

How Much Do Education and Training Increase the Wages of Women on Welfare?

Executive Summary

Employment has been the major pathway off welfare (Aid to Families With Dependent Children - AFDC) in Washington State. Employment has also been emphasized in recent welfare reform proposals at the national level. Because most women on welfare earn low hourly wages when they work, it is difficult for them to leave and stay off welfare.

The **Family Income Study** (1988-1992) found that an hourly wage of at least \$8.00 per hour (in 1994 dollars) increased the likelihood that more women were able to stay off welfare for at least three years; yet only 25 percent of the women on welfare earned this wage or more. Most women on welfare earned a much lower hourly wage due to their lack of **education** and **recent work experience**.

The number of years of education women had completed before employment was critical to both their starting wage and the increase in their hourly wage. Women who received welfare in Washington State had a median of 11 years of education.

This paper examines the reasons why women on welfare increased their hourly wages, above their starting wage, while they were employed during the **Family Income Study** period. Starting wages depended upon women's educational level, previous work experience, age, and local labor markets.

Family Income Study Findings

Women's wages increased if they were involved in education or training while they were employed. Even if women on welfare started employment without a high level of education, they could still increase their hourly wages by continuing their education or training during their employment.

- Women's hourly wages increased by **74 cents** (in 1994 dollars) if they were **enrolled** in education or training during employment.
- Women's hourly wages increased by **40 cents** (in 1994 dollars) if they **completed** another year of education during employment.
- Women's hourly wages increased by **\$1.14** (in 1994 dollars) if they were **both enrolled in and completed** another year of education during employment.

How Much Do Education and Training Increase the Wages of Women on Welfare?

Background

Employment is the avenue off welfare for most women.¹ Two important variables--**education (both academic and vocational training) and recent paid work experience**--affect the likelihood of employment. Once employed, women's **hourly wages** affect the likelihood of their staying off welfare.

Women with fewer years of education and a lack of recent work experience typically earn low hourly wages, which implies a poor chance of leaving and staying off welfare. For these women, leaving welfare may involve several periods of working and then returning to welfare before permanently exiting.

This paper uses data from the **Family Income Study** to discuss the factors that *increased the hourly wages* of women who received welfare in 1988, and who were employed at any time during the five-year study (see Technical Appendix).

Many women on welfare in Washington State had low levels of education and recent work experience--41 percent of the women who received AFDC in 1988 had neither a high school diploma nor a GED, and another 17 percent had only a GED. This meant that over half (58 percent) lacked a conventional high school diploma. Also, few of the women had adequate recent work experience that lead to employment. Although 41 percent of the women on welfare in 1988 reported **some** paid work experience in the previous year, only 20 percent had 500 hours, an amount equal to working full-time for three months. Of those 20 percent, only 10 percent had 500 hours of work experience **and** a high school diploma.

The relatively low hourly wages that women on welfare earned made it difficult for them to leave and stay off welfare. New increases in the federal Earned Income Tax Credit (EITC) now provide a financial incentive for women on welfare to work. The EITC rewards work by boosting annual income. In 1994, the EITC payment was greatest when a woman's earned income was \$8,400 to \$10,999. For example, a woman with two children in Washington State, working at the minimum wage of \$4.90 per hour in 1994, could receive \$2,528 in EITC. When added to her minimum hourly wage and food stamps, her annual income would be higher than the income from welfare, higher than the federal poverty guideline, and higher than the Washington Need Standard. In 1995 and 1996, the EITC amount will increase.

In several papers and issue briefs we have discussed the importance of education and recent work experience in relation to **leaving** and **staying off** welfare. We have also discussed the threshold hourly wage that increased the likelihood that women could stay off welfare for at least three years. Although there is no guarantee that an increase in hourly wages will be sufficient for a family to leave welfare or leave poverty, wages of at least \$8.00 an hour increased the probability that women were able to leave and to stay off welfare. We found 61 percent of women who earned \$8.00 - \$9.49 per hour stayed off welfare for at least three years.

Summary of Previous Family Income Study Findings

Employment

Women on welfare who were enrolled in education or training were more likely to be employed in the following year than women who were not enrolled. Women on welfare who sought to improve their labor market skills through education and training were more likely to become employed than women who were not enrolled. Vocational education and training had more of an impact than academic education on employment in the following year. Women enrolled in vocational education and training were 78 percent more likely to be employed in the following year than women who were not enrolled. Women enrolled in post-secondary academic education were 32 percent more likely to be employed than women who were not enrolled (see *Pathways to Employment*, May 1993, and *Do Education and Training Benefit Women on Public Assistance?*, March 1993).

Recent paid work experience increased women's likelihood of employment. Women who had recent work history were more likely to find employment. An additional month of paid work experience (beyond the average 3 months in the previous 12 months) increased the likelihood of employment by 47 percent (see *Pathways to Employment*, May 1993).

Each additional year of education increased the likelihood of employment. The amount of education a woman could offer an employer affected the likelihood of her becoming employed. An additional year of education (beyond the 11-year median of women on welfare) increased the likelihood of employment by 5 percent (see *Pathways to Employment*, May 1993).

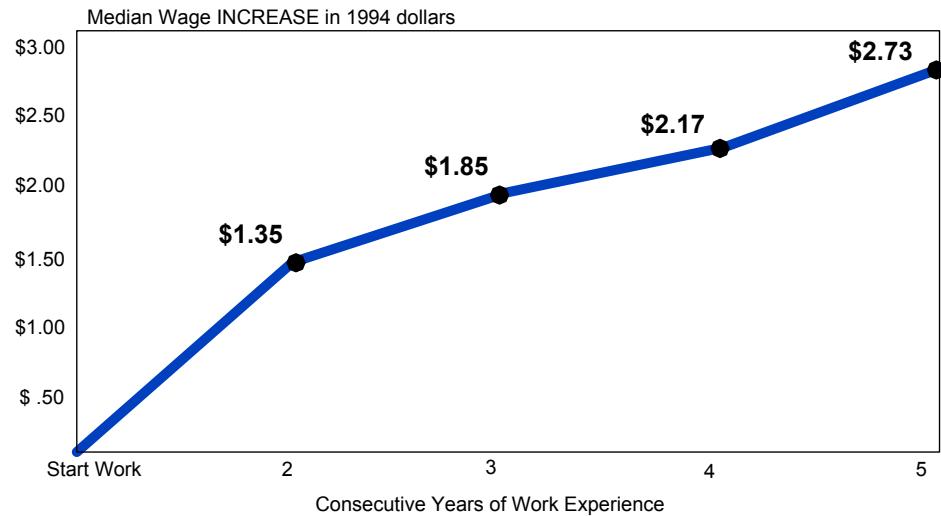
Hourly Wages

More years of education were related to higher hourly wages. The amount of education women brought to their jobs was very important. The hourly wages of women with high school diplomas were 14 percent higher than the wages of women without diplomas; and, the hourly wages of women with four-year degrees were 38 percent higher than the wages of women with only high school diplomas (see *Training Needs of the Economically Disadvantaged and the Working Poor: A Chartbook*, February 1991).

The more consecutive years that women worked, the greater the likelihood of receiving a wage increase. Many women dropped out of the labor market to bear or care for children; however, a spotty work history affected the likelihood of receiving a wage increase. Of the women who worked in five consecutive years, (even if they worked only 3 months each year) 66 percent received a wage increase. Only 12 percent of the women on welfare, however, had worked in five consecutive years (see *Climbing the Wage Ladder: UPDATE*, February 1995).

The more consecutive years that women worked, the greater the amount of the wage increase. Not only does working in consecutive years affect the likelihood of a wage increase, it also affects the size of the increase. The median hourly wage increase for those who worked in two consecutive years was \$1.35, but it was \$2.73 for those who had worked in five consecutive years as Chart 1 shows (see *Climbing the Wage Ladder: UPDATE*, February 1995).

Chart 1
The More Consecutive Years AFDC Women Worked, the Greater the Hourly Wage Increase*



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*Work experience is defined as at least three months of work in a year. The median starting wage was \$5.84. Increases of less than \$0.25 per hour were not included.

Leaving Welfare

Women were more likely to leave welfare if they had recent paid work experience and a post-secondary certificate or degree. The two factors that can be influenced by public policy incentives--work and education--affect the probability of leaving welfare. Recent paid work experience was the most influential factor related to leaving assistance, marriage was second, and post-secondary education was third. Women with work experience and a post-secondary degree were more likely to become employed and leave welfare (see *Leaving Public Assistance in Washington State*, April 1991).

Staying Off Welfare

Each additional year of education increased the number of months women stayed off welfare. Women with more years of education were able to stay off welfare longer. Each additional year of education increased the number of *months* women stayed off public assistance by 7 percent (see *Staying Off Public Assistance: What Enables a Woman to Stay Off Assistance Once She Has Left?*, January 1992).

Women who had a job in the month before they left welfare were able to stay off longer. Most women who left welfare did so due to employment. The women who had a job in the month before they left welfare were able to stay off for a median of 23 months. Women who did not have a job in the month before they left were able to stay off a median of only 15 months (see *Staying Off Public Assistance: What Enables a Woman to Stay Off Assistance Once She Has Left?*, January 1992).

The threshold wage above which women were more likely to stay off welfare was \$8.00 per hour (in 1994 dollars). Women who earned at least \$8.00 per hour were more likely to stay off welfare for at least three years. 61 percent of the women who earned \$8.00 per hour remained off welfare for three years, but only 40 percent of the women who earned \$6.50 - \$7.99 per hour remained off welfare for that long. Only 25 percent of women on welfare earned a wage of \$8.00 per hour (see *At What Hourly Wage Were Women Able to Leave and Stay Off Welfare? UPDATE*, January 1995).

Unmarried women who stayed off welfare relied heavily on their own income to support their families. Most families who received welfare were headed by unmarried women, so the women's own earnings were very important. Of the families headed by unmarried women that stayed off welfare for three years, 66 percent of the household income came from the women's own earnings (see *Income and Expenses of Families That Stayed Off Welfare*, March 1995).

Summary of Previous Findings

Clearly, education (both academic and vocational training) and recent work experience are important factors in obtaining employment and higher hourly wages. Employment is a key to **leaving** welfare, and hourly wage is a key to **staying off** welfare. But which single factor, education or recent work experience, is most important for **increasing** hourly wages? How much of an increase can be attributed to each factor?

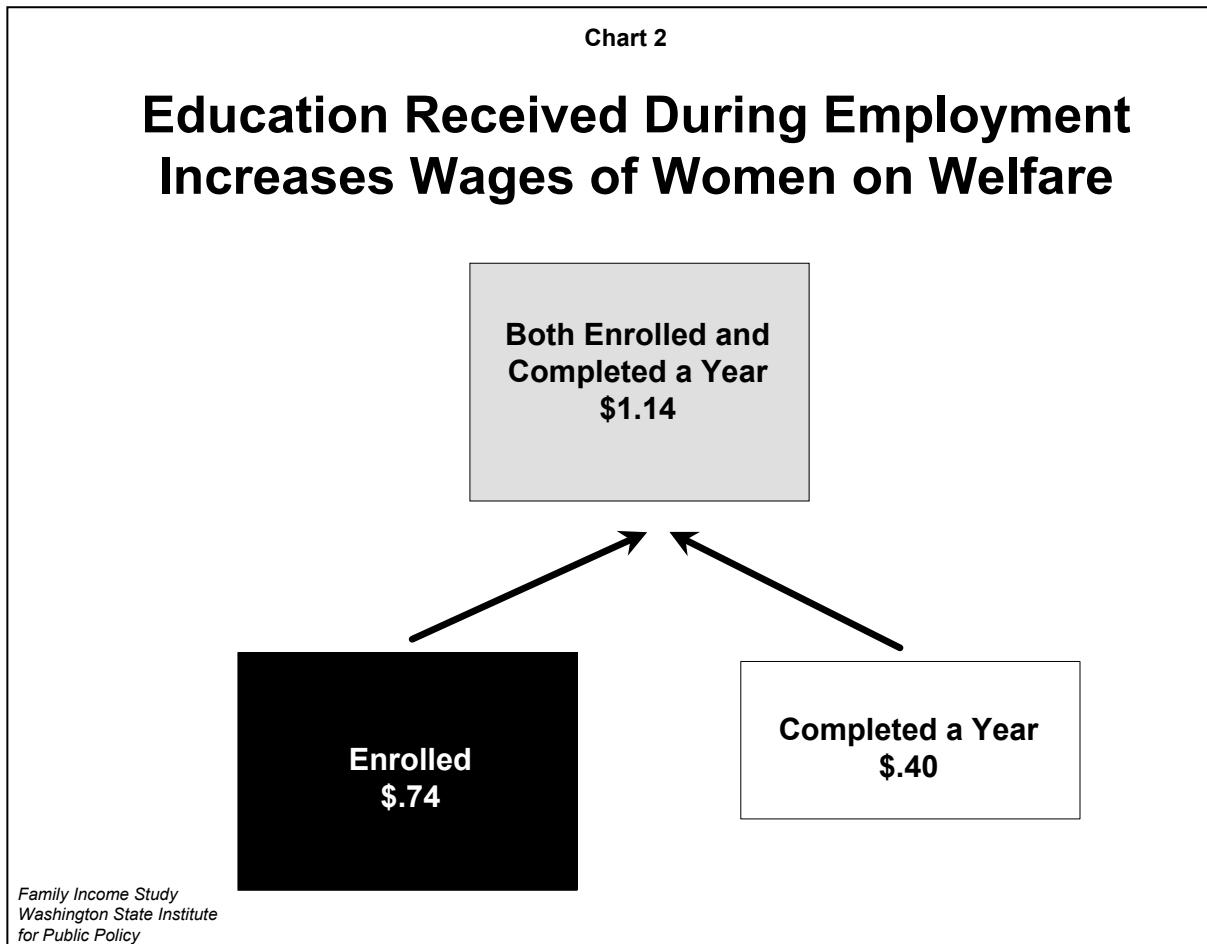
In this analysis of the **Family Income Study** data, we examined the independent effect of each factor to determine which had the most effect on increasing hourly wage. The increases are measured over the average starting wage during the **Family Income Study**. The technical appendix at the end of this paper explains the variables and methodology used.

New Family Income Study Findings

Women's wages increased if they were enrolled in an education or training program while employed. Women on welfare who did not have a high level of education increased their hourly wages by continuing their education while employed.

- During the **Family Income Study** period, women who were **enrolled** while employed increased their hourly wage by **74 cents** (in 1994 dollars) above the starting wage, compared to women who were not enrolled.
- Women who **completed** another full year of education--for example, completed the 11th grade or obtained a diploma while employed--increased their hourly wage by **.40 cents** (in 1994 dollars) above the starting wage, compared to women who did not complete another year.
- Women who **both enrolled in and completed** a year of education or training increased their hourly wages by **\$1.14** (in 1994 dollars).

Although enrolling in education or training while employed increased hourly wages--a clear benefit--it also involved costs, such as tuition, books, transportation, and child care.



The number of years of education completed **before** a period of employment was very important and had a twofold effect: It resulted in both higher starting hourly wages **and** larger increases in hourly wages during the period of work. Women on welfare who completed more years of education began on a higher rung of the wage ladder and climbed higher than women with fewer years of education.

A few other factors also affected wage increases slightly. These were: the women's **age**, **total months employed**, and **child care**. Although women's **age** and **total months employment** are easily understood, **child care** use was not. We found that each hour of child care women used per week slightly increased their hourly wages. For example, if women used 25 hours of child care per week, their wages increased by \$.25 per hour. It is not clear if using more hours of child care meant women were more committed to the labor force and more prepared to work, if employers perceived women who used child care to be more reliable, or if there was some other explanation.

The following hypothetical examples show how different **education** and work **experience** histories can affect the wage increases of two women with similar backgrounds. The major difference between the amounts of their wage increase is due to Jane having **enrolled in** and **completed** a year of vocational education during her employment, and Mary having no education or training since dropping out of high school in the 11th grade. Jane also received a larger wage increase because her **total months employed** was higher than Mary's.

Mary is a single (unmarried), 29 year-old woman with two children, ages 4 and 7. She dropped out of school at the beginning of the 11th grade, and has not been enrolled in education or training since that time. After being unemployed for five years, twelve months ago she began working as a cashier in her neighborhood mini-market for six hours a day. Her starting wage was \$5.00 per hour. Mary can expect a \$1.77 wage increase, bringing her hourly wage to \$6.77

Jane is a single (divorced) 29 year-old woman with two children, ages 4 and 7. She dropped out of school at the beginning of the 11th grade, but she has been enrolled part-time in a one-year vocational education program at the local technical college. Jane has been employed full-time, for twelve months, as a receptionist in a dental office for the past 24 months. Her starting wage was \$5.00 per hour. In the last year, Jane completed her vocational training. She can expect a \$2.92 wage increase, bringing her hourly wage to \$7.92.

Discussion and Conclusions

The **Family Income Study** has consistently found that employment is the avenue off welfare for most women in Washington State. Two factors, **education** (both academic and vocational training) and recent work **experience**, can be influenced by public policy. Both affect the ability of women on welfare to become employed and increase their hourly wages.

Women often receive welfare because a lack of education and work experience keeps them from earning enough to be self-sufficient.

- Many women on welfare in the **Family Income Study** were teenage mothers and high school dropouts.

A successful strategy to encourage young welfare recipients to stay in school has been implemented in Ohio. The Learning, Earning, and Parenting Program (LEAP) provides a financial “carrot and stick.” Teenage welfare recipients receive \$62 more a month in their welfare grant if they stay in school. If they fail to stay in school, they receive \$62 less a month.²

- Many women on welfare in the **Family Income Study** lacked recent work experience.

A successful strategy to encourage work experience has been implemented in Riverside County, California. The Greater Avenues for Independence (GAIN) program emphasizes work experience by requiring job searches by welfare recipients and job development and placement by the welfare agency.³

Low salaries while working, and the loss of health care and child care benefits when women leave welfare for employment, have often been cited as reasons why some women stay on or return to welfare after a brief exit.

- Two federal programs provide financial incentives or services to encourage women on welfare to become employed:

The federal Family Support Act, implemented in Washington State in 1990, provides one year of transitional health care child and care benefits to women who leave welfare through employment.

The federal Earned Income Tax Credit (EITC), increased in 1994, now provides a sizable financial incentive to work, even at low paying jobs, for women on welfare who have children.

Welfare-to-work policies that encourage women on welfare to enroll in and to complete another year of education or training, while employed, enable women to obtain increases in their hourly wages.

- Although there is no guarantee that an increase in hourly wages will be sufficient for a welfare family to leave welfare or leave poverty, an increase that brings wages to \$8.00 an hour (in 1994 dollars) increases the probability that women will be able to leave and to stay off welfare.

Technical Appendix

The **Family Income Study** is based upon five annual interviews with respondents in two random samples of Washington State residents. The welfare sample consisted of 1,318 respondents from households that received Aid to Families with Dependent Children (AFDC) in March 1988. The “at risk” comparison sample consisted of 796 respondents from households in neighborhoods that had high rates of public assistance use.

For this analysis, we used the interviews of women in the AFDC sample who were between the ages of 16 and 60. Women who were on welfare may have worked in any of the five years of the study period, 1988-1992. We compared the hourly wages in the year women **began** working with the hourly wages earned when they **ended** working in any one of the following three situations: 1) in the year they ended a work period, 2) in the year they voluntarily dropped out of the study, or 3) at the end of the five-year study period.

The analysis was conducted in several steps. First, we estimated the probability of labor market participation for all women in the sample. This allowed us to correct for any statistical bias due to self-selection into the labor market. Second, we simultaneously estimated the hours worked and the hourly wages for all women in the sample who were employed. This approach recognized the “simultaneity” of hourly wages and hours worked. It also permitted a better estimate of the starting wage. Third, we estimated the change in hourly wage between the start and the end of the period of work. This estimate included an adjustment for self-selection bias, a starting wage that was estimated from the simultaneous wage and hours equations, and several human capital variables: e.g., education, vocational training, and work experience. We report the results from these equations in terms of an increase in hourly wage above the starting wage.

¹ Mary Jo Bane and David Ellwood are often cited as proving that marriage is the most important reason for leaving welfare (see *The Dynamics of Dependence: The Routes to Self-sufficiency*, Report to the US Department of Health and Human Services, 1983). In their most recent book, *Welfare Reform: From Rhetoric to Reality* (Harvard University Press, 1995), they explain that by using monthly data, rather than annual data, they found that employment is the most important reason why women leave welfare. The **Family Income Study** has continually found that employment is the most important reason women leave welfare in Washington State. Although marriage helps women to leave and to stay off welfare, marriage occurs relatively infrequently for women on welfare.

² *LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents*, The Manpower Demonstration Research Corporation, New York, 1993.

³ *GAIN: Benefits, Costs, and Three-Year Impacts*, The Manpower Demonstration Research corporation, New York, 1994.