

1963

A Study of the Resources, People & Economy of East-Central Wyoming

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Geoffrey J. O. Howings
22-x-1970

**a study
of the resources
people, & economy
of East-Central
Wyoming**

1963

A Cooperative Program with the
DIVISION OF BUSINESS AND ECONOMIC
RESEARCH, COLLEGE OF COMMERCE AND
INDUSTRY, UNIVERSITY OF WYOMING,
LARAMIE, WYOMING

By

**FLOYD K. HARMSTON and
RICHARD E. LUND**



a publication of the
WYOMING NATURAL RESOURCE BOARD
215 Supreme Court Building, Cheyenne, Wyoming

A STUDY OF
THE RESOURCES, PEOPLE, AND ECONOMY
of
EAST-CENTRAL WYOMING
Platte and Goshen Counties

Basic Area Study Number 12

Published By

The Wyoming Natural Resource Board

Prepared By

FLOYD K. HARMSTON

and

RICHARD E. LUND

Division of Business and Economic Research

COLLEGE OF COMMERCE AND INDUSTRY

UNIVERSITY OF WYOMING

LARAMIE, WYOMING

1963

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FOREWORD

When the Division of Business and Economic Research was established in 1955, it inherited a cooperative agreement with the Wyoming Natural Resource Board covering a series of economic studies. These studies were to cover 12 economic areas of the state.

This is the twelfth study in the series, the first of which was published in 1953. In the meantime, a number of new sources of secondary data have been developed, new techniques have been adopted, and the series has contributed greatly to our understanding of the operation of a local economy.

Other studies in this series include Wind River Basin, which was published in 1953 and is now so out-of-date that it must be done over; Tongue River Basin, published in 1954 and will not be done over as constituted since it is not a full county; Powder River Basin, published in 1954 and will not be redone since it is not an economic area as constituted; Big Horn Basin, 1954, redone 1959; Southwestern Wyoming, 1955, redone 1962; Northeastern Wyoming, 1956; Laramie County, 1957; Albany County, 1959; Central Wyoming, 1959; Teton County, 1959; and Carbon County, 1962.

In all of these studies the cooperation of local businessmen, governmental officials, and householders has been most gratifying. This particular study utilized data collected by Eugene Palmour, a research assistant, from the records of local businessmen, governmental agencies, and from a sample of households.

These data were then analyzed and developed into an interaction table by the authors.

Secondary data useful in the analysis came from the U. S. Census Bureau, the State-Federal Agricultural Statistician, the State Department of Revenue, the State Ad Valorem Tax Department, the Public Service Commission, the Employment Security Commission, the State Bank Examiner, the State Liquor Commission, the Wyoming Geological Survey, the U. S. Geological Survey, the U. S. Treasury Department, the Wyoming Highway Department, the Wyoming Department of Education, the Wyoming Travel Commission, and many others.

Constructive criticism of the text was made by Dr. Horace D. Thomas and staff of the Wyoming Geological Survey, and Dr. Andrew Vanvig and staff of the Agricultural Economics Department, College of Agriculture.

Format and illustrations used in the publication are the work of Mrs. Marlene Armentrout.

Table of Contents

CHAPTER	PAGE
I. SUMMARY AND CONCLUSIONS	1
II. GENERAL INFORMATION	7
Location	7
Physiography	7
Climate	7
Geological History	10
Developmental History	13
III. NATURAL RESOURCES	18
Land	18
Ownership	18
Utilization	18
Soils	18
Water	19
Surface Water	19
Ground Water	22
Minerals	23
Metals	23
Iron	23
Copper, Gold, and Silver	25
Uranium	25
Miscellaneous Metals	25
Non-Metals—Building Materials	25
Clay	25
Dolomite	25
Glass Sand	26
Gravel	26
Gypsum	26
Limestone	26
Marble	26
Quartzite	26
Sericite	26
Vermiculite	26
Non-Metallic Minerals	27
Bentonite	27
Gem Stones and Abrasives	27
Graphite	27
Mica	27
Fuels	28
Coal	28
Oil	28
IV. HUMAN RESOURCES	29
Trends	29
The Labor Force	37
Income	37
Housing	41

CHAPTER	PAGE
V. THE EAST-CENTRAL WYOMING ECONOMY	42
Sources of Basic Income	42
Agriculture	42
Crops	45
Livestock	50
General	53
Markets	56
Handlers of Farm Products	58
Manufacturing	58
Minerals	59
State and Federal Governments	63
Travelers	64
Other Sources of Basic Income	64
Commercial Activity	64
Retail Trade	64
General Services	69
Finance	70
Utilities	73
Transportation	73
Communications	75
Construction Contractors	75
Wholesale	76
Non-Commercial Activity	78
Rentals	78
Household	78
Local Government	81
Analysis	81
Inter-Industry Transactions	82
Input Coefficients	82
Income Generation	83
The Present Economy	85
VI. THE FUTURE	87
Agriculture	88
Handlers of Farm Products	90
Manufacturing	92
Mining	92
Travelers	96
State and Federal Governments	96
Other Income	97
APPENDIX	98
BIBLIOGRAPHY	99

List of Tables

TABLE	PAGE
I. Land Ownership in East-Central Wyoming, 1958	19
II. Run-off of Rivers in the East-Central Wyoming Area, 1951-1960	20-21
III. Population Trends, East-Central Wyoming, 1930-1960	31
IV. Comparison of Expected to Actual Population, East-Central Wyoming, 1950-1960	32
V. Percentage of Persons in Selected Age Groups Comparing East-Central Wyoming with the State of Wyoming and the United States, 1960	34
VI. Comparison of Percentages in Selected Age Groups for Torrington, Wheatland, and Rural Areas, 1950 and 1960	34
VII. Comparison of Proportion of Men and Women in Various Age Groups, 1950 and 1960	35
VIII. Educational Level of Persons Over Twenty-Five Years old Comparing East-Central Wyoming with the State of Wyoming, the Mountain States, and the United States	35
IX. The Labor Force, East-Central Wyoming, April 1950 and 1960	36
X. Family Income, East-Central Wyoming, 1959	39
XI. Income of Male Individuals, East-Central Wyoming, 1959	39
XII. Income of Female Individuals, East-Central Wyoming, 1959	39
XIII. Number of Weeks Worked by Employed Persons, East-Central Wyoming, 1959	40
XIV. Median Earnings of Selected Occupation Groups, East-Central Wyoming and the State of Wyoming, 1959	40
XV. Housing Conditions, East-Central Wyoming, 1959	41
XVI. Agricultural Cash Income, East-Central Wyoming, 1959	45
XVII. Yield Per Harvested Acre, East-Central Wyoming and the State of Wyoming, 1950-1961	49
XVIII. Revenue Collected by State and Federal Governments, East-Central Wyoming, 1959	63
XIX. Commercial Operations by Type of Firm, East-Central Wyoming, 1959	66
XX. Retail Stores, East-Central Wyoming, 1959	68
XXI. Major Lines of Retail Trade, East-Central Wyoming, 1959	69
XXII. Trends in Selected Service Sales, East-Central Wyoming, 1948, 1954, and 1958	69
XXIII. General Service Sales, East-Central Wyoming, 1959	70
XXIV. Sales of Financial Services, East-Central Wyoming, 1959	70
XXV. Personal Cash Income by Industry Source, East-Central Wyoming, 1959	80
XXVI. Inter-Industry Transactions, East-Central Wyoming, 1959	86a
XXVII. Input Coefficients, East-Central Wyoming, 1959	86a
XXVIII. Direct and Indirect Activity Per Dollar of Basic Income, East-Central Wyoming, 1959	86b

TABLE	PAGE
XXIX. Sources of Basic Income and Income Resulting from its Introduction into the Economy, East-Central Wyoming, 1959	86b
XXX. Sources of Basic Income and Amount of Other Income Generated, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	87
XXXI. Agricultural Income and Its Effect on the Economy, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	89
XXXII. Average Size of Farm and Investment in Land and Buildings, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	89
XXXIII. Gross Business, Agricultural Purchases, and Exports by Handlers of Farm Products, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	92
XXXIV. Gross Business, Agricultural Purchases, and Exports by Manufacturing Firms, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	92
XXXV. Value of Production and Payroll, Mining Industry, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	95
XXXVI. Expected Increase in Traveler Trade, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	96
XXXVII. Contributions of State and Federal Governments to the Local Economy, East-Central Wyoming, 1959 and Forecasted at Five Year Intervals to 1979	97
XXXVIII. Iron Ore Production, Platte County, Wyoming, 1952-1961	100
XXXIX. Net Outward Migration by Various Age Groups, Comparing East-Central Wyoming with the State of Wyoming, for the Ten Year Period 1950 to 1960	101
XL. Employment Covered by Employment Security Laws (excluding government), East-Central Wyoming, 1950-1961	102
XLI. Acres of Major Cash Crops Harvested, East-Central Wyoming, 1954-1961	103
XLII. Acres of Feed Grains Harvested, East-Central Wyoming, 1954-1961	104
XLIII. Acres of Hay Harvested, East-Central Wyoming, 1954-1961	105
XLIV. Trends in Livestock Number, East-Central Wyoming, 1950-1962	105
XLV. Annual Number of Visitors to Fort Laramie National Monument, 1941-1961	106
XLVI. Trends in Sales by Commercial Retailers, East-Central Wyoming, the State of Wyoming, and the United States, 1948-1961	107
XLVII. Condition of Banks, East-Central Wyoming, December 31, 1951-1960	108
XLVIII. Transportation Employment and Payroll, East-Central Wyoming, 1950-1961	108
XLIX. Collection of Sales and Use Tax, East-Central Wyoming, 1946-1961	109
L. Gallons of Gasoline Sold, East-Central Wyoming, 1946-1961	109
LI. Distribution of Direct Sources of Personal Income, East-Central Wyoming, 1949 and 1959	110

List of Figures

FIGURE	PAGE
1. Physical Features of East-Central Wyoming	6
2. Average Monthly Temperature at Wheatland and Torrington, Wyoming	8
3. Average Monthly Precipitation at Wheatland and Torrington, Wyoming	9
4. Annual Precipitation at Wheatland and Torrington, Wyoming, 1941-1959	10
5. Average Number of Days of Dense Fog Per Year	11
6. Average Hours of Sunshine Per Winter Day	11
7. Length of Growing Season at Wheatland and Torrington, Wyoming, 1941-1959	12
8. Iron Ore Production, Platte County, Wyoming, 1952-1961	24
9. Trends in Population, East-Central Wyoming, 1950-1962	30
10. Population Trends, East-Central Wyoming, the State of Wyoming, and the Rocky Mountain States, 1930-1960 with Projections to 1970	32
11. Percentage Net Outward Migration by Age Group, Comparing East-Central Wyoming with the State of Wyoming for the Ten Year Period 1950 to 1960	33
12. Employment Covered by Employment Security Laws, East-Central Wyoming, 1950-1961	38
13. Sources of Basic Income, East-Central Wyoming, 1959	43
14. Farm Income from Sales and Government Payments, East-Central Wyoming, 1949-1959	44
15. Farm Income and Expenses, East-Central Wyoming, 1949, 1954, and 1959	45
16. Income Received from Crop Sales, East-Central Wyoming, 1949-1959	46
17. Acres of Major Cash Crops Harvested, East-Central Wyoming, 1954-1961	47
18. Acres of Hay and Feed Grains Harvested, East-Central Wyoming, 1954-1961	48
19. Income Received from Livestock and Livestock Products, East-Central Wyoming, 1949-1959	51
20. Trends in Livestock Numbers, East-Central Wyoming, 1950-1962	52
21. Trends in Prices Received for Meat Animals by Wyoming Farmers and Ranchers as of October 1950-1962	53
22. Number of Farms, East-Central Wyoming, 1930-1959	54
23. Average Size of Farm and Ranch, East-Central Wyoming, 1930-1959	55
24. Average Value of Real Estate Per Farm, East-Central Wyoming, 1930-1959	55
25. Percentage of Farms Having Equipment, East-Central Wyoming, 1939-1959	56

FIGURE	PAGE
26. Tenancy Status, East-Central Wyoming, 1930-1959	57
27. Monthly Hired Employment by Handlers of Farm Products, East-Central Wyoming, 1957-1961	58
28. Employment in Manufacturing, East-Central Wyoming, 1961	60
29. Average Employment and Payroll in Minerals, East-Central Wyoming, 1955-1961	61
30. Monthly Employment in Mineral Industries, East-Central Wyoming, 1955-1961	62
31. Annual Number of Visitors to Fort Laramie National Monument, 1941-1961	65
32. Trends in Sales by Commercial Retailers, East-Central Wyoming, the State of Wyoming, and the United States, 1948-1961	67
33. Total Bank Deposits and Per Cent of State Total, East-Central Wyoming, June 30, 1940-1962	71
34. Condition of Banks, East-Central Wyoming, December 31, 1951-1960	72
35. Transportation Employment and Payroll, East-Central Wyoming, 1950-1961	74
36. Construction Industry Employment and Payroll, East-Central Wyoming, 1952-1961	76
37. Collection of Sales and Use Tax and Gallons of Gasoline Sold, East-Central Wyoming, 1961	77
38. Distribution of Direct Sources of Personal Income, East-Central Wyoming, 1949 and 1959	79
39. Trends in Prices of Wheat, Dry Beans, and Potatoes, East-Central Wyoming, 1950-1962	91
40. World and United States Production of Iron Ore, 1925-1961	93
41. United States Iron Ore Imports for Consumption, 1945-1961	94

CHAPTER I

Summary and Conclusions

East-Central Wyoming, comprising the counties of Goshen and Platte, is one of the few almost strictly agricultural areas in Wyoming. Its location on the high plains, with foothills extending into the mountains to the west, gives it a semi-arid climate. Grass and wheat are raised without irrigation. Most other crops are irrigated.

Water for irrigation comes from the North Platte River and its tributaries, particularly the Laramie and North Laramie Rivers. Due to abundant storage facilities, water is plentiful in the areas irrigated from the Platte. In addition, there is an abundance of ground water in these sections, which can be tapped. A low priority of rights on the Laramie River creates problems in dry years. In case of prolonged drouth, the farmers near Wheatland may find themselves completely without water. The ground water situation is not of great help in that area since most of the charge to the water table comes as seepage from irrigation. This is a major problem demanding solution.

While there are some possibilities for increased production of oil and natural gas in this area, the prospects are not too bright. This is one of the few sections of Wyoming where petroleum is of very little importance. The only major mineral development is production of iron ore in a captive mine owned by Colorado Fuel and Iron Corporation of Pueblo, Colorado. Known mineral deposits include several different types, none of which seem to have commercial possibilities at this time except iron ore.

This area has been agricultural for many centuries. Agricultural Indian tribes lived in the valleys where they produced crops and hunted on the uplands. They were finally driven from their homes by nomadic tribes, who were in turn driven out by white men.

Fur trappers were the first white settlers. They built forts and trading posts in the area. One of the former was eventually transformed into a military post, Fort Laramie. This was one of the more important forts along the Oregon and Mormon Trails. It remains as a tourist attraction.

Large cattle companies were formed in the late 1870's and they occupied large sections of Eastern Wyoming. Following a series of bad winters, these were broken up and the small farmers and ranchers took over.

Most of the land in these counties is in private ownership. The federal government owns about 4 per cent of the area, and other governmental units about 10 per cent. Crop land covers 18 per cent of the

area and most of the remainder is grazing land. Except for the alluvial valley fill, the soils are high in mineral content and low in organic matter.

For the past two decades agricultural communities have been losing population everywhere in the nation. This is true also of East-Central Wyoming. Nearly one-half of the people residing here now live in towns, compared to about one-third in 1940. Of possible significance to the future of the area is the out-migration of young adults. Forty per cent of those between 15 and 24 years of age and 30 per cent of those 25 to 34 years of age migrated from the area between 1950 and 1960.

In 1960 the people of this area were better educated than is the case nationwide. Median years of education were 10.1 for men and 12.0 for women.

In 1950 there were 14,441 persons 14 years of age or older in this area. Eighty-four per cent of the men and 23 per cent of the women were in the labor force. In 1960 there were 13,305 persons 14 years and older, and only 79 per cent of the men were in the labor force. The proportion of women had increased to 29 per cent.

Median family income is between \$4,500 and \$5,000 in this area. In order to achieve this, most families have more than one wage earner. Median earnings of selected occupation groups were considerably below that of the state in 1959. Housing values and rents were also below the state average that year.

These people live and work in an economy that is dominated by agriculture. In 1959 nearly 59 per cent of the basic income of the area was so oriented either because of the actual export of agricultural commodities or their use as raw materials in processing plants.

Basic income is defined as that income which enters an economy through the sale of goods or services to people who live outside it. Thus, money received by a rancher through shipping cattle to Scottsbluff or Omaha is basic income. A calf sold to a local slaughter house is not since it goes to a local market. Sugar beets sold to a sugar factory located in the area being studied also go to a local market, but most of the sugar produced is exported and produces basic income. Exports here, then, do not refer strictly to foreign trade but rather to any trade outside of the local economy.

Expenditures made by state and federal governments are included as basic since the local people have very little to say about how much is collected or spent in their community. Expenditures by travelers are also important.

These basic dollars then circulate through the economy and produce income. In 1959 there were 53,366,000 of them and they produced an additional \$86,928,000. Thus, each basic dollar had a generating power of 1.63.

The basic dollars and their generating power were as follows:

Source	Income Basic	Income Induced	Generating Power
Agricultural Exports	\$19,281,000	\$37,985,000	1.97
Exports of Handlers of Farm Products	4,475,000	8,448,000	1.89
Exports of Manufactures	7,664,000	12,449,000	1.62
Payments by State and Federal Governments..	12,597,000	16,260,000	1.29
Mineral Exports	3,476,000	4,725,000	1.36
Expenditures of Travelers	1,820,000	1,827,000	1.00
Other Sources of Basic Income	4,053,000	5,233,000	1.29
Total	\$53,366,000	\$86,928,000	1.63

The generating power of these industries is determined by a method known as input-output analysis. The details of this analysis are discussed in the latter part of Chapter V. By means of this analysis it is possible to determine the impact of a dollar of new money upon any segment of the economy. For example, a dollar spent by a traveler in a retail store will be responsible for 3 cents worth of agricultural income, about 7 cents of local market for manufacturing, an additional 15 cents of retail trade, 29 cents of personal income, and nearly 3 cents of local tax revenue. All of this comes about because of the circulation of the dollar after it is received (Table XXVIII, Chapter 5).

Such information is useful in measuring the impact of change. Thus, the farmers of this area can find out how much it means to them if a payroll is lost or a new one is introduced. Let us suppose that a federal agency were to move to either Wheatland or Torrington with a \$100,000 payroll. By looking at column 14 in Table XXVIII it is possible to see that this means an additional \$2,000 to the farmers, \$58,000 to retailers, \$10,000 to service firms, etc. A \$100,000 payroll will also create \$26,210 in other personal income. Assuming about \$5,000 per family, this will support an additional five families.

As another illustration, let us assume that a new industry is established which buys raw materials from farmers worth \$1 million. Referring to column 1 of the above mentioned Table, it is seen that this expenditure will actually mean \$1,207,800 to the farmers because the turnover will create a local market worth \$207,800. It will also create \$503,400 in retail sales, \$628,100 in additional personal income, \$57,200 in local taxes, and a local market for each of the other categories of business and industry.

The loss of revenue is felt in reverse. Each industry has a different impact because of the way dollars from that industry are circulated. Thus, if agricultural prices decline and farmers receive \$1 million less this year than last, retailers will lose \$503,400. In that case there will also be \$628,100 less personal income—or the equivalent of about 125 families will lose their income. Usually this means that a lot more families than this will simply have less to live on, but the overall effect is about the same. On the other hand, loss of a million dollars in mineral revenue will mean only a loss of \$335,700 to retailers; but, \$682,800 will be lost in personal income.

In Chapter VI some projections have been made to the year 1979 in 1959 dollars. In other words, no attempt was made to anticipate inflation or deflation in value of the dollar. An increase of \$2,625,000 in traveler expenditures was forecasted for the twenty years. Retailers were to get \$2,077,000 of this and service firms \$548,000. What does this mean to the businesses and industries of East-Central Wyoming?

Referring again to Table XXVIII, columns 7 and 8, we find that a dollar spent with a retailer will create 29 cents worth of personal income and a dollar spent with a service firm will create 86 cents worth of personal income. Therefore, this increase in traveler expenditures, if it occurs, will mean \$605,000 in additional personal income in the one case and \$473,000 in the other, for a total of \$1,078,000. At \$5,000 per family, this means support for about 215 families.

Travelers at rest tend to spend a larger proportion of their money for services than those who are moving. Since the impact on personal income for these dollars is high, anything that can be done to assist visitors to spend more time in the area will pay off.

The effect of the projected increases in basic income from various sources on personal income and local taxes by 1979 would be as follows:

Source of Basic Income	Expected Increase	Additional Personal Income	Additional Local Revenue
Agricultural Exports	\$ 7,323,000	\$4,600,000	\$ 42,000
Exports of Product Handlers	1,387,000	638,000	6,000
Exports of Manufacturers	1,278,000	548,000	5,000
Mineral Exports	1,790,000	1,222,000	13,000
Extra Traveler Expenditures	2,625,000	1,078,000	55,000
Decrease in Govt. Expenditures	-3,312,000	-715,000	+1,364,000 ¹
Increase in Other Income	9,207,000	2,413,000	32,000
	\$20,298,000	\$9,784,000	\$1,517,000

¹The decrease in government spending will be in expenditures on road construction and payrolls. There will probably be increased direct payments to local government, hence, the net will be a substantial increase.

The increased personal income should be enough to support an additional 1,957 families at \$5,000 per family. However, there is considerable anticipation that by 1979, actual per family income will be at least 50 per cent more than that of 1959. If that were the case, less families would be supported by the economy than are living there now.² In other words, the national economy is expected to move faster than is that of East-Central Wyoming.³ In this case, family incomes will probably not increase as fast as those nationwide; hence, population will not fall so drastically as might otherwise be the case. Nevertheless, there is justification for continued decrease in population of the area.

²Assuming that there were 5,115 family units in 1959 and personal income was \$35,438,000, the mean income would be \$6,928. Raising this by 50 per cent would give a mean of \$10,392. Increasing personal income by \$9,784,000 gives a total of \$45,222,000, which would support 4,352 families.

³Willard M. Kiplinger and staff, *Kiplinger Looks to the Future: Boom and Inflation Ahead and What You Can Do About It* (New York: Simon and Schuster, 1958) p. 17.

If the present out-migration of young adults continues, the average age of the population should increase somewhat. The increased dependence of these people on income from pensions, investments, and other such sources of income is considered in the forecast of basic income from other sources.

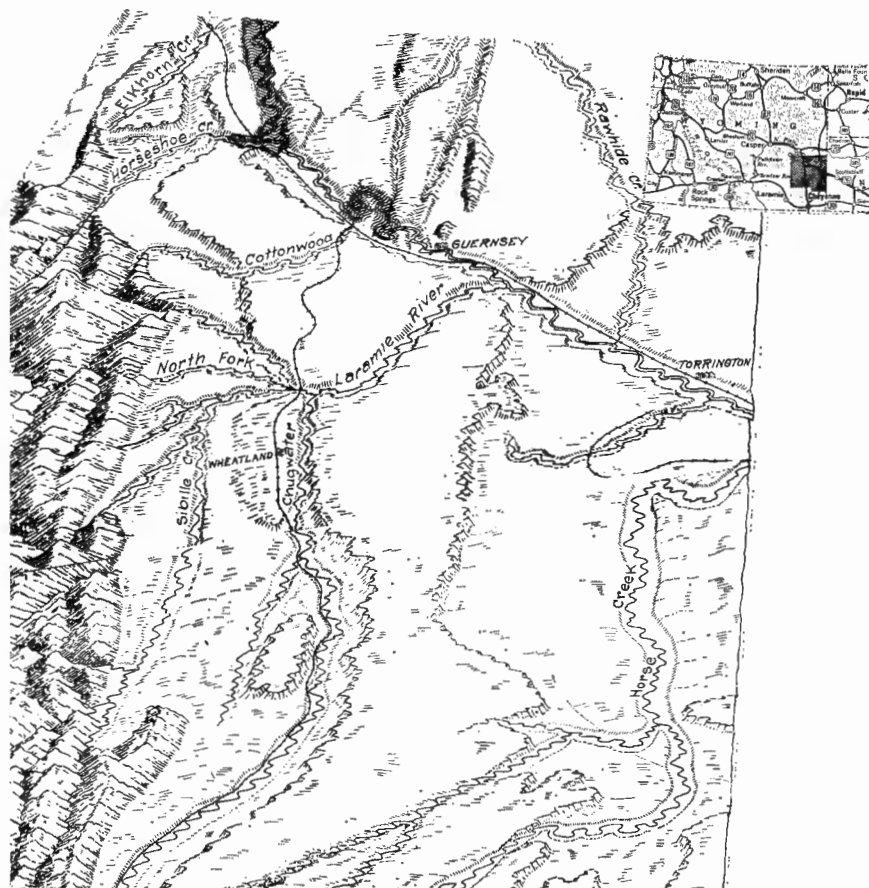
The conclusion must be that, while there will be growth in the economy of East-Central Wyoming springing from the present economic base, it will not be sufficient to provide employment for the present population. There will continue to be heavy out-migration of young adults. The economy will become more and more dependent upon the income of retired people.

These conclusions are based upon the assumption that very little will be done in the area to change the economic base. The addition of new industry would change the forecast, but very little effort is currently being made in this direction.

The details upon which the analysis is based are included in the following chapters.

Figure 1

PHYSICAL FEATURES OF EAST-CENTRAL WYOMING



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CHAPTER II

General Information

The two-county area treated in this study is located in eastern Wyoming on the east flank of the Laramie Mountains. Its terrain is largely made up of rolling hills; however, the North Platte River has formed a deep, broad valley diagonally through the center. The climate is semi-arid, with around thirteen inches of precipitation.

Location

The East-Central Wyoming area is bounded on the east by the State of Nebraska, on the south by Laramie County, and on the west and north by Albany, Converse, and Niobrara counties.

Physiography

The surface of this area consists essentially of a broad flat to gently rolling upland. The Laramie Mountains are found on the western edge. The North Platte River flows diagonally through the area from the northwest. Local escarpments border the main stream and its tributaries and separate rolling upland surfaces from flat valley bottomlands.

The valley of the North Platte is several hundred feet lower than the surrounding upland. In places it is bordered by bluffs 700 feet high. This valley begins to widen near Fort Laramie and extends deep into Nebraska. Near the Nebraska-Wyoming state line it reaches a width of about 50 miles. Some buttes and mesas are found within this flat-bottomed valley. Sand dunes occur at intervals northeast of the North Platte River valley between Guernsey and Kinsley Dam.

Laramie River and its tributaries water the southern two-thirds of Platte County. This river cuts through the mountain range directly west of Wheatland and flows into the Platte near Fort Laramie.

The area generally lies from 4,000 to 6,500 feet in elevation. Torrington, on the North Platte River in the eastern part, is located at 1,101 feet. Laramie Peak, across the Albany-Platte county line, reaches skyward 10,072 feet.

Climate

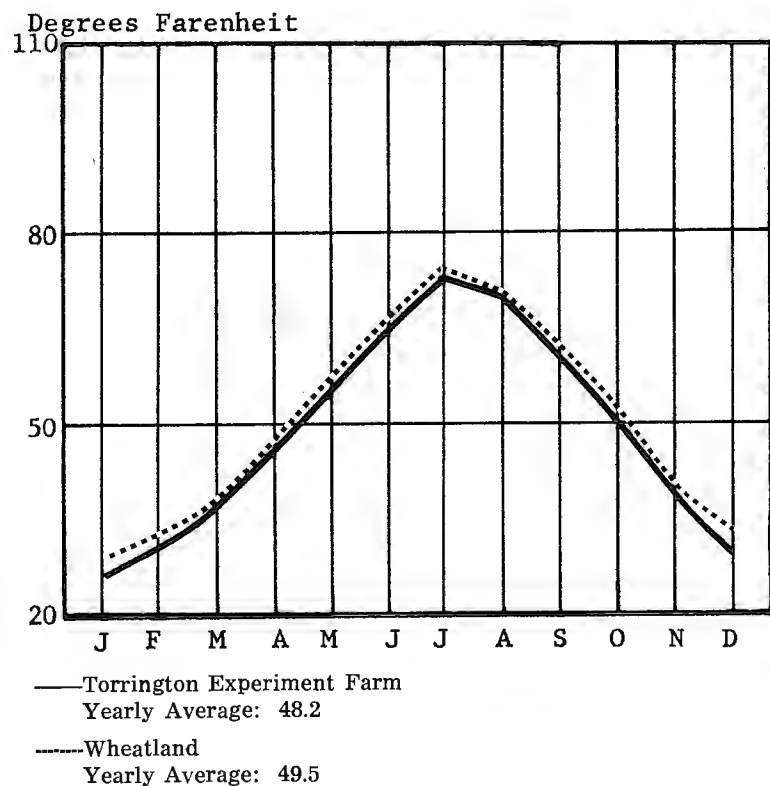
This two-county area, being located on the western edge of the Great Plains, lies within the continental climatic zone. Consequently, it is characterized by significant variations in the annual amount of rainfall and by a summer maximum of precipitations. Extremes in temperature are found; of course, the amount of variation and mean are dependent upon

location factors such as elevation and air movements. Figure 2 shows the average monthly temperature at Wheatland and near Torrington.

A small amount of moisture derived from westerly winds is supplemented by moisture coming from the Atlantic Ocean and the Gulf of Mexico. Very little precipitation occurs as snow. The largest amount of precipitation usually falls during June. Average monthly precipitation is shown by Figure 3. Variation in annual precipitation from 1941 to 1959 is presented in Figure 4. Figures 5 and 6 show the amount of fog and sunshine.

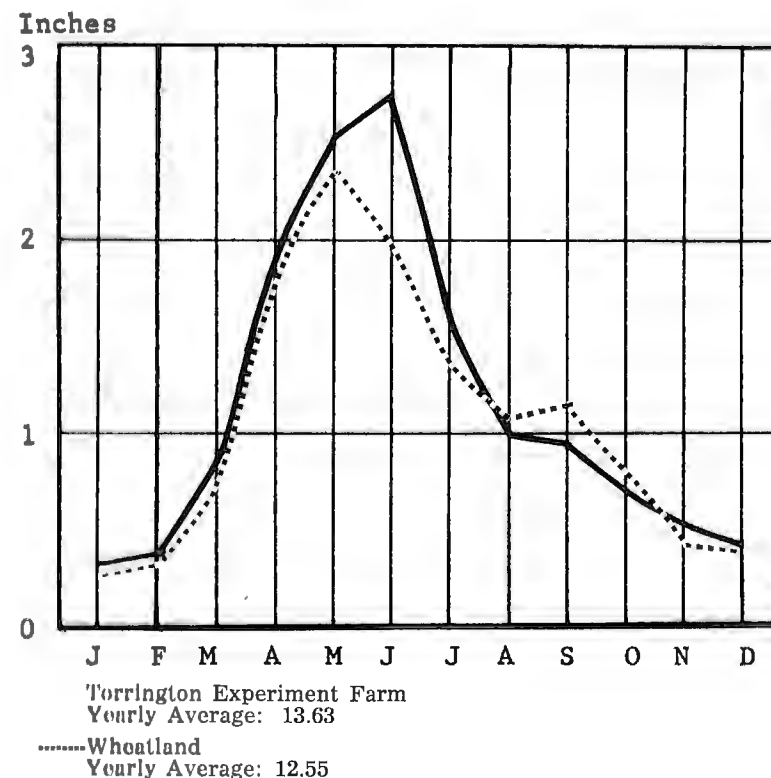
Drouth periods are frequent and of considerable duration. Every dry-farm and ranch is susceptible to crop failure and other damages from drouth. The year of 1954 provides a good example of such a period. The interested reader may compare the reduction in precipitation with the reduction in crop production shown in Chapter V.

Figure 2
AVERAGE MONTHLY TEMPERATURE
Wheatland and Torrington



Source: Climatological Data, Wyoming Annual Summary, 1931-1958.

Figure 3
AVERAGE MONTHLY PRECIPITATION
Wheatland and Torrington



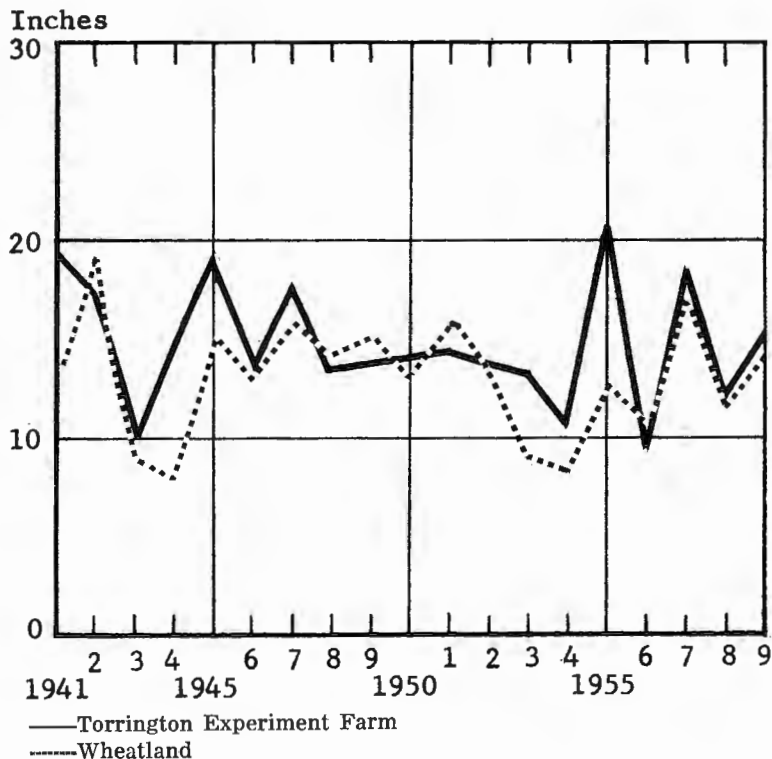
Source: Climatological Data, Wyoming Annual Summary, 1931-1958.

Precipitation was about the same as for 1956; however, an almost complete lack of rainfall during April with below-average rainfall in May and June, coupled with little precipitation during the winter, made the big difference. A noticeable decrease in livestock numbers occurred in 1955 partly as a result of the decrease of available feed.

Hail is another climatic factor having a profound effect on this area's agricultural operations. It sometimes causes near-disastrous destruction to crops, particularly small grains approaching harvest. Part of this area nearest the Nebraska-Wyoming boundary has a record for the highest hail damage incidence in the United States. Hail storms sometimes reach a maximum of over eight days during a growing season.¹

¹Report on the North Platte River Basin (Mimeographed; Denver: U. S. Department of the Interior, Bureau of Reclamation, Reptom. 7, June, 1957), p. 5.

Figure 4
ANNUAL PRECIPITATION
 Wheatland and Torrington
 1941-1959



Source: Climatological Data, Wyoming Annual Summary.

The growing season varies from as low as 120 days to as long as 160 days, with the average being about 145 days. The growing season is, of course, considerably shorter at the higher elevations to the west. Figure 7 shows the length of growing season from 1941 to 1959.

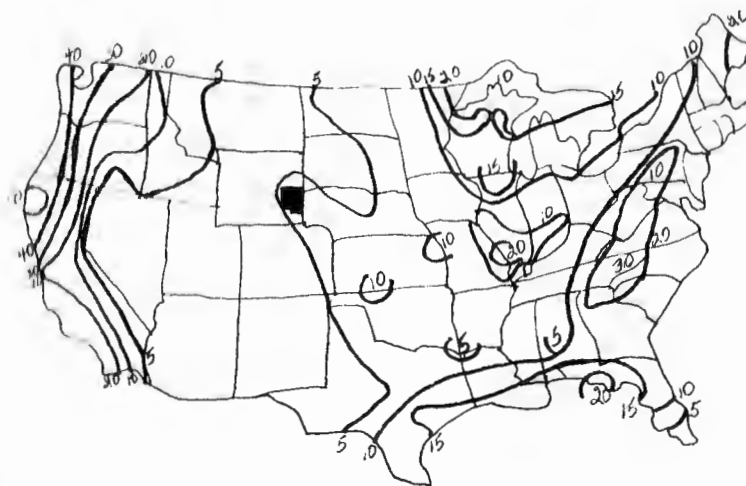
Geological History²

The geological history of this area becomes significant upon viewing the area as a source of minerals and ores and as a producer of agricultural commodities.

This history begins with pre-Cambrian geological time when great thicknesses of sediments were deposited on an unknown crust. After

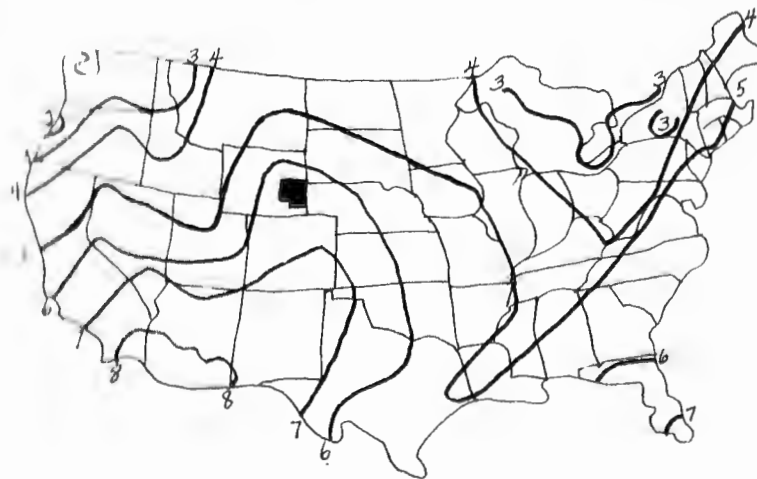
²H. D. Thomas, *The Geological History and Geological Structure of Wyoming* (Wyoming Geological Survey Bulletin No. 42; Laramie: University of Wyoming, October, 1949), pp. 12-27.

Figure 5
AVERAGE NUMBER OF DAYS OF DENSE FOG PER YEAR



Source: U. S. Weather Bureau.

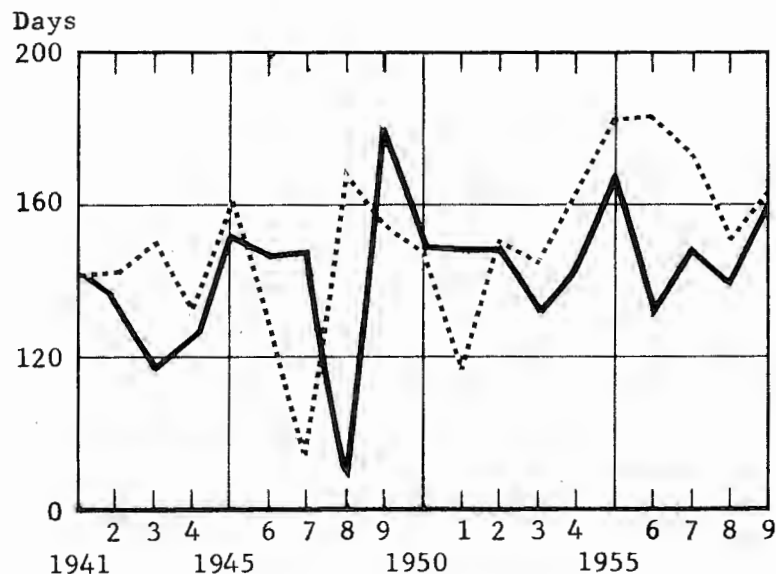
Figure 6
AVERAGE HOURS OF SUNSHINE PER WINTER DAY



Source: U. S. Weather Bureau.

Figure 7

LENGTH OF GROWING SEASON*
Wheatland and Torrington — 1941-1959



— Torrington Experiment Farm
Average: 140
- - - Wheatland
Average: 149

*Number of days between the last day in the spring and the first day in the fall at which a temperature of 28 degrees or less is reached.

Source: Climatological Data, Wyoming, Annual Summary.

folding and metamorphism, these rocks were invaded by molten magma which formed large granite deposits. Presently these rocks are exposed as the core of the Laramie Mountains on the west. Hematite-bearing rocks are found in a zone of strongly folded pre-Cambrian sediments in the Hartville district. The ore bodies being mined at the Sunrise Mine are made up of these hematite-schists. Some of the soils of this area are derived from decomposed granite. After an incredibly long pre-Cambrian history, the old mountains were worn away; and by Cambrian time, the area along with the rest of Wyoming was reduced to a peneplain.

During the Paleozoic era most of Wyoming was submerged several times, but this part usually remained emergent. Great deposits were laid down during these submersions in the western part of the state; however, the only major deposits found in this area are those of the Pennsylvanian system.

A limestone facies deposited during the Pennsylvanian period is located along the Laramie Mountains and in the Hartville Uplift. Thin tongues of a cross-bedded sandstone facies were also deposited. Red shales are quite conspicuous in the lower parts of most formations. The Pennsylvanian rocks are important oil producers in other parts of Wyoming.

Following the Pennsylvanian period, this part of Wyoming was inundated numerous times by shallow seas. Red shale was deposited in Permian and early Triassic time. Sandstones, marine shales, and calcareous sediments were laid down during the Jurassic and Cretaceous periods. The oil-bearing formation near Torrington is of Cretaceous age. Coal bearing strata were deposited in the wake of the regressive sea.

The Laramide Revolution, which outlined the major structural features of Wyoming seen today, began in East-Central Wyoming in late Cretaceous time, and, as a result, the Hartville Uplift and the Laramie Mountains were formed. As soon as the uplifted areas came into being, they were subjected to erosion. Oligocene, Miocene, and Pliocene rocks were deposited over the entire area. Where absent today, they have been removed by post-Pliocene erosion. Along the Platte River Valley these deposits attain a thickness of 1,600 feet. Most of the soils in this area are derived from these poorly consolidated sedimentary formations.³

Present areas of higher relief are upheld by more erosion-resistant rocks such as granite, limestone, and sandstone; the lower areas are developed on shale, siltstone, and claystone. Major streams have cut sizeable valleys in the softer sedimentary rocks.

Developmental History

The grass covered, rolling hills have furnished year-around grazing for vast numbers of buffalo, deer, and antelope for thousands of years. This made it an ideal hunting ground.

The earliest inhabitants were prehistoric hunters. Yuma and Tolson type points dated at eight to ten thousand years old have been found here. Aboriginal quarries from which these points probably came were found 20 miles north-northwest of Hartville. These people were followed by other hunting, non-agricultural people.

The first "permanent" settlers were the proto-Pawnees of the upper Republican culture, who tilled the soil, made pottery, and lived in semi-subterranean houses in the valleys. When the white men first explored the North Platte Valley, it was occupied by Pawnee Indians who had established farm villages of mud huts in the valley and hunted on the plains.

In 1760 the Sioux were forced out of the forests south and west of Lake Superior by the Chippewas who had received guns from the French. They moved out onto the plains and soon two of the bands, Baule and

³Report on the North Platte River Basin, op. cit., p. 24.

Ogallala, came into the valley of the North Platte and drove out the Pawnees.

Kiowas also occupied sections of East-Central Wyoming at the time of the arrival of the Sioux and they were also driven away.

The valley of the North Platte was a natural thoroughfare to the high plains of Wyoming. Many of the early trappers and explorers traveled this route. Countless throngs of emigrants heading west established the Oregon, Mormon, and California trails here. This area presently serves as a transportation artery to Central Wyoming. U. S. Highways 26 and 87, and the Chicago, Burlington, and Quincy Railroads follow this route.

A party of seven men under the leadership of Robert Stuart are considered to be the first white men in the area.⁴ They were returning in the fall of 1812 from Astoria in Oregon to report the meeting of Astor's water and ground parties.

Fort Laramie, situated on the Laramie River near its confluence with the North Platte, is considered the first permanent settlement in Wyoming. This fort was erected in 1834 by William Sublette as a fur trading post.⁵ Originally it was called Fort William for its founder and two members of his party. Either this fort or one nearby was called Fort John for John Sarpy, fur trader. The name Fort Laramie apparently came about through popular usage owing to its location.

The historic fort served as a trading post until 1849 when it was purchased by the government as a military post.⁶ A need for protecting the emigrants passing through the territory was strongly felt at this time. It was utilized as a military post until 1890 when it was abandoned following the confining of the Indians to reservations.⁷

As a military post, the fort was never attacked. It served mainly as a supply base for the Indian wars. It was the site for many great councils of the Northwest.

William Sublette brought the first cattle through the area in 1830, but they were not kept over the winter.⁸ Possibly the earliest stock cattle driven through the area were being taken to Utah by the Mormons in 1847. However, the real cattle grazing potential of this area was not realized until the 1850's. By 1852 it is reported that Robert Campbell's partner, Seth E. Ward, was wintering hundreds of oxen on Chugwater Creek.⁹

The possibility of open range grazing during the winter was discovered partly by accident. In 1854, Alexander Majors arrived at Fort

⁴V. C. Trenholm and M. Carley, *Wyoming Pageant* (Casper: Prairie Publishing Company, 1946), pp. 21-22.

⁵*Ibid.*, p. 157.

⁶*Ibid.*

⁷*Ibid.*, p. 183.

⁸*Ibid.*, pp. 196-197.

⁹*Ibid.*

Laramie in November with a load of government supplies.¹⁰ His oxen were poor and foot-sore. It was too late to return to Missouri where his oxen would have been fed corn during the winter so he was forced to turn them loose on the open range. He expected them to perish, but to his surprise, they were found in excellent work condition when rounded up the next spring.

When the Indians were forbidden by treaty to trade at Fort Laramie, W. G. Bullock and B. B. Mills entered the cattle business.¹¹ Their herd, acquired in 1868, is considered to be the first permanent herd of stock cattle in Wyoming.

Hi Kelly shipped the first cattle out of the state in 1870.¹² His ranch was located near the town of Chugwater.

A tremendous increase in the number of cattle occurred during the 1870's. Most of them were brought in from Texas. Several well-stocked ranches were in operation by 1880.

After 1888 large-scale cattle operations in this two-county area were mainly limited to that of the Swan Land and Cattle Company.¹³ This was a foreign-owned company which entered the cattle business by purchasing the properties of Alexander Swan and Joseph Frank. In 1884 it purchased several other ranches, among them, the property of Hi Kelly, which served as its headquarters until liquidation in 1947. At one time, over one million acres were being grazed by this company. Their wagons ranged from Ogallala, Nebraska to as far west as Fort Steele, east of Rawlins, and from the North Platte on the north to the Union Pacific Railroad on the south. However, most of their range was on Chugwater and Sybille Creeks.

The disastrous winter of 1886-1887 marked the beginning of the end to the spectacular cattle era. The vast number of cattle were so reduced as to be easily countable. Wherever cattle numbers were reduced, sheep tended to fill the vacuum. Range land was being cut off from water by homesteaders making claims along the streams. Dry-land farmers soon began to fence much of the open range.

The first sheep were taken through this area by the Mormons as early as 1817.¹⁴ However, sheep were not grazed in this area in extensive numbers until the late 1800's. At that time many farmers and ranchers were finding it profitable to run some sheep.

The Swan Land and Cattle Company began running sheep in 1904.¹⁵ By 1910 operations were chiefly converted to sheep at which time a maximum number of 110,000 head was reached. This company at one time was reported to be the largest wool producer in the United States. Approximately one million pounds were clipped in 1911.

¹⁰*Ibid.*

¹¹*Ibid.*, p. 200.

¹²*Ibid.*

¹³H. H. Burns, A. S. Gillespie, and G. W. Richardson, *Wyoming's Pioneer Ranches* (Casper: Top of the World Press, 1955), p. 487.

¹⁴Trenholm and Carley, *op. cit.*, p. 216.

¹⁵Burns, Gillespie, and Richardson, *op. cit.*

Some farming was carried out as early as 1851 near Fort Laramie.¹⁶ Some Mexican gardeners diverted water from the Laramie River to irrigate vegetables for the soldiers.

A Mormon settlement on Horseshoe Creek is reported to have carried out some irrigation.¹⁷

As cattle ranching was being developed, many ranchers started diverting water to nearby bottom-land for raising hay and grain. It was not long until much of the easily accessible bottom-land was being irrigated. These early efforts were nearly all individual in scope, but the cooperative effort necessary for developing the land farther from the streams was soon to follow.

The building of the Wheatland Project was commenced in 1883 with the first irrigation being carried out that year.¹⁸ The Wyoming Development Company continued the development of Wheatland Flats under the Carey Act of 1894. This company bought and sold deeded land with water rights.

The vast irrigation works of Goshen Hole were made possible by the Reclamation Act of 1902. Pathfinder Dam on the North Platte River in Central Wyoming was one of the first projects completed under this act. It was begun in 1905 and completed in 1909.¹⁹ Ample storage capacity was provided by this dam to allow the development of thousands of acres in the river's basin.

Assurance of a supply of water made the development of irrigation systems in Goshen Hole feasible. Construction of the Interstate System on the north side of the North Platte began in 1905 and was completed in 1915. The Fort Laramie System on the south was started in 1915 and completed in 1925. Both canals begin at Whalen Dam.

Hartville first came into prominence as a copper mining camp in 1881.²⁰ It was operated for a few years by Chris Fletcher, then abandoned after the copper ore gave way to iron ore.

Later, I. S. Bartlett and W. F. Hamilton made a study of the iron potential of the area.²¹ After a market for the iron ore was secured, operations began again in 1889. The first shipments were sent to Denver over the newly constructed Cheyenne and Northern Railroad (now the C & N) for fluxing purposes.

Later the Colorado Fuel and Iron Corporation leased the claims in the Sunrise group. Open-pit operations were carried out until 1941 when underground operations were begun.²²

¹⁶Trenholm and Carley, *op. cit.*, p. 250.

¹⁷*Ibid.*

¹⁸Report on the North Platte River Basin, *op. cit.*, p. 9.

¹⁹*Ibid.*

²⁰I. S. Bartlett, *History of Wyoming* (Chicago: The S. J. Clarke Publishing Company, 1918), I, 521.

²¹*Ibid.*

²²V. Linford, *Wyoming Frontier State* (Denver: The Old West Publishing Company, 1947), p. 366.

Goshen and Platte counties were created in 1911 while J. M. Carey was Governor.²³ Both were a part of Laramie County prior to this time. This two-county area contained 69,900 head of cattle, over 38,000 sheep, and over 15,000 hogs in 1916. In 1915 the population was 10,312.

Torrington was incorporated in 1908 and made the county seat of Goshen County in 1911. It occupies an old emigrant camping place on the Oregon Trail. Its population was about 1,000 in 1917.²⁴

Wheatland was founded in 1894.²⁵ It had 1,315 residents in 1895.

²³Hartlett, *op. cit.*, pp. 520-521, 536-537.

²⁴*Ibid.*, pp. 800-810.

²⁵*Ibid.*

CHAPTER III

Natural Resources

This area contains nearly 2,800,000 acres of which about 85 per cent is privately owned. Most of the area supports agriculture in some form, about 4 per cent being irrigated, nearly 15 per cent of that farmed being farmed by dry land methods, and most of the remainder being used for grazing.

A number of minerals and ores are found, but iron ore is the only one currently being mined in quantity. Some petroleum is being extracted near Torrington.

LAND

Ownership¹

Goshen County contains 1,430,000 acres and Platte County contains 1,357,440 acres. Thus, these two counties make up about 4.5 per cent of the land area of Wyoming. The federal government owns 122,524 acres or 4.4 per cent while the state and local governments own 279,118 acres or about 10.0 per cent. The remainder is privately owned. Table I shows the ownership in detail.

Utilization²

As indicated previously, nearly all of the land is used for agricultural purposes. About 493,077 acres or 17.7 per cent is considered crop land and the remainder is grazed. About 146,588 acres or 29.7 per cent of the crop land is irrigated. There are approximately 27,700 acres of water surface in this area—most of this resulting from storage reservoir construction.

Soils³

This area's soils are chiefly products of its climate, especially the amount of precipitation. Although grasses characterize the native vegetation, moderate precipitation has limited the amount of organic matter entering the soil. Consequently, the soils are generally a grayish-brown in the higher areas to a brown in the lower areas. Carbonate and other soluble compounds are abundant in the subsoil since limited rainfall

¹Land Ownership in Wyoming Counties (Information Circular No. 3; Laramie: Division of Business and Economic Research, University of Wyoming, 1960), pp. 2-3.

²U. S. Bureau of the Census, U. S. Census of Agriculture, 1959 (Washington: U. S. Government Printing Office, 1961).

³A. E. Aldous and J. F. Deeds, Land Classification of the Northern Great Plains, Montana, North Dakota, South Dakota, and Wyoming (U. S. Geological Survey Mimeo-graphed No. 35831; Washington: U. S. Department of the Interior, 1929), pp. 6-25.

Table I
LAND OWNERSHIP IN EAST-CENTRAL WYOMING
1958

Owner	Acres	Per Cent
Federal Government	122,524	4.4
Bureau of Land Management	91,354	3.3
Bureau of Reclamation	29,694	1.1
Other	1,476	
State and Local Government	279,117	10.0
Private Corporations and Individuals	2,386,198	85.6
Total	2,787,840	100.0

Source: Land Ownership in Wyoming Counties, Information Circular No. 3, Division of Business and Economic Research, 1960.

has precluded leaching to any great depth. In general, the area's soils are high in mineral content, low in organic content, and consequently, low in inherent fertility.

The soils have mainly developed in place from underlying rocks. However, soils in most of the valleys have developed from alluvial fill. Some sand has been carried in by wind, especially northeast of the North Platte River.

Foothill soils of the Laramie Mountains and the adjacent plains are generally a coarse granitic gravel.

Soils of the plains area are principally sandy loam in the western part turning to clay loam in the eastern part. An admixture of gravel is found in some places. In general, the texture is good for the absorption and conservation of moisture as well as being sufficiently fertile and free from harmful accumulation of alkali salts.

Soils developed on the alluvial fill in most valleys vary from silt to heavy clay. Goshen Hole soils are generally heavy clay which have been modified at some points by an admixture of sand. The valley soils are medium to heavy texture and are highly receptive to development by irrigation, provided internal drainage is ample.

WATER

Surface Water

Most of the surface water originates outside the area. The North Platte River, heading in North-Central Colorado, flows through the area from the northwest. The Laramie River, forming in Northern Colorado, flows through the area in a northeastern direction until joining the North Platte near Fort Laramie. Chugwater Creek, North Laramie River, and Sybille Creek form in the Laramie Mountains to the west.

The North Platte River drains a portion of Southeastern Wyoming as well as part of Colorado. From a water utilization standpoint, it is one of the more highly-developed systems in the United States. Thousands of farms receive water from this source in both Wyoming and Nebraska. Several power plants are located on it.

Table II
RUNOFF OF RIVERS IN THE EAST CENTRAL WYOMING AREA
1951-1960
(acre-feet)

	1959-60	1958-59	1957-58	1956-57	1955-56	1954-55	1953-54	1952-53	1951-52	1950-51
Laramie River Near Fort Laramie										
Oct.	5,290	4,010	6,190	1,810	1,980	1,450	2,770	5,840	6,920	3,250
Nov.	6,000	4,650	8,330	3,250	3,360	2,970	3,230	6,790	671	758
Dec.	5,930	6,440	8,550	3,770	3,670	618	607	3,750	543	609
Jan.	5,530	7,290	7,590	3,400	3,870	593	594	1,100	535	541
Feb.	5,410	5,220	6,330	3,450	3,460	573	455	805	658	464
Mar.	8,380	6,770	7,910	3,240	4,270	669	509	887	768	449
Apr.	4,520	8,580	10,920	3,880	3,410	657	566	4,190	16,590	410
May	2,380	10,470	13,760	21,130	2,780	1,260	1,950	4,060	20,320	8,850
June	1,570	4,180	5,930	12,890	1,540	6,590	1,560	2,430	18,530	9,560
July	1,730	3,330	5,800	3,880	2,150	3,340	2,050	2,640	5,020	9,870
Aug.	1,300	1,930	3,570	7,190	1,870	2,780	1,550	4,550	3,540	8,960
Sept.	920	1,540	2,920	6,260	1,130	1,460	899	1,840	3,530	4,860
North Platte River Below Guernsey										
Oct.	1,650	4,760	696	676	627	942	NA*	27,400	NA*	13,710
Nov.	308	506	595	688	835	1,230	NA	7,200	NA	5,120
Dec.	349	1,080	678	768	16,280	20,130	NA	8,150	NA	10,730
Jan.	484	1,030	768	936	1,120	799	NA	9,440	NA	11,000
Feb.	536	1,080	722	1,180	637	645	NA	8,850	NA	9,580
Mar.	28,540	25,930	859	47,710	10,520	1,020	NA	23,310	NA	3,410
Apr.	24,030	24,690	39,170	686	32,410	46,250	NA	51,920	NA	54,480
May	15,940	47,160	116,600	65,690	100,400	20,330	NA	113,200	NA	120,300
June	189,100	120,700	120,600	83,460	171,400	25,430	NA	147,100	NA	149,500
July	314,400	263,800	278,500	281,700	245,600	169,600	NA	274,200	NA	250,900
Aug.	266,400	291,200	296,700	270,400	251,600	222,000	NA	220,600	NA	281,600
Sept.	79,950	185,200	192,800	135,400	77,850	131,000	NA	159,300	NA	151,500
North Platte River at State Line										
Oct.	29,200	28,700	26,960	9,240	15,140	9,360	26,660	37,980	47,930	33,410
Nov.	21,180	23,050	22,420	17,590	17,220	15,920	22,700	31,960	38,320	29,220
Dec.	18,670	23,080	20,720	16,670	17,000	13,460	20,770	33,820	26,140	34,250
Jan.	16,010	19,420	18,160	12,650	14,910	13,240	17,530	32,120	24,250	29,420
Feb.	15,680	15,750	15,740	11,590	12,330	10,880	14,250	27,730	23,590	27,770
Mar.	17,900	17,240	16,510	12,180	13,240	13,450	15,250	29,420	28,520	22,800
Apr.	14,770	17,260	20,120	12,530	11,760	14,630	11,100	19,520	49,060	19,050
May	8,420	22,650	33,410	57,550	22,670	22,500	11,180	27,720	112,200	31,670
June	32,110	28,260	25,380	30,500	28,510	37,690	22,760	41,060	189,000	36,490
July	73,390	63,100	62,270	69,750	53,300	53,880	50,390	65,900	69,310	56,450
Aug.	64,790	67,680	72,180	67,460	64,950	43,940	48,360	51,580	69,680	61,340
Sept.	35,440	48,060	42,080	38,600	35,670	32,200	32,330	42,040	52,730	39,910

*Not Available

This high degree of utilization is made possible by a vast system of storage and regulatory reservoirs on the mainstem and its tributaries. Current storage capacity of the North Platte River Basin above the Wyoming-Nebraska line is about 2,800,000 acre-feet.⁴ This capacity is more than twice the average annual inflow. Guernsey Reservoir, with an active storage capacity in 1947 and 47,500 acre-feet,⁵ and the recently completed Glendo Reservoir, with a storage capacity of 800,000 acre-feet,⁶ are located in this two-county area.

The Laramie River supplies most of the water for irrigation near Wheatland. Presently, about 326,000 acre-feet⁷ of storage capacity are located on this river. Among the larger reservoirs are Wheatland Numbers 2 and 3 and Lake Hattie. Three smaller reservoirs are located near the confluence of the Laramie and the North Laramie Rivers.

Table II shows the annual run-off of the major streams.

Ground Water^{8&9}

The unconsolidated sand and gravel of the flood plain and terrace deposits in the North Platte Valley readily yield water to wells, and are the principal aquifers of this area. In some places they are in contact and form a single aquifer; in others they are separated and form distinct aquifers. In many places in the flood plain, wells yielding 1,000 to 3,000 gallons per minute could be developed. Wells having yields of 500 to 1,500 GPM probably could be developed on most of the terrace deposits and in the valley fill near LaGrange.

The Arikaree formation could yield 500 to 1,000 GPM in favorable circumstances. This formation lays under the Wheatland Flats as well as some of the rest of the area. The Wheatland Flats area also has considerable ground water in terrace deposits as a result of seepage from irrigation. During drouth periods there is a noticeable decrease in this supply.

Most of the renewable ground water of this part of Wyoming is stored in the unconsolidated sand and gravel deposits of the valley fill along the North Platte River. By multiplying the volume of saturated material by the average co-efficient, the approximate quantity of ground water in the valley fill of the North Platte River was estimated to be 1,700,000 acre-feet—about 21,000 acre-feet of which is in storage in the uppermost foot.

Ground water in this area is generally moderately mineralized, containing about 200 to 800 parts per million of dissolved solids, principally

⁴Report on the North Platte River Basin, *op. cit.*, p. 71.

⁵*Ibid.*, p. 61.

⁶Thirty-Fourth Biennial Report of the State Engineer, 1957-58 (Cheyenne: Wyoming Engineer's Office, 1959).

⁷Report on the North Platte River Basin, *op. cit.*, p. 170.

⁸J. R. Rapp, F. N. Visher, and R. T. Littleton, *Geology and Ground-Water Resources of Goshen County, Wyoming* (U. S. Geological Survey Water-Supply Paper No. 1377; Washington: U. S. Government Printing Office, 1957), pp. 1-3.

⁹Donald A. Morris and Horace M. Babcock, *Geology and Ground-Water Resources of Platte County, Wyoming* (U. S. Geological Survey Water-Supply Paper No. 1490; Washington: U. S. Government Printing Office, 1960), pp. 1-2.

calcium bicarbonate or calcium sulfate types. The percentage of sodium varies from fairly low where the recharge is from a river or canal to quite high in certain terrace deposits and bedrock formations.

Water in the bedrock formations is characterized by low hardness and a high percentage of sodium water from the deeper Lance formation which contains flouride in concentration that exceeds the desirable upper limits for drinking water used by children.

In the Wheatland Flats area the ground water can be used for irrigation providing it is applied to soils having good sub-surface drainage, and for plants having a moderate to high salt tolerance.¹⁰

Ground water throughout this area is suitable for domestic and some industrial uses, except locally where iron content is high.

MINERALS

Metals

Iron

Wyoming's first producing iron mine is located near Sunrise in Platte County. It is one of the more important iron mines west of the Mississippi River. Current iron ore production is around 600,000 tons per year. Approximately 300-350 men are employed year around. The mine is electrified and modern techniques are used. Figure 8 shows yearly production from 1952 through 1961.

A two-year project for lowering the level of operations was begun in 1957. Completion of this project will lower the loading point to a depth of 900 feet and will enable the development of the seventh level of ore. Past major mining levels have been the third and the fifth.

The Sunrise Mine was originally worked for copper, yielding over 6,000 tons of copper from ore which averaged about 15 per cent copper. The copper deposits have been exhausted and no copper is presently being produced.

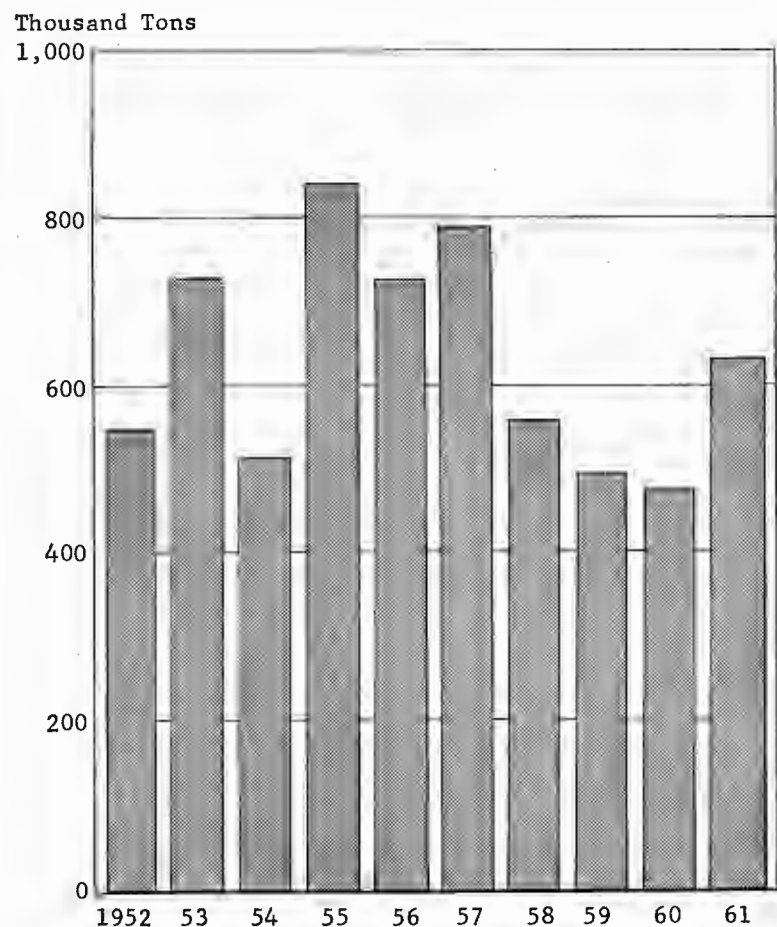
A rather hard ore presently mined in the Sunrise Mine is predominantly hematite, limonite, and goethite. Various assays range from 55 to 68 per cent iron content.¹¹

Other idle mines are located in hematite bearing rocks in a zone two to three miles wide which trends northeast for about twelve miles from Guernsey. Total production of iron ore in Wyoming has been estimated to be about 29,620,000 tons through 1961. Most of this ore was mined in this area.

¹⁰Robert T. Littleton, *Reconnaissance of the Ground-Water Resources of the Wheatland Flats Area, Wyoming* (U. S. Geological Survey Circular No. 70; Washington: U. S. Department of the Interior, April, 1950), pp. 1-2.

¹¹F. W. Osterwald, and others, *Mineral Resources of Wyoming* (Wyoming Geological Survey Bulletin No. 50; Laramie: University of Wyoming, April, 1959), p. 105.

Figure 8
IRON ORE PRODUCTION
Platte County, Wyoming — 1952-1961



Source: State Board of Equalization.

Some magnetite is presently being produced near the Albany County line southwest of Wheatland. This ore is being used to weight down underwater gas pipelines. About 38,000 tons were mined in 1957.¹²

Some pyrrhotite is located northeast of Frederick at the base of a granite hill. The Independence Group of claims on State Creek con-

¹²Twentieth Biennial Report of the State Board of Equalization, 1957-58 (Cheyenne: State Board of Equalization, Ad Valorem Tax Department, 1958) p. 76.

tains some pyrrhotite along with other iron, copper, nickel, gold, and silver minerals.¹³

Copper, Gold, and Silver¹⁴

Five groups of claims containing copper minerals are located in the Cooney Hills west of Wheatland. Some gold and silver associated with copper is located about 13 miles southwest of Wheatland. Samples have shown up to \$7 of gold per ton.

Minerals containing up to 30 per cent copper have been located in several prospects in the Hartville Uplift area. Usually some gold, silver, and iron are associated with the copper. One group produced ore containing 30.0 per cent copper prior to 1906. The rich copper ores have been mined; the last major production was in 1916-1918 when about 2,500 tons were taken.

Placer gold deposits are found in a large gravel area covering about 10,000 acres six miles west of the southeast corner of Goshen County.

Uranium¹⁵

In the Guernsey district, the copper-silver-iron deposits are slightly radioactive. Some radioactivity was noted in the Big Mac claim southwest of Wheatland. However, little promise of significant deposits is offered.

Miscellaneous Metals¹⁶

Small amounts of many different metals are located in the Hartville Uplift and in the Laramie Mountains. Some beryl has been reported northeast of Hartville. A tin mineral, cassiterite, has been found in minute quantities near Rawhide Buttes. Nodules of arsenopyrite have been found in a muscovite-quartz schist about nine miles northeast of Guernsey. An assay showed 40 per cent arsenic.

Non-Metals—Building Materials

Clay¹⁷

Brick clay was formerly quarried near Wheatland.

Dolomite

Several bodies of dolomite are found in areas west of Wheatland, in the Guernsey-Hartville area, and in Whalen Canyon. About 50,000 tons are quarried annually near Guernsey.¹⁸

¹³Osterwald, and others, *op. cit.*, p. 108.

¹⁴*Ibid.*, pp. 34, 49, 50, 55, 56, and 81.

¹⁵*Ibid.*, pp. 195, 196.

¹⁶*Ibid.*, pp. 8, 7, 9, 19, 122, and 174.

¹⁷*Ibid.*, pp. 23-24.

¹⁸Reports of the State Board of Equalization.

Glass Sand¹⁹

A 70-foot thick, white, soft, medium-grained, porous sandstone is located eight miles west of Casa. This is a potential source of glass sand.

Gravel

Abundant gravel is available to meet all local needs.

Gypsum²⁰

Sporadic, lenticular gypsum beds up to 20 feet thick are scattered throughout a narrow strip for about 20 miles along the flank of the Laramie Mountains in the extreme southwest corner of Platte County. In the lower part of the Chugwater formation near Glendo, gypsum beds range from a few inches up to 40 feet thick. A 50-foot thick bed crops out for about three-fourths of a mile along Horseshoe Creek about six miles west of Glendo. An analysis of this deposit showed 99.6 per cent calcium sulphate.

Limestone²¹

A massive gray bed crops out near Hartville. It has not been used commercially.

Marble²²

A large dolomitic marble deposit occurs northwest of Wheatland along the Laramie River. This stone is massive, free of joints, and varies in color from a pure white to a gray. Onyx marble has been taken from a limestone cavern deposit near Hartville. Some brown onyx marble has been produced from the Jay Em Quarry in Goshen County. A fine-grained reddish to whitish marble has been quarried in Muskrat Canyon.

Quartzite²³

Some quartzite is being quarried near Guernsey for railroad ballast and riprap.

Sericite²⁴

Between 300 and 350 tons of sericite, some of which was used as an insulation for concrete floors in the Denver area, have been shipped from a prospect southwest of Wheatland. The sericite is soft and pure. It lies in a vertical zone two to five feet wide. The deposit contains about 150,000 tons of sericite.

¹⁹Osterwald, and others, *op. cit.*, p. 73.

²⁰*Ibid.*, p. 94.

²¹*Ibid.*, p. 165.

²²*Ibid.*, p. 169.

²³*Ibid.*, p. 160.

²⁴*Ibid.*, p. 156.

Vermiculite²⁵

Between 500 and 600 tons of vermiculite have been produced from several claims about ten miles southwest of Wheatland. The vermiculite layers have formed at the contact between granite pegmatite with hornblends schist and biotite schist. It usually expands eight to nine times.

Some prospects are also located northeast of Wheatland. About 200 tons of ore have been produced from this deposit.

Non-Metallic Minerals

Bentonite²⁶

Several beds of bentonite interbedded with gray and black thin-bedded siliceous shale are found in the Chugwater Creek-Deadhead Creek area.

Gem Stones and Abrasives²⁷

Red banded and moss agates occurring about two miles northwest of Guernsey have been mined intermittently. Other agates have been taken near Hartville.

Several hundred garnet crystals have been taken from one location about eight miles northeast of Hartville for use as gem stones. There is a reported occurrence of large fractured garnets in the northeast corner of Goshen County. A large deposit of garnet is located in the Cooney Hills about 13 miles southwest of Wheatland. Another occurrence has been reported 20 miles northwest of Wheatland.

Tourmaline has been located northeast of Guernsey and southeast of Wheatland. Porous, lightweight layers of tripoli are abundant eight to ten miles north of Sunrise in "Carboniferous formations."

Graphite²⁸

Graphite prospects are located 20 miles northwest of Wheatland, 15 miles southwest of Wheatland, and in the Haystack Hills east of Guernsey.

Mica²⁹

Pegmatites are located about ten miles northeast of Guernsey in an area of about two square miles. They are composed mainly of potash feldspar associated with quartz, muscovite, black tourmaline, and beryl. The pegmatites range from 70 to 100 feet in length and six to 80 feet in width. The muscovite books range up to ten inches by two feet in size. Most books are clear, highly ruled, and crumpled. Production first

²⁵*Ibid.*, p. 215.

²⁶*Ibid.*, p. 18.

²⁷*Ibid.*, pp. 70, 72, 111, 139, 143, and 179.

²⁸*Ibid.*, pp. 86-87.

²⁹*Ibid.*, p. 119.

started in this area in 1881, but was stopped in the early 1900's. Some mica was mined near Guernsey from 1929 to 1930.

Fuels

Coal³⁰

Some thin veins of presumably sub-bituminous rank have been located in southern Goshen County along Horse Creek. No beds of more than 2.5 feet in thickness are known to occur on the surface; however, one bed four to five feet in thickness has been reported on the southern edge of this field. Several mines have been operated in this area in the past.

Oil

Oil was discovered about four miles south of Torrington in 1955. Present production is coming from the Newcastle or Muddy sandstone formation which is the major producing area in eastern Wyoming. This formation was laid down during the Cretaceous period. Presently, nine wells spread over a 320 acre area are being pumped. About 35 men are employed in this industry. An estimate of the reserves is not available; however, present indications are that this field will be a very minor producer in the future.

³⁰Henry L. Berryhill, Jr., and others, *Coal Resources of Wyoming* (U. S. Geological Survey Circular No. 81; Washington: U. S. Department of the Interior, September, 1956), p. 17.

CHAPTER IV

Human Resources

The East-Central Wyoming area has been losing population quite consistently since 1952. Most of the out-migration has taken place among the young adults with the consequence that the population is made up more and more of older people.

The movement is tied to changes in a primarily agricultural economy, which afford less and less opportunity for local employment at returns comparable to those available in other parts of the state and nation.

The lower personal income is reflected in the fact that family income is considerably below the state average even though several members of the family contribute to it.

As a consequence, this area can be said to be one of under-employment. Its human resource is not being used. If the present trend is to change, new job opportunities **must** be provided.

Details on the above observations follow in this chapter and in the following chapters which analyze the economy and its possibilities for growth or decline.

Trends

The area of East-Central Wyoming has had a downward trend in population since 1952. This pattern is evident in both counties. (See Figure 9.)

A decline also occurred between 1930 and 1940, but was evident only in Platte County. Between 1940 and 1950, Platte County continued to lose population while Goshen gained. It is only since 1950, therefore, that the trends in the two counties have been similar (Table III).

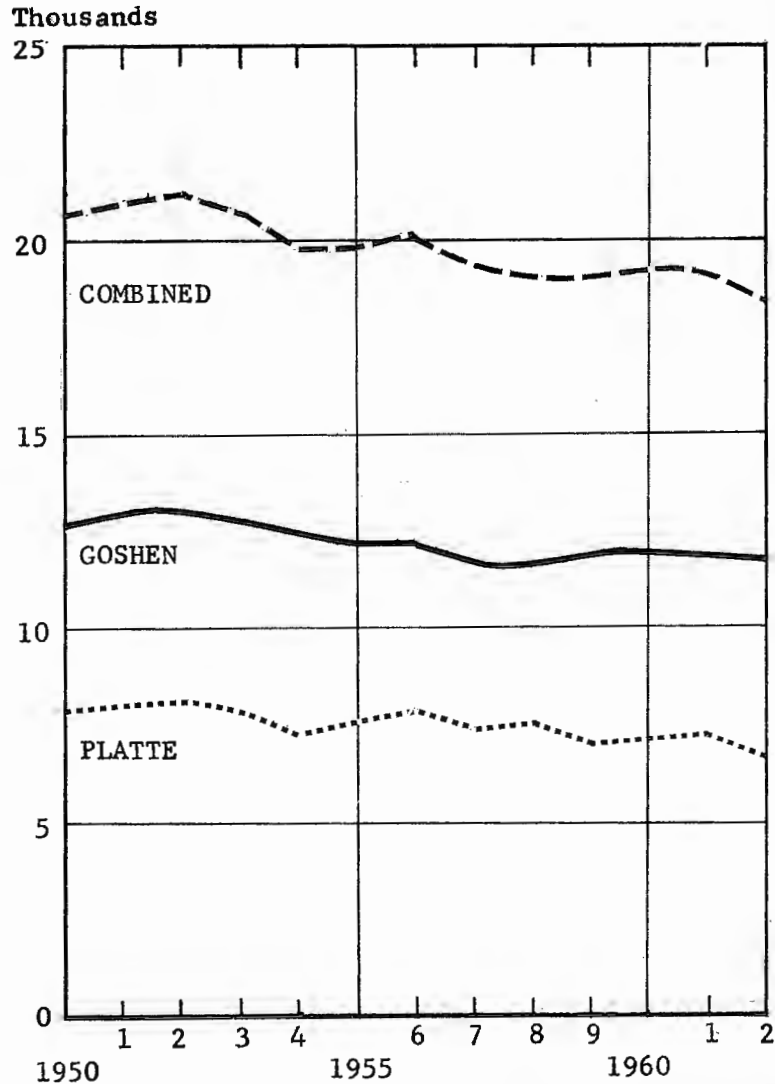
The two larger centers of Torrington and Wheatland have increased consistently since 1930. Torrington has more than doubled in size while Wheatland has gained by about 18 per cent.

Other towns in the area have had their ups and downs. During the past decade, four of them gained slightly and four lost population.

The percentage of people living in towns in this area has always been low compared to the rest of Wyoming. This is, of course, a reflection of the agricultural nature of the economy and the predominance of irrigated farms. However, the proportion of people living in town has increased with each decade from 28.3 per cent in 1930 to 47.2 per cent in 1960. This may be compared with 70.6 per cent in the state in the latter year.

Figure 9

TRENDS IN POPULATION
Wyoming — 1950-1962



Sources: 1950 and 1960 U. S. Census of Population. Other years estimated by this Division based on Vital Statistics, School Enrollment, and Employment Data.

Table III
POPULATION TRENDS
East-Central Wyoming — 1930-1960
(With Comparisons)

	1930	1940	1950	1960
GOSHEN COUNTY	11,754	12,207	12,634	11,941
PLATTE COUNTY	9,695	8,013	7,925	7,195
TOTAL POPULATION	21,449	20,220	20,559	19,136
Per Cent Change		-05.7	+1.7	-6.9
Number				
Per Square Mile	5.0	4.7	4.8	4.4
Per Cent				
Residing in Towns ..	28.3	33.6	39.1	47.2
Torrington	1,811	2,344	3,247	4,188
Wheatland	1,997	2,110	2,286	2,350
Guernsey	656	603	721	800
Lingle	415	428	403	437
Glendo	201	162	215	292
Chugwater	286	245	283	287
Fort Laramie	245	311	300	233
Hartville	189	179	229	177
LaGrange		211	221	176
Yoder	266	201	128	83
STATE OF WYOMING				
Population	225,565	250,742	290,529	330,066
Per Cent Change	+16.0	+11.2	+15.9	+13.6
Number				
Per Square Mile	2.3	2.6	3.0	3.4
Per Cent				
Residing in Towns ..	51.8	57.0	62.9	70.6
UNITED STATES*				
Population	122,785,046	131,669,275	150,697,361	178,463,000
Per Cent Change	+16.1	+ 7.2	+14.5	+18.4
Number				
Per Square Mile	40.6	43.6	49.9	60.0

*Continental United States.

Source: U. S. Census of Population 1930, 1940, 1950, 1960.

The preponderance of rural farm population, plus the fact that farms are getting fewer and larger with increased mechanization, is responsible for the downward trend in over-all population. This factor should continue to influence the situation at least through 1970. In Figure 10, a comparison is drawn between past and expected trends in the Rocky Mountain region, the State of Wyoming, and the Platte-Goshen area. The contrast is quite impressive.

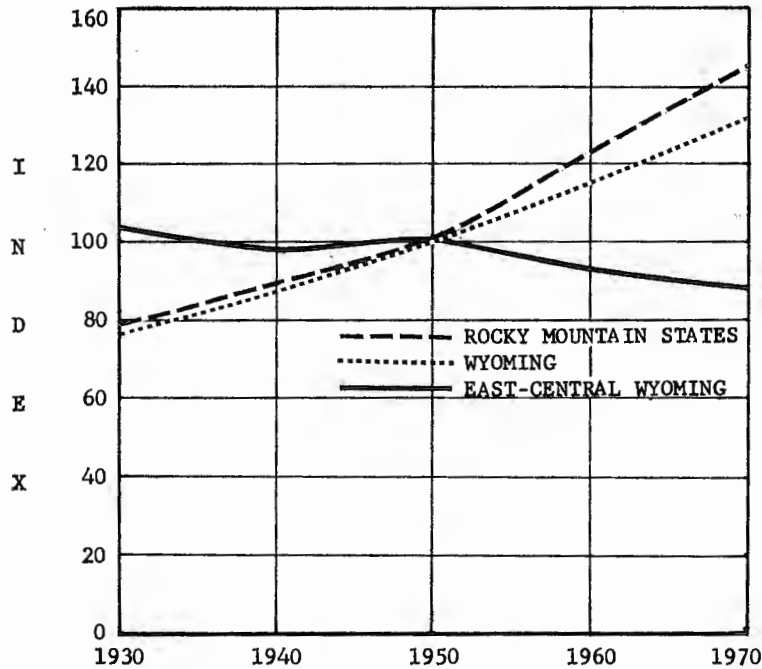
This downward trend in population is, of course, due to outward migration since the birth rate in the area is about three times the death

Figure 10

POPULATION TRENDS

Platte-Goshen, the State of Wyoming, and the Rocky Mountain States
1930, 1960, and Projections to 1970

1950=100



Sources: 1930-1960 U. S. Census of Population. 1970 estimated by this Division.

Table IV

COMPARISON OF EXPECTED TO ACTUAL POPULATION
East-Central Wyoming — 1950-1960

	Goshen	Platte	Combined
1950 Population	12,634	7,925	20,559
Plus Births During the Decade	2,828	1,249	4,077
Minus Deaths During the Decade	822	626	1,448
Expected Population, 1960	14,640	8,548	23,188
Actual Population, 1960	11,941	7,195	19,136
Net Out-Migration	2,699	1,353	4,052
Per Cent of Expected Population	18.4	15.8	17.5

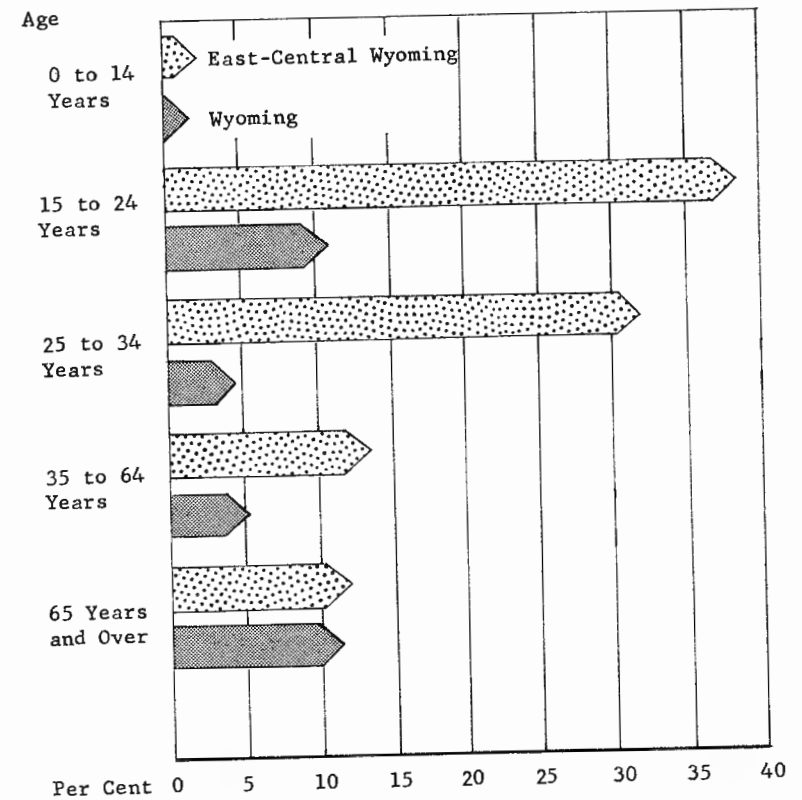
rate. In Table IV the expected population, considering births and deaths, is compared with actual population. The net out-migration is heavy for both counties with Goshen having a slight edge.

Of much more importance to the local people and to the future of the area is the age group into which these migrants fall. This picture is shown in Figure 11.

The most startling fact revealed here is the heavy migration of young adults. Nearly 40 per cent of the group between 15 and 24 years of age migrated during the decade compared to just over ten per cent for the state. In the age group from 25 to 34 there was an out-migration of over 30 per cent compared to less than five for the state. Even the mid-

Figure 11

PERCENTAGE NET OUTWARD MIGRATION BY VARIOUS AGE GROUPS
Comparing East-Central Wyoming With the State of Wyoming
For the Ten Year Period 1950 to 1960



Source: U. S. Census of Population, 1950 and 1960. Plus Vital Statistics from Wyoming Department of Health.

Table V
PERCENTAGE OF PERSONS IN SELECTED AGE GROUPS COMPARING EAST-CENTRAL WYOMING WITH THE STATE OF WYOMING AND THE UNITED STATES 1960

Age Group	East Central Wyoming	Wyoming	United States
14 and Under	32.3	33.8	30.9
15 to 24	12.8	13.4	13.4
25 to 34	10.7	13.2	12.8
35 to 44	12.4	13.2	13.5
45 to 54	11.9	10.9	11.5
55 to 64	8.6	7.7	8.7
65 and Over	11.3	7.8	9.2

Source: U. S. Census of Population, 1960.

dle-aged adults had a heavier out-migration pattern than was the case state-wide.

This pattern is not unusual for an area that is losing population. Younger people are more mobil than older ones. It is the magnitude of the movement that should be of serious concern to the people of this area.

A result of this movement can be seen in the percentage distribution of people in various age groups when compared to the state and nation. The East-Central Wyoming area has a significantly smaller proportion of people in the group between 15 and 44 than Wyoming or the nation, and a larger proportion 45 and older (Table V).

These trends are evident in both the urban and the rural areas of these counties. Rural Platte seems to have lost a larger proportion in the 25 to 34 age groups than the other sections, and has gained in the distribution from 35 to 44. All sections gained in the categories over 45, except the proportion in Torrington and rural Platte decreased for the age group 55 to 64 (Table VI).

Table VI
COMPARISON OF PERCENTAGES IN SELECTED AGE GROUPS FOR TORRINGTON, WHEATLAND, AND RURAL AREAS 1950 and 1960

Age Group	Torrington		Wheatland		Rural Goshen		Rural Platte	
	1950	1960	1950	1960	1950	1960	1950	1960
14 and Under	25.2	29.6	25.6	28.7	34.4	34.6	32.2	32.5
15 to 24	15.2	11.4	14.0	11.1	16.3	13.7	13.0	13.3
25 to 34	15.6	11.3	14.6	11.1	13.4	11.1	14.8	9.6
35 to 44	13.0	11.2	12.7	12.1	12.9	12.1	13.5	14.1
45 to 54	10.9	11.2	10.9	11.3	9.3	11.9	9.9	12.8
55 to 64	10.7	9.4	9.7	10.0	8.2	8.2	9.7	8.2
65 and Up	9.4	15.9	12.5	15.7	5.5	8.4	6.9	9.7

Source: U. S. Census of Population, 1950 and 1960.

Table VII
COMPARISON OF PROPORTION OF MEN AND WOMEN IN VARIOUS AGE GROUPS 1950 and 1960

Age Group	Men		Women		Proportion Men to Women*	
	1950	1960	1950	1960	1950	1960
14 and Under ..	31.1%	32.8%	31.7%	31.8%	105.6	104.0
15 to 24	14.5	12.4	15.4	13.1	101.1	94.9
25 to 34	13.5	10.6	15.0	10.9	96.6	97.8
35 to 44	13.3	11.8	12.8	13.1	111.6	90.5
45 to 54	9.9	12.2	9.9	11.6	108.1	106.2
55 to 64	9.9	8.7	8.4	8.6	126.2	102.9
65 and Up	7.8	11.6	6.8	11.0	123.1	105.7

*Number of men per 100 women

Source: U. S. Census of Population, 1950 and 1960.

Migration took place among members of both sexes. Men, however, have tended to be somewhat more mobil than women. The proportion of men to women was considerably higher in 1950, for all age groups, than it was in 1960. This is reflected in the proportionate distribution when the two years are compared (Table VII).

It would be expected that this out-migration might lower the educational level in the community. However, this has not happened. The proportion of people with high school education has remained fairly constant while the proportion with college education has increased and the proportion with eighth grade education or less has decreased (Table VIII).

At the time of the 1960 census, the people of the area were better educated than was the case nation-wide, but were not as well educated as the people in the Mountain States as a whole or the State of Wyoming.

Table VIII
EDUCATIONAL LEVEL OF PERSONS OVER TWENTY-FIVE YEARS OLD COMPARING EAST-CENTRAL WYOMING WITH THE STATE OF WYOMING, THE MOUNTAIN STATES, AND THE UNITED STATES

	East-Central Area		Wyoming	Mountain States*	United States
	1950	1960	1960	1960	1960
Eighth Grade or Less	45.6%	36.3%	28.9%	29.3%	38.0%
High School:					
1-3 Years	18.7	18.7	19.1	19.1	18.3
4 Years	28.2	28.1	31.1	29.3	27.4
College:					
1-3 Years	9.7	10.4	12.3	12.9	8.2
4 Years	5.0	6.5	8.6	9.4	8.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Median Years: Men	9.0	10.1			
Women			12.1	12.0	10.5

*Colorado, Idaho, Montana, Utah, Wyoming.

Source: U. S. Census of Population, 1950 and 1960.

Table IX
THE LABOR FORCE
East-Central Wyoming — 1950 and 1960

	April 1950			April 1960		
	Male	Female	Total	Male	Female	Total
Persons 14 Years Old or Older	7,501	6,940	14,441	6,648	6,657	13,305
Per Cent in Labor Force	84.0	23.0	54.0	79.0	29.0	54.0
LABOR FORCE	6,284	1,585	7,869	5,247	1,945	7,192
Employed:						
Private Wage and						
Salary Workers	2,828	802	3,630	2,161	951	3,112
Government Workers	470	306	776	633	460	1,093
Self-Employed Workers	2,518	180	2,698	2,152	281	2,433
Unpaid Family Workers	267	221	488	101	168	269
Unemployed:						
Experienced Workers	201	76	277	200	85	285
MAJOR OCCUPATION GROUP*						
Professional, Technical, and Kindred	292	255	547	295	312	607
Farmers and Managers	1,887	39	1,926	1,578	84	1,662
Managerial Officials (Except Farm)	504	111	615	523	126	649
Clerical and Kindred	155	232	387	155	402	557
Sales Workers	199	152	351	137	151	288
Craftsmen, Foremen and Kindred	768	20	788	711	12	723
Operatives and Kindred	654	73	727	611	73	684
Private Household	4	98	102	0	122	122
Service Workers, Except Household	170	250	420	102	379	481
Farm Laborers, Unpaid Family	251	147	398	101	103	204
Farm Laborers, Hired	787	30	817	489	23	512
Laborers, Except Farm and Mine	333	11	344	262	4	266
Not Reported	79	91	170	83	69	152
INDUSTRY GROUP*						
Agriculture	2,954	225	3,179	2,186	222	2,408
Mining	301	4	305	306	6	312
Construction	459	5	464	422	27	449
Manufacturing	207	34	241	185	39	224
Transportation and Communication	357	38	395	284	67	351
Utilities	122	9	131	142	10	152
Wholesale	150	24	174	109	15	124
Retail	604	386	990	550	520	1,070
Services	454	339	793	285	385	670
Finance, Insurance & Real Estate	66	43	109	84	66	150
Education	117	240	357	179	325	504
Public Administration**	202	71	273	240	113	353
Not Reported	90	91	181	75	65	140

*Employed Only. **Those government workers not included in agriculture or education.
Source: U. S. Census of Population, 1950 and 1960.

The Labor Force

The influence of agriculture is readily seen in labor force trends. Between 1950 and 1960 there was a decrease of 265 self-employed workers. The decrease in number of farmers was 264. Hired workers decreased by 518, and agricultural workers represented 305 of these. Unpaid family workers in total decreased by 219; unpaid workers on farms decreased by 194 (Table IX).

In 1950, there were 14,441 persons 14 years of age and over in the area. Eighty-four per cent of the males and 23 per cent of the females were in the labor force. In 1960 those 14 and over numbered 13,305 and 79 per cent of the males and 29 per cent of the females were in the labor force.

The number of persons unemployed remained fairly steady between the two census periods.

Outside of agriculture, the picture was fairly comparable for the two census. There was an increase in numbers of professional people and in some of the commercial categories.

Non-agricultural employment is not nearly so even as these data imply, however. Monthly figures on hired employment in those industries covered by employment security laws are plotted in Figure 12. (Census is taken in April.) Seasonal variation is marked, although the year to year trend is fairly stable. An unusual feature of this area's non-agricultural employment is the tendency for a late summer slump followed by a fall peak in employment. Part of the peak comes because of the processing of sugar beets at Torrington.

Income

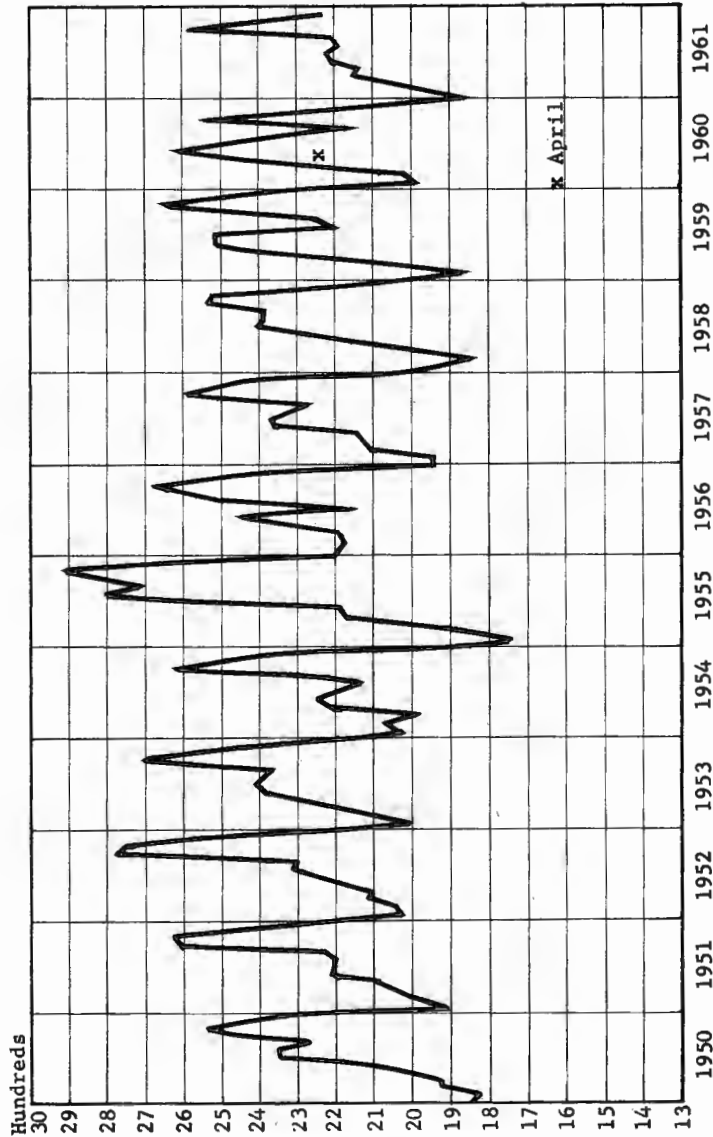
The labor force situation is further reflected in income. In fact, much of the out-migration from this area is probably tied to income. The median family income for Goshen and Platte counties in 1959 was \$4,676 and \$4,860 compared to \$5,877 for the state of Wyoming. Seventeen of the 23 counties of the state have higher family income than these two.

Forty per cent of the families in this area had incomes of less than \$4,000 in 1959 and 65 per cent were less than \$6,000. Ten per cent had incomes of \$10,000 or more (Table X).

Most families in the East-Central Wyoming area have income from more than one source. This is evident from the fact that median income for men in Goshen County in 1959 was \$3,613 and in Platte it was \$3,762. While 91 per cent of the male population 14 years of age and over had some income in 1959, nearly 55 per cent of these received less than \$4,000 (Table XI). In order for family income to be as high as it is, it would be necessary for additional members of the family to be employed.

One-half of the female population 14 years old or more received some income in 1959, but 52.3 per cent of those received less than \$1,000 and an additional 22.2 per cent received between \$1,000 and \$1,999. The median income for women was \$943 and \$962 in the two counties (Table XII).

Figure 12
EMPLOYMENT COVERED BY EMPLOYMENT SECURITY LAWS*
Platte-Goshen Area — 1950-1961



*Excluding Government, which has been covered only recently.
Source: Wyoming Employment Security Commission.

Table X
FAMILY INCOME
East-Central Wyoming — 1959

Income Group	Goshen	Platte	Total	Per Cent
Under \$2,000	538	272	810	15.8
\$ 2,000-\$ 3,999	763	480	1,243	24.3
4,000- 5,999	780	514	1,294	25.4
6,000- 7,999	406	393	799	15.6
8,000- 9,999	278	160	438	8.6
10,000-14,999	241	112	353	6.9
15,000-24,999	101	24	125	2.4
\$25,000+	45	8	53	1.0
Total	3,152	1,963	5,115	100.0
Median	\$4,676	\$4,860		

Source: U. S. Census of Population, 1960.

Table XI
INCOME OF MALE INDIVIDUALS
East-Central Wyoming — 1959

Income Group	Goshen	Platte	Total	Per Cent
Under \$1,000	555	369	924	15.3
\$1,000-\$1,999	513	339	852	14.0
2,000- 2,999	499	230	729	12.0
3,000- 3,999	506	306	812	13.4
4,000- 4,999	459	351	810	13.3
5,000- 5,999	404	285	689	11.3
6,000- 6,999	197	183	380	6.2
7,000- 9,999	321	215	536	8.8
\$10,000+	276	73	349	5.7
Total With Income	3,730	2,351	6,081	100.0
Total Without Income ..	350	217	567	
Median Income	\$3,613	\$3,762		

Source: U. S. Census of Population, 1960.

Table XII
INCOME OF FEMALE INDIVIDUALS
East-Central Wyoming — 1959

Income Group	Goshen	Platte	Total	Per Cent
Under \$1,000	1,066	657	1,723	52.3
\$1,000-\$1,999	472	260	732	22.2
2,000- 2,999	127	141	268	8.1
3,000- 3,999	185	126	311	9.4
4,000- 4,999	120	49	169	5.1
5,000- 5,999	24	23	47	1.5
6,000 and Over	33	12	45	1.4
Total With Income	2,027	1,268	3,295	100.0
Total Without Income ..	2,126	1,236	3,362	
Median Income	\$ 943	\$ 962		

Source: U. S. Census of Population, 1960.

Much of the low income of women is undoubtedly related to lack of employment opportunity. Nearly 14 per cent of the employed persons worked less than thirteen weeks during the year. These were undoubtedly largely women (Table XIII).

There were 4,148 individuals who made \$3,000 or more in 1959 and 4,721 who worked between 50 and 52 weeks.

A further comparison may be made by isolating certain occupational groups. This is done in Table XIV. The difference in earnings of the professional and managerial group when compared to the state median is most revealing. While others tend to be below the state median, the difference is not nearly so great. Further analysis of this situation will be made in the following chapter.

Table XIII
NUMBER OF WEEKS WORKED BY EMPLOYED PERSONS
East-Central Wyoming — 1959

Weeks Worked	Goshen	Platte	Total	Per Cent
50 to 52 Weeks	2,957	1,764	4,721	56.9
48 to 49 Weeks	246	134	380	4.6
40 to 47 Weeks	341	279	620	7.5
27 to 39 Weeks	481	316	797	9.6
14 to 26 Weeks	409	241	650	7.8
13 Weeks or Less	727	402	1,129	13.6
Total Who Worked	5,161	3,136	8,297	100.0

Source: U. S. Census of Population, 1960.

Table XIV
MEDIAN EARNINGS OF SELECTED OCCUPATION GROUPS
East-Central Wyoming, and the State of Wyoming — 1959

Group	Goshen	Platte	Wyoming
MALE			
Professional, Managerial and Kindred	\$5,662	\$5,341	\$6,402
Farmers and Managers	4,083	3,477	3,670
Craftsmen, Foremen, and Kindred	4,433	5,393	5,576
Operatives and Kindred	3,947	4,174	4,721
Farm Labor	2,064	1,786	1,971
FEMALE			
Clerical and Kindred	2,156	NA	2,523

Source: U. S. Census of Population, 1960.

Housing

About two-thirds of the housing units in this area are occupied by owners. There is a slightly larger proportion of renters in the rural section than in the towns of Torrington and Wheatland.

Value per unit is somewhat below the state median of \$12,300 and rents are also below the \$67 median gross rent for the state.

Most units are sound with all plumbing facilities. Rural units are more often without such facilities. It is noticeable also that a much larger proportion of units were deteriorating in rural areas than in towns.

Table XV
HOUSING CONDITIONS
East-Central Wyoming — 1959

	Torrington	Wheatland	Rural Goshen	Rural Platte
Occupation				
Owner Occupied:				
Number	925	546	1,349	869
Average Value (Median)	\$11,700	\$9,500	NA	NA
Average Number of Rooms	5.0	5.4	5.0	NA
Renter Occupied:				
Number	514	281	854	598
Average Gross Rent	\$53	\$57	\$53	NA
Average Number of Rooms	3.5	4.0	NA	NA
Available Vacant Units	23	31	44	72
Condition				
Sound:				
Total	1,386	680	3,332	1,235
With All Plumbing Facilities	1,359	664	2,887	1,053
Lacking Some or All	27	16	445	182
Deteriorating:				
Total	120	162	811	431
With All Plumbing Facilities	91	129	351	220
Lacking Some or All	29	33	460	211
Dilapidated	16	36	166	87

Source: U. S. Census of Housing, 1960.

CHAPTER V

The East-Central Wyoming Economy

East-Central Wyoming has seven sources of basic income. These include the income received from the export of farm products and the commodities derived from the processing of farm products. They also include a sizeable contribution from the state and federal government, including road construction contracts, salaries to employees, payments to local government, and payments to agriculture. Other sources are minerals, travelers, and miscellaneous.

In 1959, agricultural products were responsible for 58.9 per cent of the basic income; state and federal governments contributed 23.6 per cent; minerals were responsible for 6.5 per cent; travelers, 3.4 per cent; and other sources 7.6 per cent.

Total income from these sources amounted to \$53,366,000. These dollars turned over 1.63 times after they were introduced into the economy and an additional \$86,928,000 of income was produced. This included business income, personal income, and local taxes.

SOURCES OF BASIC INCOME

Agriculture

Since this area is so heavily dependent upon agriculture and agriculturally-oriented industries, trends shown by that industry are extremely important, both in assessing the present and in projecting for the future.

Gross cash income received by farmers and ranchers in this area is subject to two major influences, price and weather. In recent years there has been considerable variation in income due to both causes. The major dip shown in Figure 14 resulted from a series of dry years plus a low price level. The peaks were due to good water years and higher prices.

When incomes are high, farmers and ranchers spend at the higher rate. However, production expenses have a tendency to remain fairly comparable; hence, the major change comes in the profits from which farm families must live (Figure 15).

These ups and downs are of great importance to the businessmen of the area. As we shall see later, the business generating power of farm and ranch dollars is quite high.

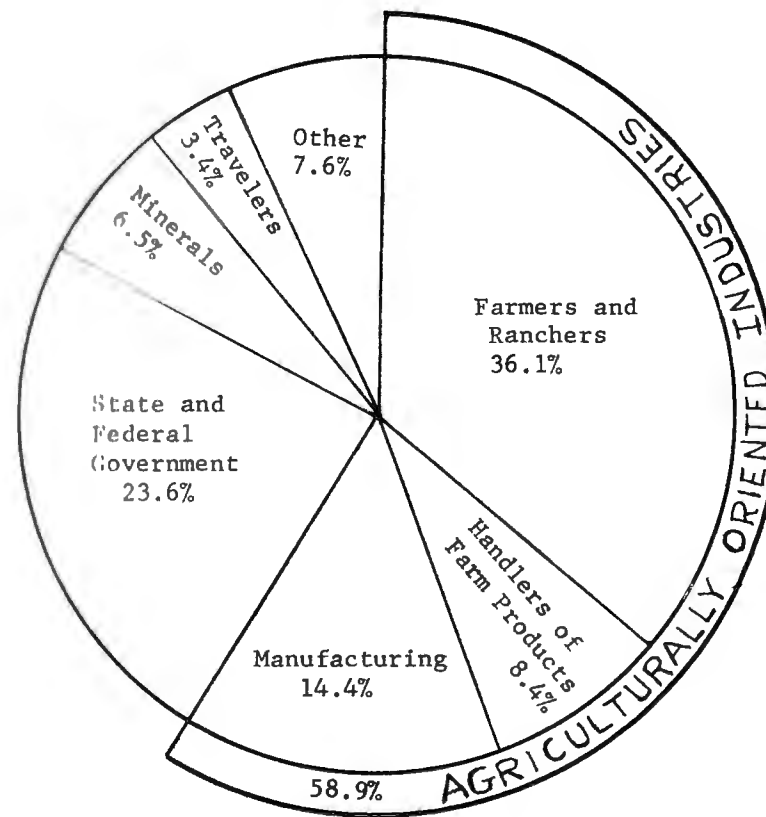
The analysis above also points to a major reason for some of the heavy out-migration of younger farm people. A few years of profit

squeeze such as is evident for 1954, could be very discouraging, even though there are some 1959's to offset it.

In Table XVI a breakdown is given of sources of income received by farmers and ranchers in 1959. The dominance of the cattle industry is readily apparent. Other livestock receipts are also heavily dominated by sheep, although dairying contributes a fair volume.

Figure 13

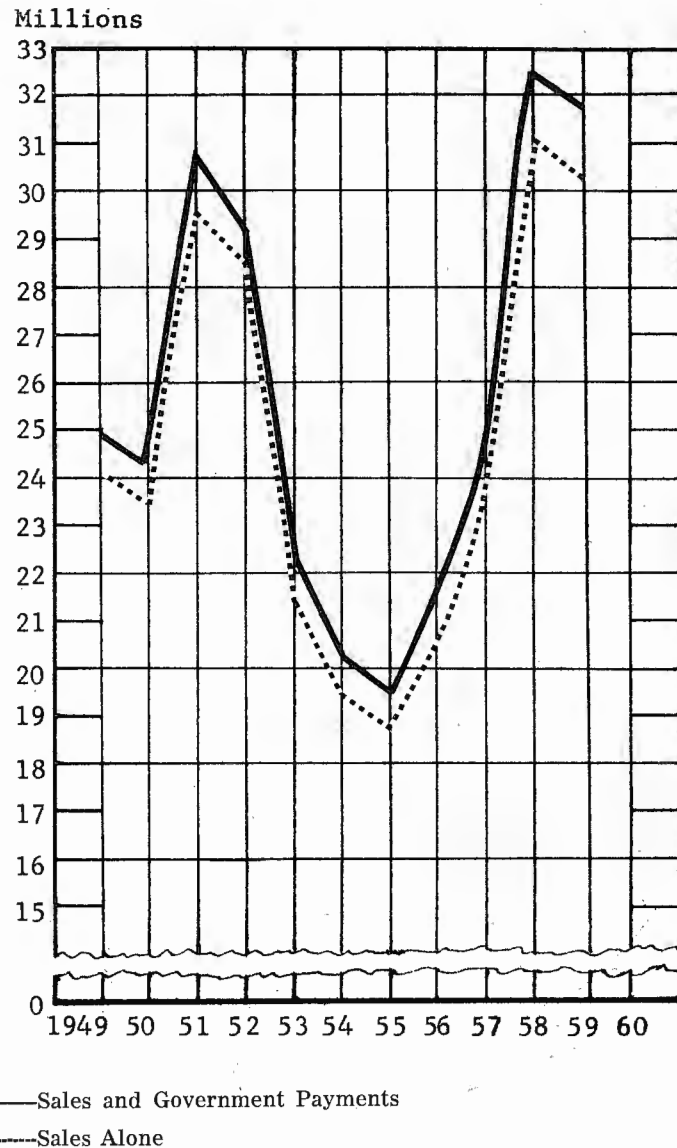
SOURCES OF BASIC INCOME
East-Central Wyoming — 1959



Source: Analysis by Author.

Figure 14

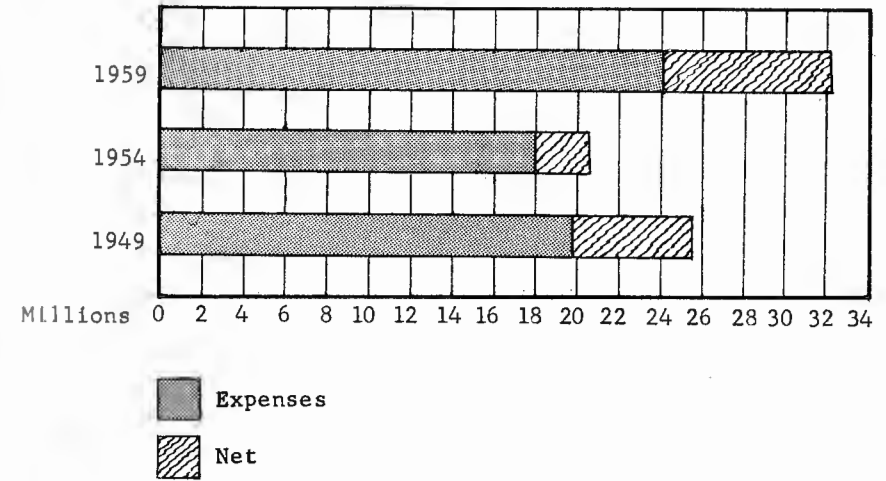
FARM INCOME FROM SALES AND GOVERNMENT PAYMENTS
East-Central Wyoming — 1949-1959



Source: Information Circular No. 12.

Figure 15

FARM INCOME AND EXPENSES
East-Central Wyoming — 1949, 1954, and 1959



Source: Information Circular No. 12.

Crops

Winter wheat and sugar beets are the major cash crops. They are supplemented by dry edible beans, potatoes, hay, and feed grains (Figure 16).

All crops are, of course, drastically affected by weather. Wheat is especially vulnerable since it is grown without irrigation to a large extent (Figure 17).

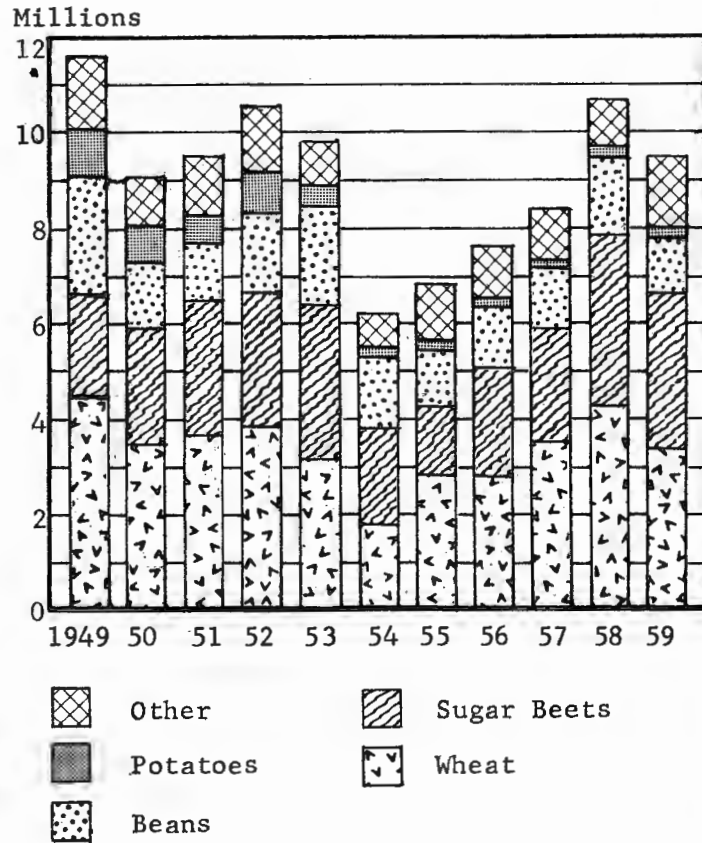
Table XVI
AGRICULTURAL CASH INCOME
East-Central Wyoming — 1959

Source	Goshen	Platte	Total
Sale of Cattle and Calves	\$11,435,000	\$ 7,056,000	\$18,491,000
Other Livestock and Products	1,382,000	872,000	2,254,000
Winter Wheat	1,765,000	1,167,000	2,932,000
Sugar Beets	2,471,000	333,000	2,804,000
Other Crops	2,933,000	856,000	3,789,000
Government Payments	983,000	551,000	1,534,000
Other Receipts	273,000	134,000	407,000
Total Cash Receipts	\$21,330,000	\$10,953,000	\$32,211,000

Source: Estimates by Authors based on U. S. Census and Agricultural Marketing Service Data.

Figure 16

INCOME RECEIVED FROM CROP SALES
East-Central Wyoming — 1949-1959



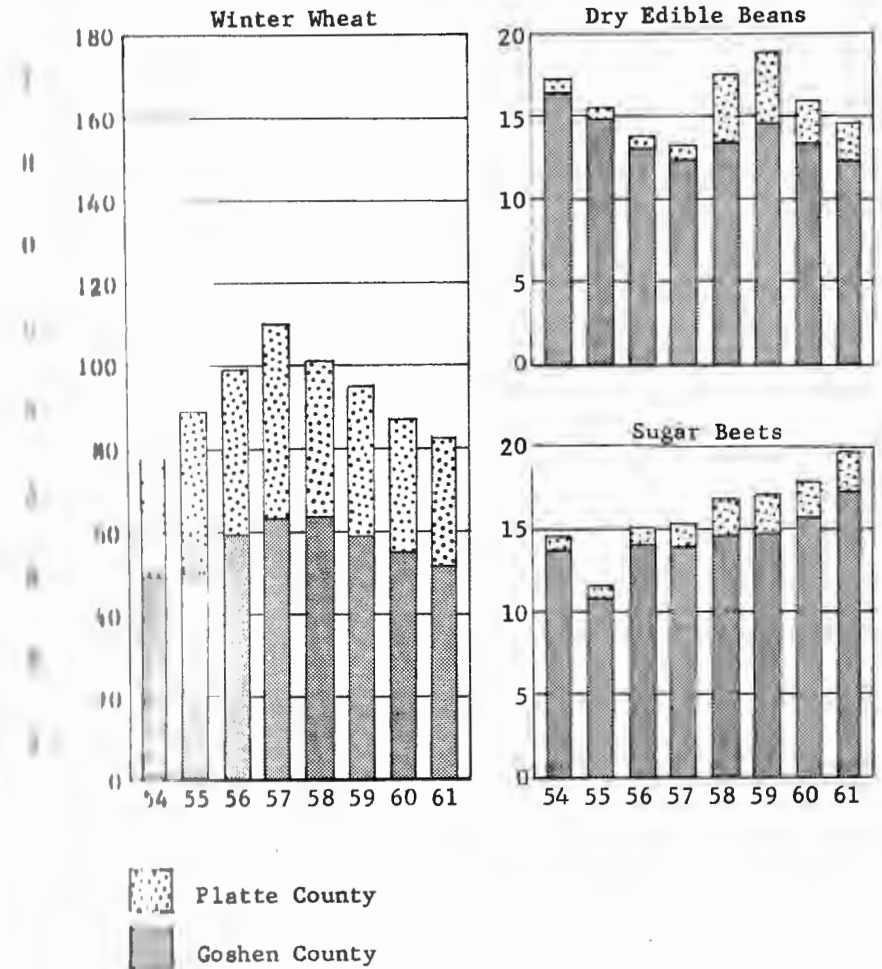
Source: Information Circular No. 12.

The use of irrigation water in Goshen County gives considerable stability to other cash crops. Platte County crops are more vulnerable since drouth years bring a shortage of irrigation water.

Sugar beets are grown on irrigated land, but are affected by climatic conditions such as dry weather, late spring, early fall freezes, etc. Goshen County has most of the acreage of this crop. There is some expectation that the acreage will be increased, depending upon the international situation.

Figure 17

ACRES OF MAJOR CASH CROPS HARVESTED
Goshen and Platte Counties — 1954-1961



Source: United States Federal Agricultural Statistician.

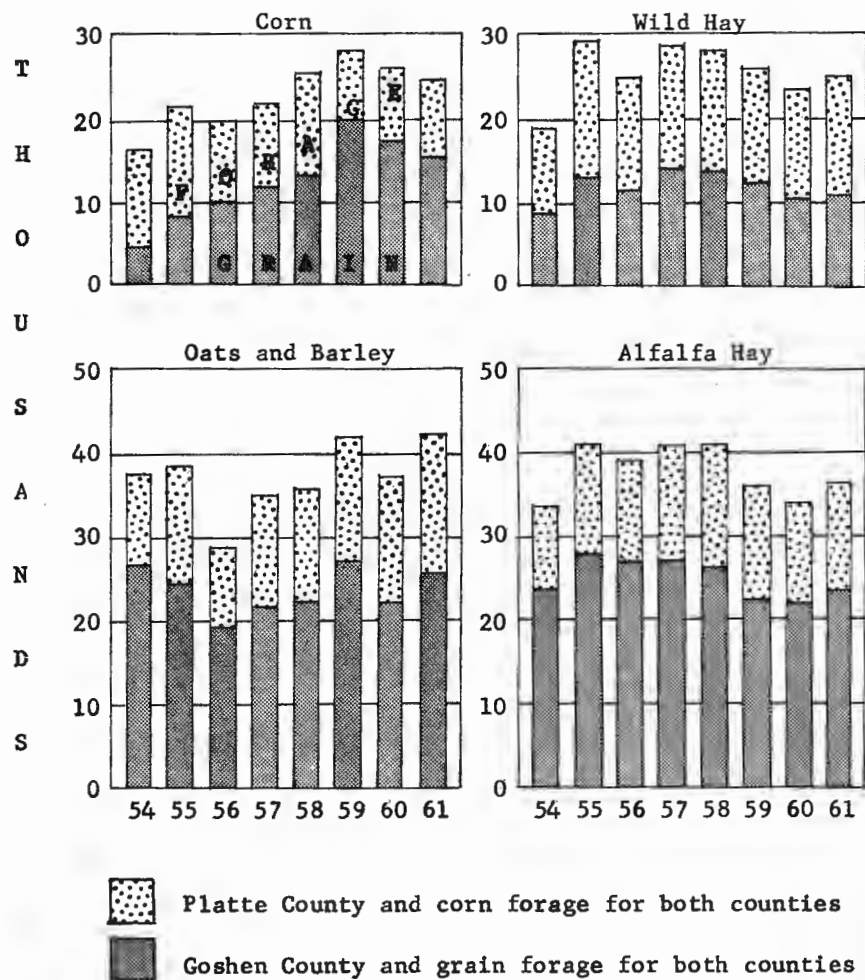
A sugar factory was established in Platte County several years ago. There have not been sufficient beets for it to operate however, so the beets are transported to Goshen County for processing.

Early and late freezes are important in the production of dry edible beans. In most years the growing season is sufficient for this crop.

Price trends, and in the case of winter wheat, acreage controls, also influence the acreage of cash crops harvested. Thus, we find considerable fluctuation in acreage even in years when weather is not a decisive

Figure 18

ACRES OF HAY AND FEED GRAINS HARVESTED
Goshen and Platte Counties — 1954-1961



Source: State-Federal Agricultural Statistician.

factor. By comparing Figures 16 and 17 the relationship between income and acreage harvested is fairly marked.

On the basis of acreage harvested, the most important agricultural product is the production of livestock feed. Wild hay acreage harvested depends more on weather than does alfalfa, because the former usually is grown where there is a lesser assured supply of water (Figure 18).

Corn production has been divided between grain production and the production of forage; i.e., ensilage, soilage, and grazing. A fair acreage is grown on dry land. In this case, corn is rarely harvested for feed but is grazed off. On irrigated land, much of the corn goes into the silo. However, there has been a tendency in recent years to harvest more of the irrigated corn for grain.

Oats and barley are grown on a larger acreage than is corn and, therefore, produce the bulk of the feed grains of this area.

Yields of crops per harvested acre compare favorably with state averages (See Table XVII.) However, there is a tendency for drought to have a somewhat greater impact here than is true statewide due to the effect on dry land crops and irrigation water. Corn for

Table XVII
YIELD PER HARVESTED ACRE
East Central Wyoming and the State of Wyoming — 1950-1961

Year	Winter Wheat bu.	Grain Corn bu.	Barley bu.	Dry Beans lbs.	Sugar Beets ton	Alfalfa Hay ton	Wild Hay ton	Potatoes cwt.
EAST CENTRAL WYOMING								
1951	10.2	25.7	25.8	1,455	12.6	1.80	.69	167
1952	18.1	22.2	31.3	1,520	14.5	1.90	.77	132
1953	17.7	29.2	26.9	1,530	13.4	2.20	.83	153
1954	15.1	28.9	21.8	1,612	15.1	1.90	.85	156
1955	9.7	41.5	13.5	1,529	12.7	2.00	.38	164
1956	19.4	33.7	21.4	1,227	11.4	1.60	.86	137
1957	17.1	31.4	19.3	1,437	12.5	1.80	.69	153
1958	20.7	32.4	30.9	1,616	13.8	2.00	.93	143
1959	20.6	53.3	32.9	1,700	15.2	2.10	.95	151
1960	22.1	58.1	26.8	1,503	16.0	2.20	.80	122
1961	24.0	52.4	28.5	1,435	15.4	2.10	.77	194
1962	22.1	71.8	28.8	1,610	13.3	2.20	.94	197
STATE OF WYOMING								
1950	19.0	19.0	28.0	1,211	12.6	1.50	.75	132
1951	18.0	21.0	34.0	1,204	14.0	1.70	.80	121
1952	16.0	22.0	30.5	1,383	13.8	1.80	.80	147
1953	17.0	23.0	27.5	1,453	14.9	1.75	.85	157
1954	11.5	33.0	24.5	1,448	13.1	1.65	.70	169
1955	19.0	25.0	28.0	1,111	13.9	1.75	.80	165
1956	18.5	26.0	27.0	1,500	14.0	1.75	.80	168
1957	22.0	27.0	37.0	1,550	15.1	1.90	.95	142
1958	28.0	30.0	37.0	1,500	15.9	1.90	.95	156
1959	22.0	31.0	31.0	1,500	16.2	1.65	.80	155
1960	20.3	51.0	32.0	1,450	15.3	1.55	.75	160
1961	21.0	67.0	31.0	1,620	13.6	1.75	.90	165

Source: State-Federal Agricultural Statistician.

grain is an exception because of the practice of grazing off poor-yielding fields rather than harvesting them. The yield per harvested acre is often higher in dry years than wet for this crop.

Livestock

In 1959 Goshen County farmers and ranchers received 54 per cent of their gross cash income from the sale of cattle and calves. In Platte County the percentage was 64. Thus, this area of the state is heavily dependent upon the cattle industry. Two types of operations are involved: ranch production of feeder cattle and farm fattening operations. The latter is carried out fairly extensively in Goshen County and to a lesser degree in Platte County. The ability to use beet pulp in feeding operations has considerable to do with the amount of feeding done. Goshen County farmers are nearer the sugar factory than those in Platte County. The water situation also enters into the picture. An assured feed supply is necessary for extensive feeding operations. Under present conditions, Platte County farmers do not have this assurance for any particular year.

In addition to income from the cattle industry, both counties depend to a much lesser degree but still of some significance, upon sheep, dairy, and other livestock. There is considerable variation from year to year in income from cattle and sheep, but dairying and other livestock income is fairly stable (Figure 19).

Cattle income is heavily influenced by price changes. It is also responsive to weather. Low income from sales in 1955, for example, resulted from building of herds following forced sales during the 1954 drouth year. In 1953 low income came as a result of holding because of the drop in prices from the extremely high 1951 and 1952 levels.

In Figure 20 the trend in cattle numbers gives an idea of the effect of the 1953-54 and 1960 drouth years upon the two counties. Numbers in Goshen County held fairly steady in 1953 and 1954, but in Platte County there was a noticeable decrease in January, 1954 and January, 1955. The heavy cattle feeding industry in Goshen County, which is tied to irrigated farms, had a tendency to level things out for that county even though the drouth did affect range operations. However, a noticeable decrease occurred in that county during 1960 (as of January 1, 1961), as well as in Platte County.

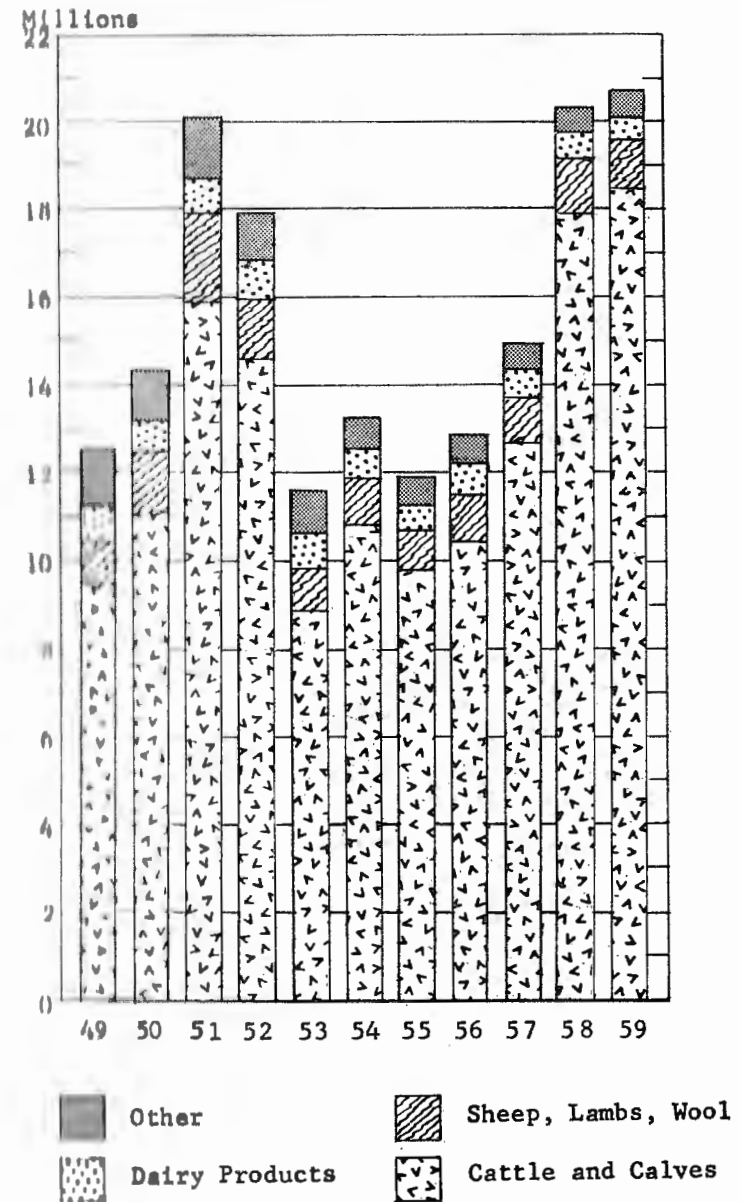
Sheep are less dependent upon irrigated farms; hence, they were more directly affected in both counties. Prices have been important in determining sheep numbers in recent years. Low prices for both wool and lambs have discouraged operators everywhere in the state.

Prices are important in determining agricultural income. It is noticeable that regardless of the production situation, income will follow closely the trends set by price. This is evident in comparing other illustrations in this analysis with the trends shown in Figure 21.

Figure 19

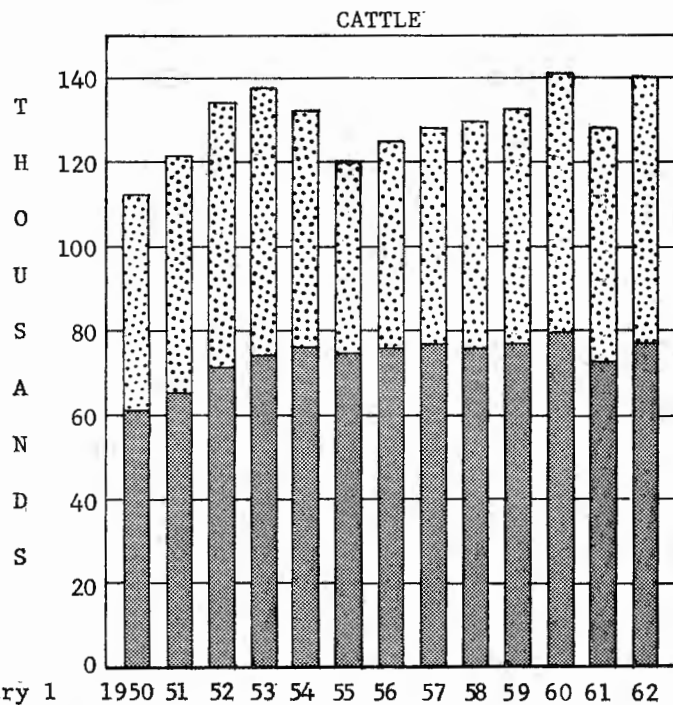
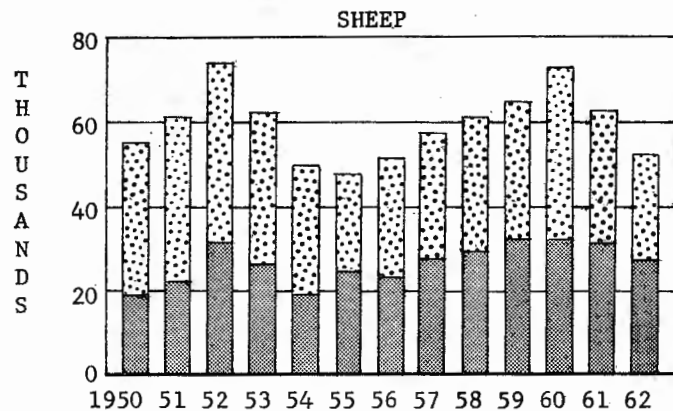
INCOME RECEIVED FROM LIVESTOCK AND LIVESTOCK PRODUCTS

East-Central Wyoming — 1949-1959



Information Circular No. 12, Division of Business and Economic Research.

Figure 20
TRENDS IN LIVESTOCK NUMBERS
Goshen and Platte Counties — 1950-1962



Platte County
 Goshen County

Source: State-Federal Agricultural Statistician.

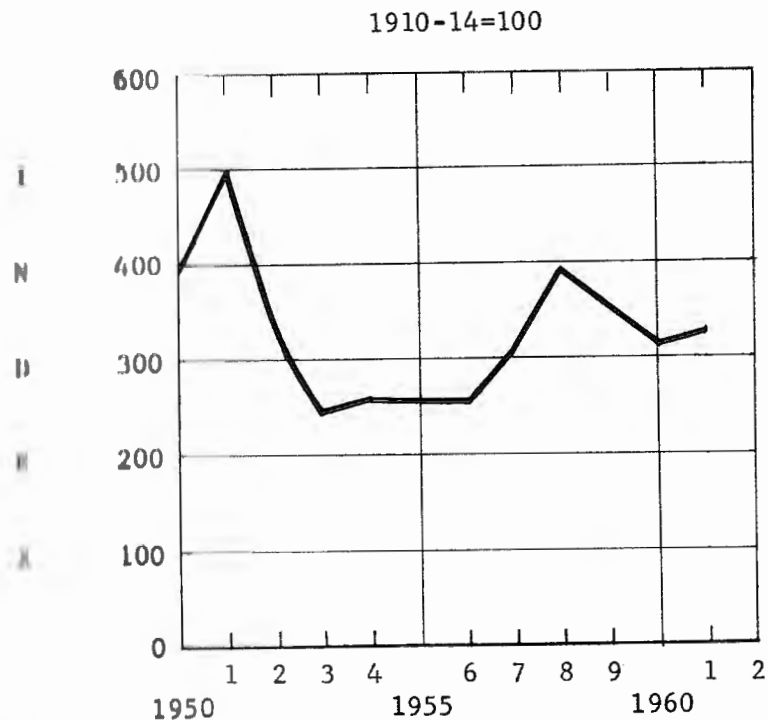
General

In line with state and national trends, farms in this section of Wyoming are becoming fewer in number and are increasing in size. This trend is more obvious in Platte where more cattle ranches are involved than in Goshen. Nevertheless, it is unmistakable in both counties. (See Figures 22 and 23).

Partially as a result of this trend and partially because of price increases, the average investment in land and buildings has increased quite rapidly (Figure 24).

In order to handle larger units and to make a profit with larger investment, mechanization has occurred quite rapidly. Over 80 per cent of the farms and ranches in this area had automobiles, tractors, and trucks in 1959 (Figure 25).

Figure 21
TRENDS IN PRICES RECEIVED FOR MEAT ANIMALS
BY WYOMING FARMERS AND RANCHERS
As of October 1950-1962

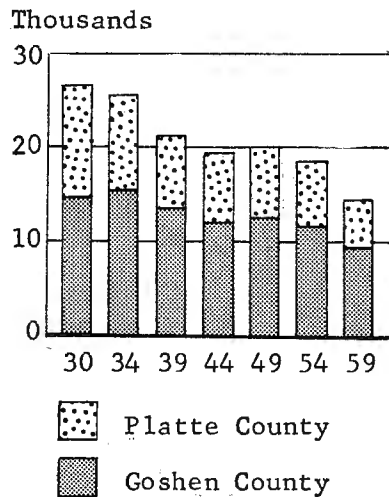


Source: State-Federal Agricultural Statistician.

The proportion of tenants in these two counties is quite high. They ran between 20 and 40 per cent of all farm operations during the period from 1930 to 1959. There has been a slight downward trend since 1939. The decrease in tenants was accompanied by an increase in the proportion of farms operated by part-owners in Platte County and by full-owners in Goshen County (Figure 26).

Figure 22

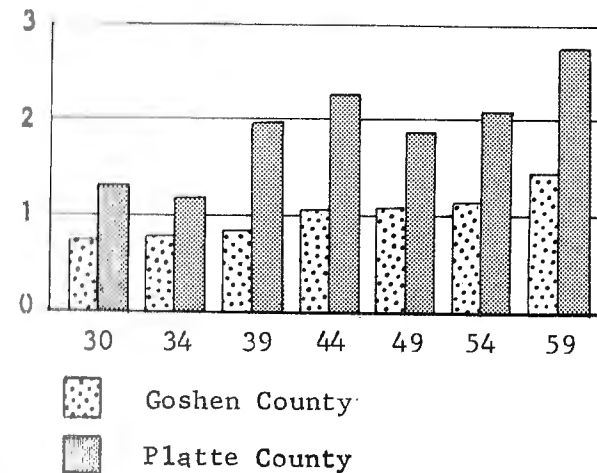
NUMBER OF FARMS
Platte and Goshen Counties — 1930-1959



Source: U. S. Census of Agriculture.

Figure 23
AVERAGE SIZE OF FARM AND RANCH
Platte and Goshen Counties — 1930-1959

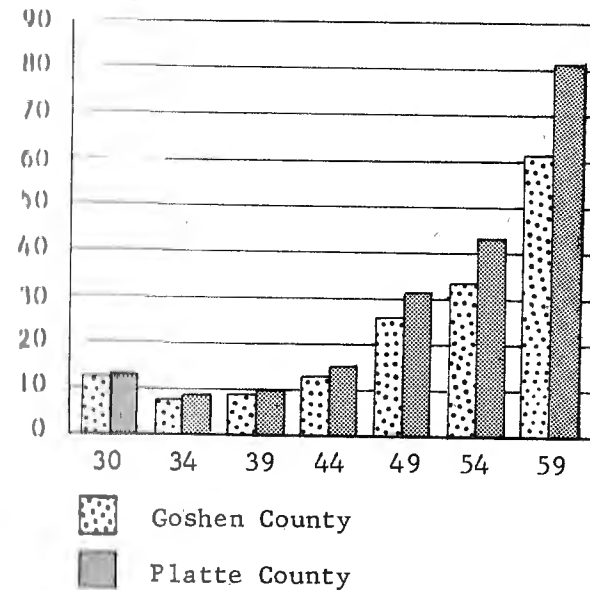
Thousands
of Acres



Source: U. S. Census of Agriculture.

Figure 24
AVERAGE VALUE OF REAL ESTATE PER FARM
Platte and Goshen Counties — 1930-1959

Thousands
of Dollars

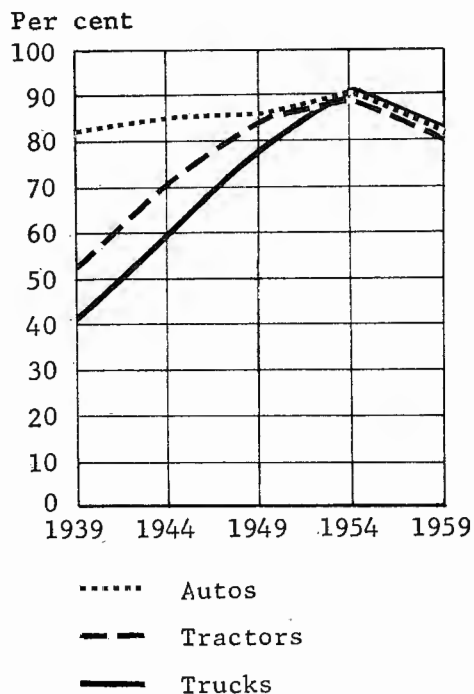


Source: U. S. Census of Agriculture.

Figure 25

PERCENTAGE OF FARMS HAVING EQUIPMENT

East-Central Wyoming — 1939-1959



Source: U. S. Census of Agriculture.

Markets

The markets for agricultural products are located largely to the east of this area. Livestock move into the corn belt for fattening. Wheat, potatoes, and beans also move eastward.

In addition to these export markets, a fairly large market exists locally. Local buyers are primarily members of one of three groups. (1) Farmers and ranchers purchase livestock, hay and grain, machine use, and many other things from one another. The heavy purchases in this area are cattle and sheep for feeding and stocker replacement. (2) Manufacturers purchase sugar beets and livestock from farmers and ranchers. These, then, become the raw material for processing. (3) Handlers of farm products also purchase such things as grain, beans, potatoes, etc., from farmers and ranchers. They do a certain amount of limited processing such as cleaning, packaging, sorting, and grading, thus adding to the value of the product. Most of it is then exported.

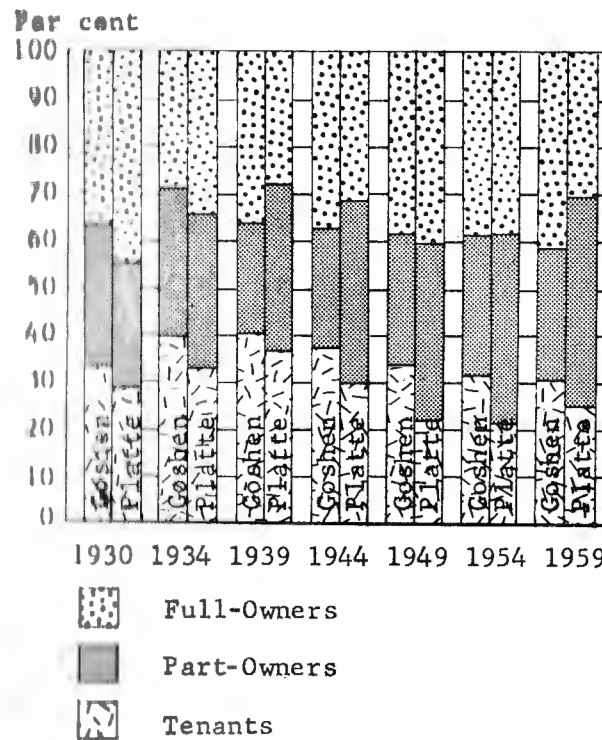
The market for agricultural products in 1959 was distributed as follows:

TOTAL SALES:	
To Farmers and Ranchers	\$ 3,629,000
To Manufacturers	3,946,000
To Handlers of Farm Products	3,808,000
To Wholesalers	13,000
Subtotal	\$11,396,000
EXPORT SALES:	19,281,000
Total Income from Sales	\$30,677,000

Figure 26

TENANCY STATUS

Goshen and Platte Counties — 1930-1959



Source: U. S. Census of Agriculture.

Handlers of Farm Products

This category is, of course, closely tied to agriculture. As indicated previously, in 1959 farmers and ranchers sold almost as much to this group as to manufacturers. Included in this category are the various bean elevators, potato buyers, grain buyers, livestock handlers, etc.

These people also import such things as feeds, fertilizers, insecticides, etc., which they sell to local farmers and ranchers. In 1959 they purchased \$3,808,000 worth of commodities from farmers and sold them \$2,414,000 worth.

Their exports for the year amounted to \$4,475,000 and their imports to \$2,362,000. They spent \$202,000 with local businessmen for goods and services, paid \$31,000 in local taxes, and contributed \$486,000 to personal income. There were 12 firms operating with 18 owners and an average of 24 hired employees.

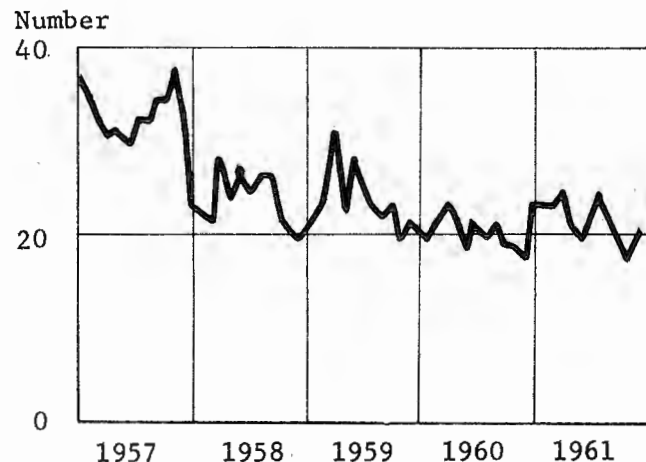
The number of hired workers employed by this industry has trended downward somewhat during the five years, 1957 through 1961. Monthly fluctuations are quite wide for such a small number of employees (Figure 27). This is due to the seasonal nature of the goods handled.

Manufacturing

Manufacturing in East-Central Wyoming is dominated by the sugar refinery. In addition, there are meat packing, dairy, bakery, cement block, printing, and other small industries.

Figure 27

MONTHLY HIRED EMPLOYMENT BY HANDLERS OF FARM PRODUCTS
East-Central Wyoming — 1957-1961



Source: Wyoming Employment Security Commission.

Manufacturing paid to agriculture was \$3,946,000 in 1959, \$2,804,000 of which was for sugar beets. The rest was paid for milk, livestock, and miscellaneous products.

The manufacturing industry had a gross of \$9,914,000 in 1959. It paid out \$653,000 for transportation; \$150,000 for utilities; \$82,000 for local merchandise; \$46,000 for local taxes; \$976,000 for personal income; and out \$1,061,000 out of the area to pay for state and federal taxes, for freight of supplies and raw materials, for interest payments to non-local creditors, for profits to non-residents of the area, etc.

Employment was furnished to 22 owners and an average of 239 hired employees by the 19 firms involved. Average employment doesn't give a proper picture, however, since the sugar company does its major hiring during the last quarter of the year. Figure 28 shows this pattern for 1961 which is a typical year.

Generally speaking, employment in manufacturing changes very little from year to year in this area. Therefore, it lends considerable stability to the overall economy.

Minerals

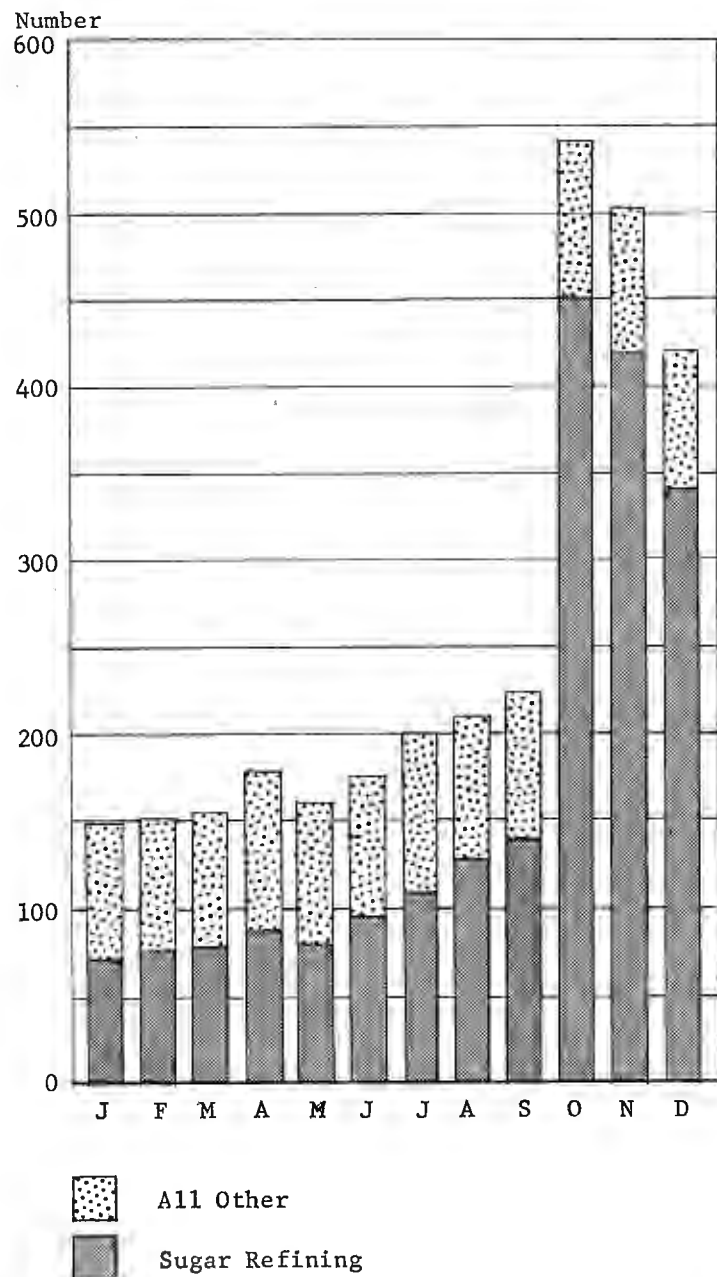
Mineral production in 1959 was worth \$3,572,000. Iron ore production dominates this picture. Income was also received from production of petroleum, stone, sand and gravel, and gem stones. The products produced have been about the same since 1954 when petroleum began to be a factor. Prior to that time it was the same except for petroleum. The value of production reached a post-war high of \$6,037,000 in 1955 and has decreased each year since that time.

Employment is a fairly sensitive indicator of production, as well as the contribution of this industry to the local economy. From Figure 29 we see that average employment has tended to be somewhere between 300 and 400 for most of the past ten years. Actually, monthly employment has hovered around 350, except for shut-downs which drop employment to about 100, and the high year of 1955 and low years of 1950 and 1961 (Figure 30).

Payroll represents most of the local expenditure of the minerals industry. For 1959 payroll amounted to \$1,708,000 compared to \$117,000 in 1950. It is used to pay local taxes and \$180,000 to purchase local goods and services.

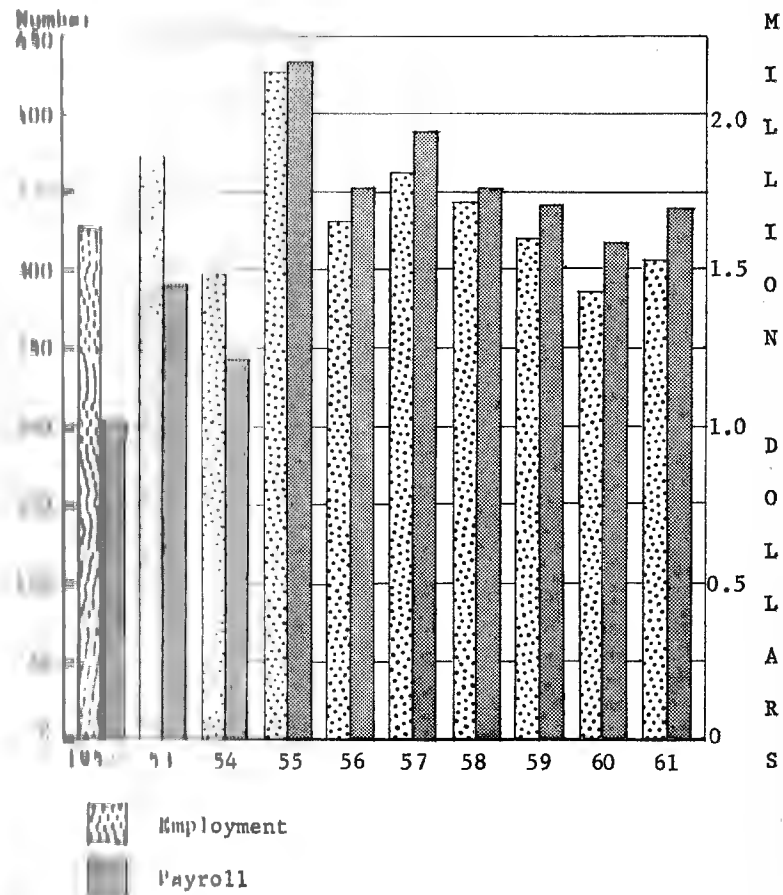
In 1959 the average earnings per employee passed the \$5,000 mark for the first time. The \$5,096 average for that year may be compared to an average of \$2,656 in 1950. This trend explains why payrolls have not increased as rapidly as employment in recent years. This also has important connotations for the future impact of the industry.

Figure 28
EMPLOYMENT IN MANUFACTURING
 East-Central Wyoming — 1961



Source: Wyoming Employment Security Commission.

Figure 29
AVERAGE EMPLOYMENT AND PAYROLL IN MINERALS
 East-Central Wyoming — 1952-1961

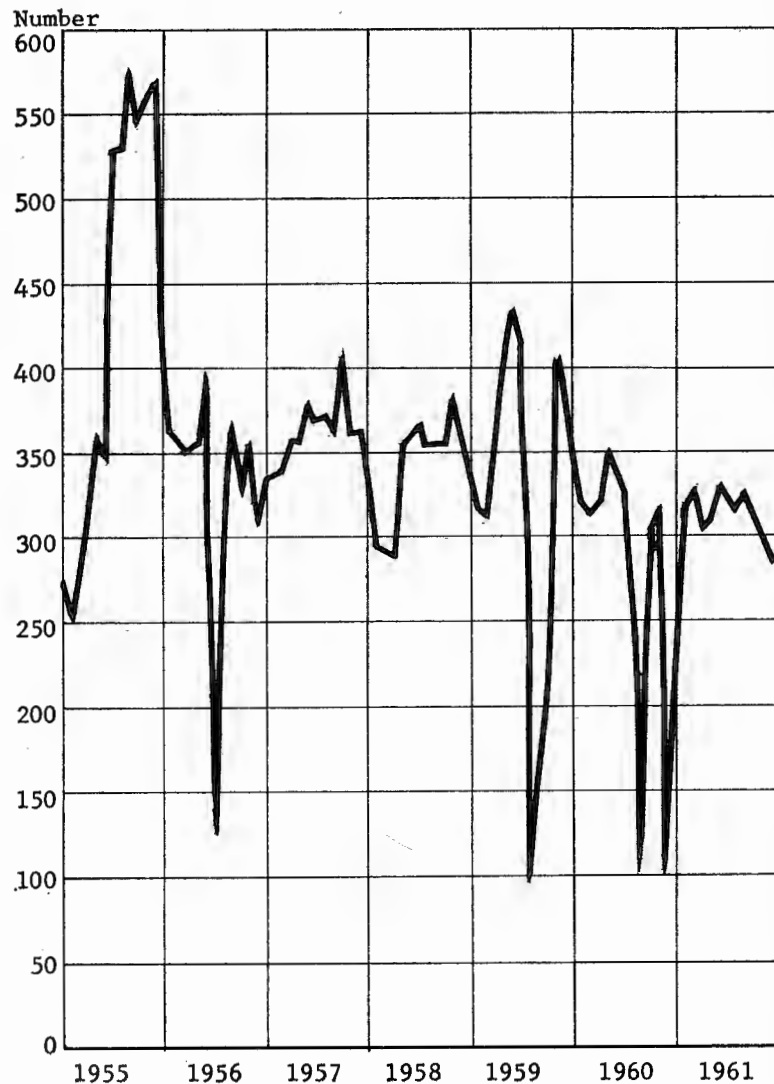


Source: Wyoming Employment Security Commission.

Figure 30

MONTHLY EMPLOYMENT IN MINERALS INDUSTRIES

East-Central Wyoming — 1955-1961



Source: Wyoming Employment Security Commission.

Table XVIII

REVENUE COLLECTED BY STATE AND FEDERAL GOVERNMENTS
East-Central Wyoming — 1959

	Goshen	Platte	Total
FEDERAL			
Type Revenue	\$2,957,100	\$1,858,000	\$4,815,100
Iron Tax Revenue	600	1,900	2,500
Subtotal	2,957,700	1,859,900	4,817,600
STATE			
Type Revenue	1,282,200	802,000	2,084,200
Iron Tax Revenue	271,500	345,200	616,700
Less: Veteran's Exemptions	31,100	20,900	52,000
Subtotal	1,622,600	1,126,300	2,648,900
Grand Total State and Federal	\$4,480,300	\$2,986,200	\$7,466,500

..... Estimates based on state and federal reports.

State and Federal Governments

During 1959 the state and federal governments collected \$7,466,500 in revenue from East-Central Wyoming. (See Table XVIII.) At the same time they spent \$12,597,000 in the area.

In this analysis the first sum is treated as a leakage from the economy and the second is treated as basic income to the economy. This is because there is no relationship between taxes collected and amounts spent by these branches of government.

Unfortunately very little information is available concerning trends in the contribution of state and federal agencies to the county governments. Therefore, it will not be possible to determine how typical the 1959 year is. It will be assumed to be fairly typical, since the activities of these branches of government have been carried on for some time.

The 1959 contribution was made in several ways. Support payments made to agriculture; road construction contracts; payrolls and direct payments made to individuals such as insurance dividends, social security benefits, pensions, etc.; and payments made to local units of government such as counties and school districts; were the largest portion. In addition, rents, telephone bills, and transportation bills were paid to local businesses.

The amounts were as follows:

Payments made to agriculture	\$ 1,534,000
Road Construction	4,783,000
Payroll to government employees	\$1,408,000
Direct payments to individuals	\$2,546,000
Payments to local government	2,203,000
To transportation	74,000
To communications	14,000
.....	35,000
Total	12,597,000

Travelers

Traveler expenditures are not a big factor in the East-Central Wyoming economy as yet. In 1959 they contributed slightly over 3 per cent of the basic income of the area. Nevertheless, they are important to certain segments of the economy and could well become much more important.

The 1959 expenditure of \$1,820,000 was split 80 per cent with retailers and 20 per cent with service firms. This indicates that for the most part, these people were just going through. A survey made by this office in 1960 indicated that 2 per cent of the nights spent in Wyoming by out-of-state travelers were spent in this area. Three good highways servicing the area make it easy for travelers to drive through without stopping. U. S. Highway 85 runs north and south through Goshen County. U. S. Highway 87 (soon to be Interstate 25) runs north and south through Platte County and U. S. Highway 26 connects the two.

There are several attractions in this area for outside visitors. Glendo and Guernsey Reservoirs are used extensively for fishing and boating. The grain fields of the area make excellent habitat for pheasants, which draw considerable hunter trade. Fort Laramie National Monument also is an attraction.

In Figure 31 the number of visitors to Fort Laramie has been graphed. Immediately following World War II there were about 12,000 persons visiting the monument each year. This has quadrupled to just under 50,000 in 1961. The numbers are not yet very large, but a continuation of this trend could mean a lot to this area.

Other Sources of Basic Income

Since basic income is any new money entering an economy, money received by its inhabitants from any source outside its boundaries must be considered basic.

The \$4,053,000 of other income received by the East-Central Wyoming area in 1959 was this type of income. It consisted of dividends, interest, gifts, pensions, inheritances, and many other things of a similar nature.

As with some other items, the only information available is for the year surveyed; hence, trends cannot be determined. However, this type of income tends to be influenced more by national than local trends. It would be safe to assume, therefore, that it has increased quite steadily since the end of World War II and will probably continue to do so.

COMMERCIAL ACTIVITY

Commercial activity in an area is sometimes referred to as "secondary" activity, since, for the most part, it exists as a result of the expenditure of basic dollars in an economy.

Each of the counties involved in this study has a commercial center. Torrington is the county seat and trade center for Goshen County and Wheatland is the county seat and trade center for Platte County.

Figure 31

ANNUAL NUMBER OF VISITORS TO FORT LARAMIE NATIONAL MONUMENT

1941-1961

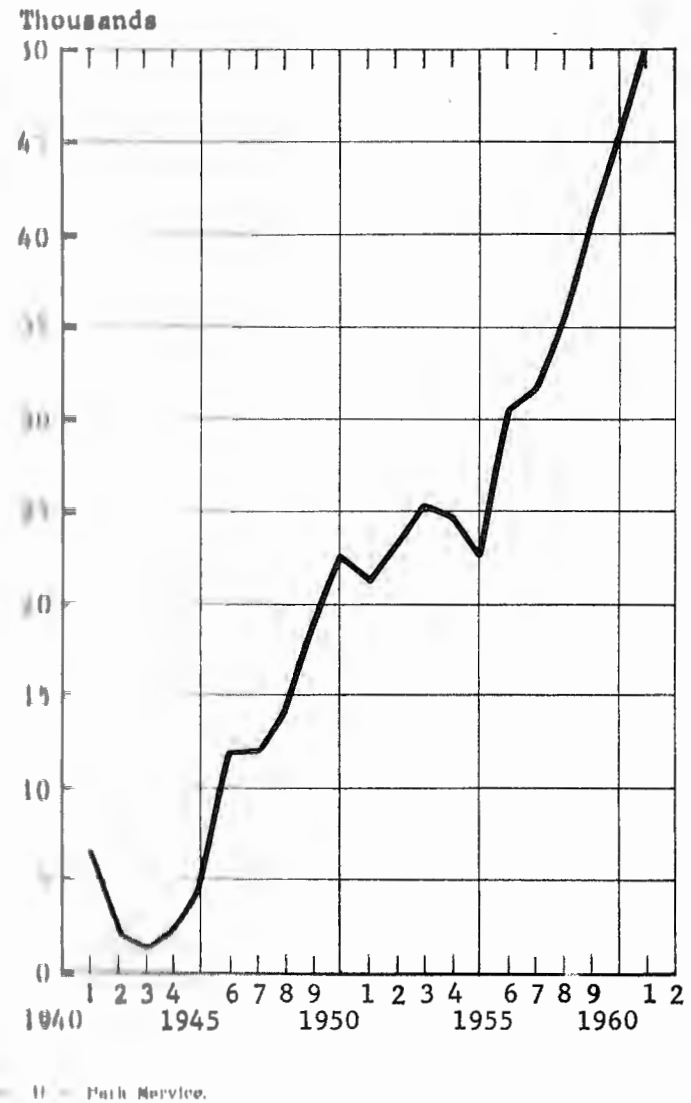


Table XIX
COMMERCIAL OPERATIONS BY TYPE OF FIRM
East-Central Wyoming — 1959

Type	Commercial Sales	Retail Sales	Wholesale Sales	Utilities	Service Sales
Retailers	\$23,735,000	\$22,675,000	\$ 234,000	\$	\$ 826,000
Service	3,854,000	433,000			3,421,000
Finance, Insurance, and Real Estate	1,378,000				1,378,000
Utilities	2,026,000	32,000		1,994,000	
Transportation and Communication	3,068,000	84,000	23,000		2,961,000
Contractors	8,211,000	635,000			7,576,000
Wholesalers	3,234,000		3,234,000		
Manufacturers	2,250,000	421,000	1,829,000		
Government	521,000	9,000		512,000	
Handlers of Farm Products.....	2,414,000	2,414,000			
Rentals	2,245,000				2,245,000
Total	\$52,936,000	\$26,703,000	\$ 5,320,000	\$ 2,506,000	\$18,407,000

During 1959 there were 308 retailers, 214 general service firms, 33 finance, insurance, and real estate firms, 4 utilities, 24 transportation, 6 communications, 42 contractors; and 23 wholesalers operating in the East-Central Wyoming area for a total of 654 firms. They furnished employment for 846 owners and members of owners' families, and to 2,154 hired employees.

The classification of firms becomes somewhat difficult because of the tendency for them to cross lines. In Table XIX this situation is illustrated by listing the commercial operations of various types of firms. Total retail sales for the year amounted to \$26,703,000, with 85 per cent of them made by regular retailers and the rest by service firms, utilities, transportation firms, contractors, manufacturers, government, and handlers of farm products.

Wholesale sales of \$5,320,000 were made by wholesalers (61 per cent), manufacturers (34 per cent), retailers (4 per cent), and transportation firms (1 per cent).

Eighty per cent of the utilities were sold by utility companies and 20 per cent by governmental units.

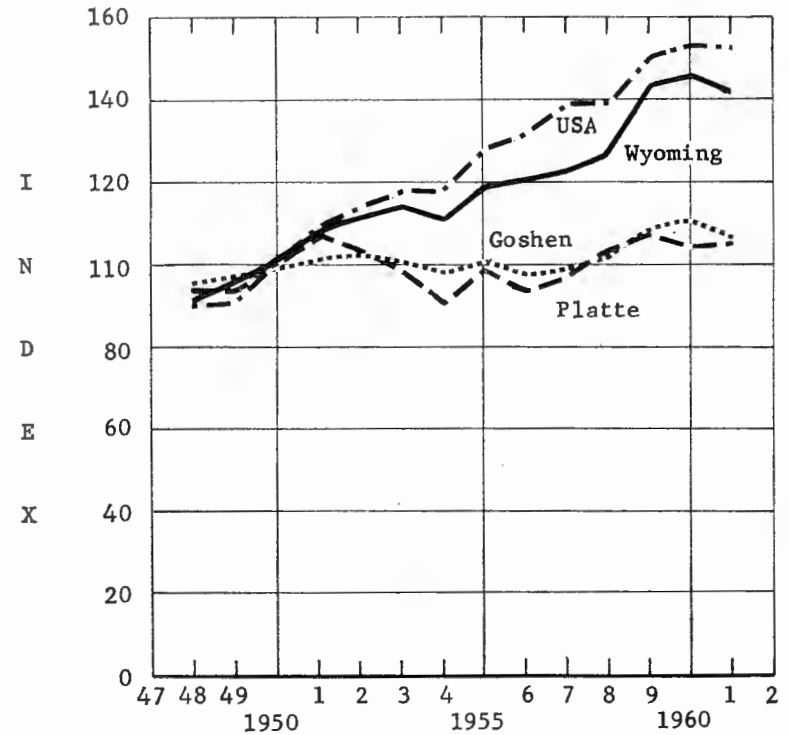
Service sales were made mostly by service type organizations. However, it is interesting to note that retailers sold four per cent of the total.

Retail Trade

Retail trade has increased very little in these two counties in recent years. The lag behind trends in the state and nation is most marked (Figure 32¹). Much of this can be attributed to out-migration of younger

¹This comparison is made by utilizing index numbers in which sales made during the year 1950 count as 100. This enables a comparison of the billions of national sales, hundred millions of state-wide sales and millions of local sales.

Figure 32
TRENDS IN SALES BY COMMERCIAL RETAILERS
GOSHEN AND PLATTE COUNTIES, WYOMING, UNITED STATES
1948-1961
1950=100



Sources: U. S. Dept. of Commerce and Division of Business and Economic Research, Circular No. 1.

people whose buying habits are more oriented toward things and somewhat less toward service.

The 308 retail stores operating in this area during 1959 had a gross business of \$23,735,000, which consisted of \$22,675,000 in actual retail sales, \$826,000 in service sales, and \$234,000 in goods sold at wholesale to other retailers. Service sales consist of such things as repair services, carrying charges, and other such items.

Retailers had three major categories of customers. Private householders purchased \$15,377,000 worth from them. Farmers and ranchers purchased \$5,531,000 worth of supplies and services for their operations. Travelers purchased \$1,463,000 worth of commodities and services from them. The rest of the sales were scattered among other businessmen of the community.

Supplies of merchandise purchased by retailers in this area are largely purchased from outside of the area. Denver and Scottsbluff are the major sources, but Cheyenne and Casper contribute significant amounts. Local sources of supply include manufacturers, from whom \$1,337,000 worth of supplies was purchased in 1959, and wholesalers, from whom \$1,764,000 worth was purchased.

Retailers contributed \$3,690,000 to the personal income of the area in 1959, \$2,302,000 of it as payroll, and the rest as net profit and trade in values. The distribution was as follows:

Payrolls	\$2,302,000
Profits	648,000
Trade-in Values	740,000
Total	\$3,690,000

They also paid \$236,000 in local taxes.

Retailing gave employment to 466 owners and family workers and an average of 842 hired employees during 1959 (Table XX).

Another interesting indicator of the type of economy being analyzed is the line of goods sold at retail (by retailers and others). Importance of the automobile to people of this area is easily illustrated by Table XXI, which shows that 30 per cent of all retail sales consists of autos and auto supplies. Groceries and farm equipment and supplies are about of equal importance. The three represent over two-thirds of all purchases made.

In similar studies in other sections of the state, autos and supplies and groceries have ranked high, but agricultural equipment and supplies have been less important. Prepared food, clothing, and building material rank fairly high in every locality.

Table XX
RETAIL STORES
East-Central Wyoming — 1959

Standard Industrial Code	Type of Firm	Number Owners & Family Workers		Hired Workers		Gross Business
		Firms	Workers	Number	Payroll	
52	Building Material, Hardware, and Farm Equipment	28	51	151	\$ 531,300	\$ 4,081,300
53	General Merchandise	7	10	47	207,300	807,400
54	Food	43	74	109	283,900	4,964,200
55	Automotive and Gasoline Service Stations	74	100	170	611,000	7,876,400
56	Apparel and Accessories	16	13	61	78,800	1,495,400
57	Furniture, Home Furnishings and Equipment	7	8	35	54,900	500,800
58	Eating and Drinking Places	65	113	186	303,600	2,023,700
59	Miscellaneous Retailers	68	97	83	231,200	1,985,800
Total Retailers		308	466	842	\$2,302,000	\$23,735,000

Source: Survey by Authors, and Employment Security Commission data.

Table XXI
MAJOR LINES OF RETAIL TRADE
East-Central Wyoming — 1959

	Amount	Per Cent
Automobiles, Gasoline, and Auto Supplies	\$ 8,037,600	30.1
Groceries, Meats, Tobacco, and Soft Drinks	5,153,700	19.0
Farm Equipment, Feed, Seed, and Farm Supplies	5,020,200	18.5
Prepared Food	2,189,600	8.1
Clothing and Dry Goods	1,575,500	5.8
Building Material	1,281,700	4.8
Drugs, Cosmetics, and Sundry Items	854,800	3.2
Furniture and Appliances	774,400	2.9
Hardware and Sporting Goods	721,000	2.7
Liquor, Wine and Beer	400,500	1.5
Office Supplies, Books, Magazines, Newspapers, etc.	133,500	0.5
Household Goods	80,100	0.3
Toys and Novelty Goods	80,100	0.3
Jewelry	53,400	0.2
Fuel (Other Than Natural Gas)	53,400	0.2
Other	293,800	1.1
Total	\$26,703,000	100.0

Source: Based on Survey by Authors.

General Services

There were 214 general service firms operating in this area in 1959. They gave employment to 283 owners and family workers who drew \$1,282,000 in profits, and 463 hired employees who were paid \$1,111,000 in payroll.

Gross business for the year amounted to \$3,854,000, with 63 per cent being purchased by private households, 14 per cent by agriculture, 9 per cent by travelers, and the rest by other businesses.

Selected service groups covered by the census show an increase in number of establishments of about one-half from 1948 to 1958 and a doubling of gross receipts (Table XXII). Since retail trade increased by only 10 per cent during the same period, sales of services are increasing much more rapidly than other trade. The nation-wide trend in service sales, however, is at a much more rapid rate. (Services in this area have somewhat the same tendency to lag behind the state and nation in sales increases as does retail trade.) Since the census covers only a section of the service category, trends in professional services are not discernable. However, we would expect them to follow somewhat the same path as other services.

Table XXII
TRENDS IN SELECTED* SERVICE SALES
East-Central Wyoming — 1948, 1954, and 1958

	1948	1954	1958
Number of Establishments	81	110	123
Gross Receipts	\$765,000	\$1,565,000	\$1,463,000
Yearly Payroll	\$162,000	\$267,000	\$264,000

*Covers hotels, motels, tourist courts, and camps; personal services; business services; auto repair; miscellaneous repair; and amusement in part.

Source: U. S. Census of Business, 1948, 1954, and 1958.

Table XXIII
GENERAL SERVICE SALES
East-Central Wyoming — 1959

Standard Industrial Code	Type of Firm	Number of Firms	Owners & Family Workers	Hired Workers		Gross Business
				Number	Payroll	
07	*Agricultural Services ..	8	12	15	\$ 49,700	\$ 128,300
70	Lodging Places	43	75	36	48,700	454,000
72	Personal Services	40	49	72	212,100	468,300
73	Business Services	2	2	6	12,400	25,900
75	Automotive Repair	29	30	26	78,000	623,400
76	Miscellaneous Repair ..	33	43	29	76,800	411,000
78 - 79	Amusement	13	14	60	174,000	640,000
80	*Medical and Health ..	31	35	203	446,400	1,018,400
81 - 89	*Legal, Accounting and Other Professional Services	15	23	16	15,900	84,700
Total		214	283	463	\$1,114,000	\$3,854,000

*Not covered by census; others are partially covered.

Source: Estimates by Authors based on Survey, Employment Security Commission and Census data.

The general service category is broken down into various classes in Table XXIII. This also reveals considerable information about the make-up of the economy. Health services are most important. (Hospitals are included in this category.) Services to automobiles are expected to be important, in view of their place in the retail picture. Incidentally, a large part of sales by retailers (i.e., auto dealers) would actually be auto repair service.

Finance

Since financial transactions are involved in all facets of the economy, data concerning finance make good barometers. The trend line shown in Figure 33 shows a very steady climb upward in bank deposits since 1940. The lower line shows that these deposits represented an increasing proportion of the total state deposits until 1952. Since that time there has been a gradual loss of ground relative to trends in the state.

This corroborates the indication shown by other data, that this area is not gaining as fast as the state and nation.

Table XXIV
SALES OF FINANCIAL SERVICES
East-Central Wyoming — 1959

Standard Industrial Code	Type of Firm	Number of Firms	Owners & Family Workers	Hired Workers		Gross Business
				Number	Payroll	
60 & 61	Banking and Credit Agencies	8	0	82	\$368,000	\$1,026,300
63 to 66	Insurance and Real Estate	25	33	22	66,000	351,700
Total		33	33	104	\$434,000	\$1,378,000

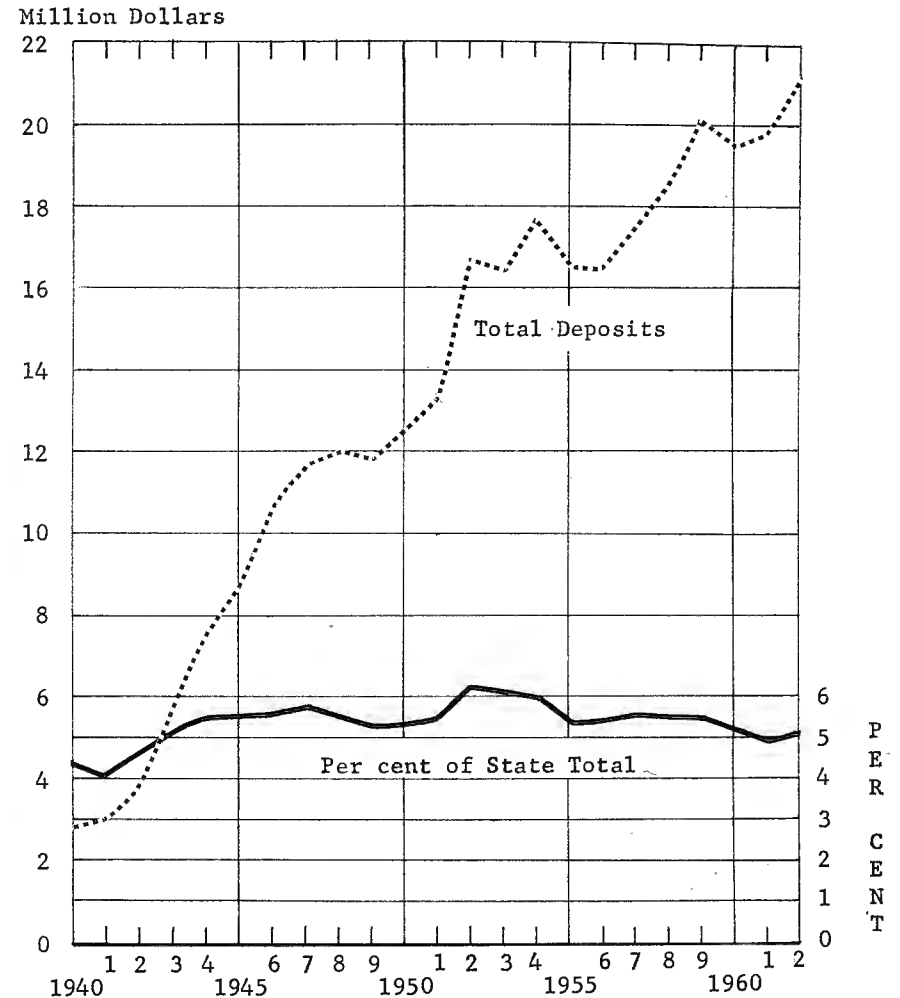
Sources: Survey by Authors and Employment Security Commission data.

Figure 33

TOTAL BANK DEPOSITS AND PERCENT OF STATE TOTAL

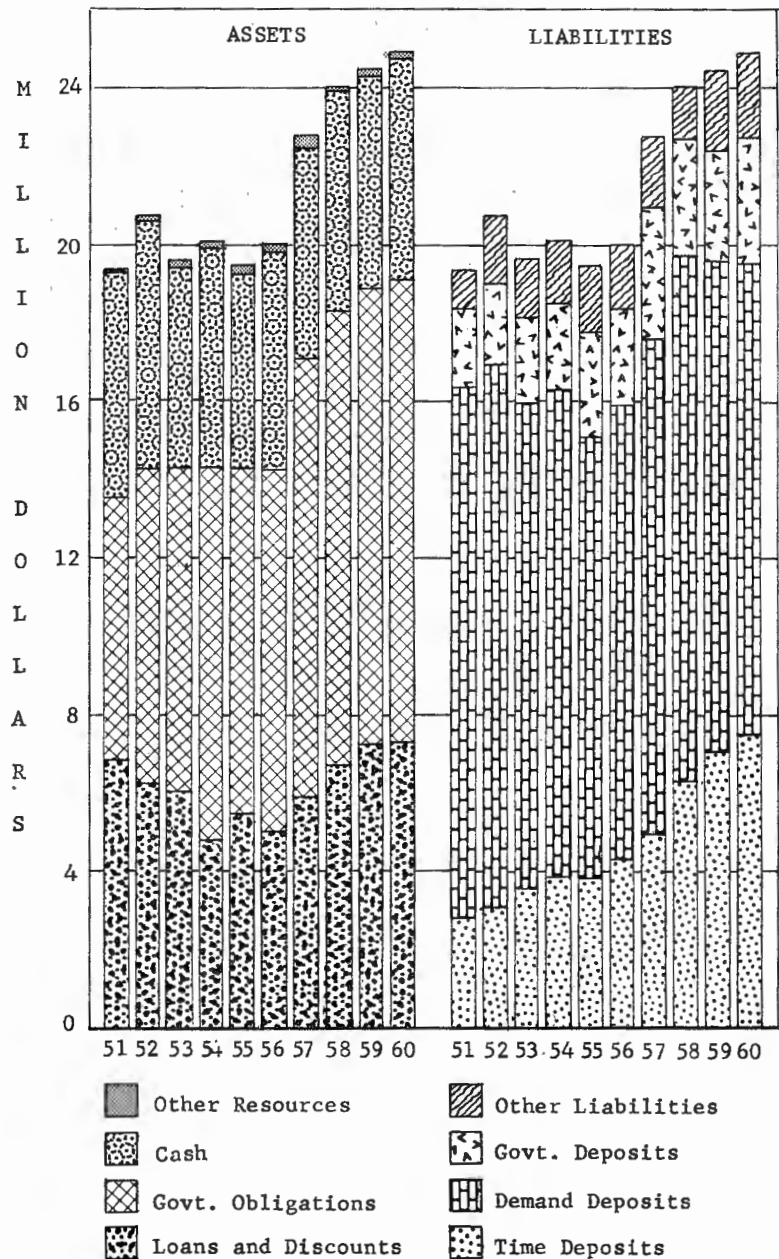
East-Central Wyoming — 1940-1962

(June 30)



Source: Wyoming State Examiner.

Figure 34
CONDITION OF BANKS
East-Central Wyoming — December 31, 1951-1960



Source: Wyoming State Examiner.

These data refer to trends in the banking industry. As may be seen by reference to Table XXIV, there were eight banking and credit agencies operating in this area in 1959. They employed 82 persons, paid out \$368,000 in payroll, and grossed \$1,026,300 from interest, service fees, etc.

In addition, 25 insurance and real estate firms employed 33 owners and family workers and 22 hired employees. Their payroll was \$66,000 and they grossed \$351,700 from premiums, commissions, and fees.

The three most important categories from which financial concerns in this area draw trade are agriculture, retailers, and private households. They contributed \$625,000 in personal income including \$434,000 in payroll and \$191,000 in profits and other contributions.

As a further barometer of the state of the economy, it is possible to utilize bank condition statements. These are presented graphically in Figure 34, with assets on one side and liabilities on the other.

Loans and discounts are probably the most sensitive measures of economic activity. Reaction to the dry and drouthy years, when agriculture was having a tough time, is apparent in these end-of-year reports.

Of equal interest is the consistent climb, accelerated considerably in recent years, in the volume of time deposits or savings accounts. Thus, the decrease in loans and discounts was not due to restriction in the available supply of money. In fact, it is obvious that the banks made it a point to acquire governmental obligations to offset the decreased loans during the years 1952 to 1956.

Demand deposits are, of course, much more sensitive to the changes in the economy, since they are checking accounts for the most part.

Utilities

There were four utility companies operating in East-Central Wyoming in 1959. They had 92 employees and a payroll of \$362,000. Gross business for the year amounted to \$2,026,000. Customers are scattered fairly evenly throughout the economy.

Transportation

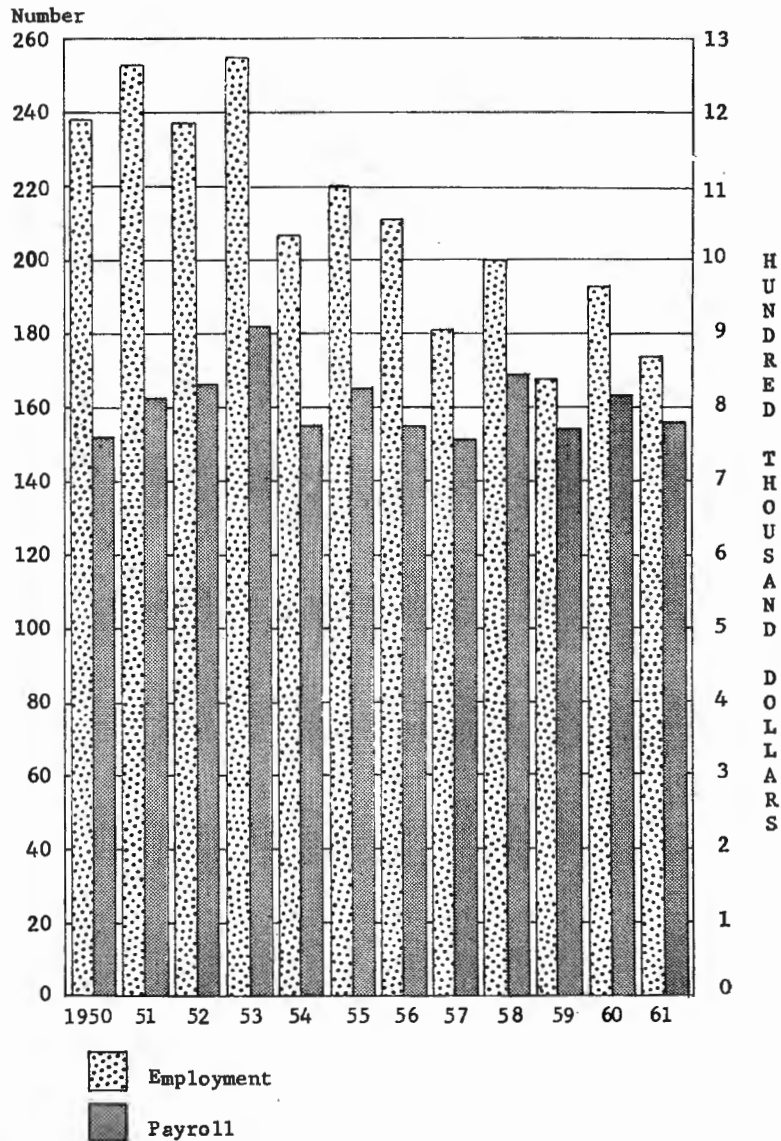
In some parts of Wyoming transportation itself is a basic industry since more of its effort is expended moving through traffic than in serving the locality. In the East-Central Wyoming area transportation is almost wholly a local secondary industry.

This section of the state is served by three railroads. The C. B. & Q. runs along the North Platte River from the Nebraska line near Torrington to Casper crossing the Platte County line north of Glendo. A branch of the Union Pacific serves the southern part of Goshen County ending at South Torrington. The Colorado and Southern Railroad (a subsidiary of the Burlington) serves most of Platte County.

Figure 35

TRANSPORTATION EMPLOYMENT AND PAYROLL

East Central Wyoming — 1950-1961



Source: Wyoming Employment Security Commission.

In addition, there are some truck lines and trucking firms serving the area, and three pipelines traversing it.

In 1959 there were 24 firms providing transportation services, with a gross income of \$2,472,000. They provided employment for 19 owner-managers, 5 unpaid family workers, and 167 hired employees. The payroll for the year amounted to \$770,000, with the railroads furnishing 62 per cent of it. Proprietorship income amounted to \$141,000.

Employment, particularly in the railroad industry, has had a generally downward trend since 1953. Earnings per worker have increased, however, so that the payroll has tended to remain somewhat steady (Figure 35).

In addition to proprietorship and salary income, the transportation industry paid out \$265,000 in local taxes, \$240,000 for utilities, and \$138,000 for goods and services locally in 1959.

Communications

In 1959 there were six communications firms serving this area. They grossed \$596,000, paid out \$215,000 in payrolls, \$13,000 in local taxes, \$30,000 to one another, and \$34,000 for other local goods and services.

The number of telephones in this area fluctuates considerably from year to year. As of December 31, there were 5,482 phones for 1959, 6,387 for 1960, and 5,643 for 1961. Data are not available for previous years. This industry had 59 employees in 1959.

Construction Contractors

Construction activity varies considerably from year to year in this area. During the ten year period from 1952 to 1961 hired employment varied from 149 in 1952 to 427 in 1956 (Figure 36).

During 1959 an average of 323 hired employees worked for the 42 contractors operating in the area. In addition, there were 22 operators and family workers employed. Payroll for the year amounted to \$1,514,000, and other contributions to personal income, including profits, amounted to \$429,000.

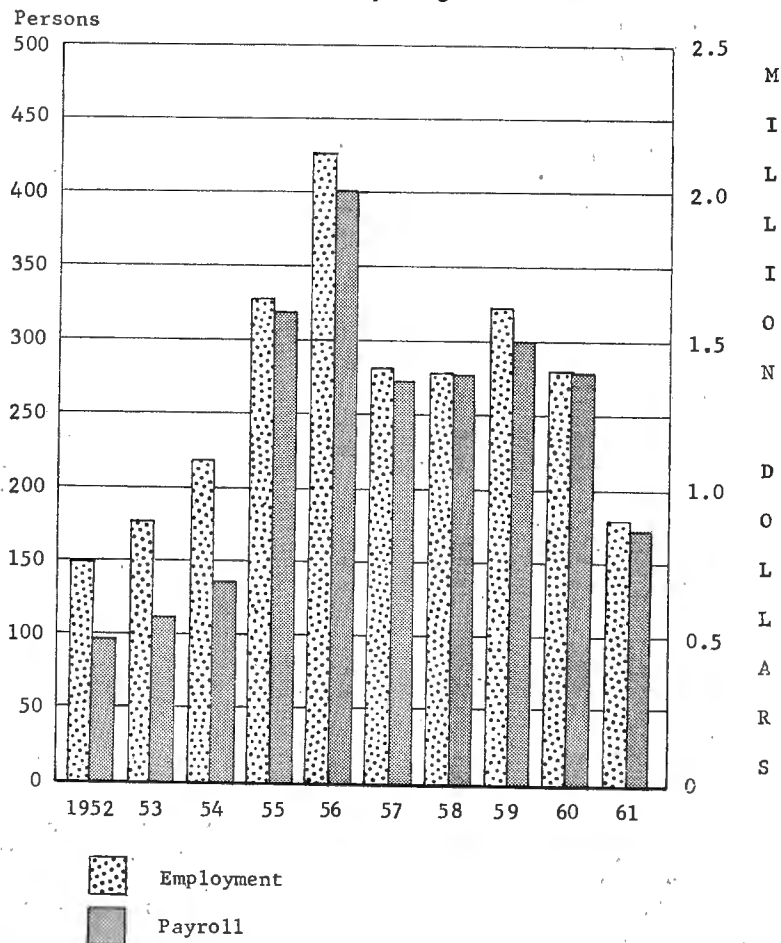
Other local expenditures included \$509,000 spent for sub-contracts let within the industry, \$191,000 spent with retailers for supplies, \$101,000 spent with wholesalers, \$67,000 spent with manufacturers, \$27,000 spent for local taxes, and \$178,000 spent for expenditures with other local businessmen.

An estimated \$5,195,000 was sent outside of the area to pay for supplies, equipment, services, state and federal taxes, profits to non-resident owners, etc.

Total gross for the year amounted to \$8,211,000. While this was not the high year for construction in this area, it was one of the better ones out of the past ten years.

Figure 36

CONSTRUCTION INDUSTRY EMPLOYMENT AND PAYROLL
East-Central Wyoming — 1952-1961



Source: Wyoming Employment Security Commission.

Customers included state and federal governments (highway construction), 58 per cent; private household, 15 per cent; farmers and ranchers (excluding houses), 12 per cent; sub-contracting, 6 per cent; rental property, 6 per cent; and local government, 3 per cent.

Wholesale

In 1959 there were 23 wholesalers operating in this area. Seventeen of these were gasoline bulk dealers. They afforded employment for 18 owners and family workers and 104 hired employees.

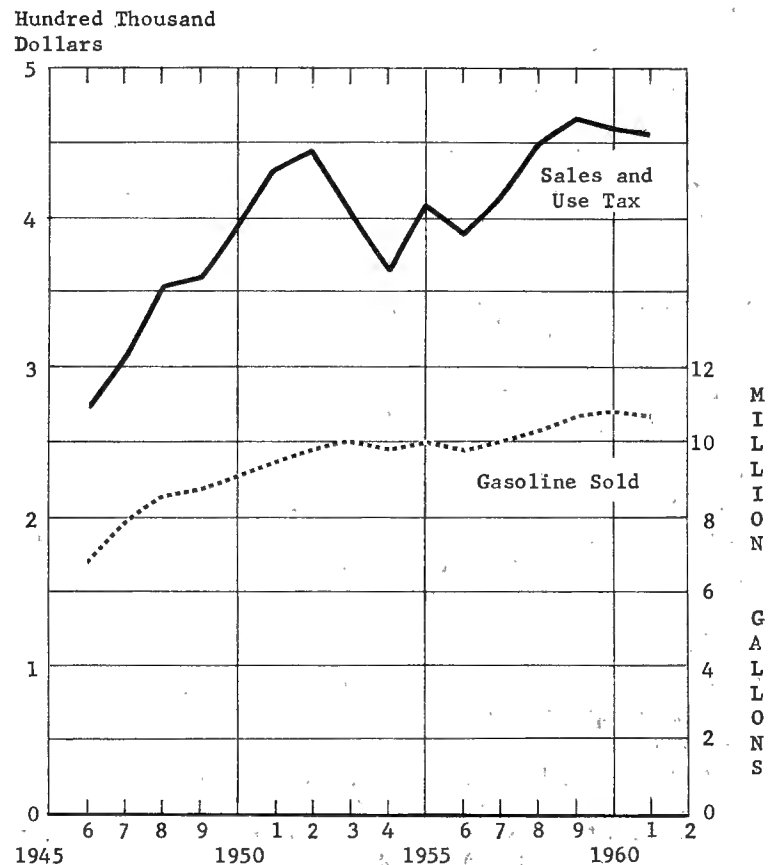
Total amount grossed by wholesalers for the year was \$3,284,000. About 55 per cent came from sales to retailers, 37 per cent from sales to farmers and ranchers, and the rest from sales to other businessmen and government.

As indicated previously, these firms made only 61 per cent of the sales that were made at wholesale. Manufacturers sold \$1,829,000 worth of goods at wholesale; retailers sold \$234,000 worth; and transportation firms sold \$23,000 worth.

Wholesale firms purchased \$128,000 worth of goods and services locally, contributed \$731,000 to personal income of the area, and paid \$16,000 in local taxes. The nature of this industry makes it necessary

Figure 37

COLLECTION OF SALES AND USE TAX AND GALLONS OF GASOLINE SOLD
East-Central Wyoming — 1946-1961



Source: Wyoming Sales and Use Tax and Gasoline Tax Divisions.

to import most of the goods it sells. Therefore, about two-thirds of its income leaves the area immediately.

Trends in wholesaling are impossible to obtain since census data are dominated by handlers of farm products which do no local wholesaling. In this study the latter group is treated as an agriculturally oriented basic industry.

In view of the dominance of retailing and agriculture as customers of wholesaling, it is to be expected that this industry follows the rest of the economy fairly closely. Trends in the economy can be measured quite well by data concerned with sales and use tax collection. While this is not a measure of the trend in wholesale sales, it measures quite well the economic trends in this two-county area. Virtually the same pattern has been seen in previous series. Wholesaling can be expected to fit into this pattern and be fairly sensitive to the changes it indicates (Figure 37).

Since the wholesaling of gasoline makes up a large proportion of the activity, a look at the trend in gasoline sales should shed some light on trends in the industry. The over-all trend is upward in both sales and use tax and gasoline sales. However, the sale of gasoline tends to have much less fluctuation from year to year. Thus, wholesaling may be more stable than the rest of the economy.

NON-COMMERCIAL ACTIVITY

Three groups of economic activities are considered in this section—rentals, households, and local government.

Rentals

Rental activity is largely carried on by individuals although some businesses also have rental income. In 1959 total rental income for this area amounted to \$2,245,000. Private households paid out 55 per cent of it; farmers and ranchers, 24 per cent; retail stores, 13 per cent; and the remaining 8 per cent was paid by other businessmen and government.

Most of the rental income was spent locally. Utilities took 24 per cent; supplies purchased from retailers took 16 per cent; repair and construction took 22 per cent; local taxes consumed 18 per cent; personal income took 9 per cent; and other goods and services took 11 per cent, of which 4 per cent was for purchases outside of the area.

Household

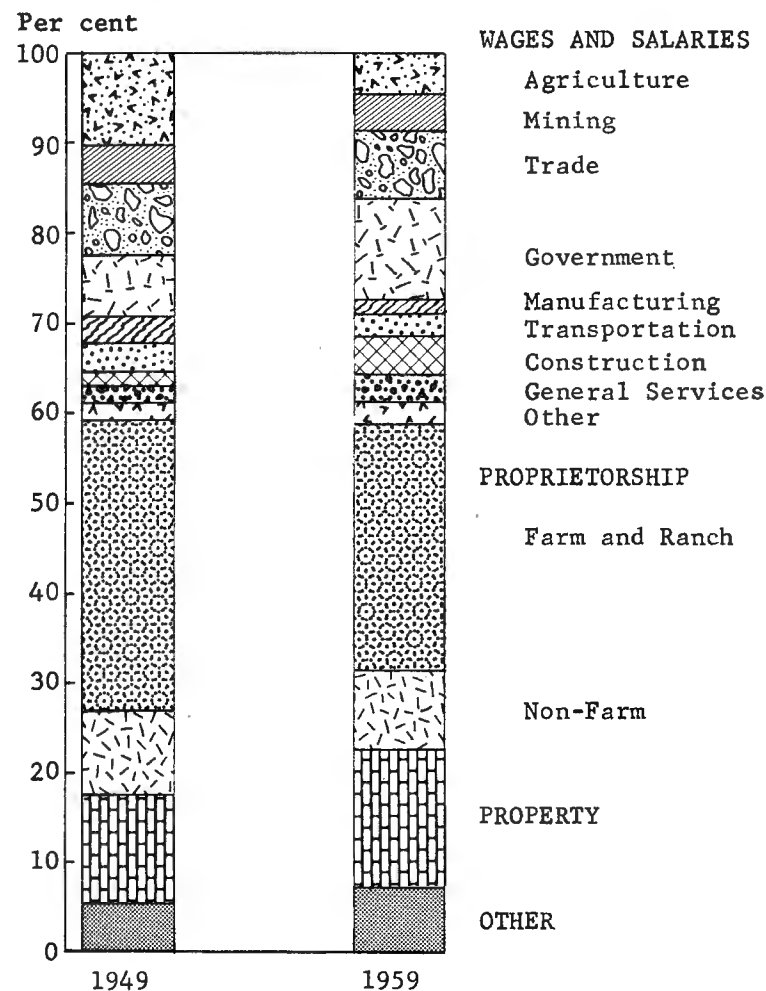
The household sector is probably the most important of the entire economy. The expenditure of personal income is the real spark plug of any economy.

In 1959 individuals received \$35,438,000 in this section of the state. Wages and salaries accounted for \$15,363,000 or 44 per cent. Proprietorship income (profits to owners) accounted for \$11,320,000 or 32 per cent. Property income amounted to \$4,769,000 or 13 per cent. Other income amounted to \$3,986,000 or 11 per cent.

Agriculture is by far the most important source of personal income. It would be even more important if the manufacturing and farm product handling industries were included as being agriculturally oriented.

Other major sources include interest and dividend income from outside the area—retail stores, state and federal governments, local government, general service firms, construction, and minerals (Table XXV).

Figure 38
DISTRIBUTION OF DIRECT SOURCES OF PERSONAL INCOME
East Central Wyoming — 1949 and 1959



Source: Estimates prepared by this Division. Includes both cash and imputed income.

Table XXV
PERSONAL CASH¹ INCOME BY INDUSTRY SOURCE
East-Central Wyoming — 1959
(Thousands)

Source	TYPE OF INCOME				Total
	Wages and Salaries	Proprietorship Income	Property Income	Other	
Agriculture	1,325	8,124			9,449
Minerals	1,636	72			1,708
Manufacturing	959	17			976
Transportation	770	141			911
Communications	215				215
Utilities	362				362
Retail	2,302	648		740 ²	3,690
General Service	1,114	1,282			2,396
Finance,					
Insurance & Real Estate ..	434	191			625
Wholesale	383	348			731
Farm Product Handlers	418	68			486
Rental			209		209
Construction	1,514	429			1,943
Household			507		507
Local Government	2,523			700 ³	3,223
State and Federal Government ..	1,408			2,546 ⁴	3,954
Other ⁵			4,053		4,053
	15,363	11,320	4,769	3,986	35,438

¹As differentiated from total personal income which includes perquisites and imputed items i.e. farm commodities consumed, rental value of home, etc.

²Trade-in values.

³Welfare payments.

⁴Government direct payments to individuals i.e., pensions, veterans payments, etc.

⁵Money received on investments from outside the area.

Source: Estimated by this Division from various data sources, using U. S. Department of Commerce state totals.

Personal income affords an opportunity for assessing basic changes in the economy. The agencies making this study have prepared estimates of personal income by county for the years 1949 and 1959. These are presented in Figure 38 on a percentage basis.

One of the most significant shifts has occurred in the relative importance of agriculture. The proportion of personal income received as wages and salaries from this industry amounted to 10.2 per cent in 1949, but only 4.3 per cent in 1959. Part of this change was due to a reduction of \$1.0 million in payroll; but, an increase in amounts contributed by other sources was also important.

Although the proprietorship income from farms and ranches was over \$1.5 million higher in 1959 than in 1949, it decreased in importance from 32.4 per cent of total personal income to 27.5 per cent.

Other industries that lost rank were manufacturing payrolls (reduced from 3.0 per cent to 1.7 per cent), transportation payrolls (3.2 to 2.4 per cent), and non-farm proprietorship (9.3 to 8.6 per cent).

Much of the cause for lower ranking of the above industries lies in the contribution of government which increased in importance from 6.8 per cent of total personal income to 11.1 per cent; and of construction, which represented only 1.7 per cent of personal income in 1949 and 4.3 per cent in 1959. As indicated previously, the latter year was one of the better construction years; hence, this trend cannot be said to represent a permanent shift. The shift to more governmental participation, particularly that of local government, can probably be expected to continue.

Another shift of importance is that to increased services represented by the general services and other categories. While the comparative increase was only about 1 per cent in each case, the long range implications are important. In part it is reflected in the increased importance of government.

American people are demanding more services both from government and business. The trend in this area has been at about the same rate as for the State and the Rocky Mountain region.

The increase in proportionate share of personal income provided by property is also significant. In this case, the change was from 12.1 per cent to 15.5 per cent. Most of the property income comes from dividends and interest.

Local Government

Local government may be considered as a provider of services which are paid for by paying taxes. In 1959 the cities and towns, counties, school districts, and other governmental entities in this area collected \$4,615,000 in tax revenue and other receipts. Federal and state governments supplied 48 per cent of this amount. Of the remaining \$2,412,000 collected locally, agriculture paid 30 per cent, rental units paid 17 per cent, households paid 14 per cent, transportation paid 11 per cent, retailers paid 10 per cent, minerals paid 7 per cent, and the remaining 11 per cent was paid by the remainder of the business community.

ANALYSIS

In the previous three sections the activities taking place in the economy, along with some of the trends evident in them, have been discussed.

The basic income discussed in the first of these sections is extremely important. This income represents payments made by persons residing outside of this area for goods and services produced inside it. It is these "new" dollars that are the life blood of the economy. All other activity results from their circulation through it. If basic dollars were withdrawn, the economy would no longer exist, as we know it.

The power of a dollar to create new economic activity depends upon how it is introduced and the expenditure patterns of the segments through which it may circulate. In order to gain proper insight into the workings of the economy, it is necessary that an analysis be made of the inter-industry relationships that exist in the area.

Inter-Industry Transactions

The relationships of various segments of the East-Central Wyoming economy to one another, and to others outside of the economy, are shown in Table XXVI. The segments enclosed within the heavy lines represent economic activity on the local level. They include rows and columns numbered 1 through 15. Information contained in them reflects dollar turnover in the economy.

As indicated in the Table, sales are recorded in the rows and purchases in the columns. This means that each cell contains information that can be interpreted as either a sale or a purchase depending upon which way it is read.

As an example, the first cell contains the value 3,629, which means that farmers and ranchers bought from (or sold to) other farmers and ranchers \$3,629,000 worth of feeds, machine hire, rents, livestock, etc.

Moving across row one to the third column, the figure 3,946 indicates that manufacturers bought from farmers and ranchers \$3,946,000 worth of sugar beets, milk, livestock, and other commodities. It also means that farmers and ranchers sold this much to manufacturers.

Moving outside of the local economy to columns 16 through 18, the reader sees that state and federal governments made certain expenditures as did travelers. The last column is labeled other exports. These columns contain the data used in determining the basic income discussed previously and portrayed graphically in Figure 13.

On the other hand the row numbered 16 contains data labeled imports. This is actually a catchall row containing money sent out (or leaked) from the economy for many reasons. Part of it is taxes paid to state and federal governments. Part is money paid for supplies purchased outside of this area, while another portion is profits to absentee owners. Payments on debts owed to out-of-area financial institutions are also included here.

Thus, when Table XXVI is read from left to right the reader sees how each industry distributes its goods and services. When read from top to bottom he sees how each industry expends its income.

Input Coefficients

While Table XXVI is useful as a means of examining the relationships which bind the economy together, the process of following a dollar through the economy can be done more easily if the patterns are shown on a percentage basis. This has been done in Table XXVII. Since we are only interested in examining the economy itself, only those columns containing industries located within the economy (in technical parlance, are said to be endogenous to it) are included.

This Table shows the proportion of each dollar spent by an industry segment with each other industry segment and the proportion leaked from the economy. The latter percentage is extremely important since

it determines the amount left in the economy after each round of spending. Only this residual is available for use in the next round.

Further manipulation of these data is explained in the Appendix. A simple matrix inversion on a computer is involved by which the machine, in simplified terms, follows money through the economy from the time it is initially spent until it disappears. The end results are shown in Table XXVIII.

Income Generation

The latter Table is the key to this analysis. Previous discussion has shown that East-Central Wyoming has certain activities that continually introduce new money into its economy.

Agriculture, for instance, is one of these. By referring to Table XXVIII we can see that every dollar brought into the area through the shipment of livestock produces an additional 20.8 cents in the local market for other agricultural products. This does not mean that farmers buy this 20.8 cents worth of products, although they may buy some of them. What it does mean is that this dollar will circulate through the economy and in this process will produce that much in a local market. To this extent farmers can be said to be their own friends.

The new agricultural dollar does much more work than this, however. It also produces local market for manufacturing, transportation, and so on down the column. The total extra income produced for business and industry through dollar turnover from agriculture in 1959 was \$1.28. In the process it also produced 62.8 cents in personal income and 5.7 cents in local taxes.

A similar analysis can be made for each industry and business in the columns. It should be noted that for the segments of business and industry it is necessary to subtract the original dollar. Thus, the expenditure of one dollar received for a mineral export creates no additional local market for that industry and the value in the cell is 1.0000, meaning just the original dollar. It does create business for other industries, however, and the amount of other local business produced is 60.6 cents.

One of the sources of basic income for 1959 was state and federal governmental expenditures and another was travelers. Neither of these appear as industries or businesses in the Table. However, their multiplier effect is determined by use of these columns. For example, a dollar is determined by use of these columns, however, for example, a dollar of payroll received from the federal government will produce 99.4 cents of new business and industry as shown in column 14. It will also produce an additional 26.2 cents in personal income to support others in the community and 3.5 cents in local taxes.

This illustrates the hazard of applying certain standard values to local situations. It has become quite fashionable, for instance, to say that each new industrial job creates an additional 0.8 of a job in the community. While the proportionate amount of a person represented by the above 26.2 cents would depend upon his pay rate, it would ob

viously be much less than 0.8 of a person for each additional worker. If the new worker were paid \$6,000 per year, enough additional personal income would be produced to pay someone \$1,572.60. This would pay for about one-half of a store clerk's earnings, but perhaps one-tenth of the earnings of a lawyer.

The impact of new money differs with the business or industry into which it is introduced. Retailers, for example, have a low generating effect because of the nature of their business. Since small economies cannot support extensive warehousing, it is necessary for retailers to buy most of their merchandise outside of the local area. Local wholesalers are even more dependent upon outside sources.

The result is, that when a traveler stops in East-Central Wyoming and spends \$10 for gasoline and a meal, he actually creates \$15 worth of business (the original \$10 plus \$5 of additional business).

If he were to spend the \$10 for a motel room and a haircut, he would be producing \$18.56 worth of business (the original \$10 plus \$8.56 of generated business).

This fact becomes important in the development of the travel industry. Other studies have shown that when travelers stay in a community for a while, as compared to driving through it, they increase the proportion of their expenditures that go for services.

This Table is also of value in assessing the over-all impact of new industry. Suppose, for example, that a new factory were introduced into the East-Central Wyoming area and that it would make the following local payments:

Wages and Salaries	\$100,000
Raw Materials from Agriculture	100,000
Transportation of Product	10,000
Communications	1,000
Utilities	1,000
Wholesale Supplies	10,000
Rental	10,000
Local Taxes	10,000
Total	\$242,000

The following additional income would result:

Source	Additional Business & Industry	Additional Personal Income	Additional Taxes
Wages and Salaries	\$ 99,410	\$ 26,210	\$ 3,500
Raw Materials	128,480	62,810	5,720
Transportation	6,708	6,191	1,266
Communications	528	525	40
Wholesale	3,000	3,148	156
Utilities	252	257	16
Rental	12,153	5,147	205
Taxes	9,071	9,328	1,028
Total	\$259,602	\$113,616	\$11,931
Income Generating Power of New Factory	1.0727	.4695	.0493

In this case, it is obvious that the factory is of much more value to the community because it utilizes locally produced farm commodities than it would be if it imported its raw material.

The additional personal income produced for this illustration would be sufficient to provide for more than one additional person for each employee, but this was largely due to the raw materials purchased and had very little to do with influence of the payroll.

The information developed in Table XXVIII is useful for many things. Particularly, it is useful in analyzing the present economy, for helping predict the future, and for analyzing results to be expected from the acquisition of a new source of basic income or the loss of such a source.

The Present Economy

In Table XXIX each source of basic income is shown along with the results from the introduction of its contribution to the economy.

In the columns labeled, induced income, appear the amount of business that each industry owes to the circulation of money introduced into the economy by the source shown at the column head. Since the minerals industry has no local market, there are no entries for it under induced income. Thus, we see that, by circulating through the economy, the money received by local farmers and ranchers for \$19,281,000 worth of livestock and other products shipped out produced a local market for agricultural products of \$4,007,000. It also created a local market for manufactured goods of \$1,035,000. Retailers received \$9,706,000 in trade as a result of this activity and there was \$12,110,000 worth of personal income produced. Other businesses benefited as indicated.

The income generating power for agriculture is high at 1.97. Part of this is due to the fact that personal income is high and that a fairly large part of this represents payroll and profits received by the farmers and ranchers themselves. Another important factor is the tendency for agricultural income to be spent locally. That is, the proportion of leakage of money from the economy is small when compared to other industries. This is no indictment of other industries; it happens to be one of the economic facts of life.

It must be kept in mind, when using this Table, that induced income does not include original expenditures by such sources as state and federal governments or travelers. Therefore, the actual amount of business resulting is more than that induced in these instances. An attempt is made here only to show under induced income, that which resulted after the first payment was made.

Since the business generating power for each source varies considerably, the amount of business resulting from basic income introduced will not be the same proportion of the whole as is the basic income itself. Thus, agricultural exports provided 36.1 per cent of the basic income of the area, but it produced 43.8 per cent of the induced income. This

illustrates why this economy is very sensitive to changes in agricultural income. This was evident in trends shown earlier in this chapter.

In 1959 all sources of basic income introduced \$53,366,000 into the East-Central Wyoming economy. By circulating through the economy, these dollars produced \$86,928,000 of additional income. In other words, each of these dollars turned over an additional 1.63 times after it was introduced.

Table XXVI
INTER-INDUSTRY TRANSACTIONS
East-Central Wyoming — 1959
(Thousands of Dollars)

SALES	PURCHASES										PURCHASES						Output Total		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	18	19
	Agri.	Min.	Manuf.	Trans.	Comm.	Util.	Retail	General Service	Fin.	Wholesale	Farm Product Handlers	Rental	Const.	Household	Local Govt.	Expen. By State and Fed. Govt.	Expen. of Travelers	Other Exports	
1. Agriculture	3,629		3,946							13	3,808					1,534		19,281	32,211
2. Minerals																		3,476	3,476
3. Manufacturing	492			4	1	3	1,337	6	2	5	11	4	67	310	8			7,664	9,914
4. Transportation	855	15	653	4	5	19	423	29		16	23	1	35	309	11	74			2,472
5. Communications	66		11	6	30	3	70	45	9	7	7	55	41	223	9	14			596
6. Utilities	395	90	150	240	4	1	86	42	3	2	10	547	13	320	123				2,026
7. Retail	5,531	75					234	231	67	7		351	191	15,377	208		1,463		23,735
8. Services	537		20	24	5	16	197	30	11	26	58	70	45	2,446	12		357		3,854
9. Finance	460		32	38	7	26	321	48	18	42	93		27	219	47				1,378
10. Wholesale	1,209			61	10	13	1,764						101		76				3,234
11. Farm Product Handlers	2,414																	4,475	6,889
12. Rental	530		19	1	2	2	290	80	17	10			17	1,241	1	35			2,245
13. Construction	993											498	509	1,241	187	4,783			8,211
14. Household (Pers. Income)	9,449	1,708	976	911	215	362	3,690	2,396	625	731	486	209	1,943	507	3,223	3,954		4,053	35,438
15. Local Govt.	722	175	46	265	13	15	236	86	22	16	31	410	27	348		2,203			4,615
16. Imports	4,929	1,413	4,061	918	304	1,566	15,087	861	604	2,359	2,362	100	5,195	12,897	710				53,366
17. Total-Input	32,211	3,476	9,914	2,472	596	2,026	23,735	3,854	1,378	3,234	6,889	2,245	8,211	35,438	4,615	12,597	1,820	38,949	193,660

Table XXVII
INPUT COEFFICIENTS
East-Central Wyoming — 1959

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Agri-culture	Minerals	Manufac-turing	Trans- portation	Communi- cations	Util- ities	Retail	Services	Finance	Wholesale	Farm Product Handlers	Rental	Construc- tion	House- hold	Local Govt.
1. Agriculture .....	.112663		.398023							.004020	.552765				
2. Minerals															
3. Manufacturing ..	.015274			.001618	.001678	.001481	.056330	.001556	.001451	.001546	.001597	.001782	.008160	.008748	.001733
4. Transportation ..	.026544	.004315	.065866	.001618	.008389	.009378	.017822	.007525	.004947	.004947	.003339	.000445	.004263	.008718	.002384
5. Communications ..	.002049		.001110	.002427	.050336	.001481	.011676	.002949	.002165	.001016	.024500	.004993	.006293	.001950	
6. Utilities .....	.012263	.025892	.015130	.097087	.006711	.000493	.003623	.010898	.002177	.000618	.001452	.243553	.001583	.009030	.026652
7. Retail .....	.171712	.021577					.009859	.059938	.048621	.002165		.156347	.023261	.433913	.045071
8. Services .....	.016671		.002017	.009709	.008389	.007897	.008300	.007784	.007983	.008040	.008419	.031180	.005481	.069022	.002600
9. Finance .....	.014281		.003228	.015372	.011745	.012833	.013524	.012455	.013062	.012987	.013500		.003288	.006179	.010184
10. Wholesale .....	.037534			.024676	.016779	.006417	.074321						.012301		.016468
11. Farm Product Handlers .....	.074943														
12. Rental .....	.016454		.001916	.000405	.003356	.000987	.012218	.020758	.012337	.003092			.002070	.035020	.000217
13. Construction ....	.030828											.221826	.061990	.035020	.040520
14. Household (Personal Income) .....	.293347	.491369	.098447	.368528	.360738	.178677	.155467	.621692	.453556	.226036	.070547	.093096	.236634	.014307	.698375
15. Local Govt. ....	.022415	.050345	.004640	.107201	.021812	.007404	.009943	.022314	.015965	.004947	.004500	.182628	.003288	.009819	
16. Imports .....	.153022	.406502	.409623	.371359	.510067	.772952	.635644	.223404	.438317	.729437	.342865	.044543	.632688	.363931	.153846
Total	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Table XXVIII
DIRECT AND INDIRECT ACTIVITY PER DOLLAR OF BASIC INCOME
East-Central Wyoming — 1959

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Agri- culture	Minerals	Manufac- turing	Trans- portation	Communi- cations	Utili- ties	Retail	Services	Finance	Wholesale	Farm Product Handlers	Rental	Construc- tion	House- hold	Local Govt.
1. Agriculture	1.2078	.0123	.4839	.0118	.0099	.0052	.0327	.0172	.0128	.0110	.6704	.0157	.0109	.0213	.0182
2. Minerals		1.0000													
3. Manufacturing .....	.0537	.0258	1.0280	.0245	.0207	.0108	.0685	.0363	.0270	.0132	.0355	.0330	.0229	.0448	.0381
4. Transportation .....	.0524	.0197	.0909	1.0164	.0204	.0151	.0296	.0278	.0148	.0121	.0350	.0201	.0135	.0266	.0239
5. Communications .....	.0119	.0076	.0082	.0100	1.0590	.0046	.0073	.0228	.0145	.0060	.0091	.0347	.0098	.0136	.0128
6. Utilities .....	.0433	.0456	.0443	.1169	.0233	1.0088	.0187	.0408	.0228	.0106	.0291	.2660	.0126	.0325	.0519
7. Retail .....	.5034	.3357	.2831	.2894	.2419	.1192	1.1523	.4604	.3400	.1488	.3313	.4117	.1874	.5753	.4733
8. Services .....	.0732	.0528	.0458	.0587	.0496	.0280	.0330	1.0757	.0573	.0326	.0578	.0770	.0335	.0964	.0751
9. Finance .....	.0340	.0119	.0211	.0283	.0103	.0175	.0210	.0279	1.0242	.0185	.0345	.0176	.0100	.0195	.0264
10. Wholesale .....	.0864	.0279	.0430	.0505	.0378	.0164	.0885	.0377	.0275	1.0124	.0522	.0407	.0285	.0460	.0550
11. Farm Product Handlers .....	.0905	.0009	.0363	.0009	.0007	.0004	.0024	.0013	.0010	.0008	1.0502	.0012	.0008	.0016	.0014
12. Rentals .....	.0506	.0298	.0299	.0278	.0265	.0125	.0263	.0592	.0405	.0172	.0332	1.0263	.0180	.0543	.0414
13. Construction .....	.0776	.0360	.0407	.0356	.0279	.0134	.0193	.0491	.0350	.0168	.0488	.2713	1.0845	.0622	.0896
TOTAL BUSINESS GENERATOR	2.2848	1.6060	2.1552	1.6708	1.5280	1.2519	1.4996	1.8562	1.6174	1.3000	2.3871	2.2153	1.4324	.9941	.9071
14. Household .....	.6281	.6828	.4286	.6191	.5247	.2572	.2913	.8624	.6275	.3148	.4598	.5147	.3512	1.2621	.9328
15. Local Govt. ....	.0572	.0705	.0402	.1266	.0397	.0164	.0252	.0530	.0373	.0156	.0402	.2051	.0153	.0350	1.0279

Table XXIX
SOURCES OF BASIC INCOME AND INCOME RESULTING FROM ITS INTRODUCTION INTO THE ECONOMY
East-Central Wyoming — 1959
(Thousands of Dollars)

	Agriculture		Handlers of Farm Products		Manufacturing		State and Federal Governments		Minerals		Travelers		Other		Total		GRAND TOTAL
	Direct	Induced	Direct	Induced	Direct	Induced	Direct	Induced	Direct	Induced	Direct	Induced	Direct	Induced	Direct	Induced	
1. Agriculture	19,281	4,007		3,000		3,709	1,534	497		43		54		86	20,815	11,396	32,211
2. Minerals									3,476						3,476		3,476
3. Manufacturing		1,035		159	7,664	215		456		90		113		182	7,664	2,250	9,914
4. Transportation		1,010		157		697	74	305		68		53		108	74	3,398	2,472
5. Communications		229		41		63	14	149		26		19		55	14	582	596
6. Utilities		835		130		340		388		159		42		132		2,026	2,026
7. Retail		9,706		1,483		2,170		5,026		1,167	1,463	387		2,333	1,463	22,272	23,735
8. General Services		1,411		259		351		826		184	357	75		391	357	3,497	3,854
9. Finance		656		154		162		245		41		41		79		1,378	1,378
10. Wholesale		1,666		234		330		578		97		143		186		3,234	3,234
11. Farm Product Handlers		1,745	4,475	226		278		152		3		4		6	4,475	2,414	6,889
12. Rentals		976		149		229	35	472		104		60		220	35	2,210	2,245
13. Construction		1,496		218		312	4,783	979		125		46		252	4,783	3,428	8,211
14. Household		12,110		2,058		3,285	3,954	5,809		2,373		734	4,053	1,062	8,007	27,431	35,438
15. Local Government		1,103		180		308	2,203	378		245		56		142	2,203	2,412	4,615
TOTAL	19,281	37,985	4,475	8,448	7,664	12,449	12,597	16,260	3,476	4,725	1,820	1,827	4,053	5,233	53,366	86,928	140,294
Per Cent of Total		36.1		8.4		14.4		23.6		6.5		3.4		7.6		100.0	
Per Cent of Total				43.8		9.7		14.3		18.7		2.1		6.0		100.0	
Income Generating Power				1.97		1.89		1.62		1.29		1.00		1.29		1.63	

Direct represents new money introduced into the economy.
Induced is business and income resulting from dollar turnover.

CHAPTER VI

The Future

The data in Table XXX indicate that some fairly steady growth can be expected in this economy on the basis of the present situation. A large part of this growth will come as a part of the over-all economic situation which will result in higher income from outside sources.

Agriculture can be expected to switch more heavily into sugar beets, which will also reflect on the manufacturing industry. Mining can be expected to increase somewhat in line with increased demand for iron ore. There should be an increase in the numbers, hence, expenditures of travelers. Government is expected to contribute somewhat less as the construction phase passes.

Table XXX
SOURCES OF BASIC INCOME AND AMOUNT
OF OTHER INCOME GENERATED
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
 (Thousands of 1959 Dollars)

Year	SOURCES OF BASIC INCOME						Other	Total
	Agriculturally Oriented			Other				
	Agri. Exports	Handlers of Products	Manuf.	Mining	Travelers	State and Fed. Govts.		
1959	\$20,801	\$4,475	\$7,664	\$3,476	\$1,820	\$12,597	\$ 4,053	\$54,886
1964	22,990	4,788	7,733	4,564	2,275	10,698	5,746	58,794
1969	25,073	5,146	8,067	5,054	2,845	8,643	7,715	62,543
1974	26,635	5,504	8,509	5,111	3,555	8,678	10,138	68,130
1979	28,124	5,862	8,942	5,266	4,445	9,285	13,260	75,184

Year	OTHER INCOME GENERATED		
	Business & Industry	Personal Income	Local Govt. Revenue
1959	\$57,085	\$27,431	\$2,412
1964	61,891	29,836	3,093
1969	66,873	31,912	3,359
1974	73,620	35,223	3,651
1979	79,848	37,215	3,929

As a result of these expectations, there will be larger business income as well as personal income and local revenue. It is doubtful that the additional personal income will support more people. Per family incomes are likely to rise at least in proportion to the rise in personal income. (No allowance has been made here for inflationary factors.)

Opportunities for young people will continue to be scarce, unless some drastic change takes place, such as the addition of other industries to the economy.

In short, the prospect at this time is for the East-Central section of Wyoming to continue about as it has in the past, with some growth in evidence. This could be changed by the activities of local people in introducing new industries, developing those now in existence, and generally promoting the area. So far as resources are concerned, they are being used at present and chances for development along this line are linked to water. Industries to further process agricultural products are always a distinct possibility. Probably this is the best chance the area has. Other industries producing rather high valued products are always possible, but not highly probable without the exercise of local ingenuity. People are always the best resource of any area.

Agriculture

Certain patterns seem to be emerging from the past in this area. The trend toward larger and fewer farms and ranches with larger investments per unit will probably continue for some time. The previous discussion of mechanization leaves out one important factor, that is, the increased size and power of agricultural machinery.

While there are some limitations to the application of machinery in cattle production, it has its most important impact in increasing the amount of feed base that one man can handle. Winter feed is an important factor in determining the number of cattle kept by a particular rancher. Thus, larger and better machinery must necessarily help with the process of growth in individual holdings.

The farms of this area are being affected by these trends and can be expected to continue the trend to fewer and larger units. From 1949 to 1959 the number of irrigated farms in this area decreased from 1,226 to 942 and the amount of irrigated land remained approximately the same. The 1964 and 1969 census will probably find that the number of irrigated farms has decreased to 700 and 525 respectively, but that the same amount of land is being irrigated. Much of this projection is based on the premise that irrigation itself will be mechanized to a considerable degree.

An important aspect of the agricultural picture in Platte County is the possibility of increasing the supply of irrigation water. As indicated previously, the 1954 drouth hit Platte County especially hard. This was due to the lack of irrigation water as well as the effect on dryland crops and ranges.

The only possible solution to this problem seems to lie in plans of the Bureau of Reclamation to transfer water from one river basin to another. It is doubtful that this solution will be realized by 1969, although it might be by 1979.

Growth trends in East-Central Wyoming indicate that the cattle industry should become even more important in the future than it was in 1959. Sheep and other livestock will probably become less important.

Table XXXI
AGRICULTURAL INCOME AND ITS EFFECT ON THE ECONOMY
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)

Year	Gross Agricultural Income	Basic Income	Extra Business Generated*	Personal Income* Generated	Local Tax Revenue* Generated
1959	\$32,283,000	\$19,281,000	\$24,772,000	\$12,110,000	\$1,103,000
1964	35,110,000	22,990,000	29,538,000	14,440,000	1,315,000
1969	38,010,000	25,073,000	32,214,000	15,748,000	1,434,000
1974	40,375,000	26,635,000	34,221,000	16,729,000	1,524,000
1979	42,620,000	28,124,000	36,134,000	17,665,000	1,609,000

*Based on 1959 generator of 1.2848 for business and industry, .6281 for personal income, and .0572 for taxes.

Crops will continue to be fairly important. Sugar beets should increase somewhat in importance, particularly if the world situation does not change very greatly. Wheat will probably decline as attempts are made to bring production in line with demand. Other crops such as beans, potatoes, feed grains, and hay should hold rather steady.

Government payments are practically impossible to predict because of their erratic nature. It is to be assumed that they will increase somewhat.

In Table XXXI projections have been made for five year intervals to 1979. Assuming that the secondary effect per dollar of basic income will remain about the same, and that about the same proportion will be basic, the effect on the community is shown as part of the Table.

These projections are based on several assumptions, any one or more of which may not be true. These include the assumption that the cold war will continue, but not become a particularly hot one; that the Cuban situation will not be solved; that prices will continue to follow patterns of change; that agriculture will continue to be the major industry in this area; and that drouth conditions will not be a serious hinderance in any of these years.

It is to be expected that the average size of farm, as well as average investment in land and buildings, will continue upward. Projections

Table XXXII
AVERAGE SIZE OF FARM AND INVESTMENT IN LAND AND BUILDINGS
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979

Year	Average Size Acres	Average Investment Dollars
1959 (Actual)	1,891	62,260
1964	2,250	82,100
1969	2,440	92,200
1974	2,600	98,500
1979	2,700	103,000

Source: Growth curve projections by authors.

based on trends since 1930 are shown in Table XXXII. They, if realized, would bring the average farm and ranch to 2,700 acres (an increase of 43 per cent) and a fixed investment in land and buildings of \$103,000 (up 65 per cent) during the 20 years, 1959 to 1979. Since this would be accompanied by acquisition of larger and more costly machinery, the over-all investment would be extremely large.

Employment can be expected to continue to decline. Opportunities will be lessened for young people because of the very high investment necessary.

An increase can be expected in corporations on farms. These will first be family corporations, formed to provide a means of dividing ownership into estates without making it impossible for the person staying on the farm to operate. As time goes by, these family corporations will become public. This has been the history of corporations in other industries. Increased need for capital as units become larger, eventually forces family-owned corporations to look to public sources.

Handlers of Farm Products

Handlers of farm products are concerned largely with dry edible beans, wheat, and potatoes. The future for these crops is such that there will probably be a slight increase. The price of wheat has fluctuated between \$1.50 and \$2.00 per bushel for several years.¹ The price of beans during the past ten years (1951-1962) has varied within the limits of \$5.50 to \$8.50 per hundredweight, for the most part. It has been between \$6.50 and \$7.50 for 56 per cent of the months of that period.² The fall price of potatoes has varied from 60 cents to \$2.00 per hundredweight during recent years.³ This crop has much less price stability than the other two (Figure 39).

Domestic wheat consumption is not rising and the nation has had a surplus of the commodity for some time. As long as price supports are in effect, it remains a profitable dry land crop. Since it is the only dry land crop of any significance in this area, its continued production at about current levels is assumed. Some upward adjustment in price is also assumed since the current trend is toward a previously higher level.

Dry edible beans become more important during wartimes than during times of relative international quiet. Assuming no major upheavals on the international scene, the price should continue to be around \$7.00 per hundredweight and production should continue at current levels.

Potato production is not a big factor in this area. Demand for potatoes has fallen off nationwide—a situation reflected in the price. The proportion of potatoes being processed is increasing each year. At

¹Wyoming Agricultural Statistics and Information, 1960-1961 (Bulletin No. 23; Cheyenne: Wyoming Department of Agriculture, 1962), p. 87. Index Numbers and Prices Received by Farmers and Ranchers, Wyoming (Mimeographed each month for 1962; Cheyenne: Wyoming Department of Agriculture).

²Ibid., p. 93.

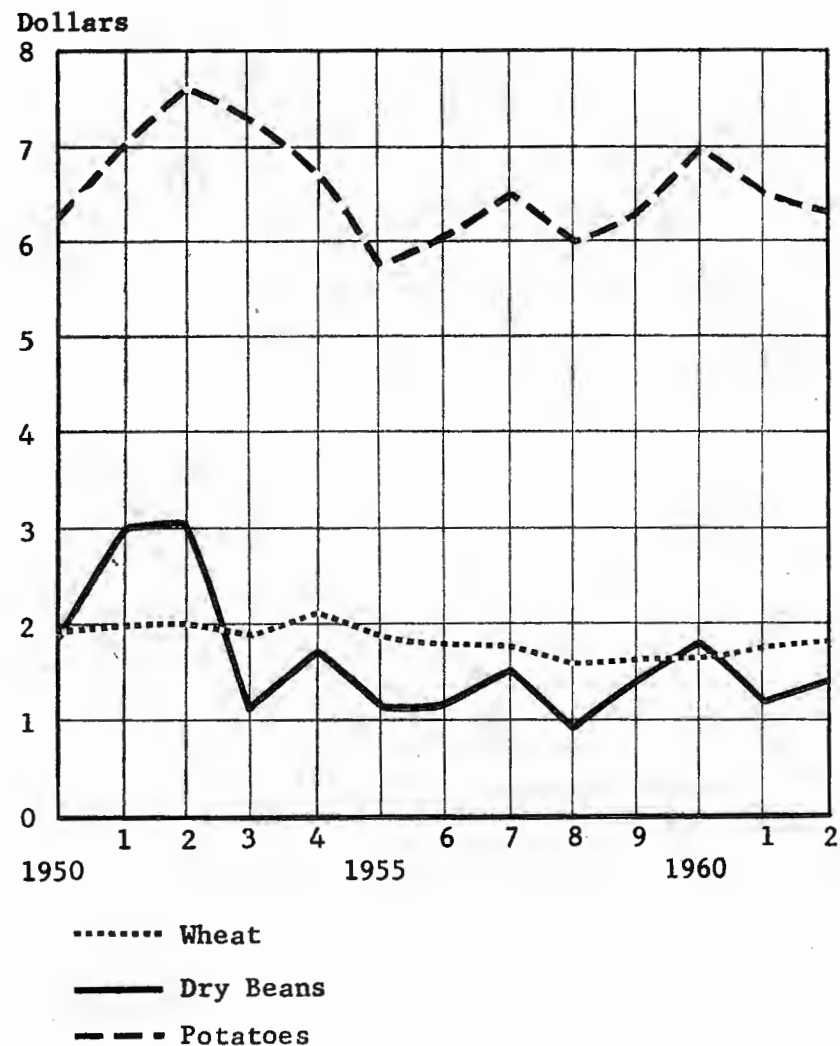
³Ibid., p. 100.

Figure 39

TRENDS IN PRICES OF WHEAT, DRY BEANS, AND POTATOES

For the Twelve Year Period 1950 to 1962

East-Central Wyoming



Source: State-Federal Agricultural Statistician.

Table XXXIII
GROSS BUSINESS, AGRICULTURAL PURCHASES, AND EXPORTS
OF HANDLERS OF FARM PRODUCTS
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)

Year	Gross	Local Agriculture Purchases	Exports
1959	\$6,889,000	\$3,808,000	\$4,475,000
1964	7,456,000	4,100,000	4,788,000
1969	8,056,000	4,380,000	5,146,000
1974	8,595,000	4,685,000	5,504,000
1979	9,126,000	4,990,000	5,862,000

Table XXXIV
GROSS BUSINESS, AGRICULTURAL PURCHASES, AND
EXPORTS BY MANUFACTURING FIRMS
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)

Year	Gross	Local Agriculture Purchases	Exports
1959	\$ 9,914,000	\$3,946,000	\$7,664,000
1964	10,065,000	4,004,000	7,733,000
1969	10,501,000	4,176,000	8,067,000
1974	11,044,000	4,394,000	8,509,000
1979	11,562,000	4,585,000	8,942,000

present the supply in East-Central Wyoming does not appear sufficient to support a processing plant. This situation could be changed, but is not considered in the forecast.

Handlers of farm products also furnish a sizeable amount of agricultural supplies to farmers and ranchers; hence, their gross income will be influenced to a considerable degree by agricultural income. This has been taken into consideration in Table XXXIII.

Manufacturing

Manufacturing in this area is largely the processing of agricultural products. This situation is expected to continue. Since population is expected to decrease, the amount of local market will probably not increase greatly. Upward trends in the price level will affect it somewhat.

Further food processing could very well be introduced as well as other types of light industry. However, none of these appear to be on the horizon at this time.

The projections made are based on the assumption of no major change; only slight growth in manufacturing in this area is expected.

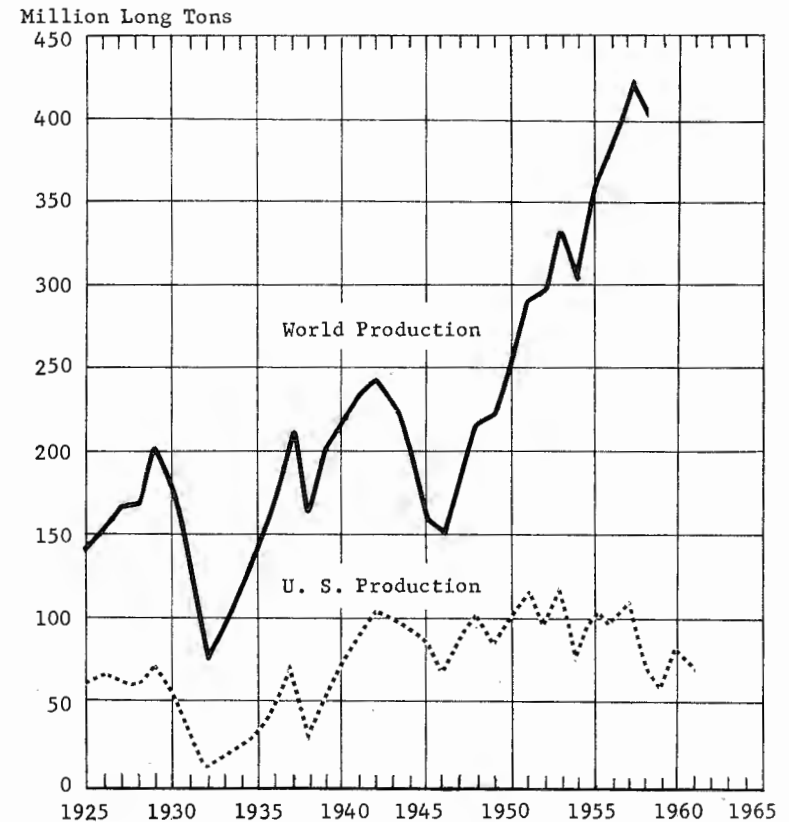
Mining

The iron mines in East-Central Wyoming are now underground and, therefore, mining costs are fairly high. They are also captive in

that they are owned by the consumer of the ore. This means that the fortune's of the miners are tied closely to the fortune's of Colorado Fuel and Iron Corporation. This accounts for much of the fluctuation in employment in the industry.

The demand for iron ore in this area will necessarily be tied to trends nationwide and worldwide. At one time the United States produced a major portion of the world's iron ore. This is no longer the case. The trends shown in Figure 40 indicate that worldwide production will continue upward, but that United States' production will probably not exceed 90 to 100 million tons annually for the next 20 years.⁴

Figure 40
WORLD AND UNITED STATES PRODUCTION OF IRON ORE
1925-1961



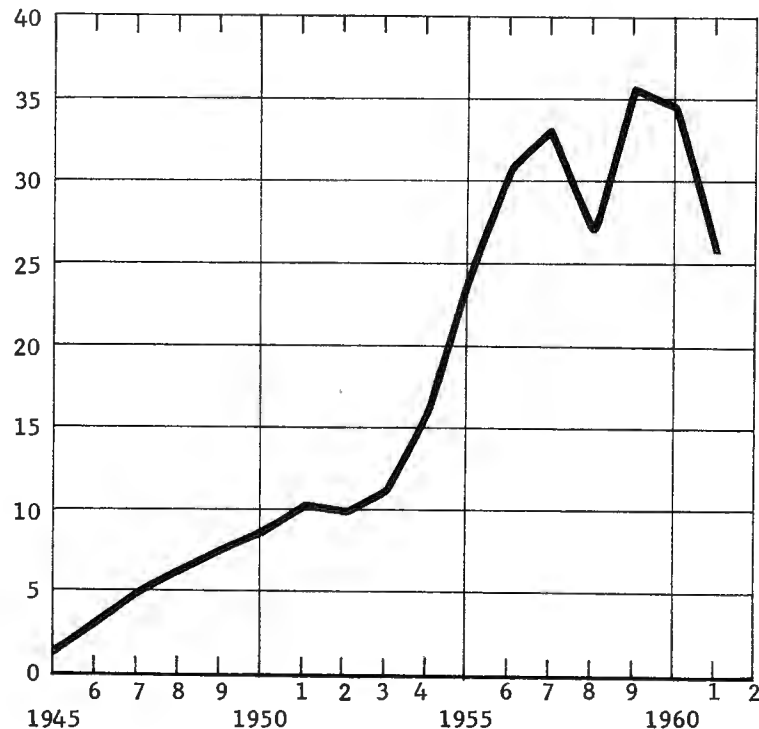
Source: Mineral Facts and Problems, page 415.

⁴U. S. Bureau of Mines, Mineral Facts and Problems (Bulletin No. 585; Washington: U. S. Government Printing Office, 1960), p. 418.

Figure 41

**UNITED STATES IRON ORE IMPORTS FOR CONSUMPTION
1945-1961**

Million Tons



Source: Statistical Abstract of the United States.

Recently demand for iron ore in the United States has been running between 120 and 140 million tons. Imports have been going up to supply needed ores (Figure 41). Except for a few years of adjustment, this trend has been quite strong.

Demand in the future⁵ will probably vary between 120 and 140 million tons. The excess over domestic supplies will come largely from Canada, Venezuela, Liberia, Peru, Brazil, and Chile. Mining plants in operation in 1959 and those planned at that time would have been able to provide 28 million tons for export to the United States from Canada,⁶ 16 million tons from Venezuela, 15 million tons from Liberia, 6 million tons each from Peru and Brazil, and 5 million tons annually from Chile. Other sources could supply about 4 million tons. Most imported ore will contain about 60 per cent iron.

⁵Ibid., p. 419.⁶Ibid., p. 413.
**Table XXXV
VALUE OF PRODUCTION AND PAYROLL, MINING INDUSTRY
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)**

Year	Value	Payroll
1959	\$3,476,000	\$1,708,000
1964	4,564,000	1,700,000
1969	5,054,000	1,800,000
1974	5,111,000	1,750,000
1979	5,266,000	1,700,000

In an emergency the United States could be self-sufficient at about the 1957 level of production for three to seven years. After that, depletion of the remaining Mesabi range deposits would cut down the nation's potential.⁷

All of this argues quite well for a continued good demand for iron ore. This does not necessarily mean that demand for Hartville ores will hold up. There are two factors that may be important in the competitive situation in which Colorado Fuel and Iron finds itself. One of these is the cost of underground mining.

Mining costs in the United States range from about \$2.50 per ton in open pit to \$10 or more in underground mines. In Minnesota costs of underground mining are approximately twice as high as for open pit.

The other factor is that water shipment of ores (which accounts for about 75 per cent of the movement), is considerably cheaper than rail shipment. In the Great Lakes system in 1958 the average cost of movement from the Mesabi to the Pittsburgh steel district by water was \$6.56 per long ton, and all-rail charges were \$10.12 per ton.

An offsetting factor is the fact that it costs money to send iron and steel products very far. This gives Colorado Fuel and Iron an advantage in the local market; i.e., in Colorado, New Mexico, Wyoming, Western Kansas, and Western Nebraska. Therefore, much of the prosperity of mining in East-Central Wyoming stems from demand for iron and steel in areas not too far distant from Pueblo, Colorado.

The projections shown in Table XXXV are made with certain assumptions: (1) That the demand for iron and steel products will hold up in this area at least as well as it has in the past ten years, (2) That there will be no major oil or gas discoveries, and (3) That no other mineral or minerals will become of major importance during this period.

These assumptions are made in spite of the fact that the Wheatland-Glendo Basin is considered to be a good area for oil production. Considerable drilling in the Swyer area has failed to prove this field even though the same stratigraphic section is present here as in the Lance Creek field.⁸

⁷Ibid., p. 417.⁸Walter H. Cochrane, "Wyoming's Wheatland-Glendo Basin," Part 2, *Rocky Mountain Oil Reporter* (Denver: Petroleum Publishers, Inc., July, 1960), p. 17.

Travelers

A study made recently of trends in expenditures of travelers in Wyoming indicates an annual increase of about five per cent. The growth pattern of visitors indicated Fort Laramie would support slightly higher growth for the next ten years. This will be due to the renovation and upgrading of facilities. How much of this increase will be due to re-routing of travelers and how much to visits from people who would be passing through anyway, depends quite largely upon local promotional efforts.

The other factor in the travel picture will be completion of the interstate system through Platte County. This will eventually increase traffic through that area, but expenditures will not increase proportionately because of the higher speeds, hence, smaller amounts of time spent in the area.

The data in Table XXXVI indicate expected gains in traveler trade for the 20 year period from 1959 to 1979. They indicate the expected influence of Fort Laramie visitors in increasing the proportion spent with service firms.

Other studies have shown that where travelers can be induced to stay in the community, they spend a larger proportion with service firms. It was indicated previously that these firms have a higher generating power than retail; hence, the longer travelers stay, the more they contribute both in original dollars and in dollar turnover.

State and Federal Governments

It was pointed out previously that the contribution of state and federal governments to this economy comes under a number of different guises. Payments to agriculture, road and other construction contracts, payrolls of government workers, local purchases of goods and services, and payments to local government are the important ones.

In 1959 construction made up over one-third of the total governmental contribution. A large share of this was work on the interstate highway. This work will be much less important by 1964 and should

Table XXXVI
EXPECTED INCREASE IN TRAVELER TRADE
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)

Year	Visitors to Fort Laramie	Expenditures of Travelers		
		Total	With Retail	With Service
1959	41,000	\$1,820,000	\$1,463,000	\$357,000
1964	67,000	2,275,000	1,820,000	455,000
1969	98,000	2,845,000	2,265,000	580,000
1974	118,000	3,555,000	2,830,000	725,000
1979	142,000	4,445,000	3,540,000	905,000

Source: Estimates by authors.

about cease by 1969.⁹ Thus, construction funds will contribute much less in the future.

Agricultural payments are hard to forecast. They vary quite drastically from year to year. Still, the general trend is upward and the forecasts made here acknowledge this.

Payrolls have two components: (1) That paid out to state highway employees who will be largely out of the picture with completion of the interstate, and (2) Employees of other agencies.

Payments to local government have two components. Funds paid to local school districts make up over half; the rest consists of road funds, tobacco taxes, etc. These payments should increase in the future as they have in the past, in spite of a loss of population.

Table XXXVII contains the estimates for the future based on the above reasoning.

Other Income

Other income flows into this area as a result of investments, inheritance, gifts, etc., from other sections of the nation and the world. If the national growth continues, the amount flowing into this area can be expected to continue also.

This area is particularly closely connected to events in the Rocky Mountain and Plains states. The expected growth in this segment is closely connected to these outside events.

Table XXXVII
CONTRIBUTIONS OF STATE AND FEDERAL GOVERNMENTS
TO THE LOCAL ECONOMY
East-Central Wyoming
1959 and Forecasted at Five Year Intervals to 1979
(1959 Dollars)

Year	Contribution
1959	\$12,597,000
1964	10,698,000
1969	8,643,000
1974	8,678,000
1979	9,285,000

⁹Conversation with Alvin Bastron, Highway Planning Engineer, Wyoming Highway Department.

APPENDIX

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Table XXXVIII

IRON ORE PRODUCTION Platte County, Wyoming — 1952-1961

Year	Amount
1952	543,076
1953	729,144
1954	513,226
1955	838,691
1956	725,496
1957	786,548
1958	558,344
1959	495,428
1960	474,796
1961	632,291

Source: State Board of Equalization.

Table XXXIX

NET OUTWARD MIGRATION BY VARIOUS AGE GROUPS

Comparing East-Central Wyoming with the State of Wyoming
For the Ten Year Period 1950 to 1960

Age Group	East-Central Wyoming					
	Births Plus 1950 Census Aged 10 Years*	Deaths	Natural Increase	1960 Census	Outward Migration	Per Cent
0 to 14 Years	6,496	168	6,328	6,177	151	2.4
15 to 24 Years	4,046	50	3,996	2,446	1,550	38.8
25 to 34 Years	3,075	55	3,020	2,055	965	32.0
35 to 64 Years	7,650	370	7,280	6,300	980	13.5
65 Years and Over	3,379	925	2,454	2,158	296	12.1
Total			23,078	19,136	3,942	17.1
Wyoming						
0 to 14 Years	116,407	3,154	113,253	111,374	1,879	1.7
15 to 24 Years	50,245	841	49,404	44,175	5,229	10.6
25 to 34 Years	46,623	892	45,731	43,659	2,072	4.5
35 to 64 Years	117,700	7,383	110,317	104,950	5,367	4.9
65 Years and Over	41,664	12,533	29,131	25,908	3,223	11.1
Total			347,836	330,066	17,770	5.1

*Births during the ten years 1950 to 1959 plus those in various age groups in 1950 aged by ten years to bring them to 1960.
Source: U. S. Census of Population, 1950 and 1960, plus vital statistics from the Wyoming Department of Health.

Table XL

EMPLOYMENT COVERED BY EMPLOYMENT SECURITY LAWS (Excluding Government)
East-Central Wyoming — 1950-1961

Year	County	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1950	Goshen	1,011	1,005	1,056	1,050	1,078	1,173	1,192	1,182	1,188	1,512	1,519	1,413
	Platte	830	823	877	882	928	930	1,166	1,177	1,084	946	1,011	997
1951	Goshen	1,055	1,036	1,061	1,089	1,124	1,162	1,234	1,205	1,272	1,632	1,683	1,561
	Platte	912	881	955	968	972	1,050	999	1,001	1,149	978	948	932
1952	Goshen	1,202	1,103	1,148	1,188	1,186	1,210	1,276	1,307	1,295	1,704	1,688	1,564
	Platte	1,003	925	904	931	920	1,001	978	1,011	1,014	1,074	1,056	1,008
1953	Goshen	1,146	1,090	1,124	1,167	1,222	1,234	1,269	1,298	1,356	1,600	1,519	1,378
	Platte	934	927	961	1,027	1,091	1,154	1,133	1,086	1,022	1,103	1,083	1,078
1954	Goshen	1,026	1,032	1,037	1,082	1,097	1,158	1,138	1,123	1,190	1,708	1,600	1,466
	Platte	1,060	998	1,041	908	1,118	1,196	1,073	1,013	1,041	929	885	902
1955	Goshen	938	932	969	1,075	1,113	1,138	1,376	1,350	1,368	1,499	1,645	1,506
	Platte	865	833	891	973	1,066	1,050	1,214	1,452	1,338	1,301	1,273	1,182
1956	Goshen	1,122	1,112	1,084	1,053	1,090	1,143	1,087	1,160	1,252	1,471	1,499	1,380
	Platte	1,089	1,077	1,095	1,141	1,225	1,312	1,085	1,324	1,335	1,202	1,089	973
1957	Goshen	1,025	1,021	1,087	1,100	1,143	1,229	1,213	1,216	1,153	1,461	1,437	1,355
	Platte	920	920	1,024	1,023	1,008	1,130	1,161	1,101	1,114	1,130	1,104	1,106
1958	Goshen	1,006	939	950	1,002	1,035	1,125	1,167	1,184	1,183	1,412	1,437	1,283
	Platte	978	932	911	1,022	1,130	1,171	1,243	1,207	1,200	1,127	1,095	1,012
1959	Goshen	1,083	922	952	1,081	1,191	1,263	1,245	1,232	1,269	1,589	1,544	1,422
	Platte	943	943	1,017	1,156	1,252	1,250	1,273	958	984	927	1,110	1,062
1960	Goshen	1,250	991	1,013	1,091	1,179	1,294	1,176	1,209	1,199	1,464	1,387	1,315
	Platte	1,032	1,002	1,010	1,162	1,236	1,329	1,338	1,193	944	1,078	1,023	750
1961	Goshen	1,008	1,008	1,000	1,096	1,092	1,125	1,160	1,167	1,199	1,559	1,436	1,321
	Platte	851	969	1,043	1,052	1,047	1,085	1,066	1,023	1,008	1,004	941	910

Source: Wyoming Employment Security Commission.

Table XLI.

ACRES OF MAJOR CASH CROPS HARVESTED
East-Central Wyoming — 1954-1961

Year	County	WINTER WHEAT		DRY EDIBLE BEANS		SUGAR BEETS	
		Acres Harvested	Production (Bu.)	Acres Harvested	Production (Cwt.)	Acres Harvested	Production (Tons)
1954	Goshen	49,100	472,000	16,400	260,000	13,654	179,009
	Platte	27,900	276,500	890	4,330	863	5,882
1955	Goshen	50,700	1,052,000	14,800	187,500	10,869	126,862
	Platte	38,500	678,000	900	5,100	537	3,506
1956	Goshen	59,000	1,089,000	13,000	194,300	14,135	184,834
	Platte	40,000	600,000	900	5,500	1,056	5,790
1957	Goshen	63,400	1,342,000	12,400	204,600	13,988	194,868
	Platte	46,500	930,500	1,000	12,000	1,279	15,955
1958	Goshen	63,500	1,762,800	13,500	243,000	14,628	230,545
	Platte	38,000	1,139,200	4,100	56,200	2,312	26,144
1959	Goshen	59,100	1,290,000	14,500	232,000	14,723	241,510
	Platte	36,500	839,200	4,400	52,000	2,360	32,007
1960	Goshen	55,600	1,363,200	13,400	198,300	15,751	246,283
	Platte	31,800	731,400	2,550	30,600	2,200	29,612
1961	Goshen	52,000	1,092,000	12,300	200,500	17,456	237,056
	Platte	31,100	746,500	2,300	34,500	2,420	26,966

Source: State-Federal Agricultural Statistician.

Table XLII

ACRES OF FEED GRAINS HARVESTED
East-Central Wyoming — 1954-1961

Year	County	OATS		BARLEY		ALL CORN	GRAIN CORN	
		Acres Harvested	Production (Bu.)	Acres Harvested	Production (Bu.)	Acres Harvested	Acres Harvested	Production (Bu.)
1954	Goshen	7,500	99,000	18,700	275,700	11,200	4,000	176,000
	Platte	4,600	37,300	6,600	67,000	4,800	660	17,500
1955	Goshen	9,000	182,900	15,000	365,000	14,000	7,000	245,200
	Platte	6,900	133,000	7,300	111,800	7,500	1,000	24,000
1956	Goshen	7,000	147,000	12,000	261,800	13,500	9,200	296,300
	Platte	4,000	48,000	5,800	81,800	6,000	800	17,600
1957	Goshen	9,000	270,000	12,500	400,000	14,000	10,000	331,600
	Platte	6,000	180,000	7,200	208,800	7,700	1,800	50,500
1958	Goshen	11,500	368,500	10,500	395,100	18,200	9,700	538,200
	Platte	6,500	201,500	7,100	184,200	6,700	2,700	122,800
1959	Goshen	13,900	382,000	13,100	363,000	20,600	15,200	915,800
	Platte	7,100	207,000	7,900	200,000	6,900	3,800	189,000
1960	Goshen	11,000	269,000	11,100	327,400	19,500	13,700	768,500
	Platte	8,300	178,900	6,800	182,900	6,400	3,400	127,800
1961	Goshen	12,500	356,500	13,000	503,600	18,300	12,000	884,100
	Platte	9,100	261,800	7,500	203,300	6,300	3,200	207,100

Source: State-Federal Agricultural Statistician.

Table XLIII
ACRES OF HAY HARVESTED
East-Central Wyoming — 1954-1961

Year	County	ALFALFA HAY		WILD HAY	
		Acres Harvested	Production (Tons)	Acres Harvested	Production (Tons)
1954	Goshen	23,400	55,000	10,200	6,000
	Platte	10,000	11,000	8,300	4,700
1955	Goshen	27,600	61,600	13,000	11,400
	Platte	13,000	11,600	16,000	13,600
1956	Goshen	26,600	56,900	11,300	9,000
	Platte	12,200	14,400	13,600	8,200
1957	Goshen	27,000	61,200	14,000	12,600
	Platte	13,500	20,000	15,000	14,400
1958	Goshen	26,000	61,200	13,700	12,800
	Platte	14,500	24,000	14,700	14,300
1959	Goshen	22,100	52,900	12,300	9,400
	Platte	13,400	25,900	14,000	11,700
1960	Goshen	22,000	53,500	10,800	9,200
	Platte	12,000	18,200	13,000	9,100
1961	Goshen	23,500	57,800	11,000	8,900
	Platte	13,000	24,000	14,000	14,500

Source: State-Federal Agricultural Statistician.

Table XLIV
TRENDS IN LIVESTOCK NUMBERS
East-Central Wyoming — 1950-1962

Year	County	Sheep	Cattle
1950	Goshen	19,000	60,600
	Platte	36,000	51,600
1951	Goshen	22,000	65,500
	Platte	39,000	56,000
1952	Goshen	32,000	71,400
	Platte	42,000	63,800
1953	Goshen	26,000	74,200
	Platte	36,000	63,800
1954	Goshen	19,000	76,000
	Platte	30,500	56,700
1955	Goshen	24,100	74,700
	Platte	23,000	45,300
1956	Goshen	23,000	76,000
	Platte	28,300	49,000
1957	Goshen	27,400	76,500
	Platte	29,700	52,000
1958	Goshen	29,600	76,000
	Platte	32,100	54,000
1959	Goshen	32,000	76,800
	Platte	32,800	56,500
1960	Goshen	32,000	80,000
	Platte	41,000	61,000
1961	Goshen	31,400	72,800
	Platte	31,200	55,500
1962	Goshen	27,500	77,500
	Platte	24,600	63,000

Source: State-Federal Agricultural Statistician.

Table XLV
ANNUAL NUMBER OF VISITORS
TO FORT LARAMIE NATIONAL MONUMENT
1941-1961

Year	Number	Year	Number
1941	6,764	1952	22,814
1942	2,448	1953	25,180
1943	1,330	1954	24,770
1944	2,153	1955	22,823
1945	4,386	1956	30,366
1946	11,940	1957	31,612
1947	12,063	1958	35,606
1948	14,181	1959	40,900
1949	19,272	1960	45,600
1950	22,434	1961	49,900
1951	21,273		

Source: U. S. Park Service.

Table XLVI
TRENDS IN SALES BY COMMERCIAL RETAILERS
East-Central Wyoming, the State of Wyoming, and the United States
1948-1961

Year	MILLION DOLLARS				INDEX: 1950=100			United States
	Platte	Goshen	Wyoming	United States	Platte	Goshen	Wyoming	
1948	8,370	12,590	321,050	130,524	94	95	93	91
1949	8,370	12,770	332,360	130,716	94	97	96	91
1950	8,870	13,230	345,760	143,688	100	100	100	100
1951	9,480	13,310	375,620	156,552	107	101	109	109
1952	9,260	13,510	386,120	162,348	104	102	112	113
1953	8,820	13,200	394,600	169,092	99	100	114	118
1954	8,050	12,990	385,160	169,128	91	98	111	118
1955	8,720	13,360	409,960	183,852	98	101	119	128
1956	8,360	12,830	414,920	189,732	94	97	120	132
1957	8,540	13,020	427,010	200,002	96	98	123	139
1958	9,110	13,550	440,370	200,353	103	102	127	139
1959	9,481	14,254	493,469	215,413	107	108	143	150
1960	9,259	14,583	504,933	219,528	104	110	146	153
1961	9,343	14,040	489,410	218,940	105	106	142	152

Source: U. S. Department of Commerce and Information Circular No. 1, Division of Business and Economic Research, University of Wyoming.

Table XLVII
CONDITION OF BANKS
East-Central Wyoming — December 31, 1951-1960

Year	Loans and Discounts	Assets		
		Government Obligations	Cash	Other
1951	\$6,757,964	\$ 3,059,017	\$5,695,020	\$ 48,024
1952	6,169,566	3,893,840	6,281,652	55,428
1953	6,012,333	3,863,068	5,085,187	147,973
1954	4,786,733	4,669,679	5,582,487	189,506
1955	5,444,226	3,990,949	4,982,371	197,083
1956	4,976,909	4,262,815	5,586,713	185,279
1957	5,871,884	5,427,337	5,401,713	249,437
1958	6,663,585	5,557,402	5,584,420	128,499
1959	7,224,791	5,045,113	5,421,924	119,463
1960	7,247,536	5,182,766	5,667,698	114,403

Year	Time Deposits	Liabilities		
		Demand Deposits	Government Deposits	Other
1951	\$2,780,232	\$13,538,476	\$1,932,350	\$1,476,141
1952	3,115,074	13,712,412	2,138,754	1,621,023
1953	3,561,170	12,395,656	2,172,513	1,619,863
1954	3,816,196	12,454,327	2,187,546	1,606,800
1955	3,808,710	11,217,498	2,728,573	1,672,224
1956	4,273,988	11,560,172	2,465,316	1,714,789
1957	4,962,795	12,599,413	3,355,635	1,823,461
1958	6,320,539	13,319,850	2,981,035	1,884,650
1959	7,044,191	12,480,280	2,811,791	2,088,367
1960	7,559,944	11,934,240	3,204,138	2,178,654

Source: Wyoming State Examiner.

Table XLVIII
TRANSPORTATION EMPLOYMENT AND PAYROLL
East-Central Wyoming — 1950-1961

Year	Total Employment	Total Payroll	Earnings Per Worker
1950	238	760,481	3,195
1951	253	813,560	3,216
1952	237	833,511	3,517
1953	255	910,461	3,570
1954	207	776,195	3,750
1955	220	824,500	3,748
1956	211	776,747	3,681
1957	181	756,355	4,179
1958	200	844,082	4,220
1959	167	770,369	4,613
1960	193	815,295	4,224
1961	174	779,412	4,479

Source: Wyoming Employment Security Commission.

Table XLIX
COLLECTION OF SALES AND USE TAX
East-Central Wyoming — 1946-1961

Year	Goshen	Platte	Total
1946	\$183,363.51	\$ 89,608.53	\$272,972.04
1947	183,363.51	120,771.21	304,134.72
1948	211,287.64	143,466.82	354,754.46
1949	217,350.55	143,055.48	360,406.03
1950	236,272.35	156,410.25	392,682.60
1951	253,759.57	179,146.73	432,906.30
1952	273,591.22	172,723.89	446,315.11
1953	245,682.50	158,899.72	404,582.22
1954	226,491.90	139,999.51	366,491.41
1955	248,781.26	159,588.47	408,369.73
1956	234,033.94	156,021.71	390,055.65
1957	251,037.27	160,879.48	411,916.75
1958	273,015.85	176,773.99	449,789.84
1959	287,246.88	180,217.56	467,464.44
1960	285,621.69	174,115.82	459,737.51
1961	282,034.12	176,739.61	458,773.73

Source: Wyoming Sales and Use Tax Division.

Table L
GALLONS OF GASOLINE SOLD
East-Central Wyoming — 1946-1961

Year	Goshen	Platte	Total
1946	3,713,104	3,104,476	6,817,580
1947	4,307,285	3,601,261	7,908,546
1948	4,752,704	3,876,176	8,628,880
1949	4,844,707	3,846,923	8,691,630
1950	5,267,851	3,869,987	9,137,838
1951	5,641,839	3,828,137	9,469,976
1952	5,788,972	3,970,870	9,759,842
1953	5,917,749	4,104,876	10,022,625
1954	5,909,246	3,900,304	9,809,550
1955	5,867,123	4,109,195	9,976,318
1956	5,746,188	4,030,964	9,777,152
1957	5,829,802	4,225,281	10,055,083
1958	6,456,965	3,849,290	10,306,255
1959	6,791,545	3,900,476	10,692,021
1960	6,824,617	3,936,981	10,761,598
1961	6,536,986	4,125,555	10,662,541

Source: Wyoming Gasoline Tax Division.

Table LI
DISTRIBUTION OF DIRECT SOURCES OF PERSONAL INCOME
East-Central Wyoming — 1949 and 1959

Source	1949		1959	
	Amount	Per Cent	Amount	Per Cent
WAGES AND SALARIES				
Agriculture	2,572	10.19	1,523	4.30
Mining	1,109	4.39	1,520	4.29
Trade	1,959	7.76	2,685	7.58
Government	1,725	6.84	3,931	11.09
Manufacturing	762	3.02	588	1.66
Transportation	797	3.16	870	2.45
Construction	421	1.67	1,514	4.27
Services	509	2.02	1,114	3.14
Other	398	1.58	796	2.25
PROPRIETORSHIP				
Farm and Ranch	8,181	32.42	9,745	27.50
Non-Farm	2,341	9.28	3,064	8.65
PROPERTY	3,046	12.07	5,481	15.47
OTHER	1,415	5.61	2,607	7.36
TOTALS	25,235		35,438	

Source: Estimates prepared by this Division. Includes both cash and imputed income.