8-1-1965

Internal Short Distance Migration and College Enrollment in Mississippi

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INTERNAL SHORT DISTANCE MIGRATION AND COLLEGE ENROLLMENT IN MISSISSIPPI

BY

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B. A., University of Mississippi, 1964

A Thesis

Submitted to the Faculty of

The University of Mississippi

In Partial Fulfillment of the Requirements

for the Degree of Master of Arts

in the Department of Sociology

The University of Mississippi

August, 1965

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PREFACE

The purpose for this study is twofold. It was written as partial fulfillment for the master of arts degree in sociology. But such a purpose hardly justifies its existence. The other and principle purpose for the choice of both subject matter and type of study for this paper can be considered as utilitarian. I hope to indicate some conclusions which might be of immediate and predictable value to those who wish to use the data for practical purposes.

Many studies have been conducted whose value has still proven mystical and obscure. I hope this study will not be either mystical or obscure. Many subjects have been beaten to death by a plethora of words so in excess of those needed that the distinction of the work lies not in its sociological value but in the semantic maneuverings of the verbal strategist. I hope this study will be both concise and precise. Obscurity is sometimes inevitable under these first conditions. In an effort at fairness, however, I must state that many of these non-definitive or speculative works can and do provide a fresh conceptual insight into existing social theory. It is precisely in this area that they belong, unless complete frames of references already exist into which they can be fitted.

As far as the useful value of this paper is concerned, the argument for utilitarianism is old. The same argument is highlighted between pure science and applied science. Though is is not within the scope of this paper to indicate a philosophical proof for the validity of practicality, I shall instead state as an assumption that pure science--which has no immediate application in mind or purpose--implies as a necessary corollary that someday the theoretical or speculative research which it is may find an area of application. It is logical to deduce under these circumstances that the end product of scientific endeavor is applicative.

Before leaving off at this point with implied assumptions, it is better to state them. What remains unsaid, remains uncommunicated, and may be misunderstood. It is inconceivable to me that nearly all studies at which I have looked fail to offer or even make mention of a complete philosophical base. In fact one is left at odds as to just what the writer might be trying to indicate in the long run or at least what his basic objective values may be.

And this is not to say at all that there is no frame of reference or conceptual framework to most studies. There is. I only mean that we are nearly always provided with the successive layers of the pyramid of thought whose apex may be carefully planned "proof" but whose first layer, the broad,

expansive, and encompassing base is either ignored, implied, forgotten--or else never was even dimly conceived because the question "Why?" was feared.

I shall ask why.

To continue, it is suggested to us that there is a chasm, an impassable split, between humanism and the sciences, between free man and physical reality. But I state here for all to see that I most certainly disagree. There are unifying principles which exist and beginning here where the basic premises belong, I shall state them as accurately as I may--at least those which are immediate and necessary to the purpose of the thesis.

I refuse not to ask "Why?"

Perhaps, to avoid any charges of incompleteness, I should state that although the basic premise on which I have based my choice of subject matter has been one of ultimate application and of easy data accessability, the particular choice of school enrollment in Mississippi was personally objective. I simply like schools, enrollment, migration differentials for whatever reasons only the gods and I may know.

A quick statement of the broadest principles in play for this paper is beautifully summarized by Nathaniel Branden in his opening lecture of a series, a lecture entitles "Basic Principles of Objectivism." The portion relevant to this paper

is presented.

> a) . . . existence, reality, the external world, is what it is, independent of man's consciousness, independent of anyone's knowledge, judgment, beliefs, hopes, wishes or fears--that facts are facts, that A is A, that things are what they are;
>
> b) that reason, the faculty that identifies and integrates the material provided by man's senses, is fully competent to know the facts of reality;
>
> c) that man's perception of the facts of reality must constitute the basis of his value-judgments, that just as reason is his only guide to knowledge, so it is his only guide to action; . . .

It is with these purposes, goals, reasons, methods and basic premises that I have conducted my study. They are the only ones I know. I hope it will serve as a source for at least partially determining enrollment by helping to explain or "prove" an enrollment pattern. Using results which I hope will be found, one wishing to predict college enrollment could do so with a relatively high degree of accuracy. Patterns of migration which may be of importance in predicting enrollment may also emerge. Furthermore, this study is another in internal migration and college enrollment, an area in which there has long been a dearth of data and study.

My thanks go to Mr. Max Williams for his hlep with portions of the statistical part of this study. Thanks go to my mother for hours of "beyond the call of duty," last minute typing. Special thanks must go to Dr. Julien Tatum for his many corrections and suggestions. Special thanks go also to

Mr. J. H. Bruening for his unstintingly active efforts in having me question the basic premises on which this paper rests and also for his advice and corrections. And lastly, my salutations go out to my typist, Mrs. Tom Blumer, for her unfailing and uncanny ability to decipher the original copy into a finished product.

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INTRODUCTION

Man moves. He may even be a creature of movement. Unlike inanimate objects his movement is probably more often than not purposeful, perhaps knowingly, perhaps without knowing, perhaps because the movement has been internalized into an automatic response to some stimulus about which he may be unaware. All of these actually exclude plant and animal life other than man, because only in man is or can the choice of movement be volitional. And this conscious choice, if such it is, indicates that a "cause" may be at hand somewhere, notwithstanding other caused but non-conscious movements.

Historically there have been major migrations such as the invasion of Europe by the Huns, the importation of slaves to the Americas, the influx of Europeans into the Americas, the movement of the Asian Indians into parts of southern Africa, and even the movement of mongoloid types into the Americas later to become known as the American Indian. All of these are known cases of migration.

But what of the man who on Sunday morning arises and walks to the corner newsstand for a Sunday paper? Is he a migrant? Hardly. What of the woman who drives twenty miles to go shopping for the day? Is she a migrant? No. Is man himself a creature of movement or not? It remains to be seen.

Present migration theories imply through the use of the "push-pull" theory of migration that man is sedentary. This may not be the case at all.[1] It is worthwhile to note that Charles Ellwood wrote: "All peoples seem more or less migratory in their habits. Man has been a wanderer upon the face of the earth since the earliest times."[2] At present, however, there are no immigration theories except those which imply that man is sedentary. In either case, it is man's behavior which is under observation. Perhaps if man were a chronic wanderer, then no causes could be found for his behavior except that word "instinct;" I shall assume otherwise.

Why are not the Sunday man or the shopping woman considered to be migrants? Why not even a world traveler or a person who takes a two-month vacation away from home? Much of the answer lies in motivation and in economics. But the whole answer is made conceivable by the definition or the frame of reference.[3]

The commonly conceived definition of migration as being "the movement of population into or out of a geographic area

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[1]William Peterson, "A General Typology of Migration," American Sociological Review, Vol. 23, No. 3 (June, 1958), pp. 256-266.

[2]Charles A. Ellwood, Social Problems and Sociology, (New York: American Book Company, 1935), pp. 211-14.

[3]So often one hears that changing the definition will change the reality of the situation. However this is a semantics change, one to more adequately fit the concept of reality.

for purposes of permanent residence" is inadequate for this study. There are two words needing explanation, "purposes" and "permanent."

Purposes

Although the above definition is adequate for a general idea, such a definition suggests cause as "purpose" and effect as "permanent residence." For analytical purposes there must be something more than a superficial attempt at accounting for behavior. It is inadequate to say that the cause of migration is purpose and the effect of migration is permanent residence. We are still at the definition and have learned nothing else.

Instead, a more thorough idea of migration is needed, one to give some account of purposes. The delineation of the purposes of migration, which are complex and many fold, in turn helps define the very word migration. At the moment it is this fact alone--"cause"--that is to be considered. Two particular models, typologies, or frames of references for determinig reasons or causes for migrating are presented here. The first,[4] presented by Dr. George Wilber of Mississippi State University, is simply a "model for analysis of decision to migrate" and is concerned more with the psycho-social "decision."

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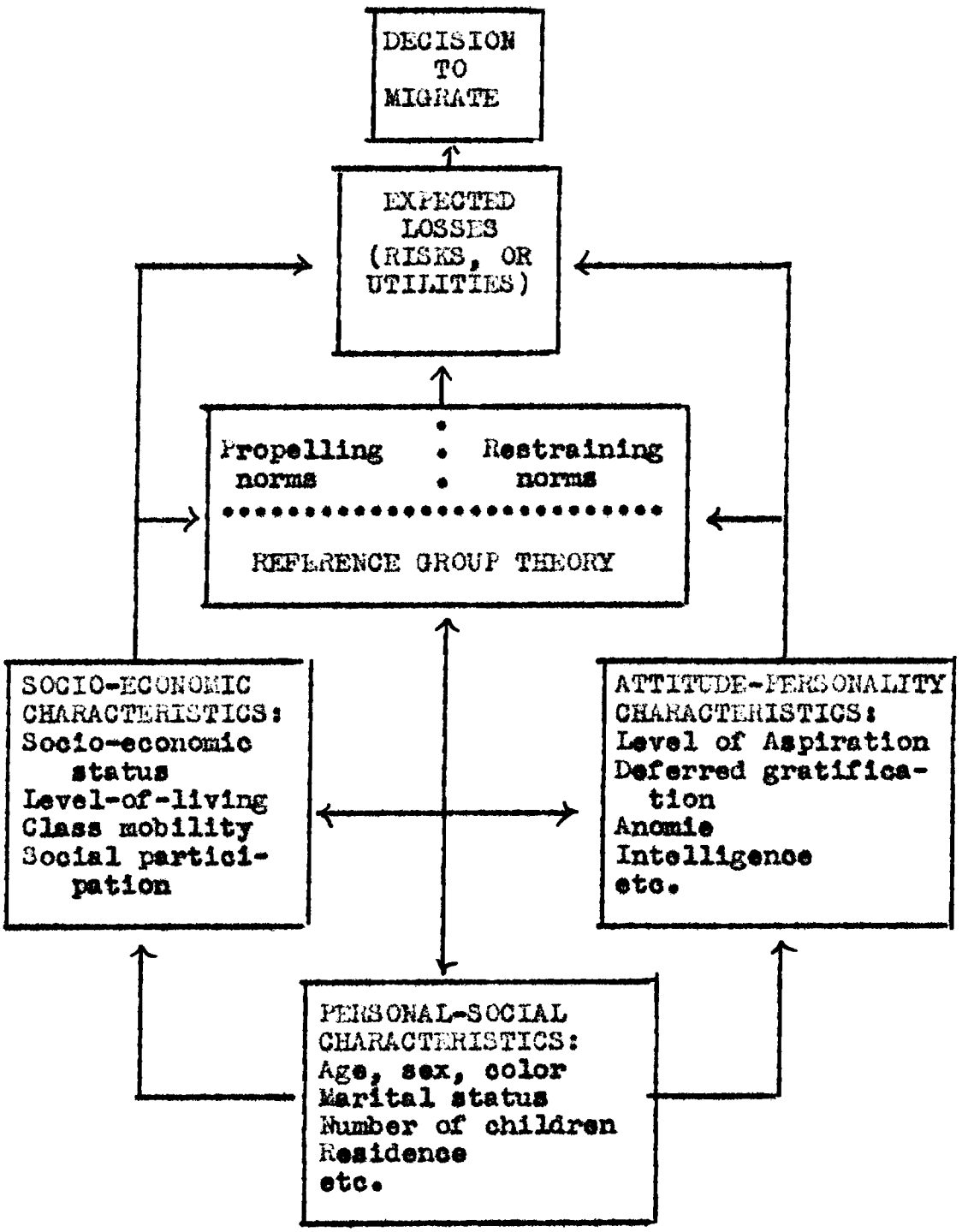
[4] George L. Wilber, "Model For Analysis of Decision To Migrate," a model presented by Dr. George L. Wilber, Mississippi State University, at a seminar on migration, May, 1964.

Even so, the model will be included here, for the term "Level of Aspiration," included under "ATTITUDE-PERSONALITY CHARACTERISTICS," is of special note.

ILLUSTRATION 1

MODEL FOR ANALYSIS OF DECISION TO MIGRATE



Source: A model presented by Dr. George L. Wilber, Mississippi State University, at a seminar on migration, May, 1964.

But a better model, one for determining the actual migration in a total structure of many types of migration, was devised by William Petersen at the University of Colorado, and his article presenting this typology is called, "A General Typology of Migration."[5]

ILLUSTRATION 2

A GENERAL TYPOLOGY OF MIGRATION

Relation	Migratory Force	Class of Migration	Type of Migration	
Nature and Man	Ecological Push	Primitive	wandering	Flight from the land
State (or equivalent) & Man	Migration policy	Forced	Displacement	Slave Trade
		Impelled	Flight	Coolie Trade
Man and His Norms	Higher Aspirations	Free	Group	Pioneer
Collective Behavior	Social Momentum	Mass	Settlement	Urbanization

It is contended here that the student engaging in higher education, that is, in college work, may be classified adequately by Petersen's typology as a particular type of migrant. The type of migration according to Petersen would be "pioneer." It is assumed that each student chooses individually where to go and that this migration is individual. Probably in a few cases close friends do decide to go together to the same place or college; however, this group type of migration is

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[5]Petersen, American Sociological Review, Vol. 23, No. 3, pp. 256-266.

probably relatively rare except for married students. Ellwood on this matter says that: "ancient migrations were largely those of peoples or tribes, while in modern times migration is more of an individual matter."[6] By any token the movement is not by large groups or masses.

To continue, the general type of migration is "innovation." "Innovation" migration Petersen defines as the case in which "some persons migrate as a means of achieving the new." "Conservative" migration, on the other hand, is the case in which "others migrate in response to a change in conditions, in order to retain what they have had; they move geographically in order to remain where they are in all other respects."[7]

The class of migration is undoubtedly "free" unless it is to be postulated tongue-in-cheek that parents or others literally force their children or acquaintances into school.

The migratory force is "higher aspirations." More will be said of this shortly in defense of this choice, since it is this motivating factor which ultimately proves to be one of the most important factors of all.

The "relation" of the migration and man has to do with his norms,[8] particularly for this paper, such norms as are

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[6]Ellwood, Social Problems and Sociology, p. 211.

[7]Peterson, American Sociological Review, Vol. 23, No. 3,

[8]A norm is any socially accepted standard of behavior.

common in the American middle class, as the idea that higher education is thought to be important in achieving economic ends.

HIGHER ASPIRATIONS

It is simply an established demographic fact that in the United States today young men and young women are more mobile than oldsters or even middle agers or children. And one of the most heard postulates is that in America it is for economic opportunity. In many countries, particularly nations with rigidly controlled societies, the general population is not often allowed to move at will, in groups or individually. Permits are usually needed. At any rate, in countries like America there is voluntary migration and that migration is motivated. "As a rule, voluntary migrants in modern society move from areas of lower to areas of higher technological achievement . . ."[9] The idea in particular has to do with the adoption of a "superior" culture, however the underlying theme is of importance. After all, students do attend areas where their learning is accomplished.

"Persons who show evidence of having a purposive-rational mode of orientation toward a future goal will decide to migrate, or not to migrate, depending on whether such a move will encourage,

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[9]Rudolf Heberle, "Types of Migration," The Southwestern Social Science Quarterly, Vol. 36, No. 1 (June, 1955), pp. 65-70.

or discourage, the attainment of such a goal."[10] The best and most succinct statement concerning goals or higher aspirations and migration from a broad standpoint comes by way of Taft and Robbins: "Most men will migrate when they see opportunity to improve their well-being."[11] This idea is rather prevalent in contemporary demographic theories on migration because in most areas migration is free.

Free or voluntary migration, another theorist says, often has as its goal economic betterment or specifically a higher "standard of living," defined by Fairchild in Outlines of Applied Sociology as "the average amount of necessaries and luxuries enjoyed by the typical family in this group."[12] Ellwood mentions that "governmental and religious disputes are still important [in some areas of the world], but that in modern times man now migrates to get better economic opportunities."[13]

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[10] James M. Beshers and Eleanor N. Nishiura, "A Theory of Internal Migration Differentials," Social Forces, March 1961, p. 215.

[11] Donald R. Taft and Richard Robbins, International Migrations (New York: The Ronald Press Co., 1955), pp. 5-6.

[12] Julius Isaac, Economics of Migration (New York: Oxford University Press, 1947), pp. 197-199.

[13] Ellwood, p. 212.

As far as results of actual studies have shown, economic factors were also important in determining where students chose to go as were accredited schools.[14] This study concerned itself not with in-state patterns of migration but out-of-state patterns.

Although different people have indicated several reasons for free or voluntary migration, at least one factor--that of better economic opportunity, which this author equates with higher aspirations--emerges in each one. Thus there is at least consensus, perhaps unanimity on this point.

Purpose and Internal Migration

Now that the general idea of migration has been explained, a more precise and thorough application must be made within the general framework already established. Two more points need elaboration. The first concerns itself with schooling and higher aspirations. In the American society one of the best ways to rise in social class is by making more money or by achieving a high level of schooling, and it is a truism that the more educated tend to make more money. This point is an incontrovertible fact.

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[14] John D. Russell and John W. Paige, Migration of College Students To and From New York State, University of the State of New York Bulletin No. 1304 (Albany, 1945), pp. 25-30.

The remaining logical point is of tremendous importance; whether students who attend colleges within their own state may still be considered migrants. Other studies, to which references have already been made, indicate that so long as the student goes out of the state the situation is certainly one of valid migration. However, this is not enough.

> The change of residence involved in modern migration is intended to be lasting . . . We should not, however, go so far as to exclude every change of residence which ends in another change of residence. As will be seen more clearly later, a considerable proportion of all migrants take up their new residence with a view to returning to their original country after achieving certain aims . . . It may take only a few years, as with the student who returns after having learnt and practised his profession abroad.[15]

This still proves to be inadequate because it does not indicate whether all college students may be considered migratory, only some, those who study abroad.

One writer says that college students may be considered migrants, as at least they contribute more economically to their school community than to their home.[16] No less an authority than the United States Census Bureau itself in 1960 counted nearly all students attending colleges outside their

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[15]Isaac, pp. 4-5.

[16]H. Theodore Groat, "Internal Migration Patterns of a Population Subgroup: College Students, 1887-1953," The American Journal of Sociology, Vol. LXIX, No. 4, pp. 383-394.

home county as migrants.[17] With this established only one more obstacle blocks the way to fully integrated frame of reference, the use of the term "internal, short distance migration."

Internal, Short Distance Migration

Internal migration, as far as a study conducted on the state level is concerned, may be defined as the case in which the emigrant takes up his new residence in another section of the same state. External migration, conversely, is movement from one state to another.[18]

And, "the high school graduates who migrated to obtain additional schooling are the primary contributors to the short distance moves."[19] The term "short distance" is of importance. From this point on, the words "internal, short distance migration" will be used to signify the type of migration common to students who attend a college within their own state but outside of their own county. The terminology proves adequate when, for example, a student merely crosses a river to attend

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[17] Ibid., p. 383 (footnote).

[18] Isaac, p. 4.

[19] Harald A. Pedersen and Willis J. Robertson, Migration of High School Graduates From a Mississippi Community, Community Series Bulletin No. 6 (Social Science Research Center: State College, Mississippi, 1954), p. 10.

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college in another state; for the case then is of external, "short distance" migration. Otherwise the term "short distance" means "within the same political state."[20]

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[20]Thus "internal" and "short distance" are somewhat redundant. The reason for using both lies in a desire for completeness. Internal might be construed as "within the United States," but the term short distance limits the particular type of internal migration to "within the state."

INTERNAL, SHORT DISTANCE MIGRATION AND COLLEGE ENROLLMENT IN MISSISSIPPI

One often hears, "Well, she goes there to school because it's near home." And from this idea, this small nucleus, an inkling of a much broader and expansive question arises. Perhaps it is true that the imaginary girl does go to school nearby--because it is nearby, but how true is this statement in a greater setting, not just one person? Does everybody attend nearby schools? Do some people go far away when other institutions may be only a fraction of that distance? Do most college students remain close to home in their college choices? If college enrollees choose to go nearby, what might that indicate either in general enrollment for those schools or in predicting that enrollment? Is there a steadily decreasing number of students who choose to go to a particular institution as the homes of these students are more further and further removed from the college or university? In other words, as distance of the residence from the institution increases, would the number of students who choose to go there also decrease? If there is a decrease, how much of one is there? And of importance, if the rate of decrease can be determined, could one predict the number of students who could be expected to attend a university or college on the basis of

knowing how far his residence is or by knowing if intervening colleges exist?

These questions and even others more technical and specialized in meaning might very easily arise to a listener who might have pondered a few moments upon hearing that statement, "Well, she goes there to school because it's near home."

From that statement and the questions which might arise from it come the idea that, indeed, there is some relationship between school choice-enrollment and distance. One author, writing only from a very general observation, remarked that since E. G. Ravenstein's work on the laws of migration, "the inverse relationship between the volume of migration and distance has been a matter of common knowledge."[21] Later he goes on to say this:

> Three circumstances have been mentioned by diverse authors to explain this inverse relationship:
> 1. The expense and difficulty of traveling over long distances.
> 2. The wish to maintain contacts, either of a personal or a business nature, with the region one leaves behind.
> 3. The fact that information concerning opportunities is easier to be had for regions at shorter distances.[22]

Probably the first two are of much more immediate

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[21] H. ter Heide, "Migration Models and Their Significance for Population Forecasts," The Milbank Memorial Fund Quarterly, January, 1963, p. 58.

[22] Ibid., p. 59.

importance to this paper than the third. It is certainly less expensive to drive a distance of fifty or seventy-five miles to attend school than it is to drive two-hundred. Even in the best modes of transportation difficulties are encountered. Airplanes, trains, and buses generally are too expensive. Besides, most people have cars and avail themselves of the uses of them constantly. It seems reasonable to assume that distance by auto would be the real factor rather than by distance, per se, or by another mode of transportation.

It is not to be assumed that the distance from home to school is commuted daily, but it is at this point which the second "circumstance" helping to explain the inverse relationship between the volume of migration and the distance of the move comes into focus. This second circumstance is "the wish to maintain contacts, either of a personal or a business nature, with the region one leaves behind."[23] Whether one is so tied, voluntarily or involuntarily, to his home region that he commutes daily, or every few days, or on weekends, makes very little difference. He still wishes to maintain those ties. It is the fusion of the first two which suggests the most plausible explanation. To explain, if an individual enters a university and yet wishes to remain in close contact with his home region, he will usually attend a school which is not so far removed as to present an economic or time difficulty

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[23] Ibid.

in either traveling there or in remaining at school instead of returning home.

The same author, Mr. ter Heide, casually points out the advantage to the third circumstance, as far as it is of any significance to this study. He says "people . . . migrate to a certain place because they expect to find opportunities there . . . education in specific schools, etc."[24]

Now, a quick look at several studies which are of interest to this paper should be made. One of these, to which reference has already been made, is by H. Theodore Groat and is entitled "Internal Migration Patterns of a Population Subgroup: College Students, 1887-1958." Mr. Groat's use of the term "internal" was confined to within the nation.[25] The article is concerned with the movements of students from state to state. Several of his more important findings were indications that patterns of migration vary "by type of institution (public or private), as well as by level of training involved (graduate or undergraduate)."[26] As was expected in each case, students attending private schools were more migratory than those attending public schools, and graduate students

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[24] Ibid., p. 64.

[25] The reader will remember that the term "short distance, internal migration" refers not only to within the United States but also "within the state of Mississippi."

[26] Groat, American Journal of Sociology, Vol. LXIX, No. 3, p. 383.

were more migratory than undergraduate. It is thought that students attending public schools will be less migratory because they are availing themselves of, relatively speaking, low cost education near or fairly near home. Those students going to schools with restricted enrollments often attend because of particular advantages such attendance might bring as increased social standing and prestige, specialized teaching and courses, personal attention, contacts, and perhaps some other more obscure reasons. Disadvantages would sometimes be increased personal cost per pupil, removal from home, and removal from the greater social context which public schools offer.

Another finding of Mr. Groat was that economic variables do not correlate with student migration.[27] He found that graduate students could further their education and that the cost of either distance or of increased or decreased tuition had little or no effect on out of state migration. The question could be raised as to whether or not the students might already have been attending a school which, for their individual reasons and purposes--cost or distance, was the best for them.

Mr. Groat did write that the prediction of enrollment,

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[27] Ibid.

taking migration factors into account, is of growing importance on a national scale.[28]

John D. Russel and John W. Paige published in 1945 a bulletin entitled Migration of College Students To and From New York State. The study was one of internal migration patterns of students; however the students were all out of state.[29] In contrast to Mr. Groat's findings, Russel and Paige found that economic factors, as well as accreditation, were important in determining where students chose to go.[30] Distance, too, proved to be a factor, or so it appears, though the reasons may be others, such as economics.

From a study of Louisville, Mississippi, it was found that "the graduates who migrated to obtain additional schooling are the primary contributors to the short distance moves. Eighty-five percent of the graduates going away to school traveled less than 100 miles from the community on the first move."[31]

Several additional studies have been done on students

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[28] Ibid., p. 394.

[29] John D. Russell and John W. Paige, Migration of College Students To and From New York State, Bulletin No. 1304 of the University of the State of New York (Albany: University of the State of New York, 1945), pp. 25-30. The authors were trying to determine why New York state students migrate to other states for schooling.

[30] Ibid.

[31] Pedersen and Robertson, p. 10.

and migration which are not directly concerned with material relevent to this paper. For further information the reader is referred to the SELECTED BIBLIOGRAPHY.

A. Study Plan

Does a relationship exist between the volume of enrollment from some place and the distance of that place from the college? Even a layman would say "Yes, it's common sense." But a researcher asks, "How much? Can one predict by the relationship? Is the relationship one of cause and effect?"[32] Using past studies on college migration and a complete frame of reference within which the material could be organized and presented, the task of finding these answers, and to be sure, others, was undertaken.

Material available on college students and migration factors is scarce as it is, and not one study used internal or short distance to mean within the state, although certainly in-state migration of students to college was recognized as an area of further study. This study then is an attempt to point out several factors in enrollment volume and distance--from within the same political entity, in this case the state of Mississippi.

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[32] ". . . the summarizing measures of association provided by statistics are not in themselves conclusive evidence of relationship until they are supplemented by non-statistical evidence that all relevant factors have been considered in the analysis." And, relatedness does not mean "cause and effect." However, the scientist "considers that he has 'explained'

The first step was to find the material in a form amenable to analysis. The Office of Institutional Research at the University of Mississippi under Dr. John Phay provided the raw enrollment figures for each institution of higher learning in Mississippi. The data was presented in tabular form with the number of enrollees from each county in each of the educational institutions for the years 1958-1964.[33]

In examining the data it became apparent that too much raw data was at hand. There were too many categories and the only ones necessary were the volume of students who attended any college and the distance these students were from that college. One of these categories or variables was easily obtained as the counties were given with the number of entering freshmen in each institution.[34] Because of the greatly differing character and specialized appeal of the numerous private, junior and small colleges in the state, it was decided to choose Mississippi's five major white institutions of higher learning to represent the whole. These five institutions are Delta State College, Mississippi State College for Women,

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phenomena when he has discovered the conditions under which the phenomena occurs." Margaret T. Hagood, Statistics for Sociologists (New York: Holt and Company, 1952), p. 475 and p. 474.

[33] E. R. Jobe and J. T. Sparkman, Fall College Entrance of the Mississippi High School Graduating Class (es) of 1958 (-1964) (Jackson, Mississippi: The Board of Trustees of Institutions of Higher Learning, 1965).

[34] Ibid.

Mississippi State University, University of Mississippi and University of Southern Mississippi. The other colleges showed greatly divergent characteristics in attracting a student body and hence were selective by other variables, which cannot here be determined. In passing, some may be mentioned as religious affiliation, strictly local student body, or smallness. The five schools were chosen as they present a somewhat consistant picture in state support, enrollment size, and non-selective student body. Furthermore their enrollments were the highest, thus presenting a larger body of data.

Since the entering students for each county could be tabulated each year from 1958 through 1964, these students were classified by which of the five major, white, state supported institutions they enrolled.[35] Remembering that it was necessary to have one variable as distance and the other variable as volume of enrollment, the researcher next determined the distances of each county in the state from each of the schools.[36] Then the number of students in each county during the seven year period, 1958 through 1964 could be determined.[37] The number of students attending each of the schools and the distance of

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[35] See Appendix A, Table 3.

[36] See Appendix B, Maps 1-5.

[37] See Appendix A, Table 2.

these students, roughly speaking, were known and tabulated.

With these two variables, volume and distance, isolated, it was determined to plot them on a graph. It was hoped that this way some relationship between the two would become visibly evident.

As is characteristically done, the distance of the school was used as the independent variable and plotted as X. The volume of students attending from that distance became the dependent variable and plotted as Y.

It was decided to use index numbers for the average mileages from each county to each of the five colleges. This choice eliminated the use of fractions of miles and also the use of large figures. Twenty-five miles was chosen as the distance involved in each division. Less than twenty-five miles would be too short a distance and provide for too few entries in the areas closely surrounding each college. A larger number than twenty-five would create too few zones in the state. As it was, dividing the counties into divisions of twenty-five miles each created from nine to eleven zones from each school. Thus in Zone or Division 1, 0-25 miles, from the University of Mississippi one finds three counties: Lafayette,[38] Panola,

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[38]Lafayette County is the home county for the University of Mississippi, and the volume of enrollment in any of the home counties of the colleges could not be used because the students attending the home college could not be considered migrants.

and Yallobusha. In Zone 2, 26-50 miles, one finds Marshall, De Soto, Tate, Quitman, Tallahatchie, Grenada, Calhoun, Chickasaw, Pontotoc, Lee Union, Tippah, and Benton Counties. The University of Mississippi even includes in Zone 11, Hancock, Harrison, and Jackson Counties, all lying approximately 251-275 miles from the University.[39] Presented here is a zone and mileage table:

TABLE 1

Zone and Mileage

Zone	Miles
1	0-25
2	26-50
3	51-75
4	75-100
5	101-125
6	126-150
7	151-175
8	176-200
9	201-225
10	226-250
11	251-275

[39]Zone 11 containing Hancock, Harrison, and Jackson Counties was eliminated from computations on the logarithmic and reciprocal curves. Because the University of Mississippi was the only school represented in Zone 11, it was believed that its inclusion would be misrepresentative of all five schools. The University of Mississippi maintains a strong, pulling force--more so than the other colleges--even at a great distance.

The reader might notice two things: one, that some counties are approximately divided in half; and two, that because of curving highways or less direct routes, some counties equated by air distance may be in different zones by land.[40] In the first case, if the center of population, largest town, or largest school, lay within any zone, that is the zone within which the county was placed. And in the second case, it was assumed that in the long run the number of counties closer or further from the school by land would work out about equal. As far as using the zone numbers instead of the actual mileages, this was only done to facilitate computation.

Now, in considering the Y or dependent variable, the general term "volume" must be stated in specific measurable terms. The simple "number" of enrollees from each county is inadequate. Some populous counties may lie close to some schools and some sparsely populated counties may lie adjacent to other schools. All in all, some measure equalizing all schools' drawing ability was needed. To accomplish this end the percentages of students who went to each college from each county were computed.[41] The one exception was Issaquena County in which there are no accredited schools. Students from this

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[40]See Appendix B, Maps 1-5.

[41]See Appendix A, Table 4.

county go to Sharkey and Washington Counties' schools.[42]

In order to lessen the drawing effects of other schools, especially nearby junior colleges, only those students who chose to go to one of the five schools were considered. In other words, if some county sent one-hundred students to "Anyplace" Junior College and twenty students to each of the five major white state supported institutions of higher learning, or one hundred to these five, then they sent two hundred students in all to various colleges. But in order to give proper weight only those five schools were considered, hence the imaginary county sent twenty percent to each of the five schools (20/100=.20 or 20%). The percentages for each county's contribution to each of the schools was computed in the above manner for the seven year period 1958 through 1964.[43]

Thus the independent variable X, distance, was stated in zone numbers of one through 10 or 11. The dependent variable Y, volume of enrollees, was stated in percentages of from 0% to 75%. It was unnecessary to go beyond 75% because no counties sent more than 70% of their enrollees to any one college.[44] In some cases, index numbers were also assigned to the percent

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[42] Mississippi School Bulletin Educational Directory 1964-1965 (Jackson, Mississippi: State Dept. of Education, 1965), p. 10.

[43] See Appendix A, Table 4.

[44] Ibid.

column or Y variable in order to facilitate computation.[45] Presented here is an index number and percent table.

TABLE 2

Index Number and Percent

Number	Percent
1	0-5
2	6-10
3	11-15
4	16-20
5	21-25
6	26-30
7	31-35
8	36-40
9	41-45
10	46-50

A composite chart, one indicating all counties for all schools, was made to serve as the basic information for plotting the relationship on a graph.[46] From this graph, each column of values, percentages per zone, were averaged, and this average

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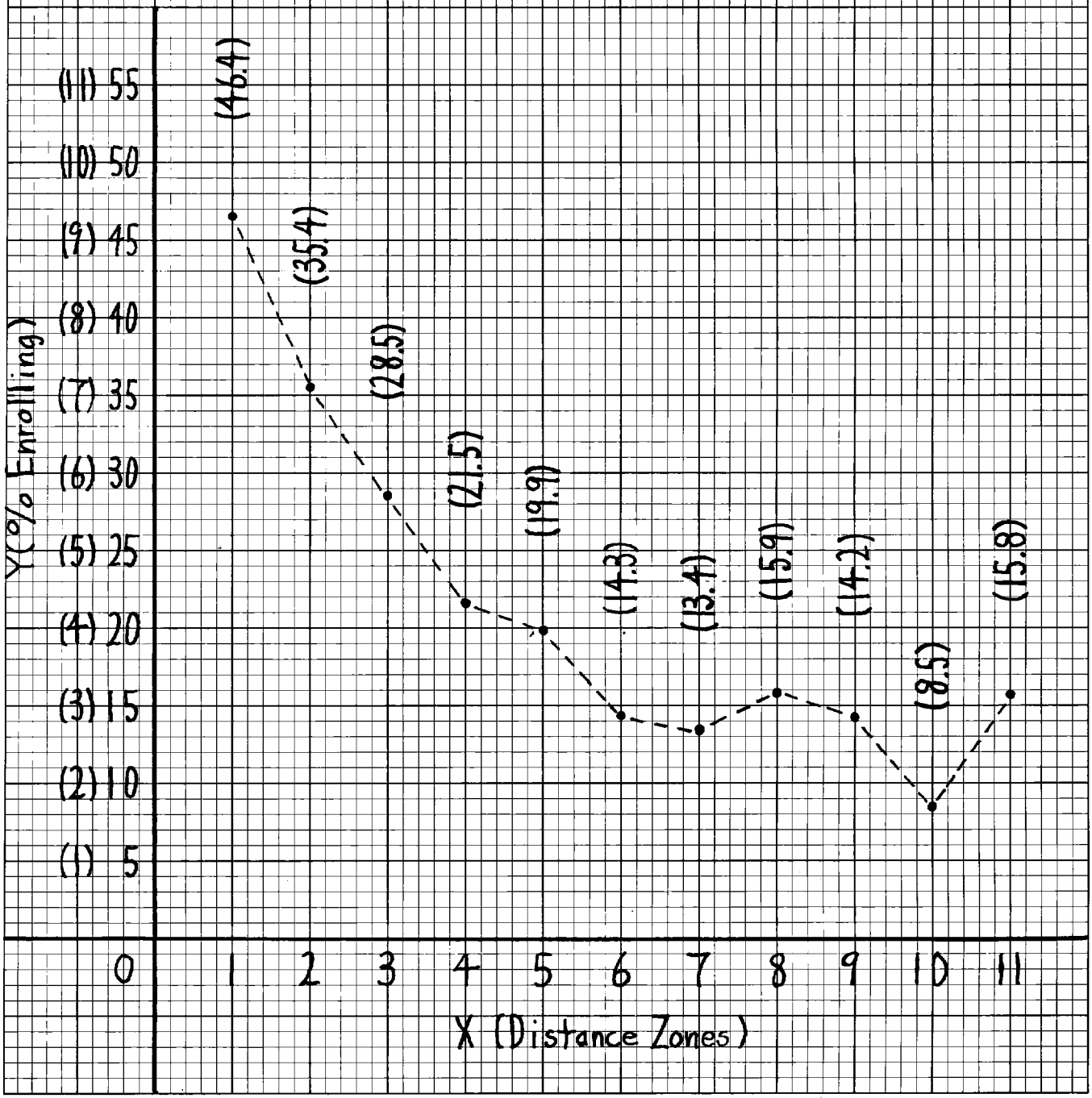
[45]The semilogarithmic curve, Appendix F, Figure 3, was computed using both percent and index numbers for the various percentages. The reciprocal and logarithmic curves both used index numbers for the percent.

[46]See Appendix E, Scattergram 6.

value was plotted as a single point. This single point, being the mean, was assumed to represent best all the values in that column, which assumption is in keeping with statistical theory. The graph of the best fitting values is presented on page 30. For the first time, by inspection, one can see that there is some sort of relationship between distance (X) and enrollment (Y). The average percent of enrollees in all schools from counties in Zone 1, or 0-25 miles from the college, was 46.4% for the seven year period, 1958-1964. Similarly, there was for Zone 2 another fairly high percent, 35.4. Zone 3 had an average of 28.5%. Zone 4 had 21.5%; 5, 19.9%; 6, 14.3%; 7, 13.4%; 8, 15.9%; 9, 14.2%; 10, 8.5%; and 11, 15.8%. The curve starts high and drops precipitously for Zones 1-4, from 46.4% to 21.5%. At Zone 4 the curve becomes irregular. Some individual points go up and some go down; nevertheless, the general trend from Zones 4 and 5 through 11 is slowly downward. Zone 10, with an average of 8.5% rises to Zone 11 in which there is an average of 15.8%. This rise of 7.3% from 225-250 miles to 251-275 miles might normally present a curiously interesting phenomenon; however, because the University of Mississippi, is located at such a great distance, those three figures are of that school alone and are not really representative of an average of five schools. No other colleges had counties so distant from them. The University of Mississippi, one may quickly see by examining the plotted points, maintains a great attractive force even at great

ILLUSTRATION 3

AVERAGE % OF STUDENTS ENROLLING PER ZONE IN FIVE MAJOR INSTITUTIONS



distances. More will be said of this feature later.

The relationship, as one may observe, is not a straight line but is a curve. The curve falls fast at the onset, but then it slows its descent as X increases and eventually appears to become almost horizontal. Statistically, the relationship between X and Y is said to be negative and curvilinear. This means that as distance of the enrollees' residence increases from the college, the percent of students going to that college decreases. The decrease at first is quite rapid. Later, past one hundred miles, or Zone 4, the decrease is only slight.

It was decided to test the curve to determine whether the best fitting statistical curve might be semilogrithmic, logarithmic, or reciprocal. Pages 32 and 33 show the test for the reciprocal and logarithmic curves.[47] From a quick inspection it can be noted that there is very little directional change from top to bottom in the last columns. That is, the figures do not slowly increase or decrease in either direction. The lack of any specific or general trend is the first test in determining if the actual curve is of the type for which it is being tested. Also, the various terms in the last column ideally

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[47] The test for the semilogarithmic curve is Figure 1 in Appendix F.

TABLE 3

TEST FOR RECIPROCAL CURVE

X	Y	1/Y	Δ1/Y
1	9.3	.1075	
2	7.1	.1408	.0333
3	5.7	.1754	.0346
4	4.3	.2326	.0572
5	4.0	.2500	.0174
6	2.9	.3448	.0984
7	2.7	.3704	.0256
8	3.2	.3125	.0579
9	2.8	.3571	.0446
10	1.7	.5882	.2311

TABLE 4

TEST FOR LOGARITHMIC CURVE

X	Y	log X	log Y	Δlog X	Δlog Y	$\frac{\Delta \log X}{\Delta \log Y}$
1	9.3	.0000	.9685			
2	7.1	.3010	.8513	.3010	.1172	2.57
3	5.7	.4771	.7559	.1761	.0954	1.85
4	4.3	.6021	.6335	.1250	.1224	1.02
5	4.0	.6990	.6021	.0969	.0314	3.08
6	2.9	.7782	.4624	.0792	.1397	.57
7	2.7	.8451	.4314	.0669	.0310	2.16
8	3.2	.9031	.5052	.0580	.0738	.79
9	2.8	.9542	.4472	.0511	.0580	.88
10	1.7	1.0000	.2304	.0458	.2168	.21

should be approximate.[48] The test for the reciprocal curve was unusually surprising in that it yielded a uniformity of figures as compared to those in the logarithmic curve test, some figures of which are greatly divergent. Actually, the semilogarithmic curve indicated a better possibility than the logarithmic curve because the former is less divergent.[49]

The next step was to compute the values of a and b in the reciprocal and logarithmic curves. The terms a and b are the constants in the type equation for the determination of the curve in relationships which are believed to be correlated. The general equation for a linear variable is the form $Y=a+bX$. For every increase in X, there is a direct increase in Y. But curvilinear relationships may change by proportions. Thus, for the reciprocal curve the type equation is $1/Y = a+bX$. And for the logarithmic curve the type equation is $\log Y=a+b \log X$.[50]

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[48] For a more detailed analysis and explanation of the statistical methods in this paper, the reader is referred to two books. The first is by Albert E. Waugh and is entitled Elements of Statistical Method. Of special note are pages 340-385, "Curve Fitting," Chapter XII. The second is by Fredrick E. Croxton and Dudley J. Cowden and is entitled Applied General Statistics. Pages 503-529, "Use of Transformations (in Two-Variable Non-Linear Correlation)," are of immediate interest in this text.

[49] See Appendix F, Figure 1.

[50] The type equation for semilogarithmic curve is $\log Y = a bX$.

TABLE 5

COMPUTATION FOR THE VALUES

OF **a** AND **b** IN THE RECIPROCAL CURVE

IN TWO STEPS

X	Y	1/Y	X^2	X (1/Y)
1	9.3	.1075	1	.1075
2	7.1	.1408	4	.2816
3	5.7	.1754	9	.5262
4	4.3	.2326	16	.9304
5	4.0	.2500	25	1.2500
6	2.9	.3448	36	2.0688
7	2.7	.3704	49	2.5928
8	3.2	.3125	64	2.5000
9	2.8	.3571	81	3.2139
10	1.7	.5882	100	5.8820
Total 55	27.3	2.8793	379	18.9641

TABLE 5--Continued

$$Na + b\Sigma_2 = \Sigma(1/Y)$$
$$a\Sigma X + b\Sigma X^2 = \Sigma X\ (1/Y)$$

$$10a + 55b = 2.8793$$
$$55a + 379b = 18.9641$$

$$10a = 2.8793 - 55b$$
$$a = (2.3793 - 55b) \div 10$$

$$55\left(\frac{2.8793 - 55b}{10}\right) + 379b = 18.9641$$

$$158.3615 - 3025b + 3790b = 139.6410$$
$$- 3025b + 3790b = 189.6410 - 158.3615$$
$$765b = 31.2795$$
$$b = .0409$$

$$10a + 55\ (.0409) = 2.8326$$
$$10a = 2.8826 - 2.2495$$
$$a = .6331 \div 10$$
$$a = .0633$$

Thus $a = .0633$
$b = .0409$

Type equation for this reciprocal curve:

$1/Y = a + bX$
$1/Y = .0633 + (.0409)X$

TABLE 6

COMPUTATION FOR THE VALUES

OF a AND b IN THE LOGARITHMIC CURVE

IN TWO STEPS

	X	Y	log X	log Y	$(\log X)^2$	(log X)(log Y)
	1	9.3	.0000	.9685	.0000	.0000
	2	7.1	.3010	.8513	.0906	.2562
	3	5.7	.4771	.7559	.2276	.3625
	4	4.3	.6021	.6335	.3625	.3817
	5	4.0	.6990	.6021	.4886	.4208
	6	2.9	.7782	.4624	.6056	.3594
	7	2.7	.8451	.4314	.7142	.3642
	8	3.2	.9031	.5052	.8156	.4560
	9	2.8	.9542	.4472	.9105	.4264
	10	1.7	1.0000	.2304	1.0000	.2304
Total	55	27.3	6.5598	5.8879	5.2152	3.2576

TABLE 6--Continued

$$Na + b\Sigma\log X = \Sigma\log Y$$
$$a\Sigma\log X + b\Sigma(\log X)^2 = \Sigma(\log X)(\log Y)$$

$$10a + 6.5598b = 5.8879$$
$$6.5598a + 5.2152b = 3.2576$$

solve for b

$$10a = 5.8879 - 6.5598b$$
$$a = (5.8879 - 6.5598b) \div 10$$

$$6.5598\left(\frac{5.8879 - 6.5598b}{10}\right) + 5.2152b = 3.2576$$

$$38.6235 - 43.6336b + 52.1520b = 32.5760$$
$$-43.6336b + 52.1520b = 32.5760 - 38.6235$$
$$8.5184b = -6.0475$$
$$b = -.7101$$

solve for a

$$10a + 6.5598(-.7101) = 5.8879$$
$$10a - 4.6581 = 5.8879$$
$$10a = 5.8879 + 4.6581$$
$$10a = 10.546$$
$$a = 1.0546$$

Thus $a = 1.0546$
$b = -.7101$

Type equation for this logarithmic curve: $\log Y = a + b \log X$

$\log Y = 1.0546 + (-.7101)\log X$

The mathematical or statistical procedure used in computing the values of a and b for the reciprocal and logarithmic curves is illustrated in Tables 5 and 6 on pages 35-36 and 37-38.[51]

Once the values of a and b were found, and the values of X "substituted in," then the corresponding or related values of Y were known for the curve best fitting the data. The computation is shown on pages 40 and 41.[52]

Examining the graphs on pages 42 and 43, one can see that both curves closely approximate the actual findings. It remains to be seen, however, how closely these curves really fit the data.

In order to determine how close a mathematical curve fits the data, the correlation coefficient was used. The calculation of the correlation coefficients, pages 44-45 and 46-47, indicate a close fit in both cases.[53]

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[51] For the semilogarithmic curve, see Appendix F, Figure 3.

[52] A table indicating the procedure for determining the values of Y in a semilogarithmic table has not been included. The values are given on the graph in Appendix F, Figure 3.

[53] A test to determine the co-relatedness of X and Y in a semilogarithmic relationship was not run. The r's found in the reciprocal and logarithmic curves were believed to be greater, as compared with either the test for a semilogarithmic curve or the plotted curve itself.

TABLE 7

COMPUTATION OF THE VALUES OF Y PREDICTED FROM X

RECIPROCAL CURVE

Type equation for this reciprocal curve: $1/Y = a + bX$

$1/Y = .0635 + (.0409)X$

X	bX	a+bX	Y $\left[\text{or } \frac{1}{a+bX}\right]$
1	.0409	.1042	9.6
2	.0818	.1451	6.9
3	.1227	.1860	5.4
4	.1636	.2269	4.4
5	.2045	.2678	3.7
6	.2454	.3087	3.2
7	.2863	.3496	2.9
8	.3272	.3905	2.6
9	.3681	.4314	2.3
10	.4090	.4723	2.1

TABLE 8

COMPUTATION OF THE VALUES OF Y PREDICTED FROM X

LOGARITHMIC CURVE

X	log X	b log X	log Y	Y
1	.0000	.0000	1.0546	11.3
2	.3010	-.2137	.8409	6.9
3	.4771	-.3388	.7158	5.5
4	.6021	-.4276	.6270	4.2
5	.6990	-.4964	.5582	3.6
6	.7782	-.5526	.5020	3.2
7	.8451	-.6001	.4545	2.8
8	.9031	-.6413	.4133	2.6
9	.9542	-.6776	.3770	2.4
10	1.0000	-.7101	.3445	2.2

ILLUSTRATION 4

BEST FITTING RECIPROCAL CURVE TO AVERAGE % OF STUDENTS ENROLLING PER ZONE IN FIVE MAJOR INSTITUTIONS

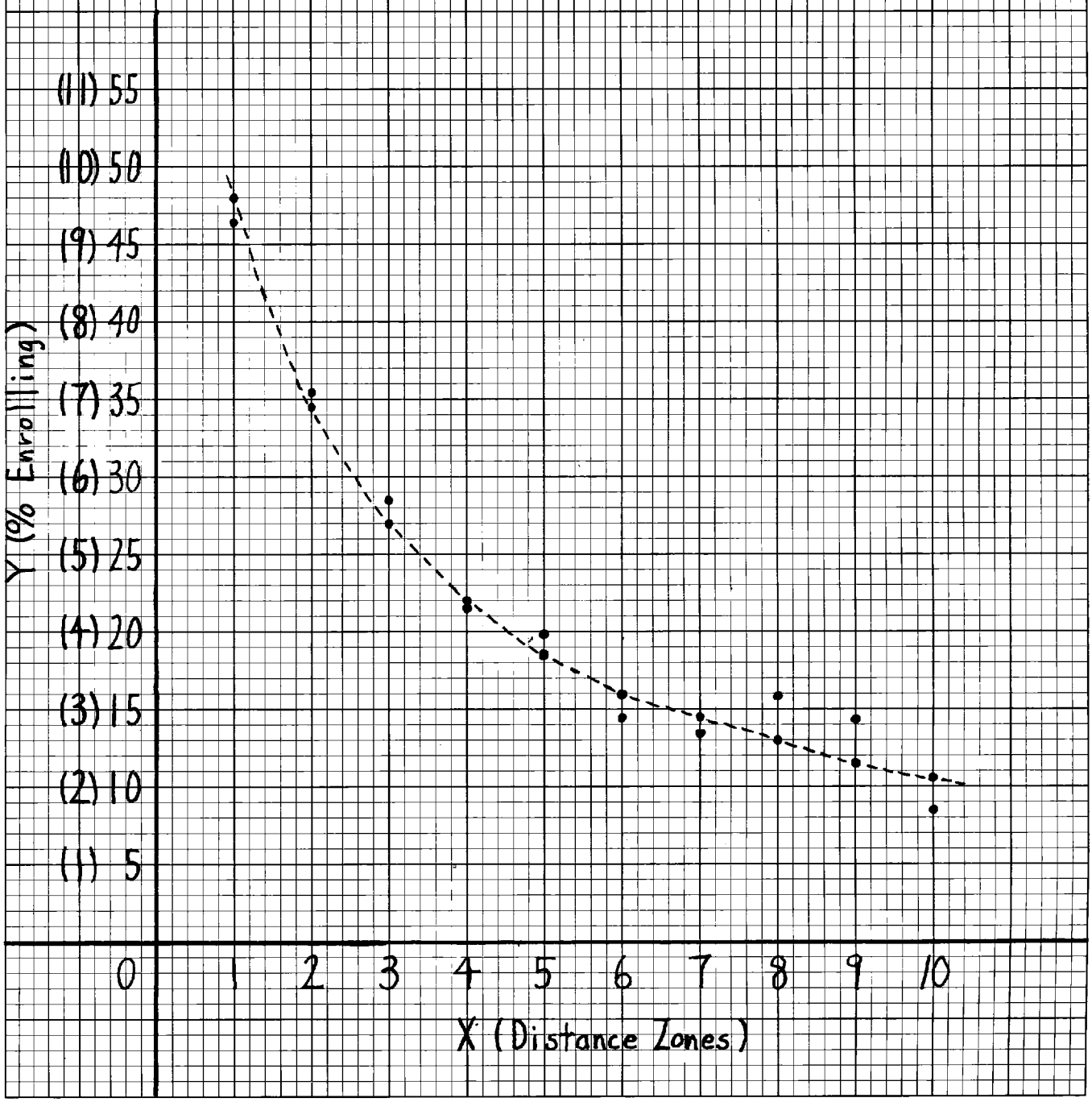

ILLUSTRATION 5

LOGARITHMIC CURVE

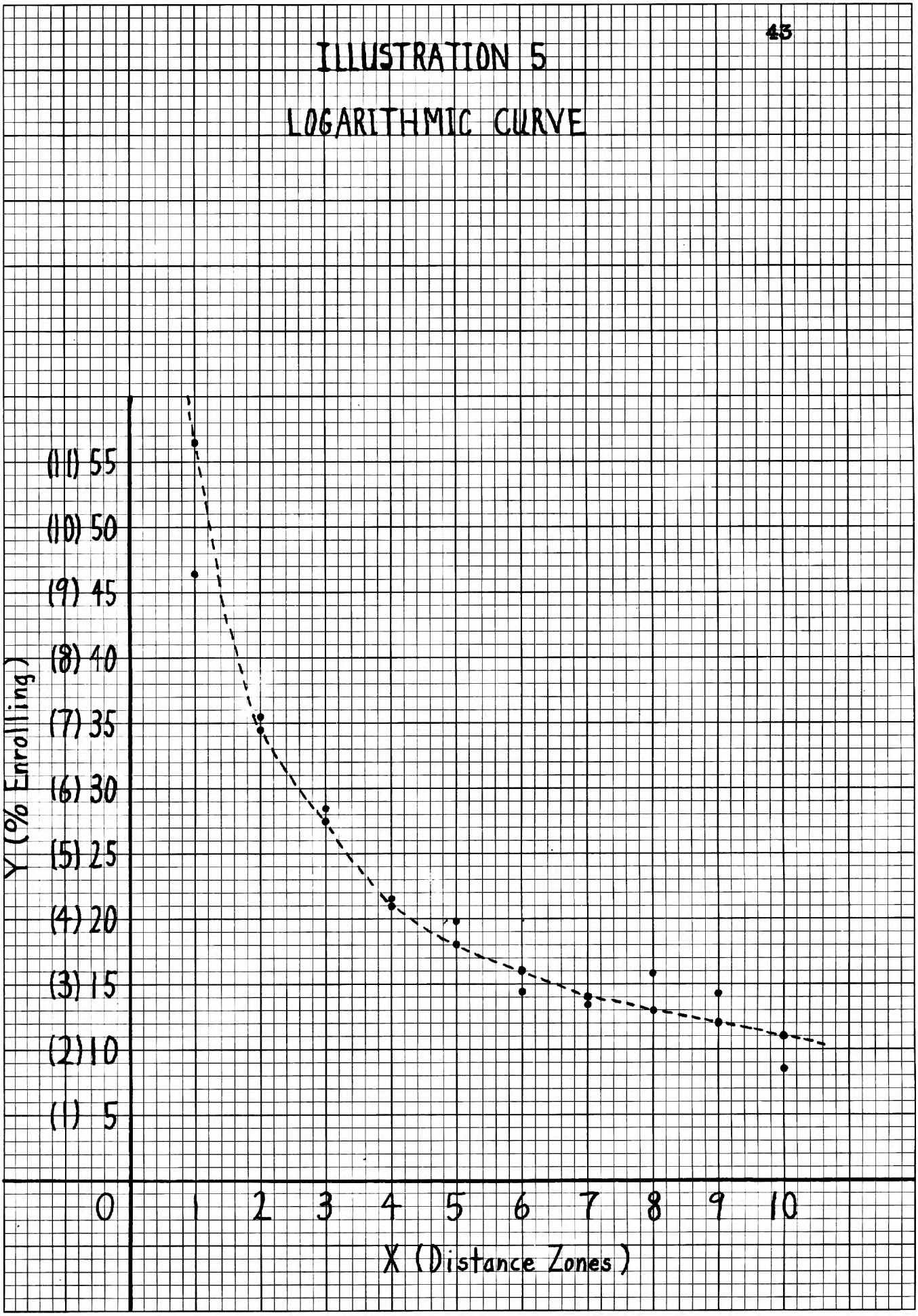

TABLE 9

CALCULATION OF THE CORRELATION COEFFICIENT

USING A RECIPROCAL CURVE

IN TWO STEPS

X	Y	1/Y	X^2	(X)(1/Y)	$(1/Y)^2$
1	9.3	.1075	1	.1075	.0116
2	7.1	.1408	4	.2816	.0198
3	5.7	.1754	9	.5262	.0308
4	4.3	.2326	16	.9304	.0543
5	4.0	.2500	25	1.2500	.0625
6	2.9	.3448	36	2.0688	.1189
7	2.7	.3704	49	2.5928	.1369
8	3.2	.3125	64	2.5000	.0980
9	2.8	.3571	81	3.2139	.1274
10	1.7	.5882	100	5.8820	.3457
Total 55	27.3	2.8793	379	18.9641	1.0059

TABLE 9--Continued

$$r_{(1/Y)(X)} = \frac{N\Sigma X \; 1/Y - (\Sigma X)(\Sigma 1/Y)}{\sqrt{\left[N\Sigma X^2 - (\Sigma X^2)\right]\left[N\Sigma (1/Y)^2 - (\Sigma 1/Y)^2\right]}}$$

$$r = \frac{(10)(18.9641) - (55)(2.8793)}{\sqrt{\left[(10)(379) - (55)^2\right]\left[(10)(1.0059) - (2.8793)^2\right]}}$$

$$= \frac{189.641 - 158.3615}{\sqrt{(3790 - 3025)(10.059 - 8.2904)}}$$

$$= \frac{31.2795}{\sqrt{(765)(1.7686)}}$$

$$= \frac{31.2795}{\sqrt{1352.979}}$$

$$= \frac{31.2795}{36.8}$$

$r = .849987$ or $.85$

TABLE 10

CALCULATION OF THE CORRELATION COEFFICIENT USING A LOGARITHMIC CURVE IN TWO STEPS

	X	Y	log X	log Y	(log X)(log Y)	$(\log X)^2$	$(\log Y)^2$
	1	9.3	.0000	.9685	.0000	.0000	.9380
	2	7.1	.3010	.8513	.2562	.0906	.7247
	3	5.7	.4771	.7559	.3625	.2276	.5776
	4	4.3	.6021	.6335	.3817	.3625	.4013
	5	4.0	.6990	.6021	.4208	.4886	.3624
	6	2.9	.7782	.4624	.3594	.6056	.2116
	7	2.7	.8451	.4314	.3642	.7142	.1849
	8	3.2	.9031	.5052	.4560	.8156	.2550
	9	2.8	.9542	.4472	.4264	.9105	.1980
	10	1.7	1.0000	.2304	.2304	1.0000	.0529
Total	55	27.3	6.5598	5.8879	3.2576	5.2152	3.9064

TABLE 10--Continued

$$r_{(\log Y)(\log X)} = \frac{N\Sigma[(\log X)(\log Y)] - (\Sigma \log X)(\Sigma \log Y)}{\sqrt{[N\Sigma(\log X)^2 - (\Sigma \log X)^2][N\Sigma(\log Y)^2 - (\Sigma \log Y)^2]}}$$

$$= \frac{(10)(3.2576) - (6.5598)(5.8879)}{\sqrt{[(10)(5.2152) - (6.5598)^2][(10)(3.9064) - (5.8879)^2]}}$$

$$= \frac{32.576 - 38.6234}{\sqrt{(52.152 - 43.0336)(39.064 - 34.6681)}}$$

$$= \frac{-6.0474}{\sqrt{(9.1184)(4.3959)}}$$

$$= \frac{-6.0474}{\sqrt{40.0835}}$$

$$= \frac{-6.0474}{6.33}$$

$$= r = -.9711$$

E. Results, Discussion and Conclusions

Using the formula for the reciprocal curve a coefficient of correlation of .85 was found,[54] and using the formula for the logarithmic curve a coefficient of correlation of -.97 was found. In the case of the reciprocal curve, one has but 51% as much error in estimate by using the regression line as by attempting to guess or not use it. This figure was attained by using this formula:

$$r = 1 - \sqrt{\frac{Sy^2}{y^2}}$$

$$.85^2 = 1 - \frac{Sy^2}{y^2}$$

$$1 - .7325 = \frac{Sy^2}{y^2}$$

$$\sqrt{.2625} = \frac{Sy}{y} = .51 \text{ or } 51\%$$

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[54] In the reciprocal curve, when b is positive, thus r is positive, the curve slopes down. (Waugh, Elements of Statistical Method, p. 366.)

In the other case, the obtained correlation coefficient of -.97, by the same formula, it is found that the error is reduced by about 77%, an even greater reduction in error. But what does this error reduction mean? If one were to guess in a completely random manner the percent of students who might come from any number of places to any one of the schools, the variation of those guesses from the actual numbers would be quite large. In fact, there would be so much variation that there would be absolutely no correlation. One might just as easily guess that some county at a great distance might send, say, 95% of its students to some college and only 5% to a college only twenty-five miles away. But by using the regression line, the computed curve of best fit, one may make predictions which will be, in these two cases, over 50% correct and over 75% correct.

The prediction using the logarithmic curve is obviously better. One could say that in seventy-five cases out of a hundred a certain percent of students would attend a certain school by knowing how far from the school that county might be.[55]

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[55]In the analysis of this data it is assumed that the original data distributed themselves normally. This assumption seems to be at least partially borne out by the use of a large number of cases and by the curve in which these cases distributed themselves.

The interpretation, to be exact, limits itself to a seven year, 1958-1964, average of enrollees in each of the several schools. And the prediction from this seven year period of future seven year periods can be of variable exactness. Again, it is assumed that the seven year sample is from a normal distribution of seven years samples to these five schools and that the position in the normal distribution is at least close to the mean.

Generally the knowledge of a seven year trend and its validity could enable one to predict for the future, but the future prediction must limit itself to predictions of kind. The year by year prediction using the logarithmic curve may prove to be adequate, but the adequacy must be known before contemplated. In other words, a person predicting year by year for each college the percent, and consequently the number, of enrollees from each county should be completely aware, and so state, that the findings in actuality may differ. Only within any seven year period should they <u>prove</u> to be adequately reliable.

Follow-up studies to this general total relationship could easily be done. The charts and tables give all the needed information and anyone could simply delete the oldest year of the seven year period and add the new. Then, by computing the correlation coefficient of a logarithmic curve,

he should be able to tell if his added year has changed the basic pattern. This writer will judge that, unless some variables of a drastic nature influence the data, very little changes will take place.

Also, another researcher may draw several years' totals from the past, even within the data, and compare his results with those presented here.

At any rate, a running, year by year, re-computation could be attempted. As a new year arrives and the data becomes available, it should be incorporated into the date already presented in this paper. Furthermore, predictions could be made for any county for a seven year period concerning the number of students, within a range, who will attend any particular college.[56] To illustrate, a county could be selected, say Panola. By checking the charts, one would learn that Panola County is in Zone 1, 0-25 miles, from the University of Mississippi. From only this bit of information one could say with good certainty that a large percent of the county's graduates would enroll at the University of Mississippi. But what percent would one suggest? Looking now at the logarithmic curve, one would estimate that within the next seven years, roughly,

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[56]That is, within the state of Mississippi, and to wither one of the five colleges of this study.

55%-60% of those students who graduated from high school and went to college would enroll at the University of Mississippi. One could even estimate the same percent for any one year, and this estimate would be the best available under the circumstances. Even so, the 55%-60% estimate for any seven year period will only reduce randomness by about 75%. So what does one have? The anticipated range of estimates would vary from a low of about 42% to a high of 75%.[57] Then the researcher checks the enrollments of the schools in Panola County. If he finds that in the next year that 100 students will attend one of the colleges, then he would predict that as few as 42 students or as many as 75 would enter the University of Mississippi, but probably about 55%-60% would enter. In a seven year period the same prediction could be made. In practice, any researcher should compute the percentages of each county that have enrolled at one of these five schools. When the average percent is determined then the number who are expected to enroll may be learned and consequently also the number who may enroll at any one of the five colleges in this study. For this reason, the person wishing to predict

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[57] 75% of 55% yields 42% for the low score. 75% of 60% yields 75%. Although this form of determination is not as exact as others, it was used in order to present a clearer picture of what was practically involved. In effect the figures illustrate that the actual percent may be either 25% higher or 25% lower than the best predicted range, Index number 11, or 55%-60%.

future enrollments by this study would first have to determine what percent from each county would enroll at all five schools. This area is a rich one for administrators wishing to predict future enrollment.[58]

Now that the general interpretation, application, and conclusions have been discussed concerning the overall effectiveness of the correlation coefficients, a closer look at some of the more specific, less obvious variables should be undertaken. The scattergrams for Delta State College, page 130, presents a falling curve. Generally the curve starts lower than the other schools, about 30%-35% when X 1, and gradually falls off to about 0%-5% when X 6. From a distance of 125 miles and over, it can be seen that only a few counties supply Delta State College with students. This attitude can be reversed to read, past 125 miles Delta State College exhibits very little drawing power. This college then could be assumed to have more local prestige than it does further away. Or, perhaps other colleges, being much stronger and nearer to some students, attract them more. By any means, though, Delta State College does not compare with the other four in

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[58]Most future enrollment figures are now determined simply by applying a percentage to any school. But this method, though yielding some usable results, would not be as accurate as the one described above.

its drawing power. It might not be fair to say that it is less prestigious. Even from nearby counties, not a great percentage of students attend. It could probably be concluded that a more active recruiting program selling the virtues of the college would do much to enhance its attractive force. At least in the line of close competitors, one may see by examining the maps in Appendix B that there are none.

The pattern for Mississippi State College for Women is quite peculiar. The average percent of enrollment for Division One is only 15%. The curve then rises slowly and erratically to Zone 4 or 5. From there the mass of data gradually falls back down to Zone 9 or 10. There are no counties as far from M. S. C. W. as Zone 11. Such a peculiar configuration as this could rightfully be called an anomaly. After all, the curve is definitely unlike that for any other schools. In other words, it is true that Mississippi State College for Women has comparatively little drawing power in counties even up to 75 miles or through Zone 3. It is not until the county is in Zones 4 or 5, 75-125 miles that the college enjoys a large percentage of enrollees. Pure supposition might lead one to guess that girls nearby, those more familiar with the college, simply won't go to this college. It is only past Zones 4 and 5 that the effect of distance as a limiting factor per se becomes evident. The low drawing power from nearby

places is due to some other variable, which this writer speculates might be dislike. Of especial importance and interest is one entrant in the scattergram--Zone 9, 40%-45% enrolling. This is certainly a pattern breaker and could be the results of a very active alumni organization in this county.

The scattergram for Mississippi State University shows an expected curve. In nearby counties the University shows a strong drawing force, averaging 52.5% for Zone 1. The mass of data then drops slowly to Zone 9. There are no counties as far away as Zones 10 and 11. An unusual entrant is found in Zone 4 in which only 0%-5% of the enrollees attend Mississippi State University. No known cause for this county's enrollment pattern could be ascertained. It is not enough to say that the people there simply do not like Mississippi State University. That may not at all be the case.

The University of Mississippi scattergram presents a relatively anticipated picture. Again nearby counties are represented by high percentages of enrollees. But, although the mass of data begins a downward curve, the curve begins to straighten out. Thus, on examining the scattergram, one would see that there is very little depreciation of the ability to attract a high percentage of students from even quite distant counties, over the state. In fact in only two counties, one in Zone 4 and the other in Zone 9, does the University of

Mississippi attract less than 5%. And even in Zone 11, which is 251-275 miles from the campus, an average of 17% of the students chose to go there regardless of distance and of the fact that either of the four other colleges are nearer. Undoubtedly this strong pull by the University is due to its preparation for medical school, law school, and for graduate school. Nevertheless, some of its attraction might lie in prestige of a social sort. Because of this extraordinary drawing force, even in Zone 11, the data for those three counties were dropped from the important computations but maintained in the Appendix for completeness' sake. It was believed that they might have unduly biased the curve.

The scattergram for the University of Southern Mississippi shows an extremely high percentage of students in Zones 1-3 who enrolled there, but then the percentages drop quite rapidly. By Zone 7 the attraction of the University has apparently lost its punch. Beyond a question this curve can be explained by the location of the University. In the whole of southern Mississippi, the only one of Mississippi's five major state supported institutions of higher learning is the University of Southern Mississippi. This college has no other educational institutions of the same caliber with which to compete. But as the zones become intermediate, to the north of the college, with the other four schools, U. S. M. begins to lose

enrollees. The unusually high percentage of students who attend nearby, rather than reflecting the intrinsic desire to attend U. S. M., reflect the nearness of the college.

In overview, the reader will identify at least one variable which emerges as the pattern for each of the five schools. The pattern, though implicit in the data, is one established by quality, the prestige of the institution. It is speculated that the scattergrams illustrate the drawing power of each school, and hence reflect the quality or prestige also. Counties in practically every case sent the majority of their students to nearby colleges. But the most prestigious colleges, Mississippi State University and the University of Mississippi, maintained an attraction for students even at great distances. It would seem then that for the first 100-125 miles the greatest factor in determining choice of school may really be distance to the school. But beyond 125 miles--if a student wishes to enroll within Mississippi at a college further than 125 miles--he chooses an institution which can provide the best education for him. Using this drawing power at great distances as an implicit measure of the quality of an institution, a listing of the five could be made:

1. University of Mississippi
2. Mississippi State University
3. Mississippi State College for Women
4. University of Southern Mississippi
5. Delta State College

The placement of M. S. C. W. third may be due to what appears to be a long-standing practice in Mississippi to send girls to "The W" for tradition. With the possible exception of numbers three and four, this writer believes that most knowledgeable college administrators and instructors will bear out the placement.

At least another feature which became evident in the data should be discussed, even if only quite briefly. It concerns what may be termed interstitial counties, those counties which lie midway between two important schools. Even a cursory examination of the data reveals that the University of Mississippi and Mississippi State University outdraw the other colleges. But there are a few counties which break this pattern. Quitman County lies in Zone 2 for both the University of Mississippi and Delta State College. Two variables other than distance might be at play in determining that a few more students attend D. S. C. The University of Mississippi, being an "urbanlike" college would probably tend to attract enrollees from urban centers. Thus Quitman County, a predominantly rural county, could be expected to send more students to a college of her own kind--D. S. C., which is for the most part a rural-like college and one which is also in a sister Delta county. But probably the major force at play is the relative inexpense of attending Delta State College in

comparison to the University of Mississippi.

For the same reasons one would suspect that students from Calhoun County would tend to enroll at Mississippi State University rather then U. M.. This is the case. But for Lee County, a perdominantly urban county slightly closer to U. M. than M. S. U., the data indicated that more students attend M. S. U.. Probably the reason is two-fold: first, a carryover of rural trends from the past when the county was rural, and, second, the less expense involved in attending M. S. U.. Even so, a saturation recruitment program from the University of Mississippi would yield the results of obtaining for U. M. her "fair share" of students.

Several other counties exhibit the same patterns. In most of these cases at least one or more variables are at work. Again, these variables may be rural-urban differences, economic differences, differences in the effectiveness of alumni activities in the counties, or differences in the recruitment of the colleges themselves.

The most important variable, however, has been the factor of distance; and, the composite table has been the major source for the delineation of the importance of distance and enrollment. The graph on page 35 showing the plotted mid-points of the means per mileage zone of the composite scattergram does not show a perfectly smooth curve, even though

the data was an average of five schools, eithy-two counties, and seven years. Although the last upsurge is explainable, the other differing points have had no explaination. Probably, if more data were collected and added to the curve through the years, these erratic points would become more and more close to the true regression line, in this case plotted as a logarithmic curve or a reciprocal curve.

The task in so collecting and assimilating new data has been enhanced because of the data presented in this paper. However, the new questions arising out of this study, asked within the body of material at various points, suggests that this whole area has not been exhausted as a field of study. Rather, it is hoped that other researchers may avail themselves of the wealth of data and method described within this paper and come up with new ideas, albeit, some of which this author might have had no knowledge.

SUMMARY

The idea was concieved that students will generally attend a college which is nearby rather than one which is distant. This would naturally exclude other possible variables such as cost of the school's tuition, active or inactive alumni association, rural-urban differences between counties and between schools, and the recruitment programs of the school. In order to check the thesis, a statistical study qas derived.

The number of enrollees in each of Mississippi's colleges, per year, per county was available from 1958 through 1964. The number of enrollees was changed to percent of enrollees by county in order to lessen the effect of some counties with greatly differing student populations. This became the predicted, dependent, or Y variable. The average distance of the various counties were categorized in bands of twenty-five miles each from a college. Thus in Zone 1 are found counties the major part of which lay from 0 miles to 25 miles from that college. In Zone 2 are found counties from 26-50 miles; Zone 3, 51-75 miles, etc. through Zone 11, 251-275 miles from the college. This distance in zones became the predictor, independent, or X variable.

A composite scattergram which contains all of the counties for each school was made. Containing the data for the seven year period 1958-1964, the scattergram was believed to embody the principle which was being tested. Because of the enormous number of cases involved, the average percent of students attending a college from each zone was computed. It was assumed that the data distributed themselves normally, thus the single value best representing the various counties in each zone would be the average of values with that zone.

From these eleven single points, one for each zone, a graph was made. The trend then could easily be seen. At first the percent of enrollment was quite high, but the enrollment dropped as distance increased. It was observed that the line connecting the various zone means described a negative and curvilinear relationship.

From inspection it could be ascertained that the data distributed itself according to one of three curves--logarithmic, semilogarithmic or reciprocal. In tests run to find the curve of best fit, it was found that the reciprocal curve was quite close. Computation of the correlation coefficients by standard statistical procedures indicated that the closest fit in actuality was that of the logarithmic curve. From the calculation of the correlation coefficient by the reciprocal curve formula, a coefficient of -.85 was obtained; from the

logarithmic curve formula, a coefficient of -.97. The second of these was quite high and indicated a very close relationship. It was found that over 75% of expected errors could be reduced by predicting along the curve rather than by guessing. By another method, approximately 93% of the cases fall either on the line or practically on it. It was concluded that very definitely there exists a relationship between distance and choice of enrollment, and that relationship can best be described as negative and curvilinear (reciprocal curve or logarithmic curve).

An analysis of the data indicated that there might be an implicit measure of prestige, and the five colleges, Delta State College, Mississippi State College for Women, Mississippi State University, University of Mississippi, and University of Southern Mississippi, used as the complete sample, could be ranked according to prestige.

It was not determined whether these schools necessarily formed a sample from a universe of schools within either the state, United States or the world. Doubtless, within the state of Mississippi and the United States, distance is of great concern, but the significance within other countries is unknown.

A discussion of the results and seeming anomalies revealed the interplay of at least several other variables than distance in deciding enrollment. These could be rural-urban

differences, economic differences, differences in the effectiveness of alumni activities in the counties, or differences in the recruitment of colleges themselves. The factor of distance, however, proved to be of major importance.

This study has been one of internal, short distance migration in relation to schools and the several pertinent variables and as such has been an addition to a very small field of data. As in most studies this one raises several questions, all of which pertain to the application of the variables to a context larger than one state. Within the state of Mississippi, however, the relationship between internal, short distance migration and enrollment has been "proved," as far as statistical proof is valid.

APPENDIX

APPENDIX --Continued

APPENDIX--Continued

APPENDIX F

APPENDIX A

TABLE 1

NUMBER OF HIGH SCHOOL GRADUATES BY COUNTY BY YEAR
1958-1964

Year	County						
	Adams	Alcorn	Amite	Attala	Benton	Bolivar	Calhoun
1964	274	259	106	166	49	227	157
1963	213	247	88	131	40	210	124
1962	210	264	106	141	47	230	157
1961	248	257	129	144	37	209	159
1960	234	259	89	155	64	233	144
1959	227	184	114	139	60	197	136
1958	220	151	151	114	65	167	193
Total	1626	1621	763	890	362	1473	1070

TABLE 1--Continued

Year	County						
	Carroll	Chickasaw	Choctaw	Claiborne	Clarke	Clay	Coahoma
1964	60	127	105	65	144	124	160
1963	65	94	105	68	111	116	145
1962	52	86	102	63	138	109	166
1961	62	132	100	58	126	118	170
1960	69	99	85	57	96	94	175
1959	60	125	83	50	116	101	167
1958	65	114	92	67	165	93	157
Total	433	777	572	428	896	755	1140

TABLE 1--Continued

Year	County						
	Copiah	Corrington	De Soto	Forrest	Franklin	George	Greene
1964	191	123	188	493	72	155	96
1963	141	122	133	408	75	143	113
1962	155	122	140	389	75	127	97
1961	199	117	125	551	91	160	116
1960	143	121	109	409	90	109	127
1959	155	110	109	425	89	142	120
1958	126	90	102	333	72	137	106
Total	1110	805	906	3008	564	973	775

TABLE 1--Continued

Year	County						
	Grenada	Hancock	Harrison	Hinds	Holmes	Humphreys	Itawamba
1964	95	166	1032	1230	107	77	168
1963	98	208	668	1071	106	83	140
1962	63	186	803	1244	98	73	140
1961	93	195	830	1089	102	73	137
1960	79	178	692	983	105	89	139
1959	92	144	585	901	119	62	115
1958	74	133	633	892	135	79	140
Total	594	1210	5243	7410	772	536	979

TABLE 1--Continued

Year	County						
	Jackson	Jasper	Jefferson	Jefferson Davis	Jones	Kemper	Lafayette
1964	666	117	40	93	704	76	110
1963	544	114	26	88	547	45	104
1962	492	109	40	71	518	65	140
1961	557	132	34	90	609	65	98
1960	484	107	38	112	581	70	146
1959	460	115	36	92	560	61	100
1958	334	112	24	98	446	81	79
Total	3537	806	238	644	3965	463	777

TABLE 1--Continued

Year	County						
	Lamar	Lauderdale	Lawrence	Leake	Lee	Leflore	Lincoln
1964	194	541	93	146	362	203	232
1963	191	498	100	111	310	168	208
1962	209	471	97	137	297	196	215
1961	162	500	94	144	321	200	208
1960	170	471	105	147	295	166	191
1959	163	374	86	136	257	167	199
1958	142	339	80	119	263	172	213
Total	1231	3194	655	940	2105	1302	1466

TABLE 1--Continued

Year	County						
	Lowndes	Madison	Marion	Marshall	Monroe	Montgomery	Neshoba
1964	299	112	177[a]	92	246	118	172
1963	247	119	. .	103	175	93	125
1962	279	99	171	76	214	106	165
1961	274	112	192	109	231	107	161
1960	239	94	179	72	210	77	161
1959	222	96	154	87	192	111	152
1958	216	90	146	79	187	75	197
Total	1776	722	1189	618	1455	687	1133

TABLE 1--Continued

Year	County						
	Newton	Noxukee	Oktibbeha	Panola	Pearl River	Perry	Pike
1964	191	79	171	167	204	96	258
1963	130	54	131	135	185	90	219
1962	201	69	157	140	163	73	227
1961	179	68	154	138	210	92	228
1960	163	61	141	169	151	71	252
1959	167	69	134	123	174	106	206
1958	129	62	129	141	182	100	245
Total	1210	462	1017	913	1269	628	1635

[a](170 Average) (inc.) & (NA)

TABLE 1--Continued

Year	County						
	Pontotoc	Prentiss	Quitman	Rankin	Scott	Sharkey	Simpson
1964	177	151	106	268	206	54	164
1963	200	189	103	184	158	49	126
1962	174	215	110	227	209	62	127
1961	209	238	102	196	183	64	167
1960	185	209	104	175	170	45	163
1959	203	195	121	200	203	52	136
1958	181	188	90	171	178	57	146
Total	1429	1365	736	1421	1307	383	1029

TABLE 1--Continued

Year	County						
	Smith	Stone	Sunflower	Tallahatchie	Tate	Tippah	Tishomingo
1964	132	80	188	94	117	145	180
1963	143	75	173	106	104	140	140
1962	119	86	144	120	93	135	147
1961	149	83	183	107	105	122	154
1960	154	93	186	121	121	173	136
1959	164	109	168	117	111	145	151
1958	145	78	178	123	100	132	137
Total	1026	604	1220	788	651	992	1045

TABLE 1--Continued

Year	Tunica	Union	Walthall
1964	47	259	101
1963	34	183	88
1962	31	175	94
1961	23	156	117
1960	27	213	120
1959	32	184	102
1958	31	185	139
Total	225	1355	761

TABLE 1--Continued

Year	Webster	Wilkinson	Winston
1964	120	51	168
1963	80	47	137
1962	116	57	136
1961	112	46	120
1960	110	50	144
1959	107	48	159
1958	. .[b]	33	145
Total	753	332	1009

[b](108 av.) (NA).

County Warren	Washington	Wayne
280	347	125
269	350	142
290	334	132
275	330	131
237	292	123
259	285	144
231	253	128
1841	2191	925

County Yalobusha	Yazoo
93	206
94	190
72	171
90	196
93	199
115	170
98	174
655	1206

TABLE 2

NUMBER OF HIGH SCHOOL GRADUATES ENTERING MISSISSIPPI'S FIVE MAJOR WHITE STATE SUPPORTED INSTITUTIONS OF HIGHER LEARNING BY COUNTY BY SEVEN YEAR PERIOD 1958-1964

School[a]	County						
	Adams	Alcorn	Amite	Attala	Benton	Bolivar	Calhoun
DS	12	2	1	5	0	497	14
MSCW	207	38	20	41	11	51	21
MSU	110	58	27	78	16	74	75
UM	74	59	9	36	7	75	63
USM	118	8	36	17	0	10	4
Total	521	165	93	177	34	707	177

TABLE 2--Continued

School	County						
	Carroll	Chickasaw	Choctaw	Claiborne	Clarke	Clay	Coahoma
DS	13	1	9	4	1	3	118
MSCW	9	60	21	18	18	54	80
MSU	18	107	40	39	33	169	92
UM	14	40	4	24	23	26	110
USM	3	4	3	18	17	6	19
Total	57	212	81	103	92	258	419

[a]DS,,MSCW, MSU, UM, USM, are the Initials for: Delta State College, Mississippi State College for Women, Mississippi State University, University of Mississippi, and University of Southern Mississippi.

TABLE 2--Continued

School	Copiah	Covington	De Soto
DS	1	1	13
MSC	31	8	21
MSU	47	11	30
UM	37	8	49
USM	30	42	1
Total	146	70	114

TABLE 2--Continued

School	Grenada	Hancock	Harrison
DS	28	0	6
MSC	54	1	125
MSU	84	23	251
UM	72	23	211
USM	10	73	527
Total	248	120	1120

County			
Forrest	Franklin	George	Greene
2	0	0	0
37	8	9	4
107	13	28	7
56	14	9	6
1030	9	59	22
1232	44	105	39

County			
Hinds	Holmes	Humphreys	Itawamba
18	23	19	1
483	37	23	3
659	56	20	14
644	27	23	9
440	5	6	11
2244	148	97	28

TABLE 2--Continued

School	County						
	Jackson	Jasper	Jefferson	Jefferson Davis	Jones	Kemper	Lafayette
DS	1	0	2	1	1	0	4
MSCW	80	8	11	11	61	10	11
MSU	117	26	17	19	136	13	5
UM	93	14	19	9	77	3	330
USM	302	26	22	36	149	2	1
Total	647	74	61	76	424	28	351

TABLE 2--Continued

School	County						
	Lamar	Lauderdale	Lawrence	Leake	Lee	Leflore	Lincoln
DS	0	2	0	2	6	89	5
MSCW	10	74	7	16	102	98	37
MSU	25	157	10	28	120	154	66
UM	14	125	7	17	84	128	46
USM	93	58	24	16	21	12	49
Total	142	416	48	79	333	481	203

TABLE 2--Continued

School	County						
	Lowndes	Madison	Marion	Marshall	Monroe	Montgomery	Neshoba
DS	2	22	0	4	6	19	0
MSCW	372	52	18	31	101	24	21
MSU	335	55	38	16	128	40	69
UM	46	39	39	46	62	24	22
USM	15	35	77	0	10	1	14
Total	770	203	172	97	307	108	126

TABLE 2--Continued

School	County						
	Newton	Noxubee	Oktibbeha	Panola	Pearl River	Perry	Pike
DS	0	1	1	7	1	0	0
MSCW	23	34	56	34	17	5	46
MSU	29	55	419	36	23	5	58
UM	14	20	7	76	22	1	79
USM	13	5	4	2	62	23	105
Total	79	115	487	155	125	34	288

TABLE 2--Continued

School	County						
	Pontotoc	Prentiss	Quitman	Rankin	Scott	Sharkey	Simpson
DS	1	4	43	3	0	52	2
MSCW	26	26	21	15	35	17	17
MSU	33	23	30	63	59	35	46
UM	46	17	50	33	28	17	42
USM	1	3	5	45	26	1	40
Total	107	73	149	159	148	122	147

TABLE 2--Continued

School	County						
	Smith	Stone	Sunflower	Tallahatchie	Tate	Tippah	Tishomingo
DS	0	0	122	55	0	6	0
MSCW	8	4	56	32	30	13	12
MSU	20	8	105	72	14	23	18
UM	11	13	72	59	33	25	19
USM	19	13	10	4	2	0	2
Total	59	38	365	222	79	67	51

TABLE 2--Continued

School	Tunica	Union	Walthall
DS	6	11	0
MSCW	20	24	17
LSU	15	28	27
UM	15	54	16
USM	4	1	37
Total	60	118	97

TABLE 2--Continued

School	Webster	Wilkinson	Winston
DS	16	1	19
MSCW	22	14	56
LSU	52	19	99
UM	29	7	34
USM	0	32	14
Total	119	73	222

County		
Warren	Washington	Wayne
27	280	0
74	108	3
132	203	16
121	144	11
50	59	29
404	794	59

County	
Yalobusha	Yazoo
13	12
20	77
28	95
62	59
1	30
124	273

TABLE 3

NUMBER OF HIGH SCHOOL GRADUATES ENTERING MISSISSIPPI'S FIVE MAJOR WHITE STATE SUPPORTED INSTITUTIONS OF HIGHER LEARNING PER YEAR 1958-1964, PER COUNTY

County	Year	School[a]				
		DSC	MSCW	MSU	UM	USM
Adams	1964	2	21	23	16	15
	1963	5	16	15	16	20
	1962	0	6	12	13	34
	1961	1	12	17	12	14
	1960	1	11	18	8	2
	1959	2	12	16	6	16
	1958	1	11	9	3	17
Total		12	207	110	74	118
Alcorn	1964	1	6	11	8	0
	1963	1	7	10	9	0
	1962	0	7	8	7	1
	1961	0	4	9	7	1
	1960	0	8	5	8	3
	1959	0	3	11	13	3
	1958	0	3	4	7	0
Total		2	38	58	59	8

[a] DSC, MSCW, MSU, UM, USM, are the initials for Delta State College, Mississippi State College for Women, Mississippi State University, University of Mississippi, and University of Southern Mississippi.

TABLE 3--Continued

County	Year	DSC	MSCW
Amite	1964	0	1
	1963	1	2
	1962	0	2
	1961	0	6
	1960	0	3
	1959	0	2
	1958	0	4
Total		1	20
Attala	1964	0	3
	1963	0	7
	1962	0	8
	1961	4	10
	1960	1	4
	1959	0	7
	1958	0	2
Total		5	41
Benton	1964	0	4
	1963	0	2
	1962	0	1
	1961	0	2
	1960	0	2
	1959	0	0
	1958	0	0
Total		0	11

School		
MSU	UM	USM
4	3	3
0	1	10
2	0	2
6	2	6
4	0	3
6	1	5
5	2	7
27	9	36
21	11	1
12	4	6
13	5	3
10	5	2
7	9	2
9	2	2
6	0	1
78	36	17
4	0	0
0	1	0
1	1	0
1	2	0
0	0	0
9	3	0
1	0	0
16	7	0

TABLE 3--Continued

County	Year	DSC	MSCW
Bolivar	1964	80	6
	1963	80	5
	1962	75	7
	1961	80	4
	1960	72	17
	1959	55	11
	1958	55	1
Total		497	51
Calhoun	1964	2	3
	1963	2	5
	1962	2	2
	1961	4	1
	1960	1	3
	1959	1	5
	1958	2	2
Total		14	21
Carroll	1964	1	0
	1963	0	1
	1962	5	2
	1961	0	2
	1960	1	2
	1959	5	1
	1958	1	1
Total		13	9

School		
MSU	UM	USM
19	10	3
8	9	2
12	13	2
9	13	0
15	16	0
9	7	3
2	7	0
74	75	10
16	10	0
6	11	0
11	14	1
7	3	1
13	10	0
9	5	1
13	10	1
75	63	4
3	3	2
8	1	1
1	0	0
1	4	0
2	3	0
0	1	0
3	2	0
18	14	3

TABLE 3--Continued

County	Year	DSC	MSCW
Chickasaw	1964	0	7
	1963	0	11
	1962	1	5
	1961	0	12
	1960	0	12
	1959	0	7
	1958	3	6
Total		4	60
Choctaw	1964	2	4
	1963	3	2
	1962	2	4
	1961	0	2
	1960	2	2
	1959	0	4
	1958	0	3
Total		9	21
Claiborne	1964	0	2
	1963	1	2
	1962	0	5
	1961	0	3
	1960	1	2
	1959	1	2
	1958	1	2
Total		4	18

School		
MSU	UM	USM
25	7	0
14	4	1
10	6	1
14	5	0
9	8	0
19	6	1
16	4	1
107	40	4
8	0	3
6	1	1
9	0	0
4	0	1
5	0	0
3	1	1
5	2	1
40	4	7
14	3	6
5	0	2
7	6	4
2	3	2
3	6	2
4	3	1
4	3	1
39	24	18

TABLE 3--Continued

County	Year	DSC	MSCW
Clarke	1964	0	5
	1963	1	1
	1962	0	3
	1961	0	4
	1960	0	3
	1959	0	1
	1958	0	1
Total		1	18
Clay	1964	0	6
	1963	0	5
	1962	0	12
	1961	1	12
	1960	0	8
	1959	0	8
	1958	2	3
Total		3	54
Coahoma	1964	23	10
	1963	14	8
	1962	17	17
	1961	15	20
	1960	17	4
	1959	12	17
	1958	20	4
Total		118	80

School		
MSU	UM	USM
7	4	1
3	1	3
6	4	1
8	3	2
1	4	0
2	5	5
6	2	5
33	23	17
35	5	2
18	6	1
33	3	1
25	5	0
18	3	0
18	3	2
22	1	0
169	26	6
10	17	4
13	4	0
9	13	2
12	19	0
16	26	4
20	22	4
12	9	5
92	110	19

TABLE 3--Continued

County	Year	DSC	MSCW
Copiah	1964	0	14
	1963	0	2
	1962	1	1
	1961	0	2
	1960	0	6
	1959	0	3
	1958	0	3
Total		1	31
Covington	1964	0	1
	1963	1	3
	1962	0	0
	1961	0	2
	1960	0	0
	1959	0	2
	1958	0	0
Total		1	8
De Soto	1964	1	6
	1963	5	2
	1962	2	1
	1961	2	6
	1960	0	1
	1959	1	3
	1958	2	2
Total		13	21

School		
MSU	UM	USM
10	8	6
6	3	4
5	7	4
5	4	6
6	5	2
8	4	4
7	6	4
47	37	30
1	2	5
3	3	6
1	1	5
4	0	3
2	1	12
0	0	6
0	1	5
11	8	42
3	9	0
6	3	0
4	10	0
5	7	0
1	6	0
4	8	1
7	6	0
30	49	1

TABLE 3--Continued

County	Year	DSC	MSCW
Forrest	1964	0	10
	1963	0	3
	1962	1	8
	1961	0	6
	1960	1	1
	1959	0	7
	1958	0	2
Total		2	37
Franklin	1964	0	3
	1963	0	1
	1962	0	2
	1961	0	2
	1960	0	0
	1959	0	0
	1958	0	0
Total		0	8
George	1964	0	1
	1963	0	1
	1962	0	0
	1961	0	1
	1960	0	2
	1959	0	4
	1958	0	0
Total		0	9

School		
MSU	UM	USM
27	8	186
18	11	143
9	12	137
8	10	181
20	6	146
12	7	127
13	2	110
107	56	1030
9	2	1
1	5	3
0	2	2
1	0	0
2	0	2
1	4	1
0	1	0
13	14	9
1	1	1
6	3	7
3	0	16
5	1	14
5	2	12
4	1	8
4	1	1
28	9	59

TABLE 3--Continued

County	Year	DSC	MSCW
Greene	1964	0	1
	1963	0	2
	1962	0	0
	1961	0	1
	1960	0	0
	1959	0	0
	1958	0	0
Total		0	4
Grenada	1964	9	7
	1963	13	7
	1962	2	6
	1961	0	14
	1960	1	7
	1959	1	5
	1958	2	8
Total		28	54
Hancock	1964	0	0
	1963	0	0
	1962	0	0
	1961	0	1
	1960	0	0
	1959	0	0
	1958	0	0
Total		0	1

School		
MSU	UM	USM
0	1	2
1	3	3
1	0	0
0	0	6
4	2	7
1	0	1
0	0	3
7	6	22
16	13	2
17	12	2
5	8	2
12	14	2
17	9	0
9	14	2
8	2	0
84	72	10
7	2	8
2	6	13
2	5	14
3	5	9
3	2	12
3	2	11
3	1	6
23	23	73

TABLE 3--Continued

County	Year	DSC	MSCW
Harrison	1964	3	42
	1963	0	21
	1962	0	20
	1961	1	20
	1960	0	5
	1959	0	8
	1958	2	9
Total		6	125
Hinds	1964	3	112
	1963	7	74
	1962	1	89
	1961	1	64
	1960	1	59
	1959	3	46
	1958	2	39
Total		18	483
Holmes	1964	10	7
	1963	5	4
	1962	6	5
	1961	0	7
	1960	1	7
	1959	0	2
	1958	1	5
Total		23	37

School		
MSU	UM	USM
61	46	105
40	21	63
23	37	93
34	32	68
34	35	80
26	16	58
33	24	60
251	211	527
159	136	77
93	61	60
107	111	90
99	84	67
56	115	52
66	83	57
79	54	37
659	644	440
12	6	4
11	5	0
5	3	0
7	2	1
8	2	0
6	4	0
7	5	0
56	27	5

TABLE 3--Continued

County	Year	DSC	MSCW
Humphreys	1964	4	5
	1963	7	3
	1962	2	3
	1961	2	3
	1960	1	4
	1959	2	3
	1958	1	2
Total		19	23
Itawamka	1964	0	0
	1963	0	2
	1962	0	0
	1961	0	0
	1960	1	0
	1959	0	0
	1958	0	1
Total		1	3
Jackson	1964	0	18
	1963	0	19
	1962	1	5
	1961	0	15
	1960	0	8
	1959	0	7
	1958	0	8
Total		1	80

School		
MSU	UM	USM
5	1	0
6	0	0
6	3	2
3	8	1
2	6	0
0	4	2
4	1	1
26	23	6
1	0	1
1	2	0
5	5	0
0	1	0
6	0	0
0	0	0
1	1	0
14	9	1
33	21	49
24	15	53
19	17	46
25	17	45
23	12	51
23	10	34
24	1	24
171	93	302

TABLE 3--Continued

County	Year	DSC	MSCW
Jasper	1964	0	3
	1963	0	1
	1962	0	1
	1961	0	1
	1960	0	1
	1959	0	1
	1958	0	0
Total		0	8
Jefferson	1964	0	2
	1963	0	0
	1962	0	5
	1961	2	4
	1960	0	0
	1959	0	0
	1958	0	0
Total		2	11
Jefferson Davis	1964	0	4
	1963	0	0
	1962	0	1
	1961	0	0
	1960	0	1
	1959	0	2
	1958	1	3
Total		1	11

School		
MSU	UM	USM
2	1	4
3	1	2
3	3	6
3	2	3
4	3	3
5	0	4
6	4	4
26	14	26
5	5	1
3	2	1
2	4	2
3	1	4
2	5	5
2	0	6
0	2	3
17	19	22
3	1	4
5	0	3
0	5	14
2	0	2
3	1	9
2	2	3
4	0	1
19	9	36

TABLE 3--Continued

County	Year	DSC	MSCW
Jones	1964	0	12
	1963	0	14
	1962	0	8
	1961	0	5
	1960	1	3
	1959	0	13
	1958	0	6
Total		1	61
Kemper	1964	0	1
	1963	0	0
	1962	0	5
	1961	0	1
	1960	0	2
	1959	0	0
	1958	0	1
Total		0	10
Lafayette	1964	0	3
	1963	1	2
	1962	1	4
	1961	2	1
	1960	0	0
	1959	0	1
	1958	0	0
Total		4	11

School		
MSU	UM	USM
17	15	19
24	12	21
9	4	19
22	15	34
20	15	21
29	7	16
15	9	19
136	77	149
3	0	0
0	0	0
3	2	0
2	1	2
0	0	0
0	0	0
5	0	0
13	3	2
1	34	1
1	47	0
1	85	0
1	41	0
0	58	0
1	37	0
0	28	0
5	330	1

TABLE 3--Continued

County	Year	DSC	MSCW
Lamar	1964	0	2
	1963	0	1
	1962	0	2
	1961	0	0
	1960	0	2
	1959	0	3
	1958	0	0
Total		0	10
Lauderdale	1964	0	17
	1963	0	7
	1962	0	11
	1961	1	11
	1960	1	9
	1959	0	10
	1958	0	9
Total		2	74
Lawrence	1964	0	1
	1963	0	0
	1962	0	0
	1961	0	0
	1960	0	2
	1959	0	3
	1958	0	1
Total		0	7

School		
MSU	UM	USM
5	5	13
2	3	18
4	2	7
3	1	11
3	2	9
7	0	20
1	1	16
25	14	93
34	21	14
17	24	14
18	22	6
26	15	4
23	14	11
20	14	11
19	15	0
157	125	58
0	0	7
1	2	5
1	3	2
0	0	3
0	1	1
2	1	4
6	0	2
10	7	24

TABLE 3--Continued

County	Year	DSC	MSCW
Leake	1964	0	2
	1963	0	7
	1962	1	2
	1961	0	1
	1960	1	1
	1959	0	1
	1958	0	2
Total		2	16
Lee	1964	1	27
	1963	1	18
	1962	1	15
	1961	1	16
	1960	1	12
	1959	1	3
	1958	0	11
Total		6	102
Leflore	1964	12	16
	1963	10	9
	1962	19	14
	1961	12	16
	1960	11	8
	1959	13	21
	1958	12	14
Total		89	98

School		
MSU	UM	USM
4	2	4
3	2	2
7	3	2
4	1	1
6	6	0
0	3	2
4	0	5
28	17	16
26	14	4
24	22	5
20	15	4
13	1	1
18	10	0
5	14	4
14	8	3
120	84	21
36	21	3
21	15	3
25	16	2
29	17	1
21	28	2
26	12	0
26	19	1
154	128	12

TABLE 3--Continued

County	Year	DSC	MSCW
Lincoln	1964	1	3
	1963	3	6
	1962	0	8
	1961	1	0
	1960	0	9
	1959	0	6
	1958	0	5
Total		5	37
Lowndes	1964	0	61
	1963	0	50
	1962	2	55
	1961	0	59
	1960	0	44
	1959	0	58
	1958	0	45
Total		2	372
Madison	1964	2	8
	1963	0	10
	1962	8	7
	1961	6	16
	1960	4	0
	1959	1	4
	1958	1	7
Total		22	52

School		
MSU	UM	USM
15	9	4
10	0	6
7	9	5
10	7	13
14	7	10
5	5	5
5	9	6
66	46	49
61	9	3
46	7	1
54	3	1
56	7	1
48	5	4
31	9	3
39	6	2
335	46	15
12	6	0
14	6	4
9	5	0
1	5	15
7	10	4
5	4	10
7	3	2
55	39	35

TABLE 3--Continued

County	Year	
Marion	1964	
	1963	
	1962	
	1961	
	1960	
	1959	
	1958	
Total		
Marshall	1964	
	1963	
	1962	
	1961	
	1960	
	1959	
	1958	
Total		
Monroe	1964	
	1963	
	1962	
	1961	
	1960	
	1959	
	1958	
Total		

School				
DSC	MSCW	MSU	UM	USM
0	6	3	2	8
0	1	1	0	15
0	3	2	7	16
0	1	12	5	9
0	6	8	12	11
0	1	6	9	7
0	0	6	5	11
0	18	38	39	77
1	5	1	8	0
2	1	7	6	0
0	2	0	7	0
0	4	2	5	0
0	6	0	7	0
1	8	4	7	0
0	5	2	6	0
4	31	16	46	0
1	15	29	6	3
0	13	17	15	1
2	13	16	8	5
0	21	20	9	0
0	14	16	9	1
2	10	18	9	0
1	15	12	6	0
6	101	128	62	10

TABLE 3--Continued

County	Year	DSC	MSCW
Montgomery	1964	5	5
	1963	4	3
	1962	2	3
	1961	2	3
	1960	3	1
	1959	3	7
	1958	0	2
Total		19	24
Neshoba	1964	0	5
	1963	0	3
	1962	0	4
	1961	0	0
	1960	0	1
	1959	0	2
	1958	0	6
Total		0	21
Newton	1964	0	5
	1963	0	5
	1962	0	6
	1961	0	0
	1960	0	5
	1959	0	2
	1958	0	0
Total		0	23

School		
MSU	UM	USM
9	3	0
0	3	0
5	1	0
8	6	0
6	4	0
6	3	1
6	4	0
40	24	1
22	2	0
13	1	4
5	3	1
13	4	1
4	1	3
5	8	3
7	3	2
69	22	14
6	3	5
3	2	3
4	2	1
2	1	1
4	1	0
3	3	1
7	2	2
29	14	13

TABLE 3--Continued

County	Year	DSC	MSCV
Noxubee	1964	1	8
	1963	0	8
	1962	0	3
	1961	0	2
	1960	0	1
	1959	0	4
	1958	0	8
Total		1	34
Oktibbeha	1964	0	12
	1963	0	4
	1962	0	10
	1961	0	7
	1960	0	7
	1959	0	2
	1958	1	14
Total		1	56
Panola	1964	0	3
	1963	0	6
	1962	2	3
	1961	2	4
	1960	0	1
	1959	1	8
	1958	2	9
Total		7	34

School		
MSU	UM	USM
9	0	0
11	0	1
5	6	0
11	7	0
7	2	2
4	3	0
8	2	2
55	20	5
79	1	0
55	0	0
87	1	2
64	1	2
43	2	0
45	2	0
46	0	0
419	7	4
5	15	0
7	7	0
4	8	0
8	11	0
6	13	2
3	10	0
5	12	0
36	76	2

TABLE 3--Continued

County	Year	DSC	MSCW
Pearl River	1964	0	7
	1963	0	3
	1962	0	3
	1961	1	0
	1960	0	1
	1959	0	1
	1958	0	2
Total		1	17
Perry	1964	0	1
	1963	0	0
	1962	0	1
	1961	0	1
	1960	0	0
	1959	0	0
	1958	0	2
Total		0	5
Pike	1964	0	15
	1963	0	7
	1962	0	6
	1961	0	4
	1960	0	8
	1959	0	4
	1958	0	2
Total		0	46

School		
MSU	UM	USM
5	2	11
2	1	15
3	4	6
2	5	4
6	2	10
2	5	4
3	3	12
23	22	62
0	0	3
1	0	4
1	0	4
1	0	3
0	0	6
2	1	2
0	0	1
5	1	23
5	14	16
5	1	14
5	11	20
19	9	12
8	21	13
7	12	14
9	11	16
58	79	105

TABLE 3--Continued

County	Year	DSC	MSCW
Pontotoc	1964	1	4
	1963	0	5
	1962	0	5
	1961	0	3
	1960	0	1
	1959	0	4
	1958	0	4
Total		1	26
Prentiss	1964	0	3
	1963	0	8
	1962	0	5
	1961	2	5
	1960	2	1
	1959	0	1
	1958	0	3
Total		4	26
Quitman	1964	2	3
	1963	6	1
	1962	4	6
	1961	6	2
	1960	3	5
	1959	15	3
	1958	7	1
Total		43	21

School		
MSU	UH	USL
9	8	1
3	7	0
3	7	0
4	8	0
3	10	0
6	4	0
5	2	0
33	46	1
3	1	1
3	2	0
3	4	0
2	2	2
5	4	0
3	0	0
4	4	0
23	17	3
3	10	1
6	7	0
2	14	1
5	5	0
4	5	1
6	8	1
4	1	1
30	50	5

TABLE 3--Continued

County	Year	DSC	MSCW
Rankin	1964	2	7
	1963	1	1
	1962	0	3
	1961	0	0
	1960	0	4
	1959	0	0
	1958	0	0
Total		3	15
Scott	1964	0	10
	1963	0	2
	1962	0	8
	1961	0	3
	1960	0	1
	1959	0	9
	1958	0	2
Total		0	35
Sharkey	1964	8	4
	1963	8	5
	1962	4	0
	1961	18	1
	1960	5	1
	1959	3	2
	1958	6	4
Total		52	17

School		
MSU	UM	USM
1	5	11
4	2	3
17	9	8
9	5	6
9	5	10
14	3	4
9	4	3
63	33	45
26	5	4
6	1	2
5	4	4
5	2	2
2	7	7
9	5	4
6	4	2
59	28	26
6	3	0
3	2	0
5	6	1
3	5	0
3	0	0
8	0	0
7	1	0
35	17	1

TABLE 3--Continued

County	Year	DSC	MSCW
Rankin	1964	2	7
	1963	1	1
	1962	0	3
	1961	0	0
	1960	0	4
	1959	0	0
	1958	0	0
Total		3	15
Scott	1964	0	10
	1963	0	2
	1962	0	8
	1961	0	3
	1960	0	1
	1959	0	9
	1958	0	2
Total		0	35
Sharkey	1964	8	4
	1963	8	5
	1962	4	0
	1961	18	1
	1960	5	1
	1959	3	2
	1958	6	4
Total		52	17

School		
MSU	UM	USM
1	5	11
4	2	3
17	9	8
9	5	6
9	5	10
14	3	4
9	4	3
63	33	45
26	5	4
6	1	2
5	4	4
5	2	2
2	7	7
9	5	4
6	4	2
59	28	26
6	3	0
3	2	0
5	6	1
3	5	0
3	0	0
8	0	0
7	1	0
35	17	1

TABLE 3--Continued

County	Year	DSC	MSCW
Simpson	1964	1	2
	1963	0	3
	1962	0	2
	1961	1	6
	1960	0	1
	1959	0	3
	1958	0	0
Total		2	17
Smith	1964	0	0
	1963	0	4
	1962	0	0
	1961	0	1
	1960	0	0
	1959	0	0
	1958	0	3
Total		0	8
Stone	1964	0	0
	1963	0	2
	1962	0	0
	1961	0	0
	1960	0	1
	1959	0	0
	1958	0	1
Total		0	4

School		
MSU	UM	USM
9	8	8
10	1	7
3	10	3
11	4	6
7	9	6
2	7	4
4	3	6
46	42	40
5	1	0
0	0	2
5	2	4
4	3	4
0	0	1
4	4	5
2	1	3
20	11	19
2	4	4
1	1	1
0	2	1
0	3	2
2	1	2
2	1	1
1	1	2
8	13	13

TABLE 3--Continued

County	Year	DSC	MSCW
Sunflower	1964	18	17
	1963	19	7
	1962	8	6
	1961	20	6
	1960	28	4
	1959	16	10
	1958	13	6
Total		122	56
Tallahatchie	1964	12	4
	1963	5	7
	1962	10	3
	1961	12	5
	1960	5	7
	1959	9	3
	1958	2	3
Total		55	32
Tate	1964	0	1
	1963	0	6
	1962	0	4
	1961	0	7
	1960	0	5
	1959	0	5
	1958	0	2
Total		0	30

School		
MSU	UM	USM
15	8	1
20	10	0
18	8	0
12	10	0
12	14	1
11	12	5
17	10	3
105	72	10
4	8	0
18	7	0
8	11	3
15	13	1
7	6	0
13	7	0
7	7	0
72	59	4
4	3	0
2	5	0
1	2	0
1	5	0
1	5	0
4	7	0
1	6	2
14	33	2

TABLE 3--Continued

County	Year	School				
		DSC	MSCA	LSU	UM	USM
Tippah	1964	1	0	6	3	0
	1963	1	0	8	3	0
	1962	0	2	2	1	0
	1961	0	4	0	5	0
	1960	1	4	3	6	0
	1959	2	3	1	4	0
	1958	1	0	3	3	0
Total		6	13	23	25	0
Tishomingo	1964	0	5	4	4	0
	1963	0	1	1	2	0
	1962	0	0	6	1	0
	1961	0	2	0	6	0
	1960	0	1	4	2	1
	1959	0	2	1	3	0
	1958	0	1	2	2	1
Total		0	12	18	19	2
Tunica	1964	1	4	1	5	0
	1963	1	6	3	1	0
	1962	0	2	1	0	0
	1961	3	3	1	1	1
	1960	1	3	3	1	0
	1959	0	0	2	7	3
	1958	0	2	2	0	0
Total		6	20	15	15	4

TABLE 3--Continued

County	Year	DSC	MSCW
Union	1964	2	8
	1963	0	2
	1962	2	2
	1961	0	3
	1960	1	2
	1959	2	2
	1958	4	5
Total		11	24
Walthall	1964	0	5
	1963	0	2
	1962	0	2
	1961	0	4
	1960	0	2
	1959	0	1
	1958	0	1
Total		0	17
Warren	1964	2	15
	1963	6	9
	1962	3	12
	1961	7	21
	1960	0	9
	1959	2	14
	1958	7	4
Total		27	74

School		
MSU	UM	USM
6	15	0
4	1	1
4	6	0
2	7	0
3	12	0
1	7	0
8	6	0
28	54	1
4	4	4
2	3	2
8	2	2
5	1	6
1	4	9
3	1	7
4	1	7
27	16	37
29	25	14
22	14	7
14	18	7
27	14	6
14	19	10
7	27	4
19	4	2
132	121	50

TABLE 3--Continued

County	Year	DSC	MSC
Washington	1964	57	14
	1963	45	16
	1962	47	22
	1961	46	13
	1960	30	12
	1959	37	20
	1958	18	11
Total		280	108
Wayne	1964	0	1
	1963	0	0
	1962	0	0
	1961	0	1
	1960	0	0
	1959	0	1
	1958	0	0
Total		0	3
Webster	1964	4	2
	1963	1	4
	1962	1	0
	1961	4	5
	1960	3	8
	1959	3	2
	1958	0	1
Total		16	22

School		
MSU	UI	USM
40	20	9
34	13	6
21	19	9
30	27	3
28	28	5
17	19	16
33	18	11
203	144	59
4	2	6
4	2	5
2	5	5
0	1	5
4	0	3
0	1	3
2	0	2
16	11	29
8	4	0
6	2	0
14	9	0
6	4	0
8	3	0
5	7	0
5	0	0
52	29	0

TABLE 3--Continued

County	Year	DSC	MSCW
Wilkinson	1964	1	0
	1963	0	4
	1962	0	7
	1961	0	1
	1960	0	0
	1959	0	2
	1958	0	0
Total		1	14
Winston	1964	1	10
	1963	3	6
	1962	2	10
	1961	3	9
	1960	5	8
	1959	4	6
	1958	1	5
Total		19	55
Yalobusha	1964	1	6
	1963	1	1
	1962	7	2
	1961	3	1
	1960	0	2
	1959	1	3
	1958	0	5
Total		13	20

School		
MSU	UM	USM
4	1	6
5	1	6
3	0	2
5	2	4
0	1	7
1	1	4
1	1	3
19	7	32
25	11	1
10	7	8
15	3	1
12	0	1
8	4	0
15	5	1
14	4	2
99	34	14
6	10	0
4	6	1
2	9	0
4	12	0
1	4	0
3	15	0
8	6	0
28	62	1

TABLE 3--Continued

County	Year	DSC	MSCW
Yazoo	1964	2	18
	1963	7	12
	1962	1	10
	1961	0	12
	1960	0	7
	1959	1	6
	1958	1	12
Total		12	77

School		
MSU	UM	USM
22	8	8
19	5	3
16	9	9
7	12	4
16	9	3
10	10	1
5	6	1
95	59	30

TABLE 4

PERCENTAGE OF HIGH SCHOOL GRADUATES ENTERING EACH OF MISSISSIPPI'S FIVE MAJOR WHITE STATE SUPPORTED INSTITUTIONS OF HIGHER LEARNING BY COUNTY PER SEVEN YEAR PERIOD YEARS 1958-1965

School[a]	County						
	Adams (%)	Alcorn (%)	Amite (%)	Attala (%)	Benton (%)	Bolivar (%)	Calhoun (%)
DS	2	1	1	3	0	70	8
MSCW	40	23	22	23	32	7	12
MSU	21	35	29	44	47	10	42
UM	14	36	10	20	21	11	36
USM	23	5	39	10	0	1	2
Total[b]	100	100	100	100	100	100	100

[a]DS, MSCW, MSU, UM, USM, are the initials for: Delta State College, Mississippi State College for Women, Mississippi State University, University of Mississippi, and University of Southern Mississippi.

[b]The totals of the percentages have been rounded off to the nearest whole number.

TABLE 4--Continued

School	Sch	County					
	Carroll (%)	Chickasaw (%)	Choctaw (%)	Claiborne (%)	Clarke (%)	Clay (%)	Coahoma (%)
DS	23	0	11	4	1	1	28
MSCW	16	28	26	17	20	20	19
MSU	32	50	49	38	36	66	22
UM	25	19	5	23	25	10	26
USM	5	2	9	17	18	2	5
Total	100	100	100	100	100	100	100

TABLE 4--Continued

School		County					
	Copiah (%)	Covington (%)	De Soto (%)	Forrest (%)	Franklin (%)	George (%)	Greene (%)
DS	1	1	11	0	0	0	0
MSCW	21	11	18	3	18	9	10
MSU	32	16	26	9	30	27	18
UM	25	11	43	5	32	9	15
USM	21	60	1	84	20	56	56
Total	100	100	100	100	100	100	100

TABLE 4--Continued

School	Grenada (%)	Hancock (%)	Harrison (%)
DS	11	0	1
MSCW	22	1	11
MSU	34	19	22
UM	29	19	19
USM	4	61	47
Total	100	100	100

TABLE 4--Continued

School	Jackson (%)	Jasper (%)	Jefferson (%)
DS	0	0	3
MSCW	12	11	18
MSU	26	35	28
UM	14	19	31
USM	47	35	36
Total	100	100	100

County			
Hinds (%)	Holmes (%)	Humphreys (%)	Itawamka (%)
1	16	20	4
22	25	24	11
29	38	27	50
29	18	24	32
20	3	6	4
100	100	100	100

County			
Jefferson Davis (%)	Jones (%)	Kemper (%)	Lafayette (%)
1	0	0	1
14	14	36	3
25	32	46	1
12	18	11	94
47	35	7	0
100	100	100	100

TABLE 4--Continued

School	Lamar (%)	Lauderdale (%)	Lawrence (%)
DS	0	0	0
MSCW	7	18	15
MSU	18	38	21
UM	10	30	15
USM	65	14	50
Total	100	100	100

TABLE 4--Continued

School	Lowndes (%)	Madison (%)	Marion (%)
DS	0	11	0
MSCW	48	26	10
MSU	44	27	22
UM	6	19	23
USM	2	17	45
Total	100	100	100

County			
Leake (%)	Lee (%)	Leflore (%)	Lincoln (%)
3	2	19	2
20	31	20	18
35	36	32	33
22	25	27	23
20	6	2	24
100	100	100	100

County			
Marshall (%)	Monroe (%)	Montgomery (%)	Neshoba (%)
4	2	18	0
32	33	22	17
16	42	37	55
47	20	22	17
0	3	1	11
100	100	100	100

TABLE 4--Continued

School	County						
	Newton (%)	Noxukee (%)	Oktibbeha (%)	Panola (%)	Pearl River (%)	Perry (%)	Pike (%)
DS	0	1	0	5	1	0	0
MSCW	29	30	12	22	14	15	16
MSU	37	48	86	23	18	15	20
UM	18	17	1	49	18	3	27
USM	16	4	1	1	50	68	36
Total	100	100	100	100	100	100	100

TABLE 4--Continued

School	County						
	Pontotoc (%)	Prentiss (%)	Quitman (%)	Rankin (%)	Scott (%)	Sharkey (%)	Simpson (%)
DS	1	5	29	2	0	43	1
MSCW	24	36	14	9	24	14	12
MSU	31	32	20	40	40	29	31
UM	43	23	34	21	19	14	29
USM	1	4	3	28	18	1	27
Total	100	100	100	100	100	100	100

TABLE 4--Continued

School	Smith (%)	Stone (%)	Sunflower (%)
DS	0	0	33
MSCW	14	11	15
MSU	34	21	29
UM	19	34	20
USM	32	34	3
Total	100	100	100

TABLE 4--Continued

School	Tunica (%)	Union (%)	Walthall (%)
DS	10	9	0
MSCW	33	20	18
MSU	25	24	28
UM	25	46	16
USM	7	1	38
Total	100	100	100

County			
Tallahatchie (%)	Tate (%)	Tippah (%)	Tishomingo (%)
25	0	9	0
14	38	19	24
32	18	34	35
27	42	37	37
2	3	0	4
100	100	100	100

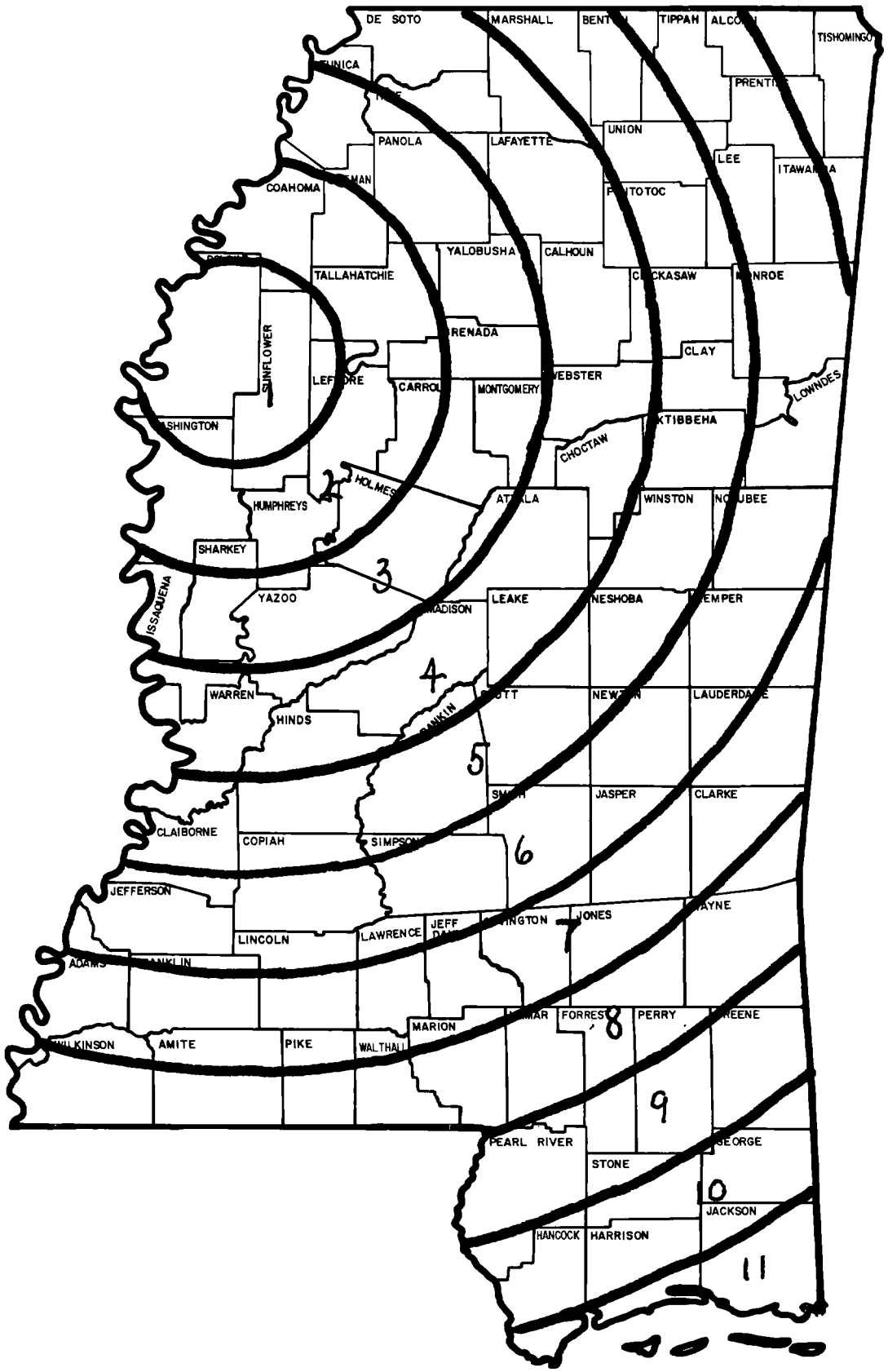
County		
Warren (%)	Washington (%)	Wayne (%)
7	35	0
18	14	5
33	26	27
30	18	19
12	7	49
100	100	100

TABLE 4--Continued

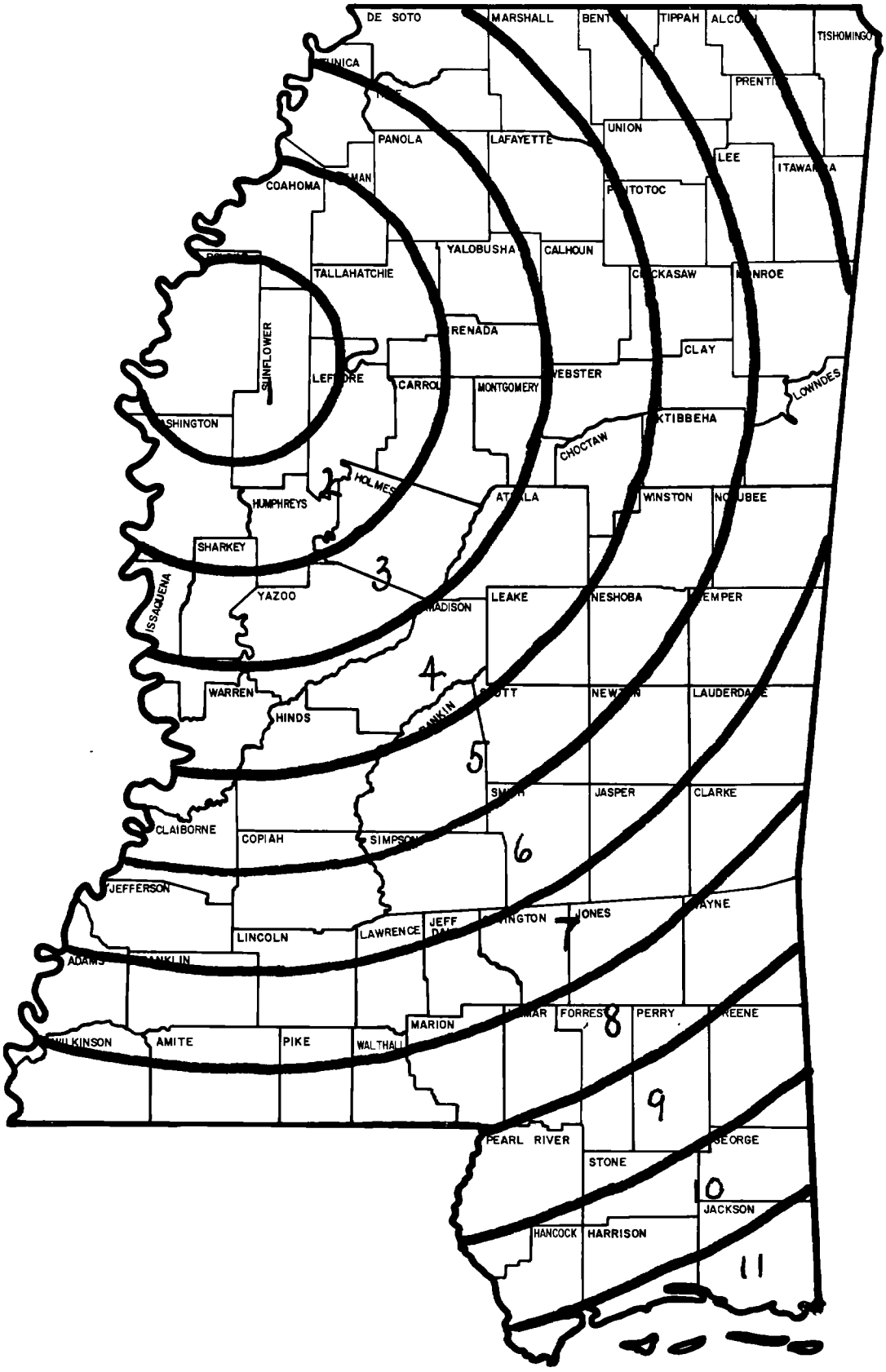
School	Webster (%)	Wilkinson (%)	Winston (%)
DS	13	1	9
MSC	18	19	25
MSU	44	26	45
UM	24	10	15
USM	0	44	6
Total	100	100	100

County	
Yalobusha (%)	Yazoo (%)
10	4
16	28
23	35
50	22
1	11
100	100

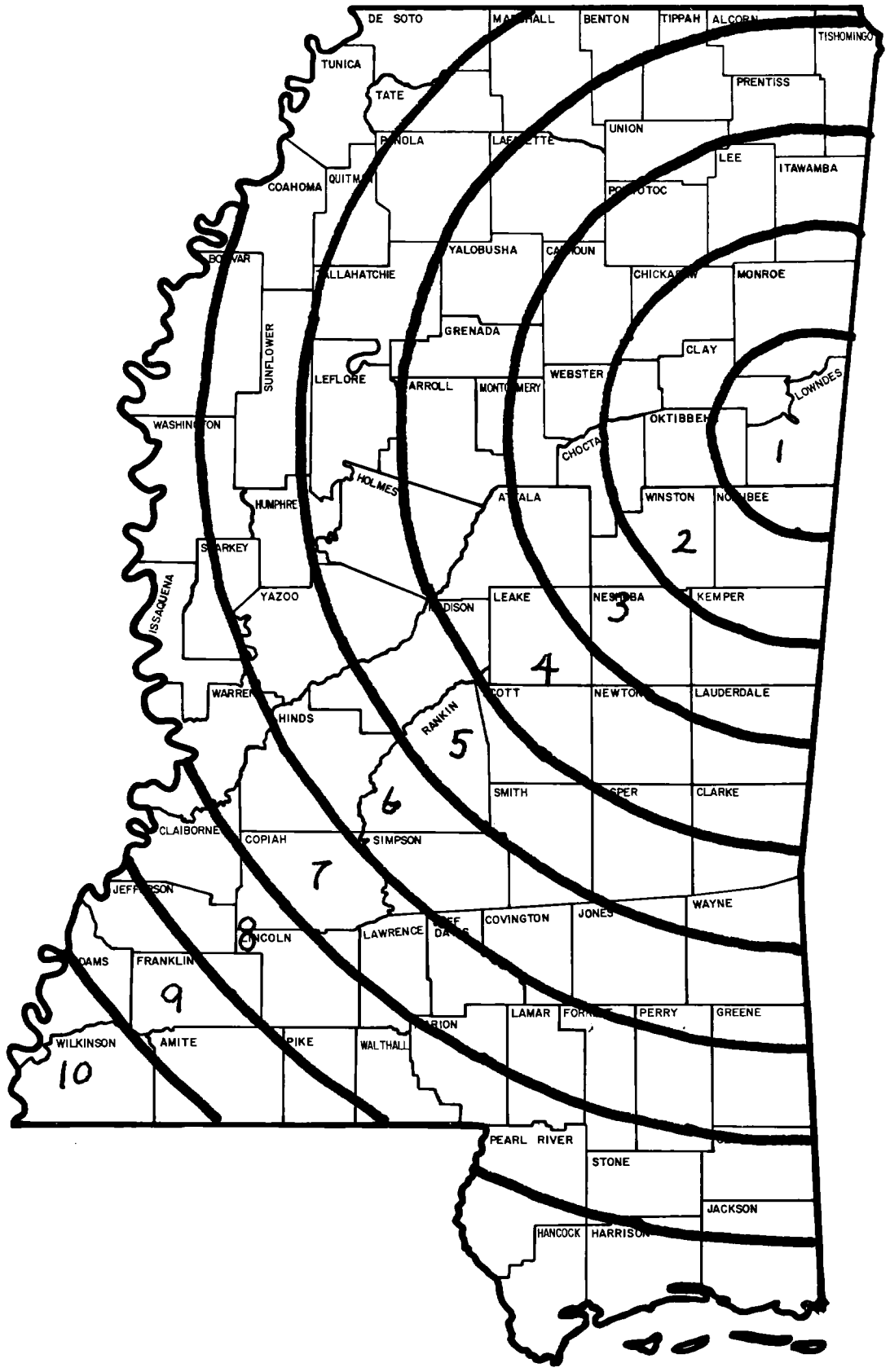
Map 1: Delta State College and Mileage Zones



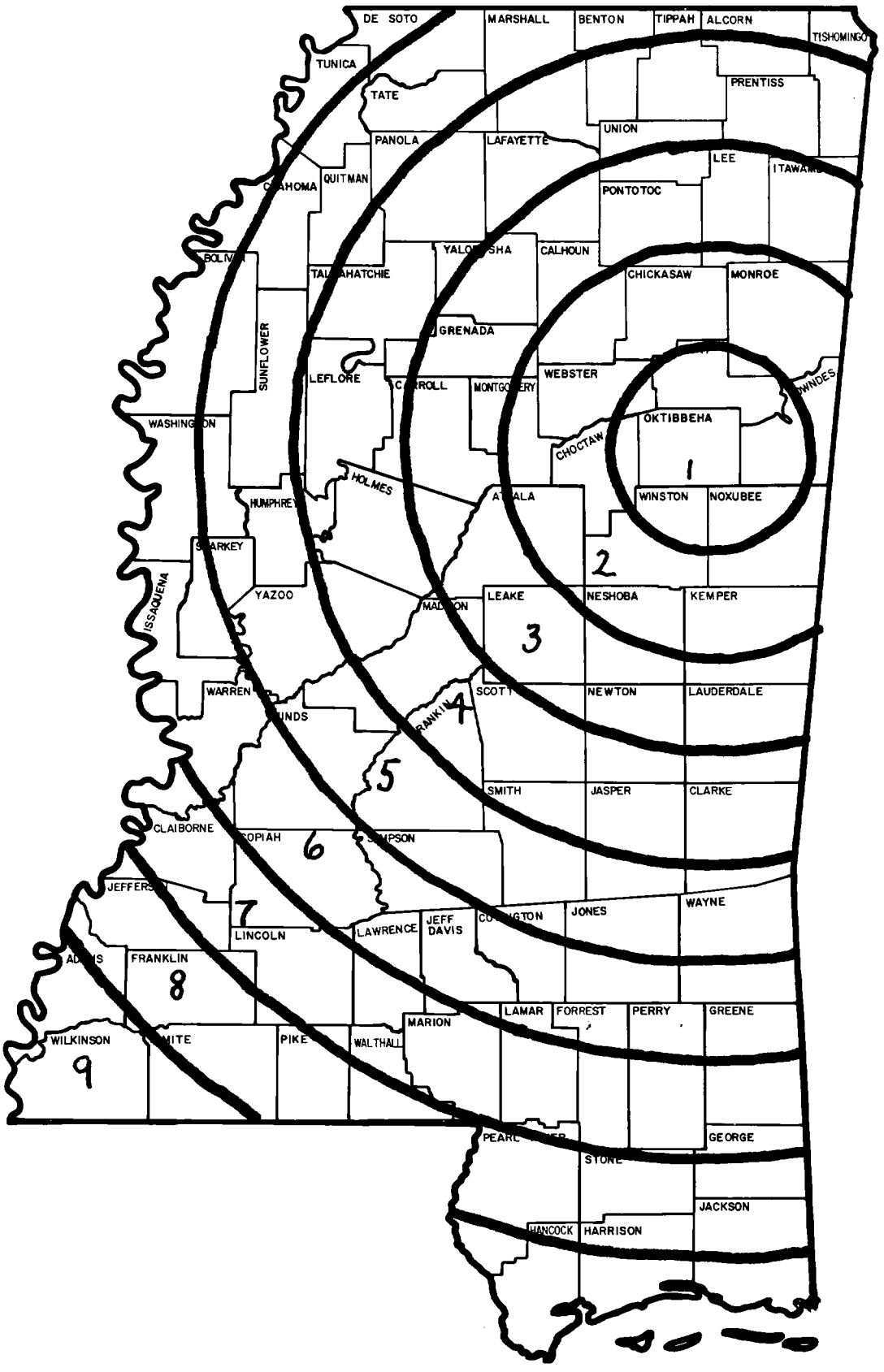
Map 1: Delta State College and Mileage Zones



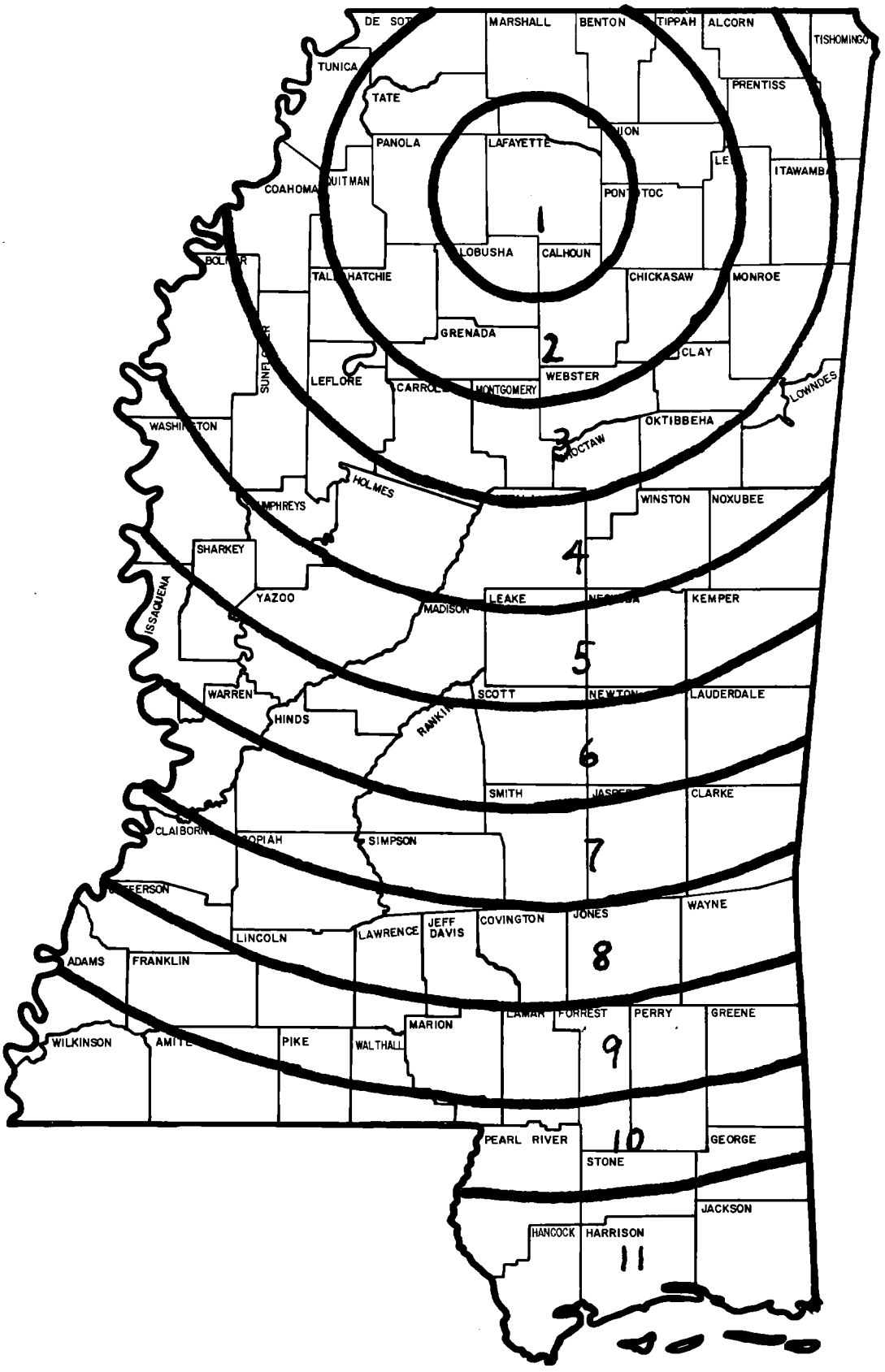
Map 2: Mississippi State College for Women and Mileage Zones



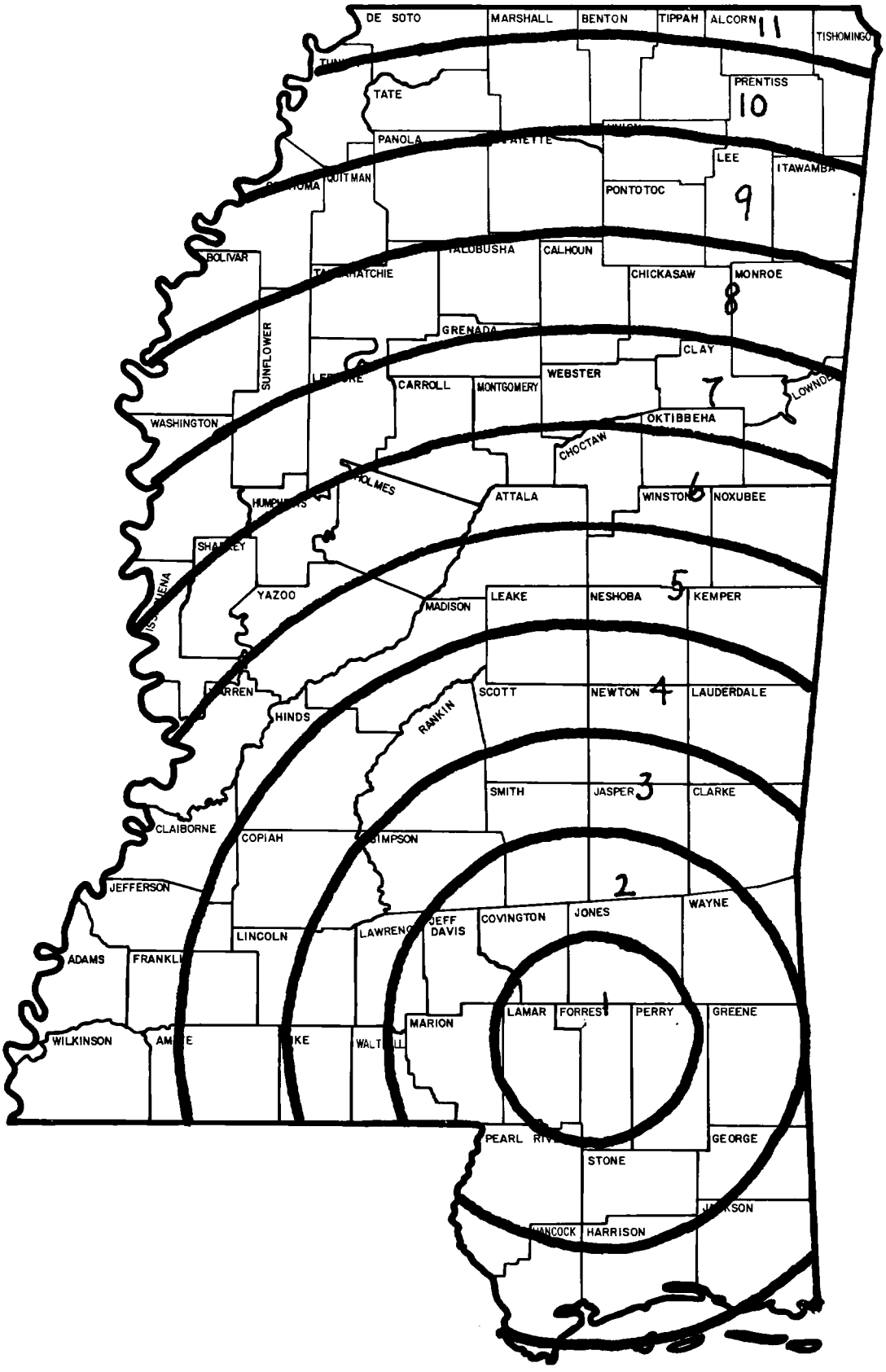
Map 3: Mississippi State University and Mileage Zones



Map 4: University of Mississippi and Mileage Zones



Map 5: University of Southern Mississippi and Mileage Zones



APPENDIX C

Table 1

Mileage Zones Per County Per School

County	School				
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Adams	7	9	8	9	5
Alcorn	6	4	4	3	11
Amite	8	9	8	10	4
Attala	4	3	3	4	5
Benton	5	5	4	2	10
Bolivar	1	6	5	4	8
Calhoun	4	3	2	2	5
Carroll	2	4	3	3	7
Chickasaw	5	2	2	2	8
Choctaw	4	2	1	3	6
Claiborne	6	8	7	8	5
Clarke	7	5	5	7	3
Clay	5	1	1	3	7
Coahoma	2	6	3	3	9
Copiah	6	7	6	6	3
Covington	7	6	6	8	2

TABLE 1--Continued

County	School				
	DS	MUW	MSU	UM	USM
De Soto	4	6	5	2	10
Forrest	8	7	6	9	1
Franklin	7	8	8	9	4
George	10-	8	7	10	3
Green	9	7	7	9	2
Grenada	3	4	3	2	7
Hancock	10	9	9	11	3
Harrison	10	9	9	11	3
Hinds	5	6	5	6	4
Holmes	3	4	4	4	6
Humphreys	2	5	5	4	6
Itawamba	6	3	3	3	9
Jackson	11	9	9	11	3
Jasper	6	5	5	7	2
Jefferson	6	8	8	8	5
Jefferson Davis	7	7	6	8	2

TABLE 1--Continued

County	School				
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Jones	7	6	6	8	2
Kemper	6	3	2	5	5
Lafayette	4	4	4	1	9
Lamar	8	7	7	9	1
Lauderdale	7	4	3	6	4
Lawrence	7	7	6	8	3
Leake	4	4	3	5	5
Lee	5	3	3	2	9
Leflore	2	5	4	3	7
Lincoln	7	8	7	8	3
Lowndes	6	1	1	4	7
Madison	4	5	4	5	5
Marion	8	7	7	9	2
Marshall	5	5	4	2	10
Monroe	6	2	2	3	8
Montgomery	3	3	2	3	6

TABLE 1--Continued

County	School				
	DS	[illegible]	MSC	UM	USM
Neshoba	5	3	3	5	5
Newton	6	4	3	6	4
Noxubee	6	2	2	5	6
Oktibbeha	5	1	1	4	6
Panola	3	5	4	1	9
Pearl River	9	8	8	10	2
Perry	9	7	7	9	1
Pike	7	8	8	9	5
Pontotoc	5	3	3	2	8
Prentiss	6	4	4	3	10
Quitman	2	5	5	2	9
Rankin	5	5	4	6	4
Scott	5	4	4	6	3
Sharkey	3	6	5	5	6
Simpson	6	6	5	7	3
Smith	6	5	5	7	2

TABLE 1--Continued

County	School				
	DS	MSCW	MSC	UM	USM
Stone	9	8	8	10	2
Sunflower	1	6	5	4	7
Tallahatchie	2	5	4	2	8
Tate	3	5	6	2	10
Tippah	5	4	4	2	10
Tishomingo	7	4	4	4	10
Tunica	3	6	5	3	10
Union	5	4	3	2	9
Walthall	8	8	8	9	2
Warren	4	7	6	7	5
Washington	2	6	5	5	7
Wayne	8	6	6	8	2
Webster	4	2	2	3	7
Wilkinson	8	10	9	10	5
Winston	5	2	2	4	5
Yalobusha	3	4	3	1	8
Yazoo	3	5	5	5	5

APPENDIX D

TABLE 1

THE ZONES AND THE PERCENT OF ENROLLMENT OF EACH COUNTY IN EACH ZONE, DELTA STATE COLLEGE

Zones										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
%	%	%	%	%	%	%	%	%	%	%
33	23	11	3	1	1	2	1	1	1	
	28	16	8	1	4	1	1			
	20	18	11	2	1	1				
	20	5	11	4	4	1				
	29	43	1	1	3	2				
	25	10	3	2	2					
	35	10	11	9	1					
		4	7	9	5					
			13	9	1					

TABLE 2

THE ZONES AND THE PERCENT OF ENROLLMENT OF EACH COUNTY IN EACH ZONE, MISSISSIPPI STATE COLLEGE FOR WOMEN

Zones										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
%	%	%	%	%	%	%	%	%	%	%
21	28	23	23	32	7	21	17	40	19	
12	26	12	16	20	19	3	18	22		
	33	11	22	24	11	10	9	1		
	22	36	25	11	18	14	18	11		
	30	31	3	20	22	7	18	12		
	18	17	18	26	14	15	14			
	25	24	20	32	14	10	16			
			29	22	12	15	11			
			36	14	15	18	18			
			24	9	33					
			19	14	14					
			24	14	5					
			20	38						
			16	28						

TABLE 3

THE ZONES AND THE PERCENT OF ENROLLMENT OF
EACH COUNTY IN EACH ZONE
MISSISSIPPI STATE UNIVERSITY

Zones										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
%	%	%	%	%	%	%	%	%	%	%
66	42	44	35	10	32	38	21	19		
44	50	32	47	36	16	27	29	22		
	49	34	38	22	9	18	30	26		
	46	50	1	26	25	13	28	26		
	42	38	32	29	32	33	18			
	37	35	27	27	21	22	20			
	48	36	16	35	18	15	21			
	44	55	23	20	33		28			
	45	37	32	29	27					
		31	40	31						
		24	48	34						
		23	32	29						
			34	25						
			35	26						
				35						

TABLE 4

THE ZONES AND THE PERCENT OF ENROLLMENT OF
EACH COUNTY IN EACH ZONE
UNIVERSITY OF MISSISSIPPI

Zones										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
%	%	%	%	%	%	%	%	%	%	%
49	21	36	20	11	29	25	23	14	10	19
50	36	25	11	22	30	19	26	5	9	19
	19	5	18	19	18	29	11	32	18	14
	43	10	24	17	21	19	31	15	34	
	29	26	6	17	19	30	12	10	10	
	25	32	1	14			18	23		
	47	27	20	18			15	3		
	43	20	37	22			23	27		
	34	22	15				19	16		
	27	23								
	42	25								
	37	24								
	46									

TABLE 5

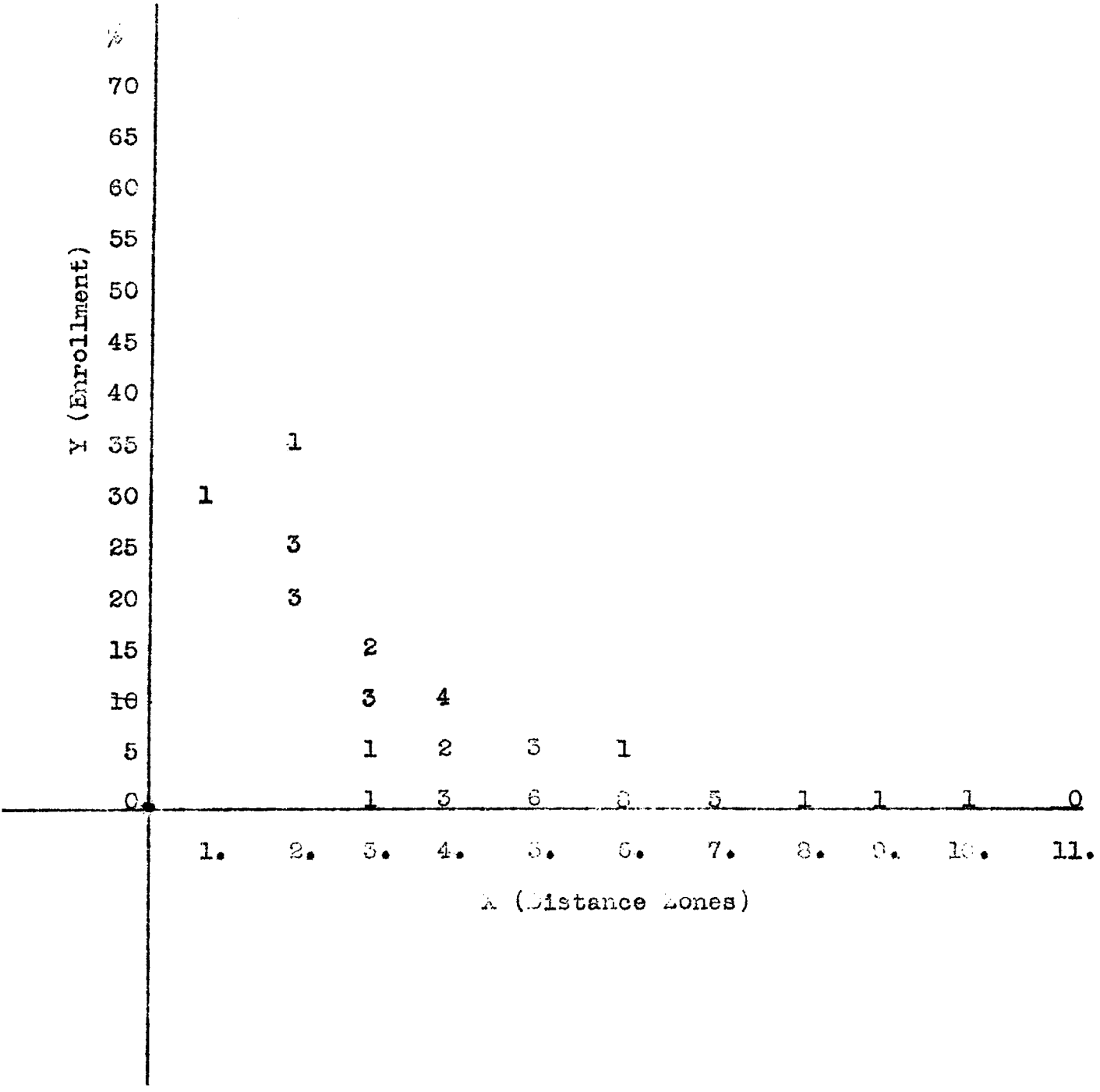
THE ZONES AND THE PERCENT OF ENROLLMENT OF
EACH COUNTY IN EACH ZONE
UNIVERSITY OF SOUTHERN MISSISSIPPI

Zones										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
%	%	%	%	%	%	%	%	%	%	%
68	60	18	39	23	9	5	1	5	4	0
65	56	21	20	10	20	2	2	4	2	
	35	56	20	17	3	4	2	6	4	
	47	61	14	36	1	2	3	1	7	
	35	47	16	7	16	2	1	3		
	45	47	28	20	4	3	2	1		
	50	50		17	1	7	1			
	32	24		11						
	34	36		12						
	38	18		44						
	49	27		6						
				11						

APPENDIX E

SCATTEGRAM 1

THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT BY DISTANCE ZONES, DELTA STATE COLLEGE



SCATTERGRAM 2

THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT

BY DISTANCE ZONES, MISSISSIPPI STATE COLLEGE FOR WOMEN

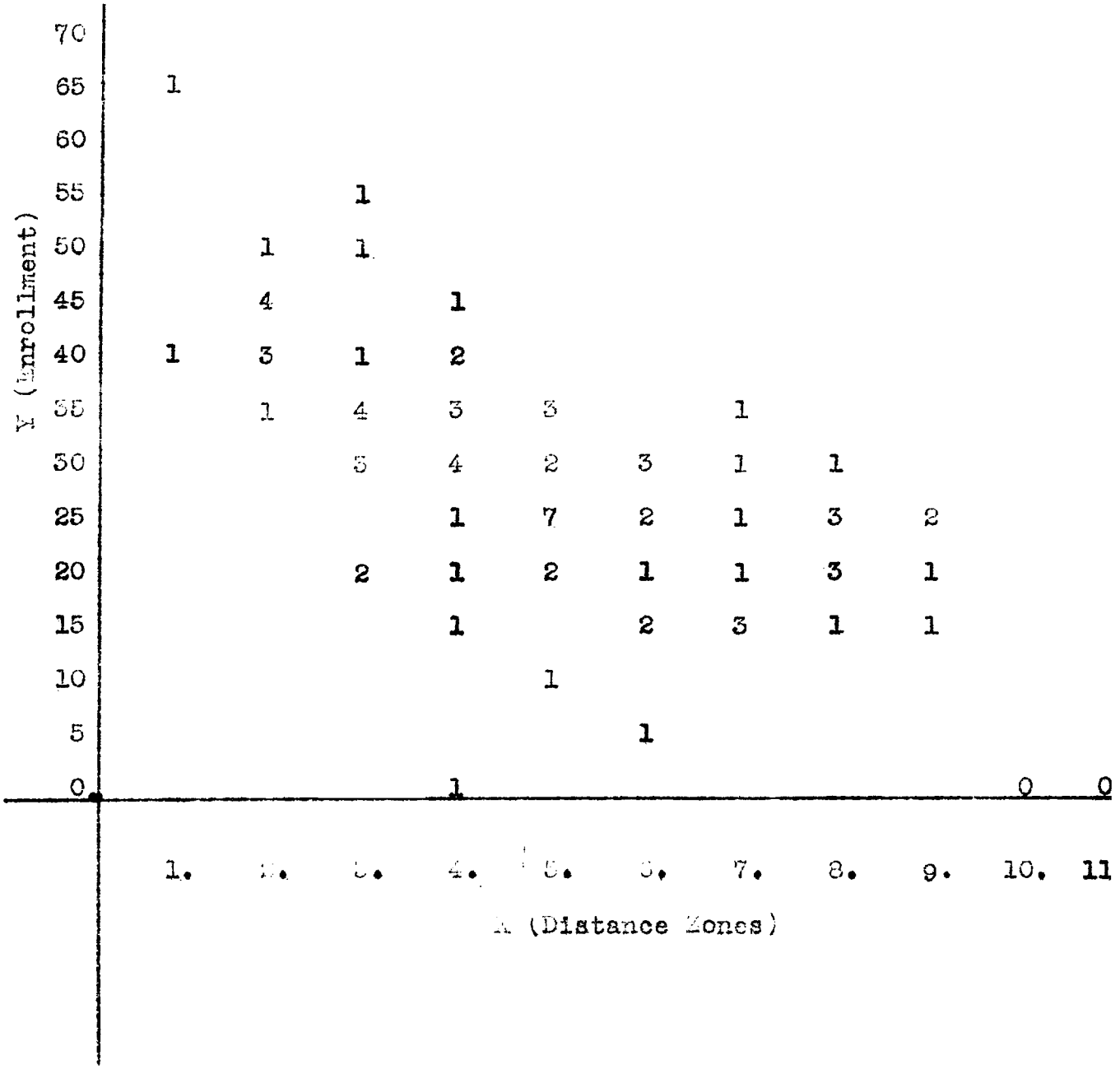
Y (Enrollment) %	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
70											
65											
60											
55											
50											
45											
40									1		
35				1	1						
30		1			2	1					
25		4	2	2	2						
20	1	1		6	4	1	1		1		
15		1	2	4		3	3	6		1	
10	1		1		4	5	3	2	2		
5			2		1	2	1	1			
0				1			1		1		0

X (Distance Zones)

SCATTERGRAM 3

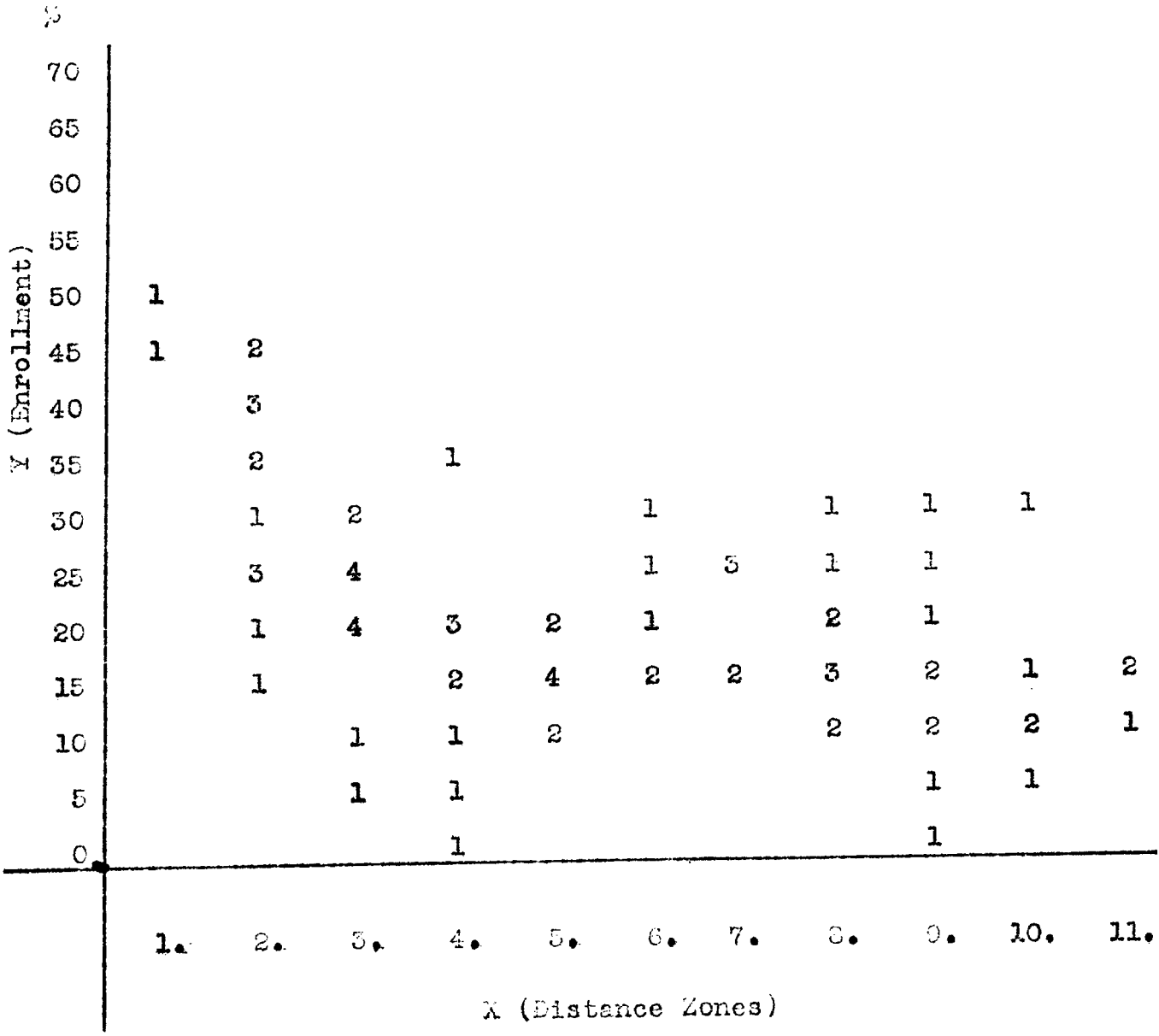
THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT

BY DISTANCE ZONES, MISSISSIPPI STATE UNIVERSITY



SCATTERGRAM 4

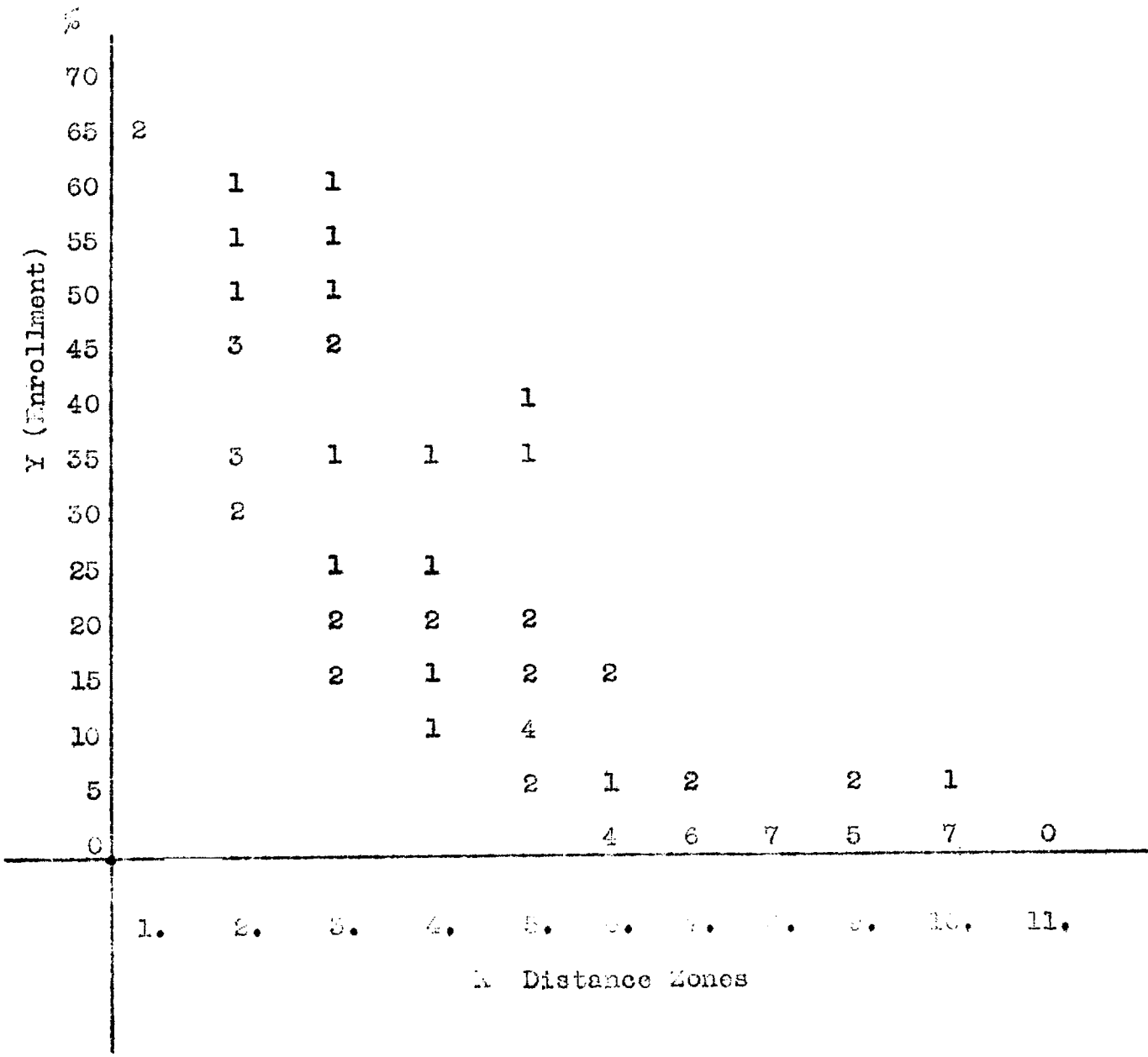
THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT BY DISTANCE ZONES, UNIVERSITY OF MISSISSIPPI



SCATTERGRAM 5

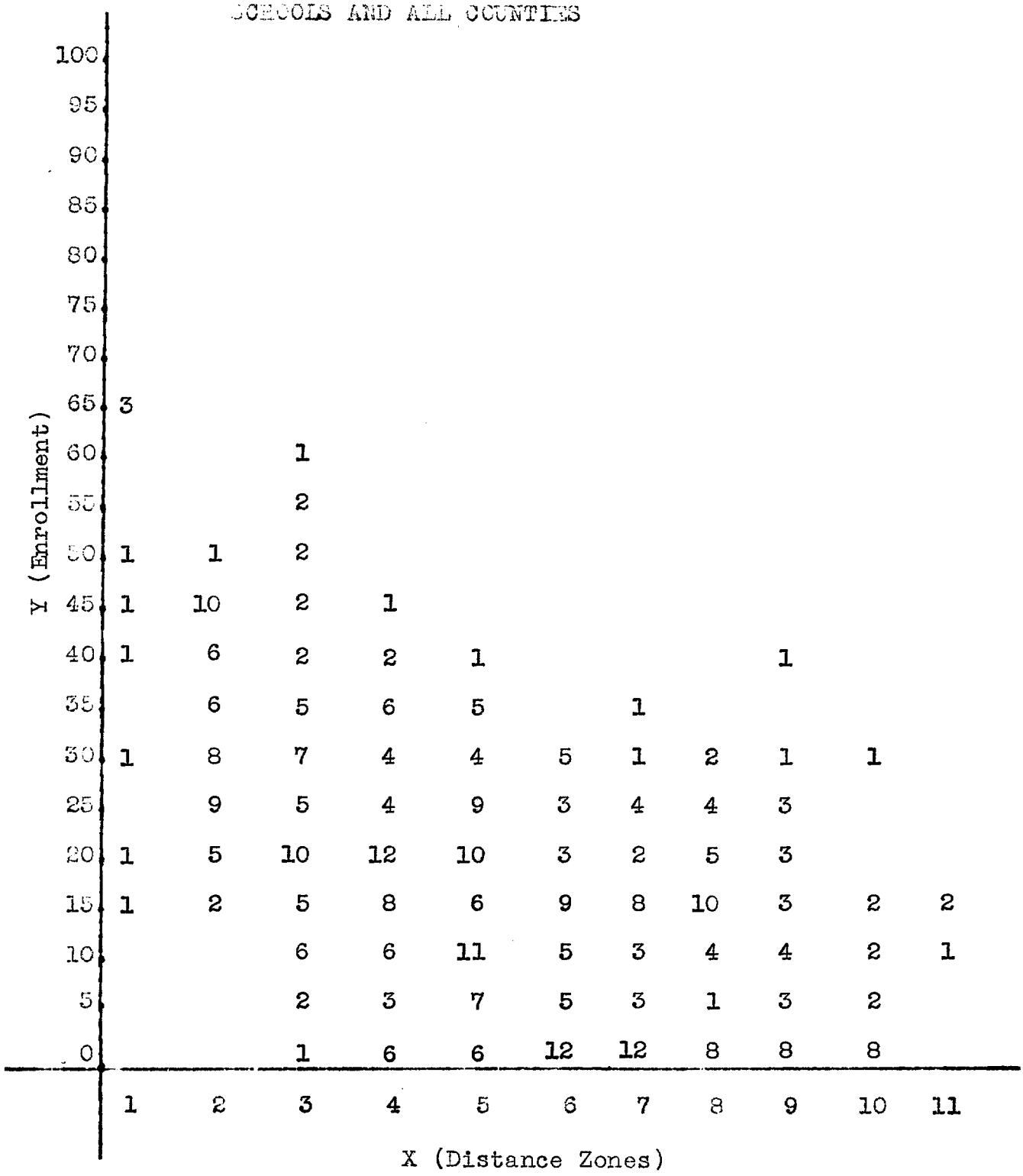
THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT

BY DISTANCE ZONES, UNIVERSITY OF SOUTHERN MISSISSIPPI



SCATTEGRAM 6

THE NUMBER OF COUNTIES OF PERCENT ENROLLMENT BY DISTANCE ZONES, MISSISSIPPI COMPOSITE, SCHOOLS AND ALL COUNTIES



APPENDIX F

FIGURE 1

[illegible] CURVE

X	Y	log Y	Δ log Y
1	9.3	.9685	
2	7.1	.8513	.1172
3	5.7	.7597	.0916
4	4.3	.6335	.1262
5	4.0	.6021	.0314
6	2.3	.4024	.1997
7	2.7	.4314	.0310
8	3.2	.5052	.0738
9	2.8	.4472	.0580
10	1.7	.2304	.2168

The data presented in Appendix F may be of particular interest because of the inclusion of Division II as a biasing factor. The best fitting curve is not a very close fit.

FIGURE 2

COMPUTATION FOR THE VALUES

OF a AND b IN THE [illegible] CURVE

[illegible]

Distance X	% Enrolling Y	log Y	X^2	X log Y
1	46	1.6628	1	1.6628
2	35	1.5441	4	3.0882
3	29	1.4624	9	4.3872
4	22	1.3424	16	5.3696
5	20	1.3010	25	6.5050
6	14	1.1461	36	6.8766
7	13	1.1139	49	7.7973
8	16	1.2041	64	9.6328
9	14	1.1461	81	10.3149
10	9	.9542	100	9.5420
11	16	1.2041	121	13.2451
Total 66		14.0918	506	78.4215

FIGURE 2--Continued

$$Na + b\Sigma X = \Sigma(\log Y)$$
$$a\Sigma X + b\Sigma X^2 = \Sigma(X \log Y)$$

$$11a + 66b = 14.0612$$
$$66a + 506b = 78.4215$$

$$-66a - 506b = -84.4872$$
$$66a + 506b = 78.4215$$

$$506b - 506b = 78.4215 - 84.4872$$
$$110b = -6.0657$$
$$b = -.0551$$

$$11a + 66(-.0551) = 14.0612$$
$$11a = 14.0612 - 66(-.0551)$$
$$11a = 14.0612 + 3.6366$$
$$11a = 17.6978$$
$$a = 1.6107$$

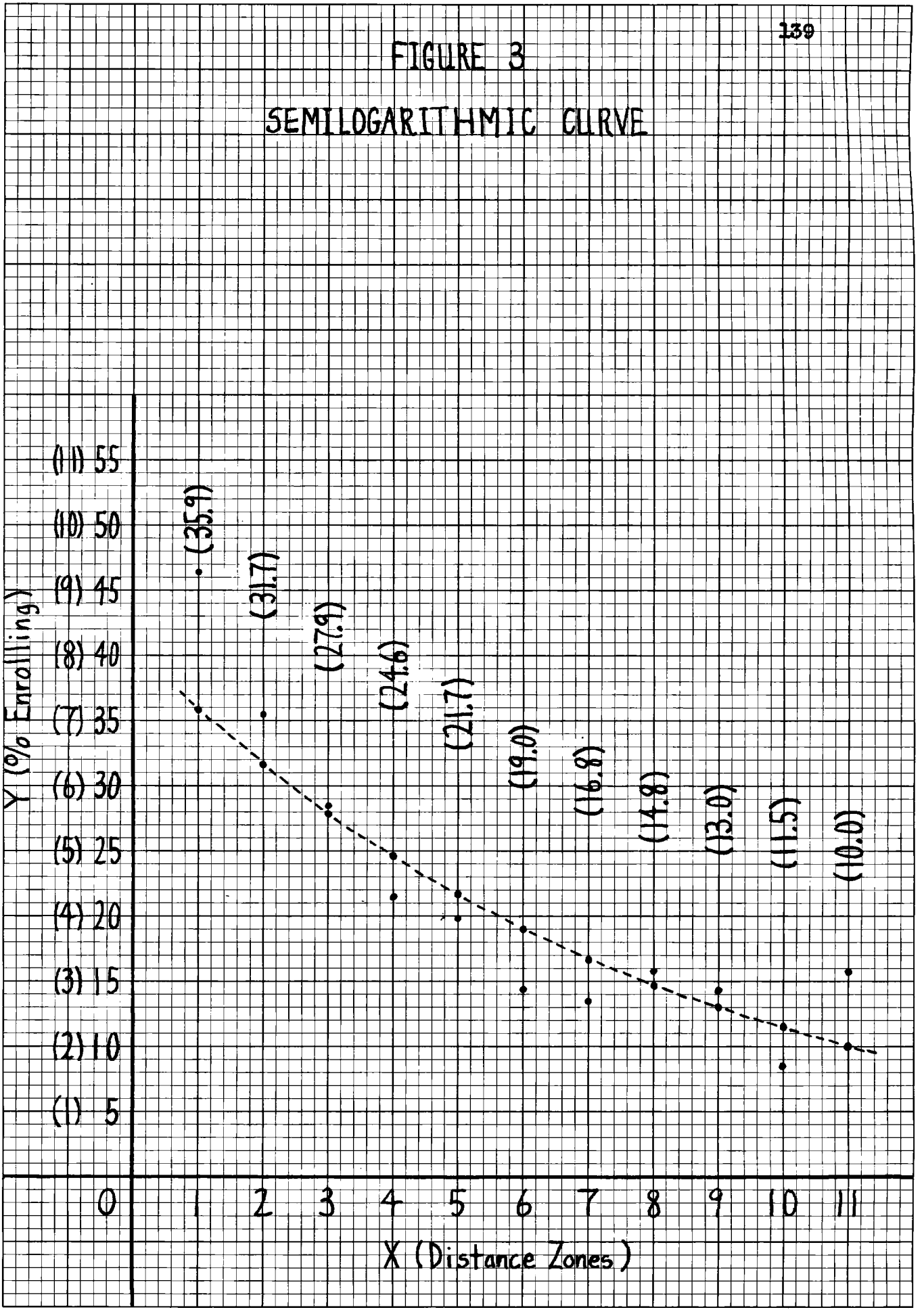
Thus $a = 1.6107$
$b = -.0551$

Type equation for this semilogrithmic curve:

$\log Y = a + bX$
$\log Y = 1.6107 + (-.0551) X$

FIGURE 3

SEMILOGARITHMIC CURVE



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