Labor Market Changes and Unemployment Insurance Benefit Availability

by

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Introduction

This report examines the evolution of benefit availability in Unemployment Insurance (UI) programs. The focus is regular UI, the program that pays up to 26 weeks of benefits to eligible individuals. A major objective of the report is to document changes in the U.S. labor market that may have adversely affected access to UI benefits.

The report is divided into seven major sections. Section I briefly documents the downtrend in UI recipiency that has occurred since World War II. Section II examines the emergence of nonstandard employment arrangements such as temporary help agency employment. It provides a taxonomy of the various types of nonstandard employment, estimates their prevalence and describes what is known about access to UI benefits by individuals in these situations. Section III examines some other key aspects of UI benefit availability including differences in receipt by reason for unemployment, the duration of unemployment and state of residence. Section IV examines the implications of welfare reform for UI programs. It estimates the likely UI recipiency rates of former welfare recipients. Section V examines UI trust fund adequacy. It reviews recent pattern of trust fund decumulations during 1990-1992, years of high unemployment, and the subsequent recovery of trust fund balances. Section VI reviews the performance of unemployment insurance as an automatic stabilizer of the economy. It estimates the reduced stabilizing effect of the program due to the decline in recipiency of the early 1980s. Finally, Section VII draws together the principal findings and notes some policies that would increase access to UI benefits. Based on the analysis of Sections I-VI, it also identifies areas for future research.

As indicated by the preceding paragraph, the report is broad in scope, but much of the analysis focuses on access to benefits by unemployed workers. In most recent years, less than one third of the unemployed received UI benefits. The recipiency rate is lower than twenty years ago and much lower than forty years ago.

Several findings relate to the long term decline in UI recipiency. Three should be noted here. (1) The decrease in recipiency is not an inexorable phenomenon. Recipiency has been actually somewhat higher in the 1990s than it was during the 1980s. (2) The changing distribution of the labor force across geographic areas has contributed to the long term decline in UI recipiency. Low recipiency in the South and Rocky Mountain states coupled with above-average growth of the labor force in these areas have acted to depress national measures of recipiency. (3) Policy initiatives can raise recipiency. One that is examined in Section IV is offering an alternative base period for persons monetarily ineligible under the regular base period. However, increases in recipiency will be modest, particularly for former welfare recipients because they will often fail to satisfy nonmonetary criteria even if they are monetarily eligible.

Three other findings should also be noted. (4) Trust fund rebuilding following the recession-related drawdowns of 1990-1992 has been slow. The slow recovery of trust fund balances during 1993-1997 is especially noticeable in the very largest states. This could have ramifications during the next recession in terms of large scale borrowing to pay benefits. (5) The UI program is now less important as an automatic stabilizer of the economy than it was twenty years ago. While the decline in this function is measurable, the earlier stabilizing performance of the UI was only modest. Section VI discusses this in more detail. (6) Our knowledge of several important questions and issues related to UI benefit recipiency is incomplete. Section VII discusses research needs drawing upon findings in Sections II-VI.

I. The Long Term Trend in the Receipt of UI Benefits

Several researchers have noted a long term trend towards reduced availability of UI benefits.[1] Chart 1 provides a visual representation of the downtrend using the most common measure of availability, the so called IUTU ratio. The numerator of IUTU is insured unemployment (IU), a count of people actively seeking or currently receiving UI benefits as measured from UI program reporting. The denominator of the IUTU ratio is total unemployment (TU), a measure derived from the monthly household labor force survey. Chart 1 shows time series for two IUTU ratios, the annual series covering the fifty years 1947 to 1996 and centered five year averages which extend from 1949 to 1994.[2] Both series clearly show a downward trend of a reasonably large magnitude. The first and last observations of the five year averages are respectively 0.470 and 0.330 indicating a 30 percent decline in the centered five year ratio between 1949 and 1994.

Three other points are indicated by these data series. 1) The annual IUTU ratios are highly volatile with sharp increases observed in recession years like 1949, 1954, 1958, 1971, 1975, 1980 and 1991. Much of this short run noise is smoothed by the use of five year averages. 2) In the five year averages, the long term downtrend is seen to be discontinuous. There are three periods when the ratio is roughly stable, and two periods when large declines occur.[3] Between 1959 and 1967 the centered five year average declined from 0.495 to 0.379 or by 0.116. Between 1976 and 1986 the decline was from 0.411 to 0.304 or by 0.107. These two periods account for all of the decrease in the five year averages of the IUTU ratio between 1949 and

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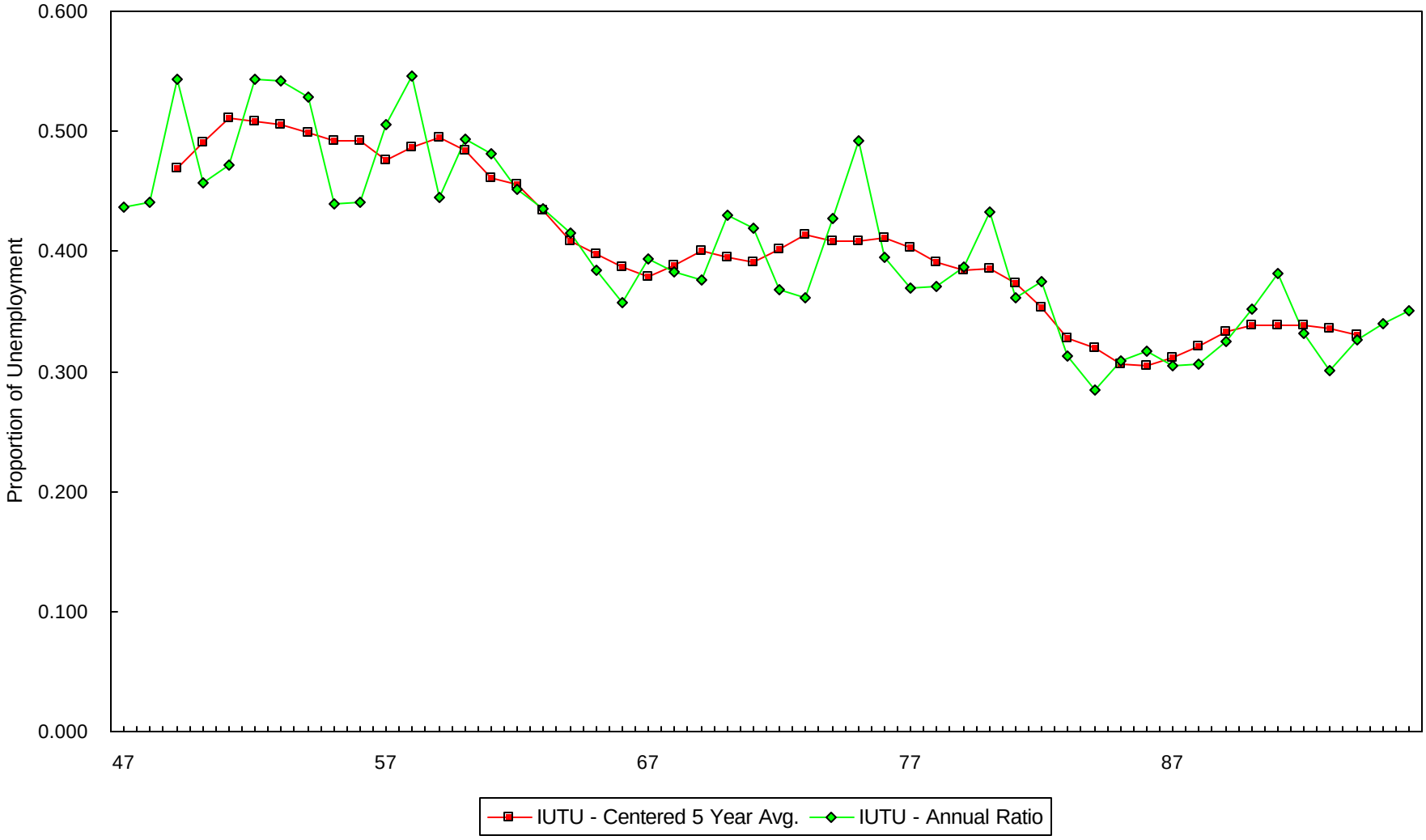
[1] Prominent in the literature are papers by Blank and Card (1981), Saxe and Burtless (1984), Corson and Nicholson (1988), Vroman (1991) and McMurrer and Chasanov (1995).

[2] The centered observation for 1949, for example, is the average of the IUTU ratios for the years 1947-1951.

[3] Both series displayed in Chart 1 are shown in Table 1 of Vroman (1997).

IUTU Ratios: Annual and Five Year Averages

Chart 1. 1947 to 1996



Source: Data from UI Service and BLS

1994.[4] 3) Since 1986, the five year average actually increased modestly from 0.304 to 0.330. Thus not all of the change in IUTU has been inexorably downward.

This final point is reinforced by the analysis undertaken in Appendix A. Time series multiple regressions were fitted that test for a post-1981 downward shift in the IUTU ratio in individual states. The regressions utilized annual data covering two data periods: 1967 to 1989 and 1967 to 1996. For 37 of 51 programs the point estimate for the size of the post-1981 downward shift was larger during the 1967-1989 period than during 1967-1996. Adding the seven most recent observations (1990-1996) caused the estimated size of the decrease in IUTU to become smaller for nearly three quarters of the state UI programs. Thus the long term downtrend in IUTU appears to have been interrupted and even partially reversed in the 1990s.

While there is not a full consensus, many researchers would assert that different factors were operating during the two periods of large decreases in the IUTU ratio. The earlier period (1959-1967) saw the entry of the post-World War II baby boom into the labor market. This demographic effect would be expected to be strong since those younger than age 25 are much less likely to collect UI benefits than adults. During the later period (1976-1986) UI programs were experiencing serious financing problems and benefit eligibility was restricted in several states.[5]

The long term decrease in IUTU hinders the performance of unemployment insurance in achieving its two major objectives:

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[4] The highest of the five year averages occurred in 1951 (0.512) while the 1994 average was 0.330. The total end-point to end-point decline was thus 0.182 whereas the sum for the two periods of decline 1959-1967 and 1976-1986 was 0.223.

[5] See Corson and Nicholson (1988) for a detailed exploration of factors leading to the decreases in IUTU during the early 1980s. They attributed the largest contribution to changes in state UI provisions affecting eligibility.

maintaining income for individuals and families that experience unemployment and providing increased automatic (or built-in) stability to the macro economy. Each of these objectives is enhanced when a larger share of the unemployed receive benefits.

The remainder of the report examines aspects of UI benefit recipiency. A series of descriptive analyses are undertaken and some suggests are made for changes that would increase benefit recipiency. In certain subject areas there are uncertainties which could be addressed by additional research. Some suggestions are offered in Section VII. The next section explores the emergence of nonstandard employment arrangements.

II. Nonstandard Employment

The long term decline in unemployment insurance (UI) benefit recipiency noted in Section I could be attributable to several different factors. This section focuses on the emergence of what can be termed nonstandard employment. Several types of nonstandard employment are identified. For each type, its prevalence and growth are documented along with available information on worker experiences with unemployment and with the receipt of UI benefits. The primary source of information is the Current Population Survey (CPS), a nationally representative monthly survey of 55,000 households.

A Taxonomy of Nonstandard Employment

An increasing share of employment in the U.S. economy involves work that can be termed nonstandard. Without attempting to characterize the full range of emerging employment relationships, this section will briefly introduce four dimensions that are important to note. These are: 1) work for fewer hours than the normal weekly schedule, 2) temporary work of finite duration, i.e., a time beyond which there is no implied employer obligation to continue the

employment relationship, 3) use of outside workers where the employer directing the content of the work (the client employer) is not the employer who hires and pays these workers, and 4) self-employment. Persons employed in these situations are respectively referred to as: 1) part-time workers (usually measured as less than 35 hours worked per week), 2) temporary or contingent workers (temporary direct hires, temporary help agency employees and day laborers), 3) outside workers (leased employees, contract workers and temporary help agency employees) and 4) self-employed (incorporated, unincorporated and independent contractors).

Table 1 provides a summary of these different employment arrangements and shows estimates of their prevalence in 1995-1996. Information on nonstandard employment has been greatly improved by two recent supplements to the CPS (February 1995 and February 1997) that focused on this subject. Several articles using data from the February 1995 supplement appeared in the October 1996 issue of the Monthly Labor Review. This report will also use data from the February 1995 supplement.

Before discussing the employment estimates, some definitional issues should be addressed. At the outset, note that the four dimensions of nonstandard employment identified in Table 1 are not mutually exclusive.[6] Temporary workers often work on a part-time basis (hence are included in part-time employment). Temporary help agency employees are both temporary as far as work duration and outside employees (working under direction from the client firm but an employee of the temporary help agency). When temporary help agency employees work part-time, they are included in each of the first three categories of Table 1's left hand column. Most independent contractors are classified as self- employed in the CPS. In certain situations, the distinction between leased employees and contract

[6] One breakdown which places individuals into mutually exclusive categories based mainly on the February 1995 CPS data is shown in Table 1 of Houseman (1997).

Table 1. A Taxonomy of Nonstandard Employment Relationships and Estimates of Prevalence

Dimension of Employment	Distinguishing Characteristic	Common Designation	Prevalence in Household Survey Data (millions)	Prevalence in Employer Survey Data (millions)
1) Hours worked per Week	Weekly hours at less than a full-time schdule	Part-time worker	23.2 - 1996-a 29.9 - 1996-a	INA
2) Work of temporary duration	Employment known to be of short duration, less than one year	Temporary worker (Contingent worker)	2.7 to 6.0 - 1995-b	INA
		a) Temporary direct hire	1.8 to 4.0 - 1995-c	2.7 - 1995-d
		b) On-call worker	2.0 - 1995	
		c) Temporary help agency employee	1.2 - 1995	1.8 - 1995-d 2.0 - 1996-e
3) On-site employee of another employer	Employer at the worksite controls the content of work but is not the employer who pays the salary and fringe benefits	Outside worker	INA	INA
		a) Leased employee	INA	0.4 - 1996-e
		b) Contract worker	0.7 - 1995	
		c) Temporary help agency employee	1.2 - 1995	1.8 - 1995-d 2.0 - 1996-e
4) Self-employment	Individual owns their business and controls key aspects of the content and pace of work	Self-employed	10.5 - 1996-f	
		a) Independent Contractor	8.3 - 1995-f	

Source: Household survey data are based on the Current Population Survey. Estimates for 1996 are annual whereas 1995 estimates are for February. Employer survey data are from indicated sources.
INA - Information not available.
a - The estimates are the monthly average (23.2 million) and the annual number who usually worked part-time when they worked (29.9 million).
b - Three estimates were developed totaling 2.7, 3.4 and 6.0 million.
c - Three estimates were developed totaling 1.8, 2.0 and 4.0 million.
d - Based on percentages shown in Houseman (1997, pp.11-12) and total employment of 121 million.
e - Estimate derived by the author based on unofficial estimates from BLS.
f - Total for unincorporated self-employed many of whom are independent contractors.

workers is not always clear. In a classic leasing arrangement, a leasing company provides all the employees to a client firm. In contrast, contract workers usually fill specialized occupational niches within client firms, working closely with the permanent employees of client firms. Self-employment covers both incorporated and unincorporated individuals who direct their own businesses.[7]

The point estimates shown for part-time employment and self-employment in 1996 come from standard CPS sources. These are measured both monthly and for the year as a whole (work experience estimates). The remaining household survey estimates were derived from the special February 1995 supplement to the CPS previously noted. This so called contingent worker supplement was repeated in February 1997. It should be reemphasized that the estimates shown in Table 1 are not additive as the same person may be included in two (or more) of the four employment dimensions. From the table, however, a rank ordering of the prevalence of each type of nonstandard employment can be inferred. Part-time employment is most prevalent, followed by self-employment, then temporary (contingent) employment, and, last, outside employees who work on-site. Finally, observe that the three estimates of temporary help agency employment fall within a reasonably small range with the two employer-based estimates larger than the household survey estimate.

Each of the nonstandard employment relationships is examined in the following pages.

Part-time Employment

Part-time employment is pervasive. Table 2 summarizes employment and unemployment of part-time workers with CPS data that extend back to 1967 for all series and back to 1950 for so-called work experience data.

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[7] As will be discussed below, the published estimates of self-employment based on the CPS, however, cover just the unincorporated self-employed.

Table 2. Part-time Employment and Unemployment

	Total			Women			Men		
	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus
Panel 1- Total Employment - Work Experience Data									
1950	67534	13029	54505	22857	5582	17275	44677	7447	37230
1967	88179	20062	68117	35787	9599	26188	52392	10463	41929
1977	107096	26876	80220	46379	12672	33707	60717	14204	46513
1987	127955	25097	102858	58936	12247	46689	69019	12850	56169
1996	141379	23057	118322	66371	11110	55261	75009	11947	63062
Panel 2 - Part-time Employment - Work Experience Data									
1950	9663	2832	6831	5845	1225	4620	3818	1607	2211
1967	16261	6841	9420	10532	3252	7280	5729	3589	2140
1977	22897	9854	13043	15302	5293	10009	7595	4561	3034
1987	27815	10854	16961	18537	5957	12580	9278	4897	4381
1996	29868	11011	18857	19484	5850	13634	10384	5161	5223
Panel 3 - Part-time Employment - Percent of Employment - Work Experience Data									
1950	14.3	21.7	12.5	25.6	21.9	26.7	8.5	21.6	5.9
1967	18.4	34.1	13.8	29.4	33.9	27.8	10.9	34.3	5.1
1977	21.4	36.7	16.3	33.0	41.8	29.7	12.5	32.1	6.5
1987	21.7	43.2	16.5	31.5	48.6	26.9	13.4	38.1	7.8
1996	21.1	47.8	15.9	29.4	52.7	24.7	13.8	43.2	8.3
Panel 4 - Part-time Employment - Annual Average Data									
1967	11362	4053	7311	7009	1870	5141	4353	2183	2171
1977	16558	6620	9938	10639	3448	7191	5919	3172	2747
1987	21189	7438	13749	13819	3993	9824	7371	3447	3924
1996	23170	7751	15419	15725	4305	11420	7445	3447	3999
Panel 5 - Part-time Employment - Percent of Total Employment - Annual Average Data									
1967	15.3	28.6	12.1	26.1	30.2	24.8	9.2	27.3	5.5
1977	18.3	32.3	14.2	29.0	37.0	26.3	11.0	28.4	6.4
1987	18.8	36.9	14.9	27.5	41.1	24.2	11.9	33.0	7.6
1996	18.3	41.6	14.3	26.9	48.4	23.0	10.9	35.4	6.8
Panel 6 - Total Unemployment - Annual Average Data									
1967	2976	1349	1627	1468	667	802	1508	683	826
1977	6855	3220	3636	3268	1513	1753	3588	1707	1881
1987	7425	2800	4625	3324	1290	2035	4100	1510	2590
1996	7236	2545	4690	3356	1137	2219	3880	1408	2472
Panel 7 - Part-time Unemployment - Annual Average Data									
1967	683	434	249	395	205	190	288	229	59
1977	1423	931	492	836	473	362	587	458	128
1987	1446	917	529	866	475	391	580	442	138
1996	1433	850	583	829	416	413	604	434	170
Panel 8 - Part-time Unemployment - Percent of Total Unemployment - Annual Average Data									
1967	23.0	32.2	15.3	26.9	30.7	23.7	19.1	33.5	7.1
1977	20.8	28.9	13.5	25.6	31.3	20.7	16.4	26.8	6.8
1987	19.5	32.8	11.4	26.1	36.8	19.2	14.1	29.3	5.3
1996	19.8	33.4	12.4	24.7	36.6	18.6	15.6	30.8	6.9

Panel 9 - Unemployment Rate - All Workers - Annual Average

1967	3.8	8.7	2.6	5.2	9.7	3.7	3.1	7.9	2.0
1977	7.0	13.6	4.9	8.2	14.0	6.0	6.2	13.3	4.2
1987	6.2	12.2	4.8	6.2	11.7	4.8	6.2	12.6	4.8
1996	5.4	12.0	4.2	5.4	11.3	4.3	5.4	12.6	4.1

Panel 10 - Unemployment Rate - Part-time Workers - Annual Average

1967	5.7	9.7	3.3	5.3	9.9	3.6	6.2	9.5	2.6
1977	7.9	12.3	4.7	7.3	12.1	4.8	9.0	12.6	4.5
1987	6.4	11.0	3.7	5.9	10.6	3.8	7.3	11.4	3.4
1996	5.8	9.9	3.6	5.0	8.8	3.5	7.5	11.2	4.1

Source: All data from the Current Population Survey (CPS). Data measured in thousands.

The CPS distinguishes voluntary from involuntary part-time employment. Most who work part-time do so voluntarily. In 1996, for example, only about one fifth of part-timers worked part-time for economic reasons.[8] For present purposes, the reason for part-time employment will not be emphasized. Monetary eligibility for UI benefits is linked to actual past earnings. If a claimant has inadequate base period earnings and/or high quarter earnings, it does not matter whether the part-time work was voluntary or involuntary in reference to the monetary determination

Two types of employment estimates are shown, annual averages and work experience data. Annual averages are the averages from the twelve monthly CPS labor force surveys while work experience data are gathered in March through retrospective questions asked about work during the preceding year. Because many workers are not in the labor force on a year-round basis work experience estimates of employment are larger than monthly averages, e.g., 1996 part-time employment totaled 29.9 million in work experience data while the annual average was 23.2 million. The work experience data that underlie in Panels 1, 2 and 3 show that part-time employment tripled between 1950 and 1996 and grew from 14.3 percent to 21.1 percent of total employment. The part-time percentage increased between 1950 and 1977 and then remained quite stable through 1996.

Younger workers and women are more likely to work part-time than adult men. Note in Panel 3 that the percentages for 16-24 year olds have shown continuing growth after 1977. In 1996 nearly half (47.8 percent) of those aged 16-24 with work experience, worked part-time. In the same year about one quarter of adult women (24.7 percent) worked part-time while the male percentage was about one third this level (8.3 percent). Finally, observe in Panel 3 that the part-time employment percentage for adult women has been declining

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[8] See Table 21 in Employment and Earnings of January 1997. Those who usually worked part-time totaled 17.2 million in 1996 compared to 4.1 million worked part-time for economic reasons.

for the past 20 years while for adult men it has been slowly increasing. Chart 2 summarizes historical developments in the part-time employment percentages.

Part time workers are employed fewer weeks per year than full-time workers. In 1996, for example, they worked an average of 36 weeks compared to 48 weeks for full-time workers. Thus the monthly averages of part-time employment are not only lower than the work experience counts but proportionately lower than for full-time workers. Consequently in the annual average data, part-time employment is a lower percentage of total employment than in work experience data, 18.3 percent versus 21.1 percent in 1996. Note, however, that the trends in the part-time percentages are similar in annual average data (Panel 5) as in work experience data (Panel 3). Part-time employment in annual average data has been stable since 1977 at 18-19 percent of total employment.

It should be noted that the work commitment among part-time workers is substantial. In tabulations of CPS work experience data from 1995 the average weeks worked by those 16 and older were 36.8 for women and 34.2 for men. For both genders average hours worked per week was about 21.5 hours implying mean annual hours worked of 793 and 739 for part-time women and men respectively. The respective means of annual earnings were $7533 and $7841. The averages conceal a large amount of variation in annual earnings, but compared to UI base period earnings requirements the averages are substantially above the amount needed to qualify on monetary criteria.[9]

Part time workers also represent a substantial percentage of

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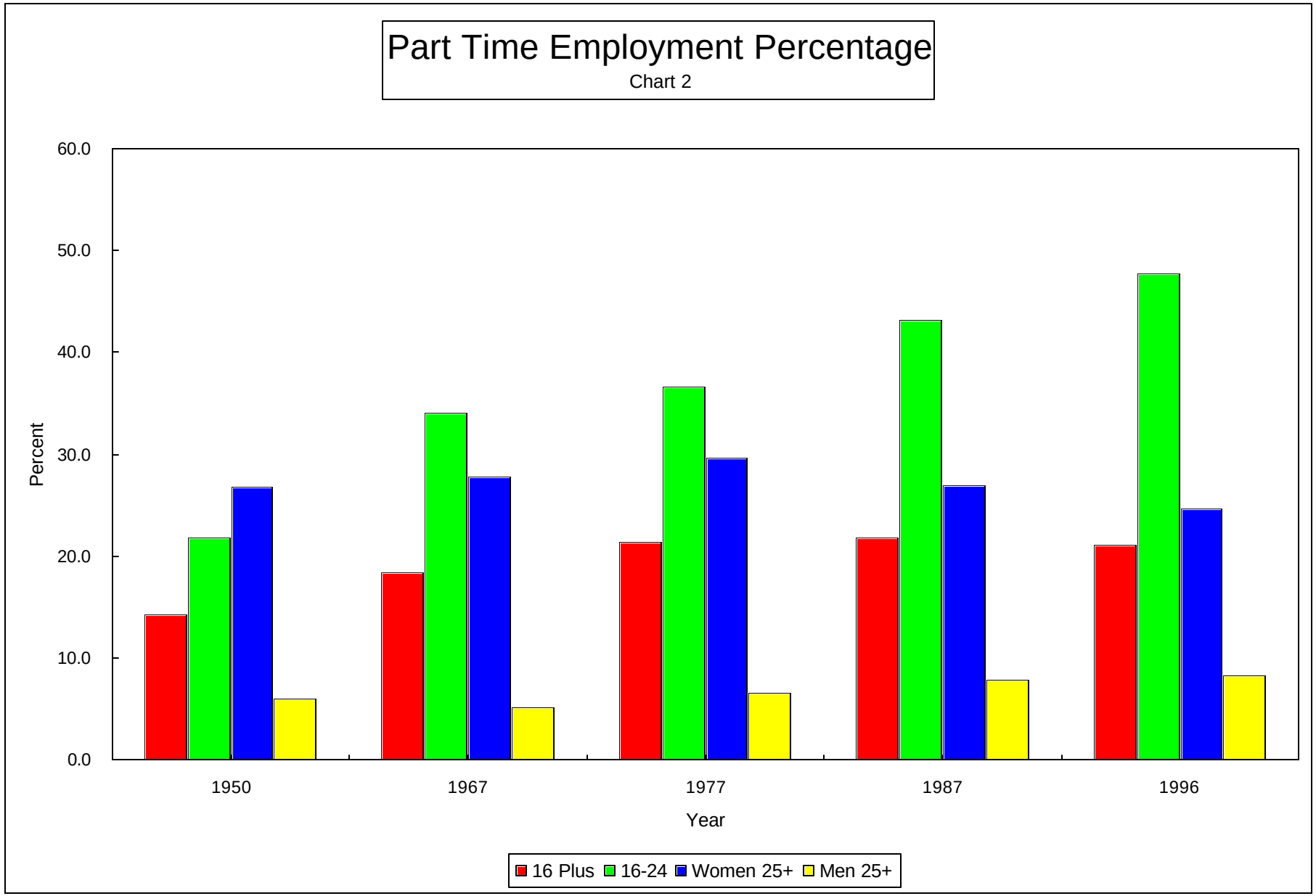
[9] There are issues of high quarter earnings and (in several states) weeks of employment that also influence monetary eligibility in individual states. The CPS does not provide quarterly data to make fully accurate estimates of monetary eligibility. See Blank and Card (1981) for an analysis of this issue. Bassi and Chasanov (1996) utilized the Survey of Income and Program Participation to estimate monetary eligibility but did not place major emphasis on part time employment.



Work Experience Data

total unemployment, e.g., 1.433 million out of 7.236 million in 1996 annual average data or 19.8 percent of the total. Among adults, however, the unemployment rate for part-time workers is not above-average. Note Panels 9 and 10 in Table 2. While the comparative unemployment rates among everyone 16 and older was higher for part-time workers in 1996 (5.8 percent versus 5.4 percent), the part-time rate was the lower of the two adult unemployment rates (3.6 percent versus 4.2 percent). For adult women who constituted nearly half of total part-time employment, the issue of the part time unemployment rate is particularly important. Note in Panel 10 that the unemployment rate for part-time adult women was lower than the rate for all adult women by at least a full percentage point in 1977 and 1987 and lower by 0.8 percent in 1996.

Another aspect of unemployment among part-time workers is its comparatively short average duration. In 1996 the mean and median duration of unemployment in annual average data were 16.7 weeks and 8.3 weeks respectively.[10] The means and medians for part-time workers were 11.5 weeks and 5.2 weeks respectively. On average, unemployment spells last for shorter periods among part-time workers than among full-time workers.

Some of the preceding contrast is explained by the comparatively young average age of part-time workers who typically experience numerous but short spells of unemployment. In annual work experience data where all spells are combined into the annual duration of unemployment, average unemployment duration for part-time and full-time workers is quite similar. For example, the mean and median durations in work experience data were 15.6 weeks and 13.0 weeks among full-time workers compared to 18.7 weeks and 15.9 weeks among part-time workers. Thus when unemployment duration is measured for calendar years not for individual spells, part-time workers

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[10] See the unemployment duration distributions in Table 30 of the January 1997 issue of Employment and Earnings.

actually had longer average duration than full-time workers.[11]

To summarize, part-time employment and part-time unemployment represent a substantial share of total employment and total unemployment, roughly 20 percent. While much of part-time unemployment occurs among 16-24 year olds, an age group with very low UI recipiency, many adults, especially adult women work on a part-time basis. On average, adult part-timers work about three fourths of the year, and their annual earnings usually exceed base period earnings requirements for UI. Thus most would be expected to satisfy UI monetary eligibility requirements.

Receipt of UI benefits among part-time workers was examined in tabulations of CPS work experience data and income data from 1994 and 1996. Recipiency patterns were studied among full-time and part-time workers classified by age, gender and duration of unemployment. Table 3 summarizes the findings for 1996. Overall, 0.289 of those with unemployment reported receipt of UI benefits.[12] The proportion among full-time workers (0.356) was about three times the proportion for part-time workers (0.118).

Patterns of receipt by age and gender in Table 3 are as would be expected. Persons 16-24 are about one fourth as likely to receive UI benefits as adults (0.088 versus 0.366). Unemployed women are less likely to receive UI than unemployed men in both age groups. Among all adults 25 or older with unemployment, part-time workers are about half as likely to receive UI as full-time

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[11] Estimates of the duration of unemployment in the monthly CPS surveys represent a different concept than in annual work experience data. Monthly data measure the duration of the current spell up to the time of the CPS interview. These spells are not complete when the interview takes place. Work experience estimates of duration refer to the entire 52 weeks of the past calendar year. Most of these spells are complete. Many persons experience two or more spells of unemployment per year, about 30 percent in recent years. Thus average duration is shorter in the monthly data both because the spells are incomplete and because work experience data reflect multiple spells.

[12] The CPS question on UI benefits combines regular state UI with UCFE (Unemployment Compensation for Federal Employees). The latter program is less than 3 percent of the reported total.

Table 3. Unemployment and Receipt of UI Benefits by Full-time and Part-time Status in 1996.

	Total	Total		Women			Men		
		Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time
Persons 16 and Older									
Worked in 1996	141,379	111,512	29,868	66,371	46,887	19,484	75,009	64,625	10,384
Unemployment	14,454	10,347	4106	6326	3936	2389	8128	6411	1717
UI Benefits	4173	3687	486	1606	1273	333	2567	2414	153
Proportion with Unemployment	0.102	0.093	0.137	0.095	0.084	0.123	0.108	0.099	0.165
Proportion with UI Benefits	0.289	0.356	0.118	0.254	0.323	0.139	0.316	0.377	0.089
Persons 16-24									
Worked in 1996	23,057	12,046	11,011	11,110	5260	5850	11,947	6786	5161
Unemployment	4027	2105	1923	1828	816	1013	2199	1289	910
UI Benefits	353	278	76	136	93	44	217	185	32
Proportion with Unemployment	0.175	0.175	0.175	0.165	0.155	0.173	0.184	0.190	0.176
Proportion with UI Benefits	0.088	0.132	0.040	0.074	0.114	0.043	0.099	0.144	0.035
Persons 25 and Older									
Worked in 1996	118,322	99,465	18,857	55,261	41,627	13,634	63,062	57,809	5223
Unemployment	10,427	8242	2183	4498	3120	1376	5929	5122	807
UI Benefits	3819	3410	411	1469	1180	290	2350	2230	121
Proportion with Unemployment	0.088	0.083	0.116	0.081	0.075	0.101	0.094	0.089	0.155
Proportion with UI Benefits	0.366	0.414	0.188	0.327	0.378	0.211	0.396	0.435	0.150

Source: Tabulation of the March 1997 Current Population Survey. Data in thousands. Counts of those with unemployment do not include 2,329,000 with unemployment but no work in 1996.

workers (0.188 versus 0.414). The pattern is similar for both men and women. Note that the UI recipiency rate among adult part-timers was higher for women than for men. All of the Table 3 patterns were repeated in 1994 work experience data. Among adults, part-time workers are about half as likely to receive UI benefits as full-time workers.

From the earlier summary of data on weeks worked, hours worked per week and annual earnings, it is clear that the majority of part-time workers who file for UI benefits satisfy the monetary eligibility criteria of UI. The low recipiency rate is due mainly to other factors. Two will be noted and discussed: reason for job separation and work search requirements. Most UI programs impose a durational disqualification on workers who quit their jobs.[13] Most states also require the claimant to search for full-time employment as a condition for benefit eligibility. This search requirement is usually applied even if the person previously worked on a part-time basis.

Access to UI benefits among unemployed part-time workers would be increased if two specific changes were instituted. First, allow compensation after a fixed length disqualification period, perhaps six or eight weeks. The annual work experience data noted above clearly show that many adult part-time workers have long unemployment spells. Allowing them to receive UI benefits would help to stabilize family incomes while requiring a substantial waiting period would reduce the moral hazard of quitting to receive benefits. Second, most states interpret work search to mean searching for a full-time job. Thus a blanket denial is often given to applicants who previously worked as part-time workers. Eligibility would seem appropriate if unemployed part-timers were available for work at jobs with at least

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[13] Good personal reasons for leaving a job are recognized in some states. Most states do not disqualify in circumstances such as sexual harassment. Because the determinations in these situations are often set by administrative procedures, not by statutory language, is not always clear how individual states apply quit disqualifications in specific situations.

the same hours as the jobs previously held.

Implementing these two changes would raise UI eligibility and recipiency among adult workers. If the rate of UI recipiency were raised by one-half above present levels (from 0.188 to 0.282 in 1996) this would close about half of the gap between full-time and part-time recipiency proportions among adults and add roughly five percent to UI caseloads.[14]

Self-employment

Although self-employment lies outside the scope of UI coverage, there are reasons to discuss this type of nonstandard employment. Many persons now classified as self-employed describe themselves with terms such as independent contractor, independent consultant or free lance worker. Unlike the traditional entrepreneur who owns a business establishment and works at a fixed location, these “independents” may perform services at different locations and for more than a single client.

When an independent’s relationship with a single predominant client persists for a long period (in excess of a year), the relationship may be substantially the same as a traditional employment relationship. In fact, individuals in this situation often view themselves as employees and behave like employees when the employer terminates their jobs, i.e., they file for UI benefits. UI programs are frequently in the position of having to decide whether such persons are self-employed or employees. Typically, common law tests are applied in these situations. The right of the individual to exercise direction and control over the work is often a key element

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[14] Table 3 shows there were 2,183,000 part-time workers 25 and older with unemployment in 1996. Raising their beneficiary proportion from 0.188 to 0.282 would increase the number of recipients by 205,000, or by 4.9 percent of the 4,173,000 UI recipients for 1996. This estimate has considerable uncertainty attached. Among other things UI receipt is underreported in the CPS. From UI program data it appears about 7.7 million persons received UI during 1996 whereas the CPS records only 4.2 million with UI among those with unemployment.

in these determinations.

This question is frequently addressed by the states where UI tax administrators have to make coverage decisions. In Florida, for example, the volume of such determinations averaged as much as 150-200 per month in the past and still averages more than 50 per month. It might be possible to derive information directly from the states as to the monthly or annual volume of independent contractor determinations. Such information would be helpful for assessing tax enforcement resources devoted to this question. Another possible source of information would be data from the Revenue quality control (RQC) program. It might be possible to identify the number and the amount of tax revenues involved in RQC decisions where independent contractor status was an issue.

Defining the limits of self-employment versus wage and salary employment is also a frequent subject of state UI legislation. During 1997, for example, six states passed laws excluding direct sellers from UI coverage. Minnesota tightened coverage in 1997 legislation focused on employment in commercial and residential construction.[15]

Self-employment has been measured in the CPS for fifty years. One aspect of this measurement is noteworthy. Starting in 1967 the CPS classified the self-employed who were incorporated as wage and salary workers. In 1967 the number of incorporated self-employed was about 1.0 million. By 1994 the number had grown to nearly 4.0 million and by 1996 to about 6.0 million.[16] The CPS treats these

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[15] Laws related to direct sellers passed in Kansas, Maryland, Nebraska, Oklahoma, Tennessee and Virginia in 1997. See Runner(1998) for a summary of 1997 UI legislation in the states.

[16] Growth in corporate self-employment after 1994 has probably been influenced by 1994 changes in payroll taxes. Starting that year all wages and salaries and self-employment income were taxable for purposes of paying Health Insurance (HI) contributions into the Social Security (OASDHI) program. For the unincorporated self-employed this higher tax base applied to wages and salaries and to profits. By becoming a so called “S Corporation” income received as profits could be shielded from the HI payroll tax. See Wittman (1997).

people (in both sole proprietorships and partnerships) as working for their corporations, hence as wage and salary workers. If the incorporated self-employed were included with others, the self-employment totals would be much larger than reported in the CPS, about 40 percent larger in 1996.

Interest in self-employment as it relates to the UI programs in the states centers on the distinction between being an employee and being self-employed. Unfortunately, the CPS does not provide much useful information on this issue. People's responses to survey questions are taken as valid. Thus people classify themselves as they perceive their employment situation. One type of potentially useful information from the CPS is the ability to trace movements between the two self-reported situations of self-employed and wage and salary worker. Presumably much of the misclassification "problem" encountered by UI programs centers on CPS respondents who report themselves as wage and salary workers but are being treated by their employing entity as an independent contractor. The CPS does not provide direct information on the prevalence of these situations.

Table 4 displays data on self-employment disaggregated by sector (agricultural and non-agricultural), gender and age extending back to 1950. For measuring the trend in self employment, the period since 1950 falls into two phases. Between 1950 and 1970 there was a steady downtrend in self-employment as a percent of total employment. Since 1970 the self-employment percentage remained a stable 8-9 percent of total employment.[17] Note in Panel 3 of Table 4 the self-employment percentage was 17.6 percent in 1950 but fell into the narrow 8.3-8.6 percent range in 1977, 1987 and 1996. Panel 2 shows that total self-employment in 1996, 10.5 million was only slightly larger than in 1950 (10.4 million). Even if the incorporated self-employed were included in the totals, the 1996 level would be only 16.5 million and the percentage would be 13.0 percent.

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[17] See Table 1 in Bregger (1996).

Table 4. Self-employment by Year, Age and Gender

	Total			Women			Men		
	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus	16 Plus	16-24	25 Plus
Panel 1 - Total Employment - Annual Average									
1950	58918								
1967	74372	14184	60188	26895	6190	20705	47480	7997	39483
1977	90544	20466	70078	36686	9310	27376	53861	11155	42706
1987	112440	20163	92277	50334	9725	40609	62106	10437	51669
1996	126707	18640	108067	58501	8901	49600	68207	9739	58468
Panel 2 - Total Self-employment - Annual Average									
1950	10359								
1967	7170	256	6914	1383	79	1304	5787	177	5610
1977	7575	485	7090	1775	131	1644	5801	353	5448
1987	9624	477	9147	3007	152	2855	6617	324	6293
1996	10489	416	10073	3900	158	3742	6589	259	6330
Panel 3 - Self-employment Percentage									
1950	17.6								
1967	9.6	1.8	11.5	5.1	1.3	6.3	12.2	2.2	14.2
1977	8.4	2.4	10.1	4.8	1.4	6.0	10.8	3.2	12.8
1987	8.6	2.4	9.9	6.0	1.6	7.0	10.7	3.1	12.2
1996	8.3	2.2	9.3	6.7	1.8	7.5	9.7	2.7	10.8
Panel 4 - Agricultural Employment - Annual Average									
1950	7160								
1967	3844	634	3210	682	91	591	3165	544	2621
1996	3443	561	2882	871	108	763	2573	452	2121
Panel 5 - Agricultural Self-employment - Annual Average									
1950	4340								
1967	1996	66	1930	103	2	101	1893	64	1829
1996	1518	72	1446	394	7	387	1124	65	1059
Panel 6 - Agricultural Self-employment Percentage									
1950	60.6								
1967	51.9	10.4	60.1	15.1	2.2	17.1	59.8	11.8	69.8
1996	44.1	12.8	50.2	45.2	6.5	50.7	43.7	14.4	49.9
Panel 7 - Non-agricultural Employment - Annual Average									
1950	51758								
1967	70528	13550	56978	26213	6099	20114	44315	7453	36862
1977	87301	19692	67609	36081	9181	26900	51222	10510	40712
1987	109232	19527	89705	49668	9630	40038	59564	9897	49667
1996	123264	18079	105185	57630	8793	48837	65634	9287	56347
Panel 8 - Non-agricultural Self-employment - Annual Average									
1950	6019								
1967	5174	190	4984	1280	77	1203	3894	113	3781
1977	6005	372	5633	1658	125	1533	4348	246	4102
1987	8201	391	7810	2778	144	2634	5423	247	5176
1996	8971	344	8627	3506	151	3355	5465	194	5271

Panel 9 - Non-agricultural Self-employment Percentage

1950	11.6								
1967	7.3	1.4	8.7	4.9	1.3	6.0	8.8	1.5	10.3
1977	6.9	1.9	8.3	4.6	1.4	5.7	8.5	2.3	10.1
1987	7.5	2.0	8.7	5.6	1.5	6.6	9.1	2.5	10.4
1996	7.3	1.9	8.2	6.1	1.7	6.9	8.3	2.1	9.4

Source: All data from the Current Population Survey (CPS). Data measured in thousands.

The decline of employment in agriculture has contributed to the comparatively slow growth in self-employment. This industry employed about half as many in 1996 as in 1950 (3.4 million compared to 7.2 million), and the percentage that worked in agriculture as self-employed declined from 60.6 percent to 44.1 percent. Since 1967 the number of (unincorporated) self-employed in agriculture has declined somewhat from 1.93 million to 1.45 million (Panel 5).

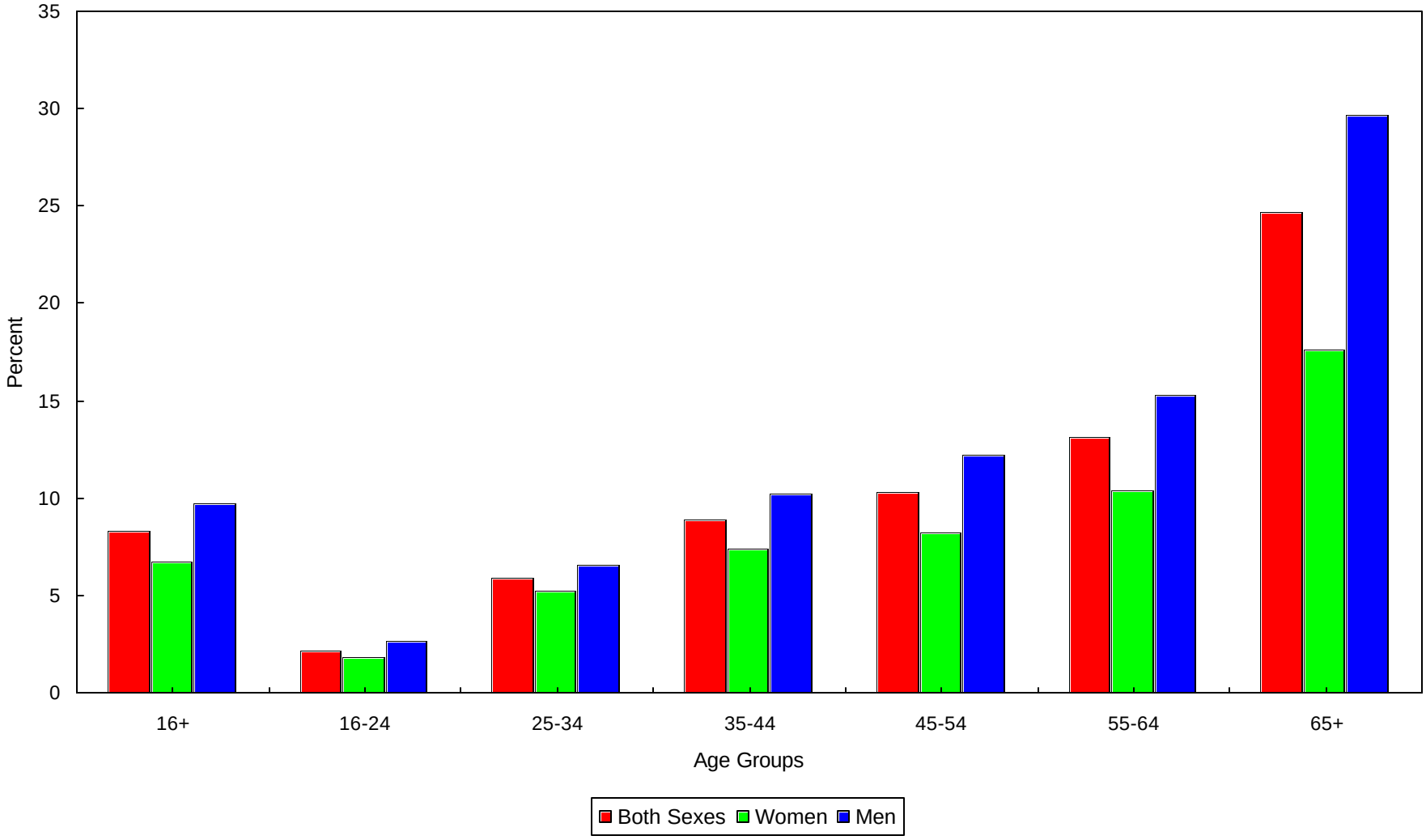
Self-employment totals and percentages in non-agricultural industries are displayed in Panels 8 and 9 of Table 4. The unincorporated percentages shown in the table have fluctuated within a narrow range from 6.9 percent to 7.5 percent between 1967 and 1996. However, if incorporated self employment were added, the percentage of non-agricultural employment would have grown modesty during these 30 years. The percentage was about 9.0 percent in 1967 and about 12.0 percent in 1996. Thus by 1996 total self employment was about the same percent of overall non-agricultural employment in the U.S. as it had been in 1950.

Gender and age are clearly linked to the probability of working as self-employed. Men have higher self employment percentages than women, but the women’s percentage has been growing while it has been roughly stable for men. The percentages for unincorporated self-employed in 1996 were 6.1 percent for women and 8.3 percent for men in non-agricultural industries.

The likelihood of working as self-employed grows measurably as individuals age. Younger workers are not likely to be self-employed. In non-agricultural industries the percentages among 16-24 year olds were 1.7 percent for women and 2.1 percent for men in 1996 (Panel 9 of Table 4). Chart 3 shows percentages by age and gender in 1996. For each age group through 55-64, the percentage is higher than for the immediately younger age group. Among those aged 55-64 who worked in 1996 10.4 percent of women and 15.3 percent of men were self-employed. Chart 3 also shows that roughly one in four aged 65 and older who worked in 1996 was self-employed.

Self-employment Percentages - 1996

Chart 3



Based on Total Employment and Self-employment

Self-employment spans a wide variety of working arrangements and hours of work. Although the image is that entrepreneurs work very long hours, a sizeable fraction of the unincorporated self-employed work part-time, e.g., 33 percent in 1996.[18] Annual earnings from self-employment also spans a wide range, much wider than for the wage and salary employment, and many of the self-employed earn low annual amounts, especially women.[19] Thus commitment to work and the financial rewards to work among the self-employed exhibit very wide variation.

The self-employed generally have low unemployment. Among the 141.4 million persons who worked sometime during 1996, 14.5 million or 10.2 percent experienced some unemployment. However, 10.2 percent who worked predominantly as wage and salary workers had some unemployment during the year compared to 5.6 percent of those who worked predominantly as unincorporated self-employed.[20]

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[18] See Table 21 in the January 1997 issue of Employment and Earnings.

[19] In 1986 the mean and median of reported nonfarm self-employment income among women were $6206 and $2466 while the corresponding amounts for women with wage and salary earnings were $11,994 and $10,186 respectively. The total annual income of those with self employment also includes substantial wage and salary earnings. Thus the mean and median annual income (self-employment plus wages and salaries plus nonearned income) were $11,578 and $7498 for these same women. Relying heavily on wages and salaries limits their hours worked as self-employed. See Tables 37 and 38 in U.S. Bureau of the Census, “Money Income of Households, Families and Persons in the United States: 1986.”

[20] Among those who worked as incorporated self-employed in 1996 only 2.5 percent experienced unemployment during the year. The corresponding percentages of workers with unemployment in 1994 were 12.1 for wage and salary workers, 6.5 percent for the unincorporated self-employed and 3.0 percent for the incorporated self-employed.

Among those with some unemployment during the year, the mean and median unemployment durations were quite similar for wage and salary workers and for the self-employed.[21] Thus, on average, the self-employed who do experience unemployment spend about the same length of time in unemployment as wage and salary workers.

Although the self-employed are excluded from coverage under unemployment insurance, measurable numbers in the CPS report receiving UI benefits. The estimates for 1994 and 1996 indicated that at least 10 percent of the unincorporated self-employed received benefits in both years. Among all unincorporated self-employed aged 16 and older the proportions were 0.125 in 1994 and 0.102 in 1996 and higher for women than for men in both years. It seems clear that a sizeable fraction of unincorporated self-employed also work as wage and salary workers although they report their main work as self-employment.

The overall rate of UI recipiency among the self-employed is comparable to the recipiency rate for part-time workers (as reported in the CPS). Over the calendar year periods covered by work experience data, both groups experience reasonably long average spells of unemployment and about 10 percent of both groups report receiving UI benefits. The fact that the self-employed have equally high recipiency despite lack of UI coverage would seem to be an issue for further research.

Temporary or Contingent Employment

Use of temporary or contingent employees has been growing, but systematic measurement of its overall importance has been lacking

[21] Mean and median unemployment duration during 1996 were 15.8 weeks and 13.3 weeks for wage and salary workers. The mean and median for the unincorporated self-employed were 15.5 weeks and 12.7 weeks, only somewhat shorter. In 1994 the means and medians for the self-employed were actually higher than for wage and salary workers: means of 16.0 weeks versus 15.6 weeks and medians of 13.4 weeks versus 13.2 weeks.

until recent years.[22] Information on the prevalence of temporary employment arrangements could be gathered either from households or from employers. Abraham's work utilized an employer survey, and there was a recent employer survey undertaken Houseman (1997) at the Upjohn Institute. Data from the 1995 Contingent Worker survey suggested there were from 2.7 million to 6.0 million contingent workers in February 1995. The range exists because of definitional issues to be discussed.

The concept of contingent work implies impermanence in the employment relationship, i.e., the employer has no obligation to provide employment on a long term basis. The definition used in the CPS contingent worker supplements is the following: "Contingent work is any job in which an individual does not have an explicit or implicit contract for long-term employment." The measurement of contingent work looks both forward and backward from the time of the CPS interview. The narrowest definition included wage and salary workers who expected to work in their current job less than one year and had worked in it less than one year. The broadest definition included all wage and salary workers who did not expect their jobs to last plus the self-employed and independent contractors with expected or current job duration of less than one year.[23] Under all three definitions the largest component of the contingent worker total consisted of wage and salary workers who were temporary direct hires.

Table 1 identified three categories of temporary workers: temporary direct hires, on-call workers (including day laborers) and temporary help agency employees. The latter group was estimated to total 1.2 million in the February 1995 CPS Contingent worker supplement, and to be the smallest of the three temporary employee

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[22] Among the early work are papers by Abraham (1988) (1990).

[23] See Polivka (1996) for the definition of contingent work and the details of the three contingent worker measures.

categories.[24]

Employment in temporary help agencies can also be estimated from employer (or business establishment) data. Within the services sector there is a detailed industrial category (Personnel supply services, four digit industry 7363) which employed 2.3 million persons in 1996. This industry includes mainly temporary help agency employees but also the permanent employees of employment agencies and leased employees. Leased employees are estimated to constitute about 15-16 percent of the industry total. Table 1 shows two employer-based estimates of temporary help agency employment: 2.0 million in 1996 and 1.8 million in 1995. The 1996 estimate is based on the personnel supply services industry total from the BLS establishment survey (2.3 million) coupled with an estimate that leased employees constitute 16 percent of the industry total while temporary help agency employment made up the remaining 84 percent. The second employer-based estimate is 1.8 million in 1995, an estimate from the survey undertaken by Houseman. The fact that employer-based data yield larger estimates of temporary help agency employment than household survey data is due to at least two factors. 1) Some “temps” are registered with more than one temporary agency, hence appear twice in employer-based data. 2) Respondents in the CPS may be unaware that household members are employed by a temporary help agency or may report their employment in the industry of the client employer.

Of the three categories of temporary employees, there has been more direct analysis of temporary help agency employees than of temporary direct hires and on-call workers. A recent analysis by

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[24] The three definitions of contingent all emphasize the temporary nature of the employment relationship. Under the narrowest definition of contingent, about half or temporary help agency employees and one third of on-call workers were contingent. Under the broadest definition, about 80 percent of temporary help agency employees and 70 percent of on-call workers were contingent. The others in these categories had longer employment relationships than used in these definitions of contingent worker. See Table 1 in Polivka (1996).

Segal and Sullivan (1997) provides several insights into this type of employment. On average, temporary help agency employment grew more than 11 percent per year between 1972 and 1995. Employment in this industry had above-average responsiveness to the business cycle. Compared to other workers, they were more likely to be working part-time involuntarily. On average they were paid lower hourly wages and had less health insurance coverage vis-a-vis permanent workers.

Temporary help agency workers have very high turnover. Segal and Sullivan traced their mobility over twelve month periods in matched CPS data covering the years 1983 to 1993. Their unemployment rates were from two to three times those of permanent workers. Temporary help agency workers were mobile out of the industry with only 20-30 percent working as temporaries one year later. However, fewer than 60 percent were working as permanent employees one year later. Compared to permanent workers, they were more likely to be unemployed and to be out of the labor force at the time of the later interviews. Their unemployment rates were from two to three times those of permanent employees.[25] Their analysis indicated that many workers have experiences in the industry, but this kind of work usually does not represent a permanent career path.

Note in Table 1 that temporary direct hires and on-call workers accounted for more employment in February 1995 than temporary help agency employment. Houseman (1997) found that while use of temporary agency employees was more prevalent than temporary direct hires, employers utilized the latter workers more intensively.[26] In her data, hours worked by temporary direct hires represented 2.7 percent of all hours worked while temporary help agency workers constituted only 1.8 percent of total hours. Much of what is known about temporary direct hires and on-call workers is available from the CPS

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[25] The mobility patterns are summarized in Table 2 of Segal and Sullivan (1997).

[26] Between 1990 and 1995 46.0 percent of employers in her survey used temporary help agency workers while 38.2 percent used temporary direct hires. See Table 4 in Houseman (1997).

contingent worker supplements and from the Houseman employer survey.

Later paragraphs in this section summarize the unemployment experiences and receipt of UI benefits for various groups of temporary (contingent) workers and nonstandard employees. To assemble the required data, the February 1995 and March 1995 CPS files were matched. The former had the data from the contingent worker supplement while the latter had the annual data on unemployment and the receipt of UI benefits for the year 1994.

How important is temporary employment in the U.S. labor market? Two different impressions are generated by employment and unemployment data for these workers. The February 1995 employment estimate, 6.0 million under the broadest of the three contingent worker definitions, represented about 5.0 percent of employment. On the other hand, because these workers have high turnover they are much more important as a component of unemployment.

Since 1994 unemployment among workers whose temporary jobs have ended has been an explicit CPS unemployment category. The annual average of unemployment among these workers in 1996 was 0.689 million out of 7.236 million or 9.5 percent of the total. Unlike part-time workers and the self-employed, these persons experience unemployment rates that are considerably above-average. They may have a strong need for UI benefits.

Use of Outside Employees

Table 1 identified three groups of outside workers.[27] Combined, they represent the smallest total number of workers across the four major dimensions of nonstandard employment discussed at the start of this section. The total for the three (leased employees, contract workers and temporary help agency employees) probably did not exceed 3.5 million in 1996. Since the largest of the three groups (temporary

[27] This is a common short hand term used to distinguish permanent employees (inside employees) from those who work at a firm for a specific period or on a specific project or in a specialized area, e.g., computer support. The latter are the employees of another employer hence the term outside employees.

help agency employees) has already been discussed above, there is no need to give them added attention here.

The estimate of leased employment is not firm and merits further elaboration. Firms that supply labor services can supply both temporary help and leased employees. Numerically temporary help is the larger of the two groups. Whereas temporary help is usually a short term arrangement, leased employees (and contract workers) may work in jobs with client employers for several years. Leased employees are also more likely than temporary employees to be paid high wages. Detailed knowledge of their pay, fringe benefits and other aspects of their labor market experiences, however, is very limited.

Employee leasing companies are subject to regulation in several states through registration and bonding requirements.[28] There are also reporting requirements associated with the U.S. Department of Labor's ES 203 reporting of employer establishment data. Temporary help agencies are to report all employment in the personnel supply services industry regardless of where the employees are actually working. Leasing companies, on the other hand, are to (or are encouraged to) report the number of leased employees and the industry of each client employer using a multiple worksite report.[29] This report is intended to identify the industrial locus of leasing to provide more accurate estimates of industry employment and productivity.

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[28] See Cook and Brinsko (1997) for an analysis of employee leasing. They report results of a survey of reporting requirements in the states.

[29] This report has several lines, one for each client employer, one for permanent employees of leasing companies and an overall total. If reporting were complete in the multiple worksite reports, all leased employees could be assigned in a manner appropriate for measuring employment in each industry.

In practice, the multiple worksite report is not followed in many states. It is also likely that several companies that provide temporary employees also participate in leasing arrangements. If they report only as a temporary help agency, the result is an exaggerated estimate of temporary help agency employment and an underestimate of leased employment.

Because both leased employees and contract workers are often engaged in long term employment relationships with client employers, their unemployment and experiences with UI recipiency would be expected to be low. In contrast, temporary, contingent and on-call workers whose jobs do frequently end would be expected to experience much more unemployment given the temporary nature of their jobs. These presumptions were examined with matched CPS data from the February 1995 and March 1995 surveys.

Table 5 displays summary data on unemployment and receipt of UI benefits among workers classified by gender, age and the major categories of nonstandard employment. There are seven columns for nonstandard workers, i.e., one for each of three definitions of contingent employment utilized in the February 1995 CPS supplement and individual columns respectively for temporary help agency workers, on-call workers, contract workers and independent contractors. The initial column of the table summarizes work experiences for all persons who worked in 1994.[30]

The matched CPS files would be expected to identify three fourths of the February 1995 interviewees in March. In fact, the match rate actually achieved was 69 percent, not 75 percent. Thus the counts in Table 5 for the categories of nonstandard workers are 69 percent of the published totals appearing in articles from the Monthly Labor Review of October 1996. Table 5 reports weighted counts based on records that were successfully matched. To make aggregate estimates the estimates in Table 5 should be inflated by roughly the reciprocal of 0.69 or 1.45. However the data are used here primarily

[30] An additional 2,857,000 persons who looked for work but did not secure work in 1994 have not been included in the totals.

Table 5. Occurrences of Unemployment and Receipt of UI Benefits Among Nonstandard Workers

	Total Workers in 1994	Contingent Worker: Definition 1	Contingent Worker: Definition 2	Contingent Worker: Definition 3	Temp. Help Agency Worker	On-call Worker	Contract Worker	Independent Contractor
Women 16+								
Number of Workers	64,452	987	1237	2164	454	721	126	1894
Unemp. in 1994	6813	286	335	461	179	129	23	148
UI Benefits in 1994	1817	63	69	100	37	28	14	31
Prop. with Unemp.	0.106	0.289	0.271	0.213	0.394	0.178	0.181	0.078
Prop. with UI Ben.	0.267	0.221	0.206	0.217	0.206	0.217	0.620	0.212
Men 16+								
Number of Workers	73,132	910	1131	2014	393	711	316	3873
Unemp. in 1994	9296	280	366	514	158	252	82	350
UI Benefits in 1994	3057	118	164	227	49	130	49	60
Prop. with Unemp.	0.127	0.308	0.323	0.255	0.402	0.354	0.259	0.090
Prop. with UI Ben.	0.329	0.420	0.447	0.441	0.313	0.514	0.594	0.171
Total 16+								
Number of Workers	137,584	1897	2368	4178	848	1432	442	5767
Unemp. in 1994	16,109	566	701	975	337	381	105	498
UI Benefits in 1994	4874	181	233	327	86	158	63	91
Prop. with Unemp.	0.117	0.298	0.296	0.233	0.398	0.266	0.237	0.086
Prop. with UI Ben.	0.303	0.319	0.332	0.336	0.256	0.414	0.600	0.183
Total 16-24								
Number of Workers	23,083	779	869	1237	208	260	61	199
Unemp. in 1994	4626	180	201	273	86	68	17	34
UI Benefits in 1994	455	9	16	23	17	13	0	4
Prop. with Unemp.	0.200	0.231	0.232	0.220	0.412	0.263	0.281	0.173
Prop. with UI Ben.	0.098	0.052	0.080	0.084	0.202	0.184	0.000	0.107
Women 25+								
Number of Workers	53,407	562	768	1506	364	594	101	1819
Unemp. in 1994	4853	182	225	316	135	100	17	140
UI Benefits in 1994	1659	61	67	94	31	24	14	31
Prop. with Unemp.	0.091	0.324	0.293	0.210	0.371	0.168	0.171	0.077
Prop. with UI Ben.	0.342	0.335	0.298	0.299	0.228	0.245	0.820	0.224
Men 25+								
Number of Workers	61,093	556	731	1435	275	578	280	3749
Unemp. in 1994	6630	204	275	387	117	213	70	323
UI Benefits in 1994	2760	110	150	210	38	120	49	56
Prop. with Unemp.	0.109	0.366	0.376	0.269	0.423	0.368	0.251	0.086
Prop. with UI Ben.	0.416	0.541	0.544	0.543	0.329	0.566	0.692	0.174
Total 25+								
Number of Workers	114,501	1118	1498	2941	639	1172	381	5568
Unemp. in 1994	11,483	386	500	702	252	312	87	463
UI Benefits in 1994	4419	171	217	304	69	145	63	87
Prop. with Unemp.	0.100	0.345	0.334	0.239	0.394	0.266	0.230	0.083
Prop. with UI Ben.	0.385	0.444	0.433	0.433	0.275	0.464	0.718	0.189

Source: Totals from the March 1995 CPS. Other data from merged February-March 1995 CPS files. Data in thousands.

to show proportions with unemployment and proportions receiving UI benefits. These proportions would not change if the data were reweighted.

Among all persons who worked sometime during 1994, 0.117 experienced unemployment sometime during the year. The proportions were higher for part-time workers than for full-time workers (0.152 versus 0.107).[31] Overall the UI recipiency proportion among these workers was 0.303 in 1994 and the respective proportions for men and women were 0.329 and 0.267.

Compared to the overall averages for 1994, the nonstandard workers in Table 5 had generally much higher proportions with unemployment and highly varied rates of receiving UI benefits. Under the three definitions of contingent workers, Table 5 shows the proportions with unemployment were nearly 0.30 for definitions 1 and 2 and 0.23 for definition 3. Temporary help agency workers had the highest proportions with unemployment (0.398 among all men and women 16 and older). On-call workers
and contract workers also had high proportions with unemployment (0.266 and 0.237 respectively). Only independent contractors had below-average proportions with unemployment (0.086).

High proportions with unemployment were also observed among most classes of nonstandard workers aged 25 and older. Only independent contractors had an unemployment proportion below the overall average for persons 25 and older (0.083 versus the overall average of 0.100). All others in Table 5 had unemployment proportions that were at least twice the overall average while three groups had rates at least three times the overall average.

On average, contingent workers with unemployment (all three definitions) received UI benefits at about the same rate as the average for persons with unemployment in 1994. Their recipiency proportions, all in the 0.32-0.34 range, were about 10 percent above the overall average of 0.303. The highest rate of receipt of UI

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[31] The part-time and full-time proportions are not shown in Table 5.

benefits was observed among contract workers (0.600) while independent contractors and temporary help agency employees had below-average recipiency rates. The fact that 0.183 of independent contractors reported receiving UI benefits again points up the limited commitment to self-employment of some of these workers.

For most groups of nonstandard employees, women with unemployment were less likely to receive UI benefits than men. The differences in the recipiency proportions are large for all three definitions of contingent workers as well as for temporary help agency workers and on-call workers. These gender differences are observed among adults 25 and older as well as all persons 16 and older. For all three definitions of contingent workers the recipiency proportion for adult women is only about 60 percent of the proportion for adult men.[32] Only among contract workers was the proportion higher for adult women than for men.

Recall that the underlying counts of workers in the nonstandard employment categories are reasonably small and successively smaller for those with unemployment and for UI beneficiaries. No attempt has been made to test the statistical significance of the observed differences, but among contingent workers the gender differences probably are significant.

To summarize, it appears there could be problems of UI coverage for contingent workers and temporary help agency workers. Both experienced very high unemployment proportions during 1994 and UI recipiency rates that were close to the national average of 0.303. For temporary help agency workers, in particular, high unemployment coupled with low UI recipiency continues into adulthood.

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[32] For example, under the first (narrowest) definition of contingent worker the adult women’s proportion was 0.335 compared to 0.541 for men.

Nonstandard Employment: Summary

Four dimensions of nonstandard employment have been identified and discussed. For each there was an analysis of prevalence, occurrences of unemployment and receipt of UI benefits. Part-time work and self-employment are the largest of the nonstandard employment categories. For adult part-time workers and the self-employed unemployment rates were below the average for all adults. The likelihood of adult part-timers 25 or older receiving UI benefits was roughly half of that of full-time workers. The self-employed who are not covered by UI laws nevertheless had UI recipiency rates similar to those of part-time workers in CPS data. Apparently a sizeable fraction of the self-employed also have jobs as wage and salary workers.

Temporary (contingent) workers experience high rates of unemployment. They have an average likelihood of receiving UI benefits. Below-average recipiency rates were observed for employees of temporary help agencies. Their lower rate of benefit receipt was even more pronounced among adults, i.e., 0.275 versus 0.385 for persons aged 25 and older.

Thus if access to UI benefits is to be increased among workers with nonstandard employment arrangements, changing eligibility provisions relevant to part-timers and contingent workers would be most important. For part-time workers, one could consider changing the availability requirement of UI to be availability for a job with hours equal to those of the previous part-time job (as opposed to availability for full time employment). For temporary help agency employees, the definition of suitable work offered by the temporary agency following the end of a temporary assignment needs to be monitored. The concept of suitable work is especially difficult for temporary help agency employees. After one temporary assignment ends, these agencies should be monitored to ensure that they do not offer jobs with very low pay and then claim that such jobs represent “suitable” work.

Even if access to UI benefits among nonstandard workers is substantially increased, overall UI recipiency would be increased rather modestly. Estimates derived here suggested that the aggregate IUTU ratio would increase by roughly 0.06 or by about 18 percent. Of the total increase the bulk would arise from increased access among part-time workers (roughly 0.05) and the remainder among temporary (contingent) workers. If an increase of this scale were to occur, it would still mean that less than 40 percent of the unemployed would be active UI claimants.

It is also instructive to speculate directly on the effect of growth in nonstandard employment on the IUTU ratio. Growth in the largest of these arrangements, i.e., part-time employment, was most rapid in the period between 1950 and 1975. Thus part-time employment, suggesting that the growth in part-time employment did not contribute to the declining IUTU in the 1980s. growth may have contributed to the decline in IUTU during the 1960s. However, the decline of IUTU at the start of the 1980s post-dated the period of most rapid growth in part-time employment. As noted in Table 2, part-time work has grown at about the same pace as overall employment growth since the mid 1970s. While an increasing share of younger workers work part time (recall Chart 2), this age group has traditionally had low UI recipiency.[33] Thus, the growth in non-standard employment had little relationship to the decrease in IUTU.

Self-employment’s share of total employment declined between 1950 and 1970, spanning the earlier of the two periods when UI recipiency declined (the early-to-mid 1960s). Since 1970,self-employment growth has been similar to total employment growth.

There are no long term time series showing the aggregate levels of temporary (or contingent) employment. The data exist only for one category, employees of temporary help agencies. While temporary help agency employment has grown sharply since 1972, the total as of 1996 was between 1.2 million and 2.0 million. This is simply too small a

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[33] The receipt of UI by age is examined in Section III.

total to have a measurable effect on the long term trend in the IUTU ratio. Employer direct hires of temporary workers account for more temporary employment than the use of temporary help agency workers, but the total across all categories of temporary employment did not exceed 5 percent of total employment in February 1995. While this broad group of workers does experience above-average unemployment (nearly 10 percent of the total in the regular monthly CPS summaries), there is no direct way to estimate the effect of their growth on the aggregate IUTU ratio.

More generally, all of the nonstandard employment arrangements have exhibited measured patterns of employment growth. Probably the most important effects on the IUTU ratio have been associated with growth in part-time and temporary employment. Because temporary employment arrangements have only been subjected to systematic measurement in recent years, however, there is no reliable way to assess their individual contribution to the long term decline in the IUTU ratio.

III. Other Dimensions of UI Recipiency

This section explores three other aspects of UI recipiency: 1) demographic characteristics, 2) reason and duration of unemployment and 3) geographic variation. For all three, there are vivid contrasts in the receipt of benefits when workers are arranged into sub-groupings.

IUTU Ratios for Standard Recipient Characteristics

Table 6 displays breakdowns of IU and TU for 1996 according to five standard reporting dimensions from the “Characteristics of the Insured Unemployment” reports. For both IU and TU the data are annual averages. The table shows where receipt is high and low relative to the national average which was 0.351 in 1996. The IU data have been adjusted to exclude Puerto Rico and the Virgin Islands. The national

Table 6. UI Recipiency in 1996 by Age, Gender, Race, Industry and Occupation

	Reported IU	Adjusted IU	Reported TU	Adjusted TU	IUTU
Total	2571.1	2540.6	7236		0.351
Age					
16-24	266.2	271.9	2545		0.107
25-34	696.7	711.7	1757		0.405
35-44	724.6	740.2	1505		0.492
45-54	482.8	493.2	883		0.559
55-64	258.0	263.5	407		0.648
65+	58.9	60.2	139		0.433
INA	84.0				
Gender					
Women	1043.9	1065.2	3356		0.317
Men	1446.0	1475.4	3880		0.380
INA	80.0				
Race/Ethnicity					
White/NH	1616.0	1672.3	5300	4281	0.391
Black/NH	359.4	371.9	1592	1501	0.248
Other/NH	126.7	131.1	344	322	0.407
Hispanic	353.0	365.3	1132	1132	0.323
Unkn.	115.4				
Industry					
Mining	18.0	20.5	30		0.682
Con.	334.2	380.0	666		0.571
Mfg.	539.9	613.9	1013		0.606
Trans	113.1	128.6	291		0.442
Trade	429.4	488.3	1679		0.291
Finance	92.6	105.3	201		0.524
Services	619.6	704.6	1751		0.402
Ag.- Wg.&Sal			213		
Govt./Self-Emp.	87.4	99.4	813		0.122
Other	164.6				
INA	172.3				
No Prior Work			580		
Occupation					
Pro./Tech./Mgr.	416.5	495.9	983		0.504
Clerical/Sales	470.5	560.1	1653		0.339
Services	226.3	269.4	1334		0.202
Ag./For./Fish.	102.8	122.4	293		0.418
Industrial	917.9	1092.8	2365		0.462
INA	437.1				
No Prior Work			580		

Source: Data from UI Service and BLS. Unemployment in thousands.

total for IU agrees with the preliminary total from the “Handbook.” The data on TU are the annual averages from Employment and Earnings of January 1997.

For both IU and TU there are columns of adjusted and unadjusted data. The adjusted numbers for IU spread the INAs across the other reported categories to yield totals of 2,540,600. The TU data are mostly as reported but with an adjustment for race/ethnicity reporting. The UI system records race/ethnicity with Hispanic as a separate category along with non-Hispanic whites, blacks and others (largely Asians). The CPS does race separately from Hispanic. Hence the original CPS race responses have been adjusted by removing from white, black and other an estimate of the number of Hispanics included in these categories. Most Hispanics are white so the biggest changes are to reduce the TU estimate of white unemployment.

The IUTU ratios are based on the fields that are in brackets. Briefly, Table 6 shows results according to five dimensions of UI reporting.

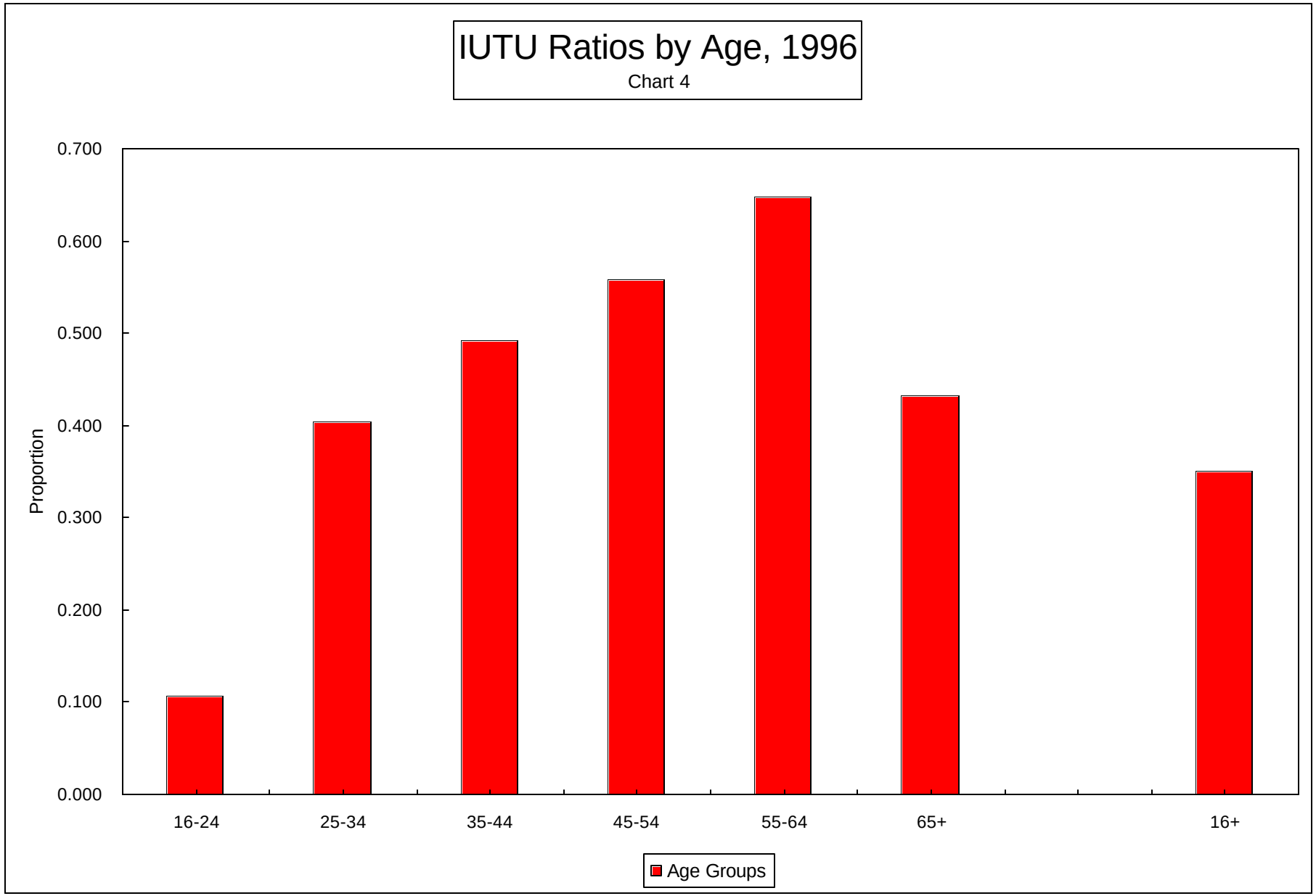
Age

Recipiency was low among those under 24, and then above-average for each of the older age groups. Recipiency increases among all subsequent age groups from 16-24 through 55-64. From ages 35-44 and older the average IUTU ratio was 0.5 or higher in 1996. Chart 4 displays IUTU ratios for the ten year age groups.

Gender

Unemployed women receive UI benefits less often than men when measured as a proportion of the unemployed. During 1996 the IUTU gender differential was 0.063 (0.380 - 0.317) or 17 percent.

Recipiency among women has increased relative to recipiency among men, but the explanation for the convergence is that male recipiency has declined while women’s recipiency has remained more or less stable. The trend in women’s relative UI recipiency can be traced back to 1967. In that year the IUTU ratio was 0.337 for women and 0.449 for men. The difference in these proportions of 0.112 represented a 25 percent lower recipiency rate for women. In 1977 the



Source: Data from the UI Service and BLS

IUTU ratio was 0.432 for men compared to 0.301 for women implying a 30 percent lower rate for women. Thus compared to 20 and 30 years previously, the IUTU ratio for women has moved closer to parity. However the men's ratio had declined much more than the women's ratio had increased. In fact, the 1967 ratio for women (0.337) was higher than the 1996 ratio (0.317).

A sizeable share of the gender differential is related to the higher proportion of women who work part time. Policy interventions to increase recipiency among women probably need to focus on nonmonetary determinations. Most part-time women work enough to meet monetary eligibility in the states. (Average weeks worked total about 40 among adults and hours per week average about 21 in recent years.) It would seem to be especially important to consider modifying the requirement to be searching for a full-time job. The gender differential in the IUTU ratio would probably be much lower if unemployed women were not required to search for full-time jobs as is the present practice in most states.

Race/Ethnicity

Lowest recipiency is observed among blacks. Some of the differential is probably linked to geographic concentration of black unemployment in the South which still has about half of the total black population in the U.S. and systematically below-average IU-TU ratios.[34]

Hispanic recipiency is also below-average, but not as much as black recipiency. It would be instructive to examine Hispanics in California, Texas and Florida, three states that account for more than half of the U.S. Hispanic population. California is generally a high recipiency state (its IUTU ratio is above average) while Texas and Florida have low IUTU ratios.

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[34] Geographic differences in the receipt of UI benefits are examined later in this section.

Industry

Trade (wholesale plus retail) is the only industry with below-average recipiency in Table 6. However, there are problems in matching CPS industry codes with IU industry codes. I have not examined this question in detail but the fact that Services has an above-average recipiency rate (0.402 versus 0.351) suggests the problem is probably substantial.

Occupation

Of the five broad occupations identified in Table 6 only services has very low recipiency while even clerical/sales is close to average. If eligibility among low wage workers were increased, recipiency in both of these occupations would be expected to increase the most.

The high recipiency among industrial occupations (0.462) is at least partly due to unionization. Several researchers have suggested that the decline in unionization is linked to the long run decline in the IUTU ratio.

Displaced workers are probably highly represented in both the Industrial and Pro./Tech./Mgr. occupations of Table 6.

Recipiency by Reason and Duration of Unemployment

The standard CPS labor force questions distinguish reason for unemployment among the jobless seeking work. Since 1967 there have been four major categories: job losers, job leavers, labor force reentrants and new entrants into the labor force. The first two categories identify the reason for leaving the last job distinguishing employer-initiated (job losers) from worker- initiated separations (job leavers). Job losers are usually eligible for UI benefits while job leavers are typically subjected to either a disqualification for a fixed number of weeks or a disqualification of indefinite duration which lasts until the current spell of unemployment ends.

New entrants have never worked before and therefore are not relevant to discussions of UI eligibility. Reentrants, however, have

worked in the past and were either job losers or job leavers from that prior job. However, the CPS questions asked of reentrants focus on their recent period outside the labor force and do not ascertain the reason for leaving the last job. Each unemployed reentrant is either a job loser or a job leaver, but this is not determined by the CPS questions. Among reentrants, the time out of the labor force is often of rather short duration. In 1996, for example, 60 percent of men who were unemployed reentrants and 50 percent of women had worked within the past twelve months. Thus many would have recent earnings and would be monetarily eligible for UI benefits.

The CPS revisions effective in 1994 made a further distinction regarding the reason for unemployment that is relevant for this report. Traditionally, job losers were classified as either on temporary layoff or permanently separated from the past job. Starting in 1994, the new category was persons unemployed because they had completed a temporary job.

Thus the CPS allows one to distinguish six distinct groups among the unemployed. The individual categories and their annual averages in 1996 were as follows: job losers on temporary layoff (1,021,000), permanent job losers (1,660,000), persons who completed temporary jobs (689,000), job leavers (774,000), reentrants (2,512,000) and new entrants (580,000). As noted previously, those who lost temporary jobs accounted for 9.5 percent of unemployment in 1996. Observe also that job leavers and reentrants totaled nearly as many as the three categories of employer-initiated unemployment (3,286,000 versus 3,370,000).[35] In summary, while job losers are traditionally thought of as recipients of UI benefits, there were nearly as many unemployed reentrants plus job leavers in 1996, many of whom would satisfy at least the monetary eligibility criteria of UI programs.

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[35] Note that 1996 was a year of full employment. In a recessionary year the job losers would greatly exceed the number of unemployed job leavers and reentrants.

The CPS does not routinely ask questions about receipt of UI benefits in the monthly survey. However, there have been three special surveys conducted in conjunction with the regular monthly survey. These were held in 1976, 1989 and in 1993.[36] Information from these surveys is displayed in Table 7.

Table 7 focuses on reported receipt of UI benefits among unemployed workers classified by reason for unemployment, gender and unemployment duration. Recipiency increases sharply with duration. For both men and women job losers are much more likely to report benefits than job leavers and reentrants. However, note that measurable numbers of job leavers and reentrants did report receipt of benefits in each of the three years.

Perhaps the most interesting information in Table 7 is the change in benefit recipiency after 1976. For all six groups, UI recipiency was highest in 1976 and lowest in 1989. Moving across the duration distributions of each line, there is a clear tendency for recipiency to increase as duration lengthens.

Since 1976 and 1993 were both years of quite high unemployment, comparisons of data from these two years are particularly interesting.[37] Note that the beneficiary proportions for job losers were about 20 percent lower in 1993 than in 1976. For both job leavers and reentrants, however, the 1993 proportions were from 30 to 60 percent lower in 1993. Thus while recipiency has always been highest for job leavers, the proportional declines between 1976 and 1993 were larger for both job leavers and reentrants.

There are several reasons why UI receipt was quite high in 1976

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[36] See Rosenfeld (1977), Vroman (1991) and Horvath (1996) for analyses of these CPS surveys. The 1976 data were collected in May of that year. The 1989 data were collected in four months: May, August and November 1989 and February 1990. The 1993 surveys were conducted in February, June, August and November.

[37] The annual unemployment rates were as follows: 1976 - 7.7 percent, 1989 - 5.3 percent and 1993 - 6.9 percent.

Table 7. Probability of Receiving UI Benefits by Gender, Reason for Unemployment and Unemployment Duration

	Unemployment Duration (weeks)					
	1-2	3-4	5-10	11-26	27+	Total
Panel 1 - Job Losers - Women 16+						
1976	0.324	0.444	0.619	0.717	0.816	0.636
1989	0.074	0.327	0.472	0.544	0.560	0.392
1993	0.139	0.283	0.472	0.610	0.716	0.498
Panel 2 - Job Losers - Men 16+						
1976	0.287	0.421	0.653	0.771	0.767	0.639
1989	0.100	0.268	0.492	0.548	0.530	0.396
1993	0.075	0.273	0.600	0.622	0.656	0.511
Panel 3 - Job Leavers - Women 16+						
1976	0.167	0.065	0.130	0.536	0.675	0.310
1989	0.010	0.075	0.084	0.138	0.021	0.062
1993	0.006	0.021	0.007	0.298	a	0.110
Panel 4 - Job Leavers - Men 16+						
1976	0.033	0.132	0.289	0.529	0.583	0.318
1989	0.007	0.046	0.117	0.106	0.116	0.062
1993	0.032	0.144	0.018	0.235	0.374	0.153
Panel 5 - Reentrants - Women 16+						
1976	0.100	0.109	0.198	0.136	0.299	0.146
1989	0.030	0.091	0.104	0.107	0.182	0.085
1993	0.053	0.061	0.117	0.135	0.215	0.104
Panel 6 - Reentrants - Men 16+						
1976	0.105	0.190	0.246	0.333	0.333	0.251
1989	0.025	0.085	0.107	0.045	0.230	0.084
1993	0.015	0.054	0.177	0.243	0.139	0.122

Source: Special supplements to the CPS conducted in 1976, 1989 and 1993.
a - Cell did not meet BLS publication criteria.

that extend beyond the regular UI program.[38] However, Table 7 strongly suggests that benefit availability since 1976 has been reduced more for job leavers and reentrants than for job losers.

One likely explanation for this change has been the increasing use of durational disqualifications for persons who voluntarily leave employment. In about half UI programs, good personal reasons for leaving employment are not recognized as compensable. Fixed length disqualifications have been increasingly replaced by durational disqualifications. This change probably has strong implications for recipiency among reentrants as well as job leavers since many reentrants probably left their last jobs (as opposed to being laid off).

The new category of unemployment among people whose temporary jobs have ended is particularly interesting for the present report. Unfortunately the CPS revisions that added this category occurred after the last of the special surveys included in Table 7. If one of these special surveys were to be repeated, however, it would then be possible to examine UI recipiency among those who previously held temporary jobs.

Three final observations about receipt by reason for unemployment should be made. First, it appears that part of the explanation for the decrease in the IUTU ratio since 1976 is reduced receipt among job leavers and reentrants. This may be linked to the increased prevalence of durational disqualifications for job leaving. Second, there is no UI data source that fully reflects reason for unemployment. Data from the BQC (Benefits Quality Control or BAM as it is now termed) investigations are incomplete on this issue. While BQC data can show weeks compensated for persons who are on layoff/RIF, voluntary quits and discharges, they do not show persons

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[38] The May 1976 survey did not distinguish which UI programs were the source of the benefit payments. In 1976 extended benefits were still being paid in most states (both federal-state Extended Benefits and federally financed Federal Supplemental Benefits). Additionally, Special Unemployment Assistance was also available in that year.

who do not apply cross classified by their reason for leaving employment. Thus they lack the denominator which would be important for assessing application rates and recipiency rates by reason for unemployment. Third, the CPS does not effectively gather information on persons discharged for misconduct. Hardly any respondent in the CPS volunteers this as the reason for the job separation. Thus the CPS also has limitations for assessing reason for unemployment.

Recipiency by Geographic Area

Receipt of UI benefits is highly variable across the U.S., a situation that has persisted since regional measures of total unemployment first were consistently available in 1967. Table 8 provides a summary for four separate years (1967, 1977, 1987 and 1996) and averages for the thirty years 1967 to 1996. To keep the detail manageable, the table shows IUTU ratios for the nine Census Divisions and for the thirteen largest states (selected on the basis of UI taxable covered employment in 1996).

Table 8 vividly illustrates that UI recipiency is highest in the North East and Pacific Coast and lowest in the three divisions of the South and the Mountain division. In 1996, New England and the Mid-Atlantic divisions had especially high recipiency while the South Atlantic and West South Central divisions had especially low recipiency. The full range of IUTU ratios across the nine census divisions in 1996 was almost two to one, 0.468 in New England versus 0.236 in the West South Central.

The table makes a stronger point about geographic variability. The patterns by census division are not unusual in 1996. Similar patterns were also present in 1967, 1977 and 1987.

A convenient overall summary of recipiency by census division is provided by the thirty year (1967-1996) averages in Table 8. Again there is roughly a two to one ratio between the highest IUTU average (0.491 in New England) and the lowest average (0.241 in the West South Central).

Table 8. UI Recipiency by Geographic Area, 1967 to 1996

	1967	1977	1987	1996	1967-96 Average
Census Division					
North East					
New England	0.680	0.422	0.445	0.468	0.491
Mid Atlantic	0.550	0.434	0.419	0.441	0.467
Midwest					
East North Central	0.353	0.402	0.292	0.380	0.354
West North Central	0.389	0.400	0.300	0.325	0.372
South					
South Atlantic	0.253	0.280	0.226	0.266	0.270
East South Central	0.351	0.342	0.231	0.312	0.315
West South Central	0.215	0.251	0.229	0.236	0.241
West					
Mountain	0.329	0.300	0.262	0.264	0.299
Pacific	0.451	0.395	0.416	0.407	0.419
U.S. Total	0.393	0.370	0.305	0.350	0.363
Thirteen Largest States					
Massachusetts - NEng.	0.747	0.387	0.538	0.511	0.515
New York - MAtl	0.613	0.394	0.414	0.390	0.450
New Jersey - MAtl	0.562	0.393	0.445	0.433	0.492
Pennsylvania - MAtl	0.445	0.535	0.414	0.535	0.480
Illinois - ENC	0.332	0.502	0.285	0.402	0.379
Michigan - ENC	0.448	0.410	0.329	0.423	0.382
Ohio - ENC	0.286	0.325	0.283	0.303	0.311
Florida - SAtl	0.202	0.254	0.166	0.248	0.225
Georgia - SAtl	0.261	0.259	0.244	0.226	0.260
North Carolina - SAtl	0.305	0.311	0.287	0.327	0.317
Vrginia - SAtl	0.159	0.220	0.165	0.187	0.192
Texas - WSC	0.167	0.179	0.211	0.222	0.199
California - Pac	0.449	0.373	0.428	0.393	0.411

Source: Data from the UI Service and BLS. Unemployment in thousands.

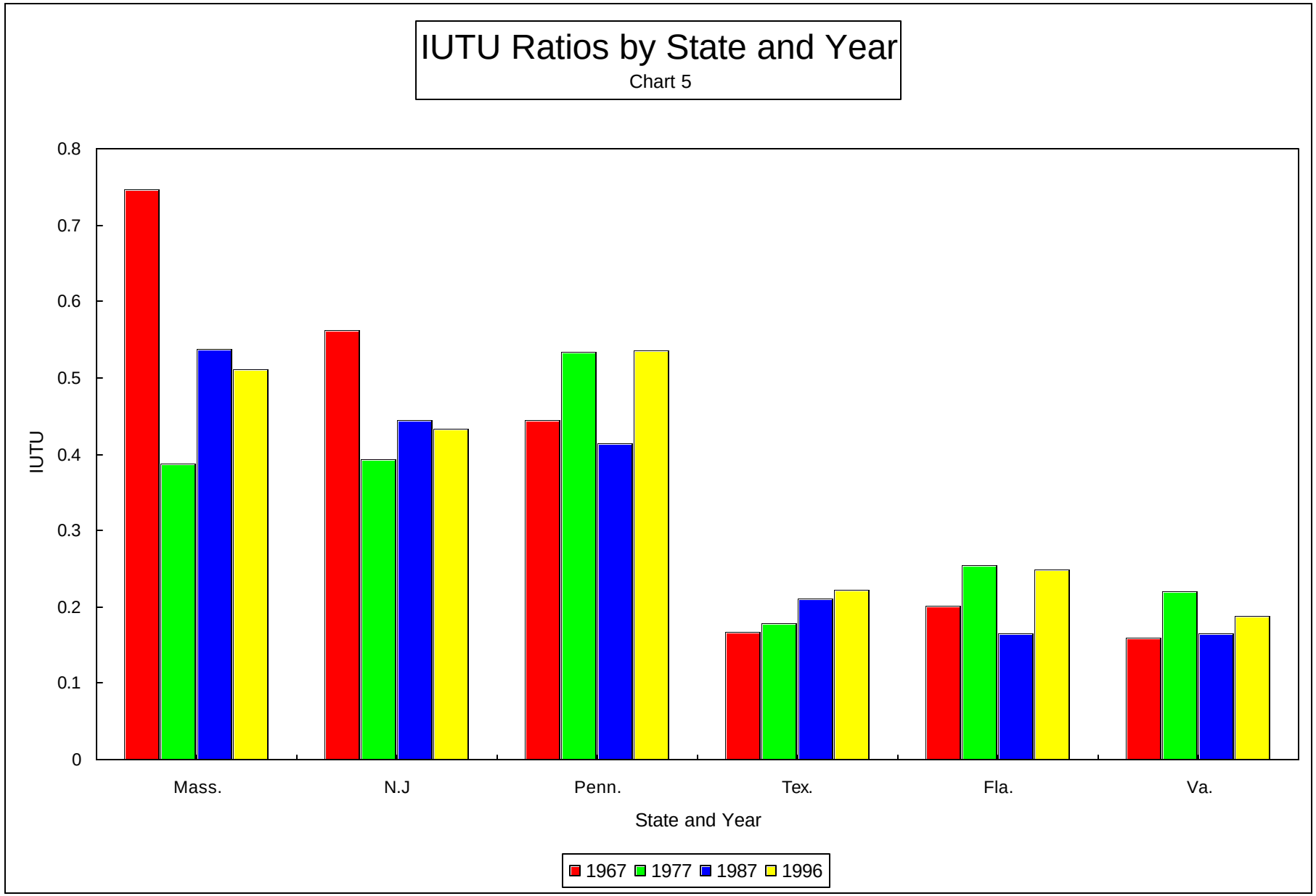
The preceding observations about variable recipiency are reinforced with the state level detail for the thirteen largest states included in Table 8. The thirteen states combined represented 61 percent of taxable covered employment in 1996. Thus the variation in recipiency for these states carries aggregate significance for the system of unemployment insurance as a whole.

A two to one ratio is also observed in the state data. In 1996 IUTU exceeded 0.500 in Massachusetts and Pennsylvania but fell below 0.250 in Florida, Texas and Virginia. The thirty year averages further emphasize that the variation is a persistent year to year phenomenon, not an aberration of one or a few years.

Chart 5 illustrates the same point with data from six states: the three with the highest IUTU averages from Table 8 and the three with the lowest averages. The UI programs differ systematically in the access afforded to unemployed workers. It is much harder to collect in the South and in Rocky Mountain states than elsewhere in the country.

Differential access to UI benefits by geographic area, as shown in Table 8 and Chart 5, has implications for the downtrend in the national IUTU ratio. This question was examined previously by Blank and Card (1991), Corson and Nicholson (1988) and Vroman (1991). All three studies attribute part of the long run decrease in the IUTU ratio to above-average labor force growth in states where the IUTU ratio falls below the national average.

Between 1967 and 1996 the share of the U.S. labor force located in the nine states of the North East decreased from 0.247 to 0.191 while the share located in the South increased from 0.298 to 0.346. To estimate the effects of this change, the IUTU ratio for 1996 (0.3501) was recalculated using each state’s share of total unemployment as of 1967. The recomputed IUTU ratio was 0.3608. Of the total decrease in the national ratio of 0.0433 (from 0.3934 in 1967 to 0.3501 in 1996), 0.0326 represented the effect of generally lower state-level IUTU ratios in 1996 and 0.0107 was the effect of changing unemployment weights in the individual states. This calculation



Source: Data from the UI Service and BLS

suggests that had all states maintained their 1967 labor force shares, the national ratio in 1996 would have been 0.3608 not 0.3501. Roughly one fourth of the decrease in the national IUTU ratio between 1967 and 1996 was related to faster labor force growth in states where IUTU ratios were lower than the national average.

If access to UI is to be improved it would seem that states with low recipiency should be evaluated to better understand why so few of their unemployed collect UI benefits year after year.

IV. Welfare Reform and Unemployment Insurance

One goal of welfare reform is to move larger numbers of welfare recipients into the workforce. If the aims of the 1996 federal welfare reform legislation are achieved, by 1998 more than a quarter of the roughly 4 million adults who received Aid to Families with Dependent Children (AFDC) will be active labor market participants, and half are slated to join the workforce by 2002. Many, if not most, will no longer be receiving welfare benefits at that time.[39]

Low education and lack of work skills and experience put current and former welfare recipients at special risk of unemployment. The national unemployment rate for persons 16 and older averaged only 4.9 percent in 1997, but former welfare recipients can be expected to have high jobless rates, perhaps twice the national average.[40]

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[39] AFDC was eliminated by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act. In discussing welfare benefits in 1997 and beyond, reference should be made to AFDC's successor program--Temporary Assistance to Needy Families (TANF).

[40] Assumptions made about the future work patterns of former welfare recipients are based on studies of the employment patterns of low-wage workers and women who received welfare in the past. Four examples of this literature are Gustafson and Levine(1997), Kaye (1997), Spalter-Roth, Hartmann and Burr(1994) and Vroman(1995).

Nonetheless, the anticipated increase in the unemployment pool resulting from welfare reform will be modest. Under current UI program eligibility criteria only a small fraction of adult welfare recipients who enter the labor market will be eligible for unemployment insurance benefits. The pressure they will put on the UI delivery system in terms of added costs and increased caseload will be small. Moreover, in the near term neither federal nor state laws governing unemployment insurance are likely to change in ways that will enhance access to unemployment benefits for unemployed former welfare recipients.

Relative to the current pool of jobless workers, unemployed welfare recipients would be less likely to receive UI benefits for three reasons. First, many will find it difficult to satisfy UI's monetary eligibility criteria, which most adversely affect workers paid low hourly wages. In absolute numbers, the monetary eligibility requirements are not stringent, especially for full-time workers earning average or above average wages. Kansas, for example, whose earnings requirements were close to the national average, required base period earnings of $2,010 in 1997 to satisfy monetary eligibility. Based on that state's average weekly wage of roughly $483, applicants would only have to have worked 4.2 weeks at the average weekly wage in order to satisfy Kansas's UI monetary requirement.

However, due to low wage rates and part-time work schedules, former welfare recipients in Kansas (and elsewhere) are not likely to earn the average weekly wage rate. If a single mother formerly on AFDC in Kansas makes, say, only $103 working 20 hours a week at the minimum wage ($5.15), she would have to have worked 19.5 weeks to qualify for UI, in contrast to the 4.2 weeks for the worker receiving the average weekly wage.

The definition of the base period for determining earnings eligibility is also likely to reduce this population's access to unemployment benefits. In nearly all states, the base period is the earliest four of the past five fully completed calendar quarters. To be monetarily eligible for UI, claimants in most states must have earned more than a specified amount for the full base period and a second amount for the quarter of highest earnings during the base period.[41] Most states do not recognize recent earnings--from the quarter when the UI claim is filed and from the full preceding calendar quarter--in determining monetary eligibility. This often makes it difficult for low-wage workers who are paid on an hourly basis and who work intermittently--both categories that apply to former AFDC recipients--to meet the earnings required for UI eligibility.

Empirical analyses of the earnings patterns of former welfare recipients support the preceding. Using data from the National Longitudinal Survey for Youth (NLSY), Gustafson and Levine(1997) found that 54 percent women who were former welfare recipients during the years 1979-1994 were monetarily eligible. Kaye(1997), also using the NLSY, estimated monetary eligibility to be 36 percent for such women. Spalter-Roth, Hartmann and Burr(1994) also examined the work patterns of former welfare mothers using the Survey of Income and Program Participation (SIPP). While they did not try to estimate monetary eligibility, they did document the low earnings and low receipt of UI benefits among such women.

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[41] Base period earnings requirements vary quite widely across states. The dollar thresholds also vary considerably for high quarter earnings. Additionally, there may be requirements that specify a minimum weeks of employment, minimum hours worked or other patterns for earnings beyond the base period and the high quarter. About one third of UI programs have one of these additional monetary eligibility requirements.

The second factor inhibiting former welfare recipients' receipt of UI benefits is related to the reasons for leaving work. Quits and discharges for misconduct typically disqualify applicants for unemployment benefits. The majority of former AFDC recipients are single mothers who have family responsibilities that are likely to cause above-average rates of separation from work for reasons that will be deemed disqualifying. Fewer than half of states recognize personal reasons for leaving employment such as to take care of illness in the family, and allow benefit payments when the person later seeks reemployment. The estimates of nonmonetary eligibility by Gustafson and Levine(1997) found that quits were important among these women and contributed to low simulated UI eligibility.

Third, all states require a UI applicant be available for work and many mandate that she or he seek full-time work. Given the purpose of welfare legislation, it is not unreasonable to expect that work search efforts among former AFDC recipients will be monitored more closely than those among other UI claimants--a scenario that could lead to higher disqualification rates among former welfare recipients.

Due to their inability to satisfy monetary or other UI eligibility criteria, it seems probable that no more than 20 percent of former welfare recipients who experience unemployment would be expected to be eligible for unemployment benefits. Moreover, the per case cost for these eligibles is likely to be 40 to 50 percent lower than the costs for current UI recipients. This is because low base period earnings would limit both their weekly benefit amount and weeks of potential benefit duration.[42]

Assuming that welfare reform added a weekly average of 1 million persons to the labor force in 1998 and the former welfare recipients had an unemployment rate to 10 percent, the total number

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[42] UI benefit formulas in most states operate to limit potential benefit duration for low wage workers to considerably fewer than 26 weeks, often less than 20 weeks.

of unemployed individuals nationwide would increase by 100,000.[43] If 20 percent of former welfare recipients receive UI benefits and have a per-case cost that is half the national average, in 1998 UI beneficiaries would increase by about 20,000 persons and costs by about $100 million (in 1996 dollars). This would represent a 0.8 percent increase over 1996 UI caseloads and a 0.5 percent addition to total benefit costs. In the year 2002 both percentages would be doubled, assuming that, by then, 50 percent of former AFDC recipients had joined the labor force and that the unemployment rate for adult welfare recipients was about 10 percent, or twice the national average. These added costs are modest, and would be even lower if the McMurrer, Sawhill and Lerman(1997) estimates of added labor force growth are correct.

Existing factors that limit low-paid, hourly workers' access to UI are set by laws that are unlikely to relax in the current economic and political climate. Individual states determine most legislation governing UI benefits and taxes. Faced with prospective new UI claimants due to welfare reform, one might expect state-level legislation to ease the transition into the labor market for AFDC recipients. But UI legislation to assist such persons did not emerge in 1997,[44] nor does it appear to be the horizon. Moreover, current state and federal laws that severely curtail the number of low-wage workers (and thus former welfare recipients) eligible to receive

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[43] Estimates of annual additions to the labor force caused by welfare reform made by McMurrer, Sawhill and Lerman(1997)are considerably lower, about 140,000 per year. Their estimates imply an increased labor force of about 300,000 in 1998 and somewhat less than 1,000,000 in 2002 due to welfare reform.

[44] State legislation in 1997 is summarized in Runner(1998). Of the state laws affecting benefits, only three changes would increase access among low wage workers. North Carolina instituted an alternative base period. In other states low wage workers have benefited disproportionately from he alternative base period. See Vroman(1995). Minnesota eliminated a requirement for 15 weeks of employment in the base period and reduced the disqualification for voluntary leaving. Louisiana also reduced the disqualification for voluntary leaving.

unemployment are not likely to change soon in ways that will broaden this population's access to UI benefits.

One area of increased eligibility that has been shown to benefit low wage workers is offering an alternative base period. For those monetarily ineligible under the regular base period (typically the earliest four of the past five completed quarters), the alternative base period recognizes more recent earnings. In 1998, eight states offer an alternative base period determination to otherwise monetarily ineligible claimants. The overriding of the Pennington decision by 1997 federal legislation, however, means that increased access to benefits through the alternative base period can be achieved at the present time only through legislation enacted on a state by state basis. It seems highly likely that only a limited number of additional states will provide increased access to UI benefits through this route.

To summarize, welfare reform has small financial implications for UI programs. Unless some major changes in eligibility criteria are made, very few former welfare recipients will collect UI benefits while they are unemployed. Research completed to date has reached consistent findings on the limited access to UI benefits among former welfare recipients. If benefit recipiency among former welfare recipients is to be raised appreciably, it will require changes in nonmonetary as well as monetary qualification requirements. Two changes that would be especially helpful to these persons would be for states to offer an alternative base period for monetary determinations and to allow payment of benefits to persons searching for part-time work. Both eligibility criteria fall under state control.

V. Trust Fund Adequacy

State trust funds as the source for benefit payments are a key feature of UI program financing. Trust fund financing allows UI programs to pay out much more in benefits than their receipts of UI payroll taxes during recessions. This feature enables UI programs to operate as automatic stabilizers of economic activity. Trust fund balances automatically decrease during recessions and are rebuilt during subsequent economic expansions. The UI system is often described with terms such as advance funding, pre-funding or forward funding.

In the recession of 1974-1975 and again during the back to back recessions of 1980 and 1981-1982 trust fund balances were not adequate to meet needs for UI benefit payments and states had to borrow substantial sums to meet payment obligations. Borrowing by 24 state programs totaled $5.5 billion during 1974-1979 while 31 programs borrowed $24.2 billion during 1980-1987.

Compared to the recessions of the mid 1970s and the early 1980s, the states fared much better during the most recent recession which started in 1990. Borrowing during 1991-1995 totaled just $4.8 billion and only seven state programs required loans. The bulk of the borrowing ($3.4 billion) was concentrated in two states: Connecticut and Massachusetts.

Analyses of state experiences during the past recession point to two factors responsible for the low volume of borrowing. (1) The recession was mild by historic standards. The reduction in real output and the increase in unemployment were both unusually small. (2) The UI trust funds were comparatively large, hence states were generally able to finance almost all of the added payouts without needing loans.[45]

To discuss UI borrowing during recessions it is helpful to

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[45] Two analyses of borrowing during the most recent recessions are given in Miller, Pavosevich and Vroman(1997) and Chapter 1 of Vroman(1998).

introduce a measure of fund adequacy termed the high cost multiple or reserve ratio multiple. This indicator of fund adequacy places the trust fund balance into a simple expression that also recognizes two other determinants of a state's need for reserves: total UI covered wages (an indicator of the size of the state's economy) and the high cost period of benefit payouts (the highest previous 12 month payout rate). The numerator in the reserve ratio multiple is the reserve ratio: total trust fund reserves as a percent of covered wages. The denominator is the high cost period, benefits as a percent of covered payrolls for the highest cost previous period. The ratio of these two ratios is the reserve ratio (high cost) multiple. During recessions borrowing is most likely and typically largest among states with the lowest reserve ratio multiples.

While the reserve ratio multiple helps in assessments of fund adequacy, there is no single standard of fund adequacy. Some have advocated that multiples should reach 1.5, a level that is rarely achieved by any state. More recently the Advisory Council on Unemployment Compensation (1996) suggested as a solvency standard a reserve ratio multiple of 1.0 where the high cost payout rate is measured as the average payout rate for the highest three of the past 20 years. Whatever standard is most appropriate, analysis of past recessions has shown that states with reserve ratio multiples below 0.50 have the highest risk of recession-related financing problems (Miller, Pavosevich and Vroman(1997)).

To provide additional detail on individual state trust fund developments during the 1990s, Table 9 displays net reserves and reserve ratio (high cost) multiples at the end of three recent years: 1989, 1992 and 1997. Trust fund levels and changes for these periods span the most recent episode of recession and recovery. To characterize state-level unemployment developments during the recession, the average unemployment rate for 1990-1992 is shown as a ratio to the average for 1987-1989. The states have been arrayed by Census Division and then alphabetically within each of the nine Census Divisions. Table 9 also identifies the seven states needing UI

Table 9. Net Reserves and Reserve Ratio Multiples by State, 1989, 1992 and 1997

	STATE	Net Reserves ($mill)			Reserve Ratio (High Cost) Multiples					Unemp.
					Levels			Changes		Rates
		Dec. 1989	Dec. 1992	Dec. 1997	Dec. 1989	Dec. 1992	Dec. 1997	1989 to 1992	1992 to 1997	1990-92/ 1987-89
*	CONNECTICUT	274	-653	533	0.22	-0.50	0.33	-0.72	0.83	1.947
*	MAINE	206	35	136	0.94	0.15	0.49	-0.78	0.33	1.632
*	MASSACHUSETTS	909	-380	1446	0.45	-0.18	0.53	-0.63	0.72	2.236
	NEW HAMPSHIRE	204	130	278	0.89	0.55	0.89	-0.34	0.34	2.400
	RHODE ISLAND	304	104	160	0.92	0.32	0.41	-0.60	0.09	2.227
	VERMONT	197	181	234	1.63	1.41	1.45	-0.21	0.04	1.783
	NEW JERSEY	2795	2440	2385	1.06	0.85	0.68	-0.21	-0.18	1.664
*	NEW YORK	3181	214	990	0.76	0.05	0.18	-0.71	0.13	1.476
	PENNSYLVANIA	1616	808	2254	0.55	0.25	0.57	-0.30	0.32	1.297
	PUERTO RICO	564	749	587	1.82	2.05	1.26	0.24	-0.79	NA
	VIRGIN ISLANDS	28	47	45	2.67	3.21	3.22	0.54	0.01	NA
	ILLINOIS	1268	848	1743	0.47	0.28	0.45	-0.19	0.17	1.035
	INDIANA	770	942	1362	1.04	1.11	1.22	0.07	0.11	1.083
*	MICHIGAN	370	-72	2223	0.13	-0.02	0.53	-0.15	0.55	1.116
	OHIO	778	602	1875	0.30	0.21	0.51	-0.09	0.30	1.037
	WISCONSIN	1041	1195	1632	0.96	0.93	0.97	-0.03	0.04	1.007
	IOWA	518	615	727	1.20	1.20	1.08	0.00	-0.13	0.943
	KANSAS	472	606	607	1.35	1.47	1.13	0.12	-0.33	0.943
	MINNESOTA	359	224	565	0.52	0.27	0.51	-0.24	0.24	1.093
*	MISSOURI	372	3	418	0.50	0.00	0.39	-0.50	0.38	1.028
	NEBRASKA	127	161	206	0.89	0.94	0.88	0.05	-0.05	0.671
	NORTH DAKOTA	45	50	38	0.70	0.65	0.36	-0.05	-0.29	0.909
	SOUTH DAKOTA	45	50	49	1.46	1.26	0.87	-0.20	-0.39	0.811
	DELAWARE	207	219	279	1.24	1.18	1.14	-0.06	-0.04	1.685
*	DIST OF COL	76	-19	136	0.40	-0.09	0.53	-0.50	0.63	1.405
	FLORIDA	2041	1444	2090	1.29	0.79	0.85	-0.50	0.06	1.345
	GEORGIA	1018	966	1797	0.96	0.79	1.04	-0.18	0.25	1.032
	MARYLAND	598	146	721	0.75	0.17	0.67	-0.58	0.50	1.387
	NORTH CAROLINA	1471	1387	1301	1.26	1.03	0.71	-0.23	-0.32	1.362
	SOUTH CAROLINA	415	433	687	0.66	0.60	0.72	-0.06	0.12	1.154
	VIRGINIA	718	507	979	1.17	0.74	1.08	-0.43	0.34	1.366
	WEST VIRGINIA	146	141	166	0.41	0.35	0.34	-0.06	-0.01	1.019
	ALABAMA	623	550	451	1.21	0.90	0.57	-0.31	-0.33	0.965
	KENTUCKY	393	364	571	0.69	0.54	0.64	-0.15	0.10	0.877
	MISSISSIPPI	388	345	564	1.67	1.26	1.52	-0.42	0.26	0.916
	TENNESSEE	657	603	848	0.90	0.69	0.72	-0.21	0.03	1.041
	ARKANSAS	131	81	204	0.40	0.20	0.39	-0.20	0.18	0.934
	LOUISIANA	306	601	1276	0.43	0.72	1.18	0.29	0.46	0.693
	OKLAHOMA	323	419	609	1.34	1.53	1.78	0.19	0.25	0.910
	TEXAS	989	586	707	0.73	0.36	0.32	-0.37	-0.04	0.902
	ARIZONA	493	372	741	0.84	0.55	0.72	-0.29	0.17	1.037
	COLORADO	239	339	574	0.75	0.87	1.01	0.12	0.14	0.796
	IDAHO	220	240	280	1.37	1.16	0.95	-0.21	-0.20	0.967
	MONTANA	80	96	136	0.63	0.62	0.69	-0.01	0.08	0.970
	NEVADA	321	234	388	1.12	0.65	0.69	-0.47	0.04	1.047
	NEW MEXICO	174	239	431	1.48	1.69	2.22	0.21	0.53	0.857
	UTAH	239	342	573	1.25	1.40	1.54	0.15	0.14	0.885
	WYOMING	54	110	159	0.71	1.23	1.44	0.52	0.22	0.756
	ALASKA	180	232	202	0.93	1.06	0.79	0.12	-0.27	1.005
	CALIFORNIA	5419	2787	3738	0.92	0.43	0.48	-0.48	0.04	1.380
	HAWAII	340	362	217	1.75	1.68	0.94	-0.07	-0.74	1.058
	OREGON	804	1055	1069	1.35	1.47	1.03	0.12	-0.43	1.070
	WASHINGTON	1364	1766	1447	1.07	1.09	0.69	0.02	-0.40	0.937
	U.S.Total	36871	25847	43833	0.87	0.54	0.70	-0.33	0.17	1.156

Source: Trust fund data from the U.I. Service of the U.S. Department of Labor. Unemployment rate data from BLS.

* - States needing U.S. Treasury loans during 1991-1995.

trust fund loans during 1991-1995.

Four aspects of Table 9 are noteworthy. First, state level unemployment experiences were highly varied during the 1990-1992 downturn. While the national average unemployment rate ratio was 1.156, the state-level ratios ranged from 2.400 (New Hampshire) to 0.671 (Nebraska). Second, the highest unemployment rate ratios were found in states located along the Atlantic Coast along with California. New England and Middle Atlantic states had especially large increases in their unemployment rates. Arranging the states geographically helps to emphasize this point. Third, the large decreases in reserves and reserve ratio multiples occurred disproportionately in the states with the largest increases in unemployment. Of the nine states where multiples decreased by 0.50 or more between 1989 and 1992, eight had unemployment rate ratios of 1.345 or higher.[46] Fourth, reserve ratio multiples decreased in seventeen programs between the end of 1992 and the end of 1997. In a period when trust fund building would be expected, the position of these seventeen deteriorated using the reserve ratio (high cost) multiple to gauge trust fund adequacy.

The slow pace of reserve accumulations during 1993-1997 is noteworthy and deserves added emphasis. One way is to highlight developments in the ten largest states which accounted for 52 percent of taxable covered employment and 56 percent of covered payrolls in 1996.[47] Four of the ten had smaller reserve balances at the end of 1997 than at the end of 1989 and six had smaller reserve ratio

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[46] Missouri, the ninth state, had a ratio of only 1.028. The simple correlation between the unemployment rate ratios of Table 1-3 and the 1989-1992 change in state reserve ratio multiples was -.627. The correlation was much higher (-.907) when states were weighted by the size of their labor forces.

[47] The ten, ranked in descending order according to 1996 payrolls, are California, New York, Texas, Illinois, Florida, Ohio, Pennsylvania, Michigan, New Jersey and Massachusetts.

multiples.[48] Weighted by 1996 payrolls, the average reserve ratio multiple for the ten declined from 0.72 at the end of 1989 to 0.32 at the end of 1992 and then recovered to 0.47 in 1997. Compared to the national average reserve ratio multiple, their average was 0.15 lower in 1989 (0.72 compared to 0.87) but 0.23 lower in 1997 (0.47 compared to 0.70). In 1997 only one of the ten largest states (Florida) had a reserve ratio multiple that exceeded 0.60 while two (New York and Texas) had multiples below 0.40. The largest states were clearly more vulnerable to the risk of recession-related financing problems in 1997 than seven years earlier.

Compared to the ten largest states, the pace of post-1992 reserve accumulations for remaining UI programs was more rapid. Prior to the 1990 recession their average reserve ratio multiple was 1.08. At the end of 1997 their average multiple was 1.00. Thus, the average reserve position of these states at the end of 1997 was almost the same as before the onset of the 1990 recession. This suggests the increased exposure to potential insolvency was much more concentrated in the largest states at the end of 1997 than it was at the end of 1989.

A second way to highlight the slow pace of reserve accumulation during 1992-1997 is to ask the following question: How long would it take to restore reserves to their 1989 position? Between 1992 and 1997 the national reserve ratio multiple increased by only 0.17 (from 0.54 to 0.70) or by an average of 0.034 per year. At that pace of accumulation, more than 4 more years would be required before a national multiple of 0.87 (the 1989 reserve ratio multiple) would be achieved. This would imply an economic recovery lasting more than nine years, i.e., longer than any expansion since the establishment of UI programs in the mid 1930s.

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[48] Note in Table 9 that only Massachusetts, Michigan, Ohio and Pennsylvania had higher reserve ratio multiples at the end of 1997 compared to 1989 and only in Michigan and Ohio were the multiples noticeably higher.

Given the strong pace of economic expansion experienced during 1993-1997, a substantial accumulation of reserves would have been anticipated. Annual benefit payouts during 1993-1996 averaged $3.8 billion less than during 1991-1992. Aggregate tax receipts also increased substantially. The three year average for 1994-1996 of $21.8 billion was 42 percent higher than the 1989-1991 average of $15.4 billion.[49]

What distinguishes the UI tax increases during the most recent period of economic recovery is their comparatively modest size. The analogous increases following the downturns of 1974-1975 and 1980-1982 exceeded 100 percent and 60 percent respectively. Higher UI taxes would have been expected during 1994-1996 based on earlier recessionary episodes.

While a detailed analysis of recent changes in UI tax laws lies beyond the scope of this report, there clearly have been UI tax reductions which slowed trust fund accumulations during 1993-1997. States such as Kansas and North Carolina were especially aggressive in lowering UI taxes, but tax reductions have been widespread during the 1990s. Modifications of UI tax statutes in Georgia, Florida and Virginia during 1997 will cause further tax reductions and can be interpreted as at least partly motivated by the tax cuts in North Carolina of 1995.

The slow pace of trust fund accumulations during 1993-1997 has obvious implications for state UI solvency. In particular it implies that states at the end of 1997 were more exposed to the threat of financing problems than they were eight years earlier, i.e., before the onset of the 1990-1992 recession.

To examine risks of insolvency a series of simulations were

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[49] Annual data on aggregate UI benefits and employer taxes from 1938 through 1996 appear in columns (10) and (8) respectively of U.S. Department of Labor (1995) and later updates to this Handbook.

undertaken.[50] The simulations utilized the relationship between decreases in state reserve ratio multiples and increases in average unemployment rates that were observed during the 1990-1992 recession. Historic patterns of increases in state unemployment rates were then combined with the slope and intercept of this relationship to provide projections of trust fund drawdowns during recessions of differing severity.

Two conclusions emerged from the simulation analysis. (1) The absence of widespread financing problems during 1990-1992 was attributable both to the mild nature of the recession and to the comparatively large initial trust fund balances held by the states. The states may not be as lucky in the next recession regarding the magnitude of the increase in unemployment. (2) More states needed loans when they entered recessions with their 1996 year end reserve balances than when they entered with their 1989 reserve balances. Based on 1993-1997 rates of trust fund accumulations as summarized in Table 9, several states will start the next recession with smaller balances than at the end of 1989. Other things equal, the smaller balances resulting from the slow pace of accumulations during 1993-1997 could lead to increased borrowing during the next recession.

The need for large reserves during a future recession could be mitigated by two factors that merit some additional comments. (1) Compared to earlier periods, the UI programs of the states may now have in place more features that automatically lead to tax increases and/or benefit reductions in recessions. (2) Due to evolutionary developments, the economy may now be less prone to recessions than in earlier years. If either of these factors were important, there would be less need for large trust fund reserves than in the past. Either the UI response features would automatically be activated to offset the effects of higher unemployment on trust fund balances or the cyclical swings would be less pronounced due to macroeconomic developments.

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[50] The details of the simulations are given in Appendix A of Vroman(1998).

The first of these two arguments has been addressed by recent research, e.g., Miller, Pavosevich and Vroman(1997) and Chapter 2 in Vroman(1998). There is no doubt regarding the increased prevalence of automatic tax and benefit features in UI programs, e.g., solvency taxes and automatic freezes on maximum weekly benefits, that are activated when trust fund balances descend below designated thresholds. However, the quantitative importance of these features remains small. Thus while these features are present in many more programs in 1998 than, say, two decades ago, there is no evidence that their increased importance has reduced the need for large pre-recession trust fund balances.

Determining whether the economy is inherently more stable than in the past is a more difficult question. It is clear that the service sector is relatively more important than in the past and that international trade now links the U.S. economy more closely to other economies than in the past. The former development could be important because the production of services takes place without accompanying large stocks of raw materials, intermediate goods and finished goods that are associated with production in goods sector of the economy. Thus goods production in general and manufacturing production in particular may now exert less of a destabilizing effect through stock-flow (multiplier-accelerator) interactions than in the past. It is also possible that closer international trade and financial relations operate to enhance the stability of the U.S. economy. However, observing the developments in Asia during the past six months leads to skepticism regarding the inherent stability of the economy associated with increased dependence on international trade and finance.

Thus the argument that the economy is inherently more stable while interesting has not gained widespread acceptance within the economics profession at large. It would seem prudent to wait for additional research and confirmation of this idea before moving UI programs towards having lower trust fund balances.

To summarize, it seems quite certain that the UI system will enter the next recession with lower trust fund reserves (reserves as a percent of payroll) than they had prior to the 1990 recession. This has implications for potential borrowing by individual states and for the performance of UI as an automatic stabilizer of the economy, as examined in the next section.

VI. Unemployment Insurance as an Automatic Stabilizer

One of the primary objectives of unemployment insurance (UI) is to impart enhanced automatic stability to the macro economy. The payment of UI benefits automatically increases during recessions helping to stabilize aggregate spending (primarily household expenditures) and dampens the effects of impulses that move aggregate real output (GDP) downward. This effect of UI was emphasized when the program was established in the 1930s, emphasized in the summary volume by Haber and Murray (1966)[51] and still remains an important rationale for UI at the present time.

Increasing UI eligibility and benefit recipiency would enhance the performance of UI as an automatic stabilizer. This would help to restore the stabilizing effectiveness of UI towards the levels it realized in the 1970s, i.e., prior to the downward shift in recipiency that occurred in the early 1980s. Before discussing empirical estimates of UI's stabilizing effects, it will be useful to examine the potential stabilizing role of the program and briefly review one paper in the empirical literature.

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[51] See Chapter II, pages 31-32 in Haber and Murray(1966).

UI and Aggregate Economic Activity

Unemployment insurance (UI) benefit payments are highly cyclical, but quite small relative to the overall macro economy. Regular UI benefits ranged from 0.221 to 0.729 percent and averaged 0.377 percent of GDP in annual data covering the years 1967 to 1995. Total payouts from all three tiers of UI[52] ranged from 0.221 to 1.011 percent,averaging 0.442 percent of GDP.

Descriptive time series regressions based on annual data from 1967 to 1995 were fitted to explain UI benefit payouts as a percentage of GDP. The specification included three explanatory variables: the total unemployment rate or TUR, the TUR lagged one year and a zero-one dummy variable that identified the years starting in 1981. Each of the three explanatory variables had consistently significant coefficients: positive on the TUR, negative on the TUR lagged (reflecting effects of benefit exhaustions) and negative on the post-1981 dummy variable.

In the regression explaining regular UI payments as a percent of GDP, the coefficient on the TUR was 0.1115 indicating that payouts increased by 0.1115 percent of GDP for each percentage point increase in the TUR. This coefficient was 0.1558 in the regression explaining total payouts from all three tiers of UI as a percent of GDP for the 1967-1995 period. The coefficient for the post-1981 period indicated that regular UI payments shifted downward by 21 percent after 1981 while total payouts from all three tiers combined shifted downward by 34 percent starting in 1981.[53] These regressions illustrated four

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[52] The three tiers are: 1) the regular UI program which potentially pays up to 26 weeks of benefits in nearly all states, 2) the Federal-State Extended Benefits program which can pay up to 13 weeks when activated and 3) emergency federal benefits such as Emergency Unemployment Compensation which was active from November 1991 through April 1994.

[53] The post 1981 coefficient was -0.0796 in the regular UI equation and -0.1492 in the total UI (all three tiers) equation. The elasticity estimates were derived as the ratio of the post-1981 dummy coefficient in each regression to the mean of UI benefits as a percent of GDP.

important points: the small overall size of UI benefits, their cyclical sensitivity, the downward shift in benefits after 1981 and the importance of EB and temporary federal programs in the overall cyclical pattern of UI benefit payments.

Program benefits stabilize the economy primarily by helping to maintain household consumption expenditures. Within a business cycle context UI operates as a proportional stabilizer of economy. When there is an impulse that tends to either increase or decrease total real output, UI acts to dampen the total effect by offsetting part of the effect of the impulse. While the direction of the effect caused by the impulse is not altered, its magnitude is reduced, hence the term proportional stabilizer.[54] UI benefits offset a proportion of the effect of the impulse.

There are two important proportional stabilizers in the public sector of economy: UI benefit outlays and taxes linked to income and output such as the personal income tax, the corporate income tax and payroll taxes. Both proportional stabilizers have measurable macroeconomic effects.

There are three important macroeconomic relationships that determine the importance UI as an automatic stabilizer. (1) There is the relationship between changes in aggregate output or GDP (measured as aggregate income) and the pre-tax-pre-transfer income of households. (2) There is the relationship between pre-tax-pre-transfer household income and post-tax-post-transfer (or disposable) household income. (3) There is the relationship between household disposable income household spending (or consumption). These three links combined determine the size of the response of household spending when GDP changes. Respectively these three can be termed the pre-tax income response, the disposable income response and the consumption response. As each of these responses is smaller the automatic stability of the economy is enhanced.

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[54] This terminology was developed by A.W. Phillips (1954).

A proportional stabilizer like UI affects the second of these relationships by helping to cushion household disposable income from changes in pre-tax-pre-transfer household income. When employers reduce labor inputs they often place workers on temporary or permanent layoff. Benefit payments from UI offset part of the wage loss caused by layoffs thereby keeping household disposable income more stable than it would be without UI.

When aggregate real output (GDP) changes there are two factors operating within the private sector that cushion the effect on pre-tax-pre-transfer household income, the first of the three relationships identified above. (1) The gross income share received by owners of capital (pre-tax corporate profits plus interest on corporate debt) absorbs much of the aggregate income change. Capital's income share is about one-third of GDP, but in the short run it will absorb over half of the reduction in aggregate income. (2) Within capital's income share there are four components: retained corporate profits, corporate profits taxes, dividend payments and interest payments on debt. The component that most directly affects households is dividend payments which tend to be very stable in the face of decreases in profits. Both preceding factors operate to stabilize pre-tax-pre-transfer household income when real GDP changes.

These same two factors severely limit the potential for UI benefit payments to play a major role as an automatic stabilizer. To the extent that pre-tax-pre-transfer household income is stabilized by the cyclical pattern of the corporate income share and by dividend payouts, there is less of an unemployment response and less need for UI benefit payments. Stated somewhat differently, employment tends to be more stable than real output when the economy enters a recession. These stabilizing effects of corporate profits and dividend payouts tend to weaken as a downturn extends for a longer period.

The decline in the IUTU ratio of the early 1980s implies that the stabilizing effect of UI would be weakened. Compared to the 1970s and earlier, there would be a larger response of after-tax-after-transfer (or disposable) household income to a given change in pre-tax-pre-transfer household income, i.e., the second of the three relationships that link changes in GDP and to changes in household spending as discussed above. Because household disposable income becomes more cyclically responsive, when the IUTU ratio declines, the proportional response of consumption to GDP becomes larger and the economy becomes more volatile. Empirical estimates of the size UI's stabilizing effect are discussed below. The important conclusion from the present discussion, however, is that the potential role of UI as an automatic stabilizer is limited by other aspects of macroeconomic behavior, in particular by the cyclical response of capital's gross income share and the response of dividend payments.

Other macroeconomic factors that affect stabilizing impact of UI should also be noted. First, to the extent that spending out of UI benefits is more complete than spending out of other components of household income, there may be a larger stabilizing effect than suggested by just noting the size of UI benefits relative to total household disposable income. Second, because UI taxes are experience rated, a recession-related increase in benefits will eventually be followed by higher UI taxes. Depending on the timing of this response which occurs with a lag, it could weaken the effects of UI as an automatic stabilizer because of negative effects on business profits and business spending. This effect of UI taxes would be more important in downturns of longer duration.

The Analysis of Dunson, Maurice and Dwyer

The most recent analysis of the automatic stabilizing properties of UI was undertaken by Dunson, Maurice and Dwyer (1991).[55] This research, supported by the U.S. Department of Labor, utilized simulations with the Data Resources Inc. (DRI) model to derive quantitative estimates of the UI's stabilizing effects. While the full project also included an analysis of UI in four states and a literature review, principal interest centered on simulation results based on a full scale national macroeconomic model.

Dunson, et.al. utilized the DRI model in simulations that covered two eleven year intervals: 1977 to 1987 and 1991 to 2001. For each time period the scale of the UI program was modeled as of the start of the period. The work, undertaken mainly during 1990, could utilize historic data for the earlier period but utilized eleven year projections for the latter period. For both time periods there were paired simulations: one with UI and one without UI. The UI variable of primary interest was real UI benefits per unemployed worker. This was found to be lower in 1991-2001 than in 1977-1987 primarily because recipiency among job losers was lower.

In each simulation there was a shock to the economy (a two percent reduction in the monetary base) and the time paths of all variables were then traced. Particular attention was focused on the time path of real output (GDP) and aggregate employment. Since output was traced for eleven years in a quarterly model, the comparisons of effects with and without UI cover a lengthy time period. The research strategy was to focus on the four quarters when the decline in GDP was the largest.

For the earlier period (1977-1987) they found that the decline in real GDP was cushioned by 5.4 percent and employment by 4.9 percent, i.e. the GDP reduction was 5.4 percent smaller when UI was present. For the later period (1991-2001) the GDP reduction was cushioned by 3.7 percent and the employment reduction by 3.5 percent.

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[55] A more complete review of the automatic stabilizing literature is given in Section III of Vroman and Woodbury(1996).

While all of these estimated effects of UI are quite modest, the programs effectiveness was clearly lower in the second time period. Overall, UI during 1991-2001 was about 70 percent as effective as it had been during 1977-1987. The program was less effective in stabilizing household disposable income hence household spending.

This analysis is important because the two time periods bracket the period when the IUTU ratio declined, i.e., the early 1980s. Theirs is the only model-based analysis of the effects of the decline in the IUTU ratio, and it suggests a small stabilizing effect became even smaller.

There are questions about the methodology of this study that should be noted. First, the primary variable used to gauge the decline in the scale of the UI program is the real benefit per unemployed worker. They estimate that the real benefit decreased by 40 percent in a linear manner between 1981 and 1985. This scale of reduction exceeds that of the direct studies of the IUTU ratio. Second, because the analysis does not separate the three tiers of UI, it is not clear how temporary federal programs enter the analysis. Third, it is also not clear how exhaustions of UI benefits enter (or do not enter) their analysis. Finally, there is no explicit treatment of income distribution by factor shares, e.g., the cyclical sensitivity of capital’s income share and dividend payouts. Thus, interested readers would have questions about details of their procedures.

These questions notwithstanding, their qualitative findings are highly plausible. A modest stabilizing effect was reduced when UI benefit availability declined in the early 1980s.

Stabilizing Effects of Changes in Benefit Eligibility

In an earlier report with Steve Woodbury, we identified ten potential changes in UI benefit availability that would raise

eligibility and the receipt of benefits.[56] These changes which would mainly affect low wage workers would enhance the performance of UI as an automatic stabilizer.[57] If all ten changes were enacted, the IUTU ratio would increase 14-18 percent but payouts would increase only 7-9 percent above present levels. The increase in IUTU caused by these changes would be of the same order of magnitude as the decrease that occurred in the early 1980s. However, because the associated increase in benefit payments would mainly affect low wage workers, the increase in the stabilizing effect of UI would be modest.

The Dunson, et.al. (1991) analysis is useful for the present question. Suppose we take their 1991-2001 simulation results as an approximation for the effects of the present UI system. The increases in eligibility proposed in part III would increase UI benefits per unemployed worker somewhat less than 10 percent. Thus the added stability caused by these changes would still not bring the program back to its stabilizing effectiveness of the 1977-1987 simulations.

Perhaps these improvements in benefit availability would increase the stabilizing effect of UI by one-tenth. Thus the total decline in real GDP at the trough would be 4.1 percent smaller after making these changes compared to 3.7 percent smaller under present UI eligibility. This is a small change, but it would make UI more effective in achieving one of its principal program objectives.

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[56] See Section II in Vroman and Woodbury(1996).

[57] Among the suggestions were the following. 1) Base monetary eligibility on hours of work. 2) Have each state offer an alternative base period. 3) Allow part time workers to be eligible if looking for work with at least as many weekly hours as the previous job. 4) Eliminate indefinite duration disqualifications. 5) Allow good personal reasons for leaving employment. 6) Modify EB program unemployment rate triggers.

Stabilizing Performance in a Future Recession

With the preceding discussion of Sections V and VI as background, it may be instructive to briefly speculate on some likely consequences of a serious recession. A severe recession of the scale of the downturns of 1958, 1974-1975 or the back-to-back recessions of 1980-1982 would quickly deplete UI reserves. At the end of 1997 state reserves totaled $43.8 billion (Table 9). If the national benefit payout rate averaged 2.0 percent of covered payrolls for one full year, total payments would be $60 billion which would increase to $90 billion if this payout rate lasted for eighteen months.[58] Thus even considering current revenues, borrowing would take place during the first twelve months and substantial borrowing during the first two years.

Under this scenario, UI programs would add more than $40 billion to the net spending stream of the economy (UI benefit payments less state UI taxes) based just on outlays from state trust funds during the first twelve months. If there were emergency federal legislation as in previous recessions, federal emergency benefits would make further additions to household income and spending. While the dollar amounts seem impressive, they would represent only about 0.5 percent of GDP. UI is a program of limited scale.

Further reducing the net stabilizing impact of UI would be some likely state and federal actions. In the states, the emergence of UI debts to the U.S. Treasury would be followed by solvency legislation which could be expected to both raise employer taxes and reduce benefit payments. The emergency federal legislation would probably fall under the terms of the Budget Enforcement Act that requires added benefits to be “financed.”[59] These federal and state actions would operate to reduce the net stabilizing effect of UI during the

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[58] In 1998 total payrolls of taxable covered employers will equal about $3000 billion. Two percent equals $60 billion.

[59] Speculation about likely state actions are based on actual state behavior during the early 1980s. See Chapter 2 in Vroman(1986). The federal UI expenditures during 1991-1994 in the Emergency Unemployment Compensation program (EUC) were mainly “financed.”

hypothesized recession.

Having larger pre-recession trust fund balances would reduce the amount of offsetting actions undertaken by the states. In this area, a provision of the Department of Labor appropriation legislation for fiscal year 1998 should be noted. States were encouraged to achieve trust fund target levels with a financial inducement, e.g., interest free advances in the event of indebtedness if pre-recession fund balances met a target determined by the Secretary of Labor. A regulation that specifies target trust fund balances is expected during 1998.

VII. Summary and Conclusions

Because this report has covered several topics, its conclusions fall into several areas. Some can be noted very briefly. The reform of the welfare system will have few noticeable consequences for UI programs assuming their current eligibility rules do not change. Few former welfare recipients who become unemployed will collect benefits. Failure to meet nonmonetary eligibility criteria as well as monetary criteria will contribute to this outcome.

UI trust fund building has been quite slow during the period of economic recovery of the past five years. It can be anticipated that UI programs will enter the next recession with smaller balances than they did in 1990, the start of the last recession. As a consequence, borrowing during the next recession can be expected to be much larger than during 1991-1995.

Nonstandard employment is a large and growing segment of employment in the U.S.. An analysis of their experiences in data from the February 1997 CPS contingent worker supplement should also be undertaken. This would provide two observations on the receipt of UI benefits for the various workers in nonstandard employment. Added reliability in our understanding of their UI beneficiary patterns would be most useful.

More generally, it would be useful to document more completely the unemployment experiences of contingent workers. To the extent they are job losers, their recipiency rates would be expected to be considerably above-average. One suggestion would be to make a longitudinal match and an analysis of their unemployment in March 1995, one month after the first of the two CPS contingent worker supplements. A longitudinal analysis of the February 1997 contingent worker supplement also would be useful.

Part-time employment is the largest of the nonstandard employment categories identified in Section II, but its most rapid growth occurred before 1975. Part-timers account for more than one in five who now work during a given year. Overall, they are about one third as likely as others to receive UI benefits when they experience unemployment. Among adults aged 25 and older, part-time workers are about half as likely to receive UI benefits as full-time workers. Improving their access to UI benefits would have a measurable effect on overall UI recipiency. If the differential in recipiency among part-timers could be halved it would add about 5 percent to insured unemployment. One key to raising recipiency would seem to be modifying the work search requirement to permit search for part-time jobs.

Temporary (contingent) employees have very high rates of unemployment. Improving access to UI benefits by temporary help agency employees would have only small macro effects (because they number only about 1.2-2.0 million), but it would seem worthy of support given their high unemployment and below-average recipiency rates. Monitoring how offers of suitable work by temporary help agencies are made to these workers is important to document.

Three insights into the long term decline in the IUTU ratio

were gained through the analysis of Section III. First, the long term decline in the IUTU ratio has a distinct gender component. The ratio has declined for men over the past 30 years while it has been stable for women. The often noted declines in manufacturing employment and in unionization are consistent with a larger effect on the male IUTU ratio, but this gender perspective has not been emphasized by previous research. Second, the decrease in the IUTU ratio since 1976 appears to have been proportionately larger among job leavers and reentrants than among job losers. This was strongly suggested by the data in Table 7. There was an inference from these findings that an increased prevalence of durational disqualifications may have contributed to this decrease in recipiency. Third, geographic differences in IUTU ratios have persisted during the past 30 years. Over this period, states in the South and the Mountain division have had above-average labor force growth. Since these geographic areas have the lowest IUTU ratios, this differential growth has had a depressing effect on the national IUTU ratio.

Several other research ideas were noted in earlier sections of this report. Repeating a few at this point may be useful. (1) The long term decrease in IUTU ratios could be reexamined. Seven to ten additional annual time series observations per state are now available to augment the earlier analyses of Blank and Card(1991) and Corson and Nicholson(1988). (2) Closely related, it would seem that the reasons for low recipiency in states like Florida, Texas and Virginia should be examined to better understand why fewer than one fourth of their unemployed receive UI benefits.

Three areas of research on nonstandard employment could be especially productive. (1) An analysis that focuses on unemployed part-time workers is needed. This should try to disentangle the monetary from the nonmonetary factors contributing to their failure to receive UI benefits. Among the nonmonetary factors it would seem that the effects of durational disqualifications for quitting and

state requirements to seek full time work as a condition for eligibility should be studied. (2) Analyses of independent contractors are needed. Two possible areas of work within UI programs and reporting systems were identified. They were information from state tax offices on determinations of independent contractor status and information that may be derived from RQC data. (3) Since unemployed reentrants are numerous there is need to examine their reason for leaving their last jobs. It would be important to document the proportions of layoffs and quits. Presumably quits are much more numerous but this has yet to be documented.

Finally, the redesign of the CPS in 1994 now yields information on the unemployment of temporary workers whose assignments have ended. Undertaking a new special CPS supplement like the earlier 1989 and 1993 supplements would be useful in furthering our understanding of the experiences of these workers with UI programs in the states. If a special survey were undertaken it could also be the vehicle for gathering information on reason for unemployment among unemployed reentrants.

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Appendix A. An Analysis of IUTU Ratios by State

In an earlier report, state-level IUTU ratios were examined with time series multiple regressions fitted to annual data, Appendix A in Vroman (1991). The specification utilized three explanatory variables: the total unemployment rate (or TUR), the unemployment rate lagged one year (TURL) and a dummy variable (D81) equal to zero from 1967 to 1980 and unity from 1981 to 1989. Regressions were fitted for each state plus the District of Columbia.

The expectation was that TUR would enter with a positive coefficient as there are more job losers (as a proportion of the unemployed) during recessions when the unemployment rate increases. Since job losers are the group most likely to be eligible and to receive benefits, this mix effect would be expected to increase the IUTU ratio. The combined effects of UI benefit exhaustions and reduced monetary eligibility cause the IUTU ratio to decrease after a recession has been underway for some quarters. Hence the expectation was that TURL would have a negative coefficient. Finally, the D81 dummy variable was included to test for the size and significance of a downward shift in UI claims in 1981. On average, fewer unemployed would be expected to receive benefits after 1981 than before 1981.

The regression results generally conformed to these expectations. The D81 dummy had a negative coefficient in 45 of 51 equations, and its coefficient’s t ratio was statistically significant in 28 states. The coefficients and t ratios from this earlier analysis are reproduced in Table A1 in the column headed D1981-1989. Also shown at the bottom are the results from a pooled regression using state data weighted by an indicator of state size (average unemployment for the years 1967-1989).

These regressions were refitted for a longer estimation period 1967 to 1996 using the most recently available annual data. If IUTU were trending inexorably downward, the estimated size of the post-

Table A1. Regression Estimates of the Post-1981 Decrease in UI Recipiency

Division	and State	D1981-1989	D1981-1996	Change	Avg. Divisional Change
N. Eng.	CONNECTICUT	-.1465 (4.5)	-.1078 (4.1)	0.0387	0.0118
	MAINE	-.0657 (3.0)	-.0644 (3.2)	0.0013	
	MASSACHUSETTS	-.0935 (4.6)	-.0903 (5.9)	0.0032	
	NEW HAMPSHIRE	-.1589 (3.4)	-.1622 (4.3)	-0.0033	
	RHODE ISLAND	-.0990 (3.5)	-.0853 (3.5)	0.0137	
	VERMONT	-.0271 (1.3)	-.0097 (0.6)	0.0174	
M. Atl.	NEW JERSEY	-.1110 (6.9)	-.1146 (9.5)	-0.0036	0.0102
	NEW YORK	-.1065 (8.6)	-.0998 (9.9)	0.0067	
	PENNSYLVANIA	-.0941 (3.7)	-.0664 (3.2)	0.0277	
E.N.C.	ILLINOIS	-.2042 (4.4)	-.1158 (3.4)	0.0884	0.0475
	INDIANA	-.0578 (2.7)	-.0570 (3.9)	0.0008	
	MICHIGAN	-.1254 (5.0)	-.0953 (5.4)	0.0301	
	OHIO	-.0616 (2.1)	-.0168 (0.9)	0.0448	
	WISCONSIN	-.1046 (2.5)	-.0311 (1.1)	0.0735	
W.N.C.	IOWA	-.1468 (5.7)	-.0662 (3.6)	0.0806	0.0305
	KANSAS	.0004 (0.0)	-.0309 (1.0)	-0.0313	
	MINNESOTA	-.0822 (2.7)	-.0713 (3.5)	0.0109	
	MISSOURI	-.1170 (3.9)	-.1197 (5.2)	-0.0027	
	NEBRASKA	-.0826 (3.9)	-.0122 (0.7)	0.0704	
	NORTH DAKOTA	-.0713 (1.2)	-.0397 (1.4)	0.0316	
	SOUTH DAKOTA	-.1745 (4.2)	-.1207 (5.6)	0.0538	
S. Atl.	DELAWARE	-.0256 (1.3)	-.0205 (1.1)	0.0051	0.0075
	DIST. OF COL.	-.0142 (0.4)	.0169 (0.6)	0.0311	
	FLORIDA	-.0678 (7.3)	-.0450 (4.0)	0.0228	
	GEORGIA	-.0351 (2.1)	-.0230 (1.2)	0.0121	
	MARYLAND	-.0221 (1.0)	-.0251 (1.4)	-0.0030	
	NORTH CAROLINA	-.0001 (0.0)	.0039 (0.2)	0.0040	
	SOUTH CAROLINA	-.0271 (0.9)	-.0212 (0.9)	0.0059	
	VIRGINIA	-.0324 (1.9)	-.0239 (1.8)	0.0085	
	WEST VIRGINIA	-.0500 (0.8)	-.0689 (1.9)	-0.0189	
E.S.C.	ALABAMA	-.1285 (3.8)	-.0922 (4.2)	0.0363	0.0496
	KENTUCKY	-.1557 (2.4)	-.0804 (2.7)	0.0753	
	MISSISSIPPI	-.0332 (0.8)	.0005 (0.0)	0.0337	
	TENNESSEE	-.1421 (5.4)	-.0891 (4.2)	0.0530	
W.S.C.	ARKANSAS	-.1332 (4.9)	.0069 (0.3)	0.1401	0.0264
	LOUISIANA	-.0501 (1.1)	-.0712 (3.2)	-0.0211	
	OKLAHOMA	-.0250 (0.6)	-.0630 (2.2)	-0.0380	
	TEXAS	-.0307 (1.5)	-.0059 (0.4)	0.0248	
Mount.	ARIZONA	-.0339 (1.5)	-.0368 (2.1)	-0.0029	0.0025
	COLORADO	-.0013 (0.1)	.0200 (1.3)	0.0213	
	IDAHO	.0140 (0.4)	.0295 (1.4)	0.0155	
	MONTANA	-.0733 (1.8)	-.0294 (1.1)	0.0439	
	NEVADA	-.1338 (7.0)	-.1072 (5.7)	0.0266	
	NEW MEXICO	-.0407 (1.4)	-.0667 (3.3)	-0.0260	
	UTAH	-.0643 (2.4)	-.0813 (4.5)	-0.0170	
	WYOMING	.1364 (3.2)	.0950 (3.2)	-0.0414	
Pac.	ALASKA	.0133 (0.3)	-.0048 (0.1)	-0.0181	0.0155
	CALIFORNIA	.0038 (0.5)	-.0064 (0.9)	-0.0102	
	HAWAII	-.0321 (1.4)	-.0220 (1.0)	0.0101	
	OREGON	-.0517 (3.3)	-.0033 (0.2)	0.0484	
	WASHINGTON	-.0888 (3.6)	-.0415 (1.8)	0.0473	
	Pooled Data	-.0492 (7.5)	-.0459 (8.8)	0.0033	

Source: Regressions by the author with annual data from 1967. The dependent variable was the state IUTU ratio. Other explanatory variables were the state unemployment rate, current and lagged one year.

1981 downward shift should be larger in data that extend seven years beyond the original estimation period. Table A1 shows each coefficient and t ratio for the 1967-1996 data period in the column headed D1981-1996. Again, results are also displayed for a pooled regression using weighted state data.

The third column then shows the difference between the two point estimates of the downward shift. Contrary to expectations, most are positive not negative, i.e., the estimated post-1981 downward shifts are generally smaller when seven more years are added. Thirty seven of 51 dummy coefficients are less negative in data based on the 1967-1996 estimation period.

The final column of Table A1 displays unweighted averages of the changes in the D81 coefficients for the nine Census divisions. All nine averages are positive. The largest changes in the averages are observed in the East North Central and East South Central divisions. These states have generally enjoyed high prosperity during the 1990s, and there has been a generally noticeable recovery in their IUTU ratios from the lows reached during the 1980s.

The preceding finding may provide a basis for further research into the determinants of the IUTU ratio. This analysis was undertaken simply to replicate earlier work and to test a specific hypothesis, namely to estimate the size of the decrease in the IUTU ratio based on data that extend into the mid 1990s. However more work on the determinants of the IUTU ratio may be warranted. The most recent analyses by Blank and Card(1991) and Corson and Nicholson(1988) used data periods which ended in the mid 1980s. New insights might be obtained from an analysis with data that extend to 1996 or even 1997.