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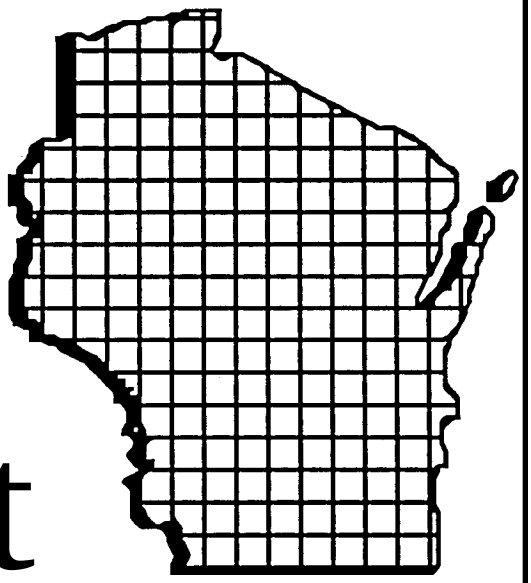

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# ECONOMIC LESSONS FOR WELFARE MOTHERS

**REPORT FROM THE PRESIDENT:**

This is the first of several studies that we are planning to publish on the economic conditions of poor, working mothers in Wisconsin. This project is under the direction of Professor Sammis White, who has spent thirty years researching and writing about work and welfare in Wisconsin. On this study Lori Geddes, an economist with a strong background in data analysis, assisted him.

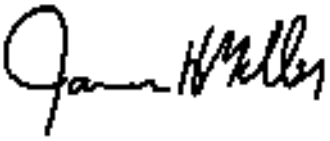
The data used for this initial project come from the Wisconsin Department of Workforce Development. It is a special database created to analyze the work and earnings experiences of the 96,000 women who were on AFDC in Wisconsin in 1990, and who worked in our state in jobs covered by Unemployment Insurance between January 1, 1990 and December 31, 1998. It is an enormous database that will produce the kind of information that policy-makers need to shape programs to benefit poor, working women.

We know that in 1990 there were over 96,000 women on AFDC in Wisconsin. Today, there are less than 8,000. Those numbers are facts, but they are also history. At issue today are the women who are currently supporting their families. This first study deals with the world of work and income for these women.

The results paint a picture of industries where women who work four consecutive quarters in any year can rise above the poverty level. Women who do not work four quarters a year are still struggling to support their families. More to the point, this data also describe the types of employers that women choose, which can ultimately determine their ability to rise above the poverty level and to begin to move into the economic mainstream. Women who work for companies with over 500 employees earn more than those who work for companies with less than 20 employees. Women working in Public Administration and Manufacturing earn more than those with jobs in Retail Trade or Services. The lesson is that a poor woman has a better future with a huge company than with a small business.

There is little question that the numbers and research in this report are scholarly. That was the intent and that is the product. There is no rhetoric, only numbers that will hopefully enable government officials to encourage and support poor, working women in Wisconsin with programs that will continue their rise out of poverty.

Finally, we would like to thank the Helen Bader Foundation, Inc. for their support of this project.



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# ECONOMIC LESSONS FOR WELFARE MOTHERS

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## EXECUTIVE SUMMARY

Former welfare recipients have fared differentially in the 1990s. Some are now earning high incomes while others are still below poverty, despite work efforts. Still others have no recorded work involvement. We have attempted to learn why. The vast majority of research studies to date on the employment and earnings outcomes of former welfare recipients have focused exclusively on the characteristics of the women recipients. Much of the analysis of earnings among all workers has also focused on characteristics of the workers. This study is an exception: it focuses on the characteristics of the employers that chose to hire these former recipients. It asks two questions. One is that of the overall importance of employer characteristics in determining employment and earnings outcomes. The second is that of the relative roles of various employer characteristics in determining earnings outcomes. It is the first comprehensive, longitudinal examination of the topic.

The study utilizes a special database created by the Wisconsin Department of Workforce Development. To make the study manageable, we analyze the work and earnings experience of the 96,000 women who were on Aid to Families with Dependent Children (AFDC) in Wisconsin sometime in 1990 and who worked in Wisconsin in employment covered by Unemployment Insurance sometime between January 1, 1990 and December 31, 1998. We choose to examine this one cohort because of its size and the nine years of experience it presents. It traverses a period from traditional welfare through the start of W-2.

The answer to the first question on the relative role of the characteristics of employers on employment and earnings of these former recipients is that employer characteristics by themselves are important, but not nearly as important as the workforce commitment of the women and the characteristics of the women.

The answer to the second question is more complicated. Earnings are influenced by the number of quarters a woman works and the characteristics of the employer(s) for whom she works. The most critical characteristics of the employers appear to be the average earnings per worker with that employer and the industry in which the employer is located. Some industries, such as manufacturing and construction, should be sought; others, such as retail, should be avoided. But what are also influential are the proportion of former welfare recipients on the payroll and the turnover rate of employees. The higher these ratios, the lower the average earnings of the former recipients on their payrolls.

The list below contains the highlights of a number of characteristics that influence the earnings and employment outcomes of these former recipients. Appearing first, however, are some basic numbers describing the welfare population.

- Over 96,000 women in Wisconsin were on AFDC in 1990. By 2000, that number had dropped to fewer than 8,000.
- Most of the 96,000 women recipients worked sometime during the 1990s. In fact, 88% of them were employed in at least one quarter.
- In 1998, the latest year for which we have data, over 62,000 of these women (65%) worked in "covered" employment in Wisconsin. Where the remaining 34,000 were in 1998 remains to be explored.
- Of all those who did work in any given year, an increasing percentage worked in all four quarters. That percentage grew from 37% in 1990 to 71% in 1998.
- Average earnings per woman did increase (in constant dollars) over the nine years: from $4,865 in 1990 to $12,787 in 1998. That average earnings figure is just below the poverty line for a family of three ($13,133 in 1998). Contributing to the increase were twice the number of women working in all four quarters and additional work experience.
- Those women who worked all four quarters in 1998 earned, on average, almost enough ($16,389) to put a family of four over the poverty level ($16,588 in 1998). With the use of Earned Income Tax Credits (EITCs), their incomes were over the poverty level.
- Those women who committed to only three quarters of work in 1998 earned $10,000 less ($6,295), on average, illustrating the importance of the commitment to work to earnings success.
- Similar to the overall workforce, these women were concentrated in three industries: Services (49%), Manufacturing (17%), and Retail (19%). But former recipients are over-concentrated in Services and underrepresented in Manufacturing. The distribution of all workers in Wisconsin in March of 1999 was: Services (25%), Manufacturing (23%), and Retail (18%).

- Despite the overrepresentation in Services, these women in 1998 were not highly concentrated in particular industries. Five percent or fewer worked in Eating and Drinking establishments, Nursing Homes, or Temporary Help Services, the three most common, specific industries.
- The average earnings per worker varied with the size of their employer on their "main" job, the job on which they earned the most income. In 1998, those who worked for employers with fewer than 20 employees earned an average of $8,668. Those who worked for employers with at least 500 employees earned an average of $12,525 on their main job.
- Those women who worked four quarters in 1998 in Public Administration ($21,042), Construction ($18,468), or Manufacturing ($18,422) earned far more on their main job than those women who worked in Retail Trade ($10,338), Agriculture and Mining ($11,248), or Services ($13,436).
- Of the 62,605 women who worked in 1998, some 37% were able to earn more than $15,000. Those who fell short fell far short, with average earnings of $5,643. Those who exceeded the $15,000 threshold did so convincingly, with average earnings of $22,868.
- Those who earned over $15,000 were much more likely to have worked for employers that, on average, paid their employees much more ($26,836, on average) than those that employed women who earned less than $15,000 (that paid $12,512, on average).
- Another possible explanation for low earnings is that the women started in the "wrong" industry, that is they started their careers in "dead end" jobs. These jobs are generally thought to be in such entities as Retail Sales, Temporary Help, and Health Services, such as in a nursing home or the bottom of the ladder in hospitals. Some 23,136 (56% of those working in 1998) of these women did start here. But only 17% of those who worked in both 1990 and 1998 were in one of these industries in 1998. These women did move on to other industries; the jobs were not "dead end."
- On the other hand, those who started in these "wrong" industries and who worked four quarters in 1998 were at a disadvantage: their average earnings were just $14,795 compared to the $16,389 earned by all women who worked four quarters in 1998. Those who started in some industries (hospitals, for example) were at no disadvantage, but others in certain industries, especially those starting in Temporary Help and Eating and Drinking places, earned less in 1998.
- The differential in earnings among women who were on welfare is, in part, attributable to the characteristics of the employers for whom they choose to work. But that choice of employer is not a one-way street: it is a joint decision by both employer and employee. Thus, earnings are partly a worker's decision in terms of one's commitment to work, and partly an employer's decision to hire a given employee.

## INTRODUCTION

Wisconsin dropped from over 100,000 AFDC recipients in 1990 to fewer than 8,000 W-2 (the Wisconsin replacement for AFDC) participants today. At issue are how many of the initial 100,000 have become involved in the Wisconsin workforce, and how successful their workforce participation has been. This paper begins the quest to determine the answers to these questions. What follows below is a first attempt to determine the number of formerly assisted women who have gone into and succeeded in the workforce. We initially look to see how many women have joined the workforce and to what degree they have joined. Then we focus on the characteristics of the employers who hired these women to determine the degree to which employer characteristics have an impact on the women's employment outcomes.

Detailed information about both the women who have succeeded and their employers can, in turn, be used to better assist those who are currently making the effort to join the productive workforce. Organizations assisting recipients today will learn more about the employment paths that successful, former recipients have taken. We will learn, for example, the roles of traditional low-wage entry jobs in temporary-help, health services, and retail sales. Have these industries proven to be stepping stones, holding places, or outright barriers to income growth and stability? We learn not only of industry placements, but also size of employer, number of recipients placed at an employer, length of time with individual employers, and similar factors that may influence the ability of recipients to earn incomes that help get them out of poverty.

This first paper concentrates on the characteristics of the employers that have hired former welfare recipients. It traces through the end of 1998 the work paths of the women who received AFDC in Wisconsin in 1990. We learn who joined the workforce, when, and with what results. More importantly, we learn the characteristics of all the employers with whom the women became involved. We learn who employs these recipients, for how long, and with what earnings results. We take the first cut at determining whether there are preferable work paths if one is to earn some minimum level of income. Future papers will report on more sophisticated analyses of the links between work success and employer characteristics, and how these vary with the characteristics of the women themselves.

## DATA SET

The data set employed here is unique to date. Two very large files have been combined. One file contains a wealth of data on the 96,307 women (only women) with children in Wisconsin who were enrolled in AFDC sometime in 1990.[1] Some were enrolled for as short a time as one month. Others were there for the entire year and several years thereafter. But to have been included in this analysis, they just had to be enrolled in AFDC for at least one month in 1990. Some had been on AFDC for years before 1990. Others came into the program for the first time in 1990. Some remained on support through the advent of W-2 (Wisconsin Works), the replacement for AFDC in Wisconsin, which started in October 1997. The individual file on each recipient contains background demographic data and participation data for AFDC and other income supplements. The file follows them until December 1998.

The other half of the data set is the individual-level, Unemployment Insurance , ES 202 file. This is the information reported quarterly by all employers of one or more persons. The file contains information on the individual women and on the employer. Thus, a woman who worked at a "covered" establishment, one that is required to report to the Unemployment Insurance (UI) office of the state, has a record that is filed under her Social Security number. This record reveals all of her work attachments for each quarter that she worked for covered employers in Wisconsin. For this data set, we have all such records for the period from the first quarter of 1990 to the fourth quarter of 1998. In the future the file will be extended. But this is what is currently available.

The file reveals how much each workforce participant earned from each employer in each quarter that she worked between the start of 1990 and the end of 1998. Not only do we know when a participant worked and how long she worked for each employer (in terms of quarters but not actual hours or weeks), we know many characteristics of each of the employers involved. Thus, we can examine employment patterns not only for the women but also for the employers. We are able to learn the industry of the employer, the location (by community), the number of employees, the employee turnover rates, average earnings per worker, and the like. We are able to follow workers across industries and within industries across time.

This paper will concentrate on the employment patterns of the women, the characteristics of the employers, and the patterns of employment that may exist among the more and less successful welfare recipients who have participated in the workforce in the 1990s in Wisconsin. Certainly, Wisconsin's economy is somewhat different from other parts of the country. For example, Wisconsin has had an unemployment rate throughout the 1990s that was lower than the national average. It added jobs in the March 1991 to March 1999 period at 21%, compared to the national growth rate of 13%. Furthermore, Wisconsin added about 75,000 manufacturing jobs (+14%) during a period in which manufacturing employment nationally barely broke even. Manufacturing in Wisconsin employs some 22% of the workforce compared to the 15% national average. Nevertheless, the lessons learned here have relevance for other states, especially those that might have a somewhat similar industrial distribution.

## EMPLOYMENT PATTERNS OF WELFARE AND W-2 RECIPIENTS

Our longer-term focus is on patterns of employment over a nine-year period (1990-1998). We want to learn the characteristics of the employers who hired welfare recipients and the patterns of the characteristics of the employers of recipients to identify those with whom successful, longer-term and higher-earning employment is more likely. We are exploring employment patterns and the degree to which they can be linked to employers. We hope to learn if there are employers with certain characteristics that increase the probability that recipients will become longer-term members of the workforce and higher earners.

To answer such questions, we must first look at employment and earning patterns of the recipients over time. Then we will switch to employer characteristics. To avoid complicated language, the reader must be forewarned that we refer to the recipients of AFDC in 1990 as the “women.” It is a concise way of referring to these former welfare recipients.

### Employment Patterns of Recipients

We first need to learn the degree to which AFDC (and then W-2) recipients participated in the workforce. Our initial attempt to examine this issue involves following one cohort of welfare recipients over time to see what happened to it. Thus, we start with all women in the State of Wisconsin who received AFDC at any time in 1990. Some of these women had been receiving AFDC for many years prior to 1990. Others came on the rolls in 1990 and stayed several years. Some were on and off assistance throughout the 1990s. And some came for as little as one month during 1990. In a future paper we shall pay greater attention to the characteristics of the women and their workforce results. But at this point we want to focus on those who worked at least some time, and what we can learn about the employers who hired them. Thus, we examine here all who had work experience during the 1990s.

### The Women

We learn that some 96,307 women in Wisconsin received AFDC sometime in 1990. Some of these women received AFDC for the full 12 months. Others received assistance for as little as one month. A few were both on and off assistance during the year. Some started the year on AFDC and were off it for the rest of the 1990s. Others were on and then off and then on again/off again in subsequent years. In this paper, we are not looking at AFDC receipt except as a means of identifying our initial study group. Nor are we seeking to analyze the characteristics of these women.

We first want to explore work patterns, earning patterns, patterns of work as defined by types of employers of these women, and patterns of characteristics of employers, to see if some employers, such as larger employers and employers in specific industries, have made better employers (defined in various ways) of AFDC recipients. We do know, for example, that in Milwaukee County (Wisconsin's largest in terms of population), in 1996-97, over half of the employers who hired an AFDC recipient hired but one recipient and that 39 companies each employed over 100 single parents.[2] These 39 employers together accounted for 27% of all non-temp jobs held by single parents in the study population. We also know that the majority of these recipients in Milwaukee worked in three industries: temporary-help agencies (30%), retail trade (23%), and hotel/auto/business/personal services (13%). Were these "suc-

cessful" work connections? Did they provide decent-paying opportunities? Did they lead to better or worse opportunities? These are the types of questions we seek to answer in the remainder of this paper.

## Workforce Participation

Contrary to some impressions, women in Wisconsin who enrolled in AFDC/W-2 were not freeloaders. The vast majority participated in the workforce sometime during the 1990s. Over the course of the nine years, some 88% (84,959 women) of those on AFDC in 1990 participated in the workforce in covered employment. These women did not work every year or every quarter, but they did work. Even in the initial year of the study, 1990, some 57% of the AFDC recipients had recorded employment (Table 1).

**TABLE 1 WORKFORCE PARTICIPATION OF AFDC/W-2 RECIPIENTS, WISCONSIN, 1990-1998**

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| ***Not Employed*** | 41,083 | 43,495 | 42,280 | 40,596 | 37,553 | 36,210 | 34,382 | 33,451 | 33,702 |
| ***Employed*** | 55,224 | 52,812 | 54,027 | 55,711 | 58,754 | 60,097 | 61,925 | 62,856 | 62,605 |
| **Percent of Women** | | | | | | | | | |
| ***Not Employed*** | 43 | 45 | 44 | 42 | 39 | 38 | 36 | 35 | 35 |
| ***Employed*** | 57 | 55 | 56 | 58 | 61 | 62 | 64 | 65 | 65 |

The percentage with recorded employment dropped slightly during the recession of 1991 and the recovery in 1992. But the percentage with workforce participation increased every year after 1991. By 1997 and 1998 it was 65%.[3] This figure reflects those women who worked in "covered" employment in Wisconsin in each given year. An unknown number of women not working in "covered" employment left the state and were living, and possibly working, elsewhere. Some unknown percentage worked in the "cash," or underground, economy within the State of Wisconsin. Some became married and did not have to work. What happened to the 35% that were not working in Wisconsin in 1998 is a question that should be explored. But we must restrict our analysis to those women who remained in Wisconsin and who worked for employers in the state who reported their employment to the UI office.

## First Year Employed

What may also be surprising is that a high proportion of those who were employed during the 1990-98 period were first employed in 1990. We learned above that they constituted 57% of the 1990 welfare population. A large proportion of those who began to work for covered employers made the movement to work almost immediately. Following the 57% in the initial year, 10% more made their first commitment to work in 1991 (Table 2). Another 6% waited until 1992. The proportion joining the workforce for the first time diminished each year, as fewer remained in the "never worked" pool. By 1997 and 1998, the percentage being employed for the first time in each year was

**TABLE 2 DISTRIBUTION OF WORKERS BY FIRST YEAR EMPLOYED, 1990-1998**

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| ***Number of Workers**** | 55,224 | 9,847 | 6,058 | 4,141 | 3,388 | 2,349 | 1,929 | 1,281 | 742 |
| ***Percent of Sample*** | 57 | 10 | 6 | 4 | 4 | 2 | 2 | 1 | 1 |
| ***Employed 4 Quarters*** | 30,621 | 4,912 | 3,012 | 2,011 | 1,557 | 1,087 | 888 | 571 | 81 |
| ***Percent of Workers*** | 55 | 50 | 50 | 49 | 46 | 46 | 46 | 45 | 11 |

**Number of women not employed at all 1990 - 1998 is 11,348*

around 1% of the 1990 welfare population. By the end of 1998 some 88% of the original welfare population had some work experience in covered employment in Wisconsin during the decade. In 1998, only 65% of the cohort who had been on welfare in 1990 was employed, indicating some turnover in who was employed at any point in time. Most of the 1990 recipients have work experience, but a smaller proportion have consistent work experience.

Those who took longer to get involved in covered employment had somewhat lower rates of employment in all four quarters in their first year of employment. Interestingly, however, this rate did not vary by much between 1992 and 1997. It was 50% in 1991 and 1992, and it dropped slowly down to 45% in 1997. But with the advent of W-2 in the fall of 1997, it appears that a different type of recipient first became involved in paid employment in 1998: only 11% of those first employed that year worked in all four quarters. This suggests that the population waiting until 1998 to find employment did not have the same characteristics as those who worked earlier. We can determine that, but not for this paper. Suffice it to say, duration of work patterns held for the first eight years of the decade.

Another element of the level of commitment to work is the proportion of workers who started work in the first quarter in a given year, exhibiting an eagerness to work. Those who worked in 1990 had an amazingly high commitment to work: 62% worked in the first quarter (Table 3). This implies that a number of recipients ended up on welfare because they lost a job that they had during that first quarter. Another sizeable segment probably went on welfare or stayed on welfare as they worked at low earnings. Another portion was gaining and losing employment with some regularity and going on and off welfare accordingly. And a few were just getting off welfare in the first quarter and were able to work in all four quarters with or without further government assistance.

**TABLE 3 DISTRIBUTION OF WORKERS BY FIRST QUARTER EMPLOYED, PER YEAR, 1990-1998**

| Quarter | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| ***Total*** | 55,224 | 52,812 | 54,027 | 55,711 | 58,754 | 60,097 | 61,925 | 62,856 | 62,605 |
| **Percent of Employed by First Quarter Employed** | | | | | | | | | |
| **1** | 62 | 68 | 69 | 73 | 74 | 78 | 79 | 83 | 85 |
| **2** | 16 | 14 | 13 | 11 | 11 | 9 | 9 | 8 | 7 |
| **3** | 14 | 11 | 10 | 9 | 9 | 8 | 7 | 6 | 5 |
| **4** | 8 | 7 | 7 | 7 | 6 | 5 | 5 | 4 | 3 |

## WORK PATTERNS BY QUARTER AND YEAR

A second issue related to employment is the pattern of employment over time. Did these women work steadily after they first were employed or was it intermittent? Later we will explore the degree to which those with consistent patterns of employment had earlier found employment with similar types of employers.

We see in Table 4 the number of women who were able to find work in all four quarters each year. In 1990, just over 20,000 (37%) of the 55,224 who found work, took work in all four quarters. That is still a relatively high number for what is viewed as the typical welfare population. The number and proportion of those who were able to find employment in all four quarters increased in each subsequent year. By 1998, over 71% of those who were employed (and that number was 7,000 higher than in 1990) were employed in all four quarters. This jump from 37% in 1990 indicates a much greater commitment to work and a considerably more employable welfare population by the end of the decade. On the other hand, since only 44,740 women were employed in all four quarters in 1998, it suggests that this population is still having some trouble maintaining a full-year commitment to work.

We are interested in the number of quarters worked because those who worked four quarters may well have encountered employers with different characteristics that helped to contribute to more consistent work histories. This will be explored later. Meantime, a related work pattern is that of consecutive quarters worked. Obviously, those who worked four quarters a year worked four consecutive quarters. But for those who did not, we are interested in just what their patterns of employment were. These patterns are revealed in Table 5.

**TABLE 4 DISTRIBUTION OF WOMEN BY NUMBER OF QUARTERS EMPLOYED, 1990-1998**

| Quarters Worked | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| ***Total*** | 55,224 | 52,812 | 54,027 | 55,711 | 58,754 | 60,097 | 61,925 | 62,856 | 62,605 |
| **Percent of Employed** | | | | | | | | | |
| **1** | 21 | 18 | 16 | 15 | 13 | 12 | 10 | 9 | 8 |
| **2** | 22 | 19 | 17 | 15 | 14 | 13 | 12 | 10 | 9 |
| **3** | 20 | 17 | 16 | 15 | 14 | 14 | 14 | 12 | 12 |
| **4** | 37 | 46 | 51 | 55 | 58 | 61 | 64 | 69 | 71 |

**TABLE 5 NUMBER AND PERCENT OF WORKERS EMPLOYED IN CONSECUTIVE QUARTERS, 1990-1998**

| Consecutive Quarters | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| **0** | 16,369 | 13,268 | 12,242 | 11,772 | 11,507 | 10,895 | 10,266 | 8,885 | 8,249 |
| **2** | 10,378 | 8,336 | 7,597 | 7,060 | 6,886 | 6,477 | 5,902 | 5,205 | 4,632 |
| **3** | 8,300 | 7,010 | 6,474 | 6,331 | 6,177 | 5,868 | 5,956 | 5,507 | 4,984 |
| **4** | 20,177 | 24,198 | 27,714 | 30,548 | 34,184 | 36,857 | 39,801 | 43,259 | 44,740 |
| **Total Employed** | **55,224** | **52,812** | **54,027** | **55,711** | **58,754** | **60,097** | **61,925** | **62,856** | **62,605** |
| ***Percent of Workers*** | | | | | | | | | |
| **0** | 29 | 25 | 23 | 21 | 19 | 18 | 16 | 14 | 13 |
| **2** | 19 | 16 | 14 | 13 | 12 | 11 | 10 | 8 | 7 |
| **3** | 15 | 13 | 12 | 11 | 11 | 10 | 10 | 9 | 8 |
| **4** | 37 | 46 | 51 | 55 | 58 | 61 | 64 | 69 | 71 |

As we just learned, the number of women who worked four quarters increased in every year after 1990. And at the other end of the spectrum, those who worked one quarter or two non-consecutive quarters decreased from 29% to 13% after 1990. Furthermore, the number of women who worked two or three consecutive quarters decreased fairly steadily over the ensuing eight years. Unfortunately, by 1998 some 18,000 of these women have still not been able to put together four straight quarters of work in the same year. One would expect that the loss of work time would have had a negative impact on their annual earnings.

## Average Earnings per Worker per Year by Number of Quarters Employed

One of the main reasons individuals work is to earn an income. Generally, the more one works, the more one earns. Thus, we would expect those who worked in two quarters in a year to earn more than those who worked just one quarter. And we would expect those who worked four quarters to earn more than anyone who worked less. And we would expect that as more of these women worked more, we would see an increase in their average annual earnings. As Table 6 reveals, this is all true.

The bottom line shows that the average 1990 welfare recipient earned under $5,000 in 1990. This low average occurred despite the fact that over 36% of the recipients worked in all four quarters. Even those who worked in all four quarters had average, annual earnings of just over $9,000. The low earnings may be explained by the fact these recipients had gaps in employment during the four quarters, they were working part-time, they were being paid very low wages, or some combination of the three.

The good news is that in real dollars (1998), those recipients who worked four quarters had higher average earnings every year during the decade. It appears that, on average, commitment to work paid off. By 1998, the average

**TABLE 6 AVERAGE EARNINGS PER YEAR BY NUMBER OF QUARTERS EMPLOYED (CONSTANT 1998 DOLLARS)**

| Quarters | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | $693 | $714 | $757 | $763 | $775 | $826 | $868 | $896 | $947 |
| 2 | $2,287 | $2,326 | $2,448 | $2,454 | $2,512 | $2,583 | $2,740 | $2,864 | $2,981 |
| 3 | $4,610 | $4,670 | $4,993 | $5,244 | $5,286 | $5,419 | $5,823 | $5,882 | $6,295 |
| 4 | $9,009 | $10,787 | $12,114 | $12,900 | $13,623 | $14,254 | $14,659 | $15,363 | $16,389 |
| **Total** | **$4,865** | **$6,313** | **$7,530** | **$8,355** | **$9,145** | **$9,924** | **$10,634** | **$11,674** | **$12,787** |

earnings were $16,389. That is close to the poverty level for a family of four ($16,588) and above poverty for a mother with two children ($13,133). If Earned Income Tax Credits (federal and state) were received for a family of four, the final, average income would have been just under $21,000.

Another point that must be made, however, is that the average earnings of those who did not commit to four quarters of work are markedly lower. Even those who worked in three of four quarters in 1998 had an average earnings figure that is just below $6,300. That is a far cry from $16,000 and clearly leaves most households supported by these women in poverty, even with EITCs. Those who worked in one or two quarters had very little earned income, on average, to show for their labors. A clear lesson is the importance of full-time, full-year work. What we also learn is that one measure of success is income, but another comparable measure for subsequent analysis is commitment to four quarters of work.

To attempt to show that it is four quarters of work that really matters, we look at the distribution of years worked (not illustrated) and the distribution of consecutive years worked. If the 44,740 women who worked four quarters in 1998 also worked in 1997, we would know the importance of consecutive years of work to create higher earnings. But if there is a split, as there is, we then have to look at the relationship between consecutive quarters worked or total quarters worked prior to 1998 and subsequent earnings.

Table 7 shows the distribution of recipients by the number of years employed, starting with 1990. About 25% (23,743) of the 1990 recipients have worked in every year since 1990. They may not have worked in every quarter, but they worked during every year. Another 21,271 (22%) worked in seven or eight of the nine years. An additional 24% worked between four and six years. These are longer-term commitments to the workforce. Of the 84,959 women who worked sometime over the nine years, only 5,692 or 7% worked in only one year. That is a greater workforce commitment than is commonly acknowledged.

**TABLE 7 DISTRIBUTION OF RECIPIENTS BY NUMBER OF YEARS EMPLOYED, 1990-1998**

| Years | Women | Percent |
|---|---|---|
| 1 | 5,692 | 6 |
| 2 | 5,641 | 6 |
| 3 | 6,048 | 6 |
| 4 | 6,581 | 7 |
| 5 | 7,524 | 8 |
| 6 | 8,459 | 9 |
| 7 | 9,660 | 10 |
| 8 | 11,611 | 12 |
| 9 | 23,743 | 25 |
| Not Employed | 11,348 | 12 |

Those who worked in every year and also four quarters in 1998 account for about half of those who worked four quarters in 1998. But others also had continuous commitments to the workforce. Some 7% of all women on AFDC in 1990 had worked consecutively since either 1991 or 1992. Another 8,080 (7%) have worked in at least two consecutive years prior to 1998. The point is that consecutive years of commitment to the workforce are not a necessary ingredient for subsequent commitment to four quarters of work. But we should find that those with greater previous commitment have higher earnings in 1998 and subsequent years.

## WHERE DO FORMER RECIPIENTS WORK?

This seems like a nice, easy question to answer, since our data set contains the industry of employers, their employment, their location, their employee turnover numbers, and the like. Unfortunately, it is not such an easy question, since many recipients worked for more than one employer in any given year. (The average number of jobs held in 1998 was 1.91 per recipient who worked.) In order to create a useable answer, we need to draw some boundaries. We will initially focus on one year, 1998, since that is the year in which most recipients worked, and it is the year in which earnings were highest. Next we need to focus on but one job for each recipient. For some, that is not an issue, but for others a decision has to be made. We have found examples in the early 1990s where individual recipients had over 30 employers listed for a given year. By 1998, this is less of a problem. Nevertheless, we have elected to use as the representative employer that employer with whom a recipient had the highest earnings for the year.[4]

Table 8 shows the distribution of recipients by the main job each held in 1998. As one might expect, by far the largest number of recipients worked in Services. Examples of these services include temporary help, health aid, and nursing home aid. Some 30,40, women, or 49% of the 62,605 former recipients who worked in 1998, worked in the Services industry. On the next page, we break out this industry in more detail. The next largest number of recipients who worked in an identified industry worked in Retail (19%), while an almost comparable number worked in Manufacturing (17%). These are the three largest employers in the state, so it is not a surprise that these lead the distribution by industry. Fewer than 2,500 former recipients worked in any other, single industry.

**TABLE 8 EMPLOYMENT AND EARNINGS OF RECIPIENTS IN THEIR MAIN JOB BY INDUSTRY IN 1998**

| Industry | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| Agriculture and Mining | $7,864 | $9,055 | $12,594 | 397 |
| Construction | $14,291 | $16,075 | $28,723 | 586 |
| Manufacturing | $15,953 | $17,333 | $27,937 | 10,413 |
| Transportation/Utilities | $14,095 | $15,690 | $28,255 | 2,020 |
| Wholesale Trade | $13,124 | $14,477 | $17,913 | 1,770 |
| Retail Trade | $7,604 | $8,907 | $10,119 | 11,986 |
| Finance, Insurance, Real Estate | $15,104 | $16,952 | $31,199 | 2,318 |
| Services | $10,055 | $11,647 | $17,758 | 30,410 |
| Public Administration | $19,124 | $20,194 | $29,792 | 2,228 |
| Not Classified | $10,075 | $11,266 | $20,776 | 65 |
| Missing | $7,586 | $9,143 | $1,501 | 412 |
| **Total** | **$11,303** | **$12,787** | **$18,367** | **62,605** |

Before looking at earnings, we should look at a more detailed breakout of the industries in which these women worked. We have noted the number of women in Manufacturing, Retail, and Services, but these are broad categories. Listed on the next page are the detailed industries in which the most recipients worked. Actually, these are the industries in which those women who worked four quarters in 1998 worked. At the top of the list is Eating and Drinking establishments. This is closely followed by health workers in Skilled Nursing Care Facilities. With a thousand fewer workers are the categories of Temporary Help and Hospital Workers. At about one thousand workers, we find women in Department Stores and Grocery Stores. In manufacturing, no single industry employs large numbers of these women; they are widely distributed. But the most common places to find them are in the new plastic products, commercial printing, and cheese making. All recipients, as opposed to just those who worked in all four quarters, have a somewhat similar industry distribution, but these are the main industries for those who have committed to work in 1998.

Most Common Four Digit Industries

*Services*

| | |
|---|---|
| SIC 8051 Skilled Nursing Care Facilities | 3058 |
| SIC 7363 Help Supply Services | 2230 |
| SIC 8062 General Medical and Surgical Hospitals | 2046 |

*Retail*

| | |
|---|---|
| SIC 5810 Eating and Drinking Establishments | 3368 |
| SIC 5311 Department Stores | 1069 |
| SIC 5411 Grocery Stores | 1020 |

*Manufacturing*

| | |
|---|---|
| SIC 3089 Plastic Products, not elsewhere classified | 577 |
| SIC 2752 Commercial Printing, Lithographic | 344 |

What may be more surprising are the earnings that accompany the recipients in the various industries (see Table 8, column 2). These figures are the actual average earnings of the recipients who held these jobs as their highest paying job for the year. The highest earnings per individual recipient were garnered in Public Administration. Only 4% of the recipients held such jobs. But the earnings of over $19,100 per worker suggest that such jobs were highly desirable and stable. The next highest earnings ($15,953) were achieved in manufacturing, a sector that has been growing in Wisconsin over the decade. Just below this average is that found for Finance, Insurance, and Real Estate ($15,104). But only 2,318 recipients worked steadily in this industry.

At the other end of the spectrum are jobs in Retail. Here, average earnings were just over $7,600 per worker, about 40% of the average in Public Administration. Those who work in Agriculture and Mining are similarly low ($7,864). But very few recipients spent much time in this lower-paying industry. Services is the only other industry in which average earnings are remotely similar to the two industries just mentioned. At $10,055, however, they are considerably higher than Retail. All three should be avoided, if one is to earn at least the $16,000, on average, that manufacturing workers earned. The lower earnings averages in the three lowest-earning industries in large measure reflect the lower wages generally available to less skilled workers in these industries. But they also may reflect fewer hours and fewer days worked by individuals in these industries.

If we examine the third column of Table 8, we get some additional insights. This column reveals the total average annual earnings of recipients whose main job was in the industry in which they are counted. Thus, those who mainly worked in Public Administration had average, annual earnings of over $20,000. Those in Manufacturing had annual, average earnings of $17,333, some $1,400 higher than their average earnings from their main industry job. Workers in all industries did better for the year, reflecting the fact that they continued to work before, during, or after their main job. The average earnings of $12,787 is a large improvement from their 1990 average earnings of $4,865 (in 1998 dollars). The average earned income was enough to take a woman with one child out of poverty (defined as $11,235 in 1998), but it was not enough to get larger households out of poverty. Earned Income Tax Credits would have helped increase all of these incomes, so a higher proportion of all but the largest families would have been able to escape poverty.

The fourth column of Table 8 contains the average, annual earnings of all workers in the establishments that have hired recipients in 1998 in these ten industries. This annual earnings figure is created by dividing the total, annual payroll of an employer by the average number of workers employed per quarter of that year. Thus, a firm with low turnover of employees will have a higher average earnings per worker figure than one with a high turnover, given the same payroll. To put this distinction in perspective, the average annual earnings for all workers in all employers in the state is over $27,000, as opposed to the $22,291 for those employers who have hired welfare recipients. The larger the gap between the averages of the recipients and all workers, the greater the likely turnover among employers who hired recipients. Other factors that may influence the differences are occupations and total hours that recipients worked.

Thus, in Retail, where the earnings gap is a mere $2,500, there probably was modest difference between the experience and hours of the recipients and most workers. A somewhat similar statement could be made about employ-

ment in Wholesale Trade. But in most of the other industries, there are sizeable differences between the average earnings of all workers and those of the recipients. In industries such as FIRE (Finance, Insurance and Real Estate), Transportation/Utilities/Communications, and Construction, the differences in average earnings are close to two-to-one. These are desirable industries in which to be working, but there is a long way to go to close the gap in average earnings between recipients and all workers.

If we add up the former recipients who were employed by establishments that hired recipients and that were located in industries where the average earnings for all workers were over $25,000 per year, we discover that 17,565 (28%) of those employed in 1998 were located there. Their future might be brighter.

## Location

There are several questions that deal with the geographic location of the recipients and their subsequent employment experience. The one we explore initially is their relative location within the state of Wisconsin. We know from other research that the average earnings per worker varies somewhat, depending on whether they are in a larger or smaller metropolitan area or in the more rural parts of the state. In 1999, for example, the average earnings per worker ranged from a high of $31,909 in the Milwaukee Metropolitan area to a low of $23,936 in the non-metro portions of the state.[5]

We see a variation on this theme when we examine average earnings per recipient by geographic area of the state (Table 9). Certainly, the recipients are not evenly distributed across the state. Among the metropolitan areas, Milwaukee has the largest employed, former recipient population by far (17,184). But the combination of the eight metro populations (26,219) still is less than the area referred to as the Rest of State.

**TABLE 9 EMPLOYMENT AND EARNINGS OF RECIPIENTS IN THEIR MAIN JOB BY AREA OF STATE, 1998**

| Metro Area | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| Brown County (Green Bay) | $10,123 | $11,738 | $15,620 | 1,330 |
| Dane County (Madison) | $11,737 | $13,571 | $24,449 | 1,682 |
| Lake Winnebago (Appleton/Oshkosh) | $11,549 | $13,058 | $25,989 | 1,500 |
| Kenosha County | $12,285 | $13,754 | $31,873 | 895 |
| La Crosse County | $11,450 | $12,541 | $26,058 | 599 |
| Milwaukee Area | $10,711 | $12,331 | $17,825 | 17,184 |
| Racine County | $13,171 | $14,659 | $34,872 | 1,387 |
| Rock County (Beloit/Janesville) | $10,476 | $11,665 | $22,520 | 1,085 |
| Rest of State | $11,569 | $12,982 | $18,121 | 36,386 |
| Missing | $8,227 | $9,799 | $6,508 | 557 |
| **Total** | **$11,303** | **$12,787** | **$18,367** | **62,605** |

Of those recipients for whom a geographic area has been identified, there is a surprising similarity in average earnings on their main job in 1998. The range is from $10,123 in Brown County in the northeast to $13,171 in Racine County, just south of Milwaukee. The earnings in the large area called the Rest of State is in the middle at just over $11,500, above that in Milwaukee and several other metro areas. What this suggests is that even though the industry and earnings distributions do differ across the state for all workers, former recipients have a limited set of employment options in all geographic areas. Individuals may do well in specific industries, but overall the former recipients are more similar than different. Geographic location does not make as much difference in work success as other factors. We explore this assertion in another paper.

A point made in the preceding section needs to be re-introduced: the average earnings for all workers are computed on the basis of all workers in businesses that hire welfare recipients. Milwaukee numbers clearly point this out.

In the first quarter of 1999, just months later than these figures, Milwaukee's average earnings per worker were $31,908 among all employers. But when the same average is calculated among those that hire recipients, the result is a much more modest $17,825. This suggests that the recipients do not reflect the labor force as a whole and that many of the better-paying employers have yet to find positions for these recipients. This relationship is in sharp contrast with places such as Racine, where the average earnings per worker in all employers, $28,348, is well below those of the firms that have employed recipients ($34,872). It appears there that the larger, better-paying firms have taken on recipients. The same relationship is found in Kenosha and La Crosse. But these three areas are the exceptions.

### Size of Firm

One might speculate that former recipients are more likely to be hired by larger establishments because they have more room to accommodate new workers and more ability to absorb training costs. This seems to be true, as we examine the distribution of former employers by the size of their main employer in 1998 (Table 10). Those employers with 500 or more employees employed the largest number of recipients, 25,937, accounting for 41% of all those recipients employed in 1998. These large employers employ 23% of all workers in the state. Thus, they do have a larger concentration of former recipients. Those establishments with fewer than 100 employees employ about 50% of all workers in the state, yet they employed only 30% of all the welfare recipients. Larger size does seem to matter in terms of employment opportunity.

**TABLE 10 EMPLOYMENT AND EARNINGS BY EMPLOYER SIZE OF THE MAIN JOB OF RECIPIENTS, 1998**

| Firm Size | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| 1 - 19 | $8,668 | $10,217 | $16,366 | 7,153 |
| 20 - 99 | $9,910 | $11,375 | $12,476 | 11,765 |
| 100 - 249 | $11,330 | $12,872 | $14,149 | 9,854 |
| 250 - 499 | $11,719 | $13,199 | $14,781 | 7,896 |
| 500+ | $12,525 | $13,980 | $18,607 | 25,937 |
| **Total** | **$11,303** | **$12,787** | **$18,367** | **62,605** |

What has yet to be determined are the roles of the larger and smaller firms. Do most recipients earn more or less with larger or smaller employers? It is clear that in 1998 those recipients who worked for larger employers earned more as employer size increased. Recipients who worked for employers with fewer than 20 employees earned $3,857, or 31% less on average, than recipients working for the largest employers. That gap suggests a rather important employment strategy for recipients.

The wisdom of pursuing the largest employers is largely reinforced when one examines the fourth column, the average earnings per worker of all workers in the establishments that have hired former recipients. Workers in the largest employers earn $6,131, or 49%, more, on average, than their counterparts working for the second-smallest employers. What is unusual is that the earnings per worker are second highest among the smallest employers. But the gap between the earnings of recipients and all workers in these smaller establishments is much greater than in any of the other size categories.

## THE STATUS OF THOSE WHO WORKED FOUR QUARTERS IN 1998

The three tables just examined contain information on former recipients who worked at some point in 1998. Now we examine similar results for those women who worked consistently in 1998. Some 71% of the recipients who worked in 1998 worked in all four quarters. These 44,740 women constitute 46% of the women who were on welfare in Wisconsin in 1990. At issue is whether those who worked consistently in 1998 achieved different results from those who did not.

Table 11 shows the distribution of average, annual earnings of the longer working recipients in 1998 — 29% higher ($3,327) than all working recipients for 1998. So regardless of industry, those who worked more earned more. This was true in every industry, although the differences are more pronounced in Agriculture and Mining,

Construction, Retail, and Services. Despite the pronounced differences, it is only workers whose main jobs were in Agriculture and Mining, Retail, and Services who had earnings that are still less than $15,000 for the year, on average. These three industries employed 28,759, or 64%, of the four-quarter recipient workers in 1998. To better succeed, these women need to move up within these industries or move to other, better paying industries.

Another point that should be noted is that the average earnings among all workers in the establishments that have hired recipients who worked four quarters ($22,291) is substantially higher than in all establishments that hired recipients ($18,367). This suggests that there are some differences between employers that have retained recipients for four quarters and those that have not. It may be the higher levels of pay, but it also may be climate, the opportunity to choose among applicants, or a number of other possible explanations. All we can say for sure at this point is that the employers differ.

**TABLE 11 DISTRIBUTION OF RECIPIENTS WORKING FOUR QUARTERS AND THEIR EARNINGS BY INDUSTRY, 1998**

| Industry | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| Agriculture and Mining | $11,248 | $12,979 | $17,358 | 226 |
| Construction | $18,468 | $20,798 | $32,643 | 370 |
| Manufacturing | $18,422 | $19,959 | $30,553 | 8,508 |
| Transportation/Utilities | $16,539 | $18,377 | $32,019 | 1,609 |
| Wholesale Trade | $15,898 | $17,489 | $20,648 | 1,347 |
| Retail Trade | $10,338 | $12,072 | $12,302 | 7,858 |
| Finance, Insurance, Real Estate | $16,969 | $19,017 | $32,563 | 1,960 |
| Services | $13,436 | $15,518 | $22,385 | 20,675 |
| Public Administration | $21,042 | $22,202 | $31,430 | 1,965 |
| Not Classified | $13,485 | $15,039 | $22,746 | 35 |
| Missing | $10,894 | $13,551 | $2,585 | 187 |
| **Total** | **$14,535** | **$16,389** | **$22,291** | **44,740** |

## The Geographic Distribution of Longer-Working Recipients

Having determined that there are differences between the employers (and probably the employees) of the establishments that have employed recipients who worked all four quarters in 1998, we look quickly to see if these differences are found across the state. Table 12 reveals that indeed they are. In every geographic area, earnings among recipients who worked four quarters are higher than all recipients, and earnings among all employees of these employers are higher as well. In some instances, such as in Milwaukee, the earnings at employers who hired recipients longer-term are over $6,200 higher than among all who merely hired recipients. This bodes well for the recipients who have been hired by these establishments. We should also note that women who worked four quarters are distributed geographically in virtually the same fashion as all former recipients who worked. No geographic area has a special hold on women who worked four quarters in 1998.

**TABLE 12 DISTRIBUTION OF RECIPIENTS WORKING FOUR QUARTERS AND THEIR EARNINGS BY AREA, 1998**

| Metro Area | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| Brown County (Green Bay) | $13,128 | $15,145 | $20,250 | 934 |
| Dane County (Madison) | $15,045 | $17,332 | $29,000 | 1,199 |
| Lake Winnebago (Appleton/Oshkosh) | $13,990 | $15,778 | $28,746 | 1,154 |
| Kenosha County | $16,002 | $17,911 | $37,038 | 611 |
| La Crosse County | $14,011 | $15,309 | $30,261 | 449 |
| Milwaukee Area | $14,420 | $16,542 | $24,097 | 11,664 |
| Racine County | $16,112 | $17,872 | $37,597 | 1,064 |
| Rock County (Beloit/Janesville) | $13,942 | $15,382 | $26,322 | 731 |
| Rest of State | $14,593 | $16,324 | $21,560 | 26,655 |
| Missing | $11,708 | $14,202 | $10,659 | 279 |
| **Total** | **$14,535** | **$16,389** | **$22,291** | **44,740** |

## Size of Employers and Earnings of Recipients

As expected, those who worked four quarters earned more, on average, in every size of employer (Table 13). The biggest difference was among recipients who worked for the largest employers. Full-year workers earned $3,599 more, on average, than all recipients who worked for the largest employers. Similar, but smaller, differences existed for all other size categories.

**TABLE 13 DISTRIBUTION OF RECIPIENTS WORKING FOUR QUARTERS AND THEIR AVERAGE EARNINGS BY EMPLOYER SIZE, 1998**

| Firm Size | Main Job | All Jobs | Entire Firm | W2 Workers |
|---|---|---|---|---|
| 1 - 19 | $11,454 | $13,551 | $15,435 | 4,715 |
| 20 - 99 | $12,849 | $14,697 | $15,370 | 8,136 |
| 100 - 249 | $14,176 | $16,066 | $16,913 | 7,219 |
| 250 - 499 | $14,687 | $16,493 | $17,796 | 5,820 |
| 500+ | $16,124 | $17,920 | $22,600 | 18,850 |
| **Total** | **$14,535** | **$16,389** | **$22,291** | **44,740** |

What is also true for four of the five size categories is that all workers in these categories earned substantially more than all of the employers included as hiring recipients some time during the year. Only the smallest size category has lower average earnings. What the general pattern suggests is that those employers who hire the more stable recipients are better paying employers who probably have lower turnover rates, rates that directly affect the average earnings per worker.

## Changes in Earnings over Nine Years

The average earnings per recipient who worked four quarters increased substantially over the nine years of the 1990s. The average for their main jobs jumped from $7,481 to $14,535 (1998 dollars) for the women who worked in four quarters each year. That is an increase of 94%. The average still does not place all of the women and their families above poverty, but it is a lot closer than it was. When one looks at their total, average earnings for the year in 1998, $16,389, their chances of ending the year above poverty is much greater, either in straight earnings or with the assistance of the EITC. The women who have worked consistently have, on average, made significant progress. That progress cuts across all industries, geographic areas, and size of employers. The differences within these industries, areas, and size have changed. But all have made large gains.

These consistent workers have helped to bring up the averages of all workers. In 1990, all recipients earned an average of $4,090. By 1998 that average stood at $11,803 in constant dollars. That is a gain of 176%. A combination of greater, long-term commitment to the workforce, higher wages, more hours per week, and better employer selection has resulted in a substantial gain in earnings. That is the plus side. On the negative side, over 11,000 of these 1990 recipients never worked, and 34,000 of them did not work at all in 1998, at least not in covered employment in Wisconsin. Some may be working in the cash economy. Others may have married, left the state, or become self-employed. None of these would appear in our data. But it is hard to believe that so many have done so. There are still thousands of these women who are not formally in the workforce nor are they on the assistance rolls. At this point in the year 2000, there are about 8,000 women who are receiving cash assistance in Wisconsin. Few of these were recipients in 1990. The others remain unaccounted for, but we will attempt in a subsequent paper to learn just what has happened to as many of these women as we can.

## Earnings Success In 1998

Another cut at the distribution of women in 1998 examines their industry location and whether they were able to earn at least $15,000 in 1998. Table 14 reveals the number of workers and their industries among the women who earned less than $15,000 and those who were able to earn at least $15,000. As we noted above, some 37% of these former recipients were able to earn more than $15,000 in 1998. What we note from the table is that these women did far better than that: the average earnings on their main job among the successful group are almost $21,000, well above the poverty line of $17,050 for a family of four. Average total earnings for 1998 for these successful women are just under $23,000. They have clearly made the transformation from a welfare recipient to a wage earner.

On the other hand, the 63% of workers in 1998 who did not earn at least $15,000 fell far short of the mark, on average. Their average earnings were just $5,643 on their main job and $6,849 in all jobs. As we shall see later, a major contributor to these much lower average earnings was a much lower commitment to work: most of these women did not work all four quarters. But another factor is that the employers for whom they worked had a much lower pay scale than the employers of the women who succeeded.

**Table 14 Comparison of Former Recipients by Earnings, Industry, and Average Earnings, 1998**

| | Recipients who Earn < $15K | | | | Recipients who Earn ≥ $15K | | | |
|---|---|---|---|---|---|---|---|---|
| **Industry** | **Workers** | **Main Job** | **All Jobs** | **Firm** | **Workers** | **Main Job** | **All Jobs** | **Firm** |
| Agriculture and Mining | 318 | $5,032 | $6,065 | $9,495 | 79 | $19,262 | $21,091 | $21,643 |
| Construction | 289 | $5,522 | $6,642 | $18,465 | 297 | $22,823 | $25,254 | $34,017 |
| Manufacturing | 4,157 | $6,958 | $8,323 | $17,154 | 6,256 | $21,931 | $23,319 | $32,501 |
| Transportation/Utilities | 1,106 | $6,657 | $7,921 | $14,522 | 914 | $23,096 | $25,092 | $38,852 |
| Wholesale Trade | 940 | $6,438 | $7,648 | $13,685 | 830 | $20,697 | $22,211 | $22,806 |
| Retail Trade | 9,891 | $5,350 | $6,432 | $8,929 | 2,095 | $18,243 | $20,590 | $13,904 |
| FIRE | 898 | $7,181 | $8,647 | $24,263 | 1,420 | $20,115 | $22,204 | $33,683 |
| Services | 20,736 | $5,359 | $6,584 | $13,300 | 9,674 | $20,121 | $22,500 | $25,949 |
| Public Administration | 676 | $6,369 | $7,393 | $23,129 | 1,552 | $24,679 | $25,770 | $31,776 |
| Not Classified | 46 | $5,210 | $6,500 | $13,862 | 19 | $21,855 | $22,804 | $26,610 |
| Missing | 338 | $5,137 | $6,493 | $1,021 | 74 | $18,773 | $21,246 | $3,213 |
| **Total** | **39,395** | **$5,643** | **$6,849** | **$12,512** | **23,210** | **$20,910** | **$22,868** | **$26,836** |

The average earnings per worker for all workers among the employers of women with the lower earnings were $12,512, or less than half (47%), of the average for employers of the successful women. That lower figure is due to the combination of lower wages and higher turnover, the latter of which increases the number of individuals by which the total payroll is divided.

Clearly, choice of employer and industry makes a difference. For example, among those with average earnings of less than $15,000, we find that one quarter of the women worked in Retail. Their employers had average earnings per worker for all workers of $8,929. Such a figure is 64% of the earnings among the retailers for whom the more successful women worked, and 33% of the average of all employers for whom the more successful women worked. This is the double whammy of industry and employer choice.

Another example is Services. Over half (53%) of the women who earned less than $15,000 work in Services compared to 42% of those who earned over $15,000. As is well known, Services do not pay top dollar, on average. Working in Services is one count against these women. The second count is that these women worked for employers within Services that paid only $13,300, on average, to all workers. That makes earning $15,000 with such employers difficult. Among the 42% of successful women, who chose to work in Services, their employers paid $25,949, on average, to all workers. So, it is not just an industry selection but also an employer selection that matters. But just as clearly, employers who pay better can be more selective and they seem to have chosen women with greater commitments to work and likely greater skills.

We should note that the successful women did distribute themselves in industries with higher average earnings. Some 27% of successful women worked in manufacturing compared to 11% of those with lower earnings. Over 6% of successful women were in FIRE compared to 2% of the less successful. Over 7% of the successful found their way in to public administration compared to 2% of the less successful. The point seems to be clear: industry does matter. But even more important are the employer and the average earnings of all employees.

Examining the distribution of women by size of employer reinforces this point. Some 48% of the successful women worked for employers of at least 500 workers. That would suggest that larger is better. And it is true that only 22% of the successful women versus 35% of the less successful worked for employers of fewer than 100 workers. Yet some 38% of the less successful women worked for employers of more than 500 workers. The big difference was in the average earnings per worker in the large firms: among the successful women the average was $27,130 compared to $12,688 among the employers of the less successful women. That is a 114% difference. The differences are even greater in the smaller employers: average earnings for all workers are 292% higher among the smallest employers (1-19 persons) of successful versus less successful women. Again the specific employer is a critical ingredient.

One employer characteristic that is obviously important is the average earnings per worker. Another may be the rate of turnover. We hypothesize that the employers that have higher pay are likely to be able to keep workers longer, be better places to work, and have lower turnover rates. That is what we explore next.

As we expected, employers of the women who earned at least $15,000 in 1998 had an average turnover rate among employees of 45% compared to 58% among the firms employing women who earned less than $15,000. Among those women who worked for four quarters in 1998, the turnover rate for the employers of the higher earning women was 46% compared to 68% among those with lower earnings. The differences in rates may not be as large as some readers might expect, but they do exist and they do affect average earnings.

Additionally, just as the lower earnings per worker reflects on both the employers and the employees, the same can be said for turnover rates. Those employees who can move on are more likely to do so. And those women who have difficulty hanging onto a job are more likely to be hired by employers who are having trouble keeping better workers. If former recipients can avoid or at least leave such employers, the women would likely end up with higher average earnings.

Interestingly, the differences are not geographic. Virtually the same percentage of women made at least $15,000 as made less than $15,000 in each of the geographic areas of the state. For example, 28% of the women who earned less than $15,000 were in the Milwaukee area, and 27% of the women who earned more than $15,000 were there also. Location is not the key here.

## ANOTHER CUT AT SUCCESSES

Another way of gaining insights into the demand side factors that have brought women to higher earnings levels is to explore the path that these women have followed. But rather than track these women every year for every characteristic, we chose initially to look at their employment status at the start of the analysis, 1990, and again, at the end, 1998. Later we explore their workforce commitment over the intervening years.

### The Influence of Work in 1990

We learned above that 88% of these women worked sometime between 1990 and 1998 and that 71% worked in at least four different years. We also learned that some 57% worked in 1990. What we explore next is what percentage worked in both 1990 and 1998 and what the consequences were of these decisions.

Table 15 reveals the distribution of employment patterns over the two years. As is immediately obvious, 20% of these women did not work in either year. But 8,152 of these women did work some time between 1991 and 1997 in covered employment in Wisconsin. We also see that 43% of the original 96,307 worked in both years; 15% oddly worked only in 1990; and 22% worked only in 1998, although they likely worked in intervening years, as Table 2 revealed. For our purposes here, we have over 41,000 women whose work results we can analyze.

**TABLE 15 DISTRIBUTION OF EMPLOYMENT STATUS BY YEARS OF EMPLOYMENT**

| Employment Status | Recipients | Percent |
|---|---|---|
| Not Employed in 1990 or 1998 | 19,490 | 20 |
| Employed in 1990 and 1998 | 41,012 | 43 |
| Employed in 1990 only | 14,212 | 15 |
| Employed in 1998 only | 21,593 | 22 |
| **Total** | **96,307** | **100** |

The most important question is that of the influence of early work on subsequent earnings. In 1998, were those women who worked in 1990 more likely to earn more than those who did not work in 1990? Table 16 shows that this is the case, but only marginally so. In 1990 only 4% of the over 55,000 women who worked that year earned more than $15,000. In 1998 a remarkable 37% of the 62,605 women who worked had earnings at or above $15,000. Of those 41,012 women who worked in both 1990 and 1998, some 41% earned more than $15,000 in 1998. The proportion earning above $15,000 is greater, but just barely so. In terms of probability, working in 1990 incrementally increased one's chance of earning more than $15,000 in 1998.

What is a bit disheartening is that almost 24,000 (58%) of the women who worked in both years earned less than $15,000 in both years. And almost 500 of the women who earned more than $15,000 in 1990 earned less than that in 1998. On the other hand, some 15,467 women (38% of the total) who earned more than $15,000 in 1998 earned less than $15,000 in 1990. Persistence did pay off for more than one-third of these women.

**TABLE 16 DISTRIBUTION OF WORKERS BY EARNINGS CATEGORY, 1990 AND 1998**

| Earnings Category | Workers | 1990 | 1998 |
|---|---|---|---|
| Less than $15,000 1990, not employed in 1998 | 13,801 | $3,510 | $0 |
| Less than $15,000 1998, not employed 1990 | 15,289 | $0 | $6,292 |
| Less than $15,000 in 1990 & 1998 | 23,624 | $3,737 | $7,182 |
| $15,000 or more in 1990, not employed 1998 | 411 | $19,641 | $0 |
| $15,000 or more in 1990 only | 482 | $18,683 | $8,189 |
| $15,000 or more in 1998, not employed 1990 | 6,304 | $0 | $22,467 |
| $15,000 or more in 1998 only | 15,467 | $5,621 | $22,589 |
| $15,000 or more in 1990 & 1998 | 1,439 | $19,406 | $27,622 |
| **Total** | **76,817** | **$3,497** | **$10,422** |

Another way to look at the issue of persistence is to count the number of quarters women worked over the 1990-1998 period to see if those with higher earnings did work more quarters. The answer is yes, they did. Those who earned more than $15,000 in 1998 had worked an average of 28 quarters since the start of 1990 compared to only 20 quarters for those who earned less than $15,000 in 1998. While a sizeable difference, these 8 quarters are insufficient by themselves to explain the difference in average earnings.

What also contributes significantly is that those who earned less averaged only three-quarters of work in 1998 versus four quarters for the higher earners. If we control for quarters worked and look at the earnings of all women who worked four quarters in 1998, we still find that some 21,960 women worked four quarters but earned less than $15,000. In fact, their average earnings were only $9,610. So, quarters worked may contribute, but it is not the only factor determining incomes.

Another contributor is the caliber of employer for whom women work. The average earnings of all workers among employers in the higher earning group were $26,836, compared to $12,512 for the lower group. If we look only at the earnings of all employees at employers who hired women who worked four quarters in 1998, we find the difference is narrowed but still sizeable: $26,913 compared to $16,877. Both of those lower earnings figures limit the potential earnings of the lower-earning group. Thus, we can say that at least six factors seem to contribute to the lower earnings of many of these women: number of quarters worked 1990-1998, quarters worked in 1998, turnover rates among all employees at these employers, size of employer, major industry in which one is employed, and earnings per worker for all employees among the employers for whom recipients worked.

## The Role of Having the Same Employer

To further investigate what may matter in achieving earnings above $15,000 in 1998, we explore a number of additional factors. One is that of having the same employer in both years. Another is whether a woman stayed in the same industry in both years. Both situations, according to labor theory, could yield higher wages, as employer specific and industry-specific skills were applied over a longer period of time. Staying with the same employer could also mean that the employee was more stable, more desirable, or a combination of the two. It could also mean someone with less ambition or who is more conservative. Let's first see if any women had the same employer in each of two years, nine years apart. Then, if they did, what the impacts were on earnings.

Of the 41,012 women who worked in both 1990 and 1998, some 3,062 (7%) had the same main employer, the one from whom they earned their largest amount. Some 4,602 (11%) worked for the same employer, if we count any work done in both years. When we examine whether they stayed in the same industry, what is mildly confusing is that some 1,351 (3%) women worked for the same employer, but the employer changed industries during the intervening years. About 8% worked for the same employer in the same industry. Only 14% worked in the same industry with a different employer. And 75% (30,554) worked in both a different industry and with a different employer. Thus, as one would expect, change is the norm. The question is whether there were payoffs to those women who stayed in either the same industry or with the same employer.

Table 17 begins to answer this question. The top part of the table shows the payoff for those who worked in the same industry in 1990 and 1998. The bottom half of the table shows the earnings impact of staying with the same employer in 1990 and 1998. The quick answer is that there appear to be payoffs to stability, especially if one has stayed with the same employer.

Over 22% of the women who worked in both years worked in the same industry. About one-third of these were women who worked for the same employer in the same industry in both years. The payoff for working in the same industry is a premium on their main job earnings of $1,370 or 12% ($13,182 versus $11,812). That is not huge, but it does suggest that there may be benefits to more time in the same industry. The premium is sufficient so that it largely carries over when one compares total earnings. That difference is $1,164.

On the other hand, when one sees that some 55% of those in the same industry earned less than $15,000 in both years, whereas 58% of those in different industries earned less than $15,000, there is much less payoff. Those who stayed in the same industry on their main job experienced an average gain in income of 115% over the nine years. Those who changed industries gained 208%. Those who stayed in the same industry started at almost twice the earnings of those who switched employers, suggesting that these women may have been more easily employed in 1990, but they lost their advantage over the decade. Time will tell whether the two paths reverse position. It is suggested

this could easily happen if one examines those who earned more that $15,000 in 1998 only, the second largest component of both categories: the average earnings for both are over $20,000. There is virtually no earnings advantage to those who stayed in the same industry among those with lower earnings in 1990.

**TABLE 17 DISTRIBUTION OF WORKERS AND EARNINGS IN 1990 AND 1998 FOR WOMEN WHO WORKED IN BOTH YEARS AND HAD AN INDUSTRY OR EMPLOYER MATCH**

| Earnings Category | Workers | 1990 | 1998 |
|---|---|---|---|
| ***Same Industry*** | ***9,107*** | ***$6,130*** | ***$13,182*** |
| Less than $15,000 in 1990 & 1998 | 4,971 | $3,741 | $6,115 |
| $15,000 or more in 1990 & 1998 | 731 | $18,581 | $26,894 |
| $15,000 or more in 1990 only | 111 | $16,225 | $7,995 |
| $15,000 or more in 1998 only | 3,294 | $6,632 | $20,978 |
| ***Different Industry*** | ***31,905*** | ***$3,835*** | ***$11,812*** |
| Less than $15,000 in 1990 & 1998 | 18,653 | $2,927 | $5,796 |
| $15,000 or more in 1990 & 1998 | 708 | $15,823 | $24,144 |
| $15,000 or more in 1990 only | 371 | $16,637 | $6,250 |
| $15,000 or more in 1998 only | 12,173 | $4,139 | $20,482 |
| ***Same Employer*** | ***4,602*** | ***$7,432*** | ***$16,110*** |
| Less than $15,000 in 1990 & 1998 | 1,915 | $4,685 | $7,148 |
| $15,000 or more in 1990 & 1998 | 543 | $18,298 | $27,022 |
| $15,000 or more in 1990 only | 49 | $17,039 | $7,630 |
| $15,000 or more in 1998 only | 2,095 | $6,902 | $21,671 |
| ***Different Employers*** | ***36,410*** | ***$3,954*** | ***$11,611*** |
| Less than $15,000 in 1990 & 1998 | 21,709 | $2,958 | $5,750 |
| $15,000 or more in 1990 & 1998 | 896 | $16,573 | $24,643 |
| $15,000 or more in 1990 only | 433 | $16,486 | $6,541 |
| $15,000 or more in 1998 only | 13,372 | $4,320 | $20,417 |
| **Total** | **41,012** | **$4,345** | **$12,116** |

Overall, by 1998, 40% of those who changed industries earned over $15,000 compared to 44% of those who stayed. But the difference is entirely attributable to those few women who earned more than $15,000 in both years. Industry stability is important only to those who earned early rewards from being in these industries.

Perhaps there are greater payoffs to staying with the same employer. For this analysis, we include all who had the same employer, be it for the main or supplementary jobs. The payoff to working for the same employer appears to be greater. On the measure of earnings on their main job, the difference is $4,499 or a 39% premium for stability. That premium largely carries over to earnings for all jobs ($4,460). In 1998, 57% of those who stayed with the same employer earned more than $15,000 compared to only 39% of those who had different employers. At the opposite end, some 60% of those who changed employers ended up with earnings under $15,000 in both years compared to only 42% of those with the same employer.

Thus, staying with the same employer says something positive about both the worker and the firm. It appears to be a desirable situation for both parties. And it is something that might be good advice for those leaving assistance, providing that they have chosen employers wisely the first time.

What is likely to be more critical, however, is how well-prepared the women are for work. If one examines the 1990 earnings of those who worked for the same employer in both years, it is clear that those who had the stable rela-

tionships were better prepared for work in 1990, given their 88% higher earnings in 1990. That preparation for work may be more important than any other factor. Those who worked for different employers and made more than $15,000 only in 1998 realized very dramatic gains in earnings, despite having earned just above the norm in 1990 for women who changed employers. These substantial gains suggest that, for some women, it must be factors other than the 1990 commitment to a specific employer that influences earnings outcomes. Given the somewhat contradictory findings on the role of the same employer and industry, we must rely on the statistical analysis below to show us how important these factors are.

One of the factors that we found above that matters is the caliber of the employer with whom one is employed. This message is echoed by the women who worked for the same employer. The average earnings of all workers in the firms that the 3,062 women who worked for the same main employer in both years were $20,089 in 1990 and $25,576 in 1998 (Table 18). The average earnings per worker of all workers in the organizations that employed the other 37,950 women who did not work for the same main employer was $9,361 in 1990 and $18,705 in 1998. In both years overall average earnings were markedly lower in the employers whose workers were not stable. But the doubling of the average earnings for all workers by 1998 in the employers who had different workers shows that many workers were able to find employment with better, higher paying firms by 1998. These women made better choices of where to work.

**TABLE 18 DISTRIBUTION OF EARNINGS FOR WOMEN AND THEIR SAME OR DIFFERENT EMPLOYERS, 1990 AND 1998**

| | 1990 | | | | 1998 | | | |
|---|---|---|---|---|---|---|---|---|
| | Workers | Main Job | All Jobs | Firm | Workers | Main Job | All Jobs | Firm |
| Same Employer | 3,062 | $8,648 | $9,289 | $20,089 | 3,062 | $17,650 | $18,514 | $25,576 |
| Different Employer | 37,950 | $3,997 | $4,841 | $9,361 | 37,950 | $11,669 | $13,335 | $18,705 |
| Employed one Year | 14,212 | $3,354 | $3,977 | $8,255 | 21,593 | $9,759 | $11,014 | $16,112 |

The women who worked in 1998 but not 1990 (“employed one year”), had average earnings of only $9,759 on their main job, almost $2,000 lower than those women who worked for different employers in the two years. The fact that those women who did not work in 1990 had lower earnings in 1998 suggests that more work experience plays a role here also.

Thus, the ability of women to find jobs with employers that pay higher wages is a critical element in their ability to earn higher incomes. This point is echoed by the experience of the 6,304 women who did not work in 1990 but who earned more than $15,000 in 1998: the average earnings per worker among their employers in 1998 was $26,175. If one ties into low-wage operations, it is very difficult to earn one’s way out of poverty. Women need to choose better, higher paying employers to increase their chances of escaping poverty. The women’s initial earnings are not as important as the earnings of everyone else in the organization.

## Why Lower Incomes Despite Four Quarters Worked?

One of the disturbing findings is that 49% of those women who worked four quarters in 1998 earned less than $15,000. So it is not just fewer quarters worked that accounts for the lower earnings. Other factors come into play. One is likely to be industry. Table 19 lists by industry the number of workers and earnings on main and all jobs for those who earned both less than $15,000 and those who earned at least $15,000 in 1998. Several points jump out.

First, those who earned less than $15,000 earned only one-third what those who earned at least $15,000 did, $7,873 versus $20,957, on their main jobs. That is a significant difference. It is most likely due to fewer hours and weeks worked in their main industry. Just comparing main-job earnings by industry shows large differences. But since overall earnings are almost as different between the higher and lower-earning women, that cannot be all the reason. A second reason is the industrial distribution. A higher proportion of the higher-earning women are employed in better paying industries, such as manufacturing, public administration, finance, insurance, and real estate, and fewer in retail trade and services. This makes the average earnings higher.

**TABLE 19 DISTRIBUTION OF AVERAGE EARNINGS OF WORKERS WHO WORKED FOUR QUARTERS IN 1998, BY INDUSTRY AND LEVEL OF EARNINGS**

| | Less than $15K | | | $15K or More | | |
|---|---|---|---|---|---|---|
| **Industry** | **Workers** | **Main Job** | **All Jobs** | **Workers** | **Main Job** | **All Jobs** |
| Agriculture and Mining | 150 | $7,250 | $8,895 | 76 | $19,140 | $21,041 |
| Construction | 110 | $7,545 | $9,530 | 260 | $23,090 | $25,565 |
| Manufacturing | 2,358 | $9,113 | $11,037 | 6,150 | $21,991 | $23,381 |
| Transportation/Utilities | 722 | $8,316 | $9,939 | 887 | $23,232 | $25,246 |
| Wholesale Trade | 529 | $8,459 | $10,173 | 818 | $20,708 | $22,219 |
| Retail Trade | 5,786 | $7,503 | $9,015 | 2,072 | $18,256 | $20,608 |
| Finance, Insurance, Real Estate | 559 | $8,997 | $10,908 | 1,401 | $20,150 | $22,252 |
| Services | 11,170 | $7,718 | $9,533 | 9,505 | $20,156 | $22,551 |
| Public Administration | 432 | $7,830 | $9,213 | 1,533 | $24,766 | $25,863 |
| Not Classified | 20 | $6,412 | $9,067 | 15 | $22,916 | $23,002 |
| Missing | 124 | $6,810 | $9,434 | 63 | $18,934 | $21,653 |
| **Total** | **21,960** | **$7,873** | **$9,610** | **22,780** | **$20,957** | **$22,923** |

But what accounts for the different distribution? Is it fewer previous quarters of work, lower paying employers, or characteristics of the women themselves? The last we cannot learn until we explore that the characteristics of the women, a topic reserved for the next paper. But we can look to see what the average earnings per worker are among the different employers, based on annual earnings of former recipients (Table 20).

**TABLE 20 EARNINGS PER WORKER FOR ALL EMPLOYEES BY ANNUAL EARNINGS OF RECIPIENT WORKERS, 1998**

| | Workers | Main Job | All Jobs | Firm |
|---|---|---|---|---|
| Less than $5,000 | 2,744 | $2,295 | $3,337 | $10,682 |
| $5,000 - $9,999 | 8,088 | $5,977 | $7,692 | $16,109 |
| $10,000 - $14,999 | 11,128 | $10,626 | $12,551 | $18,773 |
| $15,000 - $19,999 | 10,124 | $15,608 | $17,395 | $23,249 |
| $20,000 - $24,999 | 6,322 | $20,475 | $22,246 | $26,363 |
| $25,000 or more | 6,334 | $29,986 | $32,434 | $31,644 |
| **Total** | **44,740** | **$14,535** | **$16,389** | **$22,291** |

As one might expect, those women with the lowest average earnings worked for employers with the lowest average earning per worker. Average earnings per worker varied from a low of $10,682 to a high of $31,644. It is very clear that choice of employer and the implied working conditions make a big difference in earnings outcomes. And we do know from above that more extensive previous quarters of work affect earnings outcomes.

## Dead Ends or Stepping-Stones?

We learned above that taking jobs in certain industries yielded higher earnings than in other industries. This analysis was done at the one-digit Standard Industrial Classification (SIC) code level. But an industry question that has yet to be explored is whether women who work in specific industries that are known for employing less-skilled workers can still earn more than $15,000 per year. It has often been said that women who work in temporary help services, retail, food service, or low-end health care industries are in "dead end jobs." But is this true? Can they work themselves out of these industries or can they work themselves up in these industries to the point that they earn more than $15,000? Tables 21 and 22 reveal some answers.

**TABLE 21 DISTRIBUTION OF 1990 RECIPIENTS AMONG SELECT INDUSTRIES IN 1998**

| | | | Percent of 1990 Workers, Who in 1998 Were in: | | |
|---|---|---|---|---|---|
| **Industry** | **SIC** | **1990** | **Same Industry** | **One of Other Five** | **Any of the Six** |
| Department Stores | 5311 | 1,775 | 11 | 16 | 27 |
| Grocery Stores | 5411 | 2,327 | 18 | 18 | 36 |
| Eating and Drinking Places | 5810 | 8,699 | 17 | 14 | 31 |
| Help Supply Services | 7363 | 4,983 | 12 | 13 | 25 |
| Nursing Homes | 8051 | 4,372 | 21 | 16 | 37 |
| Hospitals | 8062 | 780 | 35 | 16 | 51 |
| **Total** | | **23,136** | **16** | **15** | **30** |
| **Percent of Workers Who Worked in 1990 & 1998** | | **56** | **9** | **8** | **17** |

The six industries in which recipients most commonly worked in 1990 are mentioned above and listed in the left-most column. Of the 41,102 women who worked in both 1990 and 1998, some 56%, or 23,136, started work in one of these six industries. Of the hundreds of industries in which these women could work, these are where they concentrated. The question is whether they remained in these industries. The answer is that most moved on.

The third column shows the percentage of women in each industry that was still working in the same industry in 1998. The average across the six industries was 16% of those who worked in one of these six industries in 1990 and 9% of all recipients who worked in both 1990 and 1998. These are relatively small percentages. If we also consider women who may have started in one of the six industries and ended in another of the six industries, we find a very similar distribution. Combined, some 30% of those who started in these six most common industries remained in these industries nine years later, but these 7,034 women constituted but 17% of all recipients who worked in both years. In other words, these women largely used their jobs in these six industries to move on to other, less common industries. The six industries were home to 56% of these recipients in 1990 and only 17% in 1998. Instead of being dead-ends, these industries were stepping-stones.

**TABLE 22 DISTRIBUTION OF WORKERS AND EARNINGS BY SELECTED INDUSTRY AND EMPLOYMENT STATUS, 1990 AND 1998**

| | | 1990 | | | 1998 | | |
|---|---|---|---|---|---|---|---|
| **Industry** | **Workers** | **Main Job** | **All Jobs** | **Firm** | **Main Job** | **All Jobs** | **Firm** |
| Department Stores | 1,345 | $3,989 | $4,744 | $7,732 | $12,840 | $14,362 | $16,788 |
| Grocery Stores | 1,817 | $3,603 | $4,345 | $8,365 | $11,954 | $13,553 | $18,721 |
| Eating and Drinking Places | 6,458 | $3,050 | $3,768 | $3,607 | $10,264 | $11,842 | $16,747 |
| Help Supply Services | 3,432 | $1,667 | $2,456 | $1,862 | $9,733 | $11,347 | $16,410 |
| Nursing Homes | 3,259 | $5,271 | $6,139 | $8,382 | $11,514 | $13,355 | $17,834 |
| Hospitals | 790 | $8,057 | $8,938 | $18,630 | $17,449 | $19,458 | $24,674 |
| **Total** | **17,101** | **$3,560** | **$4,333** | **$6,396** | **$11,110** | **$12,763** | **$17,467** |

Having said that, the next question is whether they were stepping-stones to higher incomes. Did this experience work against them in terms of earnings? It depends on one's perspective. If we look at the average earnings per worker on their main job in 1998, the $11,110 figure is almost exactly the same as that for all former recipients in their main job in 1998 ($11,303). The 1998 earnings for all jobs of women who started in these six industries in 1990 ($12,763) are also quite similar to the average for all workers on all jobs ($12,787).

Then again, if these women worked for four quarters in 1998, as 38% did, their having started in these industries may be said to be a disadvantage. In fact, the 1998 average earnings on all jobs of these women who started in any of these six industries were $14,795, somewhat below the $16,389 average among all women who worked four quarters in 1998. The average earnings per worker in 1998 were, however, over $15,000 among women who started in four of the six industries. The clear winners were those who started in hospitals. But those who started in department stores, grocery stores, and skilled nursing homes all ended 1998 with average earnings above $15,000. Only those in Food Services and Temporary Help failed to generate higher averages. In short, the women who started in these six industries have done reasonably well in increasing their earnings, but they have not done as well as many others. Their original human capital and industry choices have limited their 1998 earnings.

The next question is that of the distribution of earnings among these women. Did many of these women get to earn above the average for all women who worked four quarters ($16,389) in 1998? The answer may surprise some: 5,401 of these women who started in one of these six industries in 1990 earned over $16,389 in 1998. They were 23% of the women who worked in the six industries in 1990. Not only did these women exceed $16,389; their average earnings in 1998 were $23,528, higher than for all women who earned more than $15,000 in 1998. Their initial industry choice did not inhibit their subsequent earning level. But since only 23% earned more than the average, they did not exceed the average as often as women who started in other industries.

Were all of the women who started in these six industries able to find work in 1998 with employers who were paying better wages, or were these women generally relegated to work with employers with lower overall pay per worker? The answer is that these women were more commonly relegated to employers with lower earnings per worker: $17,467 for women who started in these six common industries compared to $22,291 among all women who worked four quarters in 1998. These women from the original six industries do have some difficulty finding employers that have higher average earnings. What we must wait to learn is whether this is a function of a restricted search or whether it has more to do with the characteristics of the women themselves.

Another question is whether women who started in one of these six industries were any more or less likely to work four quarters in 1998 than women who started in other industries in 1990. Some 38% of those women who started in these six industries worked four quarters in 1998. That is far below the 71% of all women who worked in 1998 but very similar to the 43% of women who worked in both 1990 and 1998 and worked four quarters in 1998. Women who started in these six industries are not so different in work commitment from women at large.

## A Statistical Analysis Of The Factors Of Success

To put these many factors that may contribute to the successful achievement of higher earnings into perspective requires a statistical analysis. We have been able to learn that several factors, such as choosing the right employer, working more quarters, and being in a higher-paying industry, seem important to success. But to truly learn just how important any of the many factors that we have examined has been, we must rely on a regression analysis. That analysis will attempt to determine just how much of a difference in earnings each of the many factors makes.

We have attempted to construct four different regression analyses. The first two include the entire population of former recipients working in 1998. The second two are restricted to those women who worked in all four quarters in 1998. These latter women had substantially higher earnings, on average, than did the entire pool of 62,605 women who worked sometime in 1998. The purposes of the regression exercise are: 1) to determine the degree to which the many factors examined above contribute to total earnings differentials among the two pools of women; and 2) to learn how much each factor affects these women's earnings. Thus, we will learn how much higher is the income of a woman who works in manufacturing or construction, for example.

Table 23 below summarizes our findings. It reports in percentage terms how much higher or lower a woman's earnings were if she or her employer had a particular characteristic. These percentage estimates are the result of a conversion of the statistical coefficients from the regressions into a more easily understood percentage change. We note only those factors that are statistically significant. The actual OLS coefficients and standard errors of all variables used in the regressions are presented in Table A2 of the appendix along with an explanation on how to make the conversion.

Since many of the women in our universe worked for the same employers in 1998, a regression model is estimated where the assumption of independence among the women is relaxed. Here independence is assumed to occur

among employers but not necessarily within an employer. Essentially, the argument is that women will have similar characteristics and pay with the same employer and thus less variation, but this is not necessarily true across employers. The resulting regression consists of 62,542 women in 15,439 different employers. The 44,717 women who worked all four quarters in 1998 were distributed among 12,264 employers.

As we have noted, we are attempting to see just how important employer characteristics are to the success of former welfare recipients. One measure of this is how much of the variation in earnings can be explained by these employer characteristics. We then proceed to include measures of the women's attachment to the workforce. And finally, but not in this paper, we examine the contribution of the various characteristics of the women in combination with the characteristics of the employers. We hypothesize that there are strong relationships between the characteristics of the women and the characteristics of their employers that result in the total earnings of each woman. That cannot be proven until we go the next step. Here we want to concentrate on the employers and the employment pattern of these women.

## All Recipients Who Worked in 1998

The first regression we ran consisted of only the characteristics of the employers (Table 23 or Table A2, first column). We ran it to generate an R-squared statistic to see just how much of the individual earnings outcome we might have explained by examining just the employers themselves, knowing ahead of time that this was an incomplete picture. With several attempts, we could not generate a statistic much above 0.117. Thus, we confirmed our suspicion that there is some interaction between employers and the types of employees they can attract and retain. And we have to accept the fact that just employer characteristics do not explain much of the difference in individual earnings.

The variables for employer characteristics are lnees98, hiw298, hipay98, trnovr98, mcind90, constr98, manuf98, tranut98, whlsale98, retail98, fire98, servs98, and metro98. The size of the firm, lnees98, is calculated as the natural log of the number of employees for the main employer. The hiw298 variable captures the effect of having a relatively high proportion of former welfare recipients in the workforce. If the proportion is 0.05 or greater, hiw298 equals one and zero otherwise. To capture the effect of firms that pay higher wages on average, hipay98 was created and is equal to one if the firm has average annual pay among all workers greater than or equal to $45,000. The turnover rate in 1998, trnovr98, is a ratio of the number of "dropped" employees to total employees. To capture the effect of starting in one of the six most common industries, mcind90, is created and equals one if the former recipient was employed in one of these industries in 1990 and zero otherwise. The rest of the variables are the one-digit industry of the main employer in 1998 and whether the employer was located in one of the 8 largest metropolitan areas of the state in 1998 (metro98). The agricultural, mining, and public administration industries are excluded from the regression to give a basis of comparison.

Our second regression included both the employer characteristics and the work patterns of the women (Table 23 or Table A2, second column). These included mainqtrs, totqtrs, qtrsqrd, avgemplr, main9098, and ind9098. Attachment to an employer is captured by the variable, mainqtrs, which is the number of quarters worked for the main employer in 1998. General commitment to working is captured through totqtrs, which is the total number of quarters worked from 1990 to 1998. The square term for totqtrs, qtrsqrd, reflects the decreasing returns to additional quarters worked. Another indicator of commitment is the average number of employers each year each recipient had from 1990 to 1998 (avgemplr). Since having more employers, on average, indicates lower labor force attachment, it is expected that this would decrease earnings. However, we could also argue that since the majority of the population holds multiple jobs concurrently, having a higher number of different employers should increase total earnings. Staying with the same employer reinforces the commitment to the workforce, as does staying in the same industry. Here, main9098 indicates if the recipient worked for the same main employer in 1990 and 1998, and ind9098 indicates if the recipient worked in the same two-digit industry in 1990 and 1998. For more detail on the variable definitions and their means, see Table A1 in the Appendix.

As we look down the first column in Table 23, we find nine characteristics of the employers that are significant in their impact on earnings. Some are positive, and some are negative. Since these variables only explain approximately 12% of earnings (R-squared = 0.117), we will focus on interpreting these variables with the inclusion of the workforce commitment variables in the second column. Another reason for looking at both columns together is that the coefficients of the variables in column one seem to be picking up the "omitted" workforce commitment and women's characteristics variables. For instance, the first significant factor, being in a firm having a higher proportion

of employees who were former welfare recipients, is negatively related to a worker's earnings, decreasing them by at least 41%, on average, compared to those who work for employers with smaller proportions of former recipients. When workforce commitment variables are taken into account (column 2), the magnitude of influence of the employer characteristics on earnings decreases substantially. Thus, former recipients that work for employers with 5% or more of their workforce consisting of former recipients earn 12% less, on average, than those who work for employers with smaller proportions of former recipients. This is far lower than the 41% reported in column one. Similarly, the women who work for employers that pay more on average only see an 18% instead of a 125% increase in their pay.

**TABLE 23 PERCENTAGE CHANGE IN 1998 EARNINGS FROM SELECTED VARIABLES**

| | All Workers | | Employed 4 quarters | |
|---|---|---|---|---|
| **Variables** | **Employer Characteristics** | **Full Model** | **Employer Characteristics** | **Full Model** |
| mainqtrs | -- | 115 | -- | 34 |
| totqtrs | -- | 7 | -- | 2 |
| avgemplr | -- | 14 | -- | -5 |
| main9098 | -- | ns | -- | -5 |
| lnees98 | ns | 2 | 3 | 3 |
| hiw298 | -41 | -12 | -15 | -9 |
| hipay98 | 125 | 18 | 48 | 30 |
| trnovr98 | 60 | -17 | -14 | -18 |
| mcind90 | 11 | -6 | ns | -4 |
| constr98 | ns | 30 | 13 | 24 |
| manuf98 | 19 | 15 | 5 | 9 |
| retail98 | -51 | -23 | -31 | -23 |
| fire98 | 26 | 11 | ns | 5 |
| servs98 | -31 | -10 | -13 | -7 |
| metro98 | -11 | 5 | 4 | 8 |
| R-squared | 0.117 | 0.630 | 0.160 | 0.370 |
| Observations | 62,542 | | 44,717 | |
| Employers | 15,439 | | 12,264 | |

*Note: ns means the variable is not significantly different from 0.*

There are other effects of omitting workforce commitment variables: some variables change sign and others become significant. The first sign change is initially puzzling. The higher a firm's turnover rate in 1998, the higher the average earnings in 1998, 60% higher in fact. That seems counter intuitive. One would expect an employer that pays well to have lower turnover. But the statistical finding can be partially explained by the tight labor market in Wisconsin in 1998. Employers that had higher turnover may well have had to compensate employees more highly to retain those it had attracted. The second column, explaining the combination of employer characteristics and workforce commitments, reveals a very different picture, a negative relationship, 17% lower on average. This is more of what we would expect and is the result of the insertion of the variable counting the average number of employers each recipient has had. An employer with high turnover likely does pay less; its higher turnover rate is due to, at least in part, lower pay and often less supportive working conditions.

The second variable to change signs is most common industry in 1990 (mcind90). Initially, it increases earnings by 11%. After controlling for workforce commitment, starting with an employer in one of the six most common industries reduces 1998 earnings by 6%. Another sign change experienced is for being in a metro area. It is negative

for one's earnings (11% lower) but not when controlling for the number of quarters worked. In each of the other specifications, metro98 is significantly positive but has a smaller influence on earnings, ranging from 4% to 8%. The percentage increase does not apply to each of the eight largest metro areas; it only applies to them in general.

The variables that gain significance are employer size and being in the construction industry. For a 10% increase in number of employees, average earnings increase 2%. Thus, working in a 100-person firm is likely to give a woman a 20% higher income than a woman working in a firm with 10 employees. Being in some one-digit industries increases pay, and being in others reduces pay. The industries that increase average earnings are construction, by 30%, manufacturing, by 15%, and finance, insurance and real estate, by 11%. Being in retail reduces average earnings by 23%, and being in services reduces average earnings by 10%.

When we insert the work patterns of these women, a much greater proportion of the differences in earnings is explained (column 2). The R-squared rises to 0.63, a very robust figure. The work patterns of women do make a great difference in earnings outcomes. Women who choose to work more earn higher incomes. This is especially noted by the first entry, mainqtrs. For an extra quarter worked in 1998 for the main employer, earnings increase on average 115%. This seems overstated and may reflect omitted variables like age, education, and number of children. Indeed, when we control for working four quarters, although not necessarily with the main employer, the coefficient is reduced to a more modest 34% (see column 4).

No other factor is as important to explaining earnings differentials as is the number of quarters worked in 1998 for the main employer. Other work pattern variables that influence earnings are total quarters worked from 1990 to 1998 and the average number of employers per year. For an additional quarter worked over the time period, earnings increase on average 7%. If a woman worked an additional year (four quarters), her earnings would be 28% higher, on average, than a woman who worked fewer quarters. Women who have more employers generally would earn more income, in fact, 14% more for an additional employer. This, however, is not the case when looking at women that worked all four quarters in 1998 (column 4). Women with more employers, on average, are penalized 5% of earnings. This could be because they are switching employers or are working many part-time jobs instead of one full-time job and a part-time job. Most employers pay full-time employees more per hour than their part-time equivalents.

If women are to avoid lower earnings, the employers they should avoid are those: with higher concentrations of former recipients, with higher turnover rates, in one of the six most common industries, in retail or in services. Higher earnings can be found with employers who have a lot of employees, have higher average pay, are in construction, manufacturing, finance, insurance, or real estate and are located in a larger metropolitan area.

The R-squared for the combination of employer characteristics and the women's work patterns is quite high (0.63). The combination of the two sets of factors is much more revealing than knowing just employer characteristics. Earnings are the result of both sides of the equation, but especially the women's commitment to work.

## Employed Four Quarters

To gain further insight, though, we then eliminated the largest factor in commitment to work — the number of quarters worked in 1998. By examining only those women who worked in all four quarters (but not necessarily all twelve months or necessarily for the main employer), we hoped to see if the relative roles of the various factors changed in any substantial way.

When we look at just the employer characteristics in column three, we see that there are still nine factors that are significant (as in column 1). The difference is that employer size is significant, but most common industry in 1990 is not. The largest positive (48%) is, as we would expect, working for employers that paid higher wages. The largest negative is also not a surprise, employment in retail (-31%). Thus, as we surmised from our cross-tabs, working four quarters for a higher paying employer is a good prescription for higher earnings. As before, one also wants to avoid employers who have hired numerous welfare recipients, those that have higher turnover, those in retail trade or services, and those in one of the six most common industries.

The R-squared for just the employer characteristics is still rather modest, 0.16. Thus, the employer characteristics explain more of the earnings outcome for those employed four quarters in 1998. But employer characteristics alone are not sufficient by themselves to explain earnings outcomes. When the women's work patterns are inserted, however, more is explained. But even here, among those who did choose to work four quarters in 1998, the explanation is still incomplete, as revealed by the R-squared of 0.37. This figure helps to make the case that we need to

continue the research and include as well additional characteristics of the women themselves, such as age, education, race, and the like. That will occur in a future report.

The current, full model's results are not very different from the results for all former recipients that worked in 1998. Fifteen of the variables are seen as significant. Fourteen of these are the same factors that are significant for the full model analysis of all workers (column 2). What is different are the sizes of some of the impacts. For example, having worked four quarters for the same main employer is much smaller, 34% versus 115% for all workers, as one would expect. But most of the factors are only modestly different than their counterparts in the regression for all workers. For example, working in construction is now 24% versus 30%, and working in retail is just as detrimental, -23% in both columns, to earnings. Location in a metropolitan area is just a bit more positive, 8% compared to 5%. Working for a high-paying employer is more important, 30% compared to 18%.

The one variable that has changed signs is the average number of employers a woman has had each year from 1990 to 1998. Overall, having more employers was associated with higher earnings, perhaps indicating a continuing quest for additional or higher income. But once one has committed to four quarters of work, more employers imply greater job hopping and lower total earnings (-5%).

The one factor that is newly significant is that of having the same main employer in both 1990 and 1998. In this case, it now has a negative impact (-5%) on earnings. This was not clear from the cross-tabs, where it appeared that continuity paid modest dividends. But apparently, the premium for staying is not as great as the rewards of moving to other, hopefully higher paying, employers.

In short, what matters most to those who worked four quarters are: the fact they worked for their main employer for all four quarters; the fact that their employer was among those that paid well; and the fact that they selected particular industries for their main employment. The higher-earning women also avoided employers that had higher employee turnover rates, had a higher proportion of welfare workers, or were located in retail or services. A few of these factors seem quite critical while others are modestly influential.

## SUMMARY

The vast majority of women on welfare in 1990 have gained work experience in the 1990s. Those who have come to be committed to work and worked in all four quarters in 1998 earned livings that are near, if not above, poverty and far above their income levels as welfare recipients. Women who have ended up in industries other than retail and services have much better chances of being above poverty. Those who have connected with the largest employers also have better chances of above poverty earnings. Interestingly, in this state it is the smaller establishments that are adding the most employment — they are where employment growth is most occurring. But this is not the set of employers with which former recipients have found employment or financial success.

Some factors seem far more influential than others in determining who earns above poverty-level incomes. These factors include: working for the same main employer for all four quarters in 1998, working for employers that have higher average earnings among their workers, working in select industries, and avoiding employers that have higher employee turnover rates, higher proportions of welfare recipients on their payrolls, or those that are located in specific industries, such as retail.

Influential as these factors are, they do not explain the whole earnings distribution. Yes, employer characteristics are important in determining earnings, but more important is the women's commitment to work, especially the commitment to the same employer throughout the calendar year. We also must hypothesize, based on much research on determination of earnings, that the characteristics of the women themselves play a very important role in determining earnings. The specifics of that role must await another study, soon to be undertaken. In the meantime we can safely conclude that employer characteristics are important in determining which women make a successful transition from welfare to above-poverty earnings. But it is characteristics of the women themselves that largely determines who among them will be able to connect with the employers with whom higher earnings are likely.

Women can learn the characteristics of the employers that are more likely to have jobs on which women can earn higher incomes. That is important knowledge. But women cannot act on that knowledge unless they have the human capital and the personal commitment to qualify for and keep these higher-paying jobs.

## APPENDIX

Table A1 shows the means and definitions of the variables used in the regression analysis and Table A2 presents the actual results from the OLS regression equations. Since the dependent variable is the natural log of 1998 earnings, the coefficients (those not in parentheses) can be interpreted as an approximate estimation of the percentage change, by moving the decimal two places to the right; that occurs if a factor changes by one unit. Thus, in column two, a woman who works in a metro area would earn about 5% more than a woman that does not work in one of the eight metro areas. The easy translation of the coefficients to percentages fails, however, as the size of the coefficient increases. The larger coefficients, those 0.2 and over, must be formally transformed to percentages using the equation: $e^{ß}$ -1, where ß is the coefficient. So in column one, the coefficient for hiw298 is -0.52 and the resulting transformation is -41%.

**TABLE A1 DEFINITIONS AND MEANS OF VARIABLES USED IN REGRESSION (STANDARD DEVIATIONS ARE IN PARENTHESES)**

| Variable | Definition | All Workers | Worked 4 Quarters |
|---|---|---|---|
| lnearn98 | Natural Log of 1998 earnings | 8.962<br>(1.311) | 9.543<br>(0.617) |
| mainqtrs | Quarters worked for main employer | 3.076<br>(1.119) | 3.603<br>(0.741) |
| totqtrs | Quarters worked, 1990 - 1998 | 23.242<br>(9.592) | 25.981<br>(8.322) |
| avgemplr | Average number of different employers | 1.604<br>(0.731) | 1.608<br>(0.743) |
| main9098 | Same main employer in 1990 and 1998 | 0.050<br>(0.218) | 0.063<br>(0.243) |
| ind9098 | Same 2-Digit industry in 1990 and 1998 | 0.147<br>(0.354) | 0.161<br>(0.367) |
| lnees98 | Natural Log of employees, 1998 | 5.669<br>(2.077) | 5.733<br>(2.054) |
| hiw298 | Proportion of W2 employees > 0.05 | 0.672<br>(0.469) | 0.631<br>(0.483) |
| hipay98 | Firm's average pay ≥ $45,000 | 0.020<br>(0.140) | 0.027<br>(0.163) |
| trnovr98 | Turnover rate, 1998 | 0.515<br>(0.421) | 0.548<br>(0.432) |
| mcind90 | Main Employer is in Most Common industry, 1990 | 0.268<br>(0.443) | 0.275<br>(0.447) |
| agrmin98 | Main Employer is in Agriculture and Mining, 1998 | 0.006<br>(0.079) | 0.005<br>(0.069) |
| constr98 | Main Employer is in Construction, 1998 | 0.010<br>(0.097) | 0.009<br>(0.092) |
| manuf98 | Main Employer is in Manufacturing, 1998 | 0.171<br>(0.376) | 0.195<br>(0.396) |
| tranut98 | Main Employer is in Transportation/Utilities, 1998 | 0.033<br>(0.178) | 0.037<br>(0.188) |
| whsale98 | Main Employer is in Wholesale Trade, 1998 | 0.029<br>(0.167) | 0.031<br>(0.172) |
| retail98 | Main Employer is in Retail Trade, 1998 | 0.190<br>(0.392) | 0.173<br>(0.378) |
| fire98 | Main Employer is in Finance, Insurance, Real estate, 1998 | 0.038<br>(0.191) | 0.045<br>(0.207) |
| servs98 | Main Employer is in Services, 1998 | 0.481<br>(0.500) | 0.457<br>(0.498) |
| pubadm98 | Main Employer is in public administration, 1998 | 0.036<br>(0.186) | 0.044<br>(0.205) |
| metro98 | Employer located in Metro Area | 0.409<br>(0.492) | 0.397<br>(0.489) |
| **N** | | **62,542** | **44,717** |

**TABLE A2 OLS REGRESSION EQUATIONS OF THE NATURAL LOG OF 1998 EARNINGS**

| | All Workers | | Employed 4 quarters | |
|---|---|---|---|---|
| **Variables** | **Employer Characteristics** | **Full Model** | **Employer Characteristics** | **Full Model** |
| mainqtrs | -- | 0.765*** | -- | 0.289*** |
| | | (0.010) | | (0.007) |
| totqtrs | -- | 0.072*** | -- | 0.020*** |
| | | (0.003) | | (0.002) |
| qtrsqrd | -- | -0.001*** | -- | -3.12E-05 |
| | | (5.78E-05) | | (4.03E-05) |
| avgemplr | -- | 0.133*** | -- | -0.047*** |
| | | (0.006) | | (0.004) |
| main9098 | -- | -0.034 | -- | -0.054*** |
| | | (0.027) | | (0.019) |
| ind9098 | -- | -0.018 | -- | 0.005 |
| | | (0.017) | | (0.013) |
| lnees98 | -0.001 | 0.016*** | 0.032*** | 0.033*** |
| | (0.020) | (0.006) | (0.004) | (0.005) |
| hiw298 | -0.520*** | -0.119*** | -0.166*** | -0.094*** |
| | (0.055) | (0.018) | (0.015) | (0.015) |
| hipay98 | 0.810*** | 0.169*** | 0.395*** | 0.260*** |
| | (0.038) | (0.034) | (0.033) | (0.034) |
| trnovr98 | 0.468*** | -0.192*** | -0.147*** | -0.195*** |
| | (0.056) | (0.025) | (0.025) | (0.020) |
| mcind90 | 0.104*** | -0.062*** | 0.009 | -0.041*** |
| | (0.017) | (0.008) | (0.008) | (0.006) |
| constr98 | -0.092 | 0.263*** | 0.121*** | 0.219*** |
| | (0.097) | (0.053) | (0.045) | (0.040) |
| manuf98 | 0.174** | 0.141*** | 0.050* | 0.090*** |
| | (0.074) | (0.035) | (0.029) | (0.023) |
| tranut98 | 0.035 | 0.002 | -0.059 | -0.017 |
| | (0.098) | (0.056) | (0.046) | (0.045) |
| whsale98 | -0.062 | 0.037 | -0.040 | 0.013 |
| | (0.086) | (0.043) | (0.037) | (0.032) |
| retail98 | -0.706*** | -0.261*** | -0.366*** | -0.266*** |
| | (0.077) | (0.039) | (0.031) | (0.026) |
| fire98 | 0.230*** | 0.107*** | 0.020 | 0.046* |
| | (0.086) | (0.038) | (0.033) | (0.026) |
| servs98 | -0.376*** | -0.102*** | -0.143*** | -0.069*** |
| | (0.083) | (0.037) | (0.030) | (0.024) |
| metro98 | -0.116** | 0.046** | 0.037** | 0.073*** |
| | (0.060) | (0.019) | (0.015) | (0.010) |
| constant | 9.357 | 5.528 | 9.637 | 8.101 |
| | (0.159) | (0.062) | (0.044) | (0.052) |
| F( 13, 15438) | 190.550 | 1262.630 | 235.080 | 490.220 |
| R-squared | 0.117 | 0.630 | 0.160 | 0.370 |
| Root MSE | 1.232 | 0.798 | 0.566 | 0.490 |
| Observations | 62,542 | | 44,717 | |
| Employers | 15,439 | | 12,264 | |

*Note: Standard Errors in parenthesis, *** significant at 1%, ** Significant at 5%, * Significant at 10%*

## NOTES

**1.** For clarity's sake, we have excluded AFDC-U cases and cases in which persons other than the mother are the recipient of aid. These exclusions reduce the number of cases, but they also give us a more uniform population to analyze.

**2.** John Pawasarat, *The Employer Perspective: Jobs Held by the Milwaukee County AFDC Single Parent Population, January 1996-March 1997,* The Employment and Training Institute, University Outreach, University of Wisconsin-Milwaukee, Milwaukee, WI, December 1997.

**3.** That rate of participation is about equal to all workers in Milwaukee County but below the statewide average. The statewide labor force participation rate is the highest in the nation at 75%. With an unemployment rate of 3.5%, the workforce participation rate is 72.5%, compared to a national workforce average of 63%.

**4.** If there was a tie on earnings, then we chose the employer with whom a woman had worked more quarters and designated that job as the main job.

**5.** Sammis B. White. *The Roaring Nineties: Wisconsin's Regional Employment Growt*h. Wisconsin Policy Research Institute Report, August 2000, Vol. 3, No. 5, p. 31.

# ABOUT THE INSTITUTE

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