

Justice Expenditure and Employment Extracts (JEEE) State Microdata

Coding it Forward 2023
Anna Schoeny



Bureau of Justice Statistics



About Me

- Graduated from Tulane University with degree in sociology and computer science
- Originally from Chicago, currently living in East Nashville
- Currently on a gap year, planning to work through the fall and backpack in the spring
- Outside of work, I love to hike, cook, and do ceramics





JEEE State Microdata

- Originates from accounting records from each state government
- Includes data from 49 states (excluding California) from fiscal years 2011 to 2020
- Includes detailed justice expenditure information - including the expenditure function, object type and amount



Bureau of Justice Statistics



Project Overview

- States do not necessarily populate the table levels in the same way

LVL1	LVL2	LVL3	LVL4	OBJECT	CODE	AMT	SURVEYYEAR	ID
LA CORRECTIONAL INST WOMEN	SECURITY			ACQUISITIONS - LAND	G04	94	2020	22
ALLEN CORRECTIONAL CENTER	MAINTENANCE			MAJOR REPAIRS - BLDG, GROUNDS	G04	517	2020	22
ELAYN HUNT CORRECTIONAL CENTER	FIELD OPERATIONS			ACQN-CAPITALIZED BUILDINGS	G04	17	2020	22
RAYBURN CORRECTIONAL CENTER	MAINTENANCE			MAJOR REPAIRS - BLDG, GROUNDS	G04	156	2020	22
LA STATE PENITENTIARY	INMATES RECORD OFF.			GROUP INSURANCE CONTRIBUTIONS	E04	58	2020	22
LA STATE PENITENTIARY	INMATES RECORD OFF.			SALARIES-CLASS - REGULAR	E04	340	2020	22

Louisiana populates two levels - LVL1 specifies the facility

LVL1	LVL2	LVL3	LVL4	OBJECT	CODE	AMT	SURVEYYEAR	ID
CORRECTIONS	GENERAL REVENUE	SHAWNEE CORRECTIONAL CENTER		POSTAGE AND POSTAL CHARGES	E04	6	2020	17
CORRECTIONS	GENERAL REVENUE	SHAWNEE CORRECTIONAL CENTER		RENTAL, OFFICE EQUIPMENT	E04	32	2020	17
CORRECTIONS	GENERAL REVENUE	SHAWNEE CORRECTIONAL CENTER		REPAIR & MAINT,MACHINERY	E04	2	2020	17
CORRECTIONS	GENERAL REVENUE	SHAWNEE CORRECTIONAL CENTER		RENTAL,OTHER COMMUNICATION SRV	E04	3	2020	17
CORRECTIONS	GENERAL REVENUE	SHAWNEE CORRECTIONAL CENTER		RENTAL, TELEPHONE SERV & EQUIP	E04	35	2020	17

Illinois populates three levels - LVL3 specifies the facility



Bureau of Justice Statistics



Project Overview

The problem – hard to compare financial information between states

The solution – establish a coding scheme to group and compare expenditures by justice function and expenditure categories



Bureau of Justice Statistics



Main Tasks

- Familiarization with the data
- Researching state agencies, understanding how each state reports expenditures
- Recognizing patterns in state reporting, identifying categories of interest
- Creating a process to assign codes to data efficiently
- Determining and documenting potential topics for study and producing sample visualizations



Bureau of Justice Statistics



Categories

FUNCTPRIMARY	FUNCTPRIMARY_CAT	FUNCTSECONDARY	FUNCTSECONDARY_CAT
10	Corrections	1	Women's Corrections
20	Judicial/Legal	2	Health Services
30	Public Safety/Law Enforcement	3	Forensics
40	Juvenile Justice	4	Training
50	Probation/Parole	5	Attorney General
60	Miscellaneous/ Other/ Administrative Agency		

OBJPRIMARY	OBJPRIMARY_CAT	OBJSECONDARY	OBJSECONDARY_CAT
10	Construction	1	Health/Medical
20	Land/Buildings/Office Space	2	IT/Technology
30	Maintenance	3	Legal
40	Equipment/Supplies		
50	Utilities		
60	Services		
70	Travel/Transportation/ Lodging		
80	Payroll		
90	Retirement		
100	Taxes/Fees		
110	Reimbursements		
120	Grants		
130	Permits		
140	Insurance		
150	Training/Conferences		
160	Interagency Assistance/ Aid		
170	Misc. Expenses		



Bureau of Justice Statistics



Example

STATE	SURVEY YEAR	LVL1	LVL2	LVL3	LVL4	OBJECT	AMT	FUNCT PRIMARY	FUNCT SECONDARY	OBJ PRIMARY	OBJ SECONDARY
LOUISIANA	2020	OFFICE OF STATE POLICE	ST POL-PHYSICAL SECURITY			MAINTENANCE OF EQUIPMENT	1	30		30	
LOUISIANA	2020	OFFICE OF STATE POLICE	ST POL-PHYSICAL SECURITY			SALARIES-CLASS-REGULAR	1288	30		80	
LOUISIANA	2020	OFFICE OF STATE POLICE	ST POL-PHYSICAL SECURITY			TELEPHONE SERVICES	1	30		60	
LOUISIANA	2020	OFFICE OF STATE POLICE	ST POL-PHYSICAL SECURITY			UTILITIES - ELECTRICITY	14	30		50	
LOUISIANA	2020	OFFICE OF STATE POLICE	ST POL-PHYSICAL SECURITY			MAINT-PROPERTY & EQUIP-OTHER	8	30		30	
LOUISIANA	2020	LA CORRECTIONAL INST WOMEN	HEALTH SERVICES			SALARIES-UNCLASS-OVERTIME	4	10	1,2	80	
LOUISIANA	2020	LA CORRECTIONAL INST WOMEN	HEALTH SERVICES			OPERATING SUPPLIES - OTHER	3	10	1,2	40	
LOUISIANA	2020	LA CORRECTIONAL INST WOMEN	HEALTH SERVICES			F.I.C.A. TAX (OASDI)	7	10	1,2	100	
INDIANA	2020	SUPREME COURT ADMIN	GENERAL FUND	SUPREME COURT		MAIN -CLEANING SERV	45	20		30	
INDIANA	2020	SUPREME COURT ADMIN	GENERAL FUND	SUPREME COURT		PROF SERV - IT SERVICES	168	20		60	2
INDIANA	2020	SUPREME COURT ADMIN	GENERAL FUND	SUPREME COURT		PROF SERV - LEGAL SERVICES	41	20		60	3
INDIANA	2020	LOGANSPORT JUVENILE CORR	GENERAL FUND	NORTH CENTRAL JUV. CORR. FAC.		PAYROLL SALARIES & WAGES	7673	40		80	



Bureau of Justice Statistics



Applying the Coding Scheme

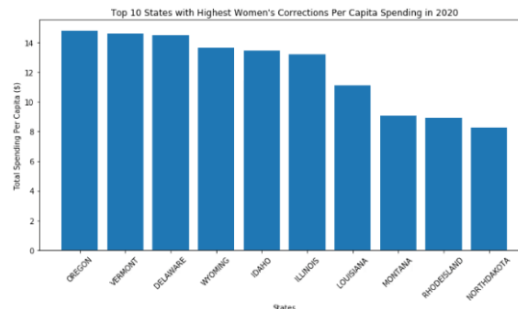
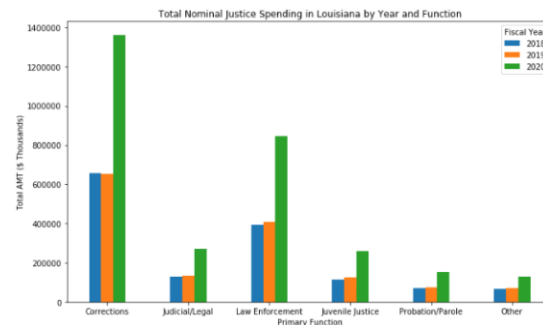
- Goal was a semi-automated approach to applying the functional/object codes to every row
- Created custom Python function that utilizes a defined dictionary containing keywords and their associated codes
- Challenge with inconsistent entry of data – use of regular expressions
- Reduces burden of manual categorization and could be applied to future data – 18,000 unique values in the “OBJECT” column alone



Bureau of Justice Statistics

Some Topics

- Health Services in Correctional Facilities
- Technology Adoption in Law Enforcement or Court Systems
- Forensic Labs – Complement BJS Collections Related to Crime Labs/Medical Examiners
- Law Enforcement Training
- Correctional Spending in Southern States v. Other Regions
- Maintenance of Correctional Facilities
- Relationship between Probation/Parole and State Recidivism Rates



Final Thoughts/What I've Learned

- Navigating bureaucratic/technical hurdles
- Trial-and-error of building coding scheme/automation – iterative refinement
- Firsthand understanding of challenges in criminal justice data accessibility – difficulty in extracting meaningful insights from disparate datasets
- Concept of the “baton pass”





Thank you!



Bureau of Justice Statistics

810 Seventh Street, NW, Washington, DC 20531 | Phone: +1 (202) 307-0765 | bjs.ojp.gov