An Examination of Declining UI Claims During the 1980s: Draft Final Report

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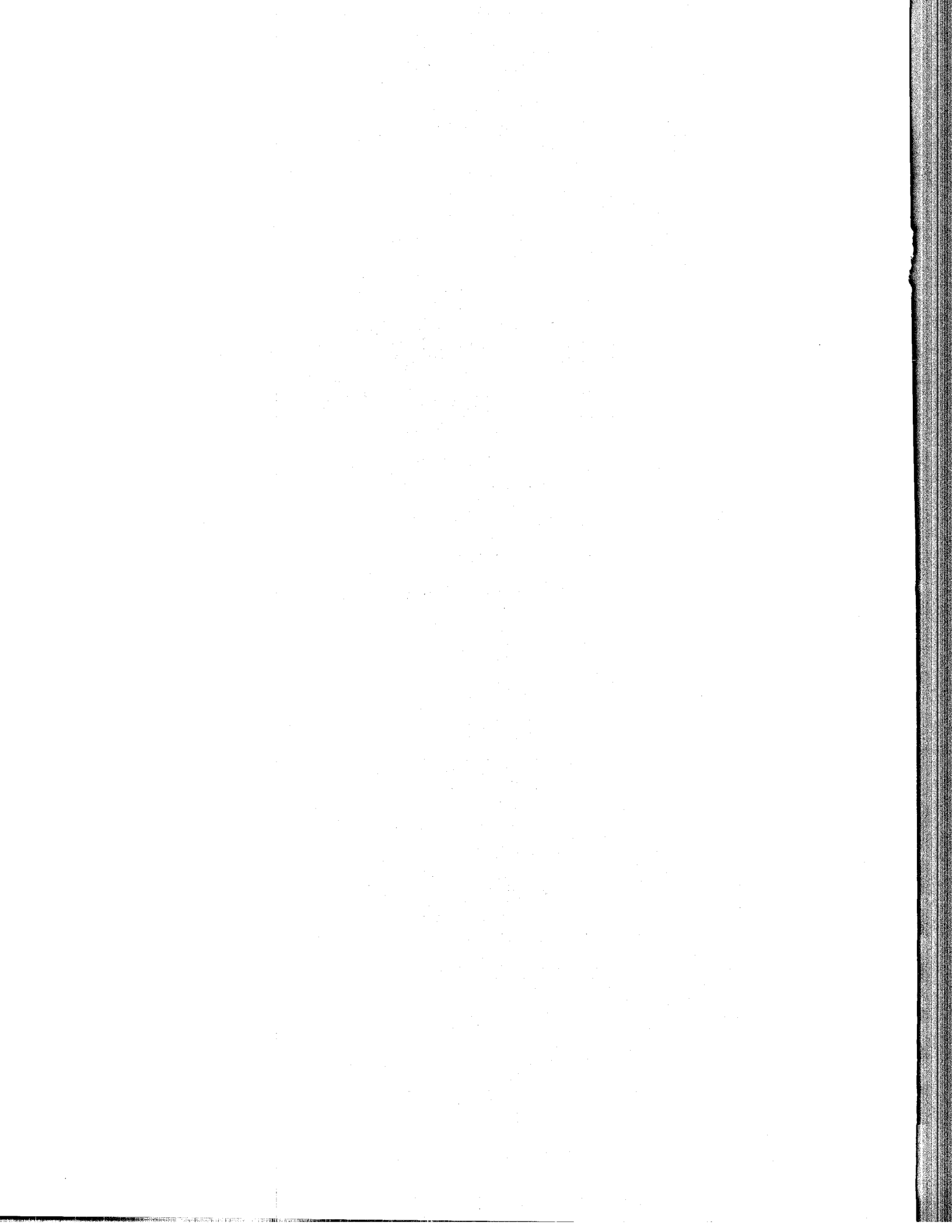DRAFT

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EXECUTIVE SUMMARY

Claims for unemployment insurance (UI) benefits that are payable under regular state programs declined significantly during the 1980s relative to total unemployment. The purpose of this report is to present the results of an extensive study of the reasons for this decline. This study was based on statistical analyses of national data over the 1948-1986 period, on analyses of more detailed data from all the states over the 1971-1986 period, and on in-person interviews with UI officials in the largest states. In general, the analyses found that no single factor explained the observed decline in UI claims over the 1980s; rather the decline was caused by changes in the general labor market and by a number of policy changes at both the federal and the state levels.

Chapter I of the report develops some summary measures of the extent of the decline in UI claims during the 1980s. The primary findings are as follows:

o   Regular UI claims declined significantly relative to total unemployment during the 1980s. Whereas the ratio of UI claims to total unemployment (what we term the "UI claims ratio") averaged about 0.41 during the 1970s, this figure declined to about 0.35 during the 1980s--a reduction of approximately 15 percent.

o   The decline in the UI claims ratio was mirrored in most other statistics on UI collections. The size of the declines in initial claims, first payments, and the total number of weeks compensated was similar to the size of the decline in the UI claims ratio.

o   The extent of the decline in regular UI claims varied significantly from year to year during the 1980s. Relative to previous experience, the declines were largest during 1983 and 1984 and somewhat smaller at the beginning and end of the period examined.

o   The decline in regular UI claims also varied widely across states. It was greatest in some of the major industrial states (Illinois and Michigan), but practically all states experienced a decline to some degree. Among the 11 largest states, only

California exhibited an increase in the UI claims ratio during the 1980s.

o   Claims under all UI programs (including extended benefits programs and such special programs as Trade Adjustment Assistance) declined by an even greater extent that did claims under the regular state programs during the 1980s. Most of this decline can be attributed to explicit policy changes made in these programs and to the decline in regular UI claims.

In Chapter II of the report, we examine the possible reasons for the decline in regular UI claims relative to total unemployment during the 1980s. Our explanations are grouped into four major categories:

o   Changes in the nature of the labor market in the 1980s, especially the higher overall levels of unemployment experienced during the 1980s, the decline in the proportion of the unemployed whose previous job was in manufacturing (an industry that has traditionally accounted for an important share of UI claims), and shifts in the geographic distribution of unemployment.

o   Changes in federal UI laws. Changes introduced in the late 1970s and early 1980s--such as the partial taxation of UI benefits, the adoption of less generous extended benefits programs, and the incorporation of compulsory pension-offset provisions--may have reduced the incentives to collect UI benefits during the 1980s. Similarly, changes in federal trust fund policies and in emergency loan provisions may have encouraged the states to "tighten up" their own programs.

o   Changes in state law. States are constantly changing their UI laws that govern the eligibility of individuals for UI and the amounts of benefits to which they are entitled. They also adjust their administrative procedures for determining initial and continuing eligibility for UI. The widespread adoption of restrictive measures in any of these areas might have contributed to the decline in regular UI claims.

o   Changes in measured unemployment that were unrelated to UI claims. If unemployment were measured more accurately during the 1980s than in previous decades or if unemployment were subject to an upward "drift" not associated with general economic conditions, then the UI claims ratio might have declined even in the absence of any explicit policy changes.

Following this presentation of the potential explanations for the decline in UI claims, Chapter III examines the quantitative importance of the explanations based on a descriptive analysis of changes in a variety of labor market and UI policy indicators. The primary conclusions of this initial examination are as follows:

o The most important labor market change during the 1980s that may have affected UI claims was the decline in unemployment from manufacturing industries. After controlling for business-cycle influences, the percent of unemployment accounted for by manufacturing workers was more than 3 percentage points lower during the 1980s than during the previous decade.

o State laws that govern UI eligibility and the potential duration of benefits seem to have been more restrictive during the 1980s than during the 1970s. On average, weekly benefit amounts were also reduced relative to average weekly wages, but the reduction was relatively small and varied considerably among the states.

o State administrative practices, as judged primarily by reported denial rates, exhibited a mixed picture. Denials for misconduct increased during the 1980s, as did disqualifying income denials (probably reflecting the pension-offset provisions). Although voluntary leaving denials declined during the 1980s, this change also probably reflected more stringent administrative practices as voluntary leavers were increasingly disqualified for their entire spell of unemployment. But denials of benefits based on UI worktest violations fell significantly during the 1980s, thereby providing contrary evidence to the general notion that states tightened up their programs on an across-the-board basis.

o Several states faced major financing problems in their UI programs during the 1980s. While many of these states cut back on UI program eligibility and benefits, some did not. Similarly, some states that did not face major financing problems also made adjustments to their programs.

Chapter IV presents the primary statistical results of our quantitative study of UI claims during the 1980s. These show that:

o In general, we could explain about 30 to 40 percent of the decline in the UI claims ratio during the 1980s on the basis of information about state UI laws and administrative practices. Our statistical studies were constrained somewhat by the

absence of state-level data on the <u>composition</u> of
unemployment during the 1970s (most importantly, on the
industry attachment of the unemployed) and by the fact that a
number of federal policies were implemented at about the
same time on a nationwide basis.

o   Variations in state laws and administrative practices were
found to have significant influences on the observed UI claims
ratio. These estimated effects were in the expected direction
and were of a reasonable magnitude.

o   The estimated effects of state laws and administrative
practices on UI claims tended to be greater and more
statistically significant in our sample of the 11 largest states
than in our all-state analysis. This may have occurred because
the most important declines in the UI claims ratio were
experienced in some of the largest states and because
unemployment may be measured more accurately in these
largest states.

Chapter V presents a brief analysis of UI collection by unemployed workers

based on individual data from the Panel Study on Income Dynamics (PSID) for 1980 and

1982. Although these data did not exhibit the decline in UI claims that was exhibited

in the national aggregate data, and although these data were limited solely to

household heads, they did exhibit one pattern that was particularily relevant to the UI

claims issue and to our aggregate findings:

o   The probability that an unemployed worker in the PSID had
collected UI benefits was importantly influenced by previous
employment in manufacturing. Overall, we estimated that
such a worker was about 25 percent more likely to collect UI
than was an otherwise similar unemployed worker from another
industry.

In Chapter VI, we present a summary of our findings and provide an

apportionment of the decline in the UI claims ratio among a variety of causes. We

also briefly discuss the policy implications of these findings. Based on these

calculations, the major explanations of the decline in the regular UI claims ratio

during the 1980s appear to be as follows:

o   Economic Effects.

   -   The decline in manufacturing unemployment relative to
       total unemployment during the 1980s accounted for
       between 4 and 18 percent of the observed decline in the UI
       claims ratio.

   -   Shifts in the geographic distribution of unemployment
       accounted for about 16 percent of the decline in the UI
       claims ratio.

o   Changes in Federal UI Policy.

   -   The partial taxation of UI benefits accounted for between
       11 and 16 percent of the decline.

o   Changes in State UI Policy.

   -   Increased monetary eligibility requirements for UI
       and reduced maximum potential durations of
       benefits available under state programs accounted
       for between 8 and 15 percent of the decline.

   -   Increases in disqualifying income denials (probably
       reflecting the pension-offset provisions) accounted
       for about 10 percent of the decline.

   -   Changes in other nonmonetary eligibility
       requirements, countered by some reductions in
       worktest denials, accounted for between 3 and 11
       percent of the decline.

o   Changes in Unemployment.

   -   The increasingly accurate measurement of unemployment
       by the Current Population Survey (CPS) accounted for
       between 1 and 12 percent of the decline.

Several observations about these findings can be useful to the formulation of

UI policy. First, the importance of the manufacturing decline as an explanation of the

trend in the 1980s suggests that, although this decline was not caused by changes in UI

policy, some useful policies might be undertaken in the future. Such policies might

entail providing other workers with the types of information about and access to the

UI system that manufacturing workers seem to have had. Second, the impact of the

federal policy changes, while important, were probably small enough in each case that

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such policy changes might profitably be debated in their own right, rather than focusing on their overall impact on the type of safety net that is provided by the UI program. Third, our findings indicated that states made changes to their laws to tighten their program and eligibility provisions, and that such tightening accounted for between 22 and 39 percent of the decline in UI claims during the 1980s. However, we found relatively little evidence that states tightened their administrative operations. Finally, although we focused on the decline in claims under regular state programs, substantial declines also occurred in extended benefits programs, both because explicit policy changes were made to those programs and because the decline in regular state UI made it less likely that extended benefits would become payable in a state.

I. CHANGES IN UNEMPLOYMENT INSURANCE
COVERAGE OF THE UNEMPLOYED

In recent years, a variety of concerns have been raised about whether the state-federal system of unemployment insurance (UI) is continuing to provide the degree of protection for unemployed workers that it once did in earlier decades. A number of observers have pointed to what appears to be a marked decline in the proportion of unemployed individuals who are collecting UI as an important indicator of the necessity of taking policy actions to address this issue. While quantitative research in this area supports the notion that fewer of the unemployed are collecting benefits than was true prior to the 1980s (Burtless, 1983, and Burtless and Saks, 1984), the reasons for the decline are marked by considerable uncertainty. A number of explanations have been advanced,[1] but the relative strength of these explanations must be examined to determine what, if any, policy responses are appropriate.

The purpose of this report is to examine UI coverage[2] of the unemployed in some detail. Using extensive quantitative analyses of state data on unemployment and UI collection, together with qualitative analyses based on our discussions with UI officials in several large states[3] and a quantitative analysis of some individual-level data, we hope to explain recent trends in UI coverage and offer some evaluation of

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[1] See, for example, the testimony presented to the Government Operations Committee in 1986 (U.S. Congress, 1986).

[2] Throughout this report, we use the term "coverage" to refer to the extent to which unemployed workers collect UI. Hence, the term is used less precisely and somewhat differently from how it is used in the unemployment insurance literature, in which "coverage" is usually taken to mean the extent to which workers in particular jobs may be eligible to collect benefits because their employer pays UI taxes on their wages.

[3] Visits were made to nine states: California, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, and Texas.

potential policy responses (if any). In this introductory chapter, we examine some recent changes in UI receipt in an effort to place the report into perspective. That is, our purpose is to provide a precise definition of the phenomenon that we seek to explain. The chapter is concerned only tangentially with offering reasons for the trends to be reported—a subject that we take up in later chapters. Our description of trends in UI coverage first explores general patterns over the fairly long term (1948 to 1986) at the national level and then focuses more directly on the recent history of the program in individual states.

A. LONG-TERM NATIONAL PATTERNS

Table I.1 presents two commonly used measures of UI coverage of the unemployed by decade over the longest period permitted by the availability of national data, 1948 to 1986. The first of these measures is the ratio of average weekly UI benefit claims under state programs during a quarter[1] to the state's average total unemployment (as reported by the Current Population Survey) during the quarter.[2] Although some conceptual and timing issues must be confronted in interpreting this ratio measure,[3] the measure, of all those measures that can readily be constructed

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[1] Although some of the data series that we examined are available on a monthly basis, our analysis in this report is based exclusively on quarterly averages. This has the effect of somewhat reducing the wide (and probably random) fluctuations that occur in the monthly data and of making some of the rather large data sets used in our analysis more manageable.

[2] It should be noted that both intrastate and interstate claims filed in a given state are compared with total unemployment in that state. For example, residents of New Jersey who file interstate claims against other states (e.g., Pennsylvania) are counted in the New Jersey claims data used for this computation.

[3] Some of these issues are that (1) some individuals who file UI claims may not meet the CPS definition of being "unemployed," (2) many individuals who are unemployed according to the CPS may not be eligible for UI (this is especially problematic for individuals who have exhausted their UI entitlement), and (3) the UI claims data represent an average of weekly figures, whereas the CPS figures represent an average of monthly figures in which unemployment is measured for the week including the 12th of the month.

TABLE I.1

ALTERNATIVE MEASURES OF UI COVERAGE OF
THE UNEMPLOYED BY DECADE,
1948-1986

	Ratio of State UI Weeks Claimed to Total Unemployment	Ratio of Insured Unemployment Rate (IUR) to Total Unemployment Rate (TUR)
1940s	.489	.948
1950s	.492	.911
1960s	.426	.727
1970s	.413	.603
1980s	.347	.434
Overall Mean	.428	.701

NOTE: The data are averages of quarterly figures.

from aggregate data, probably comes the closest to approximating the proportion of the unemployed who claim UI. This ratio is reported monthly by the U.S. Department of Labor, and the variable has provided the focus for much of the recent debate about UI coverage. Because it is used so widely, this variable also serves as the focus for much of the research to be reported herein, although we also examined many other measures in the process of our research. In this report, we will refer to this measure as the "UI claims ratio," so as to avoid the burdensome repetition of its component variables.

The second measure of UI coverage reported in Table I.1 is the ratio of the insured unemployment rate (IUR) reported by the Unemployment Insurance Service to the total unemployment rate (TUR) reported on the Current Population Survey. Although this second measure is conceptually similar to the first, since it also compares the number of UI claims filed with the number of unemployed workers, different denominators for the IUR and the TUR make the interpretation of this ratio somewhat less straightforward. Specifically, the IUR is defined as the ratio of UI claims to total employment covered by UI, whereas the TUR represents total unemployment divided by the total number of individuals in the labor force. Hence, trends in the extent to which jobs are covered by the UI system can affect the IUR/TUR ratio in two ways--by affecting the number of UI claims that might be filed, and by affecting the ratio of the total labor force to the number of jobs covered by UI. Expanding UI coverage to previously uncovered jobs will have both positive and negative effects on the IUR/TUR ratio, whereas the effect for our first measure would be unambiguously positive. This complexity, together with some timing inconsistencies in the IUR and TUR definitions, prompted us to rely somewhat less on the IUR/TUR variable than on our alternative UI claims ratio measure. Nevertheless, since the IUR/TUR ratio is frequently reported, we occasionally examined that measure as well.

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Whichever measure is used to reflect UI coverage, the data reported in Table I.1 show a long-term decline, with a pronounced decline during the 1980s. For the UI claims ratio, this 1980s decline was about 0.07 from the 1970s level--or about 15 percent. That decline was statistically significant and was, as we will show, mirrored in most other figures on UI coverage. The 1980s decline in the IUR/TUR ratio was even more pronounced, and, for this measure, the longer-term decline appeared to be larger than that observed for the UI claims ratio. The disparity in patterns in the two measures probably stems from changes in the inclusion of certain types of jobs in UI. Major expansions of such job coverage occurred in both the 1960s and 1970s, primarily to jobs characterized by relatively low rates of UI collection. Because of this change in its base, the IUR declined more relative to the TUR than did UI claims relative to total unemployment. As for the UI claims ratio measure, however, this explanation does not apply to the 1980s. The decline in the IUR/TUR ratio between the 1970s and the 1980s reflects a decline largely in UI claims.

In order to examine these long-term patterns further, we ran a series of ordinary least squares regressions over the national figures summarized in Table I.1 for the period from 1948 to 1986. The results of our examination are reported in Table I.2. To construct the table, we used the estimated regression equations to adjust the measures of UI coverage of the unemployed for various factors that might have affected them. Two types of adjustment were used. The first (referred to as "Adjusted 1") controlled only for seasonality and the effects of the business cycle as measured by the total unemployment rate. The second method of adjustment ("Adjusted 2") encompassed several additional variables to reflect the changing composition of the unemployed over the period.[1]

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[1] See the footnotes to Table I.2 for a detailed specification of the variables included in these regressions.

TABLE I.2

ADJUSTED MEASURES OF UI COVERAGE OF
THE UNEMPLOYED BY DECADE,
1948-1986

| | Ratio of State UI Weeks Claimed to Total Unemployment | | Ratio of IUR to TUR | |
	Adjusted 1	Adjusted 2	Adjusted 1	Adjusted 2
1940s	.493	.410	.953	.737
1950s	.507	.429	.928	.737
1960s	.437	.440	.740	.732
1970s	.404	.446	.594	.714
1980s	.317	.388	.400	.574
Overall Mean	.428	.428	.701	.701

NOTE: Mean values of quarterly figures are adjusted by ordinary least squares regression. Adjusted 1 controls for seasonality and the total unemployment rate. Adjusted 2 adds controls for the percentage of the unemployed who are female, over age 65, from construction and manufacturing, job losers, and have been unemployed for more than 26 weeks.

These methods of adjustment had the expected effect on the estimated trends in UI coverage. Controlling only for cyclical influences had a minor effect on the data and, if anything, tended to increase the estimated decline somewhat in the 1980s. Because the TUR was relatively high during several years in the 1980s, and because most measures of UI coverage are positively correlated with the TUR (laid-off workers are more likely both to be eligible for and to collect UI), the estimated decline in UI coverage appeared to be even more significant than in the unadjusted data. Overall, however, the changes between the unadjusted and adjusted data were relatively slight.

However, adjusting for changes in the composition of the unemployed had an important effect on the estimated patterns. For both measures, the long-term declines in coverage that were visible in the raw data were largely eliminated, with the exception of the decline observed in the 1980s. The 1980s decline, while partially explained by this adjustment, continued to be sizeable—12 to 13 percent for the UI claims ratio variable. A further examination of the causes of these results showed that they were due primarily to the inclusion of variables that reflected the changing sex and industrial composition of the unemployed. Especially important in the 1980s was the long-term decline in the proportion of unemployed from manufacturing industries, a topic that we consider in more detail in Chapter II. In our interviews with state UI officials, this decline was frequently mentioned as affecting the nature of the UI caseloads, and in later chapters we examine its connection to the UI coverage issue in considerably more detail. For the moment, we wish only to point out that the industrial composition issue is an important one. The results in Table I.2 should not, however, be considered definitive. The simple time-series regressions on which they are based were relatively unstable, since most of the data series that we used were highly intercorrelated. Hence, the results should be regarded primarily as

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descriptive and as suggesting avenues that we subsequently pursued in our more detailed quantitative research.

B. CHANGES IN UI COVERAGE DURING THE 1970s AND 1980s

Unfortunately, it was not possible to analyze the 1948-1986 data on UI coverage in very great detail. Many important national data series do not extend back beyond the mid-1960s, and most data at the state level are of even more recent vintages. Hence, for the bulk of our research, we were forced to focus on a more limited set of observations. Specifically, we chose the period from 1971 to 1986 as our primary focus, since that period was the one for which most of the required data were available,[1] and it included the years in which most of the decline in UI coverage (at least the decline measured by the UI claims ratio variable) seems to have occurred. Thus, in the remainder of this chapter, we focus only on the results for this shorter period.

Table I.3 illustrates the behavior of the UI claims ratio variable over this shorter period. In addition, the table includes the results for a more comprehensive measure of UI coverage that includes claims under extended benefits programs (EB, FSB, and FSC) and under a series of relatively small special programs (SUA, UCFE, UCX, and RUI).[2] Figures on the right-hand side of Table I.3 reflect the ratio of claims under all of these programs (and under the regular state UI program) to total unemployment. On average, this ratio was about 9 percentage points higher than the UI claims ratio variable (which reflects only regular state UI claims) during the period.

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[1] However, the most important exception to the availability of data was the absence of unemployment-composition data at the state level before the late 1970s. The consequences of the absence of these data for our research are described at several places in later chapters.

[2] See Chapter II for a brief description of these various programs and their possible connections to the UI coverage issue.

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TABLE 1.3

COMPARISON OF UI COVERAGE BETWEEN THE
1970s AND 1980s

	Ratio of State UI Weeks Claimed to Total Unemployment[a]			Ratio of Weeks Claimed Under All UI Programs to Total Unemployment[b]		
	Unadjusted	Adjusted 1[c]	Adjusted 2[c]	Unadjusted	Adjusted 1[c]	Adjusted 2[c]
1971-79	.407	.418	.395	.523	.565	.521
1980-86	.346	.336	.366	.402	.343	.404
Overall Mean	.382	.382	.382	.470	.470	.470

Addendum - 1980s Data by Year

1980	.440	.439	.396	.507	.502	.502
1981	.368	.378	.355	.413	.367	.455
1982	.383	.331	.329	.453	.221	.293
1983	.315	.266	.327	.433	.210	.219
1984	.288	.279	.336	.338	.298	.281
1985	.313	.311	.341	.338	.327	.334
1986	.323	.325	.363	.333	.340	.360

a
The numbers reported here differ slightly from those reported in Table 1.2, because the time period used for the comparison and the adjustments (1971 to 1986) differs from the time period used in Table 1.2 (1948 to 1986).

b
"All UI programs" includes regular state Unemployment Insurance (UI), Extended Benefits (EB), Special Unemployment Assistance (SUA), Federal Supplemental Benefits (FSB), Federal Supplemental Compensation (FSC), Unemployment Compensation for Federal Civilian Employees (UCFE), Unemployment Compensation for Ex-servicemembers (UCX), and Railroad Unemployment Insurance (RUI).

c
See Table 1.2 for a description of the adjustment methods.

For the UI claims ratio variable itself, the data for the 1971-1986 period provided a picture that was quite similar to that for the entire postwar period. That is, for the 1980s, the unadjusted data show a decline in the claims ratio of .062 (15 percent of its 1971-79 average), and somewhat similar declines are reflected in the two series that were adjusted by regression. All of these declines were statistically significant at the .01 level. As before, the estimated decline when controlling only for the business cycle was somewhat larger than in the raw data (19 percent), and the estimated decline when controlling also for the composition of the unemployed was smaller than in the raw data (8 percent).

When claims under all UI-type programs were included in the coverage measure, the estimated decline in coverage increased substantially. For the unadjusted data, the decline amounted to about .12--nearly 23 percent of the 1971-79 average. As we discuss in Chapter II, the primary reason for this relatively large decline was the set of changes introduced into the regular extended benefits program (EB) in the early 1980s, together with the very large scale of the emergency FSB program in the mid-1970s. In addition, the scale of some of the other programs included in this comprehensive measure of UI coverage was reduced substantially during the early 1980s, but these reductions may have been too small in the aggregate to have had much of an effect on the numbers. The importance of changes in extended benefits policy in terms of affecting the figures was clearly illustrated by the data which have been adjusted for the overall level of unemployment. Since the extended benefits caseloads depend heavily on the state of the economy, controlling for the relatively high TUR during 1981-83 exaggerated the extent of the decline even further (amounting to nearly 40 percent in the adjusted figures). Controlling also for the changing composition of the unemployed ("Adjusted 2") served to return the extent of the decline to approximately the level exhibited in the raw data.

Although the findings for the comprehensive measure of UI coverage reported in Table I.3 were interesting and are, perhaps, the best measure of how well the entire UI system covers the unemployed, there are two reasons that we did not use these data to any great extent. First, because changes in the measure have been importantly influenced by changes in extended benefits policy, and because the effects of those changes have been extensively studied elsewhere,[1] little would have been gained by re-examining those issues in our research. Focusing on them might also have obscured fundamental questions about trends in UI collections under regular state programs. Hence, most of our analysis focused on the UI claims ratio variable, paying only brief attention to its more comprehensive analog.

The lower half of Table I.3 presents annual average figures on UI coverage. These figures show that, with the exception of the year 1980, declines in coverage below the 1971-79 average characterized all of the years in the 1980s. All of these declines were statistically significant. When the overall level of unemployment was controlled for in regressions, the declines appeared to be largest in the recession years of 1982 and 1983 (and, possibly, 1984), but, at least for the UI claims ratio figures, all of the years were similar. For most of our analysis, therefore, we tended to combine all the years in the 1980s into a single magnitude, with the inclusion of 1980 based more on descriptive simplicity than on the belief that the year was similar to other years in the 1980s. Using an alternative time period (say, 1981-1986) for the comparison would have increased the absolute magnitude of the decline that we wished to explain, but it would not have changed the qualitative nature of either the decline or our findings.

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[1] See, for example, Corson and Nicholson (1985) and Corson, Grossman, and Nicholson (1986).

C. ALTERNATIVE MEASURES OF COVERAGE

Table I.4 summarizes a number of additional measures of UI coverage for the 1971-1986 period using national data. The first four of these pertain to the regular state programs. In addition to showing the standard UI claims ratio variable, the table shows measures of the weeks of benefits actually paid (rather than claimed) and two measures of initial benefit payment activities: new initial intrastate claims and first payments. All of these ratios exhibited statistically significant declines of approximately the same magnitude during the 1980s. The similarity of the declines in these measures has two important implications for the UI coverage question. First, because the claims and payments figures declined by roughly the same amount, there is no indication that the states "tightened up" their programs substantially in terms of judging whether those who made claims were eligible for payments. That result mirrored our more extensive analysis of state laws and administrative activities that is reported in later chapters, which also generally failed to find much evidence of such tightening. Second, the fact that initial intrastate claims and first payments fell by about the same amount as did total claims and total weeks paid tended to imply that most of the decline in measured UI coverage occurred because potential UI recipients never applied for benefits.[1] Although our more extensive research generally supported that conclusion, the conclusion itself implied very little about the cause of this decline, which may have been due to a variety of economic or policy-related

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[1] Only if those who did not file an initial claim would have collected benefits for significantly fewer weeks than those who did file an initial claim would these data be consistent with an interpretation of the decline in the UI claims ratio data that assigns a major role to reduced weeks of filing during the 1980s for those who did file an initial claim. We found little evidence of reductions in the duration of benefits received, and, hence, most of the decline in the UI claims ratio variable was attributed directly to the decline in new claims. This finding is generally consistent with that reported by Burtless and Saks (1984), who compared initial claims with job losers who were unemployed less than 5 weeks.

TABLE I.4

ALTERNATIVE MEASURES OF CHANGES IN UI
COVERAGE OF THE UNEMPLOYED,
1971-1986

	Mean 1971-1979	Mean 1980-1986	Percent Change
UI COVERAGE			
Ratio of State UI Weeks Claimed to Total Unemployment	.407	.346	-15.0[**]
Ratio of All Weeks Paid Under State UI to Total Unemployment	.340	.301	-11.5[**]
Ratio of New Initial Intrastate UI Claims to Total Unemployment	.0333	.0269	-19.2[**]
Ratio of UI First Payments to Total Unemployment	.0231	.0193	-16.5[**]
SPECIAL PROGRAMS			
Ratio of All UI Weeks Claimed Under Extended Benefits Programs to Total Unemployment[a]	.0956	.0491	-48.6[**]
Ratio of Claims Under UCFE to Total Unemployment	.0067	.0031	-53.7[**]
Ratio of Weeks Claimed Under UCX to Total Unemployment	.0142	.0033	-76.8[**]
SPECIAL CLAIMS			
Ratio of Interstate Weeks Compensated to Total Weeks Compensated	.0512	.0441	-13.9[**]
Ratio of Interstate New Claims to Total New Claims	.0591	.0443	-25.0[**]
Ratio of Weeks of Partial Payments to Total Weeks Paid	.0607	.0685	+12.9[**]

[a] Extended benefits programs include EB, FSB, SUA, and FSC.

[**] Difference is statistically significant at the .01 level in a two-tail test.

factors. But, in our detailed analysis (Chapter IV), we do make some use of this observation to choose among competing hypotheses that seek to explain the decline.

The   second   set of entries in Table I.4 pertain to special UI-related programs--extended benefits programs (including SUA, a program that provided UI benefits to workers not previously covered under state programs during the 1974-75 recession), the program for unemployed federal employees (UCFE), and the program for unemployed persons who last worked in the military (UCX). All of these special programs exhibited substantial declines during the 1980s. These declines were due primarily to direct policy actions undertaken early in the 1980s, which we describe in some detail in the next chapter.

The final three entries in Table I.4 pertain to special types of claims made under regular state UI programs. The first of these ratios shows that interstate payments have declined somewhat as a fraction of total payments during the 1980s. In our discussions with UI officials, several comments were made about a perceived decline in the number of interstate claims in recent years, a notion that tended to be supported by these data. One frequently mentioned reason was the increasingly automated nature of the interstate claim process during the late 1970s and early 1980s, and a related shift in responsibility to the liable state for enforcing eligibility provisions. The possibility that the interstate claiming process was administered more rigorously is further supported by the large decline in initial interstate claims, also reported in Table I.4. However, since interstate claims account only for a small portion of total claims (about 5 percent), the large decline in such claims represents only a small part of the explanation for the apparent decline in UI coverage.

The final entry in Table I.4 shows that the relative importance of partial UI benefits payments has increased somewhat in the 1980s. By itself, such an increase would not affect most of the measures of UI coverage that we have been using, since

claims for partial benefits were included in the total claims data used to construct these measures. But we believe that the increase in partial benefits payments primarily reflects the increased importance of the new pension and OASDI offset provisions that were introduced into the UI program during the 1980s (see Chapter II for a description of these provisions). Therefore, the partial payments figures offered one piece of evidence on the importance of these provisions.

In Table I.5, we report the same set of measures of UI coverage that were presented in the previous table, but in this case the data were adjusted by regression to control for the level of overall unemployment. In general, the adjusted figures were quite close to the unadjusted figures reported in Table I.4. Thus, controlling for the business cycle did not significantly alter the conclusions presented earlier in this section.

Table I.5 also shows adjusted mean values for the alternative measures of UI coverage for the 11 largest states. These states are the only ones large enough to permit using monthly unemployment estimates from the Current Population Survey directly.[1] Hence, it is presumed that unemployment is measured more accurately in these states. Because much of our analysis focused on a variable (the UI claims ratio) which required that measured unemployment be included in its denominator, we chose to emphasize this set of "direct use" states. This emphasis also made it somewhat less burdensome to make many of the computations that we wished to utilize. Since these 11 states constitute about 60 percent of all regular UI claims, and since, as shown in Table I.5, these states exhibited patterns of UI that were quite similar to the nation as

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[1] In the other states, CPS estimates are used along with data on UI claims to extrapolate various components of unemployment.

TABLE I.5

ADJUSTED MEASURES OF CHANGES IN UI
COVERAGE OF THE UNEMPLOYED,
1971-1986

	National Data			Data from 11 Largest States		
	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change
UI COVERAGE						
Ratio of State UI Weeks Claimed to Total Unemployment	.415	.335	-19.3**	.411	.345	-16.1**
Ratio of All Weeks Paid Under State UI to Total Unemployment	.347	.292	-15.9**	.348	.303	-12.9**
Ratio of New Initial Intrastate UI Claims to Total Unemployment	.0327	.0276	-15.6**	.0320	.0272	-15.0**
Ratio of UI First Payments to Total Unemployment	.0229	.0195	-14.9**	.0225	.0195	-13.3**
SPECIAL PROGRAMS						
Ratio of All UI Weeks Claimed Under Extended Benefits Programs to Total Unemployment[b]	.1015	.0413	-59.3**	N.A.	N.A.	N.A.
Ratio of Claims Under UCFE to Total Unemployment	.0064	.0034	-46.9**	.0052	.0025	-51.9**
Ratio of Weeks Claimed Under UCX to Total Unemployment	.0136	.0041	-70.0**	.0118	.0032	-72.9**
SPECIAL CLAIMS						
Ratio of Interstate Weeks Compensated to Total Weeks Compensated	.0509	.0445	-12.6**	.0463	.0419	-9.5**
Ratio of Interstate New Claims to Total New Claims	.0593	.0440	-25.8**	.0588	.0469	-20.2**
Ratio of Weeks of Partial Payments to Total Weeks Paid	.0588	.0710	+20.8**	.0572	.0709	+24.0**

[a] Means are adjusted by regression to control for seasonality and the total unemployment rate.

[b] Extended benefits programs include EB, FSB, SUA, and FSC.

**Difference is statistically significant at the .01 level in a two-tail test.

N.A. = not available.

a whole, an analysis based largely on these states should not significantly distort the overall picture.

D. EXPERIENCE IN INDIVIDUAL STATES

The extent of UI coverage and the extent of its decline have varied widely from state to state. Such variance is illustrated in Table I.6 for the eleven largest states. As in the previous tables, mean values for the UI claims ratio variable in Table I.6 were adjusted for seasonality and for the overall level of unemployment, but the unadjusted data also showed similar variability. As might have been expected, the ratio of UI claims to total unemployment was highest in states in which manufacturing represents a large fraction of their workforce and which have a reputation for relatively "generous" UI programs (for example, Massachusetts). The ratio was relatively low in states that are less oriented toward manufacturing (Florida) or in states with reputations for "tough" UI programs (Texas). In all of the states, however, the UI claims ratio variable was positively correlated with the overall unemployment rate, although the degree of cyclical sensitivity does vary widely among the states.

Estimated rates of decline in apparent UI coverage also varied widely among the largest states, as Table I.6 clearly illustrates. UI coverage appears to have increased slightly in California during the 1980s, while Illinois and Michigan experienced major declines. With the exception of California, however, all of the 11 states showed declines in the UI claims ratio measure of UI coverage, and in most cases those declines were statistically significant.[1] The different magnitudes reported in Table I.6 do suggest that state-specific factors may have played an

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[1] The same pattern was evident over all states. Only 4 states (California, Colorado, Kansas, and Wyoming) had statistically significant increases in the UI claims ratio in the 1980s, while 35 states had statistically significant reductions.

TABLE I.6

ADJUSTED MEAN RATIO OF WEEKS CLAIMED UNDER
UI STATE PROGRAMS TO TOTAL UNEMPLOYMENT
FOR 11 LARGEST STATES,
1971-1986

	Adjusted Mean 1971-1979	Adjusted Mean 1980-1986	Percent Change
California	.399	.419	+5.0*
Florida	.255	.200	-21.6**
Illinois	.499	.301	-39.7**
Massachusetts	.507	.452	-10.9**
Michigan	.468	.292	-37.6**
New Jersey	.536	.433	-19.2**
New York	.481	.381	-20.8**
North Carolina	.340	.291	-14.4**
Ohio	.341	.308	-9.7*
Pennsylvania	.549	.433	-21.1**
Texas	.208	.194	-6.7

NOTE: The data are adjusted by regression to control for seasonality and
the total unemployment rate.

*Difference is statistically significant at the .05 level in a two-tail
test.
**Difference is statistically significant at the .01 level in a two-tail
test.

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important role in determining experience in UI coverage. That possibility provided a major starting point in our selection of analytical strategies for our research. The observed variation in UI coverage by state also suggested that shifts in the regional distribution of unemployment may have contributed to the measured decline in national UI coverage. This issue is addressed in our subsequent analysis.

E. CONCLUSION

Our goal in this chapter was purely a descriptive one: to assess whether a decline in UI coverage has actually occurred during the 1980s and to develop a rough estimate of its size. That is, our goal was to provide a rather precise definition of the phenomenon that we seek to explain in our later analysis. We concluded that a significant decline in UI coverage has indeed occurred during the 1980s. The extent of the decline depends on how UI coverage is defined, which time periods are used for comparison purposes, and whether statistical methods are used to control for other factors in measuring the decline. We believe that the ratio of all claims under state UI programs to total unemployment (a variable we have termed the UI claims ratio) is perhaps the best single measure of the decline, and that comparisons between the 1970s and 1980s for this variable do not greatly distort the overall picture. Based on these definitional conventions, we found that the UI claims ratio fell by about .06 to .07 between the 1970s and 1980s, or by approximately 15 percent of its 1970s mean value. However, because this average national estimate masked considerable variability among the states (primarily in the magnitude of the decline), our analytical goal was not only to explain the decline, but also to suggest the reasons for such variability among the states.

F. OUTLINE OF THE REMAINDER OF THE REPORT

The remainder of this report consists of five additional chapters. In Chapter II, we explore the possible explanations for the observed decline in UI coverage. We

examine possible changes in the composition of the unemployed, in federal and state laws, and in the measurement of unemployment--all of which may have contributed to the trend. However, our discussion in Chapter II is largely a priori, in that we do not introduce very much quantitative information.

We begin our quantitative analyses in Chapter III, in which we introduce the state-level data that we used and illustrate some trends in those data. We follow this discussion by presenting our primary analytical results in Chapter IV. This analysis was based on our state-level data set, although we also present some national-level results. A supplementary analysis of individual-level data from the Panel Study of Income Dynamics is then presented in Chapter V. Finally, in Chapter VI, we draw our results together and provide an overall assessment of the likely reasons for the observed changes in UI coverage. We also comment briefly on some policy implications of our findings.

II. POSSIBLE EXPLANATIONS FOR THE DECLINE IN UI COVERAGE

In Chapter I, we showed that a downward trend in the proportion of unemployed who receive UI benefits has indeed been occurring. In this chapter, we explore the possible explanations for this trend. Our goal here is still largely descriptive. We are interested only in suggesting the potential reasons for the decline, not in assessing the quantitative importance of these explanations. Thus, the chapter represents an a priori cataloging of the factors that determine how many of the unemployed collect benefits.

In order to understand why UI coverage of the unemployed has apparently changed, one must understand the nature of the state-federal unemployment insurance program in the United States. In general, unemployment insurance benefits are paid only to workers who are laid off from jobs that are covered by the UI system and who meet certain monetary and nonmonetary eligibility standards. In numeric terms, the most important groups of individuals who are not eligible to collect under the program include:

1. Unemployed individuals who have not lost a job (e.g., labor force entrants, reentrants, and, to a major extent, workers who quit voluntarily)

2. Unemployed job losers whose job was not covered by UI

3. Job losers from covered employment who do not have sufficient previous employment to be eligible for UI

4. UI claimants who fail to meet continuing eligibility standards that govern their availability for work

5. UI claimants who have exhausted their benefit entitlements

Changes in the economic or policy environment that affect the relative significance of these groups can have a direct impact on measured UI coverage. In this chapter, we have grouped the various factors that may have such an effect into four major sections. In Section A, we describe possible long-term economic and demographic influences on the extent of UI coverage of the unemployed. In Section B, we then discuss how policy actions at the federal level may have affected UI collections, and in Section C we examine a similar set of questions about the possible effects of legislative and administrative changes at the state level. Finally, in Section D, we briefly discuss some issues associated with possible increases in the measured number of unemployed workers in the United States and how this might have affected the observed rate of UI coverage during the 1980s.

A. ECONOMIC AND DEMOGRAPHIC INFLUENCES ON UI COVERAGE

Changes in the characteristics of the unemployed population can have a clear impact on the proportion who receive UI benefits. For example, a secular decline in the relative importance of prime-age males to the number of unemployed would have a negative impact on the proportion of the unemployed who receive benefits, since women and younger workers are more likely to be entrants or reentrants to the labor force and hence not eligible for benefits. Similarly, since women and younger workers often have somewhat less job experience than do prime-age males, relatively more workers in these groups may not have sufficient base-period employment to qualify for UI benefits. Because males over age 20 declined from nearly 60 percent of the unemployed in 1950 to less than 45 percent in 1985, some decline in the receipt of UI

benefits might have been expected over this longer period.[1] Since the early 1970s, however, such compositional changes in the unemployed have been rather small.

The industrial attachment of the unemployed may also have some influence on rates of UI receipt. Most jobs in manufacturing, mining, and construction were included in the UI system during most of the postwar period. The inclusion of service-sector jobs, however, lagged somewhat behind, primarily because employers that have very few employees, which are more prevalent in the service sector, were not included in the system until fairly recently. Since the relative importance of goods-producing industries has declined as the service sector of the economy has expanded, such differential rates of inclusion under the UI system may offer a partial explanation for the relative decline in UI receipt. Two major expansions in jobs included in the UI system (in 1956 and 1972) served to offset this decline somewhat, and, by 1972, most private-sector jobs were included under the program.[2] Still, the relative increase in service jobs may have continued to exert an influence on the extent of UI receipt, because relatively fewer workers who have such jobs may be monetarily eligible for UI.

Manufacturing also provides another example of the importance of industrial attachment to rates of UI receipt. Information about UI and access to the program may be somewhat greater in manufacturing jobs, in part because of the manner in which claims from manufacturing layoffs are often handled. Because of the size of

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[1]However, it should be noted that this is not an argument about UI receipt by demographic groups per se, but rather an argument about the effects of differential characteristics of the groups. Further, to the extent that UI eligibility can be measured directly (say, by job experience or by the cause of unemployment), there is no direct reason for expecting differential receipt among otherwise similar groups.

[2]The only important changes in job coverage during the 1972-1986 period occurred in 1976 when certain agricultural workers, private household workers, state and local employees, and employees of nonprofit elementary and secondary schools were brought into the UI system.

layoffs in manufacturing, UI program administrators often take claims at the work site or use some other mechanism to smooth claims-processing procedures. Consequently, potential UI claimants can apply for benefits relatively easily in these situations. Thus, the relative decline in manufacturing jobs, and the consequent decline both in the number of large layoffs and in the number of persons who can easily apply for benefits, may have exerted further downward pressure on the prevalence of UI receipt.

In addition to these long-term influences, the business cycle also exerts a major but short-term effect on the incidence of UI receipt. As demand declines, layoffs increase. Since workers on layoff are more likely to be eligible for UI benefits than are other groups of the unemployed, the proportion of the unemployed who receive benefits should rise during recessionary periods. Because unemployment shifts toward manufacturing industries during cyclical downturns, there may be some additional reasons for expecting an increase in UI coverage of the unemployed. However, this effect is limited to some extent by concomitant changes in the duration of unemployment. As unemployment spells lengthen, relatively more workers will be unemployed for a long enough period to exhaust their UI entitlements. Thus, even though they may continue to be unemployed, they will not appear in the UI claims figures. Since the layoff effect occurs earlier in a cyclical downturn than does the increase in UI exhaustions, the connection between a simple measure of business activity (e.g., the unemployment rate) and UI claims will be relatively complex, and it may be important to control for different components of the unemployed directly.[1]

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[1]Some of our empirical estimates suggest that estimated UI coverage of the unemployed is positively correlated with the total unemployment rate, but that this correlation is substantially reduced or eliminated once controls are introduced for various components of the unemployed. We will examine these correlations in more detail in Chapter IV.

A final economic change which may affect UI coverage, as measured nationally, is a change in the regional distribution of the unemployed. Geographic shifts in unemployment could be important because, as noted in Chapter I, the UI claims ratio, as well as the magnitude of the recent decline in the ratio, varies substantially by state.

Although there are strong reasons to believe that long-term and cyclical changes in the composition of the unemployed can affect the proportion who receive UI benefits, it seems doubtful on a priori grounds that these influences could account for all of the apparent decline in UI coverage during the 1980s that was documented in Chapter I. As we show in Chapter III, no sharp structural breaks in the general labor-market data series occurred in the late 1970s or early 1980s that might explain the decline. Indeed, some of the data exhibit changes that would suggest increased coverage. Hence, although it is important to control for compositional factors in order to obtain an accurate estimate of what the decline would have been had economic and demographic factors not changed, we must look elsewhere for a complete explanation of the decline itself.

B. POLICY CHANGES AT THE FEDERAL LEVEL[1]

A number of changes in UI policy that were implemented at the federal level in the late 1970s and early 1980s had the effect of reducing the scale of some unemployment compensation programs and of altering the incentives to collect UI benefits under practically all programs. Here, we will discuss these policy changes

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[1]For a more thorough description of changes in UI laws, see USDOL (1986).

under five topic areas:[1] (1) the taxation of UI benefits, (2) the treatment of pensions and OASDI benefits under UI, (3) extended benefits policy, (4) changes in special UI programs, and (5) policy toward state UI trust funds and emergency loans.

1. The Taxation of UI Benefits

Prior to 1979, UI benefits were exempt from the federal income tax. Although such treatment was consistent with the treatment of most other transfer payments, it came under extensive scrutiny during the mid-1970s as several authors pointed to the adverse incentive effects of tax exemption (see Feldstein, 1974). Beginning in 1979, UI benefits were first made taxable for single individuals whose incomes exceeded $20,000 and for married taxpayers filing jointly whose incomes exceeded $25,000. Further legislation in 1982 lowered these income limits to $12,000 and $18,000, respectively, for UI benefits received after January 1, 1982. The adoption of these lower income limits brought much greater numbers of UI recipients under income taxation. Such taxation could have a major effect on incentives to collect UI benefits. Previous studies of the work disincentive effects of UI have tended to focus on the "net wage replacement ratio"--the ratio of UI benefits to net, after tax, weekly wages. One widely referenced summary of these studies concludes that a 10 percent increase in this wage replacement ratio (WRR) tends to lead to 0.5

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[1]A further federal initiative that may have affected UI claims by reducing the desirability of collecting UI is the 1981 requirement (enacted as part of the Omnibus Budget Reconciliation Act of 1981) that states require claimants to disclose child-support obligations, and that states deduct and withhold child support from UI payments. Data on child-support withholding from UI (see U.S. Department of Health and Human Services, 1987, Table 13) show that, while only five states had any withholding in FY 82, all but three states were withholding child-support obligations from UI by FY 86. By that point, withholding for child support amounted to about 0.7 percent of total UI payments. Although this initiative may have affected the UI claims ratio, we have not attempted to quantify its effect, since we believe it was probably small.

to 1 week of additional unemployment (Hammermesh, 1977).[1] Since taxation would reduce the WRR by 25 to 30 percent for those who are liable for the tax, the effects on weeks of UI collection could have been large. As we show in Chapter IV, however, attempting to measure this effect accurately posed substantial problems for our study.

2. The Pension Offset

Prior to the 1980s, a few states reduced UI benefit payments to individuals when they were also collecting a pension or social security benefits, but no explicit federal guidelines governed such policies. As part of the Unemployment Compensation Amendments of 1976, states were required to institute explicit pension offsets for all employer-financed pension payments (including the employer-paid portion of OASDI benefits). These provisions were originally to take effect on October 1, 1979, but the effective date was delayed until April 1, 1980, in order to give the states more time to institute them. In September 1980, the offset provisions were further modified so as to mandate the inclusion of only that portion of the pension (still including OASDI) that was financed by the UI recipient's base period employer.

In our discussions with state UI officials, we found that the manner in which the pension offset is actually administered differs widely among the states, especially the manner in which OASDI benefits are handled. Some states deduct all OASDI payments, some deduct one-half (which is the employer contribution), and some make no deduction at all. When deductions are made, state officials believe that these pension provisions have a detectable impact on their UI caseloads by making it more difficult for older workers to collect benefits. While data on changes in the age

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[1]The extensive literature on UI incentive effects since that point tends to support this rule of thumb (see, for example, the summary in Gustman, 1980).

distribution of the claimant population support this notion,[1] considerable uncertainty still surrounds the magnitude of this impact, and the extent to which the pensionoffset helps explain the decline in apparent UI coverage is an important, unresolved puzzle.

3. Changes in Extended Benefits Programs

In the early 1980s, substantial changes were made to the permanent extended UI benefits program (EB), and the emergency program that was instituted in response to the 1982-83 recession (FSC) differed significantly from a similar one instituted during the 1970s (FSB). In very general terms, the changes made extended benefits policy during the 1980s considerably less generous than was the case in the previous decade. For example, in a previous study, we estimated that changes in the EB triggering mechanism and in EB eligibility and work test rules reduced EB first payments by about 24 percent during the recessionary period 1982.4-1983.3 and by a much greater amount during nonrecessionary periods in the 1980s (Corson and Nicholson, 1985). Although the emergency FSC program did fill some of the holes left by this cutback in EB, maximum potential durations under EB-FSC were not as long as they had been under EB-FSB during the 1970s. In addition, the complex and constantly changing structure of the FSC program may have made it difficult for UI claimants to know what their UI options actually were.[2]

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[1]For example, data on the age distribution of the UI claimant population supplied by New York state show a sharp decline, beginning in 1980, in the proportion of the population age 65 or older. For the last half of the 1970s, this proportion averaged .058 per year; in the 1980s, it averaged .032 (through 1986). Declines of a similar magnitude were observed in other states which instituted pension and OASDI offsets.

[2]Details on the FSC program are reviewed in Corson, Grossman, and Nicholson (1986).

These changes in extended benefits policy have two implications for the present study.[1] First, measures of UI activity that include claims made under the extended benefits program will exhibit an obvious, policy-related decline when measured for the 1980s. Since this decline is relatively well understood, however, it was not a primary focus of our analysis (although we have included some general information on extended benefits programs in both Chapters I and VI). A second, less obvious effect of the changes to extended benefits programs is directly relevant to regular UI claims under state programs. If the availability of extended benefits prompts individuals to collect more weeks of benefits under regular state programs, some impact on observed claims will indeed occur. Although empirical estimates of the effect of potential UI duration on the actual duration of benefits received vary to quite an extent, there is some consensus that the effect is significant. One set of fairly conservative estimates concludes that each week of additional potential duration leads to about 0.1 to 0.15 week of additional actual duration (Moffitt and Nicholson, 1981, and Moffitt, 1985). Since potential durations were reduced substantially by the reductions in extended benefits programs during the 1980s relative to their levels in the 1970s, the impact on reducing regular UI claims could have been substantial.[2]

4. Changes in Special UI Programs

Eligibility and other rules for several small UI-type programs operated by the federal government were changed in major ways during the late 1970s and early

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[1]A third policy change that was implemented under extended benefits legislation in 1980 amounted to requiring that the states implement a waiting-week provision into their UI laws.

[2]It should be pointed out, however, that the disincentive effect of longer UI durations may be apparent only in relatively weak labor markets. Thus, comparisons between the 1970s and 1980s should be made with care.

1980s. The most important programs affected were (1) Trade Adjustment Assistance (TAA), (2) Unemployment Compensation for Ex-servicemembers (UCX), and (3) Unemployment Compensation for Federal Civilian Employees (UCFE). The primary changes in the TAA program occurred in 1981 when eligibility standards were tightened,[1] weekly benefit amounts were reduced, and a cap was placed on maximum potential duration under UI and TAA combined. The overall impact of these changes on TAA caseloads was quite substantial. However, the effect of restrictions in TAA on claims under the regular state UI programs was probably quite small since relatively few UI claimants were eligible for TAA benefits.

Changes in the UCX and UCFE programs probably had even smaller effects on regular UI claims (if any), but the change in the programs themselves seem to have been substantial. For UCX, a major change came in 1981 when members of the military who failed to reenlist when they were eligible to do so were disqualified from the program. Although this requirement was modified in 1982 to permit most individuals who leave the military to collect UCX, a waiting period of 4 weeks was instituted at that time, and duration was limited to 13 weeks.[2] The dramatic decline in the UCX caseload during the 1980s that we reported in Chapter I was probably dueto these two changes and to the fact that discharges from the military were lower in the 1980s than in the 1970s,[3] although we are not aware of any detailed quantitative analysis of the issue.

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[1]Specifically, to be eligible, individuals were to have exhausted their regular UI entitlements and were to meet more stringent definitions of being trade-impacted. The trade-impact definition was subsequently relaxed (in 1983), but the other restrictions introduced in 1981 remained in effect.

[2]Prior to that time, benefit duration equalled the duration under the relevant state program.

[3]In the early 1970s, UCX roles were high presumably because of the phasedown of the Vietnam war. This situation affects the comparisons with the 1980s reported in Chapter I.

The reasons for the large decline in the UCFE caseload reported in Chapter I are less apparent. The major change in the program seems to have been a 1980 change that made individual federal agencies responsible for UCFE charges. This shift in responsibility perhaps led to somewhat tighter monitoring of claims under the program. But, again, we are not aware of a quantitative examination of the subject.

We should again stress that all of these special UI-type programs are relatively small, and changes in them would not show up directly in our measures of UI claims under state programs.[1] But the rather dramatic changes in the caseloads of all of these programs, together with the concomitant changes to the extended benefits program, did convey the impression that UI policy was tightened considerably at the federal level. Exactly how that affected policymaking at the state level remains unclear, however.

5. UI Trust Fund and Loan Provisions

During the 1980s, many important changes were made to the federal regulations that govern the states' UI trust funds and to the provisions for making loans to these funds.[2] Two explicit policy changes seem especially important. Starting in 1982, emergency loans to state trust funds (except for "cash flow" loans) carried interest charges; they had previously been interest-free. In 1983, states were given further incentives to rebuild their solvency through a series of provisions that deferred interest charges and future increases in Federal Unemployment Tax Act (FUTA) taxes if the states would undertake specific steps to reduce their UI benefit activities and increase their UI taxes. In addition to these explicit changes, the

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[1]However, the special programs are included in the comprehensive measure of UI claims under all programs that we introduced in Chapter I.

[2]For a thorough discussion of these actions, see Vroman (1986).

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federal government also made it clear that states were expected to repay their loans, and that FUTA penalty taxes (which had seldom been used prior to the 1980s) would indeed be imposed on states that had outstanding debts.

The net result of all of these changes was a clear tightening of states' budgets for their UI programs. This tightening may have affected the behavior of states, and, in the next section, we discuss how such effects might have shown up in UI laws and administrative procedures.

C. STATE ACTIONS

A number of observers of the UI system have suggested that state actions to restrict eligibility and, in general, to tighten program administration played an important role in the observed reduction in UI coverage of the unemployed. It has been suggested that these actions were taken in part to alleviate the financing problems experienced by many state programs. For example, Burtless and Vroman (1985) observed a "flurry of state legislative activity" in response to the tightening of trust fund and loan provisions and, they, at least implicitly, attribute a large portion of the observed decline in UI claims to this activity.[1]

State financing problems began during the 1975-1977 recessionary period, prompting loans from the federal UI trust fund to the states. These loans initially peaked at $5.4 billion in 1978. Of the 23 states that had borrowed at that time, 12 had paid off their loans by the end of 1979, but the indebtedness of the remaining states was substantial--$3.8 billion at the end of the decade. The back-to-back recessions of the early 1980s led to additional borrowing at a greatly increased scale. By the end of the first quarter of 1983, 28 states owed $13.7 billion to the federal government.

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[1]Also see the testimony presented to the Committee on Government Operations, U.S. House of Representatives on May 22, 1986 (U.S. Congress, 1986).

Moreover, as described in the previous section, the federal government took several steps in the early 1980s to encourage the repayment of loans and the rebuilding of state trust funds. These steps provided incentives for states to increase their UI taxes and/or to reduce the amounts paid out in benefit payments.

A further incentive for state action may have come through the increased pressure placed on the states by employers to limit UI expenditures, which might have been due to the increased UI tax rates faced by employers in many states.[1] Although we do not have direct evidence that this pressure occurred, a number of state officials in the states that we visited indicated that employers have generally become moreactive in the UI claims process than they had been in the past. Employers were cited as being more likely both to respond to requests for information and to challenge claims.[2] A number of state officials provided examples of employers who now routinely challenge claims but had never done so previously. As we discuss in Chapter III, we found an increase in appeals relative to nonmonetary determinations, which we interpret as evidence of increased employer challenges and hence pressure on the UI system.

States might have responded to tnese incentives to reduce UI payments in a number of ways that might have contributed to the observed reduction in UI coverage of the unemployed. For purposes of our analysis, we have classified these potential actions into two categories--(1) legislative changes and (2) administrative changes. We discuss these potential changes below. We also include a third category in our

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[1]A number of states raised their tax rates in the early 1980s to repay their loans, to rebuild their trust funds, and/or to avoid even higher penalty taxes. The federal taxable wage base was also increased from $6,000 to $7,000 effective on January 1, 1983. This change affected about half of the states; the others had taxable wage bases that exceeded $7,000 prior to the change.

[2]A number of firms hire consultants to help them reduce the level of UI payments charged to the firm.

discussion--measurement issues--since a number of changes have occurred at the state level in how the level of UI activity is measured. These changes in measurement might have affected the data in a manner whereby the measured decline in UI coverage may not be real or may be overstated.

Before listing our hypotheses about how these potential changes could affect the UI claims ratio, we should note that we discuss our hypotheses at this point and provide some examples of the observed changes. In the next chapter, we discuss how we parameterize the changes, and we present some evidence on whether or not these potential changes occurred.

1. Legislative Changes

Four types of legislative changes could reduce UI coverage:

1. Changes in Monetary Qualifying Requirements. Increases in base-period wages or weeks worked for UI eligibility would have a direct effect on the ability of the unemployed to collect UI.

2. Changes in Nonmonetary Qualifying Requirements. Tougher nonmonetary requirements governing the definition of voluntary leaving or misconduct would reduce the ability of the unemployed to collect UI. Similarly, tougher requalification requirements for these cases would reduce the ability of the unemployed to collect UI.

3. Changes in the Generosity of Benefits. Reductions in the potential duration of UI benefits and reductions in weekly benefit amounts relative to average wages would reduce the incentive to collect UI and increase the incentive to accept wage offers, thus reducing both weeks of unemployment and, possibly, the probability of claiming UI when unemployed.

4. Changes in Work Search and Other Nonmonetary Continuing Eligibility Requirements. Tougher continuing eligibility requirements and tougher disqualification penalties would reduce the collection of UI among the unemployed.

In each of these areas, some states did make changes in the early 1980s. For example, Michigan increased the number of weeks of work necessary to qualify for UI

benefits, as well as the amount of earnings necessary to qualify as a week of work. Other states made similar changes to monetary qualifying requirements. In terms of the generosity of benefits, some states froze automatic increases in weekly benefit amounts, while others, without automatic indexing, failed to increase benefit maximums in line with increases in average wages. In one case, Pennsylvania, the duration of benefits was reduced in two stages, from a uniform 30 weeks to a two-tier system of 26 and 16 weeks, and a temporary reduction in weekly benefit amounts over a minimum amount was also enacted. In the area of nonmonetary qualification, a number of states eliminated the ability of individuals who had quit or who were otherwise disqualified to collect benefits after a waiting period. Instead, disqualification periods were for the duration of unemployment.

2. Administrative Changes

Changes in how states examine initial and continuing eligibility for UI benefits, even in the absence of legislative changes, could affect the degree to which the unemployed claim UI benefits. For example, the definition and application of the UI "work test" can generally be changed by program administrators without legislative changes. In our discussions with states for this study and in a previous study (Corson, Kerachsky, and Kisker, 1987), we found that some states had begun asking claimants to list their contacts with employers; in the past, claimants were required only to indicate that they were able and available for work. This change can be viewed as tightening the UI work test. However, this change often appeared to coincide with the introduction of mail as opposed to in-person claims. Since mail claims make filing easier for claimants than do in-person claims, and since they cannot be monitored as extensively, the increased work-search monitoring due to the necessity of listing employer contacts may be offset by the change in filing method.

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Other changes in how claims are taken and monitored may also affect UI coverage. In general, these changes appear to have made filing both easier and less subject to intensive monitoring. As indicated above, the increased use of mail claims probably had this effect.[1] More generally, decreases in the level of administrative funding which have occurred in the 1980s have reduced the level of monitoring that can be undertaken by states.[2] Reductions in administrative funds have also caused some states to close offices. This change could have an effect opposite from the effect of the other administrative changes, by making UI less accessible to unemployed individuals.

A final category of administrative changes that have recently occurred pertains to the increased emphasis on benefit control by increasing the use of cross-matching of wage and benefit records and the development of the Quality Control System and its precursor, Random Audit. A number of the states that we visited indicated that the degree of cross-matching had increased recently. However, since cross-matching lags behind the claims process considerably,[3] few individuals felt that this effort had a major impact on UI claims. Similarly, the Quality Control process has probably had only a small effect, since the samples are very small relative to the UI caseload, and most claimants are probably unaware that their claims could be audited.

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[1]Some states also reduced the frequency of claims filing. For example, New York went from a system of weekly filing to bi-weekly filing (in 1983) to monthly filing (in 1987).

[2]For a discussion of funding issues, see Burgess and Kingston (1987).

[3]Because wage records do not become available until approximately 5 months after the end of a quarter, any cross-matching must be undertaken sometime after the end of the UI collection period.

3. Measurement Issues

Two changes in how UI claims and other activities are counted and collected could have had an effect on the usefulness of data on these processes for comparisons across time. That is, it is possible that the observed decline in the UI claims ratio or changes in other measures of UI activity that we observe may be affected by changes in how these data are measured. Two changes could have had this effect—the general switch from the manual counting of claims to the use of automated counts, and the institution of Workload Validation. This program has attempted to provide common definitions of what constitutes a claim and other administrative actions that are used to fund state administrative budgets. It also attempts to verify the counts of activities reported by states.

In our state visits, we asked about how the data have been affected by the increased use of automation in the UI system and the consequent ability to produce automated counts of claims and other actions as opposed to manual counts. All the state staff with whom we spoke felt that this change had improved the quality of the data, but they did not believe that there was any direction to the change. For example, no one felt that this change had reduced the volume of reported claims. This view can be confirmed by noting that data on payments as opposed to claims were generally collected through an automated process throughout our observation period, and, as shown in Chapter I, these data also showed a decline in UI coverage of the unemployed.

Because counts of some UI administrative actions, such as weeks claimed, are used to fund program administration, the U.S. Department of Labor initiated a program of Workload Validation to determine whether these workload items were counted correctly and whether they were labeled correctly. We examined data from

this program,[1] focusing on the first complete year of operations (1980), to determine whether any pattern of over- or undercounting, after it was corrected, might have affected the numbers that we used in our analysis. For weeks claimed, which was the major data item used to measure UI coverage, we found no evidence of a problem. The states that showed over- or undercounts (that is, greater than 5 percent) were evenly divided between those with overcounts and those with undercounts. The only area in which there is any evidence that measurement problems may have affected our analysis pertains to nonmonetary determinations. In this case, more states overcounted than undercounted these determinations, and quite a number of states counted actions that they should not have for determination purposes. However, our examination showed that problems with these data items continued throughout the 1980s, and there is no reason to believe that a dramatic change coincided with the introduction of the Workload Validation program.

In summary, while the quality of data has undoubtedly improved with increased automation and workload validation, we found no evidence that these changes have substantially affected the comparisons that we made.

D. CHANGES IN UNEMPLOYMENT

Most of our analysis of the decline in UI claims in Chapter I was conducted in relative terms--that is, we examined UI claims as a proportion of total unemployment. Thus, one final potential explanation for the observed decline in UI coverage is that it might have been due in part to increases in the number of unemployed workers that were unrelated to the UI system itself. Two types of secular long-term trends in the number of unemployed might have had this effect. First, some

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[1]We used unpublished tabulations supplied by the Unemployment Insurance Service, USDOL.

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macroeconomists have observed what appears to be an upward "drift" in the unemployment rate in most Western countries since the mid-1970s (Blanchard and Summers, 1986). If this drift were not accompanied by a concomitant expansion in UI collections, the UI claims ratio (and other measures of relative UI coverage) would have declined. Second, unemployment itself is estimated from the Current Population Survey (CPS), and substantial efforts have been made in recent years to improve these estimates. To the extent that such efforts have raised measured unemployment relative to its past levels, they may have exaggerated the downward trend in the UI claims ratio: if unemployment had been measured more accurately in previous decades, then, according to this hypothesis, the UI claims ratio then would have been lower, and the apparent decline during the 1980s would have been less pronounced.

In this section we will examine the qualitative nature of each of these possible effects. In Chapter VI, we will attempt to assign quantitative ranges to the possible magnitudes of some of the effects.

1. Macroeconomic Trends in the Total Unemployment Rate

In recent years, a number of observers have noted what appears to be a long-term increase in the level of the TUR relative to other measures of economic activity (see, for example, Medoff, 1983). Estimates of this upward drift cover a fairly broad range, but most proposed annual rates of increase fall between 0.07 (Murphy and Topel, 1987) and 0.17 (Summers, 1986) percentage points. However, no general consensus has been reached on the reasons for this long-term increase. Although it seems clear that the changing age-sex composition of the labor force did have the effect of raising the TUR during the late 1960s and early 1970s, by the 1980s such compositional effects were no longer important determinants of the trend. To explain these more recent data requires examining rather complex theories about how the labor market operates and why short-term shocks in supply or demand tend to have long-lasting influences.

For the purposes of the present study, two such proposed explanations for the trend in the TUR may offer some insight into the UI coverage question, although this issue does not appear to have been addressed directly in the macroeconomic literature. The first explanation for the persistence in unemployment is drawn from the theory of human capital. Under this theory, workers who are laid-off frequently do not have the opportunity to acquire skills on the job (Clark and Summers, 1982). In response to this relative loss of skills, these workers will experience increasingly long periods of unemployment and may become somewhat less active in seeking work. Over time the number of such workers may increase. One indicator of this possibility is the increasing representation of prime-age males among the long-term unemployed (Summers, 1986). These workers may also be less likely to collect UI than would workers who experienced more regular patterns of layoffs and reemployment. To the extent that it is not possible to control completely for these changing compositional factors in statistical analyses, the UI claims ratio might thus exhibit an unexplained downward trend.

The second explanation for the upward drift in the TUR is drawn from the theory of industrial relations, and relies on the distinction between "inside" and "outside" workers in the wage-setting process (Blanchard and Summers, 1986). Under this theory, wages and general working conditions tend to be determined by negotiations (either explicit or implicit) between firms and their current employees ("inside" workers). Following a negative demand shock, the number of inside workers declines, and a new labor contract is established. Since this new pact will not reflect the desires of outside workers, their unemployment may persist, or at least they will not be recalled to their previous jobs. Although these theories have been criticized because the implied labor contracts are inefficient (Kennan, 1986), some of the

empirical literature on business cycles is consistent with this interpretation.[1] The relevance of the insider/outsider-type theories to the UI coverage question pertains to the possibility that the increased number of outside workers are not as likely to collect UI as are inside workers, either because their jobs are not covered or because they have less access to information about the UI system. In this sense, the importance of the theory to the present study is similar to the observations that we made earlier in this chapter about the declining proportion of unemployed from manufacturing industries. The theory suggests that the importance of labor-market dynamics to the UI coverage issue may be more widespread than in manufacturing alone, and probably more difficult to control for in statistical analyses.

Although both of these explanations for the purported upward drift in the TUR from the macroeconomics literature have obvious relevance to the UI coverage question, devising ways to integrate these observations into the present study poses considerable difficulties. A satisfactory approach would require more detailed data on the composition and characteristics of the unemployed than is currently available at the state level. In Chapters III and IV, we examine compositional questions in as much depth as the available data permit, but considerable uncertainty about the size of these macroeconomic influences remains. A brief discussion of the quantitative importance of this issue is provided in Chapter VI.

2. Measuring Unemployment in the CPS

The design and estimation methods of the CPS are constantly undergoing changes, primarily with the objective of obtaining better estimates of the labor force

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[1]Neither this theory nor the human capital theory is consistent with the notion that the problems raised by unemployment have become less salient for some groups of workers in recent years (Hall, 1983, and Akerloff and Yellen, 1985). Alternative theories suggest that some expansion of groups only tangentially in the labor force would have important implications for the UI claims question, but the available empirical evidence does not suggest that the relative importance of these groups has increased during the 1980s.

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and its components. Although many of these changes are too minor to have had much of an impact on the overall measurement of the unemployed and its comparability over time, one set of changes does require discussion.[1] This set of changes pertains to how population benchmarks were introduced from the 1980 census (see Buckley et al., 1982). More specifically, the 1980 Census found that the population exceeded the population projected by the CPS using 1970-Census-based weights. In all, 193,000 additional unemployed individuals were found, a number which amounted to about 2.4 percent of the number of unemployed that was initially estimated for 1981 with the 1970s weights.[2] Because this number was sizeable when the 1980-Census-based benchmarks were introduced, estimates for the 1970s had to be adjusted to avoid a sharp break in the series. However, in order to make the adjustment for the 1970s, an assumption had to be made about why the 1980 Census estimates were higher than those based on the 1970 Census. Three possibilities presented themselves: (1) the birth and death rates used to "age" the 1970 numbers were wrong, (2) there was more illegal immigration than expected, and (3) the 1970 Census numbers were undercounted. Although all three reasons were probably important (see Passel et al., 1982), the particular mechanism chosen to adjust the 1970s estimates assumed that only the first two reasons were valid, and that the 1970 Census numbers were

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[1]Another major change in the CPS that occurred during our observation period was a two-step expansion in sample sizes and sampling areas (about 9,000 households were added in 1978 and 1980, and the number of sampling areas was expanded by about 25 percent). The purpose of this expansion was to provide more accurate annual estimates of labor-force categories at the state and SMSA level. Since these expansions should have affected only the variability of CPS estimates and not the mean values, the expansion should not have affected our analysis.

[2]Because of the time necessary to process data, the 193,000 difference actually applied to the 1981 estimates made with weights derived from, respectively, the 1980 and 1970 Census.

correct.[1] If, instead, it had been assumed that the third reason was the most important, additional unemployed workers would have been added to the totals in every year in the 1970s. This process would have reduced the measured UI claims ratio for the 1970s and, hence, the estimated 1980s decline in this ratio. In Chapter VI, we provide a numerical estimate of the potential importance of this measurement issue.

In addition to this 1980 Census adjustment, two further adjustments have been made to the CPS estimates in recent years. These adjustments were, in 1985, to count the number of Hispanics better (see Fenstermaker, 1985), and, in 1986, to adjust for undocumented immigration (Passel, 1986). Each of these adjustments increased estimated unemployment, but, since the adjustments were small, previous-year estimates were not revised. Consequently, these changes affected our comparison of the 1980s and 1970s UI claims ratio by a small amount. Again, we present a numerical estimate in Chapter VI.

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[1] The BLS made this adjustment in a linear fashion by adding a fixed, additional increment to each monthly unemployment estimate so that the April 1980 estimates corresponded to the 1980 Census.
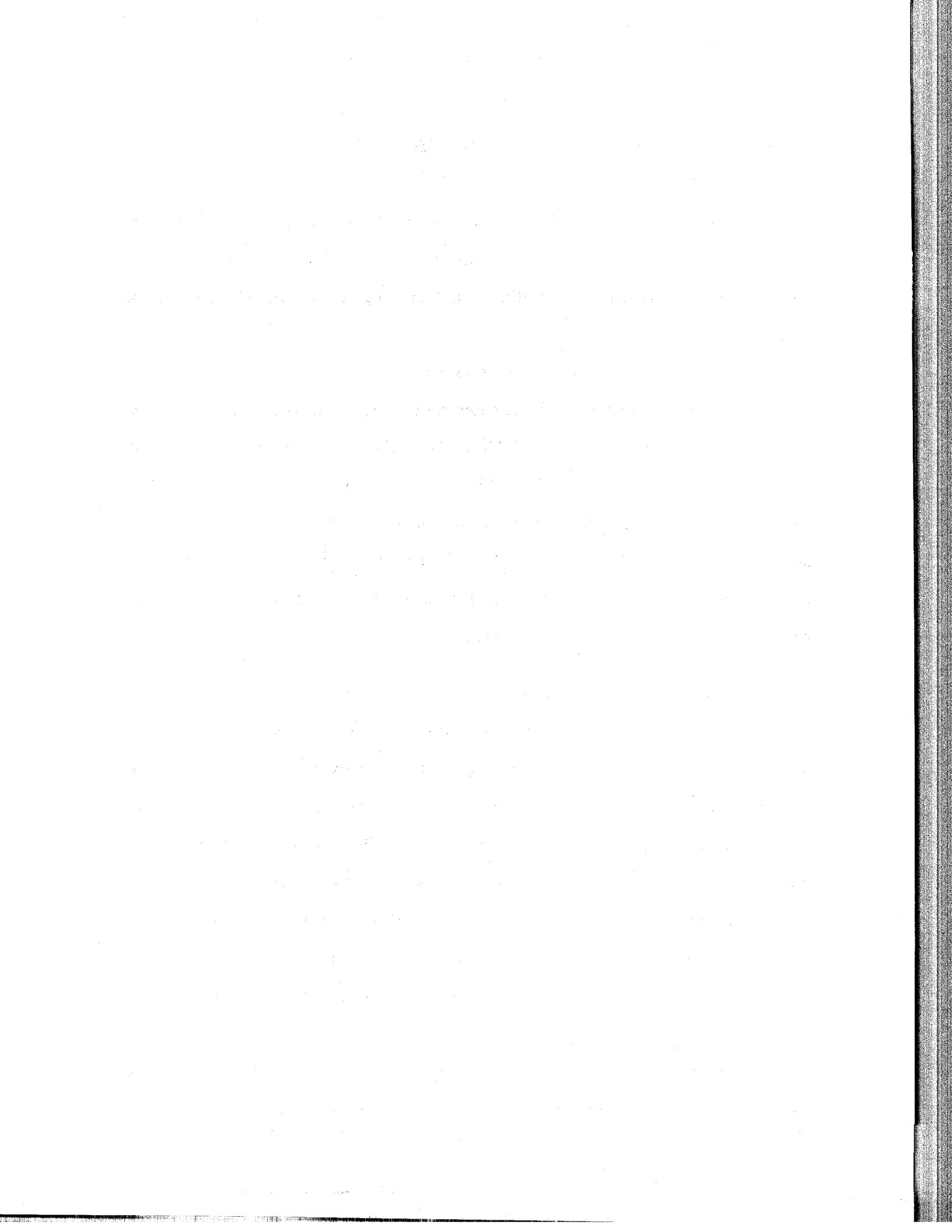
III. RECENT EXPERIENCES WITH POTENTIAL EXPLANATORY VARIABLES

In the previous two chapters, we described the reduction in UI coverage of the unemployed that has been observed in the 1980s, and we discussed a number of possible explanations for this decline. In this chapter, we provide a preliminary examination of these explanations.

We begin by discussing the main explanatory variables that we have chosen in order to explore the potential reasons for the decline in coverage. Included in that discussion are definitions of the variables. We then examine changes in the potential explanatory variables by comparing their levels in the 1980s with their levels in the 1970s. This comparison adjusts for the total unemployment rate for the variables that are expected to vary with the level of unemployment. We also examine both national changes and changes among the states. A concluding section summarizes our findings and discusses implications for the main analysis.

A. DEFINITION OF KEY VARIABLES

The potential explanations discussed in the previous chapter could be examined using a number of different approaches. For example, one of the potential explanations--changes in state laws--could be measured either directly by defining variables that describe components of the law (e.g., minimum base period earnings), or indirectly by using data on UI administrative actions that measure the outcomes of these laws (e.g., the percent of initial claims that are monetarily valid). There are arguments to support using either descriptive or outcome variables to examine the potential explanations, and, as we discuss below, we have tried to examine both types of variables.

In the remainder of this section, we discuss the potential explanatory variables. The discussion is organized around the three primary categories of

explanations presented earlier: (1) economic and demographic factors, (2) federal actions, and (3) state actions. In subsection 4, we also define several variables which provide measures of the extent of the financing problems faced by states and the extent of employer pressure imposed on the states as a way to suggest why states may have made the policy choices they did. The means and standard deviations of the variables are reported in Table III.1 for the various analysis samples.

1. Economic and Demographic Variables

In Chapter II, we discussed how characteristics of the unemployed population might affect the UI claims rate among the unemployed. The proportion of the unemployed who are job losers or who are unemployed 27 weeks or longer affects the claims ratio directly, while the proportion who, for example, are female or fall in various age categories may have more indirect effects that are not captured by the job loser or unemployment duration variables. In our examination of the effects of economic and demographic variables, we included the following variables.

- o Total Unemployment Rate (TUR). This is the civilian unemployment rate.

- o Proportion Female. This variable is the proportion of the unemployed who are female.

- o Proportion by Age Category. These variables are the proportion of the unemployed in various age categories. The categories are ages 16 to 19, 20 to 24, 55 to 64, and 65 or older.

- o Proportion by Industry Category. The two industry categories are manufacturing and construction.

- o Proportion Job Losers. This variable is the proportion of the unemployed who are job losers and who are thus most likely to be eligible for UI.

- o Proportion Job Leavers. This variable is the proportion of the unemployed who are job leavers.

- o Proportion by Duration. The proportion of the unemployed whose duration is less than 5 weeks and the proportion whose duration is 27 or more weeks.

TABLE III.1

MEANS AND STANDARD DEVIATIONS OF
MAJOR EXPLANATORY VARIABLES
(1971-1986)

	National Data		11 Largest States		All States	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
CHARACTERISTICS OF THE UNEMPLOYED						
Demographic:						
Proportion female	0.456	0.032	n.a.	n.a.	n.a.	n.a.
Proportion ages 16-19	0.225	0.041	n.a.	n.a.	n.a.	n.a.
ages 20-24	0.228	0.012	n.a.	n.a.	n.a.	n.a.
ages 25-54	0.468	0.054	n.a.	n.a.	n.a.	n.a.
ages 55-64	0.063	0.008	n.a.	n.a.	n.a.	n.a.
ages 65+	0.016	0.005	n.a.	n.a.	n.a.	n.a.
Economic:						
Proportion job losers	0.485	0.068	n.a.	n.a.	n.a.	n.a.
Proportion job leavers	0.119	0.025	n.a.	n.a.	n.a.	n.a.
Proportion less than 5 weeks	0.427	0.055	n.a.	n.a.	n.a.	n.a.
Proportion 27 or more weeks	0.137	0.046	n.a.	n.a.	n.a.	n.a.
Proportion construction	0.093	0.017	n.a.	n.a.	n.a.	n.a.
Proportion manufacturing	0.230	0.032	n.a.	n.a.	n.a.	n.a.
UI CHARACTERISTICS						
Minimum Qualifying Wages/Average Weekly Wages	n.a.	n.a.	3.107	1.276	3.371	2.115
Maximum Weekly Benefit Amount/ Average Weekly Wages	n.a.	n.a.	0.448	0.083	0.487	0.229
Weekly Benefit Amount as a Proportion of the High-Quarter Wage	n.a.	n.a.	0.040	0.0004	0.040	0.004
Maximum Duration	n.a.	n.a.	26.659	1.484	26.789	2.202
Entitlement Percentage	n.a.	n.a.	52.233	27.433	47.295	25.879
Proportion Monetarily Eligible	0.843	0.029	0.863	0.074	0.833	0.078
Wage Replacement Rate	0.361	0.009	0.355	0.044	0.375	0.159
Wage Replacement Rate x Income Proportion	n.a.	n.a.	0.117	0.126	0.116	0.127
Proportion at Maximum Duration	n.a.	n.a.	0.698	0.242	0.623	0.247
Separation Issue Denial Rate:	93.446	19.011	100.225	71.038	121.481	81.328
Voluntary leaving	63.272	15.816	66.131	48.773	85.429	64.242
Misconduct	28.570	5.718	32.739	25.500	34.635	22.652
Nonseparation Issue Denial Rate:	13.121	2.627	12.222	5.959	13.912	9.435
Able and available	7.055	1.686	7.052	3.724	7.268	4.951
Disqualifying income	2.117	0.669	1.662	1.639	2.438	3.618
Refusal of suitable work	0.412	0.165	0.419	0.345	0.519	0.474
Reporting requirements	2.932	1.058	2.511	1.994	3.114	3.885
Work Test Denial Rate	10.399	2.803	9.982	5.178	10.901	7.828
Extended Benefits	n.a.	n.a.	0.642	0.479	0.581	0.493
Sample Size	64		704		3,264	

2. Federal Actions

In Chapter II, we identified three areas in which federal actions potentially affected the availability or desirability of collecting regular state UI benefits:[1] the inclusion of UI benefits in the income tax base, pension and OASDI offset legislation, and changes in extended benefits policy. As we noted in that chapter, our ability to examine the impact of these changes on the UI claims ratio is limited by the fact that the changes affected all states, thereby limiting the variation among states that can be observed. Moreover, all the changes occurred at about the same time in the early 1980s, which both limits our ability to identify their separate effects and almost ensures that they will be correlated with the decline in the UI claims ratio even if no causal relationship exists.

Despite these problems, we defined several variables that describe these federal changes and used them at various points in the analysis. These variables are:

o **The Inclusion of UI Benefits in the Income Tax.** Beginning in 1979, UI benefits were taxed if adjustable gross income exceeded $25,000 for joint filers and $20,000 for single filers. In 1982, these thresholds were lowered to $18,000 and $12,000 for joint and single filers, respectively. These changes in tax policy reduced the after-tax value of UI benefits for higher-income claimants, thus reducing the incentive to collect UI.[2] One way to examine the effect of these changes is to examine the effect on the wage replacement rate (average UI benefits divided by average wages). One could do so by interacting the wage replacement rate with binary variables for the years in which UI was taxed (at the different threshold levels). However, since the changes affected all states and corresponded with the decline in UI coverage, interpreting the results of this procedure

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[1] Two further categories of federal actions (changes in special UI programs and trust fund policy) were also discussed in Chapter II. Later in the chapter we describe variables that pertain to the trust fund; however, we ignore the changes in special programs, since they do not affect regular UI claims.

[2] Beginning in 1987, all UI income is included in adjusted gross income regardless of the level of income.

as measuring the effect of the tax changes could be misleading. In an attempt to avoid this problem, we adopted a slightly different procedure, which took into account different income levels among states and thus tested whether the impact of the tax changes was greater in the higher- than in the lower-income states. Data on the distribution of income for families and unrelated individuals were obtained from the Census Bureau, and we used them to construct a variable which showed the proportion of each state's population whose incomes were above the threshold levels in each year (the mid-point of the thresholds for single and joint filers was used). We interacted this variable with the wage replacement rate and used both the wage replacement rate and its interaction with income in the analysis. As we discuss later, interpreting the results of this procedure as measuring the effects of the tax change is also problematic.

o The Pension and OASDI Offset. The following three components of the pension offset provisions were used by state programs both in the 1970s before the effective date of the federal legislation and in the 1980s after the effective date: (1) whether OASDI benefits were offset, (2) whether pensions from the base period employer were offset, and (3) whether pensions from other employers were offset. Descriptive information on these provisions by state is available prior to 1980 in Comparisons of State UI Laws and subsequently for the non-OASDI offsets. We used this information to define three binary variables that described these variations in pension offset policy, under the assumption that all states offset OASDI after April 1980, the start date for the legislation (see further discussion below). However, we have not used these variables in our final analysis for three reasons--one analytic and two definitional. First, relatively few states had instituted pension or OASDI offset provisions prior to the federal legislation, and if we were to include binary variables that describe these changes in a regression for the entire time period we would find a significant correlation with the decline in the UI claims ratio, since both changes occurred at about the same time. Our estimate would suggest that this change alone would explain most of the decline, which, however, could not be the case, since relatively few claimants are in fact affected by this legislation. Second, although the federal legislation appeared initially to make it mandatory for states to offset OASDI payments, subsequent legal and other actions have led to substantial cross-state variation in how this provision is actually implemented. In our site visits, we learned that some states deduct the entire amount of the OASDI payment, others deduct half (which is the employer contribution), and others make no deductions. No data are reported by USDOL on these varying interpretations. Finally, these provisions were implemented in different ways in different time periods as states argued with the federal government about how the law should be interpreted. Hence, we do not believe that the binary variables that we identified really capture these changes.

Because of these problems, we chose to examine the effect of this change by using the disqualifying or deductible income benefit denial rate as a measure of how the pension and OASDI offset affected individual state programs. Although not all potential claimants who are affected by the pension offset actually apply for benefits and thus appear in the denial rate, sufficient numbers probably apply that if a state changed how it handled pension income the denial rate will also show the change.

o   Extended Benefits.   Extended benefits policy changed substantially during our analysis period, varying in terms of both its availability and its generosity, or duration. We expect that both of these factors affected the behavior of claimants, and we ideally wanted to define variables that described both program components. One way to do so would be to define a binary variable that describes when regular extended benefits were available in a state (the first tier of extended coverage) and another binary variable that describes when additional extended benefits were available (the second tier of extended coverage). We defined these two variables but chose to combine them into a single binary variable that indicated when any type of extended benefits was available. We did so because the FSC program of the early 1980s was not really a second-tier extended benefits program in most instances; rather, it supplanted the regular EB program after the availability of that program was reduced substantially.

3. State Actions

In the previous chapter, our discussion of the actions of states that may have affected the UI claims ratio was grouped under two categories--legislative changes and administrative changes. We also discussed definitional and data collection changes but dismissed them as relatively unimportant. Thus, the issue that must be addressed is how legislative and administrative changes should be modeled at the state level.

For both types of changes, two procedures could be followed. We could select the characteristics of UI laws or administrative procedures that are believed to be important (e.g., whether or not voluntary leaving disqualifications are for the duration of the unemployment spell) and then define variables that describe these laws or procedures. When a law or procedure was changed in a state, the variable would

indicate that a change was made. Alternatively, we could use variables that describe the degree to which state laws and administrative procedures affect the ability of the unemployed to claim UI benefits (e.g., the voluntary leaving denial rate).

The first of these approaches is advantageous because the effect of explicit changes in laws or procedures can be tied directly to changes in the UI claims ratio; the second approach does not make it possible to do so. The first approach is also advantageous because the variables that define laws and procedures are exogenous to the UI claims ratio, while the types of variables considered for the second approach are more nearly endogenous. For example, the voluntary leaving denial rate is both a product of the state law and its application and of claimants decisions' to apply for UI benefits. Despite these advantages of the first approach, it also has some disadvantages. These disadvantages pertain to the fact that UI laws are complex, and one would need many variables to capture such complexity fully. Moreover, while it may be possible to construct variables that describe the complexity of UI laws, it is not possible to do so for administrative procedures, which are multifaceted and for which little data exist. For example, in our state visits, we learned that some states had changed their reporting requirements on claimants' work search, but it was quite difficult to pin down when the changes were in fact made. No systematic record generally existed, even at the state level, and in some cases the changes were not made uniformly throughout a state, but, instead, were phased in over time at the local offices. In addition, we have no information for the states that we did not visit.

With this discussion in mind, we defined a number of variables that measured UI program characteristics for use in the analysis. For monetary eligibility and benefits, we defined both variables that described the laws directly and variables that described the laws more indirectly, as a product of the laws themselves and the actions taken by claimants. For nonmonetary eligibility requirements, we used only

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the more indirect measures of the laws, due to the complexity of nonmonetary requirements and to the importance of administrative regulations and procedures in this area. The variables that we defined are as follows:

o Monetary Eligibility. We used two variables to capture changes in monetary eligibility rules at the state level:

- Minimum Qualifying Wages/Average Weekly Wages. This variable is the ratio of the minimum base period wages necessary for eligibility divided by average weekly earnings for the states' UI covered population. We divided by average wages to control for different wage levels among states and time periods. Thus, the variable reflects the number of weeks that a worker who earns the average wage would have to work to be eligible for UI.

- Proportion Monetarily Eligible. This variable is the proportion of initial claims that are monetarily eligible.

o Nonmonetary Eligibility. We used denial rates for the two major types of nonmonetary eligibility. One could also use determination rates, but, since the rate at which determinations led to denials changed very little, we used only the one rate. The denial rates are:

- Voluntary Leaving Denial Rate. This rate is the number of voluntary leaving denials per 1,000 new spells of insured unemployment (new initial and additional claims).

- Misconduct Denial Rate. This rate is the number of misconduct denials per 1,000 new spells of insured unemployment.

o Benefit Generosity. UI benefits have two dimensions, the weekly benefit amount and the potential duration of the entitlement, both of which could be parameterized in a number of ways. We defined three variables for weekly benefit amounts and four for duration. In each of the following sections, we list the variables that pertain directly to the laws first.

- Maximum Weekly Benefit Amount/Average Weekly Wage. This is the maximum weekly benefit amount divided by average weekly wages in covered employment. We used average wages to control for different wage levels among states and time periods.

-   Weekly Benefit Amount as a Proportion of High-Quarter Wage. This is the proportion of high-quarter wages used to compute the weekly benefit amount. In cases in which states did not apply high-quarter wages to this calculation, we used an approximation.

-   Wage Replacement Rate. This is average weekly UI benefits divided by average weekly wages in covered employment.

-   Maximum Duration. This is the maximum number of potential regular UI weeks of benefits available to claimants in a state.

-   Uniform Duration. This is a binary variable that equals one for states that provide the same potential duration of benefits to all claimants.

-   Entitlement Percentage. This is the percentage of base period wages used to compute the UI entitlement. We dropped this variable for our main analysis, since it could not be defined for uniform-duration states. This characteristic was captured by the uniform-duration variable.

-   Proportion Eligible for Maximum Duration. This is the proportion of claimants who are eligible for maximum duration.

o   Nonmonetary Continuing Eligibility Requirements. Since continuing eligibility requirements that might affect the UI claims ratio are quite complex and are defined both by law and regulations, we used denial rates for nonmonetary, nonseparation issues to capture the level and intensity of these requirements. More specifically, we used the following variables:

-   Disqualifying Income Denial Rate. This rate is the number of disqualifying income denials per 1,000 claimant contacts (new spells of insured unemployment plus continued claims). Most of these denials are for pension and OASDI income.

-   Able and Available Denial Rate. This rate is the number of able and available denials per 1,000 claimant contacts.

-   Refusal of Suitable Work Denial Rate. This rate is the number of refusal-of-suitable-work denials per 1,000 claimant contacts.

- Reporting Requirements Denial Rate. This rate is the number of denials for reporting requirements per 1,000 claimant contacts.

- Worktest Denial Rate. This is the sum of the able and available, refusal of suitable work, and reporting requirements denial rates. We used this variable in our main analysis, both because all three separate denial rates generally pertain to the UI worktest and because the distinctions among these categories are not well-defined.

In addition to these variables, we also examined a number of other variables that characterized the laws and regulations in different ways. For example, we defined variables that described the penalties for voluntary leaving and misconduct (i.e., whether or not the denial is for the duration of unemployment). In general, we concluded that these other characterizations did not fully capture the complexity of the laws and regulations, and we did not use them for the main analysis.

4. Other Variables

We used two other types of state variables in the analysis. These variables do not describe state actions per se, but rather factors that may have influenced states to change their laws or how they administered their UI programs. These variables describe the importance of reserves and outstanding loan balances and the level of appeals.

o Reserve Fraction. This variable is the level of reserves in the state trust fund divided by the amount of UI benefits paid in the quarter.[1] It differs from the usual "reserve ratio," which is the level of state reserves minus loans from the federal trust fund divided by total wages paid in jobs covered by the UI system.

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[1] Because only reserves as of December 31 were available for the entire time period, we used the annual level of reserves in the calculation.

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o Old Loan Fraction. This variable is the outstanding federal loan balance at the end of a quarter divided by the amount of UI benefits paid in the quarter. Old loans are the non-interest-bearing loans. The loan balance was divided by benefits to provide a measure of the size of the loan amount given the size of the state.

o New Loan Fraction. This variable is the outstanding interest-bearing loan balance at the end of a quarter divided by the amount of UI benefits paid in the quarter.

o Appeals/Determinations. This variable is the sum of lower- and higher-authority appeals divided by the number of nonmonetary determinations. Although appeals can be generated by both claimants and employers, we viewed this variable as providing a measure of the degree to which employers have become more active in the UI system, since the actions of employers may lead to denials which are then appealed.

B. RECENT CHANGES IN POTENTIAL EXPLANATORY VARIABLES

An important first step in our analysis of the decline in the UI claims ratio was to determine whether any evidence was available to suggest that the potential explanatory variables behaved in a way that was consistent with their expected impact on the claims ratio. To examine this issue, we estimated a set of simple regression models that we used to compare the levels of the various explanatory variables in the 1970s with their levels in the 1980s. In most instances, these models controlled for seasonal influences and the total unemployment rate, since many of the potential explanatory variables can be expected to fluctuate with changes in the TUR.[1] For example, wage replacement rates rise with the TUR because relatively experienced workers are laid-off more frequently in a recessionary period than in a non-

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[1] More specifically, we ran a regression in which the independent variables included quarterly dummy variables for the first three quarters, the TUR, and a dummy variable for the 1980-86 period. We included dummy variables for each state (with Texas as the excluded state) in both the 11-state and the all-state analysis. We felt that these "fixed effects" models were appropriate for the state-by-state analysis, since differences in the UI claims ratio and other variables vary considerably among the states (see further discussion in Chapter IV).

recessionary period, and these workers receive higher weekly benefit amounts. Since we wished to control for this phenomenon when we examined whether the wage replacement rate rose in the 1980s, we used the TUR in the regression. However, we did not control for the TUR or seasonal influences for variables that explicitly described state laws (e.g., maximum duration), since the laws did not change with the TUR.[1]

Our discussion of the possible explanations for the decline in the UI claims ratio is presented in three sections. The first examines the demographic and economic changes at the national level only, since state-level data for these variables are available only since 1978 or later. Estimates of adjusted mean values for the 1970s and 1980s, together with the percentage change between the two decades, are reported. The statistical significance of any change is also noted.[2] The second section examines changes in UI-related variables for the nation as a whole, for the 11 largest states, and for all states. In the final section, we examine selected data by state.

1. Economic and Demographic Changes.

Changes in the demographic and economic variables are reported in Table III.2. If we first examine the results for the demographic variables, we can make two interesting observations. First, the demographic data suggest that youths and females, two groups that might show a relatively low rate of UI collection, comprised a less important component of the unemployed in the 1980s than they did in the 1970s. Second, the only age group that showed an increase as a proportion of the unemployed in the 1980s was the prime age category (25-54 years old), which is probably the group

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[1] We also followed this procedure for the law variables that were normalized by average weekly wages, such as minimum qualifying wages divided by average weekly wages.

[2] The statistical test was performed on the 1970-80 difference rather than on the percentage change, but we reported the test for the percentage change for expositional reasons.

TABLE III.2

CHANGES IN POTENTIAL EXPLANATORY VARIABLES

	National Data			Data from 11 Largest States			Data from All States		
	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change
CHARACTERISTICS OF THE UNEMPLOYED									
Demographic:									
Proportion female	.460	.448	-2.6*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a
Proportion ages 16-19	.246	.199	-19.1**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ages 20-24	.233	.220	-5.6**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ages 25-54	.435	.510	17.2**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ages 55-64	.066	.059	-10.6**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ages 65+	.020	.012	-40.0**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Economic:									
Proportion job losers	.475	.496	4.4**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Proportion job leavers	.124	.113	-8.9**	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Proportion less than 5 weeks	.425	.429	0.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Proportion 27 or more weeks	.134	.137	2.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Proportion construction	.091	.095	4.4*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Proportion manufacturing	.244	.212	-13.1*	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
UI PROGRAM CHARACTERISTICS									
Minimum Qualifying Wages/Average Weekly Wage	n.a.	n.a.	n.a.	3.033	3.203	5.6*	3.328	3.426	2.9
Maximum Weekly Benefit Amount/ Average Weekly Wage	n.a.	n.a.	n.a.	0.434	0.466	7.4**	0.492	0.481	-2.2
Weekly Benefit Amount as a Proportion of the High-Quarter Wage	n.a.	n.a.	n.a.	0.0401	0.0397	-1.0**	0.0406	0.0403	-0.7**
Maximum Duration	n.a.	n.a.	n.a.	26.72	26.56	-0.6**	27.03	26.48	-2.0**
Entitlement Percentage	n.a.	n.a.	n.a.	52.58	51.77	-1.5	48.04	46.35	-3.5**
Proportion Monetarily Eligible	0.826	0.864	4.6**	0.847	0.883	4.3**	0.820	0.848	3.4**
Wage Replacement Rate	0.366	0.355	-3.0**	0.356	0.354	-0.6	0.384	0.366	-4.7**
Proportion Eligible for Maximum Duration	n.a.	n.a.	n.a.	0.699	0.698	-0.1	0.621	0.615	-0.9
Separation Issue Denial Rate:	101.51	83.08	-18.2**	107.89	90.35	-16.3**	134.75	104.42	-22.5**
Voluntary leaving	72.07	51.96	-27.9**	74.97	54.77	-26.9**	98.67	68.41	-30.7**
Misconduct	26.95	30.66	13.8*	31.10	34.83	12.0*	35.27	36.72	4.1**

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TABLE III.2 (continued)

	National Data			Data from 11 Largest States			Data from All States		
	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change	Adjusted Mean[a] 1971-1979	Adjusted Mean[a] 1980-1986	Percent Change
Nonseparation Issue Denial Rate:	12.85	13.46	4.7	12.26	12.17	-0.7	12.69	15.47	21.9**
Disqualifying income	1.59	2.80	76.1**	1.37	2.04	48.9**	1.69	3.40	101.2**
Able and available	7.48	6.52	-12.8**	7.43	6.57	-11.6**	7.35	7.17	-2.4
Refusal of suitable work	0.48	0.33	-31.3**	0.50	0.31	-38.0**	0.63	0.38	-39.7**
Reporting requirements	3.29	2.46	-25.2**	2.92	1.99	-31.8**	3.01	3.25	8.0**
Worktest Denial Rate	11.25	9.30	-17.3**	10.85	8.86	-18.3**	10.98	10.79	-1.7

N.A. = not available.

a
Adjusted by regression to control for quarter and the total unemployment rate, except when the variables describe the laws directly. The variables that were not adjusted were minimum qualifying wages/average weekly wage, maximum weekly benefit amount/average weekly wage, weekly benefit amount as a proportion of the high-quarter wage, maximum duration, and the entitlement percentage.

*Difference is statistically significant at the .05 level in a two-tail test.
**Difference is statistically significant at the .01 level in a two-tail test.

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most likely to be eligible for UI. Both of these trends suggest that the UI claims ratio should have risen rather than declined in the 1980s relative to the 1970s.

With respect to the economic variables, we can note that the proportion of job losers among the unemployed increased in the 1980s relative to the 1970s, while the proportion of job leavers declined (the excluded category--new entrants and reentrants--also declined). These trends also suggest that a higher proportion of the unemployed should probably have claimed UI in the 1980s than in the 1970s, rather than the reverse. The duration data do show an increase in long-term unemployment that would reduce the UI claims ratio, but the change, while relatively large in absolute level, was not statistically significant. Finally, the industry results show a fairly substantial decline in manufacturing as a proportion of the unemployed (13 percent), but an increase in construction unemployment and unemployment in the remaining industries taken as a whole. In Chapter II, we argued that a decline in manufacturing as a proportion of the unemployed might reduce the UI claims ratio, given the extensive experience that workers in this industry have historically had with the UI system.

In summary, observed changes in demographic and economic variables from the 1970s to the 1980s did not generally appear to support the notion that changes in the demographic and economic composition of the unemployed themselves explain the decline in the UI claims ratio. In fact, with the exception of the decline in the importance of manufacturing, most of the observed changes should, if anything, have increased that ratio.

2. Changes in UI Characteristics

The results for the UI program characteristics (also reported in Table III.2) showed a number of statistically significant differences between the 1970s and the 1980s, and some of the changes provided evidence of some tightening of UI laws in the 1980s. However, not all of the changes were in the expected direction.

The variables that described monetary qualifying requirements provided a mixed message. The ratio of minimum qualifying wages increased, and the increase was statistically significant in the 11-state sample. However, the proportion who were monetarily eligible for benefits also increased and was statistically significant for all three samples. The increase, in this case, suggests that monetary requirements may have been eased, although the same result would be observed if, for some reason, ineligible individuals were less likely to apply in the 1980s than in the 1970s.

Variables that described the generosity (or duration) of benefits showed some evidence of a decline in the 1980s relative to the 1970s. With one exception, all of the measures of generosity showed a decline in the 1980s, and most of the declines were statistically significant. In general, however, the changes were not large in percentage terms. The one exception to the general decline pertained to the maximum weekly benefit amount relative to average weekly wages in the 11 largest states. This variable showed an increase, while at the same time the proportion of high-quarter wages paid as the weekly benefit amount declined. Our overall measure of benefit generosity (the wage replacement rate) also declined slightly, suggesting that the net results of these two actions was a small decline in benefits in these states.

Finally, with respect to the estimates for separation and nonseparation issue denial rates, we generally found larger percentage changes between the 1970s and 1980s than we did for the other variables. However, with the exception of the increases observed for the misconduct and disqualifying income denial rates, the other rates generally declined, which, at least on the surface, suggested a loosening rather than a tightening of program administration. This interpretation is probably appropriate for the nonseparation issue denial rate changes, which showed declines in the able and available, refusal of suitable work, and reporting requirement denial

rates.[1]   Thus, as a group (what we term the "worktest" denial rate), these variables reflected a somewhat reduced scrutiny of the degree to which continuing eligibility for UI was carefully monitored.[2]   The increase in the disqualifying income rate was probably attributable to the change in the pension and OASDI offset provisions discussed earlier. For separation issue denials, the observed decline in the voluntary leaving denial rate may not in fact have represented a loosening of eligibility requirements but rather a tightening. The major change in the laws during this period was to make voluntary leaving disqualifications continue for the duration of unemployment rather than for a specific period of time. With this change, potential UI claimants who quit their jobs may not have applied for UI; in the past, they would have, because they could eventually collect benefits. In our site visit to Michigan, we were told that this scenario did apply there. Moreover, before the change in the disqualification period, claimants in that state were required to file every week during the disqualification period to be eligible at the end of the period. These claims were probably largely eliminated by the change in the law.

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[1]
One category of denial rates, reporting requirements, showed a different pattern in the 11-state than in the all-state analysis, declining in the 11 states, while increasing in all of the states.

[2]
It has been suggested that this decline in worktest denials may have occurred in response to the introduction of the Quality Control System, which identifies errors in payments. A major source of error is payments to individuals who do not satisfy worktest requirements. Since the more explicit and well-defined worktest rules are, the easier it is to determine whether an error has occurred, states may have mitigated their worktest requirements to avoid identifying payments as being in error. To explore this hypothesis, we examined the pattern of worktest denials over the 1980s. We found some weak support for this hypothesis, since the declines in worktest denials were largest in 1985 and 1986. However, statistically significant declines were also found for all years except 1981, suggesting that the Quality Control hypothesis does not entirely explain the decline in worktest denials.

3. Variation in Changes in UI Characteristics by State

The changes in UI program characteristics discussed previously for the two analysis samples (the 11 largest states and all of the states) provided some evidence that state UI programs may have been changed in some ways that reduced UI coverage of the unemployed. However, the evidence was mixed, and there were some areas in which program rules and administration seem to have been loosened rather than tightened. To explore this issue further, we examined changes by state for the 11 largest states, and we report those results in Table III.3 and III.4.

An examination of the data in the tables led to two overall conclusions. First, the characteristics of state UI programs, as described by the variables in the table, varied considerably. For example, minimum qualifying wages divided by average wages ranged from a low of 1.53 in Michigan to 5.92 in Massachusetts during the 1971-1979 period. Substantial state-by state differences also occurred for most of the other variables, particularly the denial rates reported in Table IV.4. Second, the overall results for the 11 states masked considerable cross-state variation for many of the variables. Some states clearly made it more difficult to collect UI benefits, while others appear to have made it easier. For example, minimum qualifying wages relative to average wages appear to have increased substantially in four of the states in the 1980s relative to the 1970s, while this variable declined in four other states.

With respect to the other variables included in the tables, we can make several additional observations:

> o Although qualifying wage requirements relative to average wages increased in some states, thus making it more difficult to qualify for benefits, the proportion who were monetarily eligible either increased or remained the same in all states, suggesting that individuals who were made ineligible by any increase in qualifying wages may not have applied for benefits.

TABLE III.3

CHANGES IN QUALIFICATION AND BENEFITS VARIABLES, BY STATE
(11 Largest States)

| | Minimum Qualifying Wage/ Average Weekly Wage | | | Proportion Monetarily Eligible | | | Maximum Weekly Benefit Amount Average Weekly Wage | | | Wage Replacement Rate | | | Proportion Eligible for Maximum Duration | | |
| | Mean | | Percent | Adjusted Mean | | Percent | Mean | | Percent | Adjusted Mean | | Percent | Adjusted Mean | | Percent |
	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change
California	3.73	3.11	-16.6**	0.822	0.849	3.3*	0.440	0.416	-5.5*	0.323	0.287	-11.1**	0.704	0.744	5.7*
Florida	2.37	1.39	-41.3**	0.739	0.808	9.3**	0.421	0.451	7.1**	0.338	0.340	0.6	0.240	0.339	41.3**
Illinois	4.21	4.28	-1.6	0.768	0.863	12.4**	0.369	0.427	15.7**	0.367	0.368	0.3	0.893	1.000	12.0*
Massachusetts	5.92	3.67	-38.0**	0.932	0.924	-0.9	0.507	0.512	1.0	0.389	0.382	-1.8	0.576	0.602	4.5
Michigan	1.53	3.52	130.1**	0.846	0.946	11.8**	0.325	0.439	35.1**	0.325	0.332	2.2	0.635	0.651	2.5
New Jersey	2.07	2.00	-3.4	0.928	0.926	-0.2	0.442	0.449	1.6	0.366	0.351	-4.1*	0.645	0.651	0.9
New York	2.98	2.97	-0.3	0.937	0.964	2.9*	0.424	0.386	-9.0**	0.325	0.292	-10.2**	1.000	1.000	0.0
North Carolina	3.64	4.38	20.3**	0.834	0.856	2.6	0.532	0.565	6.2**	0.363	0.376	3.6	0.752	0.550	-26.9**
Ohio	1.97	3.72	88.8**	0.880	0.888	0.9	0.389	0.412	5.9*	0.375	0.387	3.2	0.858	0.881	2.7
Pennsylvania	2.09	3.59	71.8**	0.834	0.589	3.0*	0.560	0.612	-8.6**	0.414	0.421	1.7	1.000	0.923	-7.7**
Texas	2.83	2.41	-14.8*	0.774	0.861	11.4**	0.365	0.459	25.7**	0.320	0.372	16.3**	0.390	0.332	-14.9**
Total	3.03	3.20	5.6*	0.847	0.883	4.3*	0.434	0.466	7.4**	0.356	0.354	-0.6	0.699	0.698	-0.1

NOTE: Raw means are reported for the two variables that describe state laws directly, while means that were adjusted to control for quarter and the total unemployment rate are reported for the other variables.

*Difference is statistically significant at the .05 level in a two-tail test.
**Difference is statistically significant at the .01 level in a two-tail test.

TABLE III.4

CHANGES IN DENIALS AND APPEALS BY STATE

(11 Largest States)

	Voluntary Leaving Denial Rate			Misconduct Denial Rate			Disqualifying Income Denial Rate			Work Test Denial Rate			Appeals/Determinations		
	Adjusted Mean		Percent	Adjusted Mean		Percent	Adjusted Mean		Percent	Adjusted Mean		Percent	Adjusted Mean		Percent
	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change	1971-79	1980-86	Change
California	64.03	48.24	-24.7**	23.68	24.70	4.3	0.07	0.90	1185.7**	15.60	10.25	-34.3*8	0.063	0.105	66.7**
Florida	97.16	111.81	15.1**	39.49	64.20	62.6**	0.99	3.72	275.8**	9.42	13.40	42.2**	0.090	0.134	48.9**
Illinois	40.63	58.75	44.6**	24.25	33.79	39.3**	1.68	2.99	78.0**	11.22	8.21	-26.8**	0.125	0.081	-35.2**
Massachusetts	72.73	32.92	-54.7**	20.31	18.18	-10.5	0.50	1.41	182.0	4.41	1.88	-57.4**	0.106	0.153	44.3**
Michigan	134.30	59.37	-55.8**	29.39	22.18	-24.5**	1.15	1.59	38.3	14.86	8.47	-43.0**	0.042	0.097	131.0**
New Jersey	48.63	47.79	-1.7	23.43	35.72	52.5*8	0.81	0.57	-29.6	9.29	10.19	9.7	0.092	0.110	19.6*
New York	43.63	33.64	-22.9	11.85	23.38	97.3**	4.24	5.46	28.8**	15.86	11.81	-25.5**	0.068	0.070	2.9
North Carolina	57.14	25.14	-56.0**	19.64	19.64	0.0	0.03	0.41	1266.7	3.72	3.34	-10.2	0.057	0.274	380.7**
Ohio	52.43	39.44	-24.8*	37.41	34.51	-7.8	3.14	2.64	-15.9*	14.87	8.17	-45.1**	0.034	0.060	76.5**
Pennsylvania	24.73	22.65	-8.4	12.51	14.70	17.5	1.20	1.07	-10.8	13.58	5.06	-62.7**	0.069	0.113	63.8**
Texas	193.53	118.16	-38.9**	103.30	87.57	-15.2**	1.51	1.29	-14.6	7.92	15.03	89.8**	0.120	0.158	31.7**
Total	74.97	54.77	-26.9**	31.10	34.83	12.0*	1.37	2.04	48.6**	10.85	8.86	-18.3**	0.079	0.130	64.6**

NOTE: The means were adjusted to control for quarter and the total unemployment rate.

*Difference is statistically significant at the .05 level in a two-tail test.

**Difference is statistically significant at the .01 level in a two-tail test.

o   Data on UI benefits show that maximum weekly benefits increased in six states, leading to the average increase in this variable, but the overall wage replacement rate increased significantly in only one of these states. In three other states, California, New Jersey, and New York, the wage replacement rate declined significantly. None of these states appeared to increase maximum benefits relative to wages. Other data, not reported in the table, show that maximum duration declined in one of these major states (Pennsylvania) in the 1980s.

o   Voluntary leaving denial rates declined substantially in a number of states, including Massachusetts, Michigan, North Carolina, and Texas. In the late 1970s or early 1980s, each of these states changed their voluntary leaving penalty by requiring that claimants be disqualified for the duration of unemployment, rather than for a specific period, after which time they could collect benefits. Thus, claimants who quit their jobs in these states no longer qualified for benefits and may no longer have applied. The observed decline in this denial rate in these states probably provides evidence of a reduction in the availability of benefits rather than a loosening of administration. One might have expected to observe the same pattern for the misconduct denial rate, since a number of states made the same change in the disqualification penalty (i.e., made the disqualification period for the duration of unemployment). However, not all the states that made this change in the 1980s (Michigan, New Jersey, and Texas) exhibited a decline in the misconduct denial rate. This contrary expectation may have been due to the fact that misconduct determinations are more likely to be initiated by employers than by claimants. The opposite may be true for voluntary leaving determinations, since when claimants fill out their UI application they may indicate having quit their job.

o   Disqualifying income denials generally increased in response to changes in the pension and OASDI offset provisions. As we have discussed earlier, these changes appear to have been implemented differently by states, and, as shown in the table, a statistically significant increase in denials occurred in only in four of the 11 states.[1]

o   Finally, the worktest denial rate declined or remained the same in the 1980s relative to the 1970s in all of the 11 states except Florida and Texas, both of which are states whose approach to UI administration appears to be stringent. Thus, there was little evidence that states tightened their administration of worktest and other continuing eligibility rules.

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[1] Texas deducted pension and OASDI income prior to the change in the federal law, which explains the fact that the disqualifying income denial rate did not increase in that state.

The final set of data reported in Table III.4 pertain to changes in appeals relative to nonmonetary determinations. We examined this data item because a number of persons in our state visits informed us that employers have become more likely to challenge claims than in the past. If this were the case, we would expect to see an increase in appeals either directly by employers or indirectly by claimants when employer-initiated challenges to initial claims were successful. The data in the table suggest that this increased pressure by employers on claims and hence on the UI system did occur. As shown in the table, the appeals rate increased significantly in 9 of the 11 states. Moreover, in most cases, the increase was substantial.

Finally, we examined data on trust fund reserves and federal loans to the states to determine whether any correlation existed between states which faced substantial financing problems and states that appeared either to reduce the availability and generosity of benefits or to tighten program administration. The data presented in Table III.5 indicated that Illinois, Michigan, Ohio, and Pennsylvania faced major financing problems in the 1980s. All four states had low reserves relative to payments and high amounts of old, outstanding non-interest-bearing loans, as well as more recent, outstanding interest-bearing loans.[1] New Jersey had a somewhat lower but still substantial amount of old loans, and Texas was required during the 1980s to borrow using interest-bearing loans. Both of these states also had relatively low levels of reserves.

We examined data in the previous two tables on changes in UI program characteristics to determine whether the four states, in particular, seemed to reduce the availability of UI in the 1980s. But we did not find a uniform response. Three of

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[1] These loans were high both in absolute value and high relative to payments.

TABLE III.5

RESERVES AND LOAN BALANCES IN THE 1980s,
11 LARGEST STATES
(Millions of Dollars)

	Reserves		Non-Interest-Bearing Loans		Interest-Bearing Loans	
	Mean	Reserve Fraction[a]	Mean	Loan Fraction[a]	Mean	Loan Fraction[a]
California	$2,993	6.52	0	0.00	0	0.0
Florida	$1,073	18.12	0	0.00	0	0.00
Illinois	$87	0.38	$1,260	4.49	$259	0.92
Massachusetts	$616	6.08	$25	0.28	0	0.00
Michigan	$222	1.19	$1,220	5.88	$230	1.07
New Jersey	$452	2.79	$394	2.31	$2	0.01
New York	$1,175	4.09	0	0.00	0	0.00
North Carolina	$651	10.63	0	0.00	0	0.00
Ohio	$16	0.06	$643	2.98	$395	1.90
Pennsylvania	$82	0.29	$1,340	4.23	$375	1.13
Texas	$74	1.17	0	0.00	$217	1.15

[a]
Reserves and the outstanding loan balances at the end of a quarter were divided by regular state UI payments in the quarter to obtain the reserve and loan fractions.

the states appear to have increased qualifying requirements, and Pennsylvania reduced potential duration, but there was also evidence of some increases in benefit generosity. For example, the maximum weekly benefit amount relative to average wages rose in three of the four states. In addition, California and New York, two states in relatively strong financial positions, experienced the greatest erosion of wage replacement rates.

To investigate these relationships further, we ran a set of simple regressions of state program characteristics on the reserve and loan fractions. We also included the appeals relative to determinations variable. These regressions, both for the 11 largest states and for all of the states, did not show a consistent pattern between financial pressure and reductions in the generosity of state programs. Thus, while the level of reserves and obligations to repay outstanding loan balances were undoubtedly an important factor in determining the states' actions toward the availability of UI benefits, other factors were also probably important. One such factor was that states could and apparently did raise employer tax rates to help mitigate the necessity of reducing benefits. An analysis of the maximum tax rate and the spread between the maximum and minimum rates suggests that financial pressures (as measured by the reserve and loan fractions) were highly correlated with changes in the tax structure. Moreover, as one would expect, the new interest-bearing loans seemed to have a larger effect on tax rates that did the old non-interest-bearing loans. The regressions also suggested that states both increased maximum tax rates and increased the degrees of experience-rating, since the spread between the maximum and minimum rates was positively correlated with the financial variables. Thus, any analysis of the responses of states to financing problems must examine both tax and benefits behavior.

C. SUMMARY

In this chapter, we defined variables that described important demographic, economic, and UI program characteristics and examined changes in these variables between the 1970s and 1980s to determine which ones may have contributed to the decline in the UI claims ratio. We found that many of the demographic and economic variables appeared to move in a direction that would be expected to increase rather than to reduce the UI claims ratio. The one exception was the long-term decline in the relative importance of manufacturing workers among the unemployed.

In terms of UI program characteristics, we found somewhat mixed evidence that changes in these variables might explain the decline in UI coverage. Some of the variables that described monetary eligibility and the generosity of UI benefits showed a tightening of eligibility and a reduction in generosity, while others showed the opposite pattern. Similarly, the variables that described nonmonetary initial and continuing eligibility requirements and their enforcement showed evidence of both a tightening of administration in some areas and a loosening in others. Our examination of state-by-state data also showed considerable cross-state diversity both in the initial levels of the UI variables and in their trends.

These findings suggested that, in our analysis of the decline in the UI claims ratio, it was important to control for UI program characteristics and, to the degree possible, economic and demographic factors, since changes in some of these variables may have contributed to the decline in coverage, while others may have actually increased coverage.
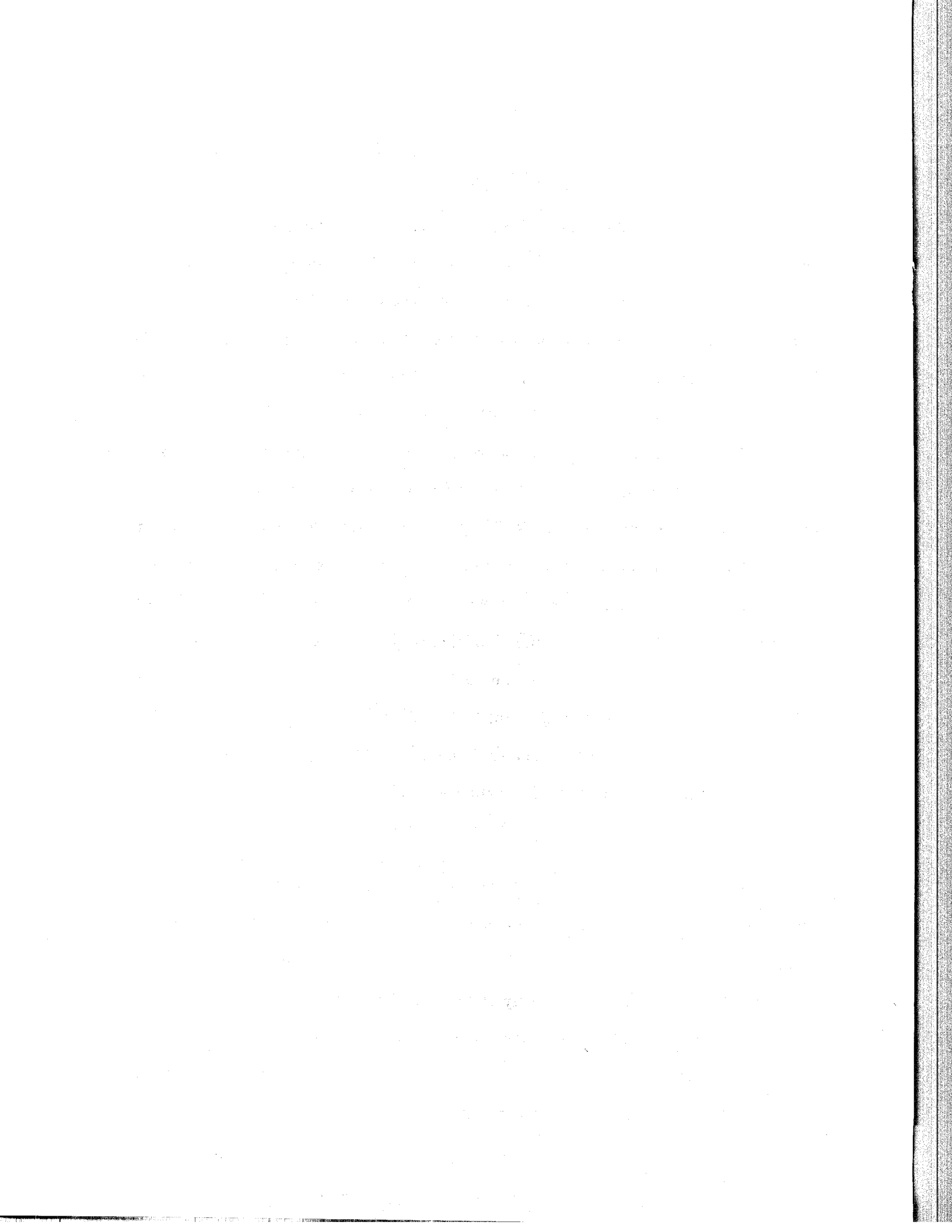
IV. ANALYTIC RESULTS

In this chapter, we present the basic analytic results of our examination of the UI coverage question. Because we wished to investigate a wide variety of hypotheses about the apparent decline in coverage, the chapter is a relatively extensive one. Although we make some attempt to summarize our major statistical findings at the end of the chapter, we will not present our detailed conclusions until Chapter VI.

This chapter consists of five principal sections. In Section A, we begin with a brief discussion of the approach that we used to examine the coverage question, and why we chose it over the available alternatives. In Section B, we describe some of the results that we obtained with national data on UI coverage, and point out why we believe that such an aggregated approach does not provide sufficiently detailed information for our purposes. Section C then presents our findings based on data from the 11 largest states. In Section D, we extend the modeling for our 11-state sample to all of the states. For the most part, our examination of all the states does not add very substantial new information, but a few observations are worth noting. Finally, in Section E, we present a summary of the statistical findings presented in this chapter.

A. METHODS OF ANALYSIS

In Chapter III we described some of the data that were collected for the present project. For the results that are presented in this chapter, we used simple regression techniques to examine the data and their connection to the UI coverage question. Although some of our analysis was based on simple time series regressions over the period from 1971.1 to 1986.4, we relied largely on a combined cross-section time-series data set for all of the states (or for our 11-state subsample) over this period. This data set gave us an opportunity to use differences in the characteristics

of the unemployed populations and the UI programs of the states to identify the effects of different economic and programmatic components. Identifying these effects would have been much more difficult had we focused only on simple time series analysis at either the national or state level, since, as we illustrate later, many of the data series we wished to examine exhibited similar time trends. For example, virtually all of the federal initiatives that we examined in the UI area were undertaken early in the 1980s. Variables to represent any of them can more than "explain" the observed trend in UI coverage in simple time series regressions. But such explanations are clearly spurious. The availability of pooled data from the states helped us address this problem, at least partly, by allowing us to disentangle such simple time series correlations. Of course, using pooled regressions did pose important statistical problems unique to this type of analysis, and we will discuss those problems as they arise in our presentation.

As we described in Chapter I, our primary measure of UI coverage of the unemployed is the ratio of UI claims under state programs to the total unemployment in that state, what we call the "UI claims ratio." Although we chose this variable primarily because of its policy relevance and because it reflects the coverage concept fairly well, this choice also offered some statistical advantages for our study. Most importantly, because the variable is a ratio, all of the pooled observations on it are of approximately the same magnitude. Although, as we showed in Chapter I, the extent to which unemployed workers receive UI differs among the states, controlling for such differences is relatively easier in regressions than would be the case had we used absolute numbers of UI claims as our dependent variable.[1] We also felt that the UI claims ratio was preferable to the ratio of the insured unemployment rate to the total

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[1] Burtless and Saks (1984) used the absolute claims figures in their study, which was based primarily on national data. They did not attempt to pool data across state observations in their examination of the disaggregated data.

unemployment rate (a variable which has also been the focus of policy discussion), since the different denominators of these two rates can sometimes lead to difficult problems in interpreting results. Using the claims ratio figures avoids these problems.

However, two conceptual issues that arose in using the UI claims ratio data should be mentioned here. First, the claims data used to compute the ratio refer to continuing claims for unemployment benefits, yet, as we showed in Chapter I, some part of the observed reduction in the ratio occurred because of a reduction in initial claims, and some (probably smaller) part occurred because of a reduction in continuing claims per initial claim. To the extent that these two types of claims were influenced by different types of economic and administrative influences, such an aggregation may have tended to obscure the basic forces that were at work. For this reason, we sometimes estimated equations, in addition to those based on the total claims figures, that examined (new) initial claims and a measure of continuing claims per initial claim as a ratio of total unemployment. For this measure, we used average claims (continued claims) divided by initial claims. Since this measure suffered from some conceptual problems associated with the reporting of interstate claims, we also examined average payments (total payments divided by first payments) to avoid these problems.[1] The results for these approaches are presented below.

A second issue that arose in using the UI claims ratio variable was that it did not reflect benefit payments but merely benefit claims. If (contrary to what we ultimately found) states adopted administrative changes that affected the number of claims that led to payments, focusing solely on claims might have led to inaccurate

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[1] More specifically, our continuing claims data included interstate claims filed within each state, while the new initial claims data for interstate claims referred only to claims for which each state was liable. We avoided this problem for payments, since the first payments and total payments data referred to all payments (intra and inter) made by each state.

conclusions about the consequences of recent changes in claims patterns on the budget of the UI system. Hence, we also used information on total weeks compensated (again, relative to the total number of unemployed) as a dependent variable in some of our work. The results for that variable will also be reported in later sections of this chapter.

Our basic analytical strategy, then, was to estimate pooled time-series/cross-section regressions of the form:

(1) $Y_{it} = b_0 + b_1 X_{it} + b_2 DUM80\text{-}86 + U_{it}$,

where Y_{it} represented the UI claims ratio (or sometimes other measures of UI claims or payments) in state i and quarter t, X_{it} represented a vector of variables thought to affect the UI claims ratio (see Chapter III), and DUM80-86 was a binary variable which took the value 1.0 for all quarters during the 1980s. The coefficient b_2 then provided an estimate of the extent to which the UI claims ratio in the 1980s fell short of its value in the 1970s after we controlled for various factors that may have affected the level of UI claims. Because estimates of the parameters b_1 showed precisely how the independent variables affected the UI claims ratio, we used these estimates to evaluate the extent to which trends in the independent variables "explained" the decline in UI claims. Hence, this methodology allowed us to apportion the decline in the UI claims ratio (and changes in other measures of UI claims or payments activity) among explained and unexplained causes of the decline. The results of this particular disaggregation are presented in Chapter VI. Of course, as we discuss in some detail, the precision of the estimates drawn from this type of exercise may be misleading, since it is based on the particular form in which equation (1) is specified. Thus, throughout our analysis, we have attempted to investigate the sensitivity of our results to the various specifications used.

B. NATIONAL RESULTS

National data on UI claims and unemployment are readily available and are probably more accurate than data measured at the state level. Hence, these national data provided a natural starting point for our analysis. Unfortunately, as we soon demonstrate, a simple time series analysis of these data was not especially informative (even though the data were quite extensive), and thus our discussion of the national results will be brief.

Table IV.1 illustrates two basic regressions that we ran on national data using the UI claims ratio as the dependent variable. The first incorporated quarterly dummy variables, the total unemployment rate (TUR), and the 1980-86 dummy as explanatory variables. As in the descriptive results of Chapter I, this regression showed an unexplained decline of 0.080 in the UI claims ratio during the 1980s--a decline of about 19 percent of the average value for the UI claims ratio during the 1970s. The positive and statistically significant coefficient for the TUR in the regression implied that each percentage-point increase in the unemployment rate[1] leads to a 0.012 increase in the UI claims ratio. Because the TUR was higher on average during the 1980s than during the 1970s, the decline estimated in Table IV.1 was actually greater that the decline exhibited in the raw data, which amounted to 0.062.

For the second regression in Table IV.1, we added to our initial equation four variables that reflected the composition of the unemployed. As described in Chapters II and III, these four measures--the proportion of the unemployed who were job losers, unemployed 27 weeks or over, in manufacturing, or in construction--reflected the most salient characteristics of the unemployed with respect to their ability to collect

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[1] However, as we discuss in several places below, we believe that this estimate may overstate the cyclical sensitivity of the UI claims ratio, since this regression does not control for many other influences on that ratio, some of which are also cyclically sensitive.

TABLE IV.1

NATIONAL REGRESSIONS ON THE UI CLAIMS RATIO
1971.1 TO 1986.4

Independent Variable	(1)	(2)
Quarter 1	0.0661** (0.0172)	0.0095 (0.0151)
Quarter 2	0.0128 (0.0166)	0.0301** (0.0094)
Quarter 3	-0.0217 (0.0166)	0.0228 (0.0122)
1980-86 Dummy	-0.0799** (0.0144)	-0.0688* (0.0124)
TUR	0.0121* (0.0051)	0.0016 (0.0073)
Proportion Job Losers	--	0.4778 (0.2701)
Proportion Unemployed 27+ Weeks	--	-0.6384** (0.1336)
Proportion in Manufacturing	--	0.6765** (0.1996)
Proportion in Construction	--	1.1360* (0.4910)
Constant	0.3156** (0.0331)	-0.0217 (0.0465)
R^2	0.51	0.90
F (d.f.)	14.0 (5,58)	63.0 (9,54)
Mean of Dependent Variable	0.3802	0.3802

NOTE: Standard errors are shown in parentheses.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is statistically significant at the .01 level in a two-tail test.

UI.[1] Controlling for these compositional factors reduced the estimate of the unexplained decline in the UI claims ratio to 0.069. A further examination of this result indicated that it was due primarily to including the manufacturing variable in the regression. Thus, the decline in the representation of manufacturing workers among the unemployed during the 1980s appeared to have led to a 0.01 decline in the UI claims ratio.[2] This finding seemed consistent with what we learned from our interviews with state UI administrators, many of whom mentioned the decline in manufacturing as having some effect on the nature of their UI claims.[3] Although the other compositional effects in the regression were also statistically significant, their net effect was rather small, since the positive effect of the increase in job losers during the 1980s on UI claims was approximately balanced by the negative effect of the increase in the proportion of the unemployed with durations of 27 weeks or over. Including all of the compositional effects in the regression had the additional effect of reducing the coefficient of the TUR to approximately zero. Hence, we concluded that the effect of the TUR on the UI claims ratio that we observed in the first regression

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[1] In other regressions we also included variables on the composition of the unemployed by age and sex. However, once the four basic compositional variables were included, these additional variables were seldom statistically significant. We also constructed separate UI claims ratios by sex at the national level in order to examine sex-specific compositional effects on UI claims further. But, other than the fact that unemployed women are somewhat less likely to collect UI than are men (probably because fewer are job losers and fewer have jobs in manufacturing industries), these data exhibited few differences in the behavior of the two groups over our time period. Specifically, the estimated decline in the UI claims ratio was, in proportional terms, virtually identical for men and women.

[2] We refine this estimate substantially in our subsequent analysis in Chapter VI.

[3] However, this finding did prompt us to question why previous manufacturing employment should have had such an effect on UI collection. In general, we were unable to identify any measurable variables (such as those defining UI coverage or eligibility provisions) that reduced the significance of the manufacturing effect. Hence, we concluded that the effect probably reflected something about the character of the UI information provided to workers in manufacturing or about other aspects of the access of UI to workers in that industry. But our data did not enable us to examine such hypotheses quantitatively.

reflected primarily the changing composition of the unemployed over the business cycle, and that the best analytical strategy was to seek to control for such effects directly.[1]

Table IV.2 illustrates our results from running these two basic regressions on three additional measures of UI coverage at the national level: (1) new intrastate claims; (2) total claims paid; and (3) claims under all programs. As with our UI claims ratio variable, we divided all of these additional measures by the total number of unemployed in each quarter. In general, these regressions mirrored those in Table IV.1 quite closely. This was especially true for the regressions on the two total claims variables, for which the qualitative nature of the findings was virtually identical. However, for the initial claims regression, although the estimated decline during the 1980s was about the same (in proportional terms) as it was for all UI claims, coefficients for the cyclical variables were quite different and generally difficult to explain on the basis of a priori theory. It seemed clear that these findings were due to our decision to normalize by the number of unemployed. Since cyclical changes in initial claims lead to cyclical changes in the number unemployed, the ratio of the two variables does not behave in a manner that is consistent with business cycle changes in the independent variables. A more appropriate normalization for new claims would be a measure of new spells of unemployment. Since such a measure did not exist at the state level for our entire observation period, we did not attempt to use such a measure on a national level.[2] Thus, in our research, we tended to pay somewhat less attention

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[1] Unfortunately, as we mentioned previously, the data necessary for implementing such direct control do not exist at the state level. In the next section, we describe some of the procedures that we implemented to address this difficulty.

[2] In earlier work, Burtless and Saks (1984) addressed this problem by using special tabulations from the CPS to measure unemployed job losers whose unemployment durations were less than five weeks, which provided an approximation to the number of layoffs during a period. These data were available only on a national basis.

TABLE IV.2

NATIONAL REGRESSIONS ON ALTERNATIVE MEASURES OF UI COVERAGE
1971.1 TO 1986.4

Independent Variable	New Intrastate Claims Ratio		Claims Paid Ratio		All Programs Claims Ratio	
	(1)	(2)	(1)	(2)	(1)	(2)
Quarter 1	0.0010	-0.0048*	0.0714**	0.0229*	0.0252	-0.0480
	(0.0017)	(0.0021)	(0.0149)	(0.0116)	(0.0263)	(0.0399)
Quarter 2	-0.0078**	-0.0064**	0.0258	0.0427**	0.0050	0.0049
	(0.0016)	(0.0013)	(0.0144)	(0.0072)	(0.0253)	(0.0249)
Quarter 3	-0.0055**	-0.0035*	-0.0135	0.0277**	-0.0391	0.0357
	(0.0016)	(0.0017)	(0.0144)	(0.0094)	(0.0253)	(0.0323)
1980-86 Dummy	-0.0063**	-0.0066**	-0.0554**	-0.0470**	-0.2215**	-0.1911**
	(0.0014)	(0.0017)	(0.0125)	(0.0095)	(0.0219)	(0.0327)
TUR	-0.0009	0.0011	0.0102*	-0.0020	0.0622**	0.0201
	(0.0005)	(0.0010)	(0.0044)	(0.0056)	(0.0078)	(0.0194)
Proportion Job Losers	--	0.0294	--	0.4978*	--	-0.0056
		(0.0379)		(0.2067)		(0.7137)
Proportion Unemployed 27+ Weeks	--	-0.1185**	--	-0.5520**	--	0.8061*
		(0.0188)		(0.1022)		(0.3530)
Proportion in Manufacturing	--	-0.0061	--	0.5951**	--	1.5410**
		(0.0281)		(0.1527)		(0.5270)
Proportion in Construction	--	0.0837	--	0.9041*	--	3.3800*
		(0.069)		(0.3758)		(1.3000)
Constant	0.0454**	0.0282**	0.2545**	-0.0524	0.1299*	0.3624**
	(0.0033)	(0.0065)	(0.0288)	(0.0355)	(0.0506)	(0.1227)
R^2	0.59	0.84	0.54	0.93	0.69	0.82
F	16.9	32.3	13.7	82.2	25.7	27.7
(d.f.)	(5,58)	(9,54)	(5,58)	(9,54)	(5,58)	(9,54)
Mean of Dependent Variable	0.0334	0.0334	0.3232	0.3232	0.470	0.470

NOTE: Standard errors are shown in parentheses.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is significantly significant at the .01 level in a two-tail test.

to new claims measures than to our more complete measures of UI coverage of the unemployed.

We ran a large number of additional regressions on the UI claims ratio variable at the national level, but have chosen not to report them here. In general, we found that the coefficients in these regressions were relatively unstable, and that our estimate of the "unexplained" decline in UI claims varied widely--even to the extent of becoming positive in some cases. In this sense, it was easy to fully explain the decline in the UI claims ratio in a mechanical, statistical sense. But the erratic nature of these results suggested that they were primarily spurious, due to a high degree of intercorrelation among the national time series variables that we were using. To report such findings would, we believe, run the risk of having them taken too seriously. Hence, we used the available national data to identify only some of the important cyclical characteristics of the UI claims series, and then turned our more detailed attention to data at the state level.

C. THE RESULTS FOR THE ELEVEN LARGEST STATES

It was useful to focus our initial state-by-state analysis on the 11 largest states, since data on total unemployment for these states come directly from the CPS on a monthly basis.[1] For this reason, our measure of UI coverage of the unemployed, the UI claims ratio, is probably more accurate for these states than it is for the remainder of the states. In addition, by initially examining the decline in coverage for a subset of the states, we can view the results presented later for all states as a partial test of the 11-state findings.

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[1] The unemployment estimates for other states are based in part on the number of UI claims, with periodic (annual or semi-annual) benchmarking to CPS estimates.

Our discussion of the results for the 11 states is presented in four sections. In the first, we discuss our primary results on the effect of UI program characteristics on the UI claims ratio. In the second, we present some alternative specifications of the effect of UI program characteristics. The third section compares alternative ways to control for changes in the underlying economic factors. The final section examines the effect of UI program characteristics on alternative measures of UI coverage.

1. Basic Results

Table IV.3 presents our basic regression results for the 11-state sample. The initial two regressions show the decline in the UI claims ratio in the 1980s that we observed when we controlled only for seasonal factors and the total unemployment rate (TUR). In the first of these regressions, the estimated decline in the ratio was .066; in the second regression, the decline was .054. The difference in the two estimates is due to the fact that we estimated a fixed-effects model in the second regression by adding binary variables for the states. A fixed-effects model is, we believe, appropriate for this analysis, since the level of the UI claims ratio varies substantially by state (see Chapter I), and since it is unlikely that the independent variables that we were able to include in the analysis fully explain the state-by-state differences in the UI claims ratio.[1] Using a fixed-effects model controls for these state-by-state differences. As the estimates indicate, a fixed-effects model reduced

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[1] An alternative way to control for unexplained differences among units (states in this case) in a time-series, cross-section analysis is to use a random-effects model in which the differences among the units are treated as random components of the error term. While this procedure saves degrees of freedom relative to the fixed-effects model, it has been argued that the fixed-effects approach is more appropriate if one wants to draw inferences only about the set of cross-section units used in the analysis, as opposed to drawing inferences about the population from which the cross-section was drawn. Since we wish to draw inferences only about the states, the fixed-effects approach seems applicable here. (For further discussion of these issues, see Maddala, 1987.)

TABLE IV.3

EFFECTS OF UI PROGRAM CHARACTERISTICS ON THE UI CLAIMS RATIO
BASIC RESULTS
(11 Largest States)
1971.1 TO 1986.4

Independent Variables	(1)	(2)	(3)
1980-86 Dummy	-0.066** (0.010)	-0.054** (0.006)	-0.0328** (0.0072)
TUR	0.010** (0.002)	0.001 (0.002)	-0.0055** (0.0017)
Minimum Qualifying Wages/ Average Weekly Wages			-0.0364** (0.0031)
Wage Replacement Rate			0.5993** (0.0940)
Maximum Duration			0.0192** (0.0056)
Uniform Duration			-0.0054 (0.0109)
Voluntary Leaving Denial Rate			0.0004** (0.0002)
Misconduct Denial Rate			-0.0018** (0.0004)
Disqualifying Income Denial Rate			-0.0101** (0.0026)
Work Test Denial Rate			-0.0039** (0.0008)
Extended Benefits			0.0286** (0.0061)
State Dummies	No	Yes	Yes
R^2	0.12	0.66	0.76
F (d.f.)	20.3 (5,698)	91.8 (15,688)	93.4 (24,679)
Mean of Dependent Variable	0.382	0.382	0.382

NOTE: All regressions include three quarterly dummy variables and a
constant term. Standard errors are reported in parentheses.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is statistically significant at the .01 level in a two-tail test.

our measure of the decline in the UI claims ratio. We believe that this reduction occurred because the state dummy variables control partially for cross-state differences in labor market characteristics that are not captured fully by differences in the TUR.

Regression (3) in Table IV.3 shows the degree to which our basic, preferred set of variables that describe state UI programs explain the decline in the UI claims ratio.[1] Before adding these variables, we estimated that the ratio declined by .054 in the 1980s relative to the 1970s. After adding these variables, our estimate of the unexplained portion of the decline was .033. Thus, this set of regressors appears to explain about 40 percent of the decline.

Examining the regression results further shows that, with one exception, the UI variables were statistically significant determinants of the UI claims ratio.[2] Moreover, the coefficients generally had the expected signs. For example, higher wage replacement rates and longer potential durations increased the UI claims ratio, while higher qualifying wages reduced it. The only UI variables with "unexpected signs" were the uniform duration dummy variable, which was not statistically significant, and the voluntary leaving denial rate, which had a positive effect on the UI claims ratio. However, as we discussed previously, the decrease observed for this denial rate in the 1980s and (similarly) its positive effect on the claims ratio may be related to how claimants responded to changes in the duration of the benefit disqualification for voluntary leaving. The inclusion of the UI variables also affected the coefficient of the TUR by making it negative and significant. This may have

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[1] We used this basic regression extensively to draw comparisons in this chapter and to form our concluding discussion in Chapter VI.

[2] As a group, the entire set of UI regressors was statistically significant at the .001 level.

occurred because some of the UI variables captured cyclical changes in the nature of the UI population, as well as changes in the underlying UI laws.

To investigate the reasonableness of these results further, we felt that it was useful to examine the magnitude of the coefficients. One way to think about these estimates is to recognize that the numerator of the UI claims ratio is the product of initial claims and the average continued claims filed per initial claim. With this observation in mind, we can translate the coefficient estimates into estimates of the impact of changes in the independent variables on initial or continued claims. For example, if minimum qualifying wages were raised by about one-half a week of average wages, our estimate for that variable indicates that the UI claims ratio would decline by .018 ((.0364)(.5)), which represents a 4.4 percent decline in the UI claims ratio at its 1970s level of .405. Since the qualifying wage variable can be expected to affect initial claims but not continued claims, this decline implies that initial claims would decline by 4.4 percent if minimum qualifying wages increased relative to average wages by half a week of wages. While we are not aware of any estimate with which this result can be compared, it does not seem unreasonable.

The same exercise was performed with the other coefficient estimates, and, at least for the wage replacement rate and the duration variables, external estimates of their effects were available for comparison. For the wage replacement rate, our coefficient estimate implied that a 10 percent increase in the wage replacement rate would increase the UI claims ratio by 14.8 percent. If all of the increase occurred because of increased duration (i.e., increased claims per initial claim), this estimate would imply that duration would increase by 1.7 weeks at the 1970s mean of 11.8 claims per initial claim. Although it is likely that any wage replacement rate change would also affect initial claims, this estimate was clearly on the high side when compared with other estimates of the effect of the wage replacement rate on UI

duration. For example, summaries of this research (Hammermesh, 1977, and Gustman, 1980) indicate that a 10 percent rise in the wage replacement rate leads to a 0.5- to 1.0-week rise in duration.

The coefficients for maximum duration and for extended benefits appeared to be much closer in magnitude to what one might expect. Using the same logic as before, our estimates indicated that a one-week increase in maximum duration would increase average claims by about .6 weeks, and the availability of extended benefits would increase average claims by about .8 weeks. Since average extended benefit durations are about 11 weeks for regular EB, this estimate implies that each week of extended benefits would increase duration by .07 weeks, which, although lower, was close to the .15-week estimate of this effect reported in Moffitt (1985). Moreover, since the .15 estimate refers to individuals who have already begun collecting UI, a somewhat lower value made sense for the UI ratio, which includes new claims. The higher estimate for maximum duration also seemed reasonable, since the duration of regular UI benefits should have a stronger behavioral effect on regular UI claimants than would extended benefits, as well as a direct definitional effect on the claims ratio.

The remaining coefficients in the regression pertained to the effect of the various separation and nonseparation issue denial rates on the UI ratio. To place these estimates in perspective, consider that each increase in a separation issue denial rate by one means that one out of 1,000 initial or additional claims led to a denial. Assume for the moment that only initial claims are denied and that each claim which is denied would have led to the average number of continued claims; then, an increase in the denial rate by one would reduce claims and the UI claims ratio directly by a factor of .001. Since the mean claims ratio in the 1970s was about .40, this direct effect of a denial on the claims ratio would translate into a coefficient estimate of .0004.

Similar logic would apply to the nonseparation denial rates, although it is likely that these denials would reduce continued claims by less than their average, merely because a nonseparation denial does not necessarily occur at the beginning of an unemployment spell. This discussion suggests that, since our denial rate coefficients were greater in absolute value than .0004, either our estimates of these effects were on the high side or the indirect effects of denials may be quite important and are being captured in the regression coefficients. That is, a denial may indirectly affect claims by dissuading some individuals from filing, or the rate itself may measure differences in the overall strictness with which a program is administered. For these reasons, it is difficult to judge whether these estimates are roughly the "correct" magnitude.

2. Alternative Specifications of UI Program Characteristics

We examined several additional ways to model the effects of UI characteristics on the UI claims ratio and on the 1980s decline in the ratio. Our results are reported in Table IV.4.

The first alternative we considered was to model all the UI-law-related variables with variables that, in part, describe outcomes of the laws rather than just the laws themselves. In our basic specification, we used a mixed approach in which the qualifying requirements variable and the potential duration variables described the laws directly, while the benefits variable—the wage replacement rate—was partially an outcome variable, in that changes in the population of claimants are reflected in the numerator of this variable (average weekly benefit amounts). As indicated in the previous chapter, the main argument for using variables of this nature is that they may capture the many facets of the laws better than can the few specific legal variables that we can define. The main argument against using them is their

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TABLE IV.4

EFFECTS OF UI PROGRAM CHARACTERISTICS ON THE UI CLAIMS RATIO:
ALTERNATIVE SPECIFICATIONS OF PROGRAM CHARACTERISTICS
(11 Largest States)
1971.1 TO 1986.4

Independent Variables	(1)	(2)	(3)
1980-86 Dummy	-0.0301** (0.0082)	-0.0326** (0.0080)	0.0137 (0.0128)
TUR	-0.0084** (0.0018)	-0.0020 (0.0017)	-0.0053** (0.0017)
Minumum Qualifying Wages/ Average Weekly Wages		-0.0343** (0.0033)	-0.0354** (0.0030)
Proportion Monetarily Eligible	0.2087** (0.0579)		
Wage Replacement Rate	0.5780** (0.1032)		0.7116** (0.0960)
Wage Replacement Rate x Income			0.2359** (0.0523)
Maximum Weekly Benefit Amount/ Average Weekly Wages		0.0601 (0.0571)	
WBA as Proportion of HQW		-3.4100 (2.1450)	
Maximum Duration		0.0197** (0.0058)	0.0156** (0.0056)
Uniform Duration		-0.0026 (0.0114)	-0.0057 (0.0107)
Proportion Eligible for Maximum Duration	0.0808** (0.0298)		
Voluntary Leaving Denial Rate	0.0006** (0.0002)	0.0004* (0.0002)	0.0002 (0.0002)
Misconduct Denial Rate	-0.0020** (0.0004)	-0.0022** (0.0004)	-0.0012** (0.0004)
Disqualifying Income Denial Rate	-0.0072* (0.0029)	-0.0121** (0.0027)	-0.0110** (0.0026)
Work Test Denial Rate	-0.0003 (0.0008)	-0.0031** (0.0008)	-0.0041** (0.0008)

TABLE IV.4 (continued)

Independent Variables	(1)	(2)	(3)
Extended Benefits	0.0430** (0.0067)	0.0303** (0.0062)	0.0228** (0.0061)
State Dummies	Yes	Yes	Yes
R^2	0.71	0.75	0.77
F (d.f.)	76.4 (23,680)	83.6 (25,678)	93.1 (25,678)
Mean of Dependent Variable	0.382	0.382	0.382

NOTE: All regressions include three quarterly dummy variables and a constant term. Standard errors are reported in parentheses.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is statistically significant at the .01 level in a two-tail test.

endogeneity--that is, the variables reflect both policy decisions and the nature of UI claims.

The outcome-type variables that were substituted in the regression were the proportion who were monetarily eligible and the proportion of the claimant population at the maximum duration. These variables replaced the qualifying weeks and the potential duration variables. The results shown in the table are very similar to the results presented earlier in Table IV.3. The coefficient for the 1980-86 dummy was slightly lower, the coefficient for extended benefits was higher, and the other coefficients changed even less.

The second specification reported in Table IV.4 went in a direction opposite from the first specification by replacing the wage replacement rate with two variables that described weekly benefit amount laws. The first was merely the maximum weekly benefit amount divided by average wages, and the second was the proportion of high-quarter wages paid as the weekly benefit amount (up to the maximum). No additional changes in variables were made.[1] The results, which are shown in Table IV.4, were disappointing, since neither of the weekly benefit amount variables was statistically significant. Thus, we decided that using the wage replacement rate was a preferable way to model the effect of changes in the generosity of weekly benefit amounts.

The final alternative specification added a variable to our basic regression to attempt to control for the change in the tax status of UI benefits. As described in the previous chapter, this variable provided an interaction between the wage replacement rate and the proportion of individuals in a state whose incomes are above the tax

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[1] In particular, we did not report the results of variables that parameterized the nonmonetary eligibility rules. These variables captured a small number of the dimensions of these complex rules, and many of the variables did not change in the 11-state sample over our observation period. Instead, we continued to rely on the denial rates to capture changes in these requirements or in their application.

threshold for UI. As shown in the tables, this variable was statistically significant, and its addition to the regression made the 1980-86 dummy variable insignificant. On the surface, this suggested that including UI in the tax base accounted for all of the unexplained decline in UI claims found in our other regressions. However, we believe that this conclusion was too strong, because the tax law changes initially went into effect in 1979 on a nationwide basis. This means that the wage replacement rate, when interacted with the income proportion, was highly correlated with the 1980-86 dummy. This correlation overwhelmed the state-by-state variation in income levels and produced a result which was largely spurious. Consequently, we could not develop a direct estimate the impact of the tax law changes. In Chapter VI, we report the results of an alternative approach for estimating this effect.

3. Alternative Specifications of Economic Variables

In our discussion of the national results, we indicated that four variables which describe the nature of the unemployed population seemed to be particularly important in explaining the UI claims ratio. These variables also appeared to provide a better way to control for cyclical changes in the composition of the UI claims load than did the TUR. These variables were the proportion of the unemployed who were job losers, unemployed 27 weeks or over, in manufacturing, and in construction. Unfortunately, as noted previously, data on these characteristics of the unemployed were unavailable at the state level for our entire analysis period, and we could not use these data directly in our analysis.[1]

Nevertheless, we did attempt to control for these variables by using the partial data that were available on the composition of the unemployed, to provide state-by-state estimates of these variables for the 11-state sample over our entire

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[1] Data on job losers and UI duration were available at the state level beginning in 1978, while the industry data were not available until 1981.

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analysis period. We did so in a two-step process. First, we estimated national regressions for each compositional variable using quarterly dummies, the TUR, and a time trend as independent variables. We then used these regressions to impute predicted compositional variables for each state on the basis of its own TUR. Second, we refined these predicted variables further by regressing each state's actual compositional variables over the period for which such data were available on the predicted variables and on a set of state dummies. We then used these second-stage regressions to predict the compositional variables for all periods. The procedure amounted to using each state's own TUR, together with a national time trend, to estimate the composition of unemployment. Because predictions for the proportion who were unemployed in the construction industry were relatively poor, we did not use them in our subsequent analysis. The other predictions tracked the actual state data (when available) quite well.

The results of using these synthetic estimates of the composition of the unemployed are reported in Table IV.5. Because of how these variables were constructed, we could not use either the TUR or the state dummy variables in these regressions, and hence it was useful first to consider a regression that controlled only for these compositional variables and the seasonal factors. This regression (1) provided an estimate of a .061 decline in the UI claims ratio, which was similar to, although slightly lower than, the estimate that adjusted only for the TUR that was presented in Table IV.3. Since our national results suggested that the proportion in manufacturing was particularly important in explaining the decline in coverage, the fact that this estimate was slightly lower than the one that did not control explicitly for this variable seemed reasonable. The coefficient estimates for the individual variables also seemed reasonable when compared with the national results, although the coefficient for the job losers variable was somewhat higher than we found in the national regressions.

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TABLE IV.5

EFFECTS OF UI PROGRAM CHARACTERISTICS ON THE UI CLAIMS RATIO: ALTERNATIVE SPECIFICATIONS OF ECONOMIC VARIABLES
(11 Largest States)
1971.1 TO 1986.4

Independent Variables	(1)	(2)	(3)
1980-86 Dummy	-0.061** (0.009)	-0.0223* (0.009)	-0.0239** (0.0086)
TUR			-0.0037* (0.0018)
Predicted[a] Proportion Job Losers	1.054* (0.114)	0.8137** (0.1096)	
Predicted[a] Proportion Unemployed 27+ Weeks	-0.680** (0.154)	-0.7991** (0.1488)	
Predicted[a] Proportion in Manufacturing	0.524** (0.077)	0.0567 (0.0815)	
Minimum Qualifying Wages/ Average Weekly Wages		-0.0228** (0.0029)	-0.0197** (0.0030)
Wage Replacement Rate		0.2456* (0.0997)	0.0995 (0.0944)
Maximum Duration		0.0173** (0.0026)	0.0212** (0.0028)
Uniform Duration		0.0472** (0.0085)	0.0428** (0.0088)
Voluntary Leaving Denial Rate		0.0005** (0.0002)	0.0001 (0.0001)
Misconduct Denial Rate		-0.0031** (0.0003)	-0.0028** (0.0003)
Disqualifying Income Denial Rate		-0.0050 (0.0026)	-0.0092** (0.0024)
Work Test Denial Rate		0.0004 (0.0008)	0.0008 (0.0008)
Extended Benefits		0.0291** (0.0076)	0.0551** (0.0076)
State Dummies	No	No	No

TABLE IV.5 (continued)

Independent Variables	(1)	(2)	(3)
R^2	0.35	0.61	0.58
F	55.0	70.0	70.7
(d.f.)	(7,696)	(16,687)	(14,689)
Mean of Dependent Variable	0.382	0.382	0.382

NOTE: All regressions include three quarterly dummy variables and a constant term. Standard errors are reported in parentheses.

[a]As described in the text, values for these variables were imputed using special procedures.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is statistically significant at the .01 level in a two-tail test.

With respect to the second regression, we found that including our basic set of variables on UI program characteristics reduced the unexplained amount of the decline in the UI claims ratio to .022. This change in the coefficient for the 1980-86 dummy was larger than we found using the specifications reported in Table IV.3. This difference, however, was probably due more to the fact that the regressions in Table IV.5 did not control for state-specific fixed effects than to using the unemployment composition variables. This conclusion was suggested by the third regression, which excluded the compositional variables and had approximately the same coefficient for the 1980-86 dummy.

When we examined the coefficient estimates for the UI program characteristic variables and compared them with the results reported previously, we found very little change in the coefficient estimates for the qualifying weeks, maximum duration, voluntary leaving, and extended benefit variables. This suggested that our estimates for these variables were fairly robust. Some changes did occur for the other variables, generally in magnitude. Perhaps most notable was a reduction in the wage replacement rate coefficient, which we previously argued was higher than external evidence would suggest. This change in the estimated coefficient, however, was also probably due to excluding the state dummy variables, rather to improving the controls for the composition of unemployment. A similar change was apparent in the third regression. The uniform duration dummy variable coefficient also showed a substantial change, becoming positive and significant, as one would expect. This change was clearly due to excluding the state dummy variables, since this characteristic is state-specific.[1]

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[1] In the 11-state sample, four states had uniform duration at some time during our observation period, and three changed to variable duration during the period.

In summary, using the estimated compositional variables in the analysis did not lead to substantially different conclusions about the effect of UI program characteristics on the UI claims ratio, although our estimates for some specific variables did change. These changes appeared to be due to excluding the state dummy variables that were used in the previous analysis. Since these variables were used to control for important unobserved, state-specific effects, we believe that the results reported in Table IV.3 are somewhat more reliable than those in Table IV.5.

4. Alternative Dependent Variables

Table IV.6 reports estimates of the effect of UI program characteristics on alternative measures of UI coverage. The first measure is the claims paid ratio, which is all UI payments divided by total unemployment. This measure of coverage thus provides an estimate of the proportion of the unemployed who are receiving UI benefits.[1] As we reported in Chapter I, the decline in UI coverage measured by this claims paid ratio was smaller than the declined measured by the UI claims ratio that was used for the main analysis. However, the effect of the UI program characteristic variables in explaining this decline was approximately the same as we observed for the claims ratio. This can be seen by comparing the coefficients for the 1980-86 dummy in the first two regressions reported in the table. In addition, the estimated effects of the various independent variables were very similar to those reported for the UI claims ratio.

The second alternative measure of coverage that is included in the table is the new intrastate claims ratio, which is the ratio of new intrastate claims to total

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[1] This interpretation is not strictly correct, since partial payments are included in the numerator of this measure; however, since partial payments represent a relatively small proportion of all payments, using this measure rather than one which adjusts for partial payments does not affect the analysis substantially.

TABLE IV.6

EFFECTS OF UI PROGRAM CHARACTERISTICS ON ALTERNATIVE MEASURES OF UI COVERAGE
(11 Largest States)
1971.1 TO 1986.4

Independent Variable	Claims Paid Ratio		New Intrastate Ratio		Average Claims Per Initial Claims	
	(1)	(2)	(1)	(2)	(1)	(2)
1980-86 Dummy	-0.0358**	-0.0185**	-0.0035**	-0.0032**	-0.1274	-0.0994
	(0.0054)	(0.0069)	(0.0006)	(0.0007)	(0.1406)	(0.1536)
TUR	0.0026	-0.0032*	-0.0013**	-0.0013**	0.6080**	0.4984**
	(0.0014)	(0.0016)	(0.0001)	(0.0002)	(0.0357)	(0.0444)
Minimum Qualifying Wages/ Average Weekly Wages		-0.0283*		-0.0031**		
		(0.0028)		(0.0003)		
Wage Replacement Rate		0.5912**		0.0362**		-3.7670
		(0.0855)		(0.0094)		(2.3600)
Maximum Duration		0.0195**		0.0010		0.1021
		(0.0051)		(0.0006)		(0.1471)
Uniform Duration		-0.0020		-0.0042**		0.8562**
		(0.0099)		(0.0011)		(0.2859)
Voluntary Leaving Denial Rate		0.0003*		-0.0000		
		(0.0001)		(0.0000)		
Misconduct Denial Rate		-0.0015**		-0.0001**		
		(0.0004)		(0.0001)		
Disqualifying Income Denial Rate		-0.0072**		-0.0005*		-0.1174
		(0.0024)		(0.0003)		(0.0699)
Worktest Denial Rate		-0.0029**				-0.0970**
		(0.0007)				(0.0184)
Extended Benefits		0.0228**				0.5413**
		(0.0055)				(0.1591)
State Dummies	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.72	0.79	0.54	0.64	0.70	0.72
F (d.f.)	120.0 (15,688)	112.0 (24,679)	56.2 (15,688)	57.9 (22,681)	108.0 (15,688)	85.0 (21,682)
Mean of Dependent Variable	0.3279	0.3279	0.0299	0.0299	11.8	11.8

NOTE: Standard errors are shown in parentheses.

*Coefficient is statistically significant at the .05 level in a two-tail test.
**Coefficient is significantly significant at the .01 level in a two-tail test.

unemployment. This measure is important because, as we showed in Chapter I, much of the observed decline in UI coverage appeared to be due to a reduction in initial claims, rather than to a reduction in continued claims, given that an initial claim was filed. The regressions reported in the table show the estimated decline in the new intrastate claims ratio when we controlled only for the TUR and quarter, as well as the estimated decline when we also controlled for those UI characteristics that we expected to affect new claims.[1] Although a number of individual UI program characteristic variables were statistically significant in the regression, these variables as a whole appeared to explain little of the measured decline, since the coefficient for the 1980-86 dummy changed little when these variables were added. As we argued for the national regressions, our inability to model the initial claims ratio successfully may be due to the fact that using total unemployment to normalize initial claims may be inappropriate.

The final measure of UI coverage reported in the table is average claims per initial claim. Again, we report two regressions--one which controls only for the TUR and quarter, and one which also controls for those UI characteristics that are expected to affect continued claims. Although all of the variables that were statistically significant in these regressions showed the expected signs and had coefficients whose magnitude seemed reasonable, the most important result of these regressions was that the 1980-86 dummy was not statistically significant in either regression.[2] This finding provided further support for the notion that the major reason for the decline in UI coverage in the 1980s was a decline in initial claims for benefits.

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[1] We did not include the worktest denial rate or the extended benefits indicator in this regression, since they were thought not to affect initial claims.

[2] We also estimated the same models for average payments (all payments divided by first payments) and found the same result.

D. THE RESULTS FOR ALL STATES

In this section, we report the results of estimating our preferred model over all 51 states. This model is the one reported in Table IV.3 that includes our basic set of UI program characteristics. As with the 11-state sample, we used a fixed-effects model for the estimation to control for unexplained differences among the states. The results of this exercise are reported in Table IV.7 both for this model and for one which includes only the TUR, quarterly dummies, and the state dummies.

The table shows that many of the results were quite similar to those reported for the 11-state sample. The coefficient for the 1980-86 dummy was a negative .0505 prior to including the UI program characteristic variables, and including these variables reduced the absolute value of this coefficient to .0350. This reduction in the unexplained portion of the decline in coverage was somewhat lower in magnitude than we found for the 11-state sample, but the difference was not large. Moreover, with the exception of the uniform duration dummy variable, the level of significance and sign of the coefficients reported in the table were similar to those reported for the 11-state sample. However, the coefficient estimates for most of the variables were somewhat lower in magnitude than their counterparts for the 11-state sample, which was consistent with their somewhat smaller effect on the coefficient of the 1980-86 dummy.[1] A final point to note about the specific estimates in the table is that the estimated effect of uniform duration was perverse, since uniform duration provides longer average potential durations to claimants than does variable duration.

In summary, these results for all states suggested that our findings for the 11-state sample tell essentially the same story as for all states. Furthermore, since it

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[1] The lower magnitudes found for the all-state coefficient estimates as compared to the 11-state analysis coefficients may arise, in part, because the independent variables may be measured less well or there may be more noise in the data in the smaller as compared to the larger states.

TABLE IV.7

EFFECTS OF UI PROGRAM CHARACTERISTICS ON THE UI CLAIMS RATIO,
ALL STATES
1971.1 TO 1986.4

Independent Variables	(1)	(2)
1980-86 Dummy	-0.0505** (0.0028)	-0.0350** (0.0030)
TUR	0.0039** (0.0007)	-0.0023** (0.0008)
Minimum Qualifying Wages/ Average Weekly Wages		-0.0211** (0.0013)
Wage Replacement Rate		0.2038** (0.0145)
Maximum Duration		0.0053** (0.0009)
Uniform Duration		-0.0160** (0.0078)
Voluntary Leaving Denial Rate		0.0000 (0.0000)
Misconduct Denial Rate		-0.0010** (0.0001)
Disqualifying Income Denial Rate		-0.0031** (0.0005)
Work Test Denial Rate		-0.0027** (0.0002)
Extended Benefits		0.0248** (0.0027)
State Dummies	No	Yes
R^2	0.64	0.71
F (d.f.)	107.0 (55,3208)	123.0 (64,3199)

NOTE: All regressions include three quarterly dummy variables
       and a constant term. Standard errors are reported in
       parentheses.

 *Coefficient is statistically significant at the .05 level in a
  two-tail test.
**Coefficient is statistically significant at the .01 level in a
  two-tail test.

is difficult to judge which set of results is more sensible,[1] we should probably view the two sets of results as providing a range of estimates about the likely impact of UI program characteristics on the UI claims ratio. This is how we use these estimates in Chapter VI.

E. SUMMARY

In this chapter, we examined the impact of economic, demographic, and UI program characteristics on the UI claims ratio and on its observed decline in the 1980s relative to the previous decade. We used both national and state-level data for this analysis. Using the national data, we concluded that some economic changes, particularly the decline in the representation of manufacturing workers among the unemployed, had a substantial impact on the decline in the UI claims ratio. Our national estimates also suggested that other economic measures of the nature of the unemployed population--the proportion of job losers, unemployed 27 or more weeks, and in construction--were also important determinants of the UI claims ratio, but that these factors played a minor role in explaining the decline in the 1980s. We also determined that demographic trends were unimportant factors in explaining the decline.

Our analysis of UI program characteristics, which was based on the state-level data, concluded that changes in UI program characteristics did play an important role in explaining the decline in UI coverage. Our preferred model suggested that these variables explained about 40 percent of the decline in the 11 largest states, while alternative specifications provided a range of estimates that centered around

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[1] Our previous discussion of the reasonableness of the estimates suggested that, in the 11-state analysis, several of the coefficients (for the wage replacement rate and the denial rates) were perhaps too high. Thus, the somewhat lower estimates obtained for the analysis of all states may be more reasonable than those obtained for the 11-state analysis.

this figure. Our models also provided estimates of the impact of the major characteristics of UI programs on the UI claims ratio. We will use these estimates in Chapter VI, together with data on changes in these components between the 1970s and 1980s, in an attempt to determine which program characteristics played a major role in the decline in UI coverage.

Most of the analysis presented in this chapter focused on the 11 largest states, since data on unemployment are based solely on CPS data for these states, and may thus be more accurate than the estimates for other states. However, we also estimated our basic model over all states, and our findings did not change substantially.

V. AN ANALYSIS OF THE RECEIPT OF UI BY INDIVIDUALS

In this chapter, we discuss our analysis of individual-level data on UI receipt to supplement our previous examination of aggregate state and national-level data. Data at the individual level enable us to examine the determinants of UI receipt with a richer set of data on demographic and economic characteristics than are available for the aggregate analysis. This analysis is expected to help us interpret the results of the aggregate-level analysis, particularly the finding that the decline in manufacturing employment, and hence unemployment, has had an important effect on the observed decline in the UI claims ratio.

For this analysis we examined several data sets and chose to use data for 1980 and 1982 from the Panel Study of Income Dynamics (PSID).[1] This choice was based primarily on the fact that this data set contained questions on UI receipt that were tied to a specific unemployment spell and on the fact that questions were also asked about the reasons for not receiving UI, if appropriate. We also thought that a comparison of the determinants of UI receipt for 1980 and 1982 might provide some insights into the decline in coverage between these two years.

The remainder of this chapter consists of four sections. Section A further describes our reasons for using the PSID data and our selection of a sample for the analysis. In Section B, we present some descriptive statistics on UI application and receipt. In Section C, we present our analysis of the determinants of UI receipt. Section D discusses how the individual-level results pertain to the aggregate findings.

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[1]The Panel Study of Income Dynamics began in 1968, and annual waves of data have been collected since that time for the panel of families. The study is conducted by the Institute for Social Research at the University of Michigan.

A. CHOICE OF A DATA SET

Three objectives guided us in choosing a data set for the individual-level analysis. First, we wanted to be able to examine a specific unemployment spell and to determine whether the individual received UI benefits during the spell. Second, we wanted to know how the spell began (i.e., layoff, reentry into the labor market, initial entry into the labor market, etc.) so that we could focus the analysis on individuals who were likely to be eligible for UI. Third, we wanted to be able to compare UI receipt prior to the observed decline in UI coverage with UI receipt after the decline.

We examined the suitability of three data sets for the analysis according to these three objectives. These data sets were the Current Population Survey (CPS), the Survey of Income and Program Participation (SIPP), and the Panel Study of Income Dynamics (PSID). Although none of the data sets met all of our objectives completely, we decided that an analysis of the PSID data would be the most useful. Our reasons for this decision were as follows.

First, we rejected the CPS because it does not collect data on UI receipt for specific unemployment spells but rather for a calendar year period, in which multiple spells may occur. The CPS also does not collect data on the reasons for unemployment for an annual period. Finally, the CPS underreports UI payments fairly substantially.[1]

Second, although the SIPP data were preferable to the CPS data because they enable one to determine whether UI was received during a specific spell of unemployment, they do not enable one to determine readily how the spell of

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[1]For example, about 75 percent of total UI payments for 1983 were either reported directly on the CPS or imputed to sample members with missing responses to the income questions (see Current Population Reports, "Money Income of Households, Families, and Persons in the United States: 1985," Consumer Income, Series P-60, No. 156, August 1987, Appendix A).

unemployment began. Moreover, because SIPP data are available only since October 1983, comparisons of UI receipt in the 1980s with the 1970s cannot be made with this data set. A predecessor data set, the Income Survey Development Program (ISDP), is available for 1979, but the questions asked in the ISDP differ enough from the SIPP questions that comparisons of the two time periods might be misleading. Thus, although we did create analysis files from both the SIPP (for April 1984) and the ISDP (for April 1979), we did not use them for the main analysis reported herein.

Finally, the major advantage of the PSID data relative to the other data sets is that the PSID asks sample members about their spells of unemployment during the last calendar year, and then asks them explicitly whether they received UI during the last spell of unemployment during that year (if there was a spell). If they did not receive UI, they were asked why not. These questions were asked for three calendar years beginning in 1980. Although we would prefer to have had data from the 1970s, we decided that a comparison of 1980 with 1982 might still be useful, since the claims ratio appeared to decline between those two years. Another concern about the PSID was that the sample included only household heads,[1] and, consequently, it could not be used to examine UI receipt by other types of individuals. However, because all sample members had previous employment (sometime in the past), they represented a sample that was likely to be eligible for UI.

B. APPLICATION FOR AND THE COLLECTION OF UI BENEFITS

In this section, we report data on the collection of UI benefits by household heads and their reasons for not collecting benefits if that were the case. As indicated above, the sample consists of household heads who experienced a spell of

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[1] The PSID comprises a sample of households, and the detailed data on labor-force activities are directly collected only from the head of the household.

unemployment in 1980 or 1982. The data on UI receipt refer to the last spell of the individual during the year.

The data which are reported in Table V.1 show that 58 percent of the spells of unemployment experienced by household heads in 1980 or 1982 led to UI collection during the spell. The rate of UI receipt was higher in 1982 than in 1980, which is surprising given that the measure of UI coverage used previously (i.e., the UI claims ratio) was lower in 1982 than in 1980.[1] This difference could be due to a number of reasons. For instance, the sample might not be entirely representative of the population, because it is difficult to maintain representativeness in a panel. Alternatively, this difference might be due to the fact that the measure of receipt used here refers to receipt anytime during a spell of unemployment, rather than to whether a UI claim was filed for a week of unemployment. It might also be due to the fact that the PSID sample is restricted to household heads. If this latter reason is the most important one, then the observed decline in UI coverage may have been concentrated among nonhousehold heads. However, this conclusion should be viewed with caution, since our analysis of the aggregate data do not provide any corroborating evidence.[2]

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[1]The unadjusted claims ratios (i.e., unadjusted for changes in the TUR) both for weeks claimed in state UI programs and for weeks claimed in all programs were lower in 1982 than in 1980 by about .05 (see Table I.3).

[2]Another reason for exercising caution is that the CPS data also seem to show an increase in UI collection among both males and females between 1980 and 1982. For example, when we divided the number of male UI recipients who are age 15 and older by the number who did not have full-time, full-year jobs (so as to take into account changes in the overall unemployment rate between the two years), we found that this percentage increased from 13.0 in 1980 to 15.6 in 1982. The decline in UI coverage that appears in the aggregate data showed up later in the micro data (the comparable percentage was 10.7 in 1984). A similar pattern appeared for females. The data for these computations came from the annual Current Population Reports on Consumer Income.

TABLE V.1

UI APPLICATION AND RECEIPT BY UNEMPLOYED HOUSEHOLD HEADS

	1980	1982	1980-1982
Percent Who Received UI Benefits	53.3	61.9	57.8
Percent Who Did Not Receive UI Who:			
Believed that they were eligible	29.7	29.0	29.3
Did not believe that they were eligible	63.6	66.0	64.7
Did not know whether they were eligible	6.7	5.0	5.9
Percent Distribution of Reason for Nonreceipt if Believed Eligible or Did Not Know Whether Eligible			
Administrative access problems	18.0	10.2	14.3
Physical access problems	4.1	0.0	2.2
Information access problems	2.3	0.0	1.2
Don't need it	6.3	7.0	6.7
Don't like it	17.1	16.6	16.8
Other assistance or income	1.2	5.0	3.0
Applied but denied	19.4	18.3	18.9
Did not apply because had or expected job	10.1	22.3	15.9
Never thought of it	8.3	2.7	5.7
Other	13.2	17.9	15.4
Sample Size	711	735	1,446

SOURCE: Data for the two years are from Waves XIV and XVI of the Panel Study of Income Dynamics (PSID). The samples are household heads with an unemployment spell in 1980 or 1982. The tabulations are weighted to reflect the sampling weights used in the PSID.

The remaining data in the table show that about 29 percent of the individuals who did not receive UI believed that they were eligible, and about 6 percent did not know whether they were eligible.[1] This group was asked why they did not receive UI, and, while 19 percent stated that they had applied for UI and were denied benefits, the remaining 81 percent had not applied even though most of them believed that they were eligible. Although we do not know what proportion of individuals who did not apply for UI were in fact eligible for benefits, it seems likely that some were eligible, and that some of the decline in UI claims may have been due to an increased proportion of non-filers. However, we do not have any direct evidence to support this presumption, since we did not observe any differences in the proportion of potential non-filers for the two years of available data.

In terms of the reasons given for not receiving UI, we found that the three main categories of answers were classified as (1) "administrative access problems" (including such answers as "too much red tape" or "have to wait too long"), (2) "don't like it," and (3) "did not apply because had or expected to have a job quickly."[2] These reasons are quite varied, suggesting that there is no single overriding reason that some individuals chose not to apply for UI even when they believed that they were eligible.

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[1]We examined the characteristics of individuals who had not received UI but believed that they were eligible relative to the characteristics of those who did not believe that they were eligible. We found that the characteristics of the two groups were quite similar. The only characteristics that were significant in a regression with "think eligible" as the dependent variable were blue-collar occupation and union member. Both types of workers had a higher probability of believing that they were eligible. In addition, workers on temporary layoff had a lower probability of believing that they were eligible than did workers not in those groups.

[2]The differences in answers by year are not statistically significant because the sample to whom the question on the reason for not collecting UI was applicable was quite small in each year.

C. THE DETERMINANTS OF UI RECEIPT

In this section, we present our findings from a model that attempts to explain the probability of UI receipt among unemployed household heads as a function of individual demographic and economic characteristics. The means and standard deviations of the variables chosen for the analysis are reported in Table V.2 for the two years for which we have data. The means are weighted by the PSID sampling weights.

Our examination of the means showed that the sample of household heads was predominantly male (82 percent), with a substantial proportion (64 percent) of blue-collar workers (i.e., craftspersons, operatives, and laborers). A fairly large percentage were also from manufacturing (39 percent). The characteristics of the population differed little between the two years; the only major difference was a decline in the percentage who were union members. The similarity between the two years is due in part to the fact that the data set is a panel of households. For that reason, the same individuals can appear in both samples if they experienced a spell of unemployment in both years; about 39 percent of the sample in each year did in fact appear in the other year's sample.

To examine the influence of the characteristics included in Table V.1 on the probability of UI receipt, we estimated several models with a binary variable that took the value of one if UI was received and zero otherwise as the dependent variable. The models were estimated using weighted least squares to account for the differential sampling weights used in the PSID.[1] Our analysis included all of the variables shown in Table V.2, with two exceptions. First, the variable that indicates which individuals

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[1]Since the dependent variable is a binary variable, we also estimated several of the models using the Probit procedure. Since the estimated impacts of the independent variables did not differ from the impacts estimated with the weighted least squares models, we chose to report only the weighted least squares results.

TABLE V.2

MEANS AND STANDARD DEVIATIONS OF PSID DATA

	1980		1982		1980-82	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Female	0.19	0.39	0.18	0.38	0.18	0.39
Black	0.15	0.36	0.16	0.36	0.15	0.36
Age < 25 Years	0.16	0.37	0.11	0.31	0.14	0.34
Age 65 or Older	0.02	0.12	0.01	0.09	0.01	0.10
Years of Education	12.16	7.39	12.22	6.36	12.19	6.87
Total Income ($1,000s)	$12.52	9.92	$12.70	8.90	$12.61	9.40
Total Income Over $25,000	0.07	0.25	0.94	0.29	0.08	0.27
Union Member	0.38	0.49	0.32	0.47	0.35	0.48
Blue-Collar Worker	0.64	0.48	0.64	0.48	0.64	0.48
Construction	0.21	0.40	0.17	0.37	0.19	0.39
Manufacturing	0.38	0.49	0.39	0.49	0.39	0.49
Service Industry	0.16	0.36	0.13	0.34	0.14	0.35
Recalled	0.49	0.50	0.48	0.50	0.49	0.50
Spell Less Than 5 Weeks	0.45	0.50	0.37	0.48	0.41	0.49
Multiple Spells in Year	0.27	0.45	0.29	0.45	0.28	0.45
Both Years	0.41	0.49	0.37	0.48	0.39	0.49
Sample Size	711		735		1,446	

NOTE: The samples are household heads in the PSID who had a spell of unemployment in 1980 or 1982. The means are weighted by the PSID sample weight.

had unemployment spells in both years was excluded from the reported regressions, despite the fact that individuals who were in both samples had a higher probability of collecting UI than did other individuals in the sample. We excluded this variable because their higher probability of UI collection seemed to be explained by the economic characteristics of the individuals--industry, occupation, recall status, and union status--rather than by some independent factor, such as familiarity with the UI system. Second, we interacted the "income $25,000 or more" dummy variable with income to determine whether the probability of UI was lower for individuals whose family income was above the tax threshold, and whether this effect would increase with increases in income.

The results, reported in Table V.3, show that many of the variables that we included in the regressions had a statistically significant impact on the probability of collecting UI. Although not all the effects were significant in both of the annual samples, our findings in three areas are fairly consistent in both years.

First, the manufacturing, union status, and blue-collar occupation variables all seem to have had an independent, positive impact on the probability of collecting UI.[1] Individuals who were recalled by their employer also had a higher probability of collecting UI in the 1980 sample. These findings add support to our interpretation that the decline in manufacturing as a percentage of total unemployment was an important factor in explaining the decline in the UI claims ratio. That is, UI receipt is higher in this industry than in others, and the relative decline in its importance among the unemployed contributed to the decline in the UI claims ratio. Moreover, as shown by the last regression in the table, the manufacturing effect appears larger if, as is the

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[1]The manufacturing coefficient is statistically significant at the .10 level in 1980.

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TABLE V.3

DETERMINANTS OF UI RECEIPT

Independent Variables	1980	1982	1980-82	1980-82
Female	-0.023 (0.047)	-0.148** (0.047)	-0.085* (0.034)	-0.143** (0.034)
Black	-0.211** (0.047)	-0.008 (0.045)	-0.100** (0.035)	-0.073* (0.034)
Age < 25 Years	-0.032 (0.045)	-0.067 (0.053)	-0.047 (0.035)	-0.061 (0.036)
Age 65 or Older	-0.474** (0.138)	0.014 (0.193)	-0.290** (0.114)	-0.206 (0.118)
Years Education	0.006* (.002)	-0.005 (0.003)	0.001 (0.002)	0.001 (0.002)
Total Income (1,000s)	0.012** (0.003)	0.010** (0.003)	0.010** (0.002)	0.009** (0.002)
Total Income (1,000s) X Income Over $25,000 Dummy	-0.012** (0.003)	-0.008** (0.002)	-0.010** (0.002)	-0.010** (0.002)
Union Member	0.114** (0.041)	0.065 (0.043)	0.075** (0.030)	-
Blue-Collar Worker	0.171** (0.043)	0.111** (0.043)	0.142** (0.030)	-
Construction	-0.144** (0.052)	-0.021 (0.053)	-0.080* (0.037)	0.001 (0.037)
Manufacturing	0.085 (0.047)	0.216** (0.049)	0.150** (0.034)	0.256** (0.031)
Service Industry	0.025 (0.054)	-0.072 (0.054)	-0.041 (0.038)	-0.070 (0.040)
Recalled	0.181** (0.037)	0.023 (0.039)	0.101** (0.027)	-

TABLE V.3 (continued)

Independent Variables	1980	1982	1980-82	1980-82
Spell Less Than 5 Weeks	-0.292**	-0.205**	-0.238**	-
	(0.035)	(0.036)	(0.025)	
Multiple Spells in Year	0.101**	-0.009	0.045	0.013
	(0.038)	(0.037)	(0.027)	(0.027)
1982 Dummy	-	-	0.066**	0.080**
			(0.023)	(0.024)
Constant	0.238**	0.517**	0.350**	0.393**
	(0.062)	(0.058)	(0.045)	(0.044)
R^2	0.25	0.21	0.22	0.14
F	17.1	13.2	25.6	20.6
(d.f.)	(15,695)	(15,719)	(16,1429)	(12,1433)
Mean of Dependent Variable	0.533	0.619	0.578	0.578

NOTE: The samples include all household heads in the PSID with a spell of unemployment in 1980 or 1982. The model was estimated using weighted least squares, with the weight equal to the individual's sample weight.

  * Coefficient is statistically significant at the .05 level in a two-tail test.
 ** Coefficient is statistically significant at the .01 level in a two-tail test.

case in the aggregate analysis, we do not control for occupation, union status, and status. These variables are correlated with the manufacturing variable, and when the manufacturing variable was entered by itself it accounted, in part, for the effects of these other characteristics.

Second, in both time periods, we found that individuals who experienced short spells (less than five weeks) of unemployment had a lower probability of collecting UI relative to individuals with longer spells of unemployment. This finding may be due in part to the waiting week for UI collection, and in part to the fact that individuals who expect their spells to be short may not bother to apply for benefits. In fact, as we discussed earlier, obtaining or expecting to obtain a job quickly was one of the three primary reasons for not collecting UI that were cited by individuals who believed that they were eligible for benefits.

Third, the coefficients on family income and income times the "$25,000 or more" dummy variable suggested that the probability of UI receipt rose with income up to a point and declined thereafter. An alternative specification in which we used dummy variables for income ranges also showed a significant decline in the probability of UI receipt for higher incomes (above the $25,000 level). These findings provide some evidence that the partial taxation of UI benefits in effect in 1980 and 1982 may have provided a disincentive to collect UI. However, since we had no pre-taxation observations to determine whether the relationship between income and UI receipt changed over time, this evidence is quite weak. Higher incomes could merely be associated with lower rates of UI receipt, independent of the taxation of benefits.

D. SUMMARY

Our analysis of individual-level data from the PSID provided three findings which we believe are important to understanding the UI claims ratio and its decline in the 1980s relative to the 1970s. First, we found that, although many (58 percent) of

the household heads in our sample received UI during an unemployment spell, a sizeable group (about 15 percent of the total) either believed that or did not know whether they were eligible for UI. Most of this group (81 percent) did not apply for benefits. Although we could not determine from our sample how the size of these groups changed between the 1970s and the 1980s, the fact that a substantial group of unemployed household heads chose not to file for UI when unemployed is consistent with the aggregate data analysis. That analysis indicated that much of the decline in UI coverage was due to a decline in initial claims, rather than to a reduction in the number of continued claims per initial claim.

Second, our analysis of the individual-level data showed that the decline in the relative importance of manufacturing unemployment, which we found with the aggregate data, is an important factor in explaining the apparent decline in UI coverage. Individuals from manufacturing or whose other characteristics are usually associated with manufacturing (e.g., on temporary layoff, in unions, and in blue-collar occupations) had higher probabilities of receiving UI than did other individuals.

Finally, individuals whose family incomes were higher appeared to have a lower probability of collecting UI than did individuals whose family incomes were lower. Moreover, the probability of collection declined as income increased. These findings suggest that the partial taxation of UI that began in 1979 may have reduced the rate of UI application and collection. However, since we do not have any observations for years prior to taxation, this conclusion is not a strong one. Higher incomes may be associated with lower rates of UI collection, independent of the taxation status of UI.

VI. CONCLUSIONS AND POLICY IMPLICATIONS

In this chapter, we draw together the analysis presented in the first five chapters of this report in an attempt to summarize it succinctly. We also briefly discuss some of the policy implications of these findings. The chapter consists of five major sections. The first four summarize our findings on the four types of causes for the decline in UI claims which we first outlined in Chapter II: (1) the effects of the labor market itself; (2) the effects of changes in UI policy at the federal level; (3) the effects of changes in UI laws and administrative practices at the state level; and (4) the effects of general changes in the number of unemployed workers that are unrelated to UI claims. Following these summary presentations, we then discuss what we believe are some of the implications of our results for UI policy.

Before describing our findings, we should point out that we do not believe we that have pinpointed a precise answer to why UI coverage under state programs declined during the 1980s. Rather, we believe that we have identified a set of factors that clearly have had some influence on UI coverage, and we have been able to place some bounds (in some cases, quite wide bounds) on the likely quantitative size of these influences. In this sense, we believe that we have been able to differentiate between relatively important and relatively unimportant causes of the decline, but our estimates are still surrounded by a considerable degree of uncertainty. To convey some notion of this uncertainty, we have tried to be as explicit as possible about the range of assumptions that we used to make our calculations, and to indicate why we believe that we have bracketed the true effect. The lack of statistical precision in some of our estimates is probably a fair reflection of the uncertainty that remains about the exact reasons for the trend in UI coverage.

The results of our various calculations are summarized in Table VI.1. The first entry in the table reports the actual observed change in the state UI program claims ratio between the 1970s and 1980s. These data show a decline of 0.0618 (see Table I.3). Relative to a base figure of approximately 0.41 for the UI claims ratio during the 1970s, this figure represents a decline of 15 percent in this measure of UI coverage. In the remainder of Table VI.1, we attempted to apportion this decline among a number of possible causes. For each of these potential causes, we report a "high range" and a "low range" estimate for the possible quantitative size of the effect. Overall, our high-range estimates account for virtually all of the observed decline in UI claims, whereas our low-range estimates account for about 55 percent.[1] For some of the estimates, the difference between our high- and low-range estimates is quite large, but for others this difference is relatively small, indicating our belief that we have identified the size of the effect rather precisely. In the next four sections, we examine in detail how we calculated these estimates and why their precisions differ.

A. ECONOMIC EFFECTS ON THE UI CLAIMS RATIO

As we discussed in Chapter II, one of the potentially most important influences on the UI claims ratio is the overall level of labor-market activity as measured by the total unemployment rate (TUR). In general, we expected that the higher levels of unemployment experienced during the 1980s (the average TUR was more than one percentage point higher during the 1980s than during the 1970s) would

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[1] The high-range estimates actually sum to just over 100 percent of the observed decline. This occurs because the estimates for a number of the explanations are made independently, and, hence, the estimates do not fully account for interactions among the effects.

TABLE VI.1

COMPONENTS OF OBSERVED DECLINE IN THE UI CLAIMS RATIO
IN THE 1980s

Effect	High-Range Estimate		Low-Range Estimate	
	Change Attributable to Effect	Percent of Total[a]	Change Attributable to Effect	Percent of Total[a]
Total Change Based on National Data	-0.0618	100.0	-0.0618	100.0
Economic Effects				
Increase in TUR	+0.0037	(6.0)	0.0000	0.0
Decline in Unemployment from Manufacturing	-0.0108	17.5	-0.0019	3.6
Shift in Geographic Distribution of Unemployment	-0.0099	16.1	-0.0099	16.1
Changes in Federal UI Policy[b]				
Partial Taxation of Benefits	-0.0102	16.5	-0.0070	11.3
Less Generous Extended Benefits Programs	-0.0042	6.8	0.0000	0.0
Changes in State UI Policy				
Increase in Qualifying Weeks	-0.0065	10.5	-0.0021	3.4
Change in Gross Wage Replacement[c]	-0.0012	1.9	-0.0024	3.9
Reductions in Maximum Durations	-0.0030	4.9	-0.0030	4.9
Reduction in Voluntary Separation Denial Rates[d]	-0.0081	13.1	0.0000	0.0
Increase in Misconduct Denial Rates	-0.0067	10.8	-0.0015	2.4
Increase in Disqualifying Income Denial Rates	-0.0067	10.8	-0.0053	8.6

TABLE VI.1 (continued)

Effect	High-Range Estimate		Low-Range Estimate	
	Change Attributable to Effect	Percent of Total[a]	Change Attributable to Effect	Percent of Total[a]
Reduction in Worktest Denial Rates	+0.0078	(12.6)	+0.0005	(0.8)
Changes in Unemployment[e]				
More Accurate Measurement of Unemployment in 1980s	-0.0076	12.3	-0.0009	1.5
Total Change Explained	-0.0634	102.6[f]	-0.0335	54.2
Total Change Unexplained	--	--	-0.0283	45.8

SOURCES OF ESTIMATES

The high-range state policy estimates are based on the 11-state analysis of the UI claims ratio (Table IV.3) and regression-adjusted trends in explanatory variables (Table III.2). The low-range state policy estimates are based on the all-state analysis of the UI claims ratio (Table IV.7) and regression-adjusted trends in explanatory variables (Table III.2). The remaining estimates are based on non-regression analyses--which are described in the text.

[a]
Percentages in parentheses refer to effects that tended to <u>increase</u> the UI claims ratio.

[b]
The effects of pension offset legislation are incorporated in the estimates for the effect of state disqualifying income denials. We made no attempt to estimate directly the effects of the more stringent trust fund and loan provisions applied to states. Thus, these effects are reflected in the observed changes in state laws and administrative procedures.

[c]
In this case, the "low range estimate" exceeds the "high range estimate" because the 11-state data were used consistently for all the high-range state policy estimates, while the all-state data were used for the low-range state policy estimates (see the text for further discussion).

[d]
A reduction in voluntary separation denial rates is regarded as a tightening of state procedures (see the text for further discussion).

[e]
No separate estimate is included for the possible macroeconomic "drift" in the number of unemployed (see the text for further discussion).

[f]
The total change "explained" adds to more than 100 percent for the high-range estimates. This occurs because a number of the estimates are made separately and the interactions among effects are not fully accounted for by this procedure.

increase the UI claims ratio. But most of the reasons for expecting such an increase are associated with changes in the composition of the unemployed that are correlated with changes in the business cycle. Once we accounted for these compositional factors, our presumptions about the effect of the TUR on the UI claims ratio were less strong, and such factors as the increasing UI exhaustion rates associated with greater slack in the labor market might even have led to a negative correlation between the TUR and the UI claims ratio. These presumptions were supported by our statistical analyses of national-level data (reported in Chapter IV), which found that, once compositional variables were used to explain the UI claims ratio, the TUR itself often had a zero or negative influence. Although data limitations prevented as from measuring the influence of cyclical changes in compositional factors directly in our 11-state and all-state analyses, business cycle changes in some of the UI variables, such as the wage replacement rate appear to have had the same effect on the TUR coefficient, reducing it to a zero or negative estimate.

Thus, we did not use the TUR coefficient to estimate the effect of labor-market conditions on the UI claims ratio. Instead, we devised a simple netting procedure based on regression results for our 11-state and all-state analyses.[1] Results for that netting procedure are reported in Table VI.1. Overall, these results showed a very small effect on the UI claims ratio, which is consistent with the results of the national data. Thus, the relatively weaker labor market of the 1980s _per se_ did not appear to have had much of an effect on apparent UI coverage of the unemployed.

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[1] Specifically, we used the cyclically adjusted changes in the independent variables from Table III.2, together with the 11-state and all-state regression coefficients, to calculate for each equation a "pure" TUR effect (that is, an effect uncorrelated with changes in the other variables). This is the effect reported in Table VI.1.

However, changes in the composition of the unemployed during the 1980s that were unrelated to cyclical factors did have a significant influence on the claims ratio. The most important effect was the decline in the relative importance of unemployed workers whose previous jobs were in manufacturing industries. This percentage declined from 25.0 percent of total unemployment during the 1970s to 23.2 percent during the 1980s, and, as was shown in Table III.2, the decline was even more pronounced in view of the higher overall levels of unemployment in the 1980s. Since both our national regressions and our analyses based on individual-level data showed that the representation of manufacturing workers among the unemployed was an important determinant of the UI claims ratio, such a decline could have been an important determinant of the observed trend in that ratio.

Unfortunately, as we discussed in Chapters III and IV, state-level data on the composition of the unemployed were not available for the entire time period covered by our primary statistical analysis and could not be used directly to estimate the effect of the decline in manufacturing unemployment. Instead, the estimates presented in Table VI.1 were developed from our national and individual-level regressions. Specifically, we used regression coefficients from our national regression (which tended to average about 0.6 for the percentage of unemployment in manufacturing variable) to estimate that the observed decline in manufacturing unemployment may have reduced the UI claims ratio by 0.0108 (= 0.6 x (0.250 - 0.232)). Since we believed that intercorrelations in our national time series data may have exaggerated the manufacturing effect in our regressions, we tended to regard this estimate as an upper-range estimate.

To develop a lower-range estimate of the manufacturing effect, we used the results from our analyses of individual-level data from the Panel Study of Income Dynamics, which suggested that, other things equal, previous employment in

manufacturing tended to increase the probability of UI receipt by about 0.25. Using this estimate, together with the observed 1.8 percentage point decline in the fraction of unemployed from manufacturing, we estimated a 0.45 percent decline in UI claims from manufacturing unemployment. In turn, this figure, suggested a lower-range estimate[1] that attributed about 3 percent of the decline in the UI claims ratio to the decline in unemployment from manufacturing industries. Overall, then, our calculations, together with our discussions with state UI staff, suggested that the relative decline in manufacturing had an important, but probably not overwhelming, impact on the UI claims ratio during the 1980s.

A final economic factor that we examined was the state-by-state distribution of the unemployed. Since we found that the magnitude of both the UI claims ratio and its decline varied substantially by state, changes in the geographic distribution of the unemployed between the 1970s and the 1980s could have affected the claims ratio. Our examination showed that the distribution of unemployment did change between the two decades with the most noticeable change being a decrease in the percent of unemployment found in the Northeastern states (a high coverage area) and an increase in the percent found in the South-Central states (a low coverage area). There was also an increase in some but not all Mid-Western states (a high coverage area). To determine the importance of these shifts in explaining the decline in UI coverage, we compared the claims ratio during the 1980s to an alternative ratio computed using the distribution of unemployment in the 1970s.[2] This alternative ratio was higher than the

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[1] This estimate should be regarded as a lower-range one, because the PSID sample consists only of household heads, and previous manufacturing employment may be a more important determinant of UI receipt for non-heads of households.

[2] More specifically, we used the 1970s' distribution of unemployment by state and the state claims ratios during the 1980s to compute a national claims ratio under the assumption that the distribution of unemployment remained in the 1980s as it was in the 1970s. This rate was compared to the actual 1980s' claims ratio (i.e., the claims rate computed using the 1980s' distribution of unemployment and the 1980s' state claims ratios).

actual claims ratio in the 1980s indicating that without the shift, the claims ratio would have declined but by a lesser amount. Overall, the shift in unemployment explained about 16 percent of the observed decline in the national claims ratio.

B. THE EFFECTS OF CHANGES IN FEDERAL UI POLICY

In Chapter II, we discussed how a number of changes in federal UI policy in the late 1970s and early 1980s had the effect of reducing the scale of some unemployment compensation programs and of altering the incentives to collect benefits under practically all of such programs. With respect to state UI claims,[1] the most important of such policy changes were (1) the partial taxation of UI benefits; (2) the adoption of less generous extended benefits programs than had been implemented during the 1970s; (3) the adoption of compulsory pension offset legislation; and (4) the adoption of more stringent trust fund and emergency loan provisions. Unfortunately, because many of these actions occurred at about the same time, and because they applied to the nation as a whole, it was difficult to estimate their independent influences in our primary regression analyses. Hence, we adopted a more piecemeal approach. Here, we describe the methods used to estimate the effects of the partial taxation of UI and of less generous extended benefits programs. We discuss the effects of pension offset legislation in Section C, since they tended to be exhibited fairly clearly in our analyses of the state-level data. As we discuss in Chapter III, some of the state effects that we describe in Section C may also have been due to the fiscal measures that were adopted for UI at the federal level. However, since any

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[1] In Chapter II we showed that policy action at the federal level significantly reduced payments both under extended benefits programs and under such special programs as Trade Adjustment Assistance and UCX. Since we are concerned in this chapter only with claims under the regular state programs, we will not examine these other programs explicitly.

effect of fiscal pressure on UI claims occurs indirectly through changes in state programs, we present estimates only for the state-level changes themselves.

1. Partial Taxation of UI Benefits

There are strong theoretical and empirical reasons for believing that the increased level of taxation to which UI benefits were subjected during the 1980s should have affected the incentives of individuals to collect those benefits. Theoretically, taxation reduces the level of net wage replacement provided by UI, and should, according to most theories of job search, reduce the duration of unemployment. However, since UI benefits are not subject to withholding, it can be argued that the effect of taxation is not felt during the period of UI collection, and thus that the effect of taxation on unemployment duration may be small. In any event, the size of the potential effect of taxation is an empirical question. Unfortunately, as we described in Chapter IV, we found it difficult to obtain a direct, believable estimate of the effect of taxation. Because the onset of taxation was highly correlated with the binary variable that we were using to represent the 1980s, suitable parameterization of the effect of taxation often made it possible to eliminate the estimated decline in the UI claims ratio completely. Although we believed that such very large effects were probably spurious, we also felt that taxation was important, and we were thus forced to adopt non-econometric methods to evaluate its impact.

In Table VI.1, we used two different of such approaches to place bounds on the likely effect of the partial taxation of UI benefits. Under both approaches, we made the conservative assumption that taxation reduced the average net wage

replacement rate of all UI claimants by 5 percent.[1] To arrive at our high-range

estimate, we used this assumed decline in the wage replacement rate, together with

the regression estimates of the effect of the wage replacement rate on the UI claims

ratio (which we believed may have been a relatively high estimate; see Chapter IV), to

calculate a change in the UI claims ratio of -0.0102 due to partial taxation.[2] Although

this figure was a fairly large one, amounting to more than 16 percent of the decline in

the UI claims ratio during the 1980s, it was consistent with the only direct empirical

study of UI taxation undertaken on the basis of individual-level data (Solon, 1985). In

that study, UI collections by high-income claimants in Georgia were studied for both

pre- and post-taxation periods, and a reduced level of UI collection was found in the

post-taxation period. Applying Solon's microeconomic estimates to the UI claims

question yielded an estimated decline in the UI claims ratio of 0.0084, a figure quite

close to our own. The correspondence is especially close in view of the fact that the

Georgia study examined only the (relatively high) 1979 income limits for UI benefits

tax liability, rather than the lower limits introduced in 1982.

To calculate our low-range estimate of the likely effect of the partial

taxation of UI, we used the previous econometric literature on the incentive effects of

UI wage replacement on unemployment duration. The literature suggested that each

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[1] The actual reduction in a claimant's wage replacement rate depends on his or her taxable income and on the relevant marginal tax rate. The 5 percent reduction would be consistent with an assumption that 25 percent of UI claimants are liable for such taxation, together with an assumed 20 percent marginal tax rate. Although we did not have access to the type of data that would permit us to verify either of these magnitudes directly, they seemed to be relatively conservative and plausible estimates. Moreover, for the one data set that we did have (the PSID), the family income of about 25 percent of the sample was above the $18,000 tax threshold applicable after 1981.

[2] The calculation proceeded as follows: applying the assumed 5 percent decline in the wage replacement rate to its mean value for the 1970s (0.35) yielded a decline of 0.017; multiplying this figure by a representative value for the wage replacement rate coefficient (0.6) yielded the -0.0102 figure entered in Table VI.1.

10 percent increase in net wage replacement rates is associated with an extra half week of unemployment (see, for example, the surveys by Hammermesh, 1977, and Gustman, 1980) Using our assumed 5 percent decline in the wage replacement rate, we arrived at an estimated reduction in UI duration of 0.25 weeks, which translated into a reduction in the UI claims ratio of 0.0070. In our view, this was a lower-range estimate because the disincentive estimate from the UI literature includes only changes in the duration of claimants who continue to collect UI, not the effects of incentives on the probability of filing an initial UI claim. To the extent that this additional effect is also significant, our lower-range procedure may have underestimated the effects of partial taxation.

In all, then, the computations reported in Table VI.1 suggested that the taxation of UI benefits had an important effect on the observed decline in the UI claims ratio, accounting for between 11 and 16 percent of the observed decline. To some observers, such significant impacts seem unreasonably high in view of the fact that UI benefits are not subject to withholding, and the effect of taxation is thus not felt directly during the period of UI collection. But, because this is true also for other types of income on which taxation is believed to have significant effects (e.g., the taxation of interest[1] and dividends), we believe that this objection is not a telling one. Taken as a whole, our empirical results were too strong to dismiss the taxation issue as unimportant.

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[1] The differential interest rates between taxable and non-taxable bonds provides tangible evidence that taxation has effects despite the fact that there is no withholding. The evidence on dividends is not as direct, because the effects of such taxation influence corporate as well as investor behavior. Nonetheless, the effects of dividend taxation are thought to be substantial (see Stiglitz, 1986, pp. 468-480, for a further discussion of this issue).

2. Less Generous Extended Benefits Programs

Our direct regression simulations presented in Table VI.1 as part of our analysis of the impact of various state actions did not include a separate estimate for the effect of changes in extended benefits policy during the 1980s. Since, in our regression work, we modeled the availability of extended benefits with a simple binary variable, and because such benefits were available for approximately the same proportion of quarters in both the 1970s and the 1980s, we estimated no net effect on the UI claims ratio from changes in such policies. In Table VI.1 we have used this zero effect estimate as our lower-range value. However, other research on extended benefits policy during the 1980s (Corson and Nicholson, 1985, and Corson, Grossman, and Nicholson, 1986) has found substantial reductions in the amounts of benefits paid under extended benefits policies relative to what had been paid during the 1970s. In particular, sharp reductions in the scope of the EB program in the early 1980s meant that the emergency program implemented during the 1982-83 recession (FSC) served primarily to fill the "holes" left by the EB changes rather than to add significantly to benefits, as had been the case with FSB a decade earlier. One measure of this effect is that two tiers of extended benefits (from EB and FSB) were available during almost one-third of the quarters in our 11-state sample during the 1970s, but during only about one-tenth of the quarters of the 1980s.

Making a precise computation of the effect of this policy change on the total potential duration of benefits available to regular UI claimants is made difficult by the complex structure of the FSC program (see Corson, Grossman, and Nicholson, 1986, for a description). For simplicity, we assumed that about 13 weeks of extra benefits were available during the quarters in both the 1970s and 1980s when two tiers (rather than one) of extended programs were available to claimants. Since the proportion of such quarters was 0.24 higher in the 1970s than in the 1980s, we assumed

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that the reduction in the generosity of extended benefits programs during the 1980s was equivalent to a reduction in potential durations of about 3 weeks (0.24 x 13). Previous research has shown that each extra week of potential duration leads to approximately 0.15 additional weeks of UI collection (Moffitt, 1985), and about one-third of these extra weeks might have been from regular UI claims. In all, then, we estimated that the reduction in the generosity of extended benefits programs might have reduced average regular UI claims by about 0.15 weeks during the 1980s. Translated into the UI claims ratio, our calculation yielded a high-range estimate of -0.0042--approximately 7 percent of the overall decline in that ratio during the 1980s--that might be attributed to the declining generosity of extended benefits programs.[1] Hence, in our view, the overall impact of this declining generosity an regular state claims was probably rather small. Of course, as discussed previously, the declining generosity of extended benefit programs did have a major impact on receipt of extended benefits.

C. EFFECTS OF STATES' ACTIONS

Most of the quantitative research on the present project focused on estimating the effects of changes in states' laws and administrative practices on the UI claims ratio during the 1980s. This focus arose from a desire to examine the general hypothesis that states "tightened-up" on the operations of their UI programs

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[1] This high-range estimate was also very close to the estimate that we obtained by using a cyclically adjusted measure of the availability of extended benefits. Because the TUR was significantly higher in the 1980s than in the 1970s, we estimated that adjusted quarters of the availability of extended benefits declined by 15 percentage points during the 1980s, even though in unadjusted terms their availability was about the same in the two decades. Multiplying this decline by our EB-TC coefficient from Table IV.3 (0.0286) yielded an estimated decline of 0.0043 in the UI claims ratio.

during the 1980s and from the belief that the available data were most appropriate for addressing this issue. In Chapters III and IV we reported the results of our extensive analysis of these data. Here, we will draw these results together in order to devise some summary measures of the overall impact of states' actions. To develop these measures we used regression results from the sample of the 11 largest states (Table IV.3) as our "high-range" estimates. Although these regression results were not uniformly the largest of all of those that we obtained, the decline in the UI claims ratio was largest (in percentage terms) in some of these states, and many of our most statistically significant results came from regressions on this subsample. The results for the pooled data set for all of the states tended to be smaller and somewhat less significant than for the subsample of the largest states. Two factors accounted for this outcome. First, because the results of the all-state analysis tended to weight each of the states equally, the quantitative importance of the major declines in some of the largest states tended to be understated. Second, because unemployment (the denominator of our principal dependent variable, the UI claims ratio) tended to be measured somewhat less accurately in the smaller states, statistical results for the all-state sample might have been expected to be less significant. Thus, both of these reasons suggested that the all-state regression results (as reported in Table IV.7) provided a suitable "low range" for our estimated effects.

To calculate the specific results reported in Table VI.1, we used the 11-state and all-state regression coefficients together with the adjusted trend data from Table III.2. Multiplying the trend numbers times the regression coefficients provided an estimate of how the observed trend affected the UI claims ratio. For example, the first entry in Table VI.1 under "State Actions" was calculated by taking the regression

coefficient for the qualifying-weeks variable (which is reported as -0.0364 in Table IV.3) and multiplying by the increase in the average value for this variable between the 1970s and 1980s (3.203 - 3.023 = 0.180). The resulting product (-0.0065) was then reported in Table VI.1 in both raw form and as a percentage of the national decline in the UI claims ratio during the 1980s. Other entries in the table were computed in a similar manner. We now discuss each of these entries.

1. Qualifying Weeks

For our measure of the earnings necessary to qualify for regular UI benefits, we used the ratio of the dollar value of such earnings required under state law to the average weekly wage in the state. This variable then represented the number of weeks that the average worker would have to work to earn sufficient wages to qualify for UI. Between the 1970s and 1980s, this number increased by an average of nearly 0.2 weeks in our 11-state sample and by about 0.1 week in our all-state analysis. Thus, on average, it became somewhat more difficult to qualify for unemployment benefits. Weighting these changes by the appropriate regression coefficients explained between 3 and 10 percent of the observed decline in the UI claims ratio.

2. Gross Wage Replacement Rates

Although the introduction of partial taxation was the most important effect in the 1980s on the level of wage replacement provided to workers by UI, slight changes in replacement also occurred because of state-initiated adjustments in weekly benefit amounts. On average, gross wage replacement rates fell very slightly in our 11-state sample and fell somewhat more significantly over all the states. Since we found that the UI claims ratio was positively correlated with the wage replacement

rate, both of these changes helped explain some of the decline in that ratio. But the quantitative size of the explanation was rather small.[1]

3. Changes in Maximum Duration

The maximum potential duration of benefits for which UI claimants were eligible declined in both of our analysis samples during the 1980s. The average decline amounted to 0.2 weeks in the 11-state sample and to 0.6 weeks in the all-state analysis. However, because the maximum potential duration variable had a larger effect in the 11-state sample, our estimates of the effect of these changes in potential duration on the UI claims ratio were virtually identical: such changes explained about 5 percent of the decline in the UI claims ratio during the 1980s.

4. Voluntary Separation Denials

As we reported in Chapter III, voluntary separation denial rates declined significantly in both of our analysis samples during the 1980s. Based on our discussions with state officials, however, we interpreted this decline as reflecting a tightening of procedures, as increasingly greater numbers of states adopted provisions in their laws to disqualify voluntary leavers from UI for the duration of their spell, rather than for a fixed number of weeks. Thus, declining denial rates simply reflected the fact that fewer voluntary job leavers applied for UI. Under this interpretation, the tightening of voluntary separation standards explained a significant part of the decline in the UI claims ratio in our 11-state sample (13 percent), but the effect was essentially zero in our all-state analysis. Thus, the wide range of estimates reported in Table VI.1 for

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[1] It should be noted that this was the only case in which the effect calculated for all states was larger in absolute value than the effect calculated for the 11-state sample. Although the coefficient of the wage replacement variable was much larger in the 11-state sample, these larger states experienced a somewhat greater increase in weekly benefit amounts during the 1980s than occurred in all the states, and thus virtually no decline in the gross wage replacement rate occurred in these states.

voluntary separation provisions reflected some of the remaining ambiguity in exactly how the statistics should be interpreted.

5. Misconduct Denial Rates

Misconduct denial rates increased significantly during the 1980s in both of our analysis samples. Because the increase was somewhat greater in the 11 largest states and because this variable had a more significant negative effect on the UI claims ratio in these states' regressions, Table VI.1 reports a fairly broad range of estimated impacts for this increase. Overall, we estimated that between 3 and 10 percent of the decline in the UI claims ratio was due to this apparent tightening in how state UI programs handled misconduct dismissals.

6. Disqualifying Income Denial Rates

Disqualifying income denial rates increased significantly during the 1980s, more than doubling in the all-state analysis. As we discussed in Chapters II and III, we interpreted these increases as reflecting primarily the adoption of compulsory pension offset legislation as required under federal law. The estimated impact of these changes on the UI claims ratio was approximately the same in both of our analysis samples, explaining about 10 percent of the decline during the 1980s. In Chapter IV, we showed that this decline was probably too large to be accounted for solely by the denied claims themselves, and the estimated effects of disqualifying income denials probably also reflected some deterrence of would-be claimants by the pension offset laws. The estimates reported in Table VI.1 are also consistent with some rough estimates reported to us by some states that the pension offset provisions may have reduced UI claims by 1 to 2 percent.

7. Worktest Denial Rates

Evidence on worktest denials[1] offers a possible rebuttal to the notion that states tightened the administration of their UI programs during the 1980s, since these denials in fact declined significantly on a national level. This decline was quite large in our 11-state analysis (amounting to 18 percent), but was considerably smaller in the all-state analysis. Hence, although our regression results showed that higher levels of worktest denials tended to reduce the UI claims ratio significantly, the net impact of these regression estimates and the observed trends was ambiguous—the results from the 11-state analysis indicated that a loosening of worktest denial rates had a major countervailing effect on the decline in the UI claims ratio, whereas the results for the all-state analysis tended to imply that this effect was rather small. It does seem clear, however, that changes in worktest enforcement did not contribute to the decline in UI claims during the 1980s.[2]

8. Combined State Actions

In overall terms, then, our regression results suggested that actions by states did have some effect on the observed decline in the UI claims ratio. When combined, our lower-range estimates explained about 22 percent of the decline, whereas our upper-range estimates explained 39 percent of the decline. Thus, these results offer

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[1] This denial rate includes denials for (1) failure to meet able and available requirements; (2) refusal of suitable work; and (3) violations of reporting requirements. Since the actual apportionment of worktest denials among these three categories tends to be somewhat arbitrary in the states, we believed that it was appropriate to combine all of the rates into a single measure.

[2] The decline in worktest denials may be due in part to changes in the composition of the UI population that occurred because tighter eligibility requirements may have reduced the proportion of claimants who are at the margin of being in the labor force. However, the reduction in manufacturing-based claimants who are often on temporary layoff should have increased the proportion of claimants subject to worktest monitoring. Thus, we believe that the decline in worktest denials did not arise merely from changes in the composition of the UI population.

support for the notion that states did tighten up their UI programs during the 1980s, much of which occurred through legislative changes rather than through administrative actions. Our quantitative estimates of the effects of this tightening, however, explained only about one-third of the observed decline in the UI claims ratio during the period.

D. CHANGES IN UNEMPLOYMENT

Throughout this report, we have been examining UI claims in relation to the total number of unemployed workers as reported in the Current Population Survey. Hence, as we pointed out in Chapter II, any factors that may have influenced the reported number of unemployed workers (without also affecting UI claims) could have affected our measures of apparent UI coverage. We highlighted two possible reasons for such trends in the reported number of unemployed workers. First, to the extent that the CPS measurement of the unemployed was somewhat less complete during the 1970s than during the 1980s, the UI claims ratio would appear to be somewhat higher in the earlier decade. Since the CPS has made significant efforts to improve the accuracy of its measures in recent years, this seemed to be a promising avenue for investigation. Second, because many macroeconomists have discussed the possibility of an upward "drift" in unemployment that began in all of the industrialized economies in the mid-1970s, it also seemed possible that such a trend could have affected our measures of UI coverage.

Ultimately, however, we chose to address only the first of these issues quantitatively. Although the question of macroeconomic "drift" seemed potentially

important,[1] we were not able to develop any reliable estimate of its impact on the UI claims ratio. Rather than present a conjectural figure, we chose to leave this issue for future investigation.

Our examination of how the more accurate measurement of the unemployed may have affected our estimates focused on how new population control numbers were introduced by the CPS. New figures for unemployment among Hispanics (for example) were introduced in 1985 (see Fenstermaker, 1985), and similar adjustments were made for undocumented immigration in 1986 (Passel, 1986). Since both of these adjustments had some effect on measured unemployment during our period of observation, they provided a definitive lower range for our estimates. Specifically, we estimated that these two relatively small changes increased measured unemployment by 0.27 percent during our sample period in the 1980s, thereby reducing the UI claims ratio by about 1.5 percent.[2] This lower-range estimate is reported in Table VI.1.

A larger effect may have been caused by the method whereby the new population controls from the 1980 Census were used to adjust the 1970s unemployment data (see Buckley et al., 1982). More specifically, the 1980 Census found that the population exceeded the population projected by the CPS using 1970 Census-based

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[1] For example, quantitative estimates of this drift for the United States (see the discussion in Chapter II) seem to cluster in the range of about a 0.1 percent increase in the unemployment rate each year for reasons unrelated to the business cycle (although these estimates were generally made before the recent declines in the U.S. unemployment rate). Even if only one-third of this increase were unrelated to UI claims, this drift could "explain" nearly 25 percent of the decline in the UI claims ratio over the period. But we were unaware of any literature that associates the measured drift in unemployment directly with the UI coverage question.

[2] The fact that these two changes did not occur until 1985-1986 reduced their impact on the claims ratio for the 1980-1986 period. However, the impact of these two changes will be somewhat larger if the claims ratio in subsequent years is compared with the pre-1985 claims ratio.

weights. In all, 193,000 additional unemployed individuals were found.[1] This figure was used to adjust the 1970s estimates of the unemployed under the assumption that the 1970 Census numbers were correct. This was done by the BLS in a linear fashion by adding a fixed additional increment to each monthly unemployment estimate so that the April 1980 estimates corresponded to the 1980 Census. Although there is obviously no single correct way to implement the corrections to the CPS necessitated by the new 1980 population controls, an alternative scenario might have assumed that the 1970 Census had undercounted[2] the population, and thus that the 193,000 additional unemployed workers found in 1980 should have been added to the annual totals in every year in the 1970s. This alternative scenario provided a way to make our higher-range estimate. We estimated that, if the 1980 population controls had been introduced in this manner, unemployment during the 1970s would have been 1.58 percent higher during our sample period than it was actually reported to be (with the UI claims ratio being similarly lower during the 1970s).[3] In conjunction with the corrections for Hispanics and undocumented immigration, this estimate would have accounted for about 12 percent of the decline in the UI claims ratio. Hence, we believe that the ranges presented in Table VI.1 represent plausible estimates of the likely impacts on the UI claims ratio of the more accurate measurement of the

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[1] Because of the time necessary to process data, the 193,000 difference actually applied to the 1981 estimates made with weights derived from, respectively, the 1980 and 1970 Census.

[2] This possible reason for the difference between the 1980 Census numbers and those projected from the 1970 Census is discussed in Passel et al. (1982).

[3] A comparison of annual unemployment estimates reported in Employment and Earnings shows that the average annual number of unemployed for the 1971-1979 period was 5,911 thousand using the 1970 Census weights and 6,009 thousand using the 1980 Census weights. Thus, the adjustment procedure increased the 1970s unemployment estimates by 1.67 percent. The alternative adjustment would have yielded an average of 6,104 thousand, which is 1.58 percent higher than the adjustment that was made.

unemployed by the CPS. They show that such measurement effects can be detected in the data, but probably do not go very far toward explaining the decline in this ratio during the 1980s.

E. POLICY IMPLICATIONS

The extensive quantitative analyses conducted under this project suggest that a number of reasons, rather than a single overriding reason, explains the decline in the UI claims ratio during the 1980s. Among these results are several general findings that are relevant to UI policy formulation.

First, the results clearly showed that a significant portion of the decline appeared to be attributed to the declining importance of manufacturing employment. Although this change cannot be said to have been caused by policy changes at either the state or federal levels, this trend suggests useful policies that might be undertaken in the future. For example, policymakers and program administrators could consider policies to provide other workers with the types of access that manufacturing workers seem to have to UI. Such improved access might include an increased level of initial claims-taking in work places outside the manufacturing sector, or additional information and out-reach activities. In addition, our interpretation of the significance of the manufacturing decline and the UI claims ratio assumes that the lower rate of UI applications observed outside of manufacturing partially reflects a higher rate of nonfiling among UI eligibles. Further research on the reasons for nonfiling would be quite useful for policy formulation.

Second, the most important impact of federal policy on the UI claims ratio quantitatively seems to have been the implementation of the partial taxation of UI benefits, accounting for between 10 and 15 percent of the decline. A complete

evaluation of the desirability of that policy must be guided both by equity questions--that is, how individuals with similar incomes but different income sources should be treated under the federal income tax--and by efficiency questions--that is, how the work-disincentive effects of UI benefits should be mitigated. Other federal policies that had a somewhat smaller impact on state UI claims were cutbacks in the availability of extended benefits during the 1980s and (under our interpretation of state denial rates for qualifying income) the introduction of compulsory pension offset legislation. In all, these two federal policies might have accounted for about 15 percent of the measured decline in the UI claims ratio. Since such effects were relatively small, such policy changes might profitably be debated in their own right, rather than focusing on their overall impact on the type of safety net that is provided by the regular UI program.

Third, at the level of state UI policy, we identified a few trends in the provisions of UI laws that did lead to some tightening of program eligibility and benefit provisions. In all, these trends might have accounted for between 22 and 39 percent of the decline in UI claims during the 1980s. However, we found relatively little evidence that states tightened their administrative operations. Indeed, the trend toward lower worktest denial rates during the 1980s tended to suggest the opposite. Clearly, the states seemed to have adopted provisions that made it somewhat more difficult for individuals with relatively little work experience or who had quit voluntarily to receive UI benefits, and, at the same time, they somewhat reduced the enforcement of continuing eligibility provisions. They also appeared to have maintained existing weekly UI benefit levels fairly well, while contracting somewhat on potential durations.

Finally, as noted previously, our analysis has focused on the reasons for the decline in claims under the regular state UI programs. However, as also noted, substantial declines occurred in the generosity of extended benefits programs in the 1980s relative to the 1970s which caused the decline in UI coverage under all programs to exceed the decline in the regular state programs. Although much of the reduction in extended benefits was due to explicit policy changes in those programs, the decline in regular state UI claims also played a part, since the insured unemployment rate, which is based on state UI claims, is used to determine when extended benefits are payable in a state. Thus, one implication of the decline in coverage in the regular state programs is this parallel reduction in the availability of extended benefits.

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