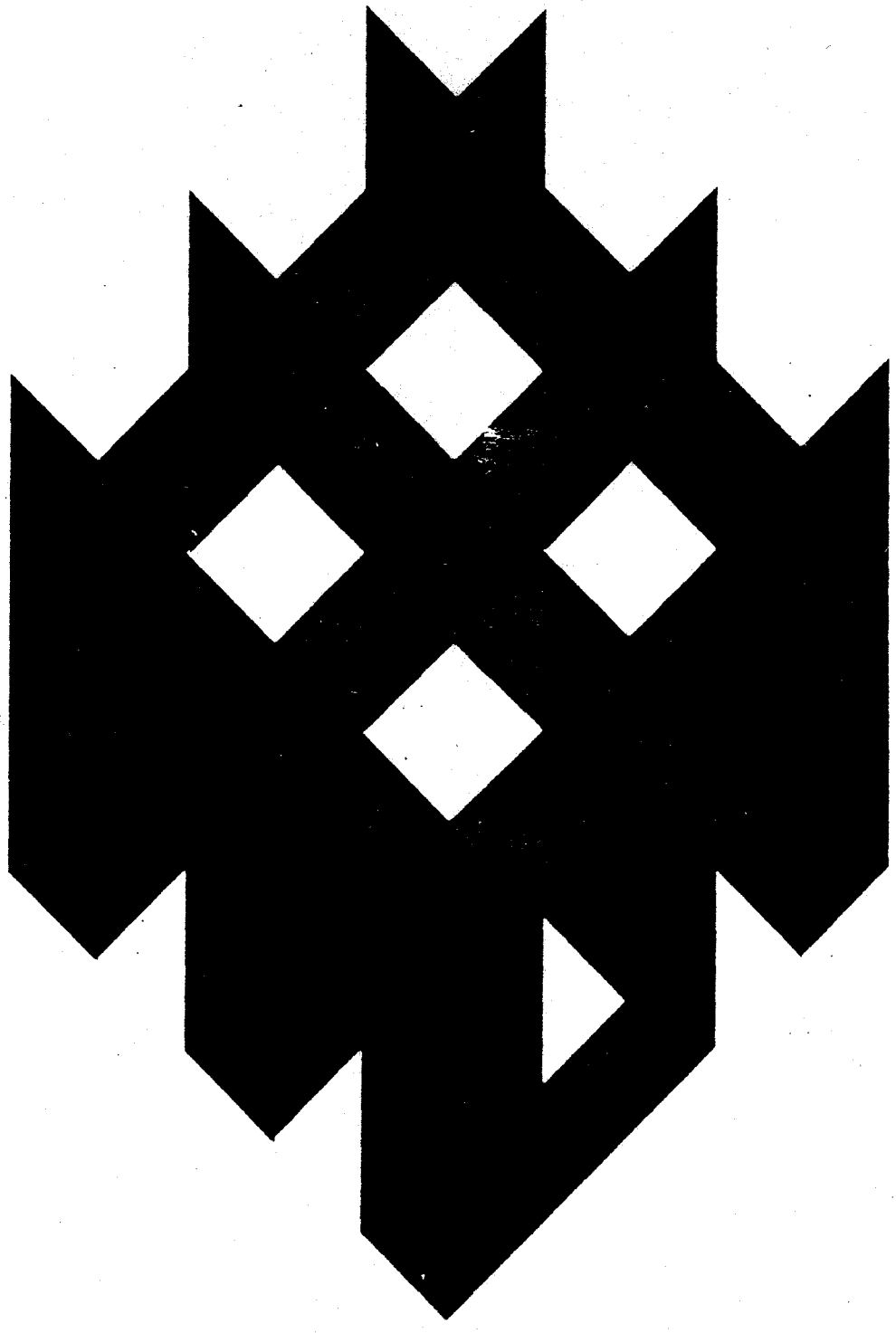
A Statistical Evaluation of the Impact of Disqualification Provisions of State Unemployment Insurance Laws

Unemployment Insurance
Occasional Paper 79-1

Department of Labor
Employment and Training Administration



A Statistical Evaluation of the Impact of Disqualification Provisions of State Unemployment Insurance Laws

U.S. Department of Labor
Ray Marshall, Secretary

Employment and Training Administration
Ernest G. Green, Assistant Secretary for
Employment and Training

Unemployment Insurance Service
1979

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ACKNOWLEDGMENTS

This report required the assistance of many people from the Division of Research Services of the Unemployment Insurance Service (UIS), various workers in the unemployment insurance (UI) division of the states of Arizona, Georgia, Kansas, Louisiana, and New York, and numerous staff people at SRI International. Their efforts are warmly acknowledged.

Roger Rossi and John Robinson of UIS provided overall guidance to the project, Esther Fink of UIS provided administrative assistance, while Helen Manheimer commented on several drafts.

The state UI offices supplied the data in a timely fashion and for this special thanks go to Ann Christy of Arizona, Karen Rogers of Georgia, Craig Woolington of Kansas, Mabel Wickboldt of Louisiana, and Dennis Wheeler and Howard Barnes of New York. The directors of these state agencies are also thanked for their support of the research effort.

The team of workers at SRI performed remarkably well in assembling the data, handling the questionnaire, and performing the analysis. Robert G. Spiegelman, Director of the Center for the Study of Welfare Policy, is warmly thanked for providing overall supervision and much encouragement. Gretchen Wolfe is to be especially commended for the dedication she showed in performing the analysis. V. Christine Austermann prepared the data tapes and was largely responsible for the day-to-day operation of the study. Susan Russell is thanked for directing the survey operation. Participants in the Center's seminar series, especially Harlan Halsey, provided valuable comments on earlier drafts of this report. Barbara Stevens is acknowledged for her efforts in editing the final report.

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SUMMARY OF PRINCIPAL FINDINGS

When unemployment is determined to be caused by a worker voluntarily quitting a job without good cause, being discharged for misconduct, or refusing a suitable work offer, that worker is usually disqualified from the receipt of unemployment insurance (UI) benefits. Once the worker is disqualified, benefits are canceled, reduced, or postponed for a proscribed number of weeks or for the length of the spell of unemployment. Because each state determines the criteria for benefit eligibility and the penalty that will accompany a disqualifying act, disqualification provisions vary across the states.

In this report we examine the impact on benefit claimants of the disqualification provisions of five states: Arizona, Georgia, Kansas, Louisiana, and New York. We used random samples of UI claimants who were never disqualified and received benefit payments (the beneficiaries) and those who were disqualified during a given spell of unemployment (the disqualified) to determine: (1) other demographic and economic characteristics, (2) the effects of disqualification on the duration of unemployment, and (3) the effects of disqualification on the postunemployment labor market experiences of the worker. The data for the analysis came from the computerized UI records of the individuals in the sample and from a mail questionnaire sent to each of them. A total of 14,473 individuals were surveyed, of which 6,224 were useable observations. Several tests of hypothesis of no difference between the beneficiaries and the disqualified were performed. These tests were the basis for the findings about the demographic and economic characteristics of the respondents. Multivariate regression analysis was performed to test hypotheses about the effects of being disqualified. These analyses were the basis for the findings about the impacts of the disqualification on the duration of unemployment and the postunemployment labor market experiences.

Impact of Disqualification by Characteristics of the Respondents

Those UI claimants who are economically disadvantaged, nonwhite, unmarried, young, female, and better educated are more likely to be disqualified than claimants who are more affluent, white, married, older, male, or less educated. In addition, unemployed disqualified claimants spend more time searching for jobs than do unemployed beneficiaries (see Table S-1). In almost every state there were significant differences between the demographic characteristics of beneficiaries and the disqualified. For example, beneficiaries have an average age of about 36 years while the disqualified have an average age of about 30 years. The average ages of the beneficiaries and the disqualified are statistically different in each of the five states.

The disqualified have considerably lower wage rates than do the beneficiaries in every state. For example, beneficiaries in Arizona had an average wage rate of $5.60 while the disqualified had an average wage rate of $3.92. Similar differences occurred in Georgia ($4.00 versus $3.37), Kansas ($4.64 versus $3.81), Louisiana ($5.60 versus $3.67), and New York ($5.40 versus $4.08). The disqualified earned an average of about $1,500 less during the base period than did the beneficiaries. These results suggest very strongly that being disqualified is not wholly a random event. Rather, disqualification occurs more frequently among the minorities, disadvantaged, females, and young.

Impact of Disqualifications on the Duration of Unemployment

Statistically significant differences occurred between the length of the duration of the unemployment spell of the beneficiaries and the disqualified, and persisted even after controlling for demographic and economic characteristics. These differences were measured in three areas: (1) the type of disqualifying act; (2) the amount of the weekly benefit; and (3) the type of disqualification penalty.

Table S-1

DIFFERENCES BETWEEN THE BENEFICIARIES AND THE DISQUALIFIED
BY DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf	Dsq	Benf	Dsq	Benf	Dsq	Benf	Dsq	Benf	Dsq
Demographic Characteristics										
Age (years)	36.9	31.6*	35.5	30.3*	35.5	29.6*	35.6	30.1*	39.2	32.5*
White (%)	84.2	73.7*	71.9	61.7*	88.8	84.2	68.4	56.7*	75.1	78.5
Male (%)	68.8	60.1*	56.6	56.4	61.7	58.4	77.8	65.9*	57.6	55.3
Completed high school (%)	73.1	77.8*	59.1	61.8	73.1	77.0	61.9	62.3	70.6	77.7*
Married (%)	72.3	58.0*	63.8	54.4*	65.5	58.2*	70.3	54.4*	62.1	48.9*
Time spent searching (hours)	15.7	18.2*	14.6	16.3	13.2	14.7	12.7	16.0*	12.3	14.4
Economic Characteristics										
Preunemployment wage rates ($)	5.60	3.92*	4.00	3.37*	4.64	3.81*	5.68	3.67*	5.40	4.08*
Base period earnings ($)	7732	6241*	6824	5400*	7170	5942*	8698	5806*	7969	6047*
Weekly benefit amount ($)	70.91	66.29*	69.80	64.85	77.60	73.12*	93.52	75.40*	79.81	68.22*

* Disqualified group is significantly different from the beneficiary group at the .10 level.

Note: Benf = beneficiaries; Dsq = disqualified

Source: Tables 10, 11, 13-19 in text.

Impact of the Type of Disqualifying Act

Disqualified workers had different lengths of unemployment depending on whether they quit a job, were discharged, or refused a suitable work offer. Workers who quit generally returned to work sooner than comparable workers who were laid off and became beneficiaries. Workers who were discharged for misconduct returned to work sooner in Louisiana and New York but remained unemployed longer in Arizona, Georgia, and Kansas. Claimants who refused a suitable work offer tended to remain unemployed longer than comparable claimants who were not disqualified, as is evident in Table S-2. This table shows, for example, that claimants in Louisiana who quit jobs and are disqualified return to work 58 days sooner than comparable beneficiaries. On the other hand, claimants in New York who refuse a suitable work offer return to work 83 days later than comparable beneficiaries.

Table S-2

PREDICTED IMPACT ON DAYS OF UNEMPLOYMENT
OF VARIOUS TYPES OF DISQUALIFICATIONS
(Days)

Type of Disqualification	Arizona	Georgia	Kansas	Louisiana	New York
Voluntary quits	-1	-30	16	-58*	-64*
Discharged for misconduct	18	32	21	-75*	-65*
Refusal of suitable work	49	-127*	76*	19	83*

*Disqualified group is significantly different from the beneficiary group at the .10 level.

Source: Table E-1 in Appendix E

The results suggest that when workers are fired they may be less prepared than job-quitters to seek and secure new jobs. When workers are disqualified for refusing suitable work they are likely to be in various stages of job search preparedness. Their duration of unemployment resembles a mix of those who were beneficiaries and those who were job-quitters.

Impact of the Weekly Benefit Amount

When the beneficiaries were compared separately with each of the disqualified groups, it was found that the size of the weekly benefit amount (WBA) significantly affected the length of the unemployment spell. For example, for every $1.00 of the WBA that a beneficiary in Arizona received, he or she would be unemployed 2.0 days longer than a disqualified quitter. In Louisiana, beneficiaries would remain unemployed 1.9 days longer for each dollar of the WBA received, while in New York, beneficiaries would remain unemployed 1.6 days longer than comparable disqualified quitters (see Table S-3).

When beneficiaries are compared with fired workers, the length of unemployment decreases by 2.8 days for every $1.00 of the WBA. In Kansas there is a 1.4-day decrease but a 2.5-day increase in Louisiana and a 1.8-day increase in New York. When beneficiaries in Kansas are compared to those who refused a suitable job offer, the beneficiaries had a 2.8-day increase in the length of unemployment for every $1.00 in the WBA. These results show that the amount of UI benefits received by the beneficiary has a major impact on the length of the unemployment spell when he or she is compared with disqualified claimants.

Impact of the Type of Penalty

The study shows that a more stringent disqualification penalty causes the disqualified worker to return to work sooner. When benefits are postponed for the duration of unemployment (the more stringent penalty) the unemployed worker returns to work sooner than when benefits are postponed for a proscribed number of weeks. In Table S-3, the sign is negative (that is, beneficiaries returned to work sooner than the disqualified) in

Table S-3

PREDICTED IMPACT OF RECEIPT OF UI ON DAYS OF UNEMPLOYMENT

	Arizona		Georgia		Kansas		Louisiana		New York	
	Days	Penalty Type*	Days	Penalty Type*	Days	Penalty Type*	Days	Penalty Type*	Days	Penalty Type*
Beneficiaries compared with voluntary quits										
WBA ($1.00/week)	2.0†	D	-.7	D	-1.2	F	1.9†	D	1.6†	D
Beneficiaries compared with discharged for misconduct										
WBA ($1.00/week)	1.5	F	-2.8†	V	-1.4†	F	2.5†	D	1.8†	D
Beneficiaries compared with refusal of suitable work										
WBA ($1.00/week)	.7	D	2.9	D	-2.8†	F	.1	D	-2.5†	D

*Penalty types: D = duration of unemployment; F = fixed number of weeks; V = variable number of weeks.

†Disqualified group is significantly different from the beneficiaries.

Source: Table 22 of text.

every instance but one when benefits were postponed for a fixed or variable number of weeks. On the other hand, the sign is positive (that is, beneficiaries returned to work later than the disqualified) in every instance but two when benefits were postponed for the duration of unemployment. Thus, if the disqualification penalty is imposed for the duration of unemployment, the disqualified worker is likely to return to work sooner than he or she would have if the disqualification penalty is imposed for a proscribed number of weeks.

Impact of Disqualification on Postunemployment Experiences

The study found no major differences in the relative postunemployment labor market experiences of the beneficiaries and the disqualified. The study compared the postunemployment labor market status, the level of job satisfaction, the relative wage gains, and the relative earnings gains of the beneficiaries and the disqualified. When the postunemployment job experiences of the beneficiaries were compared with those of the disqualified, it was found that there were no differences in the likelihood that the worker would drop out of the labor market, be more satisfied in the postunemployment job, receive a higher wage rate or receive higher earnings. These results suggest that when the disqualified worker is compared to the beneficiary, he or she is no worse off in the postunemployment job for having been disqualified.

Conclusion

The results of the study strongly support the conclusion that the state could save millions of dollars in UI benefit payments and reduce its unemployment rate by imposing a duration of unemployment benefit postponement penalty on those who voluntarily quit without good cause, are discharged for misconduct, or refuse suitable work offer.

I INTRODUCTION

The unemployment insurance (UI) system is designed to provide benefit payments to eligible unemployed workers who are involuntarily unemployed, that is, unemployed through no fault of their own. In keeping with the concept of insurance, state UI systems impose penalties on those whose voluntary actions cause unemployment. Such actions are called disqualifying acts and involve activities that include voluntarily leaving employment without good cause, being discharged due to misconduct on the job,* refusing a suitable work offer, or participating in a work-stopping labor dispute. For these actions the UI benefits of the claimant are postponed for a specified number of weeks or for the entirety of the worker's unemployment period. The states distinguish between these actions and the act of not being able or available to work. In the latter case benefits are postponed for the length of time that the inability persists.

Disqualification from UI benefits and benefit postponements involve many millions of people annually. Nationally, between January and December 1976, there were nearly 140 million claimant contacts; of these, more than 4 million claims resulted in a benefit denial or postponement of some type. The largest number of disqualifications--1.36 million--was for voluntarily quitting a job without good cause. There were 0.51 million disqualifications because the worker had been discharged due to misconduct, 1.26 million benefit denials because the worker was unable or unavailable for work, and 80,000 disqualifications for refusing a suitable work offer (U.S. Department of Labor, March-April 1977). In this report, benefit postponements because the worker is unable or unavailable for work

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*Being discharged for misconduct is construed as a voluntary cause for unemployment because the employee is assumed to have willfully precipitated the discharge.

are not considered. Instead, the major focus is on those disqualifying acts that lead to disqualification from benefits.

The legislature of each state* in the UI system determines the criteria for eligibility and the penalties that it will impose on the disqualified. Presently, states impose one or more of the following five types of benefit penalties: (1) postponement for a fixed number of weeks for all claimants disqualified for a given act, (2) postponement for a variable number of weeks depending on the nature of the job separation, (3) postponement of benefits for the duration of unemployment, (4) reduction of benefit entitlement, and (5) cancellation of wage credits. There are at least two distinct rationales for these disqualification penalties. The first assumes that if the worker commits a disqualifying act, then that worker is totally responsible for the unemployment spell, whatever its length. Accordingly, the individual will not be entitled to benefits for as long as that spell of unemployment lasts. The second assumes that the disqualified worker should not be entitled to benefits for as long as it takes the average worker to find new employment. This length of time is called the "normal period of unemployment."

When benefits are postponed for the duration of unemployment it is relatively easy to determine when the unemployment spell ends. However, because the average length of time that a worker may remain unemployed varies with the state of the economy, the group observed, and the method used to measure the unemployment spell, the normal period of unemployment can be defined only vaguely. Few researchers have sought to quantify the length of the normal period of unemployment and little research into the relationship between the disqualification penalties and the normal period of unemployment has been conducted. Nevertheless, several states have structured their disqualification penalties on the basis of what is believed to be the normal period of unemployment.

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*Included as "states" for UI purposes are Puerto Rico and the District of Columbia. The Virgin Islands have recently been added to the UI states but will not be included in this study.

This study was undertaken to increase our knowledge of the impact of the disqualification provisions of state UI laws on the period of unemployment of the disqualified and the UI beneficiaries. A randomly drawn sample of beneficiaries and disqualified claimants from five states was used to compare the characteristics of beneficiaries and disqualified, and to evaluate the relationship between the disqualification provisions imposed by different states and the duration of unemployment.

This report presents the results from the study. The disqualification process is discussed in Section II. Section III outlines the study design, including the evaluation of the site and sample selection process and descriptions of the basic UI characteristics of the states used in the study. Section IV describes the respondents and compares various characteristics of the disqualified with those of the beneficiaries. The theoretical and statistical basis for a multivariate analysis is presented in Section V, and Sections VI and VII include the empirical results of the analysis. Recommendations and conclusions are given in Section VIII. Appendices A-E present further details of the study design and methodology.

II THE DISQUALIFICATION PROCESS

Eligibility and disqualification provisions that apply to all claimants for UI benefits are included in the UI statutes of each state (see Figure 1).* Although each state varies in its mix of these provisions, enough similarities exist so that the process can be described concisely. In this section, the process by which the worker moves through the UI system and becomes either a beneficiary or disqualified is reviewed. In addition, the distribution of disqualification penalties across the states and federal recommendations regarding the penalties for disqualifications are analyzed.

Eligibility†

Entry into the UI System

All states require that the unemployed worker must have earned a minimum amount of wages or have worked a minimum number of weeks, or both, during a specified base period in order to be declared monetarily eligible. The qualifying wage or weeks of work requirement is viewed as verifying attachment to the labor force (Haber and Murray, 1966); by implication, those who do not meet these criteria have no entitlement to UI benefits. Those who are monetarily eligible then go through the next screening regarding the reason for separation from the last job or from any job during the base period. If the worker were laid off due to insufficient work, he or she is eligible for benefits on the basis of separation from work.

Disqualifying Acts

Once the claimant has been declared monetarily eligible, the reason for job separation determines benefit entitlement. The individual may be

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*Figure 1 is an adaptation of Chart 2 from Anderson et al. (June 1977).

†Appendix B shows the forms used in the disqualification process.

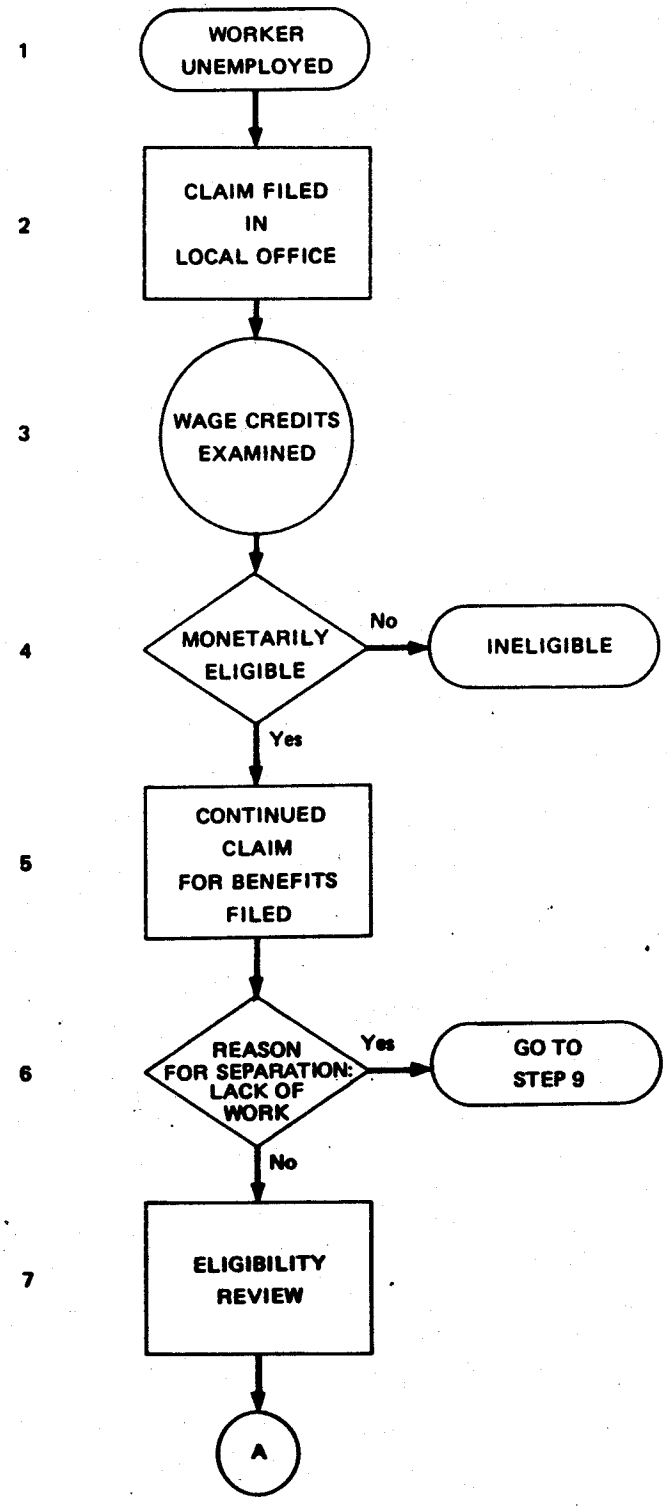

FIGURE 1 THE DISQUALIFICATION PROCESS

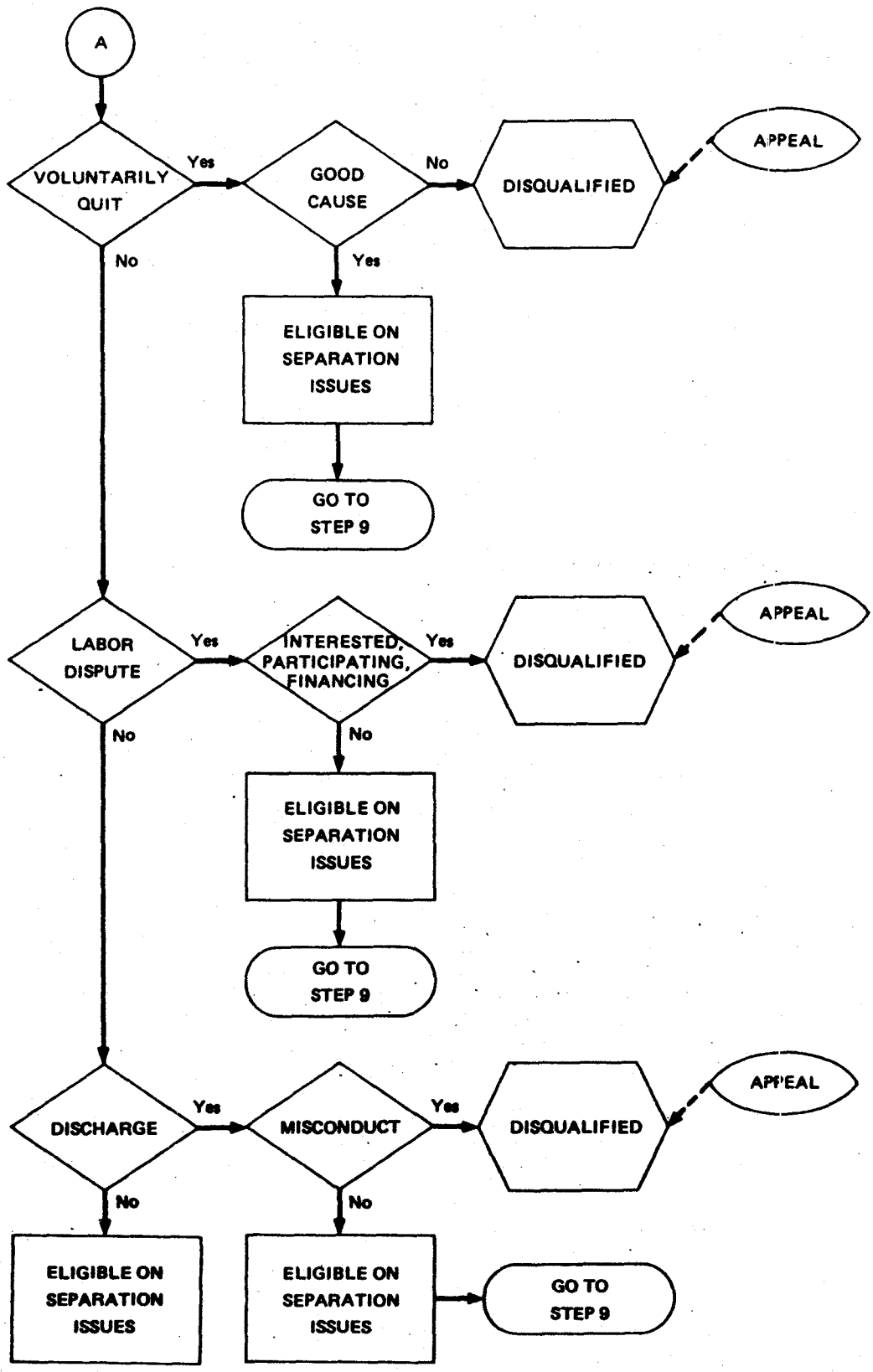

FIGURE 1 THE DISQUALIFICATION PROCESS (Continued)

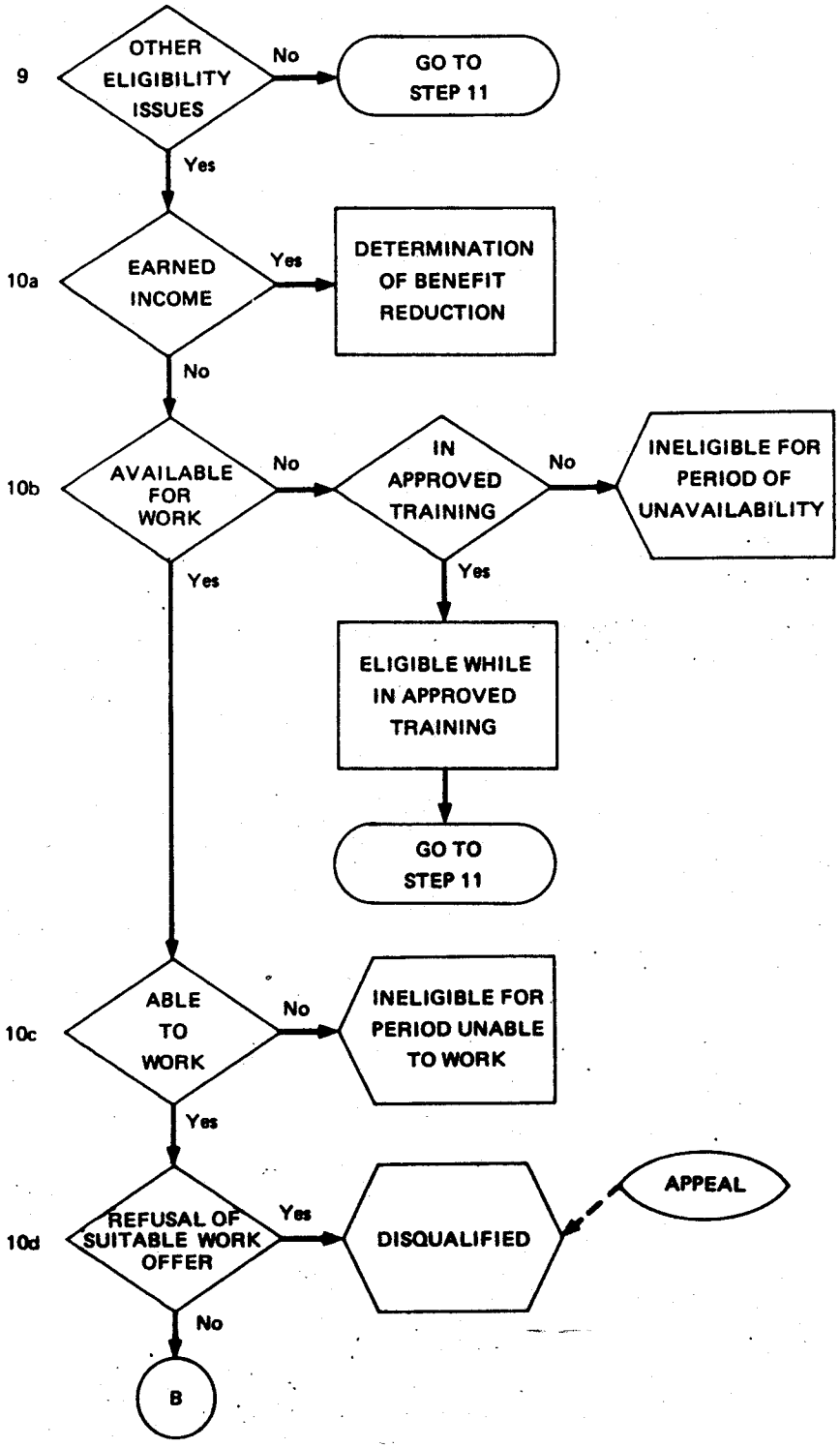

FIGURE 1 THE DISQUALIFICATION PROCESS (Continued)

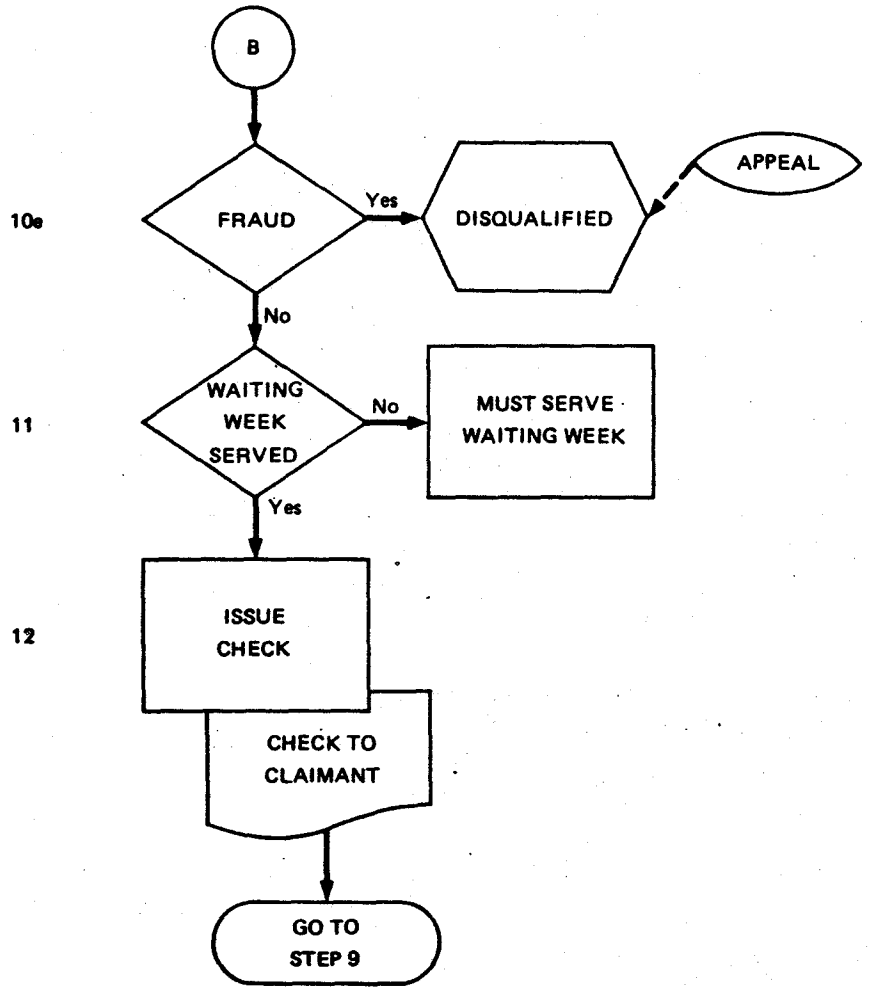

FIGURE 1 THE DISQUALIFICATION PROCESS (Concluded)

declared disqualified because of actions that cause job separation or actions that help to continue the period of unemployment. Three disqualifying acts--voluntary quits, discharge for misconduct, and labor disputes--relate to the method of separation from the most recently held employment and disqualifications occur prior to the receipt of any UI benefits.* Other disqualifications or benefit postponements may occur after the claimant has established eligibility, but before he or she has received a first UI payment. The claimant who is not able or available to work in the week claimed is denied benefits for that week and for as many weeks as the unavailability continues; however, this is not a disqualification. Disqualifications may occur after the establishment of a valid claim only if the individual commits fraud in submitting a claim or refuses a suitable work offer (see Steps 8 through 10 in Figure 1).

Voluntary Quits

A worker who voluntarily quits his or her most recent job, without good cause, is disqualified from receiving UI benefits. In many states, good cause for leaving work appears as a general term without specific reference to whether the leaving is work related. In 21 states, good cause must be employment related; that is, if the worker is made worse off by changes in the material conditions of his or her employment, the quitting may be with good cause. Such changes include reduction in wages, reduction in the hours of work, change in the hours of work from daytime to nighttime, relocation of the place of business to a distance judged unreasonable for commuting, or changes in the nature of the work so that it becomes dangerous, morally unsatisfactory, or illegal. Nonwork-related, that is, personal reasons for quitting, are deemed good cause in only a few states. Those personal reasons for quitting that will not lead to disqualification include poor health or moving to live with a spouse.†

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*Except in those instances in which benefits are given pending verification of the reason for separation or during an appeal.

†Under some conditions the person who has good personal reason for quitting may be subsequently unable or unavailable for work.

Discharge for Misconduct

A worker who is discharged because of behavior that is detrimental to the employer's interest is disqualified from receiving UI benefits. Such terms as "willful misconduct," "failure to obey orders, rules or instructions," or "failure to discharge the duties for which he was employed" are used by the states to describe misconduct. Twenty-eight states have established separate disqualification provisions for "gross misconduct." Among the acts included as gross misconduct are the committing of a crime or felony in connection with the work, gross or aggravated misconduct connected with the work, deliberate and willful disregard of standards of behavior and showing gross indifference to the employer's interests, intoxication on the job, assault, battery, thievery, or destruction of property, sabotage, embezzlement, and arson. Many of these acts are grounds for civil or criminal complaints as well as disqualification from benefits. However, a worker who is discharged because the employer believes that he or she is incompetent usually is not disqualified.

Labor Disputes

If a job separation occurs because of a strike or a lockout that the individual is interested in, participating in, or financing, then that worker is likely to be disqualified from UI.* In virtually every state, the disqualification lasts for the duration of the labor dispute.

Refusal of Suitable Work

The claimant who refuses to accept a suitable job offer after having established eligibility to benefits is disqualified from the receipt of further benefits. The refusal by a claimant to accept a suitable job offer is assumed to make the individual responsible for that continued period of unemployment, hence, not entitled to benefits. All states establish

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* A worker on strike will not be subject to a labor dispute disqualification if the plant continues to operate but will be subject to disqualification as long as the strike is in "active progress" as defined by the state.

criteria by which to evaluate the suitability of a job offer. These criteria include the health and safety of the worker, the moral hazard of the job; the job requirements as they relate to the claimant's educational background, experience, and physical fitness to do the work; the wages, hours, and length of potential employment in that position; the relationship of the employment to the customary occupation of the claimant; and the distance of the job from the claimant's home. Federal statutes forbid any state law's definition of suitable work to include as suitable any job that is vacant due to a labor dispute, that has less favorable conditions of work than that prevailing in the local economy, that requires the joining of a company union, or that requires resigning from a bonafide labor organization.

Appeals

At each decision point in the disqualification process, the claimant or the employer may appeal an adverse decision. The claimant has the right to appeal a determination of nonmonetary eligibility, the size of the weekly benefit amount (WBA), the potential benefit entitlement, the number of weeks that benefits will be paid, or a disqualification. The employer who is being charged for any UI payments has the right to appeal the awarding of benefit rights. If the issue involves the determination of monetary eligibility or the amount or duration of benefits, these matters can usually be settled on the basis of records of the claimant or the employer. However, the disqualification determination often involves interpretation of events or even intent--an interpretation often not easily resolved by records.

The appeal process of most states begins in the local office where the office director may reverse the local office decision, before it gets appealed at the formal hearing. Once an appeal is filed, it is heard by an adjudicator (referee, deputy, or other such designation) who usually has no legal training. Evidence in support of the contending positions is presented at this time. If the decision of the adjudicator is adverse to either party (the claimant or the employer), the aggrieved party may go to an appeals board, who review the adjudicator's decision. After

the appeals board decision is rendered, any continued appeal goes through the civil courts. In this fashion, some appeals have gone as far as the U.S. Supreme Court for resolution.

Distribution of the Types of Penalties

Each state chooses the type of penalty that it will impose on the claimant who performs a disqualifying act. These penalties are benefit postponement for a fixed or variable number of weeks or for the duration of unemployment, benefit reduction, and benefit cancellation.

In Figures 2, 3, and 4, the distribution of the states by type of disqualification penalty and by the disqualification rate* for voluntarily quitting a job,† being discharged for misconduct, and refusing suitable work are shown. These figures illustrate that benefit postponement for the duration of unemployment is the most widely used of all types of penalties. Thirty-nine states disqualify the individual for the duration of unemployment when he or she has quit a job without good cause. Twenty-seven states disqualify claimants who are discharged for misconduct for the duration of unemployment. The figures also show that the disqualification rate varies across penalty type and by geography region.

The frequency of the duration of unemployment penalty reflects the dominance of the rationale that when the person quits a job or is fired, he or she is voluntarily unemployed and therefore not entitled to UI payments. The duration penalty is also a simpler program to administer than either a fixed or variable weeks disqualification procedure.

Because of experience rating,‡ employers are not indifferent to the type of penalty imposed upon disqualified claimants. Employers tend to

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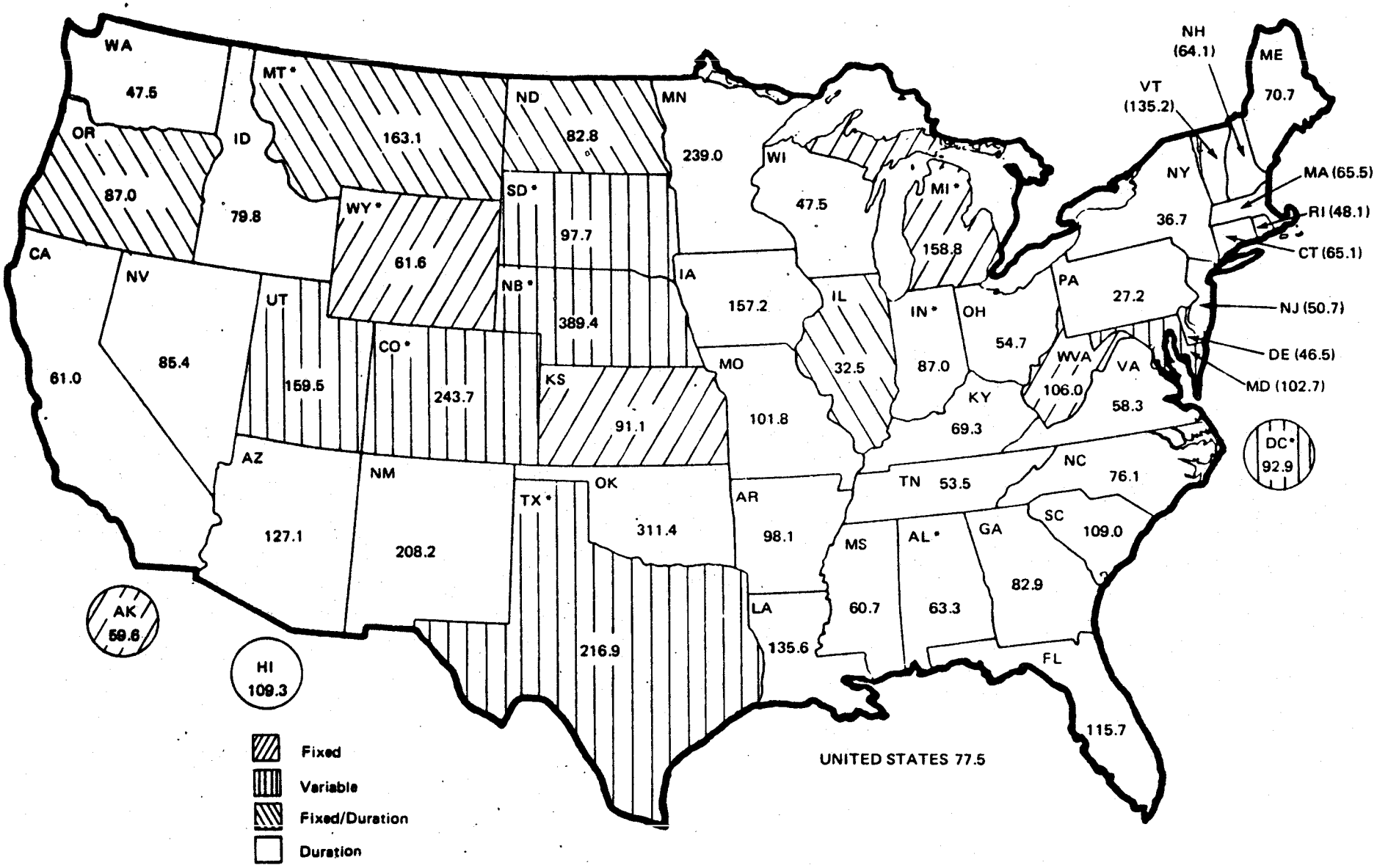
*The disqualification rate is defined as the number of disqualifications per 1000 new spells (claims) for voluntary quits or discharge for misconduct and as the number of disqualifications per 1000 claimant contacts for refusal of suitable work.

†Henceforth, the report shall define "voluntary quits" as those who were disqualified for voluntarily quitting a job, without good cause.

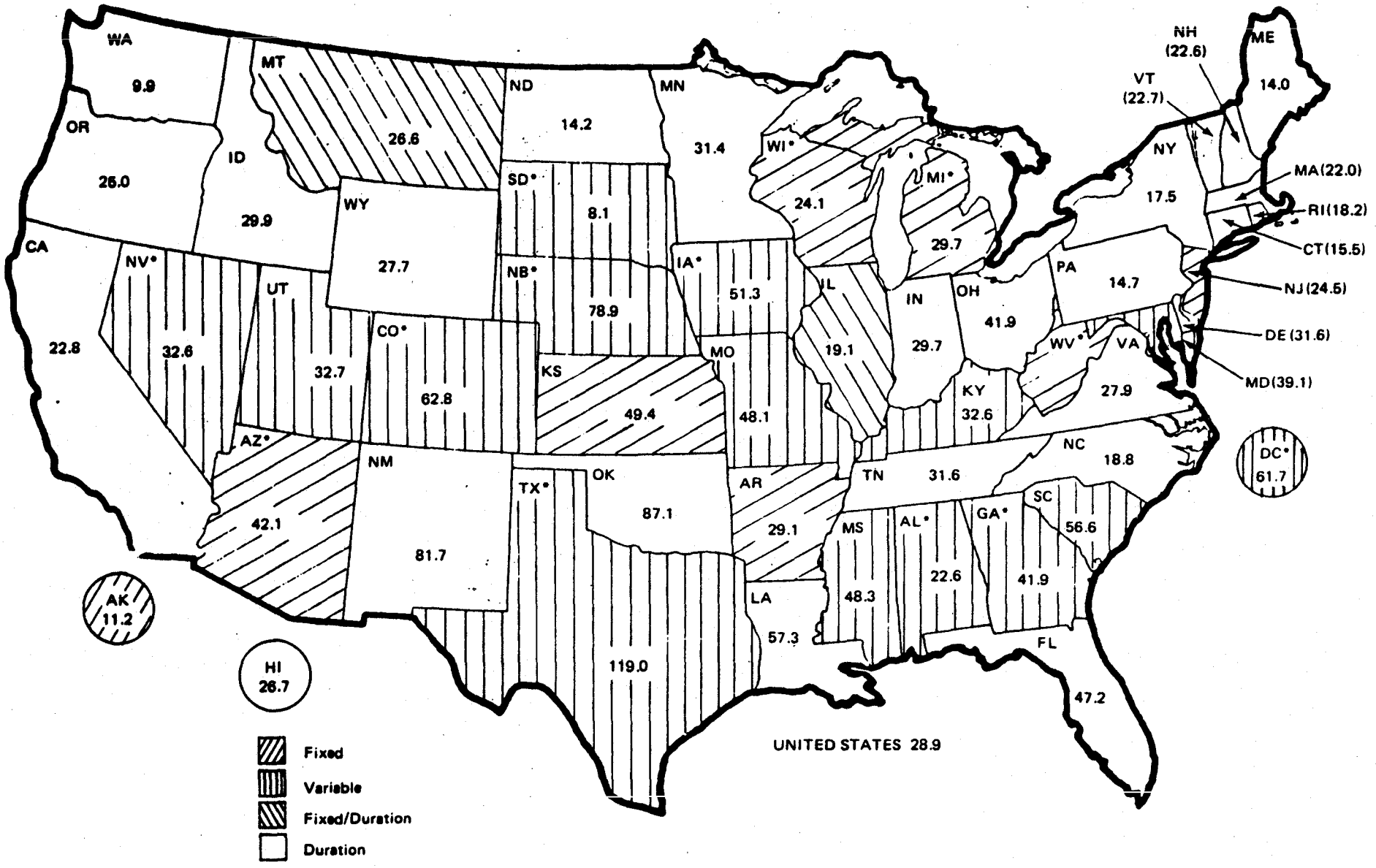
‡The experience rate is a function of the rate of UI benefits received by former employees whose job separation led to the receipt of UI benefits.



SOURCE: Table 12, Unemployment Insurance Statistics, March-April 1977

* Benefits reduced

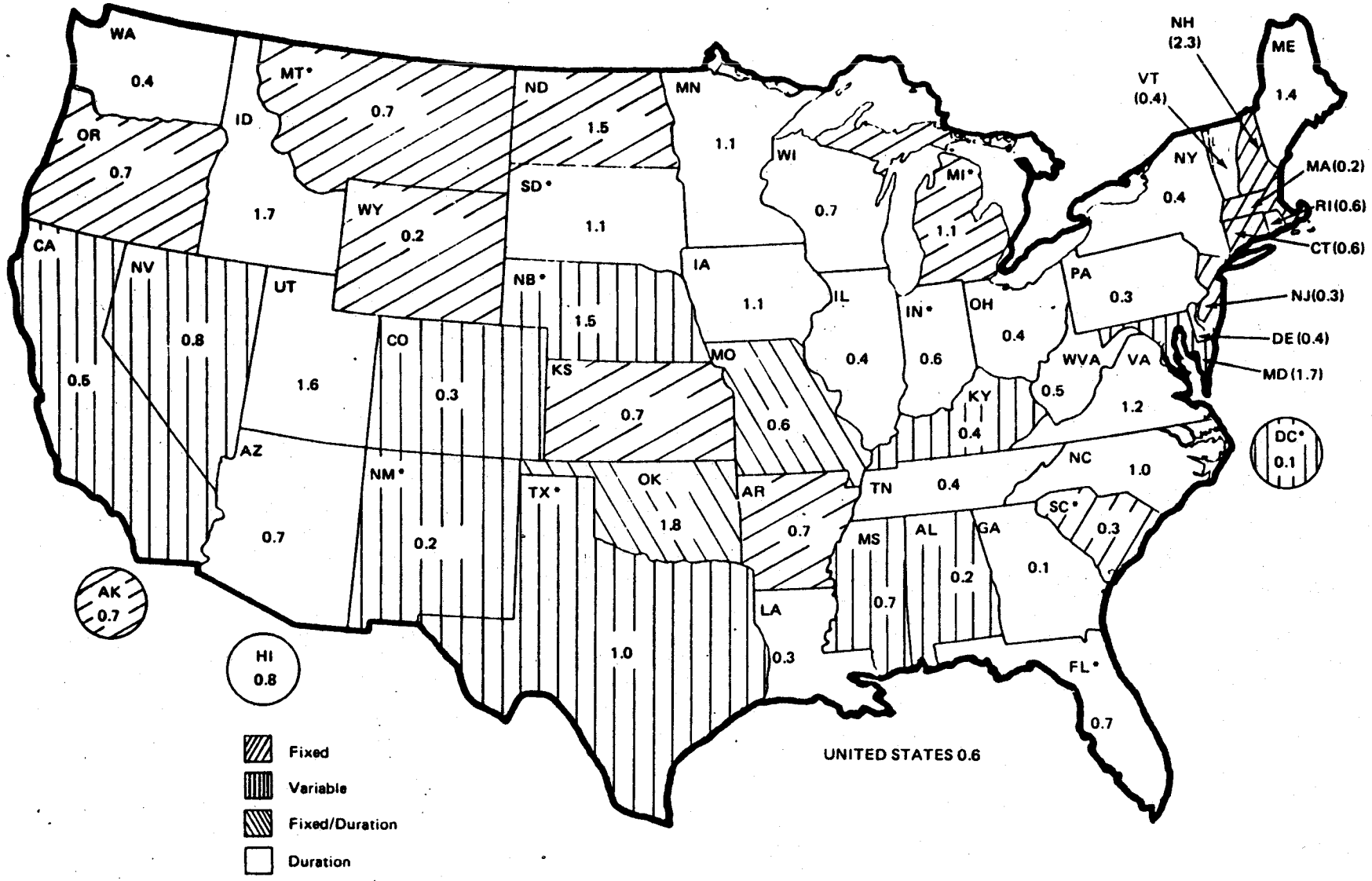
FIGURE 2 TYPE OF PENALTY AND DISQUALIFICATION RATE FOR VOLUNTARY QUITS PER 1000 NEW SPELLS, 1976



SOURCE: Table 13, Unemployment Insurance Statistics, March-April 1977

*Benefits reduced

FIGURE 3 TYPE OF PENALTY AND DISQUALIFICATION RATE FOR DISCHARGE FOR MISCONDUCT PER 1000 NEW SPELLS, 1976



SOURCE: Table 13 Unemployment Insurance Statistics, March-April 1977

* Benefits reduced

FIGURE 4 TYPE OF PENALTY AND DISQUALIFICATION RATE FOR REFUSAL OF SUITABLE WORK PER 1000 CLAIMANT CONTACTS, 1976

favor benefit postponement for the duration of unemployment as this minimizes the charges made against their accounts. Claimants, on the other hand, prefer limited benefit postponement. Employer lobbying combined with the ease of administration are the major reasons that the duration of unemployment penalty is the one most prevalent.

The Role of Federal Recommendations

Although each state determines its own disqualification penalties, the national office of the Unemployment Insurance Service has recommended the type of penalties that should be imposed on the worker who commits a disqualifying act:

> Disqualification should be limited to a fixed period, without reduction or cancellation of benefit rights....The length of any period of disqualification should be reasonably limited to the period during which the unemployment originating from the claimant's own action continues to be due to that action. There should be some positive relationship between the duration of disqualifications and the average length of time required for an employable worker to find suitable work under normal working conditions. Historically, national data on the average length of a spell of insured unemployment indicate that this is about six weeks.*

Exhibit A lists all federal recommendations regarding disqualifications. Exhibit B indicates the extensive divergences from these recommendations existing in states at the present time. Moreover, rather than attempt to become more consistent with these recommendations, many states have disregarded federal recommendations. For example, many states have changed their disqualification penalties from disqualifying the individual for a fixed (or limited) period to disqualifying for the duration of unemployment. Other examples of deviation from the recommended disqualification procedures may be found in the annual review of changes in the state UI laws (Hickey, 1977, 1978).

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*U.S. Department of Labor, Unemployment Insurance: State Laws and Experience, p. 33 (1978).

Exhibit A

FEDERAL POLICY RECOMMENDATIONS ON UI DISQUALIFICATIONS

The Bureau recommends:

1. That, if a waiting period is required, it be not longer than 1 week of total or partial unemployment in a benefit year.

2. That claimants receiving benefits at the turn of a benefit year be relieved of the requirement of a waiting period in the new benefit year; that other claimants unemployed at the turn of a benefit year be permitted to serve the waiting period in the last week (or weeks) before a benefit year.

3. That the period of disqualification apply immediately after the week of the disqualifying act.

4. That the period of disqualification be limited to the length of time ordinarily required for an employable worker to find suitable work in a reasonably normal labor market; on the basis of national experience, this period would be 6 weeks.

5. That disqualification based upon the circumstances surrounding the claimant's separation from his employment be limited to the separation from his most recent employment.

6. That, to help determine what is suitable work, specific criteria be provided to relate the suitability of the job in question to the individual circumstances of the claimant involved, and that these criteria contain the factors the ordinary reasonable worker would consider when deciding whether a particular job was suitable work for him.

7. That the eligibility and disqualification provisions permit the payment of benefits to otherwise eligible claimants who are taking approved vocational retraining courses, provided certain conditions have been met.

8. That claimants be required to be available only for suitable work.

9. That claimants be disqualified only if some unreasonable act on their part was the immediate cause of their unemployment.

10. That no provision should be made for cancellation of wage credits.

11. That disqualifications should <u>not</u> be for the duration of the unemployment.

12. That good cause for voluntary leaving of work should <u>not</u> be limited to good cause attributable to the employer or connected with the work.

13. That an actively-seeking-work requirement should <u>not</u> be put into the statute.

14. That special availability requirements or disqualification provisions for special groups of workers should <u>not</u> be put into the law.

15. That an administrative penalty for fraudulent misrepresentation be provided, under which the claimant would be disqualified for 4 to 52 otherwise compensable weeks, according to the gravity of his offense, within the 24-month period beginning with the date of determination.

Source: "The Unemployment Insurance Legislative Policy: Recommendations for State Legislation," BES No. U-212, pp. 73-74 (October 1962).

Exhibit B

DIVERGENCE OF STATES FROM RECOMMENDED FEDERAL POLICY ON DISQUALIFICATIONS

Recommendation	Voluntary Leaving	Discharge for Misconduct	Refusal of Suitable Work
1	No apparent deviation	No apparent deviation	No apparent deviation
2	No apparent deviation	No apparent deviation	No apparent deviation
3	Five states begin disqualification with week of filing rather than week of occurrence	Twelve states specify that periods of disqualification begin with week of filing	No apparent deviation
4	Eleven states postpone benefits for at least more than six weeks; 41 states for duration of unemployment	Fifteen states postpone benefits for at least more than six weeks; 29 states for duration of unemployment	Thirteen states postpone benefits for at least more than six weeks; 25 states for the duration of unemployment
5	Nineteen states may base disqualification upon circumstances surrounding a claimants separation from other than his most recent employer	Seventeen states may base disqualification upon other than most recent employer	(Necessary data not available) Pages 4-39 missing
6	N/A	N/A	No apparent deviation
7	No apparent deviation	No apparent deviation	No apparent deviation
8	N/A	N/A	Thirty-two states require a claimant to be able and available for any work; 12 states specify "suitable work"; 9 states specify "usual occupation" or that for which reasonably fitted by prior training or experience
9	No apparent deviation	No apparent deviation	N/A
10	No apparent deviation	Two states permit cancellation (11 for gross misconduct)	No apparent deviation
11	Forty-one states disqualify for the duration of unemployment	Twenty-nine states disqualify for the duration of unemployment	Twenty-five states disqualify for the duration of unemployment
12	"Good cause" restricted in twenty-eight states	N/A	N/A
13	Thirty-two states require active search for work	Thirty-two states require active search for work	Thirty-two states require active search for work
14	No apparent deviation	No apparent deviation	No apparent deviation
15	No apparent deviation	No apparent deviation	No apparent deviation

Source: U.S. Dept. of Labor, Comparison of State Unemployment Insurance Laws, Jan. 1978.

NOTE: Source material counts 53 states including District of Columbia, Puerto Rico and Virgin Islands.

Measuring the Normal Period of Unemployment

This study focuses on Recommendations 4 and 11 (from Exhibit A), because they relate to the nature of the disqualification penalty. Recommendation 4 suggests that the period of disqualification should be for about 6 weeks, "the length of time ordinarily required for an employable worker to find suitable work in a reasonably normal labor market." Although national experience was the basis for establishing 6 weeks as the period of disqualification, what national experience was cited and even how the spell of unemployment was defined is ambiguous.

The spell of unemployment is defined as the length of time from the day an individual becomes unemployed through separation from a job until the day that he or she returns to employment or drops out of the labor force.* The spell of insured unemployment may be defined as follows:

Definition I: The average length of the unemployment spell of unemployed workers who worked in covered employment (call this definition D_I).

Definition II: The number of UI benefits claimed by the unemployed worker during a given spell (call this definition D_{II}).

To illustrate the difference in these two definitions, the following five types of workers are defined for a given point in time:

(1) Claimants who file and are eligible for benefits
(2) Claimants who file but are non-monetarily disqualified
(3) Claimants who file but are monetarily ineligible
(4) Covered workers who never file a claim
(5) Claimants who have exhausted entitlement.

Let b be the number of weeks of unemployment during which UI benefits are received, and nb be those weeks during which no UI benefits are

*This definition ignores multiple job holders who may be separated from one job but retain another. It also does not make a distinction between part-time and full-time employment when considering whether a job has ended or a new one begun.

received. Let the five worker types be designated 1, ..., 5, and the number of workers in each type be designated T_1, ..., T_5. If D is the average duration of a spell of unemployment, then

$$D_I = \frac{\sum_{i=1}^{T_1}(b_1+nb_1)_i + \sum_{j=1}^{T_2} nb_{2_j} + \sum_{k=1}^{T_3} nb_{3_k} + \sum_{l=1}^{T_4} nb_{4_l} + \sum_{m=1}^{T_5} nb_{5_m}}{T_1 + T_2 + T_3 + T_4 + T_5} ,$$

$$D_{II} = \frac{\sum_{j=1}^{T_1} b_{1_j}}{T_1} ,$$

where i, j, k, l, and m are indices of the various types of workers.

No known national data measure Definition I. Definition II is calculated by dividing the number of weeks of UI benefits claimed by the number of initial claims. Using this calculation, the average length of the unemployment spell was 6.60 weeks for fiscal year (FY) 1974, 7.22 weeks for FY 1975, 8.26 weeks for FY 1976, 7.13 weeks for FY 1977, and 6.89 weeks for FY 1978.*

These calculations have been used to infer that it takes approximately 6 weeks for the unemployed worker to find employment;† however, they underestimate the actual duration of unemployment because the following is true:

$$\frac{\sum_{i=1}^{T_1} b_{1_j}}{T_1} \leq \frac{\sum_{i=1}^{T_1} (b_1 + nb_1)_j}{T_1} .$$

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*The source of these numbers is unpublished data supplied by the Unemployment Insurance Service of the Department of Labor.

†The concept of a 6-week average period of unemployment dates from early consideration of the UI laws (Roche, 1973, pp. 57, 58).

That is, the calculated value of the average spell of unemployment omits those weeks during which the worker does not receive UI benefits.

This study seeks to refine the measurement of the length of the average spell of unemployment (henceforth denoted the average duration of unemployment) by including those weeks during which UI benefits are not received in the definition of the spell.

III DESIGN OF THE STUDY

Several considerations guided the design of this disqualification study. Foremost was a request for proposal (RFP),* which specified that the study should address the following questions:

- Are there differences in the duration of unemployment between disqualified claimants and beneficiaries?
- Does the average length of unemployment vary across the states in relation to the stringency of the disqualification?
- Do disqualifications affect future earnings?
- Do disqualifications deter people from quitting their jobs?

These questions required detailed information about the job search and labor market status of those receiving UI benefits, the beneficiaries, and those disqualified from receiving benefits. The UI data from the centralized computer files of the states could not provide information about the pre- or post-unemployment job characteristics nor could the UI data furnish information outside of the period of receipt of UI benefits. To get this additional information a mail questionnaire was sent to each individual in the sample.

The three major aspects to the study design included: the selection of the states that were to be used in the analysis; the survey operation; and the analysis. Procedure for the selection of the states, a description of some of the more salient characteristics of those states, and the survey operation are described in this section. The analysis is described in the following sections.

Selection of the States

The principal goal in the selection of the states was to choose states that would permit a differentiation in the duration of unemployment across the various penalty types. Because the study was restricted to

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*RFP No. ONP 76-11, U.S. Department of Labor.

five states, this limited the amount of diversity that could be observed. Three primary considerations guided the selection of the states: (1) the type of penalties imposed for voluntary quits, discharge for misconduct, and refusal of suitable work; (2) the geographical diversity of the states; and (3) whether the required disqualification data is computerized.

The states were separated into three categories by penalty type: (1) benefit postponement for a fixed period of time, (2) benefit postponement for a variable period of time, and (3) benefit postponement for the duration of unemployment. When the state used both the fixed and the duration penalty, that state was classified with the duration penalty states. Because the study sought to evaluate the effects of different penalty types on the length of the average spell of unemployment, at least one state was selected from each of these three categories. The selection procedure gave preference to those states that had a common penalty for the disqualifying acts of voluntary quitting, discharge for misconduct, and refusal of suitable work so that the amount of variation within any state was reduced. In addition, efforts were made to choose states that represented a broad geographical cross section of the country.

Having the required disqualification data programmed on a centralized computer system was cost-effective, so that manual search was not needed, and increased the willingness of states to participate in the study. However, at the start of the selection procedure, only 13 states (Alabama, Arizona, Arkansas, Georgia, Kansas, Louisiana, Maine, New Hampshire, New York, North Carolina, Oregon, South Dakota, and Texas) had the data on a central computer file.

Georgia, Kansas, Louisiana, and New York met the criteria for selection, had the required data on a centralized computer, and were willing to participate in the study. Arizona was added because it had the data, was willing to participate, and provided greater geographical balance. These states may be described as a midwestern plains state, an eastern industrial state, a western state, and two southern states. Table 1 summarizes the UI characteristics of the five sample states.

Table 1

UI CHARACTERISTICS OF THE SELECTED STATES (NOVEMBER 1976)[1]

	Arizona	Georgia	Kansas	Louisiana	New York
Claims					
Average weekly WBA ($)	72.10	69.81	74.86	76.10	73.79
Benefits paid ($ 000)	4,741	10,527	3,859	9,803	74,350
Average weekly insured unemployment	22,996	42,756	15,503	36,626	285,060
Insured unemployment rate (%)	3.8	3.0	2.5	3.5	5.0
Initial claims	13,109	33,543	8,458	15,220	170,488
Average weekly beneficiaries	15,075	35,488	11,888	29,437	239,180
Final payments-exhaustees	1,979	5,481	1,326	3,304	23,702
Demographic Characteristics					
Total insured (000)[2]	24.0	44.1	15.2	37.8	289.9
Males (%)	63.6	48.9	53.8	67.0	56.4
Female (%)	36.4	41.1	46.2	33.0	43.6
White (%)	93.9	63.8	90.2	67.5	82.8
Nonwhite (%)	6.1	36.2	9.8	32.5	17.2
Less than 24 years old (%)	20.1	27.3	28.5	23.6	21.3
Between 25-54 years old (%)	66.3	64.9	59.2	60.5	58.6
More than 54 years old (%)	13.6	7.8	12.3	15.9	20.1
Industry					
Construction (%)	20.8	15.1	11.9	32.6	12.3
Manufacturing (%)	16.7	32.8	38.9	17.0	31.7
Trade (%)	24.5	24.1	21.8	17.2	24.1
Services (%)	22.8	15.8	14.3	16.4	21.6
Other (%)[3]	15.1	12.2	13.1	16.8	10.3
Occupations (By Selected Categories)					
Clerical/sales (%)	22.8	21.4	21.7	20.8	26.4
Service (%)	10.7	10.5	7.5	9.7	12.6
Industrial processing (%)	3.8	7.0	5.6	5.9	3.9
Machine trades (%)	14.0	18.2	15.5	9.2	15.5
Bench work (%)	11.6	13.7	16.7	5.9	28.7
Structural (%)	50.0	32.6	32.5	52.0	30.7
Miscellaneous (%)	20.6	28.5	29.7	27.0	21.2
Disqualification & Appeals[4]					
Total new spells (NS)	29,337	81,201	25,444	52,137	524,113
Number of claimant contacts (CC) (000)	163	593	230	520	4,287
Total denials per 1000 CC	66.9	21.2	33.9	25.7	26.0
Voluntary quits per 1000 NS	136.3	82.9	93.9	133.2	36.7
Discharge for misconduct per 1000 NS	45.6	50.5	48.2	54.7	16.0
Refusals of suitable work per 1000 CC	.9	.1	1.0	.4	.5
Distribution of Appeals by Type of Disqualifying Act[4]	.105	.043	.066	.108	.045
Total decisions	3,076	3,485	1,681	5,635	23,528
Voluntary quits (%)	34.7	38.0	18.8	34.6	36.6
Discharged for misconduct (%)	23.4	40.9	15.1	25.9	28.0
Refused suitable work (%)	2.1	1.0	4.5	2.3	3.1
Not able & not available (%)	23.8	9.1	33.9	7.8	20.6
All other disqualifying acts (%)	16.0	11.0	27.7	29.4	11.7

[1]Source: U.S. Department of Labor, Unemployment Insurance Statistics (March/April 1977).

[2]Percentages represent 100% of total insured.

[3]Includes mining, public utilities, finance, insurance and real estate (for which detail is less than 5% in most states) and miscelleneous categories for which information is unavailable.

[4]Quarterly data, October-December 1976. Source: Unemployment Insurance Statistics, op. cit.

UI Systems* of Sample States

Arizona

Arizona is one of only a few states that permit compelling personal reasons as a good cause for quitting a job. The penalty for voluntary quitting, without good cause, is disqualification for the duration of unemployment and until the claimant has earned at least five times the weekly benefit amount (WBA). When the individual is discharged for misconduct, benefits are postponed for a fixed period of 10 weeks and the maximum benefits available to the individual are reduced by eight times the WBA. For refusing a suitable work offer, the disqualification lasts for the duration of unemployment and until the claimant has earned eight times the WBA.

Georgia

By law, all Georgia employers who are part of the UI system must furnish a separation notice to the employee when a job separation occurs. If this notice indicates that the separation occurred due to lack of work, the monetarily eligible claimant is put on a mail reporting system† and continues to receive benefits for as long as he or she remains eligible. During April 1976, Georgia changed its penalty for voluntary quitting without good cause from a variable weeks benefit postponement to a disqualification for the duration of unemployment and until earnings equal eight times the WBA. When a separation occurs due to a discharge for misconduct, benefits are postponed for a variable number of weeks depending on the approximate average time required to find a job‡ and the circumstances surrounding the discharge. When the worker is discharged for refusing a suitable work offer, benefits are denied for the duration of unemployment. When benefits are to be postponed for a variable length of time, the

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*As of December 1977.

†The claimant then does not have to report to the local office except for the periodic eligibility review procedures that occur every 5 or 9 weeks.

‡The approximate average length of the unemployment spell is calculated by the Employment Service in the state.

claims examiner has some discretion in setting the length. Also, benefit entitlement is reduced an equal number of weeks as the benefit postponement.

The appeal process in Georgia is similar to that which exists in other states, but Georgia also has a conferee who is empowered to overturn the decision of the claims examiner. The conferee structure is intended to screen out many problems that would have gone into the formal appeal process and reduces the number of appeals. Georgia has the lowest ratio of appeals to new spells of the five states in the study.

Kansas

Kansas is the only state in the study that has a fixed period of benefit postponement for voluntary quits without good cause, discharge for misconduct, and refusal of a suitable work offer. A claimant who is disqualified has benefits postponed for 7 weeks (including the waiting week). The disqualification period begins with the week in which the disqualifying act occurs. The worker may have compelling reasons that are of an "impelling" personal nature or they may be connected with the work. Kansas does not require that all claimants register with the Employment Service but it does require that all actively seek work. The appeal process in Kansas is similar to the process that exists in all other states. The rates of disqualification in Kansas are close to the national average for total denials and refusal of suitable work but slightly above the national average for voluntary quitting and discharge for misconduct.

Louisiana

Louisiana has a common penalty for each of the three disqualifying acts--the individual is disqualified for the duration of unemployment and until the individual earns wages equal to ten times the WBA. The Louisiana system of benefit disqualifications is one of the most stringent in the nation and has existed in its present form since about 1965. Personal reasons for voluntary quitting is not considered good cause. However, Louisiana does not require active search for employment. Louisiana is on a mail reporting system and the claimant reports to the local office every fifth week. The appeal process is similar to that of the other states.

New York

New York, like Louisiana, has a common duration of unemployment disqualification period for each of the three disqualifying acts. New York also requires that the claimant work a minimum of 3 days in each of the 4 weeks or earn a minimum of $200 before the disqualification is lifted. In New York benefits may be paid to those unemployed due to a labor dispute after 7 weeks of the labor dispute and one waiting week. Good personal cause is considered as good cause for quitting, and not a disqualifying act. Claimants are required to report weekly for benefits and may be disqualified for failure to go to an Employment Service interview. The classification of refusal to go to an interview with refusal of suitable work is unique to New York among the states in the study. However, a nondisqualifying job refusal may include unobserved or perceived problems such as perceived race or sex discrimination. For all categories of disqualifying acts, the rate of disqualifications in New York is below the national average.

Sample Selection

The principal statistical tools of the analysis were various regression techniques. For example, in a one-variable regression model, $y_i = x_i\beta + \varepsilon_i$, the ratio $\hat{\beta}/\hat{se}$ (where $\hat{\beta}$ is the estimated coefficient and $\hat{se}$ is the estimated standard error) is the statistic that is used to determine the significance of β. If β is not significantly different from zero, it is assumed that x does not influence y (or y is independent of x). A level of precision such that $\hat{\beta}/\hat{se} \geq 1.96$ is needed for a statistical significance in the coefficient at the 5% level. However, regression analysis also assumes that a linear relationship exists between y and x. This linear approximation is sufficiently close for most applications. This type of analysis suggested that a minimum sample of 800 observations per state was required to get statistically significant results.

In each state the samples were selected so that the sizes of the control group and each disqualified group were similar. Also, the sample sizes were selected so that they were roughly the same for each state. The latter procedure is acceptable if the sample size selected is negligible relative to the population from which the sample is drawn, as is true for the sample sizes used in this study. The sample sizes by state, questionnaire mailing period (called a wave), and claimant subgroup are shown in Table 2.

Survey Operations

Samples of UI beneficiaries and disqualified claimants were randomly selected from the central computer of each state to participate in the study. The population universe from which the samples were drawn consisted of all regular UI claimants who had a benefit year beginning (BYB) date of either November 1976, February 1977, May 1977, or August 1977. Excluded from the universe were interstate claimants, supplemental unemployment assistance claimants, federal claimants, and former servicemen claimants. The sample was selected randomly using the last four digits of the Social Security number. The survey questionnaire (described in Appendix A) was mailed to each member of the sample groups approximately 9 months after the BYB date.* The questionnaires were identical for each of the four separate mailings except that each referenced the period that included the BYB. No one was sampled in more than one wave. The schedule of the mailings of each wave is shown in Table 3.

This sampling procedure yielded a sample of beneficiaries and disqualified claimants who filed for their initial UI payments during a specified period of time; the questionnaire asked them to recall their job search and job acceptance experiences during the 9 months after that time. The data collected from the questionnaire were matched to the data

*Because of delays in getting Office of Management and Budget clearance for the survey, the first wave was sampled approximately 12 months after the claimants initially filed for benefits.

Table 2

SAMPLE SIZE BY STATE, WAVE, AND CLAIMANT SUBGROUP

	Arizona	Georgia	Kansas	Louisiana	New York	Total
Wave 1						
Beneficiaries	200	225	225	200	225	1,075
Voluntary quit	200	225	225	225	207	1,082
Discharged for misconduct	200	225	219	190	193	1,027
Refused suitable work	25	0	48	26	224	323
Subtotal	625	675	717	641	849	3,507
Wave 2						
Beneficiaries	200	223	225	200	225	1,073
Voluntary quit	200	216	225	224	225	1,090
Discharged for misconduct	200	217	225	199	225	1,066
Refused suitable work	28	20	46	38	261	393
Subtotal	628	676	721	661	936	3,622
Wave 3						
Beneficiaries	225	225	225	200	225	1,100
Voluntary quit	225	225	225	225	225	1,125
Discharged for misconduct	225	225	225	190	225	1,090
Refused suitable work	23	15	61	58	204	362
Subtotal	698	690	736	673	879	3,677
Wave 4						
Beneficiaries	225	225	225	200	225	1,100
Voluntary quit	225	225	225	225	225	1,125
Discharged for misconduct	199	225	212	201	225	1,062
Refused suitable work	37	10	44	29	261	381
Subtotal	686	685	706	655	936	3,668
Total	2,637	2,726	2,880	2,630	3,600	14,473

Table 3

QUESTIONNAIRE MAILINGS BY WAVE AND STATE

Wave	BYB Month		Arizona	Georgia	Kansas	Louisiana	New York
1	Nov. 1976	Month mailed	Nov. 1977	Nov. 1977	Nov. 1977	Nov. 1977	Nov. 1977
		Elapsed months	12	12	12	12	12
2	Feb. 1977	Month mailed	Nov. 1977	Nov. 1977	Nov. 1977	Nov. 1977	Feb. 1978
		Elapsed months	9	9	9	9	12
3	May 1977	Month mailed	Feb. 1978	Feb. 1978	Feb. 1978	Feb. 1978	Mar. 1978
		Elapsed months	9	9	9	9	10
4	Aug. 1977	Month mailed	May 1978	May 1978	May 1978	May 1978	May 1978
		Elapsed months	9	9	9	9	9

from the state's UI files to form the basis for the analysis variables. The data format is described in Appendix C.

The Survey Response Rate

The number and percentages of individuals who responded to the sample are shown in Table 4. Across all the states the average response rate was 43.1%, slightly less than the 50% that was anticipated. The response rate was 43.6% in Arizona, 41.9% in Georgia, 49.1% in Kansas, 49.3% in Louisiana, and 40.1% in New York.

Data about the respondents were used to estimate the sample statistics in this report. The estimated statistics are biased if those who responded to the survey have characteristics (observed or unobserved) that are correlated with the variables used in the analysis. For example, if the respondents tended to be those who returned to work sooner on the average than those who did not respond, then the respondents would give a biased estimate of the population's average duration of unemployment. On the other hand, if individuals with observable characteristics responded at a higher rate than other individuals, then regression parameter estimates would be weighted more heavily by that group than would be true of the whole population.

Table 5 compares the percent responding by data items that were available for the entire sample (respondents and nonrespondents). The table shows that in Arizona, Georgia, and Louisiana, the difference in the response rate between the beneficiaries and the disqualified is less than two percentage points. In New York the difference is less than four percentage points, and in Kansas it is less than seven percentage points. These findings indicate that the disqualified were not more hesitant to respond than the beneficiaries. Thus, observed differences in measured variables between the beneficiaries and the disqualified are expected to represent differences in the population rather than differences in the respondents.

Table 4

RESPONSE RATE BY STATE, WAVE, AND CLAIMANT SUBGROUP

	Arizona		Georgia		Kansas		Louisiana		New York	
	N	%	N	%	N	%	N	%	N	%
Wave 1										
Beneficiaries	90	45.0	105	46.7	110	48.9	83	41.5	98	43.8
Voluntary quit	79	39.5	91	40.4	116	51.6	91	40.4	103	49.8
Discharged for misconduct	69	34.5	90	40.0	96	43.8	68	35.8	74	38.3
Refused suitable work	13	52.0	-0-	00.0	20	41.7	10	38.5	84	37.5
Subtotal	251	40.2	286	42.4	342	47.7	252	39.3	359	42.3
Wave 2										
Beneficiaries	95	47.5	99	44.4	120	53.3	73	36.5	98	43.6
Voluntary quit	109	54.5	97	44.9	116	51.6	113	50.5	109	48.4
Discharged for misconduct	88	44.0	90	41.5	97	43.1	77	38.7	73	32.4
Refused suitable work	17	60.7	11	55.0	17	37.0	11	29.0	104	40.0
Subtotal	309	49.2	297	43.9	350	48.5	274	41.5	384	41.1
Wave 3										
Beneficiaries	84	37.3	101	45.3	134	59.6	72	36.0	94	41.8
Voluntary quit	110	48.9	100	44.4	118	52.4	102	45.3	92	40.9
Discharged for misconduct	80	35.6	93	41.3	105	46.9	67	35.3	70	31.3
Refused suitable work	18	78.3	4	26.7	29	47.5	25	43.1	75	36.8
Subtotal	292	41.8	298	43.3	386	52.5	266	39.5	331	37.7
Wave 4										
Beneficiaries	109	48.4	84	37.3	112	49.8	106	53.0	93	41.3
Voluntary quit	104	46.2	90	40.0	118	52.4	93	41.3	108	48.0
Discharged for misconduct	71	35.7	81	36.0	84	39.6	90	44.8	80	35.6
Refused suitable work	15	40.5	6	60.0	22	50.0	12	41.4	88	33.7
Subtotal	299	43.6	261	38.1	336	47.6	301	46.0	369	39.4
Total	1,151	43.6	1,142	41.9	1,414	49.1	1,093	49.3	1,443	40.1

Table 5

RESPONSE RATE BY SELECTED CHARACTERISTICS

	Arizona		Georgia		Kansas		Louisiana		New York	
	N	%	N	%	N	%	N	%	N	%
Group										
Beneficiaries	378	44.5	389	43.4	476	52.9	334	41.8	383	42.6
Disqualified	773	43.3	753	41.2	938	47.4	759	41.5	1,060	39.3
Race										
White	N/A	--	769	42.3	1,126	50.5	N/A	--	N/A	--
Nonwhite	N/A	--	373	41.1	132	39.2	N/A	--	N/A	--
Sex										
Male	679	40.9	581	37.8	753	44.0	672	36.9	758	37.9
Female	472	48.3	561	47.3	661	56.6	417	52.1	680	43.0
Age										
16-21 years	146	38.9	N/A	--	249	44.5	182	41.0	N/A	--
22-34 years	540	41.7	N/A	--	695	47.9	573	41.3	N/A	--
35-44 years	196	44.5	N/A	--	193	51.7	145	39.0	N/A	--
45-54 years	163	49.2	N/A	--	146	54.7	113	45.2	N/A	--
55+ years	106	54.2	N/A	--	122	57.3	80	45.7	N/A	--

N/A = Not available.

In addition, response rates indicate that females were more likely to respond than males and that older individuals were more likely to respond than younger ones. However, too few variables were analyzed to permit a definitive evaluation of the size and direction of the response rate bias. The available comparisons suggest that the response rate bias is likely to be very small.

Another measure of the response is the number of usable questionnaires returned by respondents. Many furnished incorrect or incomplete questionnaires. A questionnaire was defined as incomplete when the duration of unemployment variable could not be calculated. In addition, there were random missing variables in the data set of several individuals. In this study such attrition is assumed to be random and uncorrelated with the endogenous variables used in the analysis. An analysis of the attrition is shown on Table 6.

Table 6

ATTRITION FROM THE SURVEYED SAMPLE BY STATE AND BY WAVE

	State					Wave				
	Arizona	Georgia	Kansas	Louisiana	New York	1	2	3	4	Total
Sample surveyed	2,637	2,724	2,879	2,630	3,597	3,506	3,621	3,672	3,668	14,467
Nondeliverable	167	179	130	111	214	264	193	164	180	801
Delivered questionnaires	2,470	2,545	2,749	2,519	3,383	3,242	3,428	3,508	3,488	13,666
Nonresponse*	1,319	1,403	1,335	1,426	1,940	1,752	1,814	1,935	1,922	7,423
Respondents	1,151	1,142	1,414	1,093	1,443	1,490	1,614	1,573	1,566	6,243
Incorrect or incomplete questionnaires†	144	215	217	239	195	255	284	260	211	1,010
Analytic response group	1,007	927	1,197	854	1,248	1,235	1,330	1,313	1,355	5,233
Missing data‡	86	99	76	103	121					485
Regression cases	921	828	1,121	751	1,127					4,748

*Includes survey refusals.

†The duration of unemployment variable could not be calculated.

‡Data missing in at least one of the variables used in the regression.

IV CHARACTERISTICS OF THE RESPONDENTS

Selected characteristics of the respondents shown in Table 7 plus data in Chapter III give a composite view of the distribution of selected variables among those who responded.* The four groups--beneficiaries and the voluntary quit, discharge for misconduct, and refusal of suitable work disqualified groups--are likely to differ in other demographic characteristics, in their economic history, and in certain unobserved characteristics such as "attitudes toward work." Among the disqualified, a distinction may also be made between those who voluntarily quit a job and those who are "involuntarily" discharged because of misconduct. The discharge may be precipitated by a sudden action that is not part of the normal behavior of the worker. Such a worker may not be prepared, financially or emotionally, for the sudden job separation. Job quitters, on the other hand, are more likely to have considered the consequences of the job separation and may be better prepared for the unemployment spell.

Those who are disqualified subsequent to the start of UI benefit receipt, usually for refusal of a suitable work offer, are likely to differ from the other disqualified because they are likely to have a more detailed knowledge of the distribution of wage offers in the labor market. Any rejection of a job offer is likely to come at a time when the worker has a more sophisticated notion of what he or she considers an acceptable wage offer. Because the refusal of suitable work disqualification may come at any time during the receipt of UI benefits, the worker may have received most of his or her weekly UI entitlements by the time the disqualification occurs.

For these and other reasons, the disqualified are not likely to be a random draw from the pool of the monetarily eligible unemployed.

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*The number of respondents varies across the variables because of missing data.

Table 7

DESCRIPTION OF RESPONDENTS

	Arizona		Georgia		Kansas		Louisiana		New York	
	N	%	N	%	N	%	N	%	N	%
Sex										
Male	679	59.0	581	50.9	753	53.3	672	61.7	758	52.7
Female	472	41.0	561	49.1	661	46.7	417	38.3	680	47.3
Total	1,151	100.0	1,142	100.0	1,414	100.0	1,089	100.0	1,438	100.0
Race										
Indian	46	4.0	19	1.7	17	1.2	12	1.1	11	0.8
Asian	3	0.3	2	0.2	6	0.4	1	0.1	24	1.7
Black	32	2.8	385	34.3	126	9.0	396	36.7	149	10.4
White	878	77.2	708	63.0	1,211	86.7	650	60.2	1,124	78.4
Hispanic	171	15.0	3	0.3	27	1.9	16	1.5	98	6.8
Other	8	0.7	6	0.5	10	0.7	4	0.4	27	1.9
Total	1,138	100.0	1,123	100.0	1,397	100.0	1,079	100.0	1,433	100.0
Education										
< 6 years	28	2.5	48	4.2	18	1.3	68	6.3	40	2.8
7, 8, 9 years	107	9.4	173	15.3	135	9.6	145	13.4	138	9.7
10, 11 years	136	11.9	222	19.6	189	13.4	196	18.1	168	11.8
H.S. graduate	468	41.1	474	41.8	657	46.7	455	42.1	554	38.8
1, 2, 3 years college	314	27.5	172	15.2	330	23.5	174	16.1	352	24.6
College graduate	51	4.5	29	2.6	50	3.6	30	2.8	102	7.1
Graduate school	24	2.1	13	1.1	17	1.2	7	0.6	39	2.7
Advanced degree	12	1.1	2	0.2	11	0.8	6	0.6	36	2.5
Total	1,140	100.0	1,133	100.0	1,407	100.1	1,081	100.0	1,429	100.0
Marital status										
Never married	234	20.4	273	23.9	313	22.2	265	24.3	487	33.8
Married	719	62.7	657	57.6	855	60.6	646	59.3	756	52.4
Separated	32	2.8	60	5.3	40	2.8	80	7.3	79	5.5
Divorced	141	12.3	133	11.7	171	12.1	74	6.8	78	5.4
Widowed	21	1.8	18	1.6	31	2.2	25	2.3	42	2.9
Total	1,147	100.0	1,141	100.0	1,410	100.0	1,090	100.0	1,442	100.0
Number of Children										
None	439	38.4	395	34.8	553	39.4	366	33.7	684	47.8
1	208	18.2	264	23.3	269	19.2	264	24.3	263	18.4
2	226	19.8	222	19.6	278	19.8	215	19.8	214	14.9
3	110	9.6	136	12.0	169	12.0	112	10.3	138	9.6
4	81	7.1	57	5.0	82	5.8	57	5.2	69	4.8
5	44	3.8	23	2.0	21	1.5	35	3.2	31	2.2
6 or more	36	3.1	38	3.3	31	2.2	37	3.4	33	2.3
Total	1,144	100.0	1,135	100.0	1,403	100.0	1,086	99.9	1,432	100.0

Because the data will not permit a direct evaluation of the probability of leaving unemployment, some characteristics of the beneficiaries and disqualified are compared.

The comparisons are made for each of the four groups for some variables but the disqualified are pooled when the data becomes too detailed. The sample sizes for the comparisons are those used in Table 7. Chi-square, t, and f statistics are computed where appropriate and test the null hypothesis that there are no differences between the beneficiaries and the disqualified. In each table, the level of significance of the differences are given; we reject the null hypothesis if the results are significant.

Job Search and Income Characteristics

Duration of Unemployment

The duration of unemployment is the spell of unemployment between the onset of unemployment and the time the individual returns to work, drops out of the labor force, or the date the questionnaire was completed.

In Tables 8 and 9 the average number of weeks of unemployment of the respondents is given for the total sample and by sex for each of the four groups in the study. Several facts become apparent when viewing these tables. First, for this sample the average duration of unemployment is considerably longer than the 6 or 8 weeks reported in the literature. The average value of between 22-31 weeks for all groups is very close to the average number of weeks that exhaustees receive UI payments.* Secondly, in every state, females remain unemployed longer than males and in several instances the disqualified have significantly longer durations of unemployment than the beneficiaries. Third, the average duration of unemployment varies widely across the states--ranging from 20.7 weeks for males in Kansas to 30.9 weeks for males in New York, and from 24.5 weeks for females in Arizona to 31.5 weeks for females in New York.

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*During the April-June quarter, exhaustees nationwide drew benefits for 22.3 weeks, though not necessarily consecutive weeks (U.S. Department of Labor, Table 7, September-October 1976).

Table 8

AVERAGE NUMBER OF WEEKS OF UNEMPLOYMENT FOR EACH CLAIMANT GROUP[1]

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	22.3	28.1	23.0	23.5	31.1
Total Disqualified	23.2*	29.1*	23.7	23.6	31.2
Voluntary Quit	21.9	27.9	22.0	23.5	25.7*
Discharged for Misconduct	24.6*	39.9*	24.9*	23.0	28.2
Refusal of Suitable Work	24.6	21.9	27.7*	27.9	40.7*
Total	22.3	28.1	23.0	23.5	31.1

[1]The period of observation for the duration ranges from 34 weeks to 52 weeks (see Table 3).

*Disqualified group is significantly different from the beneficiary group at the .05 level.

Table 9

AVERAGE NUMBER OF WEEKS OF UNEMPLOYMENT BY CLAIMANT GROUP AND SEX[1]

	Arizona		Georgia		Kansas		Louisiana		New York	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Beneficiaries	18.8	23.4	26.6	24.4	18.6	24.9	21.8	25.5	31.4	29.9
Voluntary quit	19.3*	23.8	23.5	31.0*	19.4	24.1	21.1	26.0	26.2*	25.4*
Discharged for misconduct	23.9*	26.5	29.1	34.2*	23.8	26.6	21.5	26.1	27.6	30.3
Refusal of Suitable Work	20.3	27.6	16.5	24.5	23.3	29.9	24.4	31.4	42.1*	39.7*
Total	20.8	24.5	26.6	29.6	20.7	25.4	21.6	26.3	30.9	31.5

[1]The period of observation for the duration ranges from 34 weeks to 52 weeks (see Table 3).

*Disqualified group is significantly different from beneficiary group at the .05 level.

The values of Tables 8 and 9 represent the total length of the observed unemployment spell over an observation period of at least 9 months. This period exceeds the length of the usual 26 weeks of the maximum duration of unemployment and permits inclusion of the unemployment that extended past the regular UI period.* The observation period of about 9 months resulted in a truncation of approximately 40% of all the unemployment spells, so that the true average duration of unemployment of the sample was longer than indicated in these tables.

On average, the mean duration is virtually the same in Arizona, Kansas, and Louisiana (about 23 weeks), but different in Georgia and New York (about 28 and 31 weeks, respectively). These observed differences may be due to the economic conditions prevailing in the state or differences in the distribution of demographic characteristics in samples in the five states. Thus, simple pooling of the data across the states may not sufficiently delineate the role of the economic and UI characteristics of the states in determining the duration of unemployment.

Hours Per Week Spent Searching

Respondents were asked how many hours on average they spent searching for a job. The results are shown in Table 10. Job search theory usually assumes that job offers appear randomly as the individual searches for a job. It is also assumed that the more time the individual invests in job search the sooner he or she will receive an acceptable job offer (this assumption is tested directly in the regression analysis of Chapter VI). We observe that less than one half of the normal working time is spent looking for a job. Arizona had the highest average time spent in job search, 17.4 hours per week, and New York the lowest, 13.9 hours per week.

On average, disqualified respondents spent more time looking than did beneficiaries. This finding is consistent with the hypothesis that

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* During the period of observation, extended benefits and federal supplemental benefits were available to UI claimants. These programs enabled the individual to receive benefits for as long as 65 weeks. See Felder and West (1978).

Table 10

AVERAGE HOURS PER WEEK SPENT LOOKING FOR A JOB

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	15.7	14.6	13.2	12.7	12.3
Total Disqualified	18.2*	16.3	14.7*	16.0*	14.4*
Voluntary Quit	17.7*	14.4	14.3	15.3*	14.3*
Discharged for Misconduct	19.1*	18.5*	15.3	17.5*	16.3*
Refusal of Suitable Work	16.7	13.8	14.1	13.1	12.8
Total	17.4	15.8	14.2	15.1	13.9

*Disqualified group is significantly different from the beneficiary group at the .05 level.

the income available to beneficiaries induces them to spend more time in leisure activities. In addition, those who are disqualified for refusing a suitable job offer appear to spend less time looking for work than do those who quit jobs or are fired for misconduct.

Pre- and Postunemployment Wage Rates

A key to understanding the differences between the beneficiaries and the disqualified is the wage paid to the two groups. More than any other variable at our disposal, it is used to define the economic well-being of the worker. As is evident in Tables 11 and 12, the average pre- and post-unemployment wages of the beneficiaries and the disqualified show statistically significant differences in every state. By a large margin the beneficiaries had a higher average wage rate. However, there were almost no differences in the average wage rates before and after the unemployment spell.

The overall wage rates range from $3.58 per hour in Georgia to $4.47 per hour in Arizona. In Arizona, beneficiaries had an average postunemployment wage rate that was $1.83 more per hour than the average wage rates of the disqualified. The corresponding differences for the other states were $0.54 in Georgia, $1.02 in Kansas, $2.61 in Louisiana, and $0.80 in New York. These differences are all statistically significant at the .05 level and clearly indicate that those workers who quit jobs, who are discharged for misconduct, or who refuse a suitable work offer tend to have lower wages than those workers who are laid off due to lack of work. No consistent pattern of wage differences exists among the disqualified claimant groups. Disqualified claimants have wages that more closely resemble those of other disqualified claimants than those of beneficiaries.

The finding of a lower wage rate for the disqualified raises the issue of causality. Do people who receive low wages quit jobs more readily and behave in a way that induces discharges because of the low wage; or, do people with a history of prior discharges and quits get paid lower wages? Do employers discount the prior work history of the individual who quits or is fired? Do these disqualifications perpetuate the job turnover

Table 11

AVERAGE PREUNEMPLOYMENT HOURLY WAGE RATE FOR EACH CLAIMANT GROUP

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	$5.60	$4.00	$4.64	$5.68	$5.40
Total Disqualified	3.92*	3.37*	3.81*	3.67*	4.08*
Voluntary Quit	3.93	3.28	3.73	3.75	4.15
Discharged for Misconduct	3.96	3.46	4.02	3.59	3.82
Refusal of Suitable Work	3.70	3.36	3.37	3.57	4.22
Total	$4.47	$3.58	$4.09	$4.28	$4.43

*Disqualified group is significantly different from the beneficiary group at the .05 level.

Table 12

AVERAGE POSTUNEMPLOYMENT HOURLY WAGE RATE FOR EACH CLAIMANT GROUP

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	$5.71	$3.97	$4.79	$6.27	$4.67
Total Disqualified	3.88*	3.43*	3.77*	3.66*	3.87*
Voluntary Quit	3.90*	3.43*	3.71*	3.75*	3.84*
Discharged for Misconduct	3.92*	3.43*	3.94*	3.46*	3.84*
Refusal of Suitable Work	3.57*	3.33*	3.22*	4.40*	3.96
Total	$4.47	$3.58	$4.13	$4.34	$4.06

*Disqualified group is significantly different from the beneficiary group at the .05 level.

behavior of the disqualified? Unfortunately, the prior employment history of the workers in the sample is not known, so it is not possible to evaluate the direction of the causality. However, the data are consistent with the suggestion that, as income increases, the likelihood of being disqualified decreases.

Base Period Earnings

Another indicator of the relative economic well-being of the beneficiaries and the disqualified is the average amount of base period earnings of the two groups.* Table 13 clearly indicates that beneficiaries are likely to have had greater base period earnings than those who were disqualified. During the base period, beneficiaries earned $1,491 more than the disqualified in Arizona; $1,424 more in Georgia; $1,228 more in Kansas; $2,892 more in Louisiana; and $1,922 more in New York. These figures are all statistically significant and confirm the observation made earlier--the greater the income of the worker, the less likely he or she is to be disqualified. Although causality is not assumed, these results are consistent with low-income workers quitting or being fired more frequently. In Kansas, Louisiana, and New York, those disqualified for quitting had higher earnings than the other disqualified groups. In most states those who refused suitable work had the least amount of base period earnings.

Weekly Benefit Amount

In every state the weekly benefit amount (WBA) is calculated for those who are monetarily eligible.† For the beneficiaries it is the flow

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*In every state except New York, the base period refers to the first four of the last five preceding quarters before the individual files a claim. In New York the base period is the preceding 52 weeks. Base period wages are the wages earned in covered employment.

†The formula for the calculation varies across the states but the WBA is always a function of the earnings in the base period. In most states the WBA is calculated as a fraction (usually 1/24, 1/25, or 1/26) of the earnings in the quarter in which earnings were highest. Four states calculate the WBA as a percentage (between 1-23%) of the annual earnings during the base period; other states calculate WBA as a percentage (between 50-67%) of the average weekly earnings. In all states there is a minimum and a maximum WBA.

Table 13

BASE PERIOD EARNINGS FOR EACH CLAIMANT GROUP

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	$7,732	$6,824	$7,170	$8,698	$7,969
Total Disqualified	6,241*	5,400*	5,942*	5,806*	6,047*
Voluntary Quit	6,235	5,331	6,186	6,084	6,493
Discharged for Misconduct	6,228	5,481	5,869	5,523	5,976
Refusal of Suitable Work	6,390	5,142	5,194	5,612	5,697
Total	$6,721	$5,868	$6,323	$6,686	$6,525

*The disqualified group is significantly different from the beneficiary group at the .05 level.

of UI benefits to which they are entitled until the benefits are exhausted. For the disqualified, it represents the value of the benefits not available for the length of the disqualification period.* The average value of the WBA for the various claimant groups is given in Table 14. In Louisiana the average WBA was $80.91, the highest among the sample states. The average was lowest in Georgia, $66.48. In each state the beneficiaries had a significantly higher average WBA than the disqualified. Among the disqualified, there is no consistent pattern of differences in the WBA.

Since beneficiaries had higher wage rates and base period earnings it is not surprising that they also had higher average WBAs than the disqualified. The comparisons of this section show that the beneficiaries are economically better off, but the disqualified have to forego sizable benefit payments for the period of time they remain disqualified.

Demographic Characteristics

Because the sample selection procedure represented a random draw from a common population of UI claimants we wish to test the null hypothesis that groups with certain demographic characteristics are not more likely than other groups to become disqualified. The null hypotheses were tested for the age, race, sex, educational level, and marital status of the beneficiaries and the disqualified.

Age

In each state the average age of the disqualified respondent is lower than that of the beneficiaries, as is evident in Table 15. The beneficiaries havean average age of about 36 years and the disqualified have an average age of about 31 years. This large and significant age difference shows that we reject the null hypothesis of no difference and conclude that younger claimants are more likely to be disqualified. The observed

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*In Arizona, Georgia, and Kansas, UI benefits are available to those who have a fixed or variable period of benefit postponement and who become eligible for benefits during a given spell when the disqualification period is over. In Louisiana and New York benefits are postponed for the duration of that spell of unemployment for all three disqualifying acts.

Table 14

AVERAGE WEEKLY BENEFIT AMOUNT FOR EACH CLAIMANT GROUP

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	70.91	69.80	77.60	93.52	79.81
Total Disqualified	66.29	64.85	73.12	75.40	68.22
Voluntary Quit	66.44*	64.37*	73.07*	76.39*	70.62*
Discharged for Misconduct	66.12*	65.47*	74.50*	73.64*	67.57*
Refusal of Suitable Work	66.30*	61.89*	67.28*	78.57*	66.57*
Total	$67.78	$66.48	$74.52	$80.91	$71.11

*Disqualified group is significantly different from the beneficiary group at the .05 level.

Table 15

AVERAGE AGE BY CLAIMANT GROUP
(Years)

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	36.9	35.5	35.5	35.6	39.2
Total Disqualified	31.6*	30.3*	29.6*	30.1*	32.5*
Voluntary Quit	33.2	31.1	30.0	31.0	33.9
Discharged for Misconduct	29.6	29.4	28.9	28.7	28.9
Refusal of Suitable Work	33.5	30.5	31.2	32.3	34.0
Total	33.3	32.0	31.5	31.8	35.6

*Disqualified group is significantly different from the beneficiary group at the .05 level.

age difference when coupled with observed differences in previous earnings suggest that those with smaller earnings have less to lose from quitting a job or being fired. Older workers who are separated from a job usually find it more difficult to find employment; hence, as the worker ages, he or she is less likely to quit. The older worker is likely to have had more job experience with the same employer so is less likely to act in a way to induce being fired. These results imply that the probability of becoming disqualified is inversely related to age.

Race

In every study state except New York, whites constitute a significantly higher percentage of the beneficiaries than they do of the disqualified (see Table 16). We reject the null hypothesis of no difference by race and conclude that in all states except New York, whites are less likely to be disqualified. Nonwhites who are disqualified are more likely than whites who are disqualified to be fired for misconduct. Relatively few nonwhites compared to whites are disqualified for refusing a suitable work offer. In addition, whites are more likely to be found among the voluntary quitters than among those who are fired.

Georgia typifies the racial difference between beneficiaries and disqualified persons. Whites constitute 71.9% of the beneficiaries but only 61.7% of the disqualified. When the sample is classified by type of disqualification, whites represent only 50.2% of those who are discharged for misconduct but 72.2% of those who voluntarily quit and 80.0% of those who refuse suitable work. Similar comparisons can be made for the other states. Part of the racial differences in the likelihood of being disqualified may be caused by discrimination. Because the data can only show relationship and not causality, it is not possible to separate discharges for misconduct that are racially motivated from, say, a greater propensity of nonwhites to precipitate a discharge.

Table 16

PERCENT OF WHITE RESPONDENTS

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	84.2%	71.9%	88.8%	68.4%	75.1%
Total Disqualified	73.7*	61.7*	84.2*	56.7*	78.5
Voluntary Quit	78.3	72.2	89.5	67.5	82.0
Discharged for Misconduct	65.0	50.2	76.9	42.8	66.6
Refusal of Suitable Work	87.3	80.0	92.4	54.4	84.6
Total	77.2	65.0	85.6	60.2	76.9

*Disqualified group is significantly different from the beneficiary group at the .05 level.

Sex

In Arizona and Louisiana a significantly higher percentage of males are beneficiaries than disqualified. In Georgia, Kansas, and New York, there are no statistically significant differences in the percentage of males who are beneficiaries or disqualified (see Table 17). Because we are able to reject the null hypothesis of no difference in disqualifications by sex in only two of the three states it is not possible to make as strong a statement as was done earlier for age and race differences. However, note that males are never a higher percent of the disqualified. From these results we conclude that males are less likely than females to be disqualified. Differences by sex and the rate of disqualification may arise because of quitting due to pregnancy, to follow a spouse to a new work area, to care for an ill child, or to provide domestic services. These are usually not considered good reasons for leaving.

However, males are more likely to be discharged for misconduct. In every state there is a higher percentage of males who were discharged for misconduct than for voluntarily quitting or refusing a suitable work offer. The results are dramatic and indicate that females are more likely to quit a job than induce a job firing.

Educational Level

Claimants who are disqualified have significantly different educational distributions and are more likely to have completed at least 12 years of schooling than the beneficiaries in Arizona, Louisiana, and New York. In the other two states there are no significant differences in the distribution of the completed levels of school, as is shown in Table 18. Because higher levels of schooling are usually associated with higher earnings, these results appear to be inconsistent with the earlier findings that the disqualified have lower earnings on the average. However, the disqualified represents a younger cohort of workers who may be better educated but who have not reached their full earning potential. In all states more than 59% of the disqualified have at least a high school diploma. In Arizona, Kansas, and New York more than 75% of the disqualified

Table 17

PERCENT OF MALE RESPONDENTS

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	68.8%	56.6%	61.7%	77.8%	57.6%
Total Disqualified	60.1*	56.4	58.4	65.9*	55.3
Voluntary Quit	50.5	45.5	51.9	58.6	52.3
Discharged for Misconduct	72.3	68.3	68.2	75.5	71.5
Refusal of Suitable Work	43.4	37.8	44.7	59.6	43.3
Total	62.9	56.5	59.4	69.5	55.9

*Disqualified group is significantly different from the beneficiary group at the .05 level.

Table 18

DISTRIBUTION OF SAMPLE BY EDUCATIONAL LEVEL
(Percent)

Years of Education	Arizona*		Georgia		Kansas		Louisiana*		New York*	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
<6	4.5%	1.4%	6.3%	3.2%	2.1%	.9%	9.4%	4.9%	5.0%	2.0%
7, 8, 9	11.2	8.5	16.4	14.7	11.0	8.9	10.3	14.8	12.9	8.5
10, 11	11.2	12.3	18.3	20.3	13.8	13.3	18.2	18.1	11.6	11.8
High school graduate	38.3	42.4	39.2	43.2	39.8	50.2	41.9	42.2	35.0	40.1
1, 2, 3 years of college	26.3	28.1	14.9	15.3	24.8	22.8	14.9	16.6	20.3	26.2
College graduate	5.3	4.1	3.1	2.3	4.9	2.9	3.0	2.7	9.2	6.4
Graduate work	1.6	2.4	1.6	.9	2.5	.5	1.2	.4	2.4	2.9
Advanced degree	1.6	.8	.3	.1	1.1	.6	.9	.4	3.7	2.1

Note: Benf = beneficiaries; Dsq = disqualified group

*Disqualified group is significantly different from the beneficiary group at the .05 level.

have at least a high school diploma and more than 25% have had at least some college training. Thus, on the average, disqualified claimants are more highly educated than those claimants who receive benefits.

Marital Status

Marital commitments may be viewed as reducing the likelihood of voluntary job separations because such separations reduce household income. Accordingly, married persons would be less likely to be disqualified. In Table 19 the distribution of the sample by the percent married is given. The table shows that in each state married claimants are less likely than unmarried claimants (single, divorced, widowed, and separated) to be disqualified. Among those disqualified married claimants are less likely to be discharged for misconduct than they are to quit a job or refuse a suitable work offer. These findings suggest that voluntary job turnovers occur less often among married individuals and show that although married claimants constitute more than 60% of the beneficiaries, they represent less than 51% of those who are discharged for misconduct.

Summary

The analysis of the demographic and income variables that describe the disqualified and the beneficiaries makes it clear that the disqualified are not a random draw from the pool of all monetarily eligible claimants. Although claimants with virtually all combinations of attributes have been disqualified, the evidence presented here indicates that patterns exist. The disqualified are more likely than beneficiaries to be the economically disadvantaged, female, nonwhite, young, and unmarried.

The differences in demographic and income variables suggest that measuring the variables of major interest--the duration of unemployment and the postunemployment experiences of the two groups--by a simple comparison of the means would not be efficient. The difference of means tests assumes some homogeneity in the distributions of the two groups measured. Because the data show that such homogeneity does not exist, more appropriate statistical procedures are required.

Table 19

PERCENT OF MARRIED RESPONDENTS

	Arizona	Georgia	Kansas	Louisiana	New York
Beneficiaries	72.3%	63.8%	65.5%	70.3%	62.1%
Total Disqualified	58.0*	54.4*	58.2*	54.4*	48.9*
Voluntary Quit	63.1	59.5	64.1	61.4	53.9
Discharged for Misconduct	49.4	49.4	50.4	43.7	35.4
Refusal of Suitable Work	67.7	45.0	60.2	62.1	54.6
Total	62.7	57.6	60.6	59.3	52.4

*Disqualified group is significantly different from the beneficiary group at the .05 level.

V THEORETICAL AND STATISTICAL CONSIDERATIONS

Section IV describes the significant differences between the beneficiaries and the disqualified in most demographic characteristics. Because of these differences, simple comparisons of the means of the duration of unemployment may reflect differences that arise due to differences in the distribution of the demographic characteristics. Multivariate regression procedures are a more powerful means of evaluating differences between the beneficiaries and disqualified in the duration of unemployment. A theoretical and statistical review of some of the issues involved in estimating the factors that contribute to the duration of unemployment is given below. This section builds on the search theories of Mortenson (1970), McCall (1970), and Gronau (1971), among others.

Theoretical Considerations

It is assumed that the unemployed worker faces a distribution of wage offers, f(w), and that to receive the greatest returns from the unemployment period he must search for a suitable job. The worker sets a reservation wage, w_t^*, and any wage offers below this amount will be rejected.* The probability that the unemployed worker will receive an acceptable wage offer is given by:

$$P_t = \text{Prob}\ (w_o \geq w_t^*) = \int_{w^*}^{\infty} f(w)dw \quad . \qquad (1)$$

The expected duration of unemployment† is defined as $E(D) = 1/P_t$; clearly, the higher the reservation wage (given the wage offer distribution facing

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*The reservation wage is likely to change over time (see Holt, 1970), which is why the subscript "t" is used.

†The duration of unemployment is the length of the unbroken spell of unemployment.

the unemployed worker), the longer the worker is expected to remain unemployed. At the same time, the higher the reservation wage, the greater will be the expected postunemployment wage rate. Once a wage offer is accepted the worker may expect to receive an average wage value of W_t, where

$$W_t = E(w_o | w_o \geq w_t^*) = \frac{1}{P_t} \int_{w^*}^{\infty} wf(w)dw \quad . \tag{2}$$

In addition to the wage value of a job offer, the unemployed worker is likely to be concerned about the total discounted future returns and about the nonpecuniary aspects of the job. In discrete form, the discounted value of the income flow from an accepted wage offer is

$$\sum_{t=K+1}^{T} W_t h_t (1 + r)^{-t} \tag{3}$$

where r is the discount rate, h_t the hours of work, and T-k the number of time periods over which the job is held. If we view the remaining life of the worker as being divided into the search period, k, and the work period, T-k, then the total discounted income, Y_t, available to the worker consists of that unemployment income (UI_t) that he or she receives during the spell of unemployment and that income derived from postunemployment wage earnings, or

$$Y_t = A + \sum_{t=1}^{k} UI_t (1 + r)^{-t} + \sum_{t=k+1}^{T} W_t h_t (1 + r)^{-t} \tag{4}$$

where A is the worker's initial stock of wealth. The income derived from UI and other assets is used to finance consumption and the costs of searching for another job. Because UI_t is usually close to one-half the normal weekly wage rate of the individual, the unemployed worker trades off the receipt of UI and the additional leisure available during the unemployment

period for the larger income that will be derived from accepting a wage offer. It is assumed that the greater the stock of assets (including UI) available to the unemployed worker, the better able he or she is to finance the period of unemployment. At the same time, the larger the assets, the more likely the worker is to set a higher reservation wage. Because the disqualified worker has benefits postponed for all or part of the period of unemployment, he or she will be less able to finance an unemployment spell, and, hence, should return to work more quickly.

Given the above, a two equation model of the duration of unemployment, D_t, and the returns to the search period, W_t, describes the impact of the receipt of UI on the ith unemployed worker. Our theory suggests that the duration of unemployment is a function of the individual's assets, A_i, the amount of UI benefits available to him or her during the unemployment period, UI_i, the wage that is accepted to end the unemployment period, W_i, the individual's personal characteristics, Z_i, and the prevailing economic conditions in the state, S_i. At the same time, the acceptance wage is a function of the duration of unemployment, D_i, the previous wage rate, W_i, and the personal characteristics of the worker, Z_i. That is:

$$D_i = D_i(A_i, UI_i, W_i, S_i, Z_i) \tag{5a}$$

$$W_i = W_i(D_i, W_{li}, Z_i) \quad . \tag{5b}$$

The duration of unemployment is also expected to be affected by the way that the worker was separated from his or her job. For example, the worker who quits a job or is fired for misconduct may impart negative signals to a potential employer, which may reduce the likelihood that the employer will make an acceptable wage offer; the result is likely to be an increased duration of unemployment. The worker who is fired for misconduct is likely to be less prepared for the job separation than the person who quits. The fired worker is likely to be viewed as less reliable, and, hence, less productive. On the other hand, the unemployed worker who refuses a suitable work offer does not impart any particular signal

to a prospective employer. This disqualifying act should not affect the likelihood of receiving an acceptable wage offer. Thus, there should be differences in the duration of unemployment among those who are job quitters, those who are fired, and those who refuse a suitable work offer. This information may be incorporated into the duration of unemployment equation:

$$D_i = D_i(A_i, UI_i, W_i, Q_i, S_i, Z_i) \tag{5a}$$

where Q denotes the type of job separation or disqualifying act.

Empirical Specification of the Model

Several problems are encountered in seeking to estimate Equations (4a) and (4b). First, the complete duration of unemployment is not observed for all individuals in the sample. This is shown by letting D_i^* be a random variable that defines the complete duration of unemployment of the worker. Let X be a vector of exogenous variables linearly related to the length of the period of unemployment, β and μ be parameters to be estimated, and α_i the length of the observation period for the ith individual in the sample, then the observed duration, D_i, is:

$$D_i \begin{cases} = X_{i1}\beta + \mu_i, & \text{if } D_i^* < \alpha_i \\ = \alpha_i, & \text{if } D_i^* \geq \alpha_i \end{cases} \tag{6}$$

The duration variable is censored; that is, the mail survey did not permit the observance of the total duration of unemployment of those in the sample who do not return to work during the observation period. The censoring separates the sample into two groups: those who returned to work and those who did not return to work during the observation period.

The next problem is to estimate the parameters (β,μ) consistently for the two groups. This problem arises because of the suggested simultaneity of the model and the assumption that the duration of unemployment

is a function of the acceptance wage. If the sample consisted only of those who had returned to work, then the simultaneity issue could be handled using standard techniques. However, the inclusion of those who did not return to work means that the acceptance wage is not determined for a fraction of the sample and the estimation of the simultaneous relationship is nontrivial.

To estimate the parameters of the duration of unemployment equation a wage equation was used to impute an acceptance wage for those who did not return to work.* A tobit estimation procedure was used.† The estimation of Equation (4b) was modified by using the percentage change in nominal wages and the percentage change in nominal earnings as dependent variables. The use of the instrumental variable permitted identification of the simultaneous model while the tobit procedure provided consistent estimates of the parameters of the duration of unemployment equation.‡

Variables Used in the Analysis

The description, means, and standard deviations of the variables used in the analysis are found in Table 20. The demographic variables--age, race, sex, education, marital status, and occupation--are used to control for differences between the beneficiaries and the disqualified in the distributions of these characteristics, as noted in Section III. Also included is the variable HOURS, which measures the number of hours per week that the individual spends searching for a job. Search efficiency is expected to increase with the amount of time spent searching. Accordingly, there should be an inverse relationship between HOURS and the duration of unemployment. The variable WAGE measures the wage the worker accepted ending his or her spell of unemployment or the imputed value of

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*The imputed wage incorporated information about those who did not return to work through the inverse of the Mills ratio. Details about this procedure are found in Appendix D.

†The tobit procedure is discussed in Appendix E.

‡Amemiya (1973) proves that a modification of Tobin's original estimator is consistent when using a maximum likelihood estimator.

Table 20

DESCRIPTION, MEANS, AND STANDARD DEVIATIONS OF VARIABLES USED IN THE ANALYSIS
(Standard Deviations in Parentheses)

Symbol	Description	Arizona	Georgia	Kansas	Louisiana	New York
DUR	Duration of unemployment in days	157.739 (141.095)	196.074 (159.047)	160.244 (135.488)	166.609 (201.427)	220.437 (171.945)
AGE 22-34	1, if age between 22 and 34 years	.477 (.500)	.570 (.495)	.517 (.500)	.555 (.497)	.480 (.500)
AGE 35-44	1, if age between 35 and 44 years	.174 (.379)	.140 (.347)	.128 (.334)	.120 (.325)	.127 (.333)
AGE 45-54	1, if age between 45 and 54 years	.128 (.334)	.081 (.273)	.090 (.287)	.091 (.287)	.098 (.297)
AGE 55	1, if age at least 55 years	.087 (.282)	.056 (.229)	.078 (.268)	.057 (.233)	.141 (.348)
MALE	1, if male	.587 (.493)	.523 (.500)	.515 (.500)	.593 (.492)	.528 (.499)
WHITE	1, if white	.783 (.413)	.640 (.480)	.873 (.333)	.629 (.484)	.792 (.406)
EDUC 9-11	1, if completed education between 9 and 11 years	.119 (.325)	.186 (.389)	.129 (.335)	.160 (.367)	.100 (.301)
EDUC 12	1, if completed high school and no more	.401 (.490)	.430 (.495)	.475 (.500)	.445 (.497)	.398 (.490)
EDUC 13-15	1, if completed education between 13 and 15 years	.279 (.449)	.172 (.377)	.246 (.431)	.182 (.387)	.257 (.437)
EDUC 16	1, if completed education was at least 16 years	.084 (.277)	.046 (.209)	.059 (.236)	.045 (.208)	.136 (.343)
MARR	1, if married	.608 (.489)	.564 (.496)	.614 (.487)	.578 (.494)	.523 (.500)
HOURS	Hours per week spent in job search	17.509 (10.804)	16.459 (11.535)	14.164 (9.794)	14.943 (12.033)	13.797 (10.158)

Table 20 (Concluded)

Symbol	Description	Arizona	Georgia	Kansas	Louisiana	New York
WAGE	Wage rate on job after unemployment spell, imputed if not employed	4.168 (2.233)	3.535 (1.361)	3.987 (1.743)	4.063 (2.127)	4.177 (1.679)
PROF	1, if preunemployment occupation was professional	.143 (.322)	-- --	.112 (.298)	.076 (.256)	.230 (.413)
SACLER	1, if preunemployment occupation was sales or clerical	.285 (.418)	-- --	.300 (.437)	.295 (.447)	.254 (.428)
BLUCOL	1, if preunemployment occupation was trades, crafts, or operations	.428 (.459)	-- --	.465 (.473)	.486 (.494)	.349 (.472)
IUR	Insured unemployment rate in state at time of filing	3.442 (.564)	3.224 (.689)	2.810 (.613)	4.208 (.558)	5.025 (.828)
EARN	Average hourly manufacturing wages in state at time of filing	5.459 (.070)	4.340 (.060)	5.237 (.105)	5.683 (.121)	5.571 (.078)
SEPR	Rate of job separations in state at time of filing	3.985 (.963)	3.989 (.613)	4.553 (1.081)	4.513 (1.665)	3.663 (.447)
WBA	Weekly benefit amount (equals zero if disqualified)	20.719 (33.973)	20.428 (33.388)	23.522 (37.943)	23.514 (42.878)	19.384 (36.676)
WBA^2	Weekly benefit amount squared (equals zero if disqualified)	1582.182 (2779.302)	1530.698 (2770.770)	1991.649 (3599.211)	2388.976 (4838.170)	1719.713 (3694.053)
VQ	1, if disqualified for voluntarily quitting	.351 (.477)	.336 (.472)	.344 (.475)	.383 (.486)	.293 (.455)
DM	1, if disqualified for discharge for misconduct	.280 (.449)	.333 (.471)	.271 (.444)	.282 (.450)	.210 (.407)
RSW	1, if disqualified for refusal of suitable work	.057 (.232)	.018 (.133)	.062 (.240)	.052 (.222)	.235 (.424)
N	Number of observations	921	828	1121	751	1127

the acceptance wage for those individuals who did not return to work. As wages increase, the opportunity cost of being unemployed increases and the worker has greater incentive to return to work. This is the income effect of wages on unemployment. At the same time, higher wages mean the individual is able to purchase more leisure, that is, remain unemployed longer. This is the substitution effect of the wage rate. The income effect is expected to dominate the substitution effect and unemployment is expected to be inversely proportional to the wage rate.*

Three variables were used to measure the impact of the varying economic conditions in the state during the four waves. These variables are constant for each claimant who filed for benefits during a given wave, but vary across the waves. The insured unemployment rate, IUR, acts as a proxy for the state's demand for labor services. As the demand for workers increases (that is, as the IUR decreases), the average duration should decrease. The variable EARN is the average weekly wage in manufacturing industries and is a proxy for changes in the price of labor services. Wage increases not tied to productivity increases may reflect a stiffening of the labor market and increased demand for workers. As real manufacturing earnings go up the average duration of unemployment should decrease. The variable SEPP is the total number of separations in manufacturing industries and also reflects market demand. Increases in job separations are a proxy for increased competition for the available jobs. Because separations occur for several reasons, it is not clear what effects increased separations will have on the demand for labor services.

The weekly amount of UI benefits, WBA, was used to measure the impact of UI on the duration of unemployment. The WBA reflects the flow of funds available to the claimant during his or her unemployment spell. As the WBA increases, the cost of remaining unemployed decreases and unemployment is likely to increase. However, using the WBA to evaluate

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*The existence of fixed consumption expenditures is likely to ensure the dominance of the income effect.

the impact of UI has two problems: (1) the weeks of benefit payment is limited and is often considerably less than the length of the unemployment spell, and (2) the value of the WBA as a function of the previous wage is truncated beyond a certain wage rate.* The first problem means that the WBA cannot be treated as a constant income flow that extends over the duration of unemployment unlike such nonwage income sources as welfare.

Two separate variables were analyzed to adjust for these limitations of the WBA. One variable, the maximum benefits available (MBA), measures the stock of available UI at the beginning of the unemployment period, and thus is an addition to wealth. The other variable that was used was the ratio of the WBA to the previous weekly earnings of the worker, i.e., the gross earnings replacement. Each variable was estimated in separate tobit regressions. The results for these variables were not much different than those obtained using the WBA. Despite the inherent difficulties of using the WBA as a variable, it is the most obvious measure of the receipt of UI and provides greater information than a simple dummy variable indicating UI receipt. Variables that took the value one if the individual was disqualified for quitting without good cause, discharged for misconduct, or refused a suitable work offer were also used.

In the tobit analysis the WBA variable was used only for those who were beneficiaries, although some disqualified may have received UI benefits before the disqualification period began (those disqualified for refusal of suitable work) or after the disqualification period had ended (those whose disqualification period was other than the duration of unemployment). By using this approach the analysis addresses the issue of what is the impact of the WBA among those who were never disqualified.

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*Most states seek to set the WBA at approximately 50% of the previous weekly earnings of the claimant. Beyond a certain earnings level the WBA attains a maximum. Workers with incomes higher than the income necessary to attain a maximum have a WBA that is often considerably less than 50% of their previous earnings.

Method of Aggregation

The analysis was performed separately for each state rather than pooling the data across all states and using a series of state dummy variables and interactions. Differences in the structure of the UI system, the economic conditions prevailing in each state, and the demographic characteristics of the individuals in the sample precluded pooling. In addition, a major objective was the evaluation of the duration of unemployment under different types of penalties. These differences are observed more sharply if the states are not pooled.

VI EMPIRICAL RESULTS--DURATION OF UNEMPLOYMENT

Parameter Estimates

The tobit parameter estimates for the duration of unemployment by state are given in Table 21. The duration variable is in days of unemployment and the tobit coefficients may be interpreted as the marginal effects of the variable on the days of unemployment. However, the coefficients measure the marginal effects for those whose duration is not censored. Comparing the coefficients across the states for given variables enables the differential effect of the variable to be determined.

Examining the demographic and other characteristics of the unemployed worker and their relationship to the duration of unemployment provides some insight into how these characteristics affect the duration of unemployment. The results show a fairly consistent pattern across the states. These variables, while interesting in their own right, serve to correct for differences in the distribution of the personal characteristics across the sample of beneficiaries and the sample of the disqualified.

Demographic Variables

Age

The age pattern presents strong evidence that older workers remain unemployed longer than do young workers. Relative to the omitted age group, those 16-21 years old, those who are 22-34 years old have significantly longer unemployment durations in Georgia and Kansas. In each older age group the duration of unemployment signficantly increases in at least three states. If the worker becomes unemployed after age 54, he or she will have, on average, 88.7 or more days of unemployment in Arizona, 197.9 more in Georgia, 99.7 more in Kansas, and 217.9 more in New York. The increases in the length of the unemployment spell are virtually

Table 21

TOBIT PARAMETER ESTIMATES OF DURATION OF UNEMPLOYMENT--UI EFFECTS, TOTAL SAMPLE
(Standard Errors in Parentheses)

	Arizona	Georgia	Kansas	Louisiana	New York
Constant	2235.914***	1842.359	1545.648*	2051.694***	488.979
	(700.195)	(1221.151)	(870.730)	(483.794)	(664.573)
Demographic Variable					
AGE 22-34	23.734	57.594**	49.037***	15.444	15.960
	(20.868)	(25.128)	(15.738)	(23.524)	(24.340)
AGE 35-44	50.001**	80.799**	60.845***	.161	57.435**
	(24.665)	(33.142)	(22.189)	(32.178)	(33.853)
AGE 45-54	43.869	128.667***	87.795***	80.081**	53.216
	(27.141)	(39.991)	(25.022)	(37.037)	(34.215)
AGE 55	88.712***	197.907***	99.694***	71.237	217.881***
	(30.082)	(50.486)	(25.841)	(44.398)	(34.977)
MALE	-4.025	-39.715**	-68.664***	-33.119	23.918
	(16.008)	(19.600)	(14.793)	(22.720)	(18.119)
WHITE	-64.972***	-131.550***	-93.831***	-102.766***	-84.211***
	(17.223)	(19.922)	(18.516)	(19.509)	(21.006)
EDUC 9-11	-25.249	41.555	-32.535	-51.560*	90.098**
	(28.754)	(30.335)	(27.085)	(31.025)	(37.802)
EDUC 12	-62.428**	16.265	-58.411**	-63.038**	-20.122
	(24.406)	(26.155)	(23.242)	(27.486)	(30.203)
EDUC 13-15	-63.093**	-17.757	-93.516***	-70.836**	-28.789*
	(26.159)	(30.745)	(25.292)	(32.540)	(32.602)
EDUC 16	-91.482***	-22.871	-93.126***	-83.841*	-49.239
	(34.636)	(46.653)	(33.869)	(48.771)	(36.700)
MARR	-3.805	-13.357	-13.840	11.806	15.512***
	(14.199)	(18.506)	(12.372)	(17.844)	(17.405)
WAGE	-12.108***	-15.256**	-5.701	-9.401*	-13.918**
	(3.351)	(7.604)	(3.958)	(5.085)	(5.661)
HOURS	-.918	.349	.530	-.076	.758
	(.616)	(.831)	(.618)	(.739)	(.810)
PROF	6.975	---	1.721	23.191	31.255
	(28.499)		(26.574)	(41.155)	(27.095)
SACLER	20.132	---	3.736	26.530	16.110
	(23.610)		(21.069)	(29.542)	(26.062)
BLUCOL	17.558	---	43.133	-1.026	-5.273
	(23.530)		(20.150)	(28.439)	(24.380)

Table 21 (Concluded)

	Arizona	Georgia	Kansas	Louisiana	New York
Economic Variables					
IUR	28.788	-23.370	-35.921**	-26.858	-.887
	(18.946)	(20.346)	(17.291)	(17.106)	(12.186)
EARN	-378.693***	-290.933	-203.164	-273.534***	-9.090
	(134.700)	(315.426)	(189.297)	(90.850)	(126.437)
SEPR	19.051	-31.791	-5.111	-3.672	-19.304
	(13.777)	(38.875)	(22.930)	(7.043)	(26.284)
UI Variables					
WBA	1.381	-1.558	-1.427**	1.938*	.526
	(1.184)	(1.272)	(.715)	(1.031)	(.949)
WBA^2	-.020	.023	.013*	-.013	-.003
	(.015)	(.016)	(.008)	(.009)	(.010)
σ: Standard error of the linear form	179.972***	219.326***	174.267***	204.463***	234.723***
	(5.607)	(8.027)	(5.053)	(6.406)	(7.196)
Number of observations	921	828	1,121	751	1,127

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

monotonically increasing with each age group. The results demonstrate very dramatically the reemployment difficulties faced by the unemployed older worker.

Sex

In two of the five states, Georgia and Kansas, males have a significantly shorter duration of unemployment. There were few a priori expectations about the effects of sex on the duration of unemployment. Although labor market discrimination against women may exist, the large majority of women workers compete against other women for the jobs traditionally held by women. Under these conditions, employment discrimination is likely to be manifested in lower wages paid to women in similar job categories and with similar experience and background.

Race

In each state, whites have a significantly lower duration of unemployment than do nonwhites. The shorter unemployment duration for whites ranges from about 65 fewer days in Arizona to about 132 fewer days in Georgia. Discrimination in employment is likely to account for a major portion of the observed differences, but it is beyond the scope of this report to determine how much. The finding that statistically equivalent nonwhites, most of whom are black or Spanish surnamed (see Table 11), will remain unemployed for up to 4 months longer than whites is startling, given the increased emphasis on reducing employment discrimination.

Education

The higher the educational level of the unemployed worker, the shorter will be his or her duration of unemployment. The pattern of an inverse relationship between the years of school completed and the duration of unemployment is observed for every state except Georgia. Those unemployed workers who are college graduates can expect to be unemployed 91.5 fewer days in Arizona, 93.1 fewer days in Kansas, and 83.8 fewer days in Louisiana. The results in Georgia and New York, though showing the same pattern, are not significant. The impact of a college degree is similar in

magnitude for these three states and is consistent with a priori expectations. Employers generally use education, and particularly a college degree, as a signal of the expected productivity of the worker. The increased skills that are associated with increased schooling (either through perception or demonstration) make the worker more attractive to a potential employer and more likely to receive a wage offer.

Marital Status

Being married has no statistically significant impact on the duration of unemployment. The finding of no significance in the group as a whole may be masking the impact among subgroups in the sample. For example, it is usually assumed that males with no working spouses would have large incentives to return to work earlier than males with working spouses or single males. Also, females who have working spouses are likely to remain unemployed longer than those females without working spouses or single female heads of households. The data do not permit evaluation of this aspect of the impact of marital status on the duration of unemployment.

Acceptance Wage

For each additional dollar in acceptance wage the duration of unemployment significantly declines by 12.1 days in Arizona, 15.2 days in Georgia, 9.4 days in Louisiana, and 13.9 days in New York. This result appears to be in conflict with the assumption that $\partial D/\partial \omega^* > 0$; that is, the duration of unemployment is positively related to the reservation wage. However, neither the reservation wage nor the distribution of job offers, both key aspects of the duration-reservation wage relationship, was analyzed in this study. The relationship is more accurately described $\partial D_i/\partial \omega_i^*|_{f(\omega)i} > 0$; that is, for any given wage offer distribution facing the ith unemployed worker, the higher the reservation wage the longer the duration of unemployment. The negative relationship between the wage rate and the duration of unemployment suggests that the higher the wage the more costly it is for the worker to remain unemployed, and the sooner the worker returns to work.

Hours of Search

Contrary to expectations, the amount of time spent in job search activity did not significantly reduce the duration of unemployment. A basic assumption of job search literature is that wage offers appear randomly during those units of time devoted to search. Thus, increases in the hours devoted to search activity would increase the likelihood of receiving an acceptable wage offer. If a relationship does exist between search intensity and search duration, we were unable to find it.*

Occupational Differences

For the most part, the last occupation that the worker had before becoming unemployed did not contribute significantly to the duration of unemployment. The professional group was expected to have found employment sooner than the omitted group of service workers. These results suggest that the distribution of wage offers does not vary across occupations once such factors as the education level and the acceptance wage are accounted for.

Economic Effects

The variable IUR measures the unemployment rate; as it increases--signaling a tightening of the labor market--the competition for existing jobs and the average duration of unemployment are expected to increase. This hypothesis is not confirmed by the data. Instead, in the state of Kansas, the only instance in which the increase is significant, the IUR variable is negative, suggesting that the duration of unemployment increases as the unemployment rate decreases. The evidence for an inverse relationship between the duration of unemployment and the unemployment rate is not conclusive and awaits further analysis.

*The lack of significance of the hours of search variable may be related to measurement difficulties. The individual in the sample was asked to recall how many hours he or she spent looking for work over a period of about 9 months. The use of that variable produces high standard errors and no significant effects. Previous research by Felder (1975) showed a significant negative effect of hours of search on the duration of unemployment.

As the demand for workers increases, the average hourly wage paid to employed workers is expected to increase. The variable EARN, the average hourly wage rate in manufacturing industries, is a proxy for changes in labor demand. The significant negative relationships for Arizona and Louisiana reflect the impact of increases in demand on the duration of unemployment. The variable SEPR is a proxy for the level of turnover in the labor market. As job separations increase, the duration of unemployment is expected to increase as job competition increases and the number of separations reflect reduced demand. This variable does not significantly affect the duration of unemployment.

The estimation results for the parameters of the economic variables are disappointing. These three variables did not capture the uncertain economic conditions that surround the unemployed worker. Also, there were only four different observations (corresponding to the four waves) for each variable, and this may have contributed to the lack of significance of the economic effects.

Tests of Hypotheses

The tobit regressions are used to test the following null hypotheses about the duration of unemployment:

Hypothesis 1: The receipt of UI has no effect on the duration of unemployment.

Hypothesis 2: There are no differences in the duration of unemployment related to the type of disqualification.

Hypothesis 3: There are no differences in the duration of unemployment of the beneficiaries and those who are disqualified because they voluntarily quit without good cause.

Hypothesis 4: There are no differences in the duration of unemployment of the beneficiaries and those who are disqualified because they were discharged for misconduct.

Hypothesis 5: There are no differences in the duration of unemployment of the beneficiaries and those who are disqualified because they refused a suitable work offer.

To test these five null hypotheses, the duration of unemployment equation was estimated with five separate groups. The parameter estimates discussed above came from the testing of Hypothesis 1. The four

other parameter estimates of the non-UI variables are similar to those shown in Table 21 and in Appendix E. The UI and disqualification parameter estimates are shown in Table 22.

Hypothesis 1: UI Effects

When the beneficiary and the disqualified samples are pooled, we detect significant UI effects in only two of the five states.* The estimates suggest that in Kansas beneficiaries have a significantly shorter duration of unemployment than the disqualified. In Louisiana, beneficiaries have a significantly longer duration of unemployment than the disqualified. The findings for Kansas appear to be at odds with much of the empirical evidence regarding the impact of the UI on the duration of unemployment.†

The quadratic form suggests that for every $10 increase in the WBA, the duration of unemployment declines by an amount that depends on the value of the WBA. For example, at a WBA level in Kansas of $70, the decline in the duration of unemployment is 36.2 days,‡ but at a WBA of $55 the decline in the duration of unemployment is 39.2 days. Because of the quadratic, the value of the decline in the duration attains a maximum, which for Kansas occurs at a WBA of about $55. For Louisiana, the receipt of $70 in WBA means that the duration of unemployment will increase by 72.0 days, which is close to the maximum increase. At $55, the increase in the duration of unemployment is 67.2 days.

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*In New York the refusal of suitable work disqualifications have a heavier than normal weighting and restrict the ability of the equation to produce significant estimates. This problem occurs to a lesser extent in the other states.

†Researchers usually have discovered a positive relationship between the receipt of UI and the duration of unemployment. Hamermesh (1977) presents an excellent review of the empirical evidence of the UI/duration relationship.

‡The change in the duration = -1.426(70) + .013(70x70) = -36.2 days.

Table 22

PARAMETER ESTIMATES OF UI AND DISQUALIFICATION VARIABLES
(Standard Errors in Parentheses)

Group	Variable	Arizona	Georgia	Kansas	Louisiana	New York
1. Pooled beneficiaries and all disqualified	WBA	1.381	-1.558	-1.427**	1.938*	.526
		(1.184)	(1.272)	(.715)	(1.031)	(.949)
	WBA^2	-.020	- .020	.013*	- .013	- .003
		(.015)	(.016)	(.008)	(.009)	(.010)
2. Pooled beneficiaries and all disqualified	VQ	- .858	-29.590	16.385	-57.483***	-63.710***
		(16.806)	(22.158)	(14.515)	(23.053)	(21.791)
	DM	18.107	32.053	20.833	-74.604***	-65.033***
		(17.972)	(23.296)	(15.757)	(25.099)	(24.120)
	RSW	49.171	-127.327***	75.968***	18.945	82.962***
		(30.588)	(60.687)	(26.687)	(42.764)	(22.723)
3. Pooled beneficiaries and voluntary quits	WBA	2.008*	- .732	-1.170	1.891*	1.562*
		(1.174)	(1.233)	(.737)	(1.057)	(.844)
	WBA^2	- .026*	.016	.012	- .012	- .008
		(.015)	(.015)	(.008)	(.010)	(.009)
4. Pooled beneficiaries and discharged for misconduct	WBA	1.481	-2.767*	-1.415*	2.536**	1.824*
		(1.326)	(1.503)	(.806)	(1.104)	(.997)
	WBA^2	- .022	.034	.015	- .020**	- .009
		(.016)	(.018)	(.008)	(.010)	(.010)
5. Pooled beneficiaries and refused suitable work	WBA	.716	2.806	-2.809***	.129	-2.469*
		(1.493)	(2.199)	(.974)	(1.595)	(1.131)
	WBA^2	- .020	- .013	.024**	.005	.016
		(.017)	(.022)	(.009)	(.013)	(.011)

*Significant at the .10 level.
**Significant at the .05 level.
***Significant at the .01 level.

The evidence from Kansas and Louisiana suggests that disaggregation of the disqualified group into their three components might provide more insight into the relationship between the beneficiaries and the disqualified. The disqualified may not be a homogeneous group as relates to their readiness for employment, hence, they may have very different durations of unemployment. The remaining hypothesis tests seek to differentiate the duration of unemployment of the various disqualified groups relative to the beneficiaries.

Hypothesis 2: Disqualification Effects

The beneficiaries and the disqualified were pooled but in place of the WBA variables three dummy variables representing the three disqualifying acts were used. These variables tested the differential impact of being in the various disqualified groups on the duration of unemployment.

Voluntary Quits

In Louisiana and New York those who voluntarily quit work and are subsequently disqualified have 57.5 and 63.7 fewer days of unemployment, respectively, than those who receive UI benefits. The coefficients for the other states are not significant. The finding that job-quitters who are disqualified return to work sooner is consistent with the hypothesis that these workers planned for the unemployment period and more quickly returned to work. (However, compared to those who were fired, there may not be significant differences. The lack of difference between the quitters and the fired reduces the likelihood that the quitters were better prepared.) The reduction in the duration of unemployment for the quitters is consistent with the earlier finding that in Louisiana those who receive benefits are likely to remain unemployed longer.

Discharge for Misconduct

Relative to those who receive UI benefits, those who are discharged for misconduct in Louisiana and New York have 74.6 and 65.0 fewer days of unemployment, respectively. The other coefficients are not significant. These results also confirm the increased duration of unemployment of those who receive UI benefits.

Refusal of Suitable Work

In three states--Georgia, Kansas, and New York--those who refuse suitable work offers have significantly different durations of unemployment. In Georgia they have 127.3 fewer days of unemployment than the beneficiaries while in Kansas and New York they have 76.0 and 83.0 more days of unemployment, respectively. The results for Kansas and New York clarify the earlier findings for those states. The coefficients on WBA and WBA^2 were not significant for New York when all the disqualified were pooled, because in New York the refusal of suitable work group had a longer duration of unemployment while those who quit or were discharged had a shorter one. The net result was no significant impact with the total sample. In Kansas the significantly longer duration for those who refused a suitable work offer means that a significant portion of the negative impact of the WBA variable (Hypothesis 1) comes from the longer duration of those who refused suitable work. In Georgia, by contrast, those who refused a suitable work offer had a significantly lower average duration of unemployment. This result is somewhat surprising given that those disqualified for refusal usually have received some benefits prior to the disqualification and this result suggests that they return to work not very long after the disqualification occurs.

The results of the test of the disqualification effects provide information that is not available through a test of the UI effects alone. The major finding is that the reaction to the duration of unemployment of the disqualified worker depends very much on the reason for the disqualification. The evidence presented here suggests that those who quit or are fired will return to work sooner than those who receive benefits. However, those who refuse suitable work, on average, will remain unemployed longer.

Test of Hypotheses 3, 4, and 5

To test hypotheses 3, 4, and 5 the beneficiary group was pooled with each of the disqualified group. The pooling permitted a direct evaluation of the impact of the disqualification penalty.

The three tests for the effects of UI on the duration of unemployment confirm what was observed earlier--the disqualified do not react in the same way as the beneficiaries to unemployment. However, the pattern of the results differs across the states. The strongest effects are observed when the beneficiaries are pooled with those who were discharged for misconduct. In two states, Georgia and Kansas, the duration of unemployment for those who received UI benefits was significantly less than that for the disqualified, which is consistent with the hypothesis that those who are fired are less attractive to prospective employers, and hence remain unemployed longer. On the other hand, in Louisiana and Georgia, those who are fired return to work sooner than those who receive UI benefits.

Impact of Different Disqualification Penalties

In Arizona, Louisiana, and New York those who are disqualified for voluntarily quitting without good cause have significantly shorter spells of unemployment than do those who receive benefits. In each of these states the disqualification penalty for voluntarily quitting is that benefits are postponed for the duration of unemployment. In Louisiana and New York those disqualified because of discharge for misconduct also have significantly shorter spells of unemployment than do those who receive benefits. However, in Georgia and Kansas where benefits are postponed for a fixed or variable number of weeks, those who are disqualified because of a discharge for misconduct have significantly longer durations of unemployment than do those who receive benefits. In each instance, when benefits were postponed for the duration of unemployment the disqualified worker had a shorter average spell of unemployment than did those who received benefits. Also, when benefits were postponed for a fixed or variable number of weeks, the disqualified had a longer average spell of unemployment than did those who received benefits.

The results show very dramatically that, on average, when benefits are denied for the duration of unemployment the disqualified worker goes back to work sooner than the unemployed worker who received benefits; when benefits are denied for a fixed or variable period of time that is less

than the duration of unemployment, the disqualified worker remains unemployed longer than the unemployed worker who received benefits. The type of penalty matters. The more stringent the disqualification penalty, the sooner the disqualified worker is likely to return to work. This conclusion is consistent with the findings of a significant negative impact of the receipt of UI in Kansas; it is consistent with the finding of a significant reduction in the duration of unemployment in Georgia for those who were disqualified due to refusal of suitable work (Georgia has a duration of unemployment penalty for that type of disqualification); and this conclusion is also consistent with differences in the signs (depending on the state) of the effects of UI on the duration of unemployment. When benefits are postponed for a fixed number of weeks the disqualified claimant has an incentive to remain unemployed longer.

Predicted Duration of Unemployment

Predictions of the duration of unemployment are presented in Tables 23, 24, and 25. The predictions are made using tobit estimations on the pooled samples of the beneficiaries with each disqualified group. The prediction equation* is:

$$\hat{D}_j = \hat{\beta}_o + \hat{\beta}_1 \overline{AGEL} + \ldots + \hat{\beta}_{21} \overline{WBA}_{Bj} + \hat{\beta} \overline{WBA}^2_{Bj} \qquad (7)$$

where $\hat{}$ indicates the predicted value of the duration variable or the estimated coefficient, $\overline{}$ indicates the mean value of the variable, and j is the group for which the estimate was made. The prediction equations for the beneficiaries include the mean value of the WBA and WBA^2 of the beneficiaries, B, and are zero for the disqualified.† The prediction

*The tobit prediction equation is nonlinear and uses the normalized coefficient, $\hat{\beta}/\hat{\sigma}$, rather than the nonnormalized coefficient, $\hat{\beta}$. However, this representation provides a visible example of the prediction procedure.

†The predictions vary for the beneficiaries across the three groups with which the beneficiaries are pooled because of changes in the sample sizes and the variation in the distribution of variables across the various pooled samples.

Table 23

PREDICTED NUMBER OF DAYS OF UNEMPLOYMENT--VOLUNTARY QU

	Arizona		Georgia		Kansas		Louisi
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.
Total	204	257*	295	185**	212	268**	279
Males	198	261**	309	191***	179	223*	270
Females	221	252	281	178**	248	316***	300
White	195	248*	277	167**	208	262**	262
Nonwhite	266	317*	340	232**	274	338***	323

Note: Benf. = beneficiaries; Dsq. = disqualified group.

*Statistically significant at .10 level.

**Statistically significant at .05 level.

***Statistically significant at .01 level.

Table 24

PREDICTED NUMBER OF DAYS OF UNEMPLOYMENT--DISMISSED FOR MISCONDUCT

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Total	218	232	332	347	220	229	278	236*	347	276***
Males	214	235	330	333	204	205	263	229	359	285***
Females	226	225	338	366	244	264	312	250**	328	262***
White	206	220	292	303	209	217	239	201	324	254***
Nonwhite	262	274	392	415	286	304	339	286**	408	334***

Note: Benf. = beneficiaries; Dsq. = disqualified group.

*Statistically significant at .10 level.

**Statistically significant at .05 level.

***Statistically significant at .01 level.

Table 25

PREDICTED NUMBER OF DAYS OF UNEMPLOYMENT--REFUSAL OF SUITABLE WORK

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Total	211	209	296	266	210	220	285	235**	327	267***
Males	203	208	286	248*	187	189	268	222**	355	292***
Females	227	211	303	283	232	251	309	253**	298	242***
White	201	199	269	237*	204	213	252	205**	311	253***
Nonwhite	261	256	367	343	279	295	371	316**	399	336***

Note: Benf. = beneficiaries; Dsq. = disqualified group.

*Statistically significant at .10 level.

**Statistically significant at .05 level.

***Statistically significant at .01 level.

method produces the standard error of the prediction and permits a test of the statistical significance of the difference. These tables also show the results of the test of the null hypothesis: $\hat{D}_{jQ} - \hat{D}_{jB} = 0$; that is, there is no difference in the predicted duration of the disqualified, Q, and the beneficiaries, β.

The predicted durations of unemployment presented in Tables 23, 24, and 25 are substantially larger than the nominal 6 or 8 weeks usually associated with the normal period of unemployment. The Current Population Survey (CPS) is often used as a barometer of the average duration of unemployment. For that reason we can compare these results with those of the CPS. The average duration of unemployment for the unemployed in the CPS surveys during the time that the sample was observed ranged from 13.8 weeks to 16.5 weeks (see Table 26). On the other hand, the predicted duration of unemployment of all beneficiaries ranges from 30.0 weeks (210 days) in Arizona and Kansas to a soaring 46.7 weeks (327 days) in New York (using the predictions from the voluntary quit group). The range for the voluntary quits disqualified is 29.9 weeks (209 days) in Arizona to 38.1 weeks (267 days) in New York. The range of the duration of unemployment for discharged for misconduct disqualified is from 32.7 weeks in Kansas to 49.6 weeks in Georgia. The average range of the duration of unemployment for those disqualified for refusal of suitable work is from 26.4 weeks

Table 26

DURATION OF UNEMPLOYMENT OF CPS SAMPLE
(Weeks)

	1976				1977			
Quarter	I	II	III	IV	I	II	III	IV
Weeks	16.5	15.9	15.5	15.3	14.8	14.5	13.9	13.8

Source: U.S. Government Printing Office, Employment and Training Report of the President, Table 4, p. 22 (May 1978).

in Georgia to 57.0 weeks in New York. While these predicted weeks of unemployment duration are substantially higher than the mean duration of the CPS survey, the differences between the two estimates are partly due to differences in the way they are measured.

Secondly, although specific tests were not made of racial or sexual differences, the predictions indicate that in nearly every category females remain unemployed longer than males and nonwhites remain unemployed longer than whites. Other subgroup predictions were not made but the results may be inferred from the signs and magnitude of the coefficient estimates. The predictions show that for some subgroups the duration of unemployment is well above the mean value predicted for the total group (for example, 75.4 weeks for nonwhites in New York who are disqualified for refusal of suitable work). At the opposite extreme are such groups as male beneficiaries in Kansas who have a relatively short predicted duration of unemployment of 26.7 weeks. Such examples suggest that a single number attached to the duration of unemployment may mask large variances in the actual duration.

Thirdly, the test of the predicted differences between the beneficiaries and the disqualified of the duration of unemployment shows similar patterns to those of the predicted coefficients; that is, the disqualifieds are predicted to have significantly longer or shorter durations of unemployment than the beneficiaries, depending on the reason for the disqualification and the type of penalty for the disqualifying act.

Predicted Impact of the Penalty

Although the receipt of UI benefits significantly affects the duration of unemployment, the simultaneous use of the variables that defined the UI treatment (WBA) and the penalty type produced such serious multicollinearity as to make the effects of both types of variables negligible. Instead, to measure the impact of the penalty, the duration of unemployment was predicted for the disqualified using the value of the WBA that the individual would have received if he or she had not been disqualified.

As was true for the earlier predictions, the mean value of the beneficiaries' WBA is used to predict their duration. The difference, $\hat{D}_B - \hat{D}_Q$, is defined as the impact of the penalty on the duration of unemployment. The predicted differences and tests of significance of the differences are shown in Table 27. The full set of predicted durations is found in Appendix E.

The results of Table 27 suggest that if those who were disqualified were to receive UI payments there would be no statistically significant differences in the duration of unemployment of the beneficiaries and the disqualified in Kansas, Louisiana, and New York.* In Arizona and Georgia significant differences exist but if the disqualified had received UI benefits they would have had a shorter duration of unemployment than the beneficiaries of less than one week.

These results combined with the earlier results regarding the impact of the receipt of UI suggest that the differences between the beneficiaries in the duration of unemployment are almost exclusively a function of the receipt of UI. The results of this section indicate that if the disqualified had been given the benefits to which they were monetarily entitled their duration of unemployment would have been very similar to that of the beneficiaries. From this analysis it is concluded that any attribute or behavior that causes disqualification is not necessarily reflected in the subsequent duration of unemployment.

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*Although the numerical differences are large, the standard errors of the predicted differences are also large--hence, the differences are not statistically significant.

Table 27

PREDICTED IMPACT OF PENALTIES[1]

	Arizona	Georgia	Kansas	Louisiana	New York
			Voluntary Quits		
Total	6*	-5	-2	4	1
Males	4	-3	-3	4	-2
Females	-2	-2*	-1	1	1
Whites	6*	-5	-3	5	0
Nonwhites	2*	-6	4	2	-1
			Discharge for Misconduct		
Total	6	-3*	-2	15	-2
Males	-9*	-7*	0	19	-5
Females	2	-4*	1	3	-2
Whites	7	0	-3	12	-3
Nonwhites	1	-3*	8	10	0
			Refusal of Suitable Work		
Total	-7*	-3	-7	-20	-3
Males	-3**	4*	-9	-10	-4
Females	-1	-4*	-1	-3	-2
Whites	-5*	-4	-8	-14	-3
Nonwhites	15**	-1	-2	7	-4

[1]Calculated: $\hat{D}_Q - \hat{D}_B$ with $\hat{D}_Q$ calculated at the mean value of the UI variables for the disqualified group.

*Significantly different from beneficiaries at .10 level.

**Significantly different from beneficiaries at .05 level.

VII EMPIRICAL RESULTS--POSTUNEMPLOYMENT EXPERIENCES

The search theory presented in Chapter IV suggests that the unemployed worker searches for the job that provides the highest expected value of wage and nonpecuniary returns. The receipt of UI finances the unemployment period and any extension of the duration of unemployment is used to find a more satisfactory job. In this chapter, the postunemployment experiences of the beneficiaries and the disqualified people in the sample are evaluated using the postunemployment labor force status, the level of job satisfaction, and the relative changes in the postunemployment wages and earnings.*

Postunemployment Labor Force Status

The postunemployment labor force status is defined in four categories. The person (1) found a job and is still working, (2) did not find a job but is still looking, (3) did not find a job but stopped looking, and (4) found a job but is unemployed again.

In Table 28 the percentage distribution and the sample sizes of the beneficiaries and disqualified samples in these four categories are shown. Much of the information implied by this table has already been discussed in the previous section but two issues have not been explored before. The first is the percentage of workers who have apparently left the labor force (did not find job and are not looking) and the second is the percentage of workers who became unemployed once again.

The percentage of beneficiaries who stopped looking before finding a job ranged from 33.3% in Georgia to 19.3% in New York. This finding that between one-fifth and one-third of all beneficiaries stop looking

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*The analysis in this chapter focuses on those who became employed during the period of observation; thus, they are a self-selecting group.

Table 28

LABOR FORCE STATUS OF SAMPLE AT THE END OF THE SURVEY
(Percentage in Parentheses)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
1. Found job, still working	188 (54.7)	364 (50.2)	124 (37.9)	283 (40.8)	226 (54.6)	413 (47.4)	115 (42.0)	292 (41.7)	131 (38.3)	415 (41.8)
2. Did not find job, still looking	49 (14.2)	162 (22.3)	72 (22.0)	197 (28.4)	65 (15.7)	192 (22.0)	55 (20.1)	152 (21.7)	114 (33.3)	256 (25.8)
3. Did not find job, not looking	77 (22.4)	121 (16.7)	109 (33.3)	127 (18.3)	84 (20.3)	179 (20.6)	80 (29.2)	159 (22.7)	66 (19.3)	188 (18.9)
4. Found job, now unemployed again	30 (8.7)	78 (10.8)	22 (6.7)	87 (12.5)	39 (9.4)	87 (10.0)	24 (8.8)	98 (14.0)	31 (9.1)	134 (13.5)
Total*	344 (100.0)		327 (99.9)	694 (100.0)	414 (100.0)	871 (100.0)	274 (100.1)	701 (100.1)	342 (100.0)	993 (100.0)

Note: Benf. = beneficiaries; Dsq. = disqualified group.

*Numbers may not sum to 100% due to rounding.

for a job after about 10 months is very surprising. By contrast, the percentages of the disqualified who stopped looking ranges from 16.7% in Arizona to 22.7% in Louisiana. The differences in the percentage who have stopped looking are significant in Arizona, Georgia, and Louisiana. It is not known how the respondents interpreted the questions regarding labor force status and it cannot be inferred that those who indicated that they were not "currently looking for work" were out of the labor force. However, the data suggest that there may be some differences between the beneficiaries and the disqualified in the likelihood that the worker will leave unemployment. Substantiation of any such differences may have significance for the labor participation rates of the beneficiaries and the disqualified. The results are consistent with the hypothesis that some beneficiaries remain in the labor force as long as this is a requirement for receiving UI benefits. Once these benefits have been exhausted these individuals tend to drop out of the labor force.

Table 28 also shows that between 6.7% and 9.1% of the beneficiaries and between 10.0% and 13.5% of the disqualified found a job during the period of observation but became unemployed once again. In states like Louisiana and New York, where the disqualification penalty includes reemployment earnings requirements, many of the disqualified may have subsequently requalified for benefits. Also, many of the disqualified may have become disqualified again at the start of the new unemployment spell. However, the data cannot support the tests of any hypothesis regarding new disqualifications.

Postunemployment Job Satisfaction

Other measures of the returns to search are the levels of nonpecuniary satisfaction that the worker receives in his or her postunemployment job. To evaluate such job satisfaction, each individual was asked to rate six aspects of his or her pre- and postunemployment job: (1) wages, (2) hours of work, (3) supervisor, (4) type of work, (5) surroundings, and (6) chance for advancement. The null hypothesis was that there were no differences in the postunemployment job satisfaction of the beneficiaries and the disqualified. The percentages of the workers satisfied with the various

aspects of the postunemployment job experiences are shown on Tables 29, 30, and 31.

These tables show that there are virtually no differences between the disqualified and the beneficiaries in the percentages of satisfied workers, and few differences in satisfaction by race or sex. By far, workers of all types are overwhelmingly satisfied with their hours of work, their supervisors, the type of work they are doing, and the surroundings on their jobs. To a lesser extent they are satisfied with their wages and their chances for advancement.

Postunemployment Wages and Earnings

The most important and easily obtained measure of success in job search is the wage rate obtained in the first job obtained after the unemployment spell. A more desirable measure of the return to job search activity is the discounted present value of the wage earnings on the job.* However, in the absence of those data, the first wage received by the worker after a spell of unemployment presents a reasonable alternative. A condition for removing the disqualification, when the penalty is the duration of unemployment, is often that the worker must earn on the postunemployment job an amount equal to a multiple of the WBA. Thus, a worker who wishes to remove a disqualification may choose to take a job with high wages but restricted hours. For this reason and because they include the hours of work per week, the weekly earnings of the worker provides information about the returns to search that is not available through an evaluation of the postunemployment wage rate alone. Accordingly, two equations were estimated to test the hypothesis that the changes in wages or earnings are affected by the duration of unemployment and by whether or not the individual is a beneficiary. The estimated equations for the ith person are of the form:

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*The returns to search are given as Equation 3 from Chapter V. They embody the flow of funds over the length of time that the job is held. Jobs that have high wages but last for a very short time may have smaller returns than jobs with lower wages but longer duration.

Table 29

PERCENT SATISFIED WITH JOB CHARACTERISTICS BY UI STATUS
(Sample Size in Parentheses)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Wages	69.0 (203)	59.8 (435)	62.5 (136)	64.2 (358)	70.0 (260)	63.4 (489)	78.1 (128)	60.8 (372)	68.4 (155)	53.0 (530)
Hours of Work	80.8 (203)	81.3 (434)	82.4 (131)	81.5 (356)	87.3 (260)	83.0 (488)	89.8 (127)	78.7 (367)	82.5 (154)	78.2 (533)
Supervisor	85.1 (201)	85.5 (434)	86.4 (132)	87.3 (353)	87.3 (259)	84.5 (485)	94.4 (125)	86.4 (361)	84.2 (152)	85.8 (521)
Type of Work	86.7 (203)	80.2 (435)	80.9 (131)	81.6 (354)	86.1 (259)	82.1 (486)	91.1 (124)	80.9 (366)	85.4 (151)	79.1 (530)
Surroundings	81.3 (203)	81.9 (437)	78.6 (131)	84.3 (356)	82.5 (257)	81.1 (486)	85.0 (127)	79.7 (364)	78.4 (153)	74.3 (526)
Advancement	58.7 (201)	47.9 (424)	49.2 (130)	56.7 (351)	47.3 (258)	52.2 (481)	68.5 (124)	52.5 (362)	52.0 (148)	44.4 (511)

Note: Benf. = beneficiaries; Dsq. = disqualified group.

Table 30

PERCENT SATISFIED WITH JOB CHARACTERISTICS BY SEX

(Sample Size in Parentheses)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Wages	61.4 (383)	64.7 (225)	62.6 (254)	65.0 (240)	67.4 (411)	63.6 (338)	65.6 (311)	65.6 (186)	58.3 (350)	54.4 (331)
Hours of Work	79.0 (385)	84.5 (252)	81.5 (248)	82.0 (239)	83.7 (410)	85.5 (338)	81.0 (305)	82.8 (186)	77.9 (352)	81.0 (331)
Supervisor	84.6 (382)	86.6 (253)	88.1 (244)	85.9 (241)	84.5 (407)	86.6 (337)	86.6 (299)	91.8 (184)	85.5 (339)	85.5 (330)
Type of Work	83.9 (384)	79.9 (254)	81.7 (246)	81.2 (239)	81.7 (409)	85.7 (336)	82.2 (298)	86.2 (189)	81.6 (347)	79.4 (330)
Surroundings	81.6 (386)	81.9 (254)	83.5 (248)	82.0 (239)	81.8 (406)	81.3 (337)	79.1 (302)	84.9 (186)	79.1 (345)	71.2 (330)
Advancement	51.3 (380)	51.4 (245)	55.6 (248)	53.6 (233)	50.5 (406)	50.5 (333)	55.5 (299)	59.2 (184)	50.9 (336)	41.1 (319)

Table 31

PERCENT SATISFIED WITH JOB CHARACTERISTICS BY RACE

(Sample Size in Parentheses)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White
Wages	64.3 (115)	62.1 (517)	57.5 (134)	66.1 (360)	54.3 (70)	66.9 (679)	59.1 (159)	67.8 (339)	51.8 (114)	57.3 (567)
Hours of Work	77.2 (114)	82.0 (517)	80.5 (128)	82.2 (359)	79.4 (68)	85.0 (680)	77.7 (157)	83.3 (335)	75.7 (115)	79.9 (568)
Supervisor	85.2 (115)	85.4 (514)	84.9 (126)	87.7 (359)	79.4 (68)	86.1 (676)	88.6 (152)	88.3 (332)	81.7 (109)	86.2 (560)
Type of Work	80.9 (115)	82.6 (517)	76.8 (125)	83.1 (360)	79.4 (68)	83.9 (677)	82.2 (152)	83.9 (336)	81.3 (112)	80.2 (564)
Surroundings	85.2 (115)	80.9 (519)	8.25 (126)	82.8 (361)	79.1 (67)	81.8 (676)	81.7 (153)	81.0 (336)	75.5 (110)	75.0 (565)
Advancement	56.8 (111)	50.2 (508)	54.0 (124)	54.9 (357)	54.4 (68)	50.1 (671)	52.6 (154)	58.5 (330)	44.5 (110)	46.4 (545)

$$\left(\frac{Y_2 - Y_1}{Y_1}\right) = f_1 (D_i, B_i, S_i, Z_i) \quad (8a)$$

$$\left(\frac{W_2 - W_1}{W_1}\right)_i = f_2 (D_i, B_i, S_i, Z_i) \quad (8b)$$

where

Y_1 = Average weekly earnings before the unemployment spell
Y_2 = Average weekly earnings after the unemployment spell
W_1 = Average wage rate before the unemployment spell
W_2 = Average wage rate after the unemployment spell
D = Duration of unemployment
B = 1, if the individual is a beneficiary
S = Vector of characteristics of the state
Z = Vector of characteristics of the individual.

These equations were estimated for each sample state using ordinary least squares. The means and standard deviations of the variables used in the regressions are found in Table 32 and the parameter estimates of the change in wages and change in earnings are found in Table 33.

When the dependent variables in these regressions are multiplied by 100, they give the nominal* percentage change in the wage or earnings. For those who returned to work, the percentage increase in wages was 5.8% in Arizona, 8.3% in Georgia, 8.3% in Kansas, 7.3% in Louisiana, and 6.5% in New York. The percentage increase in earnings was comparable, ranging from 7.8% in Georgia to 9.5% in Arizona. The average wage or earnings increase was relatively high, because it occurred over an average period of about 120 days.†

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*Unadjusted for inflation.

†Those in the sample who returned to work had substantially shorter average durations of unemployment than the entire sample. The averages were 99 days in Arizona, 120 days in Georgia, 102 days in Kansas, 100 days in Louisiana, and 140 days in New York.

Table 32

MEANS AND STANDARD DEVIATIONS OF THE VARIABLES USED IN THE RELATIVE WAGE AND INCOME CHANGE EQUATIONS
(Standard Deviations in Parentheses)

Symbol	Description	Arizona	Georgia	Kansas	Louisiana	New York
DUR	Duration of unemployment in days	99.954 (92.434)	120.115 (113.165)	102.899 (93.513)	100.469 (118.360)	140.944 (120.471)
AGE 22-34	1, if age between 22 and 34 years	.493 (.500)	.569 (.496)	.516 (.500)	.549 (.498)	.536 (.499)
AGE 35-44	1, if age between 35-44 years	.170 (.376)	.131 (.338)	.120 (.326)	.128 (.335)	.118 (.322)
AGE 45-54	1, if age between 45-54 years	.130 (.337)	.074 (.262)	.082 (.275)	.080 (.271)	.102 (.303)
AGE 55	1, if age at least 55 years	.074 (.262)	.037 (.189)	.069 (.254)	.051 (.220)	.073 (.260)
EDUC 9-11	1, if completed education between 9 and 11 years	.102 (.303)	.150 (.359)	.109 (.312)	.157 (.364)	.073 (.260)
EDUC 12	1, if completed high school and no more	.415 (.493)	.431 (.496)	.462 (.499)	.465 (.499)	.391 (.488)
EDUC 13-15	1, if completed education between 13 and 15 years	.295 (.456)	.198 (.399)	.283 (.451)	.190 (.393)	.291 (.454)
EDUC 16	1, if completed education was at least 16 years	.102 (.303)	.059 (.236)	.071 (.257)	.055 (.229)	.162 (.369)
MALE	1, if male	.605 (.489)	.525 (.500)	.540 (.499)	.602 (.490)	.513 (.500)
WHITE	1, if white	.822 (.383)	.736 (.441	.905 (.293)	.686 (.465)	.828 (.377)
MARR	1, if married	.616 (.487)	.580 (.494	.601 (.490)	.556 (.497)	.492 (.500)
PROF	1, if preunemployment occupation was professional	.159 (.338)	----	.135 (.326)	.075 (.252)	.232 (.415)
SACLER	1, if preunemployment occupation was sales or clerical	.269 (.409)	----	.301 (.437)	.310 (.452)	.255 (.430)
BLUCOL	1, if preunemployment occupation was trades, crafts, or operations	.424 (.459)	----	.434 (.467)	.486 (.496)	.333 (.468)
IUR	Insured unemployment rate in state at time of filing	3.423 (.567)	3.243 (.691)	2.828 (.627)	4.237 (.562)	5.016 (.827)
EARN	Average hourly manufacturing wages in state at time of filing	5.462 (.070)	4.342 (.060)	5.237 (.108)	5.693 (.116)	5.572 (.079)
SEPR	Rate of job separations in state at time of filing	4.021 (.982)	4.010 (.633)	4.559 (1.116)	4.573 (1.703)	3.675 (.453)
BENF	1, if not disqualified	.316 (.465)	.272 (.446)	.341 (.475)	.252 (.435)	.220 (.414)

Table 33

PARAMETER ESTIMATES OF THE CHANGES IN WAGES AND EARNINGS EQUATIONS
(Standard Errors in Parentheses)

	Arizona		Georgia		Kansas		Louisiana		New York	
	ΔW	ΔY	ΔW	ΔY	ΔW	ΔY	ΔW	ΔY	ΔW	ΔY
Constant	1.686	4.498	-3.066	- .152	-1.178	4.472	- .511	.321	- .581	.840
	(2.095)	(3.193)	(2.804)	(3.905)	(2.534)	(3.843)	(1.222)	(1.783)	(1.780)	(2.647)
Duration/1000	- .184	.616*	.044	- .192	.307*	- .332	.021	.139	- .303*	-.172
	(.209)	(.319)	(.178)	(.260)	(.176)	(.268)	(.176)	(.256)	(.178)	(.261)
Beneficiary	.022	.099	.014	.073	.023	.120**	- .030	.036	- .056	.025
	(.042)	(.064)	(.045)	(.063)	(.036)	(.054)	(.050)	(.073)	(.054)	(.079)
Demographic Variables										
AGE 22-34	.114*	- .134	.041	- .052	- .005	- .122*	- .077	- .005	- .040	- .171*
	(.062)	(.094	(.054)	(.075)	(.044)	(.067)	(.056)	(.082)	(.064)	(.093)
AGE 35-44	- .118	- .054	.055	- .086	.052	- .113	- .062	- .018	.046	- .881
	(.073)	(.111)	(.072)	(.101)	(.061)	(.092)	(.078)	(.113)	(.090)	(.131)
AGE 45-54	- .064	- .090	- .030	- .119	- .044	- .151	- .061	- .118	- .120	- .286**
	(.079)	(.072	(.090)	(.125)	(.072)	(.109)	(.090)	(.130)	(.090)	(.131)
AGE 55+	- .156*	- .293**	.043	.337	- .104	- .357***	- .159	- .134	.055	- .163
	(.090)	(.137)	(.116)	(.165)	(.074)	(.114)	(.108)	(.161)	(.102)	(.148)
MALE	- .006	- .116	.048	.002	.085**	.085	.101	.139*	.075	.120*
	(.046)	(.070)	(.041)	(.056)	(.039)	(.059)	(.053)	(.078)	(.047)	(.069)
WHITE	.044	.127	.016	- .054	- .070	- .087	.026	- .027	- .100*	- .092
	(.054)	(.082)	(.047)	(.066)	(.054)	(.086)	(.047)	(.069)	(.059)	(.087)
EDUC 9-11	- .166	- .293**	- .051	- .078	- .068	- .132	.029	- .068	- .041	.049
	(.091)	(.139)	(.071)	(.099)	(.081)	(.125)	(.078)	(.115)	(.110)	(.163)
EDUC 12	- .011	- .211	- .046	- .033	- .046	- .183*	- .098	- .168	- .088	- .019
	(.077)	(.117)	(.060)	(.083)	(.069)	(.108)	(.070)	(.102)	(.086)	(.127)
EDUC 13-15	- .071	- .350***	- .047)	.028	- .027	- .119	- .076	- .224*	- .059	- .040
	(.081)	(.124)	(.068)	(.095)	(.074)	(.115)	(.081)	(.119)	(.091)	(.134)
EDUC 16+	.025	- .114	- .028	- .131	- .129	- .113	- .217*	- .292*	.031	.077
	(.103)	(.156)	(.098)	(.137)	(.095)	(.147)	(.115)	(.169)	(.100)	(.148)
MARR	.004	- .048	- .005	.015	- .081**	.084	- .034	- .107*	- .060	.037
	(.042)	(.064)	(.042)	(.059)	(.035)	(.053)	(.044)	(.064)	(.048)	(.069)
PROF	- .177**	- .298**	---	---	.106	- .196*	.015	- .100	.0002	- .004
	(.081)	(.123)			(.071)	(.109)	(.102)	(.154)	(.071)	(.104)
SACLER	- .092	- .058	---	---	- .007	- .153*	- .035	- .078	.027	.102
	(.069	(.105)			(.060)	(.090)	(.074)	(.109)	(.068)	(.100)
BLUCOL	- .139**	- .131	---	---	- .124**	- .295***	- .077	- .222**	.120*	.065
	(.068)	(.103)			(.057)	(.103)	(.070)	(.104)	(.064)	(.094)
Economic Variables										
IUR	.125**	.042	.059	.005	.032	.064	.004	.004	.048	.090
	(.056)	(.086)	(.047)	(.065)	(.050	(.075)	(.042)	(.061)	(.034)	(.049)
EARN	- .370	- .787	.680	.134	.271	- .874	.135	.021	.109	- .235
	(.404)	(.615)	(.723)	(1.007)	(.551)	(.834)	(.228)	(.332)	(.344)	(.506)
SEPR	.047	.029	- .012	- .059	- .014	.120	- .005	- .022	- .014	.058
	(.041)	(.062)	(.088)	(.122)	(.066)	(.101)	(.017)	(.025)	(.072)	(.106)
Mean of the Dependent Variable	.058	.095	.083	.078	.082	.094	.073	.081	.065	.080
R^2	.043	.069	.025	.031	.051	.049	.027	.039	.053	.030
Number of Observations	607	602	459	457	706	697	452	443	647	641

* Significant at the .10 level
** Significant at the .05 level
*** Significant at the .01 level

Yet the regression results show that very little of the variance in the nominal wage and income changes can be explained by the demographic characteristics of the individual or the economic conditions prevailing in the state at the time the individual became unemployed. The results also show that the beneficiary dummy variable or the duration of unemployment variable had almost no significant effect. Thus, the model is poorly specified, the instrument that measures the wages and earnings is imprecise, or relative wage changes are a random phenomena unrelated to the variables that are normally associated with wage or earnings changes. Several alternative specifications were used but with similar results; therefore poor specification is not the likely reason. Although the dependent variables used gross wages and gross earnings the use of the percentage change format reduced any problems arising from the measurement of the pre- and postunemployment wages. The results are consistent with the absence of an effect of the length of the unemployment spell on changes in wages.* In addition, these results are consistent with the hypothesis that there are no differences between the disqualified and the beneficiaries in their relative wage changes.

The findings of this chapter do not necessarily mean that workers were not made better off in their postunemployment experiences as a result of the receipt of UI benefits. Rather, the data available for the study could not detect the job improvements, if any. Before definitive statements are made about the postunemployment experiences if may be necessary to get more detailed information about both the pre- and postunemployment job experiences. For example, it was not possible to evaluate the length of time spent commuting in the pre- and postunemployment jobs. Such information would permit a refinement of the wage measure. Nor was it possible to determine whether the unemployed worker returned to the same job that he or she had before the unemployment spell. If issues such as these are scrutinized, they will provide much greater insight into postunemployment job experiences.

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*Because those who returned to work represent a self-selected group--those who received an acceptable wage offer--it can conversely be argued that those who did not return to work during the observation period actually received a higher relative wage.

VIII CONCLUSIONS AND POLICY IMPLICATIONS

In the course of this study, we have raised several intriguing questions in addition to providing detailed evaluation of the relationship between the receipt of UI, disqualification from UI benefits, and the duration of unemployment. On the one hand, this is perhaps the most extensive study of the effects of disqualifications on the subsequent behavior of the individual to date, yet, the potential effects on the duration of unemployment of the various state disqualification systems defy easy summary. In this final chapter, a method for summarizing the findings and some suggestions on how the findings can be used are presented.

Summary of Major Findings

We have investigated the relationship between the disqualification penalties imposed by various states and the comparative duration of unemployment of those disqualified. The study's uniqueness derives from the data set and the methodology used, which have enabled the differential impact of the disqualification penalty to be evaluated. Our major findings can be summarized as follows:

- There are some statistically significant differences between UI beneficiaries and the disqualified:
  - Nonwhites and females are more likely to be disqualified than are whites and males.
  - The disqualified are likely to be younger, better educated, and less likely to be married than the beneficiaries.
  - The disqualified have lower wages and lower base period earnings than the beneficiaries.
- There are statistically significant differences between the beneficiaries and the disqualified in the average duration of unemployment. These differences are influenced by the type of penalty that is imposed by disqualification.
- In those states in which the disqualification penalty is loss of benefits for the duration of the current spell of employment the relative duration of unemployment of the disqualified is

shorter than for the UI beneficiaries. In those states that impose the fixed or variable benefit postponement penalty, unemployment spells are longer for the disqualified.

- The average completed spell of unemployment is substantially higher than the 6 or 8 weeks that are commonly called the normal period of unemployment.
- The worker who is disqualified will suffer no adverse postunemployment job effects as a result of the disqualification.

The observed demographic differences between the disqualified and the beneficiaries raises the question of causality of these differences in the likelihood of becoming disqualified. These differences are likely to have occurred for at least three basic reasons:

Employer Discrimination--Firms that are at the maximum UI tax rate face no additional marginal costs when a former worker charges the receipt of benefits against the employer's account. Employers in this position may be more willing to reward some employees who are prepared to quit by letting them be laid off, hence eligible for UI benefits. Employers may be more willing to discharge some groups of workers on the basis of a layoff than a discharge for misconduct. To the extent that employers act differentially toward employees who become separated, these differences may be reflected in different disqualification rates.

Agency Discrimination--Because agencies have discretion in determining whether the individual is to be disqualified, more stringent rules may be applied to some groups with regard to accepting suitable work, what constitutes good cause, or what constitutes discharge for misconduct. To the extent that such differential treatment exists, those groups will be disqualified more frequently.

Differential Labor Turnover--Because the major disqualifications involve job turnover issues, either through separations or acceptance, some groups in labor market may more readily quit jobs, may more often be fired for misconduct, or may refuse job offers more than other groups. Also, differential job turnover may be self-perpetuating; that is, workers who quit may tend to accept similar jobs (perhaps the only type available)

that lend themselves to quitting. If this is true, then there could exist a cycle of dead-end jobs in the secondary labor market from which come many of the disqualifications.

Policy Implications of the Findings

This study's results have immediate and significant policy implications for state disqualification provisions. The finding that disqualifications occur at differential rates may lead some states to evaluate their administrative policies regarding the handling of disqualifications. The finding that benefit postponement for the duration of unemployment is likely to cause workers to return to work sooner may lead some states to consider adopting this type of disqualification penalty (if they haven't already done so). The finding that workers tend to remain unemployed for longer periods of time than previously acknowledged may lead some states to reconsider the adequacy of their benefit duration. These results strongly suggest that a fixed week benefit postponement penalty for disqualifications is likely to have effects that were not considered when this penalty type was first proposed.

The finding that the duration of unemployment is different for beneficiaries and the disqualified and that these differences may be related to the types of penalties is the policy issue most germane to this study. Federal policy, to date, has recommended less stringent disqualification penalties and limited the disqualification period to about 6 weeks. Clearly, these recommendations are not being followed by the states. If the recommendations are to be meaningful they must be modified, and any modifications must consider what operative philosophy will guide the recommendations: (1) voluntary unemployment is worker caused; or (2) the length of the disqualification period is related to a normal period of unemployment. The first philosophy will lead to setting the recommended penalty period to the duration of unemployment. The second philosophy will require a determination of what is the normal period of unemployment--and thus the appropriate penalty period--which changes as

prevailing economic conditions change. The prevailing view that the receipt of benefits helps the worker finance more efficient search not only may be faulty but may lead to costly benefit payment policies unrelated to the insurance character of the UI program.

Appendix A

THE SURVEY INSTRUMENTS

Exhibit A-1

INITIAL LETTER REQUESTING
PARTICIPATION IN STUDY

Greetings from SRI!

We need your help.

The U.S. Department of Labor has asked SRI to conduct a survey of people who filed for unemployment insurance benefits.

Your name appeared in a scientifically selected random sample, and it is vitally important to the accuracy of this research that you participate in this survey. Enclosed is a short questionnaire that asks about an unemployment period you had recently. Please read the questionnaire carefully and answer each question whether or not you received unemployment benefits.

Please be assured that your answers to all questions will be held in the strictest confidence and no one outside of the study group at SRI will ever know that you participated in this study.

Please use the stamped, self-addressed envelope to return the completed questionnaire as soon as possible. Your participation is greatly appreciated.

Sincerely,

Henry E. Felder

Dr. Henry E. Felder, Project Director
Center for the Study of Welfare Policy

SRI International
333 Ravenswood Ave. • Menlo Park, California 94025 • (415) 326-6200 • Cable: STANRES, Menlo Park • TWX: 910-373-1246

Exhibit A-2

FALL 1977 QUESTIONNAIRE

OMB #44-S77039

Expiration Date: September 1978

UNEMPLOYMENT INSURANCE STUDY

SRI INTERNATIONAL

(STANFORD RESEARCH INSTITUTE)

FALL 1977

This report is authorized by law (P.L. 91-373). While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely.

FIRST, WE WOULD LIKE TO ASK YOU A FEW QUESTIONS ABOUT YOURSELF. YOUR ANSWERS TO THESE QUESTIONS, AS WITH ALL OTHER ANSWERS TO THIS QUESTIONNAIRE, WILL BE TREATED CONFIDENTIALLY. THE ANSWERS WILL BE USED ONLY TO DESCRIBE A GROUP OF PEOPLE. NO ONE CAN BE PERSONALLY IDENTIFIED.

Today's Date

_____/_____/_____
month day year

1. What was your age on your last birthday?

_____ years

2. Which of the following racial or ethnic categories fits you best? (PLEASE CHECK ONE)

- ☐ 1. American Indian
- ☐ 2. Asian
- ☐ 3. Black or Afro-American
- ☐ 4. White or Caucasian (Non-Hispanic)
- ☐ 5. Hispanic (Spanish-speaking or Spanish heritage)
- ☐ 6. Other (please specify:) _____

3. What is the highest level of education you have completed?

- ☐ 1. Grade 6 or less
- ☐ 2. Grade 7, 8, or 9
- ☐ 3. Grade 10 or 11
- ☐ 4. Grade 12 (or G.E.D.)
- ☐ 5. 1, 2, or 3 years at a college or university
- ☐ 6. Bachelor's degree or equivalent from a college or university
- ☐ 7. Graduate work at a college or university
- ☐ 8. Advanced degree from a college or university (Masters, Doctorate, etc.)

4. What is your current marital status?
(PLEASE CHECK ONE)

- ☐ 1. Never married
- ☐ 2. Married
- ☐ 3. Separated
- ☐ 4. Divorced
- ☐ 5. Widowed

5. How many children do you have? (Please include any adopted or step-children who are under your care. If you have no children, please check category 1.)

- ☐ 1. None
- ☐ 2. One
- ☐ 3. Two
- ☐ 4. Three
- ☐ 5. Four
- ☐ 6. Five
- ☐ 7. Six or more

DURING THE MONTH OF NOVEMBER, 1976, YOU FILED FOR UNEMPLOYMENT INSURANCE BENEFITS.

THE FOUR QUESTIONS ON THIS PAGE ARE ABOUT THE LAST JOB YOU HELD JUST BEFORE YOU FILED FOR BENEFITS.

6. How much did you like or dislike each of the following aspects of that job? (PLEASE CHECK ONE BOX FOR EACH ASPECT LISTED)

	Liked Very Much (1)	Mostly Liked (2)	Mostly Disliked (3)	Disliked Very Much (4)
a. Your wages	☐	☐	☐	☐
b. Your hours of work	☐	☐	☐	☐
c. Your supervisor	☐	☐	☐	☐
d. The type of work you did	☐	☐	☐	☐
e. Your physical surroundings	☐	☐	☐	☐
f. Your chances for advancement	☐	☐	☐	☐

7. What were your highest wages on that job, before taxes or other deductions? (PLEASE WRITE IN THE AMOUNT AND CHECK THE APPROPRIATE BOX)

$\_\_\_\_\_$
wages

☐ 1. per hour
☐ 2. per week
☐ 3. per month
☐ 4. per year

8. On the average, how many hours per week did you work on that job?

_____ hours per week worked on that job
(number)

9. As closely as you can remember, when did you stop working on that job?

___ / ___ / ___
month day year

THE QUESTIONS ON THIS PAGE ARE ABOUT WHAT HAPPENED AFTER YOU FILED FOR U. I. BENEFITS DURING THE MONTH OF NOVEMBER, 1976.

10. Which of the following did you use to help you find a job after you filed for benefits? (PLEASE CHECK ALL THAT APPLY)

- ☐ a. State Employment office
- ☐ b. Private employment agency
- ☐ c. Want ads, place or answered
- ☐ d. Union hall
- ☐ e. Checked directly with possible employer(s)
- ☐ f. Friends' or relatives' suggestions or leads
- ☐ g. Other (please describe:) _____

11. On the average, how many hours each week would you say you looked for work during this time? (Include time spent in employment offices or agencies, answering want ads, etc.)

_____ average hours per week spent looking for work
(number)

12. During the month after you filed for U.I. benefits, did you receive any income from the following sources?
(PLEASE CHECK ONE BOX FOR EACH SOURCE)

Yes	No	
☐	☐	a. Aid to Families with Dependent Children (AFDC or ADC)
☐	☐	b. General Relief or any other welfare payments
☐	☐	c. Food Stamps
☐	☐	d. Social Security
☐	☐	e. Veterans, survivors, or other types of pensions
☐	☐	f. Alimony or child support

13. After you filed for U.I. benefits in November, 1976, did you find a job in which you worked at least 15 hours a week?

- ☐ 1. Yes → Please answer all the following questions
- ☐ 2. No → Go to question 19 on page 6

THE QUESTIONS ON THIS PAGE ARE ABOUT THE JOB YOU FOUND AFTER YOU FILED FOR U.I. BENEFITS DURING THE MONTH OF NOVEMBER, 1976.

14. As closely as you can remember, when did you start working on the first job you found after the month of November, 1976 (i.e., after you filed for U.I. benefits)?

Date started working:

____/____/____
month day year

15. How much do you (or did you) like or dislike each of the following aspects of this job?

	Liked Very Much (1)	Mostly Liked (2)	Mostly Disliked (3)	Disliked Very Much (4)
a. Your wages	☐	☐	☐	☐
b. Your hours of work	☐	☐	☐	☐
c. Your supervisor	☐	☐	☐	☐
d. The type of work you do	☐	☐	☐	☐
e. Your physical surroundings	☐	☐	☐	☐
f. Your chances for advancement	☐	☐	☐	☐

16. What are (or were) your wages before taxes or other deductions on this job? (If you no longer have this job, please give highest wages you received.)

$_____
wages

☐ 1. per hour ☐ 3. per month
☐ 2. per week ☐ 4. per year

17. On the average, how many hours per week do you (or did you) work on this job?

_____ hours per week worked

18. Are you still working on this job?

☐ 1. Yes } Please go to bottom of the next page
☐ 2. No—but I now have another job }
☐ 3. No—I do not have a job ☞ Please answer the questions on the next page

PLEASE ANSWER THESE QUESTIONS IF YOU ARE NOT NOW WORKING.

19. Are you currently looking for work?

☐ 1. Yes → Go to question 21

☐ 2. No

20. IF NO, as closely as you can remember, when did you stop looking for work?
(PLEASE GIVE YOUR BEST ESTIMATE)

_____ / _____ / _____
month day year

21. What are the lowest wages that you would accept today on a new job?
(PLEASE WRITE IN AMOUNT AND CHECK APPROPRIATE BOX)

$ _____
wages

☐ 1. per hour ☐ 3. per month

☐ 2. per week ☐ 4. per year

Thank you very much for your participation!

Please use the enclosed self-addressed and postage-paid envelope to return this questionnaire to:

Dr. S. H. Russell - 2R281
SRI International
333 Ravenswood Avenue
Menlo Park, California 94025

Appendix B

FORMS USED IN THE UI APPLICATION PROCESS

Appendix B

FORMS USED IN THE UI APPLICATION PROCESS

As shown in Figure 1 of the text, the UI application process consists of several steps before the individual is certified for benefits or found to be ineligible. At each step the claimant or the agency may prepare documents showing what steps have been taken. In this appendix a representative sample of these documents from different states as they pertain to the disqualification process are shown. These documents are:

Exhibit B1	**Job Separation Notice**
Exhibit B2	**Original Claim for Benefits**
Exhibit B3	**Notice to Base Period Employers of Claim Filed**
Exhibit B4	**Notice of Claim Determination**
Exhibit B5	**Eligibility Questionnaire**
Exhibit B6	**Eligibility Review Form**
Exhibit B7	**Notice of Appeal**
Exhibit B8	**Notice of Satisfaction of Appeal**

Exhibit B-1

JOB SEPARATION NOTICE

State of Georgia
Department of Labor – Employment Security Agency

SEPARATION NOTICE

1. Employee's Name _____ 2. S.S. No. _____

a. State any other name(s) under which employee worked. _____

3. Period of Last Employment: From _____ To _____

4. REASON FOR SEPARATION:

a. LACK OF WORK ☐

b. If for other than lack of work, state fully and clearly the circumstances of the separation: _____

_____

_____

_____

_____

_____

_____

5. Employee received: ☐ Wages in Lieu of Notice ☐ Separation Pay ☐ Vacation Pay

In the amount of $_____ for period from _____ to _____

Employer's Name _____

Address _____ (Street or RFD)

City _____ State _____ ZIP Code

Employer's Telephone No. _____ (Area Code) (Number)

Ga. E.S.A. Account Number _____
(Number shown on State Quarterly Tax and Wage Report, Form ESA-4.)

I CERTIFY that the above worker has been separated from work and the information furnished hereon is true and correct. This report has been handed to or mailed to the worker.

_____
Signature of Official or Employee of the Employer who has first-hand knowledge of the separation

_____
Title of Person Signing

_____
Date Completed and Released to Employee

NOTICE TO EMPLOYER

At the time of separation, you are required by Section 6(a) of the Georgia Employment Security Law to provide the employee with this document, properly executed, giving the reasons for separation. If you subsequently receive a request for the same information on an ESA-403FF or an ESA-419, you may attach a copy of this form (ESA-800) as a part of your response.

NOTICE TO EMPLOYEE

SECTION 6(a) OF THE GEORGIA EMPLOYMENT SECURITY LAW REQUIRES THAT YOU TAKE THIS NOTICE TO THE EMPLOYMENT SECURITY CLAIMS CENTER IF YOU FILE A CLAIM FOR UNEMPLOYMENT INSURANCE BENEFITS.

SEE REVERSE SIDE FOR ADDITIONAL INFORMATION.

ESA-800 (R-2/77)

Ga. Code Ann. Sec. 54-642.1

PRIVILEGED COMMUNICATIONS – All letters, reports, communications or any other matters, either oral or written, from the employer or employee to each other or to the Employment Security Agency or any of its agents, representatives or employees which shall have been written, sent, delivered, or made in connection with the requirements of the administration of this Act, shall be absolutely privileged and shall not be the subject matter or basis for any suit for slander or libel in any court of the State of Georgia.

Exhibit B-2

ORIGINAL CLAIM FOR BENEFITS

NEW YORK STATE DEPARTMENT OF LABOR - Unemployment Insurance Division

ORIGINAL CLAIM FOR BENEFITS

PLEASE PRINT ALL ENTRIES. PRESENT YOUR SOCIAL SECURITY ACCOUNT CARD WITH THIS FORM

1. SOCIAL SECURITY ACCOUNT NUMBER ▶ | | | | | | | | | |

DO NOT WRITE IN THE BOX BELOW

2. NAME: FIRST | MIDDLE INITIAL | LAST

3. ADDRESS: NO | STREET | APT

CITY, TOWN, POST OFFICE | COUNTY | ZIP CODE

N.Y.

L.O.

Date

Eff. Date

4. AGE

5. Show how many people are dependent on you for at least half of their support. (Do not count yourself)

Spouse_____ Children under 18_____ Other_____ Total (if none enter zero) _____

6a. CIRCLE HIGHEST SCHOOL GRADE COMPLETED:

Grade School: 0 1 2 3 4 5 6 7 8 | High School: 9 10 11 12 | College: 13 14 15 16 17+

b. Are you attending school now? ☐Yes ☐No

c. Date last attended if within last year MO / DAY / YR

7. What is your present marital status? Check one ☐Never Married ☐Married ☐Divorced ☐Separated ☐Widowed

	YES	NO
8. Have you applied for unemployment insurance benefits in this or any other office in the past 52 weeks?	☐	☐
9. Do you expect to go back to work for your last employer? If "Yes" how soon?_____	☐	☐
10. Was there a strike, lockout or other labor dispute in any place where you worked during the last 8 weeks?	☐	☐
11. Do you belong to a union? If "Yes" enter name and local. _____	☐	☐
12. Have you applied for or are you receiving:		
a. pension or retirement payment?	☐	☐
b. social security benefits?	☐	☐
c. workmen's compensation or disability benefits?	☐	☐
13. Are you receiving, or will you receive vacation or holiday pay during your present period of unemployment?	☐	☐
14. Do you have any business or are you engaged in any other activity that brings in or may bring in income?	☐	☐
15. Are you related in any way to any of the persons for whom you worked or performed any services during the past 12 months?	☐	☐
16. Within the last 12 months have you worked for a corporation of which you were an officer?	☐	☐
17. Did you work under a different name during the last 12 months? If "Yes" what name? _____	☐	☐
18. Are you a citizen of the United States?	☐	☐

19. LIST ALL YOUR EMPLOYERS DURING THE PERIOD FROM _____ THRU _____ START WITH YOUR LAST EMPLOYER and work back. Failure to list all your employers and Federal service (civilian and military) may result in a reduced benefit rate or a delay in your benefits. **YOUR EMPLOYERS WILL BE NOTIFIED THAT YOU FILED A CLAIM!**

DATES	NAME OF LAST EMPLOYER	
A) BEGAN WORK MO. DAY YR.	STREET ADDRESS	
LAST DAY WORKED MO. DAY YR.	CITY / STATE / ZIP CODE / CLOCK NO.	
	OCCUPATION ON THIS JOB	WORK LOCATION. IF MARITIME WORKER SHOW ARTICLE NO. & NAME OF SHIP

DO NOT WRITE IN ANY OF THE SPACES BELOW.

E.R. No.

	Weeks	Wages	
Total			E
Under $40			or
Net			C
Other:			

I AM NOT WORKING FOR MY LAST EMPLOYER BECAUSE:

IF YOU WORKED FOR ADDITIONAL EMPLOYERS DURING THE ABOVE PERIOD, PLEASE USE THE OTHER SIDE OF THIS FORM. ➔

I hereby register for work and claim unemployment insurance benefits. I certify that I am now unemployed, that I am ready, willing and able to work and that the statements I have made in this application are true and correct. I understand that the law provides severe penalties for wilful false statements to obtain benefits.

LO 330 (1-78)

CLAIMANT SIGN HERE ▶ _____

Exhibit B-3

NOTICE TO BASE PERIOD EMPLOYERS
OF CLAIM FILED

NOTICE TO BASE PERIOD EMPLOYERS OF CLAIM FILED

GEORGIA DEPARTMENT OF LABOR EMPLOYMENT SECURITY AGENCY
STATE LABOR BLDG. ATLANTA, GA. 30334

EMPLOYERS COPY
404 - 656 - 3054

(1) THE CLAIMANT LISTED BELOW HAS FILED A CLAIM FOR UNEMPLOYMENT INSURANCE BENEFITS, AND YOUR QUARTERLY ESA TAX REPORT(S) INDICATE THE CLAIMANT WAS EMPLOYED BY YOU DURING THE QUARTER(S) LISTED BELOW

CLAIMANT'S NAME	BENEFIT YEAR	SOCIAL SECURITY NO.	DATE OF CLAIM

	CLAIMS CENTER	DATE OF NOTICE

QUARTER/YEAR
EMPLOYER REPORT PAGE #

USE SOCIAL SECURITY NUMBER AND NAME TO IDENTIFY WORKER

(2) TO BE CONSIDERED A TIMELY RESPONSE, THIS NOTICE MUST BE RECEIVED AT THE ADDRESS SHOWN ON THE ENCLOSED ENVELOPE NO LATER THAN FOURTEEN (14) DAYS FROM THE ABOVE "DATE OF NOTICE." FAILURE TO SUBMIT TIMELY INFORMATION WILL RESULT IN YOUR ACCOUNT BEING CHARGED FOR PAYMENTS MADE. A COPY OF FORM ESA-800 FURNISHED TO CLAIMANT MAY ACCOMPANY THIS FORM.

(3) YOU MUST RETURN ORIGINAL COPY OF THIS FORM GIVING THE COMPLETE REASON, IF NOT LACK OF WORK, FOR SEPARATION. AVOID USE OF GENERAL TERMS LIKE "INSUBORDINATION," "VIOLATION OF COMPANY RULES," "ABSENTEEISM," OR "QUIT." DESCRIBE THE ACT OR ACTS OF INSUBORDINATION. TELL WHAT RULE WAS VIOLATED, STATE HOW OFTEN ABSENT, OR REASON FOR QUITTING IF KNOWN. IF EMPLOYEE QUIT WITHOUT NOTICE TO ANYONE IN A SUPERVISORY CAPACITY, INCLUDE THIS DATA IN SEPARATION INFORMATION SHOWN IN (4) BELOW. A COPY OF ESA-800 FURNISHED CLAIMANT MAY ACCOMPANY THIS FORM.

(4) SEPARATION CAUSED BY. **IMPORTANT:** DO NOT RETURN THIS FORM IF THE SEPARATION RESULTED FROM LACK OF WORK ONLY
ENTER DETAILED SEPARATION INFORMATION HERE

☐ FORM ESA-800 ATTACHED.

(5) THE ABOVE INFORMATION WILL BE MADE AVAILABLE TO THE CLAIMANT FOR HIS REBUTTAL STATEMENT.

(6) YOUR EXPERIENCE RATING ACCOUNT WILL NOT BE CHARGED FOR ANY BENEFITS PAID ON THIS CLAIM PROVIDED: (1) TIMELY SEPARATION INFORMATION IS SUBMITTED ON THIS FORM IN ACCORDANCE WITH THE PROVISIONS OF THE LAW, AND (2) IF THE CLAIMANT IS DETERMINED TO HAVE BEEN SEPARATED FROM WORK UNDER DISQUALIFYING CIRCUMSTANCES.

I certify the above is true and correct. I understand it is a misdemeanor to make a false statement.

SIGNATURE _____ TITLE _____ DATE _____

SEE STATEMENT ON REVERSE SIDE.

ESA-419 (R-4/76)

Exhibit B-4

NOTICE OF CLAIM DETERMINATION

CLAIMANT'S COPY

BATCH NO._____

STATE OF LOUISIANA
DEPARTMENT OF EMPLOYMENT SECURITY
BATON ROUGE, LA. 70804

_____
Date

NOTICE OF CLAIM DETERMINATION

Claimant's Name _____ Effective Date of Claim _____

Address _____

_____ Social Security Account Number _____

Blocks checked below show the determination made in accordance with provisions of the Louisiana Employment Security Law.

(1) ☐ You have not been disqualified. See reverse side Section ( ).

(2) ☐ You have been disqualified for benefits from _____ until you have earned, subsequent to _____, an amount equal to _____ (See reverse side Section 1601.9)

(3) ☐ You have been determined to be not available for work as of _____ and so, not eligible for benefits for so long as this condition exists. See reverse side Section ( ).

(4) ☐ Other: See reverse side Section ( ) _____

_____

_____

Findings of Fact

APPEAL RIGHTS: If you do not or your employer does not agree with this determination, the area office shown below should be contacted, in person or by mail, by _____ (Date) which is 10 days from the date this determination was mailed to you. Personnel of the area office will assist in preparing an appeal. If the appeal is not received on or before the date mentioned above appeal rights will be lost. If you appeal, continue to file claims until a final decision is rendered.

Date Delivered _____ By _____ Date Mailed _____ By _____

Employer _____ AREA OFFICE

Address _____

_____

LDES-365-C
Rev. 2-74

Exhibit B-5

ELIGIBILITY QUESTIONNAIRE

ELIGIBILITY QUESTIONNAIRE

Ga. Code Annotated 54-609(c) requires that you be able to work, available for work, actively and in good faith sought and seeking employment, and bona fide in the labor market in order to be eligible for benefits.

TO THE CLAIMANT:

On your next reporting day, if you are still unemployed, fill out this form completely and bring it with you. If you fail to do so your claim will be delayed.

Name _____ S.S. No. _____

1. List below the information called for regarding the contacts you made in person during the week before your reporting date.

Date Contacted	Employer's Name	Employer's Address	Type Work Sought	Results

DO NOT WRITE IN THIS SPACE

2. What type of work are you now trying to find? _____

3. Is there any type work you must avoid due to your age, health, etc.? ☐ No ☐ Yes
If "yes", what type and why? _____

4. Do you now expect to go back to your last employer? ☐ No ☐ Yes
If "yes", when? _____

5. Do you limit yourself to work in your regular line? ☐ No ☐ Yes

6. Are there any week days (Monday through Saturday) when you will not, or cannot work? ☐ No ☐ Yes

7. Do you limit yourself to work only during certain hours? ☐ No ☐ Yes
If "yes", what hours? _____

8. Have you applied for or are you attending school or vocational training? ☐ No ☐ Yes

9. Are you in business or starting a business for yourself or doing any work that brings you earnings or may bring earnings in the future? ☐ No ☐ Yes

10. Are you seeking or receiving a pension, social security payments or retirement payments? ☐ No ☐ Yes

11. Do you now have to care for children, aged parents, or other members of the family that would prevent you from working on a full-time job? ☐ No ☐ Yes
If "yes", explain _____

I understand that the law provides penalties for false statements for the purpose of obtaining benefits. I certify to the truth of my statements above.

Date _____ Claimant's Signature _____

Georgia Department of Labor — Employment Security Agency

ESA-852 (R-7/77)

Exhibit B-6

ELIGIBILITY REVIEW FORM

ELIGIBILITY REVIEW FORM

1. Name _____ 2. _____
First Initial Last Social Security Number

3. Did your last employer say that you would be called back: ____ Yes ____ No
If yes, indicate approximate date of return _____.

4. What kind of work are you looking for? 1st Choice _____
2nd Choice _____

5. If offered a job, how soon could you begin work? _____

6. List any school you are attending or plan to attend: _____

7. What is the minimum wage you will accept on your next job? $ _____

8. a. What hours and shift do you prefer to work? _____

b. What other hours and shifts are you willing to work? _____

9. Circle any date of the week on which you will not work:

Sun Mon Tue Wed Thu Fri Sat

10. Within what area will you look for and accept work? _____

11. What transportation can you use to travel to and from work? _____

12. List any work which you are now doing in self-employment, on commission basis, in operating a farm, etc:

_____

13. List any pension, retirement or disability pay which you are receiving or will receive within the next 52 weeks:

_____

14. Describe any disability (illness, injury or pregnancy) that may limit work that you can accept:

_____

15. a. List ages of children living with you: _____ _____ _____ _____ _____

b. List name and address of person who will care for children while you work:

_____

16.

List last three jobs (last job first)	Date Left	Length of Job	Kind of Work	Reason for Leaving	Pay Rate
Employer City				___ QUIT ___ FIRED OTHER	
Employer City				___ QUIT ___ FIRED OTHER	
Employer City				___ QUIT ___ FIRED OTHER	

Claimant's Signature _____ Date _____

LDOL-ES 411 (R 6/77)

Exhibit B-7

NOTICE OF APPEAL

STATE OF LOUISIANA
BOARD OF REVIEW
FOR THE
DEPARTMENT OF LABOR
OFFICE OF EMPLOYMENT SECURITY

NOTICE TO (APPEALS REFEREE) (BOARD OF REVIEW)

1. CLAIMANT:

Name _____

Address _____

_____

Tel No. _____

2. PERSON FILING APPEAL:

Name _____

Address _____

_____

Tel No. _____

3. SS# _____ 4. BATCH NO. _____ 5. ISSUE _____

6. I APPEAL FROM THE DETERMINATION OF THE (AGENCY) (APPEALS REFEREE) ON THE ABOVE CLAIM FOR THE FOLLOWING REASONS:

SIGNATURE _____

7. DECISION APPEALED WAS MAILED BY (ADMINISTRATIVE OFFICE) (AREA OFFICE) (APPEALS REFEREE).

8. DATE DETERMINATION WAS MAILED: _____.

9. INTERESTED PARTIES:

Name _____

Address _____

_____

Tel No. _____

Name _____

Address _____

_____

Tel No. _____

10. AREA OFFICE _____ 11. DATE _____

12. INTERVIEWER'S SIGNATURE _____

LER-1 R3/77

Exhibit B-8

NOTICE OF SATISFACTION OF APPEAL

Batch No. _____

CLAIMANT'S COPY

STATE OF LOUISIANA
Department of Labor
Office of Employment Security
Baton Rouge, Louisiana 70804

NOTICE OF SATISFACTION OF DISQUALIFICATION

_____
Date

Claimant's
Name _____

Address _____

_____

Effective Date of
New Claim _____

Social Security
Account Number _____

Ten Times
Weekly Benefit Amount _____

The disqualification which was imposed upon you from _____, as required by law, has been satisfied in accordance with Section 1601 of the Employment Security Law. You have demonstrated that you have been paid wages for work equivalent to at least ten times your weekly benefit amount following the week in which the disqualifying act occurred and you were separated from your last work under nondisqualifying circumstances. You are entitled to benefits as of _____.

Employer's Name and Address:

AREA OFFICE STAMP

LDOL-ES 485 (Rev. 7-77)

Appendix C

FORMAT OF THE DATA FROM STATE UI RECORDS AND THE QUESTIONNAIRE

Appendix C

FORMAT OF THE DATA FROM STATE UI RECORDS AND THE QUESTIONNAIRE

Each of the five states supplied the names and addresses of the individuals in the sample and a selected set of data. The data were selected randomly and stratified for each of the four groups in the analysis--beneficiaries, voluntary quit disqualified, discharge for misconduct disqualified, and refusal of suitable work disqualified. Arizona, Louisiana, and New York drew the random sample using the last four digits of the social security number. Georgia sent the universe of claimants for the designated periods,* from which we drew the stratified random sample, and then sent the names and social security numbers of these individuals back to Georgia. Their UI files were then accessed to provide the requested UI data. Kansas sent the universe of claimants for the designated periods, including all data on file, and a random sample was selected.

We requested data about the UI status of each individual in the sample, including whether the individual was disqualified and the reasons for disqualification. Because the sample was drawn from those who were monetarily eligible, the weekly benefit amount and the maximum benefits available (payable) could be calculated for the disqualified as well as the beneficiaries.

Because the data were received from the states in a variety of formats, a substantial amount of reformatting was required to develop a common data set. Although all of the analysis was performed separately for the states, much effort went into making the data consistent across the various states. In Table C-1 the complete set of data from the state UI records and the questionnaire is described. Table C-2 shows what data items were received from the UI records of each state.

---

*See Table 4 in the text for identification of the designated periods.

Table C-1

VARIABLES FROM STATE UI RECORDS AND THE QUESTIONNAIRE

Variable	Variable Name	Source	Description
1	IDNO	STATE	Identification Number 1st digit = wave number 2nd digit = state number 3rd-5th digits = individual number
2	DISQ	STATE	Disqualification Type 0=Not disqualified 1=Voluntary quit 2=Discharged for misconduct 3=Refused suitable work
3	AGE	STATE	Age of Claimant - 1977
4	SEX	STATE	Sex of Claimant 1=Male 2=Female
5	RACE	STATE	Race of Claimant 1=White 2=Nonwhite
6	DOT	STATE	Occupation Code 2 digits
7	SIC	STATE	Standard Industrial Classification 2 digits
8	OFFICE	STATE	Local Office Number
9	COUNTY	STATE	County of Residence Kansas Waves 3 and 4 = FIPS Code
10	BYB	STATE	Benefit Year Begins (YYDDD)
11	BYE	STATE	Benefit Year Ends (YYDDD)
12	WBA	STATE	Weekly Benefit Amount
13	MBA	STATE	Maximum Benefit Amount
14	DENBEG	STATE	Disqualification Begin Date (YYDDD) 0 = Not disqualified
15	DENEND	STATE	Disqualification Ending Date (YYDDD) 0 = Not disqualified 99999 = Indefinite

Variable	Variable Name	Source	Description
16	WEEKSD	STATE	Weeks Denied 0 = Not disqualified 99 = Indefinite
17	BPWAGES	STATE	Base Period Wages
18	HIQTR	STATE	Quarter of High Quarter Wages (YYQ)
19	HQWAGE	STATE	High Quarter Wages
20	UIEX	STATE	Regular UI Exhausted 1=Yes 2=No -9=data conflicts
21	EBEX	STATE	Extended Benefits Exhausted 1=Yes 2=No -9=data conflicts
22	TOTAMT	STATE	Total Amount Paid
23	REGAMT	STATE	Regular UI Amount Paid -9=data conflicts
24	EBAMT	STATE	EB Amount Paid -9=data conflicts
25	FSBAMT	STATE	FSB Amount Paid -9=data conflicts
26	WAVE	STATE	Wave Number
27	STATE	STATE	State Number 1=Arizona 2=Georgia 3=Kansas 4=Louisiana 5=New York
28	TODAY	QHR	Today's Date (YYDDD)
29	AGEQ	Q1	Age
30	RACEQ	Q2	Racial or Ethnic Category 1=American Indian 2=Asian 3=Black 4=White 5=Hispanic 6=Other

Variable	Variable Name	Source	Description
31	EDUC	Q3	Education 1=≤ Grade 6 2=Grade 7, 8, 9 3=Grade 10, 11 4=Grade 12 5=1, 2, or 3 years college 6=Bachelor's degree 7=Graduate 8=Advanced degree 9=Other
32	MARITL	Q4	Marital Status 1=Never Married 2=Married 3=Separated 4=Divorced 5=Widowed
33	NKIDS	Q5	Number of Children 1=None 2=One 3=Two 4=Three 5=Four 6=Five 7=Six or more
		PREVIOUS JOB INFORMATION	
34	PWAGE	Q6a	Wages 1=Liked very much 2=Mostly liked 3=Mostly disliked 4=Disliked very much
35	PHOURS	Q6b	Hours of Work (Coded as variable 34)
36	PSUPER	Q6c	Supervisor (Coded as variable 34)
37	PTYPE	Q6d	Type of Work (Coded as variable 34)
38	PSURR	Q6e	Physical Surroundings (Coded as variable 34)
39	PADVA	Q6f	Chances for Advancement (Coded as variable 34)

Variable	Variable Name	Source	Description
40	PWAGES	Q7	Wages/Time Period in V41
41	PRATE	Q7a	Pay Period (see V40) 1=Hour 2=Week 3=Month 4=Year
42	PHRSWK	Q8	Hours/Week
43	DSTOP	Q9	Date Stopped Working (YYDDD)
		JOB SEARCH INFORMATION	
44	PUBLIC	Q10a	State Employment Agency 0=Does not apply 1=Applies
45	PRIVAT	Q10b	Private Employment Agency 0=Does not apply 1=Applies
46	ADS	Q10c	Want Ads 0=Does not apply 1=Applies
47	UNION	Q10d	Union Hall 0=Does not apply 1=Applies
48	EMPLOY	Q10e	Checked Directly with Possible Employers 0=Does not apply 1=Applies
49	FRIEND	Q10f	Friends'/Relatives' Suggestions 0=Does not apply 1=Applies
50	OTHER	Q10g	Other 1=Did not look 2=Went back to old job 3=Nonspecific looked for job 4=Training or vocational rehabilitation
51	SEARCH	Q11	Hours Per Week Searched
52	AFDC	Q12a	AFDC or ADC 1=Yes 2=No

Variable	Variable Name	Source	Description
53	WELFARE	Q12b	General Relief or Welfare 1=Yes 2=No
54	FSTAMP	Q12c	Food Stamps 1=Yes 2=No
55	SOCSEC	Q12d	Social Security 1=Yes 2=No
56	PENSION	Q12e	Veterans, Survivors, or Other Pensions 1=Yes 2=No
57	ALIMONY	Q12f	Alimony or Child Support 1=Yes 2=No
58	FINDJOB	Q13	Did you find a job after filing? 1=Yes 2=No
		JOB FOUND AFTER FILING	
59	DSTART	Q14	Date started working (YYDDD)
60	WAGE	Q15a	Wages 1=Liked very much 2=Mostly liked 3=Mostly disliked 4=Disliked very much
61	HOURS	Q15b	Hours of Work (Coded as variable 60)
62	SUPER	Q15c	Supervisor (Coded as variable 60)
63	TYPE	Q15d	Type of Work (Coded as variable 60)
64	SURR	Q15e	Physical Surroundings (Coded as variable 60)
65	ADVANCE	Q15f	Chances for Advancement (Coded as variable 60)

Variable	Variable Name	Source	Description
66	WAGES	Q16	Wages/Time Period in V67
67	RATE	Q16a	Pay Period (see V66) 1=Hour 2=Week 3=Month 4=Year
68	HRSWK	Q17	Hours/week
69	STLWRK	Q18	Still working on this job? 1=Yes 2=No - but have another job 3=No - do not have job
70	LOOKING	Q19	Currently looking for work? 1=Yes 2=No
71	DSTOPLK	Q20	Date stopped looking for Work? (YYDDD)
72	MINWAGE	Q21	Lowest Acceptable Wages (see V73)
73	LOWRATE	Q21a	Pay Period for V72 1=Hour 2=Week 3=Month 4=Year
		FLAGS TO SHOW EDITOR'S CHANGES	
74	FLAG9	Q9	Year on "Date Stopped Work" 0=Not Changed 1=Changed
75	FLAG14	Q14	Year on "Date started new job" 0=Not Changed 1=Changed
76	FLAG20	Q20	Year on "Date stopped looking" 0=Not Changed 1=Changed
77	FLAG7	Q7	Wages on last job before filing 0=Not Changed 1=Changed

Variable	Variable Name	Source	Description
78	FLAG16	Q16	Wages on first job after filing 0=Not Changed 1=Changed
79	FLAG21	Q21	Acceptable Wages 0=Not Changed 1=Changed
		COMPUTED VARIABLES	
80	PWRATE	Q7, Q8	Hourly wage rate for previous job
81	WRATE	Q16, Q17	Hourly wage rate for first job after filing
82	MINRATE	Q21	Minimum acceptable hourly wage rate
83	DUR		Duration of Unemployment -9=Q13 or Q19 dates are missing -10=Computed duration <0
84	LFSTAT		Labor Force Status 1=Found job after filing and currently working 2=Did not find job and still looking 3=Did not find job and no longer looking 4=Found job after filing but currently unemployed
85	NSEARCH	Q10	No. of search methods used
86	NSOURCE	Q12	No. of income sources used

Table C-2

TYPES OF DATA OBTAINED FROM THE STATES

Variable Number	Variable Description	AZ	GA	KA	LA	NY
1	IDNO	X	X	X	X	X
2	DISQ	X	X	X	X	X
3	AGE	X		X	X	*
4	SEX	X	X	X	X	X
5	RACE		X	X		*
6	DOT	X		X	X	X
7	SIC		X	X		*
8	OFFICE	X	X	X	X	X
9	COUNTY	X	X	X	X	X
10	BYB	X	X	X	X	X
11	BYE	X	X	X	X	*
12	WBA	X	X	X	X	X
13	MBA	X	X	X	X	X
14	DENBEG	X	X	X	X	X
15	DENEND	X	X	X	X	X
16	WEEKSD	X	X	X	X	X
17	BPWAGES	X	X	X	X	X
18	HIQTR		X		X	
19	HQWAGE		X		X	
20	UIEX	X		X	X	*
21	EBEX	X		X	X	*
22	TOTAMT	X		X	X	*
23	REGAMT	X		X	X	*
24	EBAMT	X		X	X	*
25	FSBAMT	X		X	X	*
26	WABE	X	X	X	X	X
27	STATE	X	X	X	X	X

* = Not available for NY disqualified

Appendix D

THE WAGE EQUATION

Appendix D

THE WAGE EQUATION

A major variable in explaining the duration of unemployment is the reservation wage set by the individual. It is assumed that the worker will accept a wage offer only if it equals or exceeds the reservation wage. For a given wage offer distribution, the higher the reservation wage the longer is the expected duration of unemployment but the greater the expected value of the acceptance wage. However, the reservation wage was not observed; instead, we determine the wage offer that the individual accepts when he or she returns to work.

Let W_t be a random wage offer received by the individual; then the relationship of the reservation wage and the acceptance wage is defined for the ith individual by the three equations:

$$W_{ai} = \{W_t \mid W_t \geq W_i^*\} \tag{1a}$$

$$W_{ai} = W_i^* + \eta_i \tag{1b}$$

$$E(\eta) \geq 0 \tag{1c}$$

where η_i is an error term.

The model of job search used in the text is structured:

$$D_i = \theta U_i + \phi W_i^* + \underset{\sim}{Z_i'}\underset{\sim}{\alpha} + \varepsilon_i \tag{2a}$$

$$W_a = \beta W_o + \gamma D + \underset{\sim}{Z_i'}\underset{\sim}{\delta} + \mu_i \tag{2b}$$

where U is the variable that measures the receipt of UI; W_o is the preunemployment wage of the individual; and $\underset{\sim}{Z}$ is a vector of control variables. Substituting equation (1b) into equation (2a) produces

$$D_i = \theta U_i + \phi W_{ai} + \underset{\sim}{Z}_i'\underset{\sim}{\alpha} + \varepsilon_i - \phi\eta_i \qquad (2a')$$

If $\varepsilon - \phi\eta = \rho$, then $E(\underset{\sim}{\eta}'\rho) \neq 0$ and a problem arises if equations (2a') and (2b) are estimated using ordinary least squares.

An addition problem arises since W_a and D are distributed

$$Wa_i = \begin{cases} \beta W_{oi} + \gamma D_i + \underset{\sim}{Z}_i'\underset{\sim}{\delta} + \mu_i & \text{if } W_t \geq W_i^* \\ \text{Not Available} & \text{otherwise} \end{cases} \qquad (3)$$

$$D_i = \begin{cases} \theta U_i + \phi Wa_i + \underset{\sim}{Z}_i'\underset{\sim}{\alpha} + P_i & \text{if } W_t \geq W^* \\ k_i & \text{otherwise} \end{cases} \qquad (4)$$

where k_i is the period of observation.

Because the duration variable is truncated, an exclusion of those who did not return to work means that the estimates of the duration of unemployment would be biased downward.* But estimation of equation (2a') requires the use of an acceptance wage or some proxy measure.

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*Takeski Amemiya, "Regression Analysis When the Dependent Variable Is Truncated Normal," Econometrica, pp. 997-1016 (November 1973).

Gronau* points out that a bias will result if the wages of one group are used to impute the wages of another group if there are unobserved differences between the two groups (for example, value of time in the home). Heckman† demonstrates that the estimation of the conditional wage equation can be refined through the use of the inverse of the Mills ratio.‡ The use of the Mills ratio incorporates information about nonobserved differences between those who do and do not return to work and so provide a more consistent wage equation.

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* Reuben Gronau, "Wage Comparison--A Selectivity Bias", Journal of Political Economy, pp. 1119-1143 (1974).

† James Heckman, "The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models," Annals of Economic and Social Measurement, pp. 475-492 (April/May 1974).

‡ Specifically, if the joint density of ρ_i and μ_i is bivariate normal,

$$E(\rho_i) = E(\mu_i) = 0 \tag{5a}$$

$$E(\rho_i \rho_i') = \sigma_{11} \tag{5b}$$

$$E(\mu_i \mu_i') = \sigma_{22} \tag{5c}$$

$$E(\rho_i \mu_i') = \sigma_{12} \tag{5d}$$

and given certain other assumptions Heckman demonstrates that the following is true

$$E(\rho_i \mid W_t \geq W_i^*) = E(\rho_i \mid \mu_i > -(\beta W_{oi} + \gamma D_i + \underset{\sim i\sim}{Z}\delta) = \frac{\sigma_{12}}{(\sigma_{22})^{\frac{1}{2}}} \lambda_i$$

$$E(\mu_i \mid W_t \geq W_i^*) = E(\mu_i \mid \mu_i > -(\beta W_{oi} + \gamma D_i + \underset{\sim i\sim}{Z}\delta) = \frac{\sigma_{22}}{(\sigma_{22})^{\frac{1}{2}}} \lambda_i$$

where $\lambda_i = \dfrac{f(W_i)}{1-F(W_i)}$, $W_i = \dfrac{\beta W_{oi} + \gamma D_i + \underset{\sim i\sim}{Z}\delta}{(\sigma_{22})^{\frac{1}{2}}}$

and f and F are the density and distribution function of the standard normal distribution. The term λ_i is the inverse of the Mills ratio. This ratio may be estimated consistently by using probit analysis.

The steps taken to estimate wage rates for those who did not return to work were:

Step 1: Using probit analysis estimate the probability of leaving unemployment and compute the inverse of the Mills ratio. In this step observations on the entire sample were used.

Step 2: Include the computed Mills ratio among the regressors in an ordinary least squares regression of the log of the acceptance wage. In this step observations on only those who returned to work were used.

Step 3: Impute a wage rate for those who did not return to work using the parameter estimates from the wage equations.

In the probability of leaving unemployment equation* the dependent variable took the value one if the individual returned to work during the observation period and zero otherwise. These probabilities were estimated separately using a probit technique by state and the UI states of the individual. The regression results are shown in Tables D-1 and D-2.

The dependent variable for the wage equation was the natural log of the wage accepted ending the spell of unemployment. The wage equation was estimated separately by state and the UI status of the individual. The regression results are shown on Tables D-3 and D-4.

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* Because of a quirk in the probit computer program that computed the inverse of the Mills ratio, it was necessary to estimate the probability of NOT leaving employment. Although that estimation was also made, the results shown here are for the probability of leaving employment. The net results are not affected and can be compared with the duration of unemployment regressions shown in the text.

Table D-1

PROBIT PARAMETER ESTIMATES OF THE PROBABILITY OF BENEFICIARIES LEAVING UNEMPLOYMENT

(Asymptotic Standard Errors in Parentheses)

Variables	Arizona	Georgia	Kansas	Louisiana	New York
Constant	-.508	.440	.328	-.327	-.132
	(.428)	(.393)	(.413)	(.512)	(.441)
1 if age between 23 and 34 years	-.077	-.367	-.221	-.846*	.010
	(.335)	(.270)	(.256)	(.338)	(.335)
1 if age between 35 and 44 years	-.543	-.504	-.333	-.022	.437
	(.373)	(.313)	(.301)	(.392)	(.402)
1 if age between 45 and 54 years	-.217	-.444	-.243	-.678	-.332
	(.377)	(.350)	(.303)	(.396)	(.396)
1 if age 55 years or older	-.789*	-.982*	-.482	-.810	-.329
	(.390)	(.375)	(.304)	(.438)	(.395)
1 if male	-.265	.257	.378*	-.357	-.303
	(.235)	(.175)	(.180)	(.276)	(.176)
1 if white	.102	.366*	.424	.043	.288
	(.241)	(.184)	(.260)	(.255)	(.195)
1 if completed between 9 and 12 years of school	.557	-.039	-.529	.250	-.364
	(.324)	(.280)	(.277)	(.324)	(.347)
1 if completed high school	.540*	-.099	-.201	.647	.319
	(.268)	(.239)	(.240)	(.295)	(.254)
1 if completed between 13 and 15 years of school	.459	.248	-.072	.815*	.881*
	(.300)	(.280)	(.271)	(.337)	(.306)
1 if college graduate or more	.715	.858*	.172	1.663*	.481
	(.396)	(.422)	(.361)	(.524)	(.323)
1 if married	.050	-.044	.041	-.205	.017
	(.187)	(.177)	(.155)	(.211)	(.179)
1 if professional occupation	.660	---	.494	-.794	-.273
	(.395)	---	(.311)	(.516)	(.332)
1 if sales or clerical occupation	.031	---	.297	-.335	-.455
	(.333)	---	(.261)	(.405)	(.279)
1 if blue collar occupation	.389	---	.174	-.293	-.182
	(.341)	---	(.254)	(.372)	(.262)
Weekly benefit amt.($)	.007	-.007	-.005	-.012*	-.002
	(.005)	(.004)	(.004)	(.004)	(.003)
Number of observations	295	265	370	220	302
X^2	29.34	24.10	23.14	34.41	42.79

* Significant at the .05 level.

Table D-2

PROBIT DISQUALIFIED PARAMETER ESTIMATES OF THE PROBABILITY OF THE LEAVING UNEMPLOYMENT

(Asymptotic Standard Errors in Parentheses)

Variables	Arizona	Georgia	Kansas	Louisiana	New York
Constant	-.183 (.245)	.312 (.232)	-.157 (.265)	-.507* (.249)	.154 (.233)
1 if age between 22 and 34 years	-.093 (.152)	-.318* (.152)	-.279* (.124)	-.036 (.149)	.105 (.126)
1 if age between 35 and 44 years	-.044 (.184)	.394) (.205)	-.289 (.177)	-.043 (.208)	-.383* (.179)
1 if age between 45 and 54 years	-.163 (.210)	-.639* (.257)	-.686* (.221)	-.246 (.238)	.228 (.193)
1 if age 55 years or older	-.228 (.234)	1.055* (.302)	-.571* (.216)	-.181 (.275)	-.805* (.184)
1 if male	.100 (.123)	.201 (.115)	.330 (.112)	.140 (.145)	-.036 (.102)
1 if white	.362* (.123)	.655* (.116)	.489* (.132)	.504* (.121)	.327* (.112)
1 if completed between 9 and 12 years of school	-.011 (.211)	-.279 (.179)	.383* (.210)	.311 (.182)	-.283 (.196)
1 if completed high school	.420* (.177)	-.136 (.159)	.544* (.182)	.424* (.163)	.068 (.167)
1 if completed between 13 and 15 years of school	.520* (.193)	-.016 (.197)	.838* (.202)	.450* (.205)	.113 (.178)
1 if college graduate or more	.676 (.277)	.280 (.315)	.726 (.309)	.415 (.337)	.509* (.211)
1 if married	.065 (.109)	.076 (.113)	-.099 (.100)	-.214 (.116)	-.062 (.097)
1 if professional occupation	-.096 (.255)	--- ---	.189 (.237)	-.242 (.262)	-.103 (.145)
1 if sales or clerical occupation	-.260 (.170)	--- ---	-.157 (.169)	.018 (.177)	-.035 (.144)
1 if blue collar occupation	-.025 (.170)	--- ---	-.401* (.164)	.043 (.171)	-.039 (.130)
Previous wage rate	-.005 (.027)	-.046 (.045)	-.068* (.032)	.038 (.034)	-.032 (.023)
1 if discharged for misconduct	-.053 (.114)	-.440* (.111)	.121 (.103)	.080 (.118)	.012 (.113)
1 if refused suitable work offer	-.257 (.189)	.944* (.430)	-.097 (.164)	-.365 (.210)	-.182 (.104)
Number of observations	673	633	804	599	900
χ^2	36.30	95.71	89.12	44.46	91.52

* Significant at the .05 level.

Table D-3

PARAMETER ESTIMATES OF THE WAGE EQUATION FOR BENEFICIARIES
(Standard Errors in Parentheses)

Variables	Arizona	Georgia	Kansas	Louisiana	New York
Constant	3.388*	-.939	-1.320*	1.952*	-4.424*
	(.509)	(.285)	(.340)	(.330)	(.806)
1 if age between 22 and 34	.148	-.341*	-.305*	.658*	.425*
	(.124)	(.130)	(.111)	(.143)	(.125)
1 if age between 35 and 44	.802	-.454	-.238	1.34	1.581*
	(.165	(.169)	(146)	(.142)	(.227)
1 if age between 45 and 54	.504*	-.675*	-.218	.551*	-1.313)*
	(.136)	(.167)	(.129)	(.157)	(.270)
1 if age 55 or older	1.270	-1.210*	-.702	.721*	-1.351*
	(.226)	(.289)	(.174)	(.187)	(.292)
1 if male	.483*	.533*	.908*	.402	-.965*
	(.095)	(.070)	(.085)	(.096)	(.188)
1 if white	-.367*	.651	.845*	.081	1.065*
	(.097)	(.101)	(.137)	(.104)	(.170)
1 if completed education between 9 and 12 years	-1.137*	.118	-.828*	-.322*	-1.378*
	(.218)	(.118)	(.174)	(.149)	(.303)
1 if completed high school	-.891*	-.023	-.406*	-.448*	1.108*
	(.212)	(.103)	(.103)	(.156)	(.208)
1 if completed between 13 and 15 years of school	-.714*	.476*	-.101	-.513*	2.997*
	(.202)	(.118)	(.101)	(.192)	(.466)
1 if college graduate or more	-.955*	1.317*	.160	-1.127*	1.677*
	(.261)	(.204)	(.126)	(.270)	(.293)
1 if married	.034	-.057	-.041	.111	.172
	(.074)	(.065)	(.054)	(.086)	(.072)
1 if professional occupation	-.549	---	.760*	.432*	-.719*
	(.224)	---	(.148)	(.202)	(.196)
1 if sales or clerical occupation	.304*	---	.508*	.059	-1.500*
	(.138)	---	(.118)	(.182)	(.248)
1 if blue collar occupation	.053	---	.316*	.257	-.536*
	(.178)	---	(.102)	(.163)	(.145)
Inverse of Mills ratio	-2.815*	2.149*	2.890*	-1.375*	5.858*
	(.485)	(.347)	(.467)	(.251)	(.871)
Number of Observations	193	125	242	115	142
R^2	.503	.474	.461	.581	.470

* Significant at the .05 level.

Table D-4

PARAMETER ESTIMATES OF THE WAGE EQUATION FOR THE DISQUALIFIED
(Standard Errors in Parentheses)

Variables	Arizona	Georgia	Kansas	Louisiana	New York
Constant	.574	.637*	-.646*	1.368*	-.275
	(.554)	(.105)	(.241)	(.319)	(.239)
1 if age between 22 and 34	.044	.095*	-.207*	.056	.249*
	(.070)	(.047)	(.054)	(.054)	(.050)
1 if age between 35 and 44	.189*	.198*	-.096	.258*	.042
	(.079)	(.066)	(.073)	(.079)	(.104)
1 if age between 45 and 54	.173	.294*	-.637*	2.9*	.429*
	(.103)	(.090)	(.126)	(.104)	(.076)
1 if age 55 or over	.209	.196	-.550*	.300*	-.276
	(.120)	(.123)	(.112)	(.117)	(.194)
1 if male	.184*	.213*	.518*	.121*	.152*
	(.060	(.033)	(.049)	(.061)	(.039)
1 if white	.091	.158*	.433*	-.067	.191*
	(.127)	(.059)	(.079)	(.098)	(.071)
1 if completed between 9 and 12 years of school	-.107	.076	.256*	-.148	-.111
	(.107)	(.062)	(.104)	(.093)	(.100)
1 if completed high school	.028	.123*	.475*	-.132	.211*
	(.173)	(.049)	(.110)	(.101)	(.070)
1 if completed between 13 and 15 years of school	.048	.210*	.729*	-.123	.299*
	(.203)	(.057)	(.139)	(.109)	(.075)
1 if college graduate or more	.067	.456*	.661*	-.142	.676*
	(.250)	(.088)	(.145)	(.148)	(.105)
1 if married	.128	.037	-.109*	.111*	-.056
	(.052)	(.036)	(.036)	(.056)	(.039)
1 if professional occupation	.303*	---	.420*	.472*	.075
	(.056)	---	(.069)	(.110)	(.058)
1 if sales or clerical occupation	.131	---	-.029	.213*	.190*
	(.107)	---	(.059)	(.070)	(.055)
1 if blue collar occupation	.308*	---	-.229*	.307*	.127*
	(.718)	---	(.077)	(.068)	(.051)
Inverse of Mills ratio	.176	.086	1.658*	-.675	1.229*
	(.572)	(.102)	(.221)	(.289)	(.288)
Number of observations	415	334	465	338	505
R^2	.202	.270	.302	.248	.214

* Significant at the .05 level.

Appendix E

TOBIT ESTIMATION AND PREDICTION PROCEDURE

Appendix E

TOBIT ESTIMATION AND PREDICTION PROCEDURE

The duration of unemployment equations were specified using a tobit statistical model and were estimated using a maximum likelihood estimation procedure. Estimation of the parameters of the model involved the maximization of a likelihood function using a Newton-Rapshon iterative procedu as described in Goldfeld and Quant.* The consistency and asymptotic normality of the maximum likelihood estimator used in the analysis are proved in Amemiya.†

The Statistical Model

The statistical model may be defined by noting that given our definition of the acceptance wage from Appendix D

$$W_{a_i}^* = \begin{cases} W_a , & \text{if } W_t \geq W^* \\ 0 , & \text{if } W_t < W^* \end{cases} \tag{1}$$

and

$$D_i = \begin{cases} \theta U_i + \phi W_a + \underset{\sim}{Z_i'}\alpha + \rho_i, & \text{if } W_t \geq W^* \\ k , & \text{if } W_t < W^* \end{cases} \tag{2}$$

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* S. M. Goldfeld and R. E. Quant, Nonlinear Methods in Econometrics, (Amsterdam: North Holland Pub., 1972)

† Takeshi Amemiya, 1973, op cit.

where k is the length of the period of observation, $W^*_{a_i}$ is a sequence of normal variables describing the acceptance wage and we assume $\rho_i \sim N(0,\sigma^2)$ The censoring of $\{D_i\}$ is coincident with the receipt of a wage offer that equals or exceeds the reservation wage. The specification in Equation 1 is equivalent to the tobit specification where censoring occurs if $D_i = \theta U_i + \phi W_a + \underset{\sim}{z}_i' \underset{\sim}{\alpha} + \rho$ if $D_i < k$. Therefore, we can define the likelihood function in terms of whether the individual receives a wage offer equal to or greater than the reservation wage during the observation period.

If the sample consists of K individuals who returned to work and T-K individuals who did not return to work, then the likelihood function may be defined:

$$L = \prod_{i=1}^{k} g(D_i) \prod_{i=k+1}^{T} \text{Prob}\{W_t < W^*\} \qquad (3)$$

where g is the normal density function

$$g = \frac{1}{\sqrt{2\pi}\,\sigma} \exp\left[\frac{(D_i - \theta U_i - \phi W_{ai} - \underset{\sim}{z}_i'\alpha)^2}{2\sigma^2}\right]$$

If T = K, then the maximum likelihood is equivalent to ordinary least squares.

Parameter Estimates

Maximum likelihood parameter estimates were made for the duration of unemployment equations for the pooled beneficiary and disqualified samples and then separately for the beneficiaries combined with each disqualified group. The parameter estimates for the WBA, WBASQ, and the dummy variables for type of disqualification were reported in Table 22 in the text. When the beneficiaries were pooled with each disqualified group separately, it permitted a direct comparison of the response of the beneficiaries with that particular disqualified group. The maximum likelihood

parameter estimates are presented in Tables E-1 - E-4 for: (1) the beneficiaries and all the disqualified; (2) the beneficiaries and those who voluntarily quit; (3) the beneficiaries and those discharged for misconduct; and (4) the beneficiaries and those who refused suitable work offers.

Table E-1

TOBIT PARAMETER ESTIMATES OF DURATION OF UNEMPLOYMENT
DISQUALIFICATION EFFECTS, TOTAL SAMPLE
(Standard Errors in Parentheses)

	Arizona	Georgia	Kansas	Louisiana	New York
Constant	2297.074***	1594.862	1557.644*	2157.640***	524.719
	(698.251)	(1219.109)	(868.810)	(481.129)	(632.901)
Demographic Variable					
AGE 22-34	24.700	61.198**	48.294***	12.781	7.342
	(20.871)	(25.079)	(15.722)	(23.324)	(23.258)
AGE 35-44	50.433**	84.347**	60.753***	-6.673	42.221
	(24.690)	(33.138)	(22.126)	(32.068)	(32.222)
AGE 45-54	43.520	138.282***	89.273***	73.857**	45.406
	(27.085)	(39.845)	(24.903)	(36.828)	(32.738)
AGE 55	92.312***	214.065***	98.771***	67.653	188.845***
	(30.215)	(50.524)	(25.759)	(44.277)	(32.243)
MALE	-8.770	-48.059**	-65.503***	-31.211	36.944**
	(16.349)	(19.763)	(14.693)	(22.871)	(17.559)
WHITE	-65.697***	123.954***	-94.453***	-105.182***	-91.249***
	(17.353)	(20.041)	(18.558)	(19.791)	(20.202)
EDUC 9-11	-22.817	36.346	-32.478	-52.670*	82.752**
	(28.829)	(30.229)	(27.019)	(30.979)	(36.042)
EDUC 12	-60.965**	19.635	-55.953**	-61.752**	-29.448
	(24.430)	(26.188)	(23.182)	(27.414)	(28.862)
EDUC 13-15	-61.934**	-8.013	-89.916***	-73.898**	-47.327
	(26.196)	(30.989)	(25.237)	(32.407)	(31.142)
EDUC 16	-90.230***	-21.893	-86.662**	-85.115*	-69.872**
	(34.654)	(46.458)	(33.829)	(48.588)	(34.987)
MARR	-4.087	-13.274)	-12.919	10.433	8.458
	(14.264)	(18.516)	(12.372)	(17.840)	(16.662)
WAGE	-13.151***	-10.579	-4.165	-10.297**	-11.519
	(3.241)	(7.125)	(3.717)	(4.600)	(5.040)
HOURS	-.847	.220	.606	.220	1.203
	(.616)	(.832)	(.614)	(.740)	(.775)
PROF	3.921	---	3.373	21.908	37.860
	(28.542)		(26.481)	(41.139)	(25.900)
SACLER	20.568	---	1.801	22.626	24.397
	(23.646)		(21.016)	(29.535)	(24.987)
BLUCOL	15.068	---	42.906**	-3.836	-3.984
	(23.555)		(20.101)	(28.458)	(23.266)

Table E-1 (Concluded)

	Arizona	Georgia	Kansas	Louisiana	New York
Economic Variable					
IUR	27.650 (18.964)	-19.976 (20.350)	-35.205 (17.255)	-23.768 (17.103)	-7.095 (11.662)
EARN	-389.725*** (134.482)	-236.432 (315.019)	-212.844 (188.896)	-283.878*** (90.632)	-1.700 (120.601)
SEPR	18.611 (13.778)	-35.555 (38.781)	-4.417 (22.885)	-2.202 (7.034)	-26.637 (25.134)
Disqualification Variable					
YQ	-.858 (16.806)	-29.590 (22.158)	16.385 (14.515)	-57.483*** (23.053)	-63.710*** (21.791)
DM	18.107 (17.972)	32.053 (23.296)	20.833 (15.757)	-74.604*** (25.099)	-65.033*** (24.120)
RSW	49.171 (30.588)	-127.327** (60.687)	75.968*** (26.121)	18.945 (42.764)	82.962*** (22.723)
σ: Standard error of the linear form	179.963*** (5.605)	218.693*** (7.999)	173.760*** (5.039)	203.692*** (6.374)	224.297*** (6.874)
Number of observations	921	828	1121	751	1127

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

Table E-2

TOBIT PARAMETER ESTIMATES OF DURATION OF UNEMPLOYMENT--BENEFICIARIES AND VOLUNTARY QUITS
(Standard Errors in Parentheses)

	Arizona	Georgia	Kansas	Louisiana	New York
Constant	2874.202***	453.446	802.956	2736.868***	199.070
	(832.548)	(399.026)	(1058.660)	(667.020)	(785.221)
Demographic Variable					
AGE 22-34	40.208	36.151	23.814	39.125	-31.830
	(27.314)	(29.412)	(20.426)	(30.983)	(30.835)
AGE 35-44	87.708***	98.474**	28.933	-3.150	-46.176
	(30.729)	(38.338)	(27.281)	(41.820)	(38.608)
AGE 45-54	75.952**	100.392**	48.295*	123.865***	9.453
	(33.132)	(45.130)	(28.930)	(48.179)	(39.969)
AGE 55	120.090***	180.868***	78.612**	112.186*	113.305***
	(35.309)	(53.091)	(31.031)	(60.549)	(39.927)
MALE	- 3.406	-39.028*	-68.431***	-23.801	55.226**
	(19.350)	(23.021)	(18.039)	(30.866)	(21.499)
WHITE	-62.966***	-116.043***	-88.768***	-97.339***	90.824***
	(21.416)	(24.130)	(24.847)	(25.839)	(26.072)
EDUC 9-11	-55.435	52.606	10.884	-27.204	68.992
	(34.568)	(36.087)	(37.562)	(40.572)	(47.564)
EDUC 12	-61.523**	27.661	-27.042	-20.137	-46.614
	(29.997)	(30.400)	(27.793)	(36.663)	(35.035)
EDUC 13-15	-68.806***	15.692	-53.772*	-42.108	-76.670**
	(32.261)	(35.299)	(30.061)	(43.578)	(38.248)
EDUC 16	-73.967*	27.280	-63.932*	-60.010	-37.055
	(42.173)	(52.016)	(38.192)	(63.171)	(42.181)
MARR	13.348	10.986	- 5.221	- 4.121	32.823
	(17.343)	(22.044)	(15.032)	(24.055)	(20.426)
WAGE	-12.822***	-17.853**	- 4.656	- 2.545	-14.276**
	(4.015)	(8.017)	(4.615)	(6.111)	(6.291)
HOURS	- .402	- .347	.792	- .112	- .238
	(.741)	(1.008)	(.741)	(.944)	(.959)
PROF	-12.862	—	12.386	.763	-12.165
	(35.372)		(30.595)	(55.617)	(33.615)
SACLER	- 7.227	—	9.694	25.870	- 7.036
	(29.820)		(25.340)	(40.154)	(31.950)
BLUCOL	-16.412	—	28.323	6.902	-25.824
	(30.930)		(24.681)	(36.548)	(30.136)

Table E-2 (Concluded)

	Arizona	Georgia	Kansas	Louisiana	New York
Economic Variable					
IUR	37.799*	-.673	-51.030**	-56.251**	8.925
	(22.492)	(23.459)	(20.877)	(23.915)	(14.516)
EARN	-515.242***	1.644	-44.413	-384.434***	60.110
	(160.234)	(362.364)	(23.014)	(127.077)	(148.326)
SEPR	31.352*	-29.779	-22.887	- 6.755	-48.240
	(16.253)	(45.334)	(27.681)	(9.363)	(30.300)
UI Variable					
WBA	2.008*	-.732	-1.170	2.536**	1.562*
	(1.174)	(1.233)	(.737)	(1.104)	(.884)
WBA^2	-.026*	.016	.012	-.020**	-.008
	(.015)	(.015)	(.008)	(.010)	(.009)
σ: Standard error of the linear form	171.093***	204.474***	168.819***	200.571***	201.521***
	(6.475)	(8.929)	(6.960)	(9.835)	(8.461)
Number of observations	602	531	740	492	615

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

Table E-3

TOBIT PARAMETER ESTIMATES OF DURATION OF UNEMPLOYMENT—
BENEFICIARIES AND DISCHARGE FOR MISCONDUCT
(Standard Errors in Parentheses)

	Arizona	Georgia	Kansas	Louisiana	New York
Constant	2341.297**	2608.146	898.941	1837.778***	1722.771*
	(935.128)	(1715.054)	(1123.823)	(571.908)	(912.500)
Demographic Variable					
AGE 22-34	19.430	85.245**	57.578**	-8.951	15.229
	(28.226)	(35.272)	(20.893)	(30.561)	(33.587)
AGE 35-44	65.190*	93.523**	76.195**	-59.145	-45.070
	(34.785)	(45.772)	(29.253)	(41.174)	(47.012)
AGE 45-54	37.705	148.616***	83.888***	57.713	77.757
	(36.648)	(52.345)	(31.196)	(45.001)	(47.393)
AGE 55	128.565***	238.028***	91.194***	38.966	133.378***
	(43.125)	(71.674)	(32.136)	(51.948)	(48.260)
MALE	11.905	-35.403	-66.251)**	-36.436	25.962
	(24.147)	(27.902)	(19.914)	(28.161)	(24.782)
WHITE	-59.775**	-120.531***	-93.645***	-123.735***	-88.263***
	(23.689)	(27.120)	(23.608)	(25.417)	(26.069)
EDUC 9-11	-49.927	27.050	5.028	-72.262*	47.523
	(38.023)	(41.373)	(33.184)	(40.523)	(45.532)
EDUC 12	-64.517**	17.608	-42.179	-95.943***	-21.853
	(31.796)	(36.363)	(28.174)	(34.762)	(37.120)
EDUC 13-15	-74.074**	-39.471	-76.199**	-126.086***	-91.648**
	(34.329)	(42.931)	(31.176)	(40.441)	(41.226)
EDUC 16	-118.726***	-89.264	-70.532**	-125.613**	-40.039
	(45.266)	(61.963)	(42.362)	(56.519)	(47.688)
MARR	-17.613	-35.170	-28.470	54.240**	1.554
	(19.499)	(25.325)	(16.284)	(22.189)	(24.887)
WAGE	-11.575***	-17.491	-10.847**	-6.036	-15.497**
	(4.235)	(10.956)	(4.704)	(5.670)	(6.963)
HOURS	-1.109	.807	.640	1.596*	1.736
	(.843)	(1.095)	(.784)	(.933)	(1.114)
PROF	13.196	—	-2.186	13.035	87.185**
	(39.285)		(34.933)	(50.437)	(39.578)
SACLER	39.039	—	-8.069	8.166	50.029
	(33.676)		(28.737)	(38.926)	(35.105)
BLUCOL	28.534	—	47.986*	-16.134	49.763
	(32.600)		(26.630)	(37.949)	(33.023)

Table E-3 (Concluded)

	Arizona	Georgia	Kansas	Louisiana	New York
Economic Variable					
IUR	15.407	-67.909**	-51.392	-6.580	-10.492
	(26.400)	(28.676)	(22.458)	(20.704)	(16.828)
EARN	-387.708**	-390.278	-58.091	-251.399**	-236.656
	(179.471)	(441.879)	(244.553)	(108.398)	(172.270)
SEPR	15.871	-71.797	-20.568	2.303	-12.012
	(18.976)	(53.759)	(29.213)	(8.700)	(35.319)
UI Variable					
WBA	1.481	-2.767*	-1.415*	1.891*	1.824*
	(1.326)	(1.503)	(.806)	(1.057)	((.997)
WBA^2	-.022	.034*	.015*	-.012	-.009
	(.016)	(.018)	(.008)	(.010)	(.010)
σ: Standard error of linear form	185.268***	234.070***	174.667***	197.842***	216.110***
	(7.532)	(11.712)	(6.436)	(7.112)	(9.949)
Number of observations	535	528	656	414	520

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

Table E-4

TOBIT PARAMETER ESTIMATES OF DURATION OF UNEMPLOYMENT BENEFICIARIES AND REFUSAL OF SUITABLE WORK
(Standard Errors in Parentheses)

	Arizona	Georgia	Kansas	Louisiana	New York
Constant	2541.949** (1127.401)	961.340 (2165.648)	271.420 (1398.634)	3053.579*** (940.657)	1734.691 (1064.423)
Demographic Variable					
AGE 22–34	78.677** (40.042)	79.344* (46.162)	36.006 (30.133)	84.500 (35.365)	21.850 (44.830)
AGE 35–44	171.887*** (45.434)	139.904** (56.933)	55.214 (37.951)	- 2.894 (64.938)	27.207 (56.074)
AGE 45–54	139.981*** (46.561)	108.385** (61.019)	49.813 (38.190)	120.483* (70.916)	81.383 (56.754)
AGE 55	250.358*** (52.649)	242.994*** (75.720)	72.832* (39.701)	81.010 (85.800)	202.204*** (55.460)
MALE	9.161 (28.233)	17.106 (35.093)	-97.991*** (25.131)	-5.254 (46.442)	43.188 (28.840)
WHITE	-72.916** (35.578)	-79.986** (35.719)	-79.492** (37.517)	-54.878 (40.774)	-127.387*** (35.262)
EDUC 9–11	-17.567 (46.617)	87.686 (57.220)	50.662 (40.410)	-55.017 (65.840)	-110.507* (63.524)
EDUC 12	-16.612 (40.704)	55.872 (47.260)	-38.880 (33.868)	-95.466 (60.465)	- 84.794* (47.577)
EDUC 13–15	-11.591 (43.840)	30.685 (53.420)	-14.314 (37.588)	-118.800* (64.866)	-104.462** (52.645)
EDUC 16	-23.457 (56.027)	4.442 (74.512)	-27.447 (49.475)	-124.218 (84.114)	-128.541** (55.904)
MARR	35.833 (24.013)	13.804 (31.991)	- 7.907 (20.312)	43.807 (35.459)	-5.504 (27.818)
WAGE	- 9.590* (5.325)	-22.570* (12.023)	- 5.839 (5.700)	- 6.562 (7.495)	-9.107 (8.420)
HOURS	.971 (1.010)	- .135 (1.401)	1.273 (.992)	1.656 (1.451)	1.338 (1.340)
PROF	-96.150* (52.796)	—	- 6.688 (41.453)	-47.524 (86.603)	77.124* (45.622)
SACLER	-49.989 (47.740)	—	-38.768 (34.966)	7.857 (72.136)	83.113* (42.449)
BLUCOL	-53.775 (48.785)	—	40.982 (34.803)	-33.782 (67.933)	-5.526 (40.018)

Table E-4 (Concluded)

	Arizona	Georgia	Kansas	Louisiana	New York
Economic Variable					
IUR	21.418 (32.128)	-44.877 (35.735)	-66.420** (27.315)	8.968 (36.038)	-8.908 (19.267)
EARN	-438.912** (216.787)	-103.499 (558.172)	83.983 (302.783)	-488.487*** (176.999)	226.932 (202.205)
SEPR	11.928 (23.130)	- 54.665 (68.234)	-37.001 (36.177)	11.847 (13.091)	22.752 (41.754)
UI Variable					
WBA	.716 (1.493)	2.860 (2.199)	- 1.415* (.806)	.129 (1.595)	2.469* (1.131)
WBA^2	-.020 (.170)	-.013 (.022)	.015* (.008)	.006 (.013)	.016 (.011)
σ: Standard error of the linear form	171.093*** (6.476)	202.155*** (13.439)	168.346*** (7.695)	206.904*** (14.189)	247.856*** (11.343)
Number of observations	334	261	417	235	548

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

Prediction of the Duration of Unemployment

In addition to estimating the parameters of the maximum likelihood estimation of the duration of unemployment, the predicted duration and differences in the predicted duration were computed. In the tobit specification the dependent variable (the duration of unemployment) has a lower limit of zero and an upper limit that varied with each observation. The maximum upper limit was 500 days. The upper limit to the number of days of unemployment exceeded the maximum length of the period from the date the claim was filed until the date the survey was answered (approximately 365 days) to allow an observation period that included the weeks during which the individual delayed filing for benefits. This is shown graphically in Figure E-1 for those individuals who delayed filing for benefits and who had not returned to work as of the time of the receipt of the questionnaire.

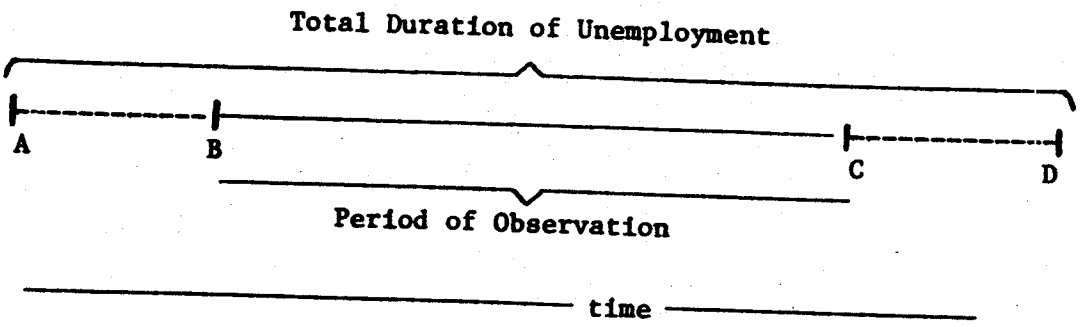

FIGURE E-1 GRAPHICAL REPRESENTATION OF THE DURATION OF UNEMPLOYMENT

The time shown as point A on this figure represents the date the individual became unemployed. At time B, the individual filed an initial claim for benefits and was randomly selected for inclusion in the sample. At time C (approximately nine months after the time at point B), the

individual received the questionnaire and returned it. Thus, although the period of time between the filing of a UI claim and the date of the questionnaire is the amount of time BC, the actual duration of unemployment exceeded this period by the amount of time AB. The time AB was incorporated into setting the upper limit on the period of observation.

The expected value of the duration of unemployment given the set of explanatory variables lies between the extremes of the lower and upper limits. The predicted value of the duration of unemployment, as shown in Tables 23-25 in the text, may be interpreted as the average for persons with average characteristics observed over the period AC. The difference between the expected values of the dependent variables for two sets of independent variables, as shown in Table 27, is a function of the limits and the values of the two sets of independent variables. In calculating the differences in the expected duration of unemployment of Table 27, the following prediction equations were used.

$$\hat{D}_j^{\beta} = \underset{\sim\sim}{\hat{\theta}}\,\underset{\sim\sim j}{\overline{U}}^{\beta} + \hat{\phi}\overline{W}_{aj} + \underset{\sim j}{\overline{Z}}'\,\underset{\sim}{\overline{\alpha}} \qquad (4a)$$

$$\hat{D}_j^{Q} = \underset{\sim\sim}{\hat{\theta}}\,\underset{\sim\sim j}{\overline{U}}^{Q} + \hat{\phi}\overline{W}_{aj} + \underset{\sim j}{\overline{Z}}'\,\underset{\sim}{\overline{\alpha}} \qquad (4b)$$

where $\underset{\sim}{\overline{U}}^{B}$ stands for the actual mean value of the WBA and the mean square of the WBA received by the beneficiaries

$\underset{\sim}{\overline{U}}^{Q}$ stands for the mean value of the WBA and the mean square of the WBA that would have been received by the disqualified if they had not been disqualified.

To produce the results of Table 27, $\hat{D}_j^B$ and $\hat{D}_j^Q$ were predicted for the beneficiary group compared separately with each disqualified group. The resulting difference, $\hat{D}_j^B - \hat{D}_j^Q$, is the net difference in the predicted duration of unemployment that could be expected if the disqualified had received UI benefits. The predicted values of the duration of unemployment $\hat{D}_j^B$ and $\hat{D}_j^Q$ are shown on Tables E-5 - E-7. A description of the test of predicted differences is found in Felder, Hall, and Weiss (1978).

Table E-5

PREDICTED IMPACT OF PENALTY ON EXPECTED
DURATION OF UNEMPLOYMENT FOR VOLUNTARY QUITS
(Days)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Total	211	217*	296	291	210	208	285	289	327	326
Males	203	207*	286	283	187	184	268	272	355	353
Females	227	225	303	301*	232	233	309	310	298	299
White	201	207*	269	264	204	201	252	257	311	311
Non-white	261	263*	367	361	279	283	371	373	399	398

Note: Benf. = beneficiaries; Dsq. = disqualified.

*Statistically significant at the .10 level.

Table E-6

PREDICTED IMPACT OF PENALTY ON EXPECTED
DURATION OF UNEMPLOYMENT FOR THOSE DISCHARGED FOR MISCONDUCT
(Days)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Total	218	224	332	329*	220	218*	278	293	347	345
Males	214	223*	330	323*	204	200	263	282	359	355
Females	226	228	338	334*	244	243	312	315	328	326
White	206	213	292	292	209	206	239	251	324	321
Non-white	262	261	392	389*	286	294	339	349	408	408

Note: Benf. = beneficiaries; Dsq. = disqualified.

*Statistically significant at the .10 level.

Table E-7

PREDICTED IMPACT OF PENALTY ON EXPECTED
DURATION OF UNEMPLOYMENT FOR REFUSAL OF SUITABLE WORK
(Days)

	Arizona		Georgia		Kansas		Louisiana		New York	
	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.	Benf.	Dsq.
Total	204	211*	295	292	212	205	279	291	351	348
Males	198	195**	309	313*	179	170	270	280	372	368
Females	221	220	281	277*	248	247**	300	303	332	330
White	195	200*	277	273	208	200	262	276	331	328
Non-white	266	281**	340	339	274	272	323	330	447	443

Note: Benf. = beneficiaries; Dsq. = disqualified.

*Statistically significant at the .10 level.

**Statistically significant at the .05 level.

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