ICPSR 4338

Developing a Comprehensive Empirical Model of Policing in the United States, 1996-1999

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Bibliographic Description

ICPSR Study No.:	4338
Title:	Developing a Comprehensive Empirical Model of Policing in the United States, 1996-1999
Principal Investigator(s):	L. Edward Wells, Illinois State University. Department of Criminal Justice Sciences
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Scope of Study

Summary: The aim of this study was to provide a systematic empirical assessment of three basic organizational premises of Community-Oriented Policing (COP). This study constructed a comprehensive data set by synthesizing data available in separate national data sets on police agencies and communities. The base data source used was the 1999 Law Enforcement Management and Administrative Statistics (LEMAS) survey [LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1999 (ICPSR 3079)], which contained data on police organizational characteristics and on adoption of community-oriented policing procedures. The 1999 survey was supplemented with additional organizational variables from the 1997 LEMAS survey [LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1997 (ICPSR 2700)] and from the 1996 Directory of Law Enforcement Agencies [DIRECTORY OF LAW ENFORCEMENT AGENCIES, 1996: [UNITED STATES] (ICPSR 2260)]. Data on community characteristics were extracted from the 1994 County and City Data Book, from the 1996 to 1999 Uniform Crime Reports [UNIFORM CRIME REPORTING PROGRAM DATA. [UNITED STATES]: OFFENSES KNOWN AND CLEARANCES BY ARREST (1996-1997: ICPSR 9028, 1998: ICPSR 2904, 1999: ICPSR 3158)], from the 1990 and 2000 Census

Gazetteer files, and from Rural-Urban Community classifications. The merging of the separate data sources was accomplished by using the Law Enforcement Agency Identifiers Crosswalk file [LAW ENFORCEMENT AGENCY IDENTIFIERS CROSSWALK [UNITED STATES], 1996 (ICPSR 2876)]. In all, 23 data files from eight separate sources collected by four different governmental agencies were used to create the merged data set. The entire merging process resulted in a combined final sample of 3,005 local general jurisdiction policing agencies. Variables for this study provide information regarding police organizational structure include type of government, type of agency, and number and various types of employees. Several indices from the LEMAS surveys are also provided. Community-oriented policing variables are the percent of full-time sworn employees assigned to COP positions, if the agency had a COP plan, and several indices from the 1999 LEMAS survey. Community context variables include various Census population categories, rural-urban continuum (Beale) codes, urban influence codes, and total serious crime rate for different year ranges. Geographic variables include FIPS State, county, and place codes, and region.

Subject Term(s):	community policing, employees, organizational structure, police departments
Smallest Geographic Unit:	city/township
Geographic Coverage:	United States
Time Period:	1990; 1994; 1996 - 2000
Date(s) of Collection:	2002
Unit of Observation:	agency
Universe:	All law enforcement agencies in the United States.
Data Type:	survey data and administrative records data
Data Collection Notes:	Users are encouraged to refer to the project final report for information on how the various datasets were merged.

Methodology

Purpose of the Study:	The aim of this study was to provide a systematic empirical assessment of three basic premises of Community-Oriented Policing (COP): (1) a structural premise that what police departments do is shaped by their organizational structures, (2) a contextual premise that police agencies as "open systems" are constrained and influenced by their environments, and (3) a universality premise that, because the essential tasks of policing

are the same everywhere, a single universal model of COP policing will apply to all sizes and types of police agencies. The project was directed by three sets of research questions corresponding to these premises: (1) How strongly is the implementation of community-oriented policing by police agencies across the U.S. predicted by the organizational structures of agencies? (2) How strongly do community contextual characteristics determine or predict the adoption of COP? (3) Does a single general organizational model universally describe the inter-relations among community contexts, police organizational structures, and implementations of community-oriented policing procedures?

Study Design: This study constructed a comprehensive data set by synthesizing data available in separate national data sets on police agencies and communities. The base data source used for this synthesis was the 1999 Law Enforcement Management and Administrative Statistics (LEMAS) survey [LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1999 (ICPSR 3079)], which contained data on police organizational characteristics and on adoption of community-oriented policing procedures. The 1999 survey was supplemented with additional organizational variables from the 1997 LEMAS survey [LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1997 (ICPSR 2700)] and from the 1996 Directory of Law Enforcement Agencies [DIRECTORY OF LAW ENFORCEMENT AGENCIES, 1996: [UNITED STATES] (ICPSR 2260)], which provides a census of all 18,769 police agencies throughout the United States. Data on community characteristics were extracted from the 1994 County and City Data Book, from the 1996 to 1999 Uniform Crime Reports [UNIFORM CRIME REPORTING PROGRAM DATA. [UNITED STATES]: OFFENSES KNOWN AND CLEARANCES BY ARREST (1996-1997: ICPSR 9028, 1998: ICPSR 2904, 1999: ICPSR 3158)], from the 1990 and 2000 Census Gazetteer files, and from Rural-Urban Community classifications. The merging of the separate data sources was accomplished by using the Law Enforcement Agency Identifiers Crosswalk file [LAW ENFORCEMENT AGENCY IDENTIFIERS CROSSWALK [UNITED STATES], 1996 (ICPSR 2876)]. In all, 23 data files from eight separate sources collected by four different governmental agencies were used to create the merged data set. The entire merging process resulted in a combined final sample of 3,005 local general jurisdiction policing agencies (2,034 municipal-level and 971 county level) for which the researchers had matching community-demographic data on 2,449 and valid crime rate data on 2,242.

Sample: The base data source used for this synthesis was the 1999 Law Enforcement Management and Administrative Statistics (LEMAS) data, which contains 3,246 agencies. The editing and merging operations resulted in a combined final sample of 3,005 local general jurisdiction policing agencies. While these data are national in the scope of coverage,

they do not constitute a random sample of all police departments in the United States. First, the LEMAS survey on which the merged data set was constructed uses a variable, disproportionate sampling procedure that includes all large police departments (larger than 100 full-time sworn officers) and then undersamples smaller departments. Second, the substantial amount of missing data in the final merged data set undercuts the use of probability sampling, which introduces some nonrandom selection bias into the sample. These data are broader in coverage and content than used in previous police organization research, but at the same time, are not presented as ideal or as providing final, conclusive estimates.

Weight: The base sampling weight factor and the final adjusted sample weighting factor from the 1999 LEMAS survey are included.

Sources of Information: Data sources included: (1) LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1999 (ICPSR 3079), (2) LAW ENFORCEMENT MANAGEMENT AND ADMINISTRATIVE STATISTICS (LEMAS), 1997 (ICPSR 2700), (3) DIRECTORY OF LAW ENFORCEMENT AGENCIES, 1996: [UNITED STATES] (ICPSR 2260), (4) U.S. Department of Commerce, U.S. Census Bureau's County and City Data Book 1994 [CD-ROM, item number CD-CCDB-94], (5) UNIFORM CRIME REPORTING PROGRAM DATA. [UNITED STATES]: OFFENSES KNOWN AND CLEARANCES BY ARREST (1996-1997: ICPSR 9028, 1998: ICPSR 2904, 1999: ICPSR 3158), (6) U.S. Department of Commerce, U.S. Census Bureau's Census Gazetteer 1990 and 2000, both available online at www.census.gov/geo/www/gazetteer/gazette.html, (7) U.S. Department of Agriculture, Economic Research Service's ERS County Continuum codes (1995 update), available online at www.ers.usda.gov/Briefing/rurality/RuralUrbCon/code93.txt, (8) U.S. Department of Agriculture, Economic Research Service's Urban Influence Codes, available online at www.ers.usda.gov/Briefing/rurality/ UrbanInf/, and (9) LAW ENFORCEMENT AGENCY IDENTIFIERS CROSSWALK [UNITED STATES], 1996 (ICPSR 2876).

Mode of Data Collection: record abstracts

Description of Variables: Variables regarding police organizational structure include type of government (county, municipal, township), type of agency (sheriff, county, municipal, special), total number of full-time and part-time employees, total number of sworn, nonsworn, and civilian employees, total number and percent of employees in various types of units, the number of facilities operated by the agency, type of union membership of sworn employees, and whether the agency has collective bargaining for sworn and nonsworn employees. Various indices from the LEMAS surveys are provided regarding task scope, patrol types, computerization, administrative intensity, drug testing, selection/screening, educational

requirements, training, unionization, and organizational height. Community-oriented policing variables are the percent of full-time sworn employees assigned to COP positions, if the agency had a COP plan (formally written, informal, no COP plan), and several indices from the 1999 LEMAS survey regarding COP training, procedures, meetings, and use of community surveys in planning and evaluation. Community context variables include population in 1994, percent of population non-White, Black, and Hispanic/Latino, percent of families and persons below poverty, employment rate, median household income, per capita income, racial heterogeneity index, percent of population 5 to 17 years of age, percent population 65 years and older, percent of adults (over 25 years of age) with high school education, percent of housing that is renter-occupied, percent of households that are single-occupancy, mean number of persons per household, population density in 1990 and 2000, population change between 1990 and 2000, rural-urban continuum (Beale) codes, urban influence codes, metropolitan vs. nonmetropolitan, total serious crime rate (average of 1996-2000), total serious crime rate (average of 1998 and 1999). Geographic variables include FIPS state, county, and place codes, and region.

Response Rates:	Not applicable.
Presence of Common Scales:	none.
Extent of Processing:	ICPSR performed checks for undocumented codes, standardized missing data codes, produced a codebook and frequencies, and generated SAS, SPSS, and Stata setup files. ICPSR also reformatted the data.

Access and Availability

Extent of Collection:	This data collection consists of one data file, a user guide and codebook in PDF files, and SAS, SPSS, and Stata setup files.
Data Format:	Logical Record Length with SAS, SPSS, and Stata setup files, SAS transport (XPORT) file, SPSS portable file, and Stata system file
Original ICPSR Release:	2006
Note:	Detailed file-level information (such as LRECL, case count, and variable count) may be found in the file manifest.

Publications

Final Reports and Other Publication Resources:	A list of publications related to, or based on, this data collection can be accessed from the study's download page on the NACJD Web site or through the ICPSR Bibliography of Data-Related Literature at

http://www.icpsr.umich.edu/citations/index.html. The list of citations includes links to abstracts and publications in Portable Document Format (PDF) files or text files when available.

Final reports and other publications describing research conducted on a variety of criminal justice topics are available from the National Criminal Justice Reference Service (NCJRS). NCJRS was established in 1972 by the National Institute of Justice (NIJ), an agency of the U.S. Department of Justice, to provide research findings to criminal justice professionals and researchers. NCJRS operates specialized clearinghouses that are staffed by information specialists who supply a range of reference, referral, and distribution services. Publications can be obtained from NCJRS at NIJ/NCJRS, Box 6000, Rockville, MD, 20849-6000, 800-851-3420 or 301-519-5500. TTY Service for the Hearing Impaired is 877-712-9279 (toll-free) or 301-947-8374 (local). The URL for the NCJRS Web site is:

http://www.ncjrs.org/

NIJ Data Resources Program

About the DRP: The National Institute of Justice Data Resources Program (DRP) makes datasets from NIJ-funded research and evaluation projects available to the research community and sponsors research and training activities devoted to secondary data analysis. Datasets are archived by the National Archive of Criminal Justice Data (NACJD) at the Inter-university Consortium for Political and Social Research (ICPSR) at the University of Michigan.

The NACJD maintains a World Wide Web site with instructions for transferring files and sending messages. Criminal justice data funded by the Department of Justice are available via the Internet at this site at no charge to the user. NACJD may be contacted at NACJD/ICPSR, P.O. Box 1248, Ann Arbor, MI, 48106-1248, 800-999-0960. The URL for the NACJD Web site is:

http://www.icpsr.umich.edu/NACJD/

Data Completeness Report

Notes: (1) Variables are individually listed only if they have greater than 5% missing data. These variables are listed under the appropriate percentage category in the order in which they appear in the data file. (2) The Data Completeness Report only captures information about system missing or other values that are declared missing. Codes that have a label implying that they are missing but that are not declared missing values are not reflected in this report. Data users should consult the codebook for more specific information about missing values. (3) Some variables that have 100% missing data may have been blanked by ICPSR to protect respondent confidentiality. Data users should consult the codebook for more specific information about blanked variables. (4) Data do not contain skip patterns or skip patterns are not reflected in the data as coded.

Table 1: Distribution of Variables by Percentage of Missing Values

Variable Name and Label (Total Cases = 3005)		Percent of Cases with Missing Values
31.0% (27 of 87 variables)	have 0% Missing Values	
16.1% (14 of 87 variables)	have 0% - 1% Missing Values	
6.9% (6 of 87 variables)	have 1% - 3% Missing Values	
2.3% (2 of 87 variables)	have 3% - 5% Missing Values	
12.6% (11 of 87 variables)	have 5% - 10% Missing Values	
FORMAL97	FRMLZTION INDX # FRML WRTN POLICIES '97	5.3%
FORM97	FORM CODE FOR 1997 SURVEY	5.3%
DRUGTEST	COVERAGE OF DRUG TESTING (1997 SURVEY)	5.3%
SSCREEN	SELECTION SCREENING TECHNIQUES	5.3%
EDREQUIR	EDUCATION REQUIREMENTS FOR NEW OFFICERS	5.3%
HRTRAIN	HRS REQUIRED TRAINING FOR NEW RECRUITS	5.3%
COLLBARG	COLLECTIVE BARGAINING FOR EMPLOYEES	5.3%
UNION	UNION MEMBERSHIP FOR SWORN OFFICERS	5.3%
EXTRAPAY	EXTRA PAY FOR SPECIAL DUTY	5.3%
STANDARD	STANDARDIZATION INDEX	5.3%
BUREAUCR	BUREAUCRATIZATION INDEX	5.3%
25.3% (22 of 87 variables)	have 10% - 20% Missing Values	
GRPCODE	FBI GEOGRAPHIC GROUP CODE (F2)	10.6%
UPOPCOV	UCR: POPULATION COVERED	11.1%
FPLACE	FIPS: PLACE CODE	10.6%
CGOVCNTY	NUMERIC FBI COUNTY CODE (ST+CO)	10.6%
CGOVCITY	NUMERIC FBI CITY CODE	10.6%
AGNCYTYP	TYPE OF AGENCY	10.6%
HEIGHT	ORGANIZATION HEIGHT - SALARY DIFF'L	12.9%
JURSIZE7	POP SIZE OF JURISDICTION (7-CATEGORIES)	10.6%
POPTOT90	TOTAL POPULATION OF JURISDICTION IN 1990	18.5%

Table 1: Distribution of Variables by Percentage of Missing Values

Variable Name and Label (Total Cases = 3005)		Percent of Cases with Missing Values
PC5_17	% OF POP. = 5 TO 17 YEARS OLD IN 1990	18.5%
PC65OVR	% OF POP = 65 YEARS & OLDER IN 1990	18.5%
PC1PHSHD	% 1-PERSON HOUSEHOLDS IN 1990	18.5%
PCHS25	% HIGH SCHL GRADS 25YRS OLD & OVER 1990	18.5%
HSDINCOM	MEDIAN HOUSEHOLD INCOME IN 1989	18.5%
PERINCOM	PER CAPITA INCOME IN 1989	18.5%
PCFAMPOV	% FAMILIES BELOW POVERTY IN 1989	18.5%
PCPERPOV	% PERSONS BELOW POVERTY IN 1989	18.5%
EMPLRT90	EMPLOYMENT RATE (% 18-64 YR OLDS) 1990	18.5%
HETEROGX	RACIAL HETROGNTY INDX BLAU/RUSHING '90	18.5%
PCNONWHT	% POPULATION = NON-WHITE IN 1990	18.5%
PCHISP	% POPULATION = HISPANIC IN 1990	18.5%
PCRENTER	% HOUSEHOLDS = RENTER-OCCUPIED	18.5%
5.7% (5 of 87 variables)	have 20% - 40% Missing Values	
CRIME6_9	INDEX CRIME RATE (AVERAGE) 1996-1999	24.1%
CRIME6_8	INDEX CRIME RATE (AVERAGE) 1996-1998	25.4%
CRIME8_9	INDEX CRIME RATE (AVERAGE) 1998-99	25.4%
PCPOPCH	% POPULATION CHANGE 1990-2000 (GAZETEER)	26.9%
POPDENS	POPULATION DENSITY OF JURISDICTION	26.5%
0.0% (0 of 87 variables)	have 40% - 99% Missing Values	
0.0% (0 of 87 variables)	have 100% missing values	