



$$(a+b)^2 = a^2 + b^2 + 2ab$$

DATA OR STATISTICS?

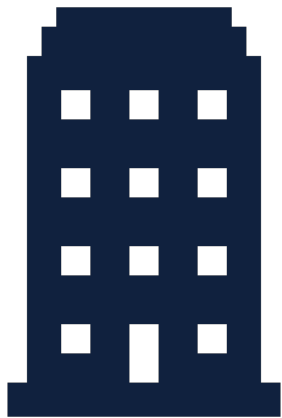
What's the assignment?



Understanding the requirements of your assignment or research project is always the first step in the process.



Have you been asked to answer a specific question or provide numbers to support an argument?



For example, what percentage of violent crimes committed in Boston were homicides or assaults? In Quincy, are more building permits issued for apartment houses or single-family homes?

How many?



"How many" questions are often answered by statistics.

How many Asian and Hispanic immigrants live in Boston?
How many children in Boston have asthma? Is this
number increasing or decreasing?

How? Why?



Data may help you answer "how" and "why" questions, and those answers may help you understand relationships among events or people.

For example, are there datasets to help us understand why the childhood asthma rate is increasing or decreasing? Are there data about air pollution, numbers of days with air quality alerts, better diagnostic tools for childhood illnesses, etc.?

Table 434. Reported Voting and Registration Among Native and Naturalized Citizens by Race and Hispanic Origin: 2016

[In thousands, except percent, (224,059 represents 224,059,000). Data shown for population aged 18 years and over. As of November]

Nativity status, race, and Hispanic origin	Total citizen popula- tion (1,000)	U.S. citizen							
		Reported registered		Not registered		Reported voted		Did not vote	
		Number (1,000)	Percent	Number (1,000)	Percent	Number (1,000)	Percent	Number (1,000)	Percent
Total:									
All races ¹	224,059	157,596	70.3	32,622	14.6	137,537	61.4	53,860	24.0
White alone ²	177,865	127,463	71.7	24,822	14.0	111,891	62.9	41,356	23.3
White alone, non-Hispanic	154,460	114,151	73.9	19,210	12.4	100,849	65.3	33,310	21.6
Black alone ²	28,808	19,984	69.4	3,732	13.0	17,119	59.4	6,674	23.2
Asian alone ²	10,283	5,785	56.3	2,467	24.0	5,043	49.0	3,315	32.2
Hispanic ³	26,662	15,267	57.3	6,394	24.0	12,682	47.6	9,118	34.2
Native citizen:									
All races	204,212	145,351	71.2	28,134	13.8	126,763	62.1	47,782	23.4
White alone ²	167,069	120,760	72.3	22,458	13.4	106,047	63.5	38,057	22.8
White alone, non-Hispanic	149,815	111,095	74.2	18,356	12.3	98,255	65.6	31,946	21.3
Black alone ²	26,597	18,512	69.6	3,363	12.6	15,756	59.2	6,197	23.3
Asian alone ²	3,976	2,046	51.5	830	20.9	1,778	44.7	1,159	29.2
Hispanic ³	19,848	11,198	56.4	4,754	24.0	9,040	45.5	7,023	35.4
White alone or in combination ⁴	170,288	122,837	72.1	23,079	13.6	107,748	63.3	39,095	23.0
Black alone or in combination ⁴	26,037	19,428	69.3	3,632	13.0	16,477	58.8	6,665	23.8
Asian alone or in combination ⁴	4,750	2,566	54.4	964	20.3	2,238	47.1	1,386	29.2
Naturalized citizen:									
All races	19,847	12,245	61.7	4,488	22.6	10,774	54.3	6,079	30.6
White alone ²	10,796	6,704	62.1	2,365	21.9	5,844	54.1	3,300	30.6
White alone, non-Hispanic	4,635	3,056	65.9	854	18.4	2,594	56.0	1,365	29.4
Black alone ²	2,210	1,472	66.6	369	16.7	1,363	61.7	477	21.6
Asian alone ²	6,307	3,738	59.3	1,637	26.0	3,265	51.8	2,156	34.2
Hispanic ³	6,815	4,070	59.7	1,641	24.1	3,642	53.4	2,095	30.7
White alone or in combination ⁴	10,981	6,827	62.2	2,393	21.8	5,959	54.3	3,336	30.4
Black alone or in combination ⁴	2,210	1,472	66.6	369	16.7	1,363	61.7	477	21.6
Asian alone or in combination ⁴	6,367	3,783	59.4	1,641	25.8	3,305	51.9	2,164	34.0

¹ Includes other races, not shown separately. ² Beginning with the 2003 Current Population Survey (CPS), respondents could choose more than one race. Data shown represent persons who selected this race group only and exclude persons reporting more than one race. ³ Persons of Hispanic origin may be of any race. ⁴ In combination with one or more races.

Source: U.S. Census Bureau, "Voting and Registration in the Election of November 2016 - Detailed Tables," <<https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-580.html>>, accessed May 2017.

Statistics are often presented in ready-made tables, charts, graphs, and infographics with references to the underlying datasets.



19. [Project on Human Development in Chicago Neighborhoods \(PHDCN\): Gun Ownership, Wave 2, 1997-2000 \(ICPSR 13626\)](#)
Earls, Felton J.; Brooks-Gunn, Jeanne; Raudenbush, Stephen W.; et al.
[171 more results in Project on Human Development in Chicago Neighborhoods \(PHDCN\) Series](#)
20. [Development and Validation of a Coercive Control Measure for Intimate Partner Violence in Boston, Massachusetts and Washington, DC, 2004 \(ICPSR 4570\)](#)
Dutton, Mary Ann; Goodman, Lisa; Schmidt, R. James
21. [Residential Neighborhood Crime Control Project: Hartford, Connecticut,](#)

Work with datasets is likelier to require some knowledge of specialized tools for manipulating and visualizing the data. Also, most datasets are supplemented by codebooks and metadata which explain data collection techniques, limitations of the data, etc.

If you've been asked to look at codebooks or use data analysis programs, chances are you'll need data for your project.



$$(a+b)^2 = a^2 + b^2 + 2ab$$

ASK A LIBRARIAN

library.northeastern.edu/ask