

1961

Labor supplies of a seasonal industry

<https://hdl.handle.net/2144/24429>

"Downloaded from OpenBU. Boston University's institutional repository."

BOSTON UNIVERSITY

GRADUATE SCHOOL

Thesis

LABOR SUPPLIES OF A SEASONAL INDUSTRY

by

HERBERT GEBELEIN

(B.S., Purdue University, 1951)

Submitted in partial fulfillment of the

requirements for the degree of

Master of Arts

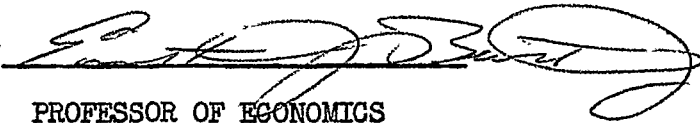
1961

AM
1961
ge
Cop. 1

Approved

by

First Reader


PROFESSOR OF ECONOMICS

Second Reader

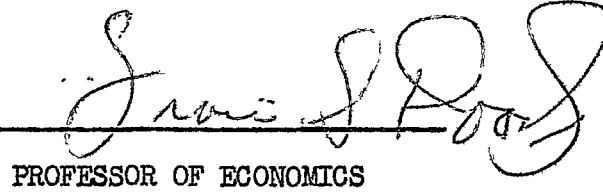

PROFESSOR OF ECONOMICS

Table of Contents

	Page
LIST OF TABLES, CHARTS AND APPENDICES.....	ii
CHAPTER I INTRODUCTION.....	1
Statement of Problem.....	1
Methods and Procedures.....	8
CHAPTER II THE DEVELOPMENT AND GROWTH OF SKIING.....	11
Early History.....	11
Skiing as a Sport Activity.....	12
The Post-World War II Period.....	13
CHAPTER III THE SKI INDUSTRY IN VERMONT.....	15
Growth Since 1947-48.....	16
The Vermont Component of the New England Ski Industry.....	21
CHAPTER IV SEASONAL ELEMENTS IN VERMONT EMPLOYMENT.....	23
Seasonal Unemployment in Agriculture.....	23
Non-Agricultural Employment.....	25
Contract Construction.....	26
Trade.....	27
CHAPTER V CHARACTERISTICS OF THE LABOR SUPPLIES OF THE SKI INDUSTRY IN VERMONT.....	30
Employment and Practices in the Industry.....	31
CHAPTER VI SUMMARY AND CONCLUSIONS.....	43

LIST OF TABLES, CHARTS AND APPENDICES

	Page
Table 1. Growth of the American Skiing Market.....	13
Table 2. Comparison of Vermont Major Ski Facilities, 1947-48 and 1960-61.....	17
Table 3. Facilities at 20 Major Vermont Ski Areas.....	18
Table 4. Ownership of 20 Major Vermont Ski Areas.....	19
Table 5. January-March Deviations Below Annual Monthly Average in Non-Manufacturing Employment in Vermont, 1958-60.....	25
Table 6. January-March Deviations Below Annual Monthly Average in Contract Construction Employment in Vermont, 1958-60.....	26
Table 7. January-March Deviations Below Annual Monthly Average in Trade Employment in Vermont, 1958- 1960.....	27
Table 8. Composition of Vermont Ski Area Employees by Sex and Employment.....	34
Table 9. Marital Status of Vermont Ski Area Employees..	34
Table 10. Distance Traveled to Work Daily by Vermont Ski Area Employees and Mode of Transporta- tion.....	35
Table 11. Number of Winters Worked at Ski Areas by Vermont Ski Area Employees.....	36
Table 12. Age and Sex of Vermont Ski Area Employees....	37
Table 13. Average Weekly Hours and Wages/Hour of Vermont Ski Area Employees (Replies of Instructors Excluded).....	38
Table 14. Average Weekly Hours and Wages/Hour at Other Regular Full-Time Occupation of Vermont Ski Area Employees (Replies of Instructors Ex- cluded).....	40
Table 15. Comparison by Sex of Vermont Ski Area Em- ployees Without Other Regular Occupations....	41a

	Page
Chart I. Estimated Pattern of Seasonal Variation in Civilian Labor Force and Employment, 1946-50.....	48
Appendix A. Employee Questionnaire.....	49
Appendix B. Estimated Non-Agricultural Employment in Vermont, Calendar Year 1958.....	50-51
Appendix C. Estimated Non-Agricultural Employment in Vermont, Calendar Year 1959.....	52-53
Appendix D. Estimated Non-Agricultural Employment in Vermont, Calendar Year 1960.....	54-55

CHAPTER I

Introduction

This examination of the labor supplies of a (winter) seasonal industry, it is hoped, will provide at least partial answers to three questions.

(1) To what extent is the assumption that short-run, temporary or peak increases in job opportunities tend to be filled by secondary workers, which appears to be somewhat generally held, a valid assumption for such peak demands for labor that occur during winter months? (2) How many of such secondary workers that help to fill these peak demands for labor would probably be available for regular employment? (3) To what extent are such jobs filled by primary workers who, because of seasonal unemployment in other occupations, must attempt to "dovetail" employments, and what are the consequences, in terms of wage differences, of such "dovetailing"?

Richard C. Wilcock has introduced the concepts of the secondary labor force and the secondary worker to the literature on the labor force and labor markets.¹ While the terms and the utility of these concepts, suggested by Wilcock are new, the basic facts which gave rise to these concepts are not. It has been long known that some workers move into and out of the labor force periodically. The general influx of students, housewives, etc., into the labor force in spring and their withdrawal again in the fall is commonly referred to by the standard texts in explaining the seasonal variations in the size of the labor force. For example, Bloom

¹Wilcock, Richard C., "The Secondary labor Force and the Measurement of Unemployment", The Measurement and Behavior of Unemployment, p. 167 ff.. See also Wilcock, R. C. and Sobel, I., Labor Market Behavior in Nonmetropolitan Areas.

and Northrop state that

"In July there are usually 3 to 4 million more job seekers than in January, as students look for work during summer vacations and housewives seek jobs in seasonal farm industries in order to earn extra income."²

Another writer puts it as follows:

"The low point (in the size of the labor force) during any year comes in January. The high point comes in July when the labor force becomes swollen with temporary workers (mainly students and housewives) who take employment in canneries, on construction jobs, at vacation resorts, and so on."³

Woytinsky, whose work is the most comprehensive, refers to those who move in and out of the labor force throughout the year as "marginal workers".⁴ But it is clear that he regards the extremes of variation in the size of the labor force to be due largely to the influx of what he describes as the "marginal non-worker".⁵

"Well-established customs increase the supply of labor in summer, when demand for labor is particularly great, and reduce it in winter.... Many high school boys and girls and college students take temporary jobs in the summer. Farmers' wives take jobs in canneries in the summer and autumn."⁶

This recognition of movement into and out of the labor force, particularly during the summer months, has led to some interesting, and perhaps erroneous, conclusions and assumptions. First of all, there is the question which Wilcock tells us Charles D. Stewart has raised, of

²Bloom, Gordon F., and Northrop, Herbert R., Economics of Labor Relations, p. 6.

³Gitlow, Abraham L., Labor Economics and Industrial Relations, p. 39.

⁴Woytinsky, W. S. and associates, Employment and Wages in the United States, p. 327. For an explicit statement of the undesirability of the term "marginal" to describe such workers, see Wilcock, op. cit. p. 170.

⁵ibid., p. 327.

⁶ibid., p. 317.

"whether enumerators tend to assume that seasonal workers withdraw from the labor market without probing to discover whether they are seeking another job..."⁷ As Wilcock's work has sought to demonstrate,⁸ many of these secondary workers, particularly in non-urban areas, would be available for jobs if the jobs were offered in or near their communities.

Another assumption seems to be that short-run, temporary or peak job opportunities particularly in resort and recreation industries are, for the most part, filled by temporary entrants to the labor force--those whom Wilcock would classify as belonging to the secondary labor force. The following statements by various authors appear to reflect this assumption.

"It should be kept in mind that in some types of seasonal work many persons help to fill the peak demands for labor and drop out of the labor market when conditions change. Many vacation-time jobs are filled by young persons who return to school in the fall."⁹

"The extra workers taken on for seasonal peaks in employment tend to be 'casuals' or part-time workers who enter the labor force just to handle 'peak' labor demand. These part-time workers are, for example, students who take jobs as waiters, athletic instructors, etc., at resorts and hotels during vacations or accept summer jobs as farm hands, in canneries or in construction gangs."¹⁰

⁷Wilcock, Richard C., op. cit., p. 192, footnote 39.

⁸See footnote 1.

⁹Miller, Glenn W., Problems of Labor, p. 198.

¹⁰Reder, Melvin W., Labor in Growing Economy, pp. 433-4.

"Summer camps, resorts, gas stations, beverage plants and farms are manned in part during the peak summer season by students, housewives, retired persons, and semi-invalids who do not want regular employment but are nevertheless glad to earn some extra income in seasonal work."¹¹

"...some sports flourish in summer and some in winter, vacation travel is concentrated in the 'short season' between July 4 and Labor Day, and so it goes. Much of this (employment) is taken care of by part-time additions to the labor force."¹²

Now this assumption concerning summer peak demands for labor is probably correct. We are all familiar with the swimming pools and beaches whose jobs are filled by athletic college students, and the summer restaurants and hotels where the waitresses, clerks and other help are students and local housewives. Certainly, the increase in the size of the labor force indicates that it is very likely correct in many other areas where peak demands for labor are experienced during the months from May to October. But the assumption is also extended to seasonal peaks experienced during the winter. Woytinsky, in his early work in estimating the volume of seasonal unemployment, considered that the "sharp peak in the seasonal employment of labor in such industries as retail trade" was, largely, filled by "temporary workers who disappear from the labor market when the active season is over."¹³ Others, since then, have referred to these peaks as other instances of employment of "casuals,"¹⁴ and, finally,

¹¹Kuhn, Alfred, Labor: Institutions and Economics, p. 495.

¹²Phelps, Orme, W., Introduction to Labor Economics, 2nd edition, p. 478

¹³Woytinsky, W. S., Seasonal Variations in Employment in the United States, (1939) p. 71-2. Also see p. 111, note (a) and p. 32.

¹⁴Reder, Melvin W., loc. cit.

one writer makes the statement that "seasonal workers are frequently drawn from the 'reserve' rather than the regular labor force."¹⁵

It is very likely that such an assumption has little or no effect on total seasonal employment or unemployment figures. The magnitudes involved are too small to have any great significance. However, with regard to local labor market analysis the magnitudes may have a very real significance.

There seems to be no logical reason to expect this assumption to hold for winter seasonal peaks of short-run employment opportunities. From November through to February, the overall demand for labor apparently tends to fall, while at the same time seasonal unemployment, which is perhaps better described as unemployment due to seasonal layoffs, tends to increase. During most of the same time period (February shows a slight increase) the size of the labor force experiences a decline.¹⁶ (See Chart I.) These tendencies would appear to be emphasized in areas where seasonal extremes of temperature cause relatively early layoffs in such industries as agriculture, lumbering and construction, particularly if these industries represent a substantial proportion of total employment in the area. Consequently in such areas the supply of seasonally unemployed workers seeking dovetailing employments would be increasing at just the time when temporary short-term jobs offering such dovetailing opportunities were opening up.

¹⁵Bloom, Gordon F., and Northrup, Herbert R., op. cit., p. 353, footnote 5.

¹⁶Woytinsky, W. S., et al., Employment and Wages in the United States, p. 340-41.

Naturally, factors operating to offset the tendencies described above exist. Probably the most important of these is unemployment compensation. The fact that workers receive such compensation when involuntarily unemployed would tend to reduce the volume of workers seeking dovetailing employment by shifting industries and occupations. However, it must be remembered that in the areas which are being discussed and in the area covered by the study, many of the workers are not in covered employment in their regular occupations. Agricultural employees, self-employed farm operators are not covered by the program. And in rural areas, many workers in other occupations work for small operators whose employees are not covered in many states. Thus there would still be a substantial amount of workers without income during periods of seasonal unemployment. Furthermore, the level of benefit payments is generally not so high in most states as to act as an imposing barrier to movement for many workers who are covered by the program.

From the standpoint of traditional economic theory another factor tending to reduce the movement of seasonably unemployed primary workers into dovetailing jobs would be an influx of secondary workers into the market to meet the demand for labor. To the extent that this occurred, the supply curve of labor would be shifted outward tending, therefore, to depress the wage rate. Also, assuming indifference on the part of employers as to the selection of primary and secondary workers, since the offer curves of secondary workers are likely to be lower than those of primary workers, the result would be that the employment would go to those making up the lower portion of the total supply curve thus excluding most of the primary workers.

The assumption of employer indifference is unlikely to be correct, however. First of all workers with previous work experience, especially in a related (outdoor) industry, are to be preferred over workers with little or no work experience. Secondly, the sex of the job-seekers is important in the selection process. Since most of the primary workers are likely to be men and the secondary workers entering the market at this time are most likely to be women,¹⁷ the employers' choices will depend on the nature of the jobs. In the industry to be examined most of the jobs involve outdoor activity often of a very strenuous nature.

With respect to wages, it is probable that workers who dovetail employment during the winter months do so only at the cost of experiencing reduced wages per hour. This appears entirely logical in view of the general decline in the demand for labor and the concurrent increase in the supply of seasonally unemployed labor which was discussed earlier. Both tendencies naturally would have the effect of depressing wage rates.

Furthermore, evidence does seem to show that irregular employments in general tend to have lower wage rates than the rates in other occupations.¹⁸ Particularly in view of the labor supply and demand factors discussed above this would appear to be especially so for seasonal winter employment. Consequently, it would appear to be proper to expect that workers who do move into dovetailing jobs receive lower wages in their winter occupations.

¹⁷See Wilcook, Richard C., op. cit., p. 172 ff.

¹⁸Shister, Joseph, Economics of the Labor Market, p. 448-50. See also Kuhn, Alfred, op. cit. p. 495-6.

This study examines the labor supplies of a winter recreation industry, i.e. the ski industry in Vermont. This industry offers the kind of short-run job opportunities during the winter months that have been discussed. The active season, generally, runs from early December to late March--a period of about fifteen weeks. Some concerns in the more northern part of the state are able to continue operations into April. But only rarely, if at all, does the season extend beyond eighteen weeks. There are relatively few jobs in the industry that require highly specialized skills or skills peculiar to the industry. Most of the jobs involve work on the trails and lift facilities and in the ski repair shops and parking lots. Other jobs are in the offices and restaurants. The nature of such jobs would seem to present no great obstacles to movement of seasonably unemployed workers.

Before discussing the procedures used in the study a few definitions would be in order.

Ski Area. The term ski area or ski center is used to refer to a set of ski facilities owned (or leased) and operated by a single business enterprise in a certain location or adjacent location (as at Stowe). This conforms to the usual use of the term in the industry.

Major Ski Areas and Minor (or small) Ski Areas. This differentiation between areas is made on the basis of the lift facilities at the areas. Those with cable-type lifts are designated as major areas while those with rope-tow lifts are called small areas. This is somewhat arbitrary since,

in some instances, (though not in Vermont), areas with multiple rope-tows offer skiing comparable to some areas with cable lifts. However, this is not the usual case and the distinction conforms to that made in a study of ski facilities made by the Vermont Development Commission in 1947-48.¹⁹

The procedures used in making the study were as follows:

1. In the fall of 1960 letters were sent to the managers of the twenty-one major ski areas in Vermont requesting interviews. Interviews were obtained at twenty of these areas. With one exception these interviews were conducted before the onset of the winter snows and the beginning of the skiing season. At the interviews the managers were asked for information about their facilities, for financial information and for information about their employment and personnel practices.

2. A questionnaire (see Appendix A) was drawn up for distribution to the employees of the ski areas. The managers' cooperation in the distribution of the questionnaires was enlisted at time of the interviews. These questionnaires were distributed with a self-stamped, self-addressed envelope for return to the author. They were distributed at the time employees received their weekly pay check. They were anonymous, and they could then be filled out and mailed at the employees' leisure.

A slight problem was experienced here. It had been planned to have the questionnaires sent to the areas for distribution during the middle

¹⁹Vermont Ski Facilities 1947-1948, Vermont Development Commission, (mimeographed), p. 1.

of the season--in February, the peak month. Due to the vagaries of the weather, however, the season appeared to be over in that month. Rains and thaws laid the trails and slopes bare and, in fact, some areas were forced to close operations entirely. Snow, fortunately for the operators and the study, returned in March to restore operations and employment, and the questionnaires were able to be distributed during that month.

3. Pertinent information regarding employment in other industries in Vermont was obtained from the Research and Statistics Department of the Vermont Unemployment Compensation Commission, and other relevant information regarding the ski industry was furnished by the Vermont Development Commission.

CHAPTER II

The Development and Growth of Skiing

Skiing as a recreational activity is a relatively young sport. Originally, as the case with so many kinds of equipment currently used for sport activities, the ski had a very practical use as a means of locomotion over winter snows. Some writers trace its use far back to prehistoric times in Scandinavia.²⁰ As a means of travel in winter skis were widely used by the inhabitants of this far northern area. It is, perhaps, not inconceivable that our American Indians were "introduced" to the ski by the Vikings. At any rate, the "Norwegian snowshoes," as skis were called, were adopted by many individuals in the United States during the nineteenth century as a means of winter travel.

Probably the most famous of these "ski-travelers" was Jon "Snowshoe" Thomson, who used skis to deliver mail and other items to numerous towns in the high Sierras throughout the winter months and whose exploits in accomplishing these tasks border on the fantastic.²¹

Skiing as a competitive sport in the United States developed along logical lines. Cross-country ski races were held in the nineteenth century among those who used their skis for practical travel purposes. Ski-jumping was the next event, developed earlier in the Scandinavian countries. Alpine events, downhill and slalom racing, came much later. Although skiing in this country received a boost from the holding of the 1932 Winter

²⁰Encyclopedia Britannica (1957) Vol. 20, p. 749.

²¹Felton, Frank, "The Paul Bunyan of the High Sierras," Ski Magazine, November, 1959.

Olympic games at Lake Placid, New York, the official program did not include these latter events.²² For these to develop to the status of cross-country racing and jumping, and for skiing to grow as a general recreational activity, the development of "uphill" facilities was required since relatively few were willing to spend hours climbing a snow-covered mountain-side for a downhill run that, though highly exhilarating, lasted no more than a few minutes.

The required uphill facilities came in the 1930's. The first rope-tow, a rather crude facility (but still in wide use) was put into operation in 1934 at Woodstock, Vermont. Thereafter, rope-tows were to be found in increasing numbers on New England hillsides.²³ In 1937, the Union Pacific Railroad installed a chairlift at Sun Valley, Idaho, the beginning of its program of development of that now famous winter récreation area.²⁴ In 1940, the Mount Mansfield Company began operating its newly installed chair lift at Stowe, Vermont.²⁵ At Cannon Mountain in Franconia, New Hampshire an aerial tramway was erected, a type of lift often found in Europe's Alps.

World War II interrupted the expansionary developments that were taking place across the nation, but after the war's end they began again.

²²Carroll, George, "It All Started in 1932," Ski Magazine, Feb. 1960.

²³"The U.S. on Skis," Time Magazine, Feb. 9, 1959.

²⁴ibid.

²⁵Bottomley, James W., Economic Aspects of Recreational Development in Stowe, Vermont, Vermont Development Commission, (mimeographed), p.2.

In the postwar period the growth of the skiing market has been extremely rapid. Table 1 indicates the growth, as determined by one source,²⁶ over a twelve-year period.

Table 1

Growth of the American Skiing Market

<u>Year (Winter)</u>	<u>Number of Skiers</u>	<u>To Increase^{a)}</u>
1949-50	1,400,000	
1950-51	1,600,000	14.3
1951-52	1,800,000	12.5
1952-53	1,900,000	5.5
1953-54	2,000,000	5.3
1954-55	2,125,000	6.3
1955-56	2,300,000	8.2
1956-57	2,500,000	8.7
1957-58	2,725,000	9.0
1958-59	3,200,000	17.4
1959-60	3,500,000	9.4
1960-61	3,775,000	7.9

a) Percentage figures are rounded to nearest tenth.

Figures for 1946-1949 not available. Source:

Source: SKIING Publishing Company, Denver, Colo.

This growth in the market over this period precipitated a tremendous growth in skiing facilities from Maine to California. In Maine, eight major ski centers have been developed during this period.²⁷ The State of

²⁶The figures showing the growth of the market are subject to some controversy. Apparently the controversy involves who is to be counted as a "skier". The source cited in the table has been criticized for counting those who own or have bought skis even though many may never attend any recognized ski area. Although other sources would revise the figures in the table downward (see "Ski Industry Newsletter" Vol. 2, No. 5, January 9, 1961, published by Ski Magazine for distribution to the industry), most seem to be in agreement on an average rate of growth of 8% to 10% per year.

²⁷New York Times, Dec. 11, 1960, Vacation Travel Section.

New York spent \$2.5 million to develop its major center of ski operations at Whiteface Mountain.²⁸ To stage the 1960 Winter Olympic Games at Squaw Valley in California 14 million dollars were spent in the development of this area by the State of California, the Federal Government and private interests.²⁹

Currently major skiing areas are operating in 25 states including Alaska.³⁰ And these facilities are to be found in such relatively flat-land states as Michigan, and Wisconsin and as far south as Virginia, New Mexico, and Arizona.³¹ Even the state of Tennessee will, next winter, have a major ski area at Götlinburg, estimated to cost 2 million dollars.³²

²⁸Burton, Hal, "Whiteface", Ski Magazine, Nov., 1957.

²⁹"The U.S. on Skis", Time Magazine, Feb. 9, 1959.

³⁰"1961 Area Directory", Ski Life Magazine, Dec. 1960.

³¹ibid.

³²Eastern Ski Bulletin, U.S. Eastern Amateur Ski Association, p. 20.

CHAPTER III

The Ski Industry in Vermont

While the expansion of the skiing market and of the ski industry has been nation-wide, New England and the Middle Atlantic States are generally considered currently to be the largest part of the ski market and to have experienced the greatest growth. It has been estimated that from one-fourth to over two-fifths of the total number of skiers are concentrated in this market area.³³ While major ski areas are to be found in most of the states in this area the market is, for the most part, serviced by the facilities in New England and New York. And, by far the greatest concentration of facilities, overall, is to be found in Vermont. Other states may advertize a greater number of ski areas, as the state of New York did throughout the winter of 1960-61,³⁴ but the facilities, in terms of lifts, trails, terrain and, particularly, vertical ascent of lifts and descent from summit to base, do not compare with those offered in the Green Mountains. In the northern part of the state, at Stowe, Vermont is a complex of facilities which compare with the most renowned of winter resort areas in the world such as St. Moritz, Cortina, Arosa, or Aspen. And, in fact, Stowe has a world-wide reputation. In the southern part of the state, an area advertises itself, somewhat immodestly perhaps, as "The World's Largest Ski Area".³⁵ While this claim may be a

³³Information obtained from publishers of Ski Magazine, and Skiing Magazine.

³⁴See New York Times (Sunday) Vacation Travel Sections, Dec., 1960 through Feb., 1961.

³⁵1961 advertising folder of MT. Snow Development Corporation.

bit of exaggeration or "puffing", the area is certainly among the world's largest. In addition to these two, there are many other major areas throughout the state, somewhat smaller but with excellent facilities. And it is to a study of the development and present character of the ski industry in this state to which we shall now turn.

In the winter of 1947-48, the Research and Planning Division of the Vermont Development Commission conducted a survey of Vermont ski facilities.³⁶ This survey listed 54 ski areas in operation in the state. However, 47 of these areas, or 87 percent of the total, were small areas with rope-tow lift facilities. Only 7 of the 54 areas, or 13 percent, were classified as major areas with one or another kind of cable-type lift facility. At the beginning of the past winter season, the Vermont Development Commission listed 31 areas in operation.³⁷ Thus, the total number of areas had declined. However, 21 of these areas, or 67.7 percent of the total, were major areas with one or more cable-type lifts. Rope-tow areas now comprise a minority (32.3 percent) of the total number of areas and are, for the most part, local operations serving a particular community or private ski club.

Since rope-tow areas play such a minor role in the industry in Vermont, and employment at these areas constitutes a negligible proportion

³⁶Vermont Ski Facilities 1947-1948, Vermont Development Commission, (mimeographed).

³⁷Ski Vermont, advertising folder of the Vermont Development Commission.

of total employment by the industry they have been excluded from this study. (As already mentioned, these areas are, frequently, community or private ski club operations, and these are often staffed by volunteers).

Table 2 compares the present facilities in the state with those of 1947-1948.

Table 2

Comparison of Vermont Major Ski Facilities
1947-48 and 1960-61

	<u>1947-1948</u>	<u>1960-1961</u>
No. of Major Areas	7	20 ^{a)}
No. of lifts (cable-type)	10	60
Length of lifts (feet)	27,380	179,068
Capacity of lifts (persons/hour)	6,180	51,170
Vertical ascent of lifts (feet)	9,120	46,940

a) One major area not contacted not included.

Source: Vermont Ski Facilities 1947-1948 and information obtained from managers of ski areas during winter 1960-61.

Over this period of thirteen years, the number of major areas has tripled while the total number of cable-type lifts has increased six-fold. The length of these facilities now is about thirty-four miles, more than six times the length of the 1947-48 total. Whereas, in 1947-48, the total vertical rise of lifts was less than 2 miles, the current facilities have vertical ascents that total almost 9 miles. Probably the most significant indication of the growth of the industry is to be found in the capacity figures which show an increase of more than eight times the 1947-48 total.

Table 3 shows a breakdown of the types of facilities at the major Vermont ski areas.

Table 3

Facilities at 20^a) Major Vermont Ski Areas

Type of Lift	Number	Total Length (feet)	Total Capacity/hour (persons)	Total Vertical Ascent (feet)
Gondola	1	9,300	600	2,400
Single Chair	3	12,650	1,530	4,110
Double Chair	15	67,988	15,460	17,695
T-Bar	12	26,900	11,890	6,938
J-Bar	7	12,150	6,020	2,862
Pomalift	21	48,680	15,370	12,635
Other	1	1,400	300	300
Totals	60	179,068 (33.9 mi.)	51,170	46,910 (8.9 mi.)

a) One area not contacted not included.

Source: Information supplied by managers of ski areas.

The facilities in use range from the rather elaborate "gondola," in use at one area, which carries three passengers enclosed in each car, which cars attach to the cable at the base and detach from it at the summit, to a rather elderly Alpine lift in use at another area, which pulls the skier uphill on his skis by means of a disc-type device which is permanently attached to a cable. The most widely used lift (in use at 11 areas) is the Pomalift, a device similar to that above but more efficient and the most inexpensive of the cable lifts to install. The T-Bar, somewhat similar to the Pomalift in its method of uphill transport, carries two skiers at a time and is somewhat more expensive but is also in rather extensive use (9 areas). The single-chair lifts, which were among the first of the cable-type lifts, have been installed at only 3 areas because of the development of the double-chair lift, a more efficient device, which has the added advantage of offering the skier company on his journey to the summit. Though these are somewhat expensive installations they are able to be used in the off-season, particularly in the summer, to carry

sightseeing tourists to the summits. Thus their increased cost is offset by the increased period of revenue-producing operation. (This also applies to the gondola lift). There are 15 of these currently operating at 6 Vermont mountain areas.

Excluding rope-tow facilities from consideration, fourteen areas have 2 or more cable lifts to serve their slopes and trails; eight areas have 3 or more; six have 4 or more lifts; and one area has as many as 8 cable-type lift facilities.

The ownership of the 20 major ski areas is shown in Table 4.

Table 4

Ownership of 20 Major Vermont Ski Areas

	<u>Number</u>
Corporations	<u>16^{a)}</u>
Partnerships	1
Proprietorships	2
Other ^{b)}	1

a) Includes one Community Service Corporation.

b) One area owned by private educational institution.

Source: Information supplied by managers of ski areas.

The use of the corporate form has accompanied the growth of ski areas. Whereas, in 1947-48 only 27 percent of all areas (54 at that time) were incorporated,³⁸ now the sixteen major areas which are incorporated account for 51.6 percent of all³⁹ areas.

³⁸Vermont Ski Facilities 1947-1948, p.6.

³⁹Actually the percentage may be considerably higher. No determination of the ownership of rope-tow areas was made. Some, perhaps a majority, may very well be cooperately owned. Naturally the percentage of cooperately-owned major areas is ^{quite} high, 75 percent, but this is to be expected for major areas.

At the beginning of the winter season 1960-61, the total value of assets of the twenty major ski areas in Vermont was \$8,811,700.⁴⁰ Fixed assets represented approximately 83 percent of this total, amounting to \$7,312,400.⁴¹ This appears entirely logical in view of the fact that ski area operations involve the extensive use of land (either owned or leased), buildings and lift equipment, most of the latter two being of relatively recent installation.

The income of ski area operators for 1959-60 was estimated by the Vermont Development Commission to be 20 percent greater than the previous year's figure. The actual figures given by the Commission, within which income was expected to fall, were between \$3.8 million and \$4.5 million.⁴² According to data obtained from the operators, the actual income of all the major areas included in the study was \$4.1 million for the 1959-60 season. Unfortunately, some operators were reluctant to disclose complete financial information, one of these being one of the larger areas. Since this data was not available from other sources and estimates had to be made for these areas, the income figure cannot be given more precisely.⁴³

⁴⁰⁻⁴¹ These figures were arrived at as a result of information supplied by the operators of 13 areas, data supplied by the Vermont Department of State for 4 other areas, and estimates for the remaining 3 areas. Those for which estimates had to be made are among the smaller of the major areas and the total amount estimated represents only 1.5 percent of the total value of assets.

⁴² Analysis of Vermont's Ski Business, Winter 1959-60, Vermont Development Commission, (mimeographed).

⁴³ This figure contains a high degree of estimation since one of the areas which refused to disclose such data (despite assurances that the data would be confidential) was the second largest in the state in terms of total assets. Asset figures were available from the Department of State but income figures were not available. Therefore, estimates had to be made for this area and for 4 other areas. The percentage of estimation in the total income figure is 19 percent. However, it is still probably a fairly close approximation to the actual facts.

Before passing from these aspects of the ski industry in Vermont, it may be interesting to compare the figures for Vermont's facilities with some estimates for facilities in New England as a whole, made in another study.

In this study⁴⁴ it was estimated that total operating income for all New England areas was between \$6.7 million and \$9.6 million, although at one point the lower figure is regarded as more correct, the higher figure is also suggested as "reasonable."⁴⁵ If, as seems likely, the lower figure is more correct, for the season 1959-60 the Vermont ski areas accounted for over 61 percent of all New England ski area income. If the higher figure is used the Vermont share is reduced to a little less than 44 percent. Either way the significance of Vermont areas in the industry in New England is indicated. However, the higher figure for total New England ski area income seems quite excessive due to the method of estimation which assumed that about the same percentage of the ski areas in New England states other than Vermont were major ski areas, as is the case in Vermont, i.e., about two-thirds (see above). The 1961 Area Directory published in Ski Life magazine⁴⁶ lists 42 ski areas in other New England states of which only 21, or 50 percent, can be classified as major areas. Moreover, many of these areas do not offer the ascent and descent facilities

⁴⁴Sissener, Jan U., The Ski Lift Business in New England, Federal Reserve Bank Research Report No. 11.

⁴⁵ibid., p. 51. However, it must be noted that the author suggests here that the figures "not be taken too seriously".

⁴⁶See footnote 30.

of even the smaller major areas in Vermont. Thus it seems probable that Vermont areas account for from 50 percent to 60 percent of the ski industry's income in New England.

CHAPTER IV

Seasonal Elements in Vermont Employment

If extremes of temperature and weather are important factors in the extent of seasonal unemployment,⁴⁷ Vermont would appear to be an area which should be highly affected. The average annual snowfall over the state as a whole varies from about 60 inches to 120 inches.⁴⁸ The depths to which the thermometer falls during the winter months are quite extreme. Temperatures of -35 degrees have been experienced by the author on at least three occasions over the past three years and below zero readings are rather common occurrences during the months from December to March. While the old saying that "Vermont has only two seasons, July and winter," somewhat exaggerates the case, the fact is that winter comes early in November and stays until late in April. Consequently, activities affected by the weather can be expected to produce considerable amounts of seasonal unemployment.

Agricultural activities will receive first consideration. According to estimates made by the Vermont Department of Employment Security, based on the Bureau of the Census' 1959 Census of Agriculture, there are 10 thousand farm operators in the state and Vermont farms employ 18 thousand to 20 thousand workers. Of these agricultural employees, 10 thousand are "hired hands" employed on a "year-round" basis, and the rest are employed

⁴⁷Sultan, Paul, Labor Economics, p. 504.

⁴⁸Sissener, Jan W., op. cit., Appendix B, p. 59.

for seasonal work.⁴⁹ Classification of "year-round" workers was made on the basis of having "worked 150 days or more in the calendar year".⁵⁰ Consequently, assuming Ducoff's statement that "...only 15 percent of all hired farm workers are employed for the full year at farm wage work"⁵¹ to hold true for Vermont, there would be only from 2700 to 3000 farm workers employed for the full year. If, in order to understate rather than overstate the situation, all seasonally employed workers are assumed to be secondary workers, then agricultural activity in the state produces unemployment for 7000 to 7300 primary workers during the year, usually during the winter months. Since farm wages are substantially lower than industrial wages⁵² and the unemployment compensation program does not cover such workers it would appear to be unlikely that any significant number of these workers would withdraw from the labor force during these periods of layoff.

To their number must be added the farm operators who are available for non-farm work during periods of low farm activity. Ducoff reported that "...in the year 1949...14 percent of all farm operators reported

⁴⁹Agricultural Employment Estimates, published in mimeographed form by the Research and Statistics Division of the Department of Employment Security, Vermont Unemployment Compensation Commission. (March, 1961).

⁵⁰ibid.

⁵¹Ducoff, Louis J., "Employment in Agriculture," in Woytinsky, et. al., op. cit., Chap. 30, p. 379.

⁵²Ducoff, Louis J., "Wages in Agriculture," in Woytinsky, et. al., op. cit., Chap. 42.

some non-farm work, though farming was their main occupation."⁵³ Applying this percentage to the number of farm operators in Vermont would mean that 1400 farm operators seek non-farm work during the year, again usually during the winter months.

If, now, we look at non-agricultural employment in the state (see Appendices B, C, D) the significance of contract construction in seasonal variations may be observed.

Non-manufacturing industries throughout the period 1958-60 account for the greatest part of seasonal declines in employment. In fact, except for the year 1959, manufacturing employment during the months of January to March was close to or above the annual monthly average. The 1959 situation, however, was caused by a substantial increase in manufacturing employment that took place later in the year.⁵⁴

Table 5 indicates the deviations from the annual monthly average in non-manufacturing employment during the months from January to March.

Table 5

January-March Deviations Below Annual Monthly Average In
Non-Manufacturing Employment in Vermont, 1958-1960

	1958	1959	1960
January	-3650	-3800	-3950
February	-4450	-4450	-4700
March	-4250	-4500	-4700

Source: Appendices B, C, D

⁵³Ducoff, Louis J., op. cit., Chap. 30, p. 372.

⁵⁴See Vermont Labor Newsletter, January, 1961, issued by Dept. of Employment Security, Vermont Unemployment Compensation Commission.

The significance of contract construction as a component of this deviation from the annual monthly average of non-manufacturing employment may be seen in Table 6.

Table 6

January-March Deviations Below Annual Monthly Average in
Contract Construction Employment in Vermont, 1958-1960

	<u>1958</u>	<u>1959</u>	<u>1960</u>
January	-1650	-1450	-1550
February	-2200	-2200	-1950
March	-2000	-2200	-2000

Source: Appendices B, C, D.

Contract construction alone accounts for a substantial amount of the deviation. The decline (below annual monthly average) in this category of employment accounts for 38 percent of the decline of non-manufacturing employment in January, 1959. The percentage ranges upward for the other months to a high of 47 percent of the decline from the annual monthly average in non-manufacturing employment in the months of February, 1958, and the same month in 1959.

Since, in contraction construction, such deviations can be expected to represent layoffs of primary workers it would appear to be safe to infer that a substantial number of such workers would be seeking dovetailing employment during the winter months.

Other industries also exhibit deviations during the winter months. The amount of such deviations from the annual monthly average in trade is shown in Table 7.

Table 7January-March Deviations Below Annual Monthly Average In
Trade Employment In Vermont, 1958-1960

	<u>1958</u>	<u>1959</u>	<u>1960</u>
January	-600	-900	-1850
February	-850	-1150	-2250
March	-850	-1000	-2050

Source: Appendices B, C, D

Obviously in this industry, cyclical factors play an important part in the extent of unemployment. Nevertheless, seasonal layoffs during the winter months do take place and there are not simply layoffs of so-called "temporary help, (or more precisely, secondary workers) hired for the Christmas season," but layoffs of primary workers.

The category of Services and Miscellaneous also shows a substantial amount of variation during the winter months. However, this is mostly accounted for by Hotels, Motels, Camps, and similar establishments. Since many of the large number of workers hired by these groups during the summer season are, most probably, secondary workers who withdraw from the labor force when the season is over, using the deviations from the annual monthly average would not give any indication of the number of seasonably unemployed primary workers. Therefore, no account will be made of such variations in this category.

From this discussion of the major categories of seasonal unemployment, it would appear to be a conservative estimate that upwards of 11 thousand workers in Vermont during the winter months can be considered to be primary

workers, seasonally unemployed, who could be expected to remain in the labor force seeking employment during the period of layoff. It is recognized that the method for estimating these numbers is not the most precise. However, since such unemployment "...can by its nature be measured only roughly, complicated mathematical calculations hardly seem justified".⁵⁵ And, in any case, the figure arrived at most likely understates the actual amount.

It is not meant to imply that a total of 11 thousand workers join the unemployed all during the winter. Some are unemployed only for brief periods until dovetailing jobs are begun; some are not unemployed at all, moving to their other jobs immediately. During the winter of 1959-60 the total amount of unemployment in Vermont reached no higher than 8300 workers.⁵⁶ Consequently, on the basis of an estimate this would mean that at least 25 percent of these seasonally unemployed primary workers moved into dovetailing employment. It is the author's contention that to the extent that dovetailing job opportunities are available most seasonably unemployed workers will move into them, contrary to the observation of the late Professor S. Slichter that "Seasonal slacks may be one of the attractions of the job...The workers may spend their 'unemployed' time in Miami drawing unemployment benefits, as a number of states have found out...for many (and probably most) seasonal workers, seasonal unemployment comes closer to being a vacation than true involuntary idleness."⁵⁷

⁵⁵Woytinsky, W. S., Seasonal Variations in Employment in the United States, p. 14.

⁵⁶Vermont Labor Market Newsletter, April, 1960.

⁵⁷Slichter, Sumner L., "Comment on Papers on Employment and Employment figures," Review of Economic Statistics, February, 1950, p. 75. Quoted in Sultan, Paul, op. cit., p. 505.

In the next chapter the characteristics of the labor supplies of a seasonal industry, of relatively recent growth (see Chapter III), which offers such dovetailing employment will be examined.

CHAPTER V

Characteristics of the Labor Supplies of
the Ski Industry in Vermont

Before the beginning of the 1960-61 winter ski season, and during the season, interviews were obtained with the managers of the twenty major ski areas in Vermont included in this study. In addition to other information requested, some of which is discussed in Chapter III, the managers were asked to supply information about the numbers of workers employed during 1959-60 and about the numbers they planned to employ during the 1960-61 season.

The total volume of employment during the 1959-60 season was 1114 at eighteen areas. One area was not in operation until 1960-61 and another had been a rope-tow area that had been purchased by a new corporation and was being expanded to a major area for operation during the 1960-61 season.

Only 228 of these 1114 workers, or approximately 21 percent, were year-round workers permanently employed by the organizations in the industry. The rest, 886 workers, were employed only during the winter months.

Of the total of 1114 workers, 402 were hired for part-time work, usually just for weekends, and 712 were regular full-time employees.

According to the information supplied by the managers, this total of 1114 was the "normal" work force during the season. Upon occasion, if a particular weekend turned out to be much greater than "normal" expectations, additional part-time help would be employed. By the same token, some part-time help would not be employed if a weekend were exceptionally poor. But, on the whole, over the winter season 1114 full and part-time employees were on their payrolls.

Payroll figures were estimated to amount to about \$41,350 weekly during the season. Using 15 weeks as the basis for calculation, this meant that winter payroll payments for 1959-60 totalled over \$620,000.

Some of the eighteen areas planned some expansion for the 1960-61 winter season and, as mentioned, one new area began operations and another major area began to operate where a rope-tow facility had existed before. These two areas planned to use a total of 19 workers. With the plans of other areas, the number of workers employed during the 1960-61 season by the industry was expected to be 1202 at twenty areas.

The managers expected to employ 770 full-time workers and 427 part-time workers during the season. Of the total of 1202 workers, 269 (22 percent) would be employed on a year-round basis, while 933 workers were expected to be employed during the winter season only.

Weekly payroll payments were expected to be higher by about \$5000. Consequently, the total winter payroll for the 1960-61 season by the industry was expected to be in the neighborhood of \$695,000.

These plans and expectations were probably not realized. The snow that Nature usually drops on Vermont mountainsides was, this past winter, dumped instead on southern New England cities and the cities of the Atlantic seaboard, much to the chagrin of the inhabitants of those cities and of the operators of the ski areas. Even though snow in abundant quantities came in March and April, the result was a disappointing year for the ski industry.

The Federal Reserve index of New England Ski Area Lodging facilities "registered a cumulative drop of 9 percent from last year" for the

1960-61 season.⁵⁸ The probabilities are that the decline was somewhat greater for Vermont.⁵⁹ It seems unlikely, therefore, that the plans for increased employment could be put into effect.

The managers were also asked if difficulties had been experienced in securing employees. It was expected that, in view of the labor market in which they operated, the replies would be negative. As expected, the managers of 19 areas stated that there were no problems involved in securing full-time employees at their going wages. One manager gave a positive answer. However, the standards set up for employees at this area were much more rigid than at the others. There were only three who indicated that they had difficulties in securing part-time (weekend) workers.

It was also stated by eighteen managers that most of their full-time winter employees were workers who had worked at their areas at least one previous season. (Information about periods prior to the 1960-61 season was not available from two areas for reasons given above).

Their methods for obtaining workers were, for the most part, casual. They relied upon workers to come to them applying for work or for workers to be sent to them by other workers already employed. Only five managers said that they made use of the employment services of the offices of the Vermont Unemployment Compensation Commission, and these five stated that

⁵⁸New England Vacation Business Report, April, 1961, and New England Business Review, May, 1961, Federal Reserve Bank of Boston.

⁵⁹Information from the Vermont Development Commission estimates the decline to be between 10 and 15 percent.

they did so only "occasionally" or "infrequently". One manager maintained that he had made use of those offices at one time but found that the workers sent to him were unsatisfactory and had discontinued the practice.

The cooperation of the area managers was enlisted, at the time of the interviews, in the distribution of the questionnaires for employees. They agreed to distribute them to their employees by enclosing them in the pay envelopes (or, in some cases where pay envelopes were not used, giving the questionnaire to the employee along with his pay). A brief note explaining the purpose of the questionnaire and a self-stamped, self-addressed envelope for return to this author was also given with the questionnaire.

These questionnaires were to be distributed during the month of February. Some were distributed during the early part of that month. The rest had to be distributed during March due to the rather erratic character of the recent Vermont winter. (See above, Chapter I)

The returns of the questionnaires were quite satisfactory. A total of 334 usable returns was received. This amounts to 28 percent of the total expected employment for the 1960-61 season. Since these expectations were probably not realized, using the 1959-60 season's total employment figure of 1114, the return amounts to 30 percent. Also, in view of the weather's interference with the plans for distribution this amount of return is substantial.

The returned questionnaires indicated that the labor supply of the ski areas is predominantly male. Table 8 shows the composition of the work force from the replies.

Table 8Composition of Vermont Ski Area Employees
by Sex and Employment

<u>Employment</u>	<u>Males</u>	<u>Females</u>	<u>Totals</u>
Year-round	75	13	88
Winter only	170	75	245 ^{a)}
Totals	<u>245</u>	<u>88</u>	<u>333^{a)}</u>

a) Also, one worker, no sex indicated.

Source: Employee Questionnaires.

The percentage of males is about 74% of the total. The Table also indicates the relationship of winter employees to the total volume of employment. The great majority of employees are hired only for the brief, fifteen-week winter season. Only 26 percent of all employees are employed on a year-round basis.

The majority of employees replying to the questionnaire were married, as shown in Table 9.

Table 9Marital Status of Vermont Ski Area Employees

<u>Status</u>	<u>Males</u>	<u>Females</u>	<u>Totals</u>
Single	89	37	126
Married	143	41 ^{a)}	184
Widowed	1	6	7
Divorced	7	3	10
No response	5	1	6
	<u>245</u>	<u>88</u>	<u>333^{b)}</u>

a) Includes 2 who listed themselves as "separated".

b) Also one "single" no sex indicated.

Source: Employee Questionnaires.

58 percent of all male employees and 45 percent of female employees are married. The combined total of married employees represents 55 percent of all who replied to the questionnaire.

The questionnaires disclosed that the workers commute considerable distances to their jobs, which is somewhat characteristic of workers in non-urban areas.⁶⁰

Table 10

Distance Traveled to Work Daily by Vermont
Ski Employees and Mode of Transportation

<u>Distance (Miles)</u>	<u>Auto</u>	<u>Bus</u>	<u>Taxi</u>	<u>Other</u>	<u>None</u>	<u>Totals</u>
None	--	--	--	--	21	21
1-5	84 ^{a)}	--	--	--	--	84
6-10	93	--	--	5 ^{b)}	--	98
11-15	44	--	--	1	--	45
16-20	33	--	--	--	--	33
21-25	20	--	--	--	--	20
26-30	17	--	--	--	--	17
over 30	16	--	--	--	--	16
Totals	307	--	--	6 ^{b)}	21	334

a) Includes one who travels "by bus occasionally".

b) Includes two who made no response to the question on mode of transportation.

Source: Employee Questionnaires.

A few workers, as indicated above, have no travel to work. This is generally only true of some workers at areas that operate an inn or lodging facility at the ski area location. The vast majority have to travel to the areas daily. The median range of distance traveled to work is between 6 and 10 miles which would mean a total commuting distance of 12 to 20 miles daily. A considerable number of workers (131) travel from 11 to over 30 miles to work and 3 of these indicated that they traveled from 41-45 miles to work daily.

The automobile is the basic means used to get to work. Busses to most areas are unavailable. (To my knowledge regular bus runs to a ski

⁶⁰Heneman, Herbert G., Jr., et al., Employment Relations Research, p. 14.

area exist only at Stowe, although 4 areas are located at the side of state highways on which may run regular inter-city busses). Only one worker indicated the occasional use of bus transportation.

The distribution of workers by the number of winters worked is given below.

Table 11
Number of Winters Worked at Ski Areas by
Vermont Ski Area Employees

<u>No. of Winters</u>	<u>Year-Round Employees</u>	<u>Winter Employees</u>	<u>Totals</u>
1	14	85	99
2	10	52	62
3	23	29	52
4	7	20	27
5	8	18	26
6	7	10	17
7	3	6	9
8	2	3	5
9	2	2	4
10 or more	12	18	30
Totals	88	243 ^{a)}	331 ^{a)}

a) Also three did not respond to the question.
Source: Employee Questionnaires.

About 30 percent of all employees have worked only one winter at the areas. The greatest part of these new employees is, naturally, made up of winter season workers. Of these 85 new winter workers at the ski areas, 23 worked at part-time weekend jobs while 62 were full-time employees.

Almost two-thirds of the winter employees (64 percent) have worked 2 or more years at the ski areas, and 43 percent have worked 3 or more years.

The relatively high numbers of first year workers among year-round and winter employees would seem to indicate a rather high turnover rate. This would probably take place due to the fairly low wages and high hours in the industry (see below) and the rather erratic character of the

employment. Year-round workers indicated to the author that periods of layoff occurred in spring and fall, the total period of unemployment frequently covering as much as 9 or 10 weeks. For winter workers, the dependence on the weather for continued work would appear to present problems of insecurity of employment. In case of an extended period of thaw or rain, even full-time workers may be laid off.

These factors may also, in part, account for the fairly high proportion of younger age groups among the winter employees, indicated in Table 12, although recreation industries, in general, would appear to attract younger persons.

Table 12

Age and Sex of Vermont Ski Area Employees

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>
	<u>Winter</u>	<u>Year-Round</u>	<u>Winter</u>	<u>Year-Round</u>	
19 and under	28	7	17	1	53
20-24	34	12	18	1	65
25-29	21	9	10	1	41
30-34	20	8	8	1	37
35-39	19	7	6	2	34
40-44	15	10	6	2	33
45-49	8	7	3	—	18
50-54	9	7	4	1	21
55-59	6	5	1	1	13
60-64	4	2	2	3	11
65 and over	3	1	0	—	4
Totals	<u>167</u>	<u>75</u>	<u>75</u>	<u>13</u>	<u>330^{a)}</u>

a) Also: 3 males, no age indicated.
1 age 17, no sex indicated.
Source: Employee Questionnaires.

Only 53 employees indicated a change of residence accompanied the employment at the ski areas. For the most part, these were the so-called "ski bums" who take part-time work in order to ski for a full season.

The wage rates in the industry do not appear to be very high, particularly for female part-time help. On the other hand, the average hours of work are exceptionally high. The wages and hours reported by 42 instructors, full and part-time, who responded to the questionnaire were excluded from the calculations, since they represent a special category of employees and the methods of their payment and work is variable.

Table 13

Average Weekly Hours and Wages/Hours
of Vermont Ski Area Employees
(Replies of Instructors Excluded)

	Males		Females	
	<u>Full-Time</u>	<u>Part-Time</u>	<u>Full-Time</u>	<u>Part-Time</u>
Av. Hours/week	58	24	54	19
Av. Wage/hour	\$1.23	\$1.22	\$1.07	\$1.01

1) Rounded to nearest hour and cent.
Source: Employee Questionnaires.

A total of 167 respondents indicated that wage supplements were made. These supplements were made in a variety of forms; bonuses, transportation, meals, room, discounts, ski lessons, free ski privileges, and simply, "others". One worker indicated wage supplements were made in "clothes". However, this may have meant discounts on purchases of ski clothing.

The monetary value of these supplements cannot be ascertained, of course. Some workers indicated that the receipt of bonuses was subject to some degree of doubt. Also, if free ski lessons or ski privileges are made available to all employees, they are still worthless to the

worker who does not care for the sport. Discount privileges may also be valueless to some, perhaps many, employees. Consequently, their value in comparison to actual wages is probably, like farm⁶¹ perquisites,⁶¹ much less than many people in the industry believe.

A total of 147 workers of the 246 winter employees, 122 males and 25 females, indicated that they worked at other regular, full-time occupations during the rest of the year. This represents almost three-fifths of all winter workers. Of this number (147), 105 had moved from full-time work elsewhere to full-time work at ski areas. Since there were 155 full-time winter employees, this represented over two-thirds (68 percent) of all full-time winter employees. Another 17 workers had full-time occupations during the rest of the year but were only able to work part-time at the ski areas. These appeared to be available for full-time winter work and perhaps would have been so employed except for the poor season experienced.

Also, there were 25 "moonlighters". From the replies it appears that these workers were working at regular full-time jobs during the week and then were working part-time on weekends at the ski areas.

Assuming the sample obtained from the returns to be representative and extrapolating from it, it can be said that members of the primary labor force fill over two-thirds of all full-time winter job opportunities, and nearly half (46 percent) of all part-time winter jobs. If the "moonlighters" are excluded, almost half (49 percent) of all winter workers in the ski industry would seem to be workers who dovetail employment.

⁶¹Ducoff, Louis J., op. cit., p. 486-7.

The average wage per hour and weekly hours of work for workers in their other occupations is considerably different from those figures for the ski industry. They are shown in Table 14. Again the replies of instructors, not included in the calculations in Table 13, were excluded here also,

Table 14

Average Weekly Hours and Wages/Hour
of Vermont Ski Area Employees With
Other Regular Full-Time Occupations
 (Replies of Instructors Excluded)

	<u>Males</u>	<u>Females</u>
Av. Hours/week	<u>49</u>	<u>43</u>
Av. Wage/hour	\$1.86	\$1.55

1) Rounded to nearest hour and cent.
 Source: Employee Questionnaires.

The average wage per hour is significantly higher and the average weekly hours significantly lower for both men and women. It would not appear to be likely that differences of 9 hours per week and 65 cents per hour for men and 11 hours per week and 54 cents per hour for women could be made up by any forms of wage supplements in the ski industry, even though average weekly earnings would differ by about ten dollars in both cases.

From the nature of replies about other occupations it would appear that many workers are not covered by unemployment insurance. 38 list themselves as self-employed, most of these considering themselves "contractors", in general, or of one sort or another. Another 9 are farmers or farm workers, 3 are domestic employees and 10 others, although indicating they have worked regularly during the rest of the year, would consider themselves unemployed when the ski season was over.

These amount to 48 percent of the total of 122 non-moon-lighting workers with other regular occupations.

There is no way of ascertaining how many of the rest are not covered but my impression is that, either through employer exemption or escape, a large number of them are not eligible for unemployment benefits.

Thus, the pressure of necessity seems to be a major factor for movement of these workers into the low-wage, long-hour jobs in the ski industry.

One set of attitude questions was included in the questionnaire at the end to attempt to ascertain how many of those workers not regularly employed on a full-time basis through the rest of the year would consider themselves available for regular work if such jobs were available.

Out of a total of 99 workers who indicated no other regular full-time employment (14 of these indicated some part-time employment), 50 replied that they would be available for regular employment and 49 stated that they would not. From this it would appear that about one-half of the secondary workers who enter the labor force in response to the demand for workers in the Vermont ski resort industry during the winter would remain in the labor market if other employment opportunities were available nearby.

There are some indications that sex is a relevant factor in the availability of secondary workers for regular work. Table 15 shows the comparison of the two groups by sex.

Table 15.

Comparison by Sex of Vermont Ski Area
Winter Employees Without Other Regular
Occupations

<u>Sex</u>	<u>Indicated Availability For Regular Work</u>		<u>Did Not Indicate Availability for Regular Work</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Male	21	42	28	57
Female	<u>29</u>	<u>58</u>	<u>21</u>	<u>43</u>
Totals	50	100	49	100

The percentage of females among those indicating availability is 58 percent whereas only 43 percent of those who would not be available for regular work were women.

This would appear to support the hypothesis that women make up a significant part of the secondary labor force in non-metropolitan areas and that many of these would be willing to accept regular work except for the fact that such employment is not available.

A comparison of the other personal characteristics of the two groups disclosed no significant differences. Also, both groups were about equally distributed between full-time and part-time jobs at the ski areas.

The responses to the other parts of the set of attitude questions were not very usable. Many workers who indicated availability wrote "anything" for either kind-

of-work desired or acceptable wage rate or across both. Others indicated, in general terms, similar work to that which they had been doing and, generally, similar wages. These replies could be expected before the study, since workers had indicated that they would accept that kind of work at the wage they were getting by the mere fact of taking the job and it would be unlikely that they would indicate lower acceptable wages without a concrete job offer being made.

Of course, this last point raises the question of the reliability of the attitude question on availability, since the only real test of availability is the actual existence of a known job opportunity. It is only with this limitation in mind that the conclusion of 50 percent secondary worker willingness is made.

Before passing from the results of the employee survey, it must be mentioned that the possibility exists that the business recession of 1960-61 may have affected the results. It has been assumed throughout, somewhat arbitrarily perhaps, that no significant differences occurred from what would have occurred in its absence. From the rather slender indications in the replies, it seems to have had little, if any, influence. For example, only 8 of the 122 employees indicating full-time other occupations, were employed in manufacturing industries while most of these employees worked at other occupations that would incur seasonal layoffs regardless of the cycle.

Thus, the assumption does not appear to violate the situation.

It is recognized, however, that cyclical factors could be distorting the results. But, a complete appraisal of their influence would have required a much more extensive survey which was not possible at this time.

CHAPTER VI

Summary and Conclusions

This study has dealt with the labor supplies of a rapidly growing industry. The ski resort industry has been experiencing an extremely fast rate of growth over the past decade. As the journalistic prose of Time has put it, "...skiing has been transformed in less than 25 years from an eccentric practice pursued by a handful of fanatic chilblained young men to the U. S.'s fastest-growing outdoor winter sport".⁶²

The growth has been most rapid in the eastern seaboard states and New England. In particular, the industry in the state of Vermont, which has been a major center of the sport since its early years, has grown, within the last decade, from one characterized by a large number of crude, haphazard facilities owned by many single proprietors to one which has well-planned and well-designed facilities owned for the most part by a much smaller number of corporate organizations.

The industry in Vermont constitutes the most important single segment of the industry in the New England states as a whole. It accounts for more than half of the income of industry in New England and its Total Fixed Assets (net) represent only slightly less than half of what

⁶²"The U.S. on Skis," Time, Feb. 9, 1959.

another writer estimated the Gross Fixed Assets of all New England areas to be.⁶³

For this study it was considered that an examination of the labor supplies of this growing winter resort industry would be interesting in order to see if the pattern of employment in this industry followed the pattern of other resort industries, i.e., employment during the active period being accomplished by making use of temporary entrants to the labor force, or, to use Wilcock's term, secondary workers. This characteristic pattern of resort and other seasonal industries had led Woytinsky to state, in 1939, ..."that industries with a very short active season usually employ persons who withdraw from the labor market for the rest of the year".⁶⁴ This assumption would be able to be tested for the ski resort industry.

⁶³The figures given in Chapter IV are net figures; Vermont areas estimated to have \$7.3 million in Fixed Assets. Sissener, Jan W., op. cit., estimated Gross Fixed Assets for all (private) New England areas to be about \$17.0 million. Before passing from this point in the summary it might be well to mention that the economic reasons for all this growth are not clear. Sissener's study indicated that the profitability of New England ski areas is "very close to zero" (op. cit., p. 54). No attempt was made toward a financial analysis of different areas in the present study. Some reports received from the areas would tend to support his thesis while others would appear to refute it. The reaction among those in the industry to his report seemed to be mixed.

⁶⁴Woytinsky, W. S., Seasonal Employment in the United States, p. 32.

Seasonal factors in the employment structure of the Vermont economy tended to produce a substantial number of seasonably unemployed primary workers, many of whom are not covered by the unemployment insurance program and would, therefore, tend to seek dovetailing employment.

The study was also expected to reflect information about the extent to which secondary workers were drawn into the labor force by this demand for labor and the extent to which they would indicate a willingness to stay in after the short-run demand had ceased.

Finally, it was felt that the study would shed light on the extent to which "dovetailing" mobility on the part of primary members of the labor force, caused by seasonality of employment, was accomplished at the cost of downgrading in terms of wages and working conditions.

The methods used in the study included interviews with employees in the industry and a questionnaire survey of ski area employees. They were carried out during the fall and winter of 1960-61.

The assumption was made, on the basis of limited evidence available, that the recession of 1960-61 had a negligible effect on the situation under study.

The conclusions resulting from the survey of the Vermont ski area employees are as follows:

1. The pattern of employment in the Vermont ski resort industry does not follow the usual pattern for resort industries and other industries with a short active or peak period. Three-fifths of all employees employed only for the winter season, and over two-thirds of full-time winter season employees, are workers who have moved from other occupations

in which unemployment was experienced, for the most part, due to seasonal influences.

Only two-fifths of all seasonally employed workers in the industry could be classified as members of the secondary labor force and most of these workers were employed at part-time, weekend work, less than one-third of the full-time seasonal workers being members of this group.

One hesitates to extrapolate from a limited study such as this, but it would appear quite possible that an investigation of other areas which experience short-run increases in the demand for labor during the winter in rural areas, perhaps even in retail trade in the November-December period, would also show a significant amount of dovetailing by primary workers who are seasonally unemployed at their regular occupations.

2. Workers who move from seasonal unemployment in other occupations into ski area jobs do so at the cost of a severe drop in wages per hour and an increase in hours worked per week. Wages are 63 cents per hour lower for men and 48 cents per hour lower for women; hours per week are longer by 11 hours for both men and women. (Full-time workers, only, considered. For such primary workers who only obtain part-time work the costs are, of course, greater.)

Thus the costs of seasonal unemployment are not eliminated entirely by dovetailing jobs.

3. A substantial percentage (50 percent) of those seasonal workers who would be classified as "not in the labor force" by ordinary classification would appear to indicate a willingness to accept jobs and thus are "...realistically in the labor market although not actively seeking work for the very realistic reason that they are convinced no suitable work

is available."⁶⁵ The concept of the secondary labor force developed by Wilcock, thus, appears to be quite useful in studies of non-urban labor markets.

Other results of the study include a confirmation of the longer commuting patterns of workers in rural areas.⁶⁶ Workers at ski areas commute from 6 to 10 miles to and from work daily. This may be somewhat higher than the usual rural commuting distances because of the locations of ski areas which frequently require some travel over special access roads.

The industry labor market was shown to be one with the usual characteristics of lightly structured markets--low wages, long hours and a high rate of turnover of employees.

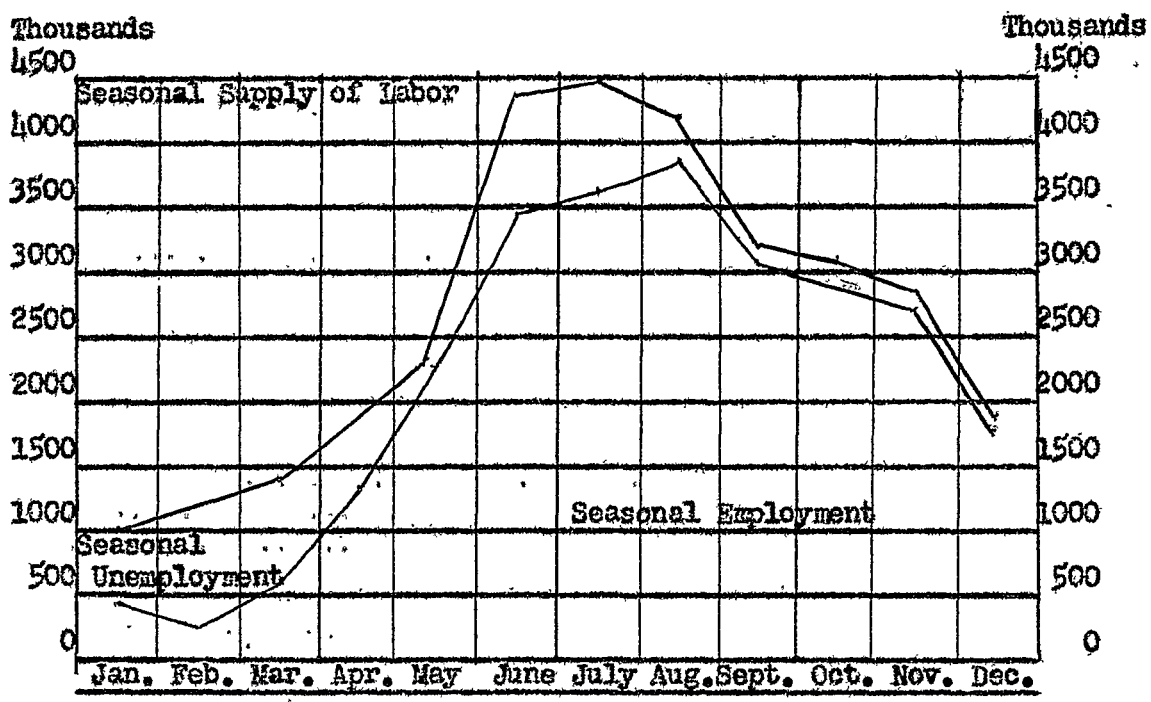
The employment structure of the Vermont economy is one that produces substantial amounts of seasonal unemployment during the winter months. The total amount of unemployment is generally considerably less than that produced by seasonal factors due to dovetailing by a significant number of the seasonably unemployed.

⁶⁵Wilcock, Richard C., op. cit., p. 203.

⁶⁶Henemen, Herbert G., Jr., et al, op. cit., p. 14.

Chart I

Estimated Pattern of Seasonal Variation
in Civilian Labor Force and Employment 1946-50



Source: Woytinsky, W.S., et al, Employment and Wages in the United States, p. 341.

APPENDIX A

EMPLOYEE QUESTIONNAIRE

A. Name of Ski Area at which you work: _____

1. Age ____ (check) Male ___ Female ___ Single ___ Married ___ Widowed ___ Divorced ___

Town or city of residence _____

Do you live there during the winter season? (check) Yes ___ No ___

Distance traveled to ski area? _____ By (check) auto _____
 taxi _____
 other _____

2. Number of winters worked at this ski area? _____

Number of months worked at area during the winter season? _____

(From _____ to _____)
 month month

Kind of work performed? _____

Do you work (check) Full-time _____ Part-time _____

Average number of hours worked per week? _____

Wage rate per hour? _____

(If wage supplements are made by the Company, please check)

Bonuses ___ Transportation ___ Meals ___ Other _____

3. Do you work regularly during other periods of the year? Yes ___

No ___

If yes, do you work (check) Full-time _____ Part-time _____

Average number of hours during the week? _____

In what city or town? _____

At what Company? _____

Occupation? _____

Wage rate per hour? _____

4. If not regularly employed, or if unemployed during the other periods of the year:

Would you take regular work if it were available? Yes ___

No ___

If yes: What kind of work? _____

Wage per hour you would accept for such regular work? _____

APPENDIX B

Estimated Non-Agricultural Employment in Vermont
Calendar Year 1958

INDUSTRY	EMPLOYMENT												MONTHLY AVERAGE
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
TOTAL	99,050	98,350	98,150	99,700	101,600	104,350	109,400	109,750	105,300	104,300	101,850	102,650	102,850
MANUFACTURING	33,050	33,150	32,750	32,850	32,850	33,200	33,550	33,500	33,550	33,600	33,350	33,450	33,250
Durable Goods	20,350	20,300	19,950	19,900	19,800	20,150	20,300	20,300	20,300	20,350	20,150	20,350	20,200
Lumber & Furniture	5,650	5,600	5,500	5,550	5,600	5,950	6,000	6,000	6,050	6,200	6,100	6,050	5,850
Stone, Clay & Glass	3,150	3,200	3,200	3,250	3,350	3,400	3,400	3,450	3,450	3,450	3,350	3,350	3,350
Machinery (except electrical)	7,200	7,150	7,050	6,950	6,600	6,500	6,500	6,400	6,200	6,150	6,200	6,300	6,600
Other ^{1/}	4,350	4,300	4,250	4,150	4,250	4,300	4,350	4,450	4,550	4,600	4,500	4,600	4,400
Non-durable Goods	12,700	12,850	12,800	12,950	13,050	13,100	13,250	13,200	13,250	13,250	13,150	13,100	13,050
Food	3,400	3,450	3,450	3,500	3,600	3,700	3,700	3,650	3,700	3,550	3,500	3,450	3,550
Textiles	1,050	1,050	1,100	1,150	1,100	1,050	1,100	1,100	1,100	1,100	1,150	1,150	1,100
Apparel	2,000	2,050	2,050	2,050	2,050	2,050	2,150	2,000	2,000	2,000	1,950	2,000	2,050
Paper & Printing	3,700	3,750	3,750	3,800	3,900	3,900	3,900	3,950	3,900	4,000	3,950	3,950	3,900
Other ^{2/}	2,500	2,500	2,400	2,450	2,400	2,400	2,400	2,450	2,550	2,600	2,600	2,600	2,500

Estimates are for week ended nearest middle of each month. The following classes are excluded: proprietors, professional and self-employed persons, workers in agriculture and domestic service, members of the armed forces. Figures rounded to nearest 50, so will not always add to totals; changes of 50 not necessarily significant. Data in this table compiled by the Commission in cooperation with Bureau of Labor Statistics, U. S. Department of Labor, based on benchmark data for March 1959.

DATA ARE NOT DIRECTLY COMPARABLE WITH THOSE PUBLISHED IN SIMILAR FORM FOR PRECEDING YEARS BECAUSE OF A CHANGE IN THE INDUSTRIAL STRUCTURE DUE TO CONVERSION TO THE REVISED STANDARD INDUSTRIAL CLASSIFICATION SYSTEM. THEY ALSO INCLUDE ADJUSTMENTS TO 1958 ESTIMATES AS ORIGINALLY PUBLISHED IN THIS FORM.

Source: Vermont Unemployment Compensation Commission

Appendix B (cont.)
Calendar Year 1958

INDUSTRY	EMPLOYMENT												MONTHLY AVERAGE
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
NON-MANUFACTURING	66,000	65,200	65,400	66,850	68,700	71,100	75,800	76,250	71,700	70,700	68,550	69,200	69,650
Contract Construction	4,400	3,850	4,050	5,050	6,300	7,100	7,550	7,700	7,400	7,050	6,550	5,800	6,050
Mining & Quarrying	1,450	1,350	1,350	1,250	1,250	1,250	1,200	1,200	1,200	1,200	1,200	1,150	1,250
Transportation & Public Utilities	7,800	7,650	7,550	7,500	7,650	7,700	7,850	7,850	7,750	7,700	7,600	7,500	7,650
Transportation	4,700	4,650	4,600	4,550	4,650	4,700	4,800	4,800	4,750	4,750	4,700	4,600	4,700
Public Util. & Communications	3,050	3,000	2,950	3,000	3,000	3,000	3,050	3,050	3,000	2,950	2,900	2,900	3,000
Trade	19,000	18,750	18,750	19,200	19,500	19,950	20,250	20,450	20,000	19,750	19,550	20,250	19,600
Wholesale	3,500	3,450	3,450	3,450	3,500	3,550	3,550	3,550	3,550	3,500	3,550	3,550	3,500
Retail	15,500	15,300	15,300	15,750	16,000	16,400	16,700	16,900	16,450	16,250	16,000	16,750	16,100
Finance, Insurance & Real Estate	3,700	3,700	3,700	3,700	3,700	3,750	3,800	3,850	3,750	3,700	3,700	3,700	3,750
Service & Miscellaneous	14,350	14,500	14,500	14,550	14,650	15,700	19,500	19,500	15,650	15,100	14,100	14,200	15,550
Hotels, Motels, Camps, etc.	2,100	2,150	2,150	2,150	2,350	3,350	7,050	7,050	3,300	2,700	1,900	2,000	3,200
Other	12,250	12,350	12,350	12,350	12,300	12,350	12,450	12,450	12,350	12,400	12,200	12,200	12,350
Government	15,350	15,450	15,500	15,550	15,700	15,700	15,750	15,750	16,000	16,200	15,850	16,500	15,800
Federal	3,600	3,650	3,650	3,600	3,700	3,750	3,700	3,750	3,700	3,850	3,800	4,200	3,750
State & Local	11,750	11,800	11,850	11,950	12,000	11,950	12,050	12,000	12,300	12,350	12,050	12,300	12,050

1/ Includes metal products, electrical machinery, optical goods and transportation equipment.

2/ Includes chemicals, petroleum & coal products, rubber & miscellaneous plastic products, leather & leather products and miscellaneous manufacturing.

Source: Vermont Unemployment Commission

Appendix C
Calendar Year 1959
Estimated Non-Agricultural Employment in Vermont

INDUSTRY	EMPLOYMENT												MONTHLY AVERAGE
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
TOTAL	100,150	100,050	100,400	102,400	105,400	109,550	113,550	114,300	109,750	107,350	105,950	105,750	106,200
MANUFACTURING	33,400	33,900	34,350	34,700	35,450	36,550	36,600	37,150	37,000	35,900	36,650	36,300	35,650
Durable Goods	20,350	20,500	20,600	20,850	21,600	22,300	22,500	22,650	22,600	21,700	22,700	22,650	21,750
Lumber & Wood Products	4,400	4,400	4,250	4,250	4,550	4,850	4,800	4,700	4,550	4,550	4,600	4,650	4,550
Furniture & Fixtures	1,650	1,650	1,700	1,700	1,750	1,750	1,750	1,750	1,650	1,600	1,650	1,600	1,700
Stone, Clay & Glass	3,250	3,250	3,300	3,300	3,400	3,350	3,350	3,400	3,400	3,400	3,450	3,350	3,350
Machinery (exc. electrical)	6,300	6,350	6,450	6,500	6,650	6,850	7,050	7,250	7,350	6,500	7,300	7,300	6,800
Electric Machinery	2,650	2,750	2,900	3,000	3,150	3,300	3,300	3,300	3,300	3,300	3,350	3,300	3,150
Other <u>1/</u>	2,050	2,050	2,000	2,100	2,100	2,150	2,250	2,250	2,300	2,350	2,400	2,450	2,200
Non-durable Goods	13,050	13,450	13,750	13,900	13,850	14,250	14,100	14,450	14,400	14,200	13,950	13,700	13,900
Food	3,350	3,350	3,350	3,400	3,500	3,550	3,600	3,650	3,700	3,500	3,450	3,400	3,500
Textiles	1,150	1,250	1,250	1,250	1,300	1,300	1,350	1,400	1,350	1,300	1,250	1,250	1,300
Apparel	1,950	2,050	2,200	2,300	2,100	2,200	2,150	2,150	2,100	2,150	2,150	2,150	2,150
Paper	2,050	2,100	2,100	2,150	2,150	2,250	2,150	2,300	2,350	2,250	2,200	2,100	2,150
Printing & Publishing	1,900	1,950	2,000	2,000	2,000	2,050	2,000	2,000	1,950	2,000	2,000	1,950	2,000
Other <u>2/</u>	2,700	2,800	2,800	2,800	2,800	2,900	2,900	3,000	2,950	2,950	2,900	2,800	2,850

1/ Includes primary and fabricated metal products, transportation equipment, professional & scientific instruments.

2/ Includes chemicals, petroleum & coal products, rubber & miscellaneous plastic products, leather & leather products.

DATA ARE COMPARABLE WITH THOSE PUBLISHED IN SIMILAR FORM FOR 1958 (REVISED) BUT ARE NOT DIRECTLY COMPARABLE WITH THOSE PUBLISHED FOR PRECEDING YEARS BECAUSE OF A CHANGE IN THE INDUSTRIAL STRUCTURE DUE TO CONVERSION TO THE REVISED STANDARD INDUSTRIAL CLASSIFICATION SYSTEM.

Source: Vermont Unemployment Commission

Appendix C (cont.)

Calendar Year 1959

INDUSTRY	EMPLOYMENT												MONTHLY AVERAGE
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
NON-MANUFACTURING	66,750	66,100	66,050	67,650	69,950	73,000	76,950	77,200	72,800	71,400	69,350	69,450	70,550
Contract Construction	4,700	3,950	3,950	4,950	6,500	7,400	7,750	7,750	7,450	7,200	6,600	5,450	6,150
Mining & Quarrying	1,100	1,150	1,150	1,150	1,200	1,200	1,150	1,200	1,150	1,200	1,200	1,150	1,150
Transportation & Public Utilities	7,450	7,450	7,400	7,450	7,600	7,700	7,700	7,750	7,700	7,700	7,600	7,600	7,600
Transportation	4,550	4,550	4,500	4,550	4,650	4,700	4,700	4,700	4,700	4,700	4,600	4,600	4,600
Public Util. & Communications	2,900	2,900	2,900	2,900	2,950	3,000	3,000	3,050	3,000	3,000	3,000	3,000	2,950
Trade	19,150	18,900	19,050	19,700	20,050	20,600	20,800	20,950	20,450	20,250	20,000	20,700	20,650
Wholesale	3,500	3,450	3,500	3,550	3,600	3,650	3,700	3,700	3,650	3,700	3,700	3,650	3,600
Retail	15,650	15,450	15,550	16,100	16,450	16,950	17,100	17,250	16,800	16,500	16,300	17,050	16,450
Finance, Insurance & Real Estate	3,750	3,750	3,750	3,750	3,800	3,800	3,800	3,800	3,800	3,800	3,750	3,750	3,800
Service & Miscellaneous	14,650	14,800	14,800	14,750	15,000	16,150	19,950	20,000	16,400	15,550	14,500	14,700	15,950
Hotels, Motels, Camps, etc.	2,150	2,200	2,200	2,200	2,350	3,400	7,000	7,000	3,550	2,750	1,900	2,050	3,250
Other	12,500	12,600	12,650	12,550	12,600	12,700	12,900	13,000	12,850	12,750	12,600	12,700	12,700
Government	16,000	16,100	15,950	15,950	15,900	16,200	15,800	15,750	15,850	15,800	15,650	16,050	15,900
Federal	3,650	3,650	3,600	3,550	3,600	3,650	3,700	3,700	3,650	3,750	3,600	4,050	3,700
State & Local	12,350	12,450	12,350	12,400	12,300	12,550	12,100	12,050	12,200	12,050	12,050	12,000	12,250

Estimates are for week ended nearest middle of each month. The following classes are excluded: proprietors, professional and self-employed persons, workers in agriculture and domestic service, members of the armed forces. Figures rounded to nearest 50, so will not always add to totals; changes of 50 not necessarily significant. Data in this table compiled by the Commission in cooperation with Bureau of Labor Statistics, U. S. Department of Labor, based on benchmark data for March 1959.

Source: Vermont Unemployment Commission

Appendix D
Calendar Year 1960

Estimated Non-Agricultural Employment in Vermont

INDUSTRY	EMPLOYMENT												MONTHLY
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	AVERAGE
TOTAL	103,350	102,500	102,400	104,600	106,750	110,150	113,850	114,650	109,550	107,200	104,800	104,350	107,000
MANUFACTURING	35,650	35,550	35,500	35,650	35,550	36,100	35,250	36,000	35,400	35,200	34,750	33,650	35,350
Durable Goods	22,200	22,200	22,100	21,900	21,850	22,100	21,900	22,250	21,850	21,800	21,600	21,100	21,900
Lumber & Wood Products	4,550	4,450	4,350	4,200	4,350	4,600	4,550	4,600	4,500	4,450	4,300	4,150	4,400
Furniture & Fixtures	1,650	1,700	1,700	1,700	1,650	1,700	1,550	1,700	1,650	1,700	1,650	1,500	1,650
Stone, Clay & Glass	3,150	3,150	3,150	3,150	3,200	3,200	3,150	3,250	3,200	3,200	3,150	3,150	3,150
Machinery (exc. electrical)	7,000	6,950	7,000	7,050	6,900	6,900	6,800	6,800	6,600	6,550	6,550	6,400	6,600
Electrical Machinery	3,300	3,300	3,300	3,150	3,100	3,150	3,300	3,400	3,350	3,350	3,350	3,350	3,300
Other ^{1/}	2,550	2,600	2,600	2,650	2,600	2,550	2,550	2,550	2,550	2,600	2,600	2,600	2,600
Non-durable Goods	13,450	13,350	13,400	13,700	13,700	14,000	13,350	13,750	13,550	13,400	13,150	12,550	13,450
Food	3,200	3,200	3,150	3,250	3,300	3,350	3,350	3,350	3,300	3,300	3,300	3,200	3,250
Textiles	1,150	1,100	1,200	1,150	1,150	1,200	1,150	1,150	1,050	950	1,000	850	1,100
Apparel	2,200	2,150	2,200	2,200	2,200	2,200	2,000	2,200	2,150	2,000	1,950	1,900	2,100
Paper	2,000	2,000	2,050	2,200	2,200	2,200	2,100	2,100	2,150	2,150	2,100	1,950	2,100
Printing & Publishing	1,950	1,950	1,950	1,950	1,950	2,200	2,100	2,150	2,200	2,200	2,100	2,000	2,050
Other ^{2/}	3,000	2,950	2,900	2,900	2,900	2,850	2,650	2,850	2,750	2,750	2,700	2,600	2,800

^{1/} Includes primary and fabricated metal products, transportation equipment, professional & scientific instruments.

^{2/} Includes chemicals, petroleum & coal products, rubber & miscellaneous plastic products, leather & leather products.

DATA ARE COMPARABLE WITH THOSE PUBLISHED IN SIMILAR FORM FOR 1958 (REVISED) AND 1959 BUT ARE NOT DIRECTLY COMPARABLE WITH THOSE PUBLISHED FOR PRECEDING YEARS BECAUSE OF A CHANGE IN THE INDUSTRIAL STRUCTURE DUE TO CONVERSION TO THE REVISED STANDARD INDUSTRIAL CLASSIFICATION SYSTEM.

Source: Vermont Unemployment Commission

Appendix D (cont.)
Calendar Year 1960

INDUSTRY	EMPLOYMENT												MONTHLY
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	AVERAGE
NON-MANUFACTURING	67,700	66,950	66,950	69,000	71,150	74,050	78,600	78,650	74,150	72,000	70,100	70,700	71,650
Contract Construction	4,400	4,050	4,000	5,000	6,450	7,250	7,550	7,550	7,150	6,800	6,300	5,350	6,000
Mining & Quarrying	1,250	1,250	1,250	1,250	1,300	1,350	1,300	1,350	1,300	1,300	1,250	1,200	1,250
Transportation & Public Utilities	7,400	7,350	7,400	7,500	7,600	7,650	7,700	7,700	7,650	7,300	7,450	7,500	7,500
Transportation	4,400	4,400	4,400	4,450	4,550	4,600	4,650	4,650	4,600	4,250	4,450	4,450	4,500
Public Util. & Communications	3,000	3,000	3,000	3,050	3,050	3,050	3,050	3,050	3,050	3,050	3,000	3,050	3,050
Trade	19,700	19,300	19,500	20,200	20,500	21,150	21,450	21,500	21,100	20,650	20,350	21,050	20,550
Wholesale	3,650	3,600	3,650	3,750	3,750	3,850	3,850	3,850	3,800	3,750	3,700	3,700	3,750
Retail	16,100	15,700	15,850	16,450	16,750	17,300	17,600	17,650	17,300	16,900	16,600	17,350	16,800
Finance, Insurance & Real Estate	3,750	3,750	3,800	3,900	3,900	3,900	3,950	3,950	3,950	3,950	3,950	3,950	3,900
Service & Miscellaneous	15,250	15,350	15,400	15,200	15,500	16,700	20,500	20,500	16,900	15,950	14,900	15,250	16,450
Hotels, Motels, Camps, etc.	2,150	2,200	2,200	2,200	2,350	3,400	7,000	7,000	3,550	2,750	1,900	2,050	3,250
Other	13,100	13,150	13,200	13,000	13,150	13,300	13,500	13,500	13,350	13,200	12,950	13,200	13,200
Government	15,900	15,950	15,600	15,950	15,900	16,050	16,100	16,050	16,100	16,050	15,900	16,400	16,000
Federal	3,600	3,650	3,600	3,800	3,650	3,700	3,650	3,650	3,550	3,700	3,500	3,950	3,650
State & Local	12,350	12,350	12,000	12,150	12,250	12,350	12,400	12,400	12,550	12,400	12,350	12,450	12,350

Estimates are for week ended nearest middle of each month. The following classes are excluded: proprietors, professional and self-employed persons, workers in agriculture and domestic service, members of the armed forces. Figures rounded to nearest 50, so will not always add to totals; changes of 50 not necessarily significant. Data in this table compiled by the Commission in cooperation with Bureau of Labor Statistics, U. S. Department of Labor, based on benchmark data for March 1960.

Source: Vermont Unemployment Commission

BIBLIOGRAPHY

- Bloom, Gordon F., and Northrup, Herbert R., Economics of Labor Relations, third edition, Richard D. Irwin Co., Homewood, Illinois, 1958.
- Burt, Everett J. Jr., "Characteristics of Labor Supplies in Suburban Areas", Annual Proceedings, Industrial Relations Research Ass'n., 1957.
- _____, Labor Supply Characteristics of Route 128 Firms, Federal Reserve Bank of Boston, Research Report No. 1, 1958.
- Gery, Frank W., Postwar Fluctuations in New England Employment, Federal Reserve Bank of Boston, Research Report No. 7, 1959.
- Gitlow, Abraham L., Labor Economics and Industrial Relations, Richard D. Irwin Co., Homewood, Illinois, 1957.
- Heneman, Herbert G. Jr., et al., Employment Relations Research, Industrial Relations Research Ass'n. Series No. 23, Harper and Brothers, New York, 1960.
- _____, (editor) Local Labor Market Research, University of Minnesota Press, 1948.
- Kuhn, Alfred, Labor: Institutions and Economics, Rinehart and Co., New York, 1957.
- Kuznets, Simon, Seasonal Variations in Industry and Trade, National Bureau of Economic Research, New York, 1933.
- Long, Clarence D., The Labor Force Under Changing Income and Employment, National Bureau of Economic Research Study, Princeton University Press, 1958.
- Miernyk, William H., Inter-Industry Labor Mobility, Bureau of Business and Economic Research Northeastern University, Boston, 1955.
- Miller, Glenn W., Problems of Labor, The Macmillan Company, New York, 1951.
- Parnes, Herbert S., Research on Labor Mobility, Social Science Research Council, Bulletin 65, New York, 1954.
- Phelps, Orme W., Introduction to Labor Economics, McGraw-Hill Book Company, New York, 1955 (second edition) and 1961 (third edition).
- Reder, Melvin W., Labor in a Growing Economy, John Wiley and Sons, New York, 1957.

Reynolds, Lloyd G., The Structure of Labor Markets, Yale Labor and Management Series, Harper and Brothers, New York, 1951.

_____, Labor Economics and Labor Relations, third edition, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1959.

Segal, Martin, The Labor Market and Plant Location, The Amos Tuck School of Business Administration, Bulletin 25, Dartmouth College, Hanover, New Hampshire, 1960.

Shister, Joseph, Economics of the Labor Market, J. B. Lippincott Co., New York, 1949.

Sissener, Jan W., The Ski Lift Business in New England, Federal Reserve Bank of Boston, Research Report No. 11, 1960.

Smith, Howard G., New England's Tourist Industry in 1970, Federal Reserve Bank of Boston, 1970 Projection No. 17, 1959.

Sobel, Irwin and Wilcock, Richard C., Labor Market Behavior in Non-Metropolitan Areas, Institute of Labor and Industrial Relations, University of Illinois, 1956.

Somers, Gerald G., Labor Supply and Mobility in a Newly Industrialized Area, U. S. Department of Labor, Bulletin No. 1261, Washington, D. C., 1960.

Stein, Robert L., "Unemployment and Job Mobility", Special Labor Force Reports No. 3., Reprint from Monthly Labor Review, April, 1960, U. S. Department of Labor, Bureau of Labor Statistics, 1960.

Sultan, Paul, Labor Economics, Henry Holt and Co., New York, 1957.

Woytinsky, W. S., et al., Employment and Wages in the United States, The Twentieth Century Fund, New York, 1953.

_____, Seasonal Variations in Employment in the United States, Social Science Research Council, Washington, D. C., 1939.

Yoder, Dale, and Heneman, Herbert G., Labor Economics and Labor Relations, Southwestern Publishing Co., Cincinnati, Ohio, 1959.

ADDITIONAL MATERIALS

Eastern Amateur Ski Association

Eastern Ski Bulletin, November, 1960 through March, 1961.

Federal Reserve Bank of Boston

New England Vacation Business Reports, November, 1960, to April, 1961.

New England Business Reviews, November, 1960, to May, 1961.

Ski Magazine Publications

Burton, Hal, "Whiteface" Ski, November, 1957.

Carroll, George, "It All Started in 1932", Ski, February, 1960.

Felton, Frank, "The Paul Bunyan of the High Sierras", Ski, November, 1959.

Ski Industry Newsletter, January 9, 1961.

Skining Publications

Growth of the American Skining Market, (reply to letter).

Geographical Distribution of Ski Market, (reply to letter).

Ski Life Publications

"1961 Area Directory", Ski Life, December, 1960.

Time Publications

"The U. S. on Skis", Time, February 9, 1959.

Vermont Development Commission

Bottomley, James W., Economic Aspects of Recreational Development in Stowe, Vermont, (mimeographed), September, 1948.

Estimating the Tourist and Recreation Business in Vermont.

Economic Research Series No. 5, April, 1961.

Preliminary Analysis of Vermont's Ski Business, (mimeographed), 1958-59 and 1959-60.

Vermont Ski Facilities, 1947-1948, (mimeographed).

Vermont Unemployment Compensation Commission

Agricultural Employment Estimates, March, 1961.
Estimated Non-Agricultural Employment in Vermont,
(mimeographed) for years 1958 through 1960.
The Vermont Labor Market Newsletter, (monthly publication),
1959 through May, 1961.

ABSTRACT

of

Thesis

LABOR SUPPLIES OF A SEASONAL INDUSTRY

By

HERBERT GEBELEIN
(B. S., Purdue University, 1951)

Abstract

Much of the literature dealing with employment in seasonal industries with sharp peaks or short active seasons states or implies that all such industries employ, mostly, temporary entrants to the labor force during their active seasons who withdraw when that season is over.

This seems to be an extension of the observation of the practice in summer resort and other industries with a short summer peak to all (resort and other) industries with short active seasons.

It is questionable whether this is actually true for seasonal winter resort industries, particularly in non-urban areas.

This study proposes to examine the labor supplies of a winter seasonal industry with a test of that assumption in view. It is proposed, also, that the concepts of primary and secondary members of the labor force, introduced by Wilcock, be utilized in the study. Such concepts which differentiate between workers who belong regularly to the labor force and those who enter and leave at various intervals should prove useful when dealing with seasonal employment and seasonal workers.

The ski industry in Vermont is the industry to be examined. Three basic questions will be involved in the examination. (1) What percentage of the workers in the industry are workers in "dovetailing" employment because of seasonal layoffs elsewhere. (2) What are the effects in terms of wages and hours of such dovetailing of jobs by workers who suffer seasonal unemployment. (3) What percentage of the workers are "temporary entrants," or, secondary workers and how many of these would indicate availability for regular work during the

rest of the year.

In the study, interviews were obtained with employers at 20 Vermont major ski areas, at which they were asked for information about their employment practices and for other information about the industry. A questionnaire survey of ski area employees was carried out during the winter of 1960-61.

The ski industry in the United States as a whole has experienced an extremely rapid rate of growth since World War II. The growth of the ski market has been estimated to be between 8 and 10 percent per year. The largest segment of the market is in the Northeast, i.e., New England and the Middle Atlantic States. This market is largely served by ski areas in New York and New England.

The Vermont ski industry has grown more rapidly than those in other states. More major ski areas are located in this state than in any other Eastern state and, probably, in any other state in the country. Due to favorable terrain (and closeness to the New York-New Jersey market area) these areas offer better facilities than the facilities in other states.

Vermont areas account for more than 50 percent of all income estimated to be earned by the ski resort industry in New England.

Employment in the industry has expanded from about 250 in 1947-1948 to over 1200 (estimated) for the 1960-1961 season. Managers of Vermont areas have stated that no particular difficulties have arisen in finding employees for the increasing number of jobs.

The employment structure in Vermont contains elements which tend to produce a substantial amount of seasonal unemployment during the winter months. Estimates based on Bureau of the Census data for

agricultural employment in Vermont (including farm operators), combined with other data compiled by Ducoff indicate substantial amounts of seasonal unemployment and consequent efforts toward dovetailing by agricultural workers in the state.

Contract Construction also accounts for a significant amount of the total of non-agricultural unemployment in Vermont. Data for 1958 to 1960 demonstrate that this category accounts for from 38 percent to 7 percent of the seasonal deviations from monthly averages of non-agricultural employment in the winter months.

Trade employment, while cyclically influenced also tends to produce some seasonally unemployed workers.

It is estimated that the total volume of seasonally "laid-off" workers in Vermont during the winter months amounts to over 11 thousand. Since the total volume of unemployment during the winter of 1959-60, when cyclical influences were at their minimum, was considerably less than this amount there would appear to be a substantial amount of dovetailing by those workers affected by seasonal factors. Also, it appears probable that a substantial number of the seasonally unemployed are assumed, by census enumerators to withdraw from the labor force.

The survey of employees in the ski industry in Vermont in 1960-1961 indicated that three-fifths of all winter employees and over two-thirds of full-time winter employees were workers who were in the primary labor force working at other full-time jobs during the rest of the year. There were seventeen part-time winter workers who indicated that they worked full-time at other occupations during the rest of the year. These would appear to have been available for full-time work but were not able to obtain it.

The results of the study indicate that the majority of those employed in the Vermont ski industry during the winter months are drawn from the seasonally unemployed. These workers are usually motivated by their exclusion from coverage by the unemployment compensation program and the consequent loss of income that results from seasonal layoffs.

The cost of seasonal unemployment is not entirely eliminated by movement of such workers into dovetailing jobs. Their wages in ski area employment are significantly lower (by about 65 cents per hour for men and 54 cents per hour for women, on the average) than in their regular jobs. The weekly hours of work, also, are much longer for both men and women (by 9 and 11 hours per week, average, respectively).

Secondary workers drawn into the labor force by the short-run demand represent a minority of all winter workers. But about one-half of these indicated a willingness to work regularly during the periods of the year if work were available in or near their communities.

A comparison of the personal characteristics of the two groups, one indicating availability for regular employment and the other not so indicating, showed that the sex of the worker would appear to be an important factor with respect to availability.

A majority of those willing to work regularly if jobs were available were females; thus, the hypothesis that a significant portion secondary workers available for regular employment is made up of women would appear to receive some support.

The survey also showed some commuting patterns for rural area workers. The medium range of commuting distance for ski area workers is between 6 and 10 miles daily. Some workers travel a considerably

greater distance; a few (3) drive from 41-45 miles to work daily.