



Crime in Nebraska Series

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Audience Persona



Jim Hopper
Chief of Nebraska State Police

Nebraska Crime Commission

“The Crime Commission was established to develop comprehensive plans and coordinate activities related to the improvement of criminal justice administration among state and local agencies.”

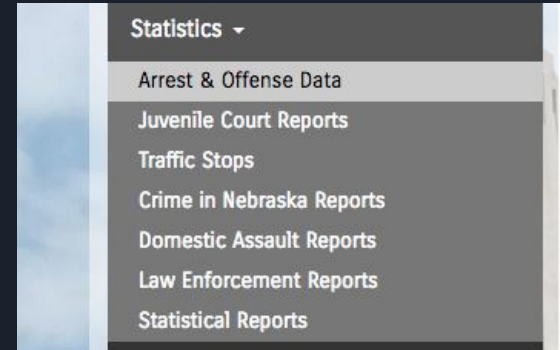
ncc.nebraska.gov



Data Sources

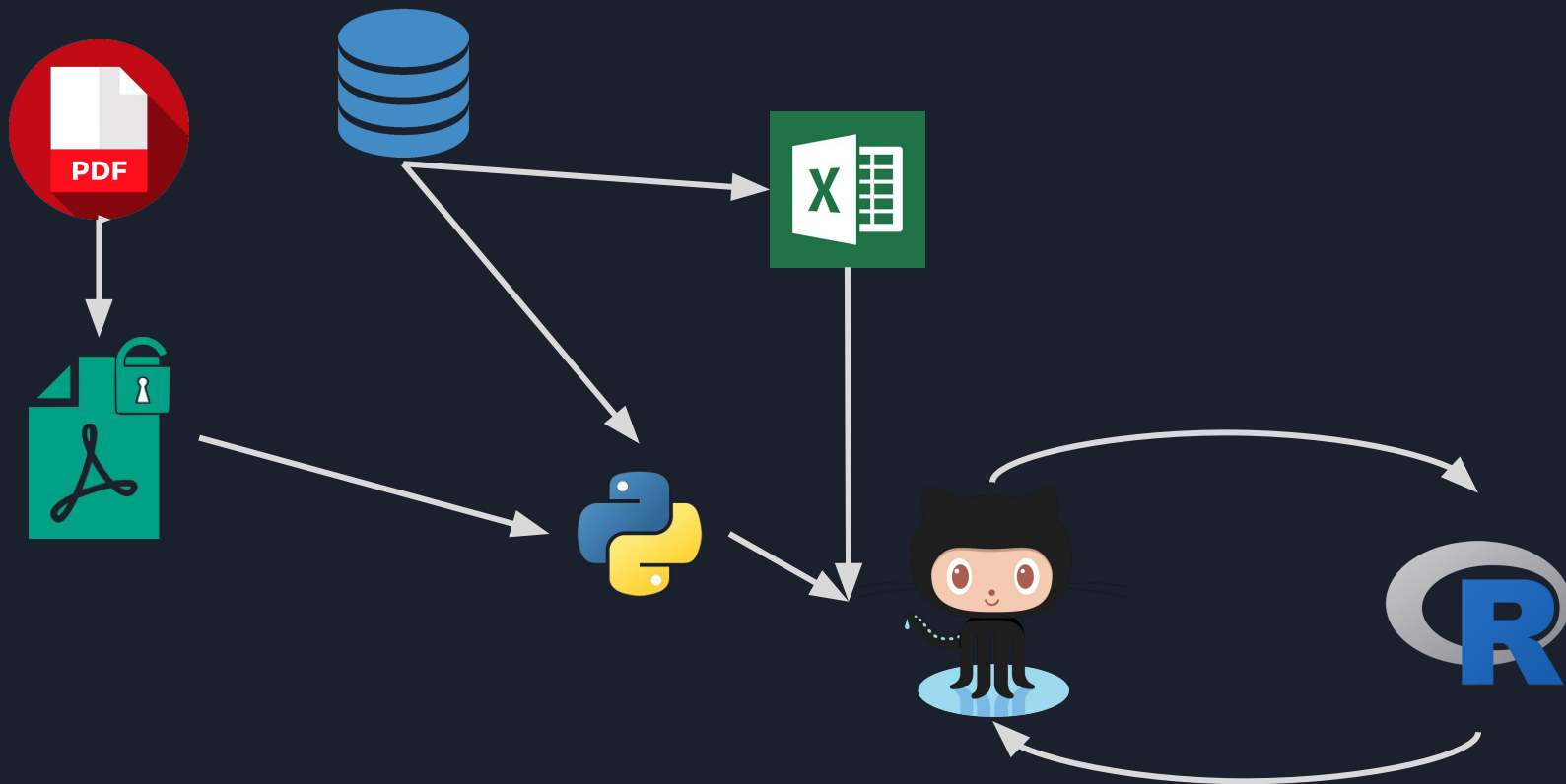


Nebraska Open Data



NCC Crime Summaries

Data Cleaning



Percent Change - Crime Index Offenses

January thru December, 2015 - 2016 by Population Groups*

	Population Group		Murder, Man- slaughter	Forcible Rape	Robbery	Aggravated Assault	Violent (Total)	Burglary	Larceny Theft	Motor Vehicle Theft	Arson	Property (Total)	Grand Total
Police Departments	400,000 & Over	2015	48	174	655	1,452	2,329	2,160	11,558	2,543	82	16,343	18,672
		2016	29	245	610	1,647	2,531	2,111	11,571	3,125	68	16,875	19,406
		% Change	-39.6%	40.8%	-6.9%	13.4%	8.7%	-2.3%	0.1%	22.9%	-17.1%	3.3%	3.9%
	250,000 to 399,999	2015	1	193	214	617	1025	1,328	7,344	361	100	9,133	10,158
		2016	11	222	191	583	1007	1,261	7,117	352	80	8,810	9,817
		% Change	1000.0%	15.0%	-10.7%	-5.5%	-1.8%	-5.0%	-3.1%	-2.5%	-20.0%	-3.5%	-3.4%
	5,000 to 99,999	2015	6	193	87	505	791	1,489	8,666	542	52	10,749	11,540
		2016	4	202	98	599	903	1,668	8,686	660	53	11,067	11,970
		% Change	-33.3%	4.7%	12.6%	18.6%	14.2%	12.0%	0.2%	21.8%	1.9%	3.0%	3.7%
	Under 5,000	2015	1	22	3	77	103	155	719	70	9	953	1056
		2016	1	17	6	98	122	183	722	67	5	977	1099
		% Change	N/A	-22.7%	N/A	27.3%	18.4%	18.1%	0.4%	-4.3%	-44.4%	2.5%	4.1%
Other	Counties	2015	7	66	32	407	512	1,074	2,880	421	35	4,410	4,922
		2016	6	100	27	455	588	1,027	2,857	432	21	4,337	4,925
		% Change	-14.3%	51.5%	-15.6%	11.8%	14.8%	-4.4%	-0.8%	2.6%	-40.0%	-1.7%	0.1%
	* State Property	2015	1	8	2	6	17	22	232	10	3	267	284
		2016	0	15	3	24	42	15	271	14	1	301	343
		% Change	-100.0%	87.5%	50.0%	300.0%	147.1%	-31.8%	16.8%	40.0%	N/A	12.7%	20.8%
	Total	2015	64	656	993	3,064	4,777	6,228	31,399	3,947	281	41,855	46,632
2016		51	801	935	3,406	5,193	6,265	31,224	4,650	228	42,367	47,560	
% Change		-20.3%	22.1%	-5.8%	11.2%	8.7%	0.6%	-0.6%	17.8%	-18.9%	1.2%	2.0%	

PDF



Column

Age Group

Row

Agency

Optional Fields

Select Adult/Juvenile

All (Adult & Juvenile)

Select Year

Select Year

Select Month

Select Month

Select County

Select County

Select Agency

Select Agency

County	Agency	Unknown	17 and Under	18 to 20	21 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 and Over
(Nebraska State Property)	Nebraska State Patrol	0	88	32	24	15	19	12	9	9	9	5	1	2
Adams	Adams CO. S.O.	0	176	357	270	223	170	147	111	80	56	27	11	7
Adams	Hastings P.D.	2	3879	3883	2704	2045	1484	1159	1015	677	412	209	123	133
Adams	Nebraska State Patrol	0	295	1036	473	288	187	170	128	120	77	47	27	17
Antelope	Antelope CO. S.O.	0	14	77	107	89	80	59	53	44	28	18	13	6



Limitations

- NCC Reports are aggregated data
 - Tabula *mostly* accurate
 - Missing years of data
 - Webmaster non responsive
- NE Open Data query limited

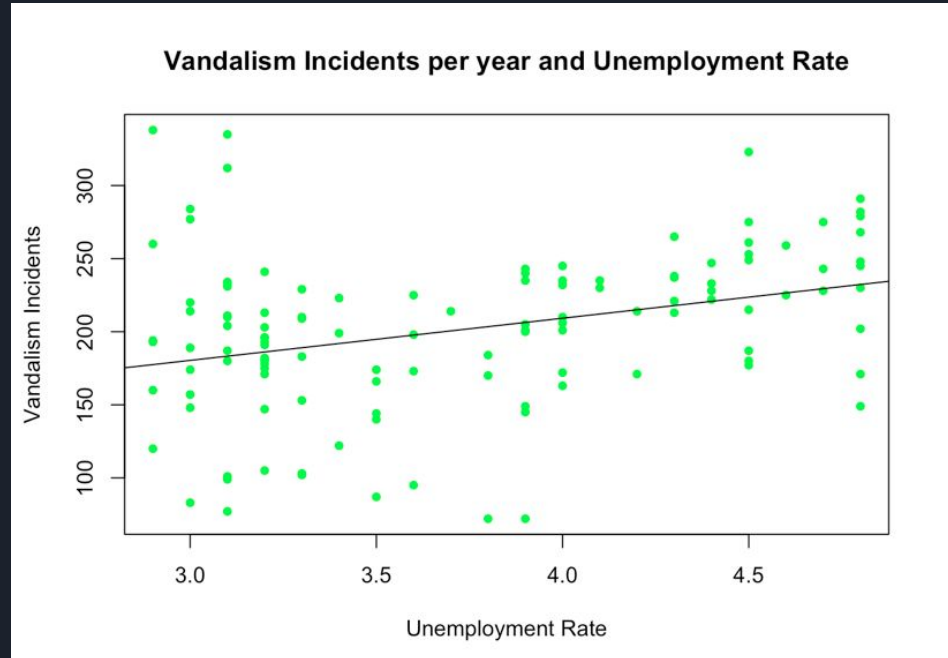


Research Questions

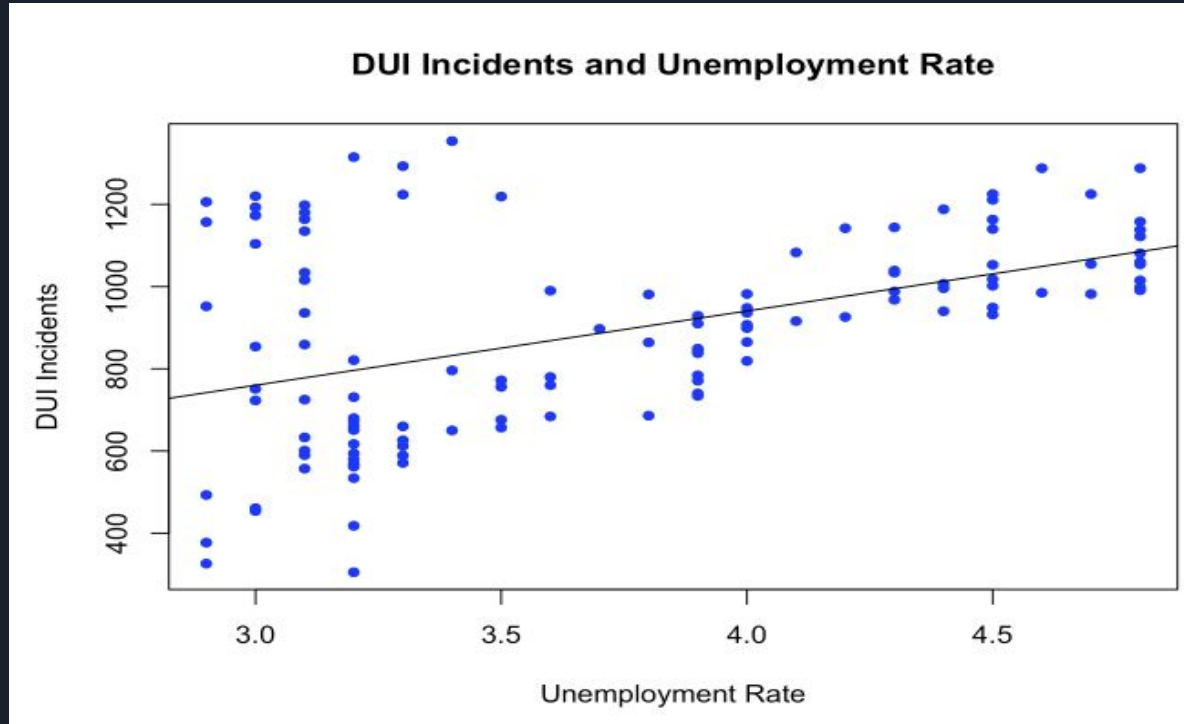
1. How does unemployment rate and S&P Price change (Standards & Poor) impact the types of crimes committed?
2. How does the population level of a county impact the type of crimes committed?
3. How do police staffing levels impact overall crime rates?

Impact of Unemployment rate on Vandalism Crimes

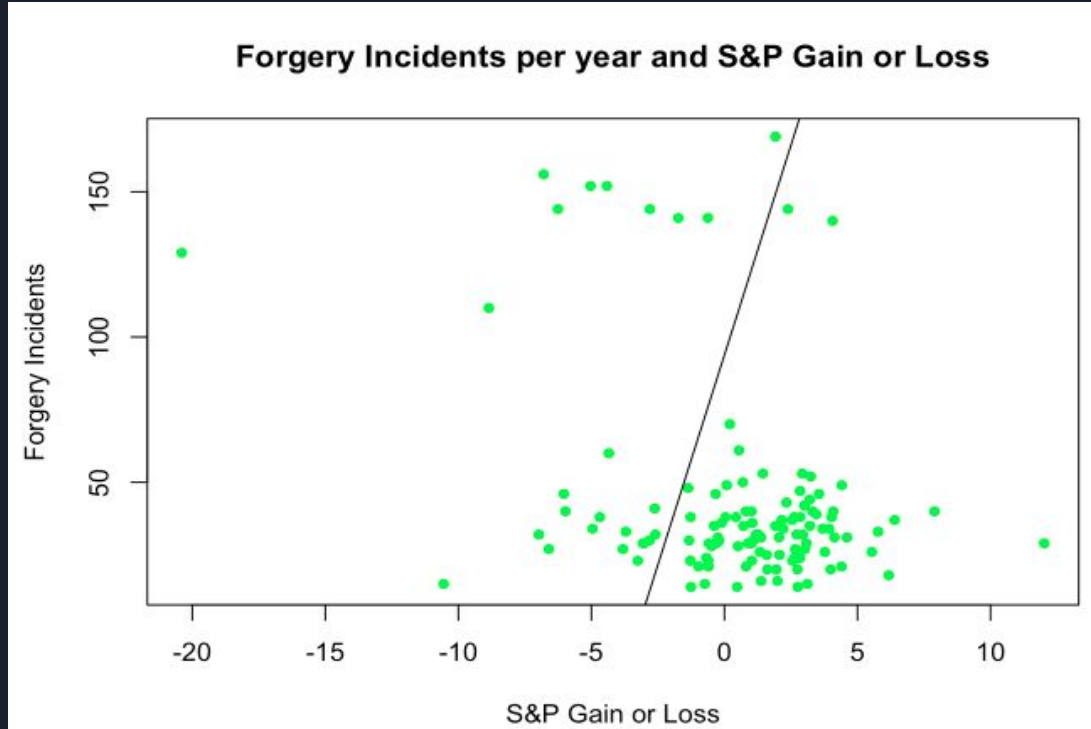
How does unemployment rate and S&P Price change (Standards & Poor) impact the types of crimes committed?



Impact of Unemployment rate on Driving under the Influence Crimes

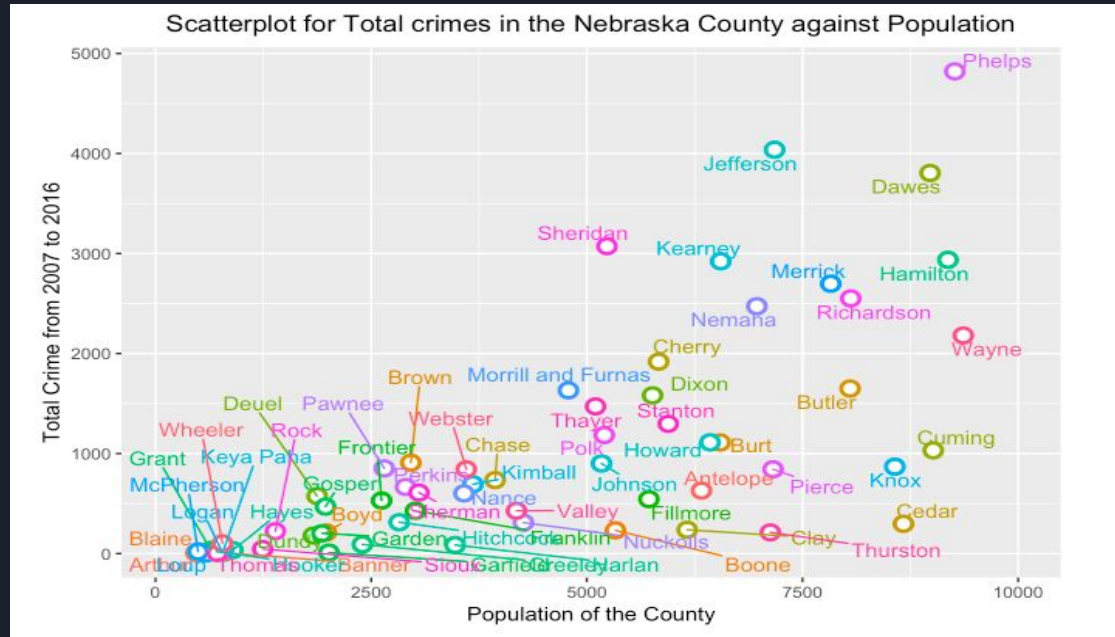


Impact of S&P Price change on Forgery Crimes

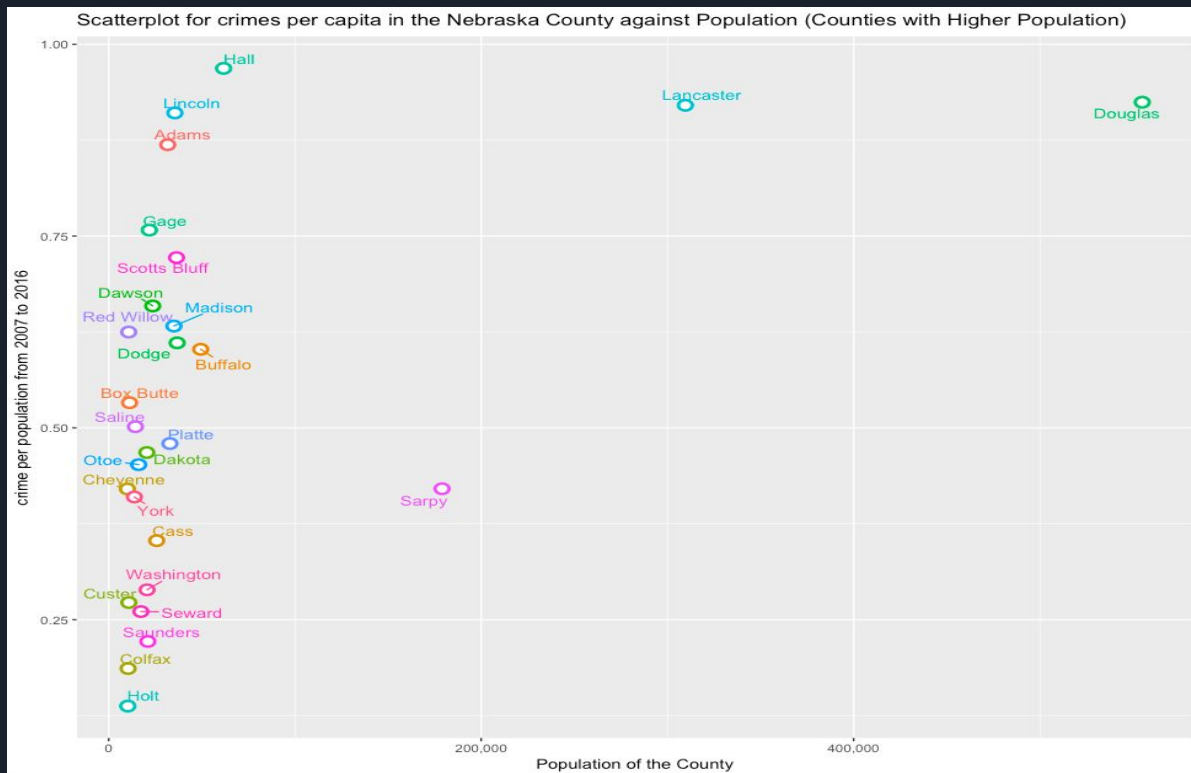


Population and Crime

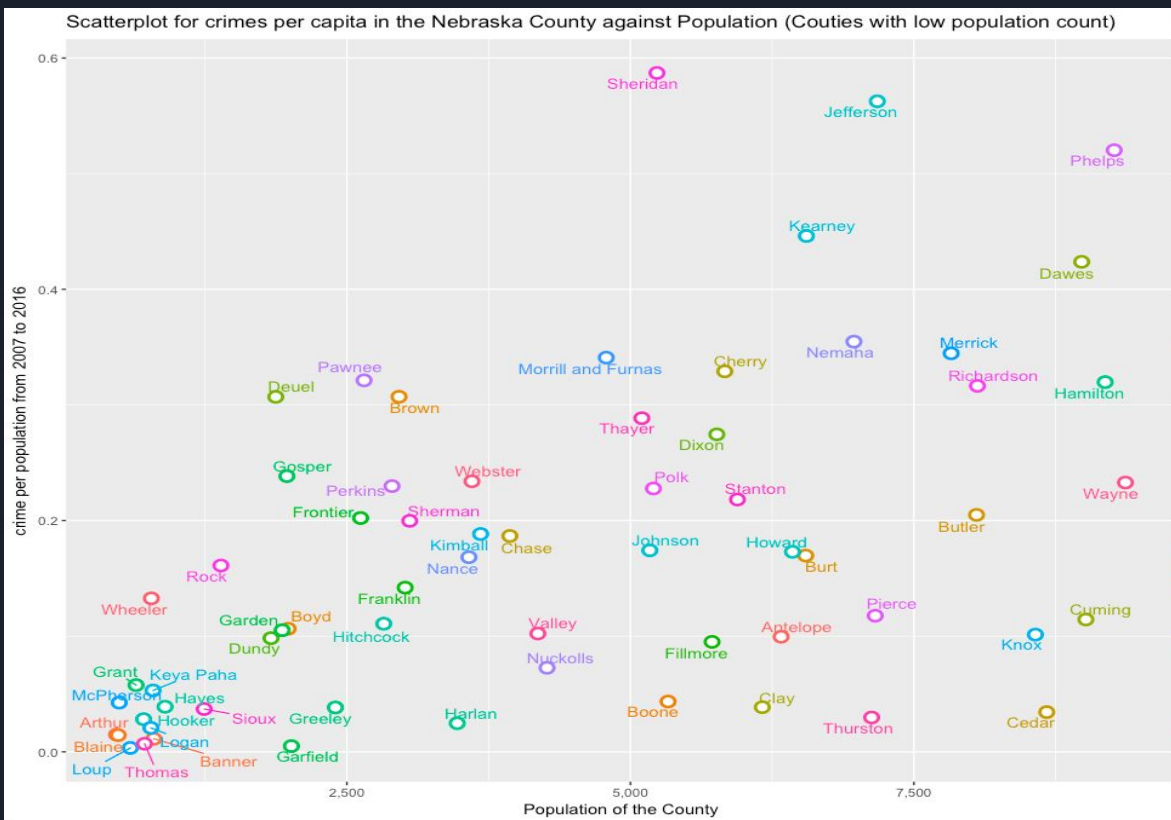
How does the population level of a county impact the type of crimes committed?



Population and Crime per population (pop > 10000)

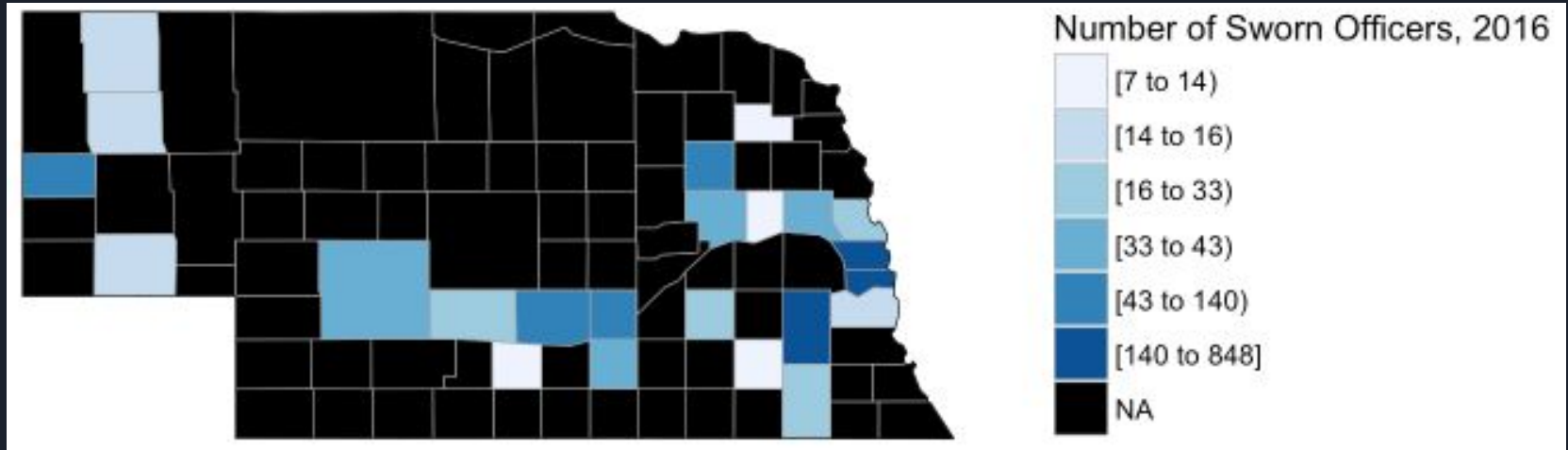


Population and Crime per population (pop < 10000)

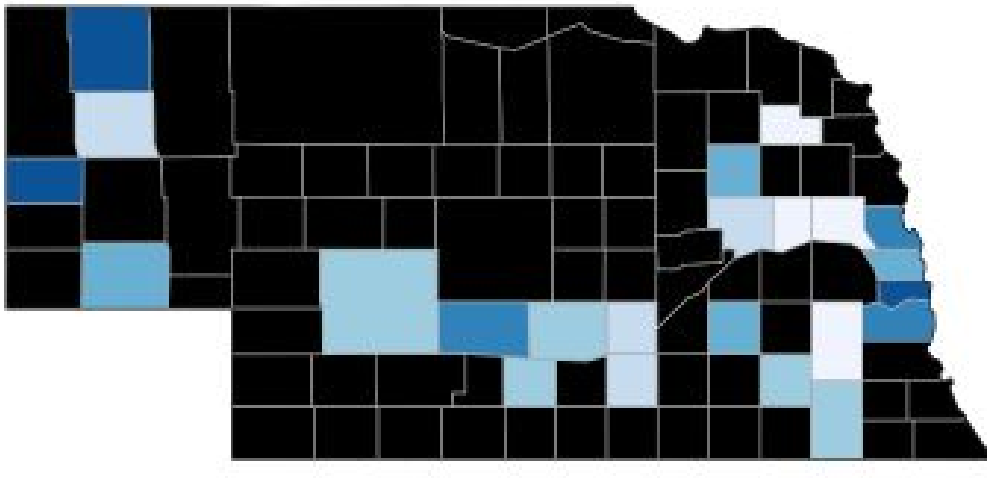


Police Staffing and Crime

How do police staffing levels impact overall crime rates?



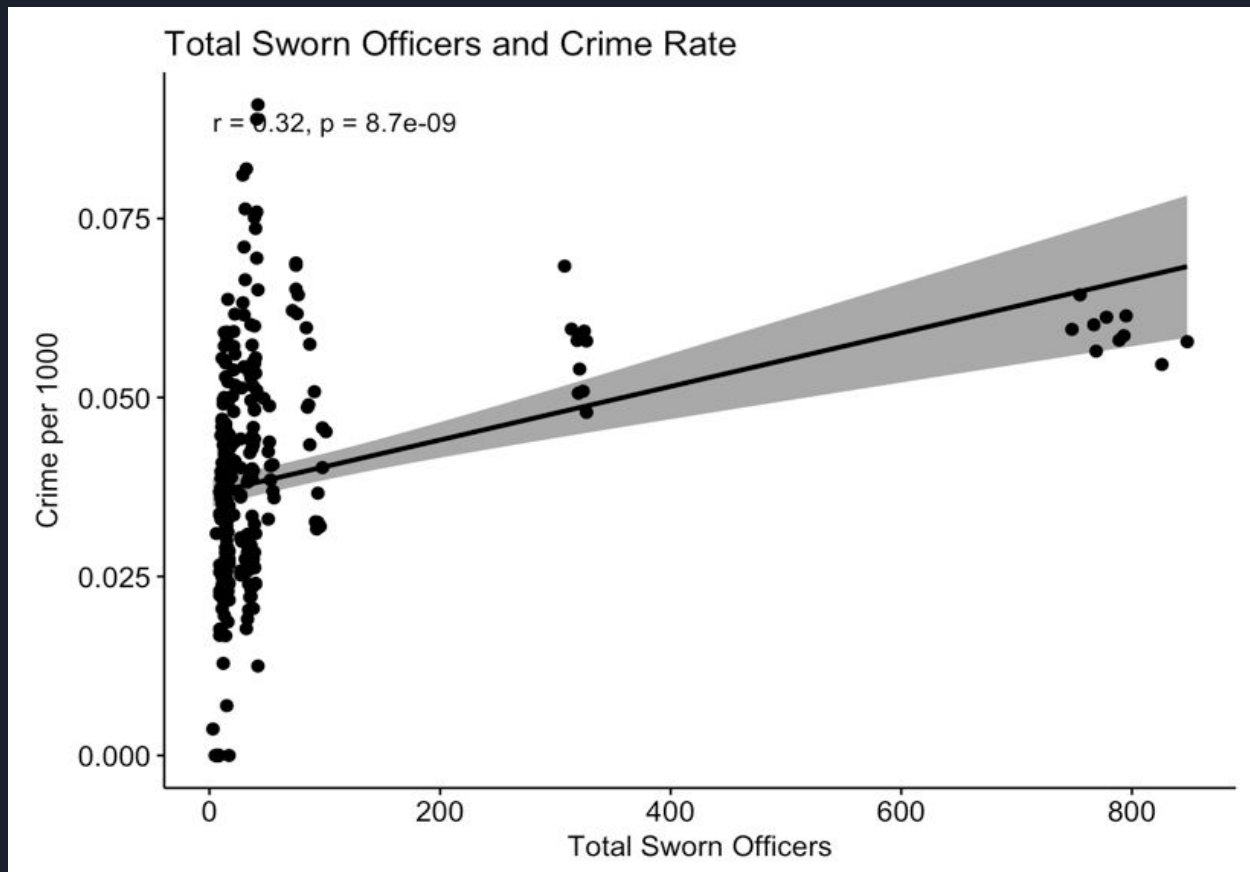
Police Staffing and Crime



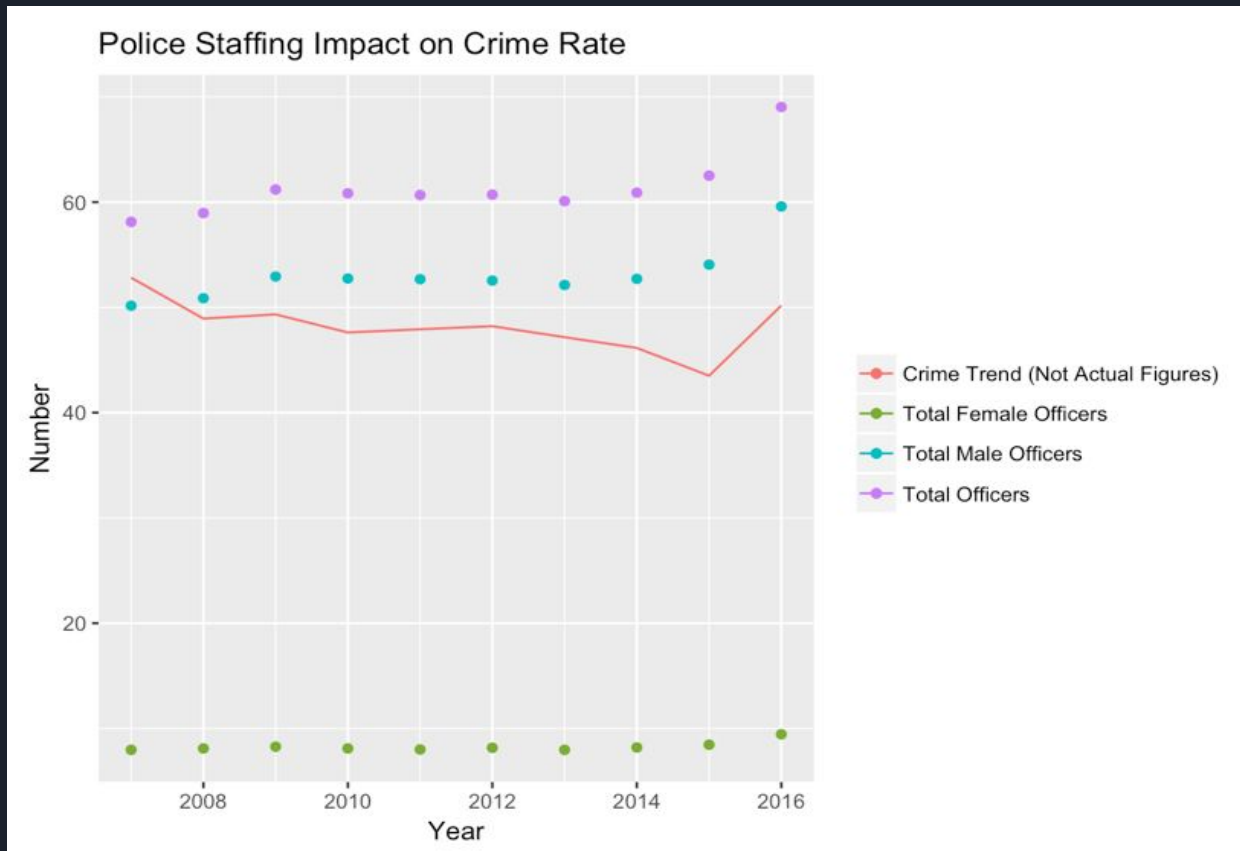
Number of Sworn Officers Per 1000, 2016



Police Staffing and Crime



Police Staffing and Crime





Police Staffing and Crime

- “Urban” areas have more crime ($>25,000$)
- Even in rural areas, more officers is not always better
- More data analysis necessary
 - Need to gather more rural policing data



Conclusion & Recommendations

- NCC should consider collecting finer grain data
- Analyzing crime is a complex endeavour
 - Correlation \neq Causation
- The following should be monitored more when the unemployment rate is high
 - Vandalism
 - Driving under the influence crimes
 - Forgery crimes

Thank you

Questions are welcome

