

The Dynamics of Low Wage Work in Metropolitan America

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For Discussion only

Joseph Pereira, CUNY Data Service

Peter Frase, Center for Urban Research

John Mollenkopf, Center for Urban Research

The Graduate Center of the City University of New York
365 Fifth Avenue
New York, NY 10016

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Introduction

Basic structural trends in the American economy, such as importing low-cost manufactured goods from abroad, the shift to service employment, declining stability of the employment relationship, and the gradual reduction of union membership, have led to the slow but steady growth of low wage work as a share of all American jobs since the early 1970s (Levy 1999, Appelbaum, Bernhardt, and Murnane 2003). Over the last decade, three relatively new forces have put their stamp on these trends: the shift of former public assistance recipients into the labor force, the growth of the immigrant labor force, including those without legal authorization to work, and the re-entry of formerly incarcerated individuals into their communities. The spatial patterns of poverty and low wage work are also changing, with a small but detectable shift toward the suburbs (Berube and Kneebone 2006). The patterns and locations of low wage work also vary significantly across metropolitan areas (Pindus et al 2006).

While the economic expansion that took place from 2002 until last year evidently did not benefit low wage workers as much as previous recoveries (Schmitt 2007), the impending retirement of the baby boom generation will potentially open up new avenues of mobility. Meanwhile, continued immigration to the U.S., the doubling of the global labor force, and increasing competition from lower wage countries will temper the potential upside impact of the baby boom generation's departure from the American labor force (Freeman 2006).

Many researchers have analyzed the factors contributing to the rise of low wage work, explored the changing composition of the low wage labor force, examined the barriers to upward mobility faced by low wage workers, and suggested potential policy avenues for improving their living conditions (Appelbaum, Bernhard, and Murnane 2003, Shulman 2003, Bartik 2001, and Freeman and Gottschalk 1998). Given the changing circumstances of recent years, however, the

time is ripe for – and the field requires – a fresh and comprehensive look at current labor market conditions and trends. In particular, the philanthropic community, labor market scholars, and those working in and with government to help low wage workers and new labor force entrants to move into better jobs all face the challenge of better understanding: 1) how the changing occupational structure of various industries in the national labor market influences wage patterns across industry/occupation cells or niches, 2) how the demographics of those who work in these cells are also changing, 3) how these trends play out across metropolitan places, and 4) which metropolitan areas and labor force segments show the most interesting trends, both in terms of upward mobility and in terms of driving the overall picture. This study provides information useful in addressing these questions for the period from 1980 to 2006, with a particular focus on the trends between 2000 and 2006.

The Growth of the Employed Population

Our discussion of the changing character of low wage labor in the U.S. begins with a description of how the social and demographic characteristics of Americans workers have changed from 1980 to 2006. These facts set up the context for the remainder of the report. The main findings, however, focus on the period 2000 to 2006 both because we have strictly comparable data on industry, occupation, place of residence, and place of work (by the new Core Base Statistical Area definitions) for that period and because it is important to understand how the most recent period both extends and departs from previous trends.

We begin with a look at the population of persons aged 16 years and older from 1980 to 2006.¹ As a result of immigration, natural increase, and internal migration, the national population grew substantially over this period and shifted toward the South and West. Table 1 shows that the population aged 16 years and older grew from 169 million to 232 million in 2006, an increase of 37 percent or 62 million individuals.² The growth between 2000 and 2006 was 15.8 million persons or 7.3 percent, a somewhat slower rate than for the entire period. The number of employed grew from 97 million in 1980 to 140 million in 2006, an increase of 42 million individuals or 43 percent; the 2000-2006 period accounted for an increase of about 10 million workers, a 7.6 percent growth rate, again, lower than for the entire period. While the percentage of the working age population in the labor force (persons employed or looking for work) fluctuated, over the entire period it rose from 61.5 percent in 1980 to 64.5 percent in 2006.

The Nature of Employment: Full versus Part Time workers

Not all employed persons work full time (defined as working at least 35 hours per week). Table 2 shows that the share of part time workers (defined as those who usually work less than 35 hours per week) has gradually crept up from 18 percent in 1980 to 19.8 percent in 2006. The pace of this increase picked up noticeably in the 2000 to 2006 period. Still, the number employed full time grew from 93 million in 1980 to 112 million in 2006, a 45.1 percent increase or 34.7 million workers. (The growth rate was slower in the 2000 to 2006 period, with 9 million more individuals entering the full time ranks, an 8.9 percent increase). While the reasons for the

¹ We include persons 65 and over to provide a comprehensive picture of labor force participation, even though participation rates decline sharply at this age.

² The end point of the data series combines the American Community Survey responses from 2005 and 2006 to create a sufficiently large sample for detailed occupational comparison with the 2000 Public Use Microdata Sample.

rise of part time employment and the wage characteristics of such jobs are relevant to a fuller understanding of the national labor force, this report will focus on the over 80% of the labor force that is full-time workers.

The Changing Composition of Full Time Workers

As discussed later in this section, the significant changes in the socio-demographic composition of the work force over the last twenty six years can be summarized as follows:

- The locus of employment growth has been in the South and West;
- Over half, 54.5%, of the increase in full-time workers comes from the influx of females – White [26.2], Black [8.1], and Latinas[20.1]; it is only in the Asian population that the numbers show a slightly higher increase of males [6.5] than female [5.0] full-time workers;
- The gender and race/ethnic composition shift is closely associated with the dramatic growth of foreign born workers since 1980, which has fueled full time employment growth in the major metropolitan areas of all parts of the country.
- There has been a notable substantial **decline** in the share of younger workers in every age bracket under 35; with the aging of the baby boom, young adults make much less of the full time workforce, while older workers make up more;
- It appears that younger potential workers are investing in education rather than entering full time employment; college completion rates rose significantly over this period for the 18-24 age group; and
- Between 1980 and 2000, the foreign born full time worker population had grown by 250 percent, or almost by 7 million additional workers, and up 12.7 percent of

the workforce. From 2000 to 2006, the foreign born full-time labor force grew by another 5 million workers, increasing their overall share to 16.3 percent.

Table 3 provides the details of the shifts in the employed full time population from 1980 to 2006.

Region. Panel A shows that the South and West accounted for the bulk of the overall full time job growth. The South Atlantic (stretching from Delaware and Maryland to Florida) added the most full time workers, 9 million, since 1980. By 2006 it housed one in five (19.5 percent) of all persons employed full time. The Pacific division (California, Oregon, and Washington) followed, adding more than 6 million full time workers since 1980, with 15.7 percent of full time workers in 2006. New England gained employment but it lagged behind all the other divisions.

Gender. A second trend is that men have become a lesser share of full time workers relative to women from 1980 to 2006 (see Panel B of Table 3). The share of males fell from 63 percent in 1980 to 58 percent in 2006. A large number of women (18 million) joined the full-time workforce between 1980 and 2006.

Race/Ethnicity. The change in gender composition is closely associated with and modified by participation in full time work force of different racial and ethnic groups. Panel C of Table 3 shows the changing distribution of full time employment by ten racial/ethnic/gender subgroups. While all the groups (except those in the “Other” category) increased from 1980 to 2006 and from 2000 to 2006, they followed quite different patterns.

The largest group of full time workers remains white males, but their share of the total declined substantially from 53 percent in 1980 to 40.3 percent in 2006, shifting from a majority to a plurality of full time workers. (At the same time, the male labor force appeared to grow more quickly than the female full time labor force in the most recent period.) This decline was largely

due to the rapid growth of full time employment among white women and members of racial/ethnic minorities, who entered the workforce in unprecedented numbers over the last 25 years.

The number of white women full time workers rose by 9 million over the whole period, compared to only 4 million for white men. Even with this increase, the white women's share of the full time workforce dropped slightly from 29.6 percent 1980 to 28.6 percent in 2006. (Together, the share of white males and females in the full-time workforce fell from 83 percent in 1980 to 73 percent in 2000 and then to 69 percent in 2006.)

In 1980, Black males outnumbered their female counterparts (4.9 percent versus 4.3 percent of the total), but the faster growth of the Black female workforce reversed their position in 1990 and Black females now (2006) comprise a slightly higher percentage of full time workers (5.5 percent) than do Black male (5.1 percent). Also, more Blacks (males and females) entered the ranks of full time workers (858,000 and 770,430, respectively) between 2000 and 2006 than did white men (593,410) and white women (722,274).

Latino representation among full time workers also grew dramatically from 1980 onward. As a whole, Latino males and females rose from just 5.6 percent of full time workers in 1980 to 10.3 percent in 2000 and then, jumped again to 14 percent in 2006. In addition, in absolute terms, white males increased their number by 4 million between 1980 and 2006, the number of Latino males increased by 7 million and the number of Latinas by 4 million. The percent of the employed full-time Asian population more than doubled from less than 2 percent of all full time workers in 1980 to 4.7 percent in 2006.

Another way of looking at the racial, ethnic and gender change of American workers is to consider what shares of the overall increase of 34 million workers between 1980 to 2006 can be

attributed to each of the racial/ethnic/gender subgroups, as detailed in Panel C of Table 3. Specifically, Whites males were 11.7 percent of the increase and White females represented 26.2 percent. Black females comprised 8.1 percent (significantly more than their male counterparts, who were 5.6 percent of the total). Latinos were a 20.1 percent of the total increase. Latinas made up 11.5 percent and when combined with the White, Black and Asian females together they made up 51 percent of the increase. Asian men were 6.5 percent of the increase, followed by Asian women at 5.0 percent; thus, a total of 11.5 percent of the overall increase was attributed to Asians.

Age. Panel D of Table 3 shows several important changes in the age composition of full time workers. There has been a notable substantial **decline** in the share of younger workers in every age bracket under 35. For example, the percent of individuals aged 24 years or less fell from a high of 17 percent in 1980 to 9.2 percent in 2006. Though not as pronounced a drop, persons aged 25 to 29 years, and those aged 30-34 years, also declined from about 15 percent to 11.5 percent. The percent in the age 25 to 29 years and 30 to 34 years old categories combined declined from 30 percent of full time workers in 1980 to 23 percent in 2006. In all, persons under 35 years went from just under half (47 percent) of all full time workers in 1980 to less than a third (32 percent) in 2006.

Although not shown in Table 3, we found that high and growing percentages of people aged 18 to 24 were enrolled in school. From 44 percent for men and women in 1980, these shares grew to 62 percent of women and 59 percent of men by 2006. The fact that many young adults may be spending the early years of their potential working years acquiring higher levels of education rather than immediately entering the workforce is reflected in Panel E of Table 3, which shows a substantial increase in educational attainment among the aging workforce.

In 1980, 21.5 percent of full time workers had not graduated high school and 39.3 percent had only a HS diploma, together comprising 60 percent of all full time workers. By 2006, those figures had fallen to 10 percent for HS dropouts and 28.6 percent for high school graduates, accounting for 39 percent of the workers. Reciprocally, college completion rates rose significantly over this period. In 1980, 19 percent of full-time workers had completed “some college” while 20 percent had earned a Bachelor’s degree or higher. By 2006, 31 percent of full time workers had “some college” and 31 percent had completed at least a four year college degree; together comprising 62% of the population. Thus, we now have a mirror image of the 60% of workers that had a high school diploma or less education in 1980. The workforce has become substantially better educated over time. It is worth noting that among 18-24 year olds, whites and blacks had similar rates of school attendance ranging from 54% to 65% while Asians had the highest rates of school attendance at about 75%. Latinos had the lowest rates with males at 43% and females at 52%.

Foreign Born. The rapid growth of the foreign born share of the work force since 1980 is documented in Panel G of Table 3. In 1980, 5 million foreign born constituted 6.7 percent of all full time workers. Twenty years later, they had grown by 250 percent, or almost 7 million additional workers, and up 12.7 percent of the workforce. From 2000 to 2006, the foreign born full-time workforce grew by another 5 million workers, increasing their overall share to 16.3 percent. (This represented a somewhat slower pace than the earlier period.) Most foreign born workers are Latino and Asian, but also Black, especially in the Northeast, and thus, they account for significant shares of the previously noted employment gains among the various race/ethnic/gender groups.

The ability of foreign born workers to speak English affects the kinds of jobs they will be offered. Panel H of Table 3 shows that 1.7 percent of full time workers did “not speak English well” or did “not speak English at all” in 1980 but that percentage increased to 3.5 percent in 2000 and again to 5.1 percent by 2006. Since some observers believe people overstate their ability to “speak English well” to the Census, some foreign born workers who say they “speak English well” may actually have problems speaking English. More reflective of existing language barriers is to look at the percent of foreign-born, full-time workers who say they do not speak English “very well” – this percent has risen from 42 percent in 1980 to 47 percent in 2006.

The Changing Profile of Wages in the Work Force

Table 4 shows the mean and median hourly wage rate separately for those employed full and part time.

Full time Workers. Panel A shows that the median hourly rate for full time workers increased only slightly (in adjusted 2006 dollars) from \$16.69 in 1980 to \$17.10 per hour in 2006, an increase of \$0.41 cents an hour or \$16.40 for a 40 hour week. The median weekly wage (hourly wage multiplied by 40 hours) indicates that half of all full time workers earned below \$684 per week (\$35,568 annually) and half earned above that amount.

Part time Workers. Panel B of Table 4 shows the mean and median for part time workers. Although this report does profile part time workers, it is worth noting that their median hourly rate fell throughout most of the 1980 to 2006 period, albeit modestly. The median hourly rate for part-time workers in 1980 was \$11.29 per hour; it fell to \$10.48 by 2006. In 2006, the typical part time job paid \$10.48 per hour, \$6.62 less than the \$17.10 median for full time workers. Thus, the median wage for part time workers is substantially less than the full time median wage.

Race/Ethnicity and Gender. Panel C of Table 4 shows that the median full time hourly wage rate levels and trends vary considerably across racial/ethnic/gender subgroups. White and Black females experienced an increase in wages but White and Black males did not. The median hourly wage for White males, the most highly compensated group, was \$20.44 in 2006, 3.2 percent less than in 1980. Among White women, however, the median hourly wage rose 25 percent from \$13.10 in 1980 to \$16.36 in 2006. This resulted in the median wage of White females rising from 62 percent of White male median wages in 1980 to 80 percent by 2006. Like White males, Black males experienced a drop in their median wage while their female counterparts saw their wages increase to within \$1.25 per hour.

In contrast, Latinos fared poorly as a group. Latino wages were at the bottom of the earnings distribution and that they will likely decline further. Although Latinas had the lowest median wages of any group shown in Panel C of Table 4, their median wage stagnated and then declined from \$11.75 in 1990 to \$11.53 in 2006. Latinos males also saw their median wages decline from a high of \$15.65 in 1980 to \$12.46 in 2006, a drop of \$3.19 per hour, the largest drop of any racial/ethnic/gender group.

Asians, male and female, are generally doing well relative to the other groups. Asian males have a higher median wage than White men. Like both black and white women, the median rate for Asian women has increased since 1980 but the median wage of Asian women is lower the median of Asian and White males.

Defining Low Wage Workers

Panel A of Table 4 also shows the percent of full time workers who are in low-wage jobs according to several commonly used definitions of low-wage job³. (The definitions are listed in ascending order of the dollar cutoff of the definition.) The first definition is an absolute measure based on the Census Bureau's poverty thresholds; the "poverty wage rate" is the hourly wage rate that a worker needs to earn to keep a family of four (that includes two children) above the poverty threshold. In 2006, that hourly rate was \$9.83, \$393 per week or \$20,444 annually (\$9.83 times 40 hours per week times 52 weeks). As shown in Panel A of Table 4, the percent of persons in low wage jobs under the "poverty definitions" fluctuates between 19 percent in 1980 and 21 percent in 2006.

Other researchers (BLS) have used both the "Bottom 20 percent" and the "Bottom 25 percent" of the wage distribution of full time workers" to define low wage workers. By definition, 20 percent or 25 percent of full time workers would have low wage jobs in each year shown in Panel A of Table 4. European researchers have defined low wage work as below 2/3 the median wage of all full time workers, while others have used 2/3 the median wage of full time male workers. The percent in low wage jobs using these two of these definitions are also shown at the bottom of Panel A of Table 4. The definition using the 2/3 median wage of all full time workers yields similar results to using the "Bottom 25 percent." Using the "Bottom 25

³ We calculated several low wage measures but report only on those show in Table 4. The one that had the highest low-wage cutoff was "2/3median wage of full time Male workers at \$12.28 in 2006 dollars. The difference between the lowest cutoff (poverty wage definition), \$9.83, and the highest cutoff , \$12.28, (2/3 median of full time Male workers) was \$2.45 per hour or \$98 per week. In terms of weekly earnings the difference was \$393 versus \$491 per week or \$5,100 annually.

percent” criterion defines a constant share of workers as low wage workers at every observation point.

Part time Workers. Among part time workers in 1980, 40.6 percent were in jobs that paid a low-wage according to the poverty wage rate definition and that figure increased to 46 percent in 2006. Using 2/3 the median income of full time workers as a cutoff, more than half of part time workers (54.4 percent) earned a low wage in 2006 as compared to 48 percent in 1980. To the extent that some families depend on the wages of these part-time workers to contribute to the family’s economic well-being, then these low wage part time jobs will contribute significantly to the family’s economic well-being.

Full-time workers. The percent of full-time workers in low-wage jobs varies by the low-wage definition used. For example, in 2006, 19.4 percent of all full time workers were defined as in a low wage job according to the “poverty wage cutoff”.

In the remainder of our analysis, we will use two definitions: 1) the 2/3 median income of all full time workers; and 2) the bottom 25 percent of the full time worker wage distribution. The “2/3 median of full time workers” definition allows us to compare and contrast metropolitan areas according to the local median of full time wages in the metropolitan area. We can also compare the rate of low wage workers in metropolitan areas using both a national and local cutoffs. Researchers at the Bureau of Labor Statistics (Ilg, 2005) examined industry and occupation employment change by earnings quartiles to show the share of industry and occupational change that occurred in each quartile (25 percent of the earnings distribution).

Panel C of Table 4 shows that the using either of the aforementioned definitions, reveal that similar percentages of full time workers, 25 percent, can be defined as low-wage workers

from 1980 to 2006. The ‘2/3 median wage of full time workers standard’, shows a slight increase from 24.9 percent in 1980 to 26.4 percent in 2006.

Social and Demographic Characteristics Associated with Low Wage Jobs

In Table 5 we examine low wage rates across a range of social and demographic characteristics and how the rates changed over time. We start by showing the percent of persons with selected characteristics defined as low wage workers using the definition, 2/3 the median of full time workers.

Among all full time workers, the percent in low wage jobs has hovered around 25 percent but between 2000 and 2006 it increased by 1.4 percent to 26.4 percent (see Table 5).

Gender, Race/Ethnicity. Although the percent of low wage male workers increased from 17 percent in 1980 to 23.5 percent in 2006, that increase is distributed across all racial/ethnic subgroups. Table 5 shows that in 1980 15.5 percent of White males were in a low-wage job and that figure increased to 18.3 percent in 2006. The long term trend among white women is different; the percent of women in low-wage jobs declined from a high of 37 percent in 1980 to 26.5 percent in 2006.

The low wage rates for Black males have historically been high with 27.3 percent in low-wage jobs in 1980, 27.9 percent in 2000, and most recently, in 2006, the number rose to 30.2 percent. Latinos, both male and female were the most likely of all the subgroups to be in a low-wage job with Latino men, less so. The low wage rate was lowest for Latino males in 1980, when 28 percent of this group was in a low wage job. That rate rose steadily to 36 percent in 1990, 41 percent in 2000, and 43.5 percent in 2006. Latinas started high in 1980 with half (49.2 percent) of them in low wage jobs and although the rate dipped somewhat in 1990 it climbed to

47 percent in 2000 and then to 48.4 percent in 2006. Among the reasons for these high rates for Latinos (males and females), are their recent arrival to the U.S. and their low educational attainment.

The picture for Asians is mixed. The percent of Asian males in low wage jobs has remained stable over the last 16 years at about 21 percent. Although Asian females are more likely than their male counterparts to work at a low-wage job, their low wage rates have been decidedly downward from 1980 to 2006, 32.3 percent to 27 percent, respectively.

Age. Table 5 shows that across age groups less than 35 years, the last 5 years has witnessed increases in the percent of full time workers in low wage jobs. Even among workers in ages 35 to 54, the percent of low wage workers rose, albeit a by a smaller amount than in other age groups.

Region. Panel A of Table 5 shows that each geographic region/division experienced a slight increase in the percent of low wage workers from 2000 to 2006. The percent of workers earning low wage rates in the East South Central and the West South Central were higher than for the other divisions.

Foreign Workers. The rate of low wage workers among native born population has remained steady at about 24 percent from 1980 to the present. However, among the foreign born, the low wage rate climbed steadily from 29 percent in 1980 to 36 percent in 2000 and then again to 39 percent in 2006. Panel “English Speaking Ability”, shows that among the foreign born, English speaking ability is certainly related to being in a low-wage job. Of the foreign born who speak English Well, slightly more than one quarter are low wage workers, a percentage that has moved slowly upwards from 1980 to 2006. We see steadily larger percentages are in

low wage jobs as we look at foreign workers who say their English speaking skills are “well” to those who speak English “not at all”.

Recent arrivals are also more likely to be in low wage work. Among the foreign born, the highest percentage in low wage jobs are those who have been in the United States 5 years or less; in 1980, 43 percent of this group were in low wage jobs but that figure jumped to 57 percent in 2006, a 6 percent percentage point jump over 2000. Indeed, the percent in low wage jobs increased from 2000 to 2006 in each of the categories shown in the table. The least likely to work at a low wage job are those who have been in the country for more than 20 years. There are likely to be multiple explanations for this change – including the existence of fewer “good” paying jobs for those with low education, coupled with less education among the more recent foreign born arrivals.

One of the most powerful predictors of whether an individual will be in the low wage workforce is education. The percent in low wage jobs of those without a HS diploma increased from just over one third in 1980 to over one half in 2000 and even higher (54.3 percent) in 2006. Having a HS diploma helps but even here the trend is toward a higher likelihood of being in a low wage job. Indeed, from 2000 to 2006, the percent of persons with a HS diploma in low wage jobs increased from 33 percent to 36 percent. Finally, individuals who completed at least some college are better off than those with a HS diploma or less but even among those with some college the percent in low wage jobs increased from one in five (21.4 percent) in 1980 to one in four (25 percent) in 2006. Finally, the table shows that those with a four year college degree or higher are not completely insulated from low-wage work. About 10 percent of individuals with at least a Bachelor’s degree worked in the low wage job for each of the census years studied.

Composition of the Low Wage Workforce

Panel B on the right side of Table 5 provides information on the composition of the low wage work force. For example, Panel A (the left hand panel) shows that the percent of white males in low wage jobs has been modestly increasing. However, the right hand side of the Table, Panel B, shows that White males constituted a steadily smaller percentage of low-wage workers. The percent of White men in the low wage workforce declined from 33.2 percent in 1980 to 28 percent in 2006. This is in part due to the increasing number of Blacks, Latinos and Asians coming into the low wage workforce. The percentage of White women has steadily declined over time and that is reflected in the Panel Race/Ethnic. White women as a percent of the low wage workers dropped from a high of 44 percent in 1980 to essentially the same percentage (28.6 percent) as their white male counterparts in 2006.

Panel B of Table 5 also shows the distribution of age groups in the low wage work force. The declining percent of young persons in this group is a function of a decrease in the number of them working full time. The largest percentage increase was among workers aged 35-44 years and 45 to 54 years of age.

Indeed, the foreign born comprise an ever growing share of the low wage workforce. In 1980, 7.8 percent of all low-wage workers were foreign born and that figure grew to 18 percent in 2000 and by 2006 the percentage jumped to 25 percent.

We expect persons with low levels of educational attainment to figure prominently among low wage workers and the data in Panel Education confirm this. In 1980, 63 percent of all low wage workers had a HS diploma or less and that figure dropped slightly to 60 percent in 2006. However, the percent of low wage workers with “Some College” grew from 16.5 percent in 1980 to 28 percent in 2006. In short, nearly 90 percent of all low wage workers had “some

college” or less and that percentage that actually declined from 92 percent in 1980 to 88 percent in 2006. That small decline was offset by a slight increase of workers with at least a Bachelor’s degree which grew from 8 percent in 1980 to 12 percent in 2006.

Summary of Low Wage Workforce Trends

- Overall median wages did not change much
- Male wages have generally been stagnant or declining (with the exception of Asian males), while female wages have closed some of the gap with men.
- Women are still more likely to work in low wage jobs than men, but this gap has also narrowed
- Minorities, especially Blacks and Latinos, are more likely to be in low wage jobs
- There has been a large increase in low wage labor among the foreign born, especially recent arrivals and those with low English proficiency.
- Less educated workers are far more likely to work in low wage jobs, but even among college graduates 1 in 10 are in low wage jobs.

Low Wage Work in Urban America

The fortunes of metropolitan areas change as some older areas experience ongoing population declines associated with the decline of particular industries and loss of jobs and other areas experience population growth attracting retirees and workers from other declining metropolitan areas and companies in search lower costs. Our interest is in describing the trajectories of Metropolitan areas - especially differences in wages and the changing industry and occupational mix of these areas. The data in Table 6 is limited to full –time workers. The top half of the table shows where people live and the bottom half shows where they work.

Table 6 shows that in 2006, 83 percent of all full time workers lived in a Metropolitan Core Based Statistical Area (CBSA)⁴, an increase of 9.4 percent from 2000. Of the workers who live within a Metropolitan CBSA, approximately 16 percent live inside of the area's main Central City.⁵

Not only do the vast majority of full time workers live in Metropolitan CBSA but they work in one as well. Table 6 also shows the large majority of those employed full time work in Metropolitan areas (82 percent). In fact, overall, 35 percent of the full time wage earners work in the central city of the metropolitan area and if we consider only those who work in a Metro Area, then 47 percent work in the central city.

Local and national contexts for defining low wage labor

As already noted, the majority (83 percent) of the working Americans live in metropolitan areas. Not only do metropolitan areas differ in terms of size, racial/ethnic mix and occupational and industrial structure, they differ with respect to their earnings distribution and their local cost of living. An obvious question is whether a single cutoff measure based on the national distribution of earnings can capture differences in the earnings distributions of individual metropolitan areas and/or cities across the country. It may well be the case that given local differences in the distribution of earnings a national cutoff can under/overestimate the

⁴ Since 2000, the Census Bureau has defined the urbanized portions of the United States as Core Based Statistical Areas, or CBSAs. A CBSA is as a county or group of counties containing at least one urban area with 10,000 or more inhabitants. The CBSA includes both the central cities and the surrounding suburban areas in any given region. CBSAs are categorized as Metropolitan if they contain a central city with a population of 50,000 or more and Micropolitan if they have a central city of at least 10,000 but less than 50,000. This section limits the discussion to the 362 Metropolitan CBSAs. The geographic information in the Census microdata file permits only an approximation of CBSA boundaries in some cases. We will use the terms CBSA and Metro area interchangeably for the remainder of this report.

⁵ In some cases, data limitations meant that workers in inner-ring suburbs are classified as being within the Central City.

percent of low wage jobs in the local workforce. A full understanding of what constitutes “low wages” in a given metropolitan area would require some measure of the cost of living in each place. However, some insights can be gained by defining low wages in the context of the wage distribution within the local rather than the national economy.

Differences among Metropolitan CBSAs. Thus far, we have defined a low wage job as one that pays below 2/3 the median wage of all full time workers for the nation as a whole. To examine differences between urban areas more closely we computed, for each CBSA, 2/3 of the median wage for full time workers living in the CBSA (the majority of workers in most metropolitan CBSAs both live and work there.). Table 7 shows the top 50 metropolitan CBSAs in terms of number employed, among other things, within the CBSA. For each CBSA we show the percent of workers with low-wage jobs using both the national low-wage cutoff (2/3 the median of full time workers) and the local low-wage cutoff (2/3 the median of those who work in the CBSA). Moving from a national to a local definition of low wages does not significantly change our estimate of the overall proportion of American workers in low wage jobs. However, the percent of the workforce identified as low wage within each metropolitan area does change, in some cases substantially. Some 429 of the 513 metropolitan and micropolitan CBSAs (83 percent) had a local median hourly wage that was below the national median. Among the 100 CBSAs with the largest number of full time workers, 50 had a local median below the national one. There are systematic differences between cities according to region of the country: metropolitan areas in the northeast and the west coast generally have the highest median wages, while metropolitan areas in the south have the lowest medians (See Figure 1).

For the 50 top CBSAs, the mean low wage rate was 28.5 percent in 2006 (a two percent increase over 2000). The average local 2/3 median of full time workers was \$12.11 or \$0.71 per

hour more than the national 2/3 median wage of \$11.40. In terms of weekly low wage cutoff, the local cutoff averages \$484.40 versus \$456 for the national figure a difference of \$28.40 per week. However, there is considerable spread about that mean. In eleven CBSAs, the local 2/3 median cutoff is more than \$75 per week higher than the national 2/3 median cutoff. By contrast, 11 of the 50 largest CBSAs had a local median cutoff that was more than \$20 lower than the national one (ranging from \$20 to \$68 per week below).

Differences between local and national cutoffs result in differences in the estimates of the number of low wage workers. For example, in the New York CBSA, the local median cutoff is \$115.33 higher than the national cutoff and that results in an increase of 9.2 percent in the low wage rate (23.7 percent to 32.9 percent in 2006). In contrast, the local San Antonio, Texas cutoff is \$68 per week lower than the national one and that results in fewer low wage workers (39.5 percent using the national cutoff versus 30.3 percent using the local cutoff).

Metropolitan patterns of job growth

Urban areas have followed several different growth paths since 2000, with respect to both their rates of job growth and the proportion of jobs which are low wage. In order to categorize these trajectories, we classified cities according to two variables: rate of job growth and rate of growth of low wage jobs. Nationally, the number of jobs grew by 9 percent, while the percentage of all jobs which are low wage grew by 1.2 percent, from 25.1 percent to 26.3 percent. However, individual metropolitan areas diverged from these growth patterns. Figure 2 shows the relationship between the rate of job growth and the change in the percentage of all jobs which were low wage for the 100 largest CBSAs.

Each metropolitan CBSA was classified into a quadrant depending on how its overall job growth and low wage job growth compared to national trends. Table 8 lists the metropolitan CBSAs in Figure 2 along with their categorizations. A geographic representation of the patterns we describe now are shown on the map in Figure 3. The CBSAs in the upper right quadrant of Figure 2 created jobs at a higher rate than the national average, but also increased their low-wage jobs faster than the national rate. The Metro areas with above average job growth and above average low wage job growth are shown in Green on the map in Figure 3. Many CBSAs in Texas and the Southeast fall into this category.

In the lower right quadrant are the CBSAs which had above-average job growth and also had rates of *low-wage labor that were increasing or decreasing* more slowly than the national average. Metros with above average job growth and below average low wage job growth are shown in Red on the map in Figure 3. Many Metropolitan CBSAs in California and the Southeast fall into this category.

In the upper left quadrant, are Metropolitan CBSAs cities lagged behind the national average in job creation (or actually lost jobs) and also increased their percentage of low wage jobs faster than the national rate. Metros with below average job growth and higher than average low wage job growth are shown in Blue on the map in Figure 3. Many declining industrial areas in the Midwest are in this group.

Finally, the lower left quadrant contains Metropolitan CBSAs that lagged in job creation, but also had lower increases in low-wage labor rate than the national average. This was the most common pattern in the Northeast and is represented in Brown on the map in Figure 3.

In summary, this analysis confirms the earlier finding that job growth has been highest in the south and west, and has been concentrated in areas with lower overall wages. However, it is

clear that even within regions, some metropolitan areas are less reliant than others on low wage labor to drive growth.

Occupation and Industry Employment Changes 2000-2006

Ilg (2005) used the Current Population Survey to examine earnings trends across the industry and occupation spectrum by earnings quartiles.⁶ The following discussion replicates the approach using 2000 PUMS and 2005/6 American Community Survey data. Although not reported on here, the 2000 PUMS and combined 2005 and 2006 ACS samples which are significantly larger than the CPS, allowed us to examine changes for more detailed industries and occupations and for a large number of metropolitan areas. For each of 16 broad industry categories and 23 occupational categories, we report employment change (growth or decline) across earnings quartiles for the nation, and then separately for male and female full time workers. Our interest is to determine how low wage employment (defined this time as workers at the bottom earnings quartile or the bottom 25 percent of the earnings distribution) changed across industry. We also have something to say about industry and occupations in the 2nd Quartile as well because these jobs represent a significant improvement over jobs in the 1st Quartile. In brief, our aim is to identify those occupations and industries with high numbers of low-wage workers and determine which ones are growing and which are shrinking.

Table 9 shows the number of jobs at a broad industry and occupational level separately for each earnings quartile. We start by examining industry change in employment from 2000 to

⁶ Randy E. Ilg, “Change in Employment by Occupation, Industry and Earnings Quartile, 2000-2005”, Monthly Labor Review, December, 2006.

2006 for each quartile. First, from 2000 to 2006, total employment grew by over 9 million jobs according to the PUMS/ACS data analyzed here (See top row of Table 9).

Seven industries account for 75% of all employment in 2006: 1) Educational, Health and Social Services, 2) Manufacturing, 3) Professional, Scientific and management, 4) Retail Trade, 5) Construction, 6) Finance Insurance and Real Estate and 7) Entertainment and Food Preparation. Each of these sectors experienced employment increases from 2000 to 2006, with the exception of manufacturing which experienced a decline of 1.4 million jobs. Growth in some of the six largest sectors occurred mostly at the higher end of the earnings distribution. For example, employment in Education, Health and Social Service increased by almost 3 million but only 11.2 percent of that increase was in jobs at the bottom quartile of the earnings distribution. However, 30 percent of the increase was accounted for by jobs in the second Quartile. Overall, the 3rd and 4th quartile accounted for 60 percent of the employment increase in Education, Health and Social Service sector. Similarly, employment in the Professional, Scientific and Management increased by 1.7 million and jobs in the 1st (or bottom) Quartile accounted for 19 percent of the increase in employment and 2nd Quartile accounted for an additional 15 percent. A substantial share of the employment increase in Retail, (80 percent), Construction (66 percent) and Entertainment and Food Processing (80 percent) were jobs that paid below the median wage (quartiles 1 and 2).

The largest employment increases in the 1st Quartile occurred (in order of decreasing number) in Construction, Entertainment and Food Processing, Professional Scientific and Management and Retail Trade.

The share of the growth in the Transportation and Warehousing sector (which grew by only 316,000 jobs and is an important source of jobs in large cities) is mostly accounted for by

jobs in the 1st and 2nd Quartiles (34 percent and 44 percent, respectively). In other words, the jobs created are low-wage jobs.

Some part of the difference in the share of increased employment attributed to the 1st Quartile and 2nd Quartile show can be explained by the kinds of occupations persons in each quartile are engaged in. The bottom half of Table 8 shows changes in major Occupational categories by Earnings Quartile.

The occupational categories ranked by the largest number of all full time workers differs markedly depending on whether we are talking about all workers or just those in the bottom or 1st Quartile.

Turning first to those occupational categories with the largest number of full time workers in the 1st Quartile, Panel B of Table 9 shows that in 2006, full time, low wage workers were most likely to be in “Service” (28.1 percent) and “Sales and Office” (26 percent) occupations. Within these broad occupational categories, the distribution of low wage workers varied by more detailed or intermediate occupational levels in terms of size, change from 2000 to 2006, and their share of employment change. Service occupations accounted for 18 percent of all jobs in 2006 and increase of 2 percent from 2000. Sales and Office occupations accounted for 26 percent in 2006 of all jobs (down from 25 percent in 2000). However, these two broad occupational categories accounted for more than half of the low-wage jobs in the 1st Quartile in 2006; “Services” and Sales and Office” , 28.1 percent and 26 percent, respectively. Overall, Service occupations grew by 3.36 million jobs and of that increase, 38.9 percent was accounted for by jobs in the 1st Quartile and approximately two thirds (67.1 percent) of all the employment increase occurred paid below the median wage (1st and 2nd Quartile). Of the six intermediate level occupations in the Service occupation category, low wage jobs increased the most in

Building and Grounds Cleaning and Maintenance in absolute terms (470,000) and as a share of all the growth in that occupation (56 percent); food preparation and serving was next with growth of 380,000 jobs and the bottom quartile's share of the growth was 63 percent; and finally, within personal care and service jobs the bottom quartile's grew by 324,000 jobs and its share of all was 61 percent.

The second largest occupational category "Sales and Office" accounted for 26 percent of all low wage occupations in 2006. The intermediate occupational level "Office and Administrative Support" had 3.9 million of low wage workers (1st Quartile), representing a decline of 220,000 jobs from 2000, while Sales occupations increased by 193,000 over the same period.

Two other occupational categories are worth noting because they employ large numbers of men in low wage jobs: Construction related occupations account for 10 percent of all low wage jobs and Production and Transportation accounted for 18 percent of employment in the 1st Quartile. Production occupations (i.e., manufacturing related) declined by over 1 million jobs from 2000 to 2006 and the bottom quartile lost almost 200,000 jobs. In contrast, transportation and moving occupations grew by 686,000 jobs and jobs in the Bottom Quartile grew by 358,000 and accounted for 52 percent of all growth in this occupational category. Construction showed considerable growth significant growth 1.7 million jobs from 2000 to 2006. Overall, 65.1 percent of jobs in this occupation paid below the median wage with 42 percent occurring in the bottom quartile and 23 percent in the 2nd quartile.

Gender Differences in Occupational and Industry Change at the Low Wage End of the Earnings Distribution

Tables 10 and 11 show industry and occupational, respectively, change from 2000 to 2006 separately for males and females. We start with an analysis of the differences in the distribution of males and females across the broad industry sectors shown in Table 10.

Males. Low wage male workers are concentrated in five sectors: construction, retail trade, entertainment, and food preparation, professional, scientific and management. Although, Manufacturing employed the largest percentage of males in 2006, male employment in the sector dropped by about 1 million from 2000 to 2006. Workers in all earnings quartiles declined with the exception of those in the 1st Quartile which increased by a mere 16,000. Construction grew by 1.7 million jobs and more than one half (58.1 percent) of the new jobs paid below the median wage. The share of new jobs in the bottom quartile was 26 percent and the 2nd Quartile was 32 percent. Together the Professional, Scientific and Management and the FIRE sectors sector increased by 1.8 million jobs and most of the jobs occurred in quartiles above the median wage (68 percent and 81 percent, respectively). Twenty five percent of the increase in employment in the Professional sector occurred in jobs that paid below the median and in the FIRE sector approximately 18 percent of the gain was in either the 1st or 2nd Quartile. It is worth noting that within the Professional, Scientific and Management Sector employment of low wage workers is concentrated in the Landscaping, Services to building and dwellings and Investigation and security services.

The Retail sector and the Entertainment and Food Services sector increased employment and in both cases, a sizeable share of the employment was in jobs that paid less than the median wage. In the case of males, more than one third (36 percent) of the increase in Retail sector was

in the bottom quartile and 30 percent was in the 2nd Quartile. The situation was the same in the Entertainment and Food Services sector where close to 70 percent of the employment increase was either in the 1st Quartile (42 percent) or the 2nd Quartile (27 percent).

The Educational, Health and Social Service sector increased by 647,000 but most of that increase occurred in the 3rd Quartile (42 percent) and the 4th Quartile (40 percent).

Females. The Educational, Health and Social Service sector was a major employer of women (34 percent in 2006) and 29 percent of the increase occurred in jobs in the bottom quartile and another 19 percent in the 2nd Quartile. Retail was the second biggest employer of women but the Bottom Quartile accounted for only 11 percent of the employment increase and the 2nd Quartile accounted for 34 percent. Employment in the Entertainment and Food Services sector increased by 432,000 jobs and 51 percent of that increase was in jobs in the 1st or Bottom Quartile and 23 percent in the 2nd Quartile such that about 75 percent of the increase was in jobs that pay less than the median wage.

Finally, the Manufacturing sector declined by 750,000 jobs and the majority of that decline occurred in jobs that paid below the median; about one third of that decline took place in the Bottom Quartile and 50 percent in the 2nd Quartile.

Table 11 presents the figures on occupational change by earnings quartiles separately for men and women. For the most part, occupations mirror their industry changes. For example, four occupational groupings account for 72 percent of occupations reported by male full time workers: Construction related trades, (20 percent); Production and transportation related occupations (19 percent); Sales and office occupations (17 percent); and Professional and Related occupations (16.5 percent).

For men with jobs at the bottom of the earnings distribution, 70 percent are in three occupational groups: Construction trades (24.5 percent), Production and Transportation (24.1 percent); and Service related occupations (22.5 percent). In Management, business and financial occupations, and professional and related occupations, employment in at the lowest end of the earnings distribution declined for all occupations. And in Sales and Office occupations which increased by 876,000 jobs from 2000 to 2006, the share of the employment increase that occurred in the 1 Quartile was 11 percent in sales and 41 percent in for office and administrative occupations. In the Service occupations, the largest share of increased employment was among food preparation and service occupations (49 percent), building and grounds cleaning (40 percent) and personal care and service (53 percent).

Among women, three occupational groupings account for 80 percent of all employment: Sales and office occupations 34.5 percent followed by service occupations 24 percent and professional and related occupations 21.2 percent. Among low wage women, 80 percent are concentrated in three broad occupational groupings including Service occupations (37 percent), sales and office occupations 34 percent and production and transportation related occupations (12.5 percent). Within Sales and Office occupations, employment decreased in the 1st Quartile by 269,000 and in the 2nd Quartile by 225,000.

In short, office and administrative occupations suffered substantial loses that had a greater affect on low and moderate wage women than on the males in those earnings quartiles. Employment in production occupations declined also among women in the 1st and 2nd quartile, as was the case among men; however, women accounted for a much larger share of the decline than men.