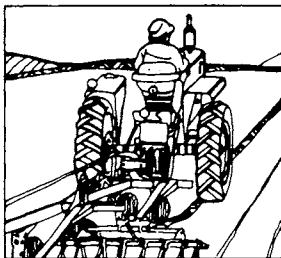
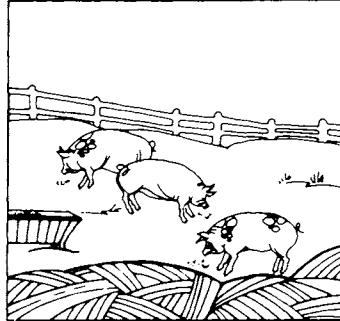


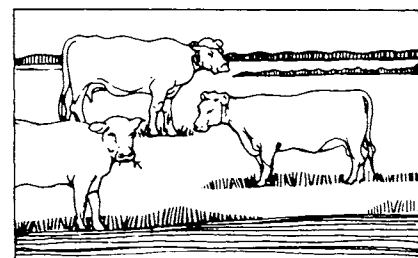
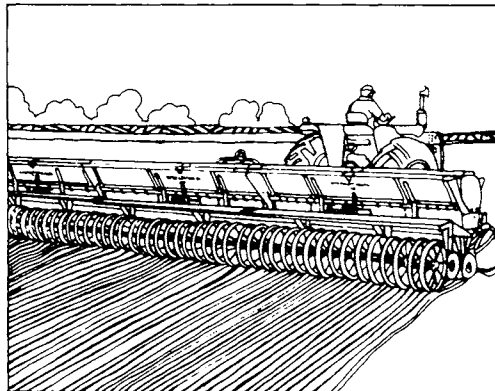
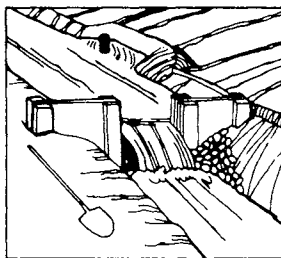
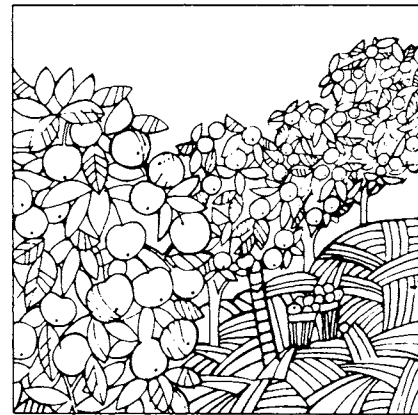
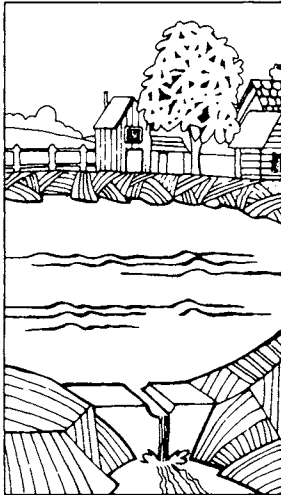
part 13  
**MICHIGAN**

Section 1. Summary Data

**VOLUME I  
AREA REPORTS**



**1969  
CENSUS OF  
AGRICULTURE**



Issued April 1972



**U. S. DEPARTMENT OF COMMERCE** Peter G. Peterson, Secretary  
James T. Lynn, Under Secretary  
Harold C. Passer, Assistant Secretary for Economic Affairs  
and Administrator,  
**Social and Economic Statistics Administration**  
**BUREAU OF THE CENSUS** George Hay Brown, Director



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**Robert L. Hagan**, Acting Deputy Director

**Walter F. Ryan**, Associate Director

**James W. Turbitt**, Acting Deputy Associate Director

### AGRICULTURE DIVISION

**J. Thomas Breen**, Chief

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## REPORTS OF THE 1969 CENSUS OF AGRICULTURE

### Individual County Reports

These eight-page reports are issued for each county and State. They also appear as section 2 of volume I for the State to which they pertain. The tables contain totals for farms, land, production, expenses, income and sales, machinery and equipment, livestock, crops, and nursery, greenhouse, and forest products.

### Volume I. Area Reports

A separate report is published for each State, American Samoa, Guam, Puerto Rico, Trust Territory, and the Virgin Islands. The report consists of two sections. Section 1 contains the introduction, State summary data, county summary of selected data, miscellaneous items by counties (crops or livestock appearing in relatively few counties and therefore not listed in the county tables on a nationwide basis), and an appendix giving explanations, definitions, and examples of the report forms used. Section 2 contains the detailed county reports.

### Volume II. General Report

Statistics by subject will be presented, with totals for the United States, Regions, and States.

### Volume III. Agricultural Services

This is a new report which will contain data relating to agricultural services.

### Volume IV. Irrigation

Data will be included on drainage basins, land irrigated, crop production on irrigated land, water conveyed, users, and types of organization.

### Volume V. Special Reports

Reports will be based on data obtained from supplemental surveys, such as type of farm, horticulture, and farm finance; and other subjects based on information obtained in the census.

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### Data for MICHIGAN are presented in 2 books:

**Book 1** contains "Section 1" which consists of (1) State summary data, (2) county summary data for selected items, and (3) county data for miscellaneous items (those items that are significant in this area but not on a nationwide basis). This book also contains appendixes which give explanatory materials and facsimiles of reporting forms.

**Book 2** contains "Section 2" which consists of a set of 26 tables (8 pages) for each county with 10 farms or more in the State. A summary of these tables for the State precedes the county sets. These sets were previously issued as "Individual County Reports."

**ACKNOWLEDGMENTS**—Many persons contributed to the 1969 Census of Agriculture. First and foremost are the millions of farm operators, members of their families and employees who furnished the information.

The Department of Agriculture cooperated at all levels: Local employees in the county offices of the Agriculture Stabilization and Conservation Service, the Farmers Home Administration, the Federal Extension Service, and the Soil Conservation Service aided in the publicity and provided assistance to the farm operators who requested help in filling out the census forms correctly; State office personnel of the Statistical Reporting Service reviewed the data collection forms and assisted in the review of tabulations for their State; and a large number of persons in the Washington offices of the Department made recommendations, reviewed the forms, procedures, tabulation proposals, and table plans, and assisted in the overall publicity programs. **Harry C. Trelogan**, Administrator, **Glenn D. Simpson**, then Deputy Administrator, and **J. Richard Grant**, Department Clearance Officer, of the Statistical Reporting Service, and **Melvin L. Upchurch**, Administrator, and **Carl P. Heisig**, then Deputy Administrator of the Economic Research Service, were most prominent in the overall coordination effort and planning for this major program in agricultural statistics.

Members of the Census Advisory Committee on Agriculture Statistics and representatives from public and private agencies and firms gave generously of their time and effort in establishing the data requirements and priorities for collection and publication of the information.

The press, radio, and television media, especially those relating to agribusiness activities, were most helpful in promoting awareness of the 1969 census among farm and ranch operators and enlisting their cooperation. **Dean Quirin**, Agriculture Division, and **John Baker**, retired, **Henry C. Smith**, and **Glen M. Hearin**, Public Information Office assisted in the public relations programs initiating much of the material which was used effectively.

**Thomas B. Jabine**, Chief, Statistical Research Division, and **Arthur W. Horowitz**, Special Assistant to the Associate Director for Economic Fields, were designated as coordinators for the 1969 Census of Agriculture and participated in much of the overall planning and review of the census operations.

**Jervis Braunstein**, Demographic Surveys Division; **Barry Cohen**, Business Division; **Robert S. Taylor**, Statistical Indicators Division; and **Charles Merzell**, **Ralph Graham**, and **Jack Margolis**, Agriculture Division; working under the supervision of **Sol Dolleck**, Computer Science Division, developed and were responsible for the systems and processing procedures, including clerical procedures and computer programming. **Lowell Wrucke**, Business Division, and **John Adkins**, Agriculture Division, made significant contributions to the computer programming.

A large part of the clerical and data-keying operations were performed at the Jeffersonville Census Operations Office under the supervision of **Joseph Arbena**, Special Assistant to the Associate Director, and **Rex Pullin**, Agriculture Census Operations Manager, assisted by **Don Adams** and **Kurt Legait**. **John A. Blackledge** and **William Harlan**, Agriculture Division, were responsible for the subject-matter review in Jeffersonville.

Computer processing was performed in the Computer Facilities Division under the supervision of **Douglas Fahey**, **Richard Bourdon**, and **James W. Shores**.

Field followup data collection activities were administered by the Field Division under **Paul R. Squires**, Associate Director for Data Collection and Statistical Procedures, and **Richard C. Burt**, Acting Chief, Field Division, with the assistance of **James Johnson** and the directors of the Bureau's Data Collection Centers.

Forms design, publications planning, editing, and printing were performed in the Administrative Services Division, **Cecil B. Matthews**, Chief, under the direction of **Raymond J. Koski**, **John F. Lanham, Jr.**, **Gerald A. Mann**, and **Gladys Potts**. **Cathern Kline** and **Joyce Teague** made significant contributions to the forms design, and **Geraldine Censky** provided editorial supervision.

**J. Thomas Miller** and **Irvin Holmes**, consultants to the Chief, Agriculture Division, determined to a very large extent the table format and presentation for the county reports and this volume and assisted in developing the correspondence forms used in the mail procedure.

**J. Jack Ingram**, **Kenneth R. Norell**, and **Orvin L. Wilhite**, Assistant Division Chiefs, Agriculture Division, participated in the overall planning and supervised preparation of specifications, review of tabulations, and preparation of the reports. **Arnold L. Bollenbacher**, **Joseph A. Correll**, and **Thomas D. Monroe**, Branch Chiefs, contributed to the planning and supervised analytical review for their geographical and subject-area specialties. **Helen M. Davenport** was responsible for the historical data tables, **Helen D. Turner** for editing and liaison in the publications area, and **Margaret Wood**, retired, in the computer specifications area. These and many others who aided in the 1969 Census of Agriculture are listed with their specific responsibilities in a special report on the Procedural History of the 1969 Census of Agriculture.

Primary direction of the program was performed by **J. Thomas Breen**, Chief, Agriculture Division, with the helpful guidance and review of **Conrad Tauber**, Associate Director for Demographic Fields.

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# Section 1

## SUMMARY DATA

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# Introduction

## Authority, Area Covered, and Method

The Census of Agriculture is authorized under the provisions of Title 13, United States Code. Section 142(a) provides for the census to be taken in 1959 and each fifth year thereafter. Section 191 provides that the census shall include each State, the District of Columbia, and Puerto Rico. It also provides that for the Virgin Islands, Guam, and other areas over which the United States exercises jurisdiction, control, or sovereignty, census data collected by the Governor, or highest ranking Federal official, may be used. The 1969 census is the first census of agriculture conducted primarily by mail. Additional background and a description of the procedures followed is presented in sections 1 and 2 of appendix A.

## Definition of a Farm

The statistics gathered in this census relate to places qualifying as farms using the same definition as in 1964 and 1959. These are places on which agricultural operations larger than a specified minimum were conducted at any time during the census year under the control of an individual management. For a listing of "agricultural operations," see the Leaflet Guide reproduced in appendix B.

Places of less than 10 acres were counted as farms if the sales of the agricultural products amounted, or normally would amount, to at least \$250. Places of 10 acres or more were counted as farms if the sales of agricultural products for the year amounted, or normally would amount, to at least \$50.

## Comparability of Data

For the most part, data from the 1969 census and earlier censuses are comparable. However, a difference in timing and the change from personal interview to mail enumeration affect the comparability of some of the 1969 data with those from earlier censuses.

The 1969 census forms were mailed just prior to January 1, 1970. An extensive mail, telephone, and enumerator followup procedure, described in section 2 of appendix A, extended the data-collection phase through September 1970. Crop and livestock production data are for the calendar year 1969 with the exception of a few crops (such as citrus) for which the production year overlaps the calendar year. Expenditures, crops irrigated, usage of agricultural chemicals and fertilizer, and sales of farm products are all reported for the calendar year. Operators were instructed to report inventory numbers for livestock, poultry, and other specified items as of December 31, 1969.

Prior censuses were taken by enumerators, each assigned to a specific geographic area. Field work for the 1964 census was completed largely in November and December of 1964 while most of the field work for 1959 was accomplished during October and November. Livestock and poultry inventories for both 1964 and 1959 were as of the time of enumeration. Other variations in time of enumeration occurred in censuses prior to 1959.

More specific information regarding comparability of the data is provided in sections 6 and 9 of appendix A.

## Coverage of the 1969 Census

Preliminary review indicates that the coverage of the 1969 Census of Agriculture at the U.S. level and for most States is equivalent to that for previous censuses. As in previous censuses the coverage for farms with sales of less than \$2,500 is less complete than the coverage for the larger farms. A more detailed discussion is given in section 5 of appendix A. A special report analyzing the coverage will be published.

## Census Forms Used

Two basic census forms were used for all States except Alaska and Hawaii. A regular form (A1) was used for farms with an expected value of sales of \$2,500 or more, and a short version (A2), for farms with an expected value of sales less than \$2,500. The short form covered only major items and omitted most of the detail found in the regular form.

In Alaska, the regular form was used for all farms. For Hawaii, a modified version of the regular form was used for all farms; the changes were principally in the crops sections, in order to cover the specialized agriculture in the islands.

## Tables for "All Farms" and "Class 1-5 Farms"

Because more detailed information was obtained for class 1-5 farms (those with sales of \$2,500 or more), two series of tables appear in this report: (1) State tables 1 to 9 and county tables 1 to 8 present data for major items for all farms; (2) State tables 10 to 30, county tables 9 to 26, and the special tables report the more detailed information for class 1-5 farms. The tabulations for class 1-5 farms do not include abnormal farms.

## Use of Sampling

The short version (A2) of the census form was mailed to a 50-percent sample of farms with an expected value of sales less than \$2,500. Consequently the data presented in the tables for "all farms" include estimates based on the 50-percent sample for most of the farms with a value of sales less than \$2,500. The data presented in the tables for farms with sales of \$2,500 or more include estimates based on the 50-percent sample for a small number of farms which received the short form and reported value of sales of \$2,500 to \$9,999. Detailed information on sampling errors is provided in section 9 of appendix A.

Data shown for earlier censuses are subject to sampling errors for selected items such as farm production expenses, farm labor, and machinery and equipment. Detailed information can be obtained in the reports of those censuses.

## The "See Text" References and Other Notes for the Tables

Section 7 of appendix A presents information for specified items for which there are problems of definition or comparability. Most, but not all, of these items are flagged with a "see text" note in the tables.

## Abbreviations and Symbols

The following abbreviations and symbols are used throughout the tables:

X	Not applicable
NA	Not available
Z	Less than half of the unit reported
D	Data withheld to avoid disclosure of information for individual farms

# MICHIGAN Counties, County Seats, and Rivers



# HIGHLIGHTS of the State's Agriculture: 1969 and 1964

	All farms		Class 1-5 farms	
	1969	1964	1969	1964
Number of farms . . . . . total . . . . .	77,946	93,504	44,175	53,956
Acres in farms . . . . . total . . . . .	11,900,689	13,598,500	9,142,760	10,485,583
per farm . . . . .	152.7	145.4	207.0	194.3
Acres of harvested cropland . . . . . total . . . . .	5,501,729	6,738,050	4,839,384	5,866,100
per farm . . . . .	70.6	72.1	109.6	108.7
<b>Number of farms by size:</b>				
1 to 49 acres . . . . .	16,285	20,412	3,649	4,156
50 to 499 acres . . . . .	59,085	70,740	38,058	47,571
500 acres and over . . . . .	2,576	2,352	2,468	2,229
1,000 acres and over . . . . .	328	223	316	202
Value of farms . . . . . total . . . . .	\$3,883,355,429	\$3,181,660,608	\$3,003,128,810	\$2,497,400,283
per farm . . . . .	49,821	34,027	67,983	46,286
Value of machinery and equipment on farms . . . . . total . . . . .	\$715,930,783	(NA)	\$584,861,142	(NA)
per farm . . . . .	9,185	(NA)	13,240	(NA)
<b>Machinery and equipment on farms—specified items (number):</b>				
Automobiles . . . . .	85,287	122,115	51,250	72,241
Motortrucks (including pickups) . . . . .	74,605	80,489	52,690	56,804
Tractors other than garden tractors and motortillers . . . . .	152,741	169,925	108,517	121,937
Value of all farm products sold . . . . . total . . . . .	\$829,450,537	\$766,395,000	\$796,496,359	\$724,795,759
per farm . . . . .	10,641	8,196	18,030	13,433
Crops . . . . . total . . . . .	349,704,458	360,094,112	330,016,375	335,165,321
per farm . . . . .	4,486	3,851	7,471	6,212
Livestock, poultry, and their products . . . . . total . . . . .	475,209,968	399,783,327	462,296,298	383,186,588
per farm . . . . .	6,097	4,276	10,465	7,102
<b>Number of farms by value of agricultural products sold:</b>				
Less than \$2,500 . . . . .	34,817	39,528	1,064	(NA)
Less than \$1,000 . . . . .	20,225	21,464	(NA)	(NA)
\$1,000 to \$2,499 . . . . .	14,592	18,064	(NA)	(NA)
\$2,500 and over (Classes 1-5) . . . . .	43,111	53,976	43,111	53,976
\$2,500 to \$9,999 . . . . .	22,395	31,145	22,395	31,145
\$10,000 to \$39,999 . . . . .	16,741	20,407	16,741	20,407
\$40,000 and over . . . . .	3,975	2,424	3,975	2,424
\$60,000 and over . . . . .	1,982	1,050	1,982	1,050
\$100,000 and over . . . . .	736	333	736	333
<b>Value of agricultural products sold by farms having sales of —</b>				
Less than \$2,500 . . . . .	\$32,235,695	\$39,756,145	\$1,348,311	(NA)
\$2,500 and over (Classes 1-5) . . . . .	795,148,048	724,795,759	795,148,048	\$724,795,759
\$2,500 to \$9,999 . . . . .	119,181,654	167,308,413	119,181,654	167,308,413
\$10,000 to \$39,999 . . . . .	340,573,196	379,068,428	340,573,196	379,068,428
\$40,000 and over . . . . .	335,393,198	178,418,918	335,393,198	178,418,918
\$100,000 and over . . . . .	145,241,438	60,046,519	145,241,438	60,046,519
<b>Farm production expenses—specified items:</b>				
Commercially mixed formula feeds . . . . .	\$50,199,550	\$51,780,500	\$48,658,485	\$48,792,807
Commercial fertilizer . . . . .	53,168,632	54,122,500	49,671,380	49,900,551
Gasoline and other petroleum fuel and oil for the farm business . . . . .	39,970,877	41,976,500	34,471,632	36,213,195
Farm labor, contract labor, machine hire and customwork . . . . .	92,117,163	75,327,000	87,710,383	71,006,377

CHART 1A—ALL FARMS

**CHANGES in the State's Agriculture: 1969 from 1964**

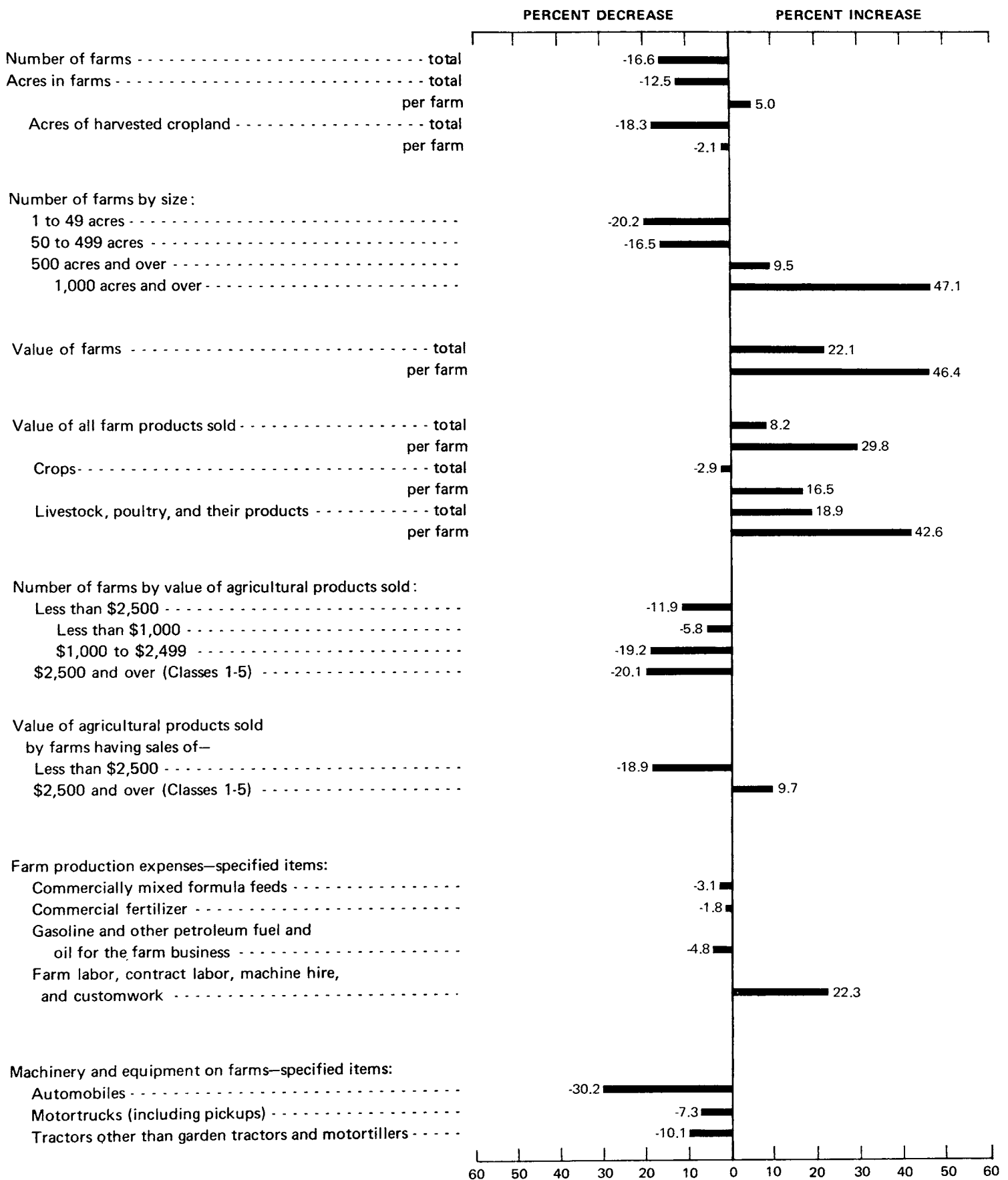


CHART 1B—CLASS 1-5 FARMS

**CHANGES in the State's Agriculture: 1969 from 1964**

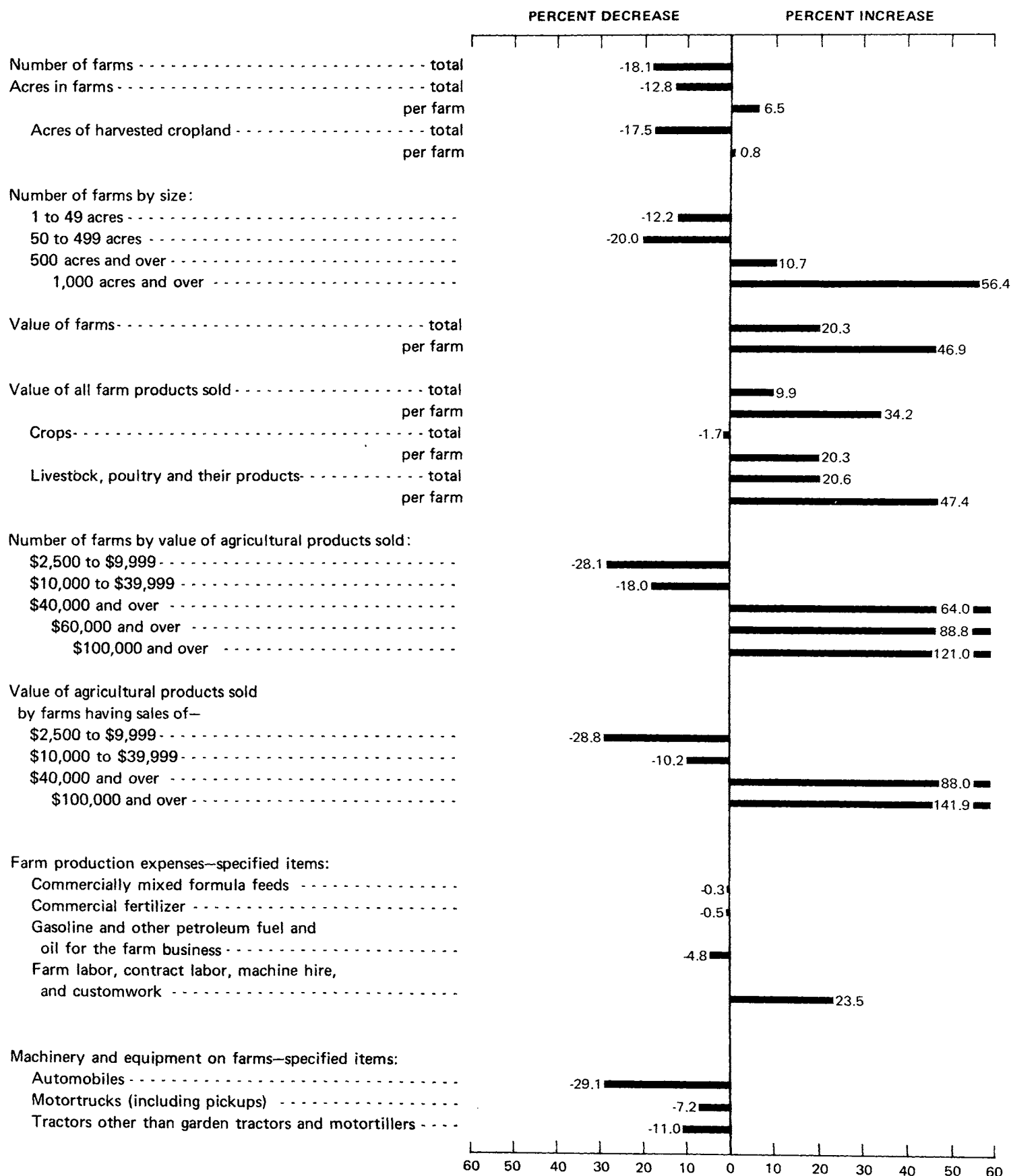
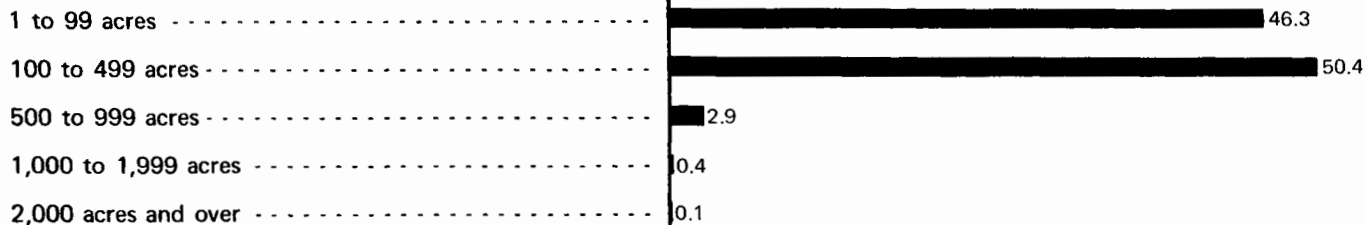




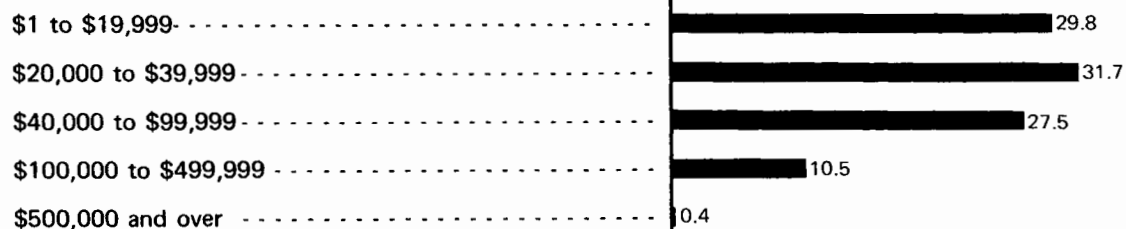
CHART 2

**PROFILE of the State's Agriculture: 1969**

Farms by size:



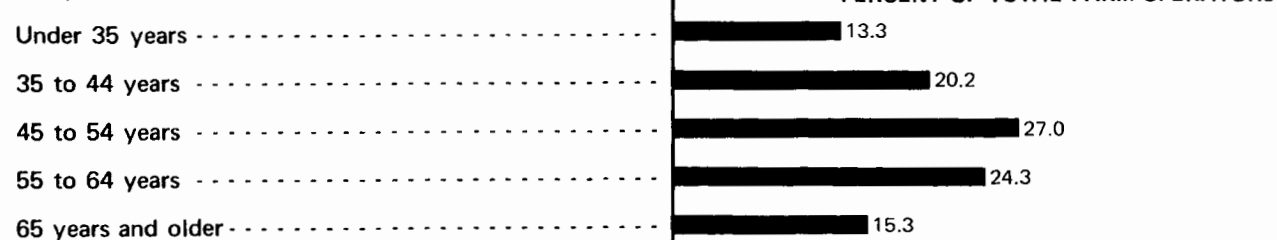
Farms by value of farm:



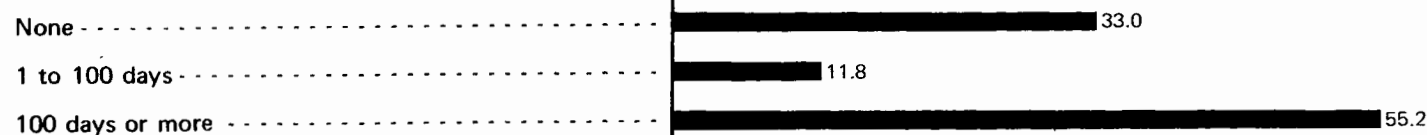
Farms by value of machinery and equipment:



Farm operators by age:



Farm operators working off their farms:



Farm operators by tenure:

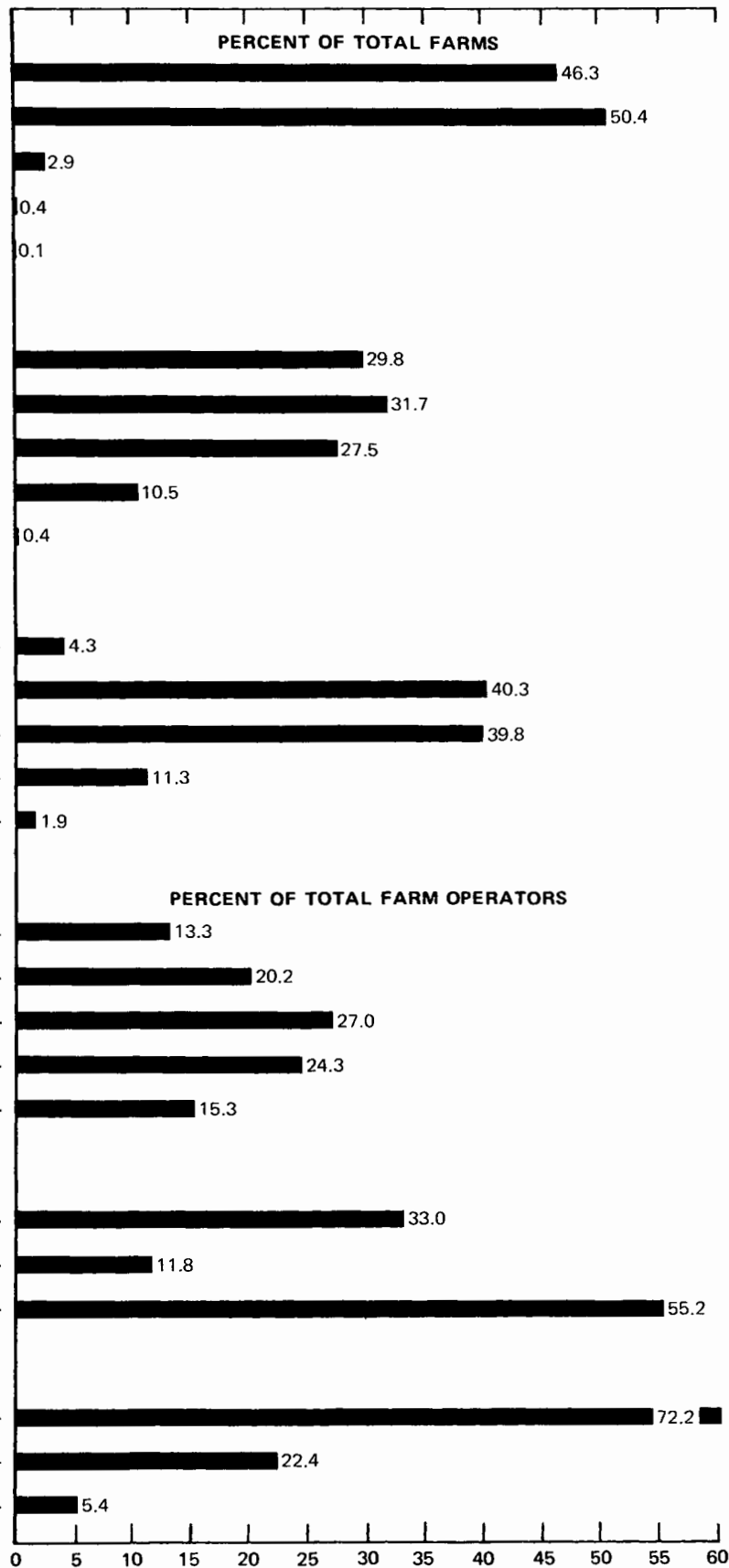
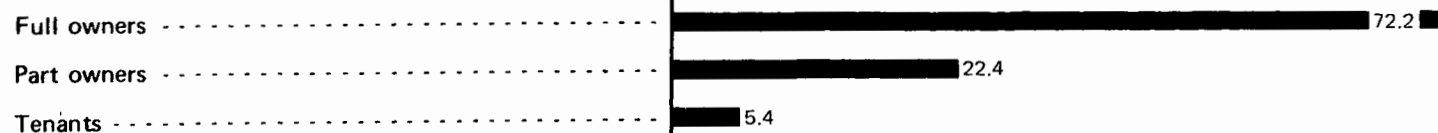


CHART 2

**PROFILE of the State's Agriculture: 1969**—Continued

