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inimizing Loss of Information: Data Preservation, Confidentiality, and Users' Needs

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ICPSR WAS PRIVILEGED TO HOST TWO VISITING ORS during spring/summer 2002. Michal Peleg was in residence for ten weeks, during which time she researched the substance of this article, which reflects her own views on methods for guarding against information loss. She also wrote the text for the New Users page of the ICPSR Web site at <http://www.icpsr.edu/NEWUSER/index.html>.

A fundamental tension lies at the heart of the social science data archiving mission. On the one hand, the goal is to maximize access. Data are collected, prepared, and preserved in their fullest form, to facilitate and inform research projects in the future. On the other hand, confidentiality of respondent information must be addressed. Both the summary data and the microdata may contain sensitive information that must be protected, often by "blurring" the data to reduce the probability of reidentification of individuals. This dilemma has become more complex in recent years as the technology has advanced and public perceptions have altered. The basic question is: How can we minimize the loss of information that attends the process of protecting confidentiality?

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Background

Data dissemination and data preservation have always been the two major tasks performed by social science data archives. Until only about ten years ago, both tasks used similar technologies, relying on removable media such as magnetic tapes and CD-ROMs. These media diverged, however, when computer networks were developed that allowed data archives to deliver large files through FTP servers and small files by simple e-mail transactions.

Yet, while the Internet has become an excellent avenue for information transfer and data dissemination, it is certainly an unsafe chest for preservation. Web sites emerge, change, move, and vanish overnight. Even when they are still active, their contents may easily be altered, leaving no trace of yesterday's information. Thus, the Internet dissemination capabilities have outpaced the current technologies for preservation.

This inequity has some important effects on both data archiving and dissemination:

- Many government and academic data producers create and maintain elaborate Web sites loaded with statistics. Quite a few of them include microdata public use files (PUF) as well. Such activity is rarely accompanied by a preservation policy.
- In the interest of confidentiality, data producers perform further modifications to the microdata in the process of disclosure control, and then it

is the reduced microdata that are disseminated and preserved.

- Rising demands of users and growing competition on the Web push data archives to invest more resources in Web-based dissemination systems. This constructive development, however, may diminish the attention paid to preserving the data.

an interested citizen, but are often far from adequate for the needs and methods of deep scientific research.

Data producers perform these and other disclosure control modifications to create a PUF, which is then deposited in a data archive for preservation and dissemination. Meanwhile, the full detailed data (FDD)—the original microdata with only the direct identifiers removed—remains in the producer's possession. Since data producers are naturally busy with other projects, preservation procedures may be neglected or inadequately performed. At the same time, the life span of such files becomes shorter than ever as information technology speeds up changes of media and formats, leading to a permanent loss of information.

The Current Setup

Preparing a dataset for public release frequently involves extensive removal, recoding, or masking of variables, as can be seen from the examples in Tables 1 and 2. Obviously, such reduced datasets might meet the needs of an undergraduate student or

Table 1

CTS Physician Survey Public Use File, 1998/1999 Data Section H: Physician Compensation Methods & Income Level				
VARIABLE NAME	VAR. TYPE	LENGTH	START	END
PCTINCX	Numeric	2.0	256	257
Question: N/A				
Of your total income from your practice during calendar year 1997, approximately what percent would you estimate was earned in the form of bonuses, returned withholds, or other incentive payments based on your performance?				
Description: Percent of 1997 income from bonuses, returned withholds, or other incentive payments based on physician's performance. Constructed from responses to questions H9 and H9a. An edit was performed on this variable so that it does not apply for physicians who are not eligible for bonuses (H9a/EBONUS=0). Values were top coded at 40% for confidentiality reasons.				
VALUE	COUNT	CUMUL.	PERCENT	CUMPCT.
0%	1,333	1,333	10.8	10.8
1%	714	2,047	5.8	16.6
2–39%	4,184	6,231	34.0	50.6
40% (top code)	413	6,644	3.4	54.0
-9: Not ascertained	1	6,645	0.0	54.0
-1: Inapplicable	5,659	12,304	46.0	100.0

Percentage of income has been recoded into four categories: 0, 1, 2–39, and 40+. The 2–39% category includes 63% of the applicable cases. From ICPSR 3267: Community Tracking Study Physician Survey, 1998–1999.

Yet, it is possible to implement a better strategy for protecting confidentiality. Recognizing the significance of preservation, some data producers are now handing over detailed datasets to a data archive, authorizing the archive to check the data for risks of disclosure and to perform the necessary data modifications. These modifications may be guided either by the producer's instructions or by the archive's disclosure control policy. The resulting PUF may be identical to that prepared by the producer, but the FDD is preserved for the future and may be used in new ways. It can

be made available as a restricted file that can be requested by authorized users under a special contract. It may also be used to prepare different versions of the PUF or to reindex classifications. Having the original unedited file also means that in the future it may be accessible through new methods of protecting confidentiality as they develop.

Another Approach

This discussion does not address levels of security, nor does it evaluate methods of protecting confidential-

ity. These issues are well dealt with by national statistical agencies, by Institutional Review Boards (IRBs), and in many papers, books, and conferences. Though data archives do not play a central role in these discussions, they are fully committed to protecting the confidentiality of archived data and are aware that any violation or disclosure of private data may cause unpredictable damage to the future of social surveys as well as to secondary analysis of existing data. At the same time, data archives expect statisticians and policymakers to acknowledge the value of secondary analysis of public data both for social sciences and for policymaking. With these considerations in mind, data archives should approach data producers with a program that meets research and preservation tasks while safeguarding data confidentiality.

One option is to prepare multiple PUF versions, with each version hiding a few sensitive variables while exposing others, and with each version intended for a different set of users and research questions. For example, the U.S. Census 1% Public Use Microdata Sample (PUMS) might be released in two forms:

- **A geographical version** that exposes medium size geographic location and hides other variables such as detailed occupation, industry, age, and income.
- **A demographic-economic version** that masks geographic identifiers but leaves all other characteristics of households and individuals.

Such a multiple-version technique is already implemented in Israel by the Central Bureau of Statistics in collaboration with the Social Sciences Data Center. This approach repre-

Table 2

A2_R: Age, Grouped			
PERCENT	N	VALUE	LABEL
17.7	521	1	18-29
22.2	654	2	30-39
21.0	619	3	40-49
21.8	642	4	50-64
17.2	506	5	65 and older
	5	-3	missing
100.0	2,947		TOTAL
PROPERTIES: Data type: numeric Missing-data codes: *-1 Record/columns: 1/1185-1186			
A4_R: Race, Grouped			
PERCENT	N	VALUE	LABEL
14.0	410	1	Black or African-American
74.2	2,193	2	White
11.4	336	3	other
	8	-3	missing
100.0	2,947		TOTAL
PROPERTIES: Data type: numeric Missing-data codes: *-1 Record/columns: 1/1187-1188			

Extensive grouping of age and race data. From ICPSR 2778: Gambling Behavior Survey, 1997.

sents a considerable improvement over the single PUF practice, but its value to potential users still depends on the ability to forecast typical research questions related to the data. This method also puts a significant burden on the data archive, which has to preserve multiple versions rather than just one.

The Optimal Scenario

Another way to deal with statistical confidentiality in microdata is to move the disclosure control process out of the phase of preparing a dataset and place it instead at the point of data access, mainly through the Internet. A suggested model is based on five principles:

- Data producers authorize the data archive to perform disclosure control regarding indirect identifiers and to preserve FDD.
- Data producers, or an authorized data archive, assign parameters of confidentiality to the dataset, to user groups, and to selected variables.
- These parameters are then incorporated into the metadata, using the protocol of the Data Documentation Initiative (DDI).
- If the Internet is chosen as the preferred dissemination platform, a secure Web site is set up and maintained.
- A confidentiality clearance engine, or “simulator,” is incorporated into the data dissemination process. Once the user defines a subset, the simulator checks its level of safety according to the dataset parameters, and

interacts with the user, who then may modify the subset until the simulator approves it.

Differentiation of data access

Although the differentiation of access modes does not directly relate to the suggested model, it may encourage data producers to adopt this model and may help leading research projects to obtain more detailed data. It is reasonable to assume that social scientists and Ph.D. students need more detailed data than undergraduate students. It is also reasonable to count on their understanding and commitment regarding protection of data confidentiality. By assigning a different access mode to different groups, data archives may acquire and preserve more detailed data.

Internet security

A well-secured Web site and a closely monitored authorization process are prerequisites for implementing the proposed model. Banks, stock exchanges, health services, schools, and government agencies, among others, use secure Web sites for handling sensitive information such as financial statements, medical records, and achievement scores. Most of these organizations not only allow their users to access information but also encourage them to perform Web-based transactions like money transfers and air travel booking. Obviously, these Web services are secured by adequate hardware and software and involve a preliminary process of authorization. A similar setup would be required for implementing the proposed model.

On-line Disclosure Control

Current procedures for protecting confidentiality treat a dataset as if each user has access to all its parts, cases, and variables. In reality, however, this need not be the model that data archives follow. The required subset of data (cases X variables) and the details of each variable should instead be determined by the proposed research question and the method of analysis. A user who wishes to investigate inequality of incomes probably needs continuous incomes in dollars, but might abandon other variables such as detailed country of birth and MSA. On the other hand, a user studying political attitudes may be satisfied with grouped income but needs detailed schooling and occupation measures. The most typical tradeoff is between geographic identifiers and other characteristics: planning authorities typically require geographical granularity, while academic research projects tend to insist on ungrouped economic and demographic variables.

The idea is for the user to define a subset and let a confidentiality clearance engine check the defined subset against a given level of security. If a subset is cleared for a given user, it is immediately available for download or for online analysis. Otherwise, the “high-risk” variables are displayed and the user is requested either to drop them or to let the system recode them. In the process of modifying the requested subset, the user who drops key or sensitive variables may add other “neutral” variables to “reimburse” her research plan. Once the user replies, the simulator runs again and displays updated results. This simulation process may

Table 3

VARIABLE	FULL DETAILED DATA (FDD)	CURRENT PUBLIC USE FILE (PUF)	OUTPUT VERSIONS		
			USER 1	USER 2	USER 3
State	50	4 regions	50	4	4
Age (15 +)	86	10 age groups	15	15	80
Country of birth	170	10 world regions	100	0	40
Occupation (4 digits)	3,000	10 1-digit classifications	0	300	40

Number of categories of selected variables in three versions of the same dataset.

go on for several iterations until both the user and the confidentiality clearance engine are satisfied.

Table 3 presents examples of three different subsets derived from the same dataset by three different users.

This model can easily be implemented in one of the operative data dissemination engines like Nesstar and SDA, which already allow the user to define a subset. Once the dataset confidentiality parameters are incorporated into the metadata (DDI) and a confidentiality protection algorithm is programmed in, the disclosure control simulator may be launched.

The Benefits

The inclusion of a disclosure control procedure in the process of data dissemination has several significant benefits. First, it minimizes the loss of information imposed on current users by providing them tailor-made subsets that fit their research purposes. Second, it provides the data producer and the data archive with the option of modifying parameters of statistical confidentiality over

time. Under the suggested model, data producers can change levels of security or variable tagging whenever disclosure control standards or rules are changed. Third, this approach maximizes the amount of information available for future generations by allowing data archives to preserve the FDD. It also simplifies the data preservation task by reducing the number of dataset versions that have to be maintained and preserved. Last but not least, it upgrades the role of the data archive to that of a “senior partner” in the mission of encouraging and facilitating public use of data. By adopting the proposed model, data producers will both enable a more focused usage of their data and make a significant contribution to its long-term preservation.

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nnouncements

ICPSR to Move to New Location

As announced in the Summer 2002 issue of the *Bulletin*, ICPSR will be moving its headquarters from the Borders Building on Maynard Street to the Perry Building, a historic structure at the edge of the University of Michigan campus. Located at the intersection of Packard Street and Madison, the Perry Building was built in 1902 to house an elementary school and in 1965 was purchased by the University of Michigan. The move to Perry will provide more square footage and growth space for ICPSR, which currently is occupying rental space in two locations.

At press time, the move had been scheduled for mid-December. Definitive dates for the move will be communicated as soon as they are available, as will new telephone and fax numbers. Only a brief interruption in data delivery is anticipated.

New Members Join ICPSR

ICPSR is pleased to announce that several new member institutions have joined the Consortium since Fall 2001. We extend a sincere welcome to the following new members:

- University of Alaska, Anchorage — Category B
- Bocconi University, Italian Federation — Category N
- Bryn Mawr College (became independent member) — Category S
- University of California at San Francisco (reinstated) — Category B
- University of Cape Town (South Africa) — Category C
- CIDE Center for Research and Teaching Economics (Mexico) — Category C
- Estado University De Campinas (Brazil) — Category C
- Fo Guang Humanity and Social Science College (Taiwan) — Category C
- Fort Valley State University (reinstated) — Category S
- Howard University (reinstated) — Category A
- Kenyon College, Associated Colleges of the Midwest Federation (reinstated) — Category S
- University of Lisbon (Portugal) — Category C
- Max Planck Institute for Demographic Research (Germany) — Category B
- Messiah College — Category B
- University of Minnesota-Duluth — Category B
- Nanyang Technological University (Singapore) — Category C
- National Center for Education Statistics (NCES) — Associate Membership
- National University of Singapore — Category C
- Western Washington University (reinstated) — Category B

DDI Web Site Enhancements Added

ICPSR has established an email list for individuals interested in discussing issues surrounding implementations of the Data Documentation Initiative (DDI) specification. To subscribe to the list, go to the DDI Users' Listserv page of the DDI site at:

<http://www.icpsr.umich.edu/DDI/ORG/listserv.html>

In addition, the DDI site now contains a page listing tools developed specially for use with the DDI, including DDI conversion tools and DDI stylesheets. There is also a mapping on the site to go from DDI to MARC records.

ZA Spring Seminar to Be Held

The Zentralarchiv für Empirische Sozialforschung in Cologne (Köln) announces its 32nd Spring Seminar, to be held March 10–28, 2003, with the focus of “Basic and Advanced Topics in Modeling.” The spring seminar is a training course for social scientists interested in advanced techniques of data analysis.

The lectures and workshops will be given (in English) by:

- **Prof. Dr. Josef Brüderl**, University of Mannheim, Germany, *Applied Regression Analysis Using Stata*, March 10–14, 2003
- **Dr. Jeroen K. Vermunt** and **Dr. Andries van der Ark**, Tilburg University, The Netherlands, *General Linear Models With Latent Variables*, March 17–21, 2003
- **Dr. Tamás Rudas**, Eötvös Loránd University, Budapest, Hungary, *Measurement and Modeling of Association in Multiway Contingency Tables*, March 24–28, 2003

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dditions to Holdings

ABC News “Nightline” Catholic Church Poll, February 2002
— ABC News (ICPSR 3430)

ABC News/Washington Post Catholic Church in Crisis Poll, March 2002
— ABC News/The Washington Post (ICPSR 3432)

ABC News/Washington Post Poll, June 2001 — ABC News/The Washington Post (ICPSR 3286)

ABC News/Washington Post Poll, January 2002 — ABC News/The Washington Post (ICPSR 3429)

ABC News/Washington Post Poll, April 2002 — ABC News/The Washington Post (ICPSR 3433)

ABC News/Washington Post Six Months After September 11th Poll, March 2002 — ABC News/The Washington Post (ICPSR 3431)

American Perceptions of Aging in the 21st Century [APA21], 2000
— Neal E. Cutler and Nancy A. Whitelaw (ICPSR 3326)

CBS News Monthly Poll #1, April 2001 — CBS News (ICPSR 3342)

CBS News Monthly Poll #1, October 2001 — CBS News (ICPSR 3376)

CBS News Post-Debate #1 Poll, October 2000 — CBS News (ICPSR 3215)

CBS News Pre-Debate #1 Poll, October 2000 — CBS News (ICPSR 3214)

CBS News State of the Union Call-Back Poll, January 2000 — CBS News (ICPSR 2922)

California Healthcare Foundation/Mercer Small Business Health Insurance Survey, 2000 — William M. Mercer, Inc. (ICPSR 3383)

Census of Population and Housing, 2000 [United States]: Summary File 2, Alabama
— United States Department of Commerce. Bureau of the Census (ICPSR 13233)

Census of Population and Housing, 2000 [United States]: Summary File 2, Alaska
— United States Department of Commerce. Bureau of the Census (ICPSR 13234)

Additions to Holdings (continued)

Census of Population and Housing, 2000 [United States]: Summary File 2, Arizona — United States Department of Commerce. Bureau of the Census (ICPSR 13235)

Census of Population and Housing, 2000 [United States]: Summary File 2, Colorado — United States Department of Commerce. Bureau of the Census (ICPSR 13238)

Census of Population and Housing, 2000 [United States]: Summary File 2, Connecticut — United States Department of Commerce. Bureau of the Census (ICPSR 13239)

Census of Population and Housing, 2000 [United States]: Summary File 2, Delaware — United States Department of Commerce. Bureau of the Census (ICPSR 13240)

Census of Population and Housing, 2000 [United States]: Summary File 2, District of Columbia — United States Department of Commerce. Bureau of the Census (ICPSR 13241)

Census of Population and Housing, 2000 [United States]: Summary File 2, Hawaii — United States Department of Commerce. Bureau of the Census (ICPSR 13244)

Census of Population and Housing, 2000 [United States]: Summary File 2, Idaho — United States Department of Commerce. Bureau of the Census (ICPSR 13245)

Census of Population and Housing, 2000 [United States]: Summary File 2, Illinois — United States Department of Commerce. Bureau of the Census (ICPSR 13246)

Census of Population and Housing, 2000 [United States]: Summary File 2, Indiana — United States Department of Commerce. Bureau of the Census (ICPSR 13247)

Census of Population and Housing, 2000 [United States]: Summary File 2, Iowa — United States Department of Commerce. Bureau of the Census (ICPSR 13248)

Census of Population and Housing, 2000 [United States]: Summary File 2, Kansas — United States Department of Commerce. Bureau of the Census (ICPSR 13249)

Census of Population and Housing, 2000 [United States]: Summary File 2, Kentucky — United States Department of Commerce. Bureau of the Census (ICPSR 13250)

Census of Population and Housing, 2000 [United States]: Summary File 2, Maine — United States Department of Commerce. Bureau of the Census (ICPSR 13252)

Census of Population and Housing, 2000 [United States]: Summary File 2, Maryland — United States Department of Commerce. Bureau of the Census (ICPSR 13253)

Census of Population and Housing, 2000 [United States]: Summary File 2, Massachusetts — United States Department of Commerce. Bureau of the Census (ICPSR 13254)

Census of Population and Housing, 2000 [United States]: Summary File 2, Michigan — United States Department of Commerce. Bureau of the Census (ICPSR 13255)

Census of Population and Housing, 2000 [United States]: Summary File 2, Minnesota — United States Department of Commerce. Bureau of the Census (ICPSR 13256)

Census of Population and Housing, 2000 [United States]: Summary File 2, Mississippi — United States Department of Commerce. Bureau of the Census (ICPSR 13257)

Census of Population and Housing, 2000 [United States]: Summary File 2, Missouri — United States Department of Commerce. Bureau of the Census (ICPSR 13258)

Census of Population and Housing, 2000 [United States]: Summary File 2, Montana — United States Department of Commerce. Bureau of the Census (ICPSR 13259)

Census of Population and Housing, 2000 [United States]: Summary File 2, Nebraska — United States Department of Commerce. Bureau of the Census (ICPSR 13260)

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Census of Population and Housing, 2000 [United States]: Summary File 2, New Hampshire — United States Department of Commerce. Bureau of the Census (ICPSR 13262)

Census of Population and Housing, 2000 [United States]: Summary File 2, New Jersey — United States Department of Commerce. Bureau of the Census (ICPSR 13263)

Census of Population and Housing, 2000 [United States]: Summary File 2, New Mexico — United States Department of Commerce. Bureau of the Census (ICPSR 13264)

Census of Population and Housing, 2000 [United States]: Summary File 2, New York — United States Department of Commerce. Bureau of the Census (ICPSR 13265)

Census of Population and Housing, 2000 [United States]: Summary File 2, North Dakota — United States Department of Commerce. Bureau of the Census (ICPSR 13267)

Census of Population and Housing, 2000 [United States]: Summary File 2, Oklahoma — United States Department of Commerce. Bureau of the Census (ICPSR 13269)

Census of Population and Housing, 2000 [United States]: Summary File 2, Oregon — United States Department of Commerce. Bureau of the Census (ICPSR 13270)

Census of Population and Housing, 2000 [United States]: Summary File 2, Pennsylvania — United States Department of Commerce. Bureau of the Census (ICPSR 13271)

Census of Population and Housing, 2000 [United States]: Summary File 2, Puerto Rico — United States Department of Commerce. Bureau of the Census (ICPSR 13284)

Census of Population and Housing, 2000 [United States]: Summary File 2, Rhode Island — United States Department of Commerce. Bureau of the Census (ICPSR 13272)

Census of Population and Housing, 2000 [United States]: Summary File 2, South Dakota — United States Department of Commerce. Bureau of the Census (ICPSR 13274)

Census of Population and Housing, 2000 [United States]: Summary File 2, Tennessee — United States Department of Commerce. Bureau of the Census (ICPSR 13275)

Census of Population and Housing, 2000 [United States]: Summary File 2, Texas — United States Department of Commerce. Bureau of the Census (ICPSR 13276)

Census of Population and Housing, 2000 [United States]: Summary File 2, Vermont — United States Department of Commerce. Bureau of the Census (ICPSR 13278)

Census of Population and Housing, 2000 [United States]: Summary File 2, Virginia — United States Department of Commerce. Bureau of the Census (ICPSR 13279)

Census of Population and Housing, 2000 [United States]: Summary File 2, Washington — United States Department of Commerce. Bureau of the Census (ICPSR 13280)

Census of Population and Housing, 2000 [United States]: Summary File 2, West Virginia — United States Department of Commerce. Bureau of the Census (ICPSR 13281)

Census of Population and Housing, 2000 [United States]: Summary File 2, Wisconsin — United States Department of Commerce. Bureau of the Census (ICPSR 13282)

Census of Population and Housing, 2000 [United States]: Summary File 2, Wyoming — United States Department of Commerce. Bureau of the Census (ICPSR 13283)

Chronic Illness and Caregiving, 2000: [United States] — Mae Thamer (ICPSR 3402)

Consumer Expenditure Survey, 2000: Diary Survey — United States Department of Labor. Bureau of Labor Statistics (ICPSR 3395)

Additions to Holdings (continued)

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Cooperative Institutional Research Program (CIRP) [United States]: Freshman Survey, 1969 — University of California, Los Angeles. Graduate School of Education. Higher Education Research Institute, and American Council on Education (ICPSR 2399)

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Current Population Survey, January 1999: Tobacco Use Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3455)

Current Population Survey, May 1999: Tobacco Use Supplement — United States Department of Commerce. Bureau of the Census (ICPSR 3453)

Detroit Area Study, 1990: Community Issues — Paul Mohai (ICPSR 2881)

Detroit Area Study, 1991: Collective Memories — Howard Schuman (ICPSR 2160)

Drug Services Research Survey, 1990: [United States] — United States Department of Health and Human Services. National Institute on Drug Abuse (ICPSR 3393)

Elementary and Secondary General Information System (ELSEGIS): Public Elementary-Secondary School Systems — Finances, School Year 1969–1970 — United States Department of Education. National Center for Education Statistics (ICPSR 2235)

Eurobarometer 54.2: Impact of New Technologies, Employment and Social Affairs, and Disabilities, January–February 2001 — Thomas Christensen (ICPSR 3211)

Eurobarometer 55.0: European Union Enlargement, the Euro, and Dialogue on Europe, March–April 2001 — Thomas Christensen (ICPSR 3340)

Eurobarometer 55.1OVR: Young Europeans, April–May 2001 — Thomas Christensen (ICPSR 3362)

Evaluating a Multi-Disciplinary Response to Domestic Violence in Colorado Springs, 1996–1999 — Craig D. Uchida, Carol A. Putnam, Jennifer Mastrofski, Shellie Solomon, and Deborah Dawson (ICPSR 3282)

Evaluation of Law Enforcement Training for Domestic Violence Cases in a Southwestern City in Texas, 1997–1999 — Martha Smithy, Susanne E. Green, and Andrew L. Giacomazzi (ICPSR 3400)

Evaluation of No-Drop Policies for Domestic Violence Cases in San Diego, California, Omaha, Nebraska, Klamath Falls, Oregon, and Everett, Washington, 1996–2000 — Barbara E. Smith, Robert Davis, Laura B. Nickles, and Heather J. Davies (ICPSR 3319)

Evaluation of the Gang Resistance Education and Training (GREAT) Program in the United States, 1995–1999 — Finn-Aage Esbensen (ICPSR 3337)

Examination of Homicides in Houston, Texas, 1985–1994 — Victoria Titterington and Kelly R. Damphousse (ICPSR 3399)

Expenditure and Employment Data for the Criminal Justice System [United States]: CJEE Extracts File, 1998 — United States Department of Justice. Bureau of Justice Statistics (ICPSR 3408)

Expenditure and Employment Data for the Criminal Justice System [United States]: CJEE Extracts File, 1999 — United States Department of Justice. Bureau of Justice Statistics (ICPSR 3409)

Federal Court Cases: Integrated Data Base, 2001 — Federal Judicial Center (ICPSR 3415)

Gangs in Rural America, 1996–1998 — Ralph A. Weisheit and L. Edward Wells (ICPSR 3398)

Height and Weight of Students of the Citadel, the Military College of South Carolina, 1878–1967 — John Komlos and Peter Coclanis (ICPSR 3391)

Height of Free African Americans in Maryland, 1800–1864 — John Komlos (ICPSR 3422)

Hispanic Established Populations for Epidemiologic Studies of the Elderly, Wave II, 1995–1996: [Arizona, California, Colorado, New Mexico, and Texas] — Kyriakos S. Markides (ICPSR 3385)

Impact Evaluation of the Felony Domestic Violence Court in Kings County [Brooklyn], New York, 1994–2000 — Lisa Newmark, Mike Rempel, Kelly Diffily, and Kamala Mallik Kane (ICPSR 3382)

Library General Information Survey (LIBGIS) [United States]: Public Library Universe, 1981 — United States Department of Education. National Center for Education Statistics (ICPSR 2279)

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