IPUMS Training and Development: Acquire and Use NHGIS Data

IPUMS NHGIS Exercise 1

OBJECTIVE: Gain an understanding of how NHGIS datasets are organized and how they can be used to explore your research interests. This exercise will use an NHGIS dataset to explore **slavery in the United States in 1830**.

IPUMS NHGIS — Training and Development

Research Question

What was the state-level distribution of slavery in 1830?

Objectives

- Find and download an NHGIS data table
- Analyze the data using Microsoft Excel
- Validate work using answer key

Step 1 **Log in to NHGIS**	- Go to http://www.nhgis.org and click on LOGIN in the top right. - If you have already registered on any IPUMS website... - If you remember your password, log in now. Otherwise, click the "Forgot your password?" link on the right and follow the instructions. - If you have not already registered... - Click on the "Create an account" link on the right, fill in the required information, and submit your registration. - You will then enter the NHGIS Data Finder...
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Step 2 **Filter to Find Tables**	Apply any of the four filters below to begin finding tables of state-level data related to 1830 slavery. **GEOGRAPHIC LEVELS** = "State" **YEARS** = "1830" **TOPICS** = "Slavery" **DATASETS** = "1830_cPop"
Step 3 **Inspect the**	Suppose you were interested not only in slavery, but in all that's covered by the 1830 Census. To view all available 1830 data, use only the **YEARS** Filter set to

Full Dataset

"1830".

1) How many "source tables" are available from the 1830 Census?

_____

2) Other than slave status, what are some other topics covered in 1830 tables?

_____

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Step 4
Locate a Table of Interest

Let's focus in on the slavery topic.

▪ To narrow the results, apply the **TOPICS** Filter of "Slavery". (You can find it at the bottom of the list of POPULATION topics.)

The SELECT DATA grid now lists all the tables related to the topic of Slavery.

▪ If you don't still have the **YEARS** Filter set to "1830", either apply it again or scroll down to find the 1830 tables

▪ Locate this 1830 table and answer the questions that follow:

NT12. Race/Slave Status by Sex

• • •

Step 5
Learn About the Table in the Data Finder

▪ Click the table name to see additional information.

3) How many variables does this table contain?

____

4) For which geographic levels is the table available?

_____

▪ Close the table pop-up window and inspect the SELECT DATA grid...

5) What is the universe for this table?

_____

6) What differentiates this table from the other available slavery tables from 1830?

_____

_____

7) Name a percentage or ratio this table would allow us to calculate that the other tables would not, based on the counts available in each table:

_____

Step 6
Create a
Data Extract

To download and view NHGIS data, we first have to select a set of data to "extract" from the NHGIS database…

- Click the plus sign to the left of table NT12 to add it to your Data Cart.

- Click the green CONTINUE button in your Data Cart (at top right of page).

- On the DATA OPTIONS page, select the geographic level of "State".

- Click the green CONTINUE button in your Data Cart.

- On the REVIEW AND SUBMIT page, check the box to "Include additional descriptive header row (best for spreadsheets)".

- Add an extract description if you wish. (NHGIS saves your extract request details, so you can come back anytime to revise or resubmit a request. Adding descriptions can help you identify your older requests.)

- Click SUBMIT.

Step 7
Download
the Data
Extract

From the EXTRACTS HISTORY page, you will be able to download your data extract once it has finished processing, typically within a minute or two. For longer requests, you may leave this page and return once you have received the email alerting you that the extract is ready.

- When the extract status is "complete" (as listed in the "STATUS" column of the Extracts History table), click on the "tables" link for this extract. This will download a zip file to your computer.

- Open the downloaded file…

   o Depending on which browser you are using, you may see a pop-up window asking if you would like to open or save the file. If so, choose to open the file. If using Google Chrome, you may see a link to the file at the bottom of your browser. If so, click on it to open the file.

Within the zip archive, you should see a folder named nhgis0001_csv. (If this is not your first extract, the folder name will include a higher number, matching the extract number.)

- Open the folder and confirm that it contains two files: a comma separated values (.csv) data file, which typically has a Microsoft Excel icon, and a text (.txt) "codebook" file.

Step 8

Analyze the Table in Microsoft Excel

- Double-click on the "nhgis0001_ds5_1830_state" data file to open it in Excel.

8) How many states/territories are included in this table? ___

9) Why do you think other states are missing?

_____

- Create a new field in column M called Total Population. Enter a formula to calculate the total population for each state by summing the counts in columns G:L.

10) Which state had the largest population in 1830?

_____

- Create a field in column N called Slave Population. Enter a formula to sum the 2 slave counts (I:J).

11) Which state had the largest slave population?

_____

- Create a field in column O called Percent Slave Population. Compute 100 times the Slave Population divided by the Total Population.

12) Which states had the highest and lowest Percent Slave Population?

Highest: _____

Lowest: _____

13) Are there any surprises, or is it as you expected?

_____

Step 9
Inspect the Codebook

Open the codebook file that is in the same folder as the data file you have already analyzed. The codebook contains important information about the table or tables you've downloaded.

14) What is the proper citation to provide when using NHGIS data in publications or researcher reports?

_____

15) What is the email address for NHGIS to share any research you have published? (You can also send questions you may have about the site. We're happy to help!)

_____

Complete!

You have finished Exercise 1.

You can check your answers on the following pages.

1) How many "source tables" are available from the 1830 Census? <u>**15**</u>

2) Other than slave status, what are some other topics covered in 1830 tables?

<u>**Population that is urban, population by sex and age, deaf and dumb, blind, and foreign born not naturalized**</u>

3) How many variables does this table contain? <u>**Six (6)**</u>

4) For which geographic levels is the table available?

<u>**Nation, State, & County**</u>

5) What is the universe for this table? <u>**Persons**</u>

6) What differentiates this table from the other available slavery tables from 1830?

<u>**It includes counts of "white" persons in addition to "colored"/"nonwhite" persons, and it breaks counts down by sex but not age.**</u>

7) Name a percentage or ratio this table would allow us to calculate that the other tables would not, based on the counts available in each table:

<u>**Percentage of total population in slavery, or ratio of slave:free population**</u>

8) How many states/territories are included in this table? <u>**28**</u>

9) Why do you think other states are missing?

<u>**In 1830, there were not any other states yet! Every decennial census is a historical snapshot, and NHGIS provides census counts just as they were originally reported without "filling in" any information for later areas.**</u>

10) Which state had the largest population? <u>**New York**</u>

11) Which state had the largest slave population? **<u>Virginia</u>**

12) Which states had the highest and lowest Percent Slave Population? **<u>South Carolina (54.27%) and Vermont (0.00%)</u>**

13) Are there any surprises, or is it as you expected?

<u>Possibilities: Did you know some states had more slaves than free persons? Did you know that some "free states" were home to substantial numbers of slaves?</u>

14) What is the proper citation to provide when using NHGIS data?

[*<u>As of October 2018…</u>*]

<u>Steven Manson, Jonathan Schroeder, David Van Riper, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 13.0 [Database]. Minneapolis: University of Minnesota. 2018.   http://doi.org/10.18128/D050.V13.0</u>

15) What is the email address for NHGIS to share any research you have published? (You can also send questions you may have about the site. We're happy to help!) **<u>nhgis@umn.edu</u>**