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History of *Historical Statistics* of the United States

Carmel Ullman Chiswick

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Carmel Ullman Chiswick

University of Illinois at Chicago and IZA Bonn

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IZA

P.O. Box 7240 D-53072 Bonn Germany

Tel.: +49-228-3894-0 Fax: +49-228-3894-210 Email: iza@iza.org

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ABSTRACT

History of Historical Statistics of the United States

Historical Statistics of the United States is the premier source of quantitative evidence on American economic, social, political, demographic, and institutional history. Introduced in 1949 as a time-series supplement to the *Statistical Abstract of the United States*, it has inspired similar efforts in countries around the world. At the time of this writing, when the current edition is a quarter-century out of date, *Historical Statistics* is still a basic reference generating hundreds of citations annually in academic, professional, and journalistic publications. This essay describes the origins of this influential work and how it evolved over time.

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Carmel Ullman Chiswick Department of Economics (m/c 144) University of Illinois at Chicago 601 S. Morgan Street Chicago, Illinois 60607-7121 USA Tel.: +1 312 996 8721 Fax: +1 312 996 3344 Email: cchis@uic.edu

Introduction

Historical Statistics of the United States is the premier source of quantitative evidence on American economic, social, political, demographic, and institutional history. Introduced in 1949 as a time-series supplement to the *Statistical Abstract of the United States*, it has inspired similar efforts in countries around the world. At the time of this writing, when the current edition is a quarter-century out of date, *Historical Statistics* is still a basic reference generating hundreds of citations annually in academic, professional, and journalistic publications. This essay describes the origins of this influential work and how it evolved over time.

Historical Statistics was initially developed by the U.S. Census Bureau as an historical supplement to its *Statistical Abstract*, a convenient one-volume compendium of economic, social, political and demographic data, reported for the United States as a whole and by state, compiled from data collected by the highly decentralized Federal statistical system.¹ *Statistical Abstract* was published annually (with only a few exceptions) since 1878 by various statistical units of the federal government. In 1943 it became the responsibility of the Statistical Reports Section in the Office of the Assistant Director for Statistical Standards,

¹ Nearly every government agency has its own statistical unit. The largest are the Bureau of the Census, the Bureau of Economic Analysis (both in the Department of Commerce), and the Bureau of Labor Statistics (in the Department of Labor). The Office of Statistical Policy, a small unit with fewer than 70 people, oversees the system from the Office of Regulatory Affairs, Office of Management and Budget (formerly the Bureau of the Budget).

Bureau of the Census.² Shortly thereafter most of these historical statistics, generally uneven in coverage and quality, were dropped from the *Abstract* to make room for expanded coverage of contemporary subjects.

The Census Bureau developed the idea of a *Supplement* to the *Statistical Abstract* to satisfy the growing appetite for quantitative data. Statistics were becoming an increasingly important form of evidence, especially in the social sciences, and new statistical methods were being developed to analyze quantitative data. Many public policy concerns of the time focused on the distribution of income and assets, stimulating interest in statistics that could facilitate comparisons between subgroups of the population. Other public policy concerns focused on the rate of economic growth and the international competitiveness of the United States. Economists, impressed by the wartime mobilization experience and hoping to avoid another Great Depression, were studying the determinants of economic growth and stability. The newly-published theories by John Maynard Keynes generated an interest in national income growth as an aggregate phenomenon.

The first edition of *Historical Statistics of the United States* was published as an *Abstract* supplement in 1949, following on the heels of the *Cities Supplement* (1944) and the

² The Treasury Department's Bureau of Statistics was the first to publish the annual *Statistical Abstract of the United States* beginning in 1878. It was moved to the newly formed Department of Commerce and Labor in 1903 and remained in the Department of Commerce when it became a separate agency in 1912 (Duncan & Shelton 1978). The *Statistical Abstract* was issued by the Bureau of Foreign and Domestic Commerce from 1912 to 1938, after which it became the responsibility of the Bureau of the Census. Various initiatives over the years have considered bringing the *Abstract* to a more central location in the federal system, but pragmatism and efficiency have prevailed over bureaucratic logic and they remain at Census (Duncan & Shelton, 1978; Goldfield, 1998).

County Data Book (1947).³ The *Cities Supplement* and the *County Data Book* reported upto-date figures for small geographic areas, designed to reveal phenomena obscured by aggregation to the state and national levels. *Historical Statistics* was a companion volume designed to provide consistent time series data for the national aggregates covering as long a period as possible.

Historical Statistics was originally envisioned as a serial that would be published at one-decade intervals, with mid-decade updates that would include adjusted data and new figures for recent years. The first edition of *Historical Statistics*, Volume I of the series, appeared in 1949 and the *Continuation to 1952* was published five years later (Census 1949b, 1954). Volume II was published in 1960 as the second edition, *Historical Statistics of the United States: Colonial Times to 1957*, and was followed by the *Continuation to 1962* (Census 1960, 1965). Volume III, subtitled *Colonial Times to 1970*, was published in 1975 as the Bicentennial Edition (Census1975). This third edition marked the end of Census Bureau publication of historical compendia. The present *Millennial Edition* has been prepared by the academic community.

³ These publications were merged in 1952 to become the *County and City Data Book*, which continues to be issued approximately every five years. The *Congressional District Data Book* was added later.

Origins of Historical Statistics

The original *Historical Statistics* project at Census was headed by Morris B. Ullman, at that time Chief of the Statistical Reports Section in the office of Morris H. Hansen, Statistical Assistant to the Director of the Bureau of the Census.⁴ *Historical Statistics* was only one of many new statistical reporting projects developed at Census by Ullman and Hansen, a team referred to as "The Two Morrises."⁵ The Office of the Assistant Director at that time was a place of innovation and intellectual stimulation, where professionals on the Census staff interacted closely with academics and other non-governmental researchers at the forefront of the rapidly-advancing science of statistics. The Statistical Reports Section was designing and implementing new, user-friendly ways to disseminate data to a wider audience. The Statistical Methods Section was developing sampling theory and applying it to the survey activities of the Bureau, playing a major role in establishing the modern fields of statistics and

⁴ When Calvert L. Dedrick became Assistant Chief of the Division of Statistical Research in 1935 with a mission to upgrade its professional staff, his first appointment (in 1936) was Morris Hansen. Morris Ullman came to the Census Bureau in 1937 as a junior statistical technician and "trouble shooter," joining Hansen's Statistical Reports Section in the same year (1943) that it became responsible for the *Statistical Abstract* (Duncan and Shelton, 1978).

⁵ Both men subsequently left Census, Morris Ullman in 1958 and Morris Hansen a decade later. Volume II was prepared by Herman P. Miller under the general direction of Edwin G. Goldfield and Volume III was prepared by William Lerner. The basic structure and organization of the project remained the same, however, and "the two Morrises" are generally credited at Census with the conception, organization and implementation of the *Historical Statistics* project.

sampling theory.⁶ Hansen frequently testified before Congress about the Census Bureau's important new breakthroughs in data processing technology, especially the potential savings of time and money promised by the development of computers (Duncan & Shelton, 1978; Scott, 1968).⁷

In this heady environment, one of Ullman's first initiatives was to place a return postcard in all copies of the 1942 *Statistical Abstract* requesting feedback on its use and soliciting suggestions for improvement. This informal survey indicated that most copies went to libraries and to government agencies where they provide quick access to statistics for the writers of term papers, speeches, and reports. Suggestions for improvement included requests for more and longer historical series as well as more breakdowns of the aggregate into data for smaller areas (Ullman, 1949). Size limitations made it difficult to include either of these in the *Abstract* itself, but the idea of developing supplemental publications for this purpose was appealing. The first "trial balloon," no doubt benefiting from the new data-processing

⁶ The country's foremost probability theorists and mathematicians were brought in as advisors and consultants, and some of this talent was hired for the permanent staff. In 1942 Hansen began his long-term collaboration on sampling methods with William N. Hurwitz, who had come to Census in 1940. Other staff in this section included W. Edwards Deming and William G. Madow who, along with Hansen and Hurwitz, would soon publish seminal books in the new field of statistical sampling (Deming, 1950; Hansen et al., 1953). By the mid-1940s the early results of this work were already appearing prominently in academic journals (Duncan & Shelton, 1978).

⁷ The large-scale data gathering efforts at Census cried out for better forms of mechanization, and by the 1940's a tradition of innovating and developing data processing machinery – mainly for keypunching and card sorting operations – was well established (Truesdell 1965). Hansen became interested in the development of the first civilian electronic computer, the UNIVAC, as early as 1944 (Duncan & Shelton, 1978, p.124). Upon consultation with scientists at the National Bureau of Standards (also in the Department of Commerce), a contract was signed to develop the UNIVAC in time to handle data tabulations for the 1950 census. By 1949 James L. McPherson, formerly of the Population Division but since 1945 the "machine development officer" under Hansen, would begin to write the first computer program in anticipation of delivery of the first computer (Scott, 1968, p.62).

equipment that made it easier and less costly to produce small-area statistics, was the *Cities Supplement* published in 1945. Its success led to further work on the *County Data Book* that appeared in 1947. A time-series project was next in line, but its implementation was more ambitious and would take longer to come into focus.

Like the *Statistical Abstract* itself, *Historical Statistics* was a collection of data from secondary sources in an era when every table had to be manually typeset. If it made relatively little direct use of new technology, it would benefit greatly from the statistical expertise of the Census staff.⁸ This staff included not only professional statisticians but also specialists in the collection, design and editing of statistical tables, experts who worked with a similarly specialized unit at the Government Printing Office on the production of statistical reports. These in-house skills would be a major asset for the production of *Historical Statistics* at Census.

Historical Statistics also required the expertise of non-government statisticians scattered in universities, research institutes and foundations throughout the country. These individuals were collected into a variety of professional associations that, in their turn, formed umbrella organizations for purposes that crossed disciplinary boundaries. The Social Science Research Council (SSRC) was such an organization, formed in 1924 by seven professional associations

⁸ For most of its history, the permanent staff at the Census Bureau was minimal and the decennial censuses had been carried out by a temporary work force. Budget cutting during the Great Depression further depleted the ranks, leaving the Bureau "...with only a skeleton staff, many of whom had joined the agency in 1902 and had little technical training in statistics. In 1933, the Bureau had only 3 Ph.D.'s and only one professional man under forty-five years of age." (Eckler, 1972.) This had changed dramatically in 1935 when Stuart A. Rice was made Assistant Director and set about selecting a cadre of academically trained statisticians.

in the social sciences.⁹ The stated goals of the SSRC were to support basic research in the social sciences, to improve the infrastructure for social research, and to include the "human or social dimension" in the nation's scientific projects (Prewitt 2000).

When J. Frederick Dewhurst decided in 1945 to promote compilation of a source book of historical statistics, he turned to the American Economics Association (AEA), the American Statistical Association (ASA), and the SSRC for sponsorship. Dewhurst was the senior economist at the Twentieth Century Fund (TCF), a private foundation in New York focussing since the early 1930s on in-house projects to investigate "flaws in the economic system, and the positing of solutions to them" (Century Fund 2000).¹⁰ In the mid-1940s Dewhurst was Research Director for *America's Needs and Resources*, a major TCF undertaking that analyzed historical trends in production, income, and consumption to assess the U.S. economy's economic potential (Dewhurst 1947). Drawing heavily on new time series data being constructed elsewhere, most notably at the National Bureau of Economic Research (NBER) in New York, the TCF project exemplified a growing interest in research that used historical data and applied quantitative methods for policy analysis.

In a memorandum dated April 12, 1945 Dewhurst proposed a new project "involving the completion and publication of a comprehensive source book of economic statistics" to be accomplished cooperatively by the American Economic Association (AEA) and the American Statistical Association (ASA). At its April 1945 meeting the Executive Committee of the AEA named three members to a committee "to explore the merits and feasibility of such a

⁹ The participating organizations were The American Economic, Political Science, Historical, Sociological, Statistical, Psychological, and Anthropological Associations.

¹⁰Dewhurst was to eventually become Executive Director of The Twentieth Century Fund, which was renamed The Century Foundation in the late 1990s.

project," the Board of Directors of the ASA followed suit in May, and the Economic History Association was invited to participate as well.¹¹ Chaired by Dewhurst, it was called the "Joint Committee for a Source Book of Economic Statistics." The proposal was discussed by the SSRC Problems and Policy Committee, where "one member" suggested the possibility that the Census Bureau might be able to handle the preparation of such a book (Copeland, 1946). The member was not identified in the minutes but it may be noted that Phillip Hauser, one of the ASA members of the Joint Committee, was at that time Deputy Director of the Bureau of the Census.

The Dewhurst initiative struck a responsive chord at Census in the Statistical Reports Section where the historical supplement to the *Statistical Abstract* had been accepted in principle but not yet developed (Ullman, 1949). By August 1945 letters had been exchanged between SSRC and Census, the Secretary of Commerce had approved the project, and Census had agreed to include the project in its budget request for the 1946-47 fiscal year (Bell, 1946, pp. 880-881; Copeland, 1946). In November 1945 Dewhurst's Joint Committee met at the SSRC offices in New York City and Hauser agreed that Census would conduct "exploratory and planning work." Ullman's proposal for a time-series supplement to the *Statistical Abstract* thus became the basis of discussions between Census and the committee members (Census 1946a). At its meeting in April 1946 the Joint Committee accepted the Census proposal, declared the project feasible, and dissolved itself after only one year of existence.

¹¹ The three members of the joint committee named by AEA were Morris Copeland, Amos E. Taylor, and Stacy May. The three members named by ASA were Walter Mitchell, Phillip Hauser, and Theodore Yntema. The Economic History Association named Shepard B. Clough, W. B. Smith, and Harold Williamson as its three members.

Census agreed to handle the publication, the working title of which was "Source Book on Economic Statistics." From the beginning, however, Census recognized the ambitious scale of the project and the fact that its staffing requirements differed from those of their usual statistical reports. As observed in its report to the Joint Committee:

"Because of the nature of the work involved, the amount of clerical work necessary for the preparation of the various chapters is greatly subordinated to the amount of professional effort needed.... It is, therefore, suggested that...the Joint Committee will recommend, and assist the Bureau in selecting and obtaining cooperation from, a sufficiently large number of consultants each of whom will be asked to prepare the material on a particular subject..." (Census, 1946a)

To implement this recommendation the SSRC appointed a Committee on the Source Book of Historical Statistics (Advisory to the Bureau of the Census), again with Dewhurst as chairman. The members of this Advisory Committee were actively involved in the preparation of *Historical Statistics*, and their participation – as a Committee and as individuals – is liberally acknowledged in the Introduction to the 1949 edition.

While it was common for research carried out by the federal government to draw on the expertise of advisory board members and to use non-government researchers as consultants, by all accounts the degree of collaboration between Census and SSRC on *Historical Statistics* was unusually close and extensive (Census, 1949b; Goldfield, 1998; Lerner, 1998). The SSRC Committee on Research in Economic History, whose chairman (Arthur H. Cole of Harvard University) was a member of Dewhurst's committee, even provided a grant to support a full-time Executive Secretary. This position was filled A. Benjamin Handler, who had been working with Dewhurst at TCF as Assistant Research Director for *America's Needs and Resources*. Handler would end up spending much of his time in Washington and worked

so closely with Census on *Historical Statistics* that he is said to have functioned as a *de facto* member of the Statistical Reports Section.¹²

Scope and Format of *Historical Statistics*

Initial guidelines for the *Historical Statistics* project were clear that the goal was to produce a statistical source book, asserting explicitly that "Text material will describe the statistical significance of the data but will not involve analysis of their economic or social significance" (Census 1946c). But the compilation of historical data is often itself an example of economic or social research. Many of the non-government economists, demographers and sociologists recruited by the SSRC had acquired their expertise in historical statistics through just such analyses, and this kind of research was often the framework for assessing the importance of including a particular series.¹³ Some controversy over the appropriate boundary between data reporting and substantive analysis was inevitable.

The pragmatic solution to this problem was to include detailed notes on the source of each series and to add a set of "substantive" appendices for special topics. Source notes for each series and section would present

"...the concepts used, the principal points of comparability, some discussion of the methods used in preparing the series, other information available which is not shown in the supplement, and such cross-reference information as is needed." (Census 1946b).

¹² Handler was "primarily responsible for procurement of data and relationships with the agencies and individuals who contributed to the publication." Bruce L. Jenkinson and William Lerner in the Statistical Abstract unit at Census had primary responsibility, respectively, for "planning and preparation of the report" and for "review and editing of the materials as to content, adequacy and coverage." Morris B. Ullman "supervised" the project and was involved with every aspect (Census, 1949b).

¹³ The *Historical Statistics* project itself was valued in large part because various public policy issues had aroused an interest in historical trends (Anderson 1988).

The original estimate was that on average a page of tables would require nearly a page of text. Specialists would need to look elsewhere for more detail, but *Historical Statistics* could serve as a reference to provide direction for this search. This function of Census as a clearing house for statistical expertise was deemed so important that the notes for each series and section in *Historical Statistics* would include as a matter of policy the names of individual contributors both inside and outside of government.¹⁴

Topical coverage for *Historical Statistics* was to take as its point of departure the *Statistical Abstract* to which it was a supplement. Coverage in the *Abstract* was itself based on a prior consensus as to which statistics were both interesting and accurate, and the presumption was that these same criteria would make it useful to carry them back historically.¹⁵ This was not expected to be limiting, however, for if a "new" series were deemed worthy of being added to the *Supplement*, current data on the subject would be considered for inclusion in the *Abstract* (Census, 1946a). The data from one should feed directly into the tables of the other, and series-by-series cross-references were published both as an Appendix to the *Abstract* and as source notes to the historical tables. The major exception would be "lapsed" historical series for which data were no longer collected, as in the size of the slave population, or for which the data had undergone important conceptual

¹⁴ This was not a trivial decision, for many statistical experts were employed in government agencies in a position where their name would not appear in official publications. The introduction would also identify the main contributors for each major section, and because of the cumulative nature of this project the later volumes would name the major contributors to all previous volumes as well.

¹⁵ Items included in the Statistical Abstract, and in the Federal statistical system in general, were in turn a reflection of the policy interests of the era. For an extensive and thoughtful discussion of this aspect of Census activity see *The American Census* (Anderson 1988).

changes in construction, as in the early figures for housing and for manufacturing (Census 1946d; 1949b, App. II).

Coverage in *Historical Statistics* was generally to be confined to data for the continental United States as a whole, primarily for reasons of space but also because *Historical Statistics* was intended as a time-series supplement to the *Statistical Abstract* itself and not to its small-area supplements.¹⁶ Anticipated exceptions included cases where sub-national statistics would be essential to interpreting the aggregate (as in merchant marine statistics, reported separately by coast and inland waterways), where an aggregate would not be meaningful (as in data on rainfall or internal migration), or where a sub-national series could be interpreted as an indicator of the aggregate (as in prices on the New York Stock Exchange or the production of anthracite in Pennsylvania). Exceptions were also made for cases of important series that were available only for a limited geographical area, as for the early years in which figures were limited to the Atlantic seaboard (Census 1946d; 1949b, App. II).

Coverage in *Historical Statistics* was limited to series available on an annual or censusperiod basis that would extend back for at least 20 years. Some historical series were available on a monthly or quarterly basis, but it was decided that data presented at quarterly, monthly, or weekly intervals would be included only if they were deemed "of paramount importance." A substantive appendix on the turning points of business cycles would include "a few illustrative series of basic significance presented on a monthly or quarterly basis," but

¹⁶ Early volumes of the *Statistical Abstract* had included historical data for many entries, but these had been shortened or dropped as the number of economic series included in each annual volume increased substantially. Dewhurst's idea for a volume with only historical data may have been in part a response to this change (Cole, 1950).

readers were cautioned that "this should not be counted upon to round out a subject or timeperiod presentation in the main part of the volume" (Census 1946d).

The order in which time series were arranged in a Census Bureau report generally depended on its purpose, arranged backward in time (beginning with the latest date) to give perspective for current data and forward in time (beginning with the earliest date) to show "historical progression or development" (Census 1949a, Par. 1122).¹⁷ *Historical Statistics* could be viewed either way, for while historians would find the forward ordering most natural, general readers writing a speech or report on current policy would typically focus on recent decades to provide a context for data in the *Statistical Abstract* (Lerner, 1998). The Census advisory committees were comprised mainly of historians and tended to favor forward ordering (Evans 1952). Since series varied widely in their earliest dates, however, forward ordering would have resulted in far more "white space" on the printed page and would have increased the publication's size and cost.¹⁸ For these and related technical reasons, *Historical Statistics* used backward ordering (Census 1949a).

Evolution of Historical Statistics

By December 1946, Census had prepared a plan for publishing 3,000 data series and was soliciting comments from outside experts that the SSRC had enlisted (Census, 1946e).

¹⁷ The *Statistical Abstract* was considered an exception because its time series were ordered forward instead of backward. The forward ordering had begun with the very earliest editions, and typesetting technology would have made the change very expensive (Census 1949a, Par. 1122, fn. 8).

¹⁸ According to Jenkinson of the Statistical Reports Section, "Because of the nature of the mass-presentation problem, the data could be presented in the least number of pages if all series were arranged with the most recent year first. Here also mass-production requirements, and the cost of printing, were the determining factors, rather than analytical considerations as such." (Census 1949a, Par. 1122, fn. 9).

The experts, encouraged by the potential of the project, made suggestions for the inclusion of a number of additional series, some of which would have required major research projects in order to developed. In the meantime the Census funds for printing were set to expire in June 1947.¹⁹ Ullman solved both problems by recasting the 1949 edition into an extended prospectus for a larger project, the "first draft" of a multi-stage project, enabling subsequent editions to benefit from the feedback of users. Preparation of the 1949 and 1960 editions should thus be viewed as two phases of a single project, the first relying primarily on the federal statistical system and the second including relatively more contributions from experts in academia and research institutes.²⁰

In the interest of speed, nearly all series in the 1949 edition were obtained within the Federal government from individuals who already had a working relationship with the Statistical Reports Section.²¹ Contributors were asked to document sources, define terms, and provide explanatory notes for all changes, revisions and adjustments necessary to compile the time-series figures. The "selection, assembling, posting, correction, preparing of tables for the printer, and the writing of text" were concentrated between October 1946 and June 1947, when the volume went to the printer, and any series not in hand by that date was simply

¹⁹ This deadline had not been fully anticipated at the initiation of the project. Cost-cutting measures imposed by the new Congress elected in 1946 not only removed the possibility of a supplementary appropriation but also required that the project be completed before the end of the fiscal year (Cole 1950).

²⁰ The acknowledgements in the 1960 and 1975 editions include many non-government sources, in marked contrast to the case for the 1949 edition. Nonetheless, the Federal statistical system continued to be the major source of contributors for the 1960 and 1975 editions.

²¹An important exception was the work of the National Bureau of Economics Research (NBER), most notably the material on national income and product developed by Simon Kuznets and the appendix on business condition indicators prepared by Geoffry H. Moore.

dropped (Ullman, 1949). This meant that most of the included series would have a counterpart in the *Statistical Abstract*, but it also meant exclusion for most "lapsed" series for which data were no longer collected. Other topics were missing because data were not readily available and there was insufficient time for finding and evaluating appropriate material.²² Of the three essays originally proposed as substantive appendices, only one was prepared in time to be included.²³

Both the original prospectus for the 1949 edition and the final publication included 3,000 series arranged into fourteen major chapters. Many of the proposed series (and their corresponding chapters) had to be dropped, but the Federal statisticians who responded in time provided more series than expected and some of the planned chapters were split into two or more.²⁴ Often documenting their historical statistics for the first time, these statisticians uncovered a variety of unanticipated problems of fact and interpretation. The Census team (including Handler) focused on editing text for completeness and clarity. They fact-checked all notes and references, and by the time the final copy went to press every source cited had been followed up by a member of the editorial staff in the Statistical Reports Section. The

²² Material on education and communications arrived too late to be properly evaluated, and the Department of Agriculture could not get the basic series on Sugar and Tobacco in time (Ullman, 1949).

²³ The three appendices were to have been "Statistics of the Colonial Period," "Business Cycle Turning Points and Selected Indicators," and "Bibliography on Methodological Techniques Commonly Employed in Analysis of Time Series." The appendix actually published was "Monthly and Quarterly Indicators of Business Conditions" prepared at the NBER by Geoffrey H. Moore.

²⁴ The planned chapter on Population and Vital Statistics became two chapters and Extractive Industries was split into three. Omitted chapters were Land and Climate, Social Institutions and Activities, Communication and Power, Domestic Trade, Consumption, and an introductory chapter titled "Summary Measures of American Development." Some series planned for omitted chapters were included elsewhere, and others (notably Price Indexes and Wealth and Income) were given chapters of their own.

unexpectedly large number of changes considerably lengthened the elapsed time between galley and page proofs, although they reveal a process of feedback that improved the quality of Federal statistics beyond the Census Bureau itself (Ullman, 1949). An appendix in the 1949 *Statistical Abstract* updated the historical series for the years 1946-48 and crossreferenced each series with its counterpart in *Historical Statistics*.

Despite the obvious limitations of its scaled-down first effort, the 1949 edition of *Historical Statistics of the United States* was well received. It satisfied an immediate need while at the same time stimulating suggestions for improvement and expansion. By September 1950 (about one year after publication) an advisory committee chaired by G. Heberton Evans, Jr., had been appointed by the Economic History Association at the request of the Census Bureau. Its report, issued two years later, contained general and specific recommendations for revisions, most of which would be implemented in the 1960 edition (Evans, 1952). Many of the shortcomings identified in the Evans report were the direct consequence of the decision to scale down the production of the 1949 edition, and the recommended revisions brought the 1960 edition in line with the original plan.²⁵ Thus while the 1960 edition would have a total of 8,000 series arranged in 24 chapters (a substantial increase over the 3,000 series and 14 chapters in the 1949 edition), its Introduction characterizes it as "intended to achieve the purpose foreshadowed in the original volume" (Census 1960, p. ix).

²⁵ The Introduction to the 1960 edition lists no fewer than thirteen new subject areas that did not appear in the 1949 edition. Yet of these only three (Services, Corporate Assets, and Research & Development) were actually missing from the original outline (1946e). The rest were present either as major chapters or as sections within a chapter.

The 1960 edition of *Historical Statistics of the United States* was also prepared in the Statistical Reports Section in cooperation with the Social Science Research Council. Funded by a grant from the Ford Foundation, SSRC engaged more than 125 specialists as consultants on various chapters. These individuals are cited by name in the Introduction. Herman P. Miller directed the project at Census, served as Executive Secretary of the SSRC Committee on *Historical Statistics* chaired by Evans, and participated in the selection of consultants. The final product would go through a cycle of five printings and some 40,000 copies would be sold before the supply was exhausted.

At mid-decade Census published its *Continuation to 1962 and Revisions* (Census 1965).²⁶ By then, however, policy interests had shifted and neither Census nor the SSRC was prepared to devote major funding to the preparation of a new edition of *Historical Statistics*. The *Bicentennial Edition*, published in 1975, was eventually undertaken by the Statistical Reports Division as an updating exercise. Drawing on previous experience and on voluntary contributions from a network of experts already largely in place, the major chapter headings remained the same as in the 1960 edition. The 1975 publication encompassed some 12,500 time series, an increase of more than 50 percent over the 1960 edition. Some of these had

²⁶ Shortly thereafter Ben J. Wattenberg, of Fairfield Publishers, Inc., combined the 1960 edition and its *Continuation* into a single up-to-date document titled *The Statistical History of the United States from Colonial Times to the Present* (*Statistical History* 1966). Wattenberg had been publishing *Statistical Abstract* under the title *U.S. Deskbook of Facts & Statistics* for several years. In 1966 Wattenberg published *Statistical History of the United States* as a *Deskbook* supplement, interleaving the two Census publications by following each chapter of the 1960 edition of *Historical Statistics* with the corresponding chapter of its *Continuation* (Wattenberg, 2000). Because the Government Printing Office provided him with negatives for each page, his tables were exact replicas of the original publications.

been excluded from the earlier edition because they were shorter than the 20-year minimum and others because they had not been "discovered or properly developed" at that time.²⁷

Concluding Remarks

Historical Statistics was first developed in the mid-1940s by the Statistical Reports Section, Office of the Assistant Director for Statistical Standards, Bureau of the Census. The project fulfilled multiple goals of that unit. Produced as a *Supplement* to the *Statistical Abstract of the United States*, it greatly expanded the *Abstract's* coverage of time series data. As part of the Bureau's mission to improve statistical reporting, it raised standards for historical statistics and correspondingly stimulated the development of statistical expertise. As a joint project between Census and the Social Science Research Council, it created and enhanced a network of professional experts on historical statistics.

When Frederick Dewhurst first proposed developing a source book for economic statistics, modern research in quantitative history was in its infancy. Expertise in the collection of historical statistics was the domain of a few widely-scattered individuals in the statistical units of various departments and agencies of the Federal government as well as in academia. Today quantitative historical research occupies a central place in the social

²⁷ Wattenberg again obtained the negatives from GPO and reproduced the volume with a private publisher and his own "Introduction and User's Guide" (*Statistical History* 1976). By this time Bernan Press was also reissuing Census documents as "The U.S. DataBook Series" and reproduced yet another version of the *Bicentennial Edition*. In 1989 Kraus International Publications issued its own reprint of the *Bicentennial Edition*. In 1997 Cambridge University Press released an electronic version of the *Bicentennial Edition* on CD-ROM with no updating of series. The total number of copies issued by all these sources is unknown, but Census Bureau records show sales of some 38,000 copies for their version (King 2000). Even though the sales of the private publishing efforts is not known, the existence of these efforts points to a strong underlying demand for the publication whenever Census allowed it to fall out of print.

sciences, in no small part because of the signal role played by *Historical Statistics of the United States*.

References

Anderson, Margo J (1988). The American Census: A Social History. New Haven: Yale.

- Bell, James Washington (1946) "Proceedings of the 58th Annual Meeting of the AEA: Report of the Secretary." *American Economic Review* 36:2, pp.870-886.
- Century Foundation (2000). "The Fund's First 75 Years (1919-1994)". http://tcf.org/About TCF/History.html.
- Cole, Arthur H. (1950). "Review of *Historical Statistics of the United States*, 1789-1945: A Supplement to the Statistical Abstract of the United States" in The Review of Economics and Statistics 32:3, pp. 273-274.
- Copeland, Morris A. (1946). "Proceedings of the 58th Annual Meeting of the AEA: Progress Report on Source Book of Economic Statistics." *American Economic Review* 36:2, pp.934-936.
- Deming, W. Edwards (1950). Some Theory of Sampling. New York: Wiley.
- Dewhurst, J. Frederick (1947). America's Needs and Resources: A Twentieth Century Fund Survey Which Includes Estimates for 1950 and 1960. New York: The Twentieth Century Fund.
- Dubester, Henry J. (1950). *Catalog of United States Census Publications 1970-1945*. Washington: GPO.
- Duncan, Joseph W. and Shelton, William C. (1978). Revolution in United States Government Statistics 1926-1976. Office of Federal Statistical Policy and Standards (U.S. Dept. of Commerce), Washington:GPO.
- Evans, G. Heberton, Jr. (1952). "On the revision of Historical Statistics of the United States, 1789-1945." Report of the Committee of the Economic History Association (Advisory to the Bureau of the Census), April 15, 1952.
- Eckler, Ross (1972). The Bureau of the Census. Praeger.
- Goldfield, Edwin G. (1998). Personal interview. Suitland, Md., August 6, 1998.
- Hammack, David C. (1999). "The Politics of Numbers: *Historical Statistics of the United States* and Public Policy, 1945-2000." (manuscript: November 1999, presented to the 1999 Annual Meetings of the Social Science History Association.)
- Hansen, Morris H., Hurwitz, William N. and Madow, William G. (1953). Sample Survey Methods and Theory. 2 volumes. New York: Wiley.
- King, Glen (2000). Telephone conversation, August 2, 2000.
- Lerner, William (1998). Personal interview. Suitland, Md., August 5, 1998.
- Prewitt, Kenneth (2000) "SSRC: A Brief History of the Council." http://www.ssrc.org/histbri.htm
- Scott, Ann Herbert (1968). Census, U.S.A.: Fact Finding for the American People, 1790-1970. New York: Seabury Press.

- *The Statistical History of the United States from Colonial Times to the Present* (1966). New York: Horizon Press. Introduction by Ben J Wattenberg, Fairfield Publishers, Inc.
- *The Statistical History of the United States from Colonial Times to the Present* (1976). New York: Basic Books. With an Introduction and User's Guide by Ben J. Wattenberg.
- Truesdell, Leon E. (1965). *The Development of Punch Card Tabulation in the Bureau of the Census: 1890-1940*. Washington: GPO.
- Ullman, Morris B. (1949). "Statistical Abstract Program, With Special Reference to *Historical Statistics of the United States.*" Presented to the American Statistical Association, Philadelphia Chapter, February 18, 1949. (manuscript)
- U.S. Bureau of the Census (annual since 1938). *Statistical Abstract of the United States*. Washington:GPO.
- U.S. Bureau of the Census (1946a). "Report to Joint Committee on Status of Source Book Project." April 1, 1946. (mimeographed, 3 pages plus exhibits.)
- U.S. Bureau of the Census (1946b). "Source Book of Historical Statistics (A Supplement to the Statistical Abstract of the United States)." September 9, 1946. (mimeographed, 3 pages.)
- U.S. Bureau of the Census (1946c). "Source Book of Historical Statistics: General Description of Project." December 10, 1946. (mimeographed, 4 pages)
- U.S. Bureau of the Census (1946d). "Source Book of Historical Statistics: Basic Premises for Data Selection." December 10, 1946. (mimeographed, 6 pages). Reprinted with minor changes as "Appendix II. Statement of Basic Premises" in U.S. Bureau of the Census, *Historical Statistics of the United States 1789-1945*. Washington:GPO. 1949.
- U.S. Bureau of the Census (1946e). "Source Book of Historical Statistics: Detailed Outline." December 10, 1946. (mimeographed, 21 pages)
- U.S. Bureau of the Census (1949a). Bureau of the Census Manual of Tabular Presentation: An Outline of Theory and Practice in the Presentation of Statistical Data in Tables For Publication by Bruce L. Jenkinson. Washington:GPO.
- U.S. Bureau of the Census (1949b). *Historical Statistics of the United States 1789-1945*. Washington:GPO.
- U.S. Bureau of the Census (1954). Continuation to 1952 of Historical Statistics of the United States, 1789-1945 With Revisions of Selected Series. Washington:GPO.
- U.S. Bureau of the Census (1960). *Historical Statistics of the United States: Colonial Times* to 1957. Washington:GPO.
- U.S. Bureau of the Census (1965). *Historical Statistics of the United States, Colonial Times* to 1957: Continuation to 1962 and Revisions. Washington:GPO.
- U.S. Bureau of the Census (1975). *Historical Statistics of the United States: Colonial Times* to 1970. Washington:GPO.
- Wattenberg, Ben J. (2000). Personal interview. Washington, D.C., August 18, 2000.

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