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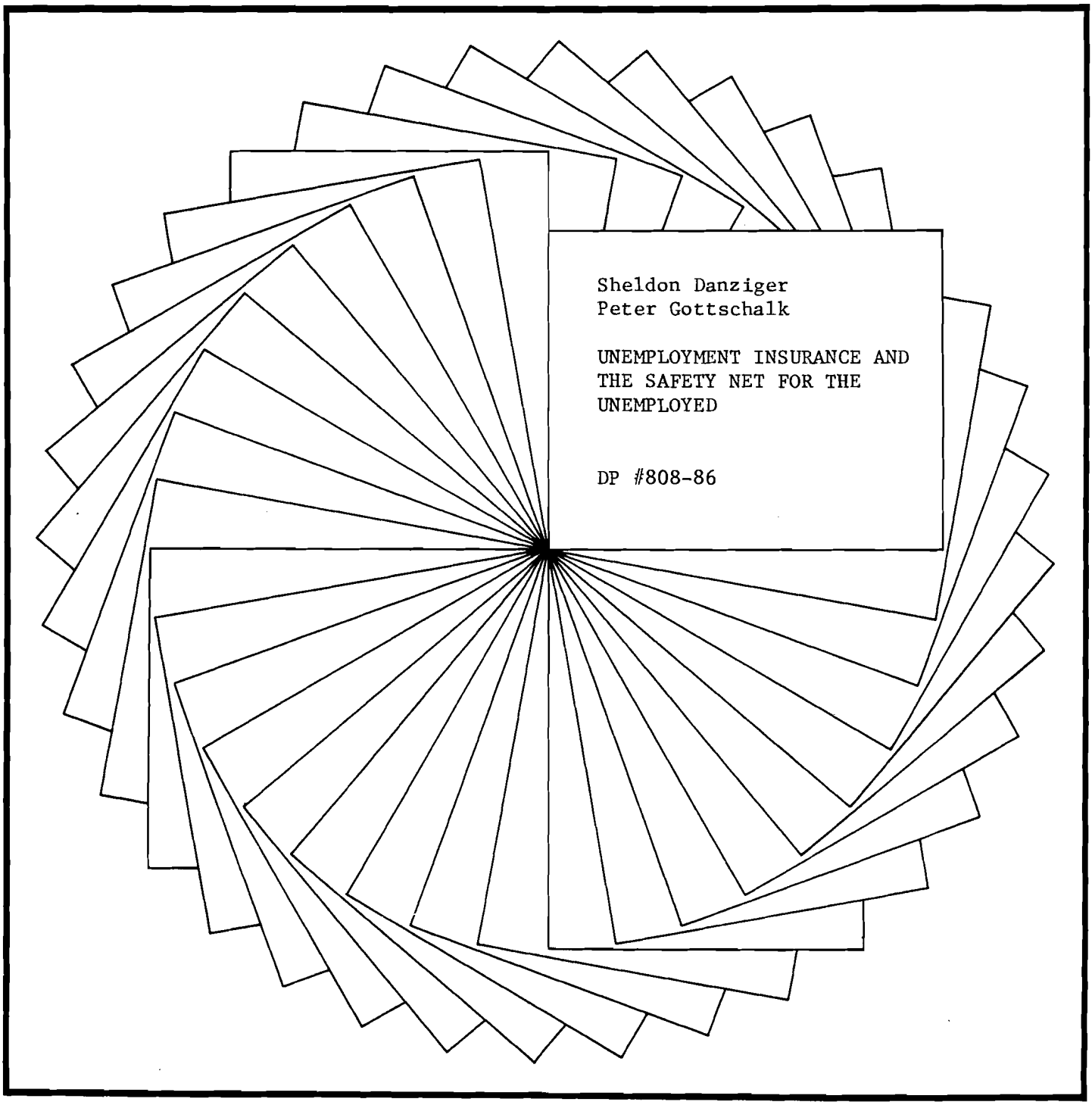

Institute for Research on Poverty
Discussion Paper No. 808-86

UNEMPLOYMENT INSURANCE AND THE SAFETY NET FOR THE UNEMPLOYED

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August 1986

This paper was originally prepared for the conference "Unemployment Compensation: The Second Half-Century," sponsored by the La Follette Institute of Public Affairs and the Industrial Relations Research Institute, University of Wisconsin-Madison. Daniel Feaster, George Slotsve and Douglas Wissoker provided valuable assistance; Nancy Rortvedt, clerical assistance. Gary Burtless and the participants at the U.S.-France Seminar on the Efficiency and Equity Effects of Social Welfare Policies provided useful comments on a prior draft. Any views expressed are those of the authors and not of the Institute for Research on Poverty.

Abstract

This paper examines the effectiveness of both Unemployment Insurance (UI) and other transfer programs in 1976 and 1984. What proportion of the unemployed received UI benefits? Were workers with low weekly earnings less likely to receive UI and more likely to be poor? How well did UI and other transfer programs alleviate poverty among the unemployed? How did these relationships change between 1976 and 1984?

Our major findings are that most unemployed heads of household with low weekly earnings received no unemployment benefits in either year and that the proportion who received UI decreased substantially between 1976 and 1984. We also show that unemployed low earners, whether or not they received UI, generally received few benefits from other cash transfer programs, and thus were at high risk of poverty. The unemployed who were not low earners fared better--they were more likely to receive UI and were not very likely to be poor.

UNEMPLOYMENT INSURANCE AND THE SAFETY NET FOR THE UNEMPLOYED

This paper analyzes the Unemployment Insurance program (UI) as a component of the overall income maintenance system for the unemployed. We focus on two different income maintenance functions--protection against earnings losses and protection against poverty. The first line of defense against earnings losses arising from unemployment is UI, a social insurance program. As in other social insurance programs, benefits are available to covered workers regardless of income. The second line of defense includes income-tested programs, such as Aid to Families with Dependent Children or General Assistance, which explicitly take need into account and make payments to the unemployed who are not eligible for or have exhausted UI benefits or still have low incomes after receiving UI. There are also other social insurance programs for the unemployed who leave the labor force through retirement or disability.

The paper is divided into five sections. We start by defining terms and describing our sample. The second section describes how the proportion of household heads with low earnings changed between 1976 and 1984. The third section documents changes in the probability of being unemployed and of receiving UI. We then turn to the receipt of other cash transfers by the unemployed. We conclude with some recommendations for modifying "the safety net" to better assist the unemployed, low earners in particular.

I. DEFINITIONS OF UNEMPLOYMENT AND LOW WEEKLY EARNINGS

We analyze the unemployment experiences in 1976 and 1984 of households headed by persons whom we classify as "expected to work." Included

in this group are heads who are between the ages of 21 and 64, are not disabled or in school, and are not women with children under 6.[1] Because of our focus on the UI program, we exclude the self-employed, who are not covered, from the analysis.[2]

The two years chosen had similar unemployment rates, 7.7 and 7.5 percent respectively, and both followed deep recessions. However, the UI program was quite different in the two years.[3] UI eligibility and benefit levels had been liberalized in response to the 1974-75 recession--supplemental payments were available for up to 65 weeks and benefits were extended to those who had not previously been covered. In contrast, benefits were restricted to 26 weeks for most of the unemployed as part of the budgetary retrenchment of domestic programs during the early years of the Reagan administration (see Burtless, 1983; Vroman, 1984). Thus, the two years chosen represent similar macroeconomic conditions and highlight the dramatic changes in UI that have taken place.

Since our primary interest is in the effectiveness of the safety net for the unemployed who are at high risk of being poor, we focus on household heads who have low weekly earnings. We define "low earners" as household heads with weekly earnings less than $204 per week in 1984 dollars. Such persons could not earn the poverty-line income for a family of four even if they worked 52 weeks a year at that weekly wage.[4] Households headed by low earners are not necessarily poor. Whether or not the household is poor depends on the household's own poverty line and its total cash income from all earners and all other income sources. Similarly, poor households do not necessarily have heads with low weekly earnings.[5]

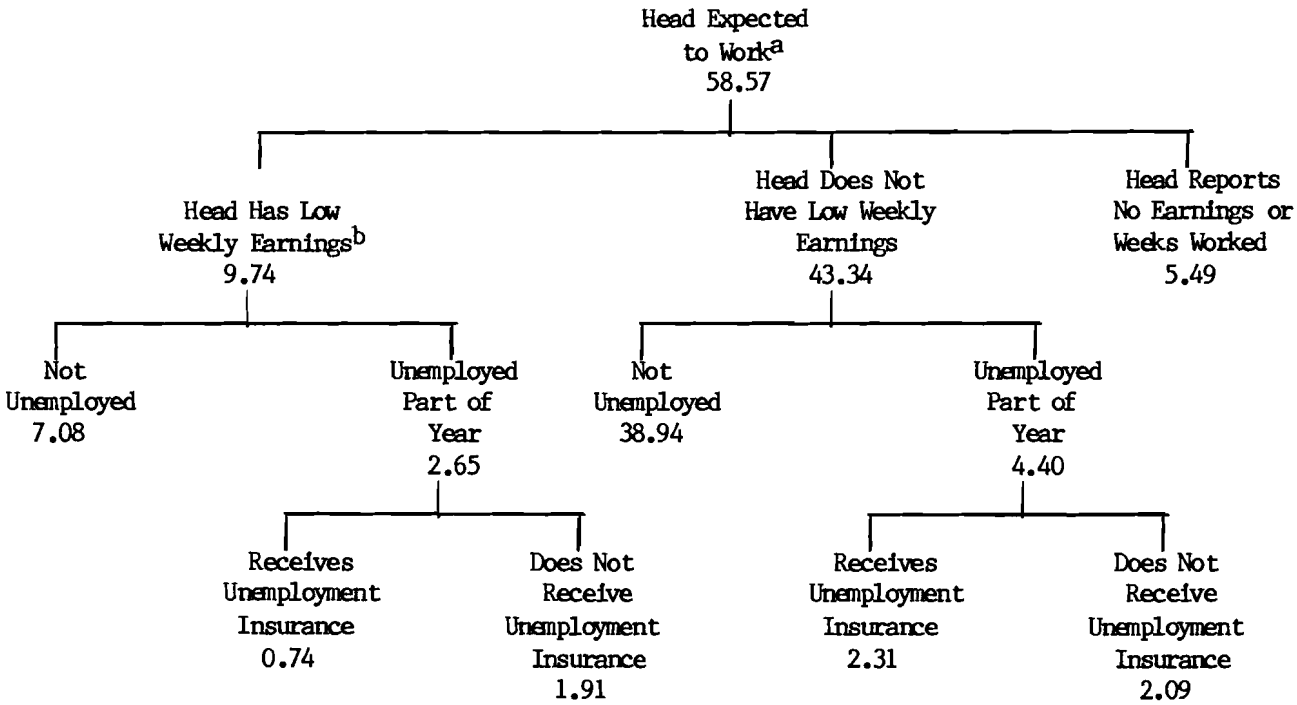
We begin by classifying all household heads into one of three mutually exclusive groups based on their work experience and level of weekly earnings--those who worked at some time during the year and had low weekly earnings; those who worked at some time during the year and did not have low weekly earnings; those who did not work at all during the year. We further distinguish, for low earners and those who are not low earners, between those who were unemployed for some part of the year (looking for work or on layoff) and those who were not unemployed during the entire year. We do not analyze the unemployment or UI experience of household heads who report no earnings or weeks worked, since we cannot calculate their weekly wage.

Chart 1 illustrates these distinctions. In 1984 there were 58.57 million households with a head whom we classify as expected to work.[6] Among these heads, 9.74 million (16.6 percent) had low weekly earnings, 43.34 million (74.0 percent) had weekly earnings above $204, and 5.49 million (9.4 percent) reported no earnings or weeks worked. Low earners were almost three times as likely to be unemployed and, if unemployed, only about half as likely to receive unemployment insurance as those who were not low earners. About 27 percent of low earners (2.65/9.74) and about 10 percent of those who were not low earners (4.40/43.34) were unemployed at some point during 1984. About 28 percent (0.74/2.65) of unemployed low earners and about 53 percent (2.31/4.40) of unemployed non-low-earners received UI. Thus, by 1984, UI reached only a minority of all of the unemployed, and coverage was minimal for unemployed low earners.

We examine in the next two sections how the composition of household heads and their unemployment probabilities and unemployment insurance

Chart 1

Households Classified by Whether Head Is Expected to Work, Has Low Weekly Earnings, or Is Unemployed, 1984
(all numbers in millions)



Source: Computations by authors from March 1985 Current Population Survey computer tape.

[a]Head is under 65, not a student, disabled, self-employed, or a woman with a child under 6.

[b]Weekly earnings below $204.

receipt changed over the 1976-1984 period. We find that the incidence of low earnings increased and that the situation of low earners deteriorated, even though macroeconomic conditions were similar in the two years.

II. CHANGES IN THE INCIDENCE OF LOW EARNINGS

Table 1 presents changes in the composition of our sample between 1976 and 1984. Heads are classified on the basis of their work experience and level of earnings. Because there are large differences in the types of households between those headed by males and females, we distinguish between sex of household head in the analysis that follows.

Male household heads in each year were much less likely than female heads to be low earners and much less likely to report zero weeks of work or zero earnings. In 1984, about 80 percent of male heads earned more than $204 per week--they did not have low weekly earnings--while 55 percent of female heads had earnings that exceeded this threshold.

The increase between 1976 and 1984 in the proportion of men with low or zero earnings is striking: the percentage of men who had low earnings increased from 9.1 to 13.0 percent and the percentage who reported no earnings or weeks worked increased from 5.8 to 7.5 percent. The result was that while roughly one out of every seven male heads had low or zero earnings in 1976, this ratio jumped to one in five by 1984.

The trends differed for female heads. The proportion not working dropped from 18.8 to 15.6 percent and the proportion with low weekly earnings decreased from 31.0 to 29.3 percent.

Table 1

Changes in the Composition of Households Whose Heads Are Expected to Work, 1976-1984

	Male		Female	
	1976	1984	1976	1984
Head has low weekly earnings	9.1%	13.0%	31.0%	29.3%
Head does not have low weekly earnings	85.1	79.5	50.2	55.1
Head reports no earnings or weeks worked	5.8	7.5	18.8	15.6
All expected-to-work heads of household	100.0%	100.0%	100.0%	100.0%

Sources: For all tables in this paper, computations by authors from March 1977 and March 1985 Current Populatuion Survey computer tapes.

III. CHANGES IN UNEMPLOYMENT AND UNEMPLOYMENT INSURANCE RECEIPT

In this section, we first describe changes in unemployment and unemployment insurance receipt. Then we present a statistical model to account for these changes.

Tabular Evidence

Table 2 shows the change between 1976 and 1984 in the probability of being unemployed at some point during the year for male and female household heads, classified by whether or not the head was a low earner. The unemployment probabilities shown are higher than published unemployment rates, which measure the probability of unemployment during a single month.[7] However, the trends are the same for both measures--the aggregate unemployment rate declined slightly, from 7.7 to 7.5 percent, and the proportion of our sample who report some unemployment during the year declined from 14.5 to 13.3 percent over the period.

The decrease in unemployment probabilities was, however, not uniformly spread across all groups. Not only were heads of either sex with low weekly earnings more than twice as likely to be unemployed in 1976 as those who did not have low earnings, their unemployment probabilities were relatively constant between 1976 and 1984, while the probabilities for others declined. Thus the labor market disadvantage of low weekly earners increased over the period.

Table 2 also shows the change in the mean weeks of unemployment for those who reported some unemployment. Low weekly earners again had a greater and growing disadvantage. They had longer unemployment durations, and the difference between their mean weeks of unemployment and

Table 2

Changes in Unemployment, 1976-1984

	Probability of Being Unemployed during the Year[a]			Mean Weeks Unemployed[b]		
	1976	1984	Percentage Change[c]	1976	1984	Percentage Change[c]
Head has low weekly earnings						
Male	.299	.302	+1.0	19.9	21.1	+6.0
Female	.237	.228	-3.8	16.6	17.0	+2.4
Head does not have low weekly earnings						
Male	.126	.106	-15.9	16.6	16.4	-1.2
Female	.114	.079	-30.7	15.4	14.3	-7.1
All expected-to-work heads of household	.145	.133	-8.3	17.0	17.5	+2.9

[a]Defined only for household heads who are expected to work and who report earnings and weeks worked. A head is classified as unemployed if she or he was laid off or without a job and was looking for work in at least one week during the year.

[b]Defined only for those reporting some unemployment.

[c]Defined as (1984 value - 1976 value/1976 value) x 100.

those of heads who were not low earners increased over the period. In 1984, an unemployed male low earner's mean unemployment duration, 21.1 weeks, was about a third longer than that of an unemployed male who was not a low earner.[8]

Table 3 presents changes in the probability that a household head who was unemployed for at least one week during the year received UI benefits and the mean value of those benefits.[9] As do previous studies, we find that a smaller percentage of all of the unemployed received benefits in 1984 than in 1976 and that those receiving benefits received smaller amounts.

Male low earners fared less well in each year and had more negative trends for each variable than males who were not low earners. In each year female low earners were the least likely of the four groups shown to receive UI and received the smallest benefits. However, the declines in their probability of receipt and in their mean benefits were smaller than average. For example, unemployed male low earners were 18.5 percent less likely to receive UI in 1984 than in 1976 (a decline in the probability of receipt from .346 to .282). In 1984, unemployed males who did not have low earnings were about twice as likely to receive UI; their probability of receipt had declined by only 4.9 percent. Likewise, male low earners who received UI received annual benefits that were 28.3 percent lower after adjustment for inflation (a decline from $2773 to $1987), while benefits declined by 22.1 percent for other unemployed males. As a result, in 1984, an unemployed male low earner with the mean unemployment duration of 21.1 weeks (as shown in Table 2) was receiving an average UI benefit of about $94 per week, compared to $140 for his counterpart in 1976, who had a mean unemployment duration of 19.9 weeks.

Table 3

Changes in Unemployment Insurance Receipt among the Unemployed, 1976-1984

	Probability of Receiving UI[a]			Mean Annual UI Benefit[b]			Mean Weekly UI Benefit[c]		
	1976	1984	Percentage Change[d]	1976	1984	Percentage Change[d]	1976	1984	Percentage Change[d]
Head has low weekly earnings									
Male	.346	.282	-18.5	$2773	$1987	-28.3	$139.35	$94.17	-32.4
Female	.299	.272	-9.0	1584	1453	-8.8	95.42	85.47	-10.4
Head does not have low weekly earnings									
Male	.569	.541	-4.9	2644	2060	-22.1	159.28	125.61	-21.1
Female	.482	.411	-14.7	2117	1649	-22.1	137.47	115.31	-16.1
All expected-to-work heads of household	.497	.432	-13.1	2550	1969	-22.8	150.00	112.39	-25.1

[a]Defined only for household heads who are expected to work, who report earnings and weeks worked, and who were unemployed in at least one week during the year.

[b]Constant 1984 dollars. Defined only for heads receiving benefits.

[c]Defined as the mean annual benefit (from this table) divided by the mean weeks of unemployment (from Table 2).

[d]Defined as (1984 value - 1976 value/1976 value) x 100.

A Statistical Model

The tabular evidence presented thus far is consistent with two different interpretations about the treatment of the unemployed by the UI system. The first is that if a randomly chosen individual became unemployed in 1984 his/her chances of receiving UI were lower than those of a similar individual in 1976. An alternative interpretation is that individuals who became unemployed were different in 1984 than in 1976. In any year some individuals have a lower probability of receiving UI because of the nature of their jobs or personal histories--for example, many younger or less skilled workers have insufficient weeks of employment to be covered by UI. If these people composed a greater proportion of the unemployed in 1984, then the proportion of the unemployed receiving UI would decline even if there were no changes in the probability that any person with given characteristics received UI. The descriptive data would make it appear that the UI system had changed, when in fact, it was only the unemployed who had changed.

To distinguish between these two interpretations, we estimate a descriptive statistical model which controls for a variety of observed characteristics of the unemployed and takes account of the unobserved characteristics that may have affected those who became unemployed. We estimate bivariate probit models, in which the probability of being unemployed and the probability of receiving UI are estimated jointly. Models are estimated for male and female household heads classified by whether the head had or did not have low weekly earnings. (See the Appendix for detailed specification.)

The models answer the following questions: If a low earner were chosen at random, what is the probability that he/she would become unemployed? If he/she became unemployed, what is the probability that he/she would receive UI? Because we start with a sample of all low earners, not just unemployed low earners, we have taken into account how changes concerning who becomes unemployed affect the probability of receiving UI.

Note, however, that these models do not explain changes concerning who becomes a low earner. We are not answering the question: If a person chosen at random had low weekly earnings, what is the probability that he/she would also be unemployed and receive UI? Answering this question requires the estimation of a trivariate probit model in which the first equation explains the probability that a person is a low earner, and the remaining two equations are the ones we estimate--the probability that a low earner is unemployed and the probability that an unemployed low earner receives UI. We do not estimate such a model because we are primarily interested in how well the UI program serves low earners, whatever the cause of their low earnings.[10] Thus, we begin with separate samples of those who had and those who did not have low earnings.[11]

Appendix Table A-1 shows the regression coefficients from our biprobit estimation of the determinants of unemployment and of the probability that an unemployed household head received UI. Separate biprobit models were estimated for three of the four types of household heads discussed. For female heads with low weekly earnings, we estimated univariate probit models, as the bivariate models did not converge. The independent variables in the unemployment equation included whether the head was

white, black or Hispanic, his/her region and area of residence, his/her age, educational attainment and industry. The unemployment insurance receipt equation included all of these variables, except the geographic location and education variables. Two unemployment duration variables not included in the unemployment equation were also included--whether the unemployment spell was longer than 26 weeks and whether there were multiple spells of unemployment during the year.[12]

Since we allowed all coefficients to change between 1976 and 1984, the change in the probability of being unemployed (or receiving UI) differs across individuals with different characteristics. In order to summarize the change in probabilities, we evaluated each equation at the sample mean of all people in the specified sex/earnings status category in 1976. By holding characteristics constant across the years in these calculations, we derived results that do not reflect changes in the composition of the population.

Table 4 shows the predicted probabilities (evaluated at the 1976 sample means for persons in each of the four groups) of being unemployed and of receiving UI. For example, the probability of unemployment for a male with given characteristics increased slightly between 1976 and 1984. Thus, the declines in the probability of unemployment for males shown in Table 2 were due to changes in the composition of the population. The predicted and descriptive probabilities of unemployment decline for each female group.

The estimated model allowed the probability of UI receipt to differ for those unemployed less than or more than 26 weeks in the preceding year. This specification was chosen since Vroman (1984) pointed out that

Table 4

Changes in the Predicted Probabilities of Unemployment and Unemployment Insurance Receipt,[a] 1976–1984

	Probability of Being Unemployed			Probability of Receiving UI if Unemployed Less than 26 Weeks			Probability of Receiving UI if Unemployed More than 26 Weeks		
	1976	1984	Percentage Change	1976	1984	Percentage Change	1976	1984	Percentage Change
Head has low weekly earnings									
Male	.276	.281	+1.8	.320	.309	-3.4	.465	.237	-49.0
Female[b]	.213	.206	-3.3	.287	.281	-2.1	.372	.363	-2.4
Head does not have low weekly earnings									
Male	.094	.095	+1.1	.622	.520	-16.4	.823	.516	-37.3
Female	.099	.072	-27.3	.417	.409	-1.9	.589	.520	-10.6

[a]Probabilities are representative of a person with the average characteristics of persons in 1976 in each of the four sex-of-head and earnings status categories.

[b]Probabilities are based on univariate probit equations, as the bivariate probits did not converge.

the legislative changes made in the UI program since 1980 have disproportionately affected the long-term unemployed.

We find that the probability of receiving UI declined for each of the four household groups both for those unemployed less than 26 weeks and for those with extended unemployment spells. While those unemployed more than 26 weeks had a higher probability of UI receipt than those unemployed for less than 26 weeks in 1976, they experienced larger declines over this period. Our results thus confirm Vroman's (1984) conclusion that the restrictions disproportionately affected the long-term unemployed.

For example, the probability that a male with low weekly earnings received UI dropped by 3.4 percent (from .320 to .309) for those with spells shorter than 26 weeks but by 49.0 percent (from .465 to .237) for those with spells longer than 26 weeks. Thus, the decline in the proportion of the unemployed receiving UI found in Table 2 reflects changes in how the UI program served the unemployed and not just compositional changes in the population.

IV. OTHER INCOME TRANSFERS AND POVERTY AMONG THE UNEMPLOYED

The results from the previous section raise several questions concerning the relationship of the UI program to the rest of the income maintenance system. Given that so many of the unemployed received no UI benefits, were they recipients of other cash benefits?[13] How did the receipt of other transfers change as the receipt of UI declined? How effective were UI and other cash transfers in alleviating poverty among the unemployed?[14]

Receipt of Other Cash Transfers

Table 5 classifies households by the earnings status of the unemployed head and by whether or not she/he received UI and presents the percentage receiving other cash transfers. These percentages were low and declined over the 1976-1984 period for almost all of the groups shown. In 1976, 17.1 percent of all UI recipients with low earnings received other transfers, as did 8.7 percent of all UI recipients who did not have low earnings. UI nonrecipients were only slightly more likely to have received other transfers. By 1984, among low earners the probability of receiving other transfers had dropped to 12.9 percent for those who received UI and to 20.7 percent for those who did not. Retrenchment had occurred in both UI and in other transfer programs.

The receipt of other transfers by the unemployed was much less common than the receipt of UI. In 1984, more than two-thirds of low earners did not receive UI (Table 3, rows 1 and 2, column 2) and four-fifths of this group received no transfers at all (Table 5, row 2, column 2). Other transfers hardly provided any safety net for unemployed, expected-to-work household heads.

Differences in the receipt of other transfers between male and female heads, once earnings status and receipt of UI have been taken into account, were small. Households headed by women had a somewhat higher probability of receipt, but all four of those probabilities also declined between 1976 and 1984.

Table 5

Changes in the Receipt of Cash Transfers Other than Unemployment Insurance among the Unemployed, 1976-1984

	Probability of Receiving Other Cash Transfers:[a] All Heads			Probability of Receiving Other Cash Transfers:[a] Male Heads			Probability of Receiving Other Cash Transfers:[a] Female Heads		
	1976	1984	Percentage Change[b]	1976	1984	Percentage Change[b]	1976	1984	Percentage Change[b]
Head has low weekly earnings									
Receives UI	.171	.129	-24.6	.176	.118	-33.0	.161	.153	-5.0
Does not receive UI	.238	.207	-13.0	.190	.173	-8.9	.308	.276	-10.4
Head does not have low weekly earnings									
Receives UI	.087	.059	-32.2	.087	.057	-34.5	.088	.076	-13.6
Does not receive UI	.094	.115	+22.3	.083	.115	+38.6	.161	.112	-30.4

[a]Other cash transfers include social security, railroad retirement, government employee pensions, veterans' compensation and pensions, workers' compensation, Supplemental Security Income, Aid to Families with Dependent Children, and General Assistance. See note 15.

[b]Defined as (1984 value - 1976 value/1976 value) x 100.

Antipoverty Effectiveness of Transfers

How effective were UI and other transfers in reducing poverty among the unemployed? Table 6 addresses this question. The first three columns present three measures of the incidence of poverty for households classified by the sex and earnings status of the unemployed head. Pretransfer poverty (column 1) is calculated by subtracting all government cash transfers received by household members from reported cash income. Column 2 presents a measure of poverty calculated by subtracting the head's UI benefits from reported cash income.[15] Column 3 presents the official measure of poverty, which is based on cash income from all sources (before taxes). Columns 4 and 5 show, respectively, the percentage reduction in poverty due to all cash transfers except the head's UI and the percentage reduction due to the head's UI. The sum of these two columns, shown in column 6, gives the percentage reduction in poverty due to all cash transfers.[16]

Several points emerge. First, while transfers were received by a minority of the unemployed, they significantly reduced poverty. Among unemployed male low earners in 1976, poverty rates were 25 percent lower after the receipt of transfers than they were prior to receipt (column 6). For male household heads with higher weekly earnings, poverty rates were cut in half by transfers. This reflects the smaller income deficit of these households. In both years, the antipoverty effects of transfers were greater for men than for women.

Second, as might be expected, UI was more important than other transfers in reducing poverty for three of the four groups. For example, in 1984, 20.0 percent of pretransfer-poor households headed by a male who

Table 6

Changes in Poverty Rates and the Antipoverty Effectiveness of Income Transfers among the Unemployed, 1976–1984

	Percentage of Households in Poverty			Percentage Reduction in Poverty Due to:		
	Money Income Less All Cash Transfers (Pretransfer) (1)	Money Income Less Head's UI Benefit (2)	Money Income (Official Measure) (3)	Cash Transfers Other than the Head's UI Benefits (4)[a]	Head's UI Benefits (5)[b]	All Transfers (6)[c]
Head has low earnings						
Male, 1976	59.1%	53.5%	44.2%	-9.5%	-15.7	-25.2%
Male, 1984	61.0	57.3	53.4	-6.1	-6.4	-12.5
Female, 1976	60.5	51.3	45.4	-15.2	-9.8	-25.0
Female, 1984	64.7	58.8	54.9	-9.1	-6.0	-15.1
Head does not have low earnings						
Male, 1976	10.2	8.9	5.0	-12.7	-38.2	-50.9
Male, 1984	11.0	9.3	7.1	-15.5	-20.0	-35.5
Female, 1976	11.7	8.9	4.5	-23.9	-37.6	-61.5
Female, 1984	11.5	10.2	8.4	-11.3	-15.7	-27.0

[a]Defined as 100 times the difference between poverty rates in columns 3 and 2 divided by the rate in column 1.

[b]Defined as 100 times the difference between the poverty rates in columns 2 and 1 divided by the rate in column 1.

[c]The sum of columns 4 and 5 is the percentage reduction in poverty due to all cash transfers.

did not have low earnings were taken out of poverty by UI and another 15.5 percent were taken out by other transfers. The corresponding 1984 figures for female heads who were not low earners were 15.7 and 11.3 percent. The exception to this pattern were female heads who were low earners in each year. This is the group most likely to receive AFDC, and for whom the antipoverty effect of other transfers exceeded that of UI.

Third, in almost all cases both UI and other transfers had a smaller antipoverty effect in 1984 than in 1976. For example, for males with low earnings, the percentage reduction in poverty due to all transfers in 1984 was only half the size it was in 1976.

While the failure to receive transfers compounds the problems of unemployed low earners, their high poverty rates are primarily a result of their low earnings capacity. Table 7 illustrates this dramatically. Poverty rates are shown for the unemployed cross-classified by earnings status and receipt of UI. Holding earnings status constant, those not receiving UI had higher poverty rates than UI recipients. However, the largest differences in poverty rates were between households headed by unemployed low earners and those who were not low earners, regardless of whether or not UI was received. Again, male-female differences were small. For example, in 1984, 37.1 percent of all low earners who received UI were poor, while only 12.0 percent of all households where the head did not receive UI but had weekly earnings above $204 were poor. Poverty was not a particular problem for the unemployed who did not have low weekly earnings, as the 1984 poverty rate for all 58.6 million households in which the head was expected to work was 10.2 percent.

Table 7

Changes in Poverty Rates among the Unemployed, Classified by Receipt of UI, 1976-1984

	Percentage of Households in Poverty: All Heads			Percentage of Households in Poverty: Male Heads			Percentage of Households in Poverty: Female Heads		
	1976	1984	Percentage Change[a]	1976	1984	Percentage Change[a]	1976	1984	Percentage Change[a]
Head has low weekly earnings									
Receives UI	30.9%	37.1%	+20.1	29.6%	36.5%	+23.3	27.8%	38.5%	+38.4
Does not receive UI	52.3	60.3	+15.3	51.9	60.0	+15.6	52.9	61.1	+15.5
Head does not have low weekly earnings									
Receives UI	2.8	3.0	+ 7.1	2.8	3.2	+14.3	2.7	4.1	+51.9
Does not receive UI	7.7	12.0	+55.8	8.0	11.6	+45.0	6.2	14.0	+125.8

[a]Defined as (1984 rate - 1976 rate/1976 rate) x 100.

V. SUMMARY AND POLICY IMPLICATIONS

Our empirical work has confirmed earlier findings that the UI system does not cover a majority of unemployed workers and that coverage was less in 1984 than in 1976. We have offered new evidence that the lack of coverage is most severe for households headed by persons with low weekly earnings. Furthermore, these households are not well covered by other transfer programs--about half received neither UI nor other transfers in 1984--and have very high poverty rates. While their poverty rates are primarily a reflection of their low earnings, the fact that less than half receive any transfers indicates that their safety net is imperfect. The evidence presented suggests extensions of coverage in both tiers of the income maintenance system for the unemployed--UI and the income-tested programs.

What about the efficiency losses associated with increased benefits? Since UI does have some impact on the duration of unemployment, there is a potential tradeoff between encouraging work and reducing poverty (see Burtless, 1986). The question is whether the current UI program strikes the right balance between these two goals. We see little reason to be very concerned about the magnitude of work reductions that would result from extending coverage for persons with low weekly earnings. If wages are a rough indicator of productivity, then little production will be lost even if these low earners increase their duration of unemployment in response to an expanded UI system.

We have four proposals to shore up the safety net. The first three extend current programs and increase budgetary costs. Given the current deficit crisis, our fourth proposal raises some of the required revenue.

First, we propose two changes in the extended benefit program (EB), which pays benefits for an additional number of weeks after the term of regular UI benefits has ended, if unemployment reaches a specified level in a state. We find that Burtless's (1983) arguments for using a trigger (the unemployment level at which EB benefits are authorized) based on measured unemployment rather than insured unemployment are compelling. Many of the administrative decisions about the availability of regular unemployment compensation reflect decisions about how much of the needs of the unemployed should be met, not about the existence of a need. The EB triggers were originally set to allow the program to start only in states with demonstrated need. Since changes in regular UI receipt now no longer fully reflect changes in need, insured unemployment rates no longer serve their function.

We also would restore the number of weeks of coverage of the EB program at its (high) 1976 level but allow the benefit amount to decline with the number of weeks of UI receipt. This would gradually increase the incentive to leave the program without the sudden cessation of benefits that characterizes the existing program.

Our second proposal recognizes the fact that less than a fifth of the unemployed with low earnings received other cash transfers in 1984. This indicates that the second line of defense against income losses from unemployment is ineffective and that the safety net needs to be expanded. We think that the AFDC-U program, an optional program for poor two-parent families in which the household head is unemployed, now available in only half of the states, should be mandated for all states. Even with expanded UI benefits, coverage would still be limited: persons not in covered employment and persons who have exhausted their extended benefits

would not receive UI. Since AFDC-U provides income-tested benefits only for unemployed families with children, mandating it to all states would still not solve the coverage problems of single individuals and childless couples, who are generally eligible only for Food Stamps.

Our third proposal reflects our finding that poverty among the unemployed is closely associated with low weekly earnings. This suggests that, where possible, the UI system should include a component to increase the earnings potential of the unemployed. This could take the form of expanded relocation or training allowances. Since training programs have been found cost-effective only for some participants (see Bassi and Ashenfelter, 1986), we propose that the unemployed worker who chooses to enroll in a program be asked to share part of the costs of training or relocation through lower UI benefits. In this way recipients would be encouraged to self-select into the training or relocation program which best suit their needs. (See Congressional Budget Office, 1985, for a discussion of similar alternatives.)

In order to partially offset the costs of extending UI benefits, mandating AFDC-U, and attempting to raise the wages of UI recipients through retraining or relocation, we propose making all UI benefits taxable. This proposal is contingent on the standard deduction and personal exemptions being raised to above-poverty-line levels. All of these changes are included in the tax reform proposal passed by the House-Senate Conference Committee in August 1986. Under that proposal, tax-exempt income would exceed the poverty line for most poor families, so that the increased taxes would be borne by the unemployed who are not low earners.

We believe that these proposals represent an appropriate response to the current lack of coverage by UI and other transfers and the high

poverty rates of the unemployed. However, they would probably have only a small impact on the very high poverty rates among households whose heads are unemployed low earners. They would, nevertheless, counter the trend of the past decade, characterized by rising hardship and reduced coverage.

Notes

[1]While child care responsibilities may complicate market work for single-parent households with children over 6, we nevertheless classify such persons as expected to work because this is consistent with existing welfare policies.

[2]We also exclude household heads who reported receiving farm income, even if they also reported receiving wages from another job.

[3]Gary Burtless has pointed out that the reporting of unemployment insurance in the CPS increased over this period. Thus, if the under-reporting were corrected and the data adjusted to reflect actual UI receipt, then the decline in benefits shown here would have been even larger.

[4]In 1984, the poverty line for a family of four was $10,609. We define any household head with weekly earnings (defined as yearly earnings/weeks worked) below $204 as a low earner, regardless of his/her own household size. The official poverty line is fixed in real terms and varies over time because of changes in the Consumer Price Index (CPI). We used the CPI-X, which employs a rental-equivalence approach to the cost of homeownership, to derive a low-earnings threshold of $118 per week for 1976. Between 1976 and 1984, the CPI increased by 82.4 percent while the CPI-X increased by 73.1 percent. If we had used the CPI, the low-earnings threshold for 1976 would have been $112 instead of $118.

[5]The relationship between low earnings of the head and poverty of the household can be illustrated by considering a head of a household of four persons who earns $250 per week. She/he would not be counted as a low earner even if she/he worked only 10 weeks last year. If this were the

household's only income last year, the household would be poor. However, she/he would not be classified as a low earner because her/his household could escape poverty through full-year work. Also, consider a head of a two-person household who earns $150 per week for 50 weeks, or $7,500 per year. We classify this head as a low earner, but her/his household is not poor because the poverty line for a two-person household is $6,762.

In 1984 about 60 percent of households headed by low earners escaped overty. The main reasons for escape were that family size was less than four and that the earnings of other household members and/or income transfers when combined with the earnings of the head exceeded the poverty line. See Danziger and Gottschalk (1985) for further details.

[6]There were 93.50 million total households in 1984. Those not shown in Chart 1 include 28.17 million headed by someone who was elderly, a student, disabled or a woman with a child under 6, and 6.76 million headed by someone who was self-employed or received farm income. Households include both families and unrelated individuals.

[7]The reported unemployment rate and our probability would be equal only if the same people were unemployed in every month. With duration of unemployment below 52 weeks, the probability of being unemployed during the year must exceed the monthly unemployment rate.

[8]It is somewhat anomalous that female household heads who are expected to work have lower unemployment probabilities and shorter unemployment durations than their male counterparts. This is due in part to our exclusion from the computations in Table 1 of heads who report no weeks worked or earnings during the year. In 1984 female nonearners were about 15 percent of all female expected-to-work heads, while males were about 7 percent of their respective group.

[9]We measure mean benefits by dividing annual UI benefits by the number of weeks unemployed. This mean can decline either because the person received UI during a smaller proportion of the weeks unemployed or because the real value of weekly benefits declined.

[10]Our model implicitly assumes that the receipt of UI benefits does not affect work effort, and, hence, the probabilities that a household head is a low earner. See Burtless (1986) for a review of recent studies. He concludes that "the evidence does not support any firm conclusion about the effect of the program on aggregate work effort actually supplied in market jobs" (p. 50).

[11]Because our model takes low-earning status as given, care should be taken in interpreting our results. For example, assume that a black person has a higher probability of being a low earner, but that black low earners and white low earners have the same probability of becoming unemployed. In this case, a trivariate model that begins with the entire population would show that a black person chosen at random would have a higher probability of being unemployed because she/he would have a higher probability of being a low earner. Our model, which begins with the selected sample of low earners, would find no effect of race on the probability that a low earner is unemployed.

[12]Unemployment spells that span calendar years are mismeasured in the CPS, as each person is only asked to report weeks unemployed during the calendar year. For example, if a worker was laid off July 1, 1983, and was reemployed on July 1, 1984, she/he would report a spell of 26 weeks in 1984, even though the spell lasted 52 weeks. We have no way to correct for this misreporting.

[13]The Current Population Survey (CPS) reports the amount of income received from the following major cash transfer programs: social security and railroad retirement; federal, state, and local government employee pensions; Unemployment Insurance; workers' compensation; veterans' compensation and pensions; Supplemental Security Income; Aid to Families with Dependent Children, and General Assistance.

Since 1980, the CPS has also gathered information on the receipt of major in-kind transfer benefits, such as Medicare and Food Stamps. Because we have focused on trends over the 1976-1984 period, we restrict our analysis to the receipt of the transfer benefits that are reported for both years.

[14]Because poverty as officially measured is based on income from all persons and all sources, we focus on all cash transfers other than UI and not just those that are income-tested. Also, we do not distinguish between other transfers received by the household head and those received by other household members.

[15]Because of the way the CPS data are reported, we overstate the amount of UI received for persons who receive UI and workers' compensation or UI and veterans' compensation or UI and both of these other transfers. We count all income from these sources as UI for multiple benefit recipients, as we have no way to allocate the reported benefits to the other programs.

[16]These comparisons are based on the assumption that transfers elicit no behavioral responses. Since transfers do induce labor supply reductions, the pre/post comparisons made here provide upper-bound estimates of the antipoverty effects of transfers.

Appendix

The model we estimate can be specified using a standard latent variable framework to specify the selection equation (whether or not the person was unemployed) and the primary equation (whether or not the unemployed person received UI). The selection equation determines whether the person was in the sample of those who were unemployed. The primary equation determines whether the person received UI.

A latent variable Y_1, which is a linear function of a vector of characteristics X_1 and a random component ε_1, determines whether the person is in the sample. If this latent variable exceeds the threshold C_1, a dichotomous variable, Y_1^*, is set equal to one, and the person is included in the sample. Similarly, a vector of characteristics, X_2, and a random component, ε_2, determine whether the dichotomous variable in the primary equation, Y_2^*, takes on the value of zero or one.

$$Y_1^* = 1 \quad \text{if} \quad X_1\beta_1 + \varepsilon_1 > C_1,$$

$$= 0 \text{ otherwise;}$$

$$Y_2^* = 1 \quad \text{if} \quad X_2\beta_2 + \varepsilon_2 > C_2,$$

$$= 0 \text{ otherwise,}$$

which yields

$$\text{pr}(Y_1^* = 1) = \text{pr}(\varepsilon_1 > C_1 - X_1\beta_1), \quad \text{selection equation;}$$

$$\text{pr}(Y_2^* = 1) = \text{pr}(\varepsilon_2 > C_2 - X_2\beta_2), \quad \text{primary equation.}$$

If ε_1 and ε_2 are independent, then the selection and primary equation can be estimated separately. If they are not independent, the two equations must be estimated jointly.

We have no a priori expectation as to the sign of the correlation. For example, an unobserved factor, such as an individual's motivation, may result in her/his becoming unemployed in order to receive UI. In this case, ε_1 and ε_2 will be positively correlated. Or an unobserved factor, such as illiteracy, may increase the probability of being unemployed and decrease the probability that the individual will receive UI, causing the correlation to be positive.

Our approach is to estimate the two equations simultaneously, using maximum likelihood, and to test for independence. This correction for selection is analogous to Heckman's well-known correction in the case where the primary equation is continuous. By explicitly taking account of the cross-equation correlation between error terms, the procedure controls for the fact that large (small) values of ε_1 may be associated with large (small) values of ε_2, thus affecting the probability that the latent variable in the primary equation will exceed its threshold.

We estimated bivariate probit models for four demographic groups (sex of head x earnings status) for 1976 and 1984. Table A-1 shows the coefficients for male heads with low earnings for 1984. The other seven sets of estimated equations are available upon request. Included in both the unemployment and UI equations are the following variables: race, Hispanic origin, age, and a set of dummy variables for the worker's industry. In the unemployment equation we also included a set of urbanization and regional dummy variables to capture geographic differences in

employment opportunities, and an education dummy, since unemployment rates are highly correlated with educational attainment. The UI equation excluded the geographic dummy variables and educational attainment. The availability of UI should not vary systematically with these characteristics, even though the amount of UI might. The UI equation included measures of the number and length of unemployment spells to capture differences in the treatment of the long-term unemployed by the UI program. The exclusions in the two equations help identify the parameters of the models.

The results shown in Table A-1 follow the expected patterns. For example, being older decreased the probability of being unemployed but raised the probability of receiving UI if the person became unemployed. And persons with multiple spells of unemployment or with spells greater than 26 weeks were less likely to receive UI. The significant negative correlation between ε_1 and ε_2 shows that unobserved factors which raised the probability of being unemployed lowered the probability of receiving UI. To ignore this correlation would have led to biased estimates of the probit equations.

Table A-1

Bivariate Probit Estimates, Males Who Have Low Earnings, 1984

Results for the Primary Equation
Probability of Receiving UI if Unemployed

Variable[a]	Coefficient	Asymptotic T Stat	D(PROB)/D(X)[b]
CONS	.0122	.0418	.0042
BLAC	-.1507	-1.5109	-.0520
HISP	-.0974	-.8947	-.0336
AGE	.0146	4.4731	.0050
2752	-.1495	-1.8643	-.0516
MSPL	-.1211	-1.5640	-.0418
FIR	.2186	.9857	.0755
CNS	-.1420	-.8587	-.0490
DM	.2734	1.4888	.0944
NDM	.0271	.1552	.0094
TCU	.5185	2.3987	.1790
WR	.1733	1.2973	.0599
PRS	.0804	.2760	.0209
PAD	.0224	.0639	.0077
SSV	.0033	.0207	.0011

Results for the Selection Equation
Probability of Unemployment

Variable[a]	Coefficient	Asymptotic T Stat	D(PROB)/D(X)[b]
CONS	.3474	1.9963	.1203
BLAC	.1653	2.3094	.0572
HISP	-.0191	-.2266	-.0066
NCEN	-.0281	-.3768	-.0097
SOUT	-.2412	-3.3593	.0835
WEST	-.1055	-1.3409	-.0365
CCIT	-.0496	-.7873	-.0172
NSNS	-.0046	-.0747	-.0016
NOID	.0639	.7256	.0221
AGE	-.0147	-7.0390	-.0051

-continued-

Table A-1 (continued)

Results for the Selection Equation
Probability of Unemployment

Variable[a]	Coefficient	Asymptotic T Stat	D(PROB)/D(X)[b]
EDUC	.0276	-3.0004	-.0096
FIR	.0699	.4417	.0242
CNS	.4990	5.2421	.1728
DM	.1880	1.8743	.0651
NDM	.2037	1.7513	.0705
TCU	-.0079	-.0608	-.0027
WR	.0434	.5155	.0150
PRS	-.3250	-2.9254	-.1125
PAD	-.2671	-1.3290	-.0925
SSV	.0779	.7236	.0270

Correlation Estimate

RHO	-.7979	2(Log Likelihood) = 4466.39
Standard Error	.1653	"Degrees of Freedom" = 2956
Asymptotic T	-4.8257	

[a]Variable Definitions:

CONS	Constant
BLACK	1 if individual is black
HISP	1 if individual is of Hispanic origin
AGE	Age
2752	1 if unemployed 27-52 weeks
MSPL	1 if individual has multiple spells of unemployment during the year
	Industry Dummies
FIR	Finance, insurance, real estate
CNS	Construction
DM	Durable manufacturing
NDM	Nondurable manufacturing
TCU	Transportation, communication and utilities
WR	Wholesale and retail trade
PRS	Professional and related service

Table A-1 (continued)

	Industry Dummies - continued
PAD	Public administration
SSV	Selected services
AGR	Agriculture, forestry and fisheries--omitted
	Regions
NCEN	Northcentral
SOUT	South
WES	West
NORTHEAST	Omitted
	Geographic Location
CCIT	Central city
NSNS	Not in metropolitan area
NOID	Area not identified
SMSA	In metropolitan area, but not in central city--omitted
EDUC	Years of education

[b]Derivatives evaluated at the mean

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