work part-time; and to those with at least two quarters of labor force attachment in each year.

^{xii} Charles Brown, James Hamilton and James Medoff. 1990. *Employers Large and Small*. Cambridge MA: Harvard University Press.

^{xiii} We define job changing on the basis of whether their “primary employer” in each 3-year period has changed. That employer is the one with whom the individual has earned the most within that period.

^{xiv} See our report to the U.S. Department of Health and Human Services, *op. cit.*

^{xv} See Harry J. Holzer, Julia Lane and Lars Vilhuber. 2002. “Escaping Poverty for Low-Wage Workers: The Role of Employer Characteristics and Changes.” LEHD Program, U.S. Census Bureau. Positive earnings changes associated with changing jobs most likely reflect voluntary moves, while more negative ones seem to reflect involuntary changes and/or those which end in nonemployment rather than another job.

^{xvi} Much smaller samples of our data are matched to the Current Population Surveys that provide data on wage levels, educational attainment and family income. The results presented here have generally been replicated for samples that are limited to workers with low wages, less education, and/or low family income.

^{xvii} These notions are consistent with the “spatial mismatch hypothesis,” which particularly attributes some portion of the lower employment and earnings of urban minorities to their limited access to suburban jobs. See Harry J. Holzer, “The Spatial Mismatch Hypothesis: What has the Evidence Shown?” *Urban Studies*, Vol. 29, No. 1, 1991.

^{xviii} See Endnote viii above for how we calculate individual earnings capacities, or “person fixed effects.”

^{xix} See our report to the U.S. Department of Health and Human Services, *op. cit.*

^{xx} See Timothy J. Bartik, 2001. *Jobs for the Poor: Can Labor Demand Policies Help?* New York: Russell Sage Foundation.

^{xxi} See Giloth, *op. cit.* and Bartik, *op. cit.*

Table 1: Distribution of employment in low-, medium- and high-wage firms across industries

Industry	Low- wage firms	Medium- wage firms	High- wage firms	All
Construction	2.54	5.38	7.35	5.05
Manufacturing	3.42	12.59	26.10	13.22
Transportation and utilities	5.55	4.80	10.42	6.36
Wholesale trade	2.47	6.13	8.87	5.75
Retail trade	38.15	15.12	3.78	18.92
Finance, insurance and real estate	2.39	6.24	11.08	6.31
Services	38.62	42.12	25.20	37.09
Other industries	6.86	7.62	7.20	7.30
All industries	100.00	100.00	100.00	100.00

Source: Data from the U.S. Census Bureau's Longitudinal Employer-Household Dynamics Program (LEHD) for the states of Florida, Illinois, Maryland, Minnesota and Texas over the 1996-2001 period.

Note: Low-wage firms are firms with an estimated firm-wage premium in the bottom quartile. High-wage firms are firms with an estimated firm-wage premium in the top quartile. Medium-wage firms are those firms that do not satisfy either of the two conditions.

Table 2: Distribution of employment in low-, medium- and high-wage firms across firm size and worker turnover categories

Category	Low- wage firms	Medium- wage firms	High- wage firms	All
Firm size				
0-<50	36.75	25.57	24.93	28.37
50-<250	17.90	22.42	19.62	20.55
250-	45.35	52.01	55.45	51.08
All	100.00	100.00	100.00	100.00
Worker turnover rate				
0-<0.2	4.62	6.52	11.72	7.28
0.2-1.0	20.31	45.55	51.23	40.25
1.0-	75.07	47.93	37.04	52.47
All	100.00	100.00	100.00	100.00

Firm size is defined as the average of beginning of quarter 1 and end of quarter 4 employment. The worker turnover rate is defined as the annual sum of quarterly accessions and separations divided by firm size.

Table 3: Transitions out of low earnings in the subsequent period: job changers vs. job stayers

Earnings status in 1999-2001	Job changers	Job stayers	All low earners
Still low earnings	46.00	64.05	54.03
Partial escapers	44.16	32.53	38.98
Complete escapers	9.84	3.42	6.98
All	100.00	100.00	100.00

The earnings status categories in the subsequent period are defined in text. A worker is a “job changer” if the primary employer in the 1999-2001 period is different from the primary employer in the 1996-98. The primary employer is the one with whom the worker has the highest earnings for the greatest number of quarters over the three-year period.

Table 4: Distribution of initial low earners across firm wage categories in the subsequent period: still low earners vs. escapers

Earnings status in 1999-2001	Low-wage firms	Medium-wage firms	High-wage firms	All
	Job changers			
Still low earnings	55.93	40.39	3.69	100.00
Partial escapers	29.59	59.70	10.70	100.00
Complete escapers	13.95	61.71	24.34	100.00
All	40.17	51.01	8.82	100.00
	Job stayers			
Still low earnings	62.58	34.58	2.74	100.00
Partial escapers	50.75	45.98	3.27	100.00
Complete escapers	35.01	55.01	9.97	100.00
All	57.85	38.99	3.16	100.00

Table 5: Distribution of employment in low-, medium- and high-wage firms across locations

Type of County	Low- wage firms	Medium- wage firms	High- wage firms	All
All workers				
MSA, central	69.66	77.46	84.99	77.38
MSA, other	23.74	18.35	13.17	18.14
Non-MSA	6.60	4.18	1.84	4.21
All	100.00	100.00	100.00	100.00
Workers with low earnings capacity				
MSA, central	68.75	75.04	79.63	74.08
MSA, other	24.36	20.13	17.08	20.78
Non-MSA	6.89	4.83	3.29	5.14
All	100.00	100.00	100.00	100.00

A central county within a Metropolitan Statistical Area (MSA) is defined as county with as city with a population greater than 50,000. Workers with low earnings capacity are defined as those with an estimated person wage effect in the bottom quartile

Table 6: Distribution of employment in Construction and Manufacturing across locations

Type of County	Construction	Manufacturing	All Industries
All workers			
MSA, central	74.04	72.53	77.38
MSA, other	22.35	20.96	18.14
Non-MSA	3.61	6.51	4.21
All	100.00	100.00	100.00
Workers with low earnings capacity			
MSA, central	71.32	70.82	74.08
MSA, other	24.04	21.86	20.78
Non-MSA	4.64	7.32	5.14
All	100.00	100.00	100.00

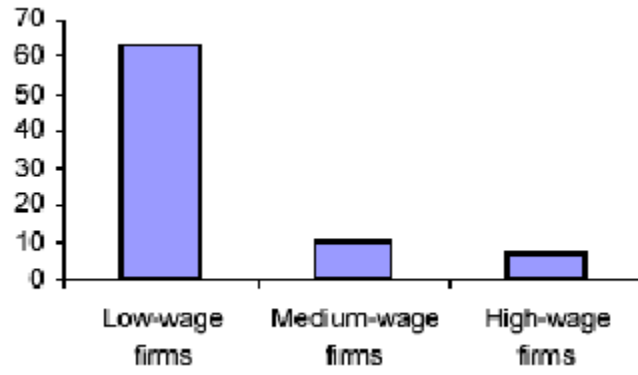


Figure 1: Fraction of workers with persistently low earnings by firm wage category