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ebuilding ICPSR's Web Site: From Concept to Implementation

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**WEB SITE DESIGN
AND PRESENTATION
HAVE EVOLVED
RAPIDLY OVER THE
PAST DECADE. THIS**

article chronicles the evolution of ICPSR's Web site over time and describes a recent project to redesign the site. The article highlights some of the challenges faced and lessons learned along the way.

The Internet has radically changed the way many organizations do their work and interact with their clients. For ICPSR, it has meant a singular improvement in service to the social science research community, since Web functionality directly facilitates ICPSR's mission of providing access to its digital data resources.

It is now the case that many of our users know us only through our Web presence, and our site is increasingly becoming our identity. This makes it critical that we establish a site that is easy to use and navigate, expeditious in terms of resource discovery and data delivery, and informative. To that end, ICPSR recently undertook a redesign of its Web site — an ambitious project that is leading us in new directions and permitting us to craft new and innovative services for our users.

Looking Back

The 1987–1988 *ICPSR Annual Report* includes a reference to an instrumentation grant recently received from the National Science Foundation (NSF) and to NSFNet, "a high-speed electronic communications backbone connecting several major regional subnetworks," which later became the

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Internet. The *Annual Report* goes on to say, "Equipment and network protocol software purchased with NSF grant funds will allow the ICPSR to begin experimenting with direct dissemination of data and documentation. NSFNet will be able to replace the current public data net service with lower-cost, higher-speed remote logins and messaging as well as file transfer."

Less than a decade and a half later, the array of capabilities pre-saged in that document is a reality at ICPSR. The organization has been able to keep pace with technology and to pass on to its users the benefits of technological improvements and advances as they occurred.

ICPSR had an early presence on the Internet in the late 1980s-early 1990s with a Gopher server. Users could query ICPSR's data catalog, then structured in SPIRES database format, using the WAIS search engine to locate data of interest, which could then be ordered on tape. ICPSR also provided access to a Variables Database that contained text and frequencies for over 65,000 separate variables from popular data series, as well as a database of publications related to survey methodology. In terms of descriptive content, we populated much of the Gopher server with information from ICPSR printed publications, such as the *ICPSR Guide to Resources and Services*.

Recognizing the many advantages of moving away from tape distribution and adopting a Web solution for data dissemination, ICPSR staff began an extensive data migration project in the mid-1990s. Once the ICPSR collection had been migrated in its entirety from a magnetic tape library housed at the site of the University of Michigan's mainframe to magnetic disk connected to one of

ICPSR's own computers, we created a Web site with interfaces for searching and order fulfillment. The search interface was modeled on the *Guide* indexes and permitted browsing alphabetically by principal investigator and title, and browsing by study number. The site and its features remained much the same for several years with only incremental revisions. Most of the textual content for the initial Web site was ported over from Gopher and remained in the same format.

By the end of the 1990s we were eager to change the site, both in terms of functionality and appearance, to capitalize on recent innovations in Web technology. We knew that we wanted to start "from scratch" by analyzing the entire site, rather than simply implementing a new visual design and moving the content. While this approach was more challenging, we believed that the investments of time and money would be well spent because our users would directly benefit in several ways from an improved site. Further, we could leverage these investments by extending specific design features to ICPSR's special topic archives' sites.

Laying a Foundation

We engaged Argus Associates, an Ann Arbor consulting firm specializing in professional information architecture development, to perform an initial critique of the site. This company interested us because most of its employees were graduates of schools of information and/or library science; who better to turn to for advice on the organization and management of information than librarians? Moreover, Argus's principals, Louis Rosenfeld and Peter Morville, wrote the definitive book on the topic, *Information Architecture for the World Wide Web*, a

best-seller among Internet books since it was published in 1998 by O'Reilly & Associates. (Sadly, Argus Associates closed recently as a result of the economic downturn.)

According to Rosenfeld and Morville, much of the payoff from the information architecture approach is not immediately apparent on sites that work well. It is only when sites function poorly that the lack of a coherent underlying structure and design becomes evident. "The reality," Rosenfeld and Morville write, "is that most novice site developers are blinded by the excitement created by the Web's technical and graphical possibilities and don't immediately key in on the intangible value of information architecture." We were persuaded that creating a sound foundation for the site through the application of the principles of information architecture was the prudent path to take.

Argus's review highlighted the limitations of the ICPSR site and presented some ideas for new functionality we might offer. Subsequently, a small group of ICPSR staff members met with Argus over several months in strategic planning sessions, during which we worked together to build a new architectural infrastructure for the site and to develop areas for new content.

In meeting with ICPSR, the Argus team emphasized the importance of thinking through the fundamental purpose of the site and identifying the constituencies we wanted to reach. We worked to define our user audience and developed a mission and vision statement for the site:

The primary mission of the ICPSR Web site is to provide to the social science research community efficient search capabilities, quick and easy access to



data, information about ICPSR and its programs, and appropriate support and documentation. The architecture of the site should enable users to navigate the site logically and efficiently.

Once the fundamentals were in place, we started defining the main areas of the site and building a model that could accommodate extensions over time. We worked on organizing and labeling the content to be as clear as possible, and we were encouraged to break long blocks of text up into manageable “chunks” more suitable for screen-by-screen viewing. Argus also recommended that we design three types of site navigation — contextual (“See also” references), internal, and global. Finally, we addressed the kinds of search capabilities we wanted to provide.

At the conclusion of this process, Argus presented a comprehensive architectural style guide, with an inventory of all pages on the site (both existing pages and those to be created), blueprints, and page-level mockups. An architecture style guide, according to Rosenfeld and Morville, is “a document that explains how the site is organized, why it is organized that way, and how the architecture should be extended as the site grows” to avoid “architectural drift.” For ICPSR, Argus proposed a “task-oriented” scheme with four main sections that would guide site visitors in using the site to perform specific tasks, e.g., “access and analyze data” or “explore training opportunities.” Argus also advised us that users tend to prefer a broad and shallow site, rather than a narrow and deep hierarchy that requires clicking through several levels to find the information desired.

Creating New Content

In our discussions with Argus we noted many new pages of content that would greatly improve the site. We wanted to provide, among other things, more extensive help information, timely announcements, and guidelines for preparing and depositing data. Developing this content would take time and would require input from staff in many facets of the organization. To facilitate the creation of the new pages, we set up a Web Team, consisting of 12 individuals from different parts of the organization. We met weekly to review the new content as it was developed, using the guidelines supplied by Argus. We also tried to think in broad terms about what the ideal site would look like with respect to content.

Again, we approached the task by thinking in terms of modularizing the text and preparing multiple linked pages, rather than long streams of unbroken text.

Among the new pages and features we developed for the site are:

- A separate site for Official Representatives with authenticated access to a batch ordering, or “shopping cart,” feature
- Interactive forms for researchers to submit citations based on ICPSR data and to deposit data in the Publications-Related Archive, with other such forms to be developed
- Quick data links to the most frequently requested collections
- Calendars of events and conferences at which ICPSR will be exhibiting
- Information on preparing data for archiving and what happens after deposit at ICPSR
- Extensive help information and frequently asked questions, span-

ning a range of user competencies, from “What is a data file?” to information suitable for more sophisticated data analysts

- ICPSR job opportunities listings
- ICPSR policies brought together on one page
- Announcements of interest to ICPSR site visitors and descriptions of initiatives at ICPSR

Developing a Graphic Design

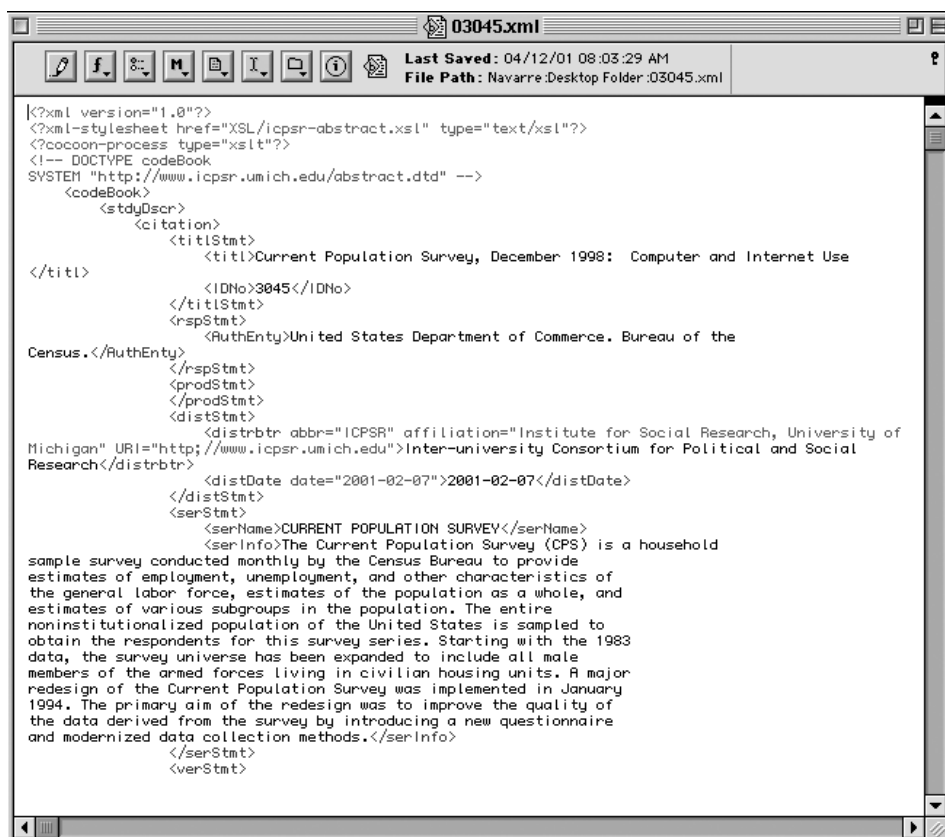
Next on the agenda was coming up with an updated look and feel for the site, through a new graphic design. We worked with two different designers and ended up with a design that combined the best elements of each and conformed to Argus’s recommendations for layout of the main page and the second-level pages.

Size of the graphical image files and loading time were critical issues we had to address. Since many of ICPSR’s users at smaller schools have limited bandwidth for file transfer, we had to be certain that the size of our files was manageable in terms of download time.

As anyone familiar with graphic design will probably agree, reaching consensus on colors was one of the most challenging aspects of the process. We tried several different color schemes before settling on what now appears on the site. The designers provided graphic template files for the main page and for the second-level pages into which we could pour the content.

Implementing the Site

With the content and graphic templates in hand, we needed to move forward with actual implementation. During the summer of 2000



This screen shot shows the XML markup of the study description for ICPSR 3045.

we hired a Webmaster to pull all of the content together. This entailed not only implementing the new design and filling the graphic templates with actual content but also working with ICPSR'S Computing and Network Services (CNS) staff to implement a new search engine.

Moving to the new site necessitated the writing of many perl scripts that enabled queries of the underlying Oracle database, where file-level information on the ICPSR holdings is stored. Staff from the CNS section reworked existing scripts and wrote new ones in consultation with the Webmaster, who supplied the design specifications.

Accessibility

In order to meet the needs of all of our site visitors, ICPSR elected to follow the Web accessibility guidelines set forth by the World Wide Web Con-

sortium's (W3C) Web Accessibility Initiative. Tim Berners-Lee, W3C Director and inventor of the World Wide Web, has said, "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." The W3C guidelines lay out principles that Web developers should comply with in rendering their sites accessible to the widest possible audience. These principles include, for example, providing a text equivalent for all non-text content, not relying on color alone to provide information, creating tables that transform gracefully, and providing clear navigation mechanisms.

We were also mindful of accessibility issues with respect to different computing and technical environments. We tested the appearance of the site using a variety of browsers, different versions of browsers, and various platforms with the objective of

being certain that our site would display properly for most, if not all, users.

The Search Apparatus and XML

In discussions with Argus, ICPSR identified several features that an ideal search engine and interface would offer, including Boolean operators, the ability to search within the results of a previous search, subject term searching, field-specific searching, search results sorted by relevance, and support for eXtensible Markup Language, or XML. CNS staff licensed the Inktomi search engine (formerly called Infoseek, then Ultraseek), which met most of these criteria and also offered automatic search term stemming and extensive query and access logs. Moreover, because the engine searches static Web pages, we could employ it for the site search as well as for the search of the metadata records describing the data holdings.

Support for XML was critical to meeting a goal of the recently-awarded Infrastructure in the Social Sciences project funded by the National Science Foundation — that is, to convert ICPSR's metadata records, or study descriptions, to XML according to an emerging specification for markup of social science technical documentation called the Data Documentation Initiative (DDI) (see sidebar on page 6). After installing the new search engine, a systems research programmer in CNS wrote a script to mark up the study descriptions, which could then be indexed by the search engine to permit field-specific searches. This was a big improvement over the search functionality on the old site. Whereas previously it had been possible to search the title, principal investigator, study number, or abstract (study description) fields, the XML markup enables searches of any of the elements in the descriptions

that are uniquely tagged, including sampling, universe, time period, funding agency, etc. Access to this level of granularity can be found in the Advanced Search option.

In the absence of browser support for XML, mark-up for content requires further manipulation to render the pages for display. The new Webmaster was able to write XSL (eXtensible Stylesheet Language) style sheets to convert the XML into HTML for presentation of the study descriptions on the Web. We were struck by the flexibility afforded by XSL in that text can be formatted and ordered in any number of ways.

Special server software is necessary to process the XSL and transform the XML markup. The ICPSR study descriptions that the user now links to from the Search Results page are marked up in XML, indexed by the search engine, passed through XSL via the Cocoon Java servlet from Apache, and then displayed in the browser using HTML. Examples of the XML to HTML transformation are provided on pages 4 and 5.

Usability Testing

In early February 2001, we were ready to contact a small sample of users to test the site and its functionality. The Webmaster developed a questionnaire and some sample exercises and tasks for the testers to accomplish on the new site. The Web Team discussed results from the testing and then prioritized suggestions for changes and improvements given our time constraints.

Looking back, it is clear that a longer testing period would have been preferable. Several additional weeks of testing and review of the site would most likely have proven profitable and would have turned up issues that only came to our attention later.

Launching the Site

For the site to "go public," a great deal of work had to happen behind the scenes. CNS staff worked into the night on Tuesday, February 27, to roll out the site.

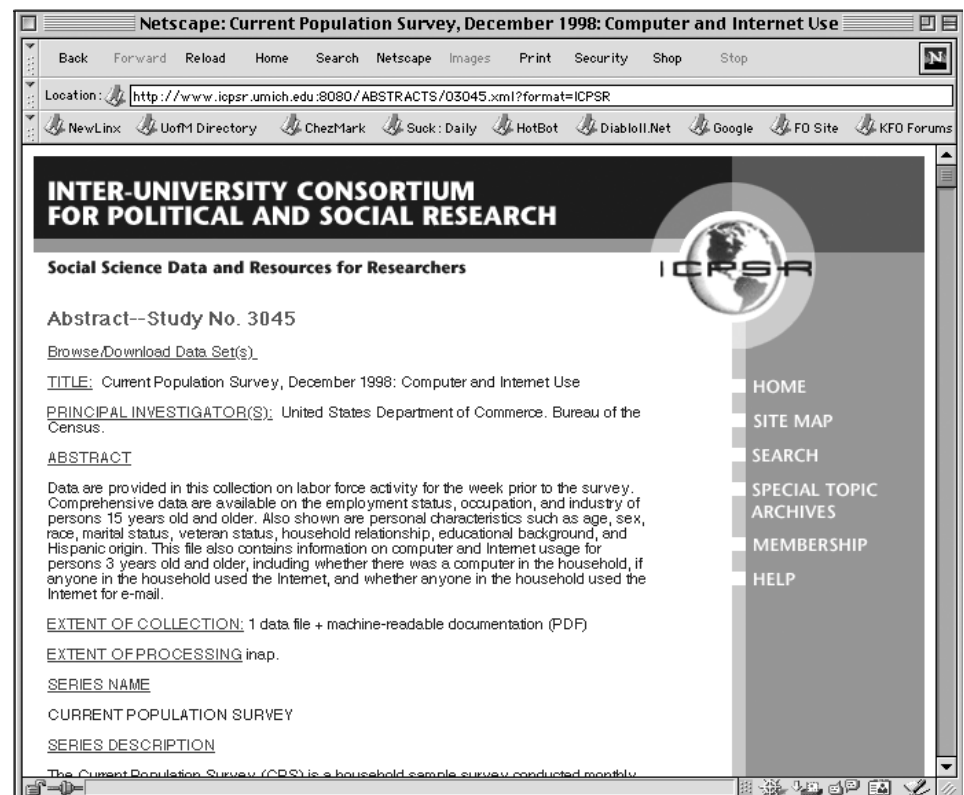
During the first two weeks that the new site was operational, we fielded numerous comments, complaints, and suggestions for improvements. There were a variety of complaints about the search and the search results display, most of which were resolved through an upgrade of the search engine that took place within the next few weeks. Problems with the OR site and the batch download process also arose, but were quickly remedied by the CNS staff. We also experienced problems with Java and Cocoon, which had the effect of preventing the study descriptions from displaying. CNS staff upgraded some of the Web software to make Cocoon more robust and worked to

move the site to new servers obtained through a grant from Sun Microsystems.

During March, the ICPSR site averaged between 30,000 and 35,000 accesses each day, slightly higher than the average in February. This total included hits on the popular General Social Survey site (GSSDIRS) and the five special-topic archive sites.

Looking to the Future

There are still several refinements to make and much tweaking ahead. The search function is of paramount importance on the site, and thus we continue to explore ways to improve the search interface, to make it easier and more intuitive to use, and to display the search results in as clear a manner as possible. Hearing from users about what they like and don't like is very helpful and enables us to make informed decisions about how the fea-



After passing through a stylesheet, the XML markup is rendered in HTML for Web display.

tures can be made to benefit the most people.

Working with Argus underscored the need for continuing content management once the site was operational. It is critical that we focus on

keeping the content of the site current and accurate and continually evolving. Members of the Web Team will be taking responsibility for various areas of the site and will be setting up a schedule for review and updating of the site.

Our usability studies suggest that some users, particularly those not familiar with ICPSR, find the main page overwhelming with too many options; the blocks of text seem impenetrable. More frequent users, however, find the page useful and like the functionality of having all the important links on a single page. One direction we are investigating is to design a new main page that functions more like a splash page without much text. More frequent users could bypass the main page and bookmark the content-rich page with all of the links.

With the implementation of what we are now calling "ICPSR Direct" for member institutions, we need to pay more attention to serving novice users and students (see the Announcements on page 7). This service will provide immediate access to ICPSR's data archive to for anyone on a member campus.

The NSF-funded Infrastructure award is permitting ICPSR to augment the site in other ways, particularly with respect to finding aids. Professional librarians are now heading up two large-scale projects at ICPSR. The first involves developing a thesaurus of social science subject terms and indexing the metadata records based on the thesaurus structure. This was an activity that Argus recommended to enhance resource discovery. The thesaurus itself will be available on the site; users will be able to traverse the tree structure of the thesaurus in order to investigate terms related to a given search term, as well as broader and narrower terms. A search button will be available for users to search the archive using selected thesaurus terms. Authority lists for geography and for persons mentioned in ICPSR study descriptions are additional components of the full thesaurus, which we hope to roll out by the end of the

TOWARD A STANDARD FOR TECHNICAL DOCUMENTATION

The Data Documentation Initiative (DDI) is an effort to establish an international specification and methodology for the content, presentation, transport, and preservation of metadata about datasets in the social and behavioral sciences. A committee, composed of stakeholders in the social science research enterprise from around the world, has been developing this specification since 1995.

DDI Version 1, written in XML as a Document Type Definition, or DTD, was published in 2000 and is available on the DDI Web site at www.icpsr.umich.edu/DDI. While Version 1 is oriented toward documenting survey data, the next version of the standard will incorporate descriptions of more complex file types.

The DDI is filling an important need for data producers, archivists, and those providing integrated search and analysis tools. Uptake and adoption of the specification has been rapid and wide-ranging. A partial list of DDI users and implementers includes:

- Networked Social Science Tools and Resources (NESSTAR), a collaboration among the UK Data Archive, the Norwegian Social Science Data Services (NSD), and the Danish Data Archive (DDA) (www.nesstar.org)
- Survey Documentation and Analysis (SDA), developed and maintained by the Computer-assisted Survey Methods Program (CSM) at the University of California, Berkeley (sda.berkeley.edu:7502)
- Virtual Data Center, a digital libraries project of Harvard University and the Harvard-MIT Data Center (thedata.org)
- Federal Electronic Research and Review Extraction Tool (FERRET), developed by the Census Bureau, in collaboration with the Bureau of Labor Statistics and other U.S. statistical agencies (ferret.bls.census.gov)
- San Diego State University, Education Center on Computational Science and Engineering, which is building a "Sociology Workbench" tool (edcenter.sdsu.edu)
- National Historic Geographic Information System, a project of the University of Minnesota and ICPSR to harmonize all extant census data (nhgis.org)
- California Digital Library, Counting California Project, a project to create XML metadata records to be used for Web-based data access to data on California (countingcalifornia.cdlib.org)

In addition, ICPSR is now using DDI markup to tag and present its study descriptions on the Web, and other archives and organizations have similar plans. To find out more about this initiative and how your organization might make use of it, please contact ddi@icpsr.umich.edu.

calendar year. These innovations should greatly improve the precision and accuracy of searches.

The second project is focused on compiling a database of bibliographic citations related to analyses of ICPSR data to enable more thorough reviews of the literature associated with studies in the holdings. For this project, ICPSR staff are searching a large number of online databases and are also physically searching print journals to capture related publications. Existing bibliographies for some of the larger social science collections, such as the General Social Survey, are being incorporated into the database of citations. Ultimately, users will be able to link from the ICPSR study de-

scriptions to citations of works based on those data, and similarly, the citations will link back to the relevant datasets. These services should be available early in 2002.

Another related project involves augmenting ICPSR metadata further to incorporate records for data resources located outside of ICPSR. This will enable users to query the entire corpus of social science research data directly from the ICPSR pages. ICPSR will basically function as a union catalog for social science data as users retrieve links to external resources along with search results for ICPSR studies.

Yet another project envisioned by the grant is the creation of a vari-

able-level database that will permit queries across studies to determine which datasets have information on various topics and the actual wording of the variables and questions.

Much work lies ahead, but we hope that the framework we have built will enable the site to change and to grow as ICPSR itself changes and grows. Please visit the site at www.icpsr.umich.edu, look around, and send us your feedback, both positive and negative. More importantly, let us know how the site can be improved to take advantage of new technologies within our reach and to better serve you and the larger social science research community.

A nnouncements

“ICPSR Direct” Is Coming

ICPSR Direct is a new service providing direct access to the ICPSR data holdings for all students, faculty, and staff at ICPSR member institutions. This exciting new service has been in place at a handful of member schools since the fall of 2000 and is now being tested with a larger group. ICPSR plans to roll out the service to all members at the 2001 Meeting of Official Representatives (ORs) in October.

With ICPSR Direct, any user from a member institution with an eligible IP address may download data from ICPSR, without going through their local campus representative. However, users may still order data through their ORs if they wish. ICPSR Direct is

envisioned as an additional service to members, not as a replacement.

The role of the OR in providing local consulting and expertise becomes even more important as ICPSR data become accessible to a broader community of users. ICPSR Direct means that ORs will no longer need to be involved in the routine transmission of data but instead will be free to concentrate on assisting their users with substantive and technical issues relating to data use.

Documentation that is available in hardcopy format only will be available for order (for a fee) by individual users, and will continue to be made available to ORs under the same conditions as it is today.

In the direct-access environment, capturing detailed information about data downloads on member campuses becomes more complicated, and ICPSR will be seeking ORs' help concerning the types of reports that will be most useful in presenting usage statistics.

To implement direct access on a campus, ICPSR needs several pieces of information from the OR, including:

- The range of IP addresses in use on campus networks, to identify those users with authenticated addresses who are eligible for the service
- The name of a technical contact person at each institution who can help with network problems (keeping the set of IP addresses up-to-

date, dealing with other campus authentication systems)

- A local support contact (not necessarily the OR) to whom ICPSR can refer users for technical support and questions about the data
- The e-mail addresses of one or more participants for the "ipbeta" mailing list, where ORs and others will be able to discuss the service
- Text for a Web page to present to local users regarding how ICPSR Direct works on their campus

ORs whose schools are not currently part of the beta test of ICPSR Direct should start to gather the information mentioned above to speed the implementation of ICPSR Direct on their campuses.

Meeting of ORs to Take Place in October

ICPSR's Official Representatives will convene for their 25th biennial meeting October 25–28, 2001, in Ann Arbor, Michigan, on the University of Michigan campus. The theme for the meeting is "Innovations in Research, Instruction, Documentation, and Data Distribution."

Please join us for thought-provoking discussions about advances and new technologies affecting the conduct of social science research.

A series of interesting sessions is planned, including:

- *Facts at Your Fingertips: Online Analysis at ICPSR*

- *An Introduction to the Data Documentation Initiative (DDI)*
- *Teaching Research Methods to Undergraduates: A Roundtable Discussion*
- *ICPSR Direct: Access to Data for All Campus Users*
- *Integrating Data Analysis Into the Classroom Experience*
- *OR Roundtable Discussion: An Opportunity for Participation*
- *A World of Data for Comparative Research: Eurobarometers and the World Values Survey*
- *Census 2000: An Unparalleled Research Resource*
- *Innovations in Web-Based Data Exploration*
- *Research Issues Related to Restricted Data and Confidentiality*

An online registration form for the meeting will be available shortly on the ICPSR Web site.

ICPSR Collection Development Policy Available Online

Since its inception in 1962, ICPSR has pursued a variety of practices and strategies for developing its collection and has acquired and received data from numerous sources. The Archival Development Committee of the ICPSR Council has written a collection development policy to codify the principles that have guided collection development decisions over the years and to

establish a framework for making future data acquisition decisions.

The policy builds upon the work of Committee Chair Libbie Stephenson, University of California, Los Angeles, who served on the committee during her 1996–2000 term on Council. Current members of the Committee include Charles Betsey, Howard University (Co-Chair); Diane Geraci, Binghamton University, State University of New York (Co-Chair); Ann Green, Yale University; Steve Ruggles, University of Minnesota; Peter Granda, ICPSR; and Mary Vardigan, ICPSR.

The policy was recently ratified by the full ICPSR Council and can be viewed at <http://www.icpsr.umich.edu/ORG/Policies/colldev.html>.

ICPSR Census 2000 Site Goes Live

ICPSR has established a Web site devoted to Census 2000 data products and other Census-related research resources. Site visitors will find links to the latest data releases from ICPSR as well as information on characteristics of aggregate data and microdata, descriptions of training opportunities, announcements concerning Census 2000, and links to other Census sites.

Please visit the new site at <http://www.icpsr.umich.edu/CENSUS2000>.

A

dditions to Holdings

ABC News Democratic Vice-Presidential Candidate Announcement Poll, August 2000 — ABC News (ICPSR 3069)

ABC News/Washington Post Post-Democratic National Committee (DNC) Convention Poll, August 2000 — ABC News/*The Washington Post* (ICPSR 3071)

ABC News/Washington Post Post-Republican National Committee (RNC) Convention Poll, August 2000 — ABC News/*The Washington Post* (ICPSR 3068)

ABC News/Washington Post Pre-Democratic National Committee (DNC) Convention Poll, August 2000 — ABC News/*The Washington Post* (ICPSR 3070)

ABC News/Washington Post Republican National Committee (RNC) Convention Opener Poll, July 2000 — ABC News/*The Washington Post* (ICPSR 3067)

Alameda County [California] Health and Ways of Living Study, 1994 and 1995 Panels — George A. Kaplan (ICPSR 3083)

Annenberg Tobacco Risk Study, 1999: [United States] — Kathleen Jamieson and Patrick Jamieson (ICPSR 3049)

Beliefs About Social Stratification, 1980: [United States] — James R. Kluegel and Eliot R. Smith (ICPSR 8702)

CBS News Class of 2000 Poll, May 2000 — CBS News (ICPSR 2984)

CBS News Monthly Poll, March 2000 — CBS News (ICPSR 2928)

CBS News/New York Times Monthly Poll, May 2000 — CBS News/*The New York Times* (ICPSR 2985)

CBS News State of the Union Poll, January 2000 — CBS News (ICPSR 2920)

Crime Control Effects of Sentencing in Essex County, New Jersey, 1976–1997 — Don M. Gottfredson (ICPSR 2857)

Current Population Survey, September 1996: Food Security Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3041)

Current Population Survey, April 1997: Food Security Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3042)

Current Population Survey, August 1998: Food Security Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3044)

Current Population Survey, December 1998: Computer and Internet Use — United States Department of Commerce. Bureau of the Census (ICPSR 3045)

Current Population Survey, September 1999: Veterans Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3046)

Elementary and Secondary General Information System (ELSEGIS): Elementary-Secondary Staff Information, 1973–1974 — United States Department of Education. National Center for Education Statistics (ICPSR 2239)

Elementary and Secondary General Information System (ELSEGIS): Elementary-Secondary Staff Information, 1975–1976 — United States Department of Education. National Center for Education Statistics (ICPSR 2241)

NEW AT ICPSR

Current Population Survey: Food Security Supplement — United States Department of Commerce. Bureau of the Census

- **September 1996** (ICPSR 3041)
- **April 1997** (ICPSR 3042)
- **August 1998** (ICPSR 3044)

Data are provided in these collections on labor force activity for the week prior to each survey. Comprehensive data are available on the employment status, occupation, and industry of persons 15 years old and older. Also shown are personal characteristics such as age, sex, race, marital status, veteran status, household relationship, educational background, and Hispanic origin. The Food Security Supplement was conducted by the Bureau of the Census for the Food and Consumer Service (FCS) of the United States Department of Agriculture. Supplement questions were asked of all interviewed households, as appropriate. Questions included expenditure for food, whether the household had enough food and had the kinds of food they wanted, and whether the household was running short of money and trying to make their food or food money go further. Additional questions dealt with getting food from food pantries or soup kitchens, cutting the size of or skipping meals, and losing weight because there wasn't enough food. The supplement was intended to research the full range of the severity of food insecurity and hunger as experienced in United States households and was used by the supplement sponsor to produce a scaled measure of food insecurity. Responses to individual items in this supplement are not meaningful measures of food insufficiency and should not be used in such a manner.

NEW AT ICPSR

Images of Aging in America, 1994 — American Association of Retired Persons (AARP) (ICPSR 3094)

During 1994, the American Association of Retired Persons (AARP) conducted a survey to explore the different images, perceptions, and attitudes that Americans have toward aging, how those images have shifted over time, and how perceptions of aging differ among population subgroups. Respondents were asked about the factors that determine when men and women become “old,” the best and worst things about being over 65, and problems experienced before and after age 65. Regarding intergenerational conflict, respondents were queried about levels of respect between people over 65 and people younger than 65, influence exerted by retired persons, and the share of government benefits allocated to older persons. Other areas of investigation focused on life satisfaction, health status, anxiety levels, and levels of contact with people aged 65 and older. Demographic characteristics of respondents include age, sex, marital status, living situation, and employment status.

European Election Study, 1994 — Hermann Schmitt, Cees van der Eijk, Evi Scholz, and Michael Klein (ICPSR 3014)

Evaluation of North Carolina’s 1994 Structured Sentencing Law, 1992–1998 — James J. Collins, Donna L. Spencer, *et al.* (ICPSR 2891)

Expenditure and Employment Data for the Criminal Justice System [United States]: CJEE Extracts File, 1994 — United States Department of Justice. Bureau of Justice Statistics (ICPSR 2257)

Expenditure and Employment Data for the Criminal Justice System [United States]: CJEE Extracts File, 1995 — United States Department of Justice. Bureau of Justice Statistics (ICPSR 2840)

Expenditure and Employment Data for the Criminal Justice System [United States]: CJEE Extracts File, 1996 — United States Department of Justice. Bureau of Justice Statistics (ICPSR 3063)

German Election Study, 1996 (Politbarometer) — Forschungsgruppe Wahlen (Mannheim) (ICPSR 3034)

German Social Survey (ALLBUS) Cumulative File, 1980–1996 — Zentralarchiv für Empirische Sozialforschung and Zentrum für Umfragen, Methoden und Analysen (ZUMA) (ICPSR 3066)

Images of Aging in America, 1994 — American Association of Retired Persons (AARP) (ICPSR 3094)

Law Enforcement Management and Administrative Statistics (LEMAS): 1999 Sample Survey of Law Enforcement Agencies — United States Department of Justice. Bureau of Justice Statistics (ICPSR 3079)

Multiple Cause of Death, 1997 — United States Department of Health and Human Services. National Center for Health Statistics (ICPSR 3085)

National Corrections Reporting Program, 1998: [United States] — United States Department of Justice. Bureau of Justice Statistics (ICPSR 3029)

National Health Interview Survey, 1998 — United States Department of Health and Human Services. National Center for Health Statistics (ICPSR 3107)

National Hospital Discharge Survey, 1999 — United States Department of Health and Human Services. National Center for Health Statistics (ICPSR 3108)

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NEW AT ICPSR

Use of Computerized Crime Mapping by Law Enforcement in the United States, 1997–1998—

Cynthia A. Mamalian, Nancy G. LaVigne, and Elizabeth Groff (ICPSR 2878)

As a first step in understanding law enforcement agencies' use and knowledge of crime mapping, the Crime Mapping Research Center (CMRC) of the National Institute of Justice (NIJ) conducted a nationwide survey to determine which agencies were using geographic information systems (GIS), how they were using them, and, among agencies that were not using GIS, the reasons for that choice. Questions asked of all respondents included type of agency, population of community, number of personnel, types of crimes for which the agency kept incident-based records, types of crime analyses conducted, and whether the agency performed computerized crime mapping. Those agencies that reported using computerized crime mapping were asked which staff conducted the mapping; types of training their staff received in mapping; types of software and computers used; whether the agency used a global positioning system; types of data geocoded and mapped; types of spatial analyses performed and how often; use of hot spot analyses; how mapping results were used; how maps were maintained; whether the department kept an archive of geocoded data; what external data sources were used; whether the agency collaborated with other departments; what types of Department of Justice training would benefit the agency; what problems the agency had encountered in implementing mapping; and which external sources had funded crime mapping at the agency.



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