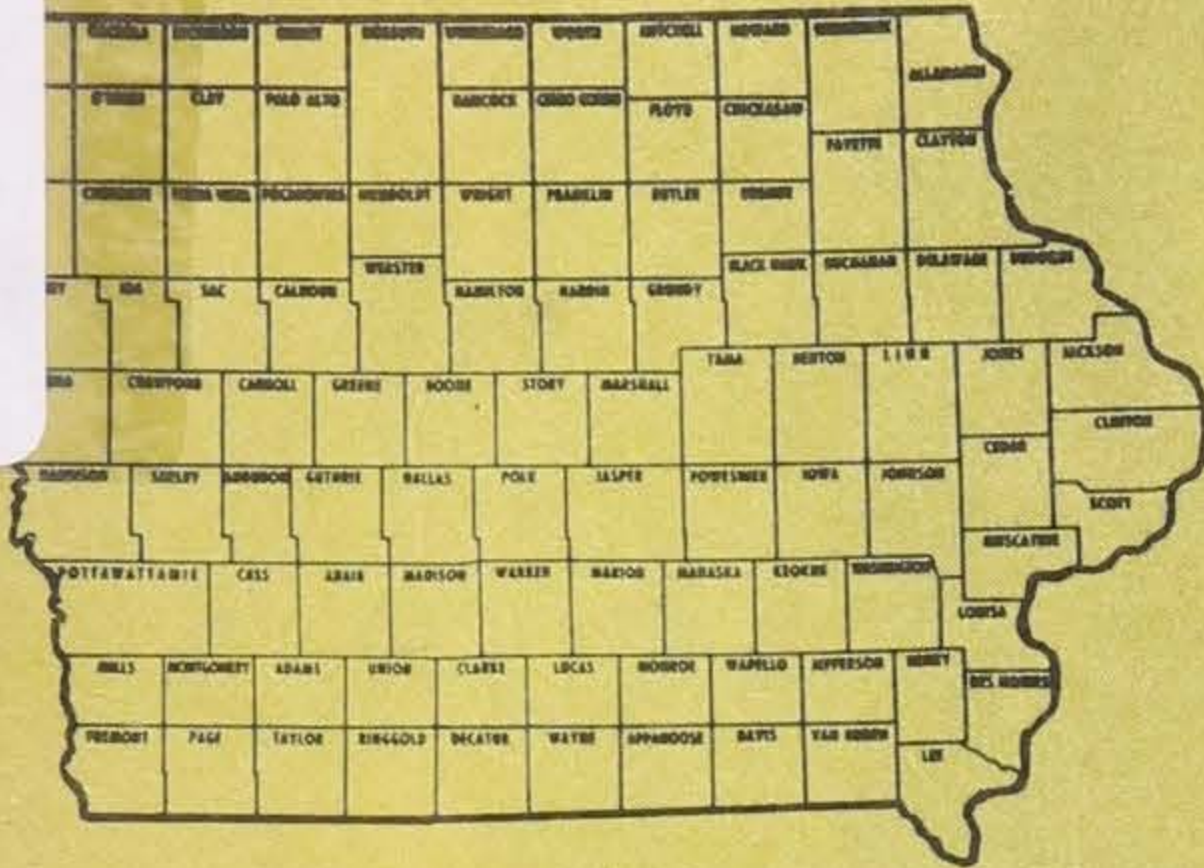


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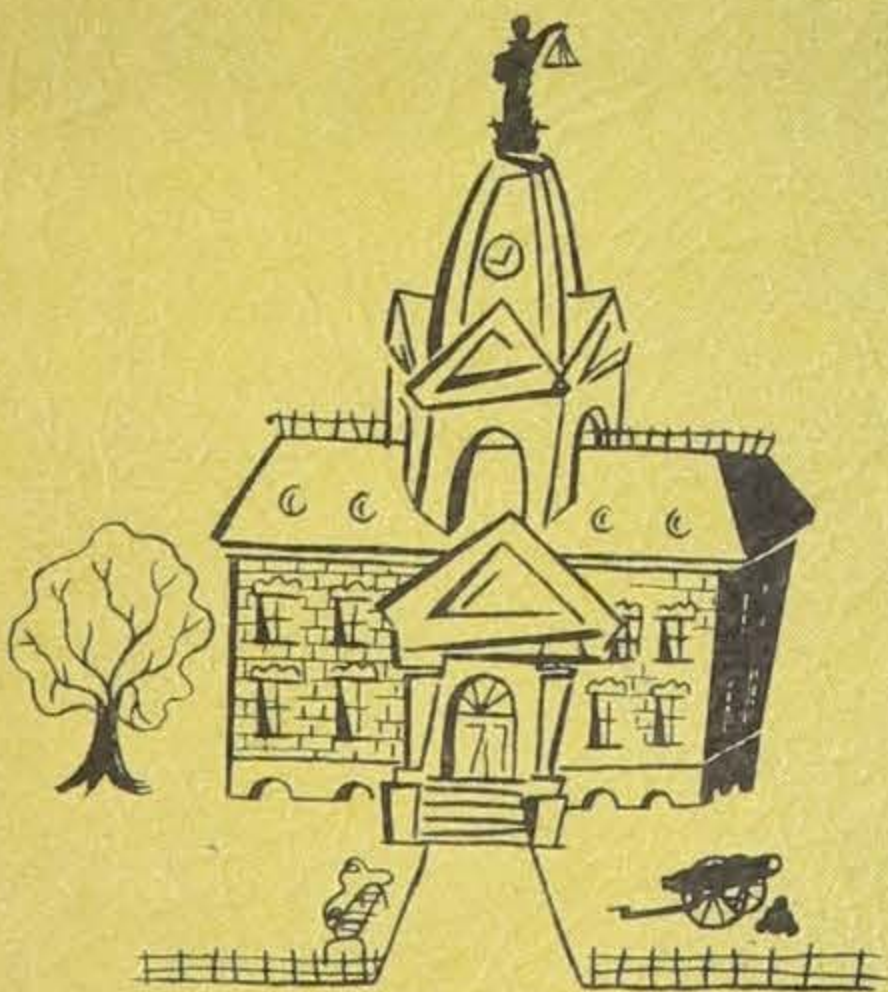
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# An Evaluation of Iowa County Government

by  
Donald E. Boles  
Herbert C. Cook  
Iowa State College

prepared for the  
Iowa College-Community Research Center



# 1959

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Donald E. Boles  
Herbert C. Cook

Iowa State College

Iowa College-Community Research Center

January, 1959

## Preface

The following report was prepared by Professors Donald E. Boles and Herbert C. Cook of Iowa State College at the request of the Research Committee of the Iowa College-Community Research Committee of the Iowa College Community Research Center.

This center is jointly sponsored by the Committee for Economic Development, Iowa State College and the State University of Iowa. It operates under the general direction of an Advisory Committee consisting of leading Iowa business men and educators, and, through its Research Committee, conducts research on problems of importance to the economic welfare of Iowa. The Research Committee is composed of business executives, farmers, editors and educators from the economic and business research staffs of the state college and the state university.

The Research Committee commissioned this study because it believes the quality and efficiency of county government has an important bearing on the social welfare and economic development of the state.

Professors Boles and Cook, political scientists on the faculty of Iowa State College, who prepared the report, were assisted by Karl A. Fox and Emil Jebe, economist and statistician respectively, of the same institution.

The report reflects the research findings and professional judgment of its authors and not necessarily the views of the Research Committee or of its individual members. The Research Committee has found this to be an authoritative description and evaluation of county government in Iowa, and commends it to the careful attention of legislators, educators, and other leaders and interested citizens of Iowa. Many of the problems of Iowa county government treated here apply in other states as well.

As a result of its study and discussion of the materials presented by Professors Boles and Cook, the Research Committee has approved the policy recommendations which follow this preface. These recommendations have been presented to state legislators and to the press. Separate copies of the recommendations may be obtained from the Secretary of the Research Committee, Prof. C. Woody Thompson, Bureau of Business Research, University of Iowa, Iowa City, Iowa.

Additional research on county government is underway at the State University of Iowa. This research involves in intensive study of governments in three Iowa counties, typifying respectively the metropolitan, rural, and intermediate groups of counties. Some further work along the lines of the present report will be done at Iowa State College.

Lauren Soth, chairman  
Research Committee  
Iowa College-Community Research Center  
January 5, 1959

Recommendations of the Research Committee of the  
Iowa College-Community Research Center

After consideration of the report, "An Evaluation of Iowa County Government", the Research Committee of the Iowa College-Community Research Center has concluded that several legislative changes are urgently needed to improve county government in Iowa.

These recommendations are not meant to suggest that they are the only steps required to get modern, efficient county government. But the committee believes the following actions would be a good start in that direction. It is expected that as the committee continues its study it will have further recommendations for more effective county government.

1. Need for Adequate Records

The committee believes there is a pressing need for better methods of reporting the facts about county government. It therefore recommends that existing legislation requiring county auditors to submit reports to the state auditor on uniform forms be strengthened so that county activities can be compared precisely.

In addition, the committee recommends legislation authorizing the state auditor to require uniform accounting procedures within each county. This will make the financial reports published annually by each county uniform and thereby susceptible to comparison by the taxpayers and voters. The committee also recommends that a copy of each county's election results be kept on file in the secretary of state's office, the official repository of state records.

2. Optional County Forms Act

The committee believes it clear, both from the research in Iowa and from studies conducted in other states, that problems faced by county governments vary greatly within the same state. For this reason, it recommends that the legislature provide different types of statutory forms of county government from which the voters of each county may choose. This is essentially what is done in municipal government in Iowa. City dwellers may choose municipal forms ranging from a pure mayor-council system to a pure city-manager system, with various modifications available between these two types.

An optional county forms act would be a step toward increasing each county's responsibility for its own affairs. It would be a type of home-rule authority now lacking under the present statutes of Iowa.

Such optional forms should include, as they do in New York, the elected county executive and the county-manager forms, as well as the supervisor plan presently used in Iowa

### 3. Short Ballot

The committee recommends the adoption of a short ballot for county offices with only the board of supervisors and the county attorney to be elected. This may be accomplished by legislation permitting those counties which so desire to merge present elective offices except the county attorney into departments with appointed department heads selected by the board of supervisors or the county administrator.

For example, the offices of county auditor, treasurer, assessor and recorder could easily be merged into a department of finance, utilizing essentially the same office and the same clerical staff. This would eliminate the sharp seasonal increases in costs for certain offices by distributing the clerical work-load more evenly.

The present office of sheriff and coroner could be merged into a department of law enforcement with an appointive rather than elective head. The committee concurs in the recommendation of the Iowa State Medical Society and the Iowa Bar Association that only medical doctors and doctors of osteopathy be eligible to fulfill the duties performed by the coroner today.

### 4. Boards of Supervisors

The committee recommends legislation placing all county boards of supervisors on an annual salary basis. It recommends that committee work pay and committee work mileage pay be abolished.

A fixed annual salary would encourage the supervisors to function as policy makers, as they should, rather than as administrators of county services. The salary system also would provide effective control over the cost of the supervisory function in the counties. In an effort to control the cost of boards of supervisors, the legislature has limited compensation for regular meetings and limited the number of regular meetings. But the major portion of meeting costs is for committee meetings, the number of which is unregulated. In Iowa counties not under the salary plan for boards of supervisors, committee meeting costs made up 86 per cent of total supervisor meeting costs during the years 1952 to 1955.

For smaller and less complex counties with fewer demands for policy formulation, legislation should be enacted permitting boards of supervisors to serve on a part-time basis. This plan would fit in well with the adoption of a county manager or elective executive system.

## 5. Consolidation of Functions Among Counties

The committee recommends that legislation be enacted to permit counties to consolidate functions, without disturbing present county boundaries. Some legislation of this sort exists. Counties are permitted to establish co-operative arrangements in appointing a single county superintendent of schools to serve several counties. Legislation of this kind should be expanded to permit counties, if they wish, to select other officers whose jurisdiction would cover a number of counties and whose salaries would be prorated among the counties which are parties to the agreement.

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## CHAPTER I

### THE IOWA SCENE TODAY

#### Introduction

The county is often referred to as the "Dark Continent of American Politics." The general lack of information and interest in county government throughout the United States is paradoxical inasmuch as county government is so near the average American. This might give one cause to re-examine some traditional theories about grassroots government in an atomic era.

Certainly one of the major causes for public apathy and disinterest in county government throughout the United States is traceable to the scarcity of reliable data and statistics concerning the operation and functions of this unit of government. Citizens and state legislators cannot be expected to develop any major interest in a governmental unit whose activities when they do appear in the newspapers are tucked away in the form of legal notices in an obscure portion of the newspaper, particularly when problems of national and international importance dominate the headlines. But even serious students of local government have difficulty evaluating the operation of county government because the formal reports counties make annually to their citizens or even to state governmental agencies frequently are vague, ambiguous and lack uniformity.

This problem is particularly acute in Iowa. Here the statute law dealing with reporting county governmental activities permits large areas where no specific information need be placed in the written records at the county level. Moreover with the exception of the State Auditor, Treasurer, and Comptroller, there are few state offices to which the activities of the various offices of the county are reported with any degree of thoroughness even on an annual basis. For example, the Secretary of State of Iowa maintains no record of election returns for county elections throughout the state.

#### Historical Background

Most of the terms, and the very form of American county government were common to Eleventh Century England. The office of sheriff, for example, developed in England during 800-900 A. D. when it was called the shire reeve. The coroner, justice of peace and grand jury were recognized agencies of county government in England by

1066 A. D. Obviously, most problems of the nuclear age have little resemblance to those of the age in which the county was originated.

Moreover, the county officers in early England were agents of a centralized authority--the King. This fact was ignored when the county form was transplanted from England to America during the colonial period. While this factor was not significant before the Revolutionary War, it became of major importance following independence of the United States. The clear lines of responsibility which governed county officers in England were not present in the United States since no powerful executive on the pattern of the early English Kings existed here.

In the United States the forms of county government developed differently in various regions. In the southern states, where English institutions were most faithfully copied, the county developed without townships as subdivisions. On the other hand, there was almost no emphasis upon the county as a unit of government in New England. There the town (not to be confused with a township) became the basic unit of government. Central states, such as New York, evolved a compromise between the southern plan and the New England approach by establishing counties but dividing them into townships. Under this plan the township supervisors normally made up the county board of supervisors.

As the nation expanded, new states tended to adopt one of these plans of local government. The form normally adopted was similar to the government of the states from which came the first major group of permanent settlers in the new states. Iowa was no exception to the rule.

The first two of the present Iowa counties, Dubuque and Des Moines, were created in 1834 when Iowa was part of the Michigan Territory. These counties were divided into townships and the township-supervisor plan of government was established with 3 supervisors and 15 other officers selected by the governor of Michigan, to govern the county.

Two years later Iowa was made part of the Wisconsin Territory and the structure of its county government was sharply revised. The county commissioner system, which originated in Pennsylvania nearly a century before, was adopted. This resulted in the discontinuation or merger of many of the county offices and disregarded the township as a basis of representation on the county governing body. During the period of approximately two years in which Iowa was part of the Wisconsin Territory nineteen new counties were created.

In 1838, the Territory of Iowa was created but the county commissioner system of government was retained for the eight years Iowa was a territory and for five years after Iowa became a state. Twenty-three of the counties now in existence were created during the period of the Territory of Iowa, and the remaining fifty-five of the state's ninety-nine counties were established during the period from 1846 (when Iowa became a state) to 1857 (when the present constitution was adopted). Normally, Iowa counties were laid out in advance of the arrival of actual settlers, but in a few instances the settlers predated the county establishment.

In 1851, the Iowa legislature drastically changed county governmental organization by abolishing the county commissioner system and replacing it with a one-man county judge. This is a governmental form common to a number of southern states, although the title is misleading to many residents of northern states. The county judge so far as county government was concerned was the chief executive, administrative, legislative and judicial authority all in one. From its inception, the county judge system was enveloped in controversy here, and finally after numerous studies and much debate it was abolished in 1860 in favor of the township-supervisor plan similar to the one first utilized when Iowa was part of the Territory of Michigan.

The Iowa legislature, however, was not through tinkering with the structure of county government. In 1870, the township-supervisor plan was abolished and replaced with the county supervisor system, an arrangement which remains essentially unaltered up to the present day. The number of supervisors was reduced, with counties given the option of having either a 3, 5, or 7 member board of supervisors. Supervisors were to be chosen either at large or from districts, determined by a referendum-type vote in the individual county, and their relation to the township was supervisory rather than representative.

#### Constitutional provisions

A word concerning the methods by which Iowa counties were created might be helpful both for perspective and also as a methodological guide when considering possible improvements in the present system. While executive proclamation was a device frequently used to create counties in the territories of Michigan and Wisconsin, no counties in Iowa were ever established in this fashion. All counties here were created by legislative enactment. From the first, Iowa's constitutions placed few restrictions upon the legislature concerning the establishment of counties. Only one provision dealing with counties was included in the Constitution of 1846. This provided: "No new county shall be laid off hereafter, nor old county reduced to less contents than four hundred and thirty-two square miles."

[Iowa Const. 1846, Art. XI, Sec. 2].



This provision was also included in the Iowa Constitution of 1857 with the proviso that with the exception of, "...the County of Worth, and the counties west of it along the Northern boundary of this state, may be organized without additional territory." [Iowa Const. 1846, Art. XI, Sec. 2]. The 1857 Constitution, in addition contained a provision dealing with counties which states: "No county, or other political or municipal corporation shall be allowed to become indebted in any manner, or for any purpose, to an amount in the aggregate, exceeding five per centum on the value of the taxable property with such county..." [Iowa Const. 1857, Art. XI, Sec. 3].

Another section of the Constitution of 1857 provides that: "The general assembly shall not pass local or special laws...for the assessment and collection of taxes for state, county or road purposes... For locating or changing county seats... and no law changing the boundary lines of any county shall have effect until upon being submitted to the people of the counties effected by the changes, at a general election, it shall be approved by a majority of the votes in each county, cast for or against it." [Iowa Const. 1857, Art. III, Sec. 30].

The only other section of the Iowa Constitution basic to an understanding of the form and functions of county government was added by an amendment adopted in 1884. It provided: "The qualified electors of each county shall at the general election in the year 1886, and every two years thereafter, elect a County Attorney, who shall be a resident of the county for which he is elected, and shall hold his office for two years, and until his successor shall have been elected and qualified." [Iowa Const. 1857, Art. V, Sec. 13].

It should be emphasized that the county attorney is the only county officer provided for in the State Constitution. The Iowa Constitution thus gives the state legislature wide leeway in outlining the organization and structure of county government, a technique hailed by most students of government since it provides the necessary legal flexibility to meet the problems of different ages without requiring the involved and time-consuming procedure of amending the constitution.

Before proceeding to study the present county governmental structure it is necessary to clarify the legal position of the county. Throughout the United States, constitutions and statutes usually set forth two major functions of the county. In all states the county is considered to be an agent of state governmental administration. In some states the county is given the additional function of acting as an agency of local self government. In such instances the county is normally granted ordinance-making authority and control over the administration of justice locally in addition to being responsible for local administration of state laws.

In Iowa, the statutes clearly indicate that counties function almost exclusively as agencies of the state government and are devoid of any real local self-governing functions. It is not surprising, therefore, that state law spells out in minute detail almost all functions of county government with little discretion granted to the county officers over local matters. Perhaps state legislators have, over the years, come to feel that county governments are doing an inadequate job. Regardless of the reason, the legislatures have gradually taken more and more functions from the county.

Courts throughout the United States normally view the county as being of a lower legal order than cities, and have labeled them quasi-corporations. The Iowa Supreme Court accepted this view in Soper v. Henry County [26 Iowa 264 (1868)]. There, it explained, "although clothed with corporate power, counties stand low down in the scale of corporate existence. Counties must be reckoned as quasi-corporations as distinct from municipal corporations." Briefly explained, this theory suggests that while counties may acquire and hold property, enter into contacts and enjoy certain other privileges of corporations, they are not true municipal corporations inasmuch as counties have no charters. As a result, the Iowa courts have concluded that counties are quasi-public corporations and are held to a much more limited liability than are municipal corporations.

### Present Structure of Iowa County Government

At this juncture it is necessary to look briefly at the structure and organization of Iowa county government today, not only to understand the manner in which it operates but also to serve as background to an evaluation of various weaknesses, shortcomings or problems that confront it.

#### County Board of Supervisors

The chief policy-making body for the county is the board of supervisors in which is incorporated in one office, the legislative and executive functions of this unit of government. Supervisors are elected for a term of 3 years and are required to post a \$5,000 bond. The size of the board may be either 3, 5, or 7 members and the supervisors may be elected from the county at large or from districts. Districts may be formally designated prior to the election or informally drawn by the board after the election (in which event supervisors are elected at large but given the responsibility for certain districts by mutual agreement of the board of supervisors following election).

State law provides that supervisor's pay is dependent not only upon the population of the county but also upon the number of members

on the board. In all counties under 40,000 population and in all counties with a 7 member board supervisors are paid a per diem rate of \$12.50 plus travel of 7 cents per mile. Salaries of supervisors in counties with a population over 40,000 but less than 60,000 are \$4,000 per year. In counties with populations of 60,000 to 100,000 having 5 member boards, the supervisors' salaries are fixed at \$4,400 per year, but a salary of \$5,400 is received by supervisors in counties with a 3 member board within the same population category. Supervisors' salaries in counties between 100,000 and 150,000 are set at \$5,600 while in counties over 150,000 (this includes only Polk) supervisors receive a salary of \$6,000 per year.

The duties of the board of supervisors are too varied to be discussed in detail here. However, a few of the more significant should be listed as an indication of their widely divergent nature. In the field of finance, the board is authorized to levy taxes to raise revenue for county purposes subject to various restrictions fixed by the state legislature such as millage levy limits. Moreover, the board settles all claims and accounts of the county, controls the county school fund, purchases materials and supplies needed by the county officers, and has authority to establish or vacate public highways subject to the supervision of the state highway commission in various areas.

The board has primary responsibility for the care and management of the county's corporate property, insuring all county buildings and purchasing or selling land for the county. Superficially it may appear that the board has certain budgetary and supervisory powers over other county offices such as requiring reports or removing county officers such as requiring reports or removing county officers who fail to comply with its directives. However, these powers are more apparent than real since each elective county office in Iowa is normally a power unto itself.

Certain powers in the field of elections are also exercised by the board of supervisors. It makes the official canvass of votes in primary and general elections and fills any vacancies in county offices except for members of its own body. In the event a vacancy in the board of supervisors occurs, it is filled by appointment by mutual action on the part of the county auditor, the clerk of district court and the county recorder.

#### County Attorney

It has been previously noted that the county attorney differs from other county officers in that his office is provided for in the state constitution while the others are products of legislation. The county attorney is elected for a term of two years and must post a bond of

\$5,000 before taking office. He is paid an annual salary varying with the population of the county plus ten percent of all fines collected by the courts in the county. No one is eligible for this office who has not been admitted to the bar.

The county attorney is charged with the responsibility of prosecuting all crimes committed in the county and of defending the county against all actions brought against it. He is responsible for collecting all money due on forfeited bonds and on the school fund. Moreover, the county attorney acts as a legal advisor for the board of supervisors and all other county officers in official matters. He also serves in the same advisory capacity for school and township officers when they request his assistance. The county attorney has broad investigative powers which are wholly discretionary inasmuch as no statutory provisions spell out the manner in which these functions are to be exercised.

### County Auditor

The county office which is probably the most diversified and the one involving the greatest detail is held by the county auditor. The auditor is elected for a two year term and receives an annual salary which varies with the population of the county. The auditor is ex-officio clerk of the board of supervisors and as such has control over the records of the county board.

Only a few of the auditor's varied other duties can be listed here. He is custodian of the court house, issues dog licenses and keeps a record of stray stock. Records of real estate transfers, highways established and vacated as well as records of the various drainage districts in the county are all kept by the auditor.

His duties in the field of finance include: issuing redemption certificates for real estate sold because of tax delinquency, assessing property omitted by the assessor, issuing warrants on the county treasurer for claims allowed by the board, and keeping a ledger of revenue derived from all sources and all disbursements made from the various county funds. Moreover, the auditor computes taxes on all taxable property in the county from levies made by the board and certified by town or township officers, school districts and the State Executive Council.

County auditors' duties also extend to the area of elections. He is the clerk of the official canvass of elections made by the board. He supervises the printing and delivering to the election board of all official election supplies and is custodian of poll books returned from the various precincts in the county.

### County Treasurer

The treasurer is elected for a two year term with a salary dependent upon the population of the county. His prime function is to act as custodian for all county funds, and as such he is required to make a semi-annual settlement with the board of supervisors and to report all fees collected. The statutes require him to give a receipt for money collected and deposited, and to keep a record of such funds separately.

It is the treasurer's duty to collect all taxes certified to him by the county auditor, and  $3/4$  of one percent additional on all real estate on which the taxes have not been fully paid.

Any real property which has been omitted from the assessments made either by the assessors, boards of review, or the county auditor will be assessed by the county treasurer. He is also to make a monthly report to the State Auditor of all taxes paid to the state and for soldiers' bonuses, and to pay these funds to the State Treasurer when they are requested.

### County Sheriff

The sheriff is the principal peace officer of the county. He is elected for a two year term and is paid mileage and expenses plus a salary dependent upon the population of the county. In addition to his salary the sheriff is allowed, free of rental, home quarters. Administration of the jail is placed in his hands and he also has charge of the court house.

State statutes provide that his duties shall include summoning grand and trial juries, executing and returning all writs and other legal processes issued to him by lawful authority. The sheriff is required to make special investigations into alleged law violations when so directed by the county attorney, and to administer the death penalty when such penalty is decreed in his county. He also serves papers in contested elections and gives notice of election by publishing a proclamation to this effect.

### County Recorder

The office of the county recorder has as its primary function insuring the existence of accurate and authentic records of ownership of various forms of property in the county. The recorder is elected for a term of two years and receives a salary, dependent upon the population of the county. The recorder has the duty of recording in detail all instruments filed with him which consist principally of deeds, mortgages, assignments, affidavits, releases and powers of attorney.

Records of all physicians, surgeons and veterinarians practicing in the county are kept by the recorder, in addition to discharge papers from persons who served in the armed forces. Other records kept by this office include: articles of incorporation, decisions of trustees in drainage matters and decisions of fence viewers, permits to sell dangerous weapons and deeds of trust for railroad corporations. The recorder also issues hunting licenses and is required to report quarterly to the board of supervisors all fees collected and to pay quarterly such fees to the county treasurer.

### County Coroner

One of the most ancient and today one of the more controversial of county offices is that of the coroner. The coroner in Iowa is elected for a term of two years and is paid a fee of \$10 an inquest in lieu of a salary. The primary duty of the coroner is to hold an inquest in all cases of death involving external force. He is also authorized to perform post mortem examinations, but the statutes do not require the coroner to be a medical doctor.

The coroner also performs all the duties of the sheriff when that office is vacant; or in the event the sheriff is a party to a proceeding or action in the court of record; or when the sheriff may show prejudice, partiality, consanguinity or other interest in a case.

### Clerk of District Court

The last elective county official to be discussed is the clerk of district court who in many respects may be regarded more as an officer of a state court than as a county officer. The clerk is elected for two years and like other county officers has a salary which depends upon the population of the county. As his title indicates, the clerk has charge of all court records in law, equity and probate matters, in addition to being custodian of grand jury indictments and reports. Records of dentists and optometrists practicing in the county are kept in this office and lists of notaries public and justices of peace, indices of judgments and liens. This office also acts as custodian for the county's records of births, marriages and deaths.

The clerk is given functions other than record keeping, which include: issuing marriage licenses, approving appearance bonds for criminals out on bond, appointing administrators of estates and guardians of minors. The clerk also receives on deposit money due minors or heirs whose whereabouts is unknown and issues commitments for persons delivered to the penitentiary and insane hospitals.

### Other County Offices

Iowa county government is characterized by three other offices that are non-elective in nature but which like all offices, except the board of supervisors, are basically administrative rather than policy making in nature.

The county superintendent of schools is appointed to a three year term by the popularly elected five-member county board of education. The superintendent must have a superintendent's certificate and have at least five years' experience in teaching, administrative or supervisory work. He is required to visit the various public schools in the county at least once during each school year and at any other time when so requested by the majority of the directors of any school corporation. The county superintendent, in general, serves in a liaison capacity between the State Superintendent of Public Instruction and the school teachers and administrators in the county. He is currently concerned with administrative problems involving the reorganization of school districts in the county.

The county engineer is another non-elective county official. He is appointed by the board of supervisors for a term determined by the board, but which may not exceed three years. The board of supervisors fixes the engineer's salary and may discharge him at any time during his tenure of office. All county engineers must be registered civil engineers. General supervision over construction, maintenance and repair of highways and bridges in the county is given the engineer. But the engineer is required to make an annual report to the State Highway Commission on all roads in the county, their present condition and their needs.

The county assessor is the other non-elective county officer and is appointed to a four year term by a special conference body including the members of the county board of supervisors and the mayors of all incorporated cities and towns in the county, and members of the county boards of education. The county assessor must be selected from a list of names, including all county residents who have passed the examination for county assessor and are certified by the State Tax Commission. While the assessor's salary is fixed by the County Conference Board, state law prohibits the salary from being less than that paid the county auditor. Like the other county officers, the assessor makes up his own budget and certifies it to the board of supervisors which permits him a substantial degree of independence in this area.

The assessor's primary function is to assess in accordance with regulations of the State Tax Commission and submit on or before May of each year completed assessment rolls to the county board of

review. Moreover, he aids and advises the county board of review in adjusting the assessments to the valuations required by law.

### Miscellaneous Boards, Commissions and Councils

In addition to the offices mentioned above, state law either requires or permits the establishment of a host of boards, commissions or councils which operate relatively independently of the basic operational offices of county government in Iowa. Space does not permit a detailed discussion of each of these bodies, however, because of their importance, several must be discussed briefly while the remainder can be noted only in passing.

#### (1) Board of Review

Iowa law requires that each county establish a board of review, the members of which are appointed for staggered four year terms by a conference composed of the board of supervisors and the mayors of all incorporated cities or towns in the county in addition to the members of the county board of education. The size of the board as fixed by law can be no less than three nor more than five members with at least one member being a farmer, one a real estate broker and one a person experienced in the building and construction field. Members are compensated at a per diem rate of \$10 plus mileage and actual expenses incurred in carrying out their duties.

The board has the function of adjusting assessments and valuations of personal or business property, hears protests against present assessments and, in general, it acts as a board of equalization. It has no jurisdiction, however, over assessments in municipalities where a city assessor exists. Appeals from the county board of review are taken to the district court of the county.

#### (2) Board of Social Welfare

The county board of supervisors is required to appoint a bipartisan county board of social welfare, the size which will vary with the county's population. The board is given the responsibility for administering all forms of categorical public assistance including Old Age Assistance, Aid to the Needy Blind, Aid to Dependent Children and Child Welfare Services. All employees of the agency are selected subject to the approval of the State Department of Social Welfare pursuant to the provisions and requirements of the Iowa Merit System Council. Aid extended normally is in the form of monthly state warrants issued to the individual or family.

General relief is administered by the county board of supervisors although the board of social welfare has the responsibility for



administering and distributing United States Government commodities and food and providing emergency welfare service in connection with civilian defense.

(3) County Agricultural Extension Council

State statutes require the establishment of a county agricultural extension council consisting of one resident from each township who is elected for a two year term. This council is authorized to cooperate with the state extension service and the United States Department of Agriculture in fostering extension agricultural educational programs and also to insure that federal funds allocated to the extension service and the county agricultural extension educational service may be most efficiently utilized by the extension service and the extension council.

(4) Soldiers Relief Commission

Each county board of supervisors is authorized to appoint for a term of three years a three-member soldiers' relief commission. Such commissioners must be veterans and receive a \$2 per diem plus mileage expenses. The commission has the function of administering revenue from a tax not to exceed 1 mill on the dollar which may be levied by the county board of supervisors for the relief or funeral expense of honorably discharged, indigent veterans of the United States Armed Forces or their dependents.

(5) Optional County Agencies

In addition to the boards and commissions discussed above, counties have the option of creating various other special-purpose agencies. These include the county drainage board whose membership is ex officio the county supervisors, the county board of health, the county hospital board, the county zoning commission and the county fair association.

Summary

From the foregoing, it is clear that Iowa county government is a welter not only of elective and relatively independent county offices but also of a great variety of semi-autonomous boards, commissions and councils. Ostensibly, the board of supervisors is the chief formulator of county policy. However, it is clear that state legislation through many mandatory provisions controlling the structure and functions of the county and through granting fiscal near-independence to many of the county agencies has almost insured the absence of any truly executive direction on the county level.

## Chapter II

County Government Costs

One of the major reasons for recent interest in Iowa concerning county government seems traceable to an uncomfortable but undocumented feeling that the operation of county government is inefficient and wasteful. Whether this sentiment has suddenly emerged or whether it is merely a culmination of a series of long-standing discontents is difficult to assess. But it seems likely that in a period of economic readjustment the average taxpayer will react strongly to examples of waste and poor administration that might be ignored during years of high prosperity.

In this chapter the authors have attempted to pin-point the actual costs of operating various key county offices and through methods of quantitative analysis to explain part of the wide variation in these costs among the 99 counties of Iowa. This technique should be helpful in either supporting or calling into question various charges made by lay critics of county government as it presently exists. In addition, it may be of assistance in testing certain standard and perhaps even stereotyped doctrines in public administration dealing with local government.

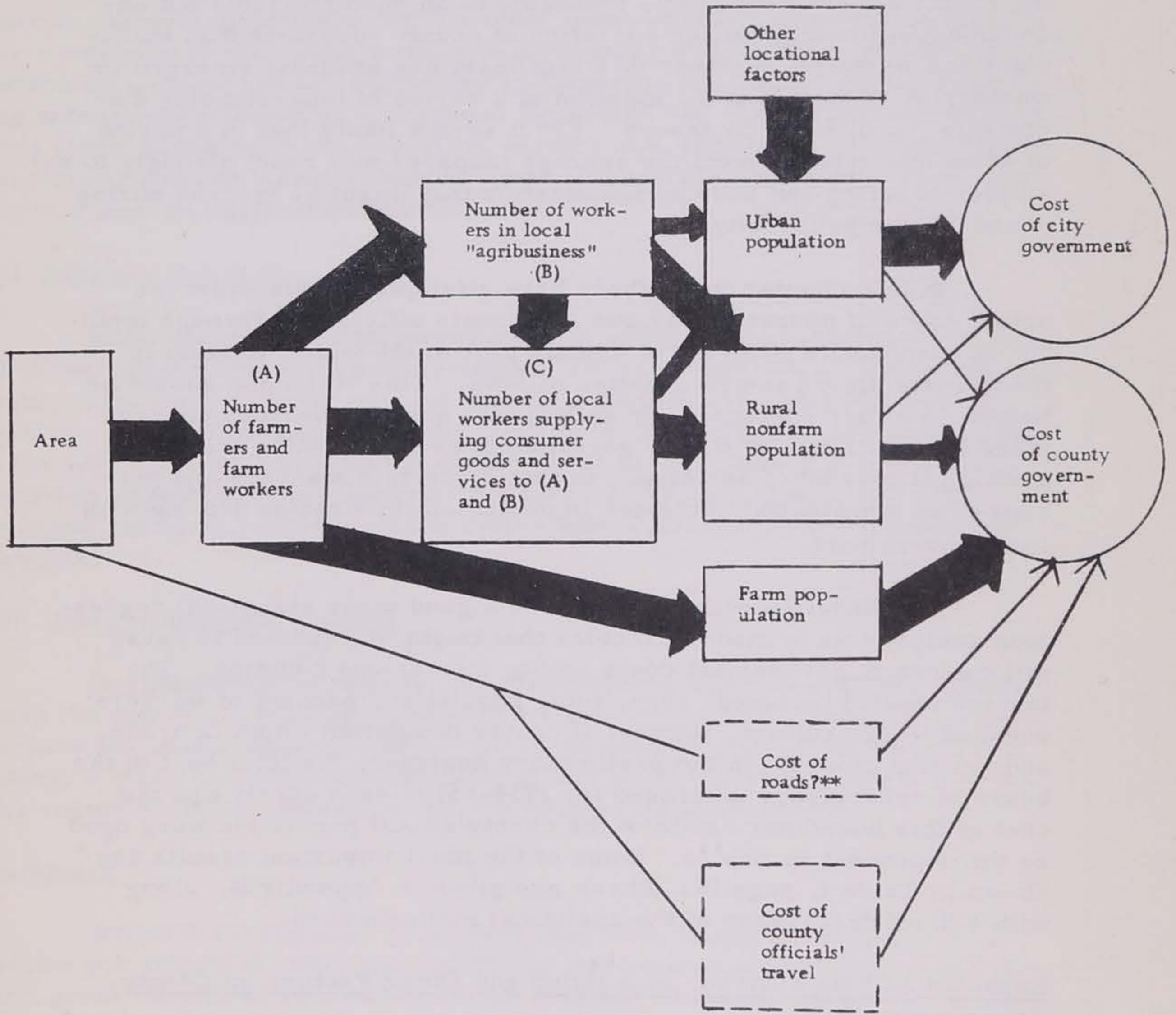
In connection with the research a good many statistical regression analyses were made of factors that might be expected to cause differences in government costs among the various counties. The factors studied included area, total population, percent of workers engaged in agriculture, percent of county population which is urban, and several others. In the preliminary analyses, the total cost of the board of supervisors (averaged for 1954-55) in each county and the cost of this board per capita of the county's total population were used as the dependent variables. Some of the most important results are shown in Table I, page 18; others are given in Appendix B, along with a brief description of the analytical methods used.

Expected Effects of Area, Population and Other Factors on County Government Costs

The statistical methods used show the extent to which various factors are associated with costs of government, but they do not in themselves tell why they are associated. Figure A expresses a working hypothesis as to how various real factors would be expected, in a logical or causal sense, to affect the cost of county government. The arrows lead from "cause" to "effect", according to the following pattern:

Figure A#

Expected Effects of Area, Population and Rural-Urban Residence upon Costs of County Government in Iowa\*



# Figure A and its description were prepared by Karl A. Fox.

\* Heavy arrows indicate effects of major quantitative importance -- others, effects of intermediate or minor quantitative importance.

\*\* Allows for possible effects of area over and above those associated with size of farm population.

The area of a county within Iowa largely determines the number of persons engaged in agriculture and, of course, the population living on farms. Compared with most other states, Iowa's agricultural land is relatively homogeneous and the average number of acres per farm does not show extreme variations from county to county.

The size of a county's agricultural base largely determines how many nonfarm workers will be located in the county for the purposes of selling goods used locally in farm production; buying, storing, processing and hauling local farm produce; and selling consumer goods and services to local farmers. The workers in local "agribusinesses" also need consumer goods and services and the persons supplying these goods and services in turn exchange specialized goods and services with each other.

The labor force of some of the rural counties in Iowa would consist almost entirely of persons performing the above functions, plus farm people themselves; the three groups are represented by the "boxes" marked (A), (B), and (C).

The next group of boxes to the right includes workers plus their dependents, i. e., total population, and distributes nonfarm population among "urban" and "rural nonfarm" residence, for convenience in using data based on standard Census population categories. Except in the immediate vicinity of large towns, it seems reasonable to assume that the rural nonfarm people in a county are located there because of its agricultural base. However, the Census definition of "urban" is based strictly on size and not on function -- for example, if a town happens to have 2,500 people or more, its residents are classed as "urban" even though all of its workers may be in the county to serve its agriculture. If a town has 2,499 residents or fewer, its residents are classed as "rural nonfarm". If an Iowa county contains only workers (and dependents) with the functions indicated in boxes (A), (B) and (C), its

population is not likely to exceed about 30 per square mile, or perhaps 20,000 people in total for any but the largest counties in point of area.<sup>1</sup>

"Other locational factors" would account for the bulk of the urban population of counties having more than 15,000 or 20,000 people. They include various historical and geographical factors that have led to the location of railroads, industrial plants serving multi-county or larger areas, colleges, home offices of insurance companies, the state capitol, and many other kinds of activities not specifically tied to the agriculture of the county in which they are located. (Some towns with 5,000 or more people may also be servicing the agriculture of adjacent counties, some of which contain no towns of more than 2,500 population).

<sup>1</sup>/ These relationships between area, agricultural employment and total population may be illustrated as follows:

	Ranges		
	Number of persons employed in agriculture	Area of county	Total population
	Thousands	Sq. miles	Thousands
Ten counties with smallest numbers of persons employed in agriculture, 1950	1.6-1.9	382-446	8.0-15.8*
Ten counties with largest numbers of persons employed in agriculture, 1950	4.0-4.9	688-979	21.0-27.8**

\*Omits one county which contains a city with over 25,000 population.

\*\*Omits three counties which contain cities with over 25,000 population.

The counties with the smallest number of workers employed in agriculture are among the smallest in area, and vice versa. Few of the counties contain more than 30 people per square mile, and these counties generally contain a town of more than 5,000 population, not all of whom are located there to service the agriculture of that particular county.

The arrows connecting urban, rural nonfarm, and farm populations to "cost of county government" are of different widths to suggest that the per capita costs of the services rendered by county government may be different for each of the three population groups. The diagram implies also that urban people are getting from city governments many of the services that farm people get from county governments. The rural nonfarm population in some counties is primarily associated with agriculture while in others it includes many people whose economic ties are to a large city or to a nearby industrial or railroad city. To clarify the effects of the different patterns of distribution of the rural nonfarm population upon costs of county government would require more extensive study than has been possible in this report.

The narrow lines running from "area" to "cost of roads" and "cost of county officials' travel" suggest ways in which area as such might influence the cost of county government, over and above the effects of area as a determinant of the county's agricultural-economic base.

One objective of additional research on county government might be to estimate the quantitative influence of each "cause" upon the "effect" (or effects) next in line. If this were successfully done, the effects of proposed or expected changes in any of the factors included in the diagram could be translated at least roughly into probable changes in the costs of county government. Limitations of time and data have prevented a complete analysis of this type. However, the diagram provides a useful framework for interpreting most of the charts and cost figures to be cited in the remainder of the report.

#### Statistical Estimates of the Effects of Population and Area

Exploratory analyses have been made to quantify some of the effects represented in Figure A; these are reported in Tables I, II and III and in Appendix B.

Some comments on the facts presented in Table I (page 18 ) may be of interest. From Equation 1, we note that the total cost of the county board of supervisors is expected to increase \$86 for each increase of 1000 in county population (from the coefficient of \$0.086 per person).<sup>2</sup> However, only 42 percent (from  $r^2 = 0.42$ ) of the variation in cost among counties is associated with differences in county population. Similarly, from Equation 2, we see that total cost increases on the average about \$18 for each square mile increase in area. But area is less closely associated with variations in the costs of boards of supervisors, as  $r^2$  is only 0.26, or 26 percent.

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<sup>2</sup>/ The authors are indebted to Professors Emil Jebe and Karl A. Fox for their aid in the derivation and interpretation of the statistical results presented in Chapter 2.

Table I

Costs of County Boards of Supervisors in Iowa (1954-55 Average)  
Related to Population of County (1956), Area of County,  
and Number of Members on the Board.

Equation and Variable <sup>1/</sup>	Coefficient of Determination <sup>2/</sup> (r <sup>2</sup> or R <sup>2</sup> )	Unit in which Variable is Stated	Constant Term <sup>3/</sup>		Estimated Effect on Dependent Variable of an Increase of One Unit in the Specified Independent Variable <sup>4/</sup>
			Dollars	Dollars per Unit	
1. <u>Total Cost of County Board</u> Population	0.42 ---	Dollars Persons	9,500 ---	---	0.086
2. <u>Total Cost of County Board</u> Area	0.26 ---	Dollars Sq. Mi.	1,590 ---	---	18.00
3. <u>Total Cost of County Board</u> Population Area	0.56 --- ---	Dollars Persons Sq. Mi.	8,870 --- ---	---	0.074 13.00
4. <u>Total Cost of Committee Work</u> <u>per Diem for County Board</u> Number of Supervisors Area	0.20 --- ---	Dollars Number Sq. Mi.	1,075 --- ---	---	591.00 7.70

<sup>1/</sup> The underlined variable is the "dependent" and the others are "independent" in statistical terms.

<sup>2/</sup> The coefficient of determination measures the proportion of total variation in the dependent variable that is associated with variation in the independent variable (or variables) for the given equation. In terms of computation this coefficient is the square of the simple correlation coefficient (r) or the multiple correlation coefficient (R<sup>2</sup>), multiple correlation referring to the combined effects of two or more independent variables.

<sup>3/</sup> In general, the constant term simply establishes the level at which the line of average relationship cuts the vertical axis on which values of the dependent variable are measured. For example, Equation 1 is shown in Chart 1 crossing this axis at \$9,500 when population is zero. In special cases the logic of a problem may permit assigning a more definite meaning to it. For example, the constant term of \$8,870 in Equation 3 might be thought of as the expected basic or minimum cost of maintaining a county board in a county with extremely small population and area. The fact that some counties of as much as 10,000 population and 500 square miles area incur less than \$8,870 of total costs for their boards of supervisors indicates that the constant term gives only a very rough approximation to the minimum cost of maintaining such a board.

<sup>4/</sup> The meaning of these coefficients may be expressed as follows, using Equation 3 as an example and assuming a county with 10,000 population and 500 square miles area:

a. Effect of population = 10,000 persons x \$0.074 per person =	\$ 740
b. Effect of area = 500 square miles x \$13.00 per square mile =	6,500
Combined effect of population and area =	7,240
c. Constant term =	8,870
Average or expected cost of board =	\$ 16,110

As suggested by Chart 1, the actual costs incurred by counties of approximately this population and area may be considerably higher or lower than \$16,110, depending upon factors other than population and area.

The effect attributed to increased area in Equation 3 probably operates through the closely associated increases in farm and rural nonfarm population--groups which appear to receive the major portion of the county board's attention. The effect attributed to "total population" is strongly influenced by a small number of metropolitan counties, so that it represents primarily the effect of increased urban population. This interpretation is strongly supported by the coefficient obtained for urban population in Table II, Equation 5.

In this preliminary study, Equation 3, using population and area together as explanatory factors or "predictors" of board costs seemed to give the simplest and most useful results.<sup>3</sup> Yet only a little over half -- 56 percent -- of the variation in board of supervisors' costs was associated with these two factors. Thus, nearly half -- 44 percent -- of the variation in costs must at this stage be attributed to differences in factors other than the areas or the total populations served by the boards. Presumably the residual variation is due in part, to efficient operation of boards of supervisors in some counties with other counties showing, perhaps, excessive costs for the operation of the county board.<sup>4</sup>

Equation 4 (Table I) indicates that total costs of committee work per diem tend to run higher for boards with 5 members than for those with 3 members after the effects of area have been taken into account. On the average, each additional board member appeared to increase such costs about \$600, so that 5-member boards tended to have per diem costs about \$1,200 larger than did 3-member boards. However, only 20 percent of the variation in per diem costs was associated with difference in numbers of board members and in county areas taken together, so that 80 percent of the observed variation in per diem costs must be attributed to other factors.

Table II, (page 20), suggests that the total costs incurred by boards of supervisors depend primarily on the size of the rural (and possibly even the rural farm) population. In particular, Equation 5 implies that each additional member of the rural farm population was associated with an increase of \$0.92 in the cost of the board, while each additional member of the urban population was associated with a cost increase of only \$0.08. However, further study would be needed before a full cause-and-effect interpretation of these figures would be warranted. It should be kept in mind that the cost of the board of supervisors as such is relatively small in comparison with the total cost of the services provided or supervised by the county government. Included in such costs are: road maintenance, education, social welfare and similar items. The allocation of county tax funds for these services as between urban and rural residents might show a very different relative emphasis for county government as a whole.

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3/ Neither the inclusion of additional plausible factors nor allowance for possible curvilinear relations with population and area appeared to improve the results.

4/ It is not necessarily true that boards with high operating costs in relation to population and area are doing a poorer job overall than those with extremely low operating costs. Definitive conclusions on this point would require a detailed management study of individual boards.



Table II

Costs of County Board of Supervisors in Iowa, (1954-55 Average),  
Related to Total Population of County and to Rural Farm,  
Rural Nonfarm and Urban Population Subgroups (1950).

Equation and Variable <sup>1/</sup>	Coeffi- cient of Determi- nation <sup>2/</sup> (r <sup>2</sup> or R <sup>2</sup> )	Unit in which Variable is Stated	Constant	Estimated Effect on
			Term <sup>3/</sup>	Dependent Variable of an Increase of One Unit in the Spec- ified Independent Variable <sup>4/</sup>
			Dollars	Dollars per Unit
1. <u>Total Cost of County Board</u> Total Population	0.42 ----	Dollars Persons	9,500 -----	----- 0.086
2. <u>Total Cost of County Board</u> Rural Farm Population	0.33 ----	Dollars Persons	2,183 -----	----- 1.218
3. <u>Total Cost of County Board</u> Rural Nonfarm Population	0.22 ----	Dollars Persons	7,318 -----	----- 0.758
4. <u>Total Cost of County Board</u> Urban Population	0.39 ----	Dollars Persons	10,530 -----	----- 0.102
5. <u>Total Cost of County Board</u> Rural Farm Population Urban Population	0.56 ---- ----	Dollars Persons Persons	3,549 ----- -----	----- 0.915 0.082

<sup>1/</sup> Same as Table I, footnote 1.

<sup>2/</sup> Same as Table I, footnote 2.

<sup>3/</sup> See Table I, footnote 3, for general interpretation.

<sup>4/</sup> See Table I, footnote 4, for general interpretation.

Equation 5, Table II, bears a close logical relationship to Equation 3 in Table I (page 18). The coefficient for urban population in Equation 5 is very similar to that for total population in Equation 3, Table I. Further, a supplementary regression analysis shows that rural farm population tended to increase by about 15 persons for each increase of one square mile in county areas. If we multiply "15 farm residents per square mile" by "\$0.92 per farm resident" we obtain an estimate of "\$13.80 per square mile" -- this compares closely with the \$13.00 per square mile attributed to area in Equation 3, Table I. The coefficients of multiple determination are 0.56 in

both cases. Both equations are consistent with the working hypothesis expressed in Figure A, (page 14) and, of course, with each other.

The dependent variable in Table III (page 22) is an aggregate of the internal costs of all county offices together with the costs of many of the major welfare and other services administered by county officials. The items specifically included in this aggregate are noted in Table III, footnote 1. The principal item not included are: costs of road construction and maintenance and costs of operation of the school districts in the county.

More complete analyses of this aggregate and its major components will be reported at a later date. It should be noted that 89 percent of the variation in total costs is associated with total population, undifferentiated between rural and urban categories. This suggests that, percentage wise, there is much less variation among counties in per capita costs of all county government services than in the per capita (internal) costs of individual county offices such as the board of supervisors. Cost of caring for the poor and for the mentally ill are prominent among the total costs analyzed in Table III, and these costs seem to be inherently less variable under current conditions than are the costs of running particular county offices. It seems reasonable to expect that county expenditures for schools and roads (not included in Table III) would also be fairly closely related to population.

The inclusion of area as well as population in Equation 3 fails to raise the coefficient of determination significantly above that provided by "population" alone in Equation 1; consistently with this, it makes little change in the estimated effect of population upon total costs. It has been noted earlier that "area" appears to operate through rural (or rural farm) population as the factor most immediately affecting board of supervisors costs, while "total population" appears to represent primarily the separate effects of urban population. The weakness of the area effect in Equation 3, Table III, suggests that differences between rural and urban residents may be much smaller in terms of "per capita costs" of total county services than they are in terms of demands upon the time and attention of the board of supervisors. This point, however, requires further investigation.

The constant terms and the estimated effects of population in Equations 1 and 3 are consistent with the assumption that counties with larger populations can achieve lower per capita costs, i. e., that there may be "economies of scale" in the total cost of county offices and services. Here again, fuller study would be needed to establish the truth of this assumption and if so, the reasons why it is true. Many of the charts for individual county offices suggest that per capita costs decrease rapidly up to some moderate population size and then decline more slowly or (in some cases) not at all. Some further study of

Table III

Total Cost of County Government Offices Plus Expenditures  
for Selected Welfare and Other Services (1955)  
Related to County Population (1956) and Area. 1/

Equation and Variable <u>2/</u>	Coeffi- cient of Determi- nation <u>3/</u> ( $r^2$ or $R^2$ )	Unit in which Variable is Stated	Constant Term <u>4/</u>	Estimated Effect on Dependent Variable of an Increase of One Unit in the Spec- ified Independent Variable <u>5/</u>
			<u>Dollars</u>	<u>Dollars per Unit</u>
1. <u>Cost of County Government Offices and Selected Services</u> Population (Total)	0.892 -----	<u>Dollars</u> Persons	<u>104,150</u> -----	---- 9.81
2. <u>Cost, Offices and Selected Services</u> Area	0.081 -----	<u>Dollars</u> Sq. Mi.	<u>370,230</u> -----	---- 81.00
3. <u>Cost, Offices and Selected Services</u> Population (Total) Area	0.895 -----	<u>Dollars</u> Persons Sq. Mi.	<u>107,980</u> -----	---- 9.67 16.30

1/ Specifically, the dependent variable in each of the three equation in Table III includes the following items:

Costs of County offices: board of supervisors, auditor, treasurer, clerk of district court, misc. court expense, sheriff, board of education, supt. of schools, recorder, attorney, engineer, coroner, assessor, misc. offices.

Costs of county services: official publications, court house expense, net expense for poor relief, bounties, care and aid for insane, soldiers relief and administration, misc. expense.

2/ Same as Table I, footnote 1.

3/ Same as Table II, footnote 2.

4/ See Table I, footnote 3, for general interpretation.

5/ See Table I, footnote 4, for general interpretation.

possible "economies of scale" may be made during 1959, using the same basic methods as those underlying Tables I, II, and III.

Beyond a certain point, however, further progress will depend upon the detailed study of individual operations in individual counties from a management point of view. In particular instances, high per capita costs might reflect more adequate (but not extravagant) services; in other cases, high costs might reflect inefficiencies stemming from an inadequate scale of operations or below-average personnel. Appraisals at this level of detail would normally be regarded as a responsibility of officials in charge of the programs, i. e., as a management function rather than a problem for research workers. However, under the present legal structure for organization of counties in Iowa it is impossible to achieve any over-all managerial supervision since each county is an entity in itself as is each elective office in the individual county.

These results must be interpreted as average relationships between "cause" and "effect" variables for a large group of counties. Perhaps the most important single finding of this study is the extremely wide variation among counties with respect to the per capita costs of each function of county government. This is true not only of variations around the actual averages of all counties in the state, but also of variations around the average relationships which allow for differences among the counties in population and area. Variations around the average relationships are presumably due in the main to human factors, including the efficiency with which the government functions of the various counties are organized and staffed.

#### Board of Supervisors Costs

Inasmuch as the board of supervisors is the key policy formulating body on a county level and because of its key financial control activities it will be not only the first county agency studied but will be the one to which the greatest space is devoted. The main items which contribute to total costs of the board of supervisors are regular board meetings, committee meetings, mileage for regular meetings, and mileage for committee meetings. The only other notable cost consists of expenses incident to the board's acting in its ex-officio capacity as the drainage board.

For purposes of controlling compensation, Iowa law establishes seven population categories for counties and limits the number of regular board meetings for counties in each category. This limitation ranges from counties with populations of 10,000 or less which are restricted to regular sessions of 30 days per year to the highest bracket of counties with populations of 90,000 and above which are limited to 100 days of regular sessions. In addition to the regular

meetings of the supervisors, Iowa law permits the board of supervisors to call as many committee meetings as it deems necessary.

Research reveals that considerably less of the board of supervisors' work is done at the regular meetings than is done at committee meetings, at least if comparative costs can be taken as an indication of work performed. Analysis of this question is based on data from 87 counties. (Twelve of the 14 counties in which supervisors serve on an annual salary basis do not list cost of regular meetings separately from that for committee meetings and thus cannot be included in these calculations). During the four year period, 1952-1955, 86 per cent of the total cost of all meetings in the 87 counties was for committee meetings. (See Chart 1). Moreover, 89 per cent of the mileage paid for all meetings went for committee meeting mileage payments. Put in another way, for the year 1955, this meant that the average supervisor travelled approximately 7,200 miles for committee work but travelled only about 840 miles per year for regular meetings of the board of supervisors.

It is worth noting that sharp differences in mileage expense exist between counties with similar areas. For example, in two of the smaller counties in the state, it was discovered that the total average miles per year for each supervisor was 4,872 in Adams County but jumped to 10,094 for Emmet County, the smallest county of all. Likewise, in Iowa's two largest counties mileage per supervisor averaged 21,162 in Kossuth and 7,705 in Pottawattamie. In this case, while these two counties are almost equal in area, Kossuth County's supervisor cost for mileage was approximately three times that of Pottawattamie's.

Furthermore, if for purposes of comparison the areas of the two smallest counties, Adams and Emmet, are combined, the resulting area is similar to that of Pottawattamie, but the total mileage cost for supervisors in the two smaller counties is twice that of Pottawattamie. The supervisors of Pottawattamie averaged only 76 per cent as much mileage as did the supervisors of Emmet County. All of the counties noted above have five-member boards of supervisors.

Some idea of the magnitude of the time spent by supervisors in committee meetings may be seen by noting the situation for two typical years, 1954 and 1955. Averaging the costs for committee work for these years it is found that the average county supervisor was paid for 215 days of committee work, or about 4 days a week throughout the two-year period. (See Charts 2 and 3). However, individual counties differed vastly in the amount of time spent for committee work. At one extreme, in Worth County the average supervisor was paid for 300 days of committee work, or about 6 days a week. Worth is, of course, one of the smallest counties. At the other extreme is Cherokee County,

CHART 1- IOWA COUNTIES: BOARD OF SUPERVISORS COMMITTEE WORK COMPARED TO COUNTY POPULATIONS\*

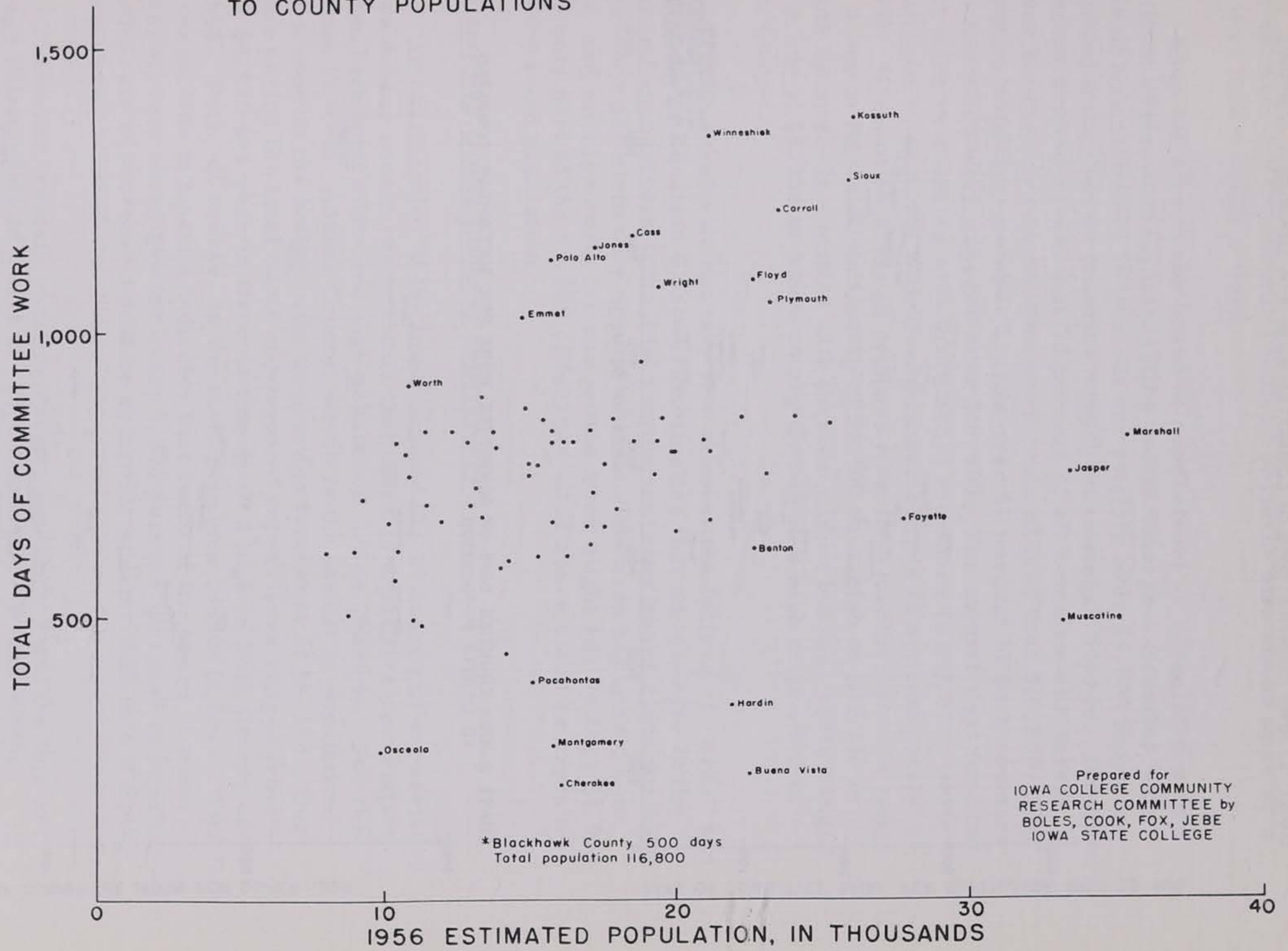


CHART 2- IOWA COUNTIES: DAYS OF COMMITTEE WORK PER SUPERVISOR COMPARED TO COUNTY AREA

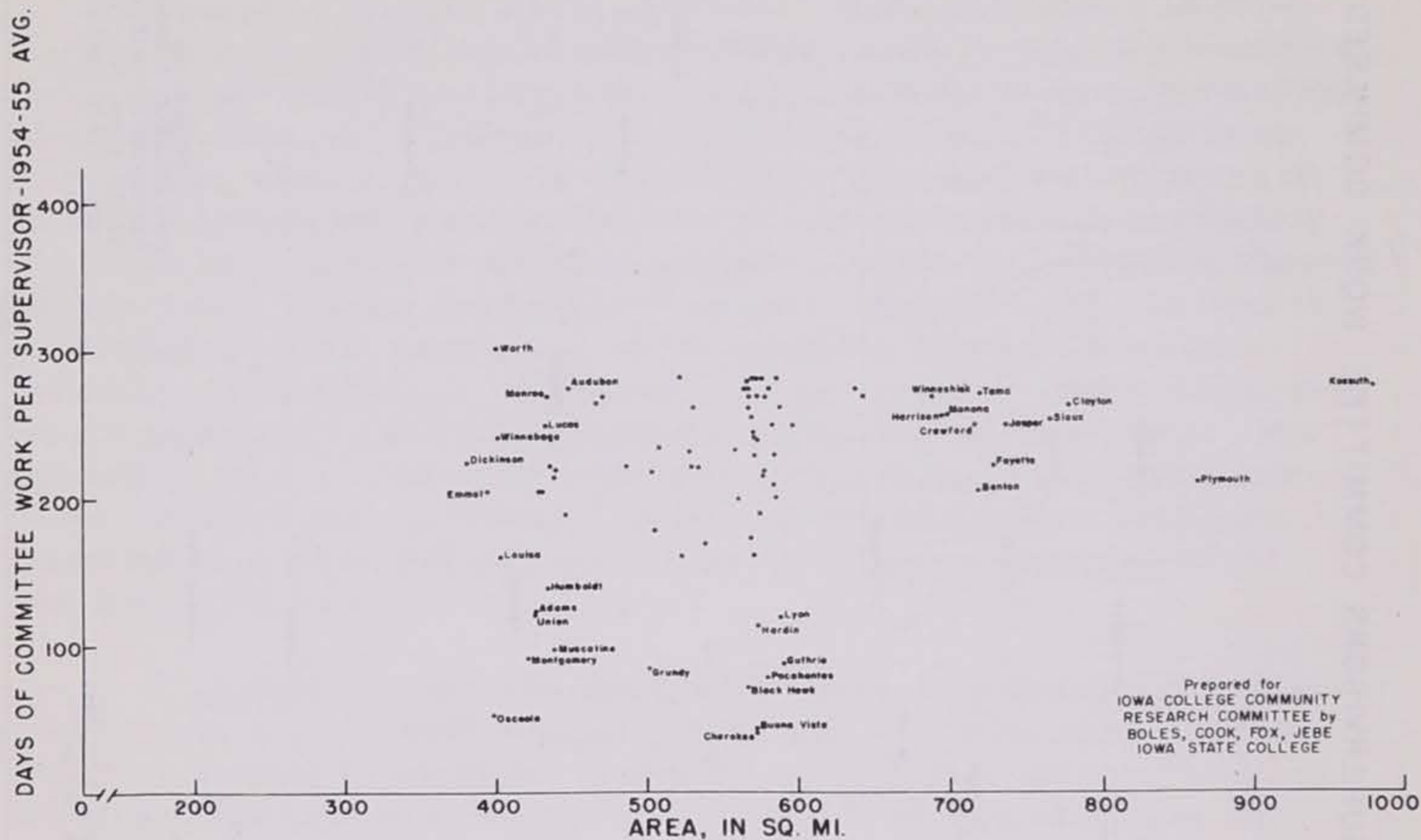
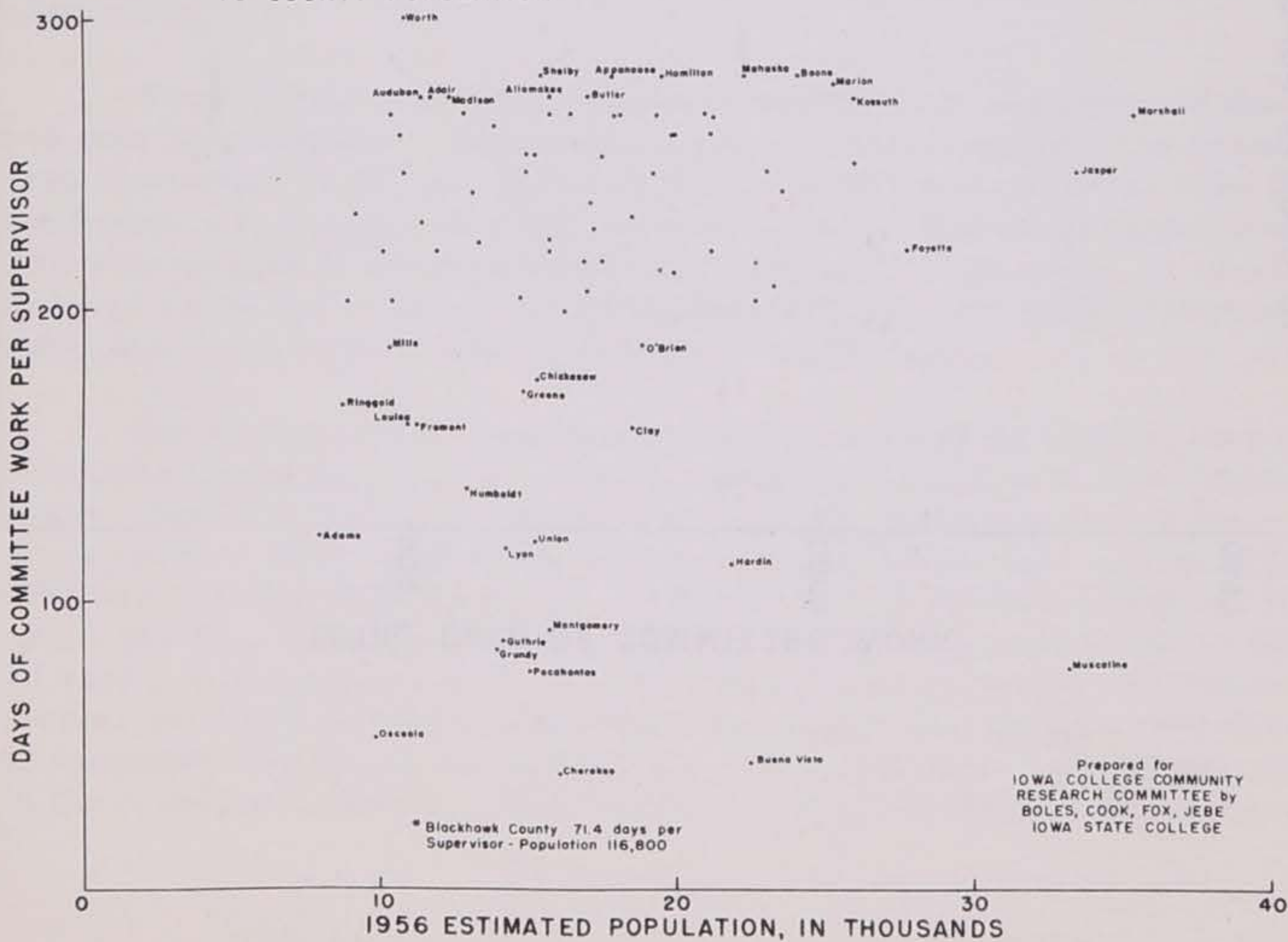


CHART 3- IOWA COUNTIES: DAYS OF COMMITTEE WORK PER SUPERVISOR COMPARED TO COUNTY POPULATION\*



where the average supervisor received payment for only 40 days or a little less than one day a week.

When the size of the board of supervisors is correlated with committee costs, certain interesting points emerge. Counties with boards of five members in general run slightly over \$3,000 more for committee work than do counties with three-member boards. Data for the period studied reveal that 75 percent of all counties with three-member boards have committee work costs of less than \$16,500. But in counties with five-member boards over 50 percent of such counties have committee work expense over \$16,500. The median cost for committee work in counties with three board members is \$15,000, while median cost in counties with five-member boards is approximately \$18,000. Committee costs in counties with five-member boards range from a low in Buena Vista County of \$4,100 to a high of \$27,130 in Kossuth County. In counties with three-member boards, costs ranged from a low of \$5,366 in Montgomery County to a high of \$17,908 in Worth County.

These results do not take into account the factors of "area" and "population". Equation 4, however, implies that an increase in the number of supervisors from 3 to 5 would increase board costs for committee work per diem only about \$1,200 (county area being held constant), and mileage costs for committee work might add another \$1,000. Thus, only part of the \$3,000 difference cited above could be explained by area and population.

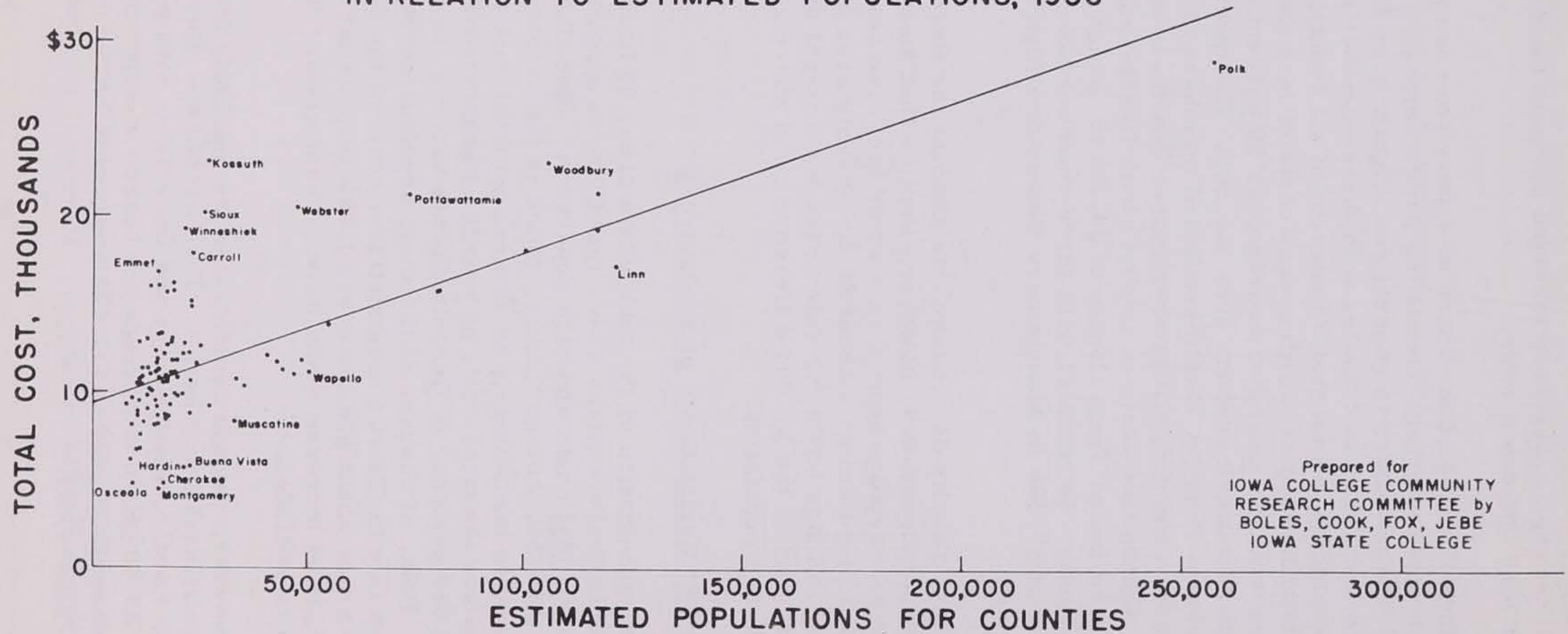
#### Total and Per Capita Costs of Supervisors

An examination of the total costs of the 99 boards of supervisors in Iowa during recent years shows that there is a positive correlation between high total costs and high population. (See Chart 4). For the biennium 1954-55, Adams County, which is the lowest in population, rated second to the bottom with an average total cost of \$9,333. During this period the total costs of boards of supervisors ranged from a low of \$4,920 per year in Osceola County to a high in Polk County of \$28,698. Polk, of course, is the most populous county in Iowa. The regression line in Chart 4 indicates that costs of the board of supervisors increase about \$86 for every 1,000 persons increase in population; the rate of increase would be somewhat greater than this if Polk County were excluded.

However, certain counties deviate markedly from the line of average relationship in Chart 4. Five counties -- Buena Vista, Cherokee, Hardin, Montgomery and Osceola -- with populations of less than 25,000 have total costs for boards of supervisors well below \$6,000, whereas \$8,000 to \$12,000 appears to be the usual range for counties in that population category. Moreover, nine of the counties be-



CHART 4- TOTAL COST OF BDS. OF SUPV'RS, IOWA COUNTIES, 1954-55 AVERAGE  
 IN RELATION TO ESTIMATED POPULATIONS, 1956



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tween 25,000 and 55,000 population have costs below \$12,000, which is about the average level of costs for counties of this size. These nine counties are Cerro Gordo, Des Moines, Jasper, Johnson, Lee, Marshall, Muscatine, Story, and Wapello. In per capita terms, these counties have lower costs than the five counties noted in the population category "under 25,000".

A strikingly different picture appears when one views per capita costs instead of total costs for boards of supervisors. (See Chart 5). Data for recent years reveal that there is a strong inverse relationship between population and per capita costs for boards of supervisors. For example, Adams County, which has the lowest population, has a per capita cost for supervisors of \$1.17, the highest in the state. Polk County, on the other hand, which has the highest population, has a per capita cost of eleven cents for its board, the lowest in the state. Scott, Black Hawk and Linn, other heavily populated counties, have per capita costs only slightly higher than Polk County.

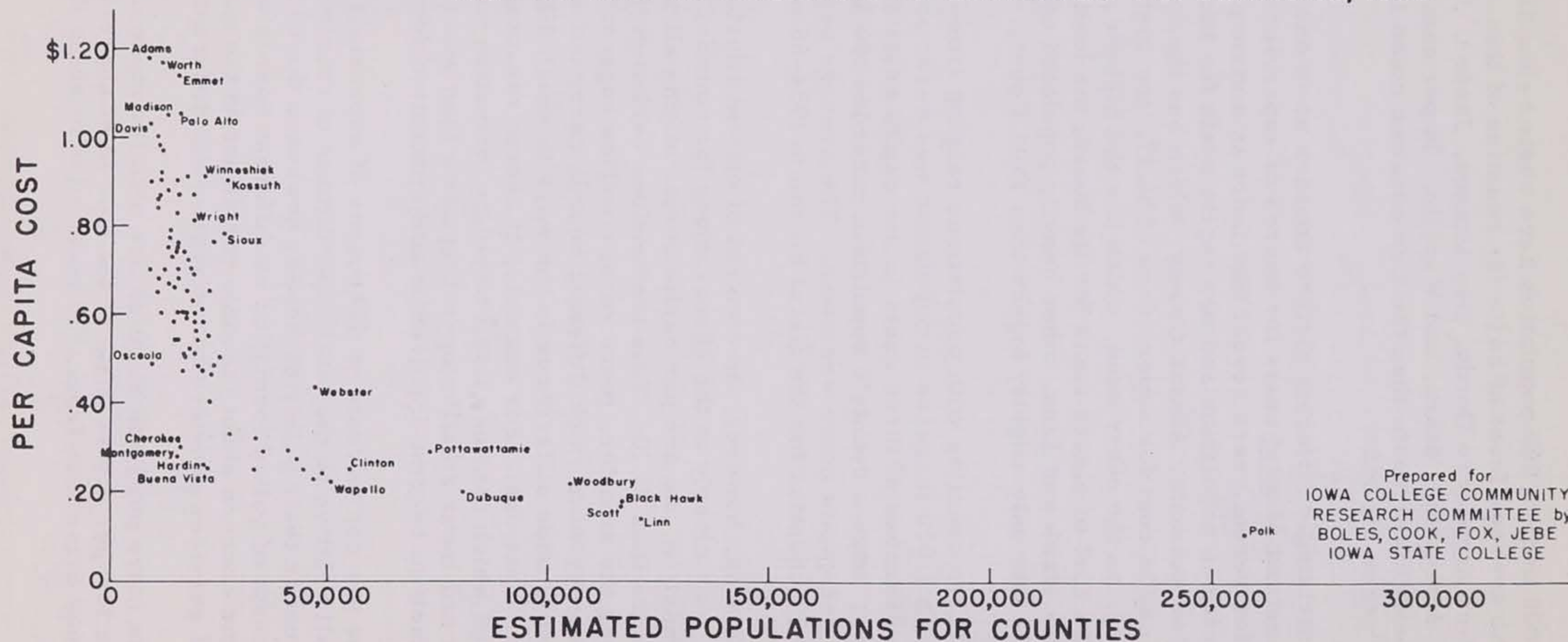
In those counties with populations ranging from 10,000 to 25,000, each 1,000 increase in population was associated on the average with a decrease of three cents in per capita costs for boards of supervisors; once a county's population exceeded 100,000 little further decline in per capita costs was noted. The average per capita cost for Iowa's 99 counties for the fiscal biennium 1954-55 was 60.8 cents.

There is, however, an element of optical illusion in Chart 5. If we look very closely at the observations for counties of 10,000 to 15,000 population, we see per capita costs ranging all the way from \$0.30 to more than \$1.10. This tremendous variation in per capita costs among the smaller, more rural counties suggests wide variations in the efficiency with which different boards carry out similar functions and, perhaps, wide differences in the ways in which different boards define their functions. For example, it seems reasonable to expect that a board which confines itself to policy formation will meet less frequently and incur smaller operating costs than will a board which permits itself to become involved in administrative details.

The per capita costs of the boards of supervisors as such are fairly small relative to the total expenditures of county funds which are made under their policy direction; however, the wide variations in apparent costs of policy formation by different boards would seem to justify some concern about possible variations in the quality and efficiency of services provided to citizens of the different counties.

The more populous counties are also the more urban counties. Hence, the low per capita costs of the boards of supervisors in such counties may arise less from true economies of scale (beyond about

CHART 5- PER CAPITA COST OF BDS. OF SUPV'RS, IOWA COUNTIES,  
1954-55 AVG. IN RELATION TO ESTIMATED POPULATIONS, 1956



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50,000 population) than from the fact that urban residents need -- and receive -- less attention per capita from county boards.

A factor that the authors considered in attempting to explain variations in per capita costs of boards of supervisors was the method by which supervisors were elected, i. e., whether by district or at-large. Data for recent years reveal no reliable evidence that per capita costs of the board bears any clear relationship to the method of election of members. For the biennium 1954-55, the average per capita cost for boards of supervisors elected at-large was 56 cents while the per capita cost for those elected by districts averaged 65.8 cents. The meaning of this difference is clouded by the fact that, while boards may be elected at-large, 23 county boards of supervisors as a matter of standard but informal practice assign members to districts following election.<sup>5</sup> Moreover, it appears from Chart 6 that there is some correlation between the size of the board and the manner of its election, with a majority of the five-member boards being elected by district and a majority of the three-member boards being elected at-large.

The data gathered indicate no relationship between the population of a county and whether the boards are selected from districts or from the county at-large. Some relationship can be shown, however, between the per diem cost of committee work of boards of supervisors and the population of a county. (See Charts 1 and 7). Study of costs for the years 1954-55 indicates that total per diem costs for committee expenses increase as a county's population increases. Of 85 counties noting per diem committee expenses for this period, six counties with populations below 25,000 had committee work costs of less than \$7,000, the average cost for counties in that population category. On the other hand, several counties in the population range from 15,000 to 27,000 are notable in that their committee work costs increase at a rate more rapid than the general trend of increase. Kossuth County and Winne-shiek head this group with committee costs ranging in the vicinity of \$26,000 to \$27,000. On a per capita basis, the costs of committee work per diem show extremely wide variations as between counties of similar sizes. Among the smaller, more rural counties there appears to be no rhyme or reason in the observed variations.

There is some difference in the median per capita costs of boards of supervisors having three members and those with five members and those with five members. (See Chart 8). In the 30 counties with three-member boards, the median per capita cost was 61 cents while in the 67 counties with five-member boards the median per capita cost of the board was 65 cents. The principal fact reflected in Chart 8 is again the wide variation among counties in the per capita costs of boards of either size.

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<sup>5</sup>/ The authors obtained this information from questionnaires sent to all counties.

CHART 6- IOWA COUNTIES: NO. OF MEMBERS ON THE BOARD OF SUPERVISORS AND METHOD OF ELECTION COMPARED TO TOTAL COST

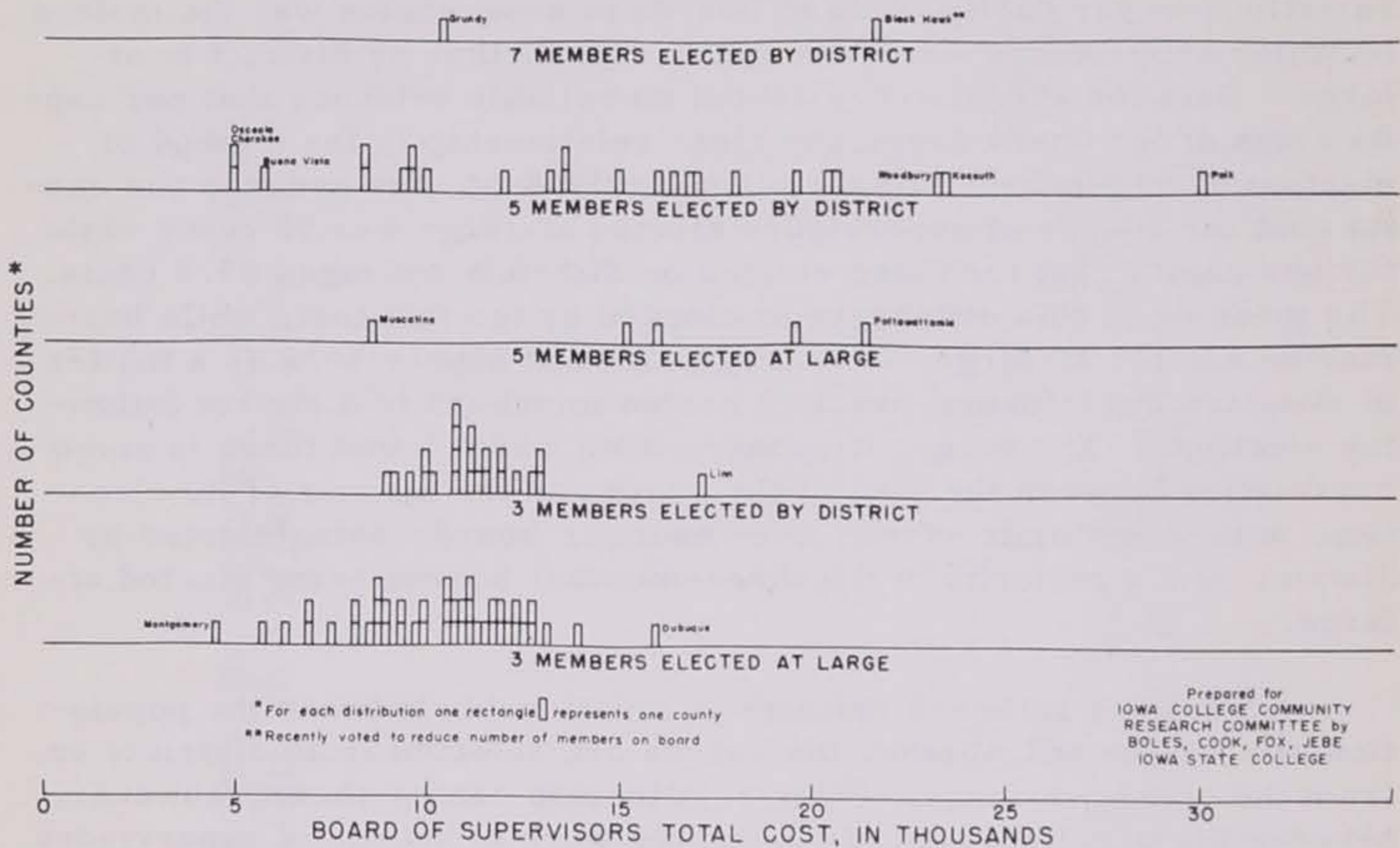


CHART 7- IOWA COUNTIES: PER CAPITA COST FOR COMMITTEE WORK PER DIEM COMPARED TO POPULATION, 1956 ESTIMATE (COST BASED ON 1954-55 AVERAGE FOR COMMITTEE WORK)

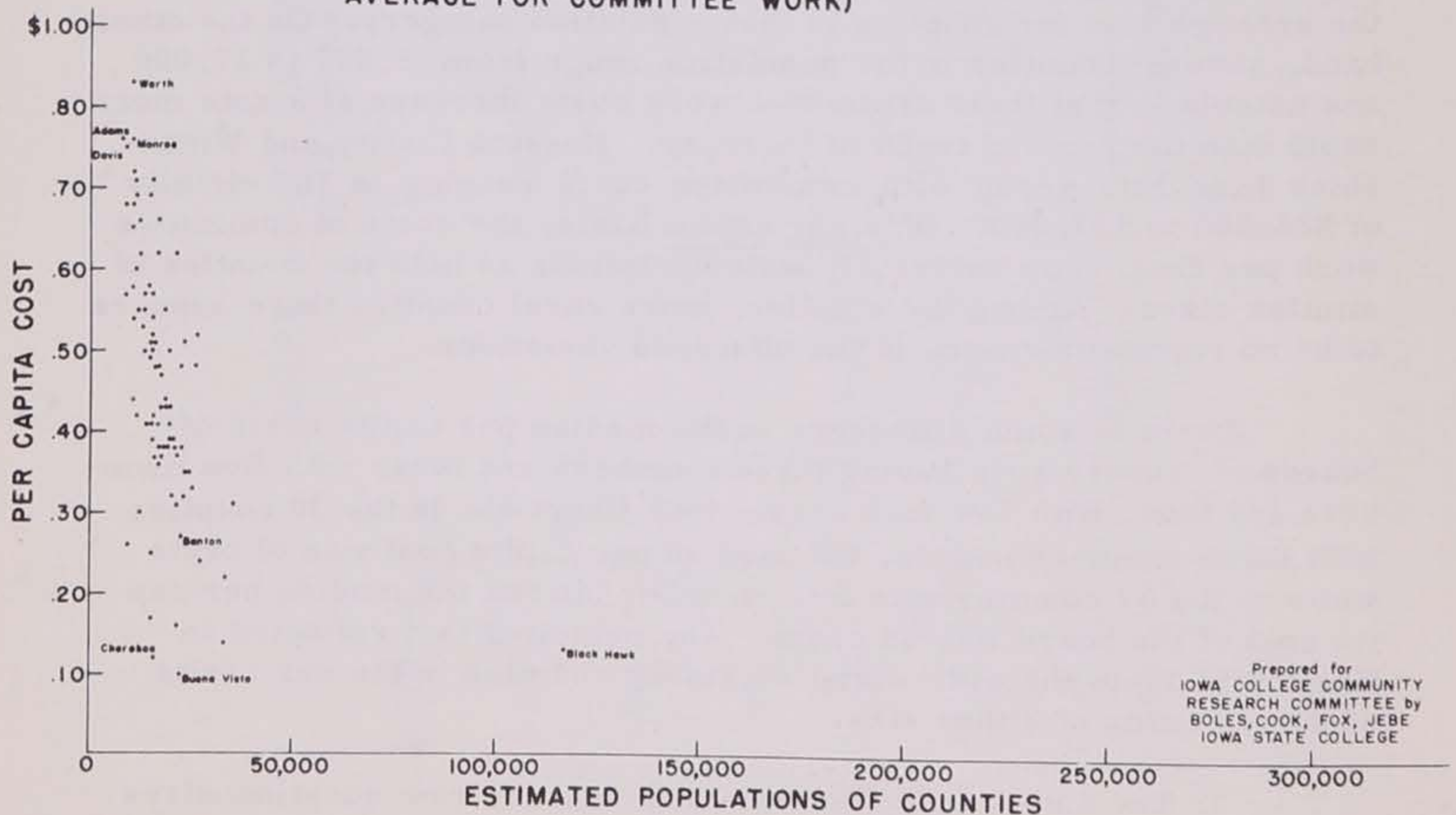
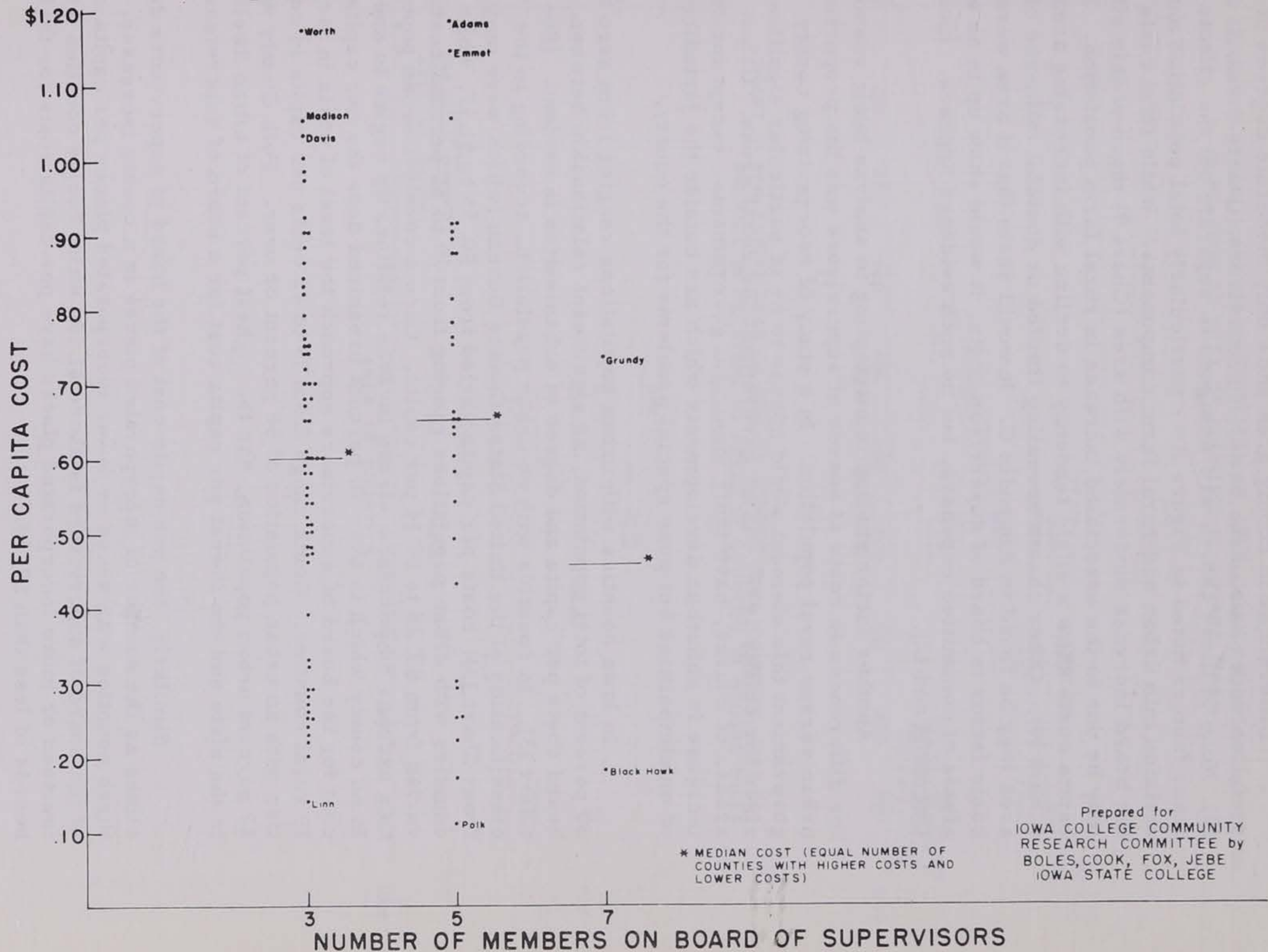


CHART 8- IOWA COUNTIES: PER CAPITA COST, 1954-55 AVERAGE FOR BOARD OF SUPERVISORS COMPARED TO NUMBER OF SUPERVISORS ON THE BOARD



\* MEDIAN COST (EQUAL NUMBER OF COUNTIES WITH HIGHER COSTS AND LOWER COSTS)

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Differences in county area show only moderate degrees of association with costs of the board of supervisors (Charts 9, 10, 11 and 12). None of these charts are designed to separate out the effects of other factors noted in Figure A -- particularly total population and its division into urban and rural farm components. While total costs of the board increase moderately with area (Chart 9) much of this effect may be due to the associated increase in rural farm population. Per capita costs show a slight tendency to decline with increasing area (Chart 10). Other charts revealing limited or doubtful influence of area may be found in Appendix C. It would seem that if area were a basic factor in board of supervisor costs, it would show up in an analysis of committee expenses, but no such evidence appears. (See Charts 11 and 12).

Another factor studied in attempting to analyze basic reasons for differences in costs of boards of supervisors was the proportion of urban versus rural population. In a study of reorganizing county government this element would appear to be of particular significance since the county is the major government for rural areas. Urban areas, of course, have their municipal governments, except for the increase in suburban developments which are outside the jurisdiction of municipalities but pose special problems for the county.

In Iowa counties with urban populations ranging from zero to 50 percent of total population, no significant relationship between board costs per capita and degree of urbanization is evident. (See Chart 13). In counties with no urban population, according to the classification of the United States Census Bureau (which were omitted from Chart 13), costs per capita varied from \$0.55 to \$1.17, while in counties with urban populations ranging from 10 to 50 percent costs varied from \$0.25 to \$1.14 per capita. Once a county's urban population exceeds 50 percent a strong inverse relationship begins to appear. In no county which is over 50 percent urbanized does the per capita cost for the board of supervisors approach the level of costs in strictly rural counties. Costs range from 10 to 45 cents per capita in counties with an urban population of 50 percent or over. Polk County with 87 percent urban population, has the highest percent of urban dwellers in the state and the lowest per capita cost for a board of supervisors.

Similarly, the per capita cost of the board of supervisors declines as the number of incorporated places in a county increases. In three counties with seven or fewer incorporated places per capita costs of the board of supervisors is above \$1.10, while twelve counties with fourteen or more incorporated places have per capita costs for their boards of less than \$0.70.

As might be expected, the per capita cost of the board of supervisors increases with increasing percentages of the county labor force

CHART 9- TOTAL COST OF BDS. OF SUPV'RS, IOWA COUNTIES, 1954-55 AVERAGE IN RELATION TO AREA OF COUNTIES IN SQUARE MILES

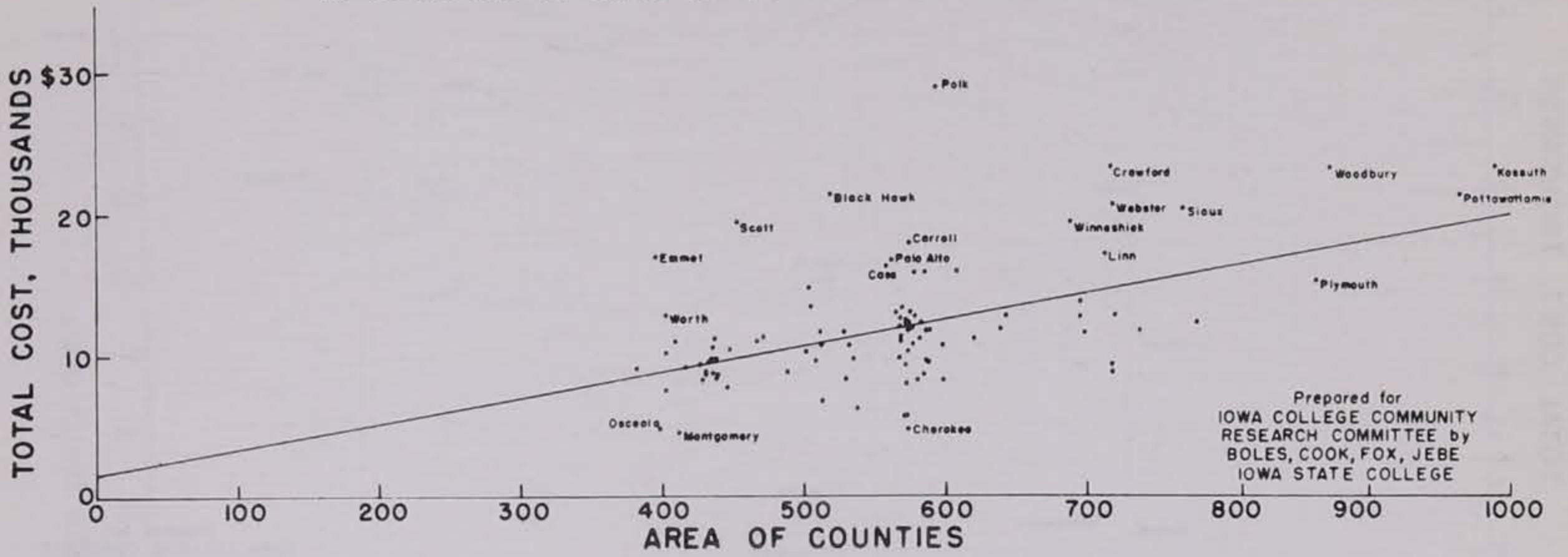


CHART 10- PER CAPITA COST OF BDS. OF SUPV'RS, IOWA COUNTIES, 1954-55 AVERAGE IN RELATION TO AREAS OF COUNTIES IN SQUARE MILES

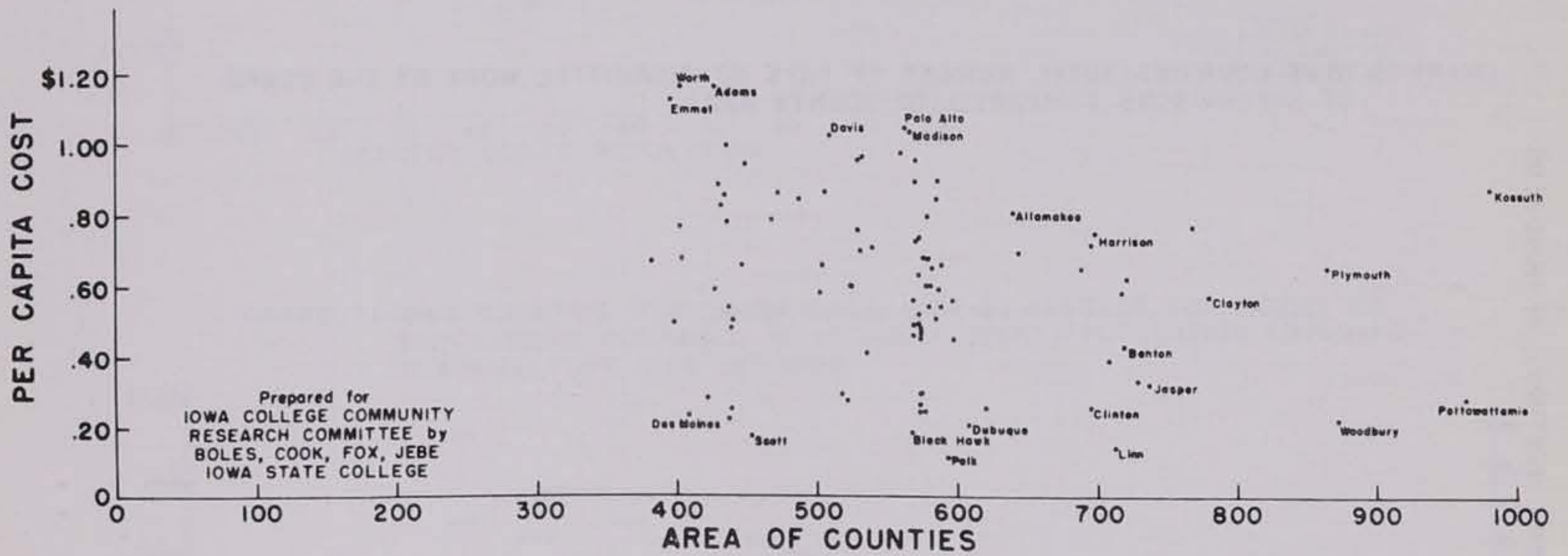




CHART 11- COMMITTEE WORK PER DIEM TOTAL COST COMPARED TO AREA  
(COST BASED ON 1954-55 AVERAGE FOR COMMITTEE WORK)

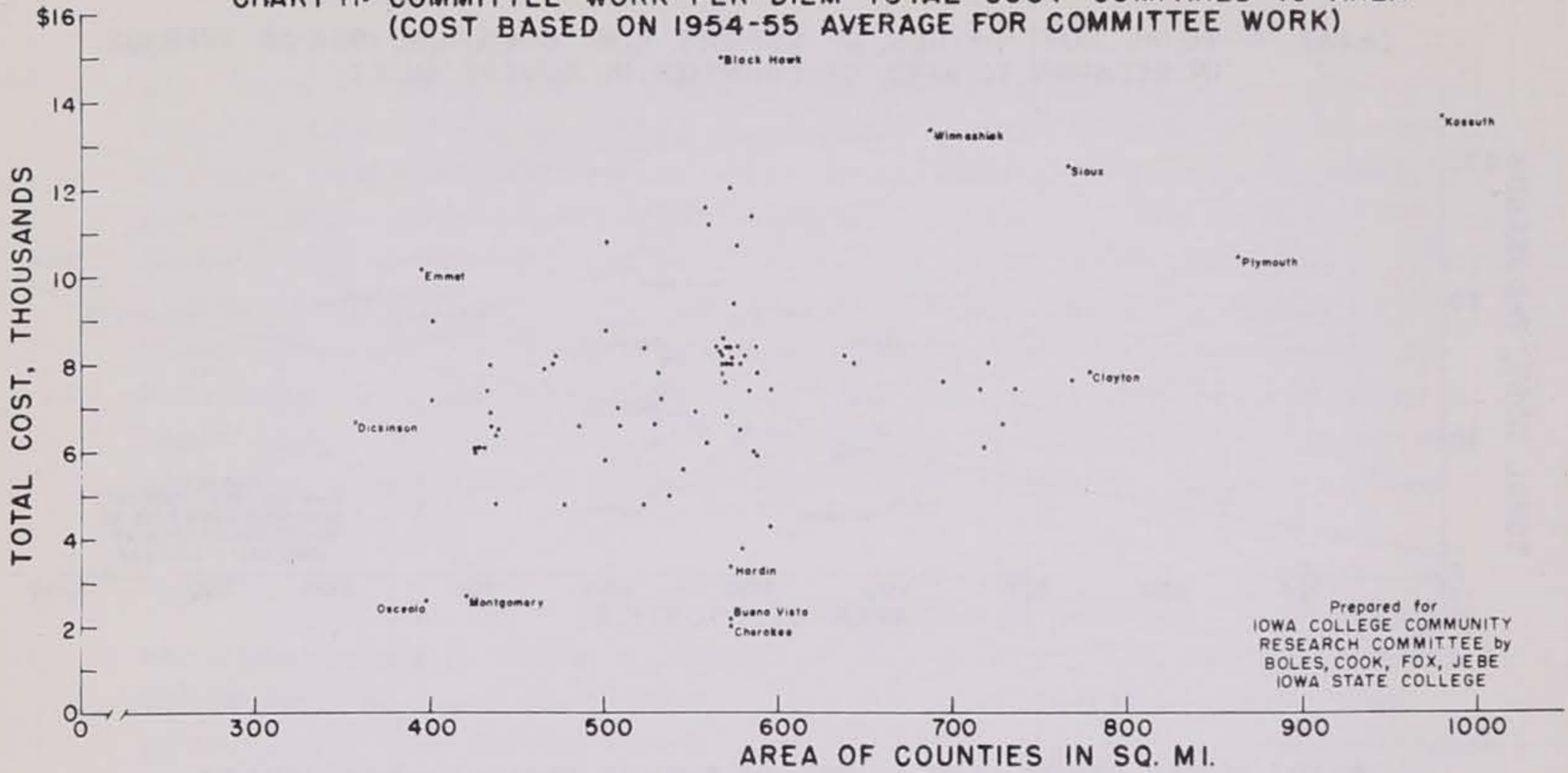


CHART 12- IOWA COUNTIES: TOTAL NUMBER OF DAYS OF COMMITTEE WORK BY THE BOARD  
OF SUPERVISORS COMPARED TO COUNTY AREA

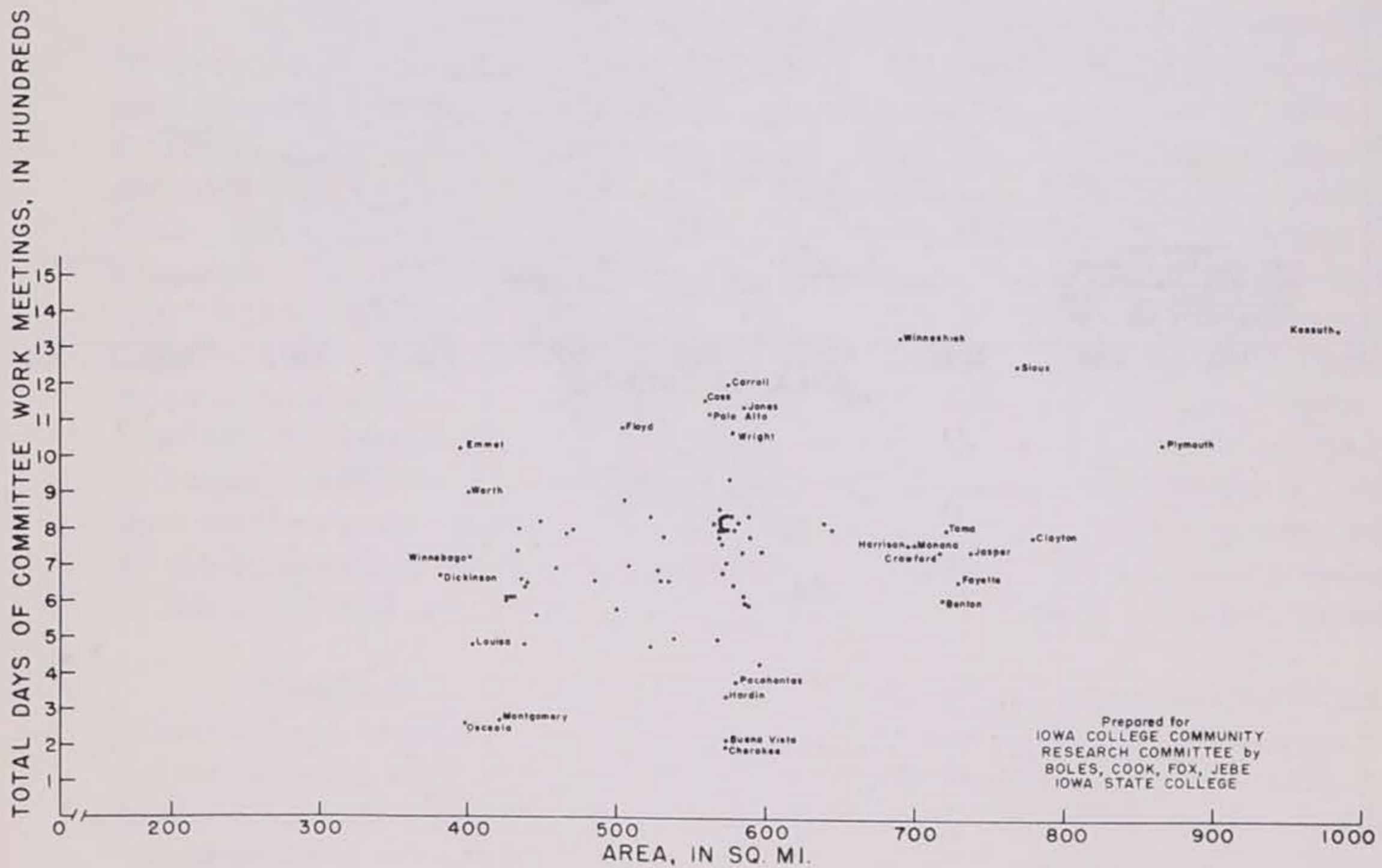


CHART 13- IOWA COUNTIES: PER CAPITA COST, 1954-55 AVERAGE FOR BOARD OF SUPERVISORS COMPARED TO COUNTY PERCENT OF URBAN POPULATION, 1956 ESTIMATE

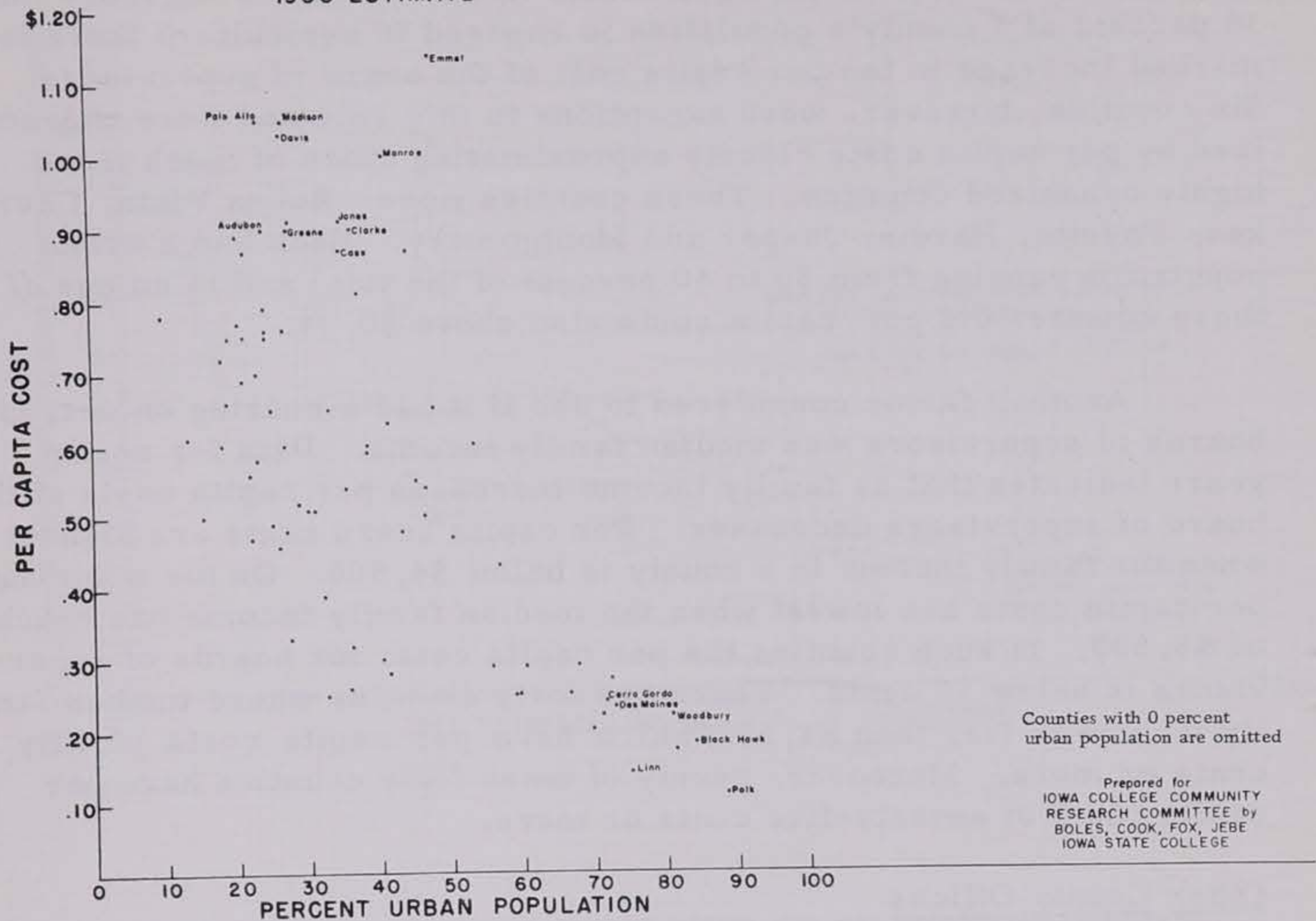
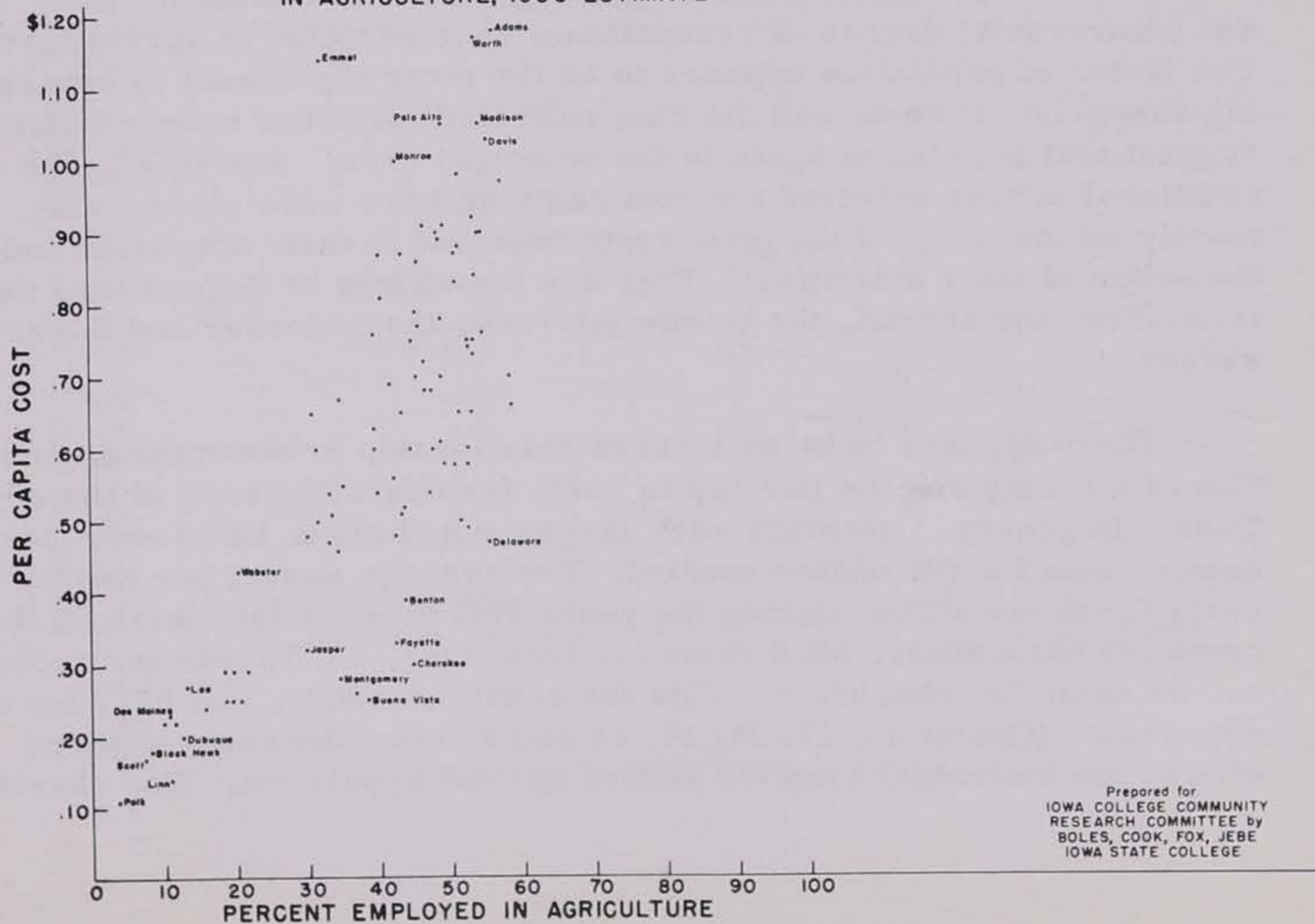


CHART 14- IOWA COUNTIES: PER CAPITA COST, 1954-55 AVERAGE FOR BOARD OF SUPERVISORS COMPARED TO PERCENT COUNTY POPULATION EMPLOYED IN AGRICULTURE, 1956 ESTIMATE



engaged in agriculture. (See Chart 14). Roughly speaking, this is simply another way of stating the facts in Chart 13. When more than 30 percent of a county's population is engaged in agriculture there is a marked increase in the per capita cost of the board of supervisors. Six counties, however, were exceptions to this rule and were characterized by per capita costs closely approximating those of much more highly urbanized counties. These counties were: Buena Vista, Cherokee, Fayette, Hardin, Jasper and Montgomery. Each had a urban population ranging from 30 to 40 percent of the total and in no one of these counties did per capita costs rise above \$0.34.

Another factor considered to see if it had a bearing on cost of boards of supervisors was median family income. Data for recent years indicates that as family income increases per capita costs of the board of supervisors decreases. Per capita board costs are highest when the family income in a county is below \$4,500. On the other hand, per capita costs are lowest when the median family income has reached \$5,500. In such counties the per capita costs for boards of supervisors is below 30 cents. There are forty counties where median family income is less than \$4,500 which have per capita costs of fifty cents or more. Moreover, twenty of these forty counties have per capita costs of seventy-five cents or more.

#### Other County Offices

In analyzing costs of the county board of supervisors several approaches were tried. A number of factors were utilized in the analysis, such as area of county, population, method of selection of the board, i. e., by district or at-large, degree of urbanization and (conversely) degree of occupational concentration in agriculture. The factor of population appears to be the most significant in explaining supervisors' cost, and the data collected for other county offices suggest that population again is the principal "real" analysis. The additional offices selected for cost analysis here were chosen primarily on the basis of the total costs inherent in their operation and the scope of their activities. They are the offices of the auditor, the treasurer, the sheriff, the county attorney, the recorder and the assessor.

There appears to be an inverse relationship between the population of a county and the per capita costs for operating each of the offices. In general, counties with larger populations had lower per capita costs for the offices studied. The average annual per capita costs for these offices during the years 1952 through 1955 were 65.4 cents for the auditor, 69.8 cents for treasurer, 32.5 cents for recorder, 65 cents for sheriff, 26 cents for county attorney, and 67.7 for the assessor. (Charts 16, 17, 18, 19, 20 and 21 show the costs of these offices for individual counties plotted against population. For charts

CHART 16- IOWA COUNTIES: AUDITORS OFFICE PER CAPITA COSTS COMPARED TO POPULATION

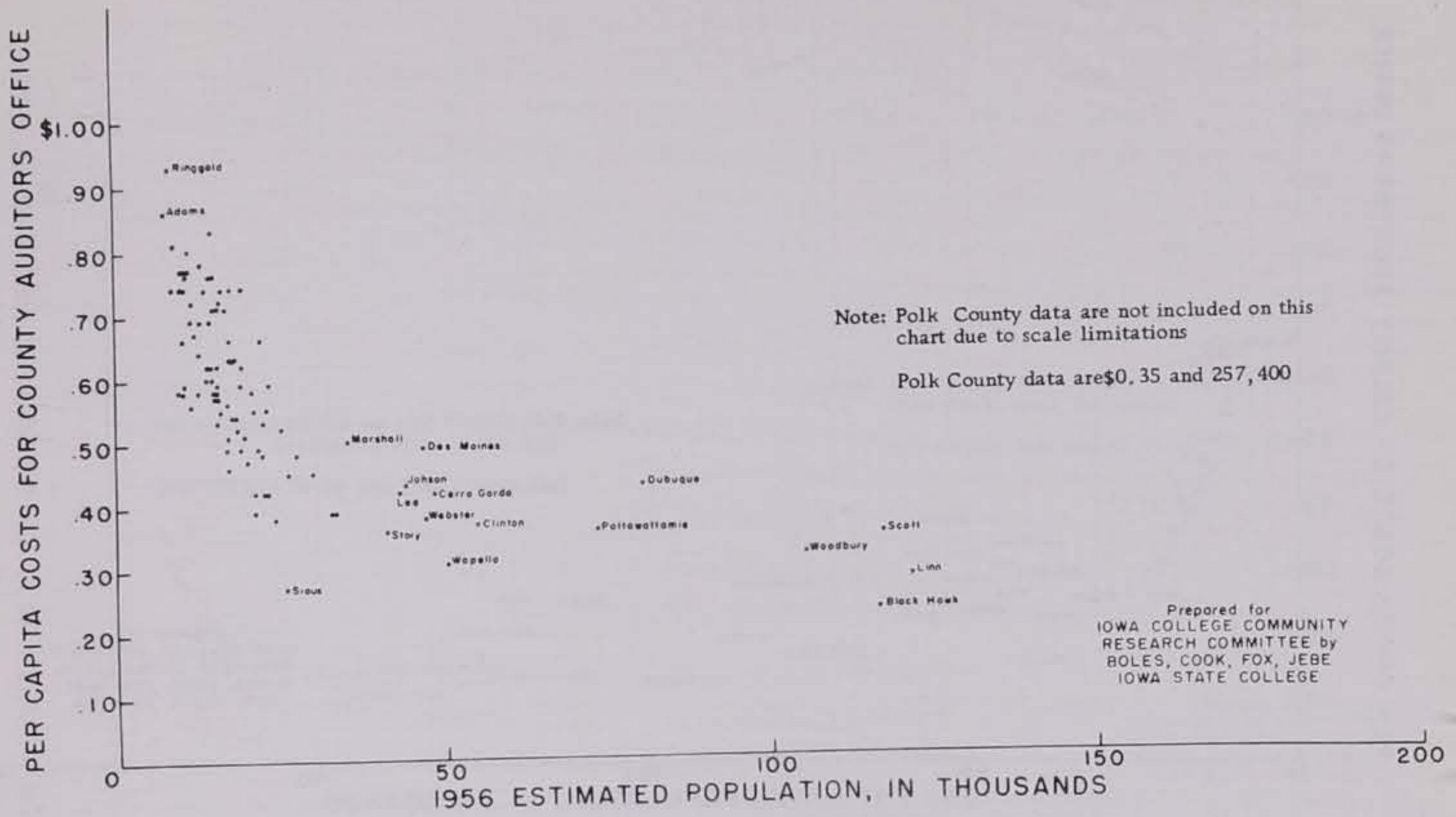


CHART 17- IOWA COUNTIES: TREASURERS OFFICE PER CAPITA COST COMPARED TO POPULATION

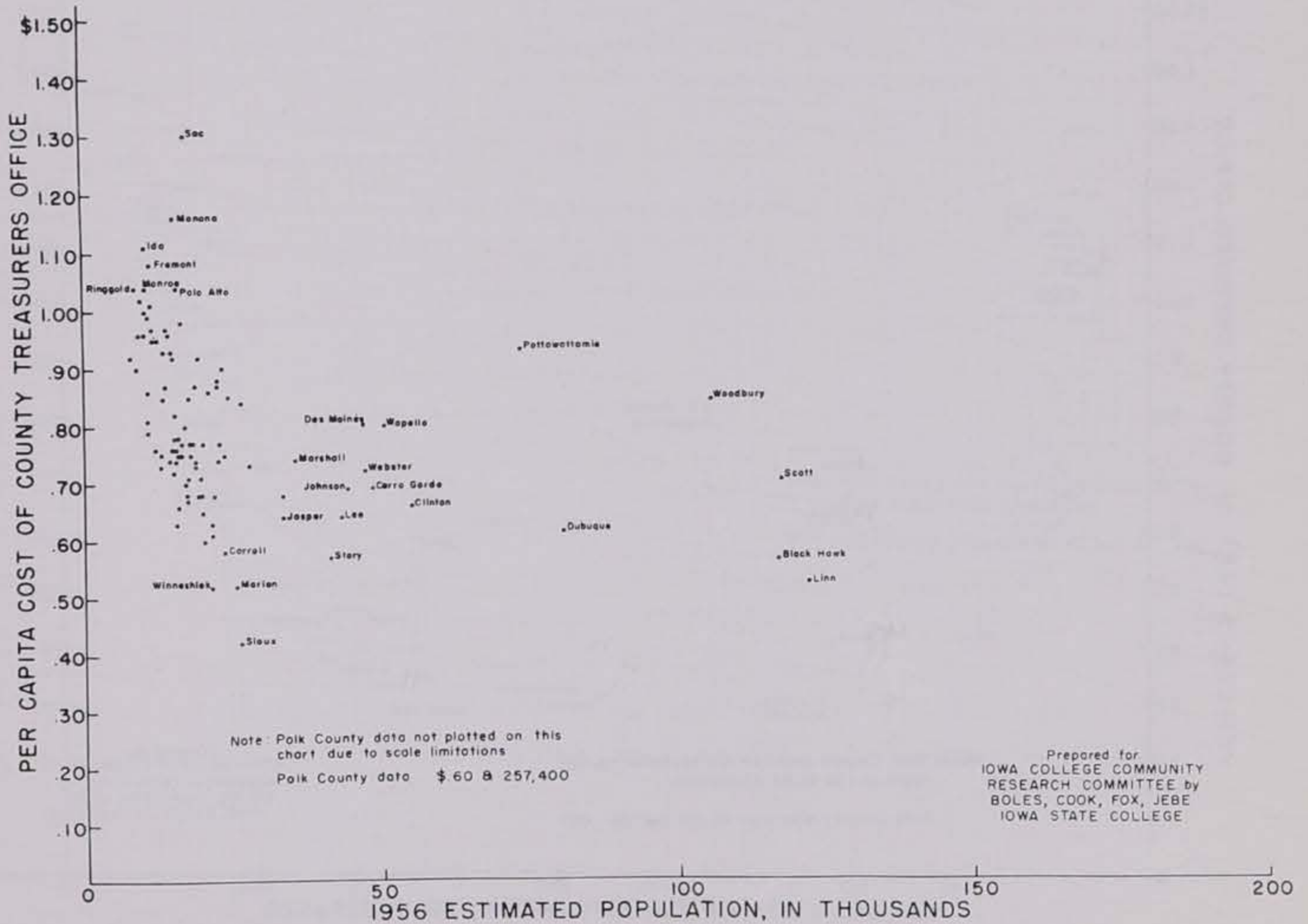


CHART 18-IOWA COUNTIES: RECORDERS OFFICE PER CAPITA COST COMPARED TO POPULATION

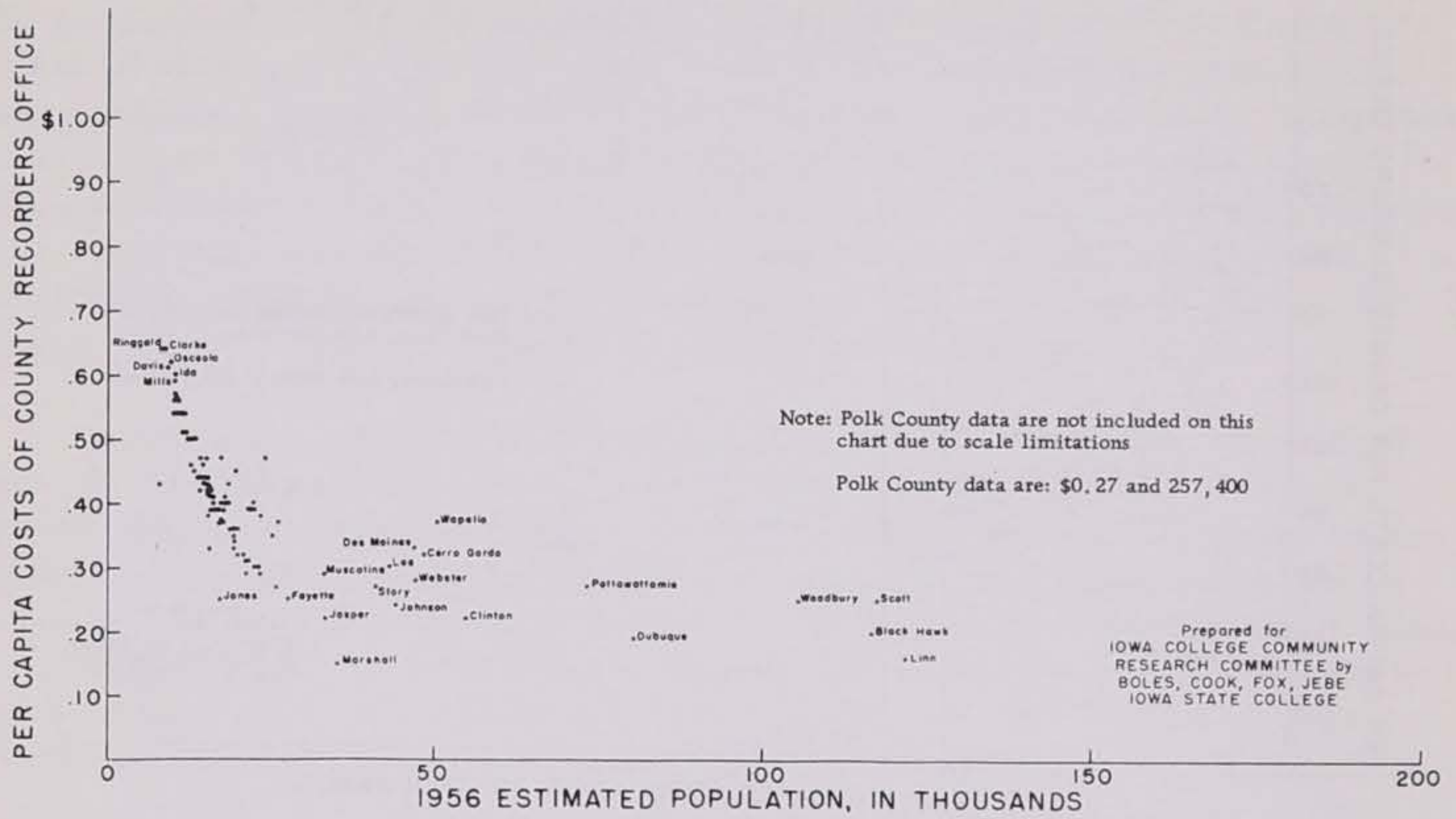


CHART 19-IOWA COUNTIES: SHERIFFS OFFICE PER CAPITA COST COMPARED TO POPULATION

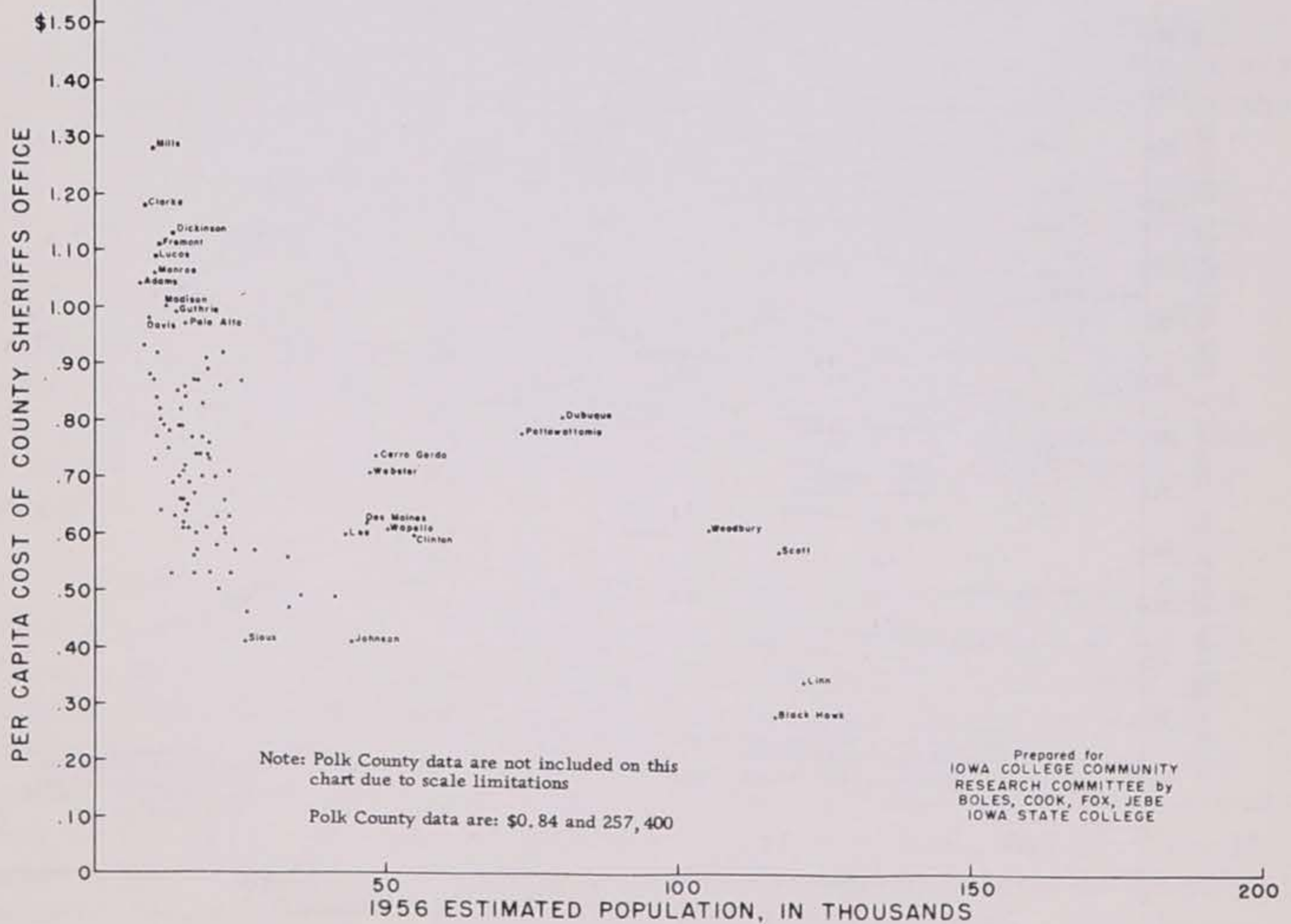


CHART 20- IOWA COUNTIES: COUNTY ATTORNEYS OFFICE PER CAPITA COST COMPARED TO POPULATION

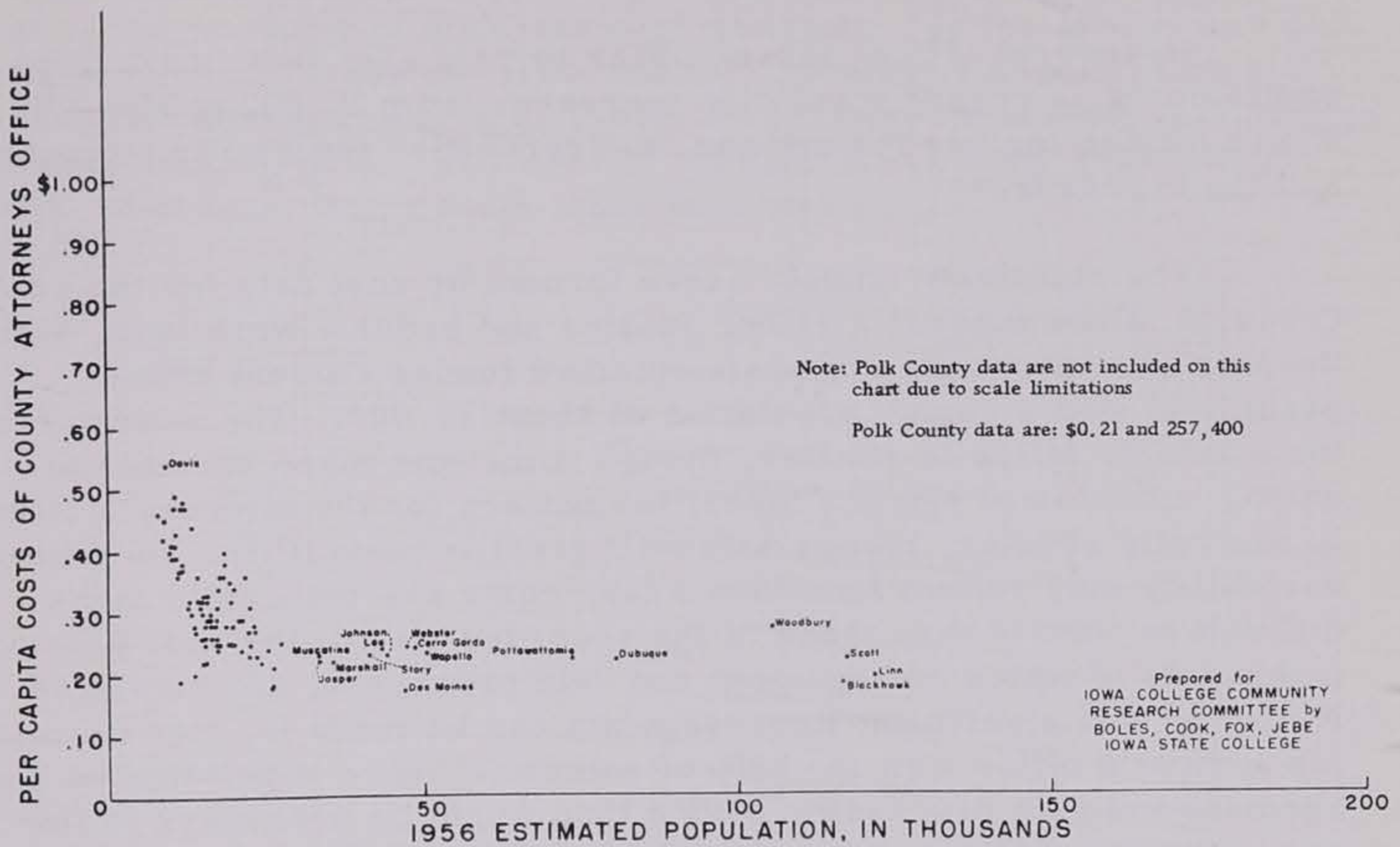
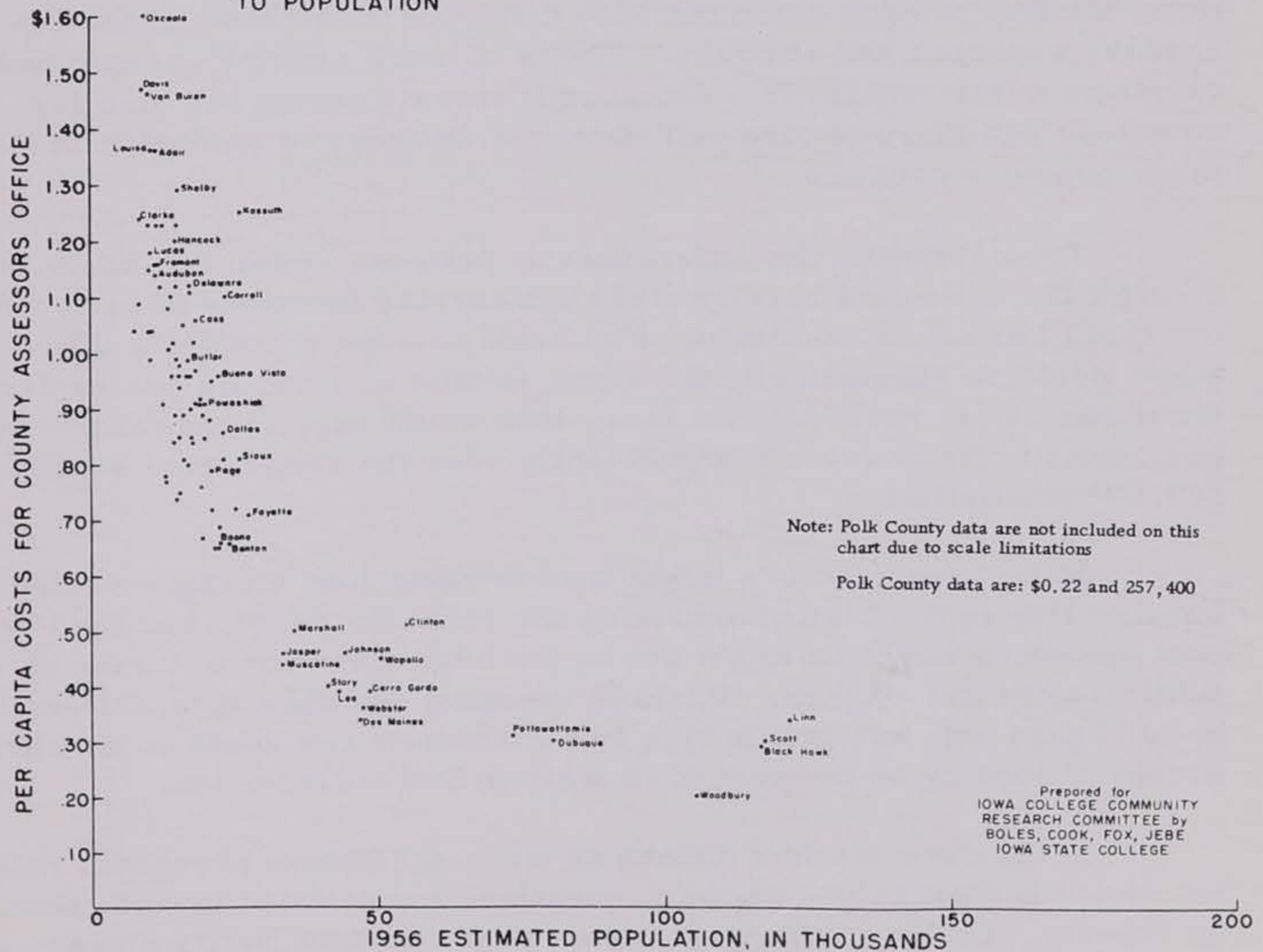


CHART 21- IOWA COUNTIES: COUNTY ASSESSORS OFFICE PER CAPITA COST COMPARED TO POPULATION



indicating the very limited influence of area upon each of these county offices see Appendix C).

In several offices there appear to be major reductions in per capita costs as county population increases from 10,000 to about 30,000. These offices include the auditor, the recorder, the county attorney, and the assessor.

The relatively smooth curve formed by cost data for the recorder's office suggest a rather routine and orderly work load, with the principal economies of scale obtained (under current office practices) with a county population of about 30,000. The pattern for the auditor's office is similar, though somewhat more variable as among counties of similar sizes; the pattern for the attorney's office is basically similar, though with still greater variability. Increased variability may reflect functions whose costs are inherently more difficult to control than those of the recorder even if the best possible techniques of office management and data processing are employed. It may be that significant improvements can be made in, (for example), the auditor's office with the help of somewhat more sophisticated management and data processing advice than might be necessary to improve the procedures of the recorder's office.

The treasurer's office and the sheriff's office show cost patterns similar to each other but very different from those of the recorder, assessor and attorney. There is much greater unexplained variation in the treasurer's and sheriff's costs among the smaller counties, and there is less evidence of economies of operation in the more populous counties.

To understand the differences in patterns shown in Charts 16 through 21, one would have to study the service functions of each office for rural and urban residents. For example, the recorder's office might perform substantially the same volume of services per capita for urban as for rural people; if so, this would explain the failure of per capita costs to decline significantly over the range from 30,000 to 200,000 population.

Many "real" factors might lead to variations among counties of similar size in the cost of operating the sheriff's office, and the lowest cost operation might or might not be the best operation in terms of public safety and welfare. Perhaps the most sensible approach would be to regard both extremely high and extremely low costs as matters worthy of inquiry on the part of experts in law enforcement.

In the case of other offices as well, the charts presented raise, but do not in themselves answer, questions for detailed investigation by experts. On the surface, it seems as difficult to justify a range of

from \$0.30 up to \$0.90 in the per capita cost of the same office in different counties as to justify a range of from 20 percent up to 60 percent in the markups of different supermarkets. In the latter case competition usually forces the achievement of managerial efficiency and reasonable economies of scale, with a resultant narrowing in the range of costs and margins. The spur to efficiency in county government must, of course, come from other sources.



## Chapter III

County Budgeting and Funds

Next to policy determination but closely related to it, the most important function of the county is that of financial administration. This includes budget making, or the planning and approving of spending public funds, the assessment and collection of taxes, the custody of public monies, the authorization of their expenditure, the accounting of all public funds, the spending of them and the auditing of all public accounts.

The county board of supervisors, the auditor, the treasurer, and assessor are primarily engaged in this matter as well as are other officers such as the county board of education, the hospital board, the agricultural extension council and the library board. Each independently formulates its own budget and certifies it to the board of supervisors which normally accepts the budget as submitted.

In 1955, Iowa county officials collected more than \$267,000,000 in taxes. In this year, more than \$179,131,442 in state aid was distributed to the 99 counties and more than \$7,690,000 in federal aid was allotted to them for various purposes. Including these funds and others, more than \$480,640,000 in public money was accounted for by the county treasurers. Auditor's warrants in 1955 authorizing payments of more than \$122,399,000 were issued in the 99 counties. The flow of public monies passing through the hands of the county local governing officials in 1955 amounted to more than two billion dollars.

Ingrained ideas regarding the nature of local self government have had much to do with the present structure and functioning of county government. The persistence of tradition has vastly complicated the problem of organization and administration in the county. Many duties have been handed the county not by the State Constitution but by the State legislature. The Iowa Legislature has gone into detail concerning methods of performing functions which have been assigned to the county. Many of these details tend to straitjacket the agencies of county government and make for a rigidity which almost robs the county of local self-government. This is quite evident in the fund system of handling county finances. County officials have been deprived of any real authority to govern the various functions which are enmeshed in legislative fund control.

Forty-nine Iowa statutes deal with county funds. Some provide mandatory use of funds, many establish separate additional funds on a permissive basis, and others provide indirect control of funds. In some cases, therefore, a measure of discretion is enjoyed by the county authorities; in other cases, programs of expenditures may be initiated

and decided by the voters in which case no discretion is left the county official. In still other cases, programs of expenditure are decided upon jointly by the supervisors and the people. The number of fund accounts set out in the treasurer's report of each of the ninety-nine counties varies from 35 to 53 with an average of about forty-three recognized funds. In addition to the legally established funds the auditor and the treasurer in practice set up such miscellaneous accounts as they deem necessary. While perhaps serving as devices for legislative control, such legally established funds operate to confound the county authorities in their problems of keeping accounts.

One item extensively criticized in the reports of state examiners in auditing county offices is the number of irregularities in accounts. In summarizing the state examiners' reports, the State Auditor found county officials had posted more than \$2,000,000 to the wrong fund accounts. Moreover, it was discovered that more than \$123,000 was still due the counties, and, more than \$52,000 was due entities other than the counties. A total of more than \$2.5 million in irregularities existed in public funds, about 75 percent of which were later reported as adjusted. In one county alone more than \$700,000 was posted to wrong accounts and approximately \$710,000 in irregularities existed of which \$334,000 was adjusted by the time of the final auditing of funds.

Of the \$116,300,000 expended by the 99 counties during 1955 approximately 60 percent of all funds or nearly \$70,000,000 were either directly or indirectly made mandatory upon the counties and subject to rigid controls. To a considerable extent this was accomplished by legislative establishment of a system of county funds. Most of these county funds are subject to a maximum mill levy. The most important of the county funds is the county general fund from which many of the county's expenses are paid. About 30 percent of the county's money is spent under this fund. Major items include: the cost of the county's elective offices, as well as the costs of supplies and utilities for the county engineer, assessor, county superintendent, clerk of court, public health nurse, weed commissioner, board of social welfare, township trustees and clerks. In addition such costs as printing, publication of official actions, maintenance and operation of the court house, insurance, and compensation payments are paid from the general fund. The basic idea of the general fund was that county expenditures in general should be paid from this one fund, and that in general county revenue should accrue to this fund.

The establishment of a mill levy limit has made this unworkable in many situations. This is particularly so in the smaller counties or in counties of lesser financial ability. Some costs such as payroll, printing, election, and court house maintenance are about the same in all counties. Some smaller counties have resorted to using other available funds for financing a particular function thereby

relieving the pressure within the general fund.

If the principles of budgeting are to be realized, the general fund must be inclusive enough to finance most county functions within its bounds. But, the levy limit curtails the board in its free use of the general fund. The legislature, however, attempts to extricate the board from its dilemma by creating other funds such as county insane fund, poor fund, court fund or even the emergency fund each of which like the general fund has a legal mill levy limit. But when the board uses these other funds for general purposes it thereby surrenders its real budgeting functions.

Also, in other situations certain costs may be paid from either the general fund or some other special fund. Most counties find it easier to pay for these expenses out of some other fund than the general fund. For instance, the county's share of social security costs or the Iowa Employees Retirement System costs in most counties are paid from special funds instead of being paid from the general fund as they could well be. Also salaries of employees of the clerk's office may be paid from the court fund or from the general fund, or the salaries of the county engineer's office may be paid from the road fund or the general fund. With few exceptions these costs are paid from the respective special funds mentioned and not from the general fund.

Normally, the smaller the county, the higher is the relative cost of its general expenses. In its study of this question the Iowa Legislative Research Bureau has observed that in any instance a certain amount of general county government must be provided regardless of the county's population. On the basis of such facts the General Assembly devised the scheme of grouping counties according to property valuations and then applying mill levy limits to each of several valuation groups. There are four such groups: counties under \$16 million assessed valuation are limited to a 3 1/2 mill levy; counties \$16 to \$26 million valuation 3 mills; and, counties of \$26 to \$32 million valuation 2.5 mills; and, counties with valuations of more than \$32 million are limited to a 2 mill levy. This grouping was designed by the legislature to restrict county spending from the general fund by placing mill levy limits. At the same time recognition was made of the fact that smaller counties may have less ability but might have as much need as would a larger and more able county. This may be noticed by observing the table of following selected counties, their assessed valuation and levy limits:

<u>County</u>	<u>1950 population</u>	<u>1956 assessed valuation</u>	<u>levy limit</u>	<u>Maximum which can be levied</u>
Clarke	9,369	\$ 15,000,000	3.5	\$ 52,500
Lucas	12,069	17,640,000	3.0	52,900
Dickinson	12,756	25,980,000	3.0	77,900
Allamakee	16,351	27,090,000	2.5	67,700
Mills	14,064	29,070,000	2.5	72,700
Warren	17,758	31,180,000	2.5	77,900
Palo Alto	15,891	32,470,000	2.0	64,900
Marion	25,930	36,860,000	2.0	73,700
Franklin	16,268	39,390,000	2.0	78,800

It is to be noted that Franklin, Warren, and Dickinson counties--each at the border line between groupings--may levy about the same amount of taxes for general fund purposes, even though their assessed valuations are quite different. If their populations are to be used as a basis of determination of their respective needs this device for legislative limitation may at least be a fair and effective method of control. However, what may actually happen is dependent in part on what a county board may do in the way of protecting itself in the use of its general fund levy. The levelling effect of the decreasing-rate general fund restriction is lost, however, if the county board combines the maximum general fund levy with the one-mill emergency fund levy, which has a flat rate. Many of the counties that have reached the general fund limit have managed to get additional revenue by levying in the emergency fund. About one-fourth are now levying the maximum amount permitted in both funds.

Therefore, the net effect of this effort of the General Assembly to govern the county from the State House has not only lost some of its desired effect but the opportunity is established for the county board to escape its budgeting responsibility.

The Iowa Legislative Research Bureau in its analysis of the general fund and the emergency fund mill levy problem found that the cramping effects of the mill levy restrictions were not peculiar to any one mill levy limit group, but, that the real financial problems came in those counties at the border line between the groups. The counties studied were only those which had the highest levies in the combined general fund-emergency fund grouping. In these four groups the following counties were found to be in the respective groups:

Groups	Counties
(1) Counties with combined limit 4 1/2 mills	Clarke, Davis, Ringgold, Van Buren.
(2) Counties with combined limit 4 mills	Adams, Appanoose, Decatur, Lucas, Monroe, Wayne.
(3) Counties with combined limit 3 1/2 mills	Allamakee, Fremont, Keokuk.
(4) Counties with combined limit 3 mills	Cass, Dubuque, Floyd, Hancock, Harrison, Jackson, Mahaska, Marion, Monona, Palo Alto, Polk, Shelby, Wapello, Winneshek.

In this analysis it was found that counties with low valuations are most likely to be near the combined limit but the converse is not necessarily true. In other words, high levy counties are not necessarily those with low valuations.

There are a number of reasons why some counties have high levies in these combined funds. Property may be under-assessed. A county may be building a large cash balance in the general fund in anticipation of some program in the future. A county may be paying for things out of the general fund that most counties pay for out of a special fund. A county may be spending more than most counties in its valuation class, or, other reasons may exist.

The remedies of these matters are not always so obvious. Some limited levy problems may be corrected by legislation. At least such action may appear to be a remedy. The matter of legislative regulation of finances of counties by providing numerous specific funds each having a maximum mill-levy limit is but one method of doing so. The whole problem is one part of that fundamental relationship of county government to state government and a proper method of fund control by the latter.

Another fund which has a close relationship to the mill-levy limit use of the general fund is the court expense fund. Except for expenses and salaries of the district court judges, (which are paid by the State), and the salaries and expenses of the county attorney's office, (which are paid from the county general fund), district court costs are or may be paid by the counties from the court expense fund. This fund likewise has a mill levy limit of three-fourths of a mill. The salaries of the clerk of district court and his employees may be, but seldom are, paid from the county general fund. A number of

counties have resorted to use of the emergency fund for payment of some of the court costs. At the beginning of 1958 eleven counties were overdrawn on the court expense fund.

In general it may be observed that counties face problems in this fund because circumstances and conditions show no respect for the mill-levy limit device for controlling county expenditures. A more effective and flexible means of expenditure control is needed. General observation of the use of other mill-levy fund control situations further confirms this conclusion.

### Problems of County Administration

Perhaps one of the most fruitful means of seeing and realizing the problems in county government is to check through the State Examiner's Reports of county offices made to the State Auditor. Almost the entire panorama of desirable qualities and undesirable qualities, of good performance and bad performance in local public office, are here paraded for one's review.

The procedure used in examining these reports was to go through all county reports for one year, 1956, taking down such data as seemed useful. Following this, an examination was made of the Examiner's Report on findings analyzing the accounts in each office in the county. Photostatic copies of all observations critical of the activities of each of the county officials were made for more careful study later.

Space does not permit a detailed description of every variety of criticism encountered. For many county officials the examination showed a most commendable performance. In some counties, for example, no county official received derogatory criticism. On the other hand, in a few counties nearly every official invited some sort of criticism. In such cases some offices or officials received almost every type of criticism concerning not only performance of duties but even non-performance.

A minor office particularly attracting criticism was that of justice of the peace. Though this official is really a county official he is selected on a township basis and in some respects performs on that basis. Legally there could be more than 3,200 justices of the peace serving in Iowa, in fact, however, only about 540 have qualified and served in 1956. These justices courts during the last four years have operated at an average annual cost of more than \$152,500. In this office there is considerable irregularity. These irregularities include operating without a docket book and consequently no reports of cases is filed and probably there is no entry of fines, court costs or fees. Other criticism encountered include: inadequate keeping of records,

failing to make reports of fines or fees to be entered in the docket book. Though there are some cases of good performance of this court there is much evidence to suggest the need of change. It is out-moded.

The county attorney represents the State in the justice courts as well as in the State district court and other courts of his county. The county attorney is compensated on a salary basis, perhaps not commensurate with his professional standing and qualifications, but, also he is allowed the opportunity to engage in private practice. In addition he is entitled by law in counties below 60,000 population to receive in addition to the salary, fees "in suits upon written instruments where judgment is obtained, for all fines collected where he appears for the state, and school fund mortgages foreclosed, and attorney fees allowed in criminal cases." This fee is 10 percent of the fines collected. This has averaged more than \$73,700 for each of the four years 1952-1955 in the 93 counties in which the county attorney is entitled to fees. The interpretation by the Attorney General of the statute quoted is somewhat ambiguous. Numerous cases were found where the county attorney collected a fee when he did not appear in the case, and in instances where his name did not even appear in the case. Such a practice seems of doubtful legality. In one county more than \$1,800 in fees was collected by the county attorney when his name did not even appear in connection with the case. This drew criticism of the State examiner of county offices as being irregular if not illegal. Practices of this nature are and have been subjected to criticism by the State auditors. Legal questions arising from this procedure need clarification.

Two local offices, the township trustees and the township clerk, neither of which are subjected to criticism by the state examiners, have unostentatiously drawn upon the county funds to the extent of an average, respectively, of more than \$43,000 and \$28,000 annually during the years 1952-1955. Though these sums seem relatively small, the services rendered are of dubious value and thus it is possible that public monies are needlessly and uselessly spent, for they perform no essential functions.

In the county assessor's office little irregularity may be observed. However, the costs involved in operating this office are noteworthy. Such costs include: an annual average salary of \$394,474 for the assessor, \$138,241 salaries for deputies and \$667,614 for field assessors. The result is an average grand total of \$1,200,429 spent for county assessing agents. Inasmuch as the basic assessing function--the evaluation of real property--is performed in full only once every four years, a study of the economy in the performance of the assessing task might seem in order.

In connection with the sheriff's office the irregularities revealed are few, they are small in amount and most are in connection with charges made and proper accounting of the fees collected. In a few counties the question of the size of staff and the number of deputies invites study particularly in view of current law enforcement situations in these counties.

The county auditor's office is without doubt clothed with more power and budget control authority than any of the administrative offices. It is closely related in its activities to the supervisors, the assessor, the treasurer and even the recorder in important ways. The auditor's office and that of the treasurer probably have as large a volume of work as any county office and stand at the center of responsibility in handling public funds. Examination of reports reveals that there are literally thousands of irregularities concerning entering funds to the wrong account which amount to more than \$2,000,000 annually. Some of these errors reflect inadvertence. Some reflect inexperience or lack of information or confusion, a few reflect misfeasance. Better trained staffing might do much to remedy this situation. More clearly drawn laws and simplification of the fund system might indeed be helpful. The question of establishing more satisfactory means of state supervision for handling public monies by the counties deserves further study.

In matters relating to public monies of the county, the county board is often a party to the actions since the policies of the board often carry with them the action to be taken in the funds. Also, the board of supervisors seems not to have a complete enough reporting system governing county-home budgeting and accounting. At least this is not revealed in its present methods of reporting to a degree that might seem advisable.

Use of the various funds has been considered above but at this point it may be emphasized that a great deal of confusion seems to exist concerning the allotment of funds for the insane and poor funds. Counties are frequently criticized by the State examiner for shifting money from one fund to another. Part of this, no doubt, stems from the fact that both insane patients and poor are inmates of the county homes and some persons may be both insane and poor. Some of both also are carried at public expense outside the county home.

Another point worthy of consideration involves the relationship between the board of supervisors and the county engineer. The mileage costs of the supervisors, the committee work costs of the supervisors, plus somewhat critical Attorney General's opinions, suggest that there is a tendency toward over-supervision by the board of the county engineer's duties. An attempt to clarify the relationship between the board and the engineer, such as suggested by the Iowa State Taxation Study Committee in 1956 would seem valuable.



## Chapter IV

County Administrative Reorganization

Several areas relating to a structural reorganization of county government may be suggested by the material discussed earlier in this study. They are mentioned here not necessarily as recommendations of the authors, but as areas which might be worthy of consideration for future legislative action. While political resistance or apathy may surround some of these points, it is felt that this is no valid reason to ignore them or to be reluctant to move toward accomplishing any ends which are thought worthy of adoption. Movements for governmental reform or reorganization must start somewhere, even though persons of political sophistication may feel that such proposals may not be enacted into law the first time they are advanced.

County Consolidation

The first area that might be considered is the possibility of county consolidation. The fact that area has no real relationship to per capita cost of county offices in Iowa is of major significance in evaluating the advantages of consolidation. Population, on the other hand, seems to be the key factor in determining per capita costs of county government. County consolidation would, of course, mean that the population served by a county government would be increased, thus resulting in lower costs. Essentially the same arguments used in favor of school district consolidation apply to county consolidation.

Study of per capita costs of Iowa county offices would suggest that the highest percentage of savings would result in creating a county including a population of approximately 100,000 to 110,000. While a decrease in per capita costs is noted in counties with larger populations, percentage increase in savings under present conditions in Iowa would not appear to be significant.

The major obstacles confronting proposals for county consolidation are ones of politics and apathy. The county as it now exists is normally the nucleus of the dominant political party's organization. Because of patronage and favors that may be performed on this level of government there has been throughout the United States subtle but sure pressures from the major political party to prevent basic changes in the structure of county government. There is no reason to feel that Iowa would be an exception.

When the political barrier is coupled with the problem of public apathy toward county government, which results primarily from lack of information concerning the amounts of money handled and spent by the county, the problems confronting the achievements of plans for county consolidation are enormous. Therefore, it might be more

realistic to view other areas where many of the advantages of efficiency and savings might be attained, but which would seem to have a greater success potential than might county consolidation. At the same time, it can be seen that county consolidation is the most comprehensive and effective approach to solving the basic problems of county government.

### Integrating County Offices

Another problem in the field of general county administration arises from the multitude of elective offices which retain in practice near fiscal and budgetary independence from the board of supervisors. Such offices are invariably administrative in nature only, with no real policy making powers. Accepted canons of public administration are clear, however, that a democracy should elect only policy-makers not administrators. Thus consideration might be given to making appointive those offices, with the exception of the board of supervisors (which is a policy making body) and the county attorney (who is a constitutional officer).

Moreover, the merits of merging some of the offices which perform similar functions might be considered. For example, some counties in other states have consolidated into a department of finance functions of the treasurer, recorder, assessor and many duties of the auditor, although still retaining an independent audit arrangement. Functions of the sheriff and coroner might be merged in a department of law enforcement, an agency which might also include a public defender. The clerk of court's office could be made appointive by the district court.

### A State Agency of Local Affairs

There are a number of innovations the state government could institute which would aid in overcoming some problems confronting county government in Iowa. The state could provide a definite agency to which counties and other local governmental units might appeal for assistance and advice. Many problems arise each time a new statute is enacted dealing with local government or each time a new county officer assumes office. In Iowa, the job of answering such queries is performed, in part, by the State Attorney General, the State Auditor and the State Comptroller. However, a substantial number of problem areas do not fall within the jurisdiction of any state office with the result that county officials must work out solutions as best they can.

So long as the state attempts to regulate most functions of county government, the state should take the lead in improving prac-

tices in areas such as budgeting, accounting and auditing, assessing and collecting taxes, and in administering indebtedness. In Iowa, it is true that certain aspects of county operation are influenced by state officers, but the existing haphazard arrangement could be vastly improved by the establishment of a single state agency in whose hands all of these duties are merged. Improved administrative efficiency resulting from the creation of such an agency, one observer feels, would save the taxpayers several times the agency's annual cost.

[See: H. C. Bradshaw, "Reorganization of Counties," *Journal of Farm Economics*, Vol. XIX, pp. 748-749, August, 1937.]

### County Executives

A major problem of Iowa county administration would still remain unsolved even if all the above programs were adopted. As presently constituted, the Iowa county lacks any true executive direction. The board of supervisors functions as a legislative-executive body. But because no major executive powers are vested in a single individual, the diffusion of these powers and responsibilities among board members means that, in fact, there is no executive. Thus the advantages of leadership and planning inherent in the executive function are missing in county administration in Iowa.

Other states have attempted to remedy the absence of an executive in the traditional county government structure in a variety of ways. [An excellent discussion of the different techniques may be found in: C. Snider, *Local Government in Rural America*, (1957) Chapter 7.] Some, such as New York, have adopted enabling legislation permitting counties to adopt an optional county form providing for an elective county executive. This officer, while part of the board of supervisors, has additional powers giving him the authority necessary to provide the leadership required of an executive. In essence, such an arrangement corresponds to the mayor-council form of city government. One of the oldest positions of this nature is the president of the board of Cook County (Chicago) Illinois. A most recent plan is provided for in the home-rule charter of St. Louis County, Missouri, which authorizes an elective county chief executive officer who has the authority to appoint and remove administrative department heads.

Another plan to provide executive leadership has been developed in some states where there exists no enabling legislation specifically providing for a county executive. Informal procedures have been developed whereby one of the traditionally elective officials is vested with the duties normally exercised by a chief administrator. In Wisconsin, for example, the county clerk (whose duties correspond most closely to the Iowa county auditor) has come in almost one-half of the state's counties to function as the county executive. In Arkansas, many executive duties are fulfilled by the county judge. Some North

Carolina counties have made the chairman of the board of supervisors a full-time officer vested with the authority of a chief executive.

### County Managers

A most comprehensive program to provide executive and administrative direction to counties is that found in the county-manager plan. This approach which is patterned after the city-manager plan common to many cities has two essential ingredients. First, a relatively small elective board of supervisors which serves as the chief policy-making body for the county. And second, a county-manager appointed by the board, who serves at the board's pleasure and who is the chief administrative officer for the county. The manager's duties include: administering the board's resolutions and ordinances, appointing and supervising administrative department heads, preparing the annual budget for submission to the board, and making recommendations to the board in areas where it seeks the manager's advice.

In the 15 counties of 8 states where true county-manager plans exist, they result from one type or another of optional county form statutes passed by the state legislature. If Iowa should wish to adopt such an act it could be accomplished by a simple legislative enactment, for the Iowa Constitution (unlike those in many states) has no provision restricting such an approach. Nebraska is the only state in which an optional county-manager form act was held unconstitutional by the state supreme court, and this was primarily on the grounds that the enabling act embraced more than one subject, thus violating the state constitution. [See: State ex rel. O'Connor v. Tusa, 265 N. W. 524, 130 Neb. 528 (1936)]. The county-manager system, moreover, has the effect of shortening the ballot because under the model plan, many of the elective county offices are eliminated and merged into administrative departments under the supervision of the manager.

Finally an attempt has been made to compare certain Iowa counties which in size and composition are similar to several counties in the United States where county-manager governments function. At one extreme the strictly rural Petroleum County, Montana, was compared to its closest counterparts in Iowa -- Adams, Clarke, and Davis counties. The comparison is not absolutely perfect for several reasons. First, Petroleum County's area of 1,664 square miles is considerably larger than that of the Iowa counties considered which range in size from 426 square miles to 509 square miles. However, the study of Iowa indicates that area is not a crucial factor in determining costs. Second, all of the Iowa counties in this comparison have populations ranging from 7 to 9 times the population of Petroleum County which is only 1,026.

For purposes of this study the percentage increase or decrease in cost of the seven major administrative offices in the Iowa counties and the Montana county were compared for the years 1942 - 1957.

[Data covering Petroleum County may be found in: R. R. Renne, "Montana Pace Setter," National Municipal Review, March, 1958, pp. 115-118]. In Petroleum County, in 1942 just prior to adoption of the county-manager plan, the costs for the offices of county commissioners, county clerk, recorder, treasurer, assessor, sheriff, and superintendent of schools was in excess of \$22,000. However, in 1957, despite the great increase in living costs, the costs for the service which has been performed by these offices was only \$17,000 or 22.5 percent less than costs 15 years earlier.

In Iowa the same offices were considered except that the Iowa county auditor was substituted for the Montana county assessor. In Adams County in 1942 the cost of these offices was \$23,250 but had risen to \$51,766 in 1955 for an increase of 122 percent for the 13 years considered. In Clarke County, Iowa county office costs jumped from \$23,730 in 1942 to \$55,385 in 1955, resulting in an increase of 134 percent. While in Davis County the costs increased from \$29,625 in 1942 to \$56,026 in 1955 for an increase of 82 percent.

In studying counties with greater populations, Henrico County, Virginia, with a population over 57,340 was compared to Story, Johnson and Wapello Counties, Iowa, whose populations range from 41,000 to 50,500. In area, Henrico County's 232 square miles is less than one-half that of the Iowa counties noted, which range from 437 square miles to 568 square miles. Of particular significance is the fact that from 1944 to 1949 Henrico County's population almost doubled. While the population increases for the Iowa counties from 1940 to 1950 were: Wapello 5.6 percent, Story 30.7 percent and Johnson 37.4 percent. Despite this major population jump in Henrico County, the costs of county government there under the county-manager plan increased only 127 percent compared to 93 percent increase in Johnson County, 90 percent increase in Story and 79 percent increase in Wapello. Because of difficulties in making a valid comparison, no attempt was made to compare the increase in services, a most significant factor in explaining the increase in cost in Henrico County. [The Virginia situation is discussed in G. W. Spicer, "Manager Counties Evaluated," National Municipal Review, July, 1953, pp. 331-337].

## Chapter V

### Action Areas

The research report indicates a number of areas where Iowa county government could be substantially improved. Some of the following observations by their very nature can be accepted separately from others noted below, while other recommendations are tied to, and normally would be incorporated into suggestions for structural re-organization.

#### Constitutional Changes

Improvement in county government would be facilitated by several constitutional alterations. The constitutional changes fall into three categories: (1) the area of the county, (2) the office of county attorney, (3) the established relationship of taxation by the legislature and the county fund system.

It should be made possible for the legislature to adjust the area of a county to such size as to realistically enable it to assume current obligations and services in local government. Property valuations in about one-third of the counties strongly suggest that these counties rate in the low-ability group in their support of such a government program as now confronts the people of these counties.

At least the long range view of this matter demands consideration of the question of county consolidation. Also, there is need for possible legal distinctions between urban counties and rural counties or the separation of metropolitan areas from county government jurisdiction. Virginia has approached a solution of this problem by providing for the separation of every town or city from the county while other states have established the metropolitan county for some large cities.

Constitutional alteration is also necessary concerning the office of county attorney to free it from its "frozen" constitutional position. This would enable the legislature to modify the attorney's position and powers and adjust the county attorney's office to the newer situation in county government in which it may then be involved.

#### Need for Adequate Records

There is a pressing need for correcting methods of county reporting both within the county and in reference to data reported to state governmental offices. Certainly, there is merit in legislation requiring every county auditor to submit reports to the State Auditor on uniform forms so that county activities can be compared precisely.

In addition, serious thought should be given to legislation authorizing the State Auditor to require uniform accounting procedures within each county. If nothing else, this would make the financial reports published annually by each county uniform and thereby susceptible to comparison by the taxpayers and other interested observers. It would also be helpful if a copy of each county's election results were kept on file in the Secretary of State's office, which is, after all, the official repository of state records.

#### Consolidation of Functions Among Counties

Real benefits would be derived from legislation that would permit counties to consolidate functions without disturbing county boundaries. Some legislation of this sort exists. For example, counties are now permitted to establish cooperative arrangements in appointing a single county superintendent of schools to serve the several counties. Legislation of this nature should be expanded to permit counties if they wish, to select other officials whose jurisdiction would cover a number of counties and whose salaries would be pro-rated among the counties which are parties to the agreement.

Ultimately, if this procedure is accepted it may go far toward achieving the goals envisioned by geographic consolidation of counties. For the deep emotional and political ties that act as barriers to serious consideration of geographic consolidation may not be disturbed if the county boundaries continue to exist, but where the functions of the governmental unit can be integrated. The high costs of certain county governmental operations, in many areas after all, are traceable to functional rather than geographical reasons.

#### Consolidation of Offices: A Department of Finance

Whatever form of government may prevail or may be established in the county, there could be introduced into it considerable simplification and consolidation which should add opportunity for more effective performance and economy. Much improvement can be accomplished within the framework of present constitutional provisions.

The offices of county auditor, county treasurer, county assessor and county recorder, as they now exist, have many functions of related common interest. These offices now include the services of four chiefs or head officials and at least four deputies. A major phase of the work of three of these officials -- the auditor, treasurer and assessor -- relates to county finances. Around this idea a consolidation of functions may be realized and thereby organized. The recorder's functions also are closely related to the definitions of and property holdings recognized in the auditor's accounts and this office also can well become one of the divisions of this major department.

The auditor's duties are primarily related to the activities of the board of supervisors and in that respect his position as secretary to the board should be strengthened and made consistent with this function. He may serve to audit all county accounts for the board and maintain controlling accounts, prescribe all county accounting forms and issue all warrants upon the treasurer in payment of accounts. He should be made fully responsible for the preparation of the budget including the revision of the askings of any and all offices and boards of the county and he should submit such budget proposals to the board of supervisors for its consideration, revision and adoption. The auditor should have charge and supervision of the assessment of all property which is made by the county. The assessors should serve within the department and should be appointed on the basis of merit by the auditor or department head.

The county auditor should have charge of all plat books and property descriptions of the county and the recorder should have the official recordings of such property transfers, deeds, documents, and similar matters.

All tax revenues and special assessments as well as all non-tax revenues in the forms of licenses, permits, fees, fines, grants, subsidies and funds for sales or services and other non-tax revenues collected for the county or other government should be kept in custody in approved depositories by the treasurer and paid out by him only on warrants issued by the auditor. The auditor and treasurer should both be made appointive by the board of supervisors on the basis of established merit and the department should have the major divisions of accounting, custody of funds or treasury, assessment and recording.

#### Optional County Forms Act

It seems reasonably clear both from the research in Iowa and from studies conducted in other states that problems faced by county governments vary greatly within the same state. For this reason there is real merit in providing different types of statutory forms of county government from which the voters of each county may choose. This is essentially what is done in municipal government in Iowa. City-dwellers may choose municipal forms ranging from a pure mayor-council system to a pure city-manager system, with various possibilities available between these two extremes.

An optional county forms act would be a step toward increasing each county's responsibility with its own affairs. It would be a type of home-rule authority, now completely lacking under the present statutes of Iowa. Such optional forms could range, as they do in New York, from the elected-county executive to the county-manager form, with several alternate arrangements also present including the super-



visor plan presently used in Iowa.

### Part-time Boards of Supervisors

The possibility of reconstituting boards of supervisors formally as part-time agencies with fixed limits placed on regular meetings plus the abolition of committee meetings entirely might be considered. This certainly would have the merit of insuring that supervisors in the two or three formal meetings that might be permitted each month would deal only with policy matters, while leaving administrative details to the people who are hired for that purpose. Clearly, this would save substantial sums of money in committee meeting expenses and mileage in addition to realizing modest savings for regular meetings.

In a sense, such a plan would resemble the part-time commission technique which is utilized with considerable effectiveness in various states. Moreover, this plan would mesh especially well with the adoption of a county-manager or elective county-executive system. In counties adopting one or the other of these proposals there would be a full-time administrator with over-all responsibility for details of administration with which supervisors all too frequently find themselves concerned under the present system.

### Limits on Committee Expenses and Mileage

With ever increasing emphasis being placed by the state legislature on fixing maximum limits upon various county fees and salaries, it is surprising that no attempt has been made to place maximum limits on the total amount supervisors may receive for committee work and mileage expenses for committee work. While this is a problem that does not confront the 14 counties where supervisors receive a salary, it is of major significance in all other counties where supervisors are paid on a per diem basis.

Committee meeting costs constitute 86 percent of the total meeting costs of boards of supervisors for the years 1952 through 1955. Moreover, 89 percent of the mileage paid supervisors during this period went for committee meeting mileage.

It seems fruitless for the legislature to limit the compensation for regular meetings and the number of regular meetings when the major portion of meetings costs are for committee meetings, the number of which is completely uncontrolled. Some might even argue that there is merit in fixing limitations upon the amount of general mileage expenses paid supervisors, for this would tend to insure that the supervisors were restricting themselves to general policy matters rather than becoming immersed in seas of administrative details. Perhaps a major step toward the

solution to this problem would be to place all county boards of supervisors on an annual salary basis.

### County Attorney

Legislation is necessary to clarify the instances in which the county attorney is entitled to collect fees for cases tried in the courts of the county. The State Auditor's Examiners each year have occasion to call attention to the practice of certain county attorneys for accepting fees when they appear not to play any part in the cases. Several Attorney Generals' opinions seem to hint that technically such practices are legal if the justice of peace or other judge enrolls the county attorney's name on the case, even though the attorney may not in fact have taken any part in the case.

Some representatives of the State Auditor's office believe that in some counties a gentleman's agreement has been arrived at between the justices of the peace and the county attorney so that the justice of peace automatically enrolls the county attorney's name on every case that comes before the court, whether or not the county attorney is present. While such practices may be within the letter of present law, they clearly seem to violate its spirit, and their general propriety is open to question.

### County Budgeting and the County Fund System

The county fund system should be simplified and loosened from the legislative prescriptions so as to enable the county government to enjoy real budgetary functions. The currently prescribed funds of the legislature make this impossible and serve to transfer much of county budgeting to the legislature. These funds should be reduced in number from the average of about forth-three county funds to no more than five or six funds. This change would also remove the undesirable general practice of transfer of funds once the budget has been made and is being administered. This practice makes a mockery of the county budget. Full budgetary action by the county board of supervisors should extend to all governmental agencies of the county. This should terminate the rather independent drafting of their own budgets by each of several county offices and boards now enjoying this budgetary independence, with the result that the supervisor's job becomes merely that of routinely supervising such agencies' budgets.

Also, to improve upon the county budgeting there is need for changing the fiscal period so as to begin July 1st instead of January 1st. This may necessitate legislative establishment of a special fiscal period enabling the county to budget and establish accounts either on a six months or an eighteen months basis as a transition period

only which should terminate June 30th. Thereafter the fiscal year would begin July 1st and end June 30th.

### Conclusion

In concluding this study of the problems of county government in Iowa it might be well to recall that the strengthening of local and state governments is a task for the states themselves. Thomas Jefferson noted that the only way in which the States can erect a barrier against the extension of National power into areas within their proper sphere is "to strengthen the State governments, and this cannot be done by any change in the Federal Constitution. . . . it must be done by the States themselves. . . . The only barrier in (the States' ) power is a wise government. A weak one will lose ground in every contest."

Appendix A

BASIC STATISTICS FOR IOWA COUNTIES

Appendix A

Table A-1. Basic Statistics for Iowa Counties, and Data Relating to Costs of County Boards of Supervisors, 1954-55.

County	Characteristics of County						Data Relating to Boards of Supervisors					
	Area	Population		Employment, 1950		Median Family Income 1949 (annual) Dollars	Number of Supervisors	All Costs of Board		Costs of Committee Work		
		Total, 1956 Est.	Percent Urban, 1950	Total	Agricultural			Total	Per Capita	Total	Per Capita	
					Number of Persons							Percent of Total
Sq. Mi.	Thous.	Percent	Thous.	Thous.	Percent	Dollars	Number	\$1, 000	Dollars	\$1, 000	Dollars	
Adair	569	11.8	---	4.7	2.7	57.4	3,950	3	11.4	0.97	8.2	0.69
Adams	426	8.0	---	3.2	1.8	56.2	3,770	5	9.4	1.18	6.1	0.76
Allamakee	639	15.8	19.3	6.1	3.2	52.5	3,680	3	11.8	0.75	8.2	0.52
Appanoose	523	17.9	38.7	6.5	2.1	32.3	3,210	3	10.6	0.59	8.4	0.47
Audubon	448	11.5	24.3	4.4	2.4	54.5	4,160	3	10.4	0.90	8.2	0.71
Benton	718	22.7	32.5	8.2	3.6	43.9	4,440	3	8.8	0.39	6.1	0.27
Black Hawk	567	116.8	84.0	4.2	3.4	8.1	5,830	7	21.4	0.18	15.0	0.13
Boone	573	24.1	43.2	9.3	2.8	30.1	4,940	3	11.6	0.48	8.4	0.35
Bremer	439	20.0	27.1	7.3	3.1	42.5	4,420	3	9.7	0.48	6.4	0.32
Buchanan	569	19.9	22.2	7.1	3.0	42.3	4,210	3	11.2	0.56	7.8	0.39
Buena Vista	573	22.5	32.9	7.8	3.0	38.5	5,220	5	5.6	0.25	2.2	0.10
Butler	582	17.1	---	6.6	3.5	53.0	4,200	3	11.2	0.65	8.2	0.48
Calhoun	572	16.5	---	5.8	2.6	44.8	4,620	3	12.2	0.74	8.0	0.48
Carroll	574	23.6	27.0	8.6	3.4	39.5	5,450	5	17.9	0.76	12.0	0.51
Cass	559	18.6	35.0	7.2	2.9	40.3	4,350	5	16.2	0.87	11.6	0.62
Cedar	585	17.1	15.6	6.8	3.5	51.5	5,260	3	8.6	0.50	6.2	0.36
Cerro Gordo	576	48.6	71.6	18.3	2.9	15.8	5,310	3	11.8	0.24	---	---
Cerokee	573	16.1	40.4	6.9	3.1	44.9	5,660	5	4.8	0.30	2.0	0.12

Characteristics of County

Data Relating to  
Boards of Supervisors

County	Characteristics of County						Data Relating to Boards of Supervisors					
	Area	Population		Employment, 1950			Median Family Income  1949 (annual)  Dollars	Number of Super- visors  Number	All Costs of Board		Costs of Com- mittee Work	
		Total, 1956 Est.	Percent Urban, 1950	Total	Agricultural				Total	Per Capita	Total	Per Capita
					Number of Persons	Percent of Total						
Sq. Mi.	Thous.	Percent	Thous.	Thous.	Percent	\$1,000	Dollars	\$1,000	Dollars			
Chickasaw	505	15.4	21.8	5.7	2.9	50.9	4,340	5	13.4	0.87	8.8	0.57
Clarke	429	9.0	36.5	3.5	1.9	54.3	4,120	3	8.1	0.90	6.1	0.68
Clay	571	18.6	41.1	6.8	2.7	39.7	5,230	5	11.8	0.63	8.0	0.43
Clayton	778	21.2	---	8.4	4.4	52.4	4,340	3	12.2	0.58	7.8	0.37
Clinton	695	55.0	66.5	19.2	3.6	18.8	5,140	3	13.8	0.25	---	---
Crawford	716	19.3	23.1	7.3	3.6	49.3	5,010	3	11.1	0.58	7.4	0.38
Dallas	597	23.1	26.1	9.0	3.1	34.4	4,670	3	10.6	0.46	7.4	0.32
Davis	509	9.3	27.0	3.8	2.1	55.3	3,550	3	9.6	1.03	7.0	0.75
Decatur	530	12.0	---	4.3	2.1	48.8	3,540	3	8.4	0.70	6.6	0.55
Delaware	573	17.2	22.5	6.7	3.7	55.2	4,780	3	8.0	0.47	7.1	0.41
Des Moines	409	47.0	72.8	16.6	1.8	10.8	5,160	3	11.0	0.23	---	---
Dickinson	382	13.4	---	4.6	1.6	34.8	5,190	3	9.0	0.67	6.7	0.50
Dubuque	608	80.5	69.6	28.1	3.6	12.8	5,900	3	15.8	0.20	---	---
Emmet	395	14.8	47.6	5.2	1.7	32.7	5,640	5	16.9	1.14	10.2	0.69
Fayette	728	27.8	27.8	10.9	4.6	42.2	4,680	3	9.3	0.33	6.6	0.24
Floyd	503	22.7	47.9	8.4	2.6	31.0	4,850	5	14.8	0.65	10.8	0.48
Franklin	586	16.3	27.2	6.1	3.2	52.5	5,160	3	9.7	0.60	6.0	0.37
Fremont	523	11.3	---	4.6	2.2	47.8	4,100	3	6.8	0.60	4.8	0.42
Greene	569	14.9	27.8	5.8	2.8	48.3	4,500	5	13.4	0.90	8.6	0.58
Grundy	501	14.0	---	4.7	2.5	53.2	4,680	7	10.2	0.73	5.8	0.41
Guthrie	596	14.2	---	5.3	2.7	50.9	3,860	5	8.2	0.58	4.3	0.30
Hamilton	577	19.6	38.7	7.3	2.9	39.7	4,860	3	11.8	0.60	8.4	0.43
Hancock	570	15.0	---	5.3	2.8	52.8	5,600	3	11.1	0.74	7.6	0.51
Hardin	574	21.9	36.0	8.4	3.1	36.9	4,870	3	5.7	0.26	3.4	0.16

Characteristics of County

Data Relating to  
Boards of Supervisors

County	Population		Employment, 1950		Median Family Income 1949 (annual) Dollars	Number of Supervisors Number	All Costs of Board		Costs of Committee Work			
	Area Sq. Mi.	Total, 1956 Est. Thous.	Percent Urban 1950 Percent	Total Thous.			Agricultural Number of Persons Thous.	Percent of Total Percent	Total \$1,000	Per Capita Dollars	Total \$1,000	Per Capita Dollars
Harrison	695	17.6	18.1	6.9	3.2	46.4	4,230	3	12.6	0.72	7.6	0.43
Henry	440	17.0	31.2	6.2	2.1	33.9	4,610	3	8.6	0.51	6.5	0.38
Howard	471	12.9	27.8	4.7	2.4	51.1	4,150	3	11.4	0.88	8.0	0.62
Humboldt	435	13.0	24.5	4.9	2.2	44.9	5,200	5	9.8	0.75	6.9	0.53
Ida	431	10.5	---	4.1	2.2	53.7	5,420	3	8.8	0.84	6.1	0.58
Iowa	584	15.0	---	5.7	2.9	50.9	4,740	3	12.4	0.83	7.4	0.49
Jackson	644	18.2	23.1	7.1	3.3	46.5	4,210	3	12.7	0.70	8.0	0.44
Jasper	736	33.5	36.3	12.7	3.8	29.9	4,900	3	10.7	0.32	7.4	0.22
Jefferson	436	15.8	46.5	5.7	1.9	33.3	3,810	3	8.6	0.54	6.6	0.42
Johnson	620	44.1	59.5	16.8	3.5	20.8	6,360	3	11.1	0.25	---	---
Jones	585	17.3	35.0	7.1	3.3	46.5	4,410	5	15.8	0.91	11.4	0.66
Keokuk	579	15.8	---	6.0	2.8	46.7	3,660	3	10.8	0.68	8.0	0.51
Kossuth	979	26.2	20.6	9.2	4.5	48.9	5,520	5	23.2	0.89	13.6	0.52
Lee	522	43.1	72.1	16.5	2.2	13.3	4,730	3	11.6	0.27	---	---
Linn	713	121.7	75.0	44.5	4.9	11.0	5,520	3	17.0	0.14	---	---
Louisa	403	11.0	---	3.8	1.8	47.4	4,310	3	7.5	0.68	4.8	0.44
Lucas	434	10.9	44.1	4.6	2.0	43.5	3,740	3	9.5	0.87	7.4	0.68
Lyon	588	14.3	18.0	5.3	3.1	58.5	5,350	5	9.5	0.66	5.9	0.41
Madison	565	12.4	27.2	4.8	2.6	54.2	4,010	3	13.0	1.05	8.2	0.66
Mahaska	572	22.3	45.1	9.4	3.3	35.1	4,220	3	12.2	0.55	8.4	0.38
Marion	568	25.3	46.5	8.8	2.8	31.8	4,170	3	12.6	0.50	8.3	0.33
Marshall	574	35.4	55.7	14.2	3.1	21.8	5,210	3	10.4	0.29	8.0	0.31
Mills	446	10.4	33.2	4.4	1.9	43.2	4,120	3	6.8	0.65	5.6	0.54
Mitchell	467	13.9	24.6	5.1	2.3	45.1	4,190	3	11.0	0.79	7.9	0.57

Characteristics of County								Data Relating to Boards of Supervisors				
County	Area	Population		Employment, 1950			Median Family Income 1949 (annual) Dollars	Number of Supervisors	All Costs of Board		Costs of Committee Work	
		Total, 1956 Est.	Percent Urban, 1950	Total	Number of Persons	Percent of Total			Total	Per Capita	Total	Per Capita
	Sq. Mi.	Thous.	Percent	Thous.	Thous.	Percent		Number	\$1,000	Dollars	\$1,000	Dollars
Monona	697	15.3	21.5	5.6	2.7	48.2	4,320	3	11.5	0.75	7.6	0.50
Monroe	435	10.5	41.0	4.2	1.8	42.9	3,840	3	10.5	1.00	8.0	0.76
Montgomery	422	15.8	41.6	5.8	2.0	34.5	4,300	3	4.5	0.28	2.7	0.17
Muscatine	439	33.2	59.2	12.3	2.4	19.5	4,540	5	8.4	0.25	4.8	0.14
O'Brien	575	18.9	21.1	6.7	2.8	41.8	4,930	5	13.0	0.69	9.4	0.50
Osceola	398	9.9	25.1	3.8	2.0	52.6	5,530	5	4.9	0.49	2.6	0.26
Page	535	21.2	50.3	9.0	3.0	33.3	4,370	3	9.9	0.47	6.6	0.31
Palo Alto	561	15.8	23.7	5.7	2.8	49.1	4,500	5	16.6	1.05	11.2	0.71
Plymouth	863	23.3	25.1	9.0	4.6	51.1	4,990	5	15.1	0.65	10.4	0.45
Pocahontas	580	15.1	---	5.7	2.7	47.4	5,340	5	8.2	0.54	3.8	0.25
Polk	594	257.4	88.5	94.9	3.5	3.7	5,780	5	28.8	0.11	---	---
Pottawattamie	964	73.4	67.7	26.7	4.9	18.4	4,900	5	21.2	0.29	---	---
Poweshiek	589	20.0	35.3	7.0	2.8	40.0	4,860	3	10.8	0.54	7.8	0.39
Ringgold	538	8.8	---	3.6	2.1	58.3	3,660	3	6.2	0.70	5.0	0.57
Sac	578	17.6	18.1	6.5	2.9	44.6	4,910	3	10.6	0.60	6.5	0.37
Scott	453	117.2	81.3	40.4	2.9	7.2	5,810	5	19.4	0.17	---	---
Shelby	587	15.5	24.6	5.5	3.0	54.5	4,270	3	11.8	0.76	8.4	0.54
Sioux	766	26.0	10.0	9.0	4.4	48.9	4,700	5	20.2	0.78	12.5	0.48
Story	568	41.1	60.2	16.7	3.3	19.8	5,820	3	12.0	0.29	---	---
Tama	720	21.0	13.5	8.4	4.1	48.8	4,520	3	12.8	0.61	8.0	0.38
Taylor	528	11.5	---	4.5	2.4	53.3	3,820	3	10.6	0.92	6.9	0.60
Union	426	15.3	53.1	5.7	1.8	31.6	3,910	5	9.2	0.60	6.0	0.39
Van Buren	487	10.2	---	4.6	2.1	45.7	3,340	3	8.8	0.86	6.6	0.65

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Characteristics of County								Data Relating to Boards of Supervisors				
County	Area	Population		Employment, 1950			Median Family Income 1949 (annual) Dollars	Number of Supervisors	All Costs of Board		Costs of Committee Work	
		Total, 1956 Est.	Percent Urban, 1950	Total	Number of Persons	Percent of Total			Total	Per Capita	Total	Per Capita
	Sq. Mi.	Thous.	Percent	Thous.	Thous.	Percent		Number	\$1,000	Dollars	\$1,000	Dollars
Wapello	437	50.5	71.0	17.6	2.0	11.4	4,640	3	11.1	0.22	---	---
Warren	572	18.0	29.0	6.4	2.8	43.8	4,150	3	9.3	0.52	6.8	0.38
Washington	568	19.4	30.2	7.4	3.2	43.2	4,530	3	9.9	0.51	8.0	0.41
Wayne	532	10.8	---	4.5	2.3	51.1	3,160	3	10.6	0.98	7.8	0.72
Webster	718	47.2	56.8	17.4	3.5	20.1	5,010	5	20.5	0.43	---	---
Winnebago	402	13.2	20.6	4.8	2.2	45.8	4,850	3	10.1	0.77	7.2	0.55
Winneshiek	688	21.3	28.0	8.1	4.0	49.4	4,410	5	19.4	0.91	13.3	0.62
Woodbury	871	105.3	80.8	42.1	4.2	10.0	5,410	5	23.0	0.22	---	---
Worth	401	10.9	---	3.9	2.1	53.8	4,700	3	12.8	1.17	9.0	0.83
Wright	577	19.5	37.3	6.8	2.8	40.6	4,890	5	15.8	0.81	10.7	0.55

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Appendix B

METHODOLOGY IN THE STUDY OF COUNTY GOVERNMENT COSTS

## Appendix B

METHODOLOGY IN THE STUDY OF COUNTY GOVERNMENT COSTS<sup>1</sup>Introduction

A county government structure may be considered as an entity that provides certain services for its citizens. These services may be regarded as outputs in terms of traditional economic analysis. In order to produce these outputs various inputs are required. Thus, it appears that a county government may be viewed as an economic unit, i. e., like a business firm. An approach to the study of the county government costs may be cast in the framework of the study of firms of various sizes engaged in the production of similar products.

Costs of production then become of interest. We may study total costs or per unit costs. What is the unit may be asked? The unit of interest is clearly the individual citizen of the county who receives the services. From this aspect we see that at least one measure of size or volume is the population of a county.

Many other variables may be identified that are related to the costs or the volume of services rendered. Hence, there appear to be two approaches to the study of county government costs in Iowa. First, from the theory of the firm, an analytical approach may be taken, or secondly, a purely empirical approach could be taken to discover the relevant relations. A reasonable combination of the two is often found useful.

Preliminary ProceduresSources of Data

It would be desirable to secure most of the original data from within the counties. For preliminary studies, this method would be too costly and time consuming. Further, the available sources will vary from state to state. In Iowa the sources may be broadly distinguished as federal and state. The former will be uniform from state to state. As already indicated the state sources will vary but similar materials can usually be located.

The specific sources used for this study were as follows:

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1. Prepared by E. H. Jebe to supplement the study by D. E. Boles and H. C. Cook

## Federal sources--

- a. U. S. Census of Population, 1950, Iowa  
Number of Inhabitants, P-A15,  
General Characteristics, P-B15
- b. Vital Statistics, Iowa, 1956, State Department of  
Health
- c. Federal Reserve Board, Market Estimate Facsimile,  
1958

## State sources--

- a. Biennial Report of County Finances, 1954 and 1955,  
Auditor of State
- b. 43rd Report - Iowa State Highway Commission, 1956

Graphical Methods

The old Chinese proverb, "A picture is worth a thousand words," is again applicable in this field of investigation. Sound graphical techniques must be employed, however.<sup>2</sup>

Large sheets of graph paper, approximately 18" x 22" with a 10 x 10 scale per inch were found most helpful. Such large sheets make possible suitable choice of scales and clear display of individual plotted points. The study of well prepared graphs does several things: 1) possible relationships are revealed, 2) intimate and detailed acquaintance with the data is obtained, and 3) individual deviations from a general pattern are observed which would not be noted in routine calculations made by clerks.

Computations

Preparation for computation is best made by tabulation of the relevant data from the original sources on to large tabulation sheets having at least twenty columns and fifty rows per sheet. In fact, this step should precede the preparation of any graphs since orderly arrangement of the data will facilitate the graphical process. When the data

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2. Standard references may be consulted. The authors recommend, Spurr, Kellogg, and Smith, "Business and Economic Statistics", Richard D. Irwin, Homewood, Ill. and John Myers, "Statistical Presentation", Littlefield, Adams & Co., Ames, Iowa (1950).

are suitably tabulated, totals, averages, percentages and ranges of variation are easily obtained.

The next step, while it may be considered rather an empirical device, is to obtain corrected sums of squares and corrected sums of cross-products of the variables tabulated. When these calculations are available the correlations of dependent variables, the costs, with various independent variables may be computed. It is true that the product-moment correlation measures only linear association of two variables yet it is in most circumstances a useful device for summarizing in a single statistic the information concerning the relation between two variables. The inter-correlations among the independent variables are also needed to discover which pairs of variables give essentially the same information. Finally, in the preliminary phase, the slopes of some simple linear regressions may be calculated.<sup>3</sup>

If punch card equipment and programmed-electronic-computer facilities are available it would be wise to plan the preliminary computations around the use of such equipment. The calculations of many sums of squares and products by desk calculator is a tedious process and requires careful checking.

### Cost Functions

Before proceeding to illustrations of specific results for the Iowa counties it will be well to consider the problem a bit further in general terms. Cost functions are studied in classical analysis in economics in terms of total cost, average cost and marginal cost.<sup>4</sup>

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3. Standard references for the statistical computations described above are:

David Huntsberger, "Principles of Statistics", Allyn & Bacon, Boston (1959)

W. J. Dixon and F. J. Massey, "Introduction to Statistical Analysis", McGraw-Hill (1951)

B. Ostle, "Statistics in Research", ISC Press (1954)

G. W. Snedecor, "Statistical Methods" 5th edition, ISC Press (1956)

M. Ezekiel, "Methods of Correlation Analysis", 2nd edition, J. Wiley & Sons, N. Y. (1941).

4. See: R. G. D. Allen, "Mathematical Analysis for Economists", 2nd edition, MacMillan, N. Y.

Kenneth Boulding, "Economic Analysis," (N. Y. 1948)

Our immediate interest here is in total cost and average cost in per capita terms rather than in the usual economic context. Marginal or increments of cost will be of interest if we consider changes in the present system or structure of Iowa county government.

It is interesting and sometimes surprising that total cost is found to be approximately linear in relation to some "measure of size" variable over a wide range of conditions. This linearity phenomenon was found to be a reasonably adequate description for some of the Iowa county government costs. In making this observation it must be emphasized that the variation in county costs was found to be large and individual counties deviated far from any line that might be drawn through any set of plotted points.

Algebraically, we note that this linearity hypothesis may be expressed as:

$$\text{Total Cost} = A + B S + e$$

That is, the total cost in any county for a government function or office is equal to a constant A plus a constant B times a measure of size S for the county plus a deviation, e, positive or negative, which is associated with other unknown conditions in the particular county. The constant B we see represents a rate of change or increase in Total Cost with increase in size of the county. In the standard statistical approach the deviations -- the e's -- are considered to be chance quantities because of the sampling of, for example, n firms out of a total of N firms available for study. In this study, clearly, the interpretation must be somewhat different but there surely are some chance elements entering into any deviations of a particular county from the state pattern.

So far the measure of size has not been specified. Two natural candidates that appear are the population of the county and the area of the county. Others may be suggested but these are usually found to be closely correlated with area or population.<sup>5</sup> In considering these two measures we see a departure from the economic view of the firm, i. e., total cost in relation to units of output.

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5. Other variables closely tied to population that were studied included: total persons employed, total agricultural employment, median family income, percent urban population, percent agricultural employment, actual urban population, rural non-farm population and rural farm population. Other factors studied which were generally independent of population and area, but which proved of little value in predicting costs were: median school years completed, method of electing board of supervisors, i. e., at-large or by district.

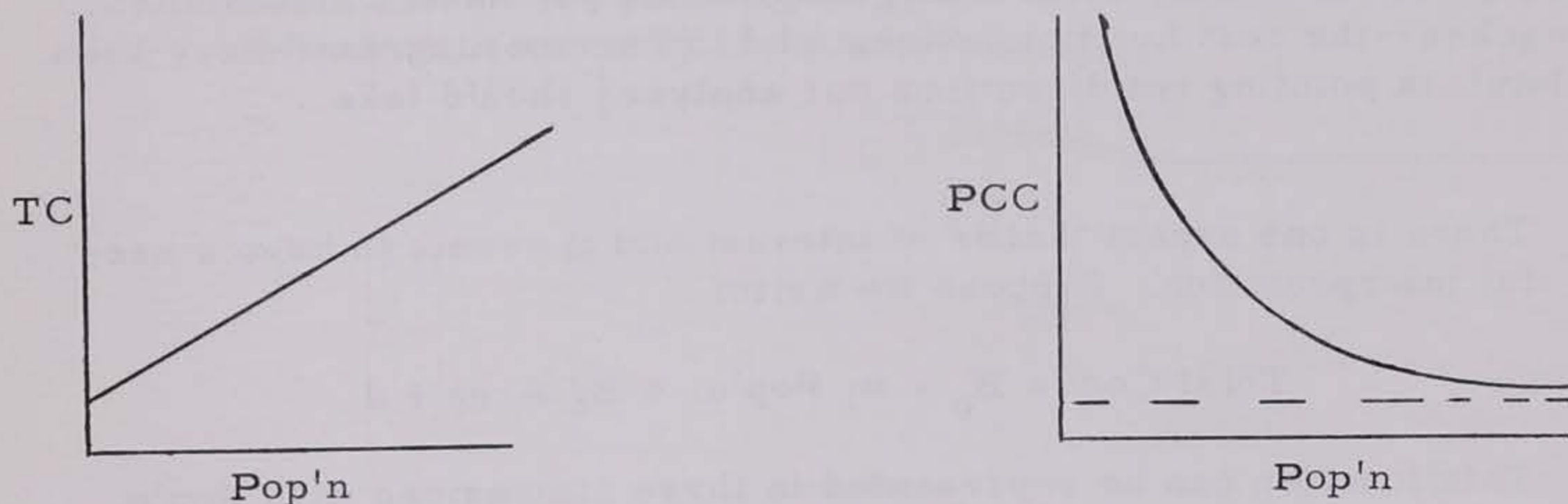
With the total cost function generally specified as a linear function we become interested in the per capita cost, at least from the taxpayer's point of view. Suppose we write:

$$\text{Total Cost} = A + B \text{ Population} + e$$

Now, if we divide by the population to obtain the per capita cost (PCC) or average cost per person, we have:

$$\text{Per Capita Cost} = A/\text{Pop'n.} + B + e/\text{Pop'n.}$$

On the right hand side we see the population now enters as the reciprocal in relation to the average cost. Geometrically, this may be shown by these two diagrams.



On the other hand, if we consider a non-linear transformation of the population to  $R$  (for reciprocal)  $= 1/\text{Population}$ , we may return to a linear form for:

$$\text{Average Cost} = B^* + A^* R + d$$

In this form,  $d$  becomes the deviation, positive or negative, for any county and  $B^*$  and  $A^*$  are shown with the asterisks since the values will not be exactly the same by the transformation because of the variation in the original deviations, the  $e$ 's.

Similar algebraic and geometrical discussion could be presented for Area as the measure of size although this factor is less meaningful. Actually, the Total Cost is a function of Area, Population and other factors. Extensive discussion of such a function would be-

come complicated and too technical for this report.<sup>6</sup> The objective here has been merely to introduce the reader to the concept of a cost function and some of its consequences.<sup>7</sup>

### Components and/or Causes of Costs

Another approach to the cost function problem is exemplified by Figure A in the main report. Economists find this approach useful in considering time sequence phenomena; the diagrams are often called "arrow schemes". The arrows are used to indicate the direction and magnitude of influences on a final result. Such a scheme also seems reasonable for analyzing costs of county government (See explanation of Figure A). Such an approach is also helpful in thinking about the components of the total cost, or how much of the total cost is needed for a particular component (sub-group) of the population. Both approaches--the cost function concept and the arrow diagram--have been helpful in pointing out directions our analyses should take.

- 
6. There is one aspect that is of interest and it seems to have a useful interpretation. Suppose we write:

$$\text{Total Cost} = B_0 + B_1 \text{ Pop'n.} + B_2 \text{ Area} + d$$

This function can be represented in three dimensions with Pop'n. and Area on the horizontal axes and Total Cost on the vertical axis. Now, when we divide through by population we obtain:

$$\text{Average Cost} = B_0^*/\text{Pop'n.} + B_1^* + B_2^* (\text{Area}/\text{Pop'n.}) + d/\text{Pop'n.}$$

In this new form, we see that Area/Pop'n. is the reciprocal of the population density which seems to be a reasonable variable for association with average cost.

7. A somewhat similar approach to the cost function may be found in:

Dachtler, McDonald, Phillips & Harrington, "Costs of Storing Reserve Stocks of Corn", USDA, AMS (Prelim. Rpt. 1955) and F. Wiegmann, "Self-Service or Salesman Service: Meat Retailing?", Iowa Farm Science, 8: p. 23, (August, 1953); Attention is also directed to Philip Lyle and L. H. C. Tippett, "Regression Analysis of Production Costs and Factory Operations", 3rd edition, Oliver & Boyd, Edinburgh (1957)



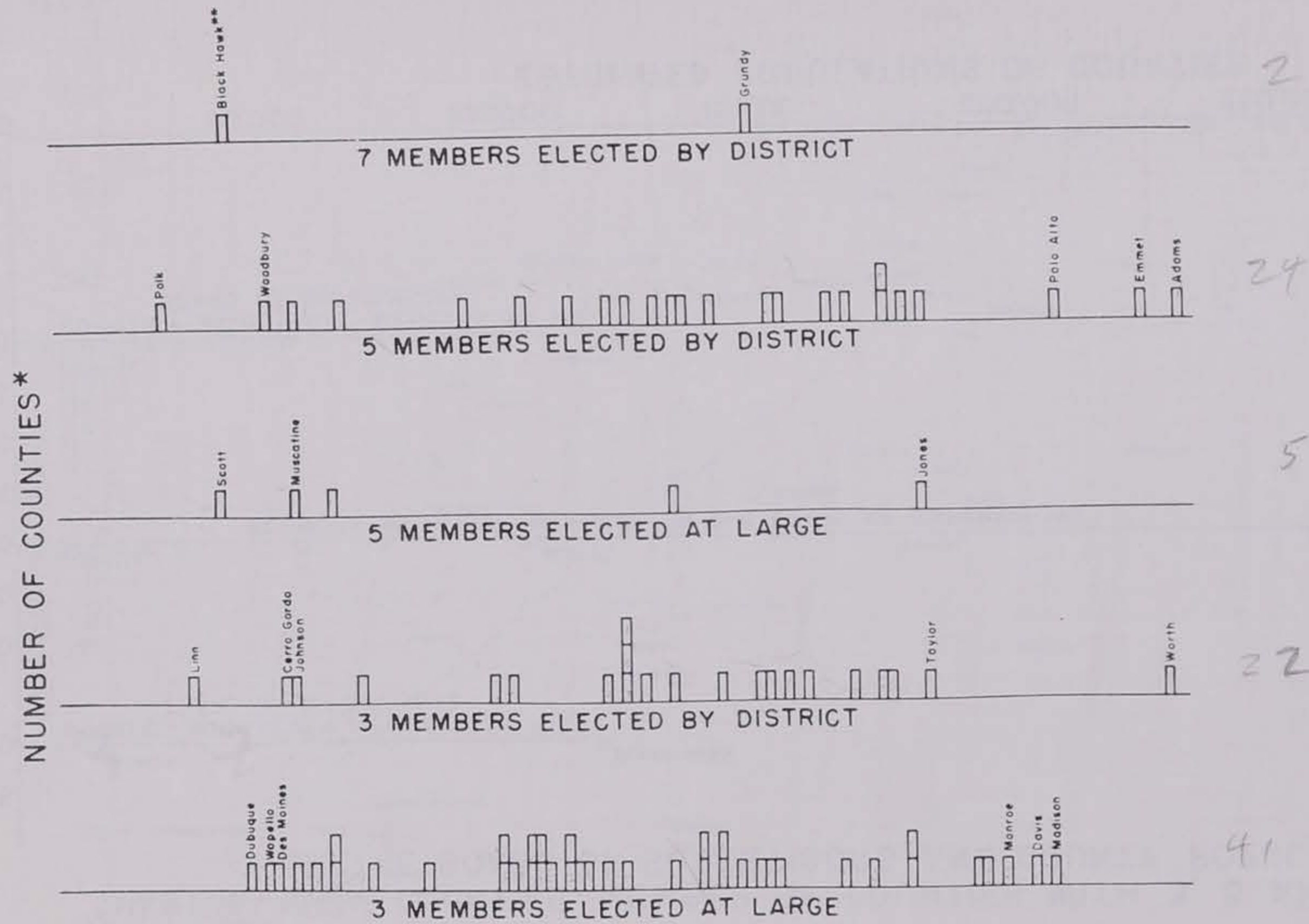
Computational Procedures

No attempt will be made here to describe the computations required to obtain estimates of the parameters in the cost functions that have been described thus far. Reference again may be made to the standard works listed in the footnote above. The chapters on multiple correlation and regression in these sources will indicate the nature and type of computations required in sufficient detail. Mere perusal, however, will not make anyone competent to follow the directions given. The best and most efficient procedure is to form a team of research workers for a study of this kind. Such a team might comprise as a minimum an economist, a statistician and a local government specialist. In any event, it should be emphasized that the consulting services of a competent statistician who is also familiar with punched card data analysis techniques will be found most useful, in fact, necessary for efficient processing of the analyses.

Appendix C

MISCELLANEOUS CORRELATION CHARTS  
FOR IOWA COUNTY OFFICES

CHART A - IOWA COUNTIES: NO. OF MEMBERS ON THE BOARD OF SUPERVISORS AND METHOD OF ELECTION COMPARED TO PER CAPITA COST

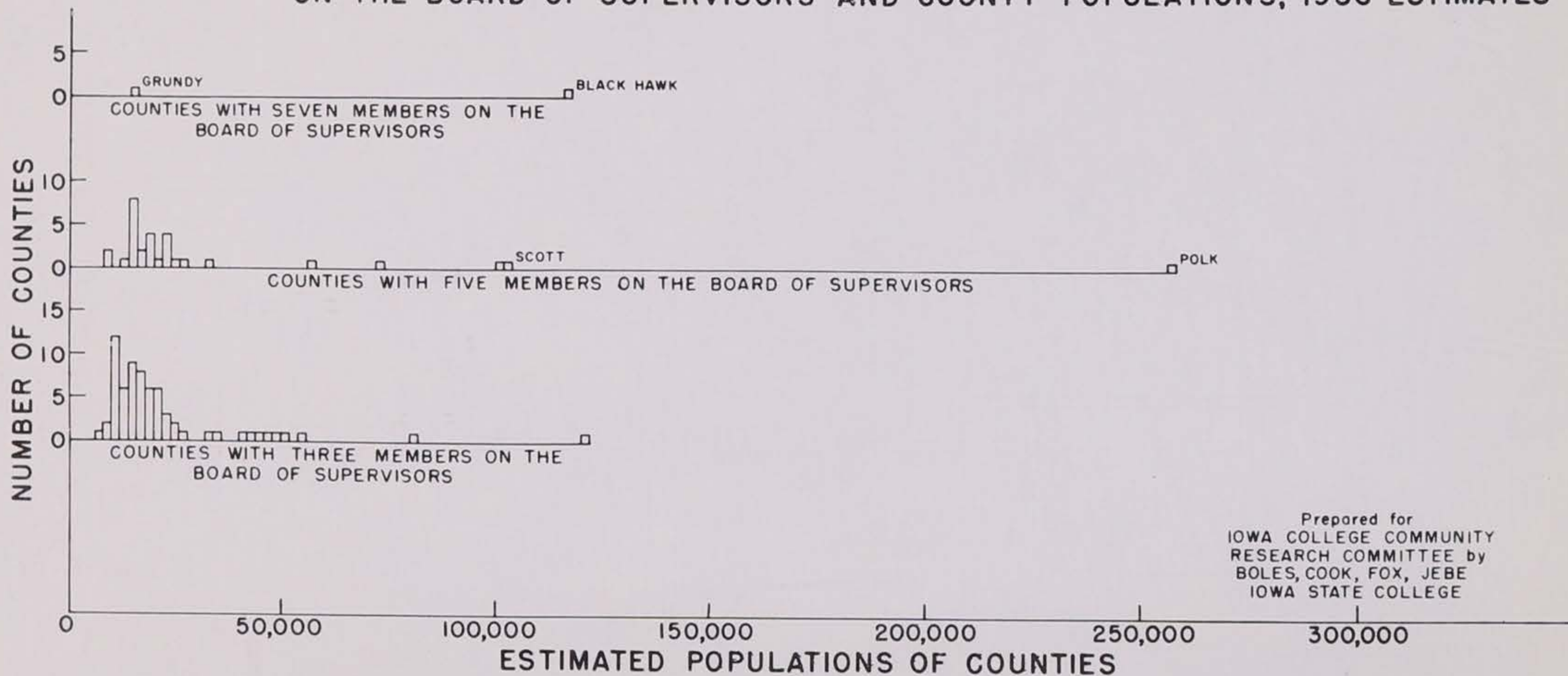


\* For each distribution one rectangle represents one county  
 \*\* Recently voted to reduce number of members on board

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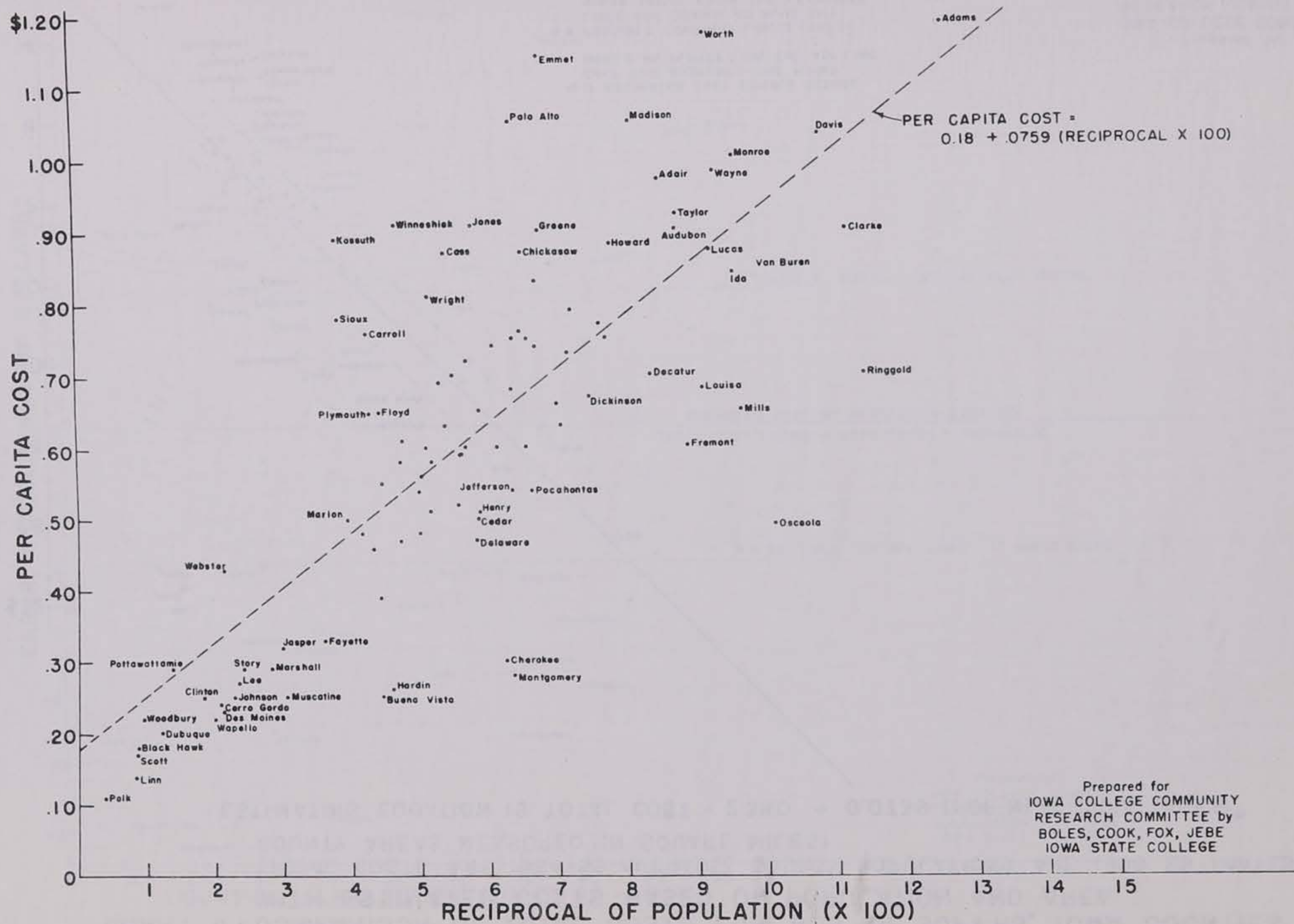
0 .10 .20 .30 .40 .50 .60 .70 .80 .90 1.00 1.10 1.20  
 PER CAPITA COST, IN DOLLARS (1954-55 AVG.)

CHART B - IOWA COUNTIES: NUMBER OF COUNTIES WITH 3, 5 AND 7 MEMBERS  
ON THE BOARD OF SUPERVISORS AND COUNTY POPULATIONS, 1956 ESTIMATES



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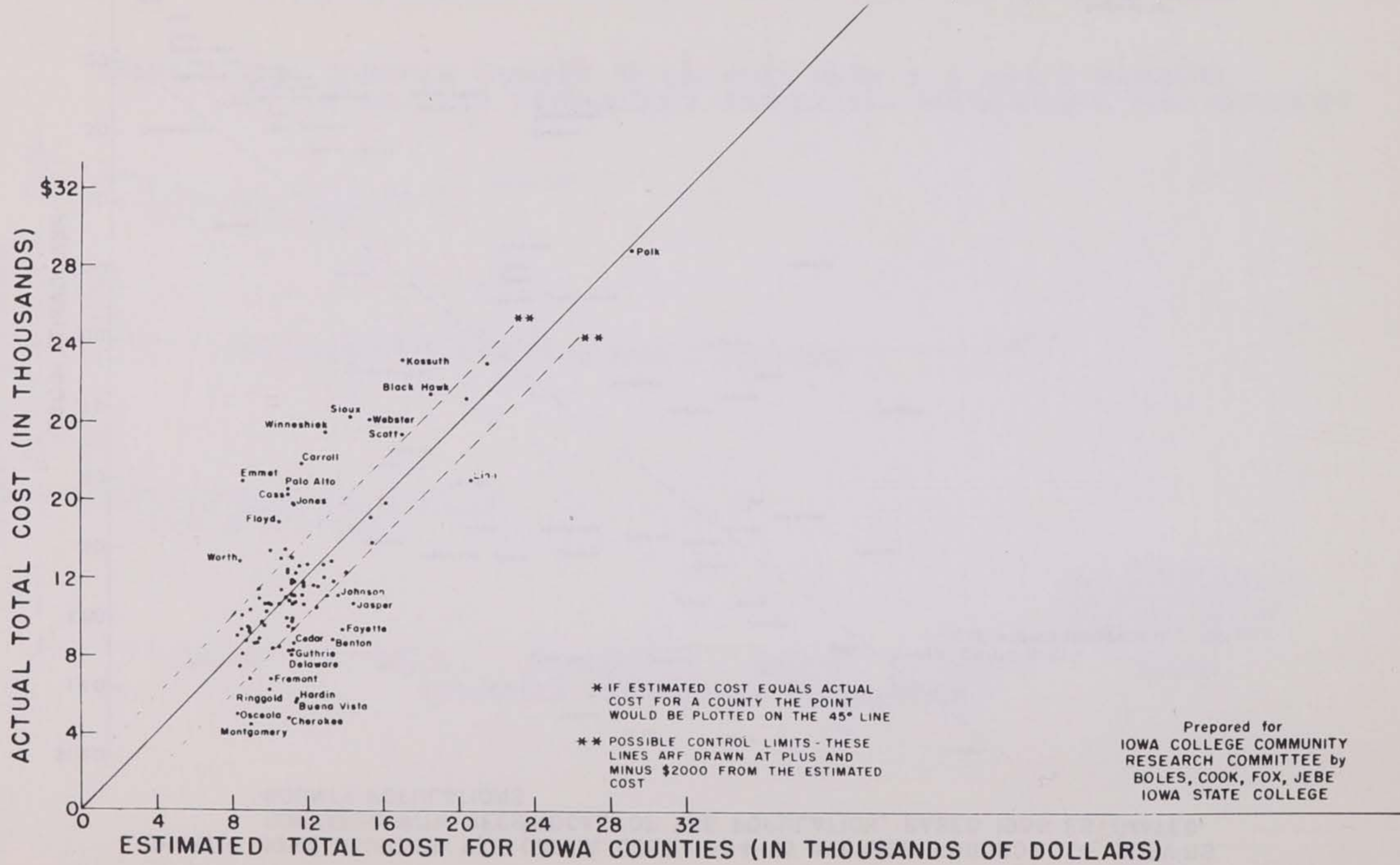
CHART C - IOWA COUNTIES: PER CAPITA COST, 1954-55 AVERAGE FOR BDS. OF SUPV'RS. COMPARED WITH RECIPROCAL OF THE POPULATION, BASED 1956 ESTIMATED COUNTY POPULATIONS



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CHART D - COMPARISON OF TOTAL COSTS FOR BDS. OF SUPV'RS, IOWA COUNTIES  
 WITH ESTIMATED COSTS BASED ON POPULATION AND AREA  
 (TOTAL COSTS ARE 1954-55 AVERAGE; COUNTY POPULATIONS ARE 1956 ESTIMATES;  
 COUNTY AREAS MEASURED IN SQUARE MILES)

ESTIMATING EQUATION IS TOTAL COST = 2.380 + 0.0739 (POP'N) + 0.0131 (AREA)\*



\* IF ESTIMATED COST EQUALS ACTUAL COST FOR A COUNTY THE POINT WOULD BE PLOTTED ON THE 45° LINE  
 \*\* POSSIBLE CONTROL LIMITS - THESE LINES ARE DRAWN AT PLUS AND MINUS \$2000 FROM THE ESTIMATED COST

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CHART E - ERRORS IN PREDICTING TOTAL COST OF BD. OF SUPV'RS FOR IOWA COUNTIES FROM COUNTY POPULATIONS AND AREAS; TOTAL COST IS 1954-55 AVERAGE; COUNTY POPULATIONS ARE 1956 ESTIMATES AND AREAS ARE IN SQUARE MILES

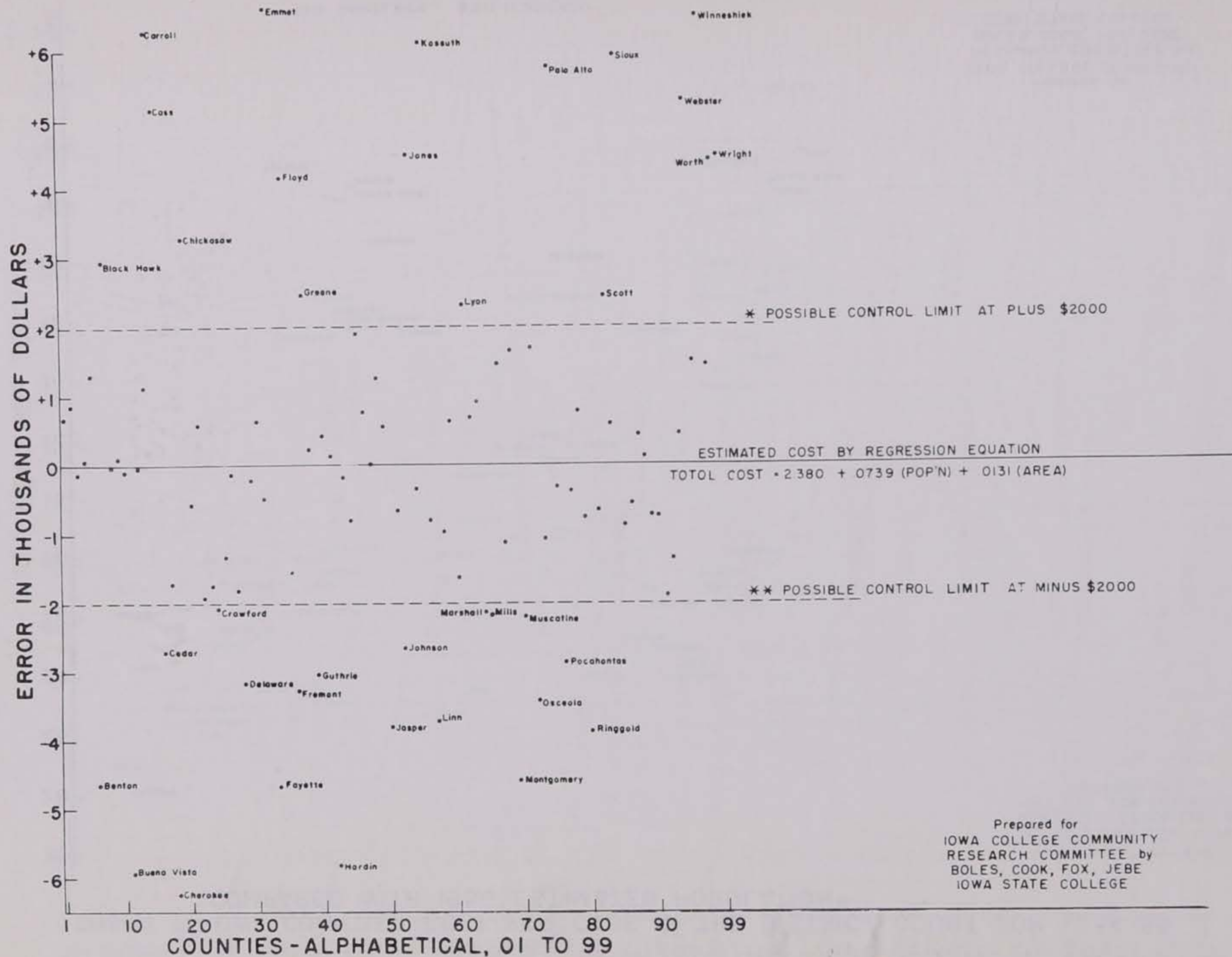
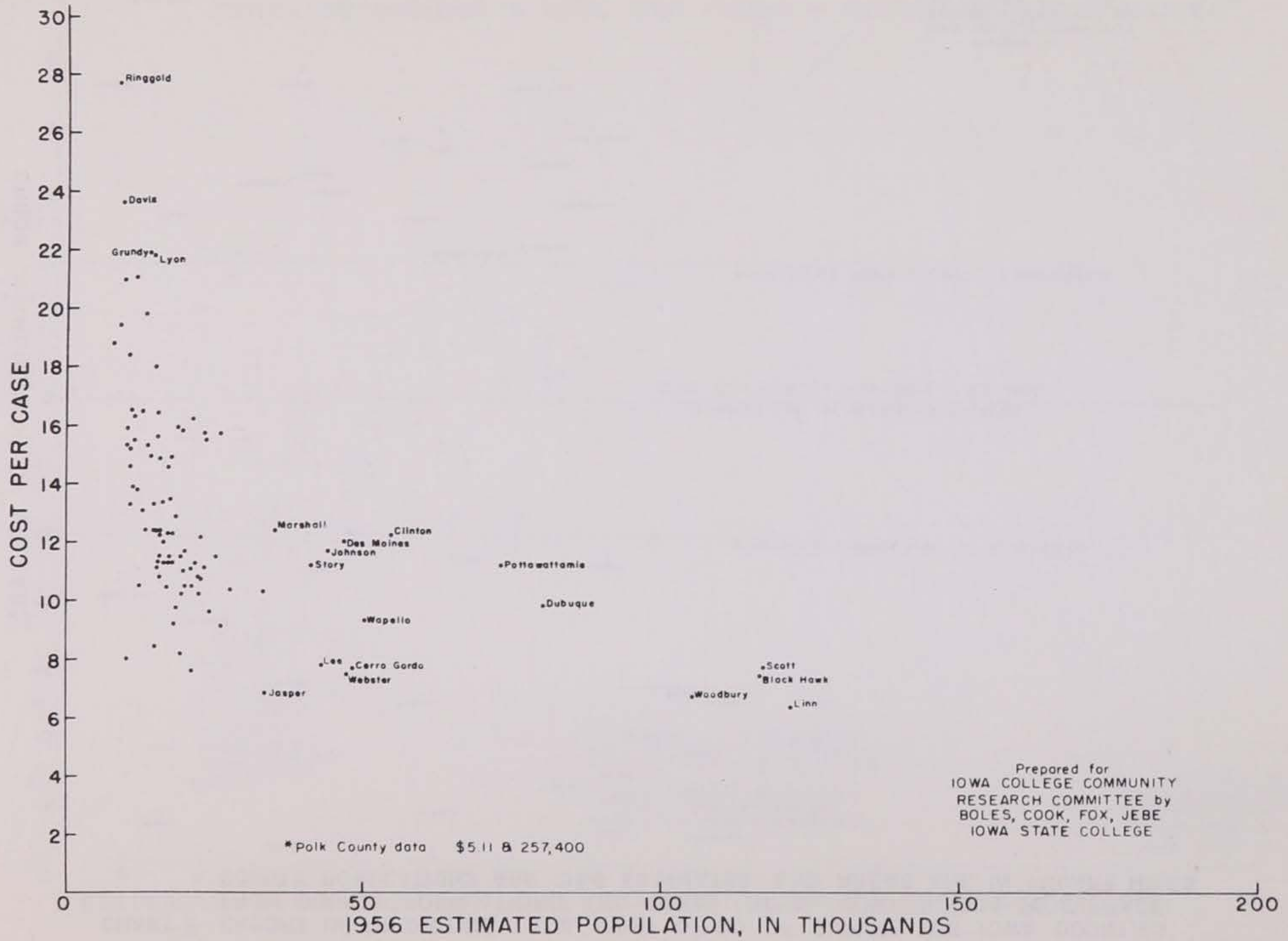


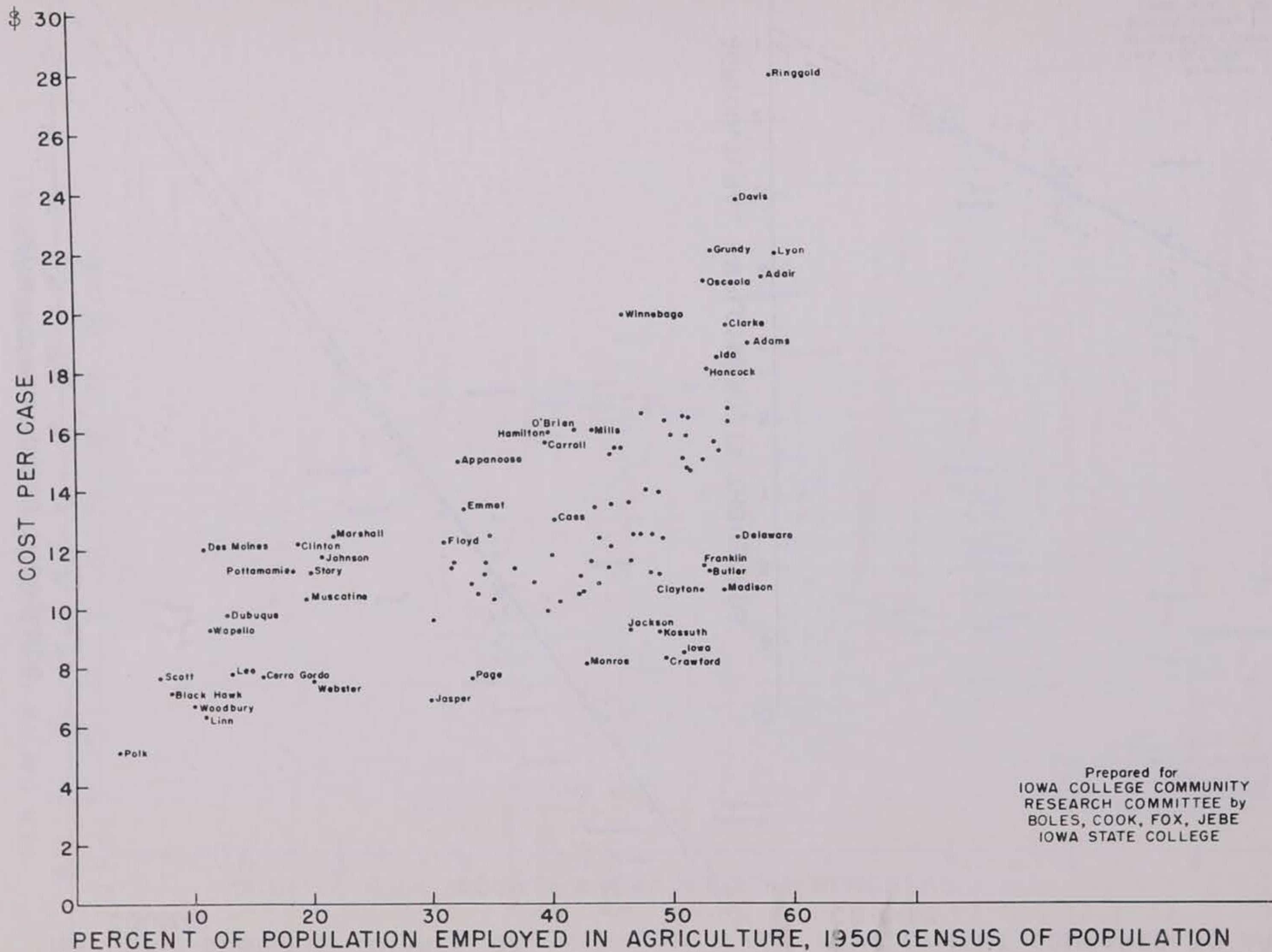
CHART F - IOWA COUNTIES: COST PER CASE IN THE DISTRICT COURT FOR 1954-55  
 COMPARED WITH 1956 ESTIMATED POPULATION\*



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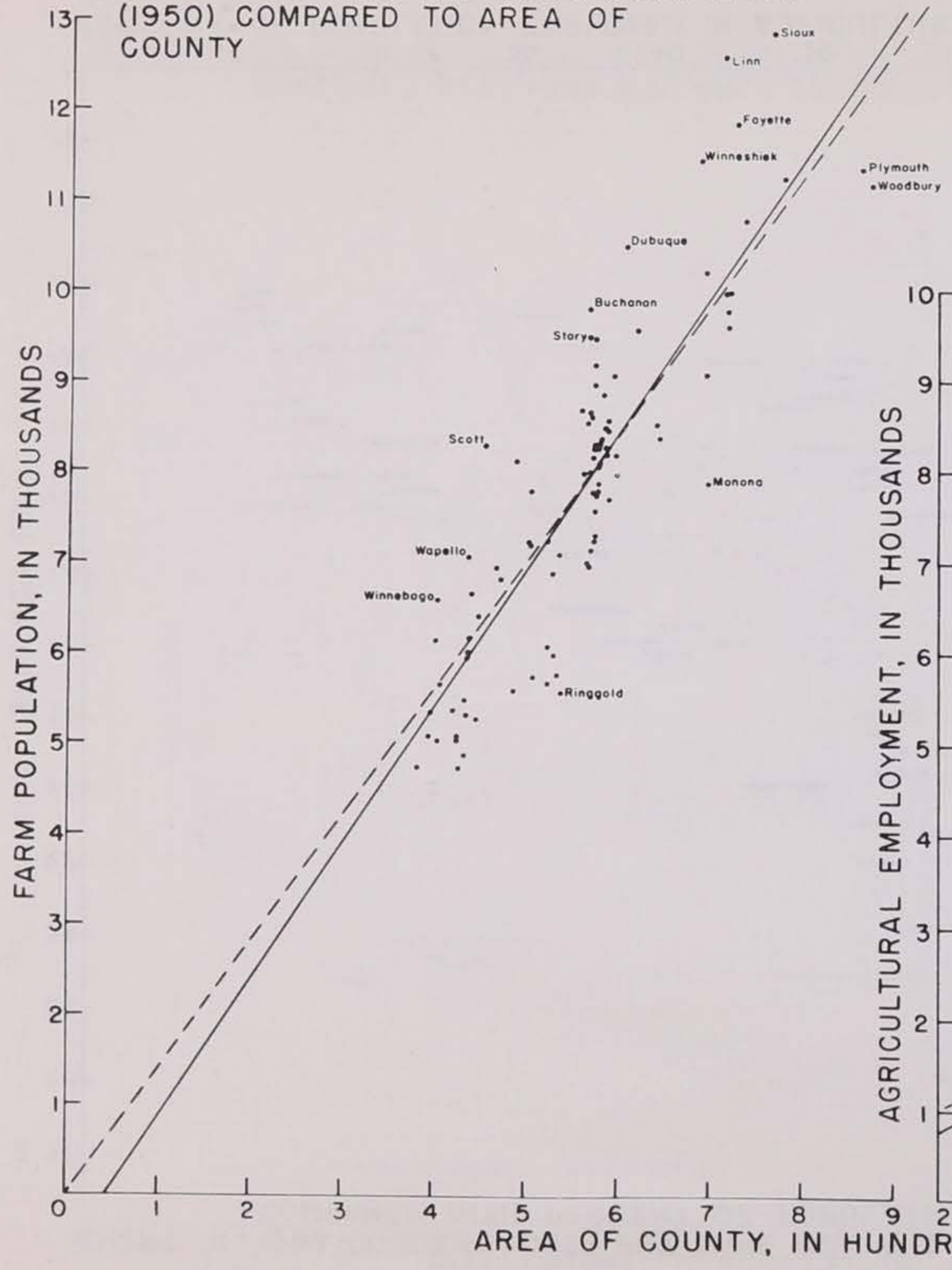


CHART G - IOWA COUNTIES: COST PER CASE IN THE DISTRICT COURT FOR 1954-55  
 COMPARED WITH PERCENT OF POPULATION EMPLOYED IN AGRICULTURE

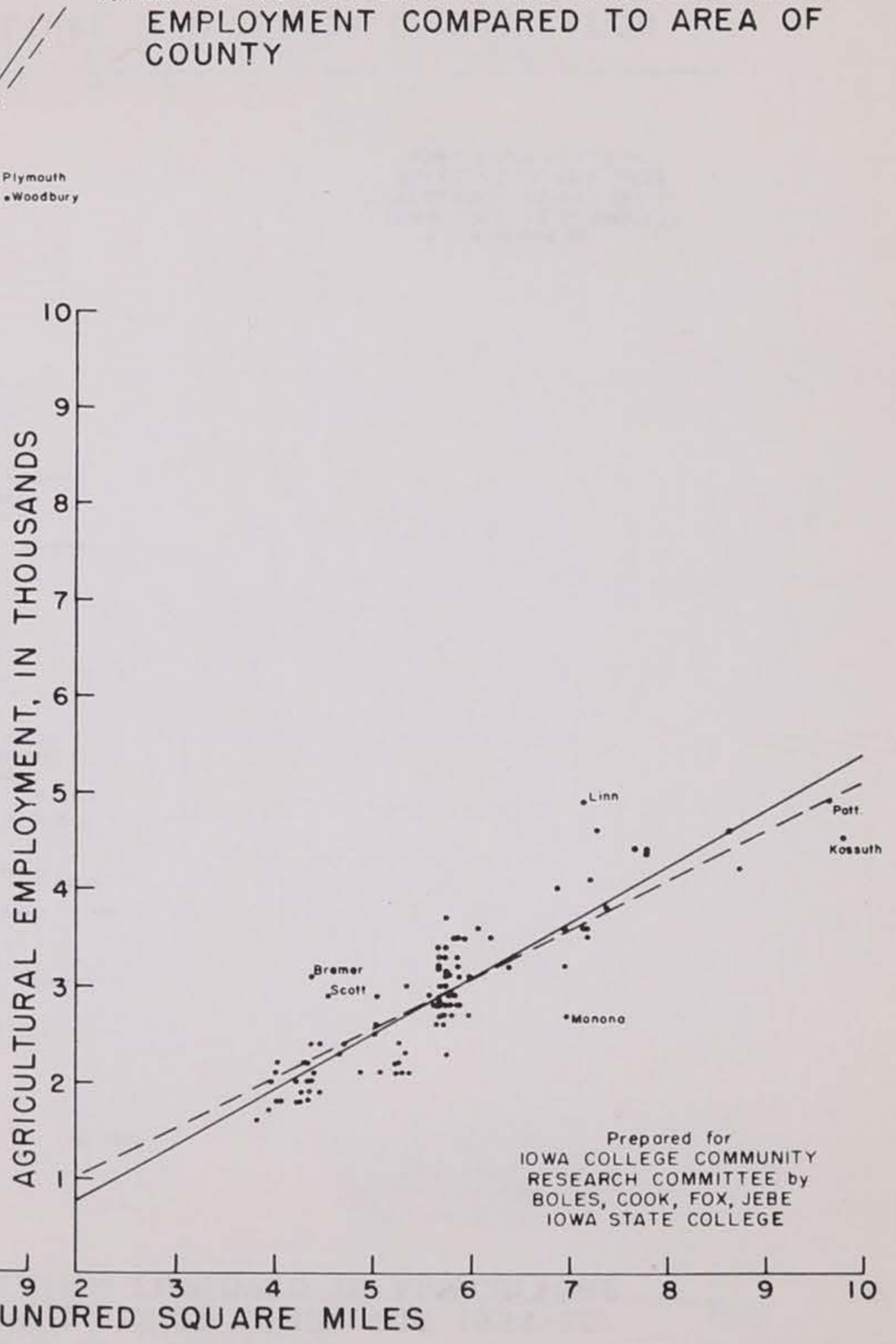


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CHART H - IOWA COUNTIES: FARM POPULATION (1950) COMPARED TO AREA OF COUNTY

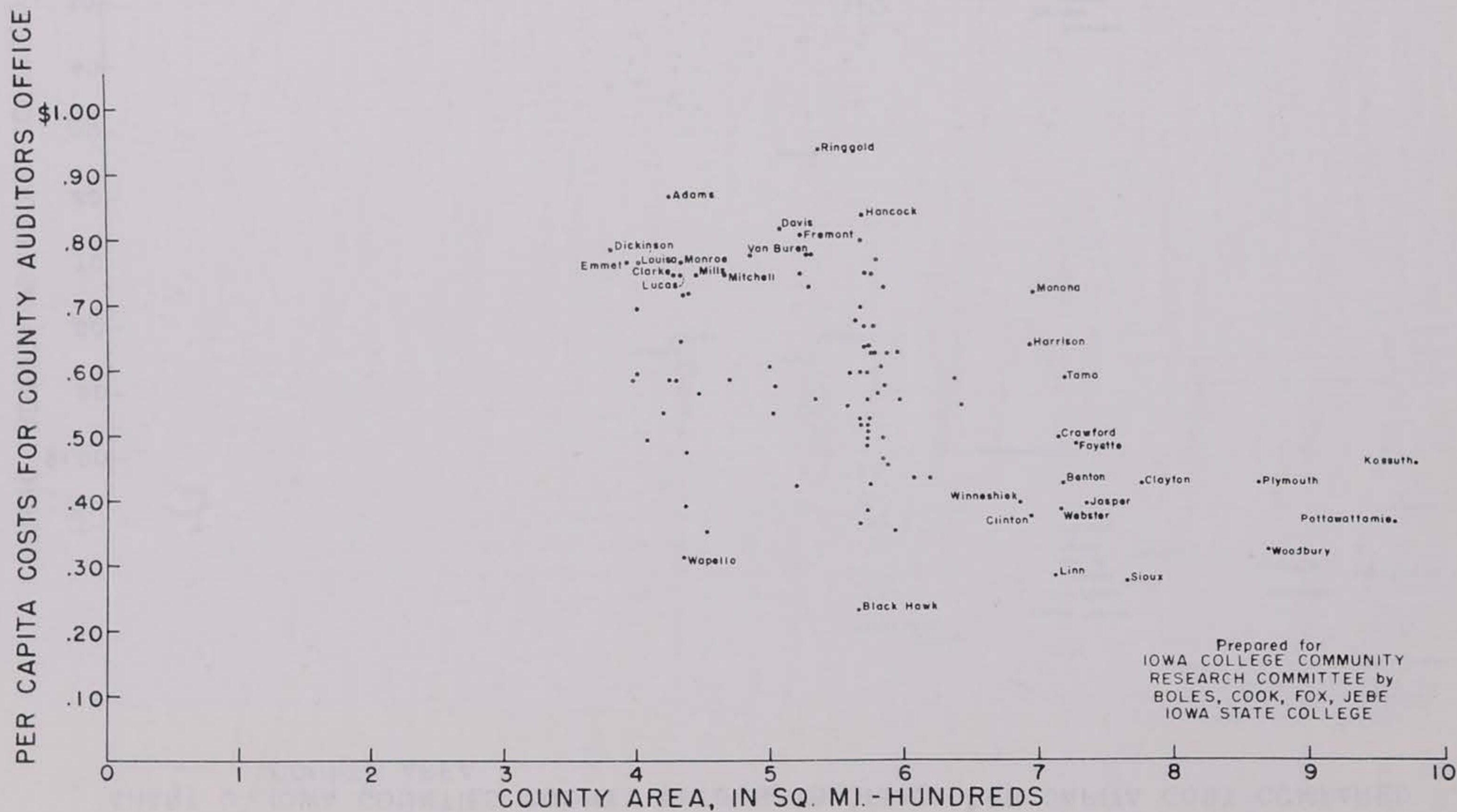


IOWA COUNTIES: TOTAL AGRICULTURAL EMPLOYMENT COMPARED TO AREA OF COUNTY



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CHART 1- IOWA COUNTIES: AUDITORS OFFICE PER CAPITA COSTS COMPARED TO COUNTY AREA



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CHART J - IOWA COUNTIES: COUNTY ATTORNEYS OFFICE PER CAPITA COST COMPARED  
COUNTY AREA

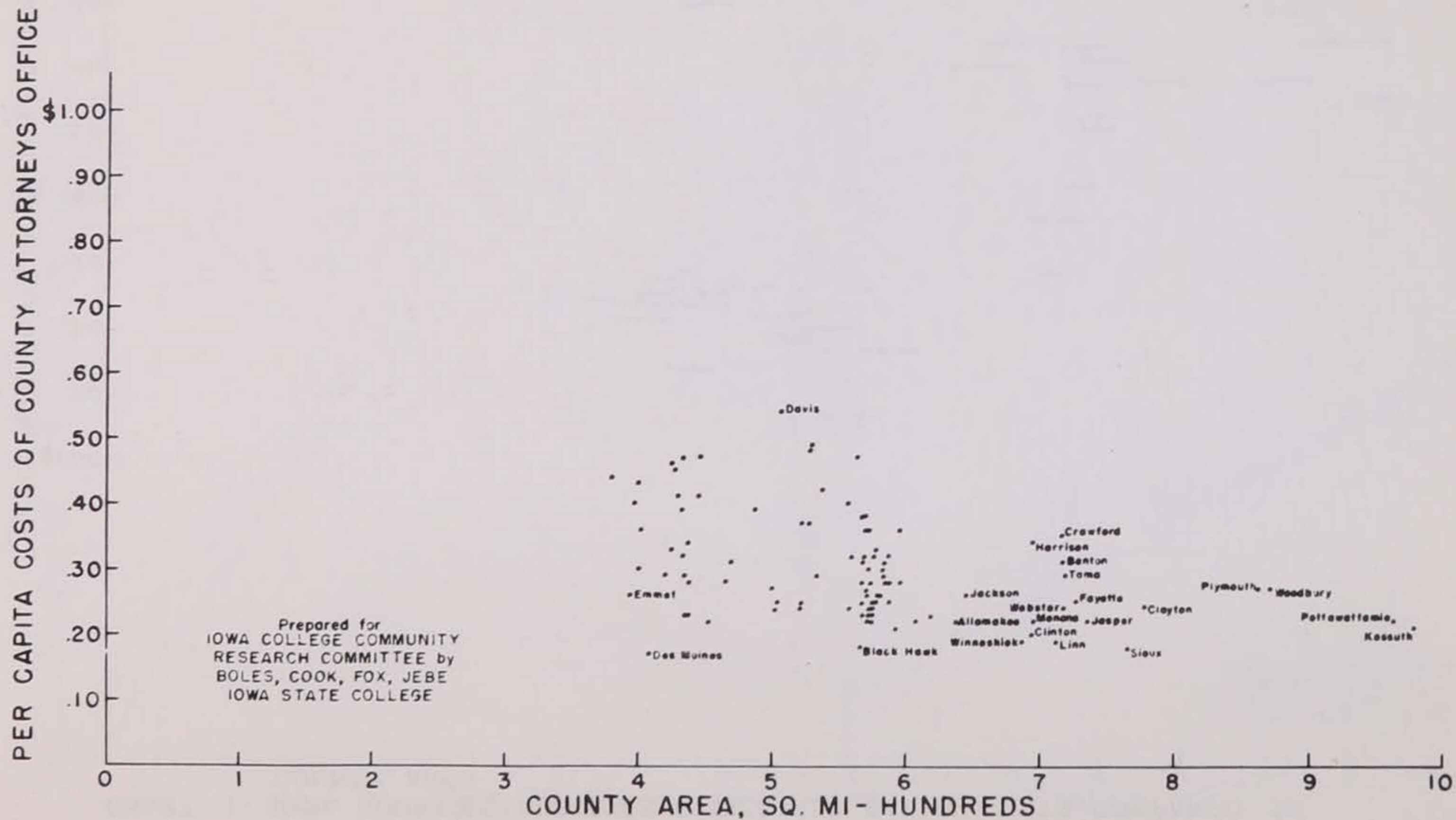


CHART K - IOWA COUNTIES: RECORDERS OFFICE PER CAPITA COST COMPARED TO COUNTY AREA

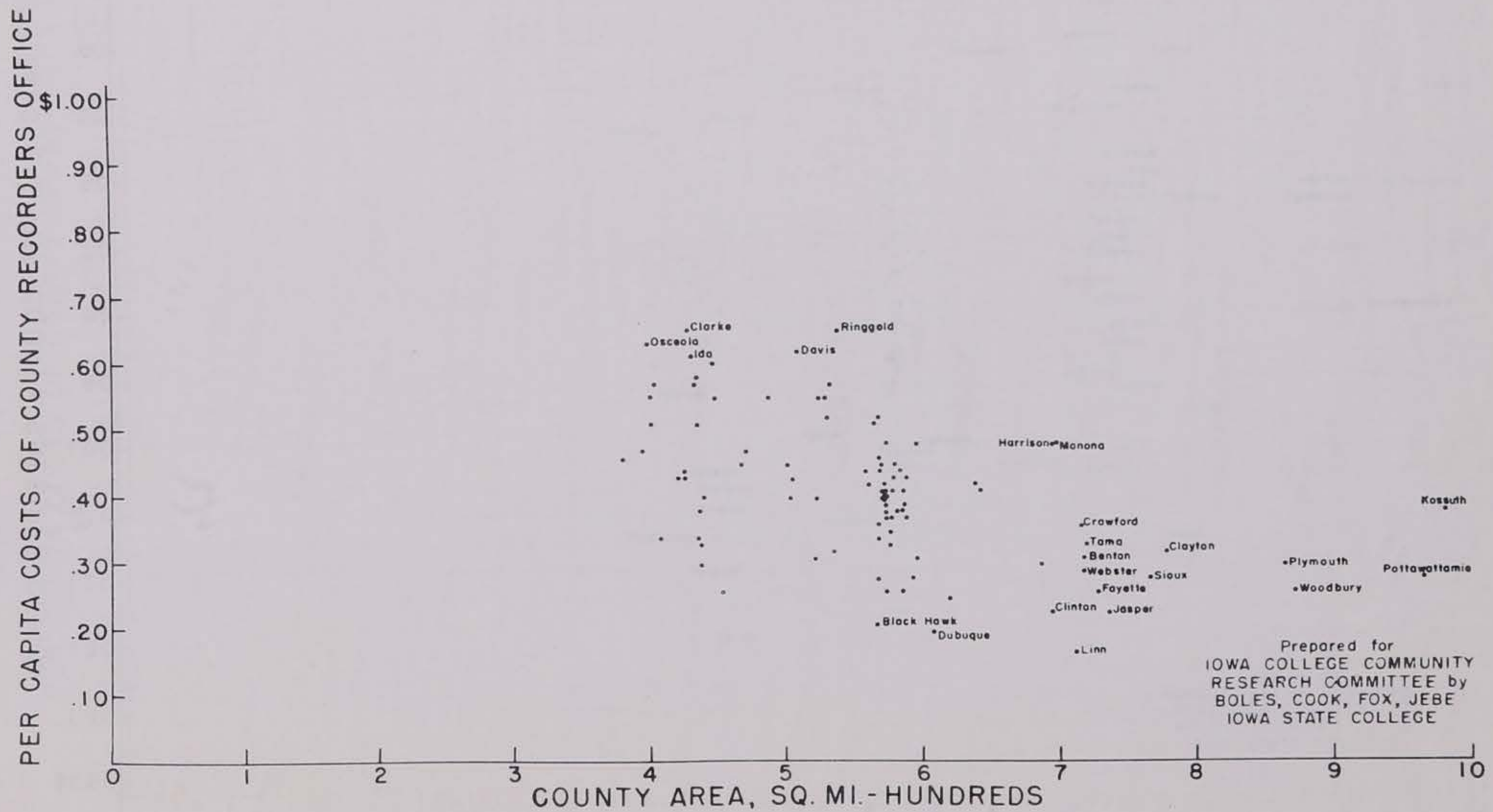


CHART L - IOWA COUNTIES: SHERIFFS OFFICE PER CAPITA COST COMPARED TO COUNTY AREA

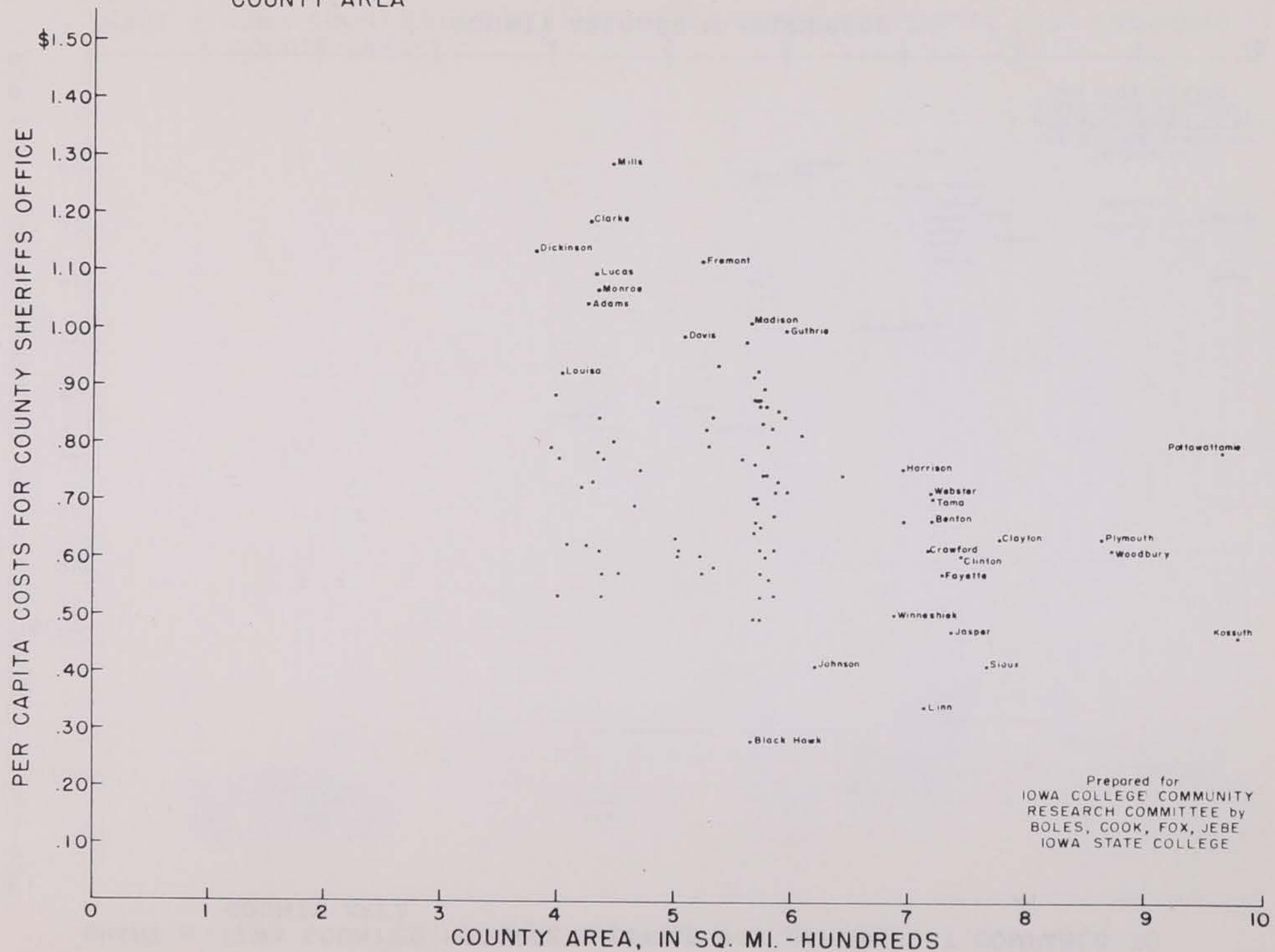
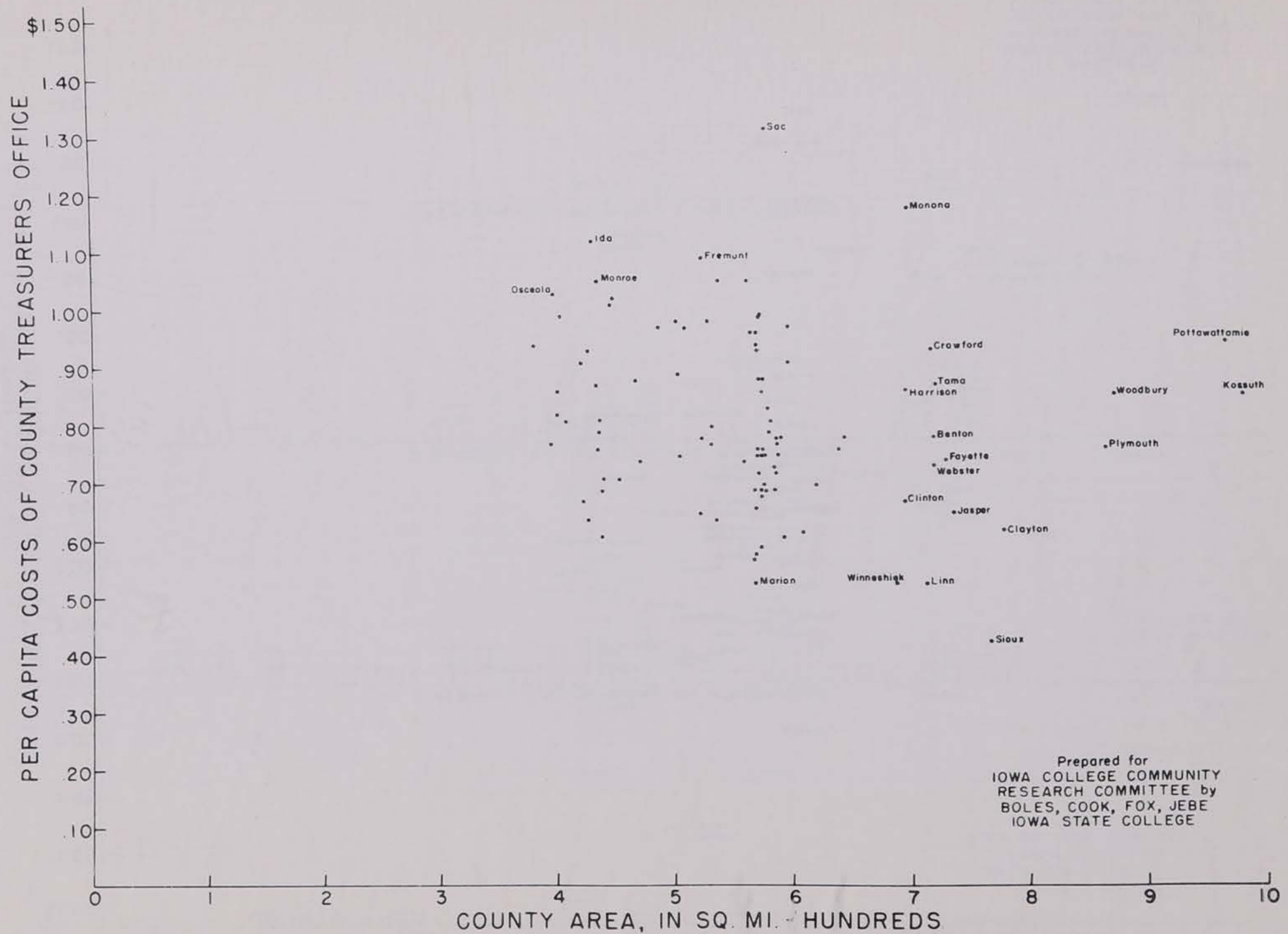
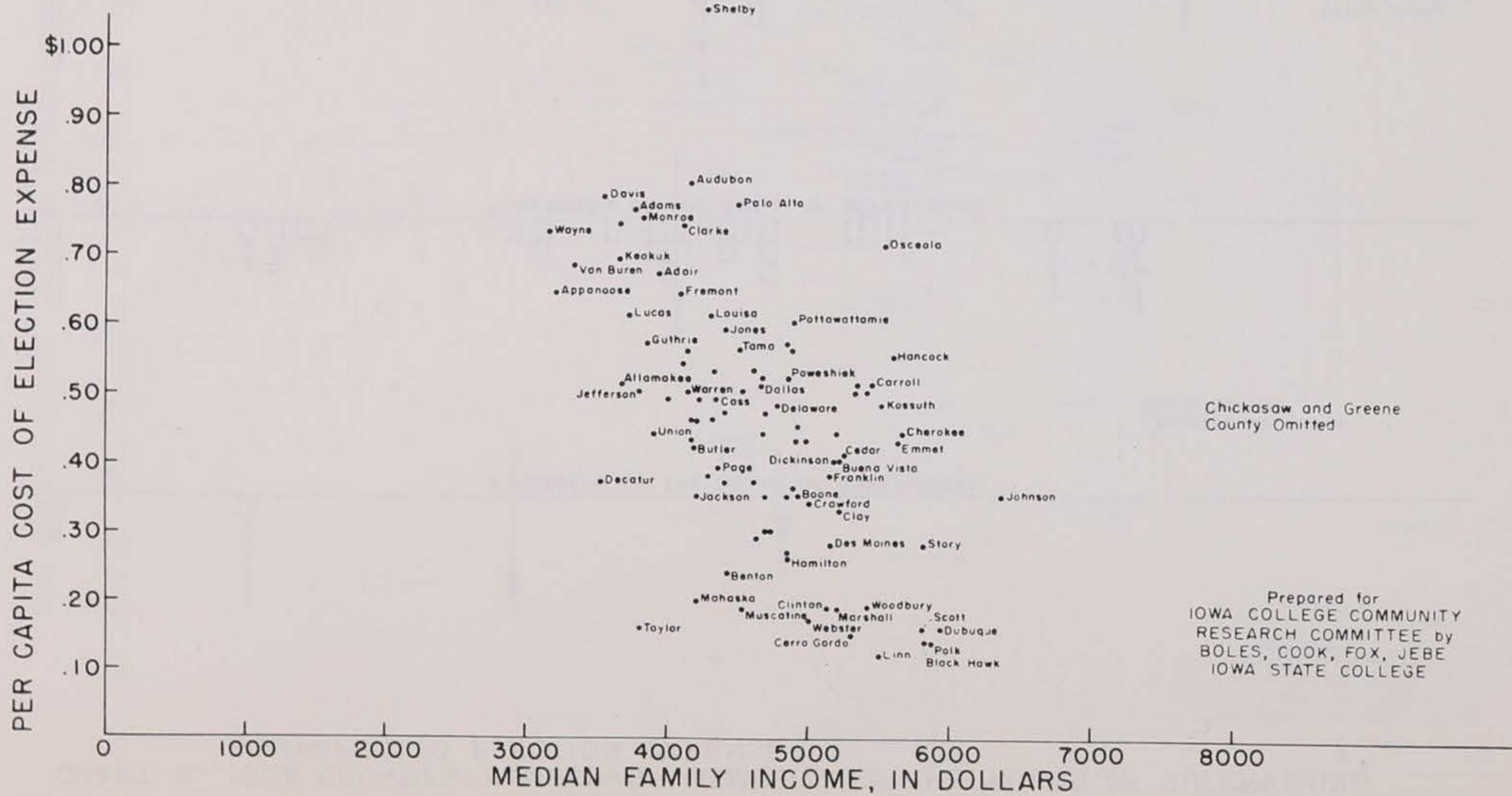


CHART M - IOWA COUNTIES: TREASURERS OFFICE PER CAPITA COST COMPARED TO COUNTY AREA



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CHART P - IOWA COUNTIES: ELECTION EXPENSE COMPARED TO MEDIAN FAMILY INCOME





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