The Unemployment and Reemployment Experiences of Displaced Workers Resulting From the Shutdown of Two Utah Mines: the Park City Ventures and the Burgin Mine

Richard A. Davidson

Utah State University

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THE UNEMPLOYMENT AND REEMPLOYMENT EXPERIENCES OF DISPLACED WORKERS

RESULTING FROM THE SHUTDOWN OF TWO UTAH MINES:

THE PARK CITY VENTURES AND THE BURGIN MINE

by

Richard A. Davidson

A thesis submitted in partial fulfillment of the requirement for the degree of

MASTER OF SCIENCE in

Economics

UTAH STATE UNIVERSITY
Logan, Utah

1980
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This research was made possible by funds provided by Business and Economic Development Services; Dr. Gary B. Hansen, Director, and Professor Marion T. Bentley, Associate Director. I would like to sincerely thank my Major Professor, Dr. Marion T. Bentley, for his guidance, help, support, and understanding in the preparation of this thesis. I would like to extend sincere appreciation to my Thesis Committee, Dr. Gary B. Hansen and Professor Stephen Schoene, for their suggestions during the research process and their constructive comments in the reviewing and drafting of this thesis.

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Richard A. Davidson
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ABSTRACT

The Unemployment and Reemployment Experiences of Displaced Workers
Resulting from the Shutdown of Two Utah Mines:
The Park City Ventures and The Burgin Mine
by
Richard A. Davidson, Master of Science
Utah State University, 1980

Major Professor: Dr. Marion T. Bentley
Department: Economics

The purpose of this paper is to study the unemployment and reemployment experiences of displaced workers. Two mines were shut down in 1978 in Utah: the Park City Ventures Mine located in Park City and the Burgin Mine located in Eureka. Data were collected from questionnaires mailed to all the displaced workers of both mines and from personal interviews conducted with mine officials, officials of formal job-search agencies, and union representatives.

The shutdown at Park City Ventures affected 350 workers, and the shutdown at the Burgin Mine affected 153. Both mines qualified for and were certified for Trade Readjustment Act benefits.

The paper is divided into four major parts: personal characteristics, job-search activities, financial status and public assistance programs, and workers' subjective feelings, in that order.

(156 pages)
CHAPTER I

INTRODUCTION

When economic conditions become such that a shutdown is the only possible solution, dramatic changes will occur for the workers, communities, and firms involved. In 1978, two mines were shut down in the State of Utah. The two mines were the Park City Ventures located in Park City and the Burgin Mine located in Eureka.

This study will focus on the unemployment and reemployment problems of the displaced workers. The study includes many of the experiences that displaced workers face: job-search methods and their effectiveness, public assistance and its relationship with unemployment and quality of reemployment, subjective feelings of workers, and demographic characteristics and employability.

The data from the displaced workers were obtained from the mailing of questionnaires and follow-up phone interviews of a sample of non-respondents. Information was also received from personal interviews with mine officials, union representatives, and formal job-search agencies. The research took place between January and June 1979.

The following is a brief description of the two mines, why the companies involved decided to shut down, and efforts that were made by formal job placement agencies in an attempt to assist the displaced workers.
Park City Ventures

Park City Ventures is owned jointly by Anaconda Co. and Asarco, Inc. by a split of 60-40, respectively. They leased the mine from the United Park City Mines Co. in 1971. The mine produced lead-zinc and silver ores. The mine employed 350 workers in January 1978 when it was announced that the mine would be closed down the following month.

In January 1978, the workers were informed orally by their supervisors that the mine would be closed on February 15, 1978, and that they would be out of work. The closing of the mine came as a surprise to almost everyone because Park City Ventures (PCV) was expanding its workforce in December. Many expected the mine to be closed only temporarily, and rumors that the mine would be reopened were frequent. On February 21, 1979, PCV confirmed it would not reopen the mine and was in the process of offering a lease to prospective buyers. The uncertainty that some of the workers felt with regard to the opening of the mine may have been detrimental to their reemployment efforts.

The workers given an advance notice of a month had several options. They could quit the mine early and try to get a jump on the labor market and risk losing unemployment benefits or work to the closure of the mine and then begin job searching. PCV provided employment assistance by bringing in prospective employers to interview the workers. The companies that came in were Gilsonite, Braztah, American, Geneva Steel, and FM/Allied. It was determined that these interviews with prospective employers were not very effective.¹

¹Interview with Robert Welsh, Job Service Director, Park City, Utah, February 26, 1979; see page 72.
The PCV management called the Utah State Employment Security Office (USES) in Park City and Heber City in January. They made arrangements with USES so that the unemployment insurance (UI) benefits could be collected right after the shutdown. Interviews were conducted by USES to assist the displaced workers in new employment but the attempts were not very successful for two reasons: one, the community could not absorb the number of workers who needed reemployment; and second, the jobs that were available were not comparable to the jobs held at PCV.\(^2\) Fifty-seven workers were accepted on the CETA program the following June but only for temporary summer work.

The United Steelworkers Union filed for trade readjustment assistance (TRA) on behalf of the PCV workers on January 25, 1978. It took four months (until June 1, 1978) for PCV to be certified for TRA. The impact date was set for July 1, 1977; any worker who lost his job due to the influence of foreign imports after July 1, 1977, was eligible for TRA. Once PCV was certified for TRA, then the USES had to get the workers identified and into the USES offices to fill out the application forms. They felt they were successful in this because they already had the names from the UI roles.

The mine operated unsuccessfully for eight years before it finally shut down. Three reasons were given for the closing of PCV: (a) the price of lead-zinc had fallen due to cheaper imports, (b) the high cost

\(^2\)Interview with David Turner, Former Job Service Director, Heber City, Utah, February 26, 1979.
of pumping water from the mine, and (c) the rock and ground were unusually unstable and caused problems.³

The impact of the closing of the mine was greatly felt in Park City and Heber City where most of the workers reside. Because the communities are relatively small and their economy is based on tourism and agriculture, it was difficult for the workers to find reemployment.⁴ An estimate was that 80 percent of the workers were still unemployed four months after the closing.⁵

Burgin Mine

The Burgin Mine is located in Eureka, Utah. The mine is owned and was operated by Kennecott Copper Corporation. The Burgin Mine was located in the Burgin Mine Area, consisting of three mines: the Burgin, Trixy, and Mammouth. Of the three, only the Burgin Mine was closed. The Burgin Mine Area is also the Tintic Division of the Kennecott Copper Corporation.

The mine had been in operation for 15 years before Kennecott decided that the mine, which had allegedly never been profitable, should be shut down. In the end of May 1978, the decision to close the mine was made. On June 15, 1978, the management of the Tintic Division informed the United Steelworkers Union Local 4260 that the mine would be closed on July 15, 1978, and that the workers would be laid off according to

³Interview with Norman Peterson, Supervisor of Park City Ventures, March 21, 1978.
⁴Welsh and Turner; February 26, 1979
⁵Ibid.
seniority as stipulated in the management-union contract. Salaried employees or those not covered by the contract would be laid off according to merit evaluated by the Company. In terms of the salaried employees, Kennecott felt they had gotten rid of a lot of the "dead wood" and that current supervision is much better than it was before the layoff.

The Company on June 15, 1978, posted notices on the bulletin boards informing the workers of the layoff. The posted notices contained the same information the union leaders were given.

The exact number of employees to be laid off could not be determined before the specific day of closing because so many were quitting during the time of notice and the actual shutdown date. Approximately 90 people quit during this time. Kennecott felt that about 150 people would have to be laid off; but, when 90 quit, they only had to lay off 63. This meant that on July 15, 1978, 63 people were given blue slips (termination notices) and were without a job at the time.

The mine produced lead-zinc and silver ores. It was closed down because the price of lead-zinc had fallen due to foreign imports and the high cost of pumping water from the mine.

The impact of the shutdown was hardly felt in Eureka because most of the workers did not live there. The workers came from the surrounding towns and cities of Spanish Fork, Payson, Nephi, Santaquin, Genola, Orem, Provo, Elberta, and others. One prevalent notion was that the displaced


7 Ibid.
workers were so spread out, the impact was very mild and the labor market was able to absorb them. 8

On June 15, 1978, Kennecott called the Spanish Fork Job Service Office to make arrangements for the workers that were laid off. The wage and salary records were given to USES so that unemployment insurance could be processed quickly.

The petition for trade readjustment assistance was filed on June 1, 1978, by the Kennecott Copper Corporation. TRA was certified for the Burgin shutdown on July 1, 1978. The reason that the Burgin Mine was certified so quickly was that the Park City Ventures had just been certified; since the mines were so similar, the process went quickly. 9 The impact date was set on March 1, 1978, but before October 26, 1978; and, to be eligible for TRA, an employee must have lost his job due to foreign imports between these dates. Kennecott brought in firms to interview the displaced workers. The firms that came to interview were the same firms that interviewed at PCV. Some transfers were available for workers who were electrical apprentices to the Magna, Utah, plant, but few took advantage of this opportunity. 10

The attitude of the management was that the workers were relieved to finally know they were out of work. 11 This was due to the fact that rumors had been around for a long time that the mine was going to close; and, everyone was uncertain as to the real status of the mine. The mine

---

8 Interview with Roger Halliday, Director, Spanish Fork Job Service, January 12, 1979.
9 Interview with James David, Director of Trade Readjustment Assistance of Utah State Employment Office, February 26, 1979.
11 Ibid, 13.
itself was a "hellhole". The water temperature got as high as 150°F, and to work in that mine was terrible."13

Similarities

The two mines were very similar in many respects. They both produced lead-zinc and silver ores. Both mines shut down for nearly the same reasons and within six months of each other. Both mines brought in the same firms to interview the displaced workers; and the result was the same—not very good. Both applied for and were certified for TRA; and, both had the wage and salary records sent to USES early so the workers could collect UI immediately following the shutdowns.

Differences and Problem

The Park City Mine had over twice as many displaced workers as the Burgin Mine. The Park City shutdown was more concentrated in a smaller area. PCV was not certified for TRA until four months after closing; the Burgin Mine was certified before the closing of the mine. Many of the Burgin Mine workers left before the shutdown, whereas most of the PCV workers did not. The problem to be addressed is: what problems do displaced workers face in regard to personal characteristics, job-search activities, and financial status and public assistance programs; and, what are their subjective feelings after a shutdown occurs.

Purpose

The primary purpose of this study is to analyze selected aspects of the unemployment and reemployment experiences of two sets of displaced workers.

---

12 Interview with Robert Ashworth, United Steelworkers President of Local 4260, January 3, 1979.

13 Ibid.
workers: 350 workers from PCV, and 153 workers from the Burgin Mine. Those aspects to be examined are: personal characteristics, job-search activities, financial status and public assistance programs, and subjective feelings of the displaced workers.

The study is treated as two case studies, the two mines; but, the analysis is performed simultaneously, and conclusions are based upon the findings in both cases.

Objectives

Two major objectives will be used to answer the problem dealt with by this thesis. The first is the collection of data by use of mailed questionnaires and personal interviews. A random sample of non-respondents to the questionnaire will also be used to determine if the respondents are representative of the entire population. The second is the analysis of data from the questionnaires returned.

The study has three major limitations:

1. Uncontrollable bias may be introduced by the structure, format, and content of the survey instruments.

2. The unique cultural aspects of the State of Utah may have an influence on the results.

3. The study is limited to the variables tested.
This review will analyze some of the studies that have been done in the area of displacement and reemployment. The review is broken down into two parts.

The first section is a review of seven case studies. The first five case studies deal with the shutdown process and the unemployment and reemployment experiences of displaced workers. The next two case studies deal with the social impact of shutdowns, community involvement, reactions, and solutions.

The second section is an analysis of relevant topics to the shutdown process. The topics to be discussed are: demand for labor, personal characteristics, trade readjustment assistance, job search, and mobility.

The survey of literature concludes with policy implications and recommendations based upon the findings.

Case Studies

Hesston

One of the more recent studies in this area is a case study of displaced workers in Nibley, Utah, which was done in 1977. Hesston's is a large international firm that specializes in manufacturing agricultural harvesting equipment.

The study concerns itself with the small manufacturing plant in Cache Valley where Nibley is located. The Hesston Nibley plant employed
210 people, and the study focused on the reemployment problems of the displaced workers of this plant.¹

The demographics of the workers at Hesston were very unusual. The median age was 18.7 years, a high percentage of males (88.2), a high proportion of married employees (86.3), a high educational level (12.6 years), and a high number of dependents (2.3), all of which are enviable characteristics of a blue-collar work force.² This made Hesston's unique in the fact that its work force was more desirable for employment than the average work force.

The methodology used by Fritts was the mailing of questionnaires and personal interviews conducted with the private and public agencies concerned about reemployment, such as the Utah State Employment Service and Hesston's personnel department. Every former worker at Hesston's was mailed a questionnaire approximately six months after the final layoff was over. Another questionnaire was then mailed one and a half months after the first. The personal interviews were conducted to examine the effectiveness of the formal agencies and their involvement in the job-search process.

Fritts believed it would be difficult, if not impossible, to identify another area that combines human resources and durable goods manufacturing in such an ideal mix as the Cache Valley area.³ Thus, the reemployment efforts of the workers were very positive. Six months after the

²Ibid., p. 99.
³Ibid., p. 98.
final phase of the shutdown was completed, only 16.7 percent of the employees were unemployed seeking work. Fritts attributes the high reemployment rate to many factors:

1. **Spread layoffs.** Because Hesston's laid off its workers over a four-month period and terminated them at no more than 25 workers a week, fewer reemployment problems arose. Fifty percent of the former workers obtained new employment within a week after they were terminated. Fritts concluded that spreading layoffs over a period of time was a positive factor on reemployment.

2. **Informal job search.** Applying in person was by far the most effective method of finding reemployment.

3. **Higher education.** The educational level for the median worker at Hesston's was 12.6 years. In comparison, the national median is 10.6 years.

4. **Family responsibilities.** Married, with dependents, and owning a home were all positively correlated with high levels of employment.

5. **Advance notice.** It can only be assumed by Fritts that advance notice is a positive influence because every Hesston worker was given at the minimum one month's notice.

The Hesston study also deals with the new employment the workers found in comparison to the work at Hesston's. The study concluded that the new work was preferable to that at Hesston's in terms of responsibility, working conditions, and pay.

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4 Ibid., p. 54.
Informal job search was more effective than formal methods. The Utah State Employment Service (Job Service) was found to be an ineffective means of finding employment. Applying in person was the most effective means of finding new employment.

Laplante

This study focuses on the Quebec experience in readjustment of workers displaced by economic change. In 1969, the Province of Quebec enacted the Manpower and Vocational Training Act in which Section 45 provides for reclassification committees to assist displaced workers in finding new employment. Section 45 also provides for mandatory length of advance notice, depending on the number of employees to be laid off. If 40 to 100 employees are to be affected, the law requires two months' notice; if 100 to 300 employees are affected, advance notice must be at least four months.\(^5\)

Many factors were found to ease the effect of being laid off. Laplante suggested many actions a firm can take to make a shutdown or partial layoff more helpful to the employees to be affected. Laplante feels that management may reap more benefits than costs in organizing and developing a program for assistance. The benefits can be in terms of company image, maintenance of morale and motivation within the organization, and benefits for managers themselves—who are far from being free of insecurity. Moreover, the sense of facing a challenge and overcoming it

is healthy for any organization as it cements itself by working through difficulties. 6

Laplante outlines some steps management should take when involved in assisting displaced workers:

1. Plan ahead. Laplante found that firms who improvised when assisting its employees could never produce satisfactory results.

2. Enlist the union. If a union is involved, it can be one of management's best resources. The union can be a clear channel of communication to the employees and can help educate and motivate employees in search for solutions. This will allow the employees to feel that they are actively participating in the layoff process.

3. Notify in advance. Allow workers as much advance notice as possible. This eliminates uncertainty, ambiguity, and rumor which cause difficulty in any organization.

4. Spread layoffs. This allows the labor market to re-absorb laid-off workers at a more even pace. 7 It lessens the economic impact on the market; and, it has been found to have a positive influence on the displaced workers in terms of employment outlook.

5. Genuine company support. Active support of reclassification activities should come from the highest appropriate level.

6. Encourage low-level managers to participate. This allows people with close ties to both labor and management to be involved with the assistance programs. These people often know the employees well and can relate the wants and needs to management officials.

6 Ibid.

7 Ibid., page 1048.
7. Implement transfer program. If possible, transfer programs should be used.

8. Develop a sense of urgency. Within realistic limits, an attitude of seriousness should be realized by both labor and management. It must be known that decisions should not be put off.

9. Training. If possible, training employees in an area that the organization could use could be effective. Even if this is not possible, basic training on methods for securing employment outside the organization should be given.

10. Placement assistance. The affected organization's personnel office should actively engage in the assistance of placing the affected workers. The help can take the forms in contacts with other employers, referral of employees, help in resume preparation, advice on interviewing skills, and education of the hiring mechanisms of the labor market. 8

11. Provide information. Displacement is a situation where secrecy can hurt because one is dealing with another's security. Decisions can affect peoples' psychological, social, and economic status. The firm should make special efforts to inform all workers of the shutdown procedures, processes, and decisions that will affect them.

12. Financial benefits. All efforts should be made to allow the workers the maximum possible financial benefits. Information and education on public assistance programs could be handled by the organization.

13. Flexibility. Retain enough flexibility to deal with individual problems. In times of an organization's financial difficulties, it is

8 Ibid., p. 10-50.
often easy to overlook individuals in an attempt to straighten out the business. A firm should try to be flexible and include individuals in the decision-making process.

14. **Early retirement.** Given the possible impact on the individuals, an early retirement program should be administered on a voluntary and flexible basis; intensive counseling should be made available to the potential early retirees who will be going through an already difficult transition in particularly strained circumstances.\(^9\)

Laplante felt that the above-mentioned variables were controllable factors and, if used properly, could be a positive influence on reemployment success.

Climate variables are the attitude in which management and labor approach the displacement and readjustment process. Laplante found that the climate surrounding the process of displacement was very important.

In terms of demographics, Laplante found that no single employee characteristic stood as overwhelmingly surpassing the others in finding reemployment.\(^10\)

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Loomba

One of the classic studies that deal with displacement was written by R. P. Loomba and published in 1967. He studied the reemployment and unemployment experiences of 1,184 engineers and scientists laid off from 62 aerospace and electronic firms in the San Francisco Bay Area from 1963

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\(^9\)Ibid., p. 10-53.

\(^10\)Ibid., p. 9-15.
to 1965. All companies were taken from the seven counties in the San Francisco Bay Area, including: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Solano. The study analyzes the magnitude of the layoff problem, job-search activities, income sources and period of unemployment, and impacts of age, education, and pre-layoff salary on reemployment.

The following are the major findings:

1. **Transfer from defense to commercial work.** Fifty-four percent of the respondents shifted from defense to commercial work. This percentage is unusually high in comparison to the average of engineers and scientists who change jobs normally (38 percent). Moreover, the people who did make the shift were younger, less educated, received lower salaries, read fewer technical magazines, took fewer courses offered at work, and belonged to fewer professional societies.

2. **Age and reemployment.** Older workers\(^\text{11}\) remained unemployed longer than younger workers, regardless of education, publications, patents, membership in professional organizations and pre-layoff salary. There was a difference for different degree holders. Older workers with advanced degrees had lengths of unemployment insignificantly different than younger workers with B.S. degrees. Thus, an advanced degree appears to be one way of counteracting age discrimination.

3. **Duration of unemployment.** The median length of unemployment for the respondents was twelve weeks. Loomba feels this is a considerably

\(^\text{11}\)R. P. Loomba, *A Study of the Reemployment and Unemployment Experiences of Scientists and Engineers Laid Off from 62 Aerospace and Electronics Firms in the San Francisco Bay Area During 1963-65* (U.S. Department of Labor, 1967), p. 52-53. (Older workers are defined as being 46 years or older; younger workers, as being 35 years or less.)
long time but offers no comparison to other studies. The length of unemployment was independent of education, publications, patents, readership of technical magazines, courses taken at work, workshop courses completed in the field, and membership in professional societies.\textsuperscript{12}

4. \textit{Company layoff policies}. The engineers and scientists received a mean length of advance notice of 7.58 working days or less. Fourteen percent received no notice at all of their forthcoming termination. The firms did not use seniority as a basis for termination. Workers with five years or longer were laid off at the same rate as those who had been with their firms two years or less.\textsuperscript{13} There was a higher proportion of older workers laid off relative to younger workers. Loomba concluded that the firms laid off primarily on the basis of age and that the workers were not given sufficient advance notice.

5. \textit{Job-search methods}. Direct application was the most helpful and efficient means of finding reemployment. Friends and personal contacts were the next effective methods. Strangely, newspaper want ads were the third most effective method. Only a few found reemployment through the State of California Department of Employment which had a low efficiency rating of 3.2.

6. \textit{Financial assistance}. Unemployment insurance was the most common form of financial assistance, with 74 percent of the respondents receiving it. It was found though not to be sufficient for people, with 51.4 percent of the laid off workers with four or less weeks unemployed.

\textsuperscript{12}Ibid., p. 103.

\textsuperscript{13}Ibid., p. 103.
ment needing to draw upon their savings accounts and investments. The fact that financial assistance was received did not make job-search activities inferior to those who did not receive assistance. In fact, the contrary was true; those workers who received unemployment insurance were more active in job-search activities than those who did not.

7. Salary change. Of those who responded, 21 percent had salary increases while 28 percent had salary decreases.

Loomba concluded that firms should help in the placement of the employees to be affected, give at least four weeks' advance notice, institute liberal severance pay policies, and be honest and frank about informing employees of the status of their jobs.

Tolles

The study focuses on the displacement of 794 workers from a carpet mill in the northeastern United States between the years of 1960 to 1962. The layoffs were a result in the lowering of carpet tariffs which stimulated an increase in carpet imports.

The local unemployment rate was exceptionally high (9.9 percent) compared to the national rate (5 percent) during this period. This unfavorable labor market coupled with the unfavorable characteristics of displaced workers led to large displacement losses. The group had poor employability characteristics; the average age was 45; 83 percent were married with unusually strong marital attachment and large families; median length of education was eight years; there was a high proportion of home ownership (57 percent); and, 58.3 percent of the spouses worked.

Age played a big part in reemployment. The older workers suffered longer lengths of unemployment than the younger workers. Female workers
experienced an unemployment rate (43.2 percent) nearly three times as high as male workers (15.5 percent). As a group, 45 percent of the 81.6 weeks the group was available for work was spent unemployed. During the 81.6 weeks, 12.5 percent of the group had found no work at all while 8.33 percent had been employed the whole time. Half the group had been unemployed no less than 62 percent of the time and no more than 22 percent of the 81.6 weeks.

Of those who succeeded in gaining reemployment, 66.7 percent earned less than before. Surprisingly, 22.2 percent were earning more than before being displaced. Every worker was in a different type of work than that in the carpet mill. There was a correlation of being a higher wage earner and unemployed longer. Those workers who waited longer received higher wages.

Within the group, those having more schooling had a more favorable employment and income experience after the layoff.

The age, marital status, family employment, and educational status of the laid-off carpet mill workers all tended to tie the group firmly to the local area. Nearly one-half of the workers had been born in the city, and more than three-quarters had been born in the state. Even if a reasonable job were offered to them, 76.7 percent of the group said they would not be willing to leave the area. This unwillingness to leave the area coupled with the depressed labor market made reemployment success difficult.

Tolles concluded by stating that women and those with less education suffer more in earnings and experience longer lengths of unemployment in a post-layoff period.

Wickwire

On June 7, 1963, it was announced that the Wickwire Division plant of Colorado Fuel and Iron Corporation would be totally shut down. The shutdown would occur by phasing out employees over the next year. Workers with two years' seniority would be given preference to transfer to other CFIC plants if vacancies were available. Few took advantage of this program. To be displaced were 1,455 persons. Of those, 328 were white-collar workers, and 1,127 were blue-collar workers.

The purpose of the study was to compare the attitude and adaptive behavior after a layoff and compare the reemployment success of white-collar and blue-collar workers. The major hypothesis was that white-collar workers seek to maximize their reemployment, while blue-collar workers tend to satisfice. Data were collected by the use of questionnaires sent out to all the workers nine months after the layoff.

The demographics of the workers include a high percentage of males (95 percent), a high percentage of older workers (36 percent were over 50 years old), and low levels of education (only 36 percent had high school diplomas or better).

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16 "Satisfice" can be defined as merely accepting a position that is readily available, usually at lower wages and poorer working conditions.
Foltman found that older workers, without regard to being white- or blue-collar, found work less readily. Only 44 percent of the workers over 50 years of age had found reemployment in the nine months in comparison to the 83 percent of the workers in the 20 to 29 year category. Breaking down into white- and blue-collar classifications reveals a more startling statistic: only 2 percent of the blue-collar workers in the over-50 category had found work, while white-collar workers in the same age category had reemployment success 58 percent of the time. The older workers found work that was temporary rather than permanent in comparison to younger workers. Also, older workers suffered downward mobility after the layoff, with 68 percent of the white-collar and 56 percent of the blue-collar workers accepting lower occupational status.

The higher educated person had the greater chance of being reemployed, obtaining a permanent position, experiencing less downward mobility, and maintaining previous income.

The more skill a person had, the better success of reemployment he experienced. Skilled workers tended to have a higher rate of reemployment (36 percent) than unskilled workers (20 percent).

Organized community efforts to find jobs for displaced workers are generally unsuccessful. Although it is difficult (if not impossible) to evaluate community efforts, it is generally accepted that, although initial efforts are enthusiastic, the placement records are generally

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17 Foltman, p. 106.
18 Ibid., p. 111.
Although ranked by the former employees as being more helpful than the company placement efforts and the State Employment Service, community placement efforts were perceived as not very useful.

It was concluded that public and private employment agencies play a very minor role in the reemployment efforts of displaced workers. The New York State Employment Service was given credit as most helpful in finding reemployment by 10 percent of the workers, whereas only 2 percent credited private agencies as most helpful. Older workers and the less educated tend to use public and private agencies more than younger workers. Applying in person was considered the most useful job-search method.

Of all respondents, 57 percent indicated that conditions (pay, responsibility, and supervision) on their new jobs were not as good as those previously enjoyed. Even though displaced workers realized that conditions on their new jobs will be relatively worse than before, they still seem willing to accept them. It was concluded that displaced workers do not generally look for alternatives but rather accept the first job offered.

Displaced blue-collar workers are strongly attached to their communities and will not consider moving away, while white-collar workers are less attached to their communities and more likely to take jobs requiring a move. Wanting to stay is contingent upon many variables.

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19 Ibid., p. 111.
20 Ibid., p. 113.
21 Ibid., p. 115.
including property ownership, family, friends, personal attachment, age, and the perception that jobs were not available in other areas. In general, workers (especially blue-collar workers) do not seek reemployment (and are not willing to move) outside their community.

Retraining or continuing one's education is not considered a realistic alternative by displaced workers. Only 5 percent of the white-collar and only 6 percent of the blue-collar workers felt that more education or retraining was a realistic solution to their reemployment problem. This is not really surprising, given the high proportion of older workers at Wickwire.

With respect to the major hypothesis of maximizing efforts of white-collar workers and the satisficing behavior of blue-collar workers, it was affirmed to be true in this study. White-collar workers were more successful in finding permanent jobs and adjusting to their situation. They were also more mobile and had better knowledge of the job market.

The study concludes that management and union alone cannot alleviate the harsh effects of a shutdown. Government, employers, and unions must work together to form viable and workable solutions in a shutdown situation. Clearly, government should have an active role in maintaining a balance between the demand and supply of human resources.

The next two case studies deal with the social impact of shutdowns, community involvement, reactions, and solutions. After a shutdown occurs, 

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22 Ibid., p. 116.

23 Arlene Holen, Losses to Workers Displaced by Plant Closure or Layoff: A Review of Literature (Center of Naval Analyses, 1976), p. 25.

24 Foltman, p. 118.
the people affected usually suffer tremendous psychological and physical stress. Previous research on unemployment has shown that people whose employment is suddenly terminated, or who anticipate such termination, show physiological signs of strain such as elevated blood pressure (related to heart disease and hypertension), elevated uric acid (related to gout), and elevated pulse rate (related to feelings of tension).\textsuperscript{25} With such stress involved, it is important to analyze what has been done to reduce such adverse effects on displaced workers.

**MN Shutdown**

MN was a fictitious name used to conceal the identity of a firm that shut down in January 1975. A layoff of 850 workers was to begin at that time, although the plant once employed 2,000 workers. To assist in the unemployment and reemployment problems, a community action team was organized. The team was designed to carry out two main purposes: one, development of coordination between the unemployed MN employees and those agencies that offer assistance; and second, to develop a counseling program to help the workers overcome their problems and aid in referring them to the proper assistance agencies.

It was evident that one of the most common problems of displaced workers is lack of information. They do not seem to realize they are about to lose their jobs and what type of adjustments this will necessitate in their lives. It was concluded that the workers did not have knowledge of

assistance agencies, or the time constraints that these agencies put on applications. For example, in this study, assistance agencies would reply, "We could have helped Mr. 'X' only if he had come to us earlier". Knowledge of losses in wages, benefits, and job markets were all a problem.

The study reveals three elements that should be present for helping displaced workers from a community's viewpoint. Agencies that provide services for displaced workers should provide comprehensive and coordinated services. Programs should be comprehensive enough to cover the problems and needs of the workers. The services should be coordinated so that they are not duplicated and so that they can be more effective. The assistance agencies should be proactive; that is, they should actively seek those who are eligible and need assistance.

Mansfield Formula

The Mansfield Formula was developed in response to the shutdown of the Mansfield Tire and Rubber Company on August 15, 1978. The shutdown caused 1,000 tire builders to lose their jobs. Most were middle aged and knew no other trade or skill. The local job market in Akron, Ohio, was unfavorable for tire builders; thus, the displaced workers needed to be retrained. Questionnaires were sent to training institutions in order to assess the training facilities and types of training available in the area. The plan was to set up centers for counseling and job placement.

26 Ibid., p. 6.

Workers were informed by the centers through direct mailings. The centers had large enrollments, thus proving that the displaced workers wanted retraining.

The following is an outline of the Mansfield Formula:

1. An Education Committee of the Greater Mansfield Area Growth was formed to help all unemployed workers by counseling, retraining, and job placement.
2. The Committee brought labor, management, social services, educators, and other key community elements together to work on the planning of the program.
3. The Committee made certain that all educational institutions were united and coordinated in their efforts to help the unemployed.
4. The Committee then designed a survey instrument.
5. It conducted an orientation program for counselors.
6. It set up "Unemployed Registration Centers".
7. The survey forms were filled out by those who registered at the centers. Then the forms were analyzed by the Committee.
8. A budget was constructed.
9. Funding sources were contacted.
10. Retraining programs were designed.
11. Career counseling commenced.
12. There were special programs (a career seminar, for example).

28 Ibid.
29 Ibid.
13. Job skill training was launched.
14. The job placement aspect of the program began.

Because the Mansfield Formula is presented so clearly, a community involved in a shutdown can easily implement it. Certainly, retraining alone is not the only answer in solving reemployment problems, but it is a step in the right direction, especially if the previous skill is no longer in demand.

**Topical Review**

In this section of the literature review, specific topics concerning the unemployment and reemployment problems of displaced workers will be discussed.

**Demand for Labor**

The factor of demand is sometimes overlooked in studies on displacement. It must be remembered that it does not matter if retraining is possible, assistance programs are available, demographic profiles are favorable, and job-search methods are efficient; if there is no demand for labor, there will be no reemployment. Without job vacancies, the reemployment efforts of displaced workers will not be rewarded. Since long-term unemployment often follows plant closures for many workers, especially in depressed areas, rapid identification of vacant jobs on a state or regional basis is crucial for successful job placement.³⁰

³⁰Fritts, p. 19.
Personal Characteristics

Nearly all studies produce similar results on demographic data. Those displaced workers who suffer the most are older, female, less educated, and less skilled workers. These large losses to these certain groups seem to occur regardless of the size, location, and strength of the labor market. In general, the older, female, less educated, and less skilled suffer longer durations of unemployment; and, when they do find work, it is at lower income levels.

There is a notable exception of age when reviewing demographic data. The Jacobsen\textsuperscript{31} study found that younger workers have greater initial losses than prime-age workers. This is supported by Foltman who concluded that younger workers (those less than 18 years old) face as big a problem as older workers in finding reemployment, at least in the short-run.\textsuperscript{32}

Without a doubt, sex plays a major role in reemployment success. Females can experience up to three times the unemployment rate of males.\textsuperscript{33} Other variables enter also into the role of sex. For example, a greater proportion of females are apt to leave the labor force than males, and discrimination in hiring against females occurs.

The effect of education on reemployment success differs from study to study. Education never seems to have a negative effect but often has

\textsuperscript{31} Louis Jacobson, "Estimating the Loss in Earnings for Displaced Workers in the Steel Industry", (Removing Restrictions on Imports of Steel (Center for Naval Analyses, May 1975).

\textsuperscript{32} Foltman, p. 107.

\textsuperscript{33} Tolles, p. 96.
a neutral one. In reemployment success, training in a particular skill seems to be much more important in blue-collar occupations than education. White-collar workers differ little in education as group; and, therefore education plays a positive but minor role in reemployment success. It is true, however, that the less educated suffer longer durations of unemployment. This is probably because they have lower opportunity costs of being out of work. Also, less educated workers have a lower transferability of skills which makes job searching more restricted to what they can do.

Trade Readjustment Assistance

In 1974, the Trade Readjustment Assistance Act became law. Under the provisions of this act, American workers who become totally or partially unemployed as a result of increased imports are helped with trade readjustment allowances during periods of unemployment or underemployment.34 The benefits of TRA are many, including extra non-taxable earnings other than unemployment insurance, job relocation, job search, and training and education allowances.

The regular trade readjustment allowance is 70 percent of average weekly wage but cannot exceed the national average weekly manufacturing wages.35 This amount may be reduced, depending on the amount of unemploy-


35U.S. Department of Labor, "If Imports Cost You Your Job—Apply for Worker Adjustment Assistance" (Washington: Manpower Administration, n.d.), p. 3.
ment insurance a person draws and the amount a person makes during a week. The usual length of time a person is eligible to draw TRA is 52 weeks over a two-year period. A person can draw TRA longer if he needs the time and qualifies for completion of a training program or if he was 60 years or older at the time of the layoff.

If training will improve a person's chance of getting a job, the Trade Act provides assistance. TRA will cover all training expenses and continue to pay the normal TRA wage allowance. There is also a commuting expense of 12 cents a mile and a living expense of $15 a day while training is in progress. To be eligible for training, the employment security office must determine that the proposed training will make the person more viable in the labor market and that the labor market has a need for people with the proposed training. Also, once the training has started, the person involved is required to meet the satisfactory requirements of the training.

If the employment security office and the TRA recipient feel that job prospects are good outside the local area, then the TRA recipient can receive a job-search allowance. The job-search allowance will pay 80 percent of the travel and living expenses (up to $500) while the person looks for work. Travel is limited to the United States, and it must be determined that there is no demand for the person's skill in the local area.

If the person finds a new job outside the local area, the TRA grants a job relocation allowance. A person will be paid 80 percent of the reasonable and necessary expenses of moving his family and household goods.

\[36\text{Ibid., P. 6.}\]
TRA will also give the recipient a lump-sum amount for settling in, consisting of three weeks of the person's last wage at his former job (up to $500 maximum).

To qualify for TRA, a person must have worked at his former job for 26 weeks in the last 52 weeks immediately preceding his separation and must have made more than $30 a week. To qualify, a person must be laid off (he cannot quit early or leave to try and find a new job and then be eligible if he does not find one).

The McCarthy study found that trade readjustment assistance was ineffective.\(^{37}\) Displaced workers suffered severe losses, and 25 percent were still unemployed a year after the shutdown.\(^{38}\)

The RCA study found TRA not only to be ineffective but had an adverse effect on length of unemployment and earnings. The conclusion of the study was, "extended unemployment insurance supplement by trade readjustment allowances (UI-TRA) did not seem to have a positive effect upon protecting workers' earnings or in easing adjustment";\(^{39}\) and "extended impacted benefits, in some cases, may have harmed a worker's ability to adjust to reemployment".\(^{40}\)

The Subcommittee of Ways and Means concluded after the hearings on


\(^{38}\) Ibid.

\(^{39}\) Donald E. Pursell, William R. Schrifer, and Roger Bowlby; "Trade Adjustment Assistance: An Analysis of Impacted Worker Benefits on Displaced Workers in the Electronics Industry" (Memphis, Tennessee: Center for Manpower Studies, 1975), p. 265.

\(^{40}\) Ibid., p. 267.
the trade readjustment assistance programs that more emphasis needs to be put on the retraining aspects of the worker adjustment assistance program. 41

Job Search

Job seekers use many and various methods to acquire employment, among which are applying in person, using public and private employment agencies, contacting friends, sending letters to prospective employers, reading newspaper want ads, and contacting relatives. The method used can play an important part in employment and reemployment success.

Most displaced workers obtain new jobs through informal methods (friends, relatives, and direct application to employers) rather than by formal job-search methods. 42 This is probably because most displaced workers wish to minimize the costs of their job search, and informal methods tend to be the least costly. Also, displaced employees prefer not to leave their communities 43 and have little inclination to look for jobs outside them.

The Manpower Administration of the Department of Labor financed a nationwide sample survey conducted in January 1973 of successful job-seekers to determine which search methods are used and the effectiveness

41 Subcommittee on Trade of the Committee on Ways and Means, House of Representatives, The Operation and Effectiveness of the Trade Adjustment Assistance Programs for Workers, Firms, and Communities Provided by Title II of the Trade Act of 1974 (Washington, 1977), p. 175.

42 Fritts, p. 26

43 Foltman, p. 73.
of the various methods.\textsuperscript{44} (See Figure 1.) The most commonly used method was applying in person. Contacting friends and reading newspaper ads were the second and third most used methods, respectively. The most effective methods of obtaining a job as measured by an effectiveness rating were applying in person (47.7), private employment agencies (24.2), and newspaper ads (23.9). (See Figure 2.) The most common methods used to obtain a job were applying directly in person, contacting friends, and reading newspaper ads. (See Figure 3.) In this study, the most common methods used in searching and the most common method used in obtaining a job had the same rankings.

Another set of data concerning job-search methods was taken from the current population survey conducted by the Bureau of the Census for the Bureau of Labor Statistics from the months in the years 1970 and 1971.\textsuperscript{45} (See Figure 4.) In this survey, the most commonly used method was applying directly in person, with over 70 percent of those surveyed using this method. Public employment agencies and newspaper want ads were the second and third most commonly used methods, respectively. Patterns emerge after analysis of the demographic data compared to job-search methods. Blacks and females tended to use public employment agencies more than whites and males.\textsuperscript{46} Contacting friends and relatives was a method used predominantly by white males.\textsuperscript{47}

\textsuperscript{45}Thomas F. Bradshaw, "Jobseeking Methods Used by Unemployed Workers", Monthly Labor Review (February 1973), p. 35.
\textsuperscript{46}Ibid., p. 37.
\textsuperscript{47}Ibid., p. 38.

Figure 1. Survey of jobseeking methods used by unemployed workers in the United States (1973) (percentage)

Figure 2. Survey of effectiveness rating* for methods used in obtaining employment

* effectiveness rating = number who obtain job by method / number who mentioned using method

Figure 3. Survey of methods used to obtain employment

Figure 4. Survey of jobseeking methods used by unemployed workers in the United States (1970 and 1971) (percentage)
The most obvious conclusion that can be drawn from this job-search section is that applying in person is by far the most effective and most used method of finding and obtaining a job.

**Mobility**

There are two types of mobility: geographical and occupational. The important question to be answered is, "after a shutdown or layoff occurs, does mobility have a positive effect on reemployment success?". Thomas Gutteridge examined the reemployment experiences of 831 engineers and scientists displaced from their jobs due to the economic decline of the early 1970's.\(^{48}\)

Gutteridge found that displaced workers who are able and have a willingness to change occupations suffer shorter durations of unemployment. Also, those who are willing to relocate suffer shorter durations of unemployment than those who are not.

One interesting aspect of the Gutteridge study was that displaced workers willing to take a cut in pay were unemployed longer, not shorter, durations than those who were not.

Mobility and the willingness to change occupations increase as the length of employment increases; but, geographical mobility does not increase even after prolonged unemployment.\(^{49}\)

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\(^{49}\) Ibid., p. 472.
Policy Implications

There has been a growing awareness of the problems that displaced workers face after a shutdown. The responsibility of solving the problems should not lie with the displaced workers alone. Because a shutdown affects the entire community, involvement must come from government agencies, community action teams or the like, the firm, and the workers themselves.

Each shutdown has its own set of circumstances that must be dealt with on an individual basis. But, many courses of action can be taken to ease the traumatic situation a shutdown imposes on a community.

Recommendations Based on Literature Survey

Following are several recommendations which should be used in a shutdown situation based on findings from the literature survey:

1. Comprehensive and coordinated efforts. When a shutdown occurs, it is useful that all involved coordinate their efforts so that time lags and duplication are minimized. What frequently happens is that different assistance agencies will perform the same tasks. This confuses the displaced worker and hinders the effectiveness of the assistance. Efforts should be made to cover all areas of displacement. Comprehensiveness is important because the problems of the displaced workers are often many and varied. Attempts should be made to help the displaced workers to cover everything from financial problems to emotional problems.

2. Information. Lack of information can make the shutdown worse for the workers than just losing a job. Oftentimes, management wishes to keep the information of a shutdown from the workers so that this will not affect the workers' performance and productivity until the time when
workers must be told. Ironically, keeping the information from the workers has just the opposite effect. When the workers feel they are not being told something, they get frustrated and productivity drops. Lack of information creates ambiguity and starts rumors, undesirable at any time but even more so during a shutdown. The workers should be notified of the shutdown as soon as possible, and all steps should be taken to eliminate uncertainty and ambiguity in the shutdown process.

3. Spread layoffs. If practical, the layoffs should be spread over as long a period of time as possible, allowing the labor market to absorb workers at a more even rate. It also gives the workers more time to evaluate their own situation and may increase their alternatives. Spreading layoffs also gives the assistance agencies and the firm's personnel office fewer people to work with at one time, allowing them to concentrate on a few workers and give them more individual service.

4. Assistance agencies. It is important that the public employment office enter into the shutdown process as soon as possible. The public employment office is potentially the most valuable single community resource for working with displacement problems. It is also important that community action teams enter into the picture as soon as possible. A large number of unemployed people could affect the community's economy and cause new social problems. Canvassing the com-

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50 Laplante, p. 10-49.
51 Fritts, p. 33; Foltman, p. 117.
52 Fritts, p. 34.
53 Gary B. Hansen, Marion T. Bentley, and Cindy D. Jorgensen; Problems and Solutions in a Plant Shutdown (February 1979), p. 15.
munity for job vacancies and helping in filling out application forms and resume's can be an important part of community involvement. Agencies that deal with social aspects should be involved immediately. Oftentimes, displaced workers need counseling about social and personal affairs. These types of agencies usually provide such services.

5. **Management responsibilities.** Management should notify the workers of the shutdown as soon as possible. Management should make every attempt to ease the hardship the worker will face in the shutdown process. Management should provide the necessary information to the public employment office concerning the eligibility of the worker for unemployment benefits. Management should try to allow the worker to receive all possible financial benefits. Also, pre-registration with the public employment office will aid in the reemployment success of the displaced workers. Pre-layoff registration enables the worker to find employment faster and eases the transition out of the workplace.\(^{54}\) The firm's personnel department should allow other firms to come to the workplace and interview potential employees. The firm can canvass other employers and invite them to come and interview. If possible, transfers to other plants with the same company should be encouraged. Relocation assistance may be needed, and the firm ought to assist. Management should take an active role in assisting the soon-to-be-displaced employees in all phases and problems occurring during the shutdown process. A genuine concern of management can ease the problems of the workers and of the firm.

6. **Financial help.** In the short-run, financial burden is a major concern. The agencies responsible for providing financial assistance should make every effort to provide as much as possible, as soon as possible. Information for applying for assistance such as unemployment insurance and TRA should be made available prior to the shutdown. Management ought to be liberal in giving financial assistance in terms of vacation pay, severance pay, pensions, early retirement, etc.

7. **Retraining.** One reason for displacement is that a particular skill is no longer demanded or needed. Even if this is not so in a particular case, it is generally true that workers with a diversity of skills find reemployment faster. 55 Retraining can be a valuable tool in assisting displaced workers. If retraining is offered, most unemployed workers will take advantage of it. 56 The technological revolution is displacing many workers, and retraining appears to be one solution. 57

**Conclusion**

Shutdowns have a tremendous effect on the workers, communities, and firms involved. The workers appear to suffer the most; and, they rely on informal job-search techniques which usually mean less wages and less job satisfaction. 58 Many jobs that displaced workers settle for are worse than the ones they previously held. Workers also suffer tremendous physical and psychological stress, strained family relationships, and

55 Gutteridge, p. 471.
56 Abbott, p. 2.
57 Ibid.
58 Fritts, p. 36.
disruption of family life, often occurring when a spouse enters the workforce. 59

It appears that many of these problems can be solved if the community, management, assistance agencies, and the workers themselves will coordinate their efforts and activities to ease the trauma of a shutdown.

It should be remembered that each shutdown will more than likely have its own unique problems and circumstances. The proposed recommendations arising from the literature survey can help in making general decisions concerning the shutdown process.

59 Hansen et al, p. 2.
CHAPTER III

METHODS

This chapter contains the methods used to obtain the data which are analyzed in the following chapters of this thesis. Three methods were used to generate the data: mailed questionnaires\(^1\) sent to former workers of Park City Ventures\(^2\) and the Burgin Mines,\(^3\) oral interviews\(^4\) of selected officials, and follow-up phone interviews of a random sample of non-respondents.

**Questionnaire**

The two questionnaires used for the PCV and Burgin Mines are identical except for the addition of a special last section to the Burgin Mine questionnaire for the workers who were asked to come back to the Tintic Division in November, 1978. The PCV questionnaire had 35 questions, and the Burgin questionnaire had 44. Most of the questions were structured so that respondents had only to check off the responses that were appropriate for them. Confidentiality was promised, as was a summary of the

\(^1\)Copies of the two mailed questionnaires used for the two mines are presented in Appendixes "A" and "B".

\(^2\)All former Park City Ventures workers who were employed on January 1, 1978, were sent questionnaires.

\(^3\)All former Burgin Mine workers who were employed from June 1, 1978, to November 1, 1978, were sent questionnaires.

\(^4\)A copy of the oral interview outline is presented in Appendix "G".
results if the respondents included their name and address in the appropriate place. Many of the respondents did not take advantage of this opportunity.

The pre-test of the questionnaire was made December 4, 1978, to a random sample of 20 displaced workers from the Burgin Mine. With each questionnaire, a self-addressed, stamped envelope was enclosed so the respondent merely had to complete the questionnaire and return it in the envelope provided. The sample mailing had a response of seven completed and useable questionnaires. One individual had moved without leaving a forwarding address, and the questionnaire was returned by the U.S. Post Office. Twelve did not respond. Thus, the sample yielded a response rate of 35 percent for the sample, or a rate of 36.8 percent of the workers contacted.

The first mailing of the questionnaires to the entire populations was conducted between January 19-23, 1979. Sent to the former Burgin Mine workers were 146 questionnaires;\(^5\) and, 350 questionnaires were sent to former PCV workers. A second mailing of the same questionnaire was conducted during February 26-28 and April 1-2, 1979. With the second mailing, those who responded to and were identified from the first mailing were not sent questionnaires; those who responded to the first mailing but did not write their names in the appropriate place were also sent questionnaires accompanied by a letter explaining to them not to fill out this questionnaire and mail it in.

From the two mailings to the former PCV workers, 141 useable questionnaires were returned, and 29 were returned by the U.S. Post Office

\(^5\)From the Burgin Mine, 153 workers were identified as "displaced". The seven respondents were excluded from the population survey.
because no forwarding address was available. The response rate thus yielded was 40.3 percent of the population and 43.9 percent of the workers contacted.

From the two mailings of the questionnaire (including the sample mailing) to the Burgin Mine workers, 65 useable questionnaires were returned from a population of 153. Moreover, 10 subjects did not leave a forwarding address and these questionnaires were returned by the U.S. Post Office. The response rate thus yielded was 42.5 percent of the population and 45.5 percent of the workers contacted. (See Table 1.)

Table 1. Questionnaire response and percentages breakdown

<table>
<thead>
<tr>
<th></th>
<th>Useable returned questionnaires</th>
<th>Displaced worker population</th>
<th>Displaced workers contacted</th>
<th>Percentage returned from population</th>
<th>Percentage returned from workers contacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City Ventures</td>
<td>141</td>
<td>350</td>
<td>321</td>
<td>40.3</td>
<td>43.9</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>65</td>
<td>153</td>
<td>143</td>
<td>42.5</td>
<td>45.5</td>
</tr>
</tbody>
</table>

Non-Respondent Sample Phone Survey

In late May 1979, follow-up phone interviews were conducted to verify that the questionnaires mailed in were representative of the entire population. A random sample of six non-respondents from the Burgin Mine and 14 non-respondents from PCV were asked to complete the questionnaire over the phone. One person from PCV refused to answer the questions for the study, so only 13 useable questionnaires were generated from the phone
survey of PCV non-respondents and six useable questionnaires from the Burgin Mine non-respondents. The phone survey represented nearly 4 percent of the population from both mines.

Several questions were selected at random to compare the results of the phone survey to the mailed questionnaires. Statistical tests were run on categories of the two sets of respondents. Of the seven questions that were tested, for PCV only two sets of proportions were different at 0.05 level of significance: the proportion currently employed and the proportion that received TRA. The sample of non-respondents surveyed by phone from PCV had significantly higher proportions of current employment and lower proportions of displaced workers that received TRA. (See Figures 5 and 6.)

Of the seven questions tested, for the Burgin Mine only two sets of proportions were different at 0.05 level of significance: the proportion of males and the proportion of other family members starting to work after the layoff. Although the proportion of males is different at 0.05 level of significance, the proportion is not different at 0.01 level of significance. The proportion of family members entering the labor force after the layoff is much different from the phone survey of non-respondents as compared to the questionnaire respondents; of the non-respondents surveyed, none had family members entering the labor force, while 27 percent of the questionnaire respondents had family members entering the labor force. The same discrepancy was common in the Hesston study. Fritts attributed the difference to time lag between the first mailing of the questionnaires and the non-respondent phone survey. The

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6 Fritts, p. 43.
Figure 5. Comparison of data from non-respondent sample survey with mailed questionnaires. Park City Ventures.

\[ a = \text{Telephone interviews} \]
\[ b = \text{Mailed questionnaires} \]
Figure 6. Comparison of data from non-respondent sample phone survey with mailed questionnaires. Burgin Mine.
same conclusion can be reached in this study since the time lag between the first mailing of the questionnaires and the non-respondent phone survey was the same as Fritts's (12 weeks).

**Oral Interviews**

Oral interviews were conducted with representatives of both companies, the union, and certain state and local officials of the Utah State Employment Security Office to obtain background information and knowledge of the agencies and their roles in assisting the displaced workers. The interview outline was constructed with general questions concerning the shutdowns and certain specific questions dependent upon what role the agency had. The interviews proved to be very informative and helpful in reconstructing the events that occurred during the shutdown periods. The following is a list of interviews completed prior to May 31, 1979:

1. Industrial and Public Relations Director of Kennecott's Tintic Division.
2. Director of Utah State Employment Service, Spanish Fork Office.
3. Assistant Director of Utah State Employment Service, Spanish Fork Office.
4. Former Director of Utah State Employment Service, Heber City Office.
5. Director of Utah State Employment Service, Park City Office.
7. Manager, Park City Ventures Mines, Inc.
8. President, United Steelworkers Union Local 4260.
Data Analysis

The questionnaires were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Many statistical tests were run, including frequency counts, measures of central tendency, linear regression, correlations, and cross-tabulations. The tests will be used in the following chapters to support or refute hypotheses about the relationships between the variables being analyzed.

Oral interviews were not programmed along with the mailed questionnaires. The oral interviews were used to gain information and knowledge that led to the generation of hypotheses concerning the study. The sample of the non-respondents interviewed by phone were not included in the analysis of data because the purpose of the phone survey was to determine if the non-respondents were significantly different from the respondents. The obvious problem from phone surveys and personal interviews is that an uncontrollable bias may be introduced by the interviewer, although the interviewer did all he could to remain impartial. Nonetheless, bias cannot be totally discounted from the study. The same bias may have entered into the study as a result of the cover letter for the questionnaire and the structure, format, and content of the questionnaire itself. It is believed that this error is small due to the correlation of the non-respondent sample phone survey and the mailed questionnaire. Many displacement studies have used the same methods as this one. The methodology for this study is adopted from the Hesston, Wickwire, and Loomba studies, all of which are briefly summarized in Chapter II.
CHAPTER IV

PERSONAL CHARACTERISTICS AND THE POST-LAYOFF EXPERIENCE

The question to be analyzed in this chapter is: "how are individual differences of age, sex, education, marital status, dependents, place of birth, length of residence in Utah, and housing status associated with the post-layoff experience?". It will be shown that certain demographic characteristics are related to reemployment success in terms of shorter durations of unemployment and better current jobs than the previous jobs held at the mines. Regression analysis will be one method used, with selected independent variables and length of unemployment as the dependent variable.

A typical worker displaced from the Park City Ventures Mine would be a Utahn born in the mine area, married male, 39 years of age, with two dependents, holder of a high-school diploma and no other formal training, and a home-owner who has lived in Utah nearly all his life. The typical worker from the Burgin Mine would be a Utahn also born in the mine area, married male, 32 years of age, with two dependents, holder of a high-school diploma or possibly more and maybe some formal vocational training (but the training would not correlate to the job he held at the mine), and a home-owner who had lived in Utah all his life.

It certainly would be more useful to break down these individual characteristics and determine their effect on the post-layoff experience.
In order to examine the differences associated with personal characteristics, it would be practical to examine what these differences are.

Table 2 shows the place of birth of the respondents.

Table 2. Place of birth of respondents (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Mine area</th>
<th>Utah</th>
<th>Inter-Mountain area</th>
<th>United States</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City Ventures</td>
<td>75.9</td>
<td>7.1</td>
<td>3.5</td>
<td>13.5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>55.4</td>
<td>23.1</td>
<td>7.7</td>
<td>12.3</td>
<td>1.5</td>
<td>100</td>
</tr>
</tbody>
</table>

It is interesting to note the high proportion of Utahns in both mines, 83 percent in the PCV population and 78.5 percent in the Burgin. The difference in the proportions of Utahns in the two populations is not significant at the 0.05 level of significance. This means the employer had to deal with a closed job market or one that is very localized. Two tests of the closed job market hypothesis are that a high proportion of the workforce is localized and that the mean length of residence in the area is a high proportion of the mean age. The study shows both tests to be supported in both mines. The mean length of residence in Utah for the displaced PCV workers was 33.6 years and the mean age was 38.7 years for a residence-to-age proportion of 86.8 percent. For the Burgin Mine, the mean length of residence in Utah was 27.6 years and the mean age was 31.9 years for a residence-to-age proportion of 86.5 percent. Fritts
concluded that the job market in the Hesston study with a proportion of 86.4 percent was a closed market.¹ Both mines had a higher residence-to-age proportion than Hesston's, although the difference is insignificant at 0.05 level of significance (l.o.s.).

**Regression Analysis**

To examine a variable independently of the influence of other variables may introduce a bias in the conclusions that are reached. Therefore, before the variables are examined isolated from one another, regression analysis was used to control the impact of the other variables. A model was constructed using four independent variables: age, length of residence in Utah, education, and TRA. The dependent variable used was length of unemployment. It was expected that as age increased, length of unemployment increased; as education increased, length of unemployment decreased; as length of residence increased, length of unemployment decreased; and that recipients of TRA would have longer lengths of unemployment than non-recipients. (TRA was coded: 0 = non-recipients, 1 = recipient.)

The notion that longer lengths of residence in Utah are correlated with longer lengths of unemployment is derived from the hypothesis that mobility is a more important factor than job market knowledge. This rests upon the assumption that longer lengths of residence in Utah are associated with better job market knowledge and that shorter lengths of residence in Utah are associated with more geographical mobility.

The regression equation for PCV is given in Figure 7. The R² for this regression is 0.21, and it has an F value of 8.57. At 0.05 l.o.s.,

¹Fritts, p. 46; crudely defines a monopsonist labor market.
\[ y = 5.84 + 11.929X_1 + 0.033X_2 - 0.111X_3 + 0.268X_4 \]

| \( X_1 \) = TRA | 3.95 |
| \( X_2 \) = age | 0.21 |
| \( X_3 \) = education | -0.11 |
| \( X_4 \) = length of residence in Utah | 2.02 |

R² = 0.21 \hspace{1cm} F = 8.57

Figure 7. Regression analysis of PCV

\[ y = 10.333 + 9.255X_1 + 0.28X_2 - 0.442X_3 + 0.058X_4 \]

| \( X_1 \) = TRA | 3.08 |
| \( X_2 \) = age | 0.17 |
| \( X_3 \) = education | -0.93 |
| \( X_4 \) = length of residence in Utah | 0.39 |

R² = 0.19 \hspace{1cm} F = 3.42

Figure 8. Regression analysis of Burgin Mine
only the variables TRA and length of residence in Utah are significant. TRA is by far the most significant variable contributing to the length of unemployment. Although education and age are not significant at 0.05 l.o.s., they have the expected signs which tend to confirm the assertion that age is positively correlated and education is negatively correlated with length of unemployment. TRA and length of residence in Utah are positively correlated with length of unemployment; that is, those recipients of TRA and with longer lengths of residence in Utah have longer lengths of unemployment. Being statistically significant, these results confirm the hypothesis that TRA recipients have longer lengths of unemployment than non-recipients and that mobility is a more important factor than job market knowledge in finding reemployment.

The same analysis was performed using the Burgin mine data. (See Figure 8.) The $R^2$ for the regression is 0.189, and it has an F value of 3.43. The only variable significant at 0.05 l.o.s. is TRA. Although the other variables are not significant, they have the expected signs that conform with our hypothesis.

Intuitively it may appear that a (multicolinear) problem exists between the two variables of age and length of residence in Utah. Age and length of residence are in fact correlated ($r = 0.76$ for PCV and $r = 0.72$ for the Burgin Mine), but these correlations are not so high as to suggest serious multicolinear problems.

From two regression equations, the most interesting information is the significant impact that TRA plays in both models (see Chapter VI). In both models, TRA recipients have significantly longer lengths of unemployment, whereas age, education, and length of residence (with the
exception of the PCV model) play insignificant but sign-wise expected roles, thus leading to the result that the TRA variable is the most important variable in these two models. (The role of TRA with respect to other variables is dealt with more in depth in the following chapters.) In the PCV model, it is important to note that those workers with longer lengths of residence have longer lengths of unemployment and that this variable is significant.

Age
The mean of the displaced PCV workers is 38.7 years with a range of 19 to 61 years. The mean age of the Burgin Mine workers is 31.9 years with a range of 19 to 61 years. The two means are not significantly different at 0.05 l.o.s. The question that needs to be answered is, "how does age relate to reemployment success?". The ages of the displaced workers were broken down into five categories for both mines in order to evaluate which age group is most successful after a shutdown occurs. Tables 3 and 4 indicate the different age groups and the mean length of unemployment for each group.
Table 3. Age group and length of unemployment for PCV

<table>
<thead>
<tr>
<th>Age group</th>
<th>Mean length of unemployment (weeks)</th>
<th>Percentage of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-29</td>
<td>17.41</td>
<td>34.8</td>
</tr>
<tr>
<td>30-39</td>
<td>24.53</td>
<td>21.3</td>
</tr>
<tr>
<td>40-49</td>
<td>18.61</td>
<td>12.8</td>
</tr>
<tr>
<td>50-59</td>
<td>25.39</td>
<td>21.9</td>
</tr>
<tr>
<td>60+</td>
<td>32.75</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>22.24 *</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Weighted total mean by groupings.

Table 4. Age group and length of unemployment for the Burgin Mine

<table>
<thead>
<tr>
<th>Age group</th>
<th>Mean length of unemployment (weeks)</th>
<th>Percentage of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-29</td>
<td>8.63</td>
<td>46.2</td>
</tr>
<tr>
<td>30-39</td>
<td>7.47</td>
<td>50.74</td>
</tr>
<tr>
<td>40-49</td>
<td>11.7</td>
<td>16.9</td>
</tr>
<tr>
<td>50-59</td>
<td>9.67</td>
<td>4.62</td>
</tr>
<tr>
<td>60+</td>
<td>27</td>
<td>1.54</td>
</tr>
<tr>
<td>Total</td>
<td>9.12 *</td>
<td>100.00</td>
</tr>
</tbody>
</table>

* Weighted total mean by groupings.
It is obvious from Tables 3 and 4 that the oldest workers (those over 60) suffer the longest durations of unemployment. It is difficult to evaluate patterns other than this because both mines reveal different patterns for different age groups. It is important to note that cross-tabulations of age and length of unemployment seem to confirm the hypothesis that age and length of unemployment are positively correlated. However, in our regression equations age has the expected sign but an insignificant effect.

Shorter lengths of unemployment become less important if the reemployment is worse than the previous employment. To answer the question, "do older workers, once they are reemployed, receive better reemployment than younger workers with respect to pay, working conditions, responsibility, fringe benefits, and supervision?", cross-tabulations were constructed using the quality of reemployment variables and age groups. Tables 5 through 9 illustrate the results of the cross-tabulations.

From the cross-tabulations, the positive responses were grouped together as were the negative responses for the purpose of statistically determining which groups suffered the greatest loss in quality of reemployment. Differences were measured at 0.05 level of significance.
Table 5. Cross-tabulation of age and current pay in comparison to former pay (percentages)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Little worse</th>
<th>Lot worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>19.6</td>
<td>25.5</td>
<td>11.8</td>
<td>15.7</td>
<td>27.5</td>
</tr>
<tr>
<td>30-39</td>
<td>30.8</td>
<td>23.1</td>
<td>11.5</td>
<td>11.5</td>
<td>23.1</td>
</tr>
<tr>
<td>40-49</td>
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<td>11.8</td>
<td>5.9</td>
<td>41.2</td>
</tr>
<tr>
<td>50-59</td>
<td>26.1</td>
<td>4.3</td>
<td>4.3</td>
<td>39.1</td>
<td>26.1</td>
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<td>20</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>50</td>
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<td>Burgin</td>
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<td></td>
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<tr>
<td>19-29</td>
<td>55.6</td>
<td>25.9</td>
<td>3.7</td>
<td>3.7</td>
<td>11.1</td>
</tr>
<tr>
<td>30-39</td>
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<td>11.1</td>
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<td>40-49</td>
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<td>14.3</td>
<td>28.6</td>
<td>14.3</td>
<td>14.3</td>
</tr>
<tr>
<td>50-59</td>
<td>66.7</td>
<td>33.3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 6. Cross-tabulation of age and current fringe benefits in comparison to former fringe benefits (percentages)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Little worse</th>
<th>Lot worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>20</td>
<td>32</td>
<td>8</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>30-39</td>
<td>15.4</td>
<td>19.2</td>
<td>11.5</td>
<td>15.4</td>
<td>38.5</td>
</tr>
<tr>
<td>40-49</td>
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<td>5.9</td>
<td>11.8</td>
<td>35.3</td>
</tr>
<tr>
<td>50-59</td>
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<td>9.1</td>
<td>22.7</td>
<td>40.9</td>
</tr>
<tr>
<td>60+</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Burgin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>29.6</td>
<td>14.8</td>
<td>14.8</td>
<td>33.3</td>
<td>7.4</td>
</tr>
<tr>
<td>30-39</td>
<td>5.9</td>
<td>23.5</td>
<td>17.6</td>
<td>35.3</td>
<td>17.6</td>
</tr>
<tr>
<td>40-49</td>
<td>14.3</td>
<td>14.3</td>
<td>14.3</td>
<td>42.9</td>
<td>14.3</td>
</tr>
<tr>
<td>50-59</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 7. Cross-tabulations of age and current responsibility in comparison to former responsibility (percentages)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City Ventures</td>
<td>19-29</td>
<td>19.6</td>
<td>11.8</td>
<td>33.3</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>47.4</td>
<td>15.8</td>
<td>22.1</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>18.8</td>
<td>6.3</td>
<td>6.3</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>13.6</td>
<td>18.2</td>
<td>45.5</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td>60+</td>
<td>20</td>
<td>0</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>19-29</td>
<td>22.2</td>
<td>18.5</td>
<td>29.6</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>55.6</td>
<td>0</td>
<td>16.7</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>42.9</td>
<td>0</td>
<td>28.6</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 8. Cross-tabulations of age and current working conditions in comparison to former working conditions (percentages)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City Ventures</td>
<td>19-29</td>
<td>16</td>
<td>20</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>41.7</td>
<td>20.8</td>
<td>8.3</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>23.5</td>
<td>5.9</td>
<td>17.6</td>
<td>23.5</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>34.8</td>
<td>39.1</td>
<td>17.4</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>60+</td>
<td>30</td>
<td>40</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>19-29</td>
<td>40.7</td>
<td>22.2</td>
<td>22.2</td>
<td>14.8</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
<td>38.9</td>
<td>27.8</td>
<td>27.8</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>42.9</td>
<td>42.9</td>
<td>14.2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 9. Cross-tabulations of age and current supervision in comparison to former supervision (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Park City Ventures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-29</td>
<td>20</td>
<td>12</td>
<td>42</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>30-39</td>
<td>17.4</td>
<td>13</td>
<td>34.8</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td>40-49</td>
<td>12.5</td>
<td>18.8</td>
<td>37.5</td>
<td>18.8</td>
<td>12.5</td>
</tr>
<tr>
<td>50-59</td>
<td>27.3</td>
<td>9.1</td>
<td>27.3</td>
<td>13.6</td>
<td>22.7</td>
</tr>
<tr>
<td>60+</td>
<td>10</td>
<td>30</td>
<td>20</td>
<td>10</td>
<td>30</td>
</tr>
</tbody>
</table>

| **Burgin Mine** |       |                |      |                 |                 |
| 19-29 | 14.8     | 18.5           | 44.4 | 14.8            | 7.4             |
| 30-39 | 22.2     | 22.2           | 33.3 | 11.1            | 11.1            |
| 40-49 | 0        | 0              | 66.7 | 0               | 33.3            |
| 50-59 | 100      | 0              | 0    | 0               | 0               |

In the study of PCV workers that were displaced, those workers over 50 years in age suffered the greatest loss of income, while the age group of 30-39 had the least loss and was the only group that had an over-all increase in income. Those over 50 years in age also suffered the greatest loss of fringe benefits, while the age groups of 19-29 and 40-49 suffered the least. The age group 19-29 had an over-all increase of fringe benefits, but that increase was not statistically significant from the 40-49 age group. Those over 60 years in age and between the ages of 40-49 suffered the greatest losses in responsibility, and the age group of 30-39 had tremendous gains in responsibility. Every age group except the 19-29 had better current working conditions. The age group 19-29 realized no difference in working conditions in their job. No statistical difference occurred in any age group from the comparison of supervision from the previous job.
From the Burgin Mine workers the data may be distorted because only three workers in the 50 and over age group responded to the questions. The age group 40-49 suffered the greatest losses in wages. The age groups 30-39 and 40-49 suffered the greatest losses in fringe benefits. No statistical difference was found in comparing losses of responsibility because each group had tremendous increases in responsibility, especially the over-50 group. All groups realized better working conditions. With respect to supervision, the age group 40-49 suffered the greatest. The age groups 30-39 and 50-59 have better current working conditions relative to the other age groups.

In short, older workers had the least success in finding quality reemployment in terms of wages and fringe benefits. The older workers found more success in terms of responsibility, and no significant differences occurred with respect to working conditions and supervision. Moreover, the older workers experienced longer durations of unemployment; and, once employed, they did not, over-all, receive reemployment as good as younger workers, with the lone exception of responsibility.

**Sex**

From PCV and the Burgin Mine, 91.5 percent and 92.3 percent of the respondents, respectively, were males. Although the proportion of females is low, it would be useful to examine the unemployment rate and length of employment for each sex to determine if a difference exists between the two. (See Table 10.)
Table 10. Current employment status by sex (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Employed</th>
<th>Unemployed seeking work</th>
<th>Withdrawn from labor force</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Full-time</td>
<td>Part-time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park City</td>
<td>Male</td>
<td>42.5</td>
<td>2.4</td>
<td>45.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Ventures</td>
<td>Female</td>
<td>41.7</td>
<td>25</td>
<td>16.7</td>
<td>0</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>Male</td>
<td>70</td>
<td>0</td>
<td>21.6</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>80</td>
<td>0</td>
<td>20</td>
<td>0</td>
</tr>
</tbody>
</table>

From the PCV study, there was a higher percentage of males unemployed than females; but, the percentage of females working part-time was higher than males. Apparently, females were more apt to take part-time work than males.

From the Burgin Mine data, no statistical differences occurred between males and females in any category of their current employment status.

To evaluate what differences there were in the length of unemployment, mean lengths were computed for both sexes. The mean length of unemployment in the PCV study for males was 22.9 weeks and for females 24.5 weeks. In the Burgin Mine study, the mean length of unemployment was 9.9 weeks for females and 9.2 weeks for males. There is not a significant difference in both studies with respect to length of unemployment or the unemployment rate. Therefore, in these studies sex did not play a major role in contributing to reemployment success.
Dependents

No previous study cited has found an association of dependents with reemployment success. However, it is important to evaluate the mean number of dependents to determine if the profile of the displaced PCV and Burgin Mine workers have this demographic characteristic in common with other studies. The respondents of the PCV workers had a mean number of dependents of 2.3, and the Burgin Mine mean was 2.1. The relationship of dependents is compared to other studies in Table 11.

Table 11. Comparison of selected studies with PCV and Burgin Mine with respect to dependents

<table>
<thead>
<tr>
<th>Study</th>
<th>Number of dependents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hesston</td>
<td>2.3</td>
</tr>
<tr>
<td>Foltman</td>
<td>0.8</td>
</tr>
<tr>
<td>Laplante</td>
<td>1.0</td>
</tr>
<tr>
<td>Tolles</td>
<td>0.94</td>
</tr>
<tr>
<td>PCV</td>
<td>2.3</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>2.1</td>
</tr>
</tbody>
</table>

In comparison, the studies done in Utah (Hesston, PCV, and Burgin) have a much higher mean of dependents than studies done outside the state. This can be attributed to the high birth rate in the state which is associated with the cultural value of having children.

Education

The displaced PCV workers had a mean educational level of 11.7 years, and the Burgin Mine mean educational level was 12.9 years. Although the
two mines appear to have very different educational levels, the difference is insignificant at 0.05 l.o.s., but is significantly different at 0.10 l.o.s. In our regression equations, education had the expected negative sign but played an insignificant role.

In this study, education was divided into two types: formal traditional education and vocational or technical training. Of the respondents, 26.9 percent of the PCV workers and 46.2 percent of the Burgin Mine workers had previous vocational or technical training. Of those with vocational or technical training, only 36.4 percent of the PCV workers and 43.3 percent of the Burgin Mine workers have the type of training that was useful in the jobs they did at the mines.

Housing Status

One measure of severity which a shutdown may have upon a displaced worker is a change in housing status. A change from home-owner to rentor may be an indicator that a traumatic change in lifestyle has become necessary because of a loss in income. In these two studies, a change in housing status was not likely associated with the shutdowns. This conclusion can be drawn because only 8.6 percent of the PCV and 10.9 percent of the Burgin Mine displaced workers had a change in housing status. Of those, 3.6 percent of the PCV and 7.8 percent of the Burgin Mine workers went from tenant to owner. A change from owner to tenant was experienced by 3.6 percent of the PCV workers and 3.1 percent of the Burgin Mine workers. Thus, it can be concluded that a change in housing status had an insignificant effect.
Marital Status

Of the PCV and Burgin Mine workers, 83.0 percent and 84.6 percent, respectively, were married. The question that needs to be answered is: "does marital status play a role in reemployment success?". To determine this, the current unemployment rate was calculated for married and non-married respondents. The current married unemployment rate for PCV and Burgin Mine respondents is 39.8 percent and 20 percent, respectively. For the non-married respondents, the current unemployment rate is much higher—50.0 percent for PCV and 30.0 percent for the Burgin Mine. Both non-married rates are significantly higher than the married rates at 0.05 1.o.s. Therefore, the non-married respondents have a much higher current rate of unemployment than the married respondents. This is probably due to the fact that married workers have more responsibilities than non-married workers with respect to family dependence and possibly children, and therefore have a greater motivation to be in the labor force.

Mean lengths of total unemployment were computed for both groups, married and non-married, in an attempt to answer the question: "are marital status and length of unemployment related?". The mean length of unemployment for PCV married workers was 19.6 weeks and for the non-married workers, 24.1 weeks. The mean length of unemployment for married workers of the Burgin Mine was 7.0 weeks and for non-married workers, 12.3 weeks. Both differences for both mines are significant at 0.05 1.o.s. Thus, marital status is related to the length of unemployment, where married workers are significantly unemployed for shorter durations of time than non-married workers.
CHAPTER V

JOB-SEARCH ACTIVITIES AND THEIR EFFECTIVENESS

When a worker experiences an involuntary termination from a job, that worker usually begins an immediate search for another one. In this chapter, the effectiveness of job-seeking methods will be analyzed. It will be shown that the method or methods used in job-seeking do play an important role in reemployment success.

Job-Search Methods

From both the PCV and Burgin Mine data, the most commonly used job-search methods were applying in person, USES, and friends/relatives. The least used methods were private agencies and sending letters. (See Table 12.) A comparison of the job-search methods used by displaced workers of the two mines with other studies is shown in Table 13. A pattern seems to develop in that applying in person and friends/relatives are the two most common job-seeking methods. It is interesting to note that these two methods are informal¹ job-search methods which are less costly than formal methods.

The displaced workers were asked which job-search method was most helpful in obtaining employment after the shutdown. (See Table 14.)

¹ Informal job search is associated with the methods of applying in person, friends/relatives, newspaper ads, or a contact made by the job-seeker himself. Formal methods are associated with state employment agencies, private employment agencies, personnel departments, or where a contact is made by a professional agent.
It can be clearly seen from the table that applying in person and friends/relatives are not only the most common methods used but are the methods that help most workers obtain jobs.

Table 12. Methods used in job search by PCV and Burgin Mine respondents (percentages*)

<table>
<thead>
<tr>
<th>Methods used</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>USES</td>
<td>75.2</td>
<td>55.4</td>
</tr>
<tr>
<td>Private employment agency</td>
<td>7.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Company personnel department</td>
<td>16.3</td>
<td>33.8</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>51.1</td>
<td>54.4</td>
</tr>
<tr>
<td>Sending letters</td>
<td>14.2</td>
<td>23.1</td>
</tr>
<tr>
<td>Newspaper ads</td>
<td>33.3</td>
<td>32.3</td>
</tr>
<tr>
<td>Applying in person</td>
<td>73.8</td>
<td>80.0</td>
</tr>
<tr>
<td>Other**</td>
<td>8.5</td>
<td>6.2</td>
</tr>
</tbody>
</table>

*Percentage total is greater than 100 due to multiple answers.

**This category includes: unions, LDS Church employment office, and applying by phone.
Table 13. Comparison with other studies of percentage who used each type of search method

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying in person</td>
<td>66.6</td>
<td>74.9</td>
<td>78.4</td>
<td>73.8</td>
<td>80.0</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>77.3</td>
<td>70.2</td>
<td>84.3</td>
<td>51.1</td>
<td>54.4</td>
</tr>
<tr>
<td>State Employment Service</td>
<td>32.1</td>
<td>60.6</td>
<td>69.6</td>
<td>75.2</td>
<td>55.4</td>
</tr>
<tr>
<td>Private employment agency</td>
<td>21.0</td>
<td>49.7</td>
<td>18.6</td>
<td>7.8</td>
<td>12.3</td>
</tr>
<tr>
<td>Newspaper ads</td>
<td>46.4</td>
<td>73.5</td>
<td>36.3</td>
<td>33.3</td>
<td>32.3</td>
</tr>
<tr>
<td>Company personnel department</td>
<td>---</td>
<td>24.8</td>
<td>32.4</td>
<td>16.3</td>
<td>33.8</td>
</tr>
</tbody>
</table>

Table 14. Comparison with other studies of method most helpful in obtaining job (percentages)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying in person</td>
<td>34.9</td>
<td>22.7</td>
<td>46.1</td>
<td>45.5</td>
<td>54.2</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>26.2</td>
<td>30.5</td>
<td>28.4</td>
<td>26.8</td>
<td>23.7</td>
</tr>
<tr>
<td>State Employment Service</td>
<td>5.1</td>
<td>3.0</td>
<td>8.8</td>
<td>19.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Private employment agency</td>
<td>5.6</td>
<td>7.5</td>
<td>2.9</td>
<td>1.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Newspaper ads</td>
<td>12.2</td>
<td>17.3</td>
<td>5.9</td>
<td>5.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Company personnel department</td>
<td>----</td>
<td>4.2</td>
<td>2.0</td>
<td>0</td>
<td>5.1</td>
</tr>
</tbody>
</table>

To measure the effectiveness of a job-search method, an effectiveness rating\(^2\) was computed for each method. (See Table 15.) For the two mines, the most effective method by far was applying in person. Friends/relatives was the second most effective method; and, USES was third. Private employment agencies was the least effective method and yet it probably is the most costly. For the PCV workers, their personnel department was noted as not being effective at all, meaning PCV's bringing prospective

\(^2\)Fritts, p. 54; Loomba, p. 63.
employers to the mine to interview the soon-to-be-displaced workers was measured by the workers as a useless exercise in obtaining a new job.

Table 15. Comparison with other studies of job-search methods: Effectiveness rating

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying in person</td>
<td>48.8</td>
<td>13.0</td>
<td>58.8</td>
<td>44.2</td>
<td>61.5</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>40.9</td>
<td>11.4</td>
<td>33.7</td>
<td>18.8</td>
<td>20.0</td>
</tr>
<tr>
<td>State Employment Service</td>
<td>12.6</td>
<td>3.2</td>
<td>12.6</td>
<td>18.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Private employment agency</td>
<td>25.3</td>
<td>4.4</td>
<td>15.6</td>
<td>9.1</td>
<td>12.5</td>
</tr>
<tr>
<td>Newspaper ads</td>
<td>25.0</td>
<td>8.9</td>
<td>16.3</td>
<td>10.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Company personnel department</td>
<td>----</td>
<td>5.9</td>
<td>6.2</td>
<td>0</td>
<td>13.6</td>
</tr>
</tbody>
</table>

*Effectiveness rate = \( \frac{\text{number who obtained job by method}}{\text{number who mentioned using method}} \)

Geographical and Occupational Job Search

It is useful to know what type of geographical and occupational job search occurred after the shutdowns. The questions to be answered are:

"Once a shutdown has occurred, do workers look for jobs outside the area"
and are they willing to move to take such jobs?"; and, "what kind of jobs are workers looking for; do they wish to change occupations or not?". Careful examination of these questions will lead us to the answer that displaced workers do not wish to change location, but a significant number do look for a change of occupation.

There is a great similarity in the two studies in where the displaced workers looked for jobs. (See Table 16.) Most did not look outside the mine area; and, if they did, it was not outside the state. Of the PCV and Burgin Mine workers, 88.4 percent and 88.3 percent, respectively, did not look for work outside the State of Utah.

Table 16. Location of job search (percentages)

<table>
<thead>
<tr>
<th>Location</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mine Area</td>
<td>68.1</td>
<td>67.4</td>
</tr>
<tr>
<td>Utah</td>
<td>20.3</td>
<td>20.9</td>
</tr>
<tr>
<td>Intermountain Area</td>
<td>8.7</td>
<td>6.5</td>
</tr>
<tr>
<td>United States</td>
<td>2.9</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Willingness to move has an important role in reemployment success. (See Table 17.) It is clear from the table that those workers willing to leave the State of Utah experienced a median shorter length of unemployment than those who were not. In summary, most workers did not look and were not willing to move outside of the local area and state to obtain a
new job. But, those workers willing to move outside the State experienced shorter durations of unemployment.

Table 17. Willingness to move and median lengths of unemployment (percentages)

<table>
<thead>
<tr>
<th>Location</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Willingness to move</td>
<td>Median length of unemployment (weeks)</td>
</tr>
<tr>
<td>United States</td>
<td>3.8</td>
<td>1</td>
</tr>
<tr>
<td>Intermountain Area</td>
<td>18.9</td>
<td>16</td>
</tr>
<tr>
<td>Utah</td>
<td>15.2</td>
<td>20</td>
</tr>
<tr>
<td>Mine Area</td>
<td>14.4</td>
<td>28</td>
</tr>
<tr>
<td>Would not move</td>
<td>47.7</td>
<td>20</td>
</tr>
</tbody>
</table>

After the shutdowns, a significant number of displaced workers looked for a change of occupation. An open question was asked regarding what kind of job the worker looked for; and, the results were broken into three categories: mining, non-mining, or anything. The majority of the respondents looked for mining jobs, but a large proportion of workers sought a change or were indifferent. (See Table 18.) Therefore, it can be concluded that the workers, given the data, did not wish to change location but a significant proportion were willing to change occupations.

3"Anything" refers to an indifferent preference of either mining or non-mining.
Table 18. Kind of job looked for (percentages)

<table>
<thead>
<tr>
<th>Kind of job looked for</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>57.5</td>
<td>60.0</td>
</tr>
<tr>
<td>Non-mining</td>
<td>9.6</td>
<td>11.1</td>
</tr>
<tr>
<td>Anything</td>
<td>32.9</td>
<td>28.9</td>
</tr>
</tbody>
</table>

Notification Process

The purpose of this section is to answer the question: "do workers who receive an earlier notice of their termination have shorter durations of unemployment than those who do not?". Also, this section will analyze the difference in the workers who felt they had sufficient notice and the workers who felt they did not.

Of the PCV and Burgin Mine workers, 94 percent and 76.7 percent, respectively, knew they were going to lose their jobs before actually being terminated. The median and mode length of advance notice was four weeks for both mines. With so much advance notice, it is difficult to comprehend that the percentage of workers who did not know they were going to lose their jobs was 100, although for the Burgin Mine there was some uncertainty due to seniority.

Of those workers who were informed of the shutdowns, most heard the news from either their former employer or fellow workers. (See Table 19.) Most of the workers were informed orally. (See Table 20.) Because the notice was by an informal method, it may have led to some uncertainty on the part of the workers who did not know they were going to lose their jobs.
Table 19. How workers first heard of shutdown (percentages)

<table>
<thead>
<tr>
<th>First heard of shutdown from</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your former employer</td>
<td>57.7</td>
<td>46.9</td>
</tr>
<tr>
<td>Fellow workers</td>
<td>34.3</td>
<td>50.0</td>
</tr>
<tr>
<td>The newspaper</td>
<td>2.2</td>
<td>0</td>
</tr>
<tr>
<td>Radio, T.V.</td>
<td>2.2</td>
<td>0</td>
</tr>
<tr>
<td>Do not remember</td>
<td>2.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Other *</td>
<td>0.7</td>
<td>1.6</td>
</tr>
</tbody>
</table>

*"Other" refers to friends not associated with mine

Table 20. Form of first notice of shutdown to workers (percentages)

<table>
<thead>
<tr>
<th>Form of notice</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posting on bulletin board</td>
<td>31.3</td>
<td>17.2</td>
</tr>
<tr>
<td>Personal letter</td>
<td>3.8</td>
<td>15.6</td>
</tr>
<tr>
<td>Orally</td>
<td>58.0</td>
<td>57.8</td>
</tr>
<tr>
<td>Do not remember</td>
<td>6.9</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Of the PCV and Burgin Mine workers, 76.1 percent and 84.1 percent, respectively, felt that they received enough advance notice before they were laid off. Of the workers (mode) who did not feel they were given
sufficient advance notice, those from PCV would have preferred eight weeks' notice and those from the Burgin Mine, six weeks'.

In attempting to solve the question: "do workers with earlier advance notices have shorter durations of unemployment?", cross-tabulations were computed with how much advance notice was given and total length of unemployment. Mean lengths of unemployment were given for four groups: those with two or less weeks' notice, three weeks' notice, four weeks' notice, and more than four weeks' notice. If the hypothesis is true, then workers with more advance notice will have shorter durations of unemployment. The results are given in Table 21. There is no statistical difference from one group to another with regard to length of unemployment. Therefore, no statistical relationship can be found, given the data, between more advance notice and shorter durations of unemployment.

Table 21. Cross-tabulation of advance notice and length of unemployment

<table>
<thead>
<tr>
<th>Advance notice (weeks)</th>
<th>PCV mean length of unemployment (weeks)</th>
<th>Burgin Mine mean length of unemployment (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two weeks or less</td>
<td>22.1</td>
<td>9.7</td>
</tr>
<tr>
<td>Three weeks</td>
<td>22.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Four weeks</td>
<td>23.4</td>
<td>9.2</td>
</tr>
<tr>
<td>More than four weeks</td>
<td>23.2</td>
<td>9.8</td>
</tr>
</tbody>
</table>
Of the PCV and Burgin Mine workers, 77.7 percent and 81.8 percent, respectively, felt they had sufficient notice of the shutdown before they were laid off. Ironically, those workers who felt they did not have sufficient notice had a shorter mean length of unemployment than those who felt they did. In the PCV study, those who felt they had sufficient notice experienced a mean length of unemployment of 24.2 weeks, compared to those who felt they did not which experienced a mean length of unemployment of 19.6 weeks. The same holds true in the Burgin Mine study; those who felt they had sufficient notice experienced a mean length of unemployment of 10.1 weeks, while those who felt they did not experienced a mean length of unemployment of 8.2 weeks. Both differences in both mines are significant at 0.05 l.o.s. Therefore, the hypothesis cannot be accepted; and, the conclusion that sufficient notice leads to shorter lengths of unemployment (compared to insufficient notice), given the data, is rejected.

Post-Layoff Employment Experience

This section will analyze the employment experience of the displaced workers after the shutdown occurred. It will answer questions of the nature of how many jobs has a person held since being laid off, of what nature is the workers' current employment, and how does the current employment compare to employment at the mines.

The median length of unemployment of the displaced workers was 22 weeks for PCV and 11 weeks for the Burgin Mine. This is an interesting statistic because, at the time of the study, PCV had been closed approximately twice as long as the Burgin Mine. A present employment status situation
is presented in Table 22. It is clear from the table that an unemployment problem still persists with 43.2 percent and 21.5 percent unemployment rate for the PCV and the Burgin Mine, respectively.

Table 22. Current employment status (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Self-employed</th>
<th>Employed full-time</th>
<th>Employed part-time</th>
<th>Unemployed seeking work</th>
<th>Unemployed not seeking work</th>
<th>Employed more than one part-time job</th>
<th>Employed full-time plus part-time</th>
<th>Retired</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park City Ventures</td>
<td>3.6</td>
<td>36.0</td>
<td>4.3</td>
<td>43.2</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>0.7</td>
<td>7.9</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>1.5</td>
<td>64.2</td>
<td>0</td>
<td>21.5</td>
<td>3.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Although the current employment rate is high, only 6.8 percent of the PCV workers and 8.1 percent of the Burgin Mine workers have been without any employment since the shutdowns occurred. And, although most workers have held only one job since termination, many have held more than one. (See Table 23.)
Table 23. Number of jobs held since shutdown (percentages)

<table>
<thead>
<tr>
<th>Number of jobs held since shutdown</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6.8</td>
<td>8.1</td>
</tr>
<tr>
<td>1</td>
<td>57.9</td>
<td>56.5</td>
</tr>
<tr>
<td>2</td>
<td>26.3</td>
<td>22.6</td>
</tr>
<tr>
<td>3</td>
<td>8.3</td>
<td>9.7</td>
</tr>
<tr>
<td>More than 3</td>
<td>0.8</td>
<td>3.2</td>
</tr>
</tbody>
</table>

This could mean that many of the jobs held by the displaced workers were only temporary or that many workers just roamed from one job to the next. It is the researcher's opinion that the temporary work hypothesis is the more correct view because most of the workers did not wish to leave the area. If they were drifters from one job to the next, they probably would not prefer such permanence. Remember, 88.4 percent and 88.3 percent of workers from PCV and the Burgin Mine, respectively, searched for jobs only in Utah. Therefore, it is likely they took whatever jobs were available, to have some income, even if the work was temporary. Of course, this is based on assumption and little evidence supports this position in this study. Nonetheless, it is probably the case.

The displaced workers were asked their current job title. From this information, they were classified into three groups: (1) mining, (2) non-mining, or (3) currently unemployed. The results are shown in Table 24.
Table 24. Current job title (percentages)

<table>
<thead>
<tr>
<th>Current job title</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>10.5</td>
<td>35.5</td>
</tr>
<tr>
<td>Non-mining</td>
<td>48.9</td>
<td>45.2</td>
</tr>
<tr>
<td>Currently unemployed</td>
<td>40.6</td>
<td>19.4</td>
</tr>
</tbody>
</table>

The table shows that most of the workers currently employed are not in their previous type of work. This is probably due to the lack of demand for miners in the area of both mines and to a willingness to change occupations. Still, most workers looked for mining jobs; but, the majority of those who did get jobs, got them in non-mining. The most startling statistic is the incredibly high unemployment rate generated from this question—40.6 percent for PCV workers, and 19.4 percent for the Burgin Mine workers.

Current Job in Comparison to Job at Mine

In an effort to determine the quality of current employment in comparison to former jobs at the mine, the workers were asked questions about this comparison with respect to pay, fringe benefits, responsibility, working conditions, and supervision. Tables 25 through 29 illustrate the results.

4See Table 18.
Table 25. Comparison of current job to job at mine with respect to pay (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much more</th>
<th>Somewhat more</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>24.4</td>
<td>17.3</td>
<td>10.2</td>
<td>18.1</td>
<td>29.9</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>52.8</td>
<td>24.5</td>
<td>5.7</td>
<td>7.5</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Table 26. Comparison of current job to job at mine with respect to fringe benefits (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much more</th>
<th>Somewhat more</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>23.2</td>
<td>18.4</td>
<td>8.0</td>
<td>13.6</td>
<td>36.0</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>22.6</td>
<td>17.0</td>
<td>15.0</td>
<td>34.0</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Table 27. Comparison of current job to job at mine with respect to responsibility (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much more</th>
<th>Somewhat more</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>20.5</td>
<td>11.0</td>
<td>28.3</td>
<td>15.7</td>
<td>23.6</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>37.7</td>
<td>9.4</td>
<td>24.5</td>
<td>20.8</td>
<td>7.5</td>
</tr>
</tbody>
</table>
Table 28. Comparison of current job to job at mine with respect to working conditions (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>26.2</td>
<td>23.8</td>
<td>19.0</td>
<td>20.6</td>
<td>10.3</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>41.5</td>
<td>26.4</td>
<td>22.6</td>
<td>9.4</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 29. Comparison of current job to job at mine with respect to supervision (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>26.2</td>
<td>23.8</td>
<td>19.0</td>
<td>20.6</td>
<td>10.3</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>17.3</td>
<td>17.3</td>
<td>42.3</td>
<td>11.5</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Over-all, in their current jobs, the PCV workers had decreases in pay, fringe benefits, and responsibility. PCV workers had an over-all improvement in working conditions and no change with respect to supervision.

The Burgin workers in their current jobs had over-all improvements in pay, responsibility, and working conditions; although no changes in terms of fringe benefits and supervision. Therefore, in terms of quality of reemployment, the displaced Burgin Mine workers who obtained jobs had an over-all increase in quality of reemployment with respect to their
jobs at the mine. But, for PCV, the opposite is true; there was an over-all decrease in respect to their quality of reemployment (with the exception of working conditions in which they had an over-all increase).
CHAPTER VI

FINANCIAL STATUS AND PUBLIC ASSISTANCE AND THEIR RELATIONSHIP TO THE POST-LAYOFF EXPERIENCE

The purpose of this chapter will be to analyze the financial position of the displaced workers and the association it has with reemployment success. The hypothesis to be tested is: do workers with better financial positions experience shorter durations of unemployment. Also, public assistance programs, such as unemployment insurance (UI) and Trade Readjustment Act benefits (TRA), will be examined; the hypothesis to be tested is: do workers who receive UI and TRA have longer durations of unemployment and can any statistical difference be found in the quality of their reemployment in comparison to non-recipients of such benefits.

Financial Position at Time of Shutdown

Of the PCV and Burgin Mine workers, 76 percent and 72.1 percent, respectively, reported receiving no severance pay. Of the workers who did receive severance pay, the amount varied between $1 to $500 up to and over $3,000. Because the numbers of those who received severance pay were so small relative to the total, in their separate categories, the workers were broken into two groups: those who received severance pay and those who did not. The mean lengths of unemployment were computed for both mines and for both groups, those who received severance pay and those who

\[\text{The categories were: 0; 1-500; 501-1,000; 1,001-1,500; 1,501-2,000; 2,001-2,500; 2,501-3,000; and over 3,000.}\]
did not. From the PCV data, the mean length of unemployment for workers who received severance pay was 21.3 weeks; and, for those who did not, the mean length of unemployment was 23.8 weeks. The difference is not significant at 0.05 l.o.s.

From the Burgin Mine data, the mean length of unemployment for recipients of severance pay was 12.1 weeks; and, the mean length of unemployment for non-recipients was 8.5 weeks. The difference is significant at 0.05 l.o.s.

Therefore, the two sets of data conflict with each other in determining if severance pay is associated with longer durations of unemployment. The PCV data tends to yield the answer that receiving severance pay is associated with shorter durations of unemployment; and, the Burgin Mine data yields just the opposite result, that non-recipients of severance pay have shorter durations of unemployment. Of course, at 0.05 l.o.s., the PCV difference is insignificant, whereas the Burgin Mine difference is significant. It can then be concluded that receiving severance pay either has a neutral or positive effect in relationship to shorter durations of unemployment.

Questions were asked pertaining to the debt or savings position of the workers. The hypothesis to be tested is: do workers with greater amounts of debt have shorter durations of unemployment than workers with less debt and more savings. To determine the answer, cross-tabulations were performed with respect to length of unemployment and financial position. (See Table 30.) Mean lengths of unemployment were calculated for the five financial positions.
Table 30. Cross-tabulation of financial position and mean lengths of unemployment (weeks)

<table>
<thead>
<tr>
<th></th>
<th>Substantial savings</th>
<th>Very little savings</th>
<th>No savings</th>
<th>Small amount of debt</th>
<th>Considerable amount of debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>14.2</td>
<td>17.7</td>
<td>26.2</td>
<td>22.9</td>
<td>17.3</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>2.1</td>
<td>10.2</td>
<td>8.3</td>
<td>4.1</td>
<td>6.2</td>
</tr>
</tbody>
</table>

The only conclusion that can be drawn from the results is that those workers in both mines with substantial savings had shorter durations of unemployment than any other group; and, this difference of unemployment is significant at 0.05 l.o.s. Therefore, the hypothesis that debt and shorter lengths of unemployment are related is rejected. The opposite appears to be true, that substantial savings and shorter lengths of unemployment are related.

Trade Readjustment Act Benefits

The Trade Readjustment Act of 1974 allows workers who have lost employment due to foreign imports to receive increased benefits beyond unemployment insurance. But, before comparing the differences of reemployment, length of unemployment, and current employment status between the two groups, TRA recipients and non-recipients, demographic comparisons should be made first. If many and significant demographic differences exist, then explaining differences in reemployment success with

---

2 See Chapter II, Trade Readjustment Act.

3 Ibid.
respect to receiving or not receiving TRA would have little value. But, if no demographic differences exist, then the differences of reemployment success can very well be explained by the relationship of receiving or not receiving TRA. To test the differences of demographics for the two groups, randomly selected characteristics were chosen and compared. Those characteristics were: age, sex, marital status, education, and changes in occupation. (See Figures 9 and 10.) No significant difference was found between the groups with any characteristic tested at 0.05 l.o.s. With this information, it is possible to assume that no significant differences can be found between TRA recipients and non-recipients with respect to demographic characteristics. Thus, any relationships found with the association of receiving or not receiving TRA are valuable and important relationships, and these relationships are not the cause of other explaining variables.

The questions that need to be answered are: "do recipients of TRA have longer durations of unemployment than non-recipients; and, once the recipients do become reemployed, is their quality of reemployment better than non-recipients?". To answer the questions, mean lengths of unemployment were computed for both groups, recipients and non-recipients. (See Table 31.)
Figure 9. Comparison of demographic characteristics of TRA recipients and non-recipients.
Park City Ventures.

R = recipient of TRA
NR = non-recipient of TRA
Figure 10. Comparison of demographic characteristics of TRA recipients and non-recipients, Burgin Mine.
Table 31. Mean lengths of unemployment for TRA recipients and non-recipients (weeks)

<table>
<thead>
<tr>
<th></th>
<th>TRA recipients</th>
<th>TRA non-recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCV</td>
<td>28.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>14.2</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Those workers who received TRA from PCV had nearly six times the mean length of unemployment as the non-recipients. The Burgin Mine TRA recipients had nearly double the mean length of unemployment as the non-recipients.

Of course, what is crucial is to determine the quality of reemployment experienced by recipients and non-recipients to determine if a substantial difference was experienced with respect to the variables: pay, fringe benefits, responsibility, working conditions, and supervision. Cross-tabulations were performed to ascertain the results which are given in Tables 32 through 36.
Table 31. Mean lengths of unemployment for TRA recipients and non-recipients (weeks)

<table>
<thead>
<tr>
<th></th>
<th>TRA recipients</th>
<th>TRA non-recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCCV</td>
<td>28.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Burgin Mine</td>
<td>14.2</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Those workers who received TRA from PCV had nearly six times the mean length of unemployment as the non-recipients. The Burgin Mine TRA recipients had nearly double the mean length of unemployment as the non-recipients.

Of course, what is crucial is to determine the quality of reemployment experienced by recipients and non-recipients to determine if a substantial difference was experienced with respect to the variables: pay, fringe benefits, responsibility, working conditions, and supervision. Cross-tabulations were performed to ascertain the results which are given in Tables 32 through 36.
### Table 32. TRA and comparison of reemployment with respect to pay (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much more</th>
<th>Somewhat more</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>22.2</td>
<td>13.6</td>
<td>12.3</td>
<td>18.5</td>
<td>33.3</td>
</tr>
<tr>
<td>non-recipients</td>
<td>28.9</td>
<td>23.7</td>
<td>7.9</td>
<td>15.8</td>
<td>23.7</td>
</tr>
<tr>
<td><strong>Burgin Mine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>0</td>
<td>75.0</td>
<td>0</td>
<td>0</td>
<td>25.0</td>
</tr>
<tr>
<td>non-recipients</td>
<td>58.7</td>
<td>19.6</td>
<td>6.5</td>
<td>6.5</td>
<td>8.7</td>
</tr>
</tbody>
</table>

### Table 33. TRA and comparison of reemployment with respect to fringe benefits (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>17.7</td>
<td>17.7</td>
<td>6.3</td>
<td>17.7</td>
<td>39.2</td>
</tr>
<tr>
<td>non-recipients</td>
<td>34.2</td>
<td>18.4</td>
<td>10.5</td>
<td>5.3</td>
<td>31.6</td>
</tr>
<tr>
<td><strong>Burgin Mine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>non-recipients</td>
<td>23.9</td>
<td>19.6</td>
<td>17.4</td>
<td>28.3</td>
<td>10.9</td>
</tr>
</tbody>
</table>
Table 34. TRA and comparison of reemployment with respect to responsibility (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Lot more</th>
<th>Same</th>
<th>Little less</th>
<th>Lot less</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>17.5</td>
<td>12.5</td>
<td>24.9</td>
<td>16.2</td>
<td>28.6</td>
</tr>
<tr>
<td>non-recipients</td>
<td>26.3</td>
<td>7.9</td>
<td>39.5</td>
<td>13.2</td>
<td>13.2</td>
</tr>
<tr>
<td><strong>Burgin Mine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>25</td>
<td>25</td>
<td>15</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>non-recipients</td>
<td>39.1</td>
<td>8.7</td>
<td>21.7</td>
<td>21.7</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Table 35. TRA and comparison of reemployment with respect to working conditions (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>23.8</td>
<td>23.8</td>
<td>13.8</td>
<td>25.0</td>
<td>13.8</td>
</tr>
<tr>
<td>non-recipients</td>
<td>34.2</td>
<td>21.1</td>
<td>28.9</td>
<td>10.5</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Burgin Mine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>25</td>
<td>50</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>non-recipients</td>
<td>45.7</td>
<td>21.7</td>
<td>23.9</td>
<td>8.7</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 36. TRA and comparison of reemployment with respect to supervision (percentages)

<table>
<thead>
<tr>
<th></th>
<th>Much better</th>
<th>Somewhat better</th>
<th>Same</th>
<th>Somewhat poorer</th>
<th>Definitely poorer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>18.4</td>
<td>10.6</td>
<td>37.9</td>
<td>15.8</td>
<td>17.3</td>
</tr>
<tr>
<td>non-recipients</td>
<td>22.9</td>
<td>22.9</td>
<td>31.4</td>
<td>11.4</td>
<td>11.4</td>
</tr>
<tr>
<td><strong>Burgin Mine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>recipients</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>non-recipients</td>
<td>20.0</td>
<td>20.0</td>
<td>42.2</td>
<td>8.9</td>
<td>8.9</td>
</tr>
</tbody>
</table>

The positive responses were grouped together, as were the negative responses, and the indifferent responses were kept separate in order to compare the reemployment quality of recipients and non-recipients. The differences were measured at 0.05 l.o.s.

It was found from the PCV data that TRA recipients fared worse than TRA non-recipients in terms of pay, fringe benefits, responsibility, working conditions, and supervision. Also, TRA non-recipients fared better in every category except responsibility. In short, in every category of quality of reemployment tested, TRA non-recipients did not fare as poorly as TRA recipients and fared better in all categories except responsibility. For the Burgin Mine respondents, it was found that the recipients of TRA fared worse in terms of fringe benefits and supervision in comparison to non-recipients of TRA, and no statistical difference was found at 0.05.
l.o.s. in terms of pay, responsibility, and working conditions. It was found, however, that TRA non-recipients had better fringe benefits and supervision in comparison to TRA recipients. Tables 37 and 38 illustrate the results in a more concise form.

Table 37. PCV response comparison of TRA recipients and non-recipients (percentages)

<table>
<thead>
<tr>
<th>Positive responses</th>
<th>Negative responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summation for recipients</td>
<td>Summation for non-recipients</td>
</tr>
<tr>
<td>Pay</td>
<td>35.8</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>35.4</td>
</tr>
<tr>
<td>Responsibility</td>
<td>30.0</td>
</tr>
<tr>
<td>Working conditions</td>
<td>47.6</td>
</tr>
<tr>
<td>Supervision</td>
<td>29.0</td>
</tr>
</tbody>
</table>
Table 38. Burgin Mine response comparison of TRA recipients and non-recipients (percentages)

<table>
<thead>
<tr>
<th>Positive responses</th>
<th>Negative responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summation for recipients</td>
</tr>
<tr>
<td>Pay</td>
<td>75.0</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>25.0</td>
</tr>
<tr>
<td>Responsibility</td>
<td>50.0</td>
</tr>
<tr>
<td>Working conditions</td>
<td>75.0</td>
</tr>
<tr>
<td>Supervision</td>
<td>0</td>
</tr>
</tbody>
</table>

Therefore, in terms of quality of reemployment, it can be concluded that TRA recipients fared no better than non-recipients and that they are in fact generally in worse condition than non-recipients.

Current unemployment rates were computed for both groups, TRA recipients and non-recipients. From the PCV data, the current unemployment rate for TRA recipients is 52.8 percent; and, for PCV non-recipients, 22.5 percent. From the Burgin Mine data, the current unemployment rate for recipients is 46.2 percent; and, for non-recipients, 12.5 percent. Both unemployment rates are significantly different at 0.05 l.o.s.
Certainly, the only conclusion that can be reached, given the data, is that recipients relative to non-recipients have a relationship with longer durations of unemployment, poorer quality of reemployment, and higher current employment rates.

The results of this study are comparable to the findings of similar displacement studies and the relationship of TRA effectiveness. McCarthy found TRA ineffective; after three and one-half years following the shutdown, 25 percent of the displaced workers had still not found another job even though they received TRA. It is worth noting that the employment characteristics of the work force studied by McCarthy were undesirable; the average age was 55, and 18 percent were over 66 years of age. Forty percent of the displaced workers studied could be defined as "secondary workers", being female and white, and only 20 percent being high-school graduates. Although McCarthy concluded TRA to be ineffective, he fails to compare his results with a control group of TRA non-recipients with the same demographic characteristics.

In 1975, an RCA plant in Memphis, Tennessee, closed; and, a study was conducted to determine the effectiveness of TRA on displaced workers. The conclusions reached by the study were that: "extended unemployment insurance supplemented by trade readjustment allowances (UI-TRA) did not seem to have a positive effect upon protecting workers' earnings or in easing adjustment" and "extended impacted benefits, in some cases, may

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4 McCarthy, p. 35.
5 Pursell et al, p. 265.
6 Ibid.
have harmed a worker's ability to adjust to reemployment." The demo-
graphic characteristics for this group, like the displaced workers studied
by McCarthy, may be considered undesirable with 75 percent female and 50
percent black. Recipients of TRA experienced a mean length of unemployment
of 50 weeks, and non-recipients had a mean length of unemployment of 25
weeks, nearly the same proportional difference as the Burgin Mine results.

Developing in the research seems to be a pattern that extended bene-
fits (UI and TRA) are producing negative employment effects. It is this
researcher's opinion that, to many, the benefits of TRA are greater than
the benefits derived from working. Thus, an incentive to stay out of the
labor force and draw benefits becomes more desirable than remaining in
the labor force. It also appears to the researcher that the necessity
of working to continue an expected standard of living becomes less, once
benefits become increased. What is happening is the cost of being unem-
ployed is decreasing, while the benefits of being employed remain the
same. Thus, as the cost of being unemployed comes closer to the benefits
of being employed, more people (qualified to) will elect to collect the
extended benefits (UI-TRA) rather than work, depending on the amount of
disutility derived from working. The greater the disutility one has for
working, the more apt one is to withdraw from the labor force and collect
extended benefits.

The Subcommittee on Trade of the Committee on Ways and Means, House
of Representatives, reviewed and recommended changes in the TRA program
in 1977. The major recommendation was that more emphasis is needed on

7 Ibid., p. 267.
8 Subcommittee on Trade, p. 175.
the retraining aspects of the program. In light of new programs in this area (such as the Mansfield Formula concept), it is apparent that retraining can be a useful tool to deal with the unemployment and reemployment problems of displaced workers. This researcher feels that retraining is useful when the worker's skills are no longer in demand and when other skills which can be taught are in demand. To this researcher, retraining seems a more practical use of money when both the displaced individual and society can be better off because the demand of each is satisfied, the worker gaining a skill he can use and society gaining a productive worker in an area in demand.

Other Assistance Programs

Of the PCV and Burgin Mine respondents, 77.8 percent and 40.6 percent, respectively, reported having received unemployment insurance (UI). Mean lengths of time for receiving UI was computed for both mines; the PCV mean was 20.8 weeks and the Burgin Mine mean was 12.4 weeks. Both means are not significantly different from the mean of total lengths of unemployment for both mines. This suggests that most workers had at least some income during the periods of unemployment. It is important to remember that 19.8 percent of the PCV workers and 41.5 percent of the Burgin Mine workers were out of work for two weeks or less; probably never applied for UI; and, if they did apply, by the time the information was processed, they would have been ineligible because of their work status. From the Burgin Mine respondents, one person went on CETA and two people received private welfare.
From PCV, it was known that 57 people, of which 26 responded to the survey, went on CETA (consisting of summer work, mostly at public institutions). One person received public welfare, and another received welfare from the L.D.S. Church. Two people from PCV received some vocational training but it is not known how it was financed or what type of training it was.

Members of Family Entering the Workforce

Of the workers from PCV and the Burgin Mine, 31.9 percent and 26.2 percent, respectively, had family members who entered the workforce after the shutdowns occurred. Of those workers who had family members entering the workforce, 85.7 percent and 90.7 percent from PCV and the Burgin Mine, respectively, were spouses. Children not in school were the next most common family members going to work, with 7.1 percent and 9.3 percent from PCV and the Burgin Mine, respectively. The only other family members to go to work were from PCV, children who left school, 4.8 percent.
CHAPTER VII

SUBJECTIVE FEELINGS OF THE DISPLACED WORKERS
AND THEIR EFFECT ON REEMPLOYMENT SUCCESS

This chapter discusses how the workers felt about the arrangements made for them when the shutdown was announced and about the shutdown in general, and their outlook on finding reemployment. Questions to be answered are: "do subjective feelings of workers have a relationship to the success of the reemployment they experience?"; in other words: "is attitude a contributing factor to reemployment success?". It will be shown that the only attitude that has a significant effect is an indifferent or unknowing one.

The final section in this chapter is a brief report on those workers asked to return to work at the Tintic Division of the Kennecott Copper Corporation five months after the Burgin Mine was closed.

Subjective Feelings

Feelings about Arrangements

The management of both mines allowed firms to come on their premises, after announcement of the shutdowns and before the shutdown dates, to interview workers in an attempt to assist the workers in finding reemployment. For the majority of workers, no severance pay or other financial assistance was given to them by the firms. There were no phase-out programs administered by the mines, but rather a one-day termination in both cases. These were the arrangements made by manage-
ment to assist the workers during the shutdown period. When asked how they felt about the arrangements, responses from workers at both mines were mixed.

Of the PCV and Burgin Mine workers, 70.6 percent and 44.4 percent, respectively, responded with negative feelings concerning the arrangements made for them by management. Of the PCV workers and the Burgin Mine workers, 20.2 percent and 48.1 percent, respectively, responded with positive feelings concerning the arrangements made for them by management. Of the PCV and Burgin Mine workers, 9.2 percent and 7.4 percent, respectively, were indifferent. Thus, the majority of the workers felt the management did not do all it could to assist them in their reemployment efforts.

**General Feelings about Shutdown**

Negative feelings about the shutdown of the respective mines were registered by 91.5 percent of the PCV workers and by 78.3 percent of the Burgin Mine workers. In other terms, the great majority of the workers wished the mines had not shut down. Only 7.8 percent and 16.7 percent of the PCV and Burgin Mine workers, respectively, felt positively about the mines' closing. It can be inferred from this information that the workers were not happy that they were going to lose their jobs.

**Outlook on Finding Reemployment**

In our society, much emphasis is placed on a person's attitude in accomplishing goals. For example, who has not heard phrases such as "where there is a will, there's a way" and "you can do anything if you put your mind to it". Such comments may be trite, yet attitude plays an
important part at any time in employment success and especially in reem-
ployment success after a shutdown. To test this hypothesis, mean lengths
of unemployment and current unemployment rates were analyzed for each
group: optimistic, pessimistic, indifferent, and did not know about find-
ing a job after the shutdown.

Mean lengths of unemployment were computed for each group; and, the results are tabulated in Table 39.

Table 39. Mean lengths of unemployment with respect to subjective feelings about finding a job (weeks)

<table>
<thead>
<tr>
<th>Subjective Feelings</th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimistic</td>
<td>21.9</td>
<td>9.4</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>22.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Indifferent</td>
<td>16.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Did not know</td>
<td>28</td>
<td>10.3</td>
</tr>
</tbody>
</table>

From the PCV workers, it appears that those with an unknowing feeling about finding a job had the longest duration of unemployment. No difference can be measured according to any subjective feelings from the Burgin Mine data at 0.05 l.o.s.

Current unemployment rates were computed for each group and for each mine. Table 40 illustrates the results.
Table 40. Current unemployment rates and subjective feelings about finding a job (percentages)

<table>
<thead>
<tr>
<th></th>
<th>PCV</th>
<th>Burgin Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimistic</td>
<td>30.6</td>
<td>23.5</td>
</tr>
<tr>
<td>Pessimistic</td>
<td>45.8</td>
<td>0</td>
</tr>
<tr>
<td>Indifferent</td>
<td>52.9</td>
<td>37.5</td>
</tr>
<tr>
<td>Did not know</td>
<td>51.4</td>
<td>37.5</td>
</tr>
</tbody>
</table>

The group that has the highest current unemployment rates is the one consisting of workers who were indifferent or did not know how they felt about finding a job after the shutdown. This characteristic of indifference (or unknowing) is associated with both a high rate of current unemployment and longer durations of total unemployment. Thus, this characteristic is a greater penalty than that of pessimism when seeking reemployment.

Results of the Burgin Mine Workers Asked to Return to Work

In November 1978, 26 former Burgin Mine workers were offered an opportunity to return to work, at the Tintic Division of Kennecott Copper in the two remaining mines still operational. Of the 26 that were asked to return, 12 responded to our survey, for a percentage of 46.2 which is insignificantly different at 0.05 l.o.s. from the percentage of questionnaires returned from the population of workers contacted, 45.5. Of the 26 asked to return, only 11 did, for a percentage of 42.3. From the 12 that responded to our survey, only six decided to return, for a
rate of 50 percent; and, the difference of rate of returnees from our survey is insignificantly different from the actual rate at 0.05 l.o.s.

When asked if they were in a same job position now as before, all six returnees said, "yes". But, when asked if they liked their job better now than before they were laid off, two said, "yes"; three said, "no"; and, one said, "it is the same as before". With respect to supervision, one indicated the supervision was a lot better now, two indicated it was a little better now, and three indicated that the supervision was the same as before.

With respect to working atmosphere, one person responded that the working atmosphere was a little better now, three responded it was the same, and two actually thought it was a little worse than before.

In conclusion, it seems that the small sample of returnees to the Tintic Division think the job now is much like the job before the layoff with respect to their position, their liking of the job, and the working atmosphere. With regard to supervision, the returnees feel that it is about the same or better than before. Of course, with such a small sample of returnees and the subjective nature of the questions asked, the results may have a high degree of bias, uncontrollably introduced.
played a definite role in the PCV data. In the PCV data, the male unemployment rate was 45.7 percent, whereas for females it was only 16.7 percent; but, 25 percent of the females were working part-time, and only 2.5 percent of the males had part-time work. Thus, there was an apparent preference by females to accept part-time work rather than be unemployed; and, males seem to be willing to be unemployed rather than accept part-time work. Possibly this may be due to the availability of jobs usually taken by females (waitressing, housework, etc.) relative to jobs usually taken by males. Lengths of unemployment for the two sexes in both cases were insignificantly different. In short, it seems that sex did not play a role in the Burgin Mine shutdown and did influence the preference of work in the PCV shutdown. This was probably due to the high levels of unemployment experienced by the PCV workers relative to the Burgin Mine workers. Females, being more typically the secondary workers, are willing to accept part-time work to supplement the income of the primary workers; whereas males, more typically the primary workers, are not willing to accept such part-time work and probably feel it better to search for full-time opportunities.

In both cases, higher levels of education were correlated with shorter durations of unemployment. This is probably true because education is associated with higher levels of skill in some specific areas; and, also, the more educated person is likely to more effectively search for a job and inherently has more job opportunities.

In both cases, mobility was associated with shorter durations of unemployment.

Applying-in-person was the most common job-search method used by both sets of displaced workers. In both sets of workers, applying-in-
person was also the most effective means of obtaining employment. It seems apparent from the data that informal job-search methods are the most commonly used and most effective methods. This is probably due to the inexpensiveness and easy applicability of informal job-search methods.

In both cases, the displaced workers tended to look for jobs only within the State of Utah. From PCV, 88.4 percent, and from the Burgin Mine, 88.4 percent looked for jobs only in the State of Utah. An obvious conclusion is that workers do not wish to change their place of residence. Ironically though, in both cases, those workers willing to move had shorter durations of unemployment.

From both sets of data there was no statistically significant difference with respect to the length of unemployment and advance notice.

The two sets of data had roughly the same proportion of workers holding a number of jobs since the respective mines closed. Most workers had held only one job, a few were unemployed the total time, and roughly one-third had held more than one job.

A major difference occurs in the data from the two mines with respect to quality of reemployment. The PCV workers had decreases in pay, fringe benefits, and responsibility in comparison to their former jobs at the mine. Overall, the Burgin Mine had no decreases in quality of reemployment and had improvements in pay, responsibility, and working conditions. The only variable in which PCV had improvement was in working conditions. The researcher believes this discrepancy is due to the concentrated area affected by the PCV shutdown and its impact there, as compared to the Burgin Mine which laid off half as many workers (153 at Burgin as
opposed to 350 at PCV) in a much more diversified area. It seems that there are more job opportunities in the Burgin Mine area because of its proximity to the metropolitan areas of Orem and Provo where many of the former Burgin Mine workers lived. In contrast, the displaced PCV workers were concentrated in Park City and Heber City which had relatively few job opportunities.

In both cases, those workers with substantial savings had shorter durations of unemployment than workers in any other financial position. It may be the case that saving is a more responsible and stable act than not saving, and employers are more willing to employ responsible and stable individuals. However, this is only an assumption, and no data are presented to support that case.

In both cases, those workers receiving TRA had longer durations of unemployment, poorer quality of reemployment, and higher current unemployment rates than those workers not receiving TRA. Ironically, those workers receiving UI did not have statistically significant differences in mean lengths of unemployment than the total mean length of unemployment for each mine. This suggests that TRA provides some disincentive to reenter the labor force, whereas UI provides neither an incentive nor a disincentive to reenter.

The workers from both mines with the highest unemployment rates were those who were indifferent or did not know how they felt about finding new employment. This leads the researcher to believe that those individuals not willing to make some commitment are worse off than the workers with a negative and pessimistic attitude. Certainly, the data from both mines reveal this.
Comparison of the Findings of PCV and Burgin Mine with Previous Studies

This comparison will be in two parts: the first, a comparison of demographic characteristics to determine the resemblance of the workers with those in the studies reviewed; and the second, a comparison of the hypotheses tested and the results compared with each of the studies (see Tables 41 and 42). Results of the hypotheses will be categorized as having a positive (P), negative (N), conditional (C), or neutral/insignificant (I) effect on reemployment.
Table 41. Demographic comparisons

<table>
<thead>
<tr>
<th>Study</th>
<th>Age (mean)</th>
<th>Years of education (mean)</th>
<th>Sex (percentage male)</th>
<th>Number of dependents (mean)</th>
<th>Married (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laplante study</td>
<td>36.7</td>
<td>8.6</td>
<td>70.0</td>
<td>1.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Foltman study</td>
<td>44.1</td>
<td>9.0</td>
<td>72.0</td>
<td>0.8</td>
<td>NA</td>
</tr>
<tr>
<td>Tolles study</td>
<td>45.0 *</td>
<td>8.0 *</td>
<td>70.0</td>
<td>1.0 *</td>
<td>82.9</td>
</tr>
<tr>
<td>Loomba study</td>
<td>35-44 **</td>
<td>16 *</td>
<td>97</td>
<td>2.0</td>
<td>84.0</td>
</tr>
<tr>
<td>Hesston study</td>
<td>28.7</td>
<td>12.6</td>
<td>88.2</td>
<td>2.3</td>
<td>86.3</td>
</tr>
<tr>
<td>PCV study</td>
<td>38.7</td>
<td>11.7</td>
<td>91.5</td>
<td>2.3</td>
<td>83.0</td>
</tr>
<tr>
<td>Burgin study</td>
<td>31.9</td>
<td>12.9</td>
<td>92.3</td>
<td>2.1</td>
<td>84.6</td>
</tr>
</tbody>
</table>

* Statistic given is a median.

** Mode class.
Table 42. Comparison of findings. Positive (P), Negative (N), Conditional (C), or Neutral/Insignificant (I)

<table>
<thead>
<tr>
<th>Type of characteristic, program, or result of factors concerning reemployment</th>
<th>Laplante study</th>
<th>Folman study</th>
<th>Tolles study</th>
<th>Lomba study</th>
<th>Heston study</th>
<th>PCV study</th>
<th>Burgin study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age, older workers</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>I</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Sex, female</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>I</td>
<td>N</td>
<td>I</td>
</tr>
<tr>
<td>Higher education</td>
<td>I</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Marital status, married</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td>P</td>
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</tr>
<tr>
<td>Blue-collar workers seek to satisfice</td>
<td></td>
<td></td>
<td>N</td>
<td></td>
<td>N</td>
<td>N</td>
<td>C</td>
</tr>
<tr>
<td>Blue-collar workers strongly attached to community</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
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<td>Job Search</td>
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<tr>
<td>Most workers use informal methods</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Informal methods are most effective</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
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<td>P</td>
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<tr>
<td>Spread layoffs</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Advance notice</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Mobility</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td></td>
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</tr>
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</table>

(continued on next page)
Table 42. Comparison of findings. Positive (P), Negative (N), Conditional (C), or Neutral/Insignificant (I) (continued)

<table>
<thead>
<tr>
<th>Type of characteristic, program, or result of factors concerning reemployment</th>
<th>Laplante study</th>
<th>Folkman study</th>
<th>Tolles study</th>
<th>Lomba study</th>
<th>Heston study</th>
<th>PCV study</th>
<th>Burgin study</th>
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<tbody>
<tr>
<td><strong>Programs</strong></td>
<td></td>
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<tr>
<td>UI</td>
<td>I *</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>TRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>State Employment Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td><strong>Characteristics of new job</strong></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>P</td>
</tr>
<tr>
<td>New job in comparison with previous job</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>P</td>
</tr>
<tr>
<td>Earnings</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>P</td>
</tr>
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<td>Psychological effect</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

* Group of financial benefits.
Reviewing the PCV and Burgin Mine studies with others produces some patterns that seem to be constant throughout the literature. The factors that emerge which have negative influences on reemployment are: being older, being female, being satisficing, having an unwillingness to move, and utilizing state employment services. In comparing their new jobs to their previous jobs, displaced workers feel their new jobs are inferior in quality and earnings. In all studies reviewed, a shutdown produced negative psychological effects. Positive reemployment influences are: being younger, being male, having a higher education, and being married. Informal job-search methods are the most commonly used and most effective. Unemployment insurance seems to be a positive influence on reemployment, but TRA does not.

Summary of Findings

The analysis presented in this thesis has brought to the surface many important facts, some of which had been presented in other studies and have been reconfirmed by this one. The following is a list of the major findings:

Older workers have longer durations of unemployment and poorer quality of reemployment than younger workers. A relationship of age and length of unemployment existed in both mines. Although regression analysis showed age played an insignificant role, cross-tabulations show older workers experience longer durations of unemployment. The older workers experienced the worst reemployment conditions, with the exception of responsibility.
Females were more apt to take part-time jobs. No statistical differences were found between males and females with the exception of females' having more current part-time work than males.

The more education, the shorter the duration of unemployment. In both cases, those workers with more education found jobs more readily than those with less education.

Mobility is more important than job market knowledge. Regression analysis was consistent with the hypothesis that being more mobile led to shorter durations of unemployment than did having job market knowledge.

Married workers were unemployed for shorter durations than single workers. For both cases, single workers were unemployed for a significantly longer duration than married workers.

Informal job search. Informal job-search methods were the most commonly used; and, they were the most effective means of finding reemployment.

Geographical and occupational job search. Most workers wished to stay in, and did not search for reemployment outside, the State of Utah. But, a significant proportion were willing to change occupations.

Notification. No significant difference was found between more advance notice of termination and length of unemployment.

Quality of reemployment. The two sets of data conflicted with each other in this respect. PCV workers had an over-all decrease in the quality of reemployment in comparison to their former jobs, whereas the Burgin Mine workers had an increase in quality.

Financial position. Those workers with substantial savings had shorter durations of unemployment than any other group.
Trade readjustment assistance. Those workers receiving TRA had longer durations of unemployment, poorer quality of reemployment, and higher current unemployment rates than those workers who received none. Also, TRA was the most significant variable in both multiple regression equations, having the expected positive sign showing that recipients had longer durations of unemployment than non-recipients.

Attitude. Those workers with an indifferent (or unknowing) attitude about finding a new job had longer lengths of unemployment and a higher current unemployment rate than those workers who were either optimistic or pessimistic.

In summary, the workers from the two mines experienced a mixture of success and failure in reemployment. It is believed that, if firms, workers, and assistance agencies work together, the negative aspects of displacement can be eased and positive aspects enhanced. Many factors in the areas of personal characteristics, job-search activities, financial position, assistance, and subjective feelings play a role in reemployment once a shutdown occurs. Hopefully, more insight and understanding of the problems faced by displaced workers and possible solutions thereto have been brought to the surface by this study.
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APPENDIXES
Appendix A

A Survey of Former Employees of the Park City Mine

1) Place of Birth ____________________  ____________________  ____________________
   City                     State                     County

2) Age _____

3) Sex: _____ Male     _____ Female

4) Marital Status: _____ Single
   _____ Married
   _____ Divorced or Separated
   _____ Widowed
   _____ Other

5) Dependents: If you have children,
   How many are 18 years or older? _____
   How many are under 18 years? _____
   How many of your children live at home? _____
   How many other persons are dependent on you for support? _____ (aged parents, etc.)

6) Education:
   a) At what grade did you leave school? (Circle highest grade achieved)

   Elementary  High School  College
   1 2 3 4 5 6 7 8  1 2 3 4  1 2 3 4 5 6 7

   b) Did you receive any vocational or technical training while in school or out? Yes _____ No _____
   If yes, what type of training did you receive and for how long? ____________________________

7) Housing status:
   a) Presently you are

   (1) _____ Owner
   (2) _____ Tenant or boarder
   (3) _____ Living with parents or relatives
   (4) _____ Other (specify) ____________________________
7) Housing status (continued):
   b) At the time of the shutdown you were
      (1) ___ Owner
      (2) ___ Tenant or boarder
      (3) ___ Living with parents or relatives
      (4) ___ Other (specify) ________________________________
   c) Change in housing status since shutdown
      (1) ___ No change
      (2) ___ From owner to tenant
      (3) ___ From owner to parents or relatives
      (4) ___ From tenant to owner
      (5) ___ From tenant to parents or relatives
      (6) ___ Other (specify) ________________________________
8) Length of residence in Utah:
   a) How long have you lived in the State of Utah? ___ years ___ months
   b) How long have you lived in the Park City area? ___ years ___ months
   c) Not including military service, have you lived in another state for more than one year? ___Yes ___ No
      If yes, please indicate
      What state Dates of residence, from-to
      ______________________________________________________
      ______________________________________________________
5) Presently you are (check only one possibility)
   a) ___ Self-employed
   b) ___ Employed, full-time
   c) ___ Employed, part-time
   d) ___ Unemployed, seeking work
   e) ___ Unemployed, not seeking work
   f) ___ Employed, more than one part-time
   g) ___ Employed, full-time plus part-time
   h) ___ Retired
   i) ___ Other (specify) ________________________________
10) Are you now receiving Trade Readjustment Act Benefits? ___Yes ___ No
11) At the time of your termination did you have any other part-time work other than your full-time work at Park City? ___Yes ___ No
12) Since leaving the Park City Mine list the jobs you have held up to and including the job you currently hold

<table>
<thead>
<tr>
<th>Title/Description</th>
<th>City, State</th>
<th>How long in weeks?</th>
<th>Part- or full-time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Current job:

13) What has been your total length of unemployment since leaving the Park City Mine? _____ weeks

14) Which one of the jobs you have had since Park City do you consider the best one?

15) Since leaving the Park City Mine, if you have been (or are) looking for work, how have you gone about it? (check as many as apply)

a) _____ Registered with Utah State Employment Service
b) _____ Registered with private employment agencies
c) _____ Contacted Anaconda's Personnel Department for jobs they may have heard about or developed
d) Contacted friends
e) _____ Contacted relatives
f) _____ Sent letters to prospective employers
g) _____ Newspaper want ads
h) _____ Applied in person
i) _____ Other (specify)

16) Which of the above was the most helpful in job hunting for you after the shutdown?

17) How would you compare your current job to your last usual job at the Park City Mine with respect to:

a) Pay

(1) _____ The pay was generally much better than at the Park City Mine
(2) _____ The pay was generally somewhat better than at the Park City Mine
(3) _____ The pay was generally the same at the Park City Mine
(4) _____ The pay was generally a little worse than at the Park City Mine
(5) _____ The pay was generally much worse than at the Park City Mine
17) Comparison of current job to last usual job at Park City (continued):

b) Fringe Benefits (Medical, Dental, Vacation, etc.)

(1) _____ The fringe benefits were much better than at the Park City Mine
(2) _____ The fringe benefits were a little better than at the Park City Mine
(3) _____ There was no difference in fringe benefits
(4) _____ The fringe benefits were a little less than at the Park City Mine
(5) _____ The fringe benefits were a lot less than at the Park City Mine

c) Responsibility

(1) _____ Larger responsibility than at the Park City Mine
(2) _____ Little more responsibility than at the Park City Mine
(3) _____ The same amount of responsibility as at the Park City Mine
(4) _____ Little less responsibility than at the Park City Mine
(5) _____ A lot less responsibility than at the Park City Mine

d) Working Conditions

(1) _____ Much better working conditions than at the Park City Mine
(2) _____ Somewhat better working conditions than at the Park City Mine
(3) _____ The same working conditions as at the Park City Mine
(4) _____ Somewhat poorer working conditions than at the Park City Mine
(5) _____ Definitely poorer working conditions than at the Park City Mine

e) Supervision

(1) _____ Much better supervision at the Park City Mine
(2) _____ Somewhat better supervision at the Park City Mine
(3) _____ Supervision about the same as at the Park City Mine
(4) _____ Somewhat poorer supervision at the Park City Mine
(5) _____ Much poorer supervision at the Park City Mine

18) What was your last wage per hour at the Park City Mine prior to shutdown? _________

19) What is your present wage per hour? _________
PART II. WHILE YOU WERE EMPLOYED AT THE PARK CITY MINE

20) How long had you been at the Park City Mine? _______________________
    What was the last job you held there?

<table>
<thead>
<tr>
<th>Job Title or Occupation</th>
<th>Dates, from-to</th>
<th>Department or Division</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21) During the time you were employed at the Park City Mine, were you at any time trying to find a job elsewhere? ____ Yes ____ No
    If yes, why did you decide to stay at the Park City Mine? ________________

22) Were you told before the shutdown that you were going to lose your job? ____ Yes ____ No
    If yes, how much advance notice were you given?
    ______ Weeks ______ Days

23) From whom did you first hear about the shutdown?

   a) _____ Your former employer
   b) _____ Fellow workers
   c) _____ A government agency
   d) _____ The newspaper
   e) _____ Radio, T.V.
   f) _____ Do not remember
   g) _____ Other (specify) ________________

24) In what form was that notice?

   a) _____ Posting (A notice posted on bulletin board)
   b) _____ Personal letter
   c) _____ Oral (Vocally expressed by firm or union official, word of mouth)
   d) _____ Do not remember
   e) _____ Other (specify) ________________

25) According to you, was that notice sufficiently in advance of the layoff? ____ Yes ____ No
    If no, how long in advance would you have liked it to have been?
    ______ Weeks ______ Days

26) When you first heard about the shutdown, how did you feel about the:

   a) Arrangements that were made for taking care of those who were losing their jobs?
      ________________
26) When you first heard about the shutdown, how did you feel (continued):
   
   b) How did you feel concerning the shutdown? (betrayed, tense, relieved, angry, good, etc.)

27) After you heard about the shutdown, how did you feel about finding a new job?
   
   a) Optimistic
   b) Pessimistic
   c) Indifferent
   d) Did not know
   e) Do not remember
   f) Other (specify)

28) When did you leave the Park City Mine? _____ Month _____ Year

29) Did you quit before the layoff? _____ Yes _____ No

30) Did you start looking for another job before you quit or were laid off? _____ Yes _____ No
   
   If yes:
   a) What kind of job were you looking for? 
   
   b) Where did you look?

PART III. YOUR EXPERIENCE AFTER YOU LEFT PARK CITY

31) Because of your being laid off from the Park City Mine, how much did you receive in total severance pay?

   a) _____ 0 e) _____ $1501 - 2000
   b) _____ $1 - 500 f) _____ $2001 - 2500
   c) _____ $501 - 1000 g) _____ $2501 - 3000
   d) _____ $1001 - 1500 h) _____ Over $3000

32) At the time of the shutdown, was your family financial position characterized by?

   a) _____ Substantial savings to draw on
   b) _____ Very little savings to draw on
   c) _____ No savings to draw on
   d) _____ Small amount of debt
   e) _____ Considerable amount of debt (on car, home, furniture, etc.)
33) After leaving Park City, did you apply for unemployment compensation?  
   Yes  No  
   If yes, how many weeks did you draw it?  Weeks  

34) Did you receive any other forms of public assistance after leaving Park City?  Yes  No  
   If yes:  
   a) Was it in the form of financial assistance?  
      (1) Public Welfare  (3) Church Welfare  
      (2) Private Welfare  (4) Other (specify)  
   b) Was it in the form of manpower training?  
      (1) CETA  
      (2) Vocational training  
      (3) Other (specify)  
   c) Did you receive Trade Readjustment Act Benefits?  
      Yes  No  

35) After having lost your job at the Park City Mine, to which of the following places would you have accepted to move to get a job paying at least as much as your former job? (Check only one possibility)  
   a) Anywhere in U.S.  
   b) Anywhere in the Intermountain Area  
   c) Anywhere in Utah  
   d) Within the Mine area  
   e) I would not have accepted to move at all  

36) Following the shutdown and your reemployment problems, did some member(s) of your family who was (were) not working before start to work or look for work?  Yes  No  
   If yes, who was it: (Check as many as apply)  
   a) Your spouse  
   b) A child who left school to work  
   c) A child who did not leave school to work  
   d) A child not in school  
   e) Other (specify)  
37) Please comment on any aspect that you feel would be relevant to this study:

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

May we have your name and address if you are interested in the results of this study of the former employees of the Park City Mine

Name  _______________________________________________________________

Address  ___________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________
### Appendix B

**A Survey of Former Employees of the Burgin Mine**

1) **Place of Birth**

<table>
<thead>
<tr>
<th>City</th>
<th>State</th>
<th>County</th>
</tr>
</thead>
</table>

2) **Age** ___

3) **Sex:**
   - Male ___
   - Female ___

4) **Marital Status:**
   - Single ___
   - Married ___
   - Divorced or Separated ___
   - Widowed ___
   - Other ___

5) **Dependents:** If you have children,
   - How many are 18 years or older? ___
   - How many are under 18 years? ___
   - How many of your children live at home? ___
   - How many other persons are dependent on you for support? ___ (aged parents, etc.)

6) **Education:**
   - At what grade did you leave school? (Circle highest grade achieved)
     - **Elementary** 1 2 3 4 5 6 7 8
     - **High School** 1 2 3 4
     - **College** 1 2 3 4 5 6 7
   - Did you receive any vocational or technical training while in school or out? Yes ___ No ___
     - If yes, what type of training did you receive and for how long?

7) **Housing status:**
   - Presently you are
     - (1) Owner ___
     - (2) Tenant or boarder ___
     - (3) Living with parents or relatives ___
     - (4) Other (specify) ___
7) Housing status (continued):

b) At the time of the shutdown you were

(1) ______ Owner
(2) ______ Tenant or boarder
(3) ______ Living with parents or relatives
(4) ______ Other (specify) ______________________

c) Change in housing status since shutdown

(1) ______ No change
(2) ______ From owner to tenant
(3) ______ From owner to parents or relatives
(4) ______ From tenant to owner
(5) ______ From tenant to parents or relatives
(6) ______ Other (specify) ______________________

8) Lenth of residence in Utah:

a) How long have you lived in the State of Utah? ___ years ___ months

b) How long have you lived in the Burgin Mine area? ___ years ___ months

c) Not including military service, have you lived in another state for more than one year? Yes ___ No ___

If yes, please indicate

What state Dates of residence, from-to

________________________________________________________________________
________________________________________________________________________

9) Presently you are (check only one possibility)

a) ______ Self-employed
b) ______ Employed, full-time
c) ______ Employed, part-time
d) ______ Unemployed, seeking work
e) ______ Unemployed, not seeking work
f) ______ Employed, more than one part-time
g) ______ Employed, full-time plus part-time
h) ______ Retired
i) ______ Other (specify) ______________________

10) Are you now receiving Trade Act Benefits?

______ Yes ______ No

11) At the time of your termination did you have any other part-time work other than your full-time work at Burgin? _____ Yes _____ No
12) Since leaving the Burgin Mine list the jobs you have held up to and including the job you currently hold

<table>
<thead>
<tr>
<th>Title/Description</th>
<th>City, State</th>
<th>How long in weeks?</th>
<th>Part- or full-time</th>
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<tr>
<td>Current job:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13) What has been your total length of unemployment since leaving the Burgin Mine? _____ weeks

14) Which one of the jobs you have had since the Burgin Mine do you consider the best one? ____________________________

15) Since leaving the Burgin Mine, if you have been (or are) looking for work, how have you gone about it? (check as many as apply)

a) _____ Registered with Utah State Employment Service
b) _____ Registered with private employment agencies
c) _____ Contacted Kennecott's Personnel Department for jobs they may have heard about or developed
d) _____ Contacted friends
e) _____ Contacted relatives
f) _____ Sent letters to prospective employers
g) _____ Newspaper want ads
h) _____ Applied in person
i) _____ Other (specify) ____________________________

16) Which of the items in Question #15 was the most helpful in job hunting for you after the shutdown? ____________________________

17) How would you compare your current job to your last usual job at the Burgin Mine with respect to:

a) Pay

(1) _____ The pay was generally much better than at the Burgin Mine
(2) _____ The pay was generally somewhat better than at the Burgin Mine
(3) _____ The pay was generally the same at the Burgin Mine
(4) _____ The pay was generally a little worse than at the Burgin Mine
(5) _____ The pay was generally much worse than at the Burgin Mine
17) Comparison of current job to last usual job at the Burgin Mine (continued):

b) Fringe Benefits (Medical, Dental, Vacation, etc.)

(1) _____ The fringe benefits were much better than at the Burgin Mine
(2) _____ The fringe benefits were a little better than at the Burgin Mine
(3) _____ There was no difference in fringe benefits
(4) _____ The fringe benefits were a little less than at the Burgin Mine
(5) _____ The fringe benefits were a lot less than at the Burgin Mine

c) Responsibility

(1) _____ Larger responsibility than at the Burgin Mine
(2) _____ Little more responsibility than at the Burgin Mine
(3) _____ The same amount of responsibility as at the Burgin Mine
(4) _____ Little less responsibility than at the Burgin Mine
(5) _____ A lot less responsibility than at the Burgin Mine

d) Working Conditions

(1) _____ Much better working conditions than at the Burgin Mine
(2) _____ Somewhat better working conditions than at the Burgin Mine
(3) _____ The same working conditions as at the Burgin Mine
(4) _____ Somewhat poorer working conditions than at the Burgin Mine
(5) _____ Definitely poorer working conditions than at the Burgin Mine

e) Supervision

(1) _____ Much better supervision at the Burgin Mine
(2) _____ Somewhat better supervision at the Burgin Mine
(3) _____ Supervision about the same as at the Burgin Mine
(4) _____ Somewhat poorer supervision at the Burgin Mine
(5) _____ Much poorer supervision at the Burgin Mine

18) What was your last wage per hour at the Burgin Mine prior to shutdown? ________

19) What is your present wage per hour? ________
PART II. WHILE YOU WERE EMPLOYED AT THE BURGIN MINE

20) How long had you been at the Burgin Mine? ____________________________
    What was your last job you held there? ________________________________

    Job Title or Occupation       Dates, from-to       Department or Division
    ________________________________________________________________

21) During the time you were employed at the Burgin Mine, were you at any time trying to find a job elsewhere? __Yes__ __No__
    If yes, why did you decide to stay at the Burgin Mine? ________________

22) Were you told before the shutdown that you were going to lose your job? __Yes__ __No__
    If yes, how much advance notice were you given?  _______ Weeks _______ Days

23) From whom did you first hear about the shutdown?

    a) _____ Your former employer
    b) _____ Fellow workers
    c) _____ A government agency
    d) _____ The newspaper
    e) _____ Radio, T.V.
    f) _____ Do not remember
    g) _____ Other (specify) ____________________________________________

24) In what form was that notice?

    a) _____ Posting (A notice posted on bulletin board)
    b) _____ Personal letter
    c) _____ Oral (Vocally expressed by firm or union official, word of mouth)
    d) _____ Do not remember
    e) _____ Other (specify) ____________________________________________

25) According to you, was that notice sufficiently in advance of the layoff? __Yes__ __No__
    If no, how long in advance would you have liked it to have been?  _______ Weeks _______ Days

26) When you first heard about the shutdown, how did you feel about the:

    a) Arrangements that were made for taking care of those who were losing their jobs?
    __________________________________________________________________
26) When you first heard about the shutdown, how did you feel (continued):
   b) How did you feel concerning the shutdown? (betrayed, tense, relieved, angry, good, etc.)

27) After you heard about the shutdown, how did you feel about finding a new job?
   a) _____ Optimistic
   b) _____ Pessimistic
   c) _____ Indifferent
   d) _____ Did not know
   e) _____ Do not remember
   f) _____ Other (specify)

28) When did you leave the Burgin Mine? _____ Month _____ Year

29) Did you quit before the layoff? _____ Yes _____ No

30) Did you start looking for another job before you quit or were laid off? _____ Yes _____ No
   If yes:
   a) What kind of job were you looking for?
   b) Where did you look?

PART III. YOUR EXPERIENCE AFTER YOU LEFT BURGIN

31) Because of your being laid off from the Burgin Mine, how much did you receive in total severance pay?
   a) _____ 0
   b) _____ $1 - 500
   c) _____ $501 - 1000
   d) _____ $1001 - 1500
   e) _____ $1501 - 2000
   f) _____ $2001 - 2500
   g) _____ $2501 - 3000
   h) _____ Over $3000

32) At the time of the shutdown, was your family financial position characterized by?
   a) _____ Substantial savings to draw on
   b) _____ Very little savings to draw on
   c) _____ No savings to draw on
   d) _____ Small amount of debt
   e) _____ Considerable amount of debt (on car, home, furniture, etc.)
33) After leaving Burgin did you apply for unemployment compensation?  
    Yes      No  
    If yes, how many weeks did you draw it?  _____ Weeks

34) Did you receive any other forms of public assistance after leaving Burgin?  _____ Yes  _____ No  
    If yes:  
    a) Was it in the form of financial assistance?  
       (1) _____ Public Welfare  (3) _____ Church Welfare  
       (2) _____ Private Welfare  (4) _____ Other (specify) _____
    b) Was it in the form of manpower training?  
       (1) _____ CETA  
       (2) _____ Vocational training  
       (3) _____ Other (specify) ____________________________
    c) Did you receive Trade Act Benefits?  
       _____ Yes  _____ No

35) After having lost your job at the Burgin Mine, to which of the following places would you have accepted to move to get a job paying at least as much as your former job?  (check only one possibility)  
    a) _____ Anywhere in U.S.  
    b) _____ Anywhere in the Intermountain Area  
    c) _____ Anywhere in Utah  
    d) _____ Within the Mine area  
    e) _____ I would not have accepted to move at all

36) Following the shutdown and your reemployment problems, did some member(s) of your family who was (were) not working before start to work or look for work?  _____ Yes  _____ No  
    If yes, who was it?  (Check as many as apply)  
    a) _____ Your spouse  
    b) _____ A child who left school to work  
    c) _____ A child who did not leave school to work  
    d) _____ A child not in school  
    e) _____ Other (specify) ____________________________
PART IV

THIS SECTION IS TO BE ANSWERED BY THOSE EMPLOYEES WHO WERE ASKED TO RETURN TO THE MINE AFTER THEY HAD BEEN LAID OFF

37) Were you asked to return to another mine in the Tintic Division after you had been laid off?  Yes  ____ No
(If no, please turn to last page)

38) When were you asked to resume work?  ____ Month  ____ Year

39) Did you decide to return?  ____ Yes  ____ No

40) Explain briefly why you decided to return or not return ____________

________________________________________________________________________

________________________________________________________________________

41) Are you in the same position now as you were in when you were laid off?  ____ Yes  ____ No

42) Do you like your job better now at the new mine than before you were laid off from Burgin?  ____ Yes  ____ No  ____ Indifferent

Why?  ___________________________________________________________________

________________________________________________________________________

43) Is the supervision at the new mine now:

a)  ____ A lot better than before the shutdown
b)  ____ A little better than before the shutdown
c)  ____ The same as before the shutdown
d)  ____ A little worse than before the shutdown
e)  ____ A lot worse than before the shutdown

44) Is the working atmosphere now at the new mine:

a)  ____ A lot better than before the shutdown
b)  ____ A little better than before the shutdown
c)  ____ The same as before the shutdown
d)  ____ A little worse than before the shutdown
e)  ____ A lot worse than before the shutdown
45) Please comment on any aspect that you feel would be relevant to this study:

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

May we have your name and address if you are interested in the results of this study of the former employees of the Burgin Mine

Name  ___________________________________________________________________

Address  ___________________________________________________________________
Business and Economic Development Services of Utah State University is conducting a survey to gather data concerning the Park City Mine shutdown. We would like to know your opinions and experiences after the mine closed in order to learn more about what happens to workers when a shutdown occurs. We hope the report that will be prepared may provide useful information to assist others who may face shutdowns.

All former Park City Mine employees are being mailed the enclosed questionnaire. Please answer each question that pertains to you and return the completed questionnaire in the enclosed pre-addressed, stamped envelope.

Your responses will remain completely anonymous and only general results from the study will be compiled. If you would like a copy of the results of the study, please write your name and address on a separate sheet of paper and enclose it with the survey or in a separate envelope.

Thank you for your cooperation.

Sincerely yours,

Gary B. Hansen
Director

GBH/kd

Enclosure
March 23, 1979

Business and Economic Development Services of Utah State University is conducting a survey to gather data concerning the Park City Mine shutdown. We would like to know your opinions and experiences after the mine closed in order to learn more about what happens to workers when a shutdown occurs. We hope the report that will be prepared may provide useful information to assist others who face shutdowns.

All former employees have been mailed the questionnaire that is enclosed. If you have already answered the questionnaire, please disregard this letter. If you haven't, please answer each question that pertains to you. Once the questionnaire is completed, please return it in the enclosed pre-addressed, stamped envelope.

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Gary B. Hansen
Director

GBH/kd
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All former Burgin employees are being mailed the enclosed questionnaire. Please answer each question that pertains to you. (Those who were recalled to work at other units of the Tintic Division should also complete the special section included in the questionnaire for that purpose.) Please return the completed questionnaire in the enclosed pre-addressed, stamped envelope.

Your responses will remain completely anonymous and only general results from the study will be compiled. If you would like a copy of the results of the study, please write your name and address on a separate sheet of paper and enclose it with the survey or in a separate envelope.

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Sincerely yours,

Gary B. Hansen
Director

Enclosure
Appendix G

Interview Outline

1) When and from whom or how did you first hear of the shutdown?

2) Of what magnitude did you perceive the problem to be, especially in reference to you and your agency's role in such a situation?

3) What did you and/or your agency do to assist the displaced workers?
   a) Pre-layoff assistance?
   b) Post-layoff assistance?

4) Did you initiate action to assist the displaced workers or were you contacted by someone?

5) In what programs or methods of assistance did you and/or your agency participate directly or indirectly?
   a) Job assistance
      (1) Job placement?
      (2) Job search?
      (3) Job-search skills?
      (4) Counseling?
      (5) Workshops and seminars?
   b) Training
      (1) Retraining—financed by whom?
      (2) What types of retraining: OJT, classroom, or both?

6) What kind of participation and reactions did you perceive the displaced workers to have with respect to the programs with which you were involved?

7) If any, what were the types of problems you encountered?

8) How did you feel about the results of your participation, assistance, job placement, retraining, etc.?

9) If you had the opportunity to do it over, what would you do differently?
10) What effect do you feel the shutdown has had on the community (social and economic effects)?

11) If any, what were the efforts made by the community to ease the hardship of displaced workers?

12) Do you know of anyone else I could talk with who might have some special insight relating to the shutdown and its effect upon the workers?
VITA

Richard Alan Davidson

Candidate for the Degree of

Master of Science

Thesis: The Unemployment and Reemployment Experiences of Displaced Workers Resulting from the Shutdown of Two Utah Mines: The Park City Ventures and the Burgin Mine

Major Field: Economics

Biographical Information:

Personal Data: Born at Dayton, Ohio, April 14, 1956, son of Thomas F. and Nancy Lee Davidson; married Pamela T. Tygesen June 4, 1977; one child—Richard.

Education: Attended elementary school in Ogden, Utah; graduated from Council Rock High School, Newtown, Pennsylvania, 1974; attended the University of Delaware, 1974-1975; received the Bachelor of Science degree from Utah State University with a major in Economics, 1978; did graduate work in Economics at Utah State University, 1978-1979; completed requirements for the Master of Science degree, specializing in Economics, at Utah State University, 1979.

Professional Experience: 1979 to present, Personnel Assistant, Wasatch Division, Thiokol Corporation, Brigham City, Utah. Member, Omicron Delta Epsilon (International Economics Honorary Society).