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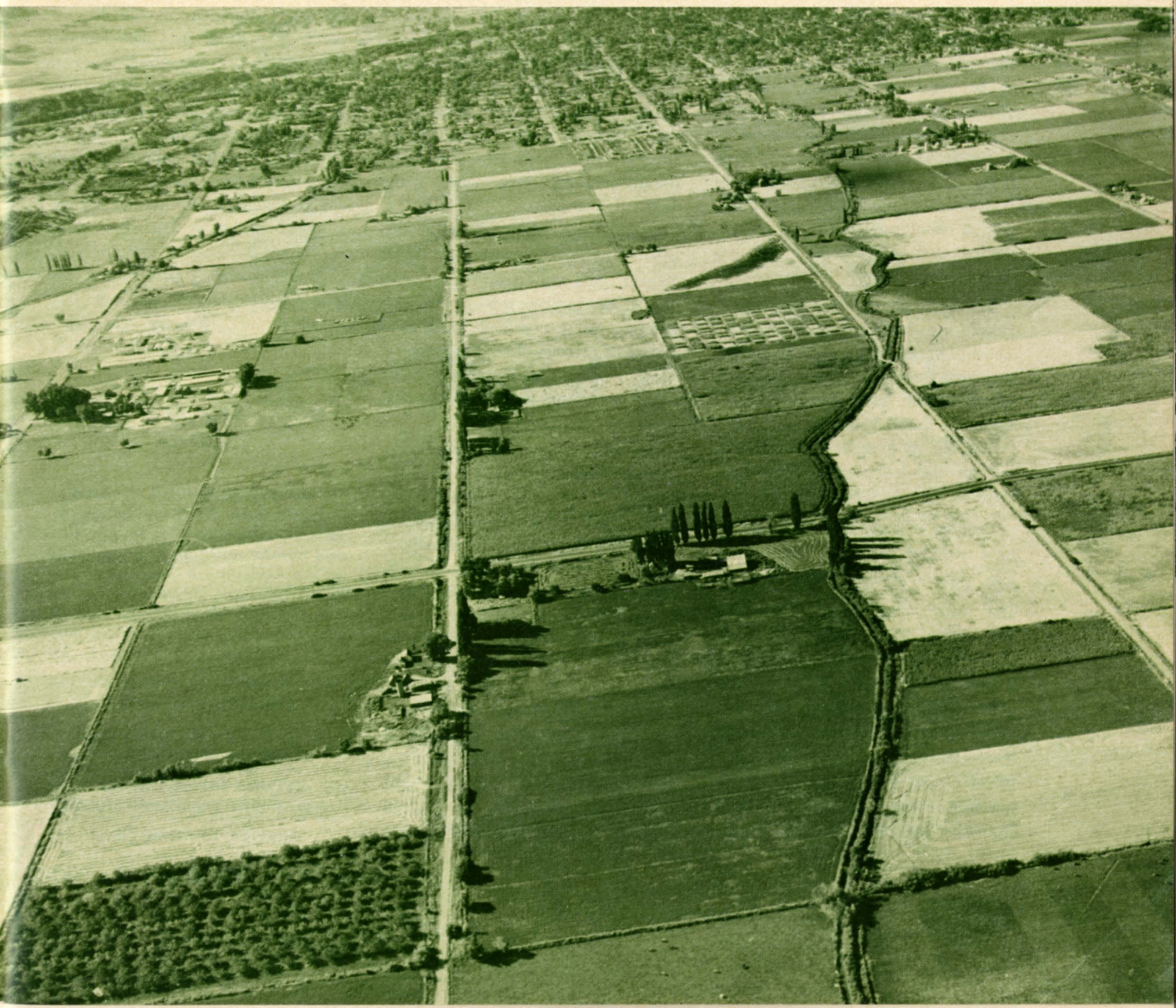
# UTAH



Vol. 23, No. 4  
December, 1962

# SCIENCE

AGRICULTURAL EXPERIMENT STATION • UTAH STATE UNIVERSITY • LOGAN



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CONSIDERABLE publicity has been given in recent years to the changes, problems, and opportunities that exist in metropolitan Utah along the Wasatch Front. In comparison, the remainder of the state is coming to be considered a vast hinterland, with its future set principally in terms of serving as a playground and source of supply for metropolitan areas. This issue of *Utah Farm and Home Science* is devoted to providing factual information about rural Utah and to suggesting some possibilities for its diverse development.

The situation in rural Utah is decidedly two-faced. Although current statistics present a generally dismal picture, many positive aspects exist and merely need to be recognized and developed. Rural Utah has a greater future than the passive role of depending on the largess of metropolitan areas.

Families in rural counties generally have reduced incomes. These areas also provide fewer public services, such as schools, health services, police protection, fire protection, and waste disposal, and many of these are of reduced quality compared with urban areas. The decline in rural population over the past twenty years has been a major factor affecting cost and quality of public services. Costs of local government have increased per capita and the difficulties of maintaining

good schools and other public institutions have been magnified.

On the positive side, industries are finding the rural situation attractive and interest in locating manufacturing plants in small Utah communities is increasing. The reports in this issue indicate that in even the rural counties three-fourths of the people are employed in nonfarm jobs. This trend toward nonfarm employment will undoubtedly continue.

Mineral resources are widely distributed in the state and their development could add employment opportunities and bring new wealth to most counties. Recreation and tourism as sources of revenue depend as much on local initiative and enterprise as on the quality of scenery and recreational resources.

Generally accepted concepts to the contrary, agriculture is not a declining industry in the state. Increased food production is primary to an expanding population. Agriculture can be expected to adjust to produce more efficiently in the future, and many farm enterprises will also diversify by providing associated activities such as guest homes, camp grounds, and services to hunters and others wishing to escape city pressures and highways.

Reversal of recent unfavorable economic and social trends in rural Utah will require local initiative and public assistance. Rural regions must be organized for effective action. Present

government patterns may not be the best for rural Utah. This idea should be thoroughly investigated and any necessary alterations should be initiated. The Rural Area Development Program is one organized effort to help rural areas assess and exploit their possibilities. Certainly the answers to rural Utah's problems can only be found by a vigorous and effective program geared to the future. The Cooperative Extension Service and the Experiment Station of Utah State University are dedicated to assisting rural Utah in developing its resources and human potential wisely and well.

WYNNE THORNE  
Director

### UTAH FARM AND HOME SCIENCE

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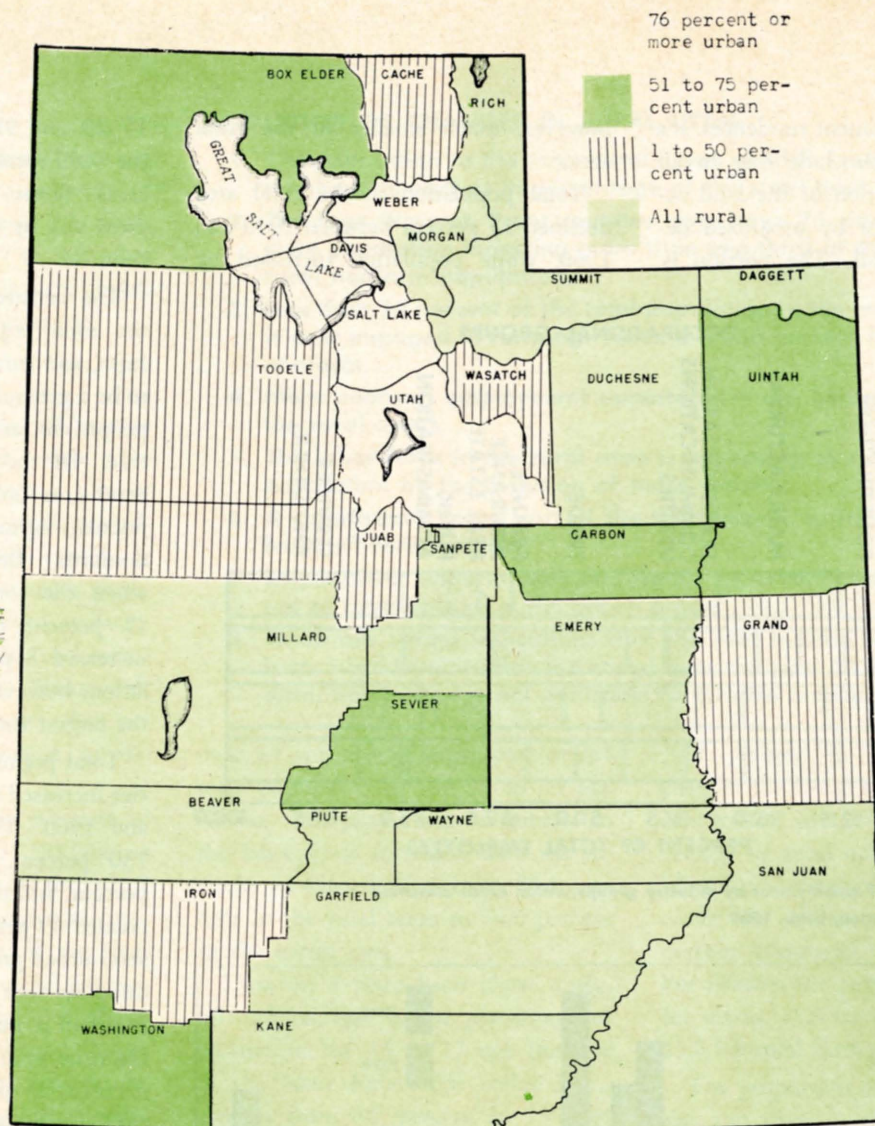


Fig. 1. Rural and urban population in Utah, 1960

# Rural Utah Today

GEORGE T. BLANCH

**R**URAL areas are distinguished from urban areas by the density of population. The 1960 census considered all incorporated places of 2500 or more inhabitants as urban and also included unincorporated areas with 1000 persons or more per square mile. The distinction is clearly evident in the case of cities and "wide-open country" but often one area gradually merges

into the other. Rural people in close proximity to urban areas show more urban attitudes and actions than those far away from such centers.

The most comprehensive data available about rural Utah are contained in the census. Of Utah's 29 counties, 14 contain no urban areas. In 5 other counties the urban population makes up from 1 to 50 percent of the population. Another 6 counties have between 51 and 75 percent urban population and in 4 more 76 percent or more of the people are in urban centers (fig. 1). For purposes of discus-

sion we shall designate these areas as rural, semi-rural, semi-urban, and urban.

Within the 14 rural counties is 52 percent of the land area of the state but only 7.4 percent of the population (table 1). The density is 1.5 persons per square mile, or 427 acres for each person. In the 4 urban counties is only 4.4 percent of the land area but 75 percent of the state's population. The density is 186 persons per square mile or 3.4 acres per person. Within both areas are large expanses of mountainous or rough or desert land on

DR. GEORGE T. BLANCH is professor and head of the Department of Agricultural Economics. The primary source of the data reported in this article is the Censuses of Agriculture and U. S. Department of Agriculture and other government reports.

which are no permanent residences. It's probably safe to conclude that in all four areas the portion of the land occupied by farms or by urbanized developments is small. The portion is,

however, much smaller in the rural areas.

Total population in the rural area declined 15 percent between 1940 and 1960, while population increased by

15, 29, and 95 percent, respectively, in the semi-rural, semi-urban, and urban areas. Some of the growth in these areas was by migration from the rural counties.

The census of population classifies the total population as urban, rural farm, and rural nonfarm. There seems to be a general assumption that all rural people are farmers, but this is far from true. Of the total population in the rural area only 19 percent was farm population, and 81 percent was rural nonfarm. Between 1940 and 1960 when the total population decreased 15 percent the nonfarm population increased 8 percent. The farm population, however, decreased 49 percent, the largest for any of the four areas.

Total population in the urban counties increased 95 percent between 1940 and 1960. The urban part increased 130 percent, the rural nonfarm 22 percent, and the rural-farm portion decreased 49 percent. The semi-rural and semi-urban groups changed in the same direction but with smaller increases in urban population, larger increases in the rural nonfarm, and about the same decrease in rural-farm people. The 14 rural counties contain less than one-third of the state total of each class while the 4 urban counties have more than one-third of each class. In other words there are more people living and working on farms in the 4 urban counties than in the 14 rural counties.

The rural counties have proportionally more of their population in the "under 18-year-old" class and also in the "over 65" class, and the least in the "18 to 65" class. The urban area had the fewest in the "over 65" group and the lowest median age. It appears that these characteristics may have resulted from the movement of young adults from the rural to the urban areas. The census shows the lowest median age to be in the urban fringe areas, which in many if not most places are new housing developments occupied by young families.

There is little difference in the me-

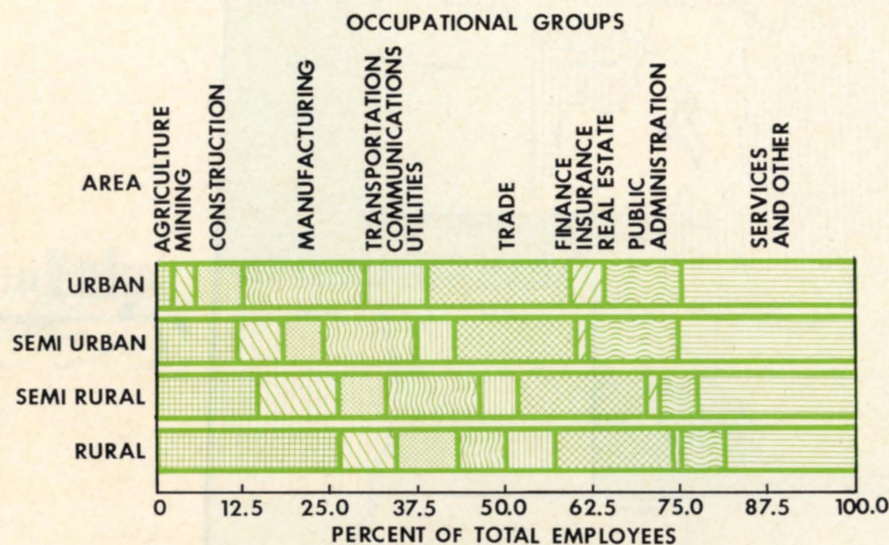


Fig. 1. Distribution of employment by industry groups within areas classified by degree of urbanization, Utah, 1960

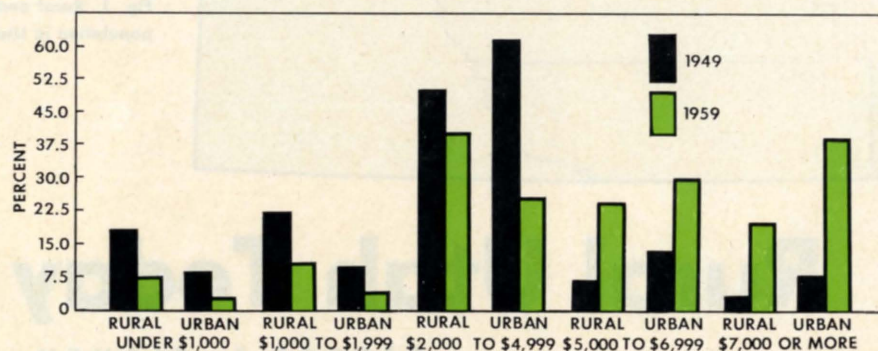


Fig. 2. Percentage of families with incomes of specified amounts in rural and urban counties, Utah, 1949 and 1959

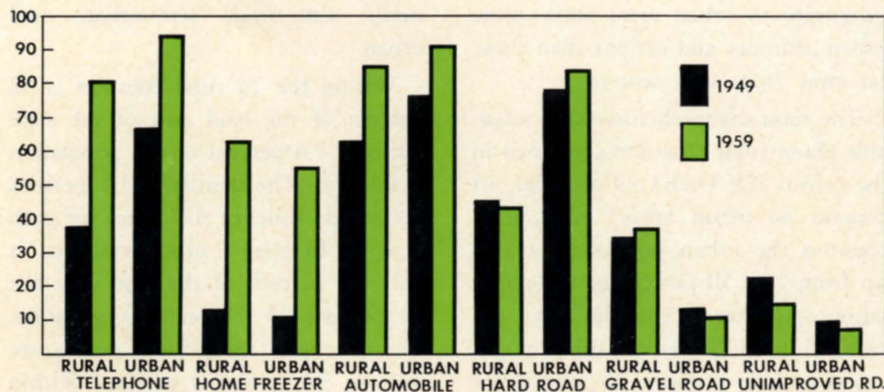


Fig. 3. Percentage of farm families with specified conveniences, rural and urban areas, Utah, 1949 and 1959

dian years of schooling of the over 25 population in the four areas. Between 1940 and 1960 the median years of schooling increased about 2.3 years for males and from 1.75 to 2.2 years for females. The increases were slightly larger in the two rural areas.

### *The labor force*

The labor force includes all persons "14 years old and over" who were working, or on leave from a job, or seeking a job during the week preceding the taking of the 1960 census. It includes both males and females working for wages, self-employed as farmers and other businessmen, and members of the armed forces. Housework in their own homes, however, does not qualify women for inclusion in the labor force.

The total labor force in the state in 1960 was 318,600, and 181,244 in 1940 (table 2). Of the total force 75.7 percent was in the urban area as compared with 74.7 percent of the total population. The rural area had 6.8 percent of the labor force and 7.4 of the population. The proportionately larger labor force in the urban areas results from a higher percentage of females

### HIGHLIGHTS OF CHANGES IN RURAL UTAH:

1. The population in the most rural areas of Utah is decreasing in total numbers as well as in percentage of the state total.
2. The four Wasatch Front counties now have 75 percent of the total state population including more than one-third of the rural farm and rural nonfarm population.
3. Less than 20 percent of the total population in the most rural counties is now engaged in farming. More than 30 percent is classed as rural nonfarm.
4. More nonfarm employment opportunities are becoming available in the rural areas.
5. The labor force in the rural area is increasing in relation to the total population by the inclusion of more women.
6. A significantly large part of the total income to farm families comes from off-farm sources.
7. Employment opportunities and family incomes in the rural areas are not as favorable as in the urban areas.
8. There are strong indications that the real income to farm and non-farm rural families has increased over the past 20 years. Adequate data, however, are not available for precise measurements.

over 14 and also a larger part of the total population in the 18 to 65 age classes. The proportion of females in the labor force increased with the increase in urbanization from 25.4 percent in the rural areas to 34.0 percent in the urban area.

Data on a state basis show a significant increase in the percentage of persons in the 14 to 17 age brackets in the labor force. For males it increased from 8.9 percent in 1940 to

36.4 percent in 1960. Comparable changes for females were from 4.0 percent to 20.7 in 1960. In 1960 the percentage of rural nonfarm males in the labor force was significantly lower than either the urban or rural-farm, 32.9 percent compared to 37.3 and 38.1. For females the percentages were 20.7 for urban, 15.9 for rural nonfarm, and 15.0 for rural farm.

The proportion of males 14 years of age and over in the labor force increased from 75.6 to 77.5 percent in the rural counties and from 74.8 to 80.2 in the urban counties. For females, however, the changes were much greater, 12.3 to 25.4 in the rural counties; 12.7 to 27.5 in the semi-rural; 13.4 to 29.8 in the semi-urban, and in the urban area 20.2 to 34.0 percent. This has occurred in all areas during a period when more of the youth, 14 and up, are spending more years in school. Many of these carry part-time jobs. Improved home conveniences supplemented by the purchase of more completely or partially prepared foods, clothing, and supplies have freed many women for part-time or full-time employment. Improved transportation facilities have also contributed to this trend.

In 1960 the unemployed proportion

(Continued on page 128)

Table 1. Comparison of selected characteristics of counties grouped on the basis of degree of urbanization of population, Utah, 1960

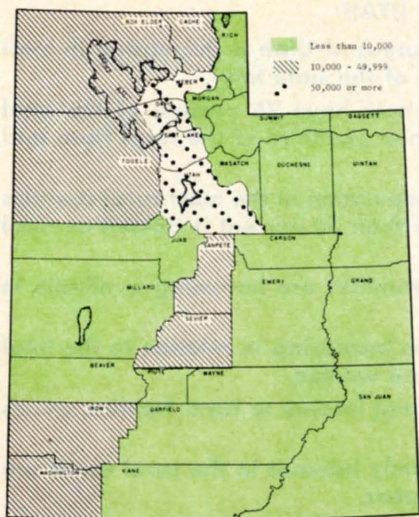
Item	Rural*	Semi-rural†	Semi-urban‡	Urban§
Number of counties.....	14.0	5.0	6.0	4.0
Percent of state area.....	52.4	19.3	23.9	4.4
Percent of state population.....	7.4	8.8	9.1	74.7
Population per square mile.....	1.5	4.9	4.1	186.0
Total population — 1960.....	65,782	78,614	80,701	665,530
Percent of population:				
Urban.....	00.0	44.1	59.6	87.8
Rural non-farm.....	81.0	43.6	33.2	9.9
Rural farm.....	19.0	12.3	7.2	2.3
Percent of population:				
Under 18 years.....	44.7	44.5	41.5	42.7
Over 65 years.....	8.1	7.4	7.1	6.5
18 to 65.....	47.2	48.1	51.4	50.8
Median age of population.....	23.5	22.9	23.2	21.9
Median years of schooling completed by population 25 years and over:				
Males.....	11.64	11.58	12.02	12.25
Females.....	12.01	11.90	12.16	12.25

\* Counties contain no rural areas

† Counties with urban population from 1 to 50 percent of total population

‡ Counties with 51 to 75 percent urban population

§ Counties with 76 percent or more of the population in urban centers.



**L**ITTLE more than 100 years ago Mormon Pioneers left their homes and cities in the East to establish a new religious, cultural, and economic center in the West. For many, Salt Lake City and the Wasatch Front became their home; others settled in the more outlying valleys and mountains. By 1900, Utah had become a state, Salt Lake City had grown to 54,000 people, and 80 other cities and towns had been established throughout 27 counties. Two additional counties were later organized.

Not all counties shared alike in economic growth, and less than 50 years after Utah was colonized, descendants of the early pioneers began another migration, not to settle new lands, but back to the "city," to the Wasatch Front where economic growth had been most rapid.

As early as 1890, the population in two rural Utah counties reached its peak and began to decline. As the migration to the "city" gained momentum, population declined in 9 counties

DR. RONDO A. CHRISTENSEN is associate professor of agricultural economics. In this report, data on services for cities and towns with less than 10,000 population are based on reports filed with the Utah State Auditor's Office, mostly for fiscal 1960; data for cities with populations of 10,000 or more were based on the 1957 Census of governments in Utah. Population estimates for the respective years are derived from Census and Bureau of Economic Research reports.

# PUBLIC SERVICES

## Their availability and cost

RONDO A. CHRISTENSEN

during the 1930's, 16 during the 40's, and 13 during the 50's. These were all predominantly rural counties. In the meantime the rural population of the state (people living outside of cities having a population of 2,500 or more) declined from 62 percent in 1900 to 25 percent in 1960. The population in the Wasatch Front counties — Weber, Davis, Salt Lake, and Utah — increased from 52 percent in 1900 to 75 percent in 1960.

This modern migration is due largely to the technological revolution in agriculture which has released thousands of people for off-farm employment, and to the rapid industrialization of the Wasatch Front which has attracted people to fill new jobs in manufacturing and service industries, drawing both from rural Utah and from out-of-state. Employment in agriculture and manufacturing almost reversed itself between 1930 and 1960, with agriculture decreasing from

43,318 to 18,217, and manufacturing increasing from 19,586 to 48,408.

In many areas of the state human resources have not moved rapidly enough from farms and rural communities. The result has been considerable unemployment, or under employment, and economic stagnation. More recently there has been an effort in some rural areas to bolster sagging economies by stimulating the development of new nonfarm industries. These efforts have met with some success.

Problems of availability and cost of public services provided by local governments become involved in these population shifts. Regardless of where people live they demand certain services. The cost of services to local governments and to the state may vary between rural and urban areas. As people move to the "city" they put pressure on existing services such as schools, water systems, and police protection. The counties and communities

Table 1. Services provided by town and city governments, Utah

Service	City population				
	Less than 1,000	1,000 2,499	2,500 9,999	10,000- 24,999	25,000- or more
Number of cities.....	105	40	27	4	3
Total population .....	42,779	62,576	153,558	61,800	287,500
Average population .....	407	1,564	5,687	15,450	95,833
percent of cities providing service					
Health .....	10	25	59	75	100
Police protection .....	45	85	100	100	100
Fire protection .....	27	75	93	100	100
Sewage disposal .....	6	30	93	100	100
Other sanitation .....	9	42	70	100	100
Parks and recreation .....	65	85	89	100	100
Streets .....	97	100	100	100	100
Water .....	78	82	100	100	100
Electricity* .....	15	25	26	75	33
General administration .....	100	100	100	100	100
Average .....	45	65	83	95	93

\*Either or both production and distribution systems

# IN RURAL UTAH

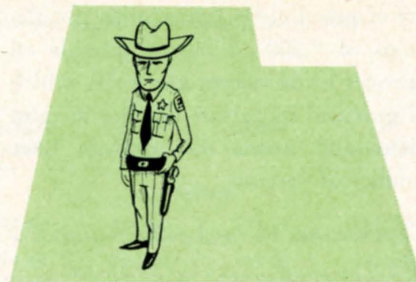
they leave find it increasingly difficult to continue offering certain services and to carry the burden of local government with smaller populations and fewer taxpayers. The availability, costs, and quality of public services may figure importantly in the decisions of management as it contemplates whether or not, and where to locate new industries in the state.

## *Many services not available in rural Utah*

Services commonly provided by city governments include public health

(nursing, immunization, smoke regulation, sanitary engineering), police protection, fire protection, sewage disposal, other sanitation (garbage disposal and street cleaning), parks (including cemeteries) and recreation, streets, water, and general administration. Some cities produce and distribute electricity, others buy power and distribute it through city-owned systems, while others leave both electrical production and distribution to privately owned utilities. A few cities own and operate public hospitals.

Many of the services mentioned



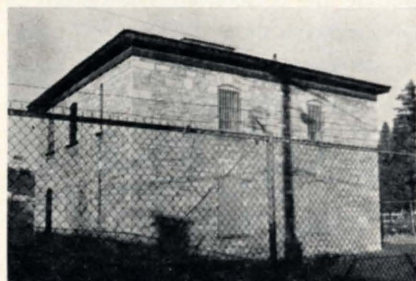
above are not provided by rural communities in Utah. Based on an analysis of their expenditures, few cities and incorporated towns under 1,000 population provide health, sewage disposal, other sanitation services, and electricity; fewer than half provide fire and police protection (table 1). Fewer than half of the cities between 1,000 and 2,499 population provide health, sewage disposal, other sanitation, and electricity. On the other hand, a major-



Only the larger cities have adequate fire protection

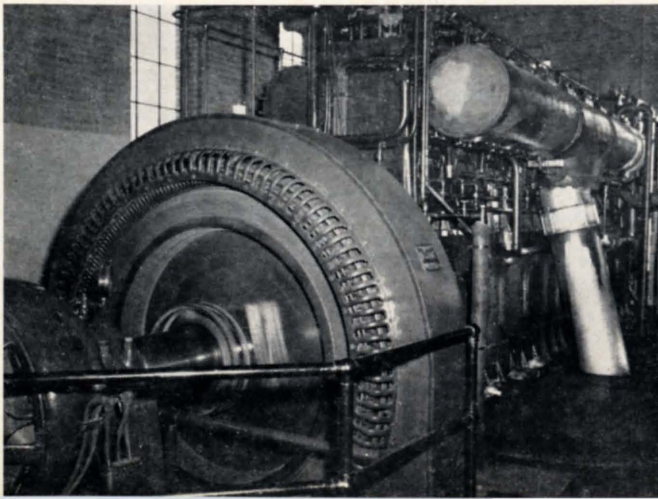


Providing a suitable place of interment is a public responsibility



Jails are necessary for confinement of public offenders

Some cities produce their own electrical power



ity of urban cities (those with populations of 2,500 or more) provide all services listed, except electricity which is provided by private utilities in most cities and towns that do not have municipal systems.

#### *Expenditures by rural communities low*

Small rural towns with populations of less than 1,000 spent less than half as much per person for public services as large cities with populations of 25,000 or more — \$29.89 compared

with \$60.32 (table 2). Per capita expenditures tended to increase with size of city for each service provided, except general administration.

There are several reasons why small communities spend less per capita than large ones. One obvious reason is that the smaller cities provide fewer services. Another likely one is that most services provided are of lower quality. For instance, many small communities have only part-time policemen who work at other jobs, and for this reason

cannot provide constant surveillance and assistance. One part-time policeman cannot possibly possess all the skills of a large full-time police department. Many rural communities that provide fire protection have no fire-fighting equipment of their own, but are serviced by distant fire stations on a fee or contract basis.

Many services provided in urban areas will likely never be available in small, rural communities because of their high cost. To have a fire department, for instance, requires at least one fire truck and fire station regardless of how small the community is; to have sewage disposal, certain minimum trunk lines and treatment facilities are necessary regardless of the population served. Fixed costs such as these are small per person when spread over a large population, but become excessive when the population is small.

#### *Expenditures by rural county governments high*

Each of the 29 county governments in Utah provides police protection, highways, general public buildings, natural resource management (conservation and development of soil and water resources), and general administration in county affairs. In addition, a majority operate public hospitals, provide some public welfare and health care, and provide for the confinement and correction of persons convicted of offenses against the law.

Small, rural county governments spend more per person than large urban ones, even though fewer rural counties provide some services such as welfare and correction. The Census of Governments shows that in 1957 county governments in the sixteen counties having populations of less than 10,000 spent a total of \$46.30 per person compared with \$18.62 for the four Wasatch Front counties having populations of 50,000 or more (table 3). The population is predominantly rural in the sixteen counties (88 per cent) and urban in the four large ones

**Table 2. Average town and city government expenditures per capita, Utah**

Service	City population				
	Less than 1,000	1,000-2,499	2,500-9,999	10,000-24,999	25,000- or more
	dollars				
Total expenditures .....	29.89	42.99	44.65	60.82	60.32
General expenditures .....	18.83	25.18	30.37	27.65	45.06
Health .....	.14	.04	.17	.41	2.05
Police protection .....	1.52	3.55	5.00	2.74	7.62
Fire protection .....	.83	1.29	1.37	2.34	5.91
Sewage disposal .....	.36	1.74	3.04	4.90	.91
Other sanitation .....	.09	.73	1.52	1.41	1.91
Parks and recreation .....	2.02	2.57	3.13	.91	4.72
Streets .....	6.39	6.72	7.52	7.17	10.57
General administration .....	5.04	6.07	5.57	2.64	3.11
Miscellaneous .....	2.44	2.47	3.05	5.13	8.26
Utilities .....	11.06	17.81	14.28	33.17	15.26
Water .....	6.76	7.91	8.47	10.68	11.39
Electric .....	4.30	9.90	5.81	22.49	3.87

**Table 3. County characteristics and average county government expenditures per capita, Utah, 1957**

Item	County population			
	Less than 10,000	10,000-49,999	50,000 or more	All counties
Number of counties .....	16*	9†	4‡	29
Total population .....	70,200	150,700	611,500	832,400
Average population .....	4,388	16,744	152,875	28,703
Square miles .....	49,880	28,880	3,579	82,339
Population per square mile .....	1.4	5.2	170.9	10.1
Percent rural population .....	88	55	14	27
	dollars per capita			
Total expenditures .....	46.30	26.89	18.62	22.45
Public welfare .....	.29	.55	.72	.65
Hospitals .....	5.48	9.51	4.35	5.38
Health .....	.78	.23	.31	.34
Police protection .....	1.99	1.24	1.01	1.13
Correction .....	.19	.14	.22	.20
Natural resources .....	1.58	1.25	.87	1.00
Highways .....	18.48	7.05	3.73	5.58
General public buildings .....	7.02	2.40	.81	1.62
General administration .....	7.45	3.71	3.69	4.01
Miscellaneous .....	3.04	.81	2.91	2.54

\* Includes Daggett, Piute, Rich, Wayne, Kane, Morgan, Garfield, Beaver, Grand, Juab, Wasatch, Emery, Summit, Duchesne, San Juan, and Millard.

† Includes Washington, Iron, Uintah, Sevier, Sanpete, Tooele, Carbon, Box Elder, and Cache.

‡ Includes Davis, Weber, Utah, and Salt Lake.

(86 percent). Expenditures per person were higher in the small counties for most services.

Similar to small city governments, small county governments are also faced with problems of minimum fixed costs for some services. All counties require a courthouse and jail regardless of population. The per capita cost of public buildings was \$7.02 for counties with less than 10,000 population and only \$.81 for counties having 50,000 or more.

Another reason for expenditures being high in rural areas is the cost of overcoming the resistances of space. Rural municipalities may find this somewhat of a problem, but it is more so for rural county governments. Inhabitants per square mile averaged only 1.4 in the counties with small populations compared with 170.9 in the large ones. In overcoming resistances of space more miles of highways are required per person in rural areas. Expenditures per person by county governments for highways demonstrate this; they were \$18.48 in the highly rural counties compared with only \$3.73 in the highly urban ones. These expenditures are only for county class B roads, and do not include city or state highways.

#### *Cost of public education high in rural counties*

Public elementary and secondary education in Utah is provided by 40 school districts. Most districts in the rural areas operate on a county-wide basis. In the more urban parts of the state some school districts serve only a city or a part of a county.

The per capita cost of public education is highest in rural areas. The 1957 Census of Governments shows that school districts in the 16 countries with populations of less than 10,000 spent an average of \$111 per person for the 1956-57 school year compared with only \$80 for the 9 counties with populations of 10,000-49,999, and \$77

Table 4. Combined local government expenditures per capita, by counties, Utah, 1957

Service	County population			
	Less than 10,000	10,000-49,999	50,000 or more	All counties
dollars				
Total expenditure .....	191.45	154.60	153.56	156.95
General expenditures .....	178.55	133.39	133.66	137.42
Education .....	111.16	80.01	77.32	80.60
Public welfare .....	.25	.53	.72	.65
Hospitals .....	5.34	8.18	4.65	5.34
Health .....	.64	.82	1.57	1.36
Police protection .....	4.40	3.99	5.36	5.03
Fire protection .....	.96	1.59	3.65	3.05
Sewage disposal .....	.46	3.24	9.36	7.50
Other sanitation .....	.57	.74	1.40	1.21
Parks and recreation .....	2.03	1.82	3.48	3.06
Natural resources .....	2.35	3.11	1.02	1.51
Streets and highways .....	25.02	13.14	10.45	12.16
General control .....	9.97	6.44	5.85	6.31
Miscellaneous .....	15.40	9.78	8.83	9.58
Utility expenditures .....	12.90	21.21	19.90	19.53
Water .....	8.52	8.79	15.72	13.85
Electric .....	4.38	12.42	4.18	5.68

Table 5. Combined local government revenues per capita, by counties, Utah, 1957

Source of revenue	County population			
	Less than 10,000	10,000-49,999	50,000 or more	All counties
dollars				
Total revenue .....	188.50	152.65	139.48	145.97
General revenue .....	173.59	129.96	123.90	129.16
Taxes .....	70.30	64.98	74.05	72.08
Property tax .....	67.76	62.79	70.28	68.70
County government .....	18.59	10.45	13.32	13.24
City government .....	6.65	8.19	15.10	13.14
School districts .....	42.33	43.81	39.79	40.72
Special districts .....	.19	.34	2.07	1.60
Other taxes .....	2.54	2.19	3.75	3.38
Intergovernmental revenue .....	82.38	46.18	31.86	38.71
State .....	77.06	44.97	29.63	36.40
Federal .....	5.32	1.21	2.23	2.31
Charges and miscellaneous .....	20.91	18.80	17.99	18.37
Utility revenue .....	14.91	22.69	15.58	16.81
Water .....	7.39	6.88	10.93	9.89
Electric .....	7.52	15.81	4.65	6.92

for the 4 counties with populations of 50,000 or more. Expenditures in rural counties were high in all categories including personal services, interest on debt, other current expenditures, and capital outlay.

Per capita costs of public education in rural areas are undoubtedly high because of the large geographic areas that must be covered, and because of the smaller school systems. The average number of students enrolled per school district in 1956 was 1,054 in

the 16 counties with the smallest populations, 3,490 in the 9 middle-size counties, and 14,237 in the four counties with the largest populations.

Some maintain that the quality of education provided in rural areas is lower than that provided in urban areas. If this is true, to offer educational programs of comparable quality would result in cost differentials between rural and urban areas even larger than now exist.

(Continued on page 130)

# Reducing rural government costs

JEDON A. EMENHISER

**L**ACK of quantity, quality, and the high cost of services offered by rural government may be attributed to a number of possible causes. Insufficient revenue is a problem which all governments face. The quantity and, to some extent, the quality of services offered by any government are limited by the amount of revenue available to it. Taxation has been the traditional means of obtaining governmental income. In a rural area, where the amount of taxable goods has declined with the shift in population, the problem becomes acute. Since real property remains the main object of local tax-

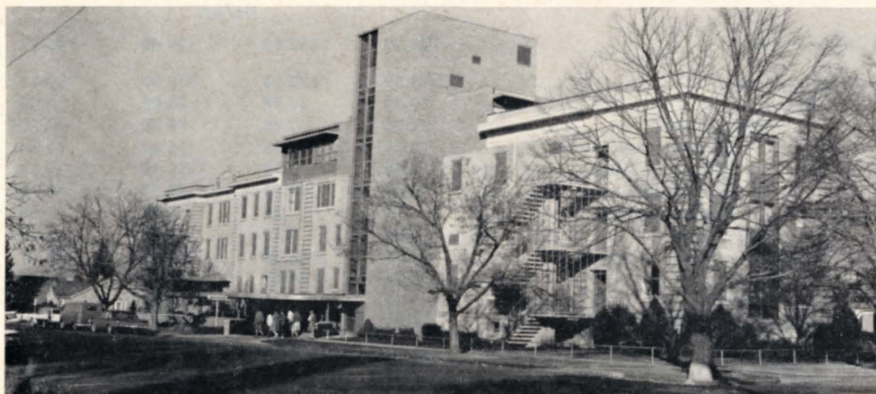
tion, the tax rate, or assessed valuation, or both must be raised, placing a great burden upon the landowner who may not be most able to pay. It appears there are two possible solutions to this problem. One, different kinds of taxes which are aimed at obtaining revenue from more profitable and more equitable sources than land, i. e. income, may be levied; and two, the use of intergovernmental revenue may be expanded. The latter method has been used through the grant-in-aid, and Utah's rural area has benefited from the principle of taxing money where it is (in the urban areas) and spending

it where it is needed (in the rural areas). The Uniform School Fund is Utah's principal example of the grant-in-aid technique.

A second reason for the criticisms against rural government may be the sparseness of the population within its jurisdiction as compared with the concentration of population within urban jurisdiction. All governments face the problems of size and distribution of the population which they are to serve. For urban governments large size and compact, and sometimes overcrowded, population causes unsanitary conditions, air pollution, traffic

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Some hospitals are publicly owned, others are privately owned



Every county has a courthouse



Public documents must be recorded and filed



The larger the population, the smaller the per capita cost of public buildings



New sources of water must be found when cities expand

congestion, and the need for stricter law enforcement, which are not problems of rural governments. In the rural areas low density of population increases the expense of transportation. Governments of both areas have peculiar problems which can be solved by imagination and concerted effort, but not by clinging stubbornly to past methods.

A third reason why Utah's rural government, as well as those across the nation, is criticized is the archaic and improperly designed governmental machinery which it uses. Government is not an end in itself. It is merely a means to an end. In our democracy that end is the efficient performance of services which the majority of the community demands.

*Governmental machinery should adapt to change*

No artificially created governmental machinery should stand in the way of democratic policy formulation and efficient administrative action. Technological advancements and population shifts bring about changes in community demands and in methods and techniques of efficient performance. Governmental machinery should adapt to meet the changes of dynamic society. Often, however, the governmental tools which one generation created to help it solve its community problems become so deeply fixed that they are not revised and can only imperfectly try to solve new problems for which they were not designed.

America's rural governmental machinery, which has existed since early colonial times, is a good example of a tool which was created to serve one purpose and has attempted to be used for another. The three main types of rural local government of the United States — the town, the county, and the township — were developed along the eastern seaboard to fit the character of the people and the conditions of the community in the 17th century. The most widespread unit of rural local gov-

ernment, and one which is used in Utah, is the county. According to the British observer James Bryce, writing in 1897, the county is an English institution which "suffered a sea change." It was brought over to America by the men who settled along the southeastern shore. Since the Indians did not pose as great a threat as they did in the north, and the land was more easily tillable, communities were scattered and fairly large governmental units were established. The county was originally intended to serve as a judicial and financial subdivision of the colony for the purposes of administering justice and collecting taxes. After independence and the spread of local self-government, commissioners, a sheriff, a clerk, an assessor, and a treasurer were elected in each county to plan roads, levy taxes, manage the jail, evaluate property, and collect taxes.

In the north the New England town, which is still in existence today, was copied from the English parish with which the Puritan settlers were familiar. According to Bryce, "Its centre was a group of dwellings, often surrounded by a fence or wall, but it included a rural area of several square miles over which farmhouses and clusters of houses began to spring up when the Indians retired." It is governed by an annual meeting of all qualified voters of the community, which is usually held in the spring (reminiscent of "the Easter vestry of England"). At the town meeting the officers necessary to conduct the public affairs of the community and a budget approving expenditures for certain programs and setting the tax levy are selected and

adopted for the next year. This direct citizen participation in policy formulation has been hailed by some as the epitome of democracy. In most places in New England attendance at the meeting is poor, and in some of the largest towns a representative meeting has replaced the mass meeting.

The county plus a township subdivision was the governmental unit used in the rural areas of the middle Atlantic colonies and transported into the Middle West when settlers moved into the Ohio and Mississippi valleys. At one time the townships were "vigorous organisms," which performed the important tasks of law enforcement and road building and maintenance. Today, the township is nearly extinct.

Two supplementary developments have taken place in rural local government to make up for the inadequacies of the three original units of government. First, the more compact concentrations of people demanded more services from the county, town, and township than the latter were willing or able to give, so the state legislature permitted the residents of the villages to incorporate and establish a municipality with powers similar to the larger urban cities. In Utah the requirement for incorporation has been extremely lenient. Any area is able to become a municipality if 100 qualified voters who are real property owners petition and a majority of the voters in the area approve. This provision proliferated rural government organization in Utah. Of Utah's 210 municipalities more than half have less than 500 inhabitants, while California with more than 15 times as many people as Utah has only 331 municipalities of which more than half have nearly 5,000 residents.

A second supplemental development in rural government organization has been the rise of special district governments. In those areas where the traditional unit of government — the county, town, or township — has not served the people adequately and where



they were not desirous or able to organize a municipality, they often petitioned for the creation of a government to perform that service which they desired or a number of governments, each to perform a single service, totaling the number of desired services. Utah has created nearly 160 special district governments — not all in the rural areas — to perform functions in addition to the counties or in another location than the municipalities. These governments include 40 school districts, two fire protection districts, one sanitation district, 19 drainage districts, 48 soil conservation districts, 7 irrigation and water conservation districts, 8 health districts, and 19 cemetery maintenance districts.

#### *Services performed by rural governments*

Altogether, then, Utah's local government consists of 29 counties, 210 municipalities, and about 160 special districts. Of these, 25 counties, 187 municipalities, and 109 special districts may be considered to be the machinery of rural local government. Those services which this machinery has been called upon to perform are not so different from those requested in urban areas. However, the methods of policy formulation and techniques of administration can and should be different. The list of services which local governments are asked to perform and for which machinery should be designed to accomplish include:

1. protection of life from injury and disease
2. protection of property from damage, fire, and theft
3. education
4. building and maintenance of roads, including snow removal
5. judicial administration
6. records administration
7. conservation of resources
8. planning of physical development, including zoning

Also, the housekeeping functions of

tax collection and assessment are necessary to bring in the revenue to pay for the services, particularly in the rural areas where property tax is relied upon more heavily than in the urban areas where sales taxes contribute more revenue.

Because Utah inherited the county form of basic rural government from its early settlers without thought of whether it was suited to do the jobs asked of it, because of the chaotic and piecemeal growth of supplementary units of government, and because of recent changes in population distribution and technology, Utah's local rural governmental machinery is ill equipped to formulate policies and perform the services demanded by its people.

#### *Reform proposals*

Students of American rural local government have insisted that the adoption of one or more reform proposals would help solve the problem of poorly designed governmental machinery. These proposals are the use of (1) a chief executive; (2) a thorough-going personnel merit system; (3) formal and informal interlocal governmental cooperation; (4) realignment of public services and functions among governmental units; and (5) consolidation of existing governmental units.

The use of a chief executive is probably the most urgent need of rural governments to help solve their problems. Rural government is probably the only administrative enterprise in the United States that attempts to operate without a chief executive. Only in the rural school district is there an attempt to hire a professionally trained administrator to direct the affairs of the governmental unit. The town president is chairman of the meetings of the board of trustees, but shares supervision of the government's functions with the other four members of the board. The weak mayor in third class cities presides over council meetings but has no more control over the city adminis-

tration than any one of the five councilmen. And the county administrative arrangement is worst of all. Nine or ten separate elected officials are each given the duty to administer a separate function or group of functions. The three commissioners, clerk-auditor, treasurer, sheriff, recorder, assessor, attorney, and surveyor each have individual responsibilities and need not answer to anyone except the electorate every four years. The commission may review the work of each executive at budget time; but, since the functions of the offices must be performed, the commission must provide the appropriations to finance them and not much managerial discretion is permitted. This absence of expert administration and any coordinating influence among the many services offered by the county causes poor quality services and waste of tax dollars.

Three different types of chief executives have been proposed, any one of which could help solve the problem. First, the chief executive could be elected directly by the people. His position would resemble that of the President of the United States, a state governor, or a so-called strong municipal mayor. He would have legal power and authority to direct and manage the county administrative personnel in the performance of the functions decided upon by the county legislature. In some states the duties of the county clerk have been enlarged to include those of the chief executive.

Second, the chief executive could be appointed by the chairman of the county commission as an assistant to him in carrying out the duties assigned to the commission. This would prevent the present fragmentation of responsibility among the commissioners themselves. However, to be more effective the other county elective offices would have to be abolished and all duties assigned to the commission and subassigned to the appointed administrative officer. In some California counties the position of assistant

to the chairman of the board of supervisors has been created by ordinance.

Third, the chief executive could be hired by the entire commission to fill a managerial position created by a home rule county charter much the same way a school board hires a superintendent of schools.

In all three of these cases the legislative body of the county would remain supreme in policy formulation. The professionally trained chief executive would replace the numerous directly elected officials who are charged with administrative duties. He would in turn hire professionally competent persons to head administrative subdivisions necessary to perform the services spelled out by the legislature.

The argument that rural government can not afford to pay for the services of a competent administrator is ridiculous. No administrative enterprise can afford to be without the services of a professional administrator. The case of Petroleum County, Montana, which has used the third type of chief executive for 20 years indicates that it can be done. Petroleum County, with less than 1,000 persons, an assessed valuation of under \$1 million, and a sparse population of about .6 persons per square mile reduced its number of employees from 13 to 5, increased the quality of its services, reduced its debt, and cut taxes after hiring a county manager.

The implementation of a thoroughgoing personnel merit system is long overdue in American rural government. While job recruitment, placement, promotion, transfer, and lay-off are on a merit basis in 90 percent of the national government positions, in most positions in many large cities, and in some positions in a few states, merit has been avoided in most rural governments. Nepotism and partisan favoritism have continued to haunt most county government departments.

While it seems only common sense that the best person available for a job will perform more efficiently than

someone chosen for other reasons, merit has not been popularly accepted in rural areas. It has recently been shown in Utah that the feeling of insecurity which exists among patronage employees contributes to low morale which has an adverse effect upon employee performance. The uncertainty of tenure can no longer be tolerated and the turnover of employees when the out-party wins an election or when a person believes he can find a more permanent job is expensive.

Formal and informal interlocal governmental cooperation helps reduce costs and improves many governmental services. Formal relations such as the contracting for services by one government with another government has had notable success. With this device a small government can maintain its policy determining function of deciding what services it desires and at what level they should be performed, and at the same time it can take advantage of the economies of large-scale administration. Most examples of this have occurred in urban areas, but there is no reason why it would not prove as effective in rural areas. Informal relations among local governments, including such simple techniques as contacting an official in a nearby jurisdiction by telephone and asking him how he handled a matter which is similar to the one at hand, are growing in number. The use of associations of officials and leagues of governments has increased the opportunities for this kind of contact.

Realignment of governmental services among those units best equipped to handle them would remove many of the services from the hands of rural governments. It would transfer from the local unit to the state government those functions which are of a statewide concern and for which the local unit is inadequate and unsuitable. It has been said that the state can work more efficiently through its own organization than it can through assisting local governments to perform serv-

ices. If a uniform service is desired throughout a general jurisdiction there seems no point in dividing the execution of the service among poorly equipped numerous governmental units. If the division has already been made, a realignment or a reallocation of the function or functions seems in order.

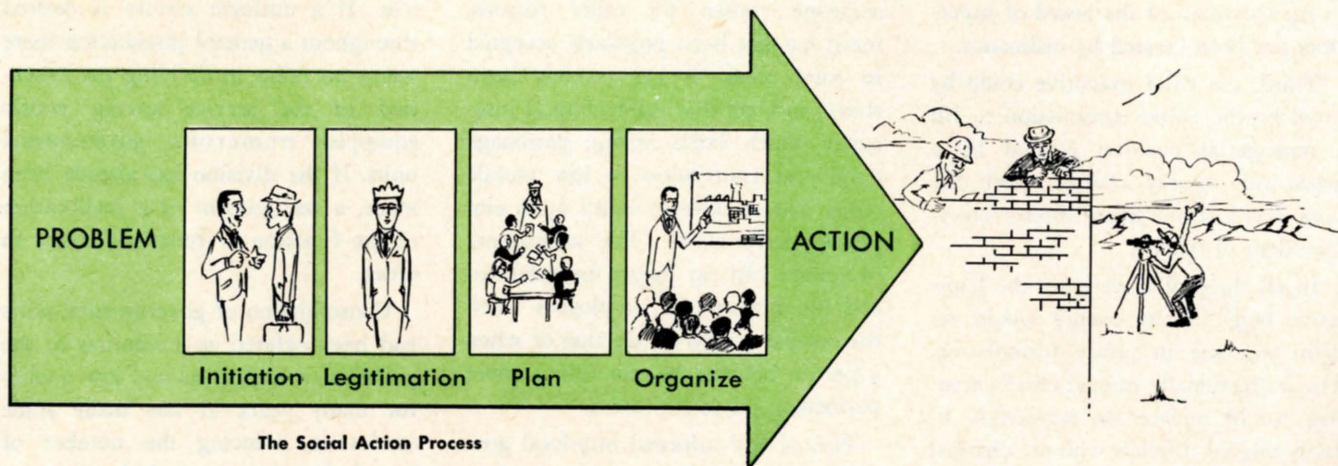
Consolidation of governmental units had been offered as a solution to the problem of high costs and low quality for many years. It has made some strides in reducing the number of school districts, particularly in those areas where the number of school officials sometimes exceeded the number of pupils. Costs can be reduced by eliminating duplications in overhead expense and by concentrating in one organization a volume of work now apportioned among two, three, or four organizations. Quality is supposedly increased by being able to hire more specialized and better trained personnel and yet keep the total number of employees below the previous combined totals.

The redrawing of consolidated county boundary lines, which was in vogue a few years ago, did not miss Utah. George H. Hansen published his detailed proposal of a regional re-districting plan for Utah based upon physiographic, social, political, and economic forces. He believed that six provinces instead of 29 counties pointed the way "toward greater economy in government, together with expanded and equalized public services."

There is merit in placing a function in the hands of that government which can best perform it. Certainly no one would contend that a function ought to be placed in the hands of the government that does the worst job of performance. The National Association of County Officials has made this their creed:

Leave to private initiative all functions that citizens can perform privately; use the level of government closest to the

*(Continued on page 131)*



# RURAL AREAS DEVELOPMENT

Helping local areas to help themselves

STEPHEN L. BROWER

**A**N old and successful idea dressed up with a new name and national emphasis, rural areas development is characterized as a method for helping local areas help themselves. It is a cooperative, organized approach for the continuing solution of problems in local areas. Mainly, it is a method for helping local people organize their natural, economic, and human resources to achieve a more satisfying life.

The major emphasis in rural areas development is economic resources development. However, many rural areas in Utah are discovering that they need first to do something about the general appearance and living conditions in their communities. Industry and business, they find, are slow to recognize

an area with limited family living conditions. Therefore, many rural areas find they can't really deal with economic development alone. They are faced with a total resource development task.

Elsinore in Sevier County, is an example of how a small, rural community faced the decision of survival. Survival in this case was in the face of highly depressive influence caused by long-time decrease in population and the resulting decrease in community services, facilities, and economic opportunities.

In the last decade, Elsinore lost more than a quarter of its population (657 persons in 1950 to 483 in 1960). Many business, residential, and public buildings were boarded up. The community had a general rundown appearance, as do so many declining communities in the state.

In spite of the seemingly over-

whelming obstacles which Elsinore faced, the local people still felt it was a good place to live. With the encouragement and assistance of their county agent and some local leaders, the citizens agreed on some of the things they wanted for their community and set out to achieve the desired goals.

In the June 7, 1961, issue of the Salt Lake Tribune Home Magazine Section, Elsinore was described as one of the most outstanding examples of what a local community could do to improve its physical appearance through the cooperative effort of its citizens. But that was just the beginning.

A general long-range cleanup, paint-up, community beautification program was initiated in March of 1961. In the first year of this activity, five blocks of curb and gutter were put in, 2,500 iris planted on Main Street (fig. 2). More than 60 yards of top soil was

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hauled in to establish the iris beds along the street. Old fences, barns, sheds, weeds, and accumulated trash were cleaned from 14 lots, and 11 vacant houses were cleaned up and painted, mostly by voluntary labor. The local cemetery was cleaned up, and grass was planted.

Ninety-two people in Elsinore averaged over eight hours of voluntary work each, and some donated up to eight to ten days. Local citizens donated tractors and earth-moving equip-



**New curbing and 2500 iris now border the main street of Elsinore**



**Kanab is building a hospital through community effort**

ment where needed. The literary club planted the iris and sponsored the weeding project. If no family was available to take care of a lot in the block, the club weeded the lot; and the town board members furnished the water and watered the iris in front of these lots. Otherwise, each citizen assumed this responsibility.

From these early projects, the people in Elsinore became excited about planning for the development of other community resources. They have started work on a modern street lighting system, are building a community park, are continuing to clean-up more of the deserted lots in the community, are repairing old buildings, and have a community-wide cooperative program of spraying or clearing old weeds and vegetation off from the rights-of-way between property lines on streets and near the community.

The attitude of hope, derived from this kind of experience in Elsinore, has stimulated dreams and hard-headed planning for future resource development potentials which a community of this size wouldn't usually even dare to consider. A local committee is studying, planning, and making contacts to encourage the development of a glass manufacturing industry in the community. It made a study of their local high-quality silica and of other allied mineral resource needs for such an in-



and a taped narration, along with the economic feasibility study.

During this period of community rebirth, a new drive-in restaurant, service station, remodeled cafe, and a new rock shop have been established. A new post office building is under construction. Most important of all, fresh new attitudes and outlooks are prevalent among the citizens toward their community and toward their own farms or business enterprises. The cleaned-up appearance and improved community spirit derived from the people working together also has resulted in eight new families moving into Elsinore. The successes in Elsinore came when the citizens took a critical look at themselves and their community and decided what things needed doing and then did them.

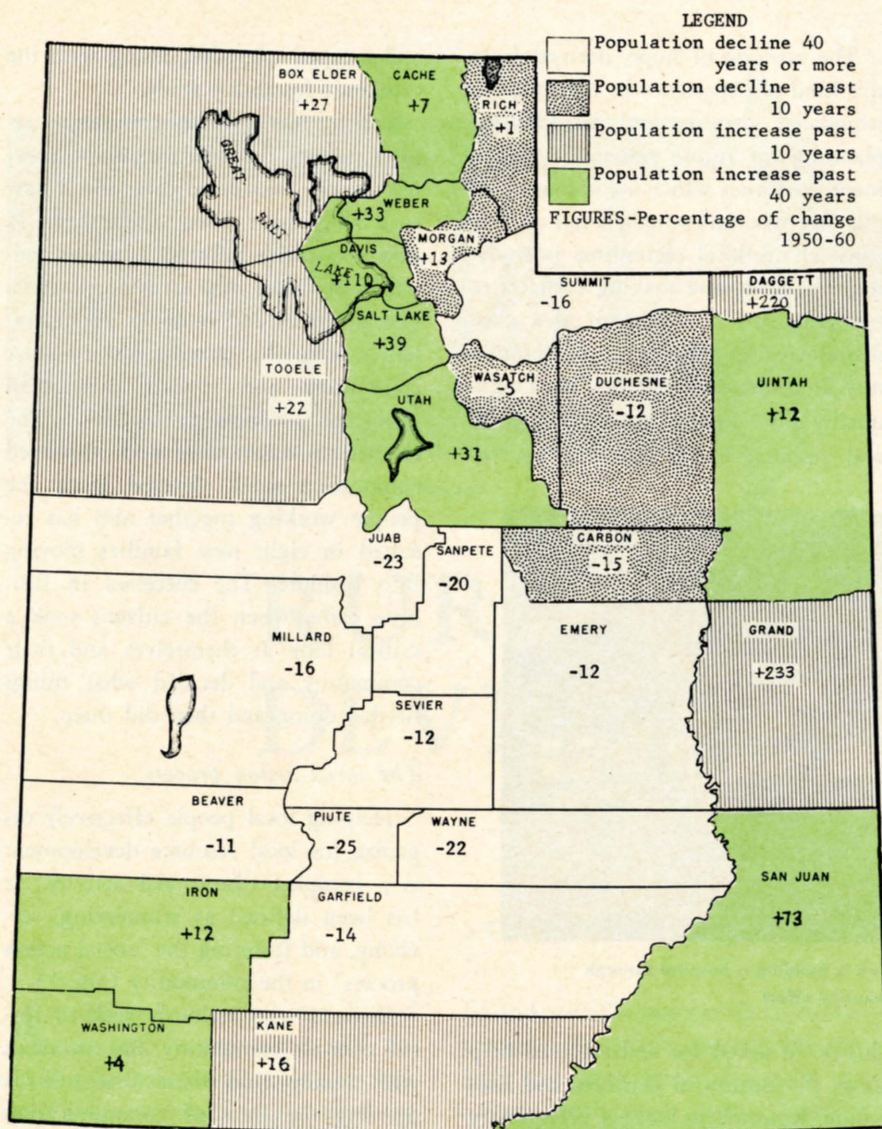
### *The social action process*

Helping local people effectively organize for local resource development is a complex educational activity. It has been defined as stimulating, servicing, and fostering the "social action process" in the community (fig. 1).

Citizens who seriously seek to foster over-all community improvement will usually find their first task is opening the lines of communication between local factions so that the people have a change to agree on answers to questions such as "What kind of people do we want in this community?" "What kind of community do we want to develop which will produce these kinds of people?" "What do we want our town to be in ten years, in twenty years?"

Agreeing on answers to these kinds of questions identifies the broad community goals. When local people compare their answers to these questions with the kind of people the community now produces and the kind of community they now live in, they have begun realistically to define the whole gamut of problems they face.

General agreement among local people on their broad goals and problems



**POPULATION SHIFT IN UTAH 1920-60  
AND PERCENTAGE OF POPULATION CHANGE 1950-60**

sets the stage for them to set realistic priorities and seek solutions to their specific resources development problems. Local people will find a vast array of doors open to them when it is evident they can agree where they are going and can organize themselves to solve their problems on a continuing basis. Some of the "opening doors," in the form of aid and assistance programs from local, state, and federal agencies and organizations, are only available to those who show the ability to help themselves.

Helping people in local areas arrive at the point where they can make ef-

fective use of their own resources, as well as outside resources, is one of the roles of the university.

Land-grant universities have been invited by the U. S. Department of Agriculture to provide the organizational and educational leadership for rural areas development. This role was perceived as being most effectively performed by the county extension agents, who are on the staff of the land grant university. The county agent, a resident in a local area, is well acquainted with the human, natural, and organizational problems and potential of the area and is, therefore, in a unique po-

sition to stimulate local resource development.

The county agent, backed by the resources of the land-grant university, is also in a unique position to help local people identify and break down barriers to local resource development. These include factionalism and cliches which segment and isolate the local power and leadership structure and in turn diffuse and waste the resources and energies of local people. The county agent can help them identify and seek solution to problems of low income, restricted employment opportunities, limited educational, governmental and social opportunities. In short, the county agents are in a strategic position to help local people help themselves by servicing the social action process.

#### *Do-it-yourself*

Local people can best start helping themselves with "do-it-yourself" projects. Development of the "do-it-yourself" spirit appears to be the key to solving many local problems. On the surface, the obvious solution is to increase the industrial or employment potential or otherwise increase the income-producing capacity of a local area. However, as many local communities in Utah have discovered, no matter how hard they try to entice industry they are always confronted with the question of adequacy of local business and service facilities, recreation, and leisure time opportunities.

An organization consultant recently noted in a bulletin put out by the American Recreation Society that:

Executives planning to move into an area want their workers and themselves to be able to live as pleasantly as possible. They feel that good living conditions make for higher productivity on the part of the employees. Higher productivity can then be transferred into wage increases, which in turn mean a higher standard of living. Thus, if a firm wants to attract workers into an area, it must select an area which must be able to offer a chance to enjoy the "good life" — that is, facilities with room to relax

and enjoy one's self . . . many firms enjoy pointing with pride to a factory in a setting selected for its recreational facilities.

In recognition of this dilemma, the Sears-Roebuck Foundation annually sponsors in cooperation with the General Federation of Women's Clubs an international community improvement contest. Contests like this are aimed to stimulate local groups and organizations to work together in improving living conditions, services, and facilities which make local areas a desirable place in which to live. In the 1962 announcement of these community awards titled "Homemade Miracles" a development activity in Delta, Utah, was described as "typifying what local people can do for themselves:"

The same "do-it-yourself spirit" was characteristic of Delta, Utah, where the West Millard Fine Arts Guild and the community went to work in 1960 to secure a much-needed hospital . . . Among many money-making schemes, two of the most successful were farmers each giving a peck of alfalfa seed at harvest time and farmers who normally objected to pheasant hunting on their land selling permits for \$2 each. Some \$30,000 was raised in this manner.

Though Hill-Burton aid was approved, residents refused it because they would not be allowed to do any of the work themselves. When their refusal of federal money received wide publicity, donations came in from many sources.

After 10 long years, ground was broken in October 1961 . . .

#### *Potentials unlimited*

Utah's vast mineral and scenic potentials are well known locally (but not so well outside the state). With the possible expansion of the national park system in Utah, the development of power and recreational facilities on the Colorado River, many new natural resource developments will take place. The surplus population in local areas who can no longer depend on agriculture for their income will need to find new ways of thinking about appropriate ways to make a living. Being on the threshold of an expanding tourist

business, many new skills and attitudes need to be acquired by residents of rural communities if local citizens are going to benefit from the tourist industry. This is only one of the many changing opportunities which face rural people in the immediate future.

Utah has many vital resources which are capable of and in need of development. The vast natural resources, many of which are largely undeveloped, are only a part of its industry and trade resources. Most important, its people are also vital resources which must be reckoned with when dealing with development. Only when these resources are developed through an overall, coordinated effort can Utah communities

and local areas, both rural and urban, raise their economic, social, and educational levels.

The rural areas development method is the same basic technique that our Utah pioneers used in cooperatively tackling and solving the many problems they faced as they conquered the desert and built communities.

Many Utah communities have already exhibited their capacity to solve their problems once they develop or find ways of working together. A sample list of resource development projects undertaken in the past two or three years by Utah communities attest to this fact:

*(Continued on page 132)*

**For people in rural areas to obtain maximum overall social and economical development, the following principles need to be adopted by all who are involved in fostering rural areas development:**

**1. Programs must be determined and carried out through local leadership.**

**2. The solution of social and economic problems requires the effective cooperation of all individuals, organizations, and groups of the community working together.**

**3. The groups and organizations in a local community should understand the broad scope of the people's interests and needs; what they can best do individually or collectively; how their efforts complement each other when they work together; and they should foster the values of cooperative effort.**

**4. People's needs and interests in social improvement and economic growth are complex and long range. They are closely interrelated. To meet these needs and interests requires social and economic change and adjustment from the customary and traditional pattern.**

**5. Economic and social needs are not restricted to township, municipal, or county lines. These lines no longer restrain, govern, or contain the flow of people's economic and social life. Some problems can be solved more rapidly and effectively through a multi-county approach than through a single county, city, or community approach. Rural-urban cooperation, through which people from the county and city work together, hastens achievement.**

**6. The scientific process of decision-making, consisting of studying the situation, identifying the problems, considering alternative solutions, and formulating a course of action is the best-known way for local people to define appropriate courses of action.**

# The quality of rural education

ROWAN C. STUTZ

THE fourteen Utah counties that are 100 percent rural are organized into seventeen school districts. This discussion of education in rural Utah will be limited to the education programs of these seventeen school districts. Rural education long has been and continues to be a major aspect of the American public school system. In Utah it still concerns itself with 223,500 people living in 57,000 households located in rural areas. It involves the education of 70,000 school-age persons, 5 to 17 years of age. Because this represents 30 percent of our total school-age population, it is an important segment that cannot be ignored.

The quality of education being provided for these children is a concern not only of those thousands of rural homes directly affected, but of all citizens. Rural youth no longer remain in their home towns or on the farm. Studies have shown that nearly all of those who graduate from college take up residence in some place other than their home counties. A study of rural youth in Utah showed that one year after graduation from high school, 60 percent of those not enrolled in college had left their home counties to accept employment elsewhere in or outside of the state.

Studies of rural education furnish ample justification for concern about the quality of education available to rural children and youth. While it is

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true that there are probably many subtle benefits from attending a small rural school there is also much evidence that any such advantages are generally bought at the price of poorer quality in the school program. In addition, many of the potential strengths of small schools are not being used and most of their weakness go unattended.

*What are the characteristics of rural education?*

1. Rural education is concerned with people who are engaged in farming, in extracting natural resources, in processing the resources of their immediate surroundings, or in performing direct personal, professional services for people so engaged. It is limited neither to people who reside in open country nor to persons who are engaged in agriculture as a chief economic activity.

2. In Utah, rural education takes place in small schools. In the 14 rural counties, 2,874 students are enrolled in small elementary schools in which there is fewer than one teacher per



grade and 3,431 students attend high schools in which the average enrollment per grade is fewer than 50. The students attending these schools represent 33 percent of the total school enrollment in these counties. The other 67 percent of these students attend schools that are a little larger but none of which has more than 100 students per grade. Elsewhere in Utah, 4,654 students are attending other small schools (table 1).

3. Teachers in these rural schools of Utah have fewer years of teaching experience, and the turnover of teachers in these schools is greater than it is in the larger schools. The average total years experience of teachers in the small high schools of Utah is 8.6 years while in the larger schools of the state the average total is 11.9 years. Teachers in the small high schools have been in their present positions an average of 6.5 years while their colleagues in large high schools have averaged 8.4 years.

4. Many classes in our small rural high schools are taught by teachers who have less than a college minor in the subject matter of the class. During the 1961-62 school year 17 percent of all classes taught in these schools fell into this category. In the larger urban high schools only 4 percent of the classes had teachers with less than a college



minor preparation.

5. Small rural high schools are further characterized by their limited course offerings. In Utah, through special school designation, additional state financial support permits the employment of more teachers in small schools than would otherwise be possible. This allows a much broader course offering in the small rural high schools of this state than is found in many schools of comparable size elsewhere. However, there are still several important subjects that are not includ-

ed in the course offerings of small schools and other courses that are taught only on alternate years. For example, a modern foreign language course was included in the 1960-61 course offerings of only six of our twenty-three small high schools with fewer than 50 students per grade. One of these schools taught both a course in French and one in Spanish. None of the others, however, had more than one class in any modern foreign language. Though first year algebra and plane geometry were found in the class

schedules of most of the 23 rural high schools, 15 of the 23 had no course in trigonometry and 13 had no offering in second year high school algebra. Advanced high school science courses fared no better. Chemistry was included in the courses taught in 13 of the 23 schools, but a class in physics was available in only 9 of these high schools. Courses in such vocational subjects as auto-mechanics, electricity, electronics, metal trades, machine shop, and mechanical drawing were almost non-existent. Nine of the 23 schools had music offerings and the same number listed courses in art at the senior high school level (table 2).

6. Where earnest efforts have been made as they have been made in Utah, to strengthen education in small schools by increasing the size of the faculty, higher costs per pupil and small class size result. These two characteristics of rural education — cost and class size — are readily observable. During 1960-61 the average cost per pupil for school maintenance and operation in the 17 rural districts was \$380.16. The average expenditure per pupil for the state that year was \$318.23 and in the strictly urban school districts the costs for current expenses averaged only \$295.33 per pupil (table 3). Class size differed as much but in an inverse way. The average class size in small rural schools in the districts was only 21 compared to 30 in the larger school districts serving an urban population.

7. A significant influence upon the quality of education in rural Utah is the relatively low ability of the taxpayers in these areas to finance their schools. In the face of higher costs of operating their schools, Utah's rural districts must contend with low per-capita income and low assessed valuations per child. Excluding the San Juan County School District where the assessed valuation per child was \$63,665, the average assessed valuation per child in 1961 in the other 16 rural districts

Table 1. Classification of schools by size in Utah's seventeen rural school districts, 1961-62

Name of district	Number of secondary schools	High school with less than 50 students per grade		High school with more than 50 but less than 100 per grade		Number of elementary schools	One room schools		More than one room but less than a teacher per grade		One or more teachers per grade	
	No.	No.	Enrollment	No.	Enrollment	No.	No.	Enrollment	No.	Enrollment	No.	Enrollment
Beaver.....	2	2	519			3			1	149	2	636
Daggett.....	1	1	136			2					2	219
Duchesne.....	5	3	428	2	585	6			2	211	4	1197
Emery.....	2	1	132	1	556	8			6	564	2	344
Garfield.....	4	4	478			5	1	15	2	173	2	494
Kane.....	2	2	346			4			3	160	1	337
Millard.....	4			4	1131	13	2	26	9	682	2	836
Morgan.....	1			1	376	1					1	442
Piute.....	1	1	241			3			3	209		
Rich.....	2	2	201			4			4	234		
San Juan.....	2			2	679	12	5	76	4	358	3	1001
South Sanpete.....	3			3	797	3					3	999
North Sanpete.....	2			2	674	5			3	261	2	424
South Summit.....	1	1	276			1					1	396
North Summit.....	1	1	256			1					1	418
Park City.....	1	1	181			1					1	212
Wayne.....	1	1	266			3			2	147	1	182
Totals.....	35	20	3460	15	4798	75	8	117	39	3148	28	7137

Table 2. 1960-61 course offerings in selected subjects in 23 of Utah's rural high schools

Name of course	Number of schools offering the course in 1960-61	Name of course	Number of schools offering the course in 1960-61
Agriculture (Voc.) .....	11	Journalism .....	9
Art .....	9	Speech and drama .....	10
Farm shop .....	10	Reading .....	10
Bookkeeping .....	12	Algebra I .....	22
Office practice .....	4	Algebra II .....	10
Shorthand & transcription.....	14	Consumer math .....	13
Typing .....	22	Geometry .....	13
French .....	3	Math 7 or 8 .....	20
Spanish .....	4	Trigonometry .....	8
Homemaking .....	21	Music (general) .....	12
Athletics .....	11	Chorus .....	12
Health education .....	10	Band .....	14
P. E. boys .....	15	Biology .....	20
P. E. girls .....	21	Chemistry .....	13
Industrial arts .....	17	Senior science .....	2
Auto mechanics .....	2	Physiology .....	6
Electricity-electronics .....	3	Physics .....	9
General metals .....	1	Contemporary problems .....	16
Graphic arts .....	2	Geography .....	20
Mechanical drawing .....	2	American history & government ..	23
Woodworking .....	2	Psychology .....	1
English .....	23	Sociology .....	3
Debate .....	2	World history .....	12

was \$5,906. In those districts in which there is a mixture of urban and rural population the assessed valuation per child was \$6,034, but only \$4,134.33 in those districts which are classified as being 100 percent urban (table 3).

Both the median income family and the effective buying income per capita are significantly lower in our rural

areas. Effective buying income per capita in Utah's rural counties is \$1,303 as compared with \$1,867 in urban areas. Residents in the rural counties were spending a considerably higher percent of their average effective buying income for education than were residents of the urban areas of Utah (table 3).



### Meeting the challenge

It is difficult to say what effect any or all of these seven characteristics of rural education have had upon the quality of the instruction program in our rural schools as might be measured by the achievement of students. No conclusive data are available in Utah that furnish grounds for a generalization about the relation between achievement and school size or school location. However, some studies have been conducted in other states. In a ten-year study of the results of the annual wide-scale testing program in Iowa high schools sponsored by the Iowa State College of Education the relation between achievement and school size is analyzed. Following is a quotation from the conclusions of this study:

There is little doubt concerning the implications of these findings. The pupil who receives his elementary education in a rural school and his secondary education in a small high school of 100 or fewer students suffers a form of educational double jeopardy. His achievement at the time of high school entrance will, in all likelihood, be lower than the average for the state. During the high school years the extent of his disadvantages is very likely to increase. It seems clear that the hypothesized merits of attendance at small schools have no basis in the facts of student achievement.

Other studies examined support this conclusion. However, until results of a state-wide testing program in Utah are available for analysis, any generalization about the relation between achievement and size of school would be presumptuous indeed.

Historically, Utah has shown concern for the quality of the educational program for all of its children. This concern has resulted in an enviable record in school district reorganization and in the consolidation of its small schools. Utah has been a leader



in the financial support of schools from state resources on an equalization basis. In fact, the least wealthy district in the state currently receives 80 percent of its funds for current expenses from state sources. For at least 15 years the State Department of Public Instruction has had authority to grant additional funds for the employment of additional teachers in necessarily existent small schools. All of these measures have worked favorably in the interests of rural education. But

**Table 3. Comparison of rural, rural-urban, and urban school districts of Utah as to their ability to finance education, 1961-62**

	School districts		
	Rural	Rural-urban *	Urban
Average assessed valuation per child †	\$5,906	\$6,034	\$4,151
Average effective buying income per capita	\$1,303	\$1,555	\$1,867
Average median income per family	\$4,629	\$5,004	\$5,413
Average per capita cost	\$ 380	\$ 320	\$ 295
Per capita costs borne by local funds	\$ 142	\$ 134	\$ 106
Percent local expenditure is of effective buying income per capita ‡	11	9	6

Sources: Sales management: survey of buying power, May 10, 1961, p. 309-311. 630 Third Avenue, New York 17

Utah State Department of Public Instruction. Utah School Reports, 1961-62

U. S. Bureau of the Census. U. S. Census of population 1960-Utah. General social and economic characteristics, Final report PC (1)-46C, p. 46-65

\* School districts serving areas that are partly urban and partly rural.

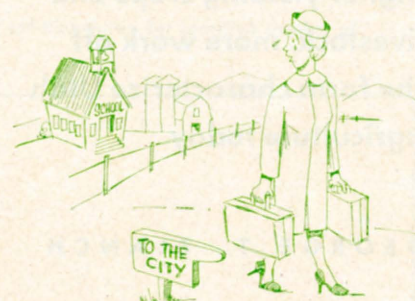
† Does not include San Juan School District (\$63,665 per child)

‡ Calculated by dividing the per capita costs borne by local funds by the average effective buying income per capita.

even with these measures our small rural schools are still faced with serious, unsolved problems and unmet needs. It would seem that the discovery of solutions to these problems — other than the historical ones of consolidation, increased teaching staff, and increased state aid — is the important and timely challenge of today.

Of great interest to those who have a concern for the improvement of education in rural Utah, is the Western States Small Schools Project for Utah. Under this State Department sponsored project, which is financed by the Ford Foundation Fund for the Advancement of Education, research and development programs designed to seek some new approaches to the problems of rural education are conducted. In this significant effort Utah is cooperating with four neighbor states — Arizona, Colorado, Nevada, and New Mexico. Experimentation with scheduling, sharing teachers, unique uses of pro-

grammed materials, and ungrading the curriculum is currently going on in nine of Utah's small rural schools. Teachers from small schools are being involved in project-sponsored workshops in which they explore new instructional techniques and their application to teaching in small schools.



The unique uses of educational television for enrichment, total instruction, and in-service education of teachers is being explored, and efforts are being made to extend the educational television signal to the remote areas of the state.

The extension of library services to rural Utah by the Utah State Library through its bookmobile program, the leadership and financial assistance by the State Health Department in establishing mental health services for most of Utah's rural population are examples of efforts being made by

(Continued on page 138)



# Trends in Utah Agriculture

**Fewer but generally larger farms, increased use of rangeland, decline in hours of labor, higher land values and need for more operating capital, more power equipment, greater specialization, higher yielding crops and livestock, more work off the farm characterize Utah agriculture today**

GEORGE T. BLANCH



**P**LANNING for the future should be based on an understanding of the past. There is both within and without agriculture too little understanding of the nature and extent of the changes that have taken place and that are still in process in this important segment of our economy.

We are concerned primarily with the agriculture of Utah, but since similar changes are nationwide, comparisons are occasionally made with national changes. In this study we shall concentrate on the changes that have taken place since 1940. To show these, data for 1939, 1949, and 1959 are used.

## *Number and organization of farms*

The definition of a farm for census purposes has changed from time to time. For the most recent (1959) census it was based primarily on acres and value of products sold. Places of 10 acres or more were considered as farms if the sales of farm products for the year were \$50 or more or could normally be expected to produce sufficient products to meet this requirement. Places of less than 10 acres were considered farms if sales for the year exceeded, or could normally be expected to exceed \$250. The 1950 census of agriculture (1949 crop year) included as farms, places of 3 or more acres if the value of agricultural products in 1949, exclusive of home gardens, amounted to \$150 or more.

Places of less than 30 acres were included only if the sales of farm products amounted to \$150 or more. The 1940 census, which reports the agricultural activities for 1939, included places of less than 3 acres only when the products had a value of \$250 or more. In most other respects the definitions for all three censuses were the same. In all three a farm consisted of all the land, whether owned or rented, operated as a unit by one operator, including a partnership. The operator could be an owner, part-owner, tenant, or hired manager.

The number of farms in Utah reached a peak in 1935, with 30,695. Up to this time there had been a gradual increase. However, the 1940 census reported only 25,411 (table 1). The 1959 census includes only 17,811, or a decrease of 30 percent from 1940. Of the decrease between 1950 and 1959 a change in definition accounted for 1,266. That is, had the definition of a farm remained the same for 1959 as in 1950 there would have been a total of 19,077 instead of only 17,811.

The decrease of 30 percent in number of farms in Utah between 1940 and 1959 compares with 39 percent decrease in the nation. In both cases the major decline was between 1950 and 1959. Each of the states had a downward trend in farm numbers.

Utah is a state with small farms. This had its origin with the institutional climate that prevailed during

Table 1. Total number of farms, percentage in selected size groups, and percentage change 1939-1959, Utah 1939, 1949, and 1959

Year	Total number	Percent of total farms of				
		Less than 10 acres	10-49 acres	50-139 acres	140-999 acres	1000 or more acres
Utah						
1939	25,411	14.0	33.3	26.5	21.9	4.3
1949	24,176	17.9	28.3	24.6	22.9	6.3
1959	17,811	12.5	25.8	24.3	27.7	9.7
United States						
1939	6,096,799	8.3	29.2	32.5	28.4	1.6
1959	3,703,642	6.5	21.9	28.4	39.5	3.7
Percentage change 1939-1959						
Utah	-30.0	-27.2	-47.7	-25.6	-11.4	+57.0
U. S.	-39.3	-52.5	-54.4	-46.8	-15.4	+35.5

the early settlement of the state. The difficulties associated with developing water supplies for irrigation, the shortage of power and machinery, the rapid colonization, and the use of public land for livestock grazing all contributed to the division of privately owned land into small units. Although the average size of farm is increasing, from 287 acres in 1939 to 712 acres in 1959, Utah still has nearly twice the national percentage of farms of less than 10 acres. Most of the 1,266 places excluded in 1959 by definition would have fallen in this class. Also the decrease in small farms from 1940-1959 was not as marked as for the nation as a whole. However, the trend is markedly toward increasing the proportion of farms in the largest acreage classes. Only in the class of "1000 acres or more" does Utah have a higher proportion than the national average. In this class the proportion is relatively low in both the state and the nation.

Too often the declining number of farms in Utah and the nation is interpreted as a sign of decadence in the agriculture industry. Instead of decadence this shows evidence of vitality, growth, efficiency, and progress. It represents changes within the industry that coupled with the nature of the demand for the products of agriculture have resulted in economic problems for farmers. It has also resulted in more efficient agricultural production and an unparalleled supply and quality of farm products available to consumers at relatively low prices.

#### *Resources used in agricultural production*

The quantity and quality of resources used in farming are a much more significant index of the present stature of agriculture in Utah than is the number of farms. Many important changes in amount, kinds, qualities, and proportions of resources used have taken place since 1940. These will be discussed as land, labor, and capital.

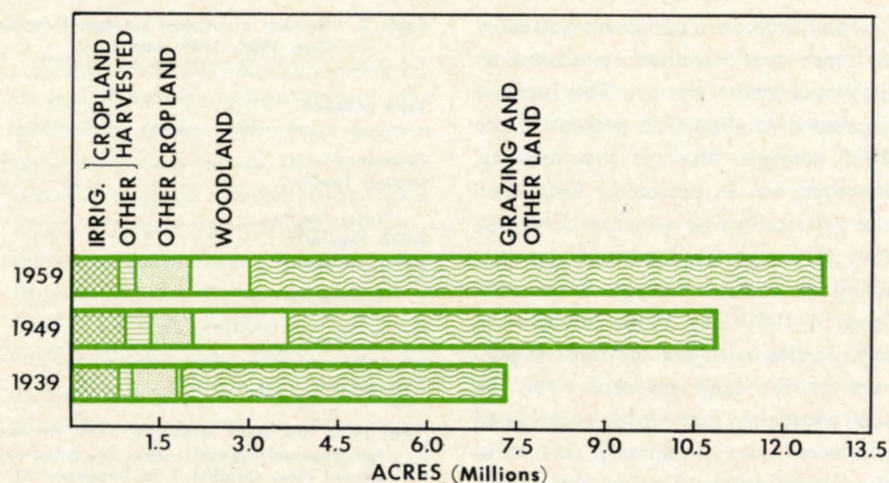


Fig. 1. Total land in farms by major uses, Utah, 1939, 1949, 1959

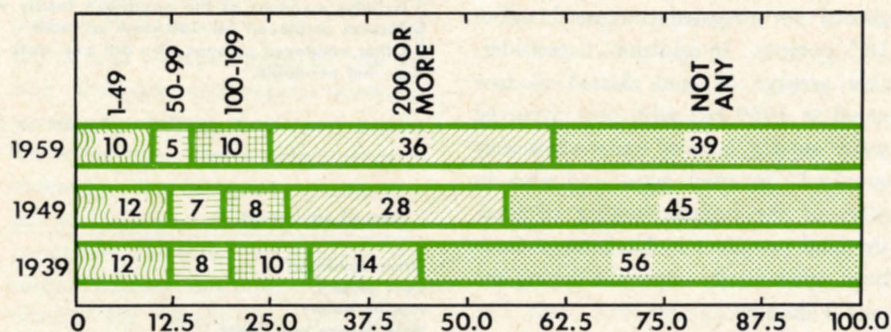


Fig. 2. Percentage of farm operators who worked off their farms for specified number of days, Utah, 1939, 1949, 1959

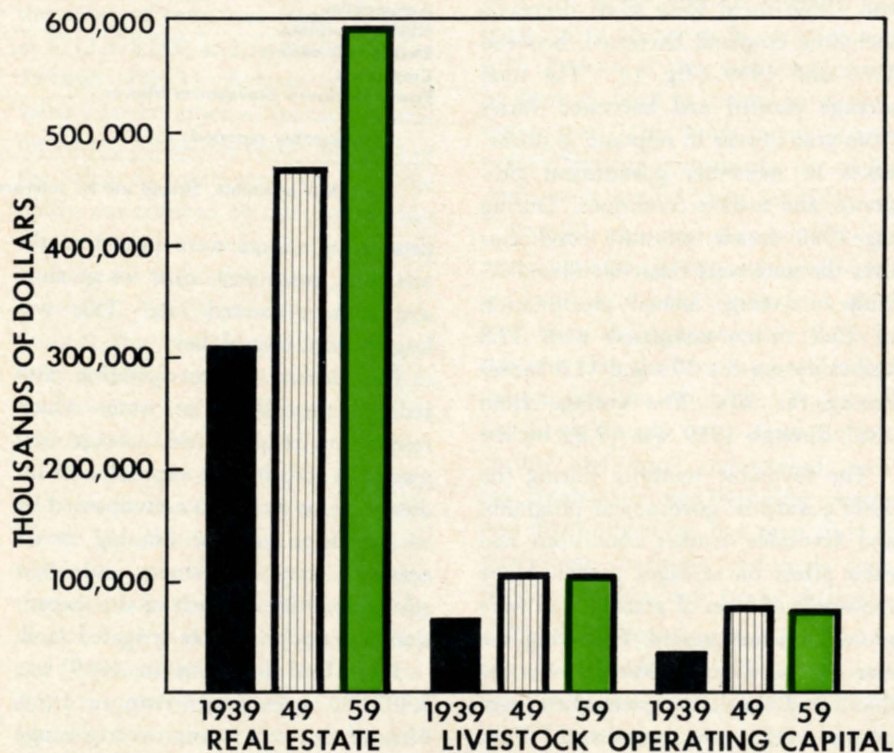


Fig. 3. Value of farm real estate, livestock, and six items of operating capital in 1947-49 dollars, Utah, 1939, 1949, 1959

Total land in Utah farms increased by more than 5 million acres between 1939 and 1959 (fig. 1). This increase amounted to almost 75 percent of the 1939 acreage. Most of this increase, however, was in pasture or rangeland, the productivity of which is relatively low. Although cropland made up only about 24 and 16 percent of the total land in 1939 and 1959, respectively, this portion is by far the most important of the land resources. Of the total cropland, that which is irrigated produces more abundantly than does the nonirrigated. During the period being considered the amount of land classed as irrigated increased about 16.5 percent. In addition, a considerable acreage of land classed as irrigated in 1939 but with only a partial water supply, is now more adequately supplied. In total acres and also in acres of the highest quality of land, the land resources in Utah farms have been substantially improved during the past 2 decades.

Although there was an increase in cropland of all classes between 1939 and 1959, there were some decreases including cropland harvested, between 1949 and 1959 (fig. 1). The total acreage planted and harvested varies from year to year in response to differences in moisture, government programs, and market conditions. During the 1940 decade moisture conditions over the state were relatively favorable, with an average annual precipitation of 15.8 inches compared with 12.8 inches during the 30's and 11.6 inches during the 50's. The average from 1881 through 1959 was 12.89 inches.

The favorable moisture during the 1940's, wartime government programs, and favorable market conditions had their effect on acreages grown. Many thousands of acres of grazing land were plowed up and seeded. Following the war the need for foodstuffs was reduced and restrictive government programs were again introduced. This, with the decline in moisture, resulted in the retirement of many acres from

Table 2. Number of persons employed on farms during a specific week,\* Utah 1939, 1949, and 1959

Type of labor	1939	1949	1959
Operator †	n.a.	20,252	15,202
Unpaid family ‡	n.a.	12,808	8,066
Total family	28,065	33,060	23,268
Hired regular §	n.a.	4,750	2,873
Hired seasonal ¶	n.a.	2,670	2,753
Total hired	5,794	7,420	5,626
Total	33,859	40,480	28,894
Average per farm reporting	1.6	1.9	1.8

\* For 1940, last week in March; 1950, the week preceding enumeration which began April 1, but required several weeks to complete; 1959, the week preceding enumeration which extend from October 1 to December 31, although a majority of farms were enumerated between November 8 and December 4.

† Includes all operators that worked one or more hours.

‡ Includes members of the operator's family who worked 15 hours or more.

§ Persons employed for 150 days or more.

¶ Other employed persons who did any work at all.

n.a.—not available.

Table 3. Numbers of specified equipment on farms, Utah, 1939, 1949, 1959

Item of equipment	Total number		
	1939	1949	1959
Grain combines	n.a.	2,827	3,136
Corn pickers	n.a.	31	104
Pick-up balers	n.a.	1,444	5,891
Field forage harvesters	n.a.	n.a.	2,252
Motor trucks	6,238	15,352	18,821
Tractors (not garden)	3,041	14,957	21,803
Garden tractors	n.a.	1,030	2,010
Automobiles	16,759	20,769	19,907
Milking machines	n.a.	3,864	4,126
Electric milk coolers	n.a.	n.a.	2,574
Crop driers	n.a.	n.a.	43
Power elevators, conveyor or blower	n.a.	n.a.	4,106
Total number reported	26,038	60,243	84,773

n.a. Not available. Should not be interpreted as meaning there were none.

production. Some were placed in the soil bank, some were used for grazing, and some remained idle. This was largely nonirrigated land.

The decline in precipitation also reduced the supply of water which resulted in reducing the acreage irrigated. In addition the expansion of industry in the state was accompanied by an expansion of new housing developments, shopping centers, and other related land uses. Much of this expansion was on previously irrigated land.

Total land in farms in 1959 was 5,387,000 acres larger than in 1939. Most of this was unimproved or range grazing land with low productivity. Since this increase could have been

obtained only by purchase or lease of land owned by the railroad, Indian tribes, or the federal or state governments, and probably was previously grazed under a permit or lease, this land really did not increase the resources used in agriculture. It only changed their ownership or control. With change in ownership a change in use of some land took place. This is most significant when the land was plowed, and water from underground or surface sources was developed to turn the rangeland into irrigated cropland.

In addition to land in farms, livestock men used in 1959 more than 27 million acres of federal range by

permits. An estimated total of approximately 40 million acres of land was used in 1959 for grazing purposes. Probably more than this was used in 1939, as a considerable acreage has been withdrawn from use since that time.

The amount of labor used on farms is impossible to determine accurately. The number of persons who worked on farms during a specified week is reported in the Agricultural Census. The data, however, were obtained for only a sample of farms and then adjusted to all farms. Also the specified weeks were not the same in all years. The most serious limitation, however, is that the average number of days or hours worked per person is not known. The data only indicate the general trend which is that each farm now uses about the same amount of labor but the total is definitely declining.

Other data provided by the census support the conclusion that the total hours of labor used in agriculture declined more between 1939 and 1959 than is indicated by the number of workers as shown in table 2. The census reports the work done off-farms by farm operators. Exchange work was not considered as off-farm work. These data are shown in fig. 2.

During each of the years reported by the census a significant number of all farm operators worked away from their farms for pay. The proportion doing so increased from 44 percent in 1939 to 61 in 1959 even though the total number of farms and the number of farm laborers declined. In addition the proportion who worked 200 days or more away increased two and a half times. It is quite probable that many of these have full time employment and take care of their farm work mornings, nights, and nonworking days and with the aid of family help. Some may also employ help for special occasions. Although specific measurements of the amount of labor used on farms are not available the indications are that significantly less la-

bor is being used.

Precise measurements of the amount of capital used in agriculture are also difficult to obtain. No source gives a complete listing of all capital items. Also since capital assumes many forms it can be added together only by placing values on it. Some items that are listed have not been valued. A further problem is that considerable inflation has taken place since 1939 so that the dollar is not a good measure without adjustments. In spite of these problems some meaningful comparisons can be made.

Two major forms of capital are important to agriculture. One is fixed capital and is represented by real estate, livestock, and various kinds of power machinery and equipment. These are items that usually appear in inventory. The other is operating capital and is represented by current expenditures for hired labor, seeds, fertilizers, repairs, and other such expenditures for production and maintenance.

The Census of Agriculture reported the value of farm real estate in 1959 as \$711,728,000, and in 1940 as \$154,346,000 (fig. 3). A large increase in value was also reported for all livestock on farms. All of this is not real gain as the value, or purchasing power, of the dollar was reduced by inflation during this period. However, there was still an increase of 86 percent in real gain or wealth. This increase represents additional land, buildings acquired, and other physical improvements made to land, water, and buildings. It could also include a basic gain in value from the market processes fixing a higher price on these items than on all goods. There has clearly been a substantial real gain in land and livestock assets over the past 20 years. More than half of this total gain was achieved during the 10 years 1940-50. In 1947-49 dollars the value of livestock in 1959 was less than in 1949. During the two decades significant shifts from sheep to cattle were made. Numbers of all

cattle increased 87 percent while numbers of sheep declined 20 percent. The decline in sheep was marked, 31 percent, between 1939 and 1949 with an increase of 17 percent between 1949 and 1959. Number of chickens increased a third during the first 10 year period and then declined to 12 percent below the 1939 level in 1959. Prices of livestock and livestock products were particularly favorable during the years 1947 to 1952. The downward trend in horses and mules has been the most consistent trend. In 1939 the census reported 78,853, in 1949, 53,728, and 29,894 in 1959.

Even larger gains occurred in the use of operating capital. Although the statistics in this area are far from complete, there are enough items to indicate the extent to which farm practices changed and the need for more capital. It should be pointed out also that the full amount of this kind of capital expended is not invested for a full year. For example, expenditures for feed for a milk cow may be returned by way of the milk check within a few weeks and expenditures for seeds when the crop is matured and sold. Because of this, such capital may be used as much as several times during a year. The major point is that today's farming requires the use of far more such capital than in 1939.

Probably the most dramatic changes in the amount and form of capital used on farms is in power units and allied machinery and equipment. It is also in this area that the least comparable statistical data are available. The trend has been sharply away from human, animal, and steam and toward internal combustion and electrical power, and much ingenuity has been used in developing machines and tools compatible with the new forms of power.

The 1959 census reported the number of 12 different kinds of farm equipment on farms (table 3). Of these 7 were reported in 1949 and only 3 in 1939. Most of those reported in 1959 were unknown, or unimpor-

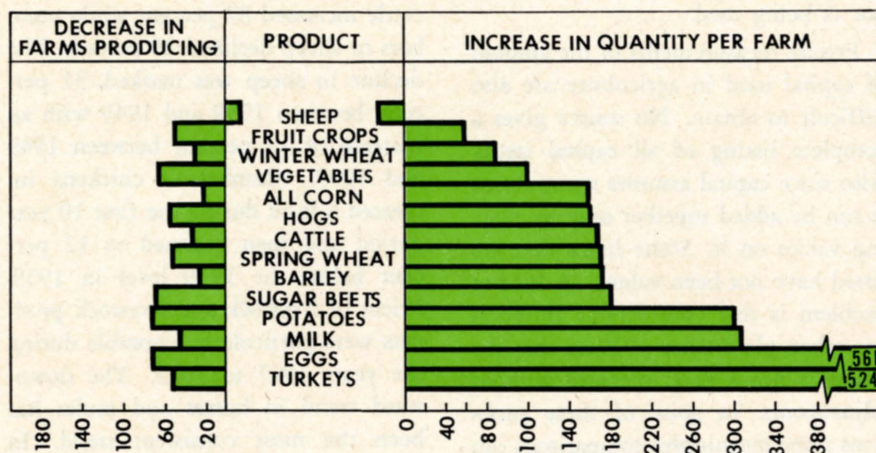


Fig. 4. Percentage change in the number of farms producing specified products and in the average quantity produced, Utah, 1939-1959

tant on farms in 1939. In 1959 there was an average of more than 1 truck, tractor, and automobile per farm. Since some items in 1950 and most in 1940 were not reported the average number of pieces of all equipment is not comparable.

The acquisition of mechanical power and associated equipment has enabled the industry to reduce the amount of labor and at the same time increase the acreage of cropland and the number of livestock kept. It has caused the reduction in the number of horses and permitted the increase in cattle. It has also transferred certain work and workers off the farms and into factories. It accounts for much of the large increase in the amount of operating capital required. The increase in machinery and equipment has been associated with a change in the organization of farms, particularly fostering more specialization of enterprises and less diversification.

Data are not available on the cost or the current amount of capital invested in farm machinery and equipment. It is a large amount, however, and the efficient use of it is becoming more and more necessary to profitable farming.

In summary it is quite evident that during the past 20 years large amounts of new capital have gone into Utah's farm industry. A considerable amount

has been in improvement of the land and farm buildings. An additional large and significant amount has been invested in power and machinery, and in current operating requirements. The increased commitments of new capital are characteristic of a growing and progressive industry.

#### More specialized farming

The operation of larger farms with fewer laborers has been possible largely because of the increases in mechanical power and equipment of improved quality. Improvement in mechanization has extended to all farming areas in the United States and to essentially all industries including transportation. These and other technological changes have not affected all farming areas, or all farm enterprises equally. Thus there have been changes in the comparative profitability to farmers in local areas in producing particular products. The large fixed capital costs of certain specialized equipment have made it profitable to use such equipment only when a relatively large volume is involved. The need of farmers to reduce costs per unit of each product to meet competition and to survive has led toward larger units per farm and fewer lines of products. The results in Utah for a number of enterprises are shown in fig. 4.

Of the 14 enterprises shown in fig.

4 only the farms reporting sheep increased in number. The increase of 15 percent in farms having sheep was accompanied, however, by a 30 percent decrease in the average size of farm flocks. This shift resulted from the introduction of "farm flocks" of sheep on irrigated farms and not of the more typical range operations of the past. Sheep have, no doubt, replaced dairy cows on many farms.

A part of the decrease in farms reporting the production of specific crops can no doubt be attributed to the decline in total farm numbers. This decrease was 30 percent. There was less than a 30 percent decrease in the number of farms growing barley and corn. These, both feed grains, can be considered as having increased, relatively. The largest relative decreases in number of producers was in vegetables, potatoes, and eggs.

The largest increase in average production per operating unit was in turkeys, eggs, and milk.

#### Total crop and livestock production

Although there has been a significant decline in the cropped acreage and in the labor used on Utah farms during the past years, there has been a persistent upward trend in the total output of agricultural products. Using the years, 1935-39 as the base the aggregate increase has been about 25 percent in all crops and 55 percent in livestock and livestock products. The aggregate total physical production in 1939 was 103 and in 1961, 134 (figs. 5 and 6). The upward trend has been punctuated with ups and downs resulting from variations in moisture, insects, and other growing conditions and in market outlook.

The trend of production of particular kinds of crops is much more irregular than the production of all crops (fig. 5). Fruit and truck crops exhibit particularly wide variations. Frost conditions account for the wide extremes in fruit, whereas market conditions probably explain most of the

changes in truck crops. Hay and grain production has been most stable. Grain crops have increased most and hay crops have increased at about the same rate as all crops. Truck crops increased markedly during the war period but declined below the 1935-39 base in the late 1950's. Cash field crops (sugar beets, dry beans, potatoes, and similar crops) have trended downward since the end of the war.

Most livestock are not affected to the same extent as are crops by changes in the climatic environment. Also because of the physical requirements it is not economically feasible to shift into and out of most livestock production enterprises as readily as this can be done with many crops, and as a result the variation in production from one year to another is less pronounced, although not without fluctuations.

Over most of the period since 1940 the production of sheep products has been below the 1935-39 level. Many resources formerly used for sheep are now being used to produce cattle, which have consistently increased to double the base period. The largest increase, however, is in turkeys which is now at a level of more than six times the base. Dairy products have been the most stable, while egg production increased sharply during the war then leveled off and declined to a level about 20 percent above the base period.

#### *Yields per acre and animal*

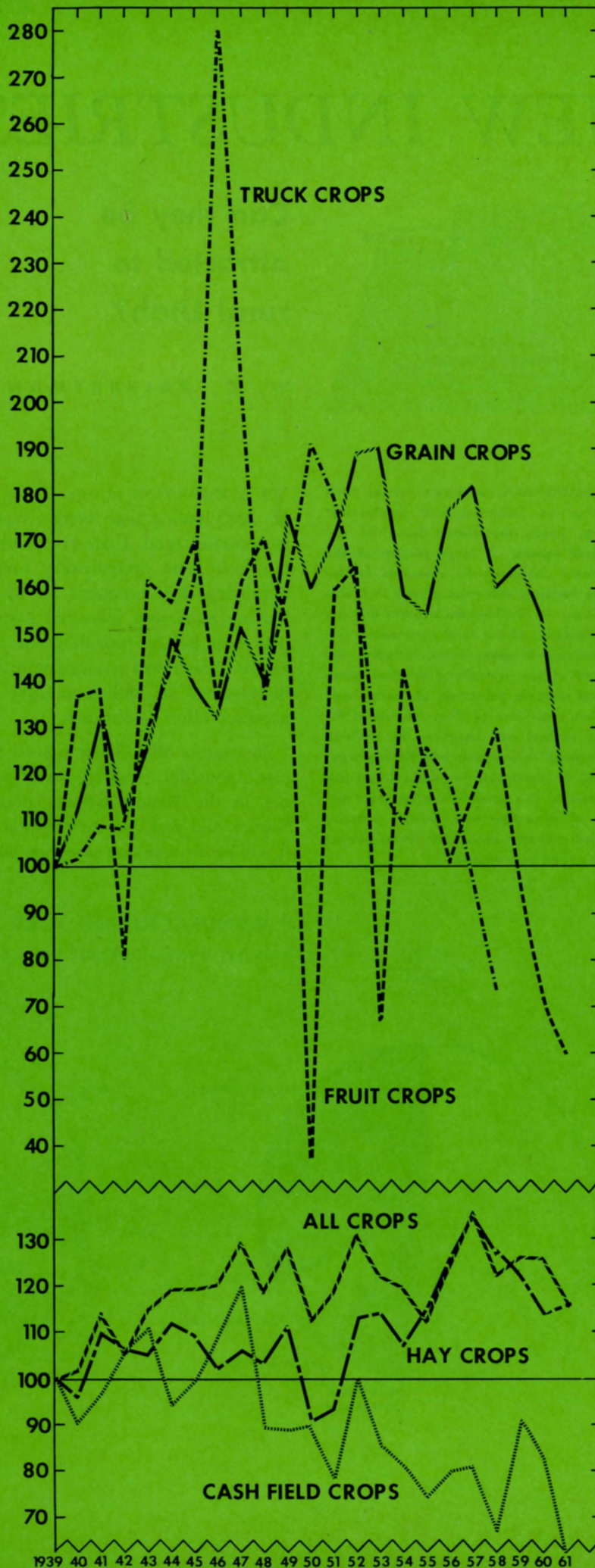
The increase in total agricultural production has been largely, but not entirely, from increased production per acre of cropland and per animal unit. The increase per acre of all major crops grown is approximately 22 percent; it varies from year to year and among crops in response to growing conditions.

The most spectacular increase in yield has been in corn, which now

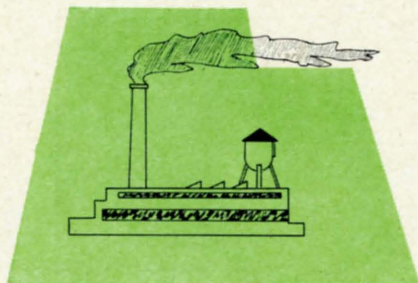
*(Continued on page 133)*

Fig. 5. Indexes of total production of selected types of crops, Utah, 1940-1961  
1935-39 = 100

FOR DECEMBER 1962



# NEW INDUSTRIES



## Can they be attracted to rural Utah?

W. C. PALFREYMAN

W. C. PALFREYMAN, as director of the Utah Committee on Industrial and Employment Planning, heads the state's industrial development agency. A large portion of the committee's energies and resources is devoted to fostering industrial growth in Utah's rural areas. Mr. Palfreyman believes that the basic economies of our rural communities can be broadened in many ways, including development of new agricultural practices, products, and markets; promotion of tourism and recreation; assistance of firms already in the area to expand and improve; the devising of "bootstrap" operations; and finding ways to speed up timetables for natural research development. This article is confined to a discussion of attracting new, outside industry which will add new payrolls so vitally needed in Utah's rural communities.

IF A PREDICTION of one of the nation's leading plant location experts is accurate, rural Utah communities can look more optimistically toward improving their economic lot by attracting more new industrial payrolls than ever before, providing the citizens in these towns seriously want new industry and are willing to make the necessary effort to obtain it.

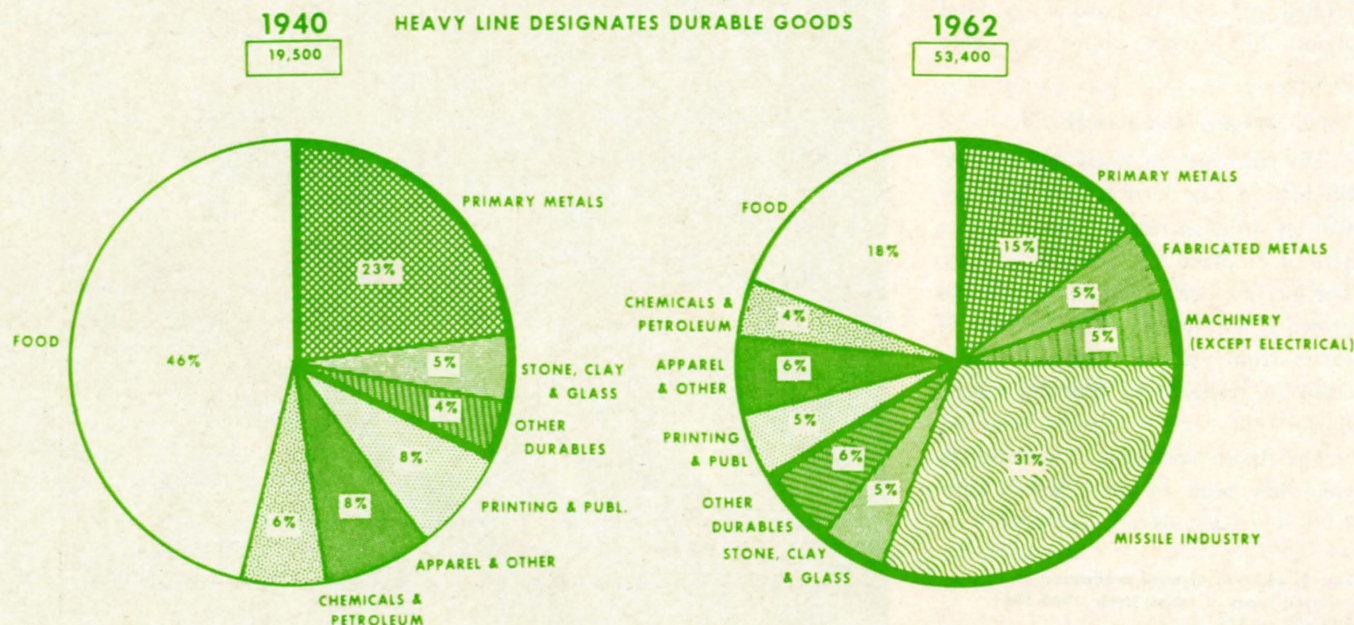
In a recent Wall Street Journal feature, Leonard D. Yaseen, senior partner in the Fantus Factory Locating Service, said that, "In the next decade it will be the very rare exception when

a manufacturer decides to build a factory in a big city area."

Indeed, if Mr. Yaseen proves to be as able a prognosticator as he is a plant locator (his firm claims location of over 1500 industrial plants since World War II) many of the towns throughout the state which have continued to lose population can realistically look to the day when the outflow of their citizens to urban centers can be slowed, or even halted. They need not hopelessly resign themselves to the fate of economic stagnation.

During 1961, according to Mr. Yaseen, eight of every 10 selections of new factory sites, were well away from large urban areas. A decade earlier only about half of the new sites were rural. Figures provided by the U. S. Department of Commerce show that nearly half of the nation's factories are outside metropolitan areas. In 1954 only 35 percent of the 286,815 factories then in existence were in such areas. A rather striking illustration of this trend is the fact that New York City now has only 19 plants employing as many as 1,000 workers. Twenty years ago there were 42.

### UTAH MANUFACTURING JOBS HEAVY LINE DESIGNATES DURABLE GOODS



There is increasing evidence, Mr. Yaseen adds, that the movement of industry to small town locations will not only continue, but accelerate.

What accounts for the pull out-of-the-way towns are having on corporations, large and small, from the huge metropolitan complexes of the country such as Detroit, Chicago, New York, and Cleveland? Why was General Tire and Rubber Company with headquarters in Akron, Ohio, influenced to establish a \$9 million production facility in Mayfield, Kentucky, a small rural city, when suppliers, customers, and big labor pools were readily available in the traditional manufacturing centers?

What induced Murray Ohio Manufacturing Company to move its production of bicycles and other goods from its historic location in Cleveland to rural, isolated Lawrenceburg, Tennessee?

Among other cogent reasons, four factors appear to stand out:

#### *Manpower*

Industrial firms have found labor in rural areas more abundant and more productive, especially where farm mechanization has cut down the number of agricultural jobs and where part-time farmers and other under-employed individuals are available to take industrial jobs. Murray Ohio found many operators of small farms in Lawrenceburg who had long sought an industrial supplement to their sub-standard farm income. With little additional effort and by switching to other types of crops, many of these individuals were able to take on a 40-hour week industrial job and still work the same amount of land they had previously. But what was even more important, General Tire and Rubber says of its rural Kentucky labor force, "These county people haven't forgotten how to work hard."

#### *Costs*

Companies setting up plants in rural areas have found costs decidedly lower than in highly industrialized centers. They have experienced savings mainly in costs for land, labor, and reduced taxes. They are also finding the cost of fringe benefits, utilities, and general plant overhead considerably lower in rural areas. A recent Fantus Company survey shows the average hourly wage of workers in a "typical" small community to be about 70 cents below the United States average, while a dozen years ago the gap was only 32 cents.

During this same period, the study notes, the hourly wage level of production workers in such centers as Pittsburgh, Buffalo, and Los Angeles has climbed much faster than the nationwide average. In Pittsburgh, for example, hourly pay stands 58 cents above the United States average; in 1949 it was only 19 cents higher.

The disparity between wage rates in metropolitan centers and rural areas in some cases is coming to mean the difference between an industrial firm staying alive or being forced to close its doors. Murray Ohio was faced with the fierce competition of ever increasing foreign imports of bicycles.

"We had to move to a cheaper labor area or go out of business," a Murray official says.

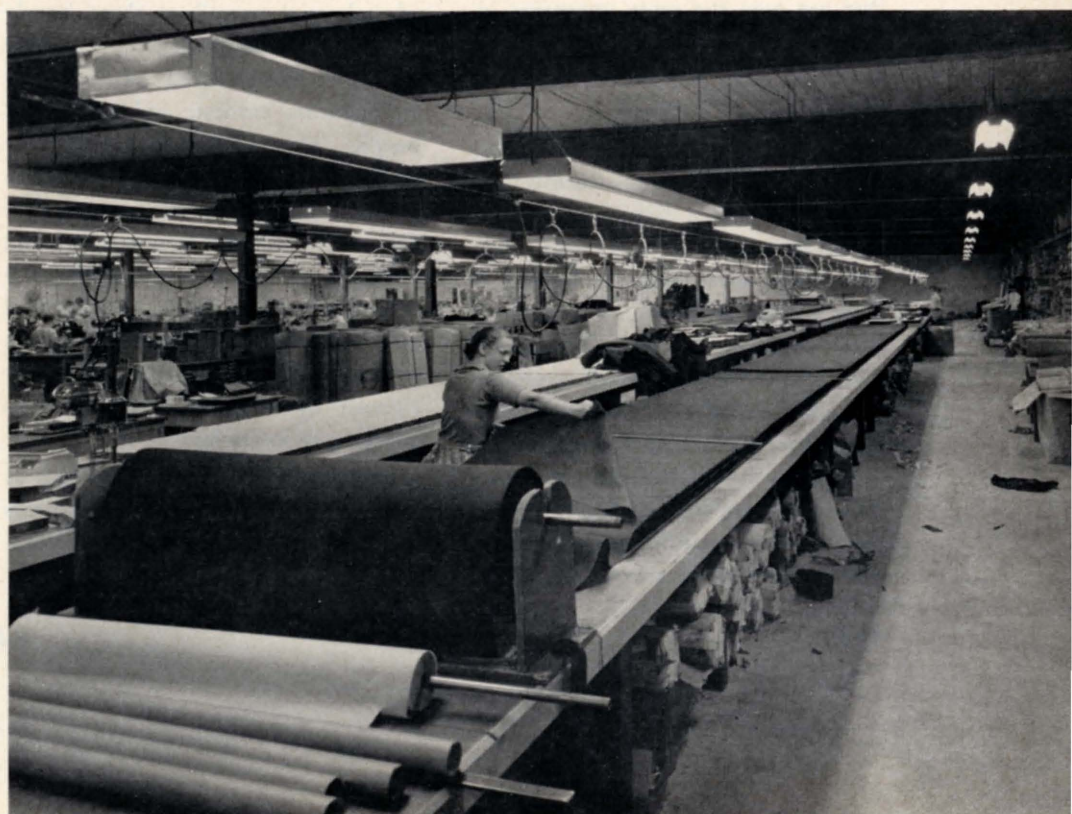
Lower land costs outside metropolitan cities are also a salient feature of this equation. Surveys show a 10-acre industrial site costs about \$1 million in metropolitan New York. Comparable locations in Los Angeles or San Francisco are not far behind. In contrast, 10 acres of good industrial land in the average rural out-of-the-way town having fewer than 10,000 population costs approximately \$10,000 to \$12,000.

A further item is the lower cost usually experienced in small towns for plant site preparation. "In most cases a small town is willing — at no extra charge — to extend water mains, sewer lines, roads, and even bus routes to a new factory. A company won't generally get that sort of treatment around a big city."

#### *"Elbow room"*

A third factor exerting a strong pull on industry to small towns away from the tribulations of intense metropolitan existence is "elbow room" — the priceless commodity of space. This implies large plant sites where indus-

Interior of a typical Utah apparel plant



trial buildings can be laid out in spacious one-story units which allow far more efficiency in production and handling methods. It also implies plenty of room for expansion, for employee parking, and for material and finished goods storage. And it means plant locations in wide open spaces where the air is clean and pure, well removed from the grimy big city atmosphere where air pollution creates unpleasant and unhealthful conditions, and even adversely affects manufacturing operations in certain industries.

#### *Community character*

After satisfying their concern for adequate manpower, labor, tax, utility, and plant overhead costs, and spacious plant sites, industries are most concerned with the character of a community. And here again, smaller communities are providing a better combination of what both the company and its prospective workers are seeking. While it is difficult to pin down exactly what the implications of this factor are, essentially they add up to pleasant living conditions — "the good life."

A surprising number of comparatively large and prosperous companies are "small town oriented," and make a point of calling attention to it. This identification comes both from firms that are now the most important industry in an out-of-the-way town and also from those who think they would like to be.

Fred Wenzel, president of Hawthorn Company, who recently announced a western division of his firm would be located in St. George, Utah, and whose main plant is located in New Haven, Missouri — a town of 1100 — put it this way: "We believe that for our company, small communities are essential — 5,000 and under or approximately that size, gives us a community from which we can expect maximum cooperation. Here we can hire the most qualified people, and in a community of this size we are impor-

tant — and we want to be important."

When the manager of Anderson Coach Company first contacted the Utah Committee relative to establishing a western production plant, he made it clear his firm was not interested in Utah towns any larger than Logan. "We are the main industry in East Tawas, Michigan — a town of 4,500," he said. "We enjoy the important role we play in this town's economy, and we want to have a comparable experience here." Anderson Coach located its plant in Logan.

Pacific Trails, with recent plant locations in Manti and Richfield, is in the process of moving most of its jacket manufacturing facilities from Seattle to rural Utah because, "We feel much more at home in small Utah towns and here we can attract the kind of help we want and need."

For a number of years, through its promotional literature, the Utah Committee on Industrial and Employment Planning has been calling the attention of American industry to the desirable features of locating plants in Utah's smaller towns. A section of our brochure "Reasons industrial plants locate in Utah" says, "There is a special opportunity in Utah's half a hundred communities with populations ranging from 2,000 to 7,500 for diverse industries which will add an urgently needed industrial payroll to these largely agricultural communities." In these towns, we have pointed out, are found a "vigorous, earnest, and self-reliant people. They will welcome industry and give it loyal service. Even small plants become important enterprises here. The interest, cooperation, and boosting of the entire community will be important factors in the successful operation of plants located in such communities, and it can be readily claimed by desirable new industries choosing to locate here."

Some rather convincing evidence as to the veracity of our opinions in this regard was provided during the location of the Hawthorn Company. At

the time both Cedar City and St. George were under study by the firm for a western manufacturing plant site. Mr. Wenzel had this to say after one of his visits to southern Utah. "There is 100 percent cooperation by both of these areas. We were overwhelmed! Never have I experienced a greater effort and cooperation on the part of any community and the desire to do what we wanted to attract us."

When such giants of the American industrial roster as General Electric and Ford Motor Company join the parade to small town plant locations, one can't but be impressed with the evidence that industrial firms throughout the country are finding advantages they are seeking in rural communities.

What does all this mean to the many rural Utah towns whose population and personal income have been declining in recent years, and who can see no dramatic change that will reverse this trend, at least in the immediate future? The Utah Committee on Industrial and Employment Planning does not have a list of large, nationally known industrial firms waiting in line to locate branch plants in out-of-the-way Utah towns. Furthermore, we have no desire to create false hope among communities whose human and material resources are so limited and whose locations are so isolated they may never realize growth through the establishment of new outside industry. We have no new magical approach to recommend that small communities may employ to obtain new industrial payrolls for their area. Industry is still difficult to attract. Competition for new plants is still fierce and will likely grow more so as certain areas of the country devise new "giveaways" and gimmicks as bait to lure elusive new payrolls into their traps.

We are still geographically remote for some industries. For many products the distance to market centers is still great. We have essential raw materials and semi-finished components for some industries, but for others

many are not available locally and must be shipped in.

However, despite these and other hurdles, we believe that there is more reason for many rural Utah communities to be genuinely optimistic about broadening and strengthening their economies with desirable new industry than ever before. The Utah story is being heard throughout the country. Utah's strategic central geographic location for distribution in all directions to western United States markets is an industrial asset of rapidly growing importance. The state's reservoir of highly educated, easily trained manpower is a key reason industrialists are choosing Utah locations. Testimony to their satisfaction with Utahns as workers after beginning operations here is abundant.

Another factor Utah towns can look happily toward, particularly the southern ones, is the role shaping up for them as a springboard for manufacturing and distribution operations to serve southern California and greater Los Angeles, the fastest growing metropolitan area in the nation. Metropolitan Los Angeles had a 1960 population of seven million, a fourth of all the residents in the 11 western states. It is currently experiencing a gain in population roughly equal to a state the size of Utah every four years and will top 12 million by 1980.

For these and other pertinent considerations, we believe that rural communities throughout the state who have (1) a labor supply; (2) the location and transportation facilities to make distribution feasible; (3) sufficient financial resources to assist prospective new firms in obtaining industrial sites and buildings; and (4) a solid "grass roots" desire to improve their economic lot by inducing new industries to locate in their area, should begin making plans accordingly, unless they have already done so.

Organizing and planning will not guarantee a new industrial payroll. But, one thing is certain — failing to plan

and organize will virtually guarantee the community won't land a new plant.

The first step is to *set up an organization to represent the community which can plan, give long-range continuity to the local effort, provide financing and know-how, and, in general, to speak for and act in the name of all the citizens.* The importance of formulating an effective organization cannot be over-emphasized. When a prospective new industry becomes interested in a particular community it seeks a reception by a small group of influential persons who can speak for the area, provide accurate information, and who can make commitments, financial and otherwise, for the citizens as a whole. Composition of such an organization or committee need not follow any set pattern so long as it is (1) representative of the community and of the desires of its citizens; (2) influential; and (3) dedicated to the best interests of the community as a whole. The committee provides liaison between the local community and the county-wide development organization, in the event there is such a group, and with other agencies on state or other level which are interested in the local area developing and prospering. The reception given industrial firm representatives on their first visit is often the most important aspect of the industrial development process. For, it is during this initial contact that the plant scout determines if he is dealing with responsible community leaders who can provide accurate information to a wide array of pertinent questions, and who can act officially for the community should his firm decide to continue negotiations for a local plant site.

Second step for community industrial development action is: *Know your area.* Decisions to locate industrial plants are based on economic information. From information about a locality come the facts that are put on the scales and weighed for or against selection of a particular community for a

plant site. Information provides the basis for making comparisons and contrasts among areas vying for a plant. It must be factual and complete. The site seeking industry usually looks to the community development committee for answers to the many questions it poses. Therefore, if an organization has set itself up as spokesman for the community it must gather and have readily available all the basic information it can lay its hands on pertaining to the immediate and surrounding locality. These basic data should be in written form and always within reach. By having pertinent information on hand, local committees can avoid the embarrassment that comes from trying to scurry around and dig up answers after an industrial representative and the committee are seated around a discussion table.

While certain other specific information requests can be expected, generally industrial firms seeking plant locations require data on the following:

1. *History of the area.* Industrial representatives looking at a specific locality are invariably interested in studying its historical background. This includes when the area was settled, by whom, and the chronology of local industrial development.

2. *Population and characteristics of the labor force.* This includes numbers of people, their ages, sex, places of residence, skills, training, and occupational groupings. The committee should be able to discuss intelligently the types of workers who are surplus to the local area, the categories which are in short supply. They should be able to point to evidence of other measures of labor supply such as marginal farmers, under-employed persons, and residents commuting out of the area to industrial jobs in neighboring counties.

3. *Industrial patterns.* Probably the best evidence a community can produce to convince a prospective new industry that it can operate profitably and successfully is the existence of

(Continued on page 138)

# MINERAL RESOURCES

## A Basic Stockpile of Wealth For Rural Utah

M. P. NACKOWSKI and A. J. EARDLEY

**T**HE mineral resources are the basic stockpile of the material wealth of nations; they determine the economic well-being of nations. The various processes of manufacturing pyramid this material wealth. Manufacturing adds utility and value to the exploited resources, and effectively harnesses their beneficial characteristics for use by mankind.

Developed mineral resources in Utah influence the rural economy beneficially. The most significant contribu-

●  
**DR. MATTHEW P. NACKOWSKI** is professor of mining and geological engineering, University of Utah. **DR. ARMAND J. EARDLEY** is dean of the College of Mines and Mineral Industries and professor of geology, University of Utah.

tions are increased personal income and expanded and improved tax base. The mineral resources are mostly in rural areas, they are varied and widely distributed, but few are exploited. A number await technological advances and favorable economic environment.

Mineral resources include metallics, nonmetallics, and the hydrocarbon mineral fuels and related hydrocarbons. All are found in Utah and are important to its economy. Most important have been the metallics. The non-metallics and the hydrocarbon mineral fuels developments are expanding at an increasing rate.

Three mineral resources maps show the location of deposits. Metallic resources are on fig. 1, the non-metallic



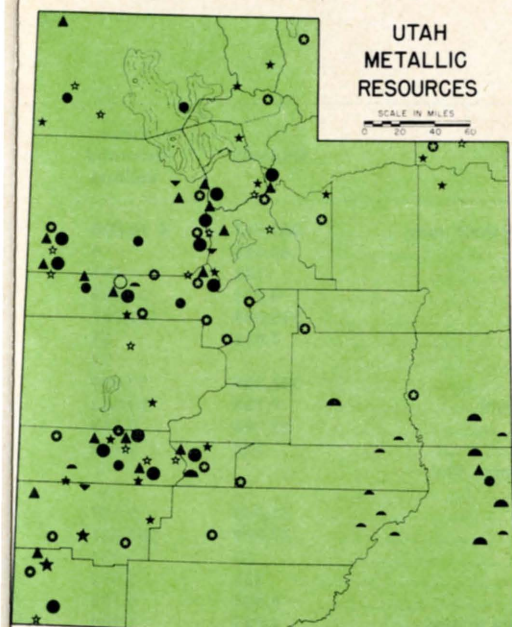
on fig. 2, and the hydrocarbon resources, which include fuels and related industrial hydrocarbons, are on fig. 3.

The metallic minerals are generally characterized by their high unit value compared to their bulk. Ore, concentrate, or metal is transported readily and economically to distant markets. The exception is iron which has a relatively low unit value. Iron is generally smelted, converted, and fabricated into standardized structural units near the supply source. These manufactured products are then transported longer distances.

Non-metallic mineral resources include minerals and rocks required largely by the chemical industry, the construction industry, and for fertilizers in agriculture. These resources generally are characterized by low unit value. They require processing at or near their origin and have restricted geographic market areas. Exceptions in Utah in-

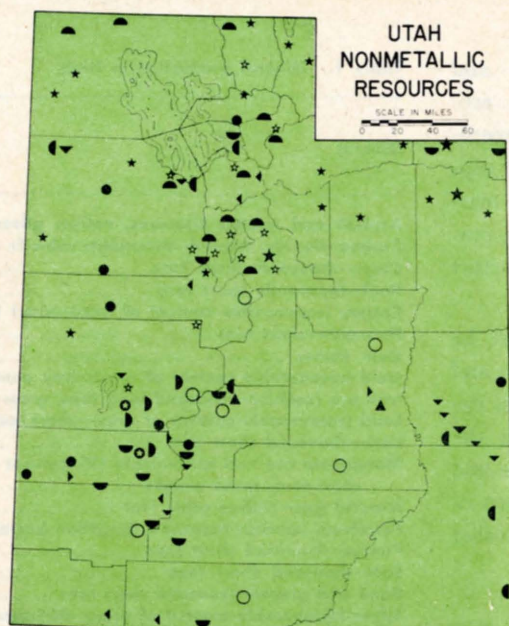
The San Francisco Chemical Company Phosphate Concentrator north of Vernal (from Utah Geological Survey Bulletin 71)





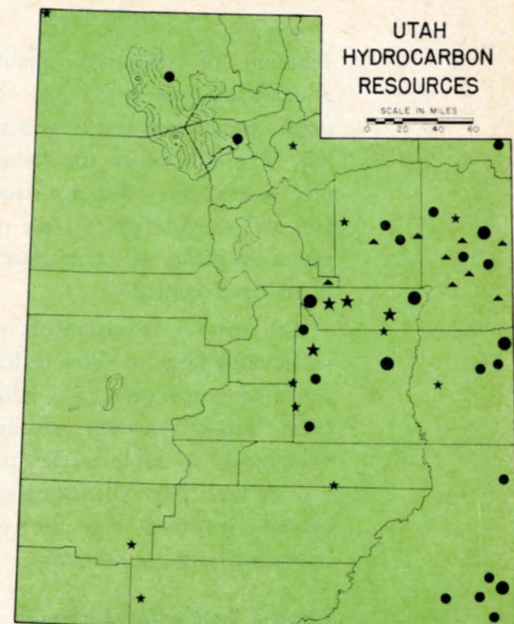
#### LEGEND

- |                    |                    |
|--------------------|--------------------|
| ▲ GOLD-SILVER      | ● URANIUM-VANADIUM |
| ● COPPER-LEAD-ZINC | ○ MANGANESE        |
| ● IRON             | ▼ MERCURY          |
| ● TUNGSTEN         | ○ BERYLLIUM        |



#### LEGEND

- |                 |                |
|-----------------|----------------|
| ▲ BENTONITE     | ▼ POTASH       |
| ● CLAY          | ● POZZOLAN     |
| ● FLUORSPAR     | ● PUMIC-CINDER |
| ○ GYPSUM        | ● SALT         |
| ☆ LIME-DOLOMITE | ▲ SILICA       |
| ○ PERLITE       | ▼ SULFUR       |
| ★ PHOSPHATE     |                |



#### LEGEND

- |  |
|--|
| ● OIL AND GAS                              |
| ★ COAL                                     |
| ▲ GILSONITE, WURTZLITE, AND ASPHALTIC SAND |

clude potash and phosphate.

The hydrocarbon mineral fuels and related hydrocarbons include the solid and fluid hydrocarbons, coal, oil, gas, gilsonite, oil shale, and tar sand.

The hydrocarbons are transported long distances. Pipeline transportation is common for the fluid hydrocar-

bons oil and gas. Such transportation will become increasingly important in future development of the solid hydrocarbons, particularly coal. Although the metallic mineral commodity, uranium, will become increasingly more important as a fuel, it is not here included as a mineral fuel.

#### *Factors influencing exploitation*

Several factors influence economic development of mineral resources. These include an adequate mineral supply, its location, volume of market, and market price.

Adequacy of a mineral supply is a

The Mayflower Concentrator, Hecla Mining Company, Park City District



The Texas Gulf Sulfur Company Potash Plant near Moab



function of quantity, quality, and amenability to low cost or economic production and treatment methods. The location of the mineral supply, accessibility, distance from market, and availability of bulk transportation facilities are important factors in its development.

The market requirements must be sufficiently large to allow efficient and continuous operation of a mineral deposit. Limited market will limit development. A stable market price and a price level that will insure return of capital investment and meet all other operating costs are necessary.

#### *Mineral production in Utah*

The total value of mineral production in Utah in 1960 was more than \$400 million dollars. Fifteen mineral commodities were each valued at more than one million dollars (table 1). The value of Utah mineral production by counties and the mineral produced in order of value are listed in table 2. Employment and wages in Utah directly attributed to developed mineral resources are summarized in table 3. The annual wages are \$170,074,653. This compares with the total insured wages and salaries for Utah of \$967,000,000.

#### *Expected new developments*

New developments or expanded activity in the metallic mineral are expected. In the Tintic district near Eureka, the Bear Creek Mining Company has indicated considerable lead-silver reserves. Development work is under way and exploration efforts will continue. In the San Francisco district near Milford, preliminary exploration work for copper is still under way by several companies. In the Topaz Mountain district near Delta, large reserves of beryllium have been delineated. These await technological advances in beneficiation and more particularly in beryllium metal manufacturing. With these advances, the market demand will expand. Ten years may be required be-

Table 1. Mineral production in Utah

Mineral	Quantity	Value (thousand dollars)
Asphalt and related bitumens, native: gilsonite—short tons .....	383,037	\$ 10,020
Carbon dioxide, natural—thousands cubic ft. ....	60,425	4
Clays—thousand short tons .....	143	416
Coal—thousands short tons .....	4,955	31,458
Copper (recoverable content of ores)—short tons .....	218,049	139,987
Fluorspar—short tons .....	1,912	51
Gem stones .....	—	72
Gold (recoverable content of ores)—troy ounces .....	368,255	12,889
Iron ore (usable)—thousand long tons, gross weight .....	3,334	23,862
Lead (recoverable content of ores)—short tons .....	39,398	9,219
Lime—thousand short tons .....	127	2,672
Manganese ore and concentrate (35 percent or more Mn)— short tons, gross weight .....	—	—
Natural gas—million cubic feet .....	51,040	9,187
Petroleum (crude)—thousand 42-gallon barrels .....	37,599	103,021
Pumice—thousand short tons .....	60	134
Salt—thousand short tons .....	231	3,092
Sand and gravel—thousand short tons .....	6,848	6,182
Silver (recoverable content of ores)—thousand troy ounces .....	4,783	4,329
Stone—thousand short tons .....	1,837	3,087
Uranium ore—short tons .....	1,089,757	27,843
Vanadium—short tons .....	462	—
Zinc (recoverable content of ores)—short tons .....	35,476	9,153
Value of items that cannot be disclosed: Barite, cement, clays (kaolin), gypsum, molybdenum, natural gas liquids, perlite, phosphate rock, potassium salts, pyrites .....	—	36,047
<b>Total Utah .....</b>	<b>—</b>	<b>\$431,396</b>

Source: Minerals Yearbook, 1960

fore these deposits are exploited to their fullest potential. In the Park City district, the Hecla Mining Company has invested capital in the Mayflower Mine. Considerable development work has been completed. A concentrator has been constructed to treat mined ore. The production of gold, silver, lead, zinc, and copper will be increased substantially and will help revitalize the area.

Significant developments in the production of non-metallic mineral resources are expected for phosphate, potash, and salt. Phosphate production in Utah will increase gradually. The most important plants will be in the Vernal area where the phosphate rock is of fair grade and minable by quarrying.

The San Francisco Chemical Company has completed the first unit of its phosphate development complex north of Vernal. Six such units are planned with an eventual capacity of more than one million tons of acid grade concentrates per year. The present produc-

tion capacity is about 200,000 tons each year. The concentrates are trucked to the Salt Lake area for processing. About sixty workers and staff members are employed at the mine. The operation probably generates for each company employee about five service jobs in the area.

Other phosphate occurrences are located in mountain ranges in the northwestern quarter of Utah. The area extends west and north of Tintic. These deposits are low-grade and will probably not be exploited during the next decade or two.

Potash production in Utah will expand several fold within the next year. The largest expansion will occur in the southeastern part of the state near Moab, where presently the Texas Gulf Sulfur Company is completing an underground and surface plant for mining and processing potash. The construction of surface facilities and mining development are approximately 85 percent completed. Estimated date for commencing operations will be April

or May, 1963.

The beginning estimated annual output will be approximately 550,000 tons. The total estimated annual output will approximate 1.7 million tons. The number of employees at the mine and mill at the beginning of operations will range from 25 to 100 and may increase to 300. This potash operation will generate nearly three additional jobs in the area for each employee in the mine and processing plant.

Potash resources in the southeastern Utah area are extensive. Several large companies hold potash leases here. Within a decade or two, the area will probably boast more than one potash operation.

Potash production from brine near Wendover will continue. Here production expansion is also anticipated in the near future.

Solar salt production from Great Salt Lake will expand to meet increased demand of the chemical industry in the northwestern states and also to replace lost production capacity in the San Francisco, California, region.

The Utah Salt Company completed a new \$250,000 plant east of Wendover and produces salt, mineral, and protein blocks for range livestock feeding. The new product will allow the livestock raiser to offer his stock all three feed items at the same time. Salt is harvested from the evaporating ponds of Bonneville, Ltd.

The hydrocarbon mineral fuels production will hold at its present substantial level or expand. Oil and gas developments will be most significant, particularly in the Uinta Basin and southeastern Utah. Coal production will probably increase considerably.

Expanded production will be principally in Carbon County, but the southern Utah fields will likely come into vigorous production. The coal will probably be transported by pipeline to power plants located at sites where water is available and adjacent to trunk high voltage transmission

Table 2. Value of mineral production in Utah, by counties

County	1960	Minerals produced in 1960 in order of value
Beaver .....	\$ 156,164	Uranium ore, zinc, pumice, copper, perlite, sand and gravel, lead, silver, gold, gem stones, barite
Box Elder .....	607,470	Sand and gravel, salt, gem stones
Cache .....	512,545	Sand and gravel, stone
Carbon .....	25,903,362	Coal, natural gas, sand and gravel, carbon dioxide, gem stones
Daggett .....	1,129,242	Sand and gravel, natural gas, stone, natural gasoline
Davis .....	293,000	Sand and gravel
Duchesne .....	442,881	Gilsonite, petroleum, sand and gravel
Emery .....	8,784,173	Coal, uranium ore, sand and gravel, stone, natural gas, gem stones
Garfield .....	175,650	Uranium ore, gem stones, clays, coal, sand and gravel
Grand .....	1,176,689	Uranium ore, natural gas, petroleum, sand and gravel, gem stones
Iron .....	24,141,028	Iron ore, coal, stone, sand and gravel
Juab .....	1,545,568	Clays, uranium ore, lead, fluorspar, zinc, stone, gem stones, barite, sand and gravel, silver, gold, copper
Kane .....	8,082	Coal, gem stones
Millard .....	149,779	Pumice, sand and gravel, gem stones, zinc, copper, gold, lead, silver
Morgan .....	7,117,922	Cement, stone, sand and gravel, clays, lead, silver, zinc
Piute .....	313,144	Uranium ore, zinc, silver, copper, gold, lead, gem stones
Rich .....	2,235,102	Phosphate rock, sand and gravel
Salt Lake .....	188,507,913	Copper, molybdenum, gold, lead, zinc, silver, salt, sand and gravel, cement, lime, stone, pyrites, gem stones, uranium ore
San Juan .....	121,937,967	Petroleum, uranium ore, LP gases, natural gas, natural gasoline, copper, sand and gravel, stone, silver, zinc, gold, lead
Sanpete .....	138,482	Sand and gravel, salt, natural gas, clays
Sevier .....	1,333,843	Gypsum, coal, clays, sand and gravel, salt, stone, uranium ore, gem stones
Summit .....	4,756,976	Zinc, lead, silver, sand and gravel, copper, coal, gold, clays, stone, gem stones
Tooele .....	6,095,561	Lime, potassium salts, salt, stone, clays, sand and gravel, zinc, lead, gem stones, silver, copper, gold, barite
Uintah .....	26,879,151	Petroleum, gilsonite, natural gas, natural gasoline, stone, sand and gravel
Utah .....	1,928,367	Stone, sand and gravel, lime, clays, gold, silver, copper, gem stones, lead, zinc
Wasatch .....	2,439,739	Lead, zinc, silver, gold, copper, stone, sand and gravel
Washington .....	92,854	Copper, stone, sand and gravel, petroleum, gem stones, zinc, lead, silver
Wayne .....	5,593	Gem stones, uranium ore, copper, lead, silver
Weber .....	586,008	Sand and gravel, clays
Undistributed .....	3,329,978	
<b>Total .....</b>	<b>\$431,396,000</b>	

Source: Minerals Yearbook, 1960

lines. Water supply may be a critical consideration. Continued production expansion is expected for the next twenty or fifty years.

Exploitation of oil shale and tar sand reserves may wait a few years but considerable interest exists in them.

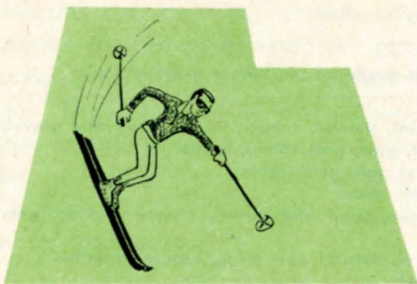
Increased coal production will supply new electric power plants, coke plants, ammonia plants, and chemical plants producing principally plastics for construction purposes as well as by-products. Coke production from Utah coal is planned by U. S. Smelting, Refining, and Mining Company. The

coke will supply the electric furnace industry of the western states. Production is anticipated to increase as phosphorus production expands. The plant site has not been determined.

These projected mineral resource developments represent large capital expenditures. Many more smaller developments will occur which will increase personal income significantly in rural areas.

The labor force for new mineral developments will be recruited from a radius up to 100 miles from the oper-

(Continued on page 137)



# INTERCEPTING THE TOURIST

The state offers unique combinations of scenery, geology, anthropology, and history

S. ROSS TOCHER and FRANK W. KEARNS

THE strategic location of Utah in relation to transcontinental highways and western park routes enables the state to intercept large numbers of touring Americans. Unique combinations of history, anthropology, and geologic abstractions create situations provoking the vacationists' interest. There is widespread recognition that recreation may well be Utah's prime natural resource and the vacationist, the prime economic asset. To a state whose agriculture is hard pressed by limited soil resources and lack of water and whose industry faces stiff economic hurdles brought about by high transportation costs, tourism becomes a valuable alternative in broadening local economic bases. Unfortunately, many Utah communities have not successfully been able to realize significant benefits from the passing tourist. It is reported that 40 percent of all the tourists traveling to Utah came to visit the state's outdoor attractions. However, Salt Lake City is the established primary destination for a third of the people. It is the most popular attraction in the state. The Ogden-Salt Lake City metropolitan area forms the hub of a radiating transportation system for the entire Intermountain region.

The original detachments of Mormon pioneers moved out along the same routes which are so heavily traveled today. They quickly occupied the

lands near canyon entrances throughout the Great Basin. From here the Mormon leaders sent small colonies up the drainages and into the interior valleys. However, the majority of the desert and mountain land in the state was never occupied. Eventually federal withdrawals and reservations restricted the transfer of land into private ownership; 73 percent of Utah remains under the jurisdiction of agencies of the federal government. Although Utah has the potential for outdoor recreation that is the envy of most states, there remains untapped opportunity for further development of ef-

fective outdoor recreation to meet tourist desires.

## *Recreation land ownership status*

The Forest Service became the first land management agency in Utah with the establishment of seven national forests within the state. In general these forest areas fall astraddle of Utah's principal mountain ranges; the Wasatch, the LaSals, and the Uintas. Utah national forests offer outstanding mountain scenic attractions. However, the major tourist highway routes follow the desert valleys or foothills missing the high alpine forest areas. It is

The visitor is anxious to see and understand the new areas he visits



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Utah at the present time has only three dude ranch operations in contrast to numerous such developments in neighboring states



Local communities should work cooperatively with the Utah Tourist and Publicity Council to develop and advertise local features of unique interest to tourists



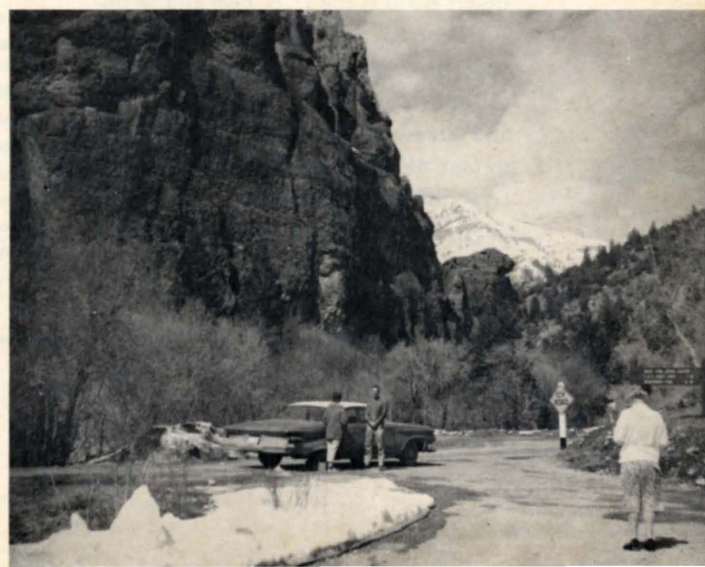
There exists along Utah highways opportunity for camps with special services for tourists

The forest camp areas and the delight of high alpine scenery are far removed from the major Utah highways



Only 12 percent of Utah's visitors indicate a desire to hunt and fish

Ninety percent of the visitors using roadside stops in Logan Canyon possessed camera equipment



a common comment of vacationists that Utah's timber consists entirely of sagebrush and juniper. Only when the tourist departs from the main highway does he enter the delightful forest camps of the Utah mountains.

Utah has two national parks. In contrast to the national forests, the national parks are located in Utah's canyon country. These specific attractions are so outstanding that spur-highway connections have been constructed to them. However, they are not located near the transcontinental routes and consequently visits to them involve considerable driving. Particularly is this true of Utah's eight national monuments.

The Bureau of Land Management administers the largest part of Utah. Approximately 25,000,000 acres are under its jurisdiction. Included are some of the state's most outstanding scenic, geologic, archeologic, and historic sites. At the present the bureau does not have an established recreation program. The majority of the recreation attractions are known only locally with little tourist information or services available.

Bureau of Reclamation projects such as Glen Canyon and Flaming Gorge are creating major national recreation areas where heretofore there was little interest. These reclamation projects will undoubtedly be managed by the National Park Service, the U. S. Forest Service, or the Utah State Park and Recreation Commission after their completion.

One unique attraction in this dry desert basin is the U. S. Fish and Wildlife Bear River Migratory Bird Refuge near Brigham City. This is the largest bird refuge of its kind in the world and draws numerous visitors annually to tour the dikes and marsh areas to observe the shore bird life.

Utah State Park and Recreation Commission is a relatively young organization. However, today there are within this system some fourteen units.

These are areas at Bear Lake, Hyrum Reservoir, Piute Reservoir, Palisade Reservoir, Stagecoach Inn, Camp Floyd, Brigham Young home, Jacob Hamblin home, Vernal Field House of Natural History, Pioneer State Park, Green River, Dixie State Park, Deadhorse Point, and Newspaper Rock. Several of these are of historical interest and originated with the early pioneer development. Consequently, they are located directly along present-day tourist routes. These provide exceptionally convenient and interesting tourist stops. The state is also developing resource oriented parks similar to those of the National Park Service, and these are located great distances from normal tourist travel routes. The state through its State Land Board retains title to state school sections and other land parcels distributed through the state. Many of these lands are inherently potential recreation sites, but to date little development has occurred.

#### Recreational visits

Just how popular recreation and tourism are in the state can be illustrated by the recreation visit statistics. The annual visits to the two national parks and eight national monuments within the state are shown for selected years in table 1. The 1.5 million visits in 1961 represent a 440 percent increase from the 299,000 visits in 1940.

Table 1 Utah national parks and monuments, annual visits

National parks	1940	1950	1961
1,000 visits			
Zion .....	165	323	605
Bryce Canyon .....	103	213	265
National monuments			
Dinosaur .....	2	15	167
Capital Reef .....	1	2	137
Timpanogos Cave .....	12	65	118
Cedar Breaks .....	16	37	117
Arches .....	*	*	91
Natural Bridges .....	*	*	8
Hovenweep .....	*	*	3
Rainbow Bridge .....	*	*	2
TOTALS .....	299	655	1,513

\*Less than one thousand visitors.

This indicates the trend in recreational travel in Utah.

Even more significant are the total recreational visits of all types to the seven national forests in the state. The total visits are far greater than those for the national parks, and even the percentage increase over the past fifteen year period exceeds that of the parks (table 2). In 1945 there were

Table 2 Utah national forests — recreational visits

Forest	1945	1950	1955	1961
1,000 visits				
Ashley .....	52	124	108	222
Cache .....	627	878	1,061	1,295
Dixie .....	36	94	94	502
Fishlake .....	80	178	263	372
Manti-LaSal .....	30	64	142	186
Uinta .....	85	197	618	1,720
Wasatch .....	406	1,436	1,627	2,841
TOTALS .....	1,317	2,973	3,916	7,142

1.3 million recreational visits but by 1961 this total exceeded 7 million. Although some of this increase might possibly be attributed to improved methods of counting of visitors, still, there has been at least a five-fold increase in recreational use of Utah's national forests over the past sixteen years.

There are no accurate statistics of use of the state parks in Utah, but estimates place this at over one-half million visits in 1961 and predictions are that this use will increase by 25 percent in 1962.

The Utah State Department of Highways in cooperation with the U. S. Bureau of Public Roads conducted a study on tourism within the state in 1959. Their publication, *Utah tourist study, 1960*, points out some interesting facts. First of all, Utah has about 34,000 miles of roads and streets, which is a prime factor contributing to tourism. Almost two-thirds of the total are country roads and city systems, but over 10,000 miles are federal highways and about 5,000 miles state highways.

Passenger cars traveled about 3.6 billion miles over these roads in 1959,

and of this total, the out-of-state motoring tourist traveled 682 million miles, about 25 percent of the total travel.

Some 1.5 million out-of-state cars toured the state representing a total out-of-state tourist count of some four million people. The average tourist traveled 455 miles in Utah.

#### *Utah tourist characteristics*

A 1957 pilot study by the University of Utah Bureau of Economic and Business Research gave the first basic data concerning characteristics of the tourist who visits Utah. In this study interviews were taken at sixteen locations throughout the state. A 1962 pilot study by Utah State University endeavored to obtain additional information about the characteristics of visitors using the roadside rest stops in Logan Canyon. The results of both these pilot studies indicate characteristics of the visitor which we must know if we are to plan effectively. There are three general characteristics which have a bearing on this analysis. These are (1) his desires for comfort, (2) his desire to see and learn new things, and (3) his altered spending habits.

The University of Utah's study and the study of the Utah State Department of Highways indicate 70 percent of these visitors stay in motels or hotels. To many of these persons the physical discomfort of camping out prompts rather large expenditures for indoor accommodations. Others, eager for the stimulation of a change of environment, amass camping equipment of all descriptions in an effort to ameliorate the unpleasantness of the camping experience. The report, *Outdoor recreation for America*, states \$1.5 billion was spent for items related to outdoor recreation in 1959. The Utah State University's study repeatedly recorded the sentiments of visitors who spent two nights in a public forest camp and followed by the third evening in a motel to shower and clean up. Comfortable trailers and campers are now

making up about 10 percent of the public camp use. There is no doubt that the urbanized citizen is conditioned to comfort.

The visitor characteristics studies also give evidence that the tourist is looking for different experiences traveling than he does at other times. Even though a high percentage of Americans enjoy and demand activities such as hunting and fishing, boating, water skiing, and winter sports, when they are on vacation these same people express a preference to do other more passive things. National statistics indicate sight-seeing is participated in by 61 percent of the population. The University of Utah's report indicates 98.6 percent of the Utah tourists enjoyed sight-seeing. In Logan Canyon each roadside rest stop continually attracted between 11 and 14 percent of the total cars traveling the highway each day. There is no doubt that the visitor is eager to see new sights and to learn about places he visits. For this reason interpretive information concerning human and natural history contributes greatly to the satisfactions gained from touring.

The intellectual level of the vacationer is somewhat higher than frequently depicted. Half the persons who stopped at the Logan Canyon roadside sites indicated they were college graduates. These individuals have a high level of natural curiosity and are anxious to learn as much about an area as possible. The University of Utah study indicates 73.3 percent of the tourists enjoy visiting historical places and an equal percentage enjoy taking pictures. In Logan Canyon virtually every one pulling into the roadside stops reads the interpretive signs. More than 90 percent of the cars contacted at the Bear Lake Overlook were in possession of camera equipment. In contrast, the University of Utah report indicates 41 percent of the tourists disclosed they were not even interested in hunting or fishing. Only 12 percent said they enjoyed these two sports. The

lack of popularity of other vigorous activities is even more striking. There is no doubt but that the tourist prefers to see, listen, learn, and photograph.

There is also good evidence that the tourist has an altered sense of money value in contrast to that which governs his actions at home. Spending money is an essential delight of the vacation experience. The 1960 Utah tourist study indicates tourist expenditures of about \$14 per day. The University of Utah report indicates daily expenditures of \$23.18 per day per group. Two-thirds of this was for food and lodging. When on the road most vacationists choose the best. This is an essential part of the vacation experience.

#### *Opportunities for recreation development*

Opportunities for increasing the economic benefits from tourism are dependent upon three criteria. They are:

1. Increased number of tourists.
2. Increased length of stay of the tourist party.
3. Distribution of the tourist load more uniformly throughout the recreation areas of the state.

Projections indicate tourist numbers will increase substantially in the future. Federal and state agencies are basing their long-range recreation development plans upon these projections. Utah can expect that all management agencies within the state will have a stepped-up recreation program. There are current proposals for increasing the number of national parks and monuments. The Forest Service is moving ahead with new recreation site developments throughout all the seven national forests. The State Park and Recreation Commission has listed 106 potential park sites, which are at present located on Bureau of Land Management, state, and private land. The Bureau of Land Management is currently conducting preliminary surveys of overlook sites in the canyon lands areas.

Most of these planned site locations are removed from the major tourist highways.

There is, therefore, a real opportunity for recreational development by private enterprise along Utah's major highways. These highways and the entrances and exits of out-of-state tourists are shown in table 3. For example, U. S. Highway 91 carries a load of 279,000 tourists entering and 250,000 exiting at the Arizona line. At its northern terminal at the Idaho line, 150,000 enter and 135,000 exit. This makes it the most traveled route in Utah. However, an inventory of overnight campgrounds indicates only 18 within 10 miles of this highway. The average daily flow of out-of-state traffic is 1346 vehicles per day. Even if only 12 percent of the tourists desire to camp, the 18 campgrounds will not provide adequate space. Highway 40, which is the third most traveled route in the state, has only one camp adjacent to the highway between Rabbit Ears Pass, Colorado, and the California-Nevada state line in the Sierra-Nevada Mountains. There is no doubt that present campground development along the major tourist routes is insufficient for convenience of the public.

This situation presents the best opportunity for recreational development by private individuals or community groups. A current study by Utah State University indicates that only Iron and Kane Counties operate campgrounds suitable for overnight tourist use. Fifteen small Utah communities have either camp or picnic facilities avail-

**Table 3 Traffic flow of out-of-state passenger cars — 1959**

Highway	Entrance	Exit
US 40 — Nevada line	196,000	196,000
US 91 — Idaho line	152,000	135,000
US 30 S — Wyoming line	201,000	231,000
US 40 — Colorado line	137,000	137,000
US 89 — Arizona line	73,000	88,000
US 91 — Arizona line	279,000	250,000
US 89 — Idaho line	80,000	56,000
US 6 — Nevada line	43,000	32,000
US 30 S — Idaho line	105,000	114,000
US 191 — Idaho line	75,000	99,000
US 6 — Colorado line	123,000	108,000
US 160 — Colorado line	36,000	54,000
<b>TOTAL</b>	<b>1,500,000</b>	<b>1,500,000</b>

able for use by tourists. The USDA publication, *Forest recreation for profit*, indicates campground development offers the widest margin of opportunity for private investment. If the rural communities of Utah are to realize economic benefits from tourism, they must provide, in addition to a camp site itself, special services beyond those normally provided in public agency camp areas. There is ample justification for this recommendation based upon the tourist characteristic of the desire for comfort and convenience. If an extensive network of well-serviced campgrounds existed along Utah's major highways, a large number of the out-of-state tourists would be prone to stay additional nights in the state. The Utah Tourist and Publicity Council indicates the average tourist spends 2.2 days and 2.3 nights in Utah for a value to the state's economy of \$90 million dollars annually. If the tourist average stay was increased an additional night, there would be \$30 mil-

lion dollars additional expenditure annually.

Because the larger percentage of travelers do not desire to camp out, there exists now an opportunity for guest ranches, lodges, and resort camps. At the present time there are only 31 such developments in the state. Utah's superlative scenic offerings are ideally suited to the guest ranch or resort opportunity. There are only three dude ranches in Utah in contrast to numerous such ranches in all the neighboring states. The Utah State Department of Fish and Game publication, *Utah hunting, fishing, exploring, and sightseeing guide*, lists 54 such guide services available.

The recreational endeavors of rural Utah, however, must go substantially beyond the efforts of the private individual. To attract and hold the tourist trade effectively the entire community must be tourist oriented. Every community in Utah possesses unique and interesting features of history, archeology, geology, and vegetation and animal life which would attract the curiosity of the out-of-stater. It is the responsibility of local community groups working cooperatively with the Utah Tourist and Publicity Council to develop these points of tourist interest. It is difficult for any private operator to control and make a profit on such features. However, these items are the substance of an attractive tourist locality. The characteristics of the touring public are such that the unusual and rare and interesting features increase tourist satisfactions substantially.

## RURAL UTAH

(Continued from page 93)

of the labor force was not high but was higher in the rural than urban areas. It was higher for females than for males in all four areas. Among the 14 rural counties, male unemployment ranged from 1.3 to 14.9 percent while for females it was from none to 18.5 percent. High unemployment of males

was not always associated with high unemployment of females within a county.

It is to be expected that in the less densely populated areas a larger percentage of the labor force would be engaged in agriculture than in the densely populated areas. The percentage declined consistently from 26.4 in the rural counties to 2.6 in the urban

counties (fig. 2). In the urban counties the percentage of total workers employed in manufacturing, trade, and services was relatively high and relatively low in mining and agriculture. In the rural areas after agriculture, employment was highest in construction. It was relatively high also in mining and transportation, communications, and utilities. Although lowest of the

four areas a surprisingly large portion of the employees were engaged in services, trade, and manufacturing. Perhaps most surprising of all is that only 26 of 100 workers in the rural area are dependent upon agriculture for their livelihood.

The total employed workers increased by 14 percent between 1940 and 1960 in the rural counties and 133 percent in the urban counties. However, in agriculture, forestry, and fisheries there was a decrease of 42 percent in the 14 rural counties and 32 percent in the 4 urban counties. In all other occupational groups (fig. 2) there were increases in both areas. All occupations did not, however, increase at the same rate. The rates of increase for each group, with the rural counties given first are: mining 25-31; construction 135-283; manufacturing 103-198; transportation 53-57; trade 84-111; finance 200-173; services 49-175; and public administration 133-366. The changes in number of workers in the several occupations and in total in the two intermediate groups of counties make a consistent pattern between the two extremes.

#### Income

For the year 1959 the median family income in Utah was \$5,328 compared with \$2,862 in 1949. These amounts include the income to all members of a family. Not all of the increase of \$2,466 between 1949 and 1959 was real income. About 20 percent was inflation or price increases only. There was also a large variation in the level of incomes as well as the amount of gains. In comparing these data it should be remembered that farm products consumed on the farm where produced and farm house rental are not included as income.

In 1959 the median incomes in the 4 areas ranged from \$4,689 in the rural area, to \$6,166 in the urban area. The other areas ranged in between in line with the degree of urbanization. The difference of \$1,477 between the low-

Table 2. Selected characteristics of the labor force in counties grouped by degree of urbanization — Utah, 1960

Item	Rural	Semi-rural	Semi-urban	Urban
<b>Number in labor force 1960:</b>				
Males.....	16,330.0	19,901.0	21,131.0	167,135.0
Females.....	5,294.0	6,808.0	7,728.0	74,273.0
Total.....	21,624.0	26,709.0	28,859.0	241,408.0
<b>Percent of total labor force.....</b>				
Male.....	75.5	74.5	73.2	69.2
Female.....	24.5	25.5	26.8	30.8
<b>Percent of population over 14 in labor force:</b>				
Males.....	77.5	79.1	78.4	80.2
Females.....	25.4	27.5	29.8	34.0
<b>Percent of women in the labor force with own children under 6 years of age.....</b>				
	19.0	16.8	18.9	17.7
<b>Number unemployed:</b>				
Males.....	795.0	1099.0	672.0	6104.0
Females.....	417.0	442.0	447.0	3075.0
<b>Percent unemployed:</b>				
Males.....	4.9	5.5	3.2	3.7
Females.....	7.9	6.5	5.8	4.1

est and highest incomes may have been offset in part by proportionately more food and shelter provided in the more rural area. It should be remembered, however, that in the rural counties only 19 percent of the population, (and by inference about the same percentage of the families) are farm people or families. Rural families also have some expenses that are larger than urban families.

In addition to median incomes the census also gives the number of families with incomes falling within specified ranges (fig. 3). In general the data show that the percent of families with incomes of less than \$2,000 is highest in the rural areas and the percents with highest incomes are greatest in the urban counties. All areas, however, have some families with incomes below the amount necessary for satisfactory family living.

On the basis of current dollar incomes there was a decrease from 40.6 to 17.1 percent of the rural families with incomes of less than \$2,000, but an even greater increase of 9.6 to 43.4 with incomes of \$5,000 or more in the rural areas. Similar trends took place in each of the other areas. Nearly 40 percent of all families in the 4 urban

counties had incomes of \$7,000 or more in 1959.

The available data do not permit a real comparison of the incomes of farm and nonfarm families within or among the different areas. It is possible, however, from census data to compare gross sales of farm produce.

In 1960 the total cash receipts from the sale of farm products averaged \$8,741 per farm. The range was from a high of \$9,971 in the semi-rural counties to a low of \$8,072 in the urban counties. The rural counties were second highest with \$8,738. The four areas occupied the same positions in 1949 though the level was considerably lower, ranging from \$4,396 to \$6,322 per farm. The percentage increase between 1949 and 1959 was largest, 84 percent, in the urban area and lowest, 49 percent, in the rural counties. A second significant change during the period was that proportionately more of the receipts were from the sale of livestock and livestock products and less from the sale of crops. In 1959, the percentage from livestock was 86 in the rural area and 72 percent in the urban counties, while in 1949 it was 79 and 68 percent, respectively.

The above statistics include all

farms, many of which are not the only, or even the major source of income of the farm family. These figures have limited usefulness as they are gross receipts with no deductions for expenses of operations. Complete expenses are not available and no attempt is made to calculate a net income. The limitations of even the gross figures are evident, however, when we consider that in 1959, 57 percent of all farm families in the urban counties had incomes from nonfarm sources that exceeded the receipts from the sale of farm products. In the rural counties 41 percent and in the other areas 45 percent of the farm families had incomes from other sources exceeding farm sales. In all areas the trend is toward less dependence of farm families on their farms for their income.

If the part-time, part-retirement, and institutional farms are omitted, and these amount to from 48 percent in the urban area to 33 percent in the rural area, there remains a significant number of farms with gross incomes too small to provide a reasonable return to farm labor. If it is assumed that gross sales of \$10,000 or more are needed to provide a net income of a satisfactory amount, then 65 percent of the farm families in the rural area had inadequate incomes. At the other extreme 6 percent had gross sales in excess of \$40,000, 9 percent from \$20,000-\$39,999, and 20 percent between \$10,000 and \$19,999. Net returns are not always proportional to gross returns but with high gross returns there is a better chance for the

net to be adequate to meet family needs.

In the urban area 57 percent of the farms had gross sales of less than \$10,000 and 18 percent had more than \$20,000. The other areas are midway between the rural and urban areas. It appears probable that the net incomes of farm families in the urban areas are somewhat higher than in the rural and the semi-rural and semi-urban areas. However, even in the urban counties there are nearly 30 percent of the farms with gross sales of less than \$5,000. In addition in these cases the farm operator is under 65 years of age, worked off his farm less than 100 days, and family income from nonfarm sources was less than farm sales. The portion in this class in all the other areas was still larger.

This information on incomes of farm families may lead to the conclusion that farm people are in economic distress. There is a possibility, however, that the income data for these families is understated. There are indications that these families are acquiring many modern conveniences, along with nonfarm families (fig. 4). This would not likely be the case if they were not able to pay for them. The data are only indicative of trends but these are supplemented in many areas by direct observation.

Although up-to-date statistics are not available it is known that electrical power is now available to nearly all rural families and that where it is available electrical equipment accompanies it in nearly every home. Between 1950

and 1960 a substantial increase in the percentage of farms having telephones took place in nearly all counties. Nearly every farm family now has an automobile. Most of those who do not have a car will have a truck. Most families have both, and those that have automobiles average more than one and a quarter car per family. Between 1940 and 1954 the index of level of living for farm families in Utah increased from 90 to 154. It is higher than the national average and equal to the average of the Mountain States.

In addition to equipment for home and family use in most counties many new farm homes have been built and many others have been remodeled and enlarged. Also, many farm improvements have been made. Many public or rural community improvements have also been made in the areas of parks and recreation, water supplies, and church edifices. These developments all indicate a healthy economic condition. Farm indebtedness has increased somewhat but is low in relation to assets.

Another trend in rural areas that is usually considered an indicator of desirable conditions is the decrease in the proportion of farms operated by tenants. In the state there has been a gradual decline from 14.9 percent in 1935 to 4.5 percent in 1959. This decrease has been compensated for by an increase in part-owner farms. This means that the farm operator owns part of the land he operates and leases the remainder. There are no significant differences among the four areas in the percent of farms operated by tenants.

## PUBLIC SERVICES

*(Continued from page 97)*

*Combined cost of all public services high in rural counties*

Although the cost per person of services provided by city governments was lowest in small communities, when county governments, school districts, and other special districts (soil conservation, drainage, mosquito abatement,

water conservancy, and other) were added, the combined cost of all local government services was highest in the small, rural counties of the state. Total expenditures by the 16 counties with populations of less than 10,000 averaged \$191.45 per person compared with \$153.56 for the 4 highly urbanized counties with populations of 50,000 or more (table 4).

Per capita expenditures were not highest in rural counties for all services, only education, streets, and highways, and general administration. These were services provided by all counties. Per capita expenditures were lowest in rural counties for health, police protection, fire protection, sewage disposal, other sanitation, parks and recreation, and water. Some of

these services were not provided in some rural counties, and in some that did provide them they were of poorer quality than in the larger, more urban counties.

Most expenditures were for current operations and did not vary greatly from year to year. Current expenditures in 1957 were highest in rural areas and averaged \$136.94 per person in the 16 small counties, \$117.10 in the 9 medium-size counties, and \$104.23 in the 4 large ones. Capital outlay varies more from year to year depending on the equipment bought and the status of major building programs. Expenditures for capital outlay in 1957 averaged \$51.45, \$35.47, and \$45.84 per person in the three groups of counties, respectively. The remainder of total expenditures was primarily for interest on debt and was small for each of the three groups.

The data presented thus far show that combined expenditures by all local governments are highest in the smaller, rural counties where local government services are not only fewer in quantity, but are also probably lower in quality.

The services discussed thus far include only those performed by local governments which account for about 60 percent of total state and local gov-

ernment expenditures in Utah. If services performed by the state were added to those provided by local governments the cost of public services in rural areas would become even more expensive relatively. For example, public welfare expenditures in 1957 by the state, which carries the major responsibility for this service, averaged \$28 per person in the 18 small, highly rural counties, \$20 in the 9 medium-size counties, and \$16 in the 4 large, highly urban ones. It is reasonable to suppose that per capita costs are also higher in rural areas for state highways, law enforcement, health, and business regulation.

#### *High costs in rural areas subsidized by the state*

Rural governments finance the services they provide through property and other taxes, utility revenues, miscellaneous charges, and intergovernmental revenues from state and federal sources. The combined total revenue in 1957 of all local governments in counties with populations of less than 10,000 averaged \$188.50 per person; total revenues averaged \$152.65 and \$139.48 for the medium- and large-size counties, respectively (table 5). Revenues from local sources only were about the same per person in each of the three county groups, and averaged about

\$106. Intergovernmental revenues, mainly from the state, made up the rest; they averaged \$82.38 per person for the counties with populations of less than 10,000, \$46.18 for the counties with populations of 10,000-49,999, and \$31.86 for the counties with populations of 50,000 or more.

Local property taxes and utility charges were the most important sources of revenue for city governments; they were highest in the larger cities. Intergovernmental revenue was small and about the same per person for each group of cities.

For county governments, local property taxes were a major source of revenue and were the largest per person in the rural counties. Intergovernmental revenues varied considerably and were the largest per person and a major source of funds among the rural counties. Since the time the census was taken sales taxes have also become an important source of income for some city and county governments.

For school districts, property taxes were an important source of revenue and were fairly near the same per person for each group of counties. Intergovernmental revenue was also important and ranged from \$64 per person in the small, rural counties to \$28 in the large, urban ones.

## REDUCING GOVERNMENT COSTS

(Continued from page 101)

community for all public functions it can handle; utilize cooperative intergovernmental agreements where appropriate to attain economical performance and popular approval; reserve national action for residual participation where state and local governments are not fully adequate, and for the continuing responsibilities that only the national government can undertake.

If the limited size of a unit of government prevents it from adequately performing a function, consolidation is one solution.

#### *Why not adopt the New England town form?*

Some students of government have suggested that Utah would do well to adopt the New England town form of government rather than waste the time and energy of considering the five reforms mentioned above. It should abolish its 25 rural counties, 187 rural municipalities, (but maintain its urban cities, Logan and Brigham City) and 109 rural special districts and es-

tablish 46 towns based upon the boundary of the rural stakes of the Church of Jesus Christ of Latter-day Saints. Since the establishment of counties as the basic unit of rural government in Utah was somewhat of an historical accident anyway, the basic government might well be the New England town. In fact most Mormon pioneer communities which were built along the pattern prescribed for the "City of Zion," resembled Bryce's description of the New England town more than they did the cavalier southern county.

Each was a religious as well as a civil body politic, gathered round the

church as its centre; and the equality which prevailed in the congregation prevailed also in civil affairs, the whole community meeting under a president or moderator to discuss affairs of common interest.

With the establishment of 46 towns to replace other rural governments Utahns would abolish approximately 220 county officials, 660 municipal officials, and 400 special district officials. In their stead would be elected 46 town managers with the authority to hire qualified personnel to execute the services determined by the people in mass meeting once a year. As a safeguard the town managers would be subject to popular recall. If 10 percent of the registered voters signed a petition a special meeting could be held to review the qualifications of the manager and replace him if a majority desired.

#### *Prospects for the future*

In 1917 the county was dubbed "the dark continent of American politics" by H. S. Gilbertson because so little popular surveillance was exercised over it. Today, forty-five years later, per-

haps the only reason the county still does not claim credit for the epithet is that a darker governmental jurisdiction—the special district—has crept upon the political scene. Governmental reforms have visited national, state, and urban local government in recent years as evidenced by the Hoover Commissions I and II, the state economy and efficiency committees, and the urban reform movements.

With the increased urban population and the decline in the number of people living in rural areas much of the attention to reform has been paid to only one phase of the resulting governmental problems. The exploding metropolis and the problems of the central city and the burgeoning suburbs have received exhaustive investigation, while the rural areas have all but been ignored. Since the Supreme Court ruled in *Baker v. Carr* on March 26, 1962, that federal courts could hear cases involving alleged malapportionment under jurisdiction of the "equal protection of the laws" clause of the 14th Amendment of the U. S. Constitution, many rural dwellers have feared

losing their political self-determination. It is a non sequitur that a reapportionment beneficial to urban areas will necessarily be harmful to rural areas. It appears to some observers that reapportionment will reshape state legislative policy to the extent that increased governmental services and better salaries for governmental employees will be adopted for urban and rural governments, while other speculations about the outcome of reapportionment and rural government include the shift toward income tax and away from property tax. It appears that reapportionment will benefit both urban and rural dwellers, except those rural legislators who are districted out of their seats. In any event this is a time for analysis of what exists in the manner of rural local government. It is time to turn the spotlight on Utah's dimly lit governmental jurisdictions and see what proposals for reform are worthy of consideration in case reform is able to overcome the traditional habit, and vested interests which have so long saddled us with an almost unworkable system of rural local government.

## RURAL AREA DEVELOPMENT

(Continued from page 105)

Community projects carried out by two or more communities in rural areas of Utah in the past two or three years:

Clean up and plantings in community parks and cemetery  
Clothing factory  
Community building  
Community self-survey and attitude studies  
Cooperative beef feeding program  
Culinary water development  
Curb and gutter  
Enlarged credit facilities  
Expanded community milking facility  
Firefighting equipment  
General adult education and trade training courses  
Golf course

Hospital  
Irrigation reservoirs  
Rest home  
Road signs, rest stops, and off-highway parks  
Sewage treatment plant  
Street lighting  
Survey of labor skill and manpower availability  
Swimming pool  
Telephone service  
Tourist service training schools  
Youth center  
Zoning

#### *The challenge*

Increasingly, the agriculturally-based communities of Utah are declining in population, and this decline is generally paralleled by a corresponding decline in the economic, educational, and

socio-cultural opportunities. There are, according to the 1960 census, 215 incorporated cities and towns or unincorporated places of 1,000 population or more in Utah (table 1). Of these 215 cities and towns, 176 (or 82%) have

Table 1. Size of Utah communities, 1960 census

Population	Number	Percent
1,000 or less.....	133	62
1,000 to 2,500.....	43	20
2,500 to 10,000.....	30	14
Over 10,000.....	9	4
Total .....	215	100

less than 2,500 population. In fact, 62 percent of them had less than 1,000 people in 1960. Only 18 percent of Utah cities are over 2,500 population. Generally, it is the 176 rural communities in Utah that face the more difficult development tasks.

Each year most of the young people who are ready for the labor market leave these rural communities along with many families who must leave to find employment. It is significant to note that all of the communities in the

(Continued on page 140)

## TRENDS IN UTAH AGRICULTURE

(Continued from page 115)

produces about two and a half times as much per acre as in 1935-39 (fig. 7). Spring wheat, oats, and alfalfa hay have increased about 20 percent, while winter wheat and barley have barely maintained the base level. Since 1950, winter wheat yields have been below the base in most years. These yields and also barley yields reflect moisture conditions, and the extension of wheat on to less favorable land areas and an increase in the acres of barley grown on dry lands.

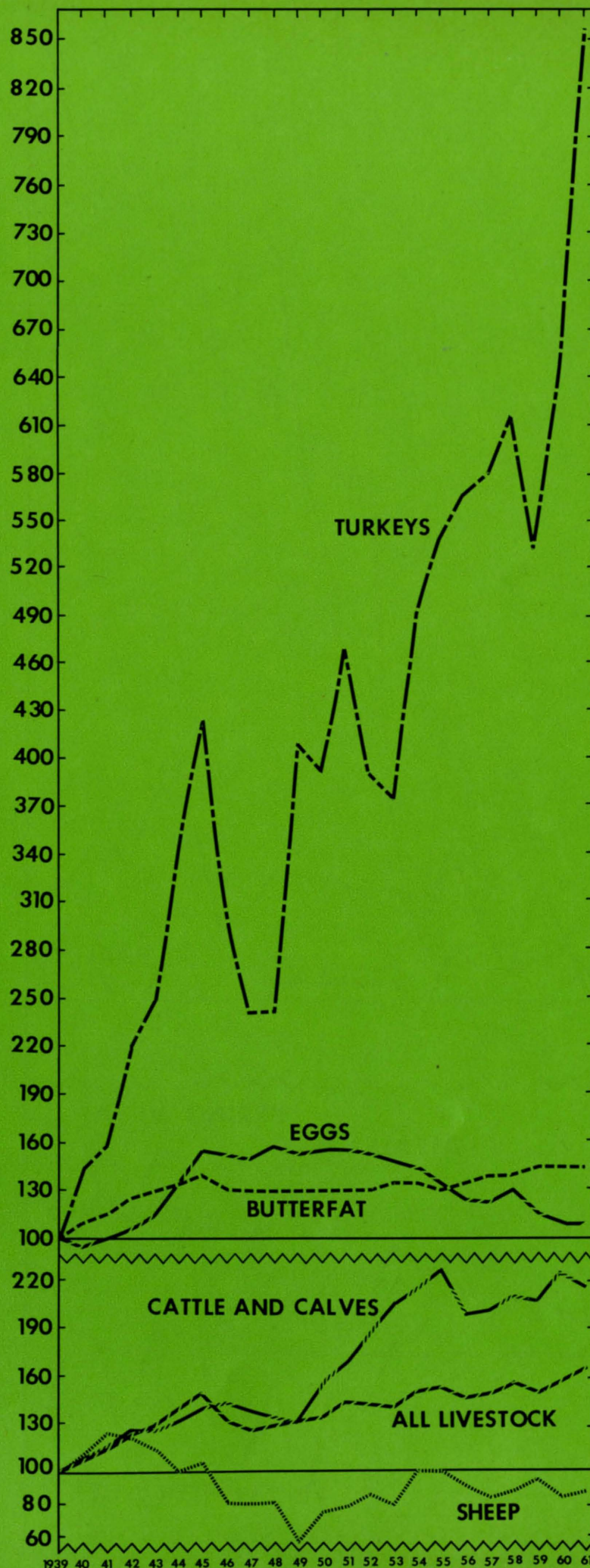
Relatively large increases have taken place in yields of potatoes, alfalfa seed, snap beans, and tomatoes (fig. 8). Canning pea yields have been below the base for a number of years and the increase in yield of sugar beets has been modest and has lacked consistency from year to year.

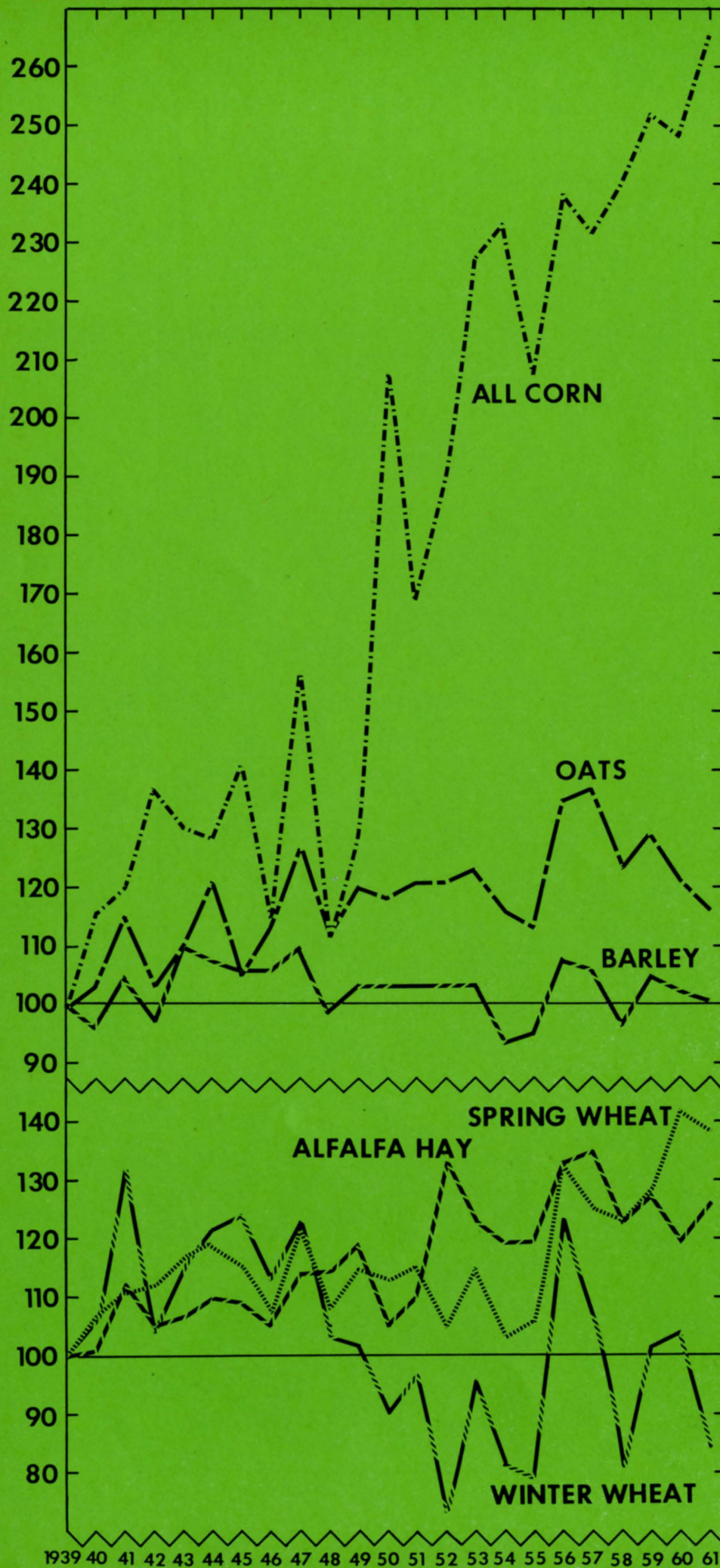
The yields of crops discussed above included those from both irrigated and nonirrigated land. Separate yield data for these two types of production are not available for each year but are available for a few major crops for the census years 1939, 1949, and 1959. For most crops there is considerable difference in yields on irrigated and dryland and also in the relative change from 1939 to 1959. For example in 1959 winter wheat yields on irrigated land were 38.1 bushels and 15.8 bushels on dry land. The 1958 yield for irrigated land was 58 percent higher than the 1939 yield, while for nonirrigated land yields increased only 1 percent.

A glance at fig. 9 shows that the increases in yields of livestock have varied less and changes have been more gradual than those for crops. There have been variations in the rate of increase, however, with milk per cow increasing by 51 percent while wool per fleece and lambs per 100 ewes increased only 15 percent. Eggs

Fig. 6. Indexes of production of selected types of livestock and products, Utah, 1940-1961  
1935-39 = 100

FOR DECEMBER 1962





per hen increased 45 percent and the output per head of all cattle and calves rose 32 percent.

The widespread adoption of improved production practices and a more nearly adequate water supply for irrigation have made possible the above mentioned increases. Production practices have incorporated new findings in the sciences of animal and plant nutrition; soil, water and plant relations; weed, insect, and disease control; and plant and animal breeding. Modern power equipment has permitted better timing of farm operations.

#### *Farm sales, expenses, and net income*

Total gross farm income consists of receipts from farm products sold, government payments, and the farm value of products consumed by the farm family. The total farm income averaged \$49,408,400 for the 1935-39 years, and reached a high of \$201,029,000 in 1951 (fig. 10). It has since fluctuated downward to approximately \$170,000,000 in 1960 and 1961.

Of the total income in 1935-39, 61.5 percent was cash receipts from livestock, 26.5 percent from crop sales, 4.0 percent government payments, and 8.0 percent products used by farm families. In 1960 livestock sales were 73.6 percent, crop sales 20.1 percent, government payments 3.8 percent, and only 2.5 percent products used by farm families. The decline from 8.0 to 2.5 percent of the total income represented by farm-consumed products expresses a significant change in patterns of farm family living.

Much of the increase in farm income has resulted from a rise in the level of prices, or the decrease in the purchasing power of the dollar. However, after adjusting for the increase in general prices by the use of an index of wholesale prices of all commodities, there remains an increase of slightly more than 50 percent from 1935-39 to 1960.

Total farm expense data are available only since 1949. Without such

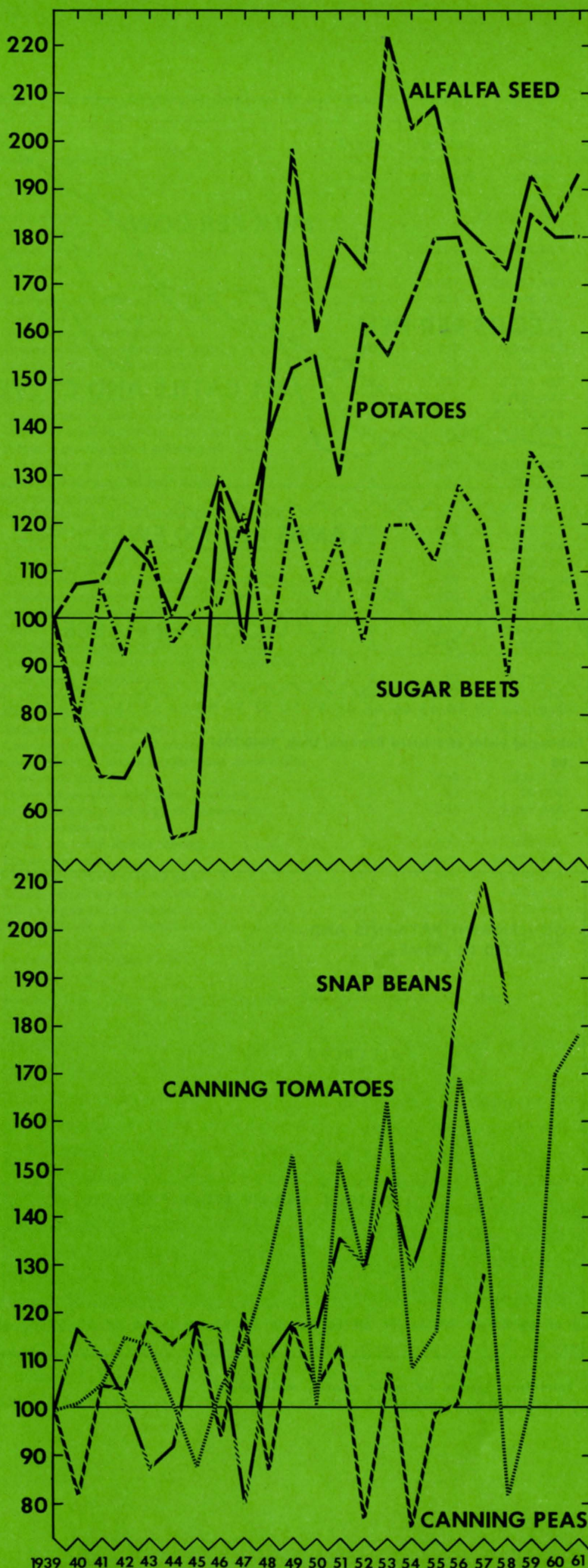
**Fig. 7. Indexes of yields per acre of selected farm crops in Utah for 1940-1962**  
1935-39 = 100

data the aggregate net income to farming cannot be calculated. In 1949, total farm income, including the rental value of the farm dwelling averaged \$6,268 per farm. As a result of the increase in total farm income and a decrease of 6,600 farms, the average farm income was \$9,267 in 1960. This was an increase of 48 percent. Farm production expenses, however, increased from \$4,027 to \$6,948 per farm or 72 percent. The above expenses do not include net decreases in inventories. If these are added, the average net farm income is reduced to \$2,251 for 1960 compared with \$2,383 in 1949. The net for 1961 was even less, \$1,891. These net figures represent the return to the farm operator for his labor and management and any unpaid labor of his family, and for the owned capital used in the farm business. Truly farm operators are not being rewarded for the improvement they have made in production. Without these improvements, however, many would not have been able to remain in business, since many of the changes have reduced costs per unit of product.

Among the causes of low net income to farmers is that of disparity in the prices paid and received. With supply outrunning demands almost continuously since 1920, prices of farm products have been depressed, except during World War II. During this period prices were strengthened more by the threat of future shortages than by normal supply and demand relations. At the beginning of World War II prices received (with bolstering by government programs) were approximately 20 percent below the level of those paid by farmers for the things they must buy, when 1910-14 is used as the base for comparison. After World War II, the price ratio again declined to about 80 percent of 1910-14. (Also with prices received being bolstered

Fig. 8. Indexes of yields per acre of selected farm crops in Utah for 1940-61  
1935-39 = 100

FOR DECEMBER 1962



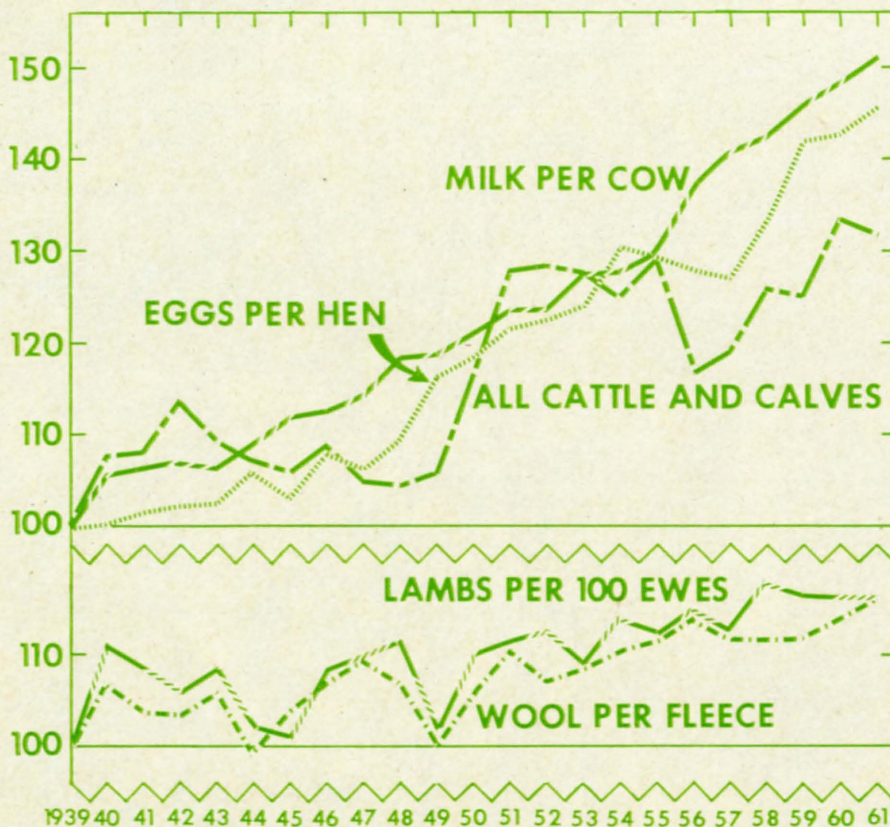


Fig. 9. Indexes of yields of selected livestock, Utah, 1940-1961  
1935 = 100

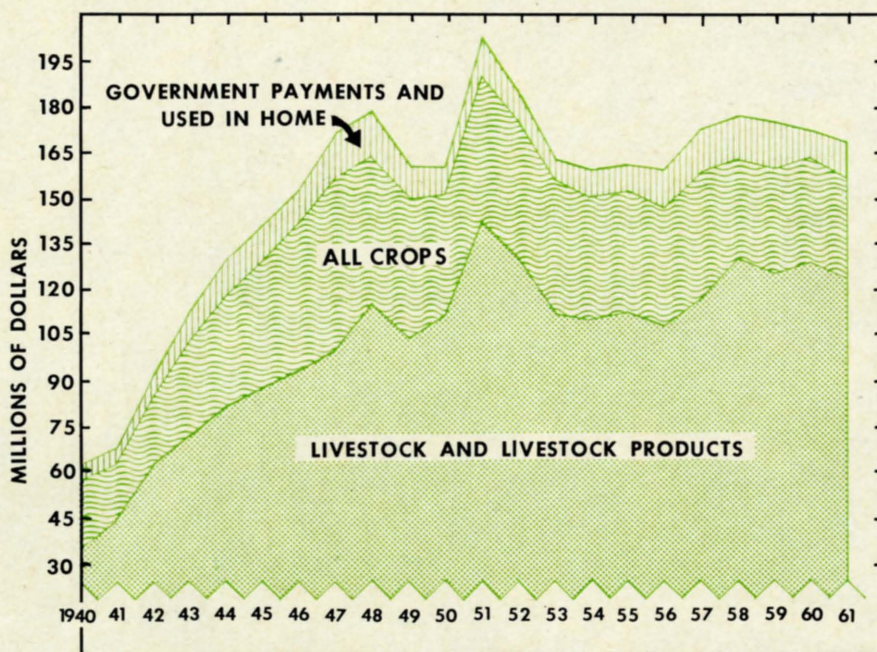


Fig. 10. Total farm income by major sources, exclusive of inventory changes, Utah, 1940-1961

by government programs.) This has resulted from sale prices at the farm declining while prices paid have gradually increased, and are now at an all-time high. No doubt the adoption of new techniques has been encouraged by pressure to reduce costs per unit of produce. In many cases it has done so, and has also increased production and increased fixed costs.

Any analysis of net income to agriculture must also recognize that average incomes per farm have serious limitations. There is wide variation among farms in size, incomes, expenses, and net incomes. There are also wide differences in the extent of dependence on farm income. In 1959, 36 percent of all farm operators had essentially full time employment away from their farms and an additional 25 percent did some work for pay (fig. 2). Also 40 percent of all farm families received income from non-farm sources exceeding in amount the receipts from the sale of farm products. Specific data, however, are not available to show the total amount in income to farm families from nonfarm sources in Utah.

A comparison of statistics for Utah and United States shows 61 and 44 percent of farm operators in Utah and the United States, respectively, worked off-farm for pay in 1959. In Utah 45.6 percent of all operators worked off-farm more than 100 days but only 30.1 percent in the nation. Of Utah's farm families 39.6 percent had off-farm income exceeding the value of farm produce sold compared with 36.2 for the United States. The average net income per farm for the nation, however, was \$2,775 compared with \$2,333 in Utah. National data show also that the net farm income amounted to 62.3, and off farm income 37.7 percent of the total income. Thus the total income was \$4,457 per farm. If the same ratio were applied to Utah the average total farm income would be \$3,744 ( $\$2,333 \div 62.3 \times 100$ ). This is still a small return con-

sidering the amount of capital invested and the labor involved on the average farm.

Recognition should also be given to increases in land values that are not included in net farm incomes. Over the period 1940 to the present, farm real estate values have risen from an index of 49 to 166, (1947-49 = 100) or 239 percent. The average increase in the 8 mountain states was 315 percent and for the nation 273 percent. These "unearned" incomes cannot of course be generally used for meeting ordinary expenses unless the real estate is sold. Also all farmers have not shared equally in the increase. Farmers who only recently entered farming may have had no increase if they purchased land. To those who have owned real estate over a number of years it is a real income in the long-run, but its use is limited as long as ownership is maintained.

## MINERAL RESOURCES

(Continued from page 123)

ating site. Isolated autonomous mining communities will not be built. Treatment plants will be constructed at the mineral deposit or in an urban center near the source of mineral supply if economic factors are more favorable.

### *The envisioned Green River development*

Dr. J. R. Mahoney defined and described the mineral economics that were favorable for the building of a large blast furnace facility in Utah Valley, and paved the way for the eventual building of the Geneva Steel mill there. He now visualizes a set of natural resource conditions that promise great industrial development in east-central Utah. The anticipated focal point is at the town of Green River, Utah. A dam on the Green River at this point would make it navigable northward into the Uinta Basin. The coal in the Book Cliffs and the water of the Green River complement each other as proper

Table 3. Utah mineral industries, employment and wages for 1960

Industrial classification	Reporting units	Average workers per month	Total annual wages	Average monthly wage
<b>Mineral industry.....</b>			<b>\$170,074,653</b>	
<b>Metallic resources</b>				
Metal mining.....	250	8,506	51,944,683	\$509
Iron ores.....	4	512	3,459,573	563
Copper ores.....	12	5,031	30,337,499	503
Lead and zinc ores.....	42	981	5,449,442	463
Gold and silver ores.....	16	41	166,221	336
Miscellaneous metal ores.....	143	1,538	9,825,481	532
Uranium-radium-vanadium ores.....	140	1,525	9,756,913	533
Metallic minerals (ores), nec.....	3	13	68,568	429
Other metal mining.....	33	403	2,706,467	559
Primary metal industries.....	26	9,033	61,181,477	564
Blast furnaces, steel works, mills.....	5	5,482	40,930,474	622
Iron and steel foundries.....	10	790	4,481,371	473
Primary smelting and refining of nonferrous metals.....	7	2,684	15,384,065	478
Other primary metal industries.....	4	77	385,567	419
<b>Nonmetallic resources</b>				
Mining and quarrying of nonmetallic minerals, except fuels.....	70	923	5,159,705	466
Crushed and broken stone, and riprap.....	7	132	770,974	488
Sand and gravel.....	29	197	931,147	394
Clay, ceramic, and refractory minerals.....	6	89	470,080	442
Chemical and fertilizer mineral mining.....	10	126	624,250	412
Miscellaneous nonmetallic minerals, except fuels.....	11	357	2,284,321	533
Native asphalt and bitumens.....	8	344	2,247,016	544
Miscellaneous nonmetallic mineral, nec.....	3	13	37,305	239
Other mining and quarrying of nonmetallic minerals except fuels.....	7	22	78,933	302
Stone, clay and glass products.....	104	2,647	13,911,138	438
Cement, hydraulic.....	3	245	1,468,050	498
Structural clay products.....	7	406	2,176,147	447
Concrete, gypsum, and plaster products.....	72	1,718	8,942,815	434
Abrasive, asbestos, and miscellaneous nonmetallic mineral products.....	17	268	1,304,132	406
Other stone, clay and glass products.....	5	10	19,994	175
Industrial inorganic and organic chemicals.....	12	328	2,009,048	511
<b>Hydrocarbon resources</b>				
Bituminous coal and lignite mining.....	39	2,493	15,074,538	504
Bituminous coal.....	39	2,493	15,074,538	504
Crude petroleum and natural gas.....	201	1,922	10,871,606	471
Crude petroleum and natural gas.....	67	600	4,074,925	565
Oil and gas field services.....	134	1,322	6,796,681	428
Petroleum refining and related industries.....	12	1,491	9,647,185	539
Petroleum refining.....	7	1,471	9,487,338	537
Paving mixtures and blocks.....	5	20	159,847	666

Source: Utah Department of Employment Security Annual Report, 1960

conditions for the building of a great electric power plant. The best oil shale lands in Utah are dissected by the Green River and lie along the envisioned navigable waters behind the dam. Large asphalt sand deposits are nearby. The reserves of potassium and magnesium salts in the Paradox Basin of Grand and San Juan Counties are extensive, and await cheap power for maximum development. With sound arguments and vigorous promotion by the people of the state, a most promising industrial future lies ahead for eastern Utah.

### *Need for centralized geological agency*

Accelerated development of mineral resources which largely will benefit rural Utah requires coordinated efforts by the several agencies representing the people of the state. Basic to development of resources is an adequate quantitative inventory of mineral resources.

The U. S. Geological Survey has played an important role in studying the mineral deposits of the state, and in providing information necessary for their exploitation. The state has made

various efforts to evaluate its mineral wealth and provide information necessary for exploitation, and for regulating production. The evaluation efforts have been generally inadequate and scattered among several agencies and uncoordinated. Utah is on the threshold of a greatly expanded mineral development but needs centralized, coordinated, and implemented, good geologic guidance at this time and henceforth to secure its success.

## RURAL EDUCATION

(Continued from page 109)



other state agencies to strengthen rural education.

Today, Utah cannot tolerate less than quality educational opportunities for every child no matter where he lives nor how inadequate the local resources. Several steps can and must be taken. The legislature must continue to make adequate provision for financial support for education in districts without adequate local resources. Some additional attention needs to be given to the non-teaching professional staff needs of rural districts. Universities and their teacher-training department can assist greatly with the staffing problem in small schools by using some of these schools as training laboratories for prospective teachers and by giving help and encouragement to the research and development programs currently going on in these schools. The leadership of the State Board of Education in developing new approaches to the improvement of small schools, in encouraging needed consolidation and reorganization, and in developing standards for education in small schools should continue and

grow. The greatest responsibility, however, is at the local district level. So that significant progress can be made toward providing a quality educational program for children in rural districts the following must occur:

- a local citizenry that has high aspirations for the education of its children and a commitment to the financial support of its schools commensurate with its aspirations;
- local professional leadership that is up to date, dedicated to finding solutions to problems of rural education, and capable of giving leadership to needed changes; and
- parents, students, and teachers who are willing to make the necessary sacrifices needed to compensate for the limitations of smallness, remoteness, and lack of adequate finances. These constitute the greatest needs of education for rural Utah.

## NEW INDUSTRIES

(Continued from page 119)

other industries operating in the area. The nature of products produced locally and in what volume are vital information. Material should include what semi-finished goods are produced and what custom manufacturing, such as machine shop and special services, are available locally.

4. *Taxes.* Almost without exception, industrial representatives ask local committees for information about their taxes. This usually includes what mill rates are levied by city, county, school, and special taxing districts. The basis for assessment on property and inventories, what sales, income, and corporation franchise taxes are levied, and the current contribution rates for unemployment insurance and workmen's compensation are pertinent to this topic.

5. *State intransit law.* Local committees should be familiar with features pertaining to manufacturing and

warehousing, and to the tax advantages available to these industries under this law.

6. *Local wage structures.*

7. *Facilities for training.* Information should be available concerning the services offered by the state vocational education department for training new workers, and of local training services and facilities.

8. *Availability and cost of land suitable for industrial sites.*

9. *Industrial buildings.* Local committees should have an inventory of presently existing buildings suitable for industrial purposes. It should show the exact size, approximate cost of purchase or rental, condition and special features, and problems that would be encountered in remodeling and renovating for industrial use.

10. *Utilities.* What are the area's electricity and gas resources and rates? What is the capacity and present load of the water supply? What is the chemical analysis of the water? What is the outlook for future supply? What are the sewage or waste disposal type and capacity? What is the possible future capacity?

11. *Transportation facilities.* What are railroad connections, terminals, and time of delivery of freight to and from industrial centers and major markets? What are motor transport services, highways, main routes, trucking firms? What airline services are available, characteristics of local airports, size of runways, airline schedules for freight and passengers of nearest service?

Determining the kinds of industry a community should seek to attract presents a problem. It is difficult to suggest arbitrarily a list of industries which would be suitable for a particular community. Our own classic example of this is Thiokol Chemical Corporation's 6,000-employee rocket manufacturing complex in western Box Elder County. Before the advent of Thiokol this largely agricultural area was barely maintaining its population. Now

is enjoying unprecedented prosperity.

Communities can best determine what industries can operate successfully in their locality by a careful analysis of a given industry's requirements and weighing them against the local area's resources and assets. Once a realistic determination has been made, communities should concentrate on those industrial groups for whom they can offer advantages and forget the rest.

Certainly one test a community can apply is to observe what types of industry are establishing facilities in communities similar to theirs. A case in point here in Utah is the recent development of the apparel industry. When a sizable western apparel producer announced the establishment of a branch plant at Pleasant Grove, it marked the ninth location in three years of an apparel manufacturing facility in a rural Utah town with a population of 6,000 or less.

The Utah Committee on Industrial and Employment Planning does not wish to create the impression that expanding the apparel industry minimizes the need for broadening the economies of our outlying areas with year-around employment in basic industry for male workers. However, an apparel industry is an addition to any area's economy. It means new wealth in the community in the form of an industrial payroll. It provides substantial supplements to family incomes, particularly where the head of the household experiences a seasonal pattern in his employment such as that often occurring in agriculture, construction, mining, and services. Income supplements such as this may mean the difference in a family's ability to remain in an outlying community rather than migrate to urban centers during off-seasons — or permanently.

Mr. Wenzel of the Hawthorn Company is of the opinion that rural Utah communities should be after industrial firms such as his: "A special type of

manufacturer looking for West Coast distribution or industries where freight problems are not a great factor. Our main consideration in studying a Utah location at the outset," he said, "was a better job of servicing the Western States, particularly the West Coast and Los Angeles. For example, Sears Roebuck has a major distribution center in the Los Angeles area which comprises a high percentage of their national sales. We supply Sears with our products nationally. We also plan to service the Seattle group through our new western location as well as the intermountain area. We wanted fast service to these major centers — overnight service with a backup inventory so they could expect to receive their goods from us promptly, particularly during their peak season. Our main savings will be measured in time. This will be so because instead of the retail outlets waiting 10 days for delivery from Missouri, the majority of them should be able to expect to get their shipment the day after ordering."

Action recommended for communities who have made a decision to seek new industry, have realistically appraised their resources and assets in light of industrial requirements, and who have made a preliminary determination as to the types of industry they can logically attract, is to *use every imaginative approach and contact to reach prospects*. Following are some of the proved techniques of industrial development procedure:

- (1) Develop and publish promotional literature to send to prospects.
- (2) Watch newspaper and trade publications for rapidly growing firms.
- (3) Use ex-residents who have achieved success in industry.
- (4) Use organizations which have a

self-serving interest in seeing local areas grow and develop and prosper. These include:

- a. Electric power and light companies.
- b. Interstate railroads.
- c. Trucking firms.
- d. Gas companies.
- e. Financial institutions.

The Utah Committee on Industrial and Employment Planning has been intimately involved in most of the recent locations of industrial facilities in rural Utah towns. We are dedicated to the philosophy that our present pattern of rural communities is desirable and should be maintained if economically possible, and further that it is not desirable or necessary that all citizens of the state be clustered along the western slope of the Wasatch Mountains. As long as citizens live in outlying communities, services must be rendered, schools must be maintained, and roads and highways built. Dying communities are a drag on the state's economy. Conversely, healthy, growing rural towns strengthen the state economically, morally, and in many other ways.

The Utah Committee stands ready to assist any community in the state who wants to help itself. As has been the practice in the past, we shall continue to give direct support to county-wide development organizations where such exist and thereby reach individual communities indirectly through their county group. In cases where no county organization has been established we welcome individual communities to contact us directly.

We are convinced that with united, dedicated effort we can reverse the trend toward economic stagnation presently facing many rural Utah communities.

- Total growth in Utah is proceeding at a pace more rapid than the nation.
- Utah is above the national average in home ownership. Of the occupied dwelling units, 72 percent were owner occupied. Utah was 10 percent above the average for the Mountain States.
- A larger percentage of Utah homes have radios, television sets, telephones, washing machines, clothes dryers, and food freezers than national average.



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## The Welfare of Rural Utah

UTAH STATE UNIVERSITY, by charter and tradition, is dedicated to promoting the welfare of rural Utah through research, extension, and educational activities. Articles in this issue of *Farm and Home Science* offer many suggestions for consideration by local leaders. The programs of the University are planned to solve many other problems or provide basic information essential to their solution.

Research to help solve the problems of rural Utah is centered largely in the Experiment Station, which works cooperatively with federal research agencies. Much of our research is designed to aid rural areas of the state.

Investigations are determining what adjustments agriculture should make to insure stability, prosperity, and greater efficiency. New crops are being developed, methods are being devised for improving marginal lands, and better feeding and management practices are being designed to increase the efficiency of livestock production.

Intensive studies are in progress involving our important resources of climate, water, soils, and plant and animal life. These are being classified, mapped, and evaluated for their most suitable uses. Special emphasis is being placed on water supply and land use to enable the state to plan for their wise development and management. Results of studies on public lands are providing a basis for enlightened policies and management procedures.

Evaluation of population distribution and movement and of social and economic changes in rural areas and their effects on the attitudes and activities of people reveals some of the causes of rural maladjustments and provides the background for their solution.

The Utah State University Extension program is designed to help rural people analyze their personal and family problems, to organize, discuss, and agree on goals; and to work toward their attainment. Extension agents in the counties cooperate with representatives of such government agencies as the Soil Conservation Service, Forest Service, and various credit agencies in helping rural people.

Young people come to Utah State University from every county of the state and from nearly every town and village. Here they receive technical training for employment and service in a useful profession and acquire a greater understanding of public issues and an appreciation of the cultural values of life.

In these diverse yet closely allied ways, Utah State University is working both for and with the citizens of rural Utah in analyzing their problems and developing action programs that will lead to a brighter future.

## RURAL AREA DEVELOPMENT

(Continued from page 132)

state which lost population during the 1950-1960 period were rural communities (2,500 population or less). One exception is the town of Dragerton which is unincorporated and had a population of 3,453 in 1950 and 2,959 in 1960. Of the 176 rural communities, 106 or 60 percent lost population during the last decade. Many of these have been losing population for 40 years or more. Adding to this dilemma is the fact that many of these communities, although they have not lost population, have not really gained in population during the last decade.

It is significant to note in fig. 3 that 13 Utah counties lost population between 1950 and 1960, and 11 of these counties have lost population consistently for 40 years or more.

A further indication of the highly depressive influence of economic and social factors associated with this pattern of declining population is the fact that over 80 percent of Utah's population now lives in the 9 counties that have shown a long-term population expansion trend. It's in these counties where the business, trade, manufacturing, and other types of economic and political power are concentrated.

We might seriously raise the question as to whether it is really practical to attempt to salvage some of these small declining communities. In fact, some have raised the question whether the process to insure their demise should be speeded up. This may be a most appropriate question for those small communities which can no longer expect nor afford to supply the minimal educational, economic, governmental, and public facility services the people living in a community should expect. However, the decision of community survival is not up to agencies, institutions, or people living outside of the community. In the final analysis, this decision belongs to the people who remain in these communities.