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**Global Policy Fields: Conflicts and Settlements in the Emergence of
Organized International Attention to Official Statistics, 1853-1947**

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ABSTRACT

I use the questions of how fields of activity emerge and what mechanisms rationalize and order them to investigate the rise of organized international attention and expert concerned with official statistics and the modern national census of population. Field theories, on one hand, provide useful ways to understand the diverse actors and activity that goes into the key processes of field structuration. The historical development of the global field of statistics, on the other, provides a set of challenges to the organization theory view of field arguments. This empirical case argues for attention to conflicts, struggles, and provisional settlements over historical time that shift the level and kind of international attention to official statistics. My results reinforce the importance of incorporating activity into institutional theories of organization, but caution against neglecting the embeddedness of that activity.

The science of statistics is the chief instrumentality through which the progress of civilization is now measured, and by which its development hereafter will be largely controlled" (S. North 1918:15).

"The statistical world around us is immense and widening; but not altogether well-ordered, and awaits standards to be set and to maintained." (Koren 1918:14).

"Population data collection is basic to any modern development planning effort" (UNFPA 1983:73)

INTRODUCTION

Modern states are today statistical states. The goals and dimensions of state activity are expressed in terms of numbers, modern governments at all levels generate enormous quantities of statistical data, and much practice of governing today turns on attention to and the use of various quantified information. States count in new ways from the early nineteenth century. Public numbers--official statistics--describing newly distinct aspects of society emerged at the turn of the eighteenth century in Europe, proliferating both in kind and quantity in subsequent decades. Such public numbers promised to make concern with the nation's "progress" an empirical question, amenable to and frequently linked with purposive, meliorative governmental initiatives (Niceforo, 1921). These numbers were a new sort of social information and knowledge, generated first occasionally, but then exclusively by routine practices of government bureaus and involving massive organizational, technical, and political infrastructures.

Beginning in the 1850s, international congresses convened to make official statistics and census activity comparable and standard among the European states and, incidentally, to promote census activity. Over time, expert talk about standardization and attention to "laggard" countries changed into consequential mechanisms for the rationalization of census activity. One hundred years later, these first moments in an international statistical sensibility had expanded into extensive global cultural and formal organizational arrangements that made modern states statistical. International and regional intergovernmental organizations, national agencies and bureaus, and scientific and professional associations provided sites for the political, cognitive, technical, and organizational infrastructures that enabled the transformation of the modern census from an aspiration among a small group of statisticians and government bureaucrats into a massive government practice

I investigate this transformation in the idiom of organizational field arguments. I use the tools and research strategies of institutional theories of polity, organization, and policy¹

¹ The word "institution" and variants are keywords in the contemporary social sciences. Within sociology, several conceptions of "institution" and "institutional" contend for primacy from culture and constitutive mechanisms to constraints on individual choice. This variety evokes much intellectual mischief across lines of research and disciplines.

(Jepperson 2000; Meyer et al 1997a; Hoffman and Ventresca 2002; Schneiberg and Clemens Forthcoming; Scott et al 2000) to examine the succession of conflicts, challenges, and settlements that accompanied the emergence of organized international and expert attention to official statistics in the nineteenth and early twentieth centuries. I use an activity based account to bring into view linkages between studies of organizational fields and related work on cultural fields, social worlds, and markets as fields (Bourdieu, 1992; Ferguson, 1998; Fligstein, 2001; McAdam and Scott, 2001; Ray, 1999; Uzzi 1996). Argument and analysis from Weber to Bourdieu, from Berger and Luckmann (1966) to Strang and Meyer (1993), and from Hughes to Abbott (1988) or Clarke (1991) advocate the turn from disembodied social processes to situated social practices to understand *how* activities take shape and the mechanisms by which forms emerge, acquire stability, and experience challenges to that.

The empirical narrative of this paper addresses issues current in recent theory and research on the emergence of fields of activity – demarcated and purposeful social worlds and circuits that produce cultural meaning as well as material goods and services (Clarke 1991; DiMaggio 1991; Ferguson 1998; Haas 1990; Scott 1983; Zelizer 2002).

SETTING THE PROBLEM

Many accounts of nineteenth century European census formation focus on the census in a particular country or compare a few national cases, and de-emphasize developments in the international organization of census activity (Desrosières 1998; Hacking 1990; Koren 1918; Nixon 1960; Patriarca 1996; Westergaard 1932; Woolf 1989). For different reasons but equally problematic for analysis, institutional regime and world polity accounts of states, policy, and international organization have tended to focus on the intensified character of world political culture after World War II, to the relative neglect of institutional and organizational developments in the nineteenth and early twentieth centuries (see for exceptions, Boli and Thomas 1999; Finnemore 1991; Murphy 1994; Ramirez and Boli 1987). I focus on recent theoretical developments in organizational theory, political sociology, and international relations to develop arguments about how changes in the nineteenth century international division of sovereign political authority were linked to changing intents and initiatives in "counting the people." The triumph of the nation-state as a framework for government actions and cultural identities emphasizes modern conceptions of people as societal members, citizens in relation to an aggressively ameliorative national state, and the primacy of progress achieved through science and planning. I draw from recent work in the social studies of science to argue that the census is a political technology substantively important in producing empirical representations of "the people"--a *national* population, crucial to mass mobilizations on the basis of national identity (Patriarca 1994, 1996).

What are the mechanisms by which this institutional and organizational transformation occurred? Organization fields are a useful point of access to investigate the proximate means by which wider environments affect organizational (in this case, state) structure, policy, and practices (DiMaggio 1986; Scott 1994, 1995). Fields do mediate the relation of social structures and action (DiMaggio and Powell 1991; Scott 1999; Spillman 1995). But research on the sources and emergence dynamics of global policy fields is scarce (Boli and Thomas 1999; Dezalay and Garth 1996; Meyer et al 1997b). For this reason, the study of emerging global fields may be instructive. The particular forms of structuring the field are not yet in place; these are still moments of possibility, albeit embedded in particular configurations of resources. Once fields

become well-structured, particularly as legal, administrative, and policy arrangements are settled, much of the “going concern” aspects of a field disappear from view and process becomes rationalized into inevitability or necessity. In particular, fields that take shape across established jurisdictions make visible how local jurisdictions (e.g., states) provide variation in administrative and cultural texture for the broader global claims and initiatives. This is likely to keep empirical researchers more aware of useful multi-level process and texture in field emergence. The cross-jurisdiction design increases the opportunity to see around such basic institutional conventions.

In this study, I investigate one such process of field emergence: the rise of the global statistical policy field from its genesis in the mid-19th century. The modern census developed in the context of how a global field of talk, attention, and organization took shape. The presence of international activity was an important source for “global” meanings, models, motives and mechanisms that provided authoritative prescriptions for state-level census activity. These prescriptions worked with differential force on countries around the world and over historical time. But global field dynamics changed the processes that shaped census formation world-wide in fundamental ways; to understand why this happened and how, we need a grounded understanding of how the global field itself took shape.

I report on these formative moments of international attention to official statistics and census activity in the mid-nineteenth century and into the early twentieth century as a set of episodes that put in high relief contending cultural logics, alternative governance models and organizational arrangements, and the rise of formal organization at the global level. This paper proceeds in four sections. I develop arguments and field analysis that integrates recent theory and empirical studies from sociology and organization theory. I briefly review alternative countings that contrast with the modern model of the census, to highlight the distinctiveness and effects of the global statistical field from its earliest days. I consider the changes in institutions, organization, expert talk, and governance arrangements that comprise international attention to census activity, in the context of the emergence and growth of a global policy field (Berkovitch 1999; Dezalay and Garth 1996; Meyer et al 1997b; Scott and Meyer 1991). I focus on the conflict dynamics and institutional settlements involved in the founding and subsequent moments of the global statistical policy field in order to understand this process. My focus is the formalization and rationalization of this field of activity over time, its differentiation at nation-state, world polity, and intermediate levels, and the mechanisms by which it effected census activity. I track the contours of these field dynamics through shifts in avowed purposes, governance arrangements, and mechanisms and expertise in the service of the modern census, as well as the discursive and organizational infrastructure of each historical period. By infrastructure, I include organization, expertise and belief systems, and the field of relations, identities, and interests they evidence.

FIELDS OF ACTIVITY

How organizational fields develop and change is a lively research area (Greenwood, Suddaby, and Hinings 2002; Hoffman 1997; Scott et al, 2001). Much research on organizational fields treats a field as a construct. I contribute to an alternative conception of fields, making more explicit the usage in Bourdieu and cultural/activity analysis. A “field” in this line of argument is methodological tool, an heuristic that links broader social structures, discourse and activity, and outcomes. We speak in the colloquial about the field of higher education or art or management schools or gastronomy. These combine several usages that share at core some sense

of a social world with boundaries and some sort of social closure, that share common fates whether by government fiat, expert definition, and /or popular conception. These are fields as institutionalized industries in both the sense of economics and social movement theories—geographically or socially proximate organizational systems that comprise a defined arena of economic, social, cultural, and political life.

In Bourdieu's studies, a field charts out an approach to research, as well as naming an arena of social or cultural or economic life. Fields by definition involve struggles over scarce capitals. Actors compete in fields, and they compete from prior positions in the field that endow them with particular configurations of perceptions, values, and criteria for evaluation, a "habitus." Fields are discursive structures that comprise the collective 'horizon' for a community of actors, the conditions of the imaginable and the presuppositions that organize action (Spillman 1995).

Much research on fields also mistakes structuration for consensus. The deep analytic problem of a field is evident in ways that "institutionalized" fields are treated as stable and hegemonic, rather than seen as a case in which one dominant logic has made successful claims to primacy and a set of institutional settlements are (provisionally) in place. The Wuthnow (1989)/Spillman (1995) idea that a field may well be an venue for oppositional ideas and practices and the support for innovation is more vivid in studying emerging fields (DiMaggio, 1991). New forms emerge in the context of fields of activity, organization, discourse, and struggle (Ferguson 1998; DiMaggio 1991; Rao 1998; Ray 2000; Spillman 1995; Wuthnow 1989) and a task is to consider how the study of emerging fields can support or contradict the processes by which new forms emerge. Abbott puts a different kind of work at the center of the analysis. He argues that struggles over jurisdictions—the socially-authorized spaces of work practices and expertise—motivate the reconfiguration of existing social spaces. (His analysis does not speak to "greenfield" situations, in part because he contends that some prior social ordering is present and so jurisdictional struggles over the reallocation of resources, status, and control is always present). Research on social worlds/arenas (Becker 1984; Clarke 1991) puts purposive actors at the center of the analysis and tracks how and what these actors do and how highly stratified and segmented worlds emerge from their activity; this suggest how forms become a "going concern."

What studies of field emergence do is to redirect the analytic focus to plural actors and jurisdictions not yet conventionalized or standardized. Furthermore, field emergence studies prompt us to view process more explicitly and to take advantage of innovations in the work of Ragin, Abbott, and others and to bring more standard tools and research strategies to a Foucauldian genealogy—linking disparate actors, issues, identities, and practices that undergoes periodic redefinition as the "order of things" shifts. Mohr (1998), for example, in his elegant study of shifting configurations of poverty concepts, intervention, and policy in NYC 1880-1920, chronicles one such approach.

ALTERNATIVE AND HISTORICAL COUNTS OF POPULATION

The global statistics policy field takes shape at the intersection of two broad institutional logics (Alford and Friedland 1991) changing the 'order of things' in the nineteenth century: on one hand, an interstate regime of sovereign nation-states that challenges and reorders the historical configuration of political authority, cultural identity, and economic activity comes into being (Krasner 1988; Meyer 1980; Thomas and Meyer 1984). On the other hand, a logic of universalist science is finding new expression in the organizational expansion and links to the

administrative and technical rationality of expanded states (Schofer 1999; Wuthnow 1980). A major historic development strengthening the authority of secular knowledge was the Enlightenment's fusion of 'scientific' knowledge with a compelling vision of progress (Rueshemeyer and Skocpol, 1966). Key pivots of state and economy and state and society in Europe are shifting in the early nineteenth century with broad new concerns for knowing about society (Katznelson 1996:17-22) and with shifts in the cultural imagination of what is society (Anderson 1983). Official statistics provides representations of this new imagination, in an idiom that resonates with broader social sensibility: the linking of science and administrative technique and societal progress (Anderson 1983; Appadurai 1996; Hacking 1990; Scott 1998). I focus on the particular character of the census--as a prodigious and public logistical effort and a state practice immersed in scientific and technical discourses--to argue further that the census is one of several governmental technologies that make vivid such abstractions as a national society, the nation-state, and the modern individual or citizen. These logics shaped the emerging global policy field concerned with official statistics and they recur in the struggles that occur in the field and in the settlements that figured it.

The national population census incarnates these twin logics and is evidence of the dramatic transformations in the relations between the state, society, and the individual. The modern census is distinct from historical and alternative countings and incorporates specific desiderata on key dimensions. Modern desiderata included 1) exclusive government sponsorship, 2) defined territory, 3) nominal count of all persons; individual as unit of enumeration; 4) periodic and regular, 5) public and timely dissemination of results. The more basic dimensions of difference include 1) sponsorship, 2) purpose(s) and population of interest, 3) technologies, organization, and procedures. The census nearly through the end of the twentieth century and, not insignificantly, in the form it first took over one hundred fifty years ago, can be redescribed as a cultural form, deeply modern in content, conduct and concerns. Census content emphasized information about individual persons, in their capacity as citizens of an embracing, national political state. Conduct of the census involved centralized authority and bureaucracy, professional knowledge, immense organizational logistics, and mobilization of a population. Concerns of the census involved knowing in systematic and empirical ways about these national populations.

Before the 1830s, a great variety of countings and numberings were completed, conducted by political authorities but also religious and economic authorities. The history of seventeenth century mercantilist logics marked primary state concerns and conduct with regard to population data in distinctive ways (Kuhnle 1996; Woolf 1989). State efforts focused on the estimation of population size and movements. In this view, the size of the population was an indicator state strength and capacity and was the basis for tax collection and other extractive functions. The counts themselves were relatively unsystematic in procedures, counting hearths, households, family groups, and often only men or adults. Finally, there was little public dissemination of results; in fact, the data were often treated as state secrets (Duncan 1987; Flora 1965; Landes 1972).

The mercantilist sentiments gave way to what Westergaard (1932) called the era of [statistical] enthusiasm: municipalities, states, and central governments across Europe established statistical offices, bureaus, and commissions (or reformed/rationalized existing agencies and abolished others, especially the "tabulating offices"); statistical societies increased their activities (MacKenzie 1981), the state commissions initiated the publication of consolidated

official statistical handbooks or later yearbooks and journals, and an “avalanche of public numbers” (Hacking 1982) ensued, implicated in a scientific assessment of society and in the new political economies and public administration of the period. At this point, “local” and varied traditions of statistics and counting prevailed throughout Europe and in the Americas and elsewhere in the world (Gocek 1992) – the legacy of religious traditions, polity structure, the specific role of knowledge elites, and many other factors (Desrosières, 2001; Koren 1916; Kuhnle 1996; Landes 1972; Westergaard 1932; Woolf 1984). These initiatives intersected in the 1850s with new international organization of official statistics, and were changed in fundamental ways. Table 1 provides a chronology of key dates and events. Concurrent with the rise of international organization, states centralized the production of official statistics, systematized statistical publications, and created central statistical bureaus as relatively autonomous administrative institutions (Kuhnle 1996). The rise and organizational expansion of this international statistical concern and expertise is the focus of the present article.

DESIGN, DATA, AND METHODS

I used multiple methods to investigate how the form, content, and periodization of organized activity about official statistics emerged at the international level. Methods for the study of field emergence take into account competing goals. I combine the methods of studying field structuration and change with issues in the emergence of organizational forms. Field structuration studies typically follow a set of key indicators over time to observe changes in central features of a field through indicators of the volume of information circulating in the field, the kind of direct network ties or evidence of structural equivalence, rhetorics of common identity, and status orders. I add a fifth indicator to this standard set: new venues for making claims in the field. Historical research on the origins of organizational forms and fields provides exemplars for this project (Abbott 1988; Brint and Karabel 1991; DiMaggio 1991, 1994; Ferguson 1998; Rao 1998). Garth and Dezalay (1996) study jurisdictional struggles over the formalization of international commercial arbitration. The focus on pivotal struggles and track which actors and which venues consolidate and rise to prominence and which fade. They argue for attention to shifts in the collective orders of expertise, in way akin to Haas (1990) and the studies of policy elites in epistemic communities. In contrast, Meyer and colleagues (1997b) use the trajectories of empirical growth of informal and expert talk and in governance artifacts to track the emergence of a global environmental sector over historical time. Methods in these studies begin from a qualitative and strategic sampling of actors, activity, and or artifacts, then use various techniques to identify what changes in the field. Scott and colleagues (1994; Scott et al 2000) develop a core framework for field analysis: changes in logics and meanings systems, governance structures, and the entry and exit of key institutional actors.

I suggest here that field emergence is usefully examined in “episodes,” stream of conflicts, struggles, settlements, provisional solutions, and the shifts in key resources, entry of new institutional actors, the challenge of alternative logics (often supported by proximate or external other fields and professional jurisdictions). Abbott (1988) provides this core imagery, for the struggles over jurisdictions that organize the history of professions, extended by Dezalay and Garth for international fields and by DiMaggio, by Hoffman, and by Scott for U.S. policy fields. My argument is simply that these same struggles occur in wider social worlds (here, distributed in space and time (Anderson 1983; Appadurai 1996; Clarke 1991). The outcomes of these field-wide or segment struggles are redefinitions of the dominance orders of a field, changes in

boundaries, and changes in the logics that claim primacy. I use this method of comparative “episodes” to develop the account of the global field of official statistics (Greenstein 2000). This kind of episode analysis takes advantage of the strengths of historical narrative and also comparative analysis to develop and use analytic variation within “one” case (March, Sproull, and Tamuz 1991). Episodes are pivotal moments in the development/trajectory of social processes or a particular artifact. In the idiom of organizational field analysis, episodes enable us to see key conflicts, contradictions, and the institutional settlements that resolve these provisionally and establish the field conditions for the next process.

I report on evidence from primary archival work in the records of statistical societies, the key conferences and associations, and public census reports (including original translations). For the archival materials, I follow guidance about how institutional analysis can meet with the formal studies of meaning and culture (Ventresca and Mohr 2002). I conducted historical and descriptive analysis, emphasizing changes over time in indicators such as 1) presence and program of international meetings and agencies, 2) quantity and quality of publications, 3) levels and kinds of international support for national censuses. Much discussion about the population census as cultural form and state practice occurs at the international level from the mid-nineteenth century on, intensifying dramatically in the mid-twentieth century. This world-level discourse is manifest empirically in the proliferation of international meetings, established international organizations and agencies, technical assistance and other programmatic initiatives, and new linkages between national-level census efforts and transnational activities.

I also used secondary historical works, published documents and reports, organizational proceedings and archives. The secondary sources including journals and proceedings from historically contemporary organizations and individuals; and more recent histories of states and official statistics. These include the historical literatures on social origins of statistics (Duncan 1987; Landes 1972; Lazarsfeld 1961), on official documentation of statistical congresses (Hacking 1990; Koren 1918; Meitzen, 1891; Neumann-Spallart, 1885; Westergaard 1932), meetings and institutes (Atkinson and Fienberg 1985; Bjerve 1985); professional associations and international organizations and agencies (Gregory 1938; Nixon 1960; Atkinson and Fienberg 1985; Fienberg 1985), and their linkages with regional and national associations (Affichard 1977; Casley and Lury 1987; Gini 1930; Huefner et al 1984; Willcox 1934). I use *Demographic Yearbooks* and similar compilations from the League of Nations and the United Nations (League of Nations 1925-1932, 1927-1945; United Nations 1949-1989, 1954; 1958a,b; 1975). These documents work in the study as both secondary sources, but also as primary archival materials that I code to develop proxies for the periodization and to track changes in the content and location of field debate and discussion.

I developed provisional claims about historical eras and pivotal episodes from a substantial review of research in history and historiographical sources of quantitative evidence, demography, early political economy, religious and anthropological studies of counting, national traditions of statistics, and recent history and philosophy of statistics. I used this to develop a conceptual framework of dimensions of change and elaboration in the key episodes that track changes in purposes, governance and dominant organizational mode, and mechanisms of expertise in the global statistical field. I present the framework in Table 2.

EPISODES IN THE EMERGENCE OF THE GLOBAL STATISTICAL FIELD

Early moments in international statistical organization

Formalized international attention to statistics prior to the mid-nineteenth century was, in a word, non-existent. In these times, social numbers were the purview of eager amateurs--men of the new political arithmetic, individuals trained primarily in the natural and exact sciences or medicine who brought their scientific sensibility to the analysis of the social world. This early world of statistics paralleled the more general scientific communities from which it grew: interaction took the form of correspondence networks, informal travels and written communication, individual study and formal training, memberships for illustrious "foreign" colleagues in scientific academies, and the exchange of publications that often reported on empirical studies or even simply reported local data (Orstein 1928; Schofer 1999).

The era of statistical enthusiasm that flourished in the late 1820s and 1830s marked a new awareness of society itself as a powerful and dynamic entity, a source of progress but also a cause of instability. The available representations of society shifting from the neatly ordered imagery Darnton (1984) depicts of a city in procession, instead to the portraits of urban masses in the graphical and descriptive mappings of surveys and other descriptive accounts (Bulmer). There was much optimism about the prospects for a statistical science to reveal fundamental patterns in social life that would make "society" tractable for ameliorative intervention (Hacking 1982, 1987; Koren 1918).

The private, local statistics-making and gathering initiatives in Europe and the Americas began to give way by the 1830s to public, often central state activities. Within a few short decades a new notion of statistics as numerical social science emerged and was firmly entrenched in the activities of government bureaus and agencies (Porter 1986). The new statistical institutions--societies, bureaucracies, and commissions--were evidence of contemporary and changed sensibilities about the nature, responsibility for, and uses of numerical knowledge/statistics and its contribution to governance (Hacking 1981; Miller and Rose 1990). The shifts from statistics as descriptive facts about state power and organization to measures of societal activity, and from the efforts of solitary scientists and local amateur societies to the products of professional statisticians mark key transitions.

The statistical enthusiasms of the early decades of the nineteenth century were "local" but via the efforts of statistical entrepreneurs who moved in between scientific and governmental roles, international attention to statistics and census activity first took form. These disparate worlds became a circuit (Zelizer 2002) through the efforts of Adolphe Quetelet, the Belgian astronomer, eminent statistician and tireless promoter of official statistics, who contemporary and modern sources recognize as an adroit statistical entrepreneur. Quetelet accepted the position of head of the state statistical office in Belgium soon after independence. He instituted a number of reforms in the conduct, content, and organization of the census. In fact, the 1846 Belgian census he supervised, is arguably the first "modern" census by the criteria I use in this study: systematic and (intent for) full enumeration of all individuals, conducted by public authority and with results made available to all through a standard publication series, and with content expanded substantially beyond the categories of age, sex, civil status, location that were the standard scope of content previously. The career of this tireless promoter of official statistics recapitulates the transformations from local to global focus and from amateur to professional status in organized statistical activity. Quetelet soon turned his energies to the wider arena.

The founding moments of organized international activity took form in a series of novel international congresses that commenced in 1853 and continued through the late 1870s. The 1851 Universal Exhibition in London provided a first venue for the principal statesmen of Europe and the Americas--and for men of affairs and scholars--to gather and exchange knowledge. Invited to attend by the Prince Consort, Quetelet wrote his former student and friend that he would certainly attend the Exhibition, a "tournament of modern times" and evidence of "social transformations now in progress" (Willcox 1949:12). Quetelet did attend the 1851 Universal Exhibition and, with other leading statisticians, promoted the idea of holding a "European [Statistical] Congress."

The Central Statistical Commission of Belgium convened such a Congress for late in 1853, in Brussels. The delegates in attendance at the first session of the International Statistical Congress in Brussels were the notables of the European statistical world and its affiliates in the Americas; attendance was confined to official delegates: 153 attended representing 26 countries (Nixon 1960). In his opening remarks, an optimistic Quetelet proclaimed:

The Congress...commences a new era. Statistics is in the same phase as her sister sciences that have appreciated the need to adopt a common language and to introduce uniformity and organization into their inquiries (Nixon 1960:6).

The accomplishments and struggles of the Congresses chart key moments for the global policy field of statistics and for modern census activity. The Congress period focused attention on practical concerns of official statistics, with emphasis on rationalizing census activity across countries to facilitate comparisons for progress and social amelioration (Westergaard 1932; Korosi, 1881; Neumann-Spallart 1886). Though primarily a European affair at the start, the Congresses from the first meetings by included representatives from the Americas, and by the second session in Paris in 1855 from Egypt, the Ottoman, and still later Japan and others. The perceptions and reports of U.S. statisticians and census officials, representatives from the Sublime Porte, from Meiji Japan, and elsewhere provide evidence of fascination with this Western administrative technology and the efforts to adapt census principles and procedures of the self-consciously "statistically advanced" countries (Mitchell 1988; Owen 1994; Anderson 1988; Koren 1918; Westney 1987; Gocek 1992).

The work of these meetings involved codifying normative "best practices" for census organization, conduct and content, and calling for implementation of these. The major ISC recommendations discussed and resolved envisioned a very specific model of the modern census, evident in prescriptions for census organization, content, and conduct over the history of the Congresses. This work imagined population in new ways, specific to state conceptions of liberal association (Scott 1992:22-33). For example, the 1853 Congress in Brussels resolved and published specific, comprehensive guidelines and desiderata for census activity, the first set of *international* recommendations.

The content of the recommendations theorized the modern model of census activity. They call for rational(ized) organization, including the establishment of standard procedures and of formal and permanent central organizational apparatus. According to the ISC resolutions, census organization should feature a central state bureau, with professional staff, and a central statistical commission to coordinate the growing and often disparate statistical activities of individual government agencies. Many countries did establish statistical bureaus and central commissions in these middle decades of the century. Through the 1860s and on, not only were

new bureaus and statistical commissions established in many countries in Europe and the Americas, but many existing statistical services were reorganized. This often occurred with awareness of the ISC recommendations, though not always with sustained commitments to the normatively-prescribed model.

The substance of resolutions and discussion also provide evidence of the broader principles and social theory the delegates incorporated into the model. This constellation of features also dramatized a distinctively liberal model of state-individual relations. The de facto model of census activity they envision make central the importance of individual enumeration and elaborated content about individuals that extended the more limited content of prior censuses in Europe and the Americas. This model of the census did not exist fully in practice anywhere at this early point, however, but stood in contrast to what had been the prevailing alternatives in state-sponsored counting and national statistical traditions--the Swedish system of continuous population registers, German models of comparative state features, and the transitional censuses of the first decades of the century. These features exemplified the census model Quetelet implemented in the 1840 cycle in Belgium and that he promoted.

Delegates extended and reaffirmed the recommendations at subsequent Congress sessions, which also took up issues in specialty topics such as the statistics of large cities; issues of de jure and de facto counts; a focus on "statistical ethnography" that called for enumeration of "races" and associated cultural conventions and physical characteristics; housing stock; and expanded attention to work and the mobility of the labor force. These prescriptions for state-level action bore the weight of the international consensus of experts, but little effective monitoring or regulatory mechanisms (Linder 1959).

The Vicissitudes of the International Statistical Congresses

The Congresses were innovative in their recognition and convening of the emerging statistical world that included both academics in the new traditions and civil servants who headed (often newly-established or reformed) state statistical establishments. The Congresses worked very much in an idiom of 'science' that prevailed in this period, where systematic and well-ordered initiatives of social inquiry invoked the claims of being scientific (Katznelson 1996: 301-4). Prince Albert opened the 1860 London session with remarks that reflected the dual commitment to scientific statistical activity and its implications for social amelioration:

These [international] returns will no doubt prove to us afresh in figures what we know already from feeling and experience--how dependent the different nations are upon each other for their progress and...prosperity... [and] for the maintenance of peace and good will among each other. Let them still be rivals, but rivals in the noble race of social improvement..." (London Statistical Society 1861).

By the 1860s, there were calls for the creation of formal organization--a secretariat--that would prepare Congress agendas and administer on-going ISC business. To this point, the Congresses had had little formal or sustained material base. Indeed, illustrious and internationally recognized statisticians served in the executive positions, and their affiliations provided the organizational basis for each subsequent Congress.

The concern for governance and administration remained on the agenda, but more immediate contention regarding the social demography of Congress participation brought into sharp focus the "scientific quality" of the meetings. From the third session in Vienna in 1857,

the tensions between professional delegates and the “lay element” surfaced in a series of debates about participation in the proceedings. The direct concerns were that expanded access, especially the increased proportion of local participants, diluted the scientific character of the proceedings and, incidentally, was inconsistent with the efforts to consolidate an international community of statistical experts committed to progress through statistical knowledge. Leading figures in the assembly called for closed pre- and post-Congress working sessions, these as a solution to the “changing scientific quality” of the meetings and discussion. Table 2 lists dates and city venues of the Congresses, as well as the percentage of “foreign” Congress participants, that is, not from the host country. Attendance varied in number over time, but became increasingly lay and “local” from 1857 until the last sessions in 1876. The first Congresses, and the last session in Budapest, had forty percent or more “foreign” participation, meaning statistical notables and professionals who traveled to the meetings. The middle years—the sessions in Vienna, London, Berlin, and Florence, showed twenty percent or fewer international delegates. At the 1867 session in Florence, the problems of organization and professionalism dominated the meetings (Patriarca, 1994, 1996), a session with only eleven percent international participation.

The growth in the “popular” appeal of the Congresses met more organizational issues. To further consolidate these general purposes of science and rational administration, discussions during the 1869 session at The Hague resulted in a plan to sponsor publication of an extensive volume of comparative international statistics building on work by Quetelet and others, *La Statistique Internationale de l'Europe*. Despite efforts to divide the task among the “important European states,” little progress was made on this ambitious project for cooperative work and publications. At the 1872 St. Petersburg meetings, delegates established a Permanent Commission to supervise such ventures, and more generally to refocus the scientific and professional aims of the Congress.

In principle, the bureau was charged with staff functions: preparing for each congress session and producing the international statistical annual and a regular bulletin. In practice, its role expanded with each of the four meetings held. Commission members, Engel of the Prussian Statistical Office prominent among them, envisioned the Permanent Commission as the effective international agency, substituting it in practice for the Congresses (Dupâquier and Dupâquier 1985). At the 1878 Paris session of the Commission, this aspiration culminated in proposals that would have enhanced the authority of the Commission over statistical policies and census activity in participating governments: requirements that governments report back to the Commission their decisions with regard to various Commission resolutions, with decisions of a majority of states then having binding authority for all participating states.

The Permanent Commission's initiative to expand the formal claims-making authority of the Congresses on Member governments provoked dissent. Though representatives from many of statistical bureaus recommended approval to their respective governments, some, particularly those in the German Empire, reserved to themselves “absolute freedom of action...”; other states were diffident or did not respond (Neumann-Spallart 1886:300). Many states declined to participate in either the scheduled 1879 Rome meetings of the Permanent Commission or the scheduled 1880 tenth Congress, or both. The congress period was over.

Contemporaries and more recent commentators suggest in strong terms that Bismarck encouraged key German states to not participate, to resist possible incursions on a growing concern for national sovereignty (Willcox 1924; Horvath 1978, 1989). These were the very first years after the consolidation of an all-German state; Engel and other Germans prominent in the

ISC were affiliated with the Prussian statistical establishment, at that very time jockeying for position and authority among the other state statistical agencies. Engel himself was eager for the Permanent Commission authority over member country activities, and the plans to develop the ISC Commission as a platform for scientific prescription and administration accountability represented a challenge to the increased commitment to a “national” model of the state.

Some analysts argue that the ambiguity of purpose and membership caused the ISC to founder. But the embeddedness of the Congresses at the temporal and substantive interstices of contradictory logics put them at risk beyond the problems associated with governance and administration of the organization. The ISC began in a moment of transition in settling of new rules of international life that specified the range of appropriate actors, their actions and interactions. This tentative, hybrid effort at international intergovernmental organization took shape prior to a well-articulated grammar for nation-state prerogatives and responsibilities, and then met its end amidst tensions occasioned by initiatives to assert authority over nation-state level census activity in a period when state sovereignty and a wider framework of a international system of nation-states was consolidating.

The Congresses grew up in the interstices of two, competing cultural frames that defined the expansion of social knowledge in this period (Hacking 1990; Rueschemeyer and Skocpol 1996): One frame promoted the Congresses as a scientific meeting of eminent individuals who convened to further statistical science. The other frame supported the professional project and aspirations of many key participants, who treated the Congresses as a quasi-official gathering of government representatives with political and policy authority. But no government explicitly recognized this latter role, nor were the Congresses "official" intergovernmental meetings in the modern sense (nor were they even initially "organizations" in the formal sense). For example, each congress was formally invited by a host country government to its venue, invitations to the congresses were issued through the Foreign Office of the host government, and high government officials often delivered an opening address. Yet the status of persons formally invited to participate in the Congresses was various, with some attending as official government delegates, others attending as independent experts, and still others as representatives of learned societies (Campion 1949). The international of scientific statistical activity met the emerging model of the nation-state; the logic of state sovereignty triumphed.

The effects of the congress period on census activity were several. The Congresses were a key means by which norms, ideas, and practices that had formally been local practice or convention were cast as international standards, later accompanied by efforts to create binding commitments on member states to adopt and implement these standards in actual national practice. Statistical activity general and the conduct of the census in particular was central in new state concerns about managing both society and economy. Proponents believed that linking science (i.e., formal and rational procedure, systematic comparison) with on-going "official" and applied statistical activity would improve the statistical base for societal intervention. The Congresses proposed and reinforce specifically technical improvements to the methods of census-taking, centralizing and rationalizing the (bureaucratic) organization of the census, and the adoption of standard, elaborated content categories to facilitate international comparability. In addition, the Congresses provided forums in which particular imageries of the census were made stable and in which scientific allies were informed and enrolled in promoting that imagining (Latour 1987). Finally, the Congresses were a platform for the development of specialty professions.

The struggles and contestation in and around the ISC evidence three sorts of tensions important in understanding the emergence of the global policy field of statistics. First, from early on there were tensions between the core group of statisticians dedicated to organization of men holding scientific credentials and usually state administrative or academic position. Second, and from among this core group of scientific professionals, there was growing ambition for the ISC to take on additional substantive roles in the improvement and coordination of official state statistics in the "world" (still primarily Europe and the Americas, though with increasing presence among other parts of the globe). This was evident in the shift from seeing the outcomes of the congresses as a set of hortatory recommendations that exemplified "best practices," and instead aspiring to the creation of a permanent secretariat to handle ISC business but also to coordinate and promote international coordination. Third, differences among the Member countries in how each government reviewed the Congresses intensified and took consequential forms, after the Franco-Prussian war and as new countries consolidated from previous political organization (e.g., the Italian states, the German federation, the dissolution of Austria-Hungary, and the easing of Ottoman suzerainty over Central and Southeastern Europe).

Table 2 provides a summary for this period and subsequent settlements and periods of revision in the discourse themes and formal organization of the international statistical policy field. I consolidate the historical evidence into a set of comparable features: core thematic purpose(s) and technical/instrumental purpose(s), the dominant mode of field governance, the key mechanisms by which international expertise was disseminated, and the forms and sources of census expertise. This data display provides the direct comparisons of the kind, focus, and mechanisms in this global field. The narrative develops the key episodes that overview the contradictory or contending logics in the field, mark the challenges to existing settlements, that introduce new institutional actors to the field, and shift central field purposes and practices.

The Founding of the International Statistical Institute

Despite the dissolution of the Congresses, a dialogue about official statistics and national census activity continued. Informal dialogue, visits, and the publications of international statistics continued, now under the rubrics of journals/reviews of the statistical societies and in the bulletins and official publications under the exclusive responsibility of the state statistical services. These activities continued the consultative and hortatory activities that were the legacy of ISC and also generated increasingly regular, formal, and copious publications compiling comparative statistical information. The goals of international cooperation remained: increased comparability and standardization. Korosi expanded this ambition for world-level initiatives with his proposal for a "World Census Project" (Korosi 1881); this call reverberated through the international statistical community for decades, a grail of sorts, and animated the mid-twentieth century efforts of the UN decadal census programs.

During the late 1870s and 1880s, a roster of statisticians, demographers, and state bureaucrats, many associated with the ISCs, sought out varied institutional venues for a continuing international colloquy on official statistics and the census. They first tried to initiate an international demography congress, then sought to attach demography and census issues to the existing international hygiene conferences (Dupaquier and Dupaquier 1985). Others would work in later eugenics conferences (Barrett and Frank 1999). After these efforts and one further unsuccessful effort to reconvene the ISC Permanent Commission in London, the press for an international platform for talk and activity about official statistics took a new direction.

Statistical professionals and bureaucrats used the anniversary meetings of the Paris and London Statistical Societies in 1885 to found the International Statistical Institute. The ISI was a self-conscious effort on the part of this community of nascent professionals to create an international statistical organization with no formal government ties and no appearance of being an official or representative forum. The ISI flourished as a prestigious and effective forum for both academic and practical attention to all matters statistical. In fact, the ISI held a quasi-official status in census and statistical matters, but took no initiatives that would challenge the primacy of state sovereignty in these areas. But, in the early 1920s, this status again changed decisively, again in the face of renewed intergovernmental activity.

The founding of the ISI occurred at the 1885 Jubilee meetings of the London Statistical Society (now the Royal Statistical Society), held shortly after the 25th anniversary session of the Paris Statistical Society. The celebrations included a conference to consider the achievements of the London society and other statistical societies, the results obtained by the international statistical congresses in the "direction of uniformity of statistics," and the possibility of establishing an International Statistical Association. The Foreign Office sent out invitations to about 30 countries and the conference was held with participants from twelve countries in attendance (the German statisticians did not accept invitations to attend). Conference organizers invited von Neumann-Spallart, professor at the University of Vienna and a long-term participant in the ISC, to prepare a review of the accomplishments and troubles of the Congresses.

In his analysis, Neumann-Spallart (1886) proposed three possible governance models for the ISC successor organization² and indicated his favored one: the organization of the Institute as a "free association, divested of any official character...a "private and scientific body," that would seek to exercise "no official authority or influence" but the "decisions [of which] would carry considerable weight owing to the great personal influence of the members...and their valuable labors." That these efforts might well "attract the attention of Governments" and lead to the adoption of practices that would "promote the advancement of statistical knowledge..." was certainly an outcome he anticipated (Neumann-Spallart 1886).

The discussion among the three models recapitulated the very issues that troubled and ultimately resulted in termination of the Congresses, the assembly agreed to found a free association of eminent individuals, and adopted the statutes. These provided for limited individual membership,³ the establishment of an executive committee to administer Institute business between the biennial sessions, and regular publications that would include a triennial bulletin, an International Statistical Annual, special works, and summary proceedings of its sessions. The new ISI president, Sir Rawson Rawson replied to the initial hesitation of the Germans invited to join with a clear statement of the ISI's identity: "While the direct object of

² These three were: (1) an official organization, assembling official government delegates; (2) a Permanent Commission of International Statistics that would bring together scholars and heads of statistical bureaus; or (3) a free association "which, without having official character, would secure linkages with the official statistical offices of the different States of an appropriate form."

³ By the founding provisions, the twenty-two persons present from eight countries were elected as members and over fifty more from eight other countries were invited to join. By statute, no more than a fifth of the members could be "nationals of the same State," and the founding membership reflected this balance: five or more from England, Germany, France, the USA, and Russia; three from Hungary, and one or two from Belgium, the Netherlands, Brazil, Denmark, Spain, Finland, Greece, Norway, Sweden, and Switzerland.

the Congress and Permanent Commission was to influence Governments, that of the ISI is to acquire and perfect statistical knowledge and to furnish information to those Governments which mark attention to its proceedings" (Rawson 1886:33). Reassured, they joined as regular ISI members prior to the first session in 1887 in Rome.

The period of ISI primacy

The founding of the International Statistical Institute marked a transition in the focus, mode, and mechanisms of international attention to census activity. From its beginning in 1885 up to World War I, the ISI served as the pre-eminent international forum for professional statistical activity, "universally recognized as *the* international statistical authority in the matter of establishing acceptable standards" (Geary 1957:5, emphasis in the original). From 1887 to 1914, the ISI held 14 sessions in European capitals (and in Chicago in 1893); these resumed in 1923.

Article 1 of the founding charter set out the objective of the Institute: "The ISI is an international association which has as [its] goal encouraging the progress of administrative and scientific statistics." The means to this included promoting uniform methods, the creation of international publications "destined to establish permanent rapports between statisticians in all the States," calling government attention to questions "resolvable by statistical observation," and "demanding information on matters still not sufficiently treated by statistics..." (IIS 1886). The composition and activities of the ISI emphasized the increasingly scientific and professional character of international concern with statistics, consistent with the conditions of its founding.

The ISI continued and extended the work of the Congresses. Session by session the activity of the Institute continued to expand in scope and ambition, revisiting familiar issues and adding new topics related to official statistical activity. Census activity was prominent in ISI session topics and recommendations, animated by new purposes and goals for census modernization and prevalence. From 1899, proposals were made to promote "demographic explorations" in the countries where no census had yet been conducted, for an international census bureau to facilitate activity, and for the Institute to provide instructions to colonial States and other independent countries lagging in census activity (Kiaer 1899, 1911). The Institute took up the project of coordinating and publishing international statistics. The volume of Institute publications grew: from 1886 to 1915, 20 volumes of its bulletin were edited, representing approximately a total of 14,000 pages.

The questions about the character of the Institute and the relations between the Institute and the Governments continued to vex discussion and practice during the following decades. Seven sessions in as many European capitals and sixteen years passed, for example, before the Imperial German government invited the ISI to meet in Berlin; even this was forced, by the suggestion that the Bavarian state would invite the ISI to meet at Munich were the Imperial government to not act (Willcox 1949:16). The idea of establishing a permanent Bureau was voiced frequently, peaking in 1913. After much discussion and despite reservations among some members, the Institute set up a Permanent Bureau to gather and publish comparative international statistics, under the charge of the Secretary General at the Hague. Its tasks were to 1) assemble and conserve statistical documents of different States and extract from them the data that pertain to international comparisons; 2) facilitate the unification of all modes of census activity; and 3) publish as soon as possible an *Annuaire International*, periodical bulletin, and bibliography. The first volume of the *Annuaire* was published in 1916 (Nixon 1960; Rice 1947).

The ISC and the early period of the ISI were marked by continued thematic purposes of

scientific and scholarly internationalism in the interest of world peace, evidenced in the formal calls for a coordinated *world* census and the explicit division of labor involved in the international statistics project. The recommendations and policy claims recognized the practical role of bureaus in each country conducting and compiling census data, but urged permanent formal organizations to integrate and disseminate this information. They embodied a strong normative vision of appropriate state policies and practices, these promulgated and promoted by new (and nascent) statistical professionals and state bureaucrats, conducted in language at the intersection of science and political liberalism. The variety of difficulties this plan encountered--logistical, political, and other--is evidence of changed understandings of "international" society, one marked by the rise of sovereign states as the central actors.

In a (European) world increasingly organized in terms of chartered nation-states, international societies and associations offered a venue for professional activity outside the immediate interested purview of a central state (Boli and Thomas 1999; DiMaggio 1991; see parallels and paradox with Wuthnow 1980 account of the rise of modern science). The start of international meetings, congresses, and later formal organizations provided a nominally "neutral" (e.g., non-national) forum in which census proponents and practitioners could convene. In these forums, early statisticians gave way to modern statistical bureaucrats, agents of the new nation-states of Europe, the Americas, and states like Japan, Egypt, the Ottoman, and others. The modern census model took normative and practical form, as well. What had been a Belgian model of census organization and activity was theorized (Strang and Meyer 1993) by nascent statistical professionals more generally as a desirable global model comprising and distinctive content useful for state management of economy and society (Katznelson 1996), prescriptions for conduct, and specialized, sustaining organizational arrangements.

The ISI, World War I, and the League of Nations

World War I presented a challenge to the ambitions of the statistical internationalists. Statistics and states both acquired new meaning and purposes in these years. Koren contends that the previous period

[M]arks a distinct era in official statistics which the war brought to a close...[a] new order of things will emerge that is certain profoundly to affect statistical work. (Koren 1918:xi).

Looking to the future, Koren continued, "The statistical world around us is immense and widening; but not altogether well-ordered, and awaits standards to be set and to maintained" (1918:14). The ISI persisted through the war, but changes and new challenges were ahead.

The founding of the League of Nations and its statistical ambitions challenged the mission, identity, and primacy in practice of the ISI. The organization and activities of the League of Nations provided alternatives to the purely professional or scientific associations. Once again, member *countries* participated in a series of commissions and committees, with special concern for public health and sanitation, fertility and the advance of demography (Barrett and Frank 1999). Where the ISI had enjoyed primacy as a meeting ground and base of international action for the long-time concerns of census activity, the League now simply moved by fiat into these arenas.

The first decades of the era dominated by a central intergovernmental organization marked the erosion of the historic role of the ISI and the uneasy renegotiation of a division of labor

between the ISI and the League. Relations between the two organizations were acrimonious, despite a series of consultations. The statistical divisions of the League of Nations and other specialized intergovernmental organizations took over some functions previously done by the Institute. The League, one of the new generation of international organizations, quickly gained primacy in the areas of fostering cooperation and coordination in census activity.⁴

In the years after World War I, the ISI redefined its mission to focus on statistical education and other functions outside the scope of primary League activity (Rice 1945, 1951). The ISI retained substantial presence in the burgeoning global statistical field. It continued to provide a primary forum for professional discussion, and its publications through the 1930s reflected this: regular sections on "scientific studies," a large section on "communications on methodology, legislation, organization and statistical administration" that included short articles and reports about individual countries, a comprehensive international bibliography listing current statistical publications, information on statistical services and institutions around the world (IIS 1921-1939). The ISI began to meet in non-core European countries, as well; after the 1923 Brussels meetings and the 1925 Rome meetings, the Institute met for the first time in Egypt, Poland, Japan, Spain, Mexico, Greece, and Czechoslovakia (Willcox 1949:18).

The League of Nations published the first edition of the *International Statistical Year-Book* in 1927, in accordance with recommendations made by the Economic Committee to the Council in December 1925 and to serve as a background document for the World Economic Conference held that spring. The explicit motivation for the publication was to "give an international synopsis of available statistics relating to the most important economic, financial, demographic and social phenomena," while the aspiration was "to cover as many countries as possible and to render the statistical series comparable over the whole of a given period" (League of Nations 1932). Other publications followed (see Table 1).

The League activities also continued to incorporate and forward the thematic purposes of the preceding periods: world peace through the application of scientific method, proximately through societal improvement⁵. North, secretary of the Carnegie Endowment for International

⁴ With the founding of the League and its concerns with trade, international economic activity, trends in fertility and demography, and later in planning and economic development, the level of continuous, formal organization of international attention increased dramatically. The new international intergovernmental organizations had political prestige and recognition, the necessary funds, and centralized staffs, whereas the "Institute had to rely largely on the dedicated spare-time labors of a few members often widely dispersed through the world" (Geary 1957:5). By the mid-1920s, the League established a central office charged with coordinating, collecting and disseminating statistical information.

⁵ Concurrently, attention to societal improvement in these years began to include concern for increased economic well-being, more generally the management of (national) economies. From the 1920s on, the older language of societal amelioration and reformation via that facts of statistics was joined by strands of a related discussion: that of rational planning, particularly in the economic sphere. Where nineteenth century census rhetorics emphasized the association between the "statistically advanced" countries and a diffuse sense of civilization and progress, this linkage took on new shape in the years after World War I. "Progress" was materialized in theories and practices related to individual and societal economic well-being. In these early years, League of Nations staff and experts developed the foundations for the analytic frameworks that constituted gross national product and related measures of national economic activity (McNeely 1995).

Peace and a former official of the U.S. Census Bureau and president of the American Statistical Association, states this vision directly:

The science of statistics is the chief instrumentality through which the progress of civilization is now measured, and by which its development hereafter will be largely controlled (North 1918:15).

But the establishment of dominant intergovernmental organizations--the League of Nations and later the United Nations--marked changes to the central purposes of international attention to official statistics, as well: they moved the mission beyond coordination and standardization, to include the active promotion of census activity and initial efforts to create standard global census programs, regionally-based technical assistance programs, and nation-state level infrastructure (expertise, bureaucratic capacity, and normative commitment). The founding of the League of Nations, with both the organizational focus on statistical activity and the substantive attention to demographic activity, provided new impetus to Korosi's "world census" project.

From the first statistical congresses, the explicit technical purpose of international attention to the census was to promote standard and comparable census activity of the modern sort. This was evident in the recommendations of successive sessions of both the ISC and the ISI and also in the commitment to produce (compile and publish) "international statistics." From the late 1890s, discussion and proposals of the statistically laggard countries appeared on the ISI agenda. This remained a rhetorical concern during the period of ISI primacy. In the activities of the League of Nations, this purpose finds more tangible expression: League agencies and bureaus prepared summaries of census and other official statistics practices for many countries and disseminated this information; these documents provided baselines of standard practices and also resulted in status comparisons among countries. Through its concern with public health and demography, the League encouraged census activity for basic data collection in these areas. This encouragement includes some technical assistance and training activity, though at minimal levels. Instead, the didactic function of tabular presentations of (primarily) European census practice was the primary mechanism to foster these goals.

The entry of the League into what had become an avowedly scientific and professional, non-governmental discourse about census activity resolved two issues which recurred from the start of international attention to official statistics. First, the League provided massive formal organization: permanent agencies and bureaus with professional staff, of the sort that the ISC only imagined and the ISI established only just prior to World War I. Second, the League provided the imprimatur for official recommendations to governments: the League could not mandate activity, but rather could invite member states to participate in activities or to welcome technical assistance. This innovation in how the agencies related with governments lasted.

Functional and organizational specialization began at the turn of the century (Goudswaard 1950) and continued in the years after World War I. Organizations such as the International Institute of Agriculture or the International Labor Organization put forth efforts to standardize national statistics in its areas of interest and to publish international comparisons. In addition, specialized international scientific organizations form and regional conferences among the statistical bureaus of countries linked by proximity of one kind or another--in, for example,

Scandinavia, the Benelux countries, and the British Commonwealth, animated by common scientific traditions and policy issues. Through the late 1930s, League agencies and bureaucrats joined efforts with these organizations to continue the project of rationalizing statistical activity among countries. So, the League of Nations provided a dominant and defining model for attention to census activity, even as many other intergovernmental organizations and international congresses and conference reiterated the importance of standard, systematic census activity. The coming of war again transformed discourse and the dominant organization mode.

World War II and the global policy field of statistics—regional initiatives

The outbreak of World War II interrupted the regular pattern of census activity in Europe and throughout its world sphere. In addition, the war disrupted the international scientific and professional community concerned with statistical activity. Europeans dominated the ISI during these years, even as participation broadened to include statisticians from the Americas and the European-oriented non-Western powers. World War II isolated the statistical community in the Americas and elsewhere from the European core. Where World War I had devastated the still fragile international attention to census activity (Koren 1918; North 1918), the segregating effects of World War II promoted innovation: "regional" experience from the Conferences of the American states resulted in the development of a first regional statistical association, the Inter-American Statistical Institute (IASI). The IASI was modeled closely on the ISI and served to promote hemispheric cooperation and coordination and was the first of the regional statistical organizations. The IASI was created to advance statistical science and administration and to further the practical use of statistics in the "solution of social and economic problems" common to countries in the Americas.

The preliminary organizational efforts took place at sessions of the 8th Pan American Scientific Congress in Washington, D.C. in May 1940 and the organization was operating by early 1941. Sixteen ISI members from four countries prepared draft statutes, extended membership, and asked the U.S. Arrangements Committee for the 25th Session of the ISI (deferred on account of the war) to serve as a temporary organizing committee of the new IASI. By late 1940, the roster included 62 members from 15 countries. These were a mix of statistical professionals from diverse areas of practice (IASI Temporary Organizing Committee 1941).

Though formally an organization of eminent individuals, the Institute was meant to provide a channel through which statistical interests of governments and other organizations could be realized; governments were eligible as institutional members, and any organization engaged in statistical work could become an affiliated member, with Bureau approval. The founding members envisioned varied activities for the Institute, emphasizing the provision of technical assistance for member governments, mechanisms to create statistical standards, and conferences and publications.

The IASI was noteworthy for moving Korosi's vision of a coordinated world census into practice at the regional level. From 1943 on, IASI members moved ahead with plans for the 1950 Census of the Americas (COTA), producing substantial documentation of regional census practices and providing stylized guidelines and technical support to region countries in preparation for COTA. The discourses of the late nineteenth century took material form: the goal was a coordinated, comparable census among all countries in the region. Note that by this time, the international vision of a "world" census becomes in practice coordinated nation-state censuses. By historical coincidence, the preparatory efforts for the 1950 Census of the Americas

(COTA) also informed the activities of the UN Statistical and Population Commissions.

As at the founding meeting of the International Statistical Congress in 1853, census activity occupied a prominent part of the agenda of the first meeting of the IASI: that...fundamental purpose of the First Session [is] adoption of uniform questions and definitions...and of methods and procedures for the Census of the Americas.

The proposal was that all the countries in the Americas plan a coordinated mid-century population census that would feature common (Vega 1944), minimum standards for this census, with provisions that the IASI would take

total responsibility for the preparatory work for the taking of a general census of population in the countries of the America Continent in 1950, in accordance with the basic minimum standards approved by the participating countries (Phelps 1947).

The Vega report provides a statement of statistical faith and vision prior to the massive UN efforts and also careful empirical summaries of census traditions, organization, conduct, and content among the countries of the Americas. Vega introduces the long history of vision and hope for standardized, transnational and coordinated census activity that began with Korosi's *Project* (Korosi 1881) and continued through to the calls at the Pan American conferences. This concern with census uniformity and cooperation recurs on the agenda and in resolutions at many conferences and professional meetings in the Americas from 1900 on (Vega 1944). He includes suggestions for possible minimum standards for the project (Vega 1944:117-119) that confirm the scientific spirit and technical precision necessary for the success of the census enterprise. Vega concludes with a simple profession of faith:

Si el presente estudio preliminar fuera de alguna utilidad como antecedente para los trabajos de esa reunión, el autor quedará satisfecho de haber contribuído modestamente a la realización de un proyecto estadístico de tanta trascendencia (1944:119).⁶

This modest report provide the basis for the most systematic and massive commitment to the development and spread of the modern census model to date: the background materials for COTA 1950 provided a model for and became the strongest regional initiative of the 1950 UN World Census Program.

Post-war expansion of census infrastructure and activity

After the war, planning for the United Nations put statistical activities at the center of that organization, founding a Statistical Commission and a Population Commission in 1946. In the words and ideas of the founding staff of the UN agencies cognizant for statistics, statistical data were crucial generally to understand the "increasingly complex social, economic, and political organization of mankind" and proximately to make policies that would resolve these (Marshall 1947). Where war had underscored the importance of well developed statistical organization, there is required an international organization of statistics of a scope and quality hitherto unattained" (1947:23). Rice, future president of the ISI, noted

⁶ "If the present preliminary study will be of some use as an antecedent for the work of the conference, the author will be satisfied to have contributed modestly to the realization of such a transcendant statistical project."

[T]he world statistical system that is emerging ... will be composed of many separate parts. It will include at its center the Statistical Division of the UN and the UN Statistical Commission,...an as yet uncertain number of statistical staff units and committees created by "specialized" statistical agencies; ...national statistical systems of governments which are members of "official" international bodies; ...and professional organizations at the local, national, and worldwide `levels' (Rice 1945:8).

The mission of the Statistical Commission was to collect, improve, standardize, and disseminate statistical data in all statistical fields (1947:216), with particular attention to the promotion and development of national statistical capacity, as "even those countries with the most highly developed statistical organizations will not have at the outset all the statistical data which will be required by the UN..." (Owen 1947:24). The Commission provides policy guidance and advice to the Statistical Division, which coordinates the statistical activities of the Specialized Agencies for labor, education agriculture, and finance. Its first reports focused on relations between UN and quasi- and nongovernmental statistical organizations. In contrast to the strained relations between the League of Nations and the ISI, the United Nations organizations were able to accommodate the growing number of international professional associations (Rice 1951; Geary 1957; IIS 1949).

One of the first actions by the UN was to call a "World Statistical Conference," for 1947 (Rice 1947:3ff). This event was coordinated with the ISI and the IASI, along with other relevant international organizations. The formal agenda included coordinated meetings and shared sessions between the eight international statistical organizations present. Then Secretary-General Trygve Lie stated:

[F]ree exchange of information on economic and social affairs among all countries...is absolutely necessary. We cannot cure our troubles, [nor] achieve international understanding...unless the peoples of the world are given the facts about each other...systematically organized facts (Lie 1947:3ff).

The effect was to formalize the primacy of UN leadership in issues of statistical coordination and cooperation. Plans for the UN 1950 World Census Program took shape at these meetings, and plans for the Census of the Americas (COTA) were formalized. Further, the Committee called on the IASI to arrange sponsorship for "as large a number as possible of Regional Census Institutes, in which the directive personnel [from each country] may receive professional training" (Phelps 1947:30) and called for the "continuation and intensification" of a multi-agency, U.S. Department of State coordinated program of technical training courses for the Americas.

Before World War II, the focus of international attention to census activity was on making existing statistics standard and comparable; it was as much a question of *integrating* national statistics as *standardizing* them. The UN and Specialized Agencies instead directed their priorities and resources to the building of *national* infrastructure for statistics: the formation of statistical services, the development of specific statistical series, and the organization of population and other censuses. The UN Census Programs differed from all previous efforts to foster international coordination and cooperation in census activity.

Beginning in the 1950s, the United Nations began a series of world census programs, the goals of which were to promote the establishment of modern census population activities world wide. Over the forty years, the priorities of the world programs shifted from the simple codification and proliferation of a standard model of census activity (organization, content, and

process) to an expansive model of statistical activity articulated with national development planning and goal-setting, one that formally emphasized national needs and priorities within the framework of international expertise and global standards.

The UN dominated period continues the era of intergovernmental organizations as primary in the international attention to census activity, but is marked by fundamental changes in the purpose, mechanisms, and consequences of this activity. First, the mandate expands from coordination to explicit initiatives to create and enhance "national" capacity. Second, the language shifts from a general concern with melioration and world peace to a proximate language of population and development. In addition to the focus on economic and social planning, it is in this period that census activity becomes more directly associated with the "population," itself recently constituted as a global issue/domain of global concern (Barrett and Frank 1997; Crane 1993). UN agencies were central in the efforts to promote attention to the dynamics of global population growth and in efforts to rationalize nation-state level population policies (Sadik 1984; Wolfson 1983).⁷ UN support for census activity expands beyond the general concern to ensure that all states conduct a census in the modern idiom present since the turn of the century, to instead support "basic data collection" (e.g., *national* censuses) and the supporting infrastructures.

It is in the publications of the United Nations that *national* census activity is most thoroughly stabilized--and in this period that nation-states become the rhetorically privileged actors in international life. The language and rationale for international attention to census activity shifted, as well. In the councils and early documents of the UN, census activity was enrolled in more directly instrumental concerns of modern states: information as a basis for economic and other planning efforts. In the older census traditions in Europe and the Americas, the bureaucratic basis of census activity was usually in the Ministry of the Interior or a cognate site; in many of the newer states, census activity was located in newly established Ministries of Planning. In a very few years, this was redescribed as attention for "national development" comprising not only economic but also political and social modernization efforts.

DISCUSSION

One hundred fifty years ago government bureaucrats from major cities and countries in Europe along with other experts whom we today would identify as statisticians, demographers, and social scientists gathered in London at the 1851 Universal Exhibition, to organize and formalize the scientific nature of census activity and to expand the kinds and quantity of data governments generated. Counting people and things has a long, varied history; at that moment in the mid-19th century, experts in and around modern states concurred that systematic international attention to the development of "modern" and rational census techniques was vital, and assembled a scholarly and policy infrastructure to make this happen. This international effort in the idiom of "science" encountered conflicts with nascent conceptions of "national"

⁷ Basic data collection efforts were a first step in making empirical (and, hence tractable to policy) the scope of population issues in many countries in Africa, Asia, and elsewhere. The historical purposes of international census coordination and comparability had new moment: to ensure the availability of population data that would alert *national* leaders as to the scope and dynamics of population as an issue of *national* development. The UNFPA position was that "population data collection is basic to any modern development planning effort" (Sadik 1984:73).

sovereignty and spawned changes in the kinds of international organizations involved in this early arena of global governance (from governmental IGOs, to nongovernmental NGOs, and then to a density of agencies and hybrid forms at the global-, regional-, and social movement-levels).

The structures of international attention to census activity shift along three major dimensions over its first one hundred years: purpose and rhetorics, kind and variety of formal organization, and mechanisms for action, with consequences for the forms and sources of census expertise. Expertise moves among and between three general forms: organizations provide one mode of embodying expertise and knowledge, along with persons (as authorized professionals) and various technologies (Meyer 1986; Abbott 1988, 1992). The forms of census expertise provide the media through which abstract principles and concepts are translated into actual practices. The consolidation and elaboration of expert consensus about census activity in the context of the development of an international policy field of statistics is concurrent.

I have treated in some detail the conflicts, struggles, and settlements central to the trajectories of the International Statistical Congresses, the International Statistical Institute, and the League of Nations, and suggested their legacies in the texture of the global statistical field post World War II. Between the 1840s and the late 1880s and then again in the 1920s and in the 1940s and after, substantial changes occurred in the infrastructure of inter-European and later international organization consequential for normative visions of appropriate national state policy and practices relevant to official statistics generally and census activity in particular. In Table 2, I use these episodes to identify four distinct eras in international attention: an early period marked by little infrastructure (prior to the 1840s), a second period which features efforts to build and sustain local and later global infrastructures (1850s-1920), a third era of more aggressive but indirect global activity (1920s-1940s), and a fourth period after World War II marked by highly formalized, direct and consequential global attention to national census activity.

This close review of the transnational infrastructure for modern census activity highlights the proximate but changing role of individuals and organizations, changed mechanisms and sources of expertise, and the emergence and consolidation of a global field (Dezalay and Garth 1996; Ferguson 1990; Meyer et al 1997b; Mitchell 1988). There is much continuity in the modern model of census activity promoted over this period, but much more variation in the meaning, motives, and mechanisms to make it standard government practice. It is notable that this activity promoted the spread of modern census activity through expertise (technical, scientific, professional) rather than other more direct forms of coercion (Strang and Meyer 1993; Scott 1991). Throughout the historical period of interest, the character of international efforts to coordinate census activity betokened no functional necessity to generate standard and comparable facts about societies and states; instead, the visions of utopian reformers, struggles over the professional definition of statistical science, the organizational embodiments of scientific principle and practice, and the changing conceptions and indicators of societal amelioration, progress, and purpose are vividly present.

Field theory stresses the role of contestation and the tension between infrastructures and activity. Despite the travails of the first formal efforts to organize European-wide attention to the census activity in the mid-nineteenth century, these first moments in the structuration of an international statistical field were consequential in at least three ways: First, the normative criteria of a modern general census of population are articulated in the early forums, that is, the modern model of the census acquires its substance and becomes available for global adoption and adaptation (Guillèn 1994; Westney 1987). Second, developments in the field provide

institutional, cognitive, and political mechanisms that generate relatively more awareness of and adherence to the synthetic "global" standards for national statistical purpose and practice. I have used the case of the increasingly organized dialogue around census activity and official statistics generally to sketch out how recent theoretical argument in organizational analysis may provide insight into processes of the formation of state organizational structures and practices, with particular attention to the genesis of cultural models of state activity. And, third, this field of statistics, along with public hygiene arena, are the earliest forms of international organization other than war-related coordination; the applied issues of state-oriented biopolitics precede the formal organization of scientific and other cultural and social endeavors, and so provide a more "raw" case for analysis, with few precedents.

I focus on processes that generate more institutional structuring at the global level (formal organizations, expert discourse, and new 'vertical' institutional arrangements), relative to prior nation-state based regimes of governance. In this study, I make initial arguments about the vertical stratification of the global sector, demonstrating that professional activity created new venues for discourse and activity, first a shift from proximate local and horizontal orderings to central international venues; over time, these thickened and elaborated at intermediate levels, and then elaborated at decentralized "central" vertical level. This argument parallels and extends key arguments (DiMaggio 1991; Espeland 1998) that extra-local venues become sites in which new identities, claims, and motives for action take form. I develop a related set of concerns: with how public "talk" by organizations and experts along with formal organization shapes new venues for claims-making, which in turns contributes to more collective-level social structure and reinforces opportunities for new kinds of policy claims (see also DiMaggio 1991). I highlight the links between field-level processes and the development of organizational and cultural forms as the nation-state level. Contending institutional logics of the sovereignty and of science generate recurring and central tensions.

How do political, cultural, and cognitive mechanisms contribute to the *institutional structuration* of fields of activity? "Institutional structuring" is a short-hand term in this research tradition that highlights the political and cultural processes that occur prior to and often give direct shape and texture to fields of activity. Institutionalists have actively promoted the study of how economic activity emerges and comes to be structured in distinctive ways--by embedded polity arrangements (Dobbin 1994; Hamilton and Biggart 1988); by contestation and challenge (Fligstein 1996, 2001); and through the imagery of field structuration, with its emphasis on communicative and interactional linkages, stratification regimes, and rhetorics of identity and purpose within organization and industry fields (Powell and DiMaggio 1991). I use this study of field emergence to discipline some perspectives on long-term changes in "field structuration," the particular configuration of social structures – e.g., distributions of meanings and material resources – available at any one point in time, the mechanisms by which these change (or don't), and the effects of such changes for organizational and other actors. From initial moments of local orders, *structuration* processes contribute to more collective-defined orderliness; these higher order definitions of exchange and identity then become endogenous resources and provisional terms of settlement. This work extends previous institutional statements to focus on mechanisms by which fields take form and change, a theme of current theoretical and methodological interest (Barley and Tolbert 1997; Clemens and Cook 1999; Ferguson 1998; Hoffman and Ventresca 1999, 2002).

Institutional arguments in particular contend that state structures and practices reflect not

functional needs or technical imperatives but rather emerge in a dense environment that supplies both the forms and rationales for particular arrangements. On the one hand, this presumes that some world level models and forms are available; on the other, this relies on a image of "connectedness" to the world polity as the primary mechanism through which these forms emerge at particular times and in particular places. This kind of argument differs in important ways from the "institutional isomorphism" interpretation of field effects. I show that these are "inhabited" processes (Scully, Creed, and Austin 2002) and identify a wider set of institutional mechanisms at work. The world polity arguments like others of this sort (Wuthnow 1980) make it possible to see variation in jurisdictions and how this pattern across jurisdictions may well support more heterogeneous activity and more varied mechanisms. Modern census formation is not simply the result of needs or conflicts within society, technical advances, or attempts to enhance the extractive or coercive capacity of a particular political state. Rather that the modern census emerges amidst more general, world-level processes that propose a distinctive and "modern" model of society and support this through substantial professional expertise and infrastructure. The census is a cultural-legal-organizational component of this model that took form in the early nineteenth century and spread widely and rapidly to countries vastly different in historical and material circumstances.

To date, the research on organizational fields has emphasized three key issues: the dimensions along which field structuration proceeds, the role of authoritative public and corporate actors (states and professions) in the development of fields, often as incidental outcomes to other "professionalization" projects, and imagery about orders of domination and stratification. In these organizational fields, some degree of consensus around purpose and identity obtains, which they refer to as "collective rationality" and which provides the field-specific conceptions of control, effectiveness, efficiency, a "logic of appropriateness" (March and Olsen, 1989) for organizational actors. I refocus institutional analysis on conflict-based processes of structuration that make field stratification and segmentation processes central research questions and in a plurality of logics and cultural frames contend for primacy. Wuthnow argued that cultural innovators do not work alone and are often oppositional. Rather, they work in "communities of discourse" in which ideas and ideologies circulate and in which particular social structures establish the conditions under which the alignment of ideologies and action or change occur. Spillman (1995) extends and formalizes this argument in her conception of "discursive fields" that comprise both content categories in a particular social world and the available vocabularies of what is available and possible (see also Clemens 1993, 1994). The global field of statistical expertise worked this way.

CONCLUSION

In Porter's elegant study of the social sources of quantification, he argues that "Society must be remade, before it can be the object of quantification. Categories of people and things must be defined, measures must be interchangeable...There is much of what Weber called rationalization in this, and also a good deal of centralization" (1992). In this paper, I have suggested the new prominence of modern statistical activity and its close relation to modes and models of governing that were consolidated in nineteenth century Europe (Grew 1984; Foucault 1970; Desrosières 1998). This study demonstrates the central role of conflicts and tension among institutional logics in the emergence of formal international organization concerned with census activity, along with a series of provisional settlements that reflected shifts in the operative institutional rules; over time, these arrangements played a much more sustained role in promoting

modern census activity. In doing so, they defined the national state as the relevant contact agency, further corroborating this entity, in alignment with the more general conception of the modern state as responsible for a national society.

Further, this case directs attention to the massive institutional quality of the global policy field of statistics, made material in the formal organization and commitment of resources to this endeavor and in the increasingly elaborated prescriptions, policy instruments, and regulatory practices that made the generation and provision of stylized information about a national population a fundamental, constituting activity for modern states (Douglas and Hull 1992; Giddens 1987). This evidence extends institutional imagery about the sources and formative moments of organizational fields.

This account also stands in some contrast to these standard imageries of field emergence and the structuring processes in organizational fields. I have emphasized three issues that deserve further study. First, few fields are “settled” or “institutionalized” in the now conventional usages of those terms. Instead, multiple and often contending logics inhabit a field or its peripheries (Friedland and Alford 1991; Clemens 1993). Identifying the range of logics and the repertoires of actions that support or give prominence to is a useful task. To date, much historical and qualitative research documents one or two logics; much quantitative research reduces this variety into time period models that make less visible the contender, quiescent, or alternative logics in a field. This contributes to a restricted conception of legitimacy and an overly sanguine view about consensus in fields.

Second, conflicts in fields results from contradictory logics, contender governance arrangements, conceptions of control, and mobilizations (whether by professionals or others); and the entry of new institutional actors migrate. These sources of conflicts help to understand the micromechanisms by which activity occurs. But they also track the shifting location in the topography of a field where key episodes and pivotal events may occur. Tracking the migration of such conflicts requires novel uses of existing historical, process, and sequences methodologies, and potentially new methods. Third, and finally, organizational and other “fields” (Clarke 1991; DiMaggio 1991; Ferguson 1998; Spillman 1995) provide empirical worlds through which to refine how we understand the social structures of resources and meanings that jointly shape the conditions of possibility for change. Too much research under- or misspecifies change drivers at restricted levels of analysis, inadvertently neglecting collective, often “external” features of the situation that can impede or promote action (Douglas 1986; Fine 1990).

Table 1: KEY DATES IN EMERGENCE OF GLOBAL STATISTICAL POLICY FIELD

1830s-1840s	Corresponding relationships between individual statisticians and among the staff of municipal statistical bureaus in Europe, as well as the various city and other statistical societies.
1841	Quetelet conducts arguably “modern” census with rationalized procedures and expanded content in emerging Belgium after independence.
1851	Great (Universal) Exhibition, London. Prince Consort invites informal discussions among leading European statisticians, results in plans to found International Statistical Congress.
1852	International Congress of Hygiene (later Hygiene and Demography) holds first session.
1853	International Statistical Congress (ISC), convenes for initial session in Brussels, founded by leading statistical elites of Europe including heads of municipal and state statistical bureaus, academics, and other professionals
1853	ISC (Brussels) adopts initial plenary resolutions on census organization, conduct, and content that sketch out the cultural and organizational architecture of “modern” nation a census of population. These resolutions are reaffirmed in each subsequent meeting, with additional specific topics added to the agenda.
1855	ISC (Paris) adopts resolutions that focus on the statistics of large cities, distinguishes “settled” and “floating” populations.
1857	ISC (Vienna) adopts resolutions supporting data collection for “Statistical ethnography” with focus on distribution of “races” and qualities(character, physical, language).
1860	ISC (London) adopts large number of resolutions that restate and elaborate the 1853 resolutions, adding specifics on content ‘indispensable in all States.’
1861	First decadal census of the British Empire conducted.
1863	ISC (Berlin) adopts resolutions focus on securing cooperation of population through participation in all aspects of completion of census schedules and work of census agents.
1867	ISC (Florence) adopts resolutions that precise birth location, home, “absent” persons.
1872	ISC (St. Petersburg) adopts a resolution advocating "international minimum requirements" for population censuses.
1872	ISC Permanent Commission founded; meets four times more: Vienna (1873), Stockholm (1874), Budapest (1876), and Paris (1878).

- 1878 ISC Permanent Commission acts to increase authority over statistical policy of participating governments. Neither 1879 session of the Commission nor 1880 session of the ISC is held; the Congress ends operations.
- 1881 Korosi proposes "Projet d'un Recensement du Monde" (Project of a World Census).
- 1885 International Statistical Institute (ISI) founded as a scientific association of disinterested professionals, a nongovernmental successor to ISC. Meets every two years.
- 1897 ISI (6th session) proposes the concept of a "century world census" to be carried out in 1900, implementing Korosi's vision.
- 1910 International Conference of American States (Buenos Aires, 4th session) recommends decennial population censuses beginning in 1920, "carried out in accordance with modern scientific and technical procedures."
- 1916 ISI begins publication program: *l'Annuaire international de statistique* (1916-1921), *Apercu de la demographie des divers pays du monde* (1923-1939) with descriptions of census practices for over 100 countries and colonies in varied documents.
- 1919 League of Nations founded.
- 1923 International Conference of American States (5th session) further recommends minimum content for such censuses, emphasizing standards for achieving more uniformity and comparability.
- 1927 World population conference, Geneva.
- 1927-1944 League of Nations publications begin: *International Health Yearbooks* (1924-1930), *Statistical Yearbooks* (1927-1944), and *Statistical Handbooks* which document census and official statistics practices.
- 1940s Inter American Statistical Institute founded; proposes its program for the 1950 Census of the Americas (COTA), furthering the 1923 IASI principles.
- 1946 UN Population Commission, Statistical Commission established. In 1947, consider 1950 COTA plans, "recognize the project as an important step in developing coordinated world-wide programs."
- 1947 UN sponsored World Statistical Conferences, Washington, D.C.

Sources: ISC (1872); Korosi (1881); Nixon (1960); Symonds and Carter (1973); Westergaard (1932); UNDY (1948, 1955, 1972, 1984, 1989).

Table 2: PURPOSE, GOVERNANCE, MECHANISMS AND EXPERTISE IN THE GLOBAL STATISTICS POLICY FIELD, 1800-1995.

Eras	<1846	1846-1880	1885-1918	1919-1946	1947-present
PURPOSE--thematic					
World peace/population	n/a	some	yes	yes	yes
Advance science	yes	yes	yes	yes	yes
Societal amelioration	yes	yes	yes	yes	yes
"National development"	n/a	no	no	no	yes
Planning	n/a	no	no	yes	yes
PURPOSE--technical/proximate					
Promote intl coordination	no	yes	yes	yes	yes
Promote state ¹ census action	no	yes	yes	yes	yes
In practice	local	some	some	some	yes
Build state ¹ capacity	no	no	no	no	yes
GOVERNANCE					
Infrastructure mode	none	IGO	NGO	IGO	IGO/NGO
Dominant organization	none	ISC	ISI	League	UN
Heterogeneity of actors	none	low	low	high	highest
MECHANISMS					
Meetings, recommendations	no	yes	yes	yes	yes
Publications	no	no	yes	yes	yes
Formal organization	no	some	some	yes	yes
Provide normative standards	no	yes	yes	yes	yes
Technical assistance/training	no	no	no	yes	yes
FORMS OF CENSUS EXPERTISE					
Professionals	yes	yes	yes	yes	yes
Organization procedures	no	yes	yes	yes	yes
Technologies:	no	no	no	yes	yes
Codified expertise, handbooks and manuals					
SOURCES OF CENSUS EXPERTISE					
Local/state (domestic)	yes	yes	yes	yes	yes
Inter-state exchange	no	yes	yes	yes	some
World polity/global	no	some	some	yes	yes

¹ "State" here early on means "nation-state"

Table 3: THE INTERNATIONAL STATISTICAL CONGRESSES, 1853-1878: SITE, ATTENDANCE AND PERCENT FOREIGN.

Year	Site	Attendance	% Foreign
1853	Brussels	153	43
1855	Paris	311	35
1857	Vienna	542	20
1860	London	586	18
1863	Berlin	477	17
1867	Florence	751	11
1869	The Hague	488	24
1872	St. Petersburg	485	20
1876	Budapest	442	40

Sources: Nixon (1960); Westergaard (1932).

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