

## Chapter 1

### Introduction

Over the past twenty-odd years, China's statistical authorities have released a substantial volume of county-level data for the reform era (beginning in 1979). Provincial yearbooks, which became widely available in the mid 1980s, typically contain convenient compilations of county-level statistics for entire provinces. National compendia [中国分县农村经济统计概要, 全国地市县财政统计资料, and others] collect such statistics for the entire country—as do publications pertaining to the national censuses.

County-level data are also available for the pre-reform era (1949–78), but the bulk of these data are less accessible and less “user-friendly” than those for more recent years. Pre-reform data present several difficulties.

- While compendia of such data exist, most are not well-known or widely held. There is no *Fujian Statistical Yearbook* for, say, 1977; data for that year are collected in internal documents, such as the annual agricultural report [福建省农业生产统计资料 1977年].
- While gazetteers [县志, 市志, 区志, 地区志] provide a wealth of data, they must be assembled county by county. Assembling these data is a time-consuming and frustrating process, in view of the inevitable inconsistencies in coverage and definition, among multiple sources produced by different sets of authors and editors.
- Relevant pre-reform data that appear in recent yearbooks, monographs, and other sources are, in many cases, fragmentary and poorly identified as to definition, coverage and, especially, price basis. Yearbooks, for example, sometimes fail to specify whether a value is given in current yuan or constant yuan—and if the latter, whether constant yuan of 1957 or 1970.

- County boundaries changed frequently during the pre-reform era (and, less frequently, during the reform era as well); in a number of cases, entire counties were abolished or created. Boundary changes introduce discontinuities into county-level time series, especially when series are assembled from sources of different vintages. Data compiled in, say, 1955 will reference counties that have long since ceased to exist, or counties whose territories are considerably different today as compared to what they were in 1955. In the case of Fujian, for example, Ningyang and Shuiji counties are long gone, and Fuzhou has grown to four times its earlier area.

This book and CD are products of an ongoing effort to facilitate study of economic development in a single province, using subprovincial data and reaching back into the pre-reform era. The book and CD provide county-level maps of Fujian province for every year of the pre-reform era (1949 through 1978) and beyond (to 1999). Each of these maps shows county boundaries and the locations of county seats. Annual descriptive tables associated with the maps show each county's name and type [县, 市, or set of 区, as explained in Chapter 2], and the prefecture to which each belongs. The book and CD also present county-level population data for 1948 and 1950–85, most of which are drawn from a provincial compendium of population statistics. These data represent only a small beginning: As noted earlier, additional data can be found in yearbooks, prefectural and county gazetteers, and local histories—but most of these data have not yet been assembled, organized, and digitized.

Subsequent chapters explain how the maps were produced and provide full documentation as to sources, describe the population data and their organization into spreadsheets, investigate the quality of the population data, and explain how to attach data to maps in order to display spatial patterns in a given year or changes in spatial patterns over time.

The material on the CD consists primarily of the maps and statistical data themselves—in addition to the text of this book. The CD is divided into several directories (or folders), as described in Table 1.1.

- *CtyMap* contains the digital map objects and associated descriptive tables, in formats that can be readily imported into desktop-mapping and GIS packages; these formats are MapInfo Interchange Format (.mif and .mid files) and Microsoft Excel (.xls files). *CtyMapMI* contains map objects that are identical in substance to those of *CtyMap*, and tables that are nearly so—but in MapInfo native format. (Chapter 3 describes the difference between the two versions.)
- *SupMap* contains additional map objects that represent Jinmen and Mazu (which are not controlled by the PRC), a number of small offshore islands, and other entities not shown in the map objects of *CtyMap*. *SupMapMI* is identical in substance to *SupMap*, differing only in format (MapInfo native, rather than MIF).

Table 1.1 — Organization of Material on the CD

Directory	Content and Format
CtyMap	digital maps of county boundaries and seats of government, and essential identifying information for these map objects; Excel and MIF (MapInfo interchange) formats
CtyMapMI	same as CtyMap, but without Chinese characters; MapInfo native format
SupMap	supplementary map objects, useful mainly for enhancing the appearance of maps produced from CtyMap; MIF format
SupMapMI	same as SupMap; MapInfo native format
Data	county-level population data, 1948 and 1950–85, and supplementary provincial data, 1949–88; Excel format
Text	a book describing the digital maps and data, explaining how the maps were produced, and explaining how to attach data to maps, in PDF format; one spreadsheet, in Excel format

- *Data* contains county-level population data, in Excel files. Virtually any spreadsheet, graphing, or statistical package will open these files, permitting examination of the data and analysis thereof. Readers using a desktop-mapping or GIS package will be able to attach the data to county-level maps, for examination of spatial patterns and changes in these patterns over time.
- *Text* contains the text of this book and a supplementary spreadsheet. The main text, including appendices, is supplied as a single PDF file. Nine maps are supplied as separate PDFs. Appendix 1 includes, in addition, one Excel spreadsheet; the text of Appendix 1 explains why the spreadsheet is included and how to use it.

Most of the subsequent text is organized around the directory structure shown in Table 1.1. Chapter 2 provides a brief introduction to the administrative structure of Fujian and to the terminology and conventions used in subsequent chapters. Chapter 3 then explains the map objects and descriptive tables in the *CtyMap* (or *CtyMapMI*) directory and shows how to assemble a map, for any year 1949–99, from these materials. Chapter 3 also explains how to enhance the appearance of such a map, using *SupMap* (or *SupMapMI*) objects. Chapter 4 explains how the objects in *CtyMap* were produced. Chapters 5 and 6 explain the population data (variable definitions, coverage, and so on), describe the spreadsheets that contain these data, and show how to attach them to maps.

As noted earlier, the text and nine sample maps are supplied as separate files (ten in all). The text incorporates links to all of the maps. While reading the text in Adobe Reader, open and view a map by clicking on any reference to that map. For example, to view the first map in Chapter 2, link on any occurrence of “Map 2.1.” The map will open in a new window. To print the entire book, including the maps, print all ten files.

### Relation to *Townships in Fujian* and *Economic Geography of Fujian*

In an earlier work, *Townships in Fujian, 1997–2003: Digital Maps and Data*, and in two supplements to that work, I presented a database called *Towns*, which supports construction of township-level maps for the years 1992–2006. Readers familiar with the *Towns* database will find that *CtyMap* is very similar in structure. In fact, the county maps for 1992 through 1999 were derived from corresponding maps in the township project. (*CtyMap* corrects a small error in *Towns* that affects the boundary between Zhangzhou and Longhai.)

In another work, *The Economic Geography of Fujian: A Sourcebook*, I presented digital county-level maps for 1978–95. The 1978–95 maps in the current work are much improved, in two respects.

- The base map used for this volume is of larger scale, and the digital maps are of considerably greater precision.
- The digital maps in this volume incorporate boundary changes that the earlier work did not.

*Economic Geography* also included map layers representing rivers, railroads and major roads. These older layers do not register precisely with the boundaries in the current work, due to the higher quality of the latter. Nevertheless, the old layers can be used with the new boundaries, when precise registration is not important—as in small-scale printed maps, where the discrepancies are likely to be unnoticeable.

*Economic Geography* provides a large collection of county-level data for the years 1978–95, in Lotus spreadsheets. All of these data, and county-level data from other sources, can be used with the new maps, as explained in Appendix 7.

### A Note on Sources and References

Subsequent chapters and appendices cite a large number of gazetteers, as well as maps and other sources. References in the main text, appendices, and tables typically give only titles (sometimes shortened). A comprehensive list of references at the end of the volume provides full citations.