

Wage Trajectories of Workers in Poor Households

The National Experience

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1 Background

The view that poverty is a trap with few avenues out has been used by both conservatives and liberals to advance their political agendas. For the cultural conservatives, the lack of upward mobility is a sign of a “culture of poverty” that can only be changed by instilling a work ethic among those who fail to take responsibility for their own plight. On the other side are the traditional liberals who point to the lack of mobility as a sign of the need for large-scale public intervention to compensate for the lack of opportunity. While the policy prescriptions differ, the premise is the same—mobility is rare.

Katherine Newman’s No Shame in My Game and its follow-up, “In the Long Run: Career Patterns and Cultural Values in the Low Wage Labor Force” (hereafter referred to as the “Long Run” study), called this conventional wisdom into question.² While broad statistical studies have previously shown that escape from poverty is possible, even if not the norm, Newman’s longitudinal research showed that upward mobility was evident for a surprising number of workers who were previously thought to be hopelessly stuck “flipping burgers”.³ According to Newman, most of the low-skilled workers she studied in Harlem in 1993-94 were indeed treading water four years later. There were, however, a substantial number of “high flyers” who

¹ This project is part of a larger project funded by a grant from the Russell Sage Foundation.

² No Shame in My Game shows a handful of success stories during the first 18 months covered by the initial survey. The four-year follow-up shows a much more optimistic picture.

started on the shop floor of fast food establishments in high-poverty neighborhoods of New York City and ended up in better-paying jobs. A sizeable minority was resourceful, overcoming impediments that researchers studying wage growth among low-skilled workers before the mid-1990s assumed would lock employees of this kind into working poverty.

The rich ethnographic literature in these studies paints an optimistic picture for a subset of the mostly black and Hispanic workers in a fast food workplace in Harlem during the 1990s. But how generalizable are these findings? Do they mirror the experiences of other fast food workers in different cities or in different times with weaker economic conditions? Are these experiences typical of workers in other jobs? Would the same picture emerge if whites and the rural poor were included?

These questions arise naturally in any discussion of case studies since, by design, Newman's research drew upon a small, non-random sample. The primary objective was not to get precise estimates that could be used to generalize to broader populations. Rather, the sample design reflected the priority given to getting a rich ethnographic profile on a limited number of workers (300) who self-selected into these entry-level jobs in Harlem. Moreover, in focusing on low-skilled workers in high-poverty, high-unemployment neighborhoods, Newman's work constituted something of an "acid test" for the future mobility of the working poor. If minority workers in racially segregated neighborhoods of this kind can "make it" when the economy improves, then presumably a focus on tightening job markets bodes well, at least for some working poor Americans. We need to identify the people in question, what makes it possible for them to pull away from the pack, and hopefully extend the structural supports that are making a difference for them toward those who might do better if they were similarly positioned. If, on the

³ Bane and Ellwood (1986)'s early work on poverty dynamics was updated by Stevens (1999). See Danziger and

other hand, virtually no one escapes poverty wages even when a rising tide begins to seep into poor neighborhoods, then more concerted intervention may be needed. Either way, it is important to establish how generalizable Newman's findings are for low-wage workers in poor families and the extent to which their experience is representative of a larger population.

This paper deals with both the questions of precision and of representativeness by using the Survey of Income and Program Participation (SIPP), a large nationally representative data set covering the period 1985 to 2000. Specifically, we address two questions: (1) Do the same general wage and employment histories found in the Harlem "Burger Barn" sample emerge when we try to replicate this sample with the SIPP; and (2) Are the optimistic patterns found in the Harlem sample during the late 1990s generalizable to other periods and populations?

Specifically, what happens when we include workers starting in low-income households who work in other types of jobs or who started these jobs when economic conditions were weaker?

The remainder of this paper explores these questions. Section 2 describes the data used in this analysis. Section 3 compares the Harlem "Burger Barn" sample to the corresponding sample drawn from the SIPP replicating the black and Hispanic food service workers in metropolitan areas in the mid-1990s. Section 4 expands the sample to include a wider set of workers from low-income households and Section 5 compares the experiences of these workers (post-1995) to the experiences of similar workers during the weak low-wage labor markets of the 1980s and early 1990s. The evidence in Sections 4 and 5 consists of descriptive tables. Section 6 uses regression analysis to determine if the patterns found in these previous sections hold after controlling for other variables. Section 7 contrasts the changes in economic and demographic characteristics of respondents who experienced substantial wage growth with the characteristics

Gottschalk (1998) for a complementary approach.

of the remainder of the sample. Finally Section 8 illustrates the patterns in the SIPP analysis, drawing upon the wave 3 findings in Newman's 2002 follow-up research. We conclude with general observations drawn from this analysis.

2 The Data

Each panel of the Survey of Income and Program Participation (SIPP) consists of a series of nationally-representative longitudinal surveys of nearly 30,000 individuals (over 90,000 in the 1996 panel) who are followed for 24 to 48 months, depending on the panel. A new panel was started in every year through 1993 starting in 1984. Respondents are interviewed every four months and asked detailed questions covering each month since the last interview. These questions are asked in a consistent manner across interviews and panels. This ensures that differences over time do not simply reflect changes in wording of questions.

The major advantages of the SIPP for this study are that: (1) it includes detailed monthly information on jobs and earnings histories for a large nationally-representative sample of low-wage workers; and (2) it covers a sufficiently long period to be able to compare these employment histories during economic recessions and expansions, including the period covered by the Harlem sample.

We primarily use the 1996 panel, which follows respondents from December 1995 through February 2000. This allows us to track individuals during the strongest labor markets in recent history and to cover the time period of the Harlem sample (1993 through 2000). We also use the 1986 through 1992 panels to explore the effects of generally weaker economic conditions on the

population studied by Newman.⁴ This allows us to see whether the optimistic results in her study are generalizable to periods of weaker economic growth.

At each interview, respondents are asked to identify their employer and to report their earnings and hours worked during each month. The resulting employer identifiers can be used to construct job histories that show when respondents move to new jobs and the wages they receive during each month of the job.

We begin our analysis by replicating the Harlem study as closely as possible.⁵ In order to be included in this base sample, an individual must be black or Hispanic and be observed in a non-managerial job paying an hourly wage in the food service industry.⁶ At some point during one of these jobs, the person must also be between the ages of 18 and 40, living in a metropolitan area, and in a family with income less than 1.5 times the poverty line.⁷ In order to most closely replicate the time period of the Harlem study we start by using only the 1996 panel. The individuals who “qualify” for observation are then followed through the remainder of the panel, including when they move to new jobs or when their families’ incomes rise above the poverty threshold.

⁴ We do not use the 1984 and 1985 panels because the monthly school enrollment questions were not asked before the 1986 panel. The 1989 panel was discontinued after three waves (one year), and the results were incorporated into the 1990 panel. We do not use the 1993 panel in order to have a clear break in the observations of the earlier and later time periods.

⁵ The “Harlem sample” consists of the individuals interviewed in Newman (1999b). The “Harlem replication” and the “base sample” both refer to the SIPP replication of the Harlem sample that includes all metropolitan areas.

⁶ Non-managerial food service jobs are those in “Eating and Drinking Places” (1980 and 1990 Census of Population Standard Industrial Classification (SIC) code 641) with the following occupational titles (as classified in the 1980 Census of Population Standard Occupational Classification (SOC) system): 436-Cooks, except short order; 437-Short-order cooks; 438-Food counter, fountain and related occupations; and 439-Kitchen workers, food preparation. In the 1990 Census, the SOC codes for cooks (436 and 437) were combined into one category (436-Cooks).

⁷ There are not enough SIPP respondents in the New York metropolitan area to further limit the sample to this one MSA.

In addition to the base sample, we analyze three additional samples to see if this narrow sample is representative of a wider population of disadvantaged workers.⁸ The second sample adds non-managerial jobs in other industries than food service. This sample is used to see if the results are unique to jobs in the food industry. The third sample includes all ethnic groups to see if the results are particular to blacks and Hispanics. Finally, the fourth sample includes residents of non-metropolitan areas to see if results are generalizable to people facing very different labor markets.

Summary statistics for these four samples are listed in Table 1. The Harlem replication includes 140 males and 145 females. Adding all non-managerial jobs to the sample increases sample sizes to 2,006 males and 2,260 females. After adding whites and persons living in non-metropolitan areas, the sample size increases to 6,617 males and 7,285 females.

The demographic characteristics of these four samples suggest that members of our base have considerably less education than members of the broader samples, even though members of all samples are in their mid- to late-twenties. Column 1 shows that 58 percent of males and 45 percent of females in our base sample had less than a high school degree. At the top of the educational distribution only 9 percent of the males and 18 percent of the females in our base sample had more than a high school degree at the time they were first observed.⁹ When all non-managerial jobs are included (column 2), the proportion with more than a high school education increases to 23 percent for males and 31 percent for females. Thus, limiting the analysis to workers in food services leads to a disproportionate number of less-educated workers, even after controlling for being in a poor or near-poor household.

⁸ These samples are described in detail in Appendix A.

⁹ An individual is “first observed” in the first observation of the job that qualifies him or her for the sample.

The educational composition of our base sample corresponds closely to the educational distribution of applicants hired by Burger Barn. In that sample, 53 percent were high school dropouts and 9 percent had more than a high school degree. The close correspondence in the educational distributions suggests that our base sample is quite similar in terms of human capital to the Harlem sample.

3 Replication of Harlem Sample

We first use our base sample to explore the findings of the “Long Run” study. That paper shows that substantial upward mobility is possible even for workers starting in what might be thought of as dead-end jobs. We use 1996 panel of the SIPP to examine the distribution of wage changes to see if large wage gains are possible, or even common. This sample is designed to have the same age and race composition as the Harlem sample. It is further limited to persons working in certain food-related occupations living in families at or below 1.5 times the poverty level. While the geographic area is broader than the Harlem sample and the occupational classification includes more than fast food workers, the correspondence between these two samples is fairly good.¹⁰

Before turning to wage growth, we first examine the distribution of initial wages. Table 2 shows that initial wages in food-sector jobs averaged \$6.65 for males and \$5.75 for females.¹¹ While there is some dispersion around this mean, even the top end is not very high, with only ten percent of males making more than \$9.04. For females, the 90th percentile is \$6.87.

¹⁰ More closely replicating the Harlem sample by limiting ourselves to the New York MSA gives us four males and seven females. Only three males and six females have enough wage information to determine wage growth.

¹¹ All figures are in constant 2000 dollars.

For those hired by Burger Barn, the mean starting wage is \$5.98 for males and \$5.58 for females.¹² The remarkably similar starting wages in the Burger Barn sample and in our replication of that sample using the SIPP indicates that the two samples are very similar, in spite of the fact that the former covers a subset of jobs in Harlem while the SIPP replication covers a broader set of jobs and a wider geographic area.

We now turn to our primary object of interest: the distribution of wage growth. Following the procedure used in the “Long Run” study, we start by using the SIPP as if we had information at two points in time. Since the SIPP panels are too short to observe people four years after they first enter a food-related occupation, we start by comparing wages one year after the person is first observed in a food-related occupation.¹³ This procedure, however, requires individuals to be observed both in a food service job in the initial period and also to be observed in the panel 12 months later. This limits our sample size to 80 males and 72 females. We, therefore, turn later to wage growth measures that do not impose these severe restrictions and that allow us to look out more than one year.

Table 3 shows the distribution of yearly changes in wage rates for persons employed one year after they are initially observed in a job in the food industry. Columns 1 and 3 show the dollar change in wages and columns 2 and 4 show the percentage change. The top panel confirms the popular stereotype that the typical worker experiences only modest wage gains. The average dollar increase was \$0.27, or 3.8 percent, for males and \$0.25, or 2.9 percent, for females.

¹² These are mean starting wages for the sub-sample used to calculate wage growth (individuals employed at two discrete points in time). The corresponding figures in 1993 dollars (used in Newman (2000b)) are \$5.01 for males and \$4.68 for females.

¹³ Since few of these jobs start at the beginning of the panel, even the 96 panel that covers 48 months has few people who can be followed for four years.

While the mean absolute wage growth is moderate for workers who started in food-related occupations, there is substantial heterogeneity of experience. Fully 30 percent of males and females experienced a decline in real wages. This, however, does not mean that there were no success stories. Ten percent of males had yearly wage gains greater than \$1.73, or 28.3 percent. For females, the corresponding wage gain is \$1.42, or almost 24 percent. This clearly indicates that a subset of people living in poor households and working in food-related occupations do experience substantial upward mobility. This supports the qualitative conclusions reached in Newman (1999b) that substantial upward mobility is possible even for workers in jobs that have been dismissed as “dead-end”.

Thus far, we have looked at one-year wage gains for our SIPP sample. These gains may not be representative of long-term wage growth. They could overstate wage growth if wages initially increased rapidly but then leveled off. Alternatively, it might take more than a year for a worker to be recognized as a good employee or for a worker to move to a better-paying job. The initial wage gain would then understate long-term wage gains.

In order to maintain a sufficiently large sample, while at the same time looking at multiple year wage growth, we drop the requirement that a worker has to be employed one year after we first observe him or her in a food service job. For each worker, we calculate the average monthly wage growth over all months in which the person is observed working and translate this monthly growth rate into an annual growth rate.¹⁴

The first four columns of Table 4 show the distribution of these growth rates for the 140 males and 145 females in our base sample for whom this measure can be calculated. For women, these data show the same basic patterns found in Table 3, which is based on the smaller

sample. Mean annual wage growth is similar to that found in Table 3, but the mean percentage change in wages is somewhat higher (4 percent compared to 2.9 percent). There is also substantial diversity around the mean. Fully 40 percent of males and females experience declines in real wages. However, this is offset by substantial wage growth at the top of the distribution. The 90th percentile of the wage growth distribution is \$1.82 (29.5 percent). For males, the mean wage change is substantially higher than in the more limited sample. Males can expect an average increase in wages of \$.58, or 6 percent. While 45 percent of the sample has a decline in real wages, the top 10 percent gain more than \$1.52, or 18.4 percent. This confirms that substantial upward mobility is possible, even if not common.

To see if wage growth is larger for those we observe for a longer time period, the last four columns show the same measure, but only for those individuals observed in the sample for at least 18 months after they are first observed in a food-sector job. Mean wage growth for males observed over the longer time period is somewhat lower than for the whole sample, and those at the tails show greater changes. Females show a lower mean wage growth when observed for a longer period, but the lowest and highest wage gains are similar across groups.

While the data in the previous tables are consistent with Newman's qualitative conclusion that some workers in seemingly dead-end jobs are "high flyers", the SIPP data indicate that the Harlem sample in the "Long Run" study had more success stories. In that study, "high flyers" are defined as those with real wage gains of greater than \$5 over a four-year period, or a \$1.25 per year increase in wages. As seen in Table 5, our SIPP sample indicates that 11 percent of males and 13 percent of females reached this very high standard, which is smaller than the 37 percent found in the Harlem sample. Even when we consider the large potential sampling error in the

¹⁴ This includes all wage changes in which wages are observed in two consecutive months, whether or not the person

Newman study from calculating a proportion based on 38 observations, the SIPP estimate of 11 to 13 percent does not fall within the 95 percent confidence around the estimate from the Harlem sample.

While we can only speculate about the reason for the differences between these two samples, three explanations are at least plausible. The first explanation is that the process to obtain a job at Burger Barn screens out all but the most motivated workers. The fact that only 1 out of 14 applicants got a job is a good indication that the employer was able to be very selective. As a result, those who became employed in this sample were more likely to become high flyers than would be found in a random sample where employers have fewer good choices.

The second potential explanation is that it may have been easier to follow high flyers than the less successful Burger Barn workers in the Harlem sample. Attrition is always a problem in longitudinal studies and it takes substantial resources to follow people who move around frequently. It would not be surprising if the SIPP interviewers, backed by superior resources, were better able to limit attrition, and maintain a more representative sample. While it is impossible to know the exact effect of attrition, we can get some sense of its potential by placing bounds on the proportion of high flyers. Among the 186 individuals contacted in the follow-up study, 83 did not respond, yielding an attrition rate of 45 percent (40 percent among hires). In order to bound the effect of attrition, suppose that all the hires who were non-responders would have been found to be working had they participated in the follow-up but that their gains would all have been less than \$1.25 per year. Under this worse case scenario, there would have been an additional 40 “low riders,” which would have brought the proportion of high flyers to

changes jobs.

18 percent.¹⁵ While this would bring the estimates in Burger Barn sample closer in line with those in the SIPP sample, it is highly unlikely that none of the attritors would have been high flyers.

The third potential explanation for the differences between the SIPP and Harlem samples is measurement error. While the ethnographic information helps verify whether reported wages roughly correspond to the jobs held by the respondents, there is still likely to be some measurement error in self-reported wage rates. For the four high flyers in the Harlem sample with reported wage gains over \$10, it seems unlikely that measurement error is large enough to bring their wage gains below \$5. Such large misreporting of wage gains would be inconsistent with the ethnographic information. However, 4 of the 14 high flyers have wage gains less than \$6. Reporting error could have pushed some of them over the line into the category of high flyers.

Finally, we note that despite our best efforts to constrain the “Harlem replication” sample in the SIPP so that it matches the original “Harlem sample,” the former is a more heterogeneous group than the latter. We chose “Industry Group 641,” Eating and Drinking Establishments, and limited ourselves to the three-digit Standard Occupational Classification (SOC) codes described in Appendix A. The range of establishments is more varied than the one-firm limitation of Newman’s study, and the occupation codes include a wider range of workers than the entry-level, minimum wage workers who are the sole focus of No Shame in My Game. It is not possible to determine how the greater diversity of the SIPP sample compared to the monochromatic nature of the Harlem sample would impact the relative mobility rates of entry-level workers since one would need to know the relationship between wage growth and initial wages.

¹⁵ The total number of workers would have been the 37 non-attritors plus the 40 attritors. The proportion of high

In any case, we can conclude from this evidence that the SIPP confirms that there are high flyers, even among food service workers. The qualitative conclusion that there are success stories is clearly borne out, even in a nationally representative data set. Our quantitative conclusion is that the estimate of the proportion of workers who are high flyers in the “Long Run” study is too high, given the very demanding criteria that wages grow by \$1.25 per year. When this criterion is applied to wages measured in 2000 dollars, we find that 11 to 13 percent are high flyers compared to the Harlem sample that yields an estimate of 37 percent.¹⁶ The reason for the discrepancy is not clear, but we suspect that attrition of less successful Burger Barn workers is at least part of the story.

4 How Representative Are Food Service Workers?

One would like to use information in No Shame in My Game and its follow-ups to draw conclusions about a broader set of workers than blacks and Hispanics who start in the food service industries in metropolitan areas. We want to know whether the results we find in the Harlem sample and the SIPP base sample carry over to the larger population of workers from poor and near poor households. In order to answer this question, we augment the sample incrementally. First we add persons observed in other non-managerial jobs, then other races, and finally persons not living in metropolitan areas in order to see the effects of each change.¹⁷ Throughout, we continue to impose the age cut and the restriction that the worker had to be

flyers would, therefore, have been $14/77=.18$

¹⁶ The percentage of all persons who are high flyers drops to 30 when the ten persons who were not working at the time of the follow-up interview are included in the denominator. The 27 percent of high flyers reported in the “Long Run” Study is based on the proportion of workers having wage gains greater than \$1.25 measured in 1993 prices.

¹⁷ See Appendix A for a review of the composition of the four samples.

living in a household with income below 1.5 times the family poverty line at some point while holding a non-managerial job.

As before, we begin by looking at the distribution of initial wages. Not surprisingly, Table 6 shows that wages are lower in the base sample than in the sample that includes persons who were observed in any non-managerial job. Men's wages increase from an average \$6.65 to \$7.99 when we add other non-managerial jobs. Female wages increase from \$5.75 to \$7.10. This indicates that the average food service worker received roughly \$1.35 less per hour than workers in other non-managerial jobs. Thus, the occupations chosen for No Shame in My Game are particularly low-paying occupations, even among black and Hispanic workers in non-managerial jobs.

The low pay in the food services industry is apparent primarily at the top of the distribution. For example, the 90th percentile of initial wages is \$9.04 for males in the base sample and \$12.53 for the sample that includes all non-managerial jobs.

Columns 3 and 7 of Table 6 show the effects of adding whites to the base sample of blacks and Hispanics living in metropolitan areas, and columns 4 and 8 add workers living outside metropolitan areas. As expected, the addition of whites increases starting wages, but not by very much. Initial wages in the 90th percentile increase from \$12.53 to \$13.75 for males and from \$10.15 to \$10.39 for females. Adding non-metropolitan residents reduces the mean starting wages, but this change also has a small effect. The small effects of adding whites and workers in non-metropolitan areas probably reflects the fact that we continue to require that sample members have to be living in a poor or near-poor household at some point while holding their non-managerial jobs. Having conditioned on family income in this way reduces the effects of race and metropolitan area.

We conclude that the requirement that sample members be in the food services reduces starting wages. This agrees with our prior beliefs that these entry-level food industry jobs are compensated somewhat lower than the general types of jobs held by workers from poor and near-poor households.

We now turn to our main object of interest, wage growth. Given that starting wages are lower in the food services than in other non-managerial occupations, one might expect that wage growth would be higher for persons observed working in food service since they started nearer the bottom. If so, the “Long Run” study would tend to overstate the extent of growth for persons starting in other non-managerial jobs.

This reversion to the mean is apparent in Table 7, which shows the mean wage growth for our different samples. Among males, the mean wage growth is 6.0 percent for the base sample, which is roughly 1.5 times as much as is seen for the other samples. Females in the base sample had a mean wage growth rate of 4.0 percent, while the expanded samples have wage growth ranging from 5.1 to 6.2 percent.

While the percent changes for males are higher in the base sample than in the expanded samples, this largely reflects the fact that wages are lower in the base sample. Since mean wages are lower in the base sample than in the other samples, it is easier to have a large percentage wage increase with little difference in the dollar amount of the wage increase. This is confirmed in Table 7. The mean dollar wage change of \$0.58 for males in the base sample is somewhat higher than in the expanded samples, but the differences are not large. For females, the \$0.29 change is actually lower than any other sample.

This is consistent with Table 8, which shows the proportion of individuals with wage gains sufficient to reach the \$5 threshold if sustained over a four-year period. Since high flyers are

defined in terms of a dollar cutoff, this threshold is easier to reach in jobs with higher initial wages since even small percentage changes in wages can lead to larger dollar changes if the wage level is high. While 11 percent of males and 13 percent of females in the base sample reached the \$1.25 per year threshold, the proportions increase to 19 percent for males and 16 percent for females in the sample that includes all races and all non-managerial jobs in both metropolitan and non-metropolitan areas.

The base sample reveals high wage growth for a subset of the population one might have previously considered to be stuck in dead-end jobs. We conclude that the decision to use food service workers to make inferences about a broader population does not distort this picture. If anything, we find that this population has dollar wage growth lower, or comparable to, the broader sample of persons working in non-managerial jobs and living in poor or near-poor households.

5 Differences by Period

The “Long Run” study and the SIPP comparison so far have looked at the wage growth of low-income individuals during the mid- to late-1990s. This period was marked not only by a strong expansion, but one that raised the wages of those at the bottom of the labor market. This stands in contrast to the prior decade marked by rising inequality and ending with a major recession. An important question is whether the subset of workers in the “Long Run” study who achieved high rates of growth depended on the strong economic conditions for less-skilled workers that characterized the economy during the period in which they were followed. One way of addressing this question is to use the SIPP to compare wage growth in the 1996 panel, which

follows workers during the last half of the 1990s, with wage growth during the prior set of years, which was characterized by rising inequality and a sharp economic downturn.

Table 9 compares the wage growth during from October 1985 to April 1995 (covered by the 1986 to 1992 SIPP panels) with wage growth for the period from December 1995 to February 2000 (covered by the 1996 panel).¹⁸ We present data both for the base sample and our broadest sample (persons of all races observed in non-managerial jobs in metropolitan or non-metropolitan areas while living in families with income below 1.5 times the poverty line).

These summary statistics show that changes in mean wage and changes at the top of the distribution were similar in the latter half of the 1990s as in the earlier period, though there are some exceptions. For example, the mean increase in real wages for males in our broadest sample in the 1985 to 1995 period is \$.34 per year, which is not much less in percentage terms than the \$.45 increase in the 1996 to 2000 period covered by the 1996 panel. Likewise, the 90th percentile of the wage growth distribution in both periods is \$2.44. For females, the mean wage growth was substantially higher in the later expansionary period. Females in the late-1990s could expect average wage gains of \$.56, or 5.6 percent, compared to \$.30, or 3.4 percent, in the early recessionary period.

Table 10 shows that the proportion of individuals classified as high flyers using the \$1.25 per year criterion is again similar in the two periods for those in the full sample. As shown in Table 8 the proportion of males in the most inclusive sample is 19 percent in the period covered by the 96 panel. Table 10 shows that 18 percent of males reached this high standard in the earlier period. For females there is a small increase from 14 to 16 percent between the two periods.

¹⁸ The 1986 through 1992 panels covered the period from October 1985 to April 1995. Data for the 1996 panel is the same as in the previous tables. It is replicated here for ease of comparison.

We conclude that the period covered by the “Long Run” study was not atypical for the population being studied. This was a period of lower unemployment rates which may have made it somewhat easier for persons in poor households to enter the labor market. There is, however, little evidence that they experienced higher wage growth. .

6 Regression Analysis

Thus far, we have presented evidence in the form of tables that can control for only a few characteristics at the same time (e.g., gender and broad time period). We have also made comparisons across groups with only an occasional reference to whether the differences are statistically significant. In this section, we turn to regression results that can hold several factors constant at the same time and also readily show whether differences are large enough to be statistically significant at conventional levels.

Table 11 presents coefficients for regressions where the dependent variable is the yearly wage growth for the respondent.¹⁹ Table 12 presents corresponding results of probits where the dependent variable indicates whether the wage growth was greater than \$5 on a four-year basis.

Regressors include variables used to define our samples, city-specific unemployment rates, and a set of economic and control variables.

The first four rows of Table 11 show that mean wage growth was lower in the alternative samples than in the base sample, these differences were seldom statistically significant. Only males in non-metropolitan areas experienced lower wage growth than the base sample, but this effect goes away when controlling for other factors. When we control for all factors, the coefficient on the unemployment variable is insignificant for both genders. This shows that

mean wage growth for those living in near-poverty is no lower in the recessionary period than in the period of economic expansion. This is promising news for those who are able to find jobs during periods of higher unemployment.

Table 12 shows the effects of the same variables on the probability of being a high flyer. Not surprisingly, non-black, non-Hispanic workers are more likely to be categorized as high flyers when other covariates are not included. These statistically significant race effects, however, disappear when one controls for age, education, and marital status. Workers with more than a high school degree are more likely to be high flyers.

7 Changes in Characteristics

The preceding sections have described the characteristics of persons who become high flyers. In this section, we explore the changes in economic and demographic characteristics that accompany this wage growth. Were high flyers more likely to increase the hours they worked? Did they change jobs more often than other sample members? If so, is there anything systematic about the types of jobs they obtained? Did their higher wages translate into large changes in poverty status?

It is important to point out that the data presented in this section are purely descriptive. They should not be used to draw conclusions about the causes or consequences of becoming a high flyer. For example, if high flyers are more likely to get married we cannot determine whether they got married as a result of obtaining a better job or whether they obtained a better job because they had greater responsibilities as part of a married couple.

¹⁹ Each observation is a person month.

Table 13 shows the characteristics of respondents in the first month we observe them in a qualifying job and 18 months later.²⁰ This allows us to track the changes in characteristics of high flyers and the jobs they hold. For contrast we show the same set of measures for other sample members. We use the SIPP sample that most closely matches the original Harlem sample. The sample includes all non-managerial black or Hispanic food service workers in metropolitan areas who live in families with combined income at or below 1.5 times the poverty line at some point during the qualifying job. It should be kept in mind that even large changes or large differences between high flyers and other sample members are seldom statistically significant due to the small sample.

The top panel shows the demographic characteristics of sample members at the start of the qualifying job and 18 months later. These data show no increases in educational attainment for the nine high flyers observed over the 18-month period, but small increases for other sample members. Two of the four male high flyers took classes beyond high school. Two years later, this remains unchanged. Other males in the sample increased high school graduation rates from 37 to 44 percent. For females, the proportion of high school graduates among the high flyers was 60 percent (3 of 5). In the following 18-month period, there was no change. For other females in the sample, educational attainment increased marginally. Increases in educational attainment, therefore, are not common occurrences for either high flyers or other sample members.

Turning to other demographic characteristics, we find small increases in the marriage rates for all groups except male high flyers who experienced a substantial increase. Marriage rates stayed constant for female high flyers and increased from 16 to 21 percent for other females

²⁰The choice of an 18-month window is dictated by the tradeoff between having a period of time long enough to observe changes but short enough to maintain sample size. Since many qualifying jobs start late in the panel, the sample size declines quickly as the window is lengthened.

in the sample. In contrast marriage rates for the male high flyers increased from 0 to 25 percent (1 of the 4 high flyers was married during the observation period). For other males in the sample, there was only a 2 percent increase in those married (from 32 to 34 percent). As a result, the marriage rate of male high flyers was significantly higher than that of other males in the sample in the second period.

The following panel shows information about employment in each period. Male high flyers increased wages by an average of \$1.42. The five female high flyers experienced an average wage increase of \$2.57. For other members in the sample, those who were employed 18 months after first observation increased wages by less than \$.70. However, for both males and females, average initial wages were higher for those who were not high flyers. High-flying men still have lower average wages than other employed males in the sample after 18 months.

By definition all sample members had to be employed in the first period and high flyers had to be employed in the second period as well, since their status is based on an increase in wages.²¹ Among other sample members, 89 percent of males and 76 percent of females were still employed 18 months after their initial observations. Around 60 percent of all workers switched jobs during this period. Some of the increase in earnings for female high flyers came from an increase in the number of hours worked. Female high flyers increased hours by 12.0 hours in the 18-month period while other women increased by only 2.5 hours. For male high flyers, the opposite is true. Male high flyers decreased weekly hours worked by 3.8 hours, while other men worked 2.2 more hours per week after the 18-month period. For high flyers, the number of weeks worked for females increased from 2.6 to 4.2. Male high flyers worked an additional 3.5 weeks. All others increased the number of weeks worked by just over half a week.

Thus, female high flyers gained both from working more hours per week and working more weeks each month. Males benefited from a significant increase in the number of weeks worked while cutting back slightly on the number of hours worked each week. Both gained from an increase in average wages.

One potential route to higher wages is to move into a managerial job. By definition high flyers did not start in managerial positions.²² Eighteen months after first observing these workers in qualifying jobs, two of the five high flying-females held a managerial position, while none of the four high-flying males did. Around five percent of the other sample members were in managerial positions. While this did contribute to higher wages it should be kept in mind that not all managerial jobs pay well, as exemplified by the proportion of sample members who were not high flyers who, nevertheless, were in managerial jobs.

The preceding has shown some of the correlates of wage growth. We now turn to the resulting income growth for high flyers and other sample members. Table 13 shows that among male high flyers, household income increased by \$458 over the 18-month period, which is a 62 percent increase.²³ On the other hand, female high flyers gained \$2,104 per month—almost double the household income in the first observation. For the comparison group, income grows by \$925 for males and \$286 for females, or 56 and 20 percent respectively. When income is adjusted for family size, the results are similar. For males the income-to-needs ratio increases

²¹ Individuals are classified as high flyers in this analysis if their average annual wage increase is at least \$1.25. Workers must be employed 18 months after the first observation in order to observe a valid wage change.

²² Individuals qualified for the sample if they met all the criteria for the sample definition at some point during the job. The entire job is then included in the sample. Because workers can switch occupations while remaining with the same employer, it is possible for some initial job observations to include managerial positions.

²³ The increase in household income is a result of higher wages, an increase in hours, and increases in other sources of family income.

from .5 to .9 and for females increases from .8 to 2.3. In contrast, the increase in the income-to-needs ratio for other sample members is .7 for males and only .3 for females.

It should be noted that while high flyers experience substantial economic growth, their incomes are still close to the poverty line. All of males and 20 percent of females are still poor in the second year. When the cut off is raised to 1.5 times the poverty line, we find an additional 20 percent of females with incomes under this needs threshold. It should not be surprising that many high flyers remain poor since these workers are still earning relatively low wages.

While high flyers have relatively low incomes, they receive little public assistance. The bottom panel shows that no high flyers received AFDC or TANF after 18 months, although use of public housing was high. In both of the periods observed, 50 percent of male high flyers and 75 percent of the females were in public housing. This is much higher than the 8 percent of females and 30 percent of females utilizing public housing in the other groups. Thus, while this population is still poor, it is not a dependent population.

To get a sense of the types of job transitions that led to wage growth, Table 14 lists the jobs held by the 8 male and 11 female high flyers. While some of these workers remained in the same occupation or were promoted, the majority of high flyers switched occupations. Some of the jobs that high flyers held 18 months after first being observed were jobs that required specialized training and/or certification (e.g., hairdressers and accountants), suggesting that some of those who are high flyers invest in training in order to move ahead.

An alternative way of comparing jobs is to classify each job on the basis of its Socioeconomic index (SEI).²⁴ Since individuals who qualified for the sample started in very similar positions, the mean SEI for high flyers and other sample members were similar in the first

observation of the qualifying job. Eighteen months later, the mean SEI for high flyers had remained close to the average of 32, but one held a position with an SEI score of 76 and a few have moved to jobs with an SEI score of 52.²⁵ This increase in SEI is considerably higher for high flyers than for other sample members.

8 Ethnographic Illustrations

In this section we provide some ethnographic examples of persons who were classified as high flyers in the “Long Run” study. We lack the space to provide anything approaching a complete account of the mobility process out of the low wage labor market. However, it may be of interest to readers to learn a bit about the data in the final phase of the “Long Run” project, which began contacting a random sample of those who were tapped for the four-year follow-up in March 2002. This study represents an 8-year pursuit of a very small sample of 32 individuals, drawn randomly from three outcomes groups at the previous follow-up: high-wage earners, middle-wage earners, and low-wage earners. Data collection is still ongoing, but the examples culled from the study so far illustrate some of the pathways these workers and jobseekers have taken toward the outcomes reported in the SIPP study.

8.1 High Flyers

Three patterns of upward mobility characterize the high-flying group at the eight-year follow-up. The first involves securing a job requiring modest skills, but covered by a union so that it has much higher wages, benefits, and job security. The second involves promotion within

²⁴ See Appendix B for a description.

²⁵ An example of a job with an SEI of 18 is a janitor, while a food service manager has an SEI score of 40.

the firm. Finally, a number of high flyers were able to accrue more education over these eight years and have put it to use in the job search process.

Readers of No Shame in My Game will recall a central character, Kyesha, introduced at the beginning of the book. Kyesha was operating the drive-through window at Burger Barn in 1993-4, earning 25 cents above minimum wage, despite a four-year track record of reliable service. A 22-year old single mother of a toddler, Kyesha lived at home with her mother, who was a long time recipient of AFDC as well as principal child-minder of Kyesha's son. At the four-year follow up, Kyesha was still working at Burger Barn, but had progressed to a swing manager, yielding only modest wage gains. Throughout this entire period, however, Kyesha had maintained a second job during the summer months doing maintenance work in the housing project where she and her mother lived. At the final follow up point, Kyesha had secured a full-time position with the New York City Housing Authority, handling maintenance for the entire housing complex. Now a unionized worker, earning nearly \$40,000 a year, Kyesha has eclipsed her wildest expectations for financial security. She no longer lives with her mother, though she continues to rely on her for after-school childcare and during late night maintenance emergencies, which send her out to investigate a flood or a non-functioning elevator. Kyesha has risen to the top rung of the job ladder for which she is eligible. To do better, she will have to go back to school and get at least an AA degree. She is seriously considering this avenue.

Her current job is a very responsible position, but it would be a stretch to call it highly-skilled. She is mainly responsible for cleaning up piles of garbage in the hallway, or mopping up after flooding toilets. It is her responsibility to keep track of maintenance requests and to file the requests for repair. She is also able to do minor repairs herself. Kyesha has always been a steady, dependable worker and this is a key strength.

Her close friend Latoya, another central figure in No Shame in My Game, has remained with Burger Barn, but is now an assistant manager who earns about \$25,000 per year. This is a significant step up from the swing manager pay she received at the four-year follow up point. It is also a very responsible position. Her life has improved significantly, as well, since she married the father of her two younger children. At the time of our original study, Latoya's husband had a skilled job in the construction trades. He is now a full-time minister. Together they have devoted themselves to the church and to their children and step-kids. (Two of the children are now enrolled in a Massachusetts boarding school program that recruits a small number of minority students who test in to their demanding schools.) Latoya and her husband are hoping to move to the south, back to the ancestral homeland of her step-mother, who lives in Harlem still and helps out with after-school care.

A final illustration of the high-flying pattern involves a minor character in No Shame in My Game, who at first contact had been turned down for a job in the Harlem Burger Barn. Without that private sector job, she took a position with a city-run summer youth programs where she got some training as a clerk and some basic experience in an accounting department. She graduated from high school and, after having her daughter at the age of 19, went back to school for an AA degree in early childhood education. Laura was called back to the accounting job even though she had no formal training, and was trained "in house." With this experience in hand, she was able to pursue better jobs (e.g., a hospital accounting department) and finally landed her current position in the accounting department of a non-profit foundation via an employment agency that advertises on the web. Laura currently earns about \$27,000 a year plus benefits and commutes to Manhattan from her apartment in Bedford-Stuyvesant.

The men who figure in the category of high flyers appear to be people who lucked into jobs that are still fairly low-skilled, but pay well. Adam, who like Laura was a rejected applicant in 1994 (but unlike Laura has not gone beyond high school), landed a job at a major shipping firm. He has worked for this company for about five years now where he earns about \$35,000 a year. While he has “topped out” on the pay scale, he is very pleased with his earnings. He and his wife can support their own family and take care of his wife’s daughter from a previous marriage. Pedro, another high flyer, just bought his first house in one of the outer boroughs on the strength of his income as a forklift driver in a warehouse. At \$15.65 an hour, Pedro clears about \$33,000 a year, even though he dropped out of high school.

8.2 Low Riders

At the other end of the mobility spectrum, the eight-year follow-up has tracked the lives of people who were almost all in the low earner category at the mid-point. Hence, from the beginning to the end of our contact, these are workers who have remained in the minimum wage world. They are, by and large, women burdened by family demands, men with low educational attainment, and individuals with a history of substance abuse or depression. Though they have not been persistently unemployed, these are the people that may ultimately be affected by TANF time limits. They have sporadic work histories and have accumulated only modest amounts of work experience that could serve as a springboard.

Tanya was a rejected applicant at Burger Barn in 1994, though in 1997 she had a steady job as an assistant in a daycare center. She has a high school diploma and some college and has also participated in a program to train billing workers in an office. Her labor market experience, however, has been an in-and-out affair, with the periods of absence triggered mainly by childcare

demands for her two children, now five and two. Tanya lost the best jobs she has held, including one at a bank, because she could not afford child care. She depended on unreliable male partners for babysitting and ultimately shifted to informal child-minders, one of whom was a dedicated marijuana smoker. Inadequate income has put Tanya at risk for homelessness. As of the final follow-up, she was living in a Tier II shelter for homeless families and awaiting a move into Section 8 housing. Now 25 years old, Tanya is receiving public assistance and will hit her time limit within the next two years.

Childcare problems have also had an impact on Naida, a 26-year old who has not had a steady job at any of the data collection points in this study. She has worked occasionally in retail, but these jobs do not last very long. Naida has a five-month old son and a five-year old daughter. Her daughter's father is separated from Naida and the family resides in Section 8 housing with her current boyfriend, the father of her youngest child. Naida dropped out of high school in the 9th grade. Her prospects are pretty dim.

Finally, Anya is a 44-year old with a very rocky history in the labor market. She has never held a job for more than a short time. She has held occasional jobs in retail, but it has been some time since she worked steadily. She is a widow whose current income is composed solely of social security survivor benefits. While Anya has a high school diploma, it appears that motherhood (among other things) derailed her from strong attachment to the labor market. She has three children, ranging in age from 21 to 11 and is now a grandmother by her first child.

These portraits will not surprise our readers, for they are textbook cases of low-wage labor market experience. It is not clear, however, that the jobs these people held were dead-end jobs. Rather, it is apparent that the combination of family responsibilities and rocky marital histories

(and occasionally mental health problems) conspired to insure that they had little stable employment of the kind that could serve as a platform for mobility.

9 Conclusions

The main objective of this project has been to see if the conclusions in the “Long Run” study are generalizable to different populations and time periods. Specifically, are the experiences of a small, non-random sample of black and Hispanic workers hired by a fast food restaurant in Harlem in the mid-1990s representative of the wider set of workers from poor and near-poor households?

Our analysis of the SIPP leads us to the following three major conclusions. First, the qualitative conclusion that a subset of food services workers from poor and near-poor households experience substantial upward mobility is confirmed in our data. Even by the very high standard used in the “Long Run” study, 11 percent of males and 13 percent of females are high flyers in the SIPP replication of that study. While this proportion is substantially smaller than the percentage found in the “Long Run” study, the fact remains that substantial growth is possible for a non-negligible subset of the population. Second, focusing on food service workers in a large city does not seem to have biased the results. When we broaden the sample to include other workers in poor and near-poor households we continue to find similar results. In our broadest sample we find that 19 percent of males and 17 percent of females are classified as high flyers. Thus, if anything, the broader samples show more wage growth. Finally, the fact that the study was undertaken during strong economic conditions does not seem to overstate the extent of upward mobility. When we replicate the analysis for an earlier period marked by weaker labor markets for less-skilled workers, we find substantially the same results.

While our findings indicate that upward mobility is possible for a sizable minority of workers in jobs that might be considered dead-end, it should be kept in mind that these workers start with very low wages. A worker who starts at \$5 hour and experiences a \$5 per hour increase over a four-year period has doubled her wages in four years. This sizable increase, however, does not land her solidly in the middle class.

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11 Appendix A – Sample Definitions

A job qualifies for this analysis if (in addition to the restrictions set down by the particular sample) at some point during the job:

- (1) the individual is between 18 and 40 years of age, AND
- (2) the individual's family is at or below 1.5 times the poverty level for that family; AND
- (3) the job pays an hourly wage.

The samples are defined as follows:

	<u>Sample 1</u>	<u>Sample 2</u>	<u>Sample 3</u>	<u>Sample 4</u>
	<i>"Base"</i>	<i>"All Non-Managerial Jobs"</i>	<i>"All Races"</i>	<i>"All Geographic Areas"</i>
Geographic Area	Metro ⁽¹⁾	Metro ⁽¹⁾	Metro ⁽¹⁾	All Areas
Race	Black/Hispanic	Black/Hispanic	All	All
Job	Food Service ⁽²⁾	All Non-managerial Jobs ⁽³⁾	All Non-managerial Jobs ⁽³⁾	All Non-managerial Jobs ⁽³⁾

NOTES:

Each sample builds on the previous sample. For example, Sample 2 includes all individuals in Sample 1 *plus* black or Hispanic individuals in metropolitan areas who hold non-managerial jobs outside of food service.

(1) See Section 11.1 for a complete listing of metropolitan areas.

(2) Food Service jobs are define by SIC code 641 and SOC codes 436-469. See Section 11.2 for details.

(3) See Section 11.3 for a complete listing of SOC codes included in (and excluded from) non-managerial jobs.

11.1 Metropolitan Areas

The following table lists the geographical areas classified as “Metropolitan Areas” in this analysis:

Metropolitan Areas			
<i>CMSA/ MSA</i>	<i>Geographic Area</i>	<i>CMSA/ MSA</i>	<i>Geographic Area</i>
7	Boston-Lawrence-Salem, MA-NH	3240	Harrisburg-Lebanon-Carlisle, PA
10	Buffalo-Niagara Falls, NY	3320	Honolulu, HI
14	Chicago-Gary Lake County, IL-IN	3480	Indianapolis, IN
21	Cincinnati-Hamilton, OH-KY	3600	Jacksonville, FL
28	Cleveland-Akron-Lorraine, OH	3840	Knoxville, TN
31	Dallas-Fort Worth, TX	3980	Lakeland-Winterhaven, FL
34	Denver-Boulder, CO	4040	Lansing-East Lansing, MI
35	Detroit-Ann Arbor, MI	4720	Madison, WI
41	Hartford-New Britain-Middletown, CT	4880	McCallen-Edinburg-Mission, TX
42	Houston, TX	4900	Melbourne-Titusville-Palm Bay, FL
49	Los Angeles-Anaheim-Riverside, CA	4920	Memphis, TN
56	Miami-Ft. Lauderdale, FL	5120	Minneapolis-St. Paul, MN
63	Milwaukee-Racine, WI	5160	Mobile, AL
70	New York-New Jersey-Long Island, NY-NJ-CT	5360	Nashville, TN
77	Philadelphia-Wilmington-Trenton, PA-DE-NJ	5480	New Haven-Meriden, CT
78	Pittsburgh-Beaver Valley, PA	5560	New Orleans, LA
79	Portland-Vancouver, OR	5720	Norfolk-VA Beach-Newport News, VA
82	.St. Louis, IL-MO	5880	Oklahoma City, OK
84	San Francisco-Oakland-San CA	5960	Orlando, FL
91	Seattle-Tacoma, WA	6080	Pensacola, FL
160	Albany-Schenectady-Troy, NY	6200	Phoenix, AZ
200	Albuquerque, NM	6640	Raleigh-Durham, NC
520	Atlanta, CA	6840	Rochester, NY
640	Austin, TX	6880	Rockford, IL
680	Bakersfield, CA	6920	Sacramento, CA
760	Baton Rouge, LA	7120	Salinas-Seashide-Monterey, CA
840	Beaumont-Port Arthur, TX	7160	Salt Lake City-Ogden, UT
1000	Birmingham, AL	7240	San Antonio, TX
1520	Charlotte-Gastonia-Rock Hill, NC	7320	San Diego, CA
1720	Colorado Springs, CO	7560	Scranton--Wilkes-Barre, PA
1840	Columbus, OH	8000	Springfield, MA
1880	Corpus Christi, TX	8120	Stockton, CA
2000	Dayton-Springfield, OH	8160	Syracuse, NY
2320	El Paso, TX	8280	Tampa-St.Petersburg-Clearwater, FL
2400	Eugene-Springfield, OR	8400	Toledo, OH
2560	Fayetteville, NC	8520	Tucson, AZ
2700	Ft. Myers, FL	8560	Tulsa, OK
2760	Fort Wayne, IN	8680	Utica-Rome, NY
2840	Fresno, CA	8840	Washington, DC-MD-VA
3120	Greensboro--Winston-Salem--High Point, NC	8960	West Palm Beach-Boca Raton-Delray Beach, FL
3160	Greenville-Spartanburg, SC	9240	Worcester, MA

11.2 Food Service Jobs

In this analysis, “Food Service” jobs are defined by both industrial and occupational Census classifications. To qualify as “Food Service”, the job must fall under the 1987 Standard Industrial Classification (SIC) system industry group 641 (“Eating and Drinking Places”) and the worker must be listed in one of four occupations (436-439), as defined by the 1980 Standard Occupational Classification (SOC). Details of both industry and occupation codes are listed below.

Industry Group 641: Eating And Drinking Places

Eating and Drinking Place are divided into two subcategories: Eating Places and Drinking Places.¹

Eating Places

Establishments primarily engaged in the retail sale of prepared food and drinks for on-premise or immediate consumption. Caterers and industrial and institutional food service establishments are also included in this industry.

- Automats (eating places)
- Beaneries
- Box lunch stands
- Buffets (eating places)
- Cafes
- Cafeterias
- Carry-out restaurants
- Caterers
- Coffee shops
- Commissary restaurants
- Concession stands, prepared food (e.g., in airports and sports arenas)
- Contract feeding
- Dairy bars
- Diners (eating places)
- Dining rooms
- Dinner theaters
- Drive-in restaurants
- Fast food restaurants
- Food bars
- Food service, institutional
- Frozen custard stands

¹ While the two types of establishments can be identified using 4-digit SIC codes, the SIPP provides only the 3-digit industry group. Many of the jobs in “Drinking Establishments” will be eliminated from the analysis once the occupations are taken into consideration.

- Grills (eating places)
- Hamburger stands
- Hot dog (frankfurter) stands
- Ice cream stands
- Industrial feeding
- Lunch bars
- Lunch counters
- Luncheonettes
- Lunchrooms
- Oyster bars
- Pizza parlors
- Pizzerias
- Refreshment stands
- Restaurants
- Restaurants, carry-out
- Restaurants, fast food
- Sandwich bars or shops
- Snack shops
- Soda fountains
- Soft drink stands
- Submarine sandwich shops
- Tea rooms
- Theaters, dinner

Drinking Places (alcoholic beverages)

Establishments primarily engaged in the retail sale of alcoholic drinks, such as beer, ale, wine, and liquor, for consumption on the premises. The sale of food frequently accounts for a substantial portion of the receipts of these establishments.

- Bars (alcoholic beverage drinking places)
- Beer gardens (drinking places)
- Beer parlors (tap rooms)
- Beer taverns
- Beer, wine, and liquors: sale for on-premise consumption
- Bottle clubs (drinking places)
- Cabarets
- Cocktail lounges
- Discotheques, alcoholic beverage
- Drinking places, alcoholic beverages
- Night clubs
- Saloons (drinking places)
- Tap rooms (drinking places)
- Taverns (drinking places)
- Wine Bars

Occupational Classification

The four occupational classifications considered to be “Food Service Jobs” are drawn from the Standard Occupational Classification (SOC) of the 1980 Census. They are defined as follows:

<u>SOC Code</u>	<u>Job Description</u>
436	Cooks, except short-order
437	Short-order cooks
438	Food counter, fountain and related occupations
439	Kitchen workers, food preparation

For all panels beginning in 1991, the SIPP utilizes the 1990 Census codes. For these panels, SOC codes 436 and 437 are combined under the heading “Cooks”.

11.3 Excluded Managerial and Professional Occupations

When expanding the sample from food service-related occupations to all non-managerial jobs, all occupations were allowed as “qualifying” jobs except those defined as managerial or professional occupations. The excluded occupations are as follows:

Managerial and Professional Occupations

<i>SOC Code</i>		<i>Job Description</i>
<i>1980 Census</i>	<i>1990 Census</i>	
3	3	Legislators
4	4	Chief Executives and General Administrators, Public
5	5	Administrators and Officials, Public Administration
6	6	Administrators, Protective Service
7	7	Financial Managers
8	8	Personnel and Labor Relations Managers
9	9	Purchasing Managers
13	13	Managers, Marketing, Advertising, and Public Relations
14	14	Administrators, Education and Related Fields
15	15	Managers, Medicine and Health
16	18	Managers, Properties and Real Estate
17	16	Postmasters and Mail Superintendents
	17	Managers, Food Serving and Lodging Establishments
18	19	Funeral Directors
19		Managers and Administrators, n.e.c.
	21	Managers, Service Organizations, n.e.c.
	22	Managers and Administrators, n.e.c.
23	23	Accountants and Auditors
24	24	Underwriters
25	25	Other Financial Officers
26	26	Management Analysts
27	27	Personnel, Training, and Labor Relations Specialists
28	28	Purchasing Agents and Buyers, Farm Products
29	29	Buyers, Wholesale and Retail Trade Except Farm Products
33	33	Purchasing Agents and Buyers
34	34	Business and Promotion Agents
35	35	Construction Inspectors
36	36	Inspectors and Compliance Officers, Except Construction
37	37	Management Related Occupations, n.e.c.
43	43	Architects
44	44	Aerospace Engineers
45	45	Metallurgical and Materials Engineers
46	46	Mining Engineers
47	47	Petroleum Engineers
48	48	Chemical Engineers
49	49	Nuclear Engineers
53	53	Civil Engineers

Managerial and Professional Occupations (cont.)

<i>SOC Code</i>		<i>Job Description</i>
<i>1980 Census</i>	<i>1990 Census</i>	
54	54	Agricultural Engineers
55	55	Electrical and Electronic Engineers
56	56	Industrial Engineers
57	57	Mechanical Engineers
58	58	Marine and Naval Architects
59	59	Engineers, n.e.c.
63	63	Surveyors and Mapping Scientists
64	64	Computer Systems Analysts and Scientists
65	65	Operations and Systems Researchers and Analysts
66	66	Actuaries
67	67	Statisticians
68	68	Mathematical Scientists, n.e.c.
69	69	Physicists and Astronomers
73	73	Chemists, Except Biochemists
74	74	Atmospheric and Space Scientists
75	75	Geologists and Geodesists
76	76	Physical Scientists, n.e.c.
77	77	Agricultural and Food Scientists
78	78	Biological and Life Scientists
79	79	Forestry and Conservation Scientists
83	83	Medical Scientists
84	84	Physicians
85	85	Dentists
86	86	Veterinarians
87	87	Optometrists
88	88	Podiatrists
89	89	Health Diagnosing Practitioners, n.e.c.
95	95	Registered Nurses
96	96	Pharmacists
97	97	Dietitians
98		Inhalation Therapists
	98	Respiratory Therapists
99	99	Occupational Therapists
103	103	Physical Therapists
104	104	Speech Therapists
105	105	Therapists, n.e.c.
106	106	Physicians' Assistants
113	113	Earth, Environmental, and Marine Science Teachers
114	114	Biological Science Teachers
115	115	Chemistry Teachers
116	116	Physics Teachers
117	117	Natural Science Teachers, n.e.c.
118	118	Psychology Teachers
119	119	Economics Teachers
123	123	History Teachers
124	124	Political Science Teachers
125	125	Sociology Teachers

Managerial and Professional Occupations (cont.)

<i>SOC Code</i>		<i>Job Description</i>
<i>1980 Census</i>	<i>1990 Census</i>	
126	126	Social Science Teachers, n.e.c.
127	127	Engineering Teachers
128	128	Mathematical Science Teachers
129	129	Computer Science Teachers
133	133	Medical Science Teachers
134	134	Health Specialties Teachers
135	135	Business, Commerce, and Marketing Teachers
136	136	Agriculture and Forestry Teachers
137	137	Art, Drama, and Music Teachers
138	138	Physical Education Teachers
139	139	Education Teachers
143	143	English Teachers
144	144	Foreign Language Teachers
145	145	Law Teachers
146	146	Social Work Teachers
147	147	Theology Teachers
148	148	Trade and Industrial Teachers
149	149	Home Economics Teachers
153	153	Teachers, Postsecondary, n.e.c.
154	154	Postsecondary Teachers, Subject Not Specified
155	155	Teachers, Prekindergarten and Kindergarten
156	156	Teachers, Elementary School
157	157	Teachers, Secondary School
158	158	Teachers, Special Education
159	159	Teachers, n.e.c.
163	163	Counselors, Educational and Vocational
164	164	Librarians
165	165	Archivists and Curators
166	166	Economists
167	167	Psychologists
168	168	Sociologists
169	169	Social Scientists, n.e.c.
173	173	Urban Planners
174	174	Social Workers
175	175	Recreation Workers
176	176	Clergy
177	177	Religious Workers, n.e.c.
178	178	Lawyers
179	179	Judges
183	183	Authors
184	184	Technical Writers
185	185	Designers
186	186	Musicians and Composers
187	187	Actors and Directors
188	188	Painters, Sculptors, Craft-Artists, and Artist Printmakers
189	189	Photographers
193	193	Dancers

Managerial and Professional Occupations (cont.)

<i>SOC Code</i>		<i>Job Description</i>
<i>1980 Census</i>	<i>1990 Census</i>	
194	194	Artists, Performers, and Related Workers, n.e.c.
195	195	Editors and Reporters
197	197	Public Relations Specialists
198	198	Announcers
199	199	Athletes
243	243	Supervisors and Proprietors, Sales Occupations
303	303	Supervisors, General Office
304	304	Supervisors, Computer Equipment Operators
305	305	Supervisors, Financial Records Processing
306	306	Chief Communications Operators
307	307	Supervisors, Distribution, Scheduling, and Adjusting Clerks
413	413	Supervisors, Firefighting and Fire Prevention Occupations
414	414	Supervisors, Police and Detectives
415	415	Supervisors, Guards
433	433	Supervisors, Food Preparation and Service Occupations
448	448	Supervisors, Cleaning and Building Service Workers
456	456	Supervisors, Personal Service Occupations
473	473	Farmers, Except Horticultural
474	474	Horticultural Specialty Farmers
475	475	Managers, Farms, Except Horticultural
476	476	Managers, Horticultural Specialty Farms
477	477	Supervisors, Farm Workers
485	485	Supervisors, Related Agricultural Occupations
494	494	Supervisors, Forestry and Logging Workers
497	497	Captains and Other Officers, Fishing Vessels
503	503	Supervisors, Mechanics and Repairers
553	553	Supervisors, Brickmasons, Stonemasons, and Title Setters
554	554	Supervisors, Carpenters and Related Work
555	555	Supervisors, Electricians and Power Transmission Installers
556	556	Supervisors, Painters, Paperhangers, and Plasterers
557	557	Supervisors, Plumbers, Pipefitters, and Steamfitters
558		Supervisors, n.e.c.
	558	Supervisors, Constructing, n.e.c.
613	613	Supervisors, Extractive Occupations
633	628	Supervisors, Production Occupations
803	803	Supervisors, Motor Vehicle Operators
823	823	Railroad Conductors and Yardmasters
828	828	Ship Captains and Mates, Except Fishing Boats
843	843	Supervisors, Material Moving Equipment Operators
863	864	Supervisors, Handlers, Equipment Cleaners, and Laborers, n.e.c.

12 Appendix B – Occupational Prestige Scores and Socioeconomic Indices

12.1 Background

Prestige scores (as used today) date from the North-Hatt study of 1947 that rated 90 occupational titles. Duncan (1961) then used the North-Hatt information in conjunction with the detailed occupational categories available in the 1950 Census of Population to create a Socioeconomic Index (SEI). To do this, he regressed prestige scores for 45 occupational titles on education and income characteristics of males. He then imputed prestige scores to all occupational categories in the Census. SEI scores were routinely updated (e.g., pegged to revamped classification systems in later censuses). The SEI has somewhat different properties than the Occupational Prestige Score because of its use of education and income measures, but enabled the researcher to cover a wider range of occupational titles.

For those who wanted to expand the prestige score to more occupational titles without relying on the SEI, additional prestige measures were created. Siegel (1971) created a prestige score with pooled data from five separate studies using occupational titles from the 1960 Census. These titles covered a larger range of occupations than the North-Hatt score, which was dominated by high-status professional and low-status service occupations. Updating the SEI between the 1960 and 1970 classifications was straightforward due to minimal changes in the occupational titles.

Siegel's prestige score allowed Stevens and Featherman (1981) to calculate a revised SEI based on the occupational titles in the 1970 Census. The 1970 SEI scores were, in turn, linked to the 1980 Census by Stevens and Cho (1985), even though the classification system was significantly altered between the 1970 and 1980 censuses. Stevens and Hoisington (1987)

recalibrated prestige scores by weighting according to the size of the labor force in each category. Other methods have also been tried.

Current use of reworked scores presents some problems: selection of occupational titles is not representative; old scores were reworked to fit new occupational categories; public opinion on occupational prestige has shifted; and occupational categories have changed.

Research has shown that shifts in public opinion have altered prestige scores, but changes in the classification system have not. Averaging occupational title scores (over wider classifications) is reflected in some differences between score sets. Different scales tend to produce similar results. The current argument is that new scales based on new prestige ratings are better suited to contemporary occupational data.

12.2 New Prestige Rankings

In 1989, a new survey was administered to evaluate the prestige of occupational titles. The new survey ranked 740 occupational titles (as opposed to the 204 in the original 1964 study). Following the same procedures that were used to construct the original prestige scale, new rankings were linked to both the 1980 and 1990 Census occupational titles, which were very similar. Additionally, socioeconomic scores were developed using the 1980 Census information (Nakao and Treas, 1992).

Our SIPP data are classified under both the 1980 and 1990 Census Standard Occupational Classification system. We use the Nakao and Treas Prestige Scores using the new survey and the 1980 Census definitions to create an SEI score using the 1990 Census classifications. In some cases, where the 1980 categories exist and are a subset of the 1990s classification, the SEI scores of the occupations belonging to the 1990 Census category are averaged. Where the 1980s categories were expanded, the 1980 SEI score was assigned to each of the expanded categories in

the 1990s classification system. Following is a list of SEI scores and occupations for (1) initial jobs of food service workers and (2) all occupation categories:

SEI Scores and Occupations for Food Service Workers (Qualifying Job)

<u>SEI Score</u>	<u>Job Description</u>
14.74	Pressing machine operators
14.83	Private household cleaners and servants
14.85	Knitting, looping, taping, and weaving machine operators
14.97	Shoe machine operators
15.26	Miscellaneous textile machine operators
15.33	Cooks, private household
15.38	Housekeepers and butlers
15.71	Maids and housemen
15.93	Nailing and tacking machine operators
15.95	Solderers and brazers
16.11	Hand packers and packagers
16.22	Graders and sorters, except agricultural
16.62	Sawing machine operators
16.72	Bridge, lock, and lighthouse tenders
16.72	Crossing guards
16.77	Graders and sorters, agricultural products
16.78	Elevator operators
16.87	Laundering and dry cleaning machine operators
16.88	Nursery workers
17.09	Farm workers
17.24	Vehicle washers and equipment cleaners
17.24	Garbage collectors
17.54	Cooks
17.58	Packaging and filling machine operators
17.63	Punching and stamping press machine operators
17.70	Adjusters and calibrators
17.71	Electrical and electronic equipment assemblers
17.75	Kitchen workers, food preparation
17.87	Precision assemblers, metal
17.88	Assemblers
17.95	Slicing and cutting machine operators
17.98	Child care workers, private household
17.99	Textile cutting machine operators
18.03	Timber cutting and logging occupations
18.03	Machine feeders and offbearers
18.09	Upholsterers
18.12	Janitors and cleaners
18.20	Shoe repairers
18.29	Industrial truck and tractor equipment operators
18.33	Miscellaneous food preparation occupations
18.41	Painting and paint spraying machine operators
18.42	Dressmakers
18.46	Construction laborers
18.51	Helpers, mechanics, and repairers

SEI Scores and Occupations for Food Service Workers (Qualifying Job) (cont.)

<u>SEI Score</u>	<u>Job Description</u>
18.62	Compressing and compacting machine operators
18.70	Miscellaneous machine operators, n.e.c.
18.75	Molding and casting machine operators
18.76	Washing, cleaning, and pickling machine operators
18.77	Hand cutting and trimming occupations
18.79	Miscellaneous metal and plastic processing machine operators
18.81	Laborers, except construction
18.83	Cementing and gluing machine operators
18.85	Production samplers and weighers
18.86	Food batchmakers
18.86	Extruding and forming machine operators
18.88	Crushing and grinding machine operators
18.88	Folding machine operators
18.88	Waiters and waitresses
18.95	Shaping and joining machine operators
18.95	Mixing and blending machine operators
19.04	Hand engraving and printing occupations
19.10	Tailors
19.10	Hairdressers and cosmetologists
19.16	Roasting and baking machine operators, food
19.16	Miscellaneous woodworking machine operators
19.23	Miscellaneous hand working occupations
19.23	Groundskeepers and gardeners, except farm
19.24	Hand molding, casting, and forming occupations
19.25	Bakers
19.30	Pest control occupations
19.30	Numerical control machine operators
19.32	Supervisors, handlers, equipment cleaners, and laborers, n.e.c.
19.33	Waiters'/waitresses' assistants
19.35	Drilling and boring machine operators
19.37	Machine operators, not specified
19.49	Grinding, abrading, buffing, and polishing machine operators
19.52	Miscellaneous material moving equipment operators
19.56	Freight, stock, and material handlers, n.e.c.
19.73	Garage and service station related occupations
19.74	Separating, filtering, and clarifying machine operators
19.75	Furniture and wood finishers
19.76	Roofers
19.80	Hand molders and shapers, except jewelers
19.81	News vendors
19.85	Metal plating machine operators
19.86	Bookbinders
19.88	Marine life cultivation workers
19.94	Machinery maintenance occupations
19.96	Explosives workers
19.97	Stock handlers and baggers
20.24	Mining occupations, n.e.c.
20.24	Mining machine operators
20.26	Precision grinders, filers, and tool sharpeners

SEI Scores and Occupations for All SOC Codes

<u>SEI Score</u>	<u>Job Description</u>
14.53	Textile sewing machine operators
14.74	Pressing machine operators
14.83	Private household cleaners and servants
14.85	Knitting, looping, taping, and weaving machine operators
14.97	Shoe machine operators
15.26	Miscellaneous textile machine operators
15.33	Cooks, private household
15.38	Housekeepers and butlers
15.62	Launderers and ironers
15.71	Maids and housemen
15.93	Nailing and tacking machine operators
15.95	Solderers and brazers
16.11	Hand packers and packagers
16.22	Graders and sorters, except agricultural
16.62	Sawing machine operators
16.72	Bridge, lock, and lighthouse tenders
16.72	Crossing guards
16.77	Graders and sorters, agricultural products
16.78	Elevator operators
16.87	Laundering and dry cleaning machine operators
16.88	Nursery workers
17.09	Farm workers
17.24	Garbage collectors
17.24	Vehicle washers and equipment cleaners
17.54	Cooks
17.58	Packaging and filling machine operators
17.63	Punching and stamping press machine operators
17.70	Adjusters and calibrators
17.71	Electrical and electronic equipment assemblers
17.75	Kitchen workers, food preparation
17.87	Precision assemblers, metal
17.88	Assemblers
17.95	Slicing and cutting machine operators
17.98	Child care workers, private household
17.99	Textile cutting machine operators
18.03	Machine feeders and offbearers
18.03	Timber cutting and logging occupations
18.09	Upholsterers
18.12	Janitors and cleaners
18.20	Shoe repairers
18.29	Industrial truck and tractor equipment operators
18.33	Miscellaneous food preparation occupations
18.41	Painting and paint spraying machine operators
18.42	Dressmakers
18.46	Construction laborers
18.51	Helpers, mechanics, and repairers
18.62	Compressing and compacting machine operators
18.70	Miscellaneous machine operators, n.e.c.
18.75	Molding and casting machine operators
18.76	Washing, cleaning, and pickling machine operators

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
18.77	Hand cutting and trimming occupations
18.79	Miscellaneous metal and plastic processing machine operators
18.81	Laborers, except construction
18.83	Cementing and gluing machine operators
18.85	Production samplers and weighers
18.86	Extruding and forming machine operators
18.86	Food batchmakers
18.88	Crushing and grinding machine operators
18.88	Folding machine operators
18.88	Waiters and waitresses
18.95	Mixing and blending machine operators
18.95	Shaping and joining machine operators
19.04	Hand engraving and printing occupations
19.10	Hairdressers and cosmetologists
19.10	Tailors
19.16	Miscellaneous woodworking machine operators
19.16	Roasting and baking machine operators, food
19.23	Groundskeepers and gardeners, except farm
19.23	Miscellaneous hand working occupations
19.24	Hand molding, casting, and forming occupations
19.25	Bakers
19.30	Numerical control machine operators
19.30	Pest control occupations
19.32	Supervisors, handlers, equipment cleaners, and laborers, n.e.c.
19.33	Waiters'/waitresses' assistants
19.35	Drilling and boring machine operators
19.37	Machine operators, not specified
19.49	Grinding, abrading, buffing, and polishing machine operators
19.52	Miscellaneous material moving equipment operators
19.56	Freight, stock, and material handlers, n.e.c.
19.73	Garage and service station related occupations
19.74	Separating, filtering, and clarifying machine operators
19.75	Furniture and wood finishers
19.76	Roofers
19.80	Hand molders and shapers, except jewelers
19.81	News vendors
19.85	Metal plating machine operators
19.86	Bookbinders
19.88	Marine life cultivation workers
19.94	Machinery maintenance occupations
19.96	Explosives workers
19.97	Stock handlers and baggers
20.24	Mining machine operators
20.24	Mining occupations, n.e.c.
20.26	Precision grinders, filers, and tool sharpeners
20.29	Farm equipment mechanics
20.43	Barbers
20.50	Grader, dozer, and scraper operators
20.56	Construction trades, n.e.c.

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
20.60	Miscellaneous precision apparel and fabric workers
20.61	Supervisors, food preparation and service occupations
20.62	Furnace, kiln, and oven operators, except food
20.65	Hunters and trappers
20.66	Welders and cutters
20.74	Drillers, oil well
20.77	Miscellaneous metal, plastic, stone, and glass working machine operators
20.79	Helpers, surveyor
20.79	Painters, construction and maintenance
20.79	Supervisors, cleaning and building service workers
20.80	Food counter, fountain and related occupations
20.86	Supervisors, painters, paperhangers, and plasterers
20.91	Cabinet makers and bench carpenters
20.95	Automobile mechanic apprentices
20.95	Automobile mechanics
21.04	Forging machine operators
21.10	Motor transportation occupations, n.e.c.
21.10	Truck drivers
21.11	Hoist and winch operators
21.17	Butchers and meat cutters
21.22	Wood lathe, routing, and planing machine operators
21.30	Concrete and terrazzo finishers
21.31	Carpenter apprentices
21.32	Inspectors, agricultural products
21.40	Cashiers
21.42	Drillers, earth
21.47	Bus drivers
21.50	Production testers
21.55	Plasterers
21.57	Miscellaneous plant and system operators
21.62	Excavating and loading machine operators
21.62	Paving, surfacing, and tamping equipment operators
21.71	Sailors and deckhands
21.72	Operating engineers
21.73	Automobile body and related repairers
21.83	Bus, truck, and stationary engine mechanics
21.86	Milling and planing machine operators
21.86	Miscellaneous precision workers, n.e.c.
21.89	Telephone operators
21.98	Crane and tower operators
22.03	Production inspectors, checkers, and examiners
22.09	Lathe and turning machine operators
22.40	Fishers
22.41	Heat treating equipment operators
22.46	Taxicab drivers and chauffeurs
22.49	Industrial machinery repairers
22.52	Heavy equipment mechanics
22.58	Carpenters
22.62	Brickmason and stonemason apprentices

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
22.62	Brickmasons and stonemasons
22.62	Longshore equipment operators
22.62	Stevedores
22.63	Supervisors, brickmasons, stonemasons, and tile setters
22.69	Tile setters, hard and soft
22.71	Lathe and turning machine set-up operators
22.86	Supervisors, carpenters and related workers
23.00	Animal caretakers, except farm
23.06	Carpet installers
23.07	Traffic, shipping, and receiving clerks
23.11	Parking lot attendants
23.20	Driver-sales workers
23.20	Rolling machine operators
23.22	Family child care providers
23.27	Horticultural specialty farmers
23.33	Data-entry keyers
23.40	Paperhangers
23.52	Specified mechanics and repairers, n.e.c
23.55	Child care workers, n.e.c.
23.58	Nursing aides, orderlies, and attendants
23.60	Peripheral equipment operators
23.61	Correctional institution officers
23.64	Elevator installers and repairers
23.68	Drywall installers
23.73	Billing, posting, and calculating machine operators
23.73	Mail preparing and paper handling machine operators
23.76	Miscellaneous precision woodworkers
23.81	Farmers, except horticultural
23.82	Inspectors, testers, and graders
23.88	Meter readers
23.89	Marine engineers
23.96	Bartenders
23.97	Office machine operators, n.e.c.
24.01	Weighers, measurers, checkers, and samplers
24.02	Lay-out workers
24.13	Hand painting, coating, and decorating occupations
24.17	Guards and police, except public service
24.23	Mechanical controls and valve repairers
24.26	Household appliance and power tool repairers
24.40	Messengers
24.44	Machinists
24.49	Machinist apprentices
24.55	Glaziers
24.59	Baggage porters and bellhops
24.72	Billing clerks
24.83	Locksmiths and safe repairers
24.83	Small engine repairers
24.98	File clerks
25.09	Rail vehicle operators, n.e.c.

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
25.19	Communications equipment operators, n.e.c.
25.21	Licensed practical nurses
25.22	Typists
25.23	Stock and inventory clerks
25.37	Sales support occupations, n.e.c.
25.37	Sales workers, apparel
25.37	Sales workers, shoes
25.38	Classified-ad clerks
25.38	Hotel clerks
25.50	Not specified mechanics and repairers
25.50	Precious stones and metals workers (Jewelers)
25.51	Boilermakers
25.53	Chief communications operators
25.54	Millwrights
25.66	Supervisors, farm workers
25.69	Demonstrators, promoters and models, sales
25.83	Sales counter clerks
25.96	Health aides, except nursing
26.12	Sheet metal worker apprentices
26.12	Sheetmetal duct installers
26.15	Railroad brake, signal, and switch operators
26.16	Mail clerks, except postal service
26.25	Supervisors, related agricultural occupations
26.26	Duplicating machine operators
26.26	Sheet metal workers
26.33	Public transportation attendants
26.35	Miscellaneous printing machine operators
26.38	Heating, air conditioning, and refrigeration mechanics
26.48	Printing press operators
26.49	Sales workers, other commodities
26.75	Miscellaneous electrical and electronic equipment repairers
26.81	Water and sewage treatment plant operators
27.07	Early childhood teacher's assistants
27.09	Engravers, metal
27.10	Helpers, construction trades
27.15	Dental assistants
27.23	Plumbers, pipefitters, and steamfitters
27.24	Plumber, pipefitter, and steamfitter apprentices
27.38	Payroll and timekeeping clerks
27.41	Camera, watch, and musical instrument repairers
27.42	Supervisors, plumbers, pipefitters, and steamfitters
27.84	Mail carriers, postal service
27.86	Telephone line installers and repairers
27.91	Structural metal workers
28.01	Insulation workers
28.10	Typesetters and compositors
28.16	Electrical power installers and repairers
28.26	Stationary engineers
28.38	Personal service occupations, n.e.c.

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
28.43	Supervisors, personal service occupations
28.60	Street and door-to-door sales workers
28.76	Protective service occupations, n.e.c.
28.91	Attendants, amusement and recreation facilities
28.92	General office clerks
28.92	Order clerks
28.95	Electronic repairers, communications and industrial equipment
29.00	Receptionists
29.02	Optical goods workers
29.03	Sales workers, hardware and building supplies
29.19	Photographic process machine operators
29.33	Bank tellers
29.82	Dancers
29.94	Stenographers
30.18	Supervisors, distribution, scheduling, and adjusting clerks
30.25	Postal clerks, except mail carriers
30.29	Supervisors, guards
30.43	Bookkeepers, accounting, and auditing clerks
30.62	Patternmakers and model makers, wood
30.70	Dispatchers
30.78	Aircraft mechanics, except engine
30.85	Aircraft engine mechanics
30.91	Supervisors, electricians and power transmission installers
31.04	Electrician apprentices
31.05	Electricians
31.23	Locomotive operating occupations
31.23	Patternmakers and model makers, metal
31.26	Statistical clerks
31.44	Photoengravers and lithographers
31.75	Personnel clerks, except payroll and timekeeping
31.90	Records clerks
31.95	Tool and die makers
31.98	Sales workers, furniture and home furnishings
32.03	Captains and other officers, fishing vessels
32.41	Administrative support occupations, n.e.c.
32.44	Cost and rate clerks
32.58	Dental laboratory and medical appliance technicians
32.59	Telephone installers and repairers
32.61	Miscellaneous precision metal workers
32.61	Tool and die maker apprentices
32.68	Sales workers, radio, TV, hi-fi, and appliances
32.72	Information clerks, n.e.c.
32.72	Supervisors, firefighting and fire prevention occupations
32.75	Motion picture projectionists
32.76	Office machine repairers
32.83	Firefighting occupations
32.87	Power plant operators
32.93	Correspondence clerks
32.93	Material recording, scheduling, and distributing clerks, n.e.c.

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
33.18	Supervisors, material moving equipment operators
33.25	Ship captains and mates, except fishing boats
33.33	Supervisors, forestry and logging workers
34.40	Auctioneers
34.48	Production coordinators
34.54	Sales workers, motor vehicles and boats
34.62	Purchasing agents and buyers, farm products
34.71	Broadcast equipment operators
34.73	Secretaries
34.75	Eligibility clerks, social welfare
34.76	Managers, farms, except horticultural
35.23	Administrators, protective services
35.25	Proofreaders
35.40	Supervisors, motor vehicle operators
35.41	Bill and account collectors
35.97	Expeditors
36.20	Forestry workers, except logging
36.20	Interviewers
36.38	Construction inspectors
36.47	Railroad conductors and yardmasters
36.84	Computer operators
36.87	Supervisors, financial records processing
37.07	Supervisors, general office
37.78	Supervisors, police and detectives
37.96	Patternmakers, lay-out workers, and cutters
38.01	Police and detectives, public service
38.59	Supervisors, extractive occupations
39.08	Transportation ticket and reservation agents
39.10	Biological technicians
39.12	Sales workers, parts
39.20	Radiologic technicians
39.43	Surveying and mapping technicians
39.43	Surveyors and mapping scientists
39.51	Supervisors, computer equipment operators
39.84	Managers, food serving and lodging establishments
41.07	Fire inspection and fire prevention occupations
41.73	Supervisors, construction, n.e.c.
41.79	Legal assistants
42.86	Photographers
43.38	Dietitians
43.68	Inspectors and compliance officers, except construction
44.63	Health technologists and technicians, n.e.c.
44.80	Library clerks
45.21	Industrial engineering technicians
45.33	Engineering technicians, n.e.c.
45.65	Electrical and electronic technicians
45.69	Musicians and composers
45.70	Welfare service aides
45.80	Buyers, wholesale and retail trade except farm products
46.14	Science technicians, n.e.c.
46.25	Sales occupations, other business services

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
46.27	Investigators and adjusters, except insurance
46.40	Registered nurses
47.26	Funeral directors
48.48	Drafting occupations
48.48	Managers, horticultural specialty farms
48.80	Designers
48.82	Data processing equipment repairers
48.90	Athletes
48.97	Purchasing managers
49.33	Mechanical engineering technicians
49.57	Forestry and conservation scientists
50.01	Sales representatives, mining, manufacturing, and wholesale
50.04	Chemical technicians
50.11	Air traffic controllers
50.48	Business and promotion agents
50.75	Health record technologists and technicians
51.22	Technicians, n.e.c.
51.64	Teachers, special education
51.80	Actors and directors
51.96	Management related occupations, n.e.c.
52.01	Real estate sales occupations
52.99	Teachers, n.e.c.
53.43	Insurance sales occupations
54.09	Underwriters
54.12	Recreation workers
54.35	Administrators and officials, public administration
54.42	Painters, sculptors, craft-artists, and artist printmakers
54.48	Purchasing agents and buyers, n.e.c.
54.96	Clinical laboratory technologists and technicians
55.39	Announcers
55.67	Artists, performers, and related workers, n.e.c.
55.78	Insurance adjusters, examiners, and investigators
57.08	Religious workers, n.e.c.
57.09	Chief executives and general administrators, public administration
57.09	Legislators
57.93	Managers, marketing, advertising, and public relations
58.51	Teachers, prekindergarten and kindergarten
58.55	Financial managers
58.60	Tool programmers, numerical control
58.71	Advertising and related sales occupations
58.82	Physicians' assistants
59.58	Technical writers
59.64	Personnel and labor relations managers
59.80	Personnel, training, and labor relations specialists
59.94	Occupational therapists
59.94	Physical therapists
59.94	Respiratory therapists
59.94	Speech therapists
59.94	Therapists, n.e.c.
60.47	Managers, properties and real estate

SEI Scores and Occupations for All SOC Codes (cont.)

<u><i>SEI Score</i></u>	<u><i>Job Description</i></u>
61.22	Archivists and curators
61.54	Managers, medicine and health
61.62	Other financial officers
64.76	Accountants and auditors
64.94	Operations and systems researchers and analysts
65.12	Statisticians
65.46	Librarians
65.71	Social workers
66.03	Clergy
66.05	Computer programmers
67.25	Dental hygienists
67.26	Public relations specialists
67.27	Editors and reporters
67.55	Airplane pilots and navigators
68.44	Agricultural and food scientists
68.84	Trade and industrial teachers
70.00	Management analysts
70.64	Industrial
70.88	Teachers, elementary school
71.38	Securities and financial services sales occupations
73.06	Computer systems analysts and scientists
73.13	Home economics teachers
73.88	Social scientists, n.e.c.
74.58	Atmospheric and space scientists
75.14	Teachers, secondary school
75.49	Mining
76.41	Engineers, n.e.c.
76.60	Judges
76.71	Mechanical
76.73	Medical scientists
76.87	Civil
77.13	Postsecondary teachers, subject not specified
77.32	Biological and life scientists
77.57	Marine and naval architects
77.76	Chemists, except biochemists
78.16	Sales engineers
78.27	Economists
78.33	Sociologists
78.97	Electrical and electronic
78.97	Foreign language teachers
78.99	Agricultural
79.23	Metallurgical and materials
79.63	Urban planners
79.72	Architects
79.91	Art, drama, and music teachers
80.05	Physical scientists, n.e.c.
80.37	Actuaries
80.81	English teachers
80.90	Health specialties teachers
81.10	Pharmacists

SEI Scores and Occupations for All SOC Codes (cont.)

<u>SEI Score</u>	<u>Job Description</u>
81.10	Theology teachers
81.43	Physical education teachers
81.61	Medical science teachers
81.93	Natural science teachers, n.e.c.
81.93	Teachers, postsecondary, n.e.c.
82.28	Sociology teachers
82.32	Petroleum
82.44	Administrators, education and related fields
82.46	Computer science teachers
82.46	Computer science teachers
82.46	Mathematical science teachers
82.48	Psychologists
82.89	Podiatrists
82.91	Business, commerce, and marketing teachers
83.02	Nuclear
83.53	Aerospace
83.61	History teachers
83.80	Biological science teachers
84.22	Physics teachers
84.39	Mathematical scientists, n.e.c.
84.80	Political science teachers
84.86	Engineering teachers
85.03	Chemistry teachers
85.04	Earth, environmental, and marine science teachers
85.04	Social science teachers, n.e.c.
85.04	Social work teachers
85.53	Psychology teachers
85.71	Agriculture and forestry teachers
85.73	Optometrists
86.20	Education teachers
86.60	Veterinarians
86.65	Geologists and geodesists
87.00	Physicists and astronomers
87.11	Economics teachers
87.14	Chemical
88.28	Physicians
88.42	Lawyers
89.57	Dentists
90.45	Law teachers

	<i>Base</i>		<i>All Non-Managerial Jobs</i>		<i>All Races</i>		<i>All Geographic Areas</i>	
	(1)		(2)		(3)		(4)	
<u>MALES</u>								
<i>Age</i>	24.8		26.9		26.8		26.9	
	(0.53)		(0.15)		(0.09)		(0.08)	
<i>Married</i>	0.18		0.30		0.29		0.31	
	(0.033)		(0.010)		(0.006)		(0.006)	
<i>AFDC/TANF</i>	0.01		0.02		0.02		0.01	
	(0.009)		(0.003)		(0.002)		(0.001)	
<u>Education</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
<i>9th Grade or Less</i>	44	32	423	21	575	11	685	10
<i>10th Grade</i>	10	7	127	6	287	5	358	5
<i>11th Grade</i>	27	19	196	10	416	8	546	8
<i>HS Grad</i>	46	33	793	40	2,260	43	2,969	45
<i>>HS</i>	13	9	466	23	1,730	33	2,058	31
	140		2,006		5,269		6,617	

<u>FEMALES</u>								
<i>Age</i>	25.0		27.2		26.7		26.8	
	(0.57)		(0.15)		(0.09)		(0.08)	
<i>Married</i>	0.17		0.25		0.27		0.29	
	(0.031)		(0.009)		(0.006)		(0.005)	
<i>AFDC/TANF</i>	0.18		0.12		0.08		0.08	
	(0.032)		(0.007)		(0.004)		(0.003)	
<u>Education</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
<i>9th Grade or Less</i>	21	15	269	12	396	7	473	6
<i>10th Grade</i>	14	10	142	6	315	5	374	5
<i>11th Grade</i>	29	20	204	9	436	7	534	7
<i>HS Grad</i>	54	38	934	41	2,421	41	3,081	42
<i>>HS</i>	26	18	710	31	2,351	40	2,823	39
	145		2,260		5,919		7,285	

Table 1. Summary Statistics (by gender and sample)

	<i>Males</i>	<i>Females</i>
<i># Observations</i>	139	145
<i>mean - 2.5%</i>	6.29	5.57
<i>mean</i>	6.65	5.75
<i>mean + 2.5%</i>	7.02	5.92
<i>10th Percentile</i>	5.02	4.90
<i>15th Percentile</i>	5.23	5.03
<i>20th Percentile</i>	5.30	5.12
<i>25th Percentile</i>	5.39	5.32
<i>30th Percentile</i>	5.44	5.36
<i>35th Percentile</i>	5.49	5.39
<i>40th Percentile</i>	5.62	5.42
<i>45th Percentile</i>	5.76	5.46
<i>50th Percentile</i>	5.98	5.52
<i>55th Percentile</i>	6.13	5.59
<i>60th Percentile</i>	6.28	5.75
<i>65th Percentile</i>	6.51	5.85
<i>70th Percentile</i>	6.55	5.91
<i>75th Percentile</i>	7.06	6.07
<i>80th Percentile</i>	7.66	6.24
<i>85th Percentile</i>	8.50	6.43
<i>90th Percentile</i>	9.04	6.87

Table 2. Distribution of Initial Wages (base sample, by gender)

	<i>Males</i>		<i>Females</i>	
	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>
	(1)	(2)	(3)	(4)
# Observations	80		72	
mean - 2.5%	-0.29	-2.4%	-0.09	-4.4%
mean	0.27	3.8%	0.25	2.9%
mean + 2.5%	0.82	9.9%	0.58	10.2%
10th Percentile	-1.65	-17.0%	-0.71	-11.0%
15th Percentile	-0.65	-11.3%	-0.19	-3.3%
20th Percentile	-0.38	-5.6%	-0.15	-2.6%
25th Percentile	-0.19	-3.0%	-0.12	-2.0%
30th Percentile	-0.11	-1.7%	-0.07	-1.2%
35th Percentile	0.05	0.7%	0.06	0.9%
40th Percentile	0.17	2.8%	0.11	1.9%
45th Percentile	0.34	5.0%	0.21	3.8%
50th Percentile	0.38	6.0%	0.36	6.8%
55th Percentile	0.46	8.8%	0.41	7.4%
60th Percentile	0.51	9.1%	0.46	8.3%
65th Percentile	0.68	12.4%	0.54	9.4%
70th Percentile	0.89	13.0%	0.70	12.0%
75th Percentile	0.95	16.6%	0.80	13.3%
80th Percentile	1.18	18.2%	0.92	16.2%
85th Percentile	1.24	23.2%	1.11	19.1%
90th Percentile	1.73	28.3%	1.42	23.9%

Table 3. Distribution of Wage Growth (12-month wage growth, base sample, by gender)

	<i>All Individuals</i>				<i>In Sample > 18 Months</i>				
	<i>Males</i>		<i>Females</i>		<i>Males</i>		<i>Females</i>		
	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	
0	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
# Observations	140		145		83		86		
mean - 2.5%	0.17	2.3%	-0.02	0.5%	-0.14	-0.3%	-0.57	-5.3%	
mean	0.58	6.0%	0.29	4.0%	0.44	5.6%	0.10	0.9%	
mean + 2.5%	1.00	9.6%	0.60	7.5%	1.01	11.5%	0.77	7.2%	
10th Percentile	0	-0.46	-7.2%	-0.80	-13.3%	-1.20	-18.8%	-0.87	-13.2%
15th Percentile	0	-0.32	-4.1%	-0.39	-6.5%	-0.74	-12.1%	-0.46	-8.1%
20th Percentile	0	-0.25	-3.6%	-0.23	-4.1%	-0.49	-7.2%	-0.25	-4.0%
25th Percentile	0	-0.20	-2.8%	-0.19	-3.1%	-0.35	-5.1%	-0.21	-3.2%
30th Percentile	0	-0.16	-2.3%	-0.15	-2.7%	-0.23	-3.3%	-0.17	-2.6%
35th Percentile	0	-0.11	-1.9%	-0.12	-2.2%	-0.20	-3.2%	-0.16	-2.5%
40th Percentile	0	-0.08	-1.4%	-0.07	-1.0%	-0.16	-1.9%	-0.12	-2.3%
45th Percentile	0	-0.04	-0.4%	0.00	0.0%	-0.10	-1.6%	-0.11	-1.9%
50th Percentile	0	0.04	0.5%	0.08	1.6%	-0.05	-0.5%	-0.03	-0.8%
55th Percentile	0	0.14	1.8%	0.18	3.2%	0.02	0.9%	0.01	0.0%
60th Percentile	0	0.27	4.7%	0.28	5.0%	0.20	2.4%	0.09	1.7%
65th Percentile	0	0.36	6.1%	0.36	6.3%	0.30	4.6%	0.29	4.1%
70th Percentile	0	0.50	7.4%	0.58	9.0%	0.55	7.8%	0.40	6.0%
75th Percentile	0	0.66	9.5%	0.78	11.2%	0.75	9.5%	0.66	9.8%
80th Percentile	0	0.78	11.9%	0.90	14.1%	0.97	12.8%	0.91	13.6%
85th Percentile	0	1.00	14.6%	1.09	18.0%	2.03	23.7%	1.23	19.6%
90th Percentile	0	1.52	18.4%	1.82	29.5%	2.81	40.9%	1.93	28.2%

Table 4. Distribution of Wage Growth (average annualized, base sample, by gender)

	<i>Males</i>		<i>Females</i>	
	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
<i>>=\$5</i>	16	11	19	13
<i>\$1-\$5</i>	41	29	42	29
<i><\$1</i>	16	11	17	12
<i>loss</i>	67	48	65	45
	140		143	

Table 5. Categories of Wage Growth (base sample, by gender)

	<i>Males</i>				<i>Females</i>			
	<i>Base</i>	<i>All Non- Managerial Jobs</i>	<i>All Races</i>	<i>All Geographic Areas</i>	<i>Base</i>	<i>All Non- Managerial Jobs</i>	<i>All Races</i>	<i>All Geographic Areas</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i># Observations</i>	139	1,985	5,233	6,578	145	2,244	5,881	7,239
<i>mean - 2.5%</i>	6.29	7.83	8.53	8.51	5.57	6.98	7.09	7.03
<i>mean</i>	6.65	7.99	8.65	8.61	5.75	7.10	7.17	7.10
<i>mean + 2.5%</i>	7.02	8.15	8.76	8.71	5.92	7.22	7.25	7.17
<i>10th Percentile</i>	5.02	5.10	5.29	5.26	4.90	5.02	4.89	4.79
<i>15th Percentile</i>	5.23	5.37	5.45	5.43	5.03	5.26	5.22	5.14
<i>20th Percentile</i>	5.30	5.46	5.70	5.62	5.12	5.38	5.38	5.34
<i>25th Percentile</i>	5.39	5.70	5.94	5.89	5.32	5.45	5.46	5.43
<i>30th Percentile</i>	5.44	5.92	6.24	6.18	5.36	5.54	5.59	5.52
<i>35th Percentile</i>	5.49	6.13	6.46	6.45	5.39	5.73	5.82	5.75
<i>40th Percentile</i>	5.62	6.35	6.72	6.69	5.42	5.95	6.01	5.97
<i>45th Percentile</i>	5.76	6.54	7.08	7.06	5.46	6.08	6.23	6.17
<i>50th Percentile</i>	5.98	6.83	7.41	7.41	5.52	6.29	6.44	6.36
<i>55th Percentile</i>	6.13	7.23	7.68	7.68	5.59	6.54	6.61	6.56
<i>60th Percentile</i>	6.28	7.60	8.19	8.19	5.75	6.79	6.99	6.89
<i>65th Percentile</i>	6.51	7.95	8.69	8.69	5.85	7.10	7.33	7.27
<i>70th Percentile</i>	6.55	8.57	9.30	9.28	5.91	7.52	7.64	7.63
<i>75th Percentile</i>	7.06	9.05	10.00	9.98	6.07	7.97	8.14	8.07
<i>80th Percentile</i>	7.66	9.83	10.90	10.86	6.24	8.50	8.68	8.61
<i>85th Percentile</i>	8.50	10.90	11.99	11.99	6.43	9.25	9.36	9.30
<i>90th Percentile</i>	9.04	12.53	13.75	13.65	6.87	10.15	10.39	10.33

Table 6. Distribution of Initial Wages (by gender and sample)

Males

Females

	<i>Males</i>								<i>Females</i>									
	#	<i>Base</i>		<i>All Non-Managerial Jobs</i>		<i>All Races</i>		<i>All Geographic Areas</i>		#	<i>Base</i>		<i>All Non-Managerial Jobs</i>		<i>All Races</i>		<i>All Geographic Areas</i>	
		\$	%	\$	%	\$	%	\$	%		\$	%	\$	%	\$	%	\$	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)		
<i># Observations</i>	140	-	2,006	-	5,269	-	6,617	-	145	-	2,260	-	5,919	-	7,285	-		
<i>mean - 2.5%</i>	0.17	2.3%	0.18	2.3%	0.39	4.1%	0.37	3.6%	-0.02	0.5%	0.35	4.0%	0.52	5.5%	0.45	4.9%		
<i>mean</i>	0.58	6.0%	0.36	3.5%	0.49	4.9%	0.45	4.3%	0.29	4.0%	0.54	5.1%	0.64	6.2%	0.56	5.6%		
<i>mean + 2.5%</i>	1.00	9.6%	0.54	4.7%	0.59	5.7%	0.54	5.0%	0.60	7.5%	0.74	6.2%	0.75	6.9%	0.67	6.2%		
<i>10th Percentile</i>	0	-0.46	-7.2%	-1.17	-15.3%	-1.17	-13.9%	-1.21	-15.2%	-0.80	-13.3%	-0.86	-12.3%	-0.90	-12.3%	-0.88	-12.5%	
<i>15th Percentile</i>	0	-0.32	-4.1%	-0.65	-8.6%	-0.65	-7.0%	-0.67	-7.3%	-0.39	-6.5%	-0.44	-5.8%	-0.43	-5.7%	-0.44	-5.9%	
<i>20th Percentile</i>	0	-0.25	-3.6%	-0.40	-4.3%	-0.40	-4.1%	-0.40	-4.1%	-0.23	-4.1%	-0.28	-3.9%	-0.27	-3.7%	-0.28	-3.7%	
<i>25th Percentile</i>	0	-0.20	-2.8%	-0.28	-3.7%	-0.27	-3.4%	-0.28	-3.4%	-0.19	-3.1%	-0.22	-3.1%	-0.21	-3.0%	-0.21	-3.0%	
<i>30th Percentile</i>	0	-0.16	-2.3%	-0.22	-3.0%	-0.21	-2.8%	-0.21	-2.8%	-0.15	-2.7%	-0.18	-2.8%	-0.17	-2.7%	-0.17	-2.7%	
<i>35th Percentile</i>	0	-0.11	-1.9%	-0.18	-2.6%	-0.17	-2.3%	-0.17	-2.3%	-0.12	-2.2%	-0.15	-2.3%	-0.14	-2.2%	-0.14	-2.2%	
<i>40th Percentile</i>	0	-0.08	-1.4%	-0.14	-2.1%	-0.13	-1.8%	-0.13	-1.8%	-0.07	-1.0%	-0.11	-1.7%	-0.10	-1.6%	-0.10	-1.6%	
<i>45th Percentile</i>	0	-0.04	-0.4%	-0.10	-1.6%	-0.08	-1.1%	-0.08	-1.1%	0.00	0.0%	-0.06	-1.0%	-0.05	-0.7%	-0.05	-0.8%	
<i>50th Percentile</i>	0	0.04	0.5%	-0.04	-0.4%	0.00	0.2%	0.00	0.2%	0.08	1.6%	0.03	0.5%	0.04	0.7%	0.04	0.7%	
<i>55th Percentile</i>	0	0.14	1.8%	0.08	1.2%	0.15	1.9%	0.14	1.9%	0.18	3.2%	0.12	1.8%	0.16	2.2%	0.15	2.1%	
<i>60th Percentile</i>	0	0.27	4.7%	0.22	3.0%	0.30	3.6%	0.29	3.5%	0.28	5.0%	0.22	3.5%	0.27	3.9%	0.25	3.7%	
<i>65th Percentile</i>	0	0.36	6.1%	0.36	4.8%	0.45	5.5%	0.44	5.3%	0.36	6.3%	0.34	5.0%	0.41	5.8%	0.38	5.4%	
<i>70th Percentile</i>	0	0.50	7.4%	0.53	6.7%	0.65	7.6%	0.63	7.4%	0.58	9.0%	0.49	6.9%	0.56	7.8%	0.53	7.4%	
<i>75th Percentile</i>	0	0.66	9.5%	0.72	9.2%	0.89	10.1%	0.87	9.9%	0.78	11.2%	0.67	9.1%	0.76	10.0%	0.71	9.5%	
<i>80th Percentile</i>	0	0.78	11.9%	0.99	11.5%	1.21	13.4%	1.17	13.1%	0.90	14.1%	0.92	11.8%	1.00	13.3%	0.95	12.7%	
<i>85th Percentile</i>	0	1.00	14.6%	1.34	15.3%	1.72	18.7%	1.64	18.3%	1.09	18.0%	1.25	16.5%	1.38	18.4%	1.30	17.6%	
<i>90th Percentile</i>	0	1.52	18.4%	1.98	23.8%	2.54	26.9%	2.44	26.2%	1.82	29.5%	1.76	24.4%	2.06	27.3%	1.98	25.9%	

Table 7. Distribution of Wage Growth (by gender and sample)

	<i>Base</i>		<i>All Non- Managerial Jobs</i>		<i>All Races</i>		<i>All Geographic Areas</i>	
	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>	<i>Freq</i>	<i>%</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>MALES</u>								
<i>>=\$5</i>	16	11	318	16	1,013	19	1,240	19
<i>\$1-\$5</i>	41	29	462	23	1,163	22	1,465	22
<i><\$1</i>	16	11	183	9	451	9	590	9
<i>loss</i>	67	48	1,029	52	2,590	50	3,263	50
	140		1,992		5,217		6,558	
<u>FEMALES</u>								
<i>>=\$5</i>	19	13	338	15	973	17	1,140	16
<i>\$1-\$5</i>	42	29	528	23	1,418	24	1,735	24
<i><\$1</i>	17	12	289	13	662	11	875	12
<i>loss</i>	65	45	1,094	49	2,815	48	3,473	48
	143		2,249		5,868		7,223	

Table 8. Categories of Wage Change (by gender and sample)

	<i>Males</i>								<i>Females</i>							
	<i>October 1985-April 1995 (1986-1992 Panels)</i>				<i>December 1995-February 2000 (1996 Panel)</i>				<i>October 1985-April 1995 (1986-1992 Panels)</i>				<i>December 1995-February 2000 (1996 Panel)</i>			
	<i>Base</i>		<i>All Geographic Areas</i>		<i>Base</i>		<i>All Geographic Areas</i>		<i>Base</i>		<i>All Geographic Areas</i>		<i>Base</i>		<i>All Geographic Areas</i>	
	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>	<i>\$</i>	<i>%</i>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
<i># Observations</i>	273	-	18,520	-	140	-	6,617	-	191	-	18,951	-	145	-	7,285	-
<i>mean - 2.5%</i>	0.21	1.8%	0.29	2.8%	0.17	2.3%	0.37	3.6%	-0.02	0.5%	0.26	3.1%	-0.02	0.5%	0.45	4.9%
<i>mean</i>	0.39	4.5%	0.34	3.2%	0.58	6.0%	0.45	4.3%	0.29	4.0%	0.30	3.4%	0.29	4.0%	0.56	5.6%
<i>mean + 2.5%</i>	0.57	7.2%	0.39	3.5%	1.00	9.6%	0.54	5.0%	0.60	7.5%	0.35	3.8%	0.60	7.5%	0.67	6.2%
<i>10th Percentile</i>	-0.75	-11.0%	-1.28	-13.1%	-0.46	-7.2%	-1.21	-15.2%	-0.76	-13.8%	-0.88	-11.1%	-0.80	-13.3%	-0.88	-12.5%
<i>15th Percentile</i>	-0.45	-7.5%	-0.74	-6.8%	-0.32	-4.1%	-0.67	-7.3%	-0.32	-5.1%	-0.48	-5.9%	-0.39	-6.5%	-0.44	-5.9%
<i>20th Percentile</i>	-0.32	-4.5%	-0.50	-4.7%	-0.25	-3.6%	-0.40	-4.1%	-0.25	-4.4%	-0.34	-4.4%	-0.23	-4.1%	-0.28	-3.7%
<i>25th Percentile</i>	-0.26	-3.6%	-0.37	-3.7%	-0.20	-2.8%	-0.28	-3.4%	-0.21	-3.5%	-0.26	-3.5%	-0.19	-3.1%	-0.21	-3.0%
<i>30th Percentile</i>	-0.21	-2.9%	-0.29	-3.0%	-0.16	-2.3%	-0.21	-2.8%	-0.17	-3.0%	-0.21	-2.9%	-0.15	-2.7%	-0.17	-2.7%
<i>35th Percentile</i>	-0.17	-2.7%	-0.22	-2.7%	-0.11	-1.9%	-0.17	-2.3%	-0.16	-2.8%	-0.17	-2.7%	-0.12	-2.2%	-0.14	-2.2%
<i>40th Percentile</i>	-0.15	-2.6%	-0.17	-2.2%	-0.08	-1.4%	-0.13	-1.8%	-0.14	-2.4%	-0.14	-2.2%	-0.07	-1.0%	-0.10	-1.6%
<i>45th Percentile</i>	-0.13	-2.1%	-0.12	-1.3%	-0.04	-0.4%	-0.08	-1.1%	-0.09	-1.5%	-0.09	-1.2%	0.00	0.0%	-0.05	-0.8%
<i>50th Percentile</i>	-0.03	-0.3%	-0.01	-0.1%	0.04	0.5%	0.00	0.2%	-0.03	-0.4%	-0.01	-0.1%	0.08	1.6%	0.04	0.7%
<i>55th Percentile</i>	0.04	0.7%	0.10	1.0%	0.14	1.8%	0.14	1.9%	0.00	0.0%	0.08	1.0%	0.18	3.2%	0.15	2.1%
<i>60th Percentile</i>	0.15	2.4%	0.22	2.3%	0.27	4.7%	0.29	3.5%	0.06	1.0%	0.17	2.2%	0.28	5.0%	0.25	3.7%
<i>65th Percentile</i>	0.34	4.9%	0.37	3.9%	0.36	6.1%	0.44	5.3%	0.19	3.0%	0.28	3.5%	0.36	6.3%	0.38	5.4%
<i>70th Percentile</i>	0.45	7.1%	0.54	5.8%	0.50	7.4%	0.63	7.4%	0.32	5.6%	0.40	5.2%	0.58	9.0%	0.53	7.4%
<i>75th Percentile</i>	0.78	10.6%	0.78	8.4%	0.66	9.5%	0.87	9.9%	0.39	6.7%	0.57	7.3%	0.78	11.2%	0.71	9.5%
<i>80th Percentile</i>	1.29	16.5%	1.11	11.9%	0.78	11.9%	1.17	13.1%	0.51	9.7%	0.80	10.3%	0.90	14.1%	0.95	12.7%
<i>85th Percentile</i>	1.56	23.2%	1.59	17.7%	1.00	14.6%	1.64	18.3%	0.83	13.9%	1.16	14.9%	1.09	18.0%	1.30	17.6%
<i>90th Percentile</i>	2.79	30.7%	2.44	26.7%	1.52	18.4%	2.44	26.2%	1.52	23.3%	1.80	22.3%	1.82	29.5%	1.98	25.9%

Table 9. Distribution of Wage Growth (1986-1992 panels compared to 1996 panel, by gender and sample)

	<i>October 1985-April 1995</i> <i>(1986-1992 Panels)</i>				<i>December 1995-February 2000</i> <i>(1996 Panel)</i>			
	<i>Base</i>		<i>Full</i>		<i>Base</i>		<i>Full</i>	
	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
<u>MALES</u>								
<i>>=\$5</i>	54	20	3,344	18	16	11	1,240	19
<i>\$1-\$5</i>	44	16	3,750	21	41	29	1,465	22
<i><\$1</i>	32	12	1,883	10	16	11	590	9
<i>loss</i>	138	51	9,207	51	67	48	3,263	50
	268	-	18,184	-	140	-	6,558	-
<u>FEMALES</u>								
<i>>=\$5</i>	22	12	2,598	14	19	13	1,140	16
<i>\$1-\$5</i>	37	20	4,134	22	42	29	1,735	24
<i><\$1</i>	23	13	2,443	13	17	12	875	12
<i>loss</i>	100	55	9,384	51	65	45	3,473	48
	182	-	18,559	-	143	-	7,223	-

Table 10. Categories of Wage Change (by gender and sample, 1986-1992 panels compared to 1996 panel)

	<i>Males</i>				<i>Females</i>			
	<i>\$</i>		<i>%</i>		<i>\$</i>		<i>%</i>	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Additional Non-Managerial Jobs</i>	-0.125 (0.087)	-0.378 (0.509)	-0.018 (0.011)	-0.079 (0.061)	-0.126 (0.238)	0.162 (0.451)	-0.014 (0.019)	-0.111 (0.129)
<i>Other Races (Not Black or Hispanic)</i>	0.055 (0.081)	-0.454 (0.504)	-0.004 (0.011)	-0.085 (0.062)	-0.031 (0.236)	0.046 (0.455)	-0.003 (0.019)	-0.128 (0.129)
<i>Non-Metropolitan Areas</i>	-0.159* (0.083)	-1.162 (2.570)	-0.019* (0.011)	-0.106 (0.224)	-0.217 (0.238)	-1.308 (1.359)	-0.014 (0.019)	-0.218 (0.165)
<i>Age</i>	-----	-0.244 (0.166)	-----	-0.019 (0.017)	-----	-0.320 (0.195)	-----	-0.031 (0.021)
<i>Age Squared</i>	-----	0.004 (0.003)	-----	0.000 (0.000)	-----	0.006 (0.004)	-----	0.001 (0.000)
<i>Married w/ Spouse Present</i>	-----	-0.141 (0.315)	-----	-0.014 (0.034)	-----	-0.557 (0.459)	-----	0.019 (0.028)
<i>Unemployment Rate</i>	-----	0.022 (0.054)	-----	0.001 (0.004)	-----	-0.013 (0.042)	-----	-0.002 (0.004)
<i>Education Dummy (10th Grade)</i>	-----	0.182 (0.464)	-----	-0.008 (0.058)	-----	-0.204 (0.442)	-----	0.017 (0.069)
<i>Education Dummy (11th Grade)</i>	-----	-0.252 (0.415)	-----	-0.027 (0.050)	-----	0.032 (0.467)	-----	0.052 (0.071)
<i>Education Dummy (12th Grade)</i>	-----	-0.017 (0.399)	-----	-0.030 (0.039)	-----	-0.398 (0.422)	-----	0.015 (0.052)
<i>Education Dummy (More Than High School)</i>	-----	0.046 (0.373)	-----	0.003 (0.035)	-----	0.335 (0.444)	-----	0.054 (0.052)
<i>Observations</i>	759,584	10,768			730,024	11,775		
<i>Individuals</i>	39,634	836			38,680	917		

NOTES:

Standard errors in parentheses

** significant at 10%; ** significant at 5%; *** significant at 1%*

Table 11. Annual Deflated Wage Rates (regression coefficients, by gender)

	<i>Males</i>		<i>Females</i>	
	(1)	(2)	(3)	(4)
<i>Additional Non-Managerial Jobs</i>	0.100 (0.102)	0.037 (0.462)	0.054 (0.126)	0.238 (0.554)
<i>Other Races (Not Black or Hispanic)</i>	0.232 ** (0.100)	0.146 (0.457)	0.206 * (0.125)	0.311 (0.549)
<i>Non-Metropolitan Areas</i>	0.091 (0.101)	----- -----	-0.001 (0.126)	1.005 (0.945)
<i>Age</i>	----- -----	-0.067 (0.104)	----- -----	-0.002 (0.093)
<i>Age Squared</i>	----- -----	0.001 (0.002)	----- -----	0.000 (0.002)
<i>Married w/ Spouse Present</i>	----- -----	-0.090 (0.162)	----- -----	-0.198 (0.141)
<i>Unemployment Rate</i>	----- -----	-0.027 (0.031)	----- -----	-0.047 (0.029)
<i>Education Dummy (10th Grade)</i>	----- -----	0.221 (0.321)	----- -----	0.146 (0.335)
<i>Education Dummy (11th Grade)</i>	----- -----	-0.110 (0.289)	----- -----	0.037 (0.307)
<i>Education Dummy (12th Grade)</i>	----- -----	0.179 (0.233)	----- -----	0.163 (0.243)
<i>Education Dummy (More Than High School)</i>	----- -----	0.418 * (0.243)	----- -----	0.452 * (0.254)
<i>Individuals</i>	39,634	806	38,680	883

NOTES:

Standard errors in parentheses

** significant at 10%; ** significant at 5%; *** significant at 1%*

Table 12. Probability of Being a "High Flyer" (probit coefficients, by gender)

	MALE						FEMALE					
	High Flyer			Other			High Flyer			Other		
	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference	Period 1	Period 2	Difference
<u>Demographic Characteristics</u>												
<i>High School Graduate</i>	0%	0%	0%	37%	44%	7%	60%	60%	0%	44%	45%	1%
<i>More Than High School</i>	50%	50%	0%	11%	12%	1%	0%	0%	0%	13%	16%	3%
<i>Age</i>	22.3	24.0	1.8	25.4	26.8	1.4	24.8	26.4	1.6	25.2	26.6	1.4
<i>Married with Spouse Present</i>	0%	25%	25%	32%	34%	3%	20%	20%	0%	16%	21%	5%
<i>Non-White</i>	25%	25%	---	33%	33%	---	80%	80%	---	72%	72%	---
<u>Employment Status</u>												
<i>Deflated Wage Rate</i>	5.64	7.06	1.42	6.80	7.25	0.45	5.22	7.79	2.57	5.66	6.34	0.68
<i>Employed</i>	100%	100%	0%	100%	89%	-11%	100%	100%	0%	100%	76%	-24%
<i>New Job</i>	---	50%	---	---	58%	---	---	60%	---	---	60%	---
<i>Hours</i>	35.0	31.3	(3.8)	33.7	36.0	2.2	27.0	39.0	12.0	28.0	30.5	2.5
<i>Weeks</i>	1.3	4.8	3.5	2.7	3.3	0.6	2.6	4.2	1.6	2.3	3.0	0.7
<u>Job Characteristics</u>												
<i>Food Service Job</i>	100%	75%	-25%	100%	60%	-40%	100%	40%	-60%	100%	47%	-53%
<i>Manager</i>	0%	0%	0%	0%	4%	4%	0%	40%	40%	0%	5%	5%
<i>Private Sector</i>	100%	100%	0%	100%	82%	-18%	100%	100%	0%	97%	69%	-28%
<i>SEI Score</i>	31	32	1	32	33	2	32	37	5	32	35	2
<u>Income</u>												
<i>Household Income</i>	735	1,193	458	1,643	2,568	925	1,129	3,233	2,104	1,414	1,701	286
<i>Below Poverty</i>	100%	100%	0%	52%	27%	-25%	80%	20%	-60%	63%	52%	-11%
<i>Below 1.5xPoverty</i>	100%	100%	0%	79%	51%	-29%	100%	40%	-60%	84%	77%	-7%
<i>Family Poverty Ratio</i>	0.5	0.9	0.4	1.0	1.7	0.7	0.8	2.3	1.6	0.9	1.1	0.3
<u>Public Assistance</u>												
<i>AFDC/TANF</i>	0%	0%	0%	1%	3%	1%	20%	0%	-20%	27%	17%	-9%
<i>Public Housing</i>	50%	50%	0%	8%	10%	2%	75%	75%	0%	30%	29%	-1%
# Observations			4			73			5			75

Table 13. Summary Statistics (by "High Flyer" Status)

<i>4-year</i> Wage Gain	SEI Category (SEI Score)			Occupation
	Period 1	Period 2	Period 1	Period 2
\$ 19.27	2 (29)	1 (29)	Kitchen Workers, Food Preparation	Helpers, Construction Trades
\$ 15.16	2 (31)	4 (38)	Cooks	Supervisors, Food Preparation and Service Occupations
\$ 14.33	2 (31)	3 (35)	Cooks	Bank Tellers
\$ 11.72	2 (29)	4 (52)	Kitchen Workers, Food Preparation	Managers, Food Serving and Lodging Establishments
\$ 11.64	3 (35)	1 (28)	Food Counter, Fountain and Related Occupations	Janitors and Cleaners
\$ 10.72	2 (29)	4 (38)	Kitchen Workers, Food Preparation	Order Clerks
\$ 9.26	2 (31)	2 (31)	Cooks	Cooks
\$ 6.56	2 (31)	2 (31)	Cooks	Cooks

Table 14a. High Flyers (Male)

\$ 13.46	2 (31)	2 (31)	Cooks	Cooks
\$ 11.17	2 (31)	3 (33)	Cooks	Cashiers
\$ 11.15	2 (31)	1 (29)	Cooks	Miscellaneous and Not Specified Machine Operators, n.e.c.
\$ 8.75	2 (31)	1 (26)	Cooks	Hairdressers and Cosmetologists
\$ 8.10	3 (35)	1 (25)	Food Counter, Fountain and Related Occupations	Electrical and Electronic Equipment Assemblers
\$ 7.28	3 (35)	3 (33)	Food Counter, Fountain and Related Occupations	Cashiers
\$ 6.44	2 (31)	2 (31)	Cooks	Cooks
\$ 5.88	2 (31)	4 (52)	Cooks	Managers, Food Serving and Lodging Establishments
\$ 5.81	2 (31)	4 (76)	Cooks	Accountants and Auditors
\$ 5.11	2 (31)	4 (52)	Cooks	Managers, Food Serving and Lodging Establishments
\$ 5.02	2 (31)	2 (31)	Cooks	Cooks

Table 14b. High Flyers (Female)