

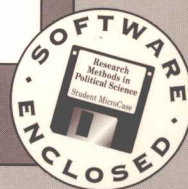
Research Methods *in* Political Science

—◆—
An Introduction Using MicroCase®
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SECOND EDITION

by Michael Corbett

FOR IBM PERSONAL COMPUTERS AND COMPATIBLES



MicroCase Corporation



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Research Methods *in* Political Science

An Introduction Using MicroCase®

SECOND EDITION

Michael Corbett
BALL STATE UNIVERSITY

藏书章

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**As always, I dedicate my work to my
absolutely wonderful wife,**

Julia Mitchell Corbett

ABOUT THE AUTHOR

Michael Corbett received his Ph.D. from the University of Iowa. He is now professor of political science at Ball State University, where he teaches courses covering an introduction to political science, research methods in political science, and public opinion. He is the author of numerous scholarly articles and of two books: *Political Tolerance in America: Freedom and Equality in Public Attitudes* (New York: Longman, 1982) and *American Public Opinion: Trends, Processes, and Patterns* (New York: Longman, 1991).

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I must also acknowledge the sources of the data files used here. First, the NORC94 data file is based on selected variables from the National Opinion Research Center (University of Chicago) General Social Survey for 1994. The principal investigators are James A. Davis and Tom W. Smith. Second, the data in the HOUSE file (and the data for creation of the U.S. senators file) are from a variety of sources, including newspapers, magazines, and official government documents. The voting information was obtained from *Insight* magazine. Third, the data in the WORLD file are from a number of sources: the *World Christian Encyclopedia*, *The New Book of World Rankings*, the *World Population Data Sheet*, the *Statistical Abstract of the United States*, *The World Fact Book*, the *World Almanac and Book of Facts*, and the World Bank. Fourth, the data in the STATES file are from a variety of sources: the U.S. Census, the *Statistical Abstract of the United States*, *USA Today*, the *Uniform Crime Report*, the *State Policy Reference*, Barry A. Kosmin's *Research Report: The National Survey of Religious Identifications*, the Election Research Center, the Bureau of Labor Statistics, *Churches and Church Membership in the United States*, *State Rankings*, and the *World Almanac*. See Appendix B for further information about data sources.

CONTENTS

Disclaimer of Warranty	viii
Acknowledgments	ix

Introduction.....	1
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Chapters

CHAPTER 1	A Brief Overview of Research Methods in Political Science.....	5
CHAPTER 2	Measurement I: The Basic Ideas	23
CHAPTER 3	Measurement II: Types of Data	35
CHAPTER 4	Variables, Variation, and Explanation	45
CHAPTER 5	Hypotheses	63
CHAPTER 6	Sampling.....	75
CHAPTER 7	Data Preparation and Entry	91
CHAPTER 8	Descriptive Statistics	103
CHAPTER 9	How to Read a Contingency Table.....	117
CHAPTER 10	Tests of Statistical Significance and Measures of Association.....	135
CHAPTER 11	Contingency Tables and Statistics: Controlling for a Third Variable	153
CHAPTER 12	Correlation and Regression	171
CHAPTER 13	The Overall Process	193
APPENDIX A	Independent Projects.....	211
	HOUSE Data File	212
	NORC94 Data File	212
	STATES Data File.....	213
	WORLD Data File.....	213

(continued)

APPENDIX B	Codebooks	215
	Short Label: HOUSE.....	215
	Short Label: NORC94	215
	Short Label: STATES	216
	Short Label: WORLD	216
	Long Label: HOUSE.....	217
	Long Label: NORC94	220
	Long Label: STATES	225
	Long Label: WORLD	228
	Sources of Data	231
 APPENDIX C	 Senators Data, 1995	 233
	Descriptions of First Set: Background Variables	233
	Descriptions of Second Set: Votes on Issues in the Senate	234
	First Set of Variables	235
	Second Set of Variables	237
	 Glossary.....	 241
	 License Agreement.....	 246

Introduction

Welcome to the real world of political science research. There is nothing make-believe about what you will be doing with this Student Version of MicroCase. All of the data are real. In fact, they are some of the best data available to professional researchers, and you will be using some of the same research techniques they employ.

The software is so easy to use that you will learn it without study—just start with the first exercise and follow along. Despite being easy, this software is not a toy. Its computational heart is the same as that of the full MicroCase Analysis System.

◆ GETTING STARTED ◆

WHAT KIND OF COMPUTER DO YOU NEED TO USE?

This student version of MicroCase requires an IBM PC or fully compatible computer with a VGA or SVGA graphics card (preferably with color) and 640K of memory. Also, the computer must have a 1.44-MB (high-density) 3½" disk drive.

HOW TO START MICROCASE

- Place the diskette in the A or the B drive.
- Switch to the drive (A or B) that has the diskette in it. (**Important:** The program may not run properly unless you start it from the drive (A or B) that has the disk in it.)
- When the DOS prompt (i.e., A:\> or B:\>) for that drive is on the screen, *type MC and press <ENTER>*.
- It will take between 20 seconds and a minute for the program to load, depending on the speed of your computer. When the program has loaded, the title screen will appear.
- The first time you use MicroCase, it will ask for your name. It is important to enter your name (first and last) correctly because it will appear on all material (e.g., tables or bar graphs) printed from MicroCase. After you *type* your name and *press <ENTER>*, the program will ask whether your name has been entered correctly. *Make sure your name is correct—you cannot change it later.* If your name is correct, *press <ENTER>*. If it is not correct, *type Y for Yes* to indicate that you do want to change the name.
- Next, the title screen will appear. Note that your name is included on this screen: "This copy belongs to [your name]."
- After you have read the title screen, *press <ENTER>* to begin.

MICROCASE MENUS

MicroCase works from two primary menus. If you are using a color monitor, the first menu is blue and the second is red. After you have started MicroCase and pressed <ENTER> to go past the title screen, the first menu will appear on the screen. This is the **DATA AND FILE MANAGEMENT MENU**, and it looks like this:

DATA AND FILE MANAGEMENT	
S. Switch To STATISTICAL ANALYSIS MENU	
DATA MANAGEMENT:	
A. Define Variables/Recodes	E. Codebook
B. Collapse/Strip Variables	F. Edit Variable Information
C. Enter Data from Keyboard	G. Grading Recode
D. List or Print Variable Values	H. Setup Data Entry
FILE MANAGEMENT:	
* I. Open, Look, Erase or Copy File	M. Move Data between Files
* J. Create New Data File	N. Merge Files
K. Create Subset File	O. Create Aggregation File
L. Import/Export Data	P. Create Statistical Summary
*X. EXIT from MicroCase	

Note that there are asterisks to the left of certain tasks and that the names of these tasks are in a different color from the others. These tasks are available to you in your Student Version of MicroCase. Initially—before you open a data file—only two tasks can be used, but other tasks will be available after you have opened a data file. Further, the availability of some tasks depends on which specific data file is open.

You can select a task in either of two ways:

- Move the **up** and **down arrow** keys to highlight the task you want and then *press* <ENTER>.
- *Type* the letter next to the task. For example, to open a file, you simply *press* **I**.

In order to perform most of the tasks in MicroCase, you must first open a data file. So *press* **I** for the task **Open, Look, Erase or Copy File**.

The screen now displays the four data files available to you: **HOUSE**, **NORC94**, **STATES**, and **WORLD**. *To open a file, place the highlight over its name and press* <ENTER>. You move the highlight by using the arrow keys.

Open the **NORC94** data file; highlight **NORC94** and *press* <ENTER>. Now the screen gives you information about the data file you opened, including the name of the file, a short description of the file, the number of variables in the file, and other information. After you have looked at this information, *press* <ENTER> again.

Now you are back to the **DATA AND FILE MANAGEMENT** menu. Note that the name of the open file is listed in the lower right corner and that other tasks are now available.

Note also that the highlight is at the top of the screen, on **S. Switch To STATISTICAL ANALYSIS MENU**. Switch to the statistical analysis menu; simply *press* <ENTER>, because the highlight is already on this task. You move from one menu to the other by placing the highlight on the **Switch To** line and *pressing* <ENTER> or by just typing **S** for **Switch**.

Now you are in the **STATISTICAL ANALYSIS** menu, which looks like the accompanying illustration. In your Student Version of MicroCase, you can use the statistical techniques that are marked with an asterisk. However, the techniques that are marked depend partly on which data file is opened. Here, for example, the **E. Mapping Variables** option is not marked, but it will be marked when you open the **STATES** data file.

STATISTICAL ANALYSIS	
* S. Switch To DATA AND FILE MANAGEMENT MENU	
BASIC STATISTICAL ANALYSIS:	
*A. Univariate Statistics	*F. Scatterplots
*B. Tabular Statistics	*G. Correlation
C. Analysis of Variance	H. Partial Correlation
D. Covariance Analysis	*I. Regression
E. Mapping Variables	
ADVANCED STATISTICAL ANALYSIS:	
J. Regression Models	L. Factor Analysis
K. Curve Fitting	M. Logistic Regression
	N. Time Series
Q. Interactive Batch	
*X. EXIT from MicroCase	
OPEN FILE: NORC94	

Note that on both menus, you can exit from MicroCase simply by typing **X** or by highlighting the **EXIT** option and pressing <ENTER>. *Always exit properly from MicroCase.*

These instructions may seem a bit abstract at this point, but do not worry about that. After you have begun the exercises, you will find MicroCase very easy to use.

◆ CHAPTER 1 ◆

A Brief Overview of Research Methods in Political Science

INTRODUCTION

To give you an overview of things to come, this chapter provides the following:

- An explanation of the goals of the book
- A description of the organization of the book
- A brief overview of the overall research process in political science
- An introduction to the use of the MicroCase software

GOALS OF THE BOOK

This book will describe and explain the basic features of the research process in political science. These features will also be demonstrated through the MicroCase Analysis System. After you have completed this book, you will be able to do the following:

- Define and explain the core concepts used in the discussion of research methods in political science
- Explain the basic strategy and stages—from the beginning stage to the ending stage—of political science research
- Use the MicroCase system for data entry and statistical analysis

ORGANIZATION OF THE BOOK

This first chapter gives an overview of the research process in political science. Each of the subsequent chapters covers certain aspects of the research process in political science: measurement, sampling, data preparation, variables, hypotheses, and so on. The final chapter puts the pieces back together into an integrated whole.

Each chapter has two major parts. The first part discusses and explains the topic of the chapter. The second part provides a set of step-by-step computer exercises that demonstrate the topic of the chapter; for this part, you will go to a computer and follow the directions included in the exercise. As you go through the exercises, you will respond to the questions on the worksheets.

THE OVERALL POLITICAL RESEARCH PROCESS

As a political science student, you need to understand the basic processes of political research. You need to be able to evaluate the research done by others, and you need to be able to carry out your own research. Sometimes students say, "I'm not really interested in the research aspects of political science; I'm more interested in analyzing political issues." Even for these students, however, it is important to understand research methods and to be able to evaluate the research of other people. The discussion of political issues often involves assumptions or questions that could be investigated empirically.

For example, there are often discussions of the effects of providing economic assistance to the poor. Such discussions generate a great deal of heat, because different people bring different values and different assumptions about reality to the discussion. What kinds of people are most likely to receive assistance? How long do people usually rely on assistance? Does assistance produce a group of people who become dependent on it and cannot help themselves? Does assistance usually provide temporary help for people who then get back on their feet economically? What kinds of psychological effects does assistance have on the people who receive it? Many of these questions about reality could be assessed through research or through analysis of research findings that already exist.

Further, continuing this particular example, we might be interested in the kinds of people who hold different views concerning assistance to the poor. Some people, for example, take a very negative view of those who receive economic assistance; others take a more positive view. What accounts for the difference between these views? How are these attitudes concerning public assistance to the poor related to other political and social attitudes that people hold?

Taking this example still further, we might get into comparative analysis (for different political units such as cities, states, or nations) or into the effects of public assistance on the overall political system. In the U.S., for example, what differences are there from one state to another in terms of public assistance policies? What effects do these policies have? Does spending on public assistance help or hurt the economy of a state? How is spending on public assistance related to such matters as the crime rate or the education level in the state? We could also ask these *types* of questions about nations, since there are great variations among the countries of the world in terms of assistance to the poor.

Many political controversies involve questions of how political reality operates; these questions can be investigated through political research. However, you need to be able to evaluate whether the research has been done properly, and whether its conclusions are justified, on the basis of the research.

As students of politics, we attempt to develop descriptions and explanations of aspects of political reality. Different political scientists have different views on the best way to define politics; they also have different views on which particular aspects of politics are the most important to study. Nevertheless, our overall goal is to describe and explain political reality, no matter how we may define the term. This leads to research on many questions related to politics at various levels and in various types of situations. The following questions provide a very small sample of the types of questions that have been investigated by political scientists:

- What kinds of people are most likely to become fascists?
- Which city government structure is the most efficient in achieving its goals?
- In which economic situations within nations is rebellion most likely to occur?
- What effects does educational level have on people's political views?
- How do people's religious beliefs affect their political beliefs? How, for example, are their religious beliefs related to their attitudes toward war? Or abortion? Or welfare?

We can all come up with our own *opinions* on such matters, but the scientific approach in political science requires that we go beyond this. Our goal is to develop explanations of political reality that can be verified by other researchers who employ the scientific approach.

There are various approaches within political science, but the scientific process has a general overall strategy. We will briefly review the typical stages of doing research in political science. Note, however, that in reality the order in which these stages occur is not necessarily the order in

which they are presented below. For example, in the stages below, the researcher develops the hypotheses first and then collects the necessary data to test those hypotheses. However, in reality a political scientist might already have access to important data and then develop hypotheses that could be tested using those data.

Stage 1: Formulating the Research Idea

The first stage in the research process is to develop the research idea. Research ideas can come from various sources. They might be based on the interests of the researcher—for example, a person might be very interested in political tolerance and decide to investigate the sources of tolerance or intolerance. The research idea might originate in questions raised by others (e.g., students or professional colleagues). The researcher might be working on one idea and come across materials that lead to the development of another idea.

The researcher might start out with a specific hypothesis or set of hypotheses. Conversely, the researcher might start with a fairly broad research idea (e.g., the question of the extent to which people's political attitudes are linked to their personality traits) and then narrow this idea down to a set of specific hypotheses as the research process unfolds.

Stage 2: The Literature Review

The next stage is to find out what research has already been done in this area. It might be that someone else has already done the research you want to do. It might be that someone has done research that has important implications for the research you want to do. At any rate, the political researcher must find out what has already been done and what needs to be done in this particular area. In conducting the literature review, the political researcher will primarily examine the books and the professional journals in this area.

Stage 3: Formulating the Hypothesis

At some point, the researcher formulates a specific hypothesis or set of hypotheses. The hypothesis should grow out of a theoretical framework—an explanation of the aspects of political reality being investigated. A researcher starts, for example, with a theory to explain how and why certain personality traits affect political attitudes. The researcher then develops one or more hypotheses in order to test the theory. Since a hypothesis is a prediction based on the theory, the test of the hypothesis has implications for the validity of the theory.

Stage 4: Defining the Concepts

We need to measure the concepts we are dealing with. Before the measurement process begins, however, it is important that we have a clear idea of exactly what these concepts are. For example, if we are going to do research on political tolerance, we need to start with a clear notion of what we mean by political tolerance. Thus, we need to formulate clear definitions of our concepts early in the research process. A *conceptual* (or *nominal*) *definition* is a statement of the meaning of a concept.

Stage 5: Operationalizing the Concepts

If we want to use a concept in scientific research, we need a way to measure the concept. An *operational definition* is a specification of the steps by which a concept is measured. For example, how would you go about measuring the concept of political tolerance? You would probably develop a series of questions to ask people. In this case, the operational definition of political tolerance would consist of the specific set of questions and the procedures for developing an actual measurement of political tolerance.

An operational definition must be so specific and complete that someone else could use your operational definition and obtain the same results that you did. It is important in scientific research that the procedures we use be made explicit so that others can replicate our research. Thus, we need to be clear about how we define concepts, how we measure concepts, how we analyze data, and so on.

Stage 6: Measuring the Data

At this point, the actual measurement process is carried out. If we are collecting new data, this process begins with data collection. We might collect data through surveys, from public records (such as the voting records of public officials), from aggregate data sources (such as the United States Census), through experiments, or through other methods.

Sometimes the data already exist. We might, for example, use data that were collected by an organization (the Census Bureau, a survey organization, the *Congressional Record* staff, and so on) to be used for various purposes. However, even in this situation, we are still involved in measurement, since the measurement process also includes alterations in existing data. For example, in the **NORC94** data file you will be using for the exercises, there are several questions that might be used to measure racism. Instead of using these questions individually, a researcher might develop a composite measure of racism based on a combination of several questions.

Stage 7: Statistical Analysis

After the data have been collected, the researcher must select the appropriate statistical techniques to test the hypotheses. There are many different methods of statistical analysis; some are more useful in a particular situation than others. To a very great extent—as you will see—we select the statistical technique on the basis of the characteristics of the data we are using.

Stage 8: Drawing Conclusions

After the statistical analysis, the researcher draws conclusions about the theoretical meaning of the results. Do the results support the theory with which the researcher started? How has the research contributed to what was already known in this particular area? Do the results suggest that further research is needed? Have new questions been raised by the research?

Stage 9: Writing the Research Report

After the study is finished, the researcher writes a report on it. The nature of the report can vary, depending on the audience for which it is intended. Essentially, however, it includes information describing the stages of this particular research: the background of the research question, the literature review, the operational definitions, the data collection procedures, the statistical results, and the conclusions.

