Introduction

The salutary match of technological development, professional training, and scholarship is probably nowhere more dramatically demonstrated than in the growth and development of social science data archives. Increasingly, the data collection investment of private research organizations, governmental agencies, and foundations is being magnified by the multiple and extended use of information resources made widely available through the auspices of social science archives. This issue of the *American Behavioral Scientist* is devoted to some developments, problems, and implications for research and instruction that flow from the growth and diversification of these archives since their beginning in the late 1950s and early 1960s.

A common distinction is honored throughout the essays in this issue. The archives discussed are multipurpose organizations developed primarily by social scientists and devoted primarily to their purposes. Furthermore, the resources and services considered are to be distinguished from local university-based data services. The "archives" whose policies and services are examined here are those multiple service organizations devoted basically to acquisition of data from diverse sources, organization and documentation of data for use by persons other than those responsible for original data collection, and dissemination of these data in machine-readable form to users not physically proximate to the archive itself or the site at which the data were

originally collected. These archives, therefore, are distinguished from local, single university-based data services.

The pioneering organizations which continue to serve a large and diverse social science clientele are the Roper Center for Public Opinion Research (Williamstown, Massachusetts), the Inter-University Consortium for Political and Social Research¹ (Ann Arbor, Michigan), and the Zentralarchiv fur Empirische Sozialforschung (Cologne, West Germany). Signs in the early 1960s, when these archives were in the take-off stage, indicated the likelihood that a large number of substantively or regionally specialized archives would be founded. In the United States, however, and contrary to expectation, growth has been vertically, in terms of size of holdings and level of services, rather than horizontally, in terms of number of archives. In fact, there has been substantial contraction in the number of institutions anticipating extensive acquisition and dissemination of social science data.

Abroad, however, the move of recent years has been—albeit often haltingly—toward development of national archival facilities to serve national communities of social analysts. Usually employing substantially larger proportions of governmental funding than in the United States, national archives for acquisition and dissemination of machine-readable social data are functioning or close to it in Britain, Norway, Denmark, the Netherlands, Belgium, Italy, and India—in addition to the long-established Zentralarchiv. The expansion of archival facilities promises not only to preserve valuable information resources and to make them available for continued analysis, but also to enhance an important medium of scholarly communication and interaction across national boundaries. Some of the implications of these "less obvious" functions of the archives are addressed by Warren Miller's essay in this issue.

The essays in this issue are not designed primarily to sing the praises of the established archives, nor to extoll the relatively obvious promise of their growth and diffusion. Rather, the essays serve, in a sense, as a collective commentary on some frequently unnoticed problems and as yet to be fulfilled (but

nearly certain) potentials. By providing a mechanism for preserving the machine-readable records of major social research projects, commercial polls, and some governmentally produced data sets, the archives have proven their capacity to encourage multiple and ever more complex analytical applications. Further, they have served to redistribute scholarly access to such materials. In the past that access tended to be limited to individuals located at, or proximate to, well-funded research centers. Through the mechanism of data archives, social scientists and students located in less favorable and less affluent settings now have access to research resources that were formerly available only to a few. Examination of the data sources cited in articles published in major scholarly journals (especially in Political Science, but increasingly in sociology, history, and economics) or the bibliographies of use published by the archives themselves provides verification of this favorable judgment of impact.

The relative lack of growth in the number of data archives in the United States, despite increasing use of these facilities by faculty and students in the social sciences, attests to the economies of scale attained by the few major archives now operative. Assuming that governing and policy-making mechanisms are such as to encourage broadened disciplinary and substantive responsiveness, current projections would argue for continued broadening of the contents of existing archives. Their very success, however, in encouraging the ethic of social scientists sharing their data and in facilitating imaginative research and curricular applications points to some unfulfilled potentials. While there is some evidence to suggest that conditions are changing, progress has been especially slow in three regards: (1) obtaining concerted governmental cooperation for preservation and dissemination of data resources produced with public funds; (2) encouraging broadened disciplinary use of archival facilities; and (3) increasing use of archival resources in the classroom.

Given the proven capacity of the archives to facilitate multiple use of a single data set—and the consequent magnifi-

cation of return on original research investment-one of the more depressing wastes of public resources relevant to social inquiry has been the approach of agencies of the United States federal government toward data dissemination. Research funding agencies, while frequently admonishing their contractors and grantees that data collected with governmental support are public property, have no systematic or effective policy guaranteeing general access to such data. Nor do these agencies, with any regularity, indicate a willingness to sustain the marginal costs of archiving that would make such a policy a practical reality. Furthermore, those agencies responsible directly for collection and, ostensibly, dissemination of machine-readable data) have tended to be ineffective—especially compared to the academically based archive-in establishing procedures for easy access to and inexpensive use of their data resources by the social science community.

The essay by Michael Traugott and Jerome Clubb addresses directly some of the potentials and problems associated with use of numerous federally generated data resources. Allan Bogue also touches upon these considerations from a different vantage point. Both of these essays call attention, however, to heartening trends and developments within the federal establishment that look toward more effective access to the rich data resources produced by governmental agencies.

The modal researcher employing data sets acquired from the major archives has historically been a political scientist. Archives that concentrate upon acquisition of major academically based, topical studies (as contrasted to commercial surveys) and public record aggregate data find that the ethic of data sharing and utilization of archival services are presently limited in disciplinary reach. Political scientists are clearly in the lead. However, historians, sociologists, and economists are entering the race. Limited use of archival services by disciplines other than these is not due to the irrelevance of archival contents, but rather to lack of information about these services or contrary work habits.

In his essay, Allan Bogue addresses himself primarily to this question—the expansion of multidisciplinary exploitation of the

research and teaching potential of the archives. Historians have been a clear second to political scientists in their use of the archives. But the collective and individual efforts of key figures have put history as a discipline well out ahead of many other areas of social inquiry.

Multidisciplinary use of archival resources is likely to proceed rapidly in Europe, as indicated by Stein Rokkan's essay. Disciplinary lines—as between political science, sociology, and history—have never been drawn so sharply in Europe as in the United States. This distribution is reflected in the approaches toward archival development in Europe, as is implicit in Rokkan's discussion.

Instructional use of machine-readable data and full exploitation of the instructional potential of archival resources has been a classic manifestation of the "trickle-down" theory. The initial impact of archival resources was manifested in scholarly research—conference papers, journal articles, and books. Closely following was the research of graduate students and the theses and dissertations which they produced. Only after much delay has the undergraduate curriculum begun to reflect the revolution in research methods and graduate training which characterized the social sciences, especially during the 1960s. Technical and pedagogical developments, as noted by Betty Nesvold in her essay, are now taking place which will substantially facilitate increased use of machine-readable data and other archival resources in a broad range of undergraduate settings.

As increased reliance has come to be placed on machine-readable data files—and especially in a climate of public anxiety produced by revelations of widespread invasion of privacy, illegal wiretaps, and commercial abuse of credit records and other individual files—the archives, their suppliers, and public policy makers have experienced rising concern about protection of the privacy and confidentiality of individuals and organizations. Thus far, social science archives have been innocent of any apparent wrong-doing in this realm. The essay by Richard Hofferbert examines areas in which such problems do and do not exist, as well as where they might arise in the future. He

also suggests some technical and policy options which might be pursued to ensure continuation of the good record of the social science archives in protecting confidentiality and privacy.

Collectively, the essays in this volume could be read as a mid-term report on the social science archives. Initial expectations of the founders and supporters of the archives have more than been fulfilled. However, their very survival and growth has opened new potentials that were only dimly foreseen, if perceived at all, at the inception of the major archives.

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NOTE

1. Formerly the Inter-University Consortium for Political Research.