

ISOLATION AND ITS EFFECT ON EMPLOYMENT PRACTICES
OF MINING COMPANIES IN ARIZONA

by

Peter Economidis

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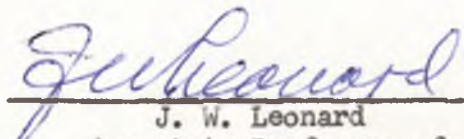
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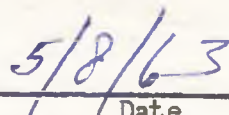
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This thesis has been approved on the date shown below:



J. W. Leonard
Associate Professor of
Business Administration



Date

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CHAPTER I

INTRODUCTION

Mining in Arizona presents a colorful and extremely interesting history of hardship, danger and bravery. The story of Arizona's mines, from the first prospector treading a lonely path into the wilderness to the multi-million dollar economic organization of today, includes a period of almost four hundred years.

In 1583, thirty-seven years before the landing of the Pilgrim Fathers, a white man, Antonio Espejo, found silver ore in what is now Arizona. It was Arizona's first recorded mineral discovery. It is known that the Indians did little mining except for turquoise, salt, and possibly iron oxide for paint.¹

Following Espejo's discovery, there was little prospecting in Arizona until after the Gadsden Purchase in 1854 which acquired that part of Arizona and New Mexico south of the Gila River. Silver ore was discovered in the Santa Rita Mountains by Padre Eusebio Francisco Kino in 1705, and the Bolas de Plata silver deposit in northern Sonora was discovered in 1736.² Gold placers in the Quijota district were worked in 1774,³ but little other mining prospecting was done until after 1854. The arrival of U. S. troops, under Kearney in 1848, provided

¹Frank P. Knight and Frank J. Tuck, "Mining in Arizona, Its Present, Its Future," (Arizona, 1961), p. 6.

²Frank J. Tuck, "History of Mining in Arizona," (Arizona, 1955), pp. 1-2.

³Ibid., p. 2.

prospectors some protection from Apache war-parties thereby stimulating prospecting activities.⁴

Following the start of the Civil War in 1861, and subsequent withdrawal of federal troops from Arizona, Apache depredations quieted the pioneer's quest for wealth and prospecting yielded somewhat to the necessity for greater security. With the end of Civil War hostilities, the Apache remained a formidable enemy and continued to harass the prospectors' efforts. Until after the turn of the twentieth century and almost to the date of Arizona's admission into the Union, the Apache plagued Arizona settlers and was frequently called the greatest deterrent to territorial development.⁵

The Apache was not the only hardship faced by early prospectors. Excerpts from a eulogy honoring an Arizona prospector named Tom Haley, printed in the September 22, 1918, issue of the Arizona Daily Star, provides some insight into the difficulties faced by the prospector and his contribution to the development of mining.⁶

Tom Haley came to Arizona from California in the late seventies lured to the territory at that time by the excitement of the MacCracken silver mine discovery. He established himself here as a mining work contractor and many a shaft and long tunnel are the monuments today to tell of his labors. . . . In his . . . rambles he landed at the famous Silver King Mine, soon after its discovery, where he shared his chewing tobacco with the miner sinking the first prospect shaft. . . . Millions in silver have since been taken from this mine.

Here he met his faithful and inseparable partner and companion, and it was during these early days . . . that the two partners

⁴Ibid.

⁵See, Report of the Governor of Arizona to the Secretary of the Interior (Washington: U. S. Government Printing Office, 1885 to 1911).

⁶The Arizona Daily Star, September 22, 1918, pp. 1 and 3.

discovered and located . . . the celebrated Haley and Souffrien lead group, . . . the Monitor group, the Calumet and Bunker Hill group, the Flux and the Buffalo mine. . . .

During the early days of this partnership one of the partners would seek work to earn, as they said, "beans and powder", to work their prospects, while the other would do development work and thousands of feet of tunnels and many a deep shaft are the results of these two sturdy prospectors' labor during the years of their residence near Ray. Along the lonely trails that led to the mines from their lonely mountain camp lurked the treacherous Indian behind the boulders. They braved the dangers of the Apache outbreaks many times in the early days from the nearby Indian reservation. One of the favorite hiding places of the famous "Apache Kid" was within three-quarters of a mile of their camp on their lead group of claims.

. . . It is to men such as he that we of today owe much; it was this class of men that blazed the trails leading to our present plentiful and prosperous Arizona. Many were the days when beans and piece of rancid bacon, with bread baked in a frying pan, was their only ration. Let us lift our hats in earnest homage to such as Tom Haley. We owe them much and should erect for such as he imposing monuments so that even those who may follow here in years to come shall know the names of those who led the way into a one time wilderness and sowed the seed that brought forth the present prosperity and plenty that we now enjoy.

For the contributions of such prospectors, who braved the hardships and paved the way for modern science to step in and fully develop the mining industry, society today owes a great debt of gratitude. "In the period from 1858 to 1960 inclusive, Arizona's mines have yielded more than \$8 billion, over 95% of which came from its five principal metals: copper, lead, zinc, gold and silver. While all phases of the mining industry contributed to such achievement, it is to the pioneer prospector and miner we of this 'machine age' owe an everlasting debt."⁷

Concluding this brief discussion of the history and significance of mining in Arizona, Table I presents a summary of production of Arizona mines during the period, 1860 to 1954. The table could easily

⁷Knight and Tuck, op. cit., p. 6.

be extended to include the value of production to the present, but these statistics are included merely for the purpose of indicating the position of mining in the State's economy. Perhaps it will suffice to point out that the grand total value of mineral production in Arizona for the year 1959, alone, totaled \$326,888,000.⁸

TABLE I

SUMMARY OF PRODUCTION OF ARIZONA MINES, 1860-1954^a

	<u>Quantity</u>	<u>Value</u>
Copper (tons)	14,265,856	\$4,778,932,458
Gold (ounces)	11,754,084	298,888,095
Silver (ounces)	330,864,159	251,816,133
Zinc (tons)	667,041	161,694,179
Lead (tons)	544,705	<u>101,319,980</u>
SUB-TOTAL (5 Principal Metals)		\$5,592,650,845
SUB-TOTAL (Miscellaneous Metals) (Includes Manganese, Mercury, Molybdenum, Tungsten and Vanadium)		\$ 39,600,000
TOTAL (All Metals) (Excludes Uranium which was not published)		\$5,632,251,000
TOTAL (All Non-Metallics) (Includes Asbestos, Barite, Cement, Clays and Clay Products, Feldspar, Fluorspar, Gypsum, Lime, Mica, Perlite, Pumice- Pumicite, Sand-Gravel, Silica, Stone, Sodium Sulfate, Coal, Rare Earths and Gems)		\$ 110,840,000
GRAND TOTAL ALL METALS AND NON-METALLICS		\$5,743,091,000

^aFrank J. Tuck, "History of Mining in Arizona," (Arizona, 1961), p. 40.

⁸Ibid., p. 36.

As to the future outlook for the mining industry in Arizona, the following excerpts from an article which appeared in Mining World provides a summary.⁹

Some 33 miles southwest of Tucson, in Pima County, Arizona, the Duval Sulphur and Potash Company Esperanza open-pit copper mine and 12,000-ton-per-day mill, which began operating in March, 1959, had a full year's production in 1960. Nearby, the American Smelting and Refining Company's \$43,500,000 program to bring its Mission Project open-pit copper mine into scheduled production late in 1961 was well along by the end of 1960. Construction work was started in March on its \$17,000,000 15,000-ton-per-day concentration plant scheduled for completion in September 1961. . . .

Ground-breaking ceremonies in July officially marked the start of construction of Bagdad Copper Corporation's \$2,000,000 leaching plant and auxiliary sulphuric acid plant at Bagdad, Arizona, scheduled for completion in March, 1961. . . .

Banner Mining Company's 1,020-foot deep five-compartment Palo Verde shaft was completed by Centennial Development Company. Banner then took over development of the mine and expected to increase output to 1,000 tons of ore per day by late 1961. . . .

Production estimated at 18,000 tons per year by late 1961 is the goal set by Inspiration Consolidated Copper Company for its Christmas copper mine near Winkelman, Arizona. . . .

Kennecott Copper Corporation completed its \$55,000,000 expansion program at Ray which resulted in a substantial increase in production capacity. . . . An 800-foot two compartment development shaft was started by Kennecott on its claims north of Safford. Bear Creek Mining Company, exploration subsidiary of Kennecott, started a new exploration program with the staking of nearly six square miles of mining claims between the Dragoon Mountains and Tombstone.

A great number of claims were staked in a 10-mile area near Twin Buttes south of Tucson by representatives of three major mining companies, American Metal Climax Inc., Bear Creek Mining Company, and American Smelting and Refining Company. A number of test holes were drilled to depths ranging from 1,250 to 1,500 feet, exploring for copper.

⁹Frank J. Tuck, "Copper Demand Increases; New Discoveries and Mine-Mill Expansion Continue," Mining World (April, 1961), pp. 72-73.

Transarizona Resources, Inc., completed its plant and began copper production in July from its operation south of Casa Grande, Arizona. . . .

These current developments in Arizona's mining industry present an interesting contrast to its early development. Its history is replete with tales of courage and sacrifice, the desire for quick fortune luring the adventurous prospector into the wilderness. Early Arizona prospectors must be accorded a prominent position in the annals of mining history since their accomplishments greatly assisted the development of mining as it exists today. The industry's economic contribution to Arizona has been noted, as we have noted some of the problems faced in the past. Difficulties are not, however, limited to the developmental phase of an industry's growth but continue to exist. Problems faced by the mining industry today may not be the same as those of yesterday but they are, nevertheless, equally important and significant. A complete review of problem areas confronting today's mining company is beyond the scope of this manuscript and only those faced in the Personnel phase of corporate activity, whose cause may be related to an isolated location, will be considered.

CHAPTER II

PRELIMINARY RESEARCH

Our brief review of mining history in Arizona lends credence to the conclusion that the industry occupies a significant position in the development of the State. "Copper mining alone is almost completely responsible for the existence of such communities as Ajo, Douglas, Miami, San Manuel, Superior and others with a total population in 1960 of almost 70,000 or over ten percent of the state's population outside of Maricopa County."¹⁰ These communities largely developed from the discovery of valuable ores and the beginning of mining activity in each area. The availability of profitable employment in the mines drew the pioneer into the wilderness and the necessity for adequate living accommodations prompted the development of communities. Such isolated communities were not without problems both for the employee and the mining company. Greater employee mobility and pressure from organized labor may have effected some changes in the old problems, but they continue to require consideration.

Development of Interest in Isolation

The author has noted many personal attitudes toward the issue of isolation as related to employment in the mining industry, one of which

¹⁰George F. Leaming, "A Set of Economic Indicators for Arizona," Arizona Review of Business and Public Administration, Vol. 12, No. 1 (January, 1963), 33.

is appropriate for mention here. A Metallurgical Engineer expressed the following view during an employment interview regarding factors he considered in evaluating possible employment opportunities:¹¹

God placed minerals where he did and unfortunately, the locations are generally remote. I accepted this fact as a condition when I went into Metallurgical Engineering and consider it of secondary importance in seeking employment since most mining companies are located in remote areas.

This comment stimulated the author's interest into the possible problems which may result from an isolated employment location. Although this engineer's approach is certainly positive, such attitudes brought with the employee to the remote employment location may not tend to exert a continuing influence. Once located in the community, such a positive approach may change and even become wholly negative resulting in considerable frustration. On the other hand, some employees may bring negative attitudes with them to the remote employment location. At any rate, the personal attitudes of employees located in remote communities certainly provide an interesting subject for study.

Consideration of employee problems in the remote location prompt interest in possible problems faced by the employer. It may be said that the employer must be concerned with community problems since the ability to attract qualified employees to meet company personnel requirements may depend upon the attractiveness of the community. It is in this area, i.e., employment problems faced by the Remote mining company in Arizona, that major effort is directed.

¹¹ Comment was made during an employment interview conducted by the author.

Studies Prompting Additional Research

One company, located in a relatively remote area in Arizona and with which the author has had considerable personal experience, was studied in an attempt to determine possible effects of its location on the company's personnel and employment problems.¹² Initially, a review of this research will be considered since the results prompted further inquiry to determine whether other mining companies in Arizona face similar problems.

Personnel Audit

The author conducted a comprehensive personnel audit during November, and December, 1961, and January, 1962. A report, containing numerous recommendations based on results of the audit, was prepared and submitted to management for review and consideration.¹³ Some of these recommendations are discussed below.

Significance of Employment Function.-- The primary function of the employment section is to maintain a sufficient employment complement to meet company personnel requirements. It can be stated with similar confidence that an isolated location is not an advantageous factor which serves to attract employment applicants. Therefore, the employment

¹²The identity of this company will be kept confidential for rather obvious reasons.

¹³Personnel Audit Analysis Report, submitted to management, February, 1962.

function should be developed as one of the most effective departments in any company faced with the problem of a disadvantageous location.

The initial recommendation contained in the Personnel Audit Analysis Report suggested the complete reorganization of the employment function. A two plant organization structure, the plants located some distance from each other, prompted the establishment of two employment offices. The result was a complete duplication of effort in all employment activities. By combining the two offices into one centralized function, a considerable savings in operating costs would be realized and efficiency improved.¹⁴

Position Guides and Job Specifications.--- The recruitment of qualified personnel to meet company employment requirements undoubtedly is simplified through the use of position guides and job specifications. These media indicate the general and specific requirements necessary for adequate performance in each job. With firm knowledge of individual job and position requirements, interviewers can more effectively screen qualified from unqualified employment applicants.

In a review of job and position descriptions, the lack of specific position guides and job specifications was particularly noticeable. The development of these data was emphatically recommended since a clear understanding of job and position requirements is an integral part of personnel replacement. To companies whose location

¹⁴For an interesting study containing the conclusion that a centralized personnel office tends to reduce employee turnover, see, Frederick J. Gaudet, Labor Turnover: Calculation and Cost, AMA Research Study 39 (New York: American Management Association, 1960), 86.

cannot be considered a stimulus to employment applicants, the need for effective screening to insure selection of competent employees is particularly great.

Wage and Salary Administration.-- A fully organized and developed wage and salary program is also essential to a company whose paramount attraction cannot be considered location, but possibly its wage level. It frequently has been suggested that salary is not of paramount significance to employees, but this cannot be described as true in the surveyed company. Salary and wage level was found to be one of the most significant factors drawing employment applicants. It was, therefore, recommended that the company's wage and salary function be expanded to adequately perform requisite functions.

Employee Attitude Survey.-- Another recommendation contained in the personnel audit report suggested that an employee attitude survey be conducted to assess more accurately some of the findings of the audit. Although this company had conducted attitude surveys in the past, the accuracy of the results was questionable. A review of previous surveys indicated that their ineffectiveness undoubtedly resulted from a lack of management support and proper methodology.

Identification with Company Objectives.-- A surprising lack of salaried employee identification with the corporate objective was found to exist at the time the audit was conducted. Scrutiny provided considerable evidence of resentment toward the company, a rather lackadaisical attitude toward responsibilities and frustration. Subcon-

scious emotions appeared to exist in many salaried employees revealing strong feelings of segregation from management. Personal identification with corporate productive goals and objectives appeared almost non-existent. It was recommended that greater emphasis and consideration be given to proper placement of employees in positions for which they are best suited. Another recommendation suggested the development of employee incentives in the form of compensation of exempt salaried employees for excessive overtime, a bonus policy, an employee stock purchase plan and other incentives.

Personnel Summary¹⁵

A personnel actuarial report is prepared annually by the Industrial Relations Department of this company. Although considerable time, effort, and expense is involved in the collection of data from employee personnel records, little use of this information is made by the company. Data accumulated include employee educational background, marital status, dates of birth, length of employment and other similar information. These reports were thoroughly studied and analyses made in the areas discussed below. Data reported reveal the status of all employees on the payroll as of December 31, 1961.

¹⁵Although these data are not directly pertinent to subsequent research, it is mentioned here to illustrate the point that technology will continue to dictate a need for better trained employees and where deficiencies exist, companies will be required to undertake corrective measures. As related to isolation, the hypothesis is that companies burdened with the disadvantage of a remote location are required to lower employment standards in hiring. In such cases, the problem may be more pronounced.

Employee Marital Status.-- Including all employees of this company, 85.7 percent are married with 2.26 average children per married employee, or 1.94 average children per employee. Since the overwhelming majority of employees are married, the problem of adequate housing becomes pronounced. Many companies located in areas where housing facilities are limited provide barrack-type units for single employees. Needless to say, this is inadequate for married employees and appropriate facilities must be available.

Employee Education.-- Statistics determined in an analysis of the formal education completed by employees proved quite interesting. Although 26.7 percent of all employees were employed in salaried positions, only 15.5 percent of all employees had any college training whatsoever, and only 6.3 percent completed a four year college curriculum leading to a degree. This result is particularly interesting considering that the vast majority of all salaried positions require some college training for which incumbents are reimbursed according to position descriptions and evaluations. It is also interesting to note that 52.4 percent of all employees had less than a high school education and 32.5 percent had only a grade school education or less.

This company has recognized the need to upgrade the calibre of its employees due to the mechanization of facilities and equipment. It has instituted some employee training programs and upgraded the requirements for employment. These programs are too young to allow an evaluation of their effectiveness.

Employee Retirement.-- Since it was found that the majority of employees in the category of less than a high school education were primarily older employees, an analysis of length of employment leading to the retirement of these employees was undertaken. A projection of employee retirement is facilitated by the company's mandatory retirement policy at age 65.

Including all employees, 10.4 percent have 20 or more years of service with the company. In conjunction with this statistic, consideration may also be given to the age of current employees with a view toward their retirement at age 65. A total of 10.6 percent of all employees were 55 years of age or older as of the date of the personnel summary survey. This may well lead to the conclusion that the company undoubtedly will be required to review the need for employee training necessary to upgrade the educational level of employees to meet the requirements of technological advance. In view of the fact that the majority of its employees will not leave the company through the retirement process in the near future and that seniority influences termination, additional training of present employees may well be mandatory. Emphasis on this requirement is magnified by the fact that the international nature of this company's product, coupled with the industry's inherent characteristic of high cost, high volume production, necessitates increased mechanization and advanced technology for the company to maintain economic operation.

Management Inventory and Replacement

Since it is often more difficult to recruit salaried personnel, additional research was conducted to identify problem areas faced by this company in the replacement of exempt salaried personnel.

Exempt Salaried Employee Turnover.-- An analysis of the surveyed company's division organization revealed that a total of 47 exempt salaried personnel changes occurred between October 1, 1961, and July 1, 1962, a period of eight months. The October date was selected since a revised organization chart was prepared on that date. On July 1, 1962, it was decided to revise the organization chart again to reflect the above mentioned changes.

During this eight month period, a total of 13 exempt salaried employees terminated, 12 were employed and 22 inter-division transfers were made. Seven of those employees who terminated their employment, four of the new hires and seven employees affected in the inter-division transfers were employees at, or above, the \$9,000 annual salary level.

The total of 47 exempt salaried personnel changes in a period of eight months has little significance unless considered against the total number of exempt personnel. This figure comprises 24.48 percent of the 192 exempt salaried employees on the payroll as of July 1, 1962. Since the average starting salary for employees at the work center level, who are responsible for a specific unit within operating departments, approximates \$9,000 annually, the fact that 18 personnel changes were effected in eight months at or above this responsibility level

does not appear insignificant.

Exempt Salaried Employee Retirement.-- Consideration of the above data prompted additional research to determine the magnitude of the problem of personnel replacement. Since it is difficult to foresee specific personnel terminations, this inquiry was restricted to an analysis of exempt salaried employee retirements in the forthcoming five and ten year periods.¹⁶

To facilitate a review of retirements, exempt salaried personnel have been classified according to organization level. Three categories are used:

Department Head Level and Above

This category includes employees whose scope of responsibility encompasses a complete operating function. Persons included in this category include Superintendents and above.

Work Center Level

Included herein are those employees who are responsible for a specific unit within the above operating functions. Incumbents report directly to the Superintendent in charge of the operating function.

Below Work Center Level

This category includes all exempt salaried employees below the Work Center level. The majority of incumbents report directly to the work center supervisor and comprise front-line foremen.

An analysis of planned retirements through 1967, and 1972, is contained in Table II.¹⁷

¹⁶This analysis was performed in 1962, and projected data include retirements through 1967, and 1972, five and ten year periods, respectively.

¹⁷Retirement is also mandatory at age 65 for salaried employees.

TABLE II

RETIREMENT SCHEDULE - THROUGH 1967

<u>Position Level</u>	<u>Number of Employees</u>		
	<u>Line</u>	<u>Staff</u>	<u>Division</u>
Department Head Level and Above	1	1	2
Work Center Level	3	1	4
Below Work Center Level	<u>3</u>	<u>-</u>	<u>3</u>
TOTAL	7	2	9

RETIREMENT SCHEDULE - THROUGH 1972^a

<u>Position Level</u>	<u>Number of Employees</u>		
	<u>Line</u>	<u>Staff</u>	<u>Division</u>
Department Head Level and Above	2	1	3
Work Center Level	8	1	9
Below Work Center Level	<u>13</u>	<u>1</u>	<u>14</u>
TOTAL	23	3	26

^aStatistics contained herein include those contained in the above schedule projecting retirements through 1967.

The above figures exclude employees in the Medical Department since planned replacement of these personnel is not possible because of the special training, skills and qualifications necessary. Doctors and nurses are recruited as required.

Of all exempt salaried personnel, excluding medical employees, five percent are scheduled for retirement during the next five years, and approximately 14 percent during the next ten years. This alone may not be particularly significant. One department, however, was found to be seriously affected by retirements since the superintendent and two of the five work center supervisors are scheduled for retirement during the next three years.

Personnel Replacement Inventory.--- The above findings regarding exempt salaried employee retirement induced further research to assess the company's approach toward planning for personnel replacement.

An analysis of the company's personnel replacement inventory, which lists first and second replacements for all exempt employees, indicated a lack of second replacements for many work center positions. This appeared to present a serious lack of potential replacements at the middle-management level. The situation was not so serious as it appeared under superficial study since it was determined that department heads list only personnel who definitely have demonstrated qualifications for advancement.

Replacements for front-line supervisors did not appear to be problematic since the company follows a policy of carefully selecting and training day-pay employees to fill foremen vacancies. In addition to this policy, graduate engineers are recruited and generally move into front-line supervisory positions upon completion of the company's formal training program. These constitute an ample source of replacements.

A review of personnel listed as unpromotable revealed several areas where advancement paths were blocked. This situation could result in a serious problem as replacements for middle-management personnel are required. In addition, it was noted that all incumbents in front-line foremen positions in two other work centers were listed as having no potential for advancement. This is a handicap since replacements for work center supervisors are not available for on-the-job training. A similar situation was found to exist in several other

areas. One solution is the recruitment of qualified personnel from outside the company.¹⁸ This has been the solution to the problem of securing qualified personnel for staff position vacancies.

College Recruiting.--- A review of college recruiting for the company's engineer training program revealed little success in 1962 since only three engineers were employed to fill six vacancies. Twelve engineers visited the company's property and it was concluded that in most cases, rejection of employment offers resulted from the students' unfavorable response to the company's location.

The Need for Additional Research

Although these findings are not all relevant to subsequent research conducted regarding the relation of isolation to personnel problems in Arizona's mining industry, they do tend to illustrate the need for additional research.

The above determinations readily stimulate the formation of numerous inferences which may or may not be valid. One can easily hypothesize that the company's substandard employee educational level results from its inability to attract the better qualified employee, that its high turnover rate in salaried positions results from the disadvantage of a remote location and that recruiting qualified personnel is grossly handicapped by virtue of an adverse location. It may also

¹⁸The reader will note, in a subsequent section of this report, that the questionnaire used to collect data from other Arizona mining companies places considerable emphasis on recruiting and employment problems.

be concluded that the company will experience severe replacement problems, especially at the middle-management level in view of its inability to secure qualified personnel. Such hypotheses may be formed ad infinitum, but all conceivably are related to the fact that the company is disadvantageously located in a remote area.

These hypotheses include a suggestion that the real problem is the company's location and all else mere ramifications of this one ill for which the obvious panacea is to relocate in a metropolitan community. The purpose of subsequent research was to identify the experience of other mining companies in the above areas and to collate their collective attitude toward the impact of isolation on employment practices and problems.

CHAPTER III

METHODOLOGY

It is appropriate to continue a discussion of the purpose of this research by reviewing the questionnaire used in the collection of data, its development and research procedure. In determining the medium to be utilized in the collection of data, the scattered locations of mining companies in Arizona prompted the use of a mailed questionnaire.

Selection of Participant Companies

Source for Selection

Participant companies were selected by reviewing the Active Mine List,¹⁹ published by the Arizona Department of Mineral Resources in February, 1962, and the April, 1961, issue of Mining World,²⁰ which contains a directory of major U. S. mining operations. Since the Active Mine List presents Arizona mines in active production by county and indicates the approximate number of employees, greater emphasis was placed on this source in the selection of companies to be included in the survey.

¹⁹Arizona Department of Mineral Resources, Active Mine List (Phoenix, Arizona: Department of Mineral Resources, February, 1962), pp. 1-9.

²⁰"1961 Directory of Major United States Mining Operations," Mining World, April 25, 1961, pp. DM3-DM7.

Basis for Selection

Because the survey was intended to secure data regarding employment problems stemming from an isolated location, only those companies having more than 25 employees were included for participation. This delineation was deemed appropriate for purposes of this research since those companies having fewer than 25 employees are generally less able to support industrial relations activities. Although problems stemming from an isolated location may be of considerable interest to the smaller firm, technical personnel requirements, promotional opportunities, recruiting activities and other industrial relations functions are less applicable to the smaller firm.

Number of Companies Selected

Thirty-six mining operations located in Arizona were listed in the Active Mine List of February, 1962, as having 25 employees or more. Some mining companies in Arizona have several plant sites operating in the state and each is included in this total as a separate unit. No attempt was made to segregate responses of these units according to their parent affiliation and each was given equal significance. Although parent policies may have influenced responses from subordinate units, the questionnaire design renders such influence negligible. Therefore, each unit was considered as a separate company.

Number of Companies Participating

All of the 36 listed mining companies in Arizona were sent questionnaires and every possible attempt was made to secure 100 percent

response. Some difficulty was experienced and frequent follow-up, both personal and written, was required. Upon cessation of such efforts, 23 of the 36 contacted companies, approximately 64 percent, completed questionnaires. Appendix A,²¹ contains a list of those companies which participated in the survey.

The Questionnaire

The Major Hypothesis

The questionnaire was designed for the purpose of determining the effect, if any, of an isolated location on employment practices and problems faced by mining companies in Arizona. The major hypothesis, upon which the questionnaire is founded, poses isolation as presenting a problem with regard to securing and retaining sufficient qualified employees to meet company personnel requirements.

Inter-Related Questions

A brief review of the questionnaire will readily reveal related questions designed to investigate the validity of subsidiary hypotheses contained in the major hypothesis. Questions were also inter-related for the purpose of cross-checking responses.²² Other questions merely investigate subsidiary hypotheses related to the major hypothesis. Study in eight general areas of employment problems is accomplished in the questionnaire.

²¹See Appendix A, "Participating Companies," p. 71.

²²See Appendix D, "Inter-Related Question Association," p. 80.

Turnover in Relation to Location.-- Questions 1, 2 and 8, are designed to measure employer attitudes toward the problem of employee turnover as related to the physical location of plant facilities.

Question

1. Do you consider your Labor Turnover to be; HIGHER THAN ; ABOUT THE SAME AS ; LOWER THAN ; other companies in the same industry in Arizona?
2. How significant do you feel the location of your plant is in employee terminations? SIGNIFICANT ; OF LITTLE SIGNIFICANCE ; NO SIGNIFICANCE
8. Have you experienced any employee dissatisfaction, the cause of which may be attributed to factors of an isolated location? YES ; NO

Employer Recruiting Activities.-- Questions 3, 6 and 12, are designed to determine the difficulty encountered in recruiting employees. An attempt is also made to determine the approximate distance from plant facilities employers are required to recruit the majority of employees.

Question

3. How difficult is it to recruit the following? (Check one for each)

	VERY DIFFICULT	DIFFICULT	NOT DIFFICULT
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Do you secure the majority of your employees from areas: (Check one for each)

	DAY-PAY	SALARIED
Within 10 miles of Plant?	<input type="checkbox"/>	<input type="checkbox"/>
From 10 to 50 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>
From 50 to 100 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>
Over 100 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>

Question

12. Have you experienced any difficulty in securing qualified replacements for employees? (Check one for each)

	<u>DIFFICULT</u>	<u>LITTLE DIFFICULTY</u>	<u>NO DIFFICULTY</u>
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

New Employee Reference Checking.--- Related to the preceding three questions, questions 4 and 5, were included to evaluate the thoroughness of employers' review of employment applicants' qualifications, previous employment and personal references. It is contended that an employer experiencing difficulty in recruiting employee replacements will sublimate employment standards to the necessity of securing employees.

Question

4. In checking references of job applicants, do you contact:
(Check one for each)

	<u>ALL REFERENCES</u>	<u>MOST REFERENCES</u>	<u>SOME REFERENCES</u>	<u>NONE</u>
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. If references on an applicant for employment are returned with an "average" to "poor" rating, will you hire the applicant?
YES ; NO

Employee Termination.--- Also concerned with the employer's perpetual nemesis, i.e., turnover, questions 7 and 9, serve the dual function of determining the significance of plant location in relation to employee termination and the employer's interest in discovering the causes of termination through exit interviews. It is recognized that a formal exit interview procedure is not the only medium to determine causes of termination and is not of universal appeal to employers.

Question 7, however, was included in the questionnaire to determine the incidence of emphasis on such personnel policies in Arizona's mining industry.

Question

7. Do you conduct an Exit Interview when employee terminates?
 (Check one for each) DAY-PAY EMPLOYEES? YES ; NO ;
 SALARIED EMPLOYEES? YES ; NO
9. How often is location preference used as a reason for termination? OFTEN ; SELDOM ; NEVER

Employee Facilities Provided.--- A subsidiary hypothesis, that employers located in remote areas are required to provide employee services such as company-owned housing and medical facilities to attract qualified employees, is tested in questions 10, 16, 17 and 18. These questions are designed to determine whether employers provide such facilities.

Question

10. Do you provide company-owned housing to: DAY-PAY EMPLOYEES?
 YES ; NO : SALARIED EMPLOYEES? YES ; NO
16. Does your company provide facilities for group activities?
 YES ; NO
17. Does your company maintain a hospital? YES ; NO
18. Do you feel you could secure qualified employees without supplying company-owned housing? (Check one for each)

	YES	NO	?
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Labor Unions and Relations.--- Questions 13, 14 and 15, identify the character of employer-employee relations in participant companies. An attempt is made to determine whether a remote location has any effect on the type of relations enjoyed.

Question

13. Are any of your employees represented by a Labor Union?
YES ; NO
14. How would you evaluate your general relationship with unions at your plant? GOOD ; FAIR ; POOR
15. Do you feel a relatively isolated location has any effect on your employee-employer relationship? SOME EFFECT ; LITTLE EFFECT ; NO EFFECT

Employee Morale.--- Questions 19 and 20, are related to the foregoing since they are designed to reveal the impression of respondents' regarding employee morale at their plants. Additional research, beyond the questionnaire, was conducted in this area and will be discussed in a subsequent section of this report.²³

Question

19. How would you rate your employee morale? GOOD ; FAIR ; POOR
20. Has your company ever conducted an "Employee Attitude Survey"? YES ; NO

Management Development Programs.--- Question 11, identifies employer emphasis on management development programs in which employees secure training within the organization for the purpose of developing their promotional potential. The subsidiary hypothesis underlying this question suggests that an employer, experiencing difficulty recruiting qualified personnel and faced with the problem of employee replacement, must resort to training employees to meet specific personnel requirements. The question is related to all subsidiary hypotheses contained in other questions within the questionnaire.

²³See Chapter VI, "Personal Interviews," p. 59.

Question

11. Does your company have a management development program which follows the policy of training your own employees and promoting from within? YES ; NO

General Remarks.--- Question 21, provided space for respondents to make any additional comments they felt appropriate to the study. Unfortunately, this opportunity was not extensively used.

CHAPTER IV

QUESTIONNAIRE RESPONSE

Classification of Participants

In collating responses, three categories were utilized in the classification of respondents for the purpose of enabling group comparison.²⁴ Although additional separation of data could easily have been accomplished, the three group categories selected provide the best classification for comparative purposes and simplicity of analysis.

Group I, Total Responses.-- Group I, merely contains total responses to each question.

Group II, Remote and Not Remote Companies.-- Group II, separates participant companies according to two rather arbitrary classifications, viz., Remote and Not Remote. In determining the category most appropriate for each respondent, paramount consideration was given to the physical location of each company in relation to its proximity to a metropolitan area. In defining the term, "metropolitan area," Tucson and Phoenix were given primary import. In addition, other major Arizona cities were considered with a view toward available facilities such as

²⁴It is suggested that the reader refer to Appendix C, "Questionnaire Response Analysis," p. 76, with regard to the group classification of respondents.

air transport service, employment opportunities, road and rail transport facilities and social and other entertainment media available. Other factors given emphasis were the accessibility of these cities and towns from the plant location, the place of residence of the majority of employees, the availability of municipal health and medical facilities and other public services.

Participant companies located more than 35 miles from a metropolitan area were classified as Remote. Although selection of the 35 mile radius is arbitrary, it is based on the fact that a 70 mile round trip daily travel requirement is not unusual. Greater distances, however, approach an unreasonable requirement. These factors resulted in the classification of eight of the 23 respondents as Not Remote companies.²⁵

Group III, Classification by Company Size.-- Group III, separates respondents into three categories according to size: (1) those companies in which total employment exceeds 300 employees, (2) those companies in which total employment is between 100 and 300 employees, (3) those in which total employment is less than 100 employees. Eight companies fall in the first category, eight in the second and seven in the third.

²⁵The majority of these eight companies indicated in question 21, General Remarks, of the questionnaire, that they did not consider their company to be located in a remote area.

Response to the Questionnaire²⁶

As noted in Chapter III, the questionnaire was developed in a manner enabling inquiry into eight general personnel activities. Inter-related questions are grouped under these activities to facilitate a review of responses and simplify evaluation of subsidiary hypotheses. The same classifications are used to present responses to the questionnaire. Responses are discussed in percentage figures and only perfunctory attention is given to responses numerically.

Turnover in Relation to Location.-- Percentage distribution of responses to question number 1, in the three areas contained therein, was approximately the same for each group used in the separation of respondents. In total responses, 65 percent of all companies indicated that their turnover rate was "The Same As" that of other companies in the same industry in Arizona. The large majority of companies in each Group responded in like manner.

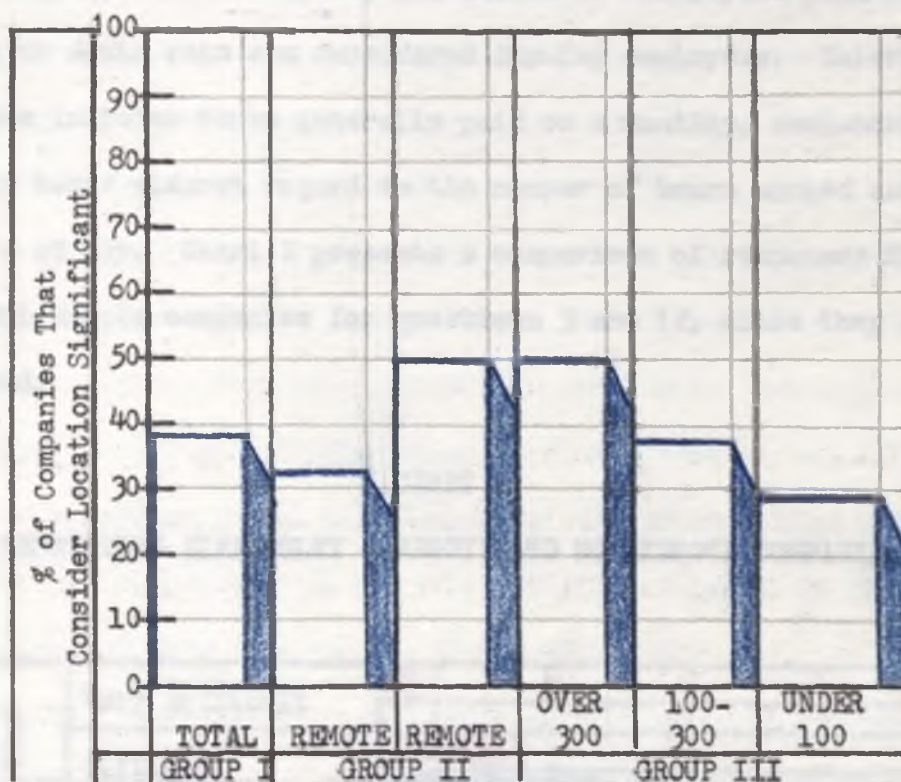
Chart 1 contains the response to question number 2.

In Group II, comparisons, contained in Chart 1, 33 percent of Remote companies, compared to 50 percent of Not Remote companies, indicated that location was a "Significant" factor in labor turnover. In Group I, Totals, 39 percent of all companies indicated that location was a "Significant" factor in turnover and a like number responded that it was "Of Little Significance." It is interesting that in Group III,

²⁶Appendix C, "Questionnaire Response Analysis," p. 76, contains a delineation of responses to the questionnaire.

CHART 1

SIGNIFICANCE OF LOCATION IN TERMINATIONS



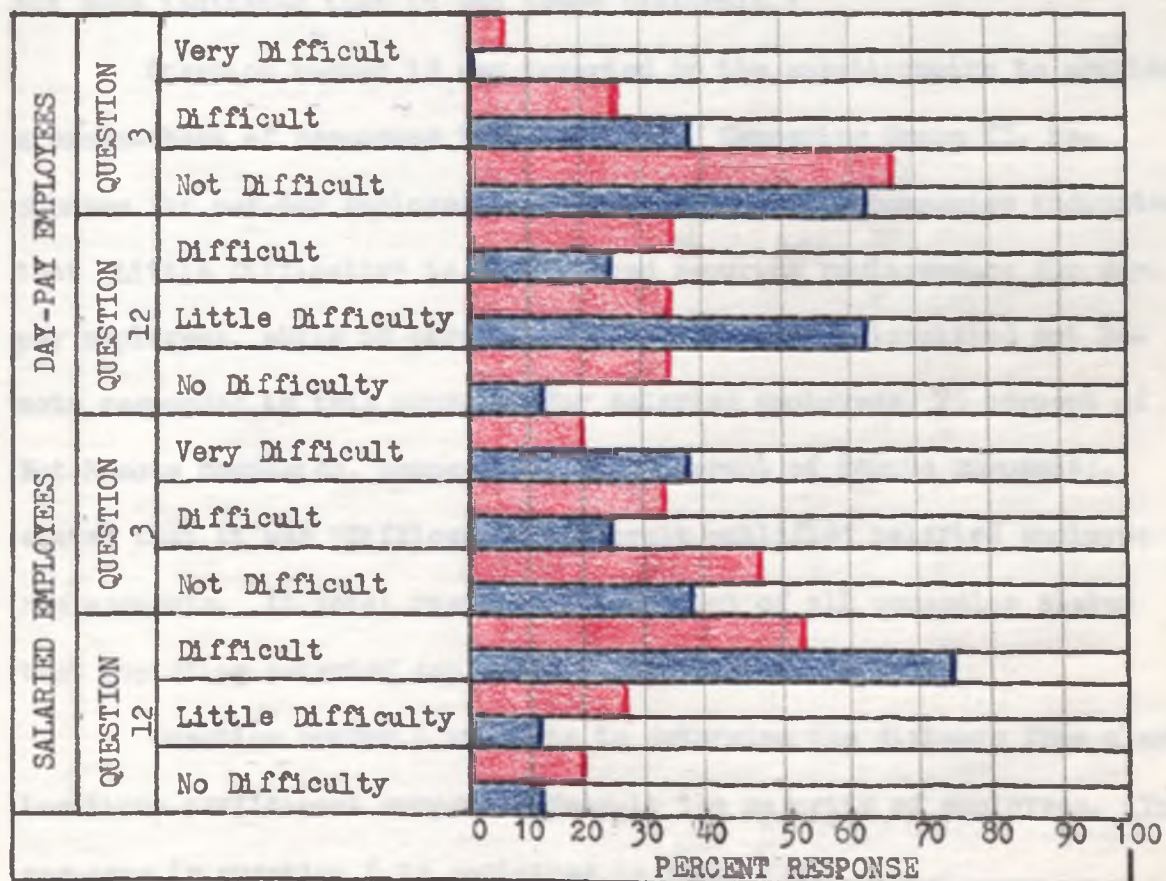
percentage response that location was "Significant" decreases as company size decreases.

For question number 8, 33 percent of Remote companies indicated that some employee dissatisfaction is experienced which may be attributed to plant location, while only 12 percent of Not Remote companies responded in this manner. No significant variation in responses is noted for Group III. In all categories the majority of companies responded negatively, indicating that location was not considered a significant factor in employee dissatisfaction.

Employer Recruiting Activities.-- Questions 3, 6 and 12, deal with the problem of recruiting employees. For each question, employees were segregated into Day-Pay and Salaried. Employees paid on an hourly basis or daily rate are considered Day-Pay employees. Salaried employees includes those generally paid on a monthly, semi-monthly or weekly basis without regard to the number of hours worked as determinative of pay. Chart 2 presents a comparison of responses from Remote and Not Remote companies for questions 3 and 12, since they are closely related.

CHART 2

RECRUITING DIFFICULTY - REMOTE AND NOT REMOTE COMPANIES^a



^aREMOTE COMPANIES - [Red Bar]
 NOT REMOTE COMPANIES - [Blue Bar]

It will be noted in question number 3, Chart 2, that the majority of Remote and Not Remote respondents indicated that it was "Not Difficult" to recruit day-pay employees. In Group III, 86 percent of those companies with fewer than 100 employees expressed this view. Regarding total response, 65 percent of all participants stated that it was not difficult to recruit day-pay employees.

For salaried employees, 38 percent of Not Remote companies indicated that it was "Not Difficult" to recruit salaried employees, while 47 percent of Remote companies responded in like manner. In total response, 43 percent of all companies stated that it was "Not Difficult." Regarding Group III, companies with greater than 300 employees, 62 percent stated that it was "Difficult" to recruit salaried employees, but none indicated that it was "Very Difficult."

Question number 12 was inserted in the questionnaire to provide a cross-check of responses to question 3. Comparing Group II, responses for pay-day employees, 33 percent of Remote companies indicated that "Little Difficulty" is experienced securing replacements for day-pay employees, while 62 percent of those companies classified Not Remote responded in this manner. For salaried employees, 75 percent of Not Remote companies, compared with 53 percent of Remote companies, stated that it was "Difficult" to recruit qualified salaried employee replacements. In Total response, 61 percent of all companies stated that replacing salaried employees was "Difficult."

Question number 6 attempts to determine the distance from plant locations participant companies recruit the majority of employees. The response to question 6 is contained in Table III.

TABLE III
RECRUITING DISTANCES

Distance		Percent Response					
		Group I	Group II		Group III		
		Totals	Remote	Not Remote	Over 300	100-300	Under 100
DAY-PAY EMPLOYEES	Within 10 Miles	35	33	38	13	12	86
	10 - 50 Miles	52	53	50	62	76	14
	50 - 100 Miles	13	14	12	25	12	0
	Over 100 Miles	0	0	0	0	0	0
SALARIED EMPLOYEES	Within 10 Miles	31	40	13	38	0	57
	10 - 50 Miles	26	27	25	12	50	14
	50 - 100 Miles	4	6	0	0	12	0
	Over 100 Miles	39	27	62	50	38	29

New Employee Reference Checking.-- Closely related to the above discussion of employer recruiting activities, questions 4 and 5 attempt to determine how thoroughly companies review references supplied by employment applicants.

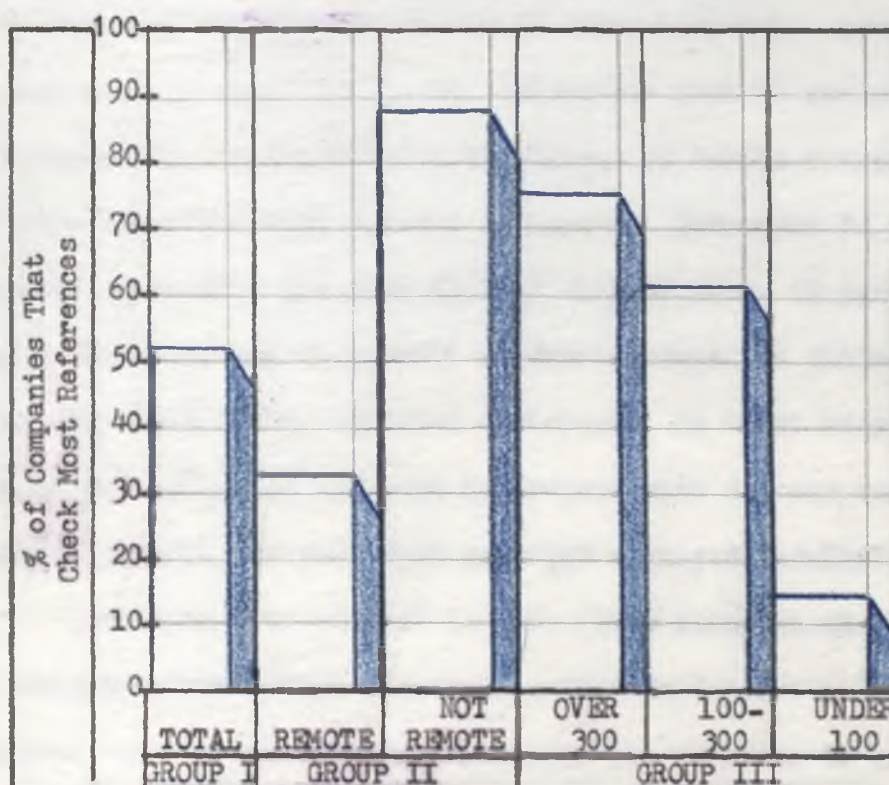
Regarding day-pay employees, the most significant variation of responses between Remote and Not Remote companies in Group II, is noted in the third category of question 4, indicating that "Some References" of employment applicants are checked. Fifty-three percent of Remote companies, in contrast to 38 percent of Not Remote companies, indicated they check "Some References." It is interesting to note that no respondents, with total employment "Over 300" and those with "100-300" employees, check "All References" of employment applicants.

For salaried employees, Chart 3 reveals that 88 percent of Not Remote companies, compared with 33 percent of Remote companies, check "Most References" of salaried employment applicants.

CHART 3

NEW EMPLOYEE REFERENCE CHECKING

SALARIED EMPLOYEES ONLY



As many Remote employers indicated that they check "All References" of salaried employee applicants as those responding that they check "Most References" or "Some References." In Group I, Totals, 22 percent of all companies check "All References", 52 percent check "Most References", 22 percent check "Some References", and four percent check "None" of the references supplied by salaried employee applicants.

Regarding responses to question 5, very little variation exists between responses in all three group classifications. The large majority of respondents in all groups indicated that they would not hire an applicant with marginal references.

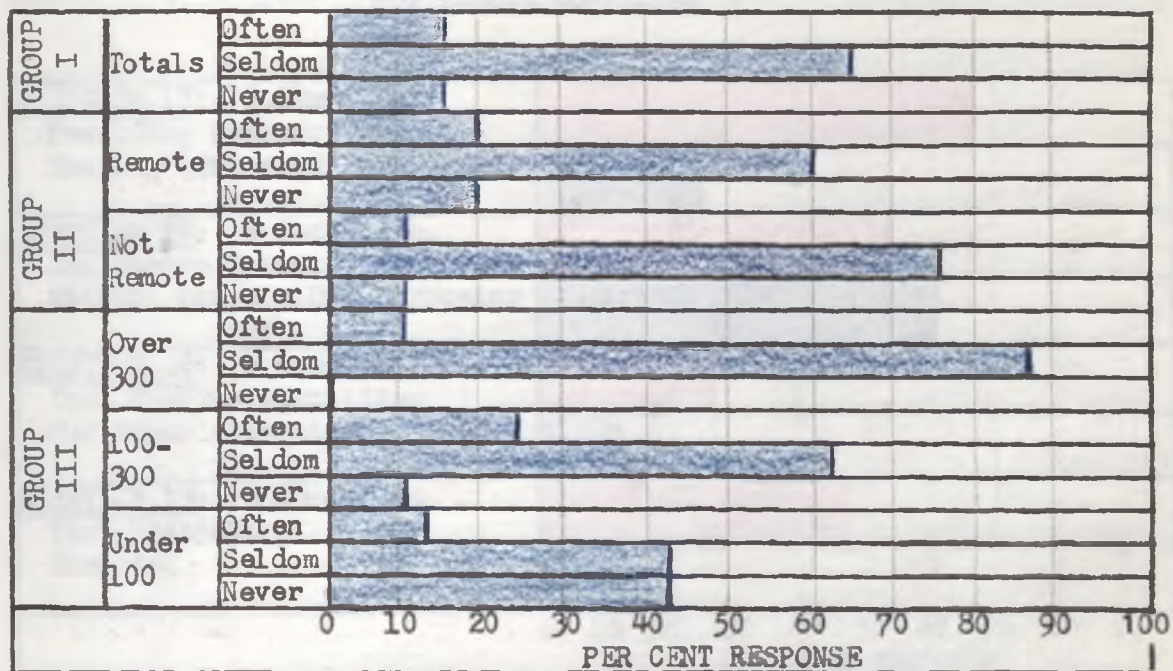
Employee Termination.-- Returning to the problem of employee termination, questions 7 and 9 determine employer utilization of the exit interview to identify causes of labor turnover. Comparing question 7, responses in Group II, it was determined that 62 percent of Not Remote companies, in contrast to 40 percent of Remote companies, utilize the exit interview with day-pay employees. Responses in Group II, for salaried employees, are more closely aligned since 62 percent of Not Remote companies and 60 percent of Remote companies conduct exit interviews with terminating salaried employees. In total responses, 48 percent of all companies use exit interviews with day-pay terminations while 61 percent use them with salaried employee terminations.

Question 9 is related to this issue since it seeks to determine the frequency with which location preference appears as the cause of employee termination. Chart 4 presents the response to question 9.

It will be noted that 20 percent of Remote companies, compared with 12 percent of Not Remote companies, responded that location was "Often" mentioned as the cause for termination. The identical percent relationship is noted in Group II, response that location was "Never" mentioned as the cause of termination. The large majority of companies, however, stated that location was "Seldom" given as the reason for termination.

CHART 4

LOCATION AS REASON FOR TERMINATION



Employee Facilities Provided.-- Questions 10, 16, 17 and 18 were included in the questionnaire to determine the extent to which respondents feel it is necessary to provide employee facilities, such as company-owned housing and medical facilities, to attract employment applicants.

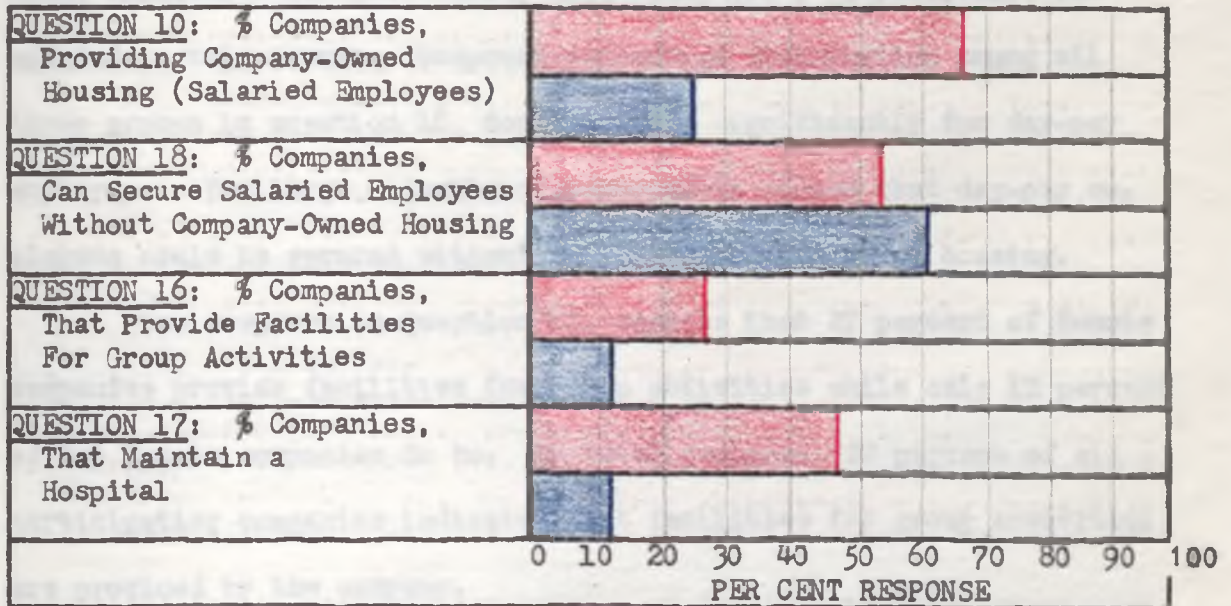
Chart 5 presents a portion of the responses to these questions.

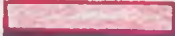

Questions 10 and 18 segregate employees as day-pay or salaried since some companies provide housing facilities for salaried employees but do not for day-pay, or vice-versa. Chart 5 only includes responses to these questions regarding salaried personnel.

Sixty percent of Remote employers, compared with 25 percent of Not Remote employers, provide company-owned housing for day-pay

CHART 5

COMPANY FACILITIES PROVIDED REMOTE AND
NOT REMOTE COMPANIES^a



^aRemote Companies - 
Not Remote Companies - 

employees. It will be noted in Chart 5 that 67 percent of Remote, and 25 percent of Not Remote companies, provide such housing for salaried employees. Although it might be expected that smaller companies are economically unable to support a policy of providing company-owned housing to employees, it is interesting that 57 percent of those employers whose total employment is "Under 100" provide housing for both day-pay and salaried employees alike.

Regarding salaried employees in question 18, Chart 5 reveals that 53 percent of Remote companies indicated that they could secure qualified salaried employees without supplying company-owned housing while 62 percent of Not Remote companies responded in like manner. In

Group III, 38 percent of those respondents having over 300 employees indicated that they could secure qualified salaried employees without such a policy, while 62 percent, and 71 percent of those companies with total employment of "100 - 300", and "Under 100", respectively, responded in this manner. Response percentage distribution among all three groups in question 18, does not vary significantly for day-pay employees. The large majority of respondents stated that day-pay employees could be secured without supplying company-owned housing.

The response to question 16, reveals that 27 percent of Remote companies provide facilities for group activities while only 12 percent of Not Remote companies do so. In total response, 22 percent of all participating companies indicated that facilities for group activities are provided by the company.

Regarding question 17, 47 percent of Remote companies, compared with 12 percent of Not Remote companies, provide medical facilities for employees. Thirty-five percent of all respondents stated that such facilities are provided. Since it is difficult for smaller companies to sustain the cost of providing employee medical services, it is not surprising to note that only 14 percent of respondents with total employment "Under 100" provide such facilities.

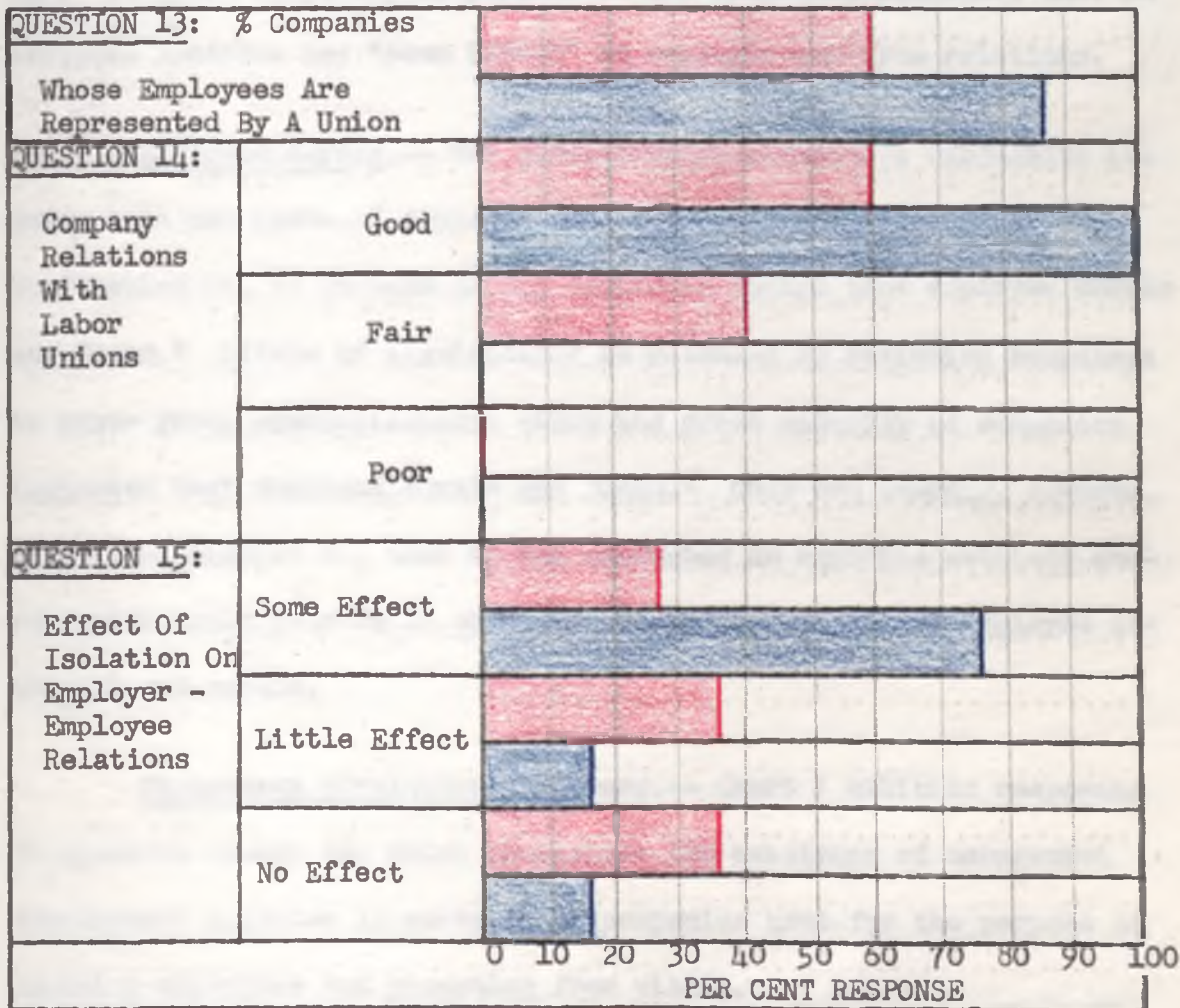
Labor Unions and Relations.-- Questions 13, 14 and 15 deal with the existence of labor unions in respondent companies and attempt to determine the relationship enjoyed with them. For question 13, 69 percent of all participant companies reported that their employees were represented by a union. In Group II, 60 percent of Remote companies reported the existence of labor unions, while 88 percent of Not Remote

companies indicated they were organized. Only 29 percent of those companies with total employment "Under 100" indicated that their employees were represented by a union.

Chart 6 graphically illustrates the response to questions 13, 14 and 15.

CHART 6

LABOR UNION COMPARATIVE DATA REMOTE AND NOT REMOTE COMPANIES^a



^aRemote Companies - [Red bar]
 Not Remote Companies - [Blue bar]

Viewing the response to question 14, it is interesting that 100 percent of Not Remote companies, compared to 60 percent of Remote companies, reported that their general relationship with labor unions was "Good." No respondent described their relationship as "Poor." Comparing this response to that for question 15, which attempts to determine whether isolation has an effect on employer-employee relations, 76 percent of Not Remote companies stated that location has "Some Effect", while only 28 percent of Remote companies responded in this manner. In total response, 40 percent of all companies indicated that an isolated location has "Some Effect" on employer-employee relations.

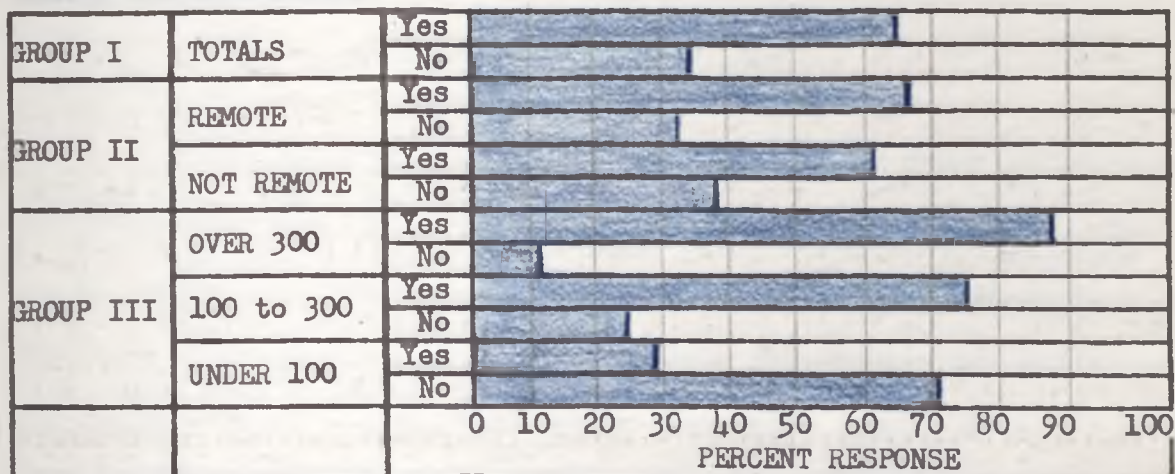
Employee Morale.-- The questionnaire contains a subjective inquiry into the issue of employee morale through questions 19 and 20. In question 19, 87 percent of all companies stated that employee morale was "Good." Little of significance is revealed by reviewing responses in other group classifications since the great majority of companies indicated that employee morale was "Good." Only one company, however, stated in question 20, that it had conducted an employee attitude survey which could provide an objective basis for evaluating employee attitudes and morale.

Management Development Programs.-- Chart 7 exhibits responses to question number 11, which determines the existence of management development policies in participant companies used for the purpose of training employees and promoting from within.

In Group I, Totals, 65 percent of all companies indicated that they had management development programs. No significant variation in

CHART 7

MANAGEMENT DEVELOPMENT PROGRAMS



responses is noted in Group II, regarding the existence of such programs in either Remote or Not Remote companies. As might be anticipated, only in Group III, does a notable variation in responses exist. Of those companies having less than 100 employees, 71 percent stated that they do not utilize such programs. This result is not surprising since the need for training programs is less significant in the smaller company not only because there are fewer promotional opportunities, but the expense in developing and conducting such programs would be prohibitive in relation to the necessity therefor.

General Remarks.-- Question 21, provided respondents with the opportunity to express any additional comments they felt appropriate to the questionnaire or general subject matter. Unfortunately, very few respondents used this opportunity with the exception that six of the eight companies in Group II, Not Remote company classification, stated

that they did not consider their company to be located in a remote area.

No other comments were made by participants which provide subject matter for discussion.

CHAPTER V

QUESTIONNAIRE RESPONSE ANALYSIS

It will be recalled that the major hypothesis poses isolation as having an impact on the ability of Remote employers to secure and retain sufficient qualified employees to meet company personnel requirements. To simplify review of the major hypothesis, the questionnaire was developed to provide inquiry into eight general areas of employment problems. Inter-related questions were grouped within these areas and are considered simultaneously in evaluating the validity of subsidiary hypotheses under the major hypothesis. Responses to questions are discussed individually and in relation to other questions in the inter-related group. Considerable emphasis is placed on comparing responses in the three group classifications, and special attention given to response comparisons between Remote and Not Remote companies.

Turnover in Relation to Location

It was not surprising that the majority of companies stated their labor turnover was approximately "The Same As" that of other companies in the same industry in Arizona. Question 1 dictated a subjective response and it is not unnatural for respondents to take a middle-of-the-road position. Although the major hypothesis prompts the subsidiary hypothesis that labor turnover in Remote companies is higher

than turnover in Not Remote companies due to adverse location, responses appear to invalidate the subsidiary hypothesis. The response to question 2, supports this conclusion since 50 percent of Not Remote companies, compared with 33 percent of Remote companies, stated that location was a "Significant" factor in labor turnover.

Question 8, inter-related with questions 1 and 2, presents an interesting contrast to this conclusion since a greater percentage of Remote companies, than Not Remote, stated that employee dissatisfaction resulting from factors of an isolated location had been experienced. It must be mentioned that a strict interpretation of question 8 was sought such that possible causes of employee dissatisfaction, other than that caused by isolation, would not be considered. It is impossible to determine whether this has been achieved.

Why did a greater percentage of Not Remote companies, than Remote, respond that plant location was a significant factor in employee termination? In view of this result, why is there greater employee dissatisfaction caused by location in Remote companies than in Not Remote? Resolution of this discrepancy will determine the validity of the subsidiary hypothesis contained in this section.

It must be recognized that no necessary correlation exists between dissatisfaction caused by location and employee termination also prompted by an isolated location. Employees, dissatisfied with plant location, may, nevertheless, remain in the employ of the Remote company. In Not Remote companies, located in metropolitan areas, greater employment opportunity enhances employee mobility allowing employees dissatisfied with plant location to terminate since other employment

is available. Information derived from personal interviews, conducted in four remote communities, tends to support the inference that dissatisfied employees of Remote companies may find it more difficult to sever their employment and thus remain in the employ of the Remote company.²⁷ It must, however, be concluded that according to the above responses, the subsidiary hypothesis that labor turnover is higher in Remote companies due to adverse location than Not Remote companies is invalid.

Employer Recruiting Activities

Questions 3 and 12 determine the difficulty experienced in recruiting day-pay and salaried employees. The subsidiary hypothesis, reviewed in these questions, states that Remote employers have greater difficulty attracting employee replacements due to an adverse location than Not Remote employers. Little significance was noted in question 3 responses for day-pay employees, since the majority of all companies stated that it was "Not Difficult" to recruit day-pay personnel. A similar result was observed when responses by group classification were reviewed. In question 12, however, it was found that 62 percent of Not Remote companies experienced "Little Difficulty" recruiting day-pay employees while only 33 percent of Remote companies responded in like manner. Obviously, Remote employers experience more difficulty recruiting day-pay personnel than Not Remote employers.

²⁷Chapter VI, "Personal Interviews," p. 59, discusses this issue at length.

In reviewing question 3, response for salaried employees, it was interesting to find that 38 percent of Not Remote companies, compared with 20 percent of Remote employers, stated that it was "Very Difficult" to recruit salaried employees. The response to question 12, for salaried employees, follows a similar pattern since 75 percent of Not Remote companies, and only 53 percent of Remote, stated that it was "Difficult" to recruit salaried personnel. These data tend to refute the subsidiary hypothesis in this section regarding salaried employees. It must be concluded that Remote employers experience less difficulty recruiting salaried employee replacements than Not Remote employers. The subsidiary hypothesis appears valid for day-pay employees, however.

The response to question 6 tends to support this conclusion. Little of significance was observed for day-pay employees since percent distribution of responses, among the four categories contained in that question, are quite similar for both Remote and Not Remote companies. Regarding salaried employees, however, an interesting contrast exists since 62 percent of Not Remote companies, compared with 27 percent of Remote, recruit the majority of salaried employees from areas "Over 100 Miles" from plant location. This response is surprising since it may be presumed that companies located in more metropolitan areas have greater local employee market potential. The reverse situation appears to exist for participant companies.

It may be concluded from these data that Remote employers view salaried employee recruiting activity in areas considerably removed from plant location with some frustration. Perhaps salaried employee recruiting efforts, meeting with little success, require Remote

companies to secure salaried employee replacements by developing day-pay employees through the use of training programs and promoting from within.

This suggestion reveals another subsidiary hypothesis contained in the questionnaire. The hypothesis states that Remote employers, finding it difficult to recruit salaried employee replacements, must resort to the use of management development programs to meet salaried personnel requirements. A subsequent section of this chapter reviews the validity of this hypothesis.

New Employee Reference Checking

A corollary to the subsidiary hypothesis that Remote employers experience difficulty securing qualified employee replacements due to an adverse location, states that such employers are less concerned with maintaining high new employee standards than those companies having a more readily available labor market in which to recruit. It was found that this hypothesis receives little support from the response to question 4, since no significant variation in responses was noted between Remote and Not Remote companies.

It must be recognized that there is no necessary correlation between an employment applicant's references and qualifications. Although references are contacted, substandard results may be more acceptable to the Remote company.

Question 5 attempts to determine the validity of this position by inquiring whether participant companies will employ an applicant whose references are returned with an average to poor rating. Mention

must be made of the fact that respondents were undoubtedly tempted to immediately respond negatively to such an inquiry. Whether subjective temptation was tempered by an objective appraisal cannot be determined.

It was previously noted that the large majority of companies stated that they will not employ an applicant with an average to poor rating from references. According to these data, Remote employers, recruiting in areas relatively near plant facilities and thereby limited in the selection of employees, apparently are not required to sublimate high employment standards to the necessity for personnel.

Employee Termination

Regarding the use of exit interviews, it must be mentioned that this technique is not the only means of determining causes of labor turnover nor is it suggested that this medium is the best method of accomplishing this purpose. Employers may achieve comparable results through the use of informal techniques. Supervisory interviews with terminating employees on an informal basis are frequently used as a substitute for a formal exit interview procedure.

Question 7 does not differentiate formal exit interview policies from other media used to derive similar data. This factor is of little significance since the question was designed to ascertain the general interest of participants in determining causes of employee termination. In the absence of either a formal or informal policy, the design of the question requires a negative response.

The response to question 7 revealed that a greater percentage of Not Remote, than Remote companies, conduct exit interviews to

determine causes of labor turnover. This result validates the subsidiary hypothesis that Remote companies are less concerned with determining causes of employee termination.

In reviewing the response to question 9, it was observed that location is mentioned more often in Remote companies as the cause of termination than in Not Remote companies. This response provides additional support for the subsidiary hypothesis stated above.

It may be said that this conclusion is invalid since all companies are concerned with the cost factor inherent in labor turnover. This position is readily invalidated by admitting that Remote employers are undoubtedly conscious of such costs. However, a realistic appraisal by Remote employers may reveal that a certain amount of turnover is inevitable due to an adverse location and funds expended to determine causes thereof are thus wasted. Stated as follows, Remote employers recognize limitations of an adverse location, face the problem of turnover as inevitable, recruit locally in deference to extending such efforts to areas farther away from plant facilities and do not emphasize attempts to determine causes of termination since the expense involved in developing and maintaining such programs would be wasted on a recognized fact, i.e., that some turnover must be expected due to isolation.

Employee Facilities Provided

Under the major hypothesis that isolation poses a problem in securing and retaining sufficient qualified employees to meet company personnel requirements, a subsidiary hypothesis states that Remote employers

must provide certain employee facilities normally available in metropolitan areas as stimuli for employment application. It was previously noted that for purposes of this research, such employee facilities have been restricted to supplying company-owned housing, the maintenance of medical facilities and providing company facilities for group activities.

In larger metropolitan communities, employees are generally able to secure adequate housing, and medical practitioners undoubtedly will concede that a more lucrative practice exists in cities than in towns. It also must be acknowledged that the availability of social outlets to employees and their families are generally more prevalent in the larger community.

In Remote communities, however, not only are social outlets relatively restricted, but the availability of medical facilities and adequate housing are, by economic necessity, limited. It would not behoove the housing contractor to establish a community in a remote area without guarantee that it offered some certainty of permanency. The cost of building in remote locations is increased by many factors, including the lack of skilled labor requiring premium wages to attract craftsmen to the construction site, and the inherent cost of transporting construction material. Providing adequate medical facilities would be economically prohibitive to the small community if residents were required to provide the requisite capital. If such a program was undertaken, the further difficulty of economically attracting and keeping qualified medical personnel to manage the facilities also would face the community.

Social outlets are also a significant factor in the Remote community. In larger metropolitan areas, the selection of friends and associates need not be made from the limited group of community residents which make up the employment complement of the supporting company. Living, in the figurative sense, with fellow employees is far more pronounced in the small, Remote mining community and may well result in considerable frustration.²⁸

The response to question 10 appears to validate the subsidiary hypothesis with regard to Remote companies supplying company-owned housing. A far greater percentage of Remote companies, than Not Remote, provide company-owned housing for employees. Question 18 furnishes additional support since a greater percentage of Not Remote companies, than Remote, stated they could secure both day-pay and salaried personnel without supplying company-owned housing.

Although the majority of respondents stated that they do not provide company facilities for group activities, question 16 revealed that a larger percentage of Remote than Not Remote companies furnish such facilities. A more striking contrast was noted in question 17, since 47 percent of Remote companies, compared with 12 percent of Not Remote, stated that they provide medical facilities for employees. Responses to questions 16 and 17, further support the validity of the subsidiary hypothesis contained in this section. These data lead to the conclusion that the Remote employer must be concerned with the

²⁸This issue will be further discussed in Chapter VI, "Personnel Interviews," p. 59.

availability of employee facilities and, where absent, provide them in order to attract and retain sufficient qualified employees to meet company personnel requirements.

Management Development Programs

Section two of this chapter, Employer Recruiting Activities, raised the subsidiary hypothesis that Remote employers, finding it difficult to recruit salaried employee replacements, are required to resort to the use of management development programs to meet salaried personnel requirements. This hypothesis was based on the conclusion that Not Remote employers experience more difficulty recruiting salaried employees, but less difficulty recruiting day-pay employees, than Remote companies. Since Remote employers have less difficulty recruiting salaried employees than Not Remote employers, yet experience greater difficulty recruiting day-pay employees, the conclusion that Remote employers train day-pay personnel through management development programs and promote from within to meet salaried personnel requirements appears probable. Perhaps the Remote company, finding it difficult to attract salaried employee applicants, has switched its emphasis from recruiting to developing and training.

It was observed in responses to question number 11, however, that both Remote and Not Remote companies place similar emphasis on the need for management development programs. This result negates the subsidiary hypothesis that Remote employers place greater emphasis on such training programs than Not Remote companies. However, this response does not necessarily negate the conclusion that Remote companies

utilize training programs to supply the majority of salaried employee replacements rather than recruiting therefor. It is not surprising that the majority of Not Remote and Remote employers utilize management development programs since their contribution to corporate objectives has long been recognized and such programs are prominent in industry today.

Data regarding the effective use and purpose of such programs in Remote companies, compared with Not Remote companies, is not available in the questionnaire. Final determination of this issue cannot, therefore, be attempted. Available data, however, appear to tilt the balance of probability in favor of affirming the conclusion that Remote employers rely on management development programs to provide the majority of salaried employee requirements.

Labor Unions and Relations

It was previously hypothesized that Remote employers, experiencing difficulty recruiting qualified employee replacements, must subordinate high new employee standards to the necessity for personnel. A possible result of such recruiting may be a lack of qualified personnel from which local union officials are to be selected. This, in turn, may result in one of at least two possibilities: (1) the employer is able to superimpose its will upon incompetent local union personnel, or (2) the direct opposite where little screening of grievances is accomplished and all are presented in the formal grievance procedure harrasing the employer. Between these limits lie the myriad of possible relationships that may result from relatively incompetent

local union officials.

The above analysis has considered the issue only from the point of view of incompetency within the union hierarchy, but the same may also apply to company personnel required to deal with the union. Incompetency may also exist if the employer finds it difficult to recruit qualified personnel in positions wherein company objectives rest in dealing with the union. In many cases, unit managers personally take charge of union negotiations and grievances which arise eliminating this responsibility from subordinates. Situations where this responsibility is delegated to subordinates are equally numerous and therein the problem of incompetency becomes manifest. This issue is not limited to those personnel who deal with the union in an industrial relations capacity, but also encompasses the front-line supervisor as well as other supervisors where incompetency in dealing with union matters may cause greater problems. Possible results are far too exhaustive to be fully considered in this report.

Questions 13, 14 and 15 attempt to determine the effect, if any, of isolation on relations of Remote companies with employees and unions at their plants. It was noted that the large majority of companies reported that their employees were represented by a labor union. Regarding relations enjoyed with unions, 100 percent of Not Remote companies, compared with only 40 percent of Remote companies, stated that their relations with unions were "Good". This response appears to support the contention that isolation affects the relationship of Remote companies with unions.

It was concluded in section three of this chapter, New Employee Reference Checking, that the subsidiary hypothesis that Remote employers must sublimate high new employee standards to the necessity for personnel, is invalid. This result negates the subsidiary hypothesis that isolation affects employer-union relations due to incompetent personnel. Beyond the issue of incompetency affecting employer-union relations, however, isolation may affect these relations in other ways. This suggestion finds support in the contrast of responses for Remote and Not Remote companies in describing their relations with unions.

Regarding company relations with employees, the contention that isolation affects employer-employee relations must be declared invalid. This conclusion is based on the response to question 15. It will be recalled that a far greater percentage of Not Remote companies than Remote stated that isolation has "Some Effect" on employer-employee relations. Responses to questions 14 and 15 present an interesting contrast. Since Remote companies apparently enjoy better relations with employees than with representatives of their employees, i. e., local unions, it would appear that the contention viewing isolation as affecting employer-union relations in other ways than incompetent personnel is valid. The questionnaire does not, however, contain sufficient data to fully evaluate this contention.

Employee Morale

A review of employee morale in participant companies was prompted by research conducted prior to preparation of the question-

naire.²⁹ The subsidiary hypothesis, which is the subject of review in questions 19 and 20, views isolation as causing lower employee morale in Remote companies. Mention must be made of the fact that question 19 is wholly subjective in nature since, without fairly extensive study by each respondent, an evaluation of employee morale must be a subjective interpretation. It must also be mentioned that, in most cases, the questionnaire was directed to unit managers or other company representatives generally in the upper echelon of management. This factor is identified since objectivity at such levels, considering the nature of the inquiry, may be clouded by morale existent among the respondent's peers and may not adequately represent that of the company as a whole.

It was previously observed that the large majority of companies indicated that employee morale was "Good". Percentage response for Remote and Not Remote employers was almost identical. This result tends to negate the subsidiary hypothesis that employee morale is lower in Remote companies due to an isolated location.

Only one company, however, had conducted an employee attitude survey to assess employee attitudes and morale. It may be concluded that since respondents described their employee morale as "Good", no need for such survey exists. Repeating an old cliché, this conclusion puts the horse before the cart and tends to reemphasize the fact that responses were subjective since surveys, which could provide an objective determination of employee morale, have not been conducted. From these data, however, it must be concluded that isolation has little effect on employee morale.

²⁹Chapter VI, "Personal Interviews," p. 59.

CHAPTER VI

PERSONAL INTERVIEWS

Methodology

Prior to preparation of the questionnaire, a considerable amount of research was conducted in all personnel areas discussed in Chapter III. In addition, a number of informal personal interviews were held with residents of four mining communities located in areas classified as Remote. Persons interviewed were selected at random with no firm attempt made to utilize established statistical sampling techniques. In two of the communities, the personnel manager of the predominant employer was contacted and employees selected at random from his personnel files. Company organization charts were also used to select prospective interviewees for the purpose of obtaining attitudes from all company organization levels. In other instances, informal group gatherings were used where discussion was directed toward areas of interest.

The purpose of conducting these interviews was to gather additional background data with which to develop the questionnaire in preparation for subsequent research planned. It cannot be asserted that the results of these interviews provide statistically accurate data from which precise conclusions can be reached. Comments made during these interviews are only discussed for the purpose of presenting another approach to the problem of isolation, viz., that of the employee

and community resident.

Interviews were non-directive allowing the interviewee considerable freedom for personal expression. Direction was provided only by suggesting areas for which comments were desired. These areas generally concerned attitudes toward the interviewee's employer, the community in which he lives with special attention to social and cultural activities available, general family life in the remote community and other problems related to living in an isolated area. Comments are summarized below with special attention given to those responses most often mentioned and those of a particularly interesting nature.

Social Environment

Considering social environment of the remote community, the comment that little diversion exists was mentioned most frequently. Paralleling this comment was the remark that community residents have a limited selection of friends which necessitates fraternizing with fellow employees off the job. This situation was described as resulting in "shop-talk" during social engagements making the company an ever present factor allowing almost no escape from the employment situation. One interviewee stated that this was the reason he stopped playing bridge. Being constantly required to associate with fellow employees, some frustration results from the fact that there is little opportunity to expand one's scope of interest through stimuli provided by friends whose personal orientation and interests are different. One interviewee described the situation as being, ". . . a tread-mill existence which eventually results in some sort of rebellion." He proceeded to state

that this rebellion is manifested against the employer. "The majority of employees take little interest in their jobs. There is a lot of goofing-off and gold-bricking and a general lackadaisical attitude results in a considerable loss to the company not only in production but also in damaged equipment."

Community Stratification

Another bone of contention frequently heard was the statement that the community was stratified according to salary or income levels, and in some cases, segregated according to race and religion. It was remarked that this type of social stratification breeds suspicion, fear and hatred since the majority of residents work for the same employer.

Cultural Environment

An interviewee, whose remark adequately summarizes the attitude of many respondents, described community life as, "culturally arid." Continuing, he stated that the lack of diversion or cultural outlets resulted in a "spiritless" community, and residents almost detest the intrusion of a newcomer into the established pattern of living. The newcomer is viewed as a disruption to the established mode of life and must soon conform or leave. The additional remark was made that, "liberals are driven out," and a conclusion volunteered that community life may best be described as, "super isolation."

Familial Relations

Considering family life and living habits in the remote com-

munity, it was surprising to note how often neuroses, family trouble including separation and divorce, alcoholism and digestive problems were mentioned. It was frequently stated that the lack of personal outlets resulted in frustration requiring some release. In several interviews, comments were related to the employment situation through such statements as, "Maladjustment which elsewhere would dictate immediate dismissal is here tolerated. Drunkenness is also tolerated, probably because the guy is an old-time employee or a craftsman."

Economic Factors

Regarding cost of living in the remote community, complaints concerning the distance residents must travel to have any selection in making purchases were frequently voiced. These complaints not only concerned the cost element, but also the fact that competition is almost non-existent and there is no opportunity for selection or choice. "You either buy what they have to sell or drive 100 miles to Phoenix."

Transportation was described as an essential element "here", and it was unanimously asserted that a family could not do without a car. In this regard, car repairs were described as very costly and good repair service difficult to obtain. The time factor in securing repair parts, transported by mail or truck from larger cities, appeared very frustrating to interviewees.

Another attitude was revealed through the comment that residents do a considerable amount of luxury buying, supplying their families with material comforts to supplant the lack of any diversion. Although a study of average indebtedness was not attempted, several interviews with

business proprietors revealed that credit transactions bulk heavily in overall business. One owner of a medium size food market stated that credit business past due totaled close to \$50,000, an almost incredible amount for a community of approximately 3,000 residents. A subsequent interview with the local justice of the peace revealed that credit transactions were such a severe problem in the community that local merchants were attempting to cooperate in the elimination of all credit.

Company Influence on Community Life

A source of considerable irritation to many respondents was the claim that the major employer exerted far too much influence over community activities such as local government, education and the school system, and housing. In two communities, where company-owned housing was supplied, many complaints were voiced that housing was tightly controlled allowing tenants little freedom.

Available Employment Elsewhere

In an interview with a rather frank individual, the point was stressed that he was "here" primarily because he had a hard time finding employment elsewhere. He described this as probably true of the majority of employees who were not born in the community. The comment was volunteered that wages looked very good at first, but very shortly thereafter, wages became less attractive as payday merely became an "exchange-day."

Other interviewees made similar remarks, vis., that there was such a high degree of unemployment that jobs were hard to find and the

availability of work in the mines had drawn interviewees to the community. Such comments were not universal, however.

Favorable Remarks

Although these comments cannot be described as revealing any favorable attitudes toward living conditions in these remote communities, the majority of favorable remarks are adequately summarized by one respondent who expressed the following view: "We're not so isolated now. You should have lived here when we had nothing but gravel roads. At least now we can get out once in awhile."

Summary

In concluding this discussion, attention must be given to the comments of one interviewee who was an apparent hold-out from social pressure dictating conformity. Fellow residents were described as having developed, "myopic sightedness," from living in that particular remote community. He proceeded, "Small town living obscures perspective and this is carried over to the employment situation since they perform their jobs in the same way. Nobody can see the trees for the forest; can't see beyond their own little hum-drum world, their own little bailiwick which results in a total lack of identification with the company's purpose, philosophy and policies. The leaders have the hardest time because it's very difficult to lead the tired mass of followers. There is a sort of futile feeling living here and everyone thus takes the line of least resistance."

Although the above comments are perhaps biased, they present an intriguing attitude toward life in a remote community which warrant inclusion in this report.

It must be recalled that interviewees were selected at random without sufficient application of statistical sampling techniques to adjudge these comments as conclusive or descriptive of the general attitude in these communities. Interviewees were undoubtedly aware, through a more than adequate, "grapevine", that interviews were being conducted and perhaps comments were directed more toward controversial issues.

CHAPTER VII

CONCLUSION

General Remarks

An essential ingredient in the development of any corporate venture is competent personnel. In the mining industry, which is faced with the fact that ore deposits are generally located in isolated areas, the availability of an adequate labor supply, including qualified technical personnel, becomes more problematic. In and above production problems and the factor of securing competent employees, mining companies are confronted with problems regarding the availability of adequate housing accommodations and medical facilities for employees and their dependents. Where such facilities are absent, employers may be required to supply them in order to attract qualified employees. Not only does the absence of such facilities influence the ability to attract qualified employees, but also retaining them. Dissatisfaction with living conditions may breed excessive absenteeism and turnover, and productivity may decline from personal problems faced by employees in the remote location.

The impossibility of changing locations is beyond dispute. Identification of disadvantages and enhancing the remote location through the development of personnel and industrial relations techniques is certainly not impossible, however. Such a program requires identification of problems faced, determination of necessary courses of

action and, thereafter, implementation of appropriate policies and programs into the organization. Basically, this manuscript is concerned with the first step in this approach.

It will be recalled that research conducted in one Arizona mining company, located in a relatively isolated area, revealed several problems requiring immediate attention. Analysis of that research prompted the conclusion that many of the company's problems had their root in the fact that the company was located in an isolated area. This conclusion stimulated interest in determining whether other mining companies in Arizona face similar problems, and to evaluate the premise that isolation is a major cause thereof.

Summary

The validity of subsidiary hypotheses, contained in the major hypothesis, were previously reviewed. Results of analyses are summarized below.

Employee Turnover.--- The subsidiary hypothesis that labor turnover is higher in Remote companies due to isolation, than in Not Remote companies, was declared invalid. This conclusion prompted the suggestion that employees, dissatisfied with plant location, may retain their employment status with the Remote employer since the availability of other employment in the remote area is limited. Personal interviews, conducted in four remote mining communities, appeared to support this suggestion. Further reviewing the problem of labor turnover, the subsidiary hypothesis that Remote employers are less concerned with determining causes of turnover was concluded to be invalid. Responses

to the questionnaire also negated the subsidiary hypothesis that isolation results in lower employee morale in Remote companies.

Employee Replacement.-- The subsidiary hypothesis, that Remote companies experience greater difficulty recruiting employee replacements, was determined to be valid for day-pay, but not for salaried, personnel. Since company scrutiny of the qualifications of employee applicants is related to the issue of employee replacement, the subsidiary hypothesis that Remote employers subordinate high new employee standards to the necessity for personnel was reviewed. Responses to the questionnaire dictated the conclusion that the hypothesis is invalid. Interpretation of these data prompted the suggestion that Remote employers recruit day-pay employees but rely on management development programs to supply the majority of personnel requirements in salaried positions. Conclusive determination of the suggestion's validity was not possible from data obtained in the questionnaire.

Employee Facilities.-- Regarding the subsidiary hypothesis that Remote employers must supply certain requisite employee facilities to attract and retain a sufficient number of employees to meet company personnel requirements, responses obtained in the questionnaire provide sufficient data to support the conclusion that the hypothesis is valid.

Isolation and Labor Unions.-- Data derived from the questionnaire dictated the conclusion that isolation has little effect on employer-employee relations. Regarding employer-union relations, however, it may be concluded that isolation does affect relations of Remote companies with unions at their plants.

General Conclusion

It must be concluded from these data that isolation apparently does not pose any great problem to Remote companies. The following summarizes this conclusion in terms of subsidiary hypotheses contained within the major hypothesis.

Responses to the questionnaire dictate the conclusion that an isolated location has little effect on the ability of Remote employers to recruit and retain a sufficient number of qualified employees to meet company personnel requirements. It cannot be denied, however, that Remote employers are required to lend considerable support to the establishment and maintenance of employee facilities such as medical service and housing. By providing such facilities, Remote employers may minimize the problem of attracting employees. Supplying these facilities may operate as an advantage to the Remote employer since, being provided by the company, housing and medical attention are less costly to the employee.

Can it not be maintained that human nature, being a flexible phenomenon, allows for employee adjustment to disadvantages of an isolated location? Thus, when adjustment has been achieved, company benefits provided tend to influence the employee to retain his employment status. Those employees who are unable to make the adjustment leave the company and little emphasis is therefore placed on determining causes of termination. Promotional opportunities exist through company management development and training programs which further influence adjusted employees to retain their employment status. Such programs also prove

advantageous to the Remote employer since those employees, who are likely to be selected for management training, may have demonstrated their ability to acclimatize to life in an isolated community. New employees may be unable to adjust to the remote community and major recruiting efforts are therefore directed toward securing employees for entry jobs in the organization. Such recruiting may be readily accomplished in the immediate locale.

Perhaps complaints exist concerning inherent disadvantages of living in a remote community such as the lack of competition, distance and transportation problems and the lack of social outlets, but the effect may be negligible. Personal complaints may well remain such and render only minimal influence on job performance. Wage levels and other company benefits may tend to offset and minimize the severity of such disadvantages.

Additional research is essential to fully determine the validity of subsidiary hypotheses contained in the major hypothesis. Perhaps the stimulus for such research will be provided by the mining industry itself through recognition that objective scrutiny of problems may well lead to valuable results.

APPENDIX A

PARTICIPATING COMPANIES

Companies participating in this research by completing and returning a questionnaire are listed below according to the approximate number of total employees.

<u>Company</u>	<u>Approximate Number of Total Employees</u>
1. San Manuel Copper Corporation	2,250
2. Inspiration Consolidated Copper Company	1,652
3. Kennecott Copper Corporation, Ray Mines Division	1,500
4. Magma Copper Company	1,100
5. American Smelting and Refining Company, Mission Union	450
6. Bagdad Copper Corporation	384
7. Pima Mining Company	300
8. American Smelting and Refining Company, Hayden Smelter	300
9. American Smelting and Refining Company, Silverbell Unit	282
10. Arizona Portland Cement Company	260
11. Divul Sulphur and Potash Company	230
12. Inspiration Consolidated Copper Company, Christmas Mine	220
13. Shattuck Denn Mining Corporation	200
14. Phoenix Cement Corporation	165

APPENDIX A--Continued.

<u>Company</u>	<u>Approximate Number of Total Employees</u>
15. Kerr-McGee Oil Industries, Incorporated	151
16. Miami Copper Company	100
17. Cyprus Mines Corporation	89
18. Rare Metals Corporation of America	65
19. Vanadium Corporation of America	62
20. Paul Lime Plant, Incorporated	60
21. Wallapai Brick and Clay Company	45
22. Arkota Steel Company	40
23. Kennecott Copper Corporation, Safford Project	25

APPENDIX B

QUESTIONNAIRE

Please complete all questions. Space is provided at the end of the questionnaire for any comments you wish to make regarding this subject. Comments are solicited and we wish to encourage your participation.

1. Do you consider your Labor Turnover to be; HIGHER THAN ; ABOUT THE SAME AS ; LOWER THAN ; other companies in the same industry in Arizona?

2. How significant do you feel the location of your plant is in employee terminations? SIGNIFICANT ; OF LITTLE SIGNIFICANCE ; NO SIGNIFICANCE

3. How difficult is it to recruit the following? (Check one for each)

	VERY DIFFICULT	DIFFICULT	NOT DIFFICULT
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. In checking references of job applicants, do you contact: (Check one for each)

	ALL REFERENCES	MOST REFERENCES	SOME REFERENCES	NONE
Day-Pay Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salaried Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. If references on an applicant for employment are returned with an "average" to "poor" rating, will you hire the applicant?
YES ; NO

6. Do you secure the majority of your employees from areas: (Check one for each)

	DAY-PAY	SALARIED
Within 10 miles of Plant?	<input type="checkbox"/>	<input type="checkbox"/>
From 10 to 50 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>
From 50 to 100 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>
Over 100 miles from Plant?	<input type="checkbox"/>	<input type="checkbox"/>

7. Do you conduct an Exit Interview when employees terminate? (Check one for each) DAY-PAY EMPLOYEES? YES ; NO ; SALARIED EMPLOYEES? YES ; NO

APPENDIX B--Continued.

8. Have you experienced any employee dissatisfaction, the cause of which may be attributed to factors of an isolated location? YES ; NO
9. How often is location preference used as a reason for termination? OFTEN ; SELDOM ; NEVER
10. Do you provide company-owned housing to: DAY-PAY EMPLOYEES? YES ; NO ; SALARIED EMPLOYEES? YES ; NO
11. Does your company have a management development program which follows the policy of training your own employees and promoting from within? YES ; NO
12. Have you experienced any difficulty in securing qualified replacements for employees? (Check one for each)
- | | <u>DIFFICULT</u> | <u>LITTLE
DIFFICULTY</u> | <u>NO
DIFFICULTY</u> |
|--------------------|--------------------------|------------------------------|--------------------------|
| Day-Pay Employees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Salaried Employees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
13. Are any of your employees represented by a Labor Union? YES ; NO
14. How would you evaluate your general relationship with unions at your plant? GOOD ; FAIR ; POOR
15. Do you feel a relatively isolated location has any effect on your employer-employee relationship? SOME EFFECT ; LITTLE EFFECT ; NO EFFECT
16. Does your company provide facilities for group activities? YES ; NO
17. Does your company maintain a hospital? YES ; NO
18. Do you feel you could secure qualified employees without supplying company-owned housing? (Check one for each)
- | | <u>YES</u> | <u>NO</u> | <u>?</u> |
|--------------------|--------------------------|--------------------------|--------------------------|
| Day-Pay Employees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Salaried Employees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
19. How would you rate your employee morale? GOOD ; FAIR ; POOR
20. Has your company ever conducted an "Employee Attitude Survey"? YES ; NO

APPENDIX B--Continued.

21. General Remarks: _____

PLEASE INDICATE: (A) Total Number of Employees: _____
(B) Tons Ore Processed Daily: _____

THANK YOU!

APPENDIX C

QUESTIONNAIRE RESPONSE ANALYSIS

QUESTION NUMBER & CHOICE OF ANSWERS	GROUP I ^a		GROUP II ^b				GROUP III ^c					
	TOTALS		REMOTE		NOT REMOTE		OVER 300		100- 300		UNDER 100	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1A. Higher Than	3	13	2	13	1	12	1	12	1	12	1	14
B. The Same As	15	65	9	60	6	76	5	63	6	76	4	57
C. Lower Than	5	22	4	27	1	12	2	25	1	12	2	29
2A. Significant	9	39	5	33	4	50	4	50	3	38	2	29
B. Of Little Sign.	9	39	6	40	3	38	3	38	3	38	3	42
C. No Significance	5	22	4	27	1	12	1	12	2	24	2	29
3. DAY-PAY												
A. Very Difficult	1	4	1	6	0	0	1	12	0	0	0	0
B. Difficult	7	31	4	27	3	38	3	38	3	38	1	14
C. Not Difficult	15	65	10	67	5	62	4	50	5	62	6	86
SALARIED												
A. Very Difficult	6	26	3	20	3	38	0	0	3	38	3	43
B. Difficult	7	31	5	33	2	24	5	62	1	12	1	14
C. Not Difficult	10	43	7	47	3	38	3	38	4	50	3	43

^aGroup I: Contains total responses to each question for the 23 participating companies.

^bGroup II: Separates participant companies into those companies located in a Remote area, and those located in Not Remote areas within 35 miles of a metropolitan community. Fifteen companies are classified Remote and eight as Not Remote.

^cGroup III: Separates participant companies according to size: (1) those companies in which total employment exceeds 300 employees, (2) those in which total employment is between 100 and 300 employees, and (3) those companies with less than 100 employees. Eight companies fall in the first category, eight in the second and seven in the third.

APPENDIX C--Continued.

QUESTION NUMBER & CHOICE OF ANSWERS	GROUP I ^a		GROUP II ^b				GROUP III ^c					
	TOTALS		REMOTE		NOT REMOTE		OVER 300		100- 300		UNDER 100	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
4. DAY-PAY												
A. All References	1	4	1	7	0	0	0	0	0	0	1	14
B. Most References	7	31	4	27	3	38	3	38	4	50	0	0
C. Some References	11	48	8	53	3	38	4	50	4	50	3	43
D. None	4	17	2	13	2	24	1	12	0	0	3	43
SALARIED												
A. All References	5	22	5	33	0	0	0	0	2	25	3	43
B. Most References	12	52	5	33	7	88	6	75	5	62	1	14
C. Some References	5	22	5	33	0	0	2	25	1	13	2	29
D. None	1	4	0	0	1	12	0	0	0	0	1	14
5A. Yes	3	13	2	13	1	12	1	12	1	12	1	14
B. No	20	87	13	87	7	88	7	88	7	88	6	86
6. DAY-PAY												
A. Within 10 Miles	8	35	5	33	3	38	1	13	1	12	6	86
B. 10 - 50 Miles	12	52	8	53	4	50	5	62	6	76	1	14
C. 50 - 100 Miles	3	13	2	14	1	12	2	25	1	12	0	0
D. Over 100 Miles	0	0	0	0	0	0	0	0	0	0	0	0
SALARIED												
A. Within 10 Miles	7	31	6	40	1	13	3	38	0	0	4	57
B. 10 - 50 Miles	6	26	4	27	2	25	1	12	4	50	1	14
C. 50 - 100 Miles	1	4	1	6	0	0	0	0	1	12	0	0
D. Over 100 Miles	9	39	4	27	5	62	4	50	3	38	2	29
7. DAY-PAY												
A. Yes	11	48	6	40	5	62	5	62	2	25	4	57
B. No	12	52	9	60	3	38	3	38	6	75	3	43
SALARIED												
A. Yes	14	61	9	60	5	62	5	62	5	62	4	57
B. No	9	39	6	40	3	38	3	38	3	38	3	43
8A. Yes	6	26	5	33	1	12	2	25	3	38	1	14
B. No	17	74	10	67	7	88	6	75	5	62	6	86
9A. Often	4	17	3	20	1	12	1	12	2	25	1	14
B. Seldom	15	65	9	60	6	76	7	88	5	63	3	43
C. Never	4	17	3	20	1	12	0	0	1	12	3	43

APPENDIX C--Continued.

QUESTION NUMBER & CHOICE OF ANSWERS	GROUP I ^a		GROUP II ^b				GROUP III ^c					
	TOTALS		REMOTE		NOT REMOTE		OVER 300		100- 300		UNDER 100	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
10. DAY-PAY												
A. Yes	11	48	9	60	2	25	5	62	2	25	4	57
B. No	12	52	6	40	6	75	3	38	6	75	3	43
SALARIED												
A. Yes	12	52	10	67	2	25	5	62	3	38	4	57
B. No	11	48	5	33	6	75	3	38	5	62	3	43
11A. Yes	15	65	10	67	5	62	7	88	6	75	2	29
B. No	8	35	5	33	3	38	1	12	2	25	5	71
12. DAY-PAY												
A. Difficult	7	31	5	33	2	25	4	50	2	25	1	14
B. Little Difficulty	10	43	5	33	5	62	3	38	4	50	3	43
C. No Difficulty	6	26	5	33	1	13	1	12	2	25	3	43
SALARIED												
A. Difficult	14	61	8	53	6	75	6	75	5	63	3	43
B. Little Difficulty	5	22	4	27	1	12	1	12	2	25	2	29
C. No Difficulty	4	17	3	20	1	12	1	12	1	12	2	29
13A. Yes	16	69	9	60	7	88	7	88	7	88	2	29
B. No	7	31	6	40	1	12	1	12	1	12	5	71
14A. Good (*)	13	76	6	60	7	100	5	71	5	71	3	100
B. Fair	4	24	4	40	0	0	2	29	2	29	0	0
C. Poor	0	0	0	0	0	0	0	0	0	0	0	0
15A. Some Effect (**)	8	40	4	28	4	76	3	38	3	38	2	50
B. Little Effect	6	30	5	36	1	17	4	50	2	24	0	0
C. No Effect	6	30	5	36	1	17	1	12	3	38	2	50
16A. Yes	5	22	4	27	1	12	4	50	1	12	0	0
B. No	18	78	11	73	7	88	4	50	7	88	7	100
17A. Yes	8	35	7	47	1	12	6	75	1	12	1	14
B. No	15	65	8	53	7	88	2	25	7	88	6	86

(*) One (1) company without a union volunteered an answer to this question.

(**) Three (3) companies without a union did not answer this question.

APPENDIX C--Continued.

QUESTION NUMBER & CHOICE OF ANSWERS	GROUP I ^a		GROUP II ^b				GROUP III ^c					
	TOTALS		REMOTE		NOT REMOTE		OVER 300		100- 300		UNDER 100	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
18. DAY-PAY												
A. Yes	17	74	11	73	6	75	4	50	7	88	6	86
B. No	5	22	3	20	2	25	3	38	1	12	1	14
C. ?	1	4	1	7	0	0	1	12	0	0	0	0
SALARIED												
A. Yes	13	57	8	53	5	62	3	38	5	62	5	71
B. No	10	43	7	47	3	38	5	62	3	38	2	29
C. ?	0	0	0	0	0	0	0	0	0	0	0	0
19A. Good	20	87	13	87	7	88	6	75	8	100	6	86
B. Fair	3	13	2	13	1	12	2	25	0	0	1	14
C. Poor	0	0	0	0	0	0	0	0	0	0	0	0
20A. Yes	1	4	1	7	0	0	1	12	0	0	0	0
B. No	22	96	14	93	8	100	7	88	8	100	7	100

APPENDIX D

INTER-RELATED QUESTION ASSOCIATION

Chapter III, Methodology, discusses the use of inter-related questions designed to determine the validity of subsidiary hypotheses contained in the major hypothesis. Chapters IV and V present responses to, and analyses of, questions by inter-related group classification. The following is a list of these classifications and inter-related questions contained therein.

<u>SECTION</u>	<u>TITLE</u>	<u>QUESTIONS</u>
A	TURNOVER IN RELATION TO LOCATION	1, 2, 8
B	EMPLOYER RECRUITING ACTIVITIES	3, 6, 12
C	NEW EMPLOYEE REFERENCE CHECKING	4, 5
D	EMPLOYEE TERMINATION	7, 9
E	EMPLOYEE FACILITIES PROVIDED	10, 16, 17, 18
F	LABOR UNIONS AND RELATIONS	13, 14, 15
G	EMPLOYEE MORALE	19, 20
H	MANAGEMENT DEVELOPMENT PROGRAMS	11
I	GENERAL REMARKS	21

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