

Understanding the New ACS Summary File Format

A User's Perspective

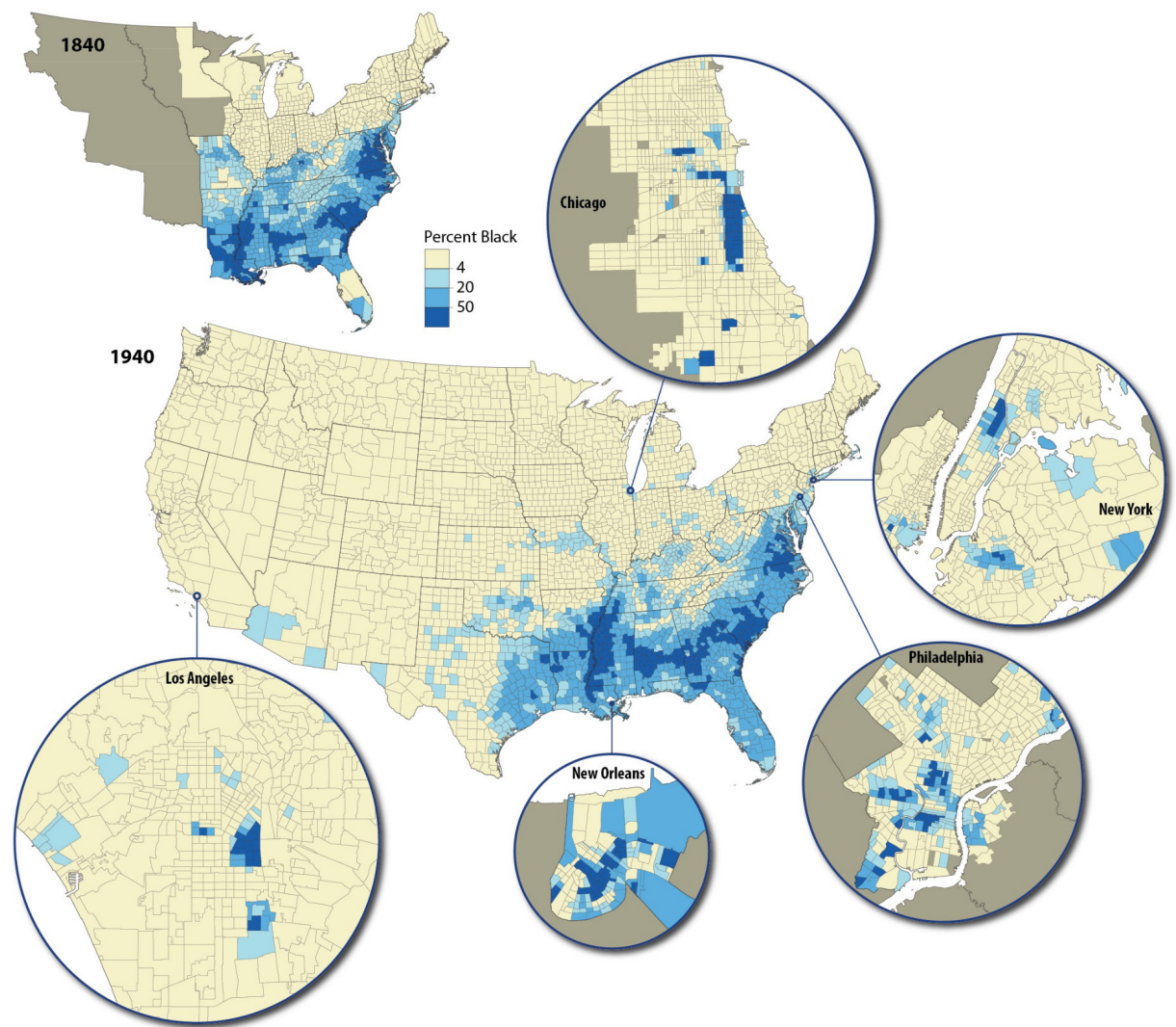
Jonathan Schroeder

[@j_p_schroeder](#)

ACS Data Users Group – June 2, 2022

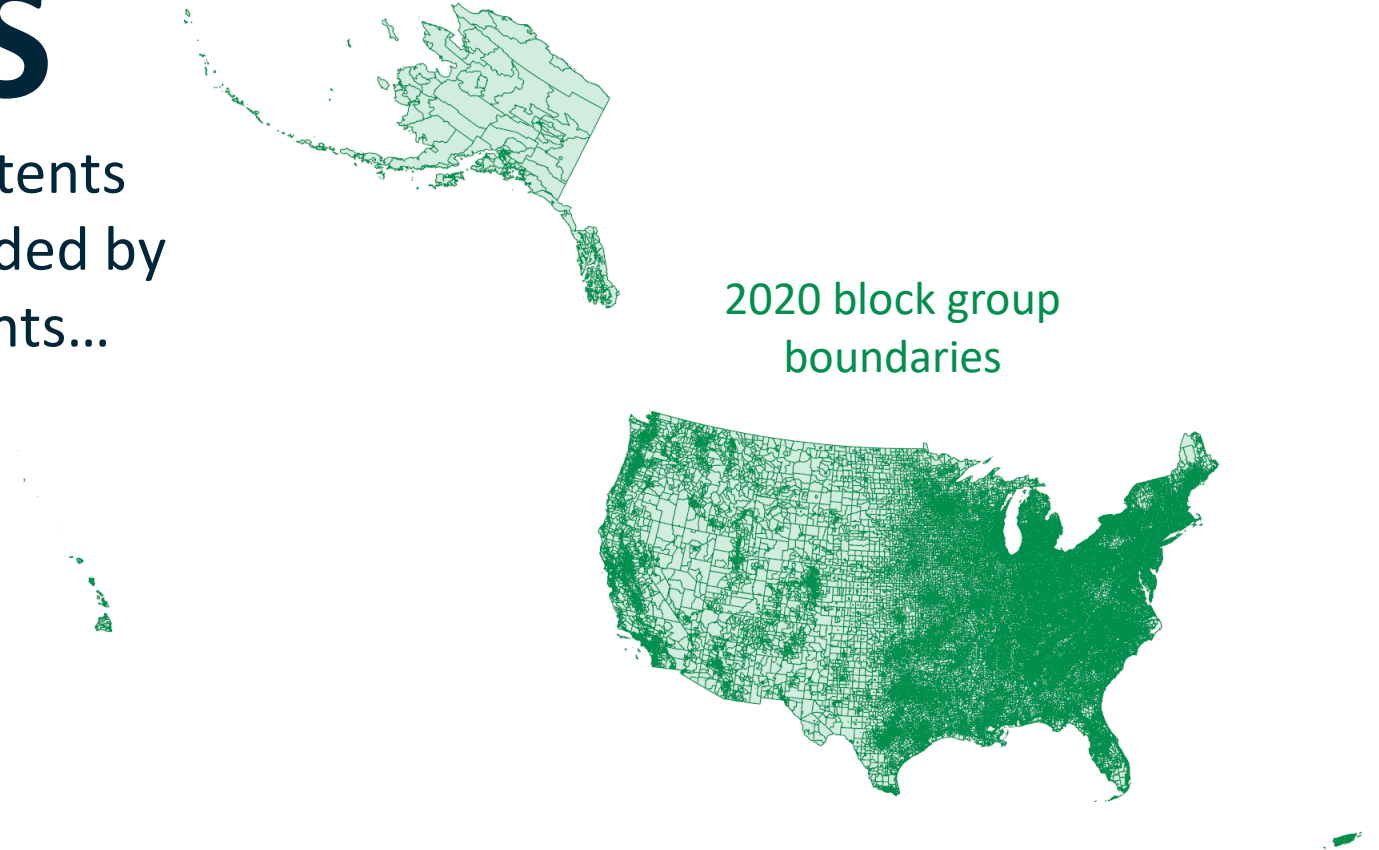
NHGIS

- Geographic U.S. census & survey data
- Summary tables and GIS files
- 1790 to the present



NHGIS

- Nationwide extents
- Principally funded by NSF & NIH grants...
- **FREE**





NHGIS GEOMARKER
NATIONAL HISTORICAL GIS

HOME | SELECT DATA | MY DATA | SUPPORT



IPUMS NHGIS

ABOUT

REGISTER

DONATE TO NHGIS

DATA

BROWSE AND SELECT DATA

DOWNLOAD OR REVISE MY DATA

API

SUPPLEMENTAL DATA

GEOGRAPHIC CROSSWALKS

ENVIRONMENTAL SUMMARIES

PRIVACY-PROTECTED DEMO DATA

SABINS SCHOOLAREAS

DOCUMENTATION

DATA AVAILABILITY

OVERVIEW OF DATASETS

TABULAR DATA SOURCES

TIME SERIES TABLES

GIS FILES

REVISION HISTORY

DOWNLOAD U.S. CENSUS DATA TABLES & MAPPING FILES

The National Historical Geographic Information System (NHGIS) provides easy access to summary tables and time series of population, housing, agriculture, and economic data, along with GIS-compatible boundary files, for years from 1790 through the present and for all levels of U.S. census geography, including states, counties, tracts, and blocks. [Read more.](#)

START HERE:

Get Data

WHAT IS IPUMS?

IPUMS provides census and survey data from around the world integrated across time and space. IPUMS integration and documentation makes it easy to study change, conduct comparative research, merge information across data types, and analyze individuals within family and community context. Data and services are available free of charge. [Learn more about IPUMS.](#)



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DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS FILES

SHOW SELECTIONS CONTINUE

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

HOW TO USE THE DATA FINDER

- GEOGRAPHIC LEVELS
- YEARS
- TOPICS
- DATASETS

No filters selected.



NHGIS GEOMARKER NATIONAL HISTORICAL GIS

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INCLUDES Educational Attainment

RESET FILTERS

SELECT DATA ?

- 1423 SOURCE TABLES
- 12 TIME SERIES TABLES
- 1341 GIS FILES

PAGE 1 OF 72 20

VIEW 1 - 20 OF 1,423

	POPULARITY	TABLE NAME	UNIVERSE	CLASSIFICATIONS	YEAR - DATASET	BREAKDOWNS
+		NT23. Aggregate Months of School	Schools		1880_sPbSMX	
+		NT44. Population 18 Years and Over by Grades Completed	Persons 18 Years and Over	Educational Attainment (7)	1934_tPH_Chi	
+		NT46. Population 18 Years and Over by Sex by Grades Completed	Persons 18 Years and Over	Educational Attainment (7) . Sex (2)	1934_tPH_Chi	
+		NT48. Population 18 Years and Over by Race by Grades Completed	Persons 18 Years and Over	Educational Attainment (7) . Nativity (3) . Race (3)	1934_tPH_Chi	



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1423 SOURCE TABLES 12 TIME SERIES TABLES 1341 GIS FILES

PAGE 1 OF 72 20

VIEW 1 - 20 OF 1,423

POPULARITY	TABLE NAME	UNIVERSE	CLASSIFICATIONS	YEAR - DATASET	BREAKDOWNS
	B15003. Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (24)	2015_2019_ACS5a	Spatial
	B15002. Sex by Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (16). Sex (2)	2006_2010_ACS5a	Spatial
	B15003. Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (24)	2016_2020_ACS5a	Spatial
	NP037C. Population 25 Years and Over by Sex by Educational Attainment	Persons 25 Years and Over	Educational Attainment (16). Sex (2)	2000_SF3a	Spatial

DATA TABLE DETAILS

Table: **B15002.** Sex by Educational Attainment for the Population 25 Years and Over

Universe: Population 25 years and over

Variables in table (35) :

- Total
- Male
 - Male: No schooling completed
 - Male: Nursery to 4th grade
 - Male: 5th and 6th grade
 - Male: 7th and 8th grade
 - Male: 9th grade
 - Male: 10th grade
 - Male: 11th grade
 - Male: 12th grade, no diploma
 - Male: High school graduate, GED, or alternative
 - Male: Some college, less than 1 year
 - Male: Some college, 1 or more years, no degree
 - Male: Associate's degree
 - Male: Bachelor's degree
 - Male: Master's degree
 - Male: Professional school degree
 - Male: Doctorate degree
- Female
 - Female: No schooling completed
 - Female: Nursery to 4th grade



FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

- GEOGRAPHIC LEVELS
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RESET FILTERS

SELECT DATA ?

1423 SOURCE TABLES

	POPULARITY	TABLE
+	[bar]	B1500
+	[bar]	B1500
+	[bar]	B1500
+	[bar]	NP037

CONTINUE

VIEW 1 - 20 OF 1,423

- BREAKDOWNS
 - Spatial
 - Spatial
 - Spatial
 - Spatial

TABLE	DESCRIPTION	PERIOD	STATUS
B15002	Sex by Educational Attainment for the Population 25 Years and Over	2014-2018	ACS5



NHGIS GEOMARKER NATIONAL HISTORICAL GIS

HOME | SELECT DATA | MY DATA | SUPPORT

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	B15003. Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (24)	2014_2018_ACS5a	Spatial

CLASSIFICATION DETAILS

Educational Attainment (16)

- No schooling completed
- Nursery to 4th grade
- 5th and 6th grade
- 7th and 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, no diploma
- High school graduate (includes equivalency)
- Some college, less than 1 year
- Some college, 1 or more years, no degree
- Associate degree
- Bachelor's degree
- Master's degree
- Professional school degree
- Doctorate degree

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

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- DATASETS

RESET FILTERS

SELECT DATA ?

1423 SOURCE TABLES

	POPULARITY	TABLE
+	[Progress bar]	B1500
+	[Progress bar]	B1500
+	[Progress bar]	B1500
+	[Progress bar]	NP037

CONTINUE

VIEW 1 - 20 OF 1,423

BREAKDOWNS

- Spatial
- Spatial
- Spatial
- Spatial



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DATA CART

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SHOW SELECTIONS CONTINUE

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RESET FILTERS

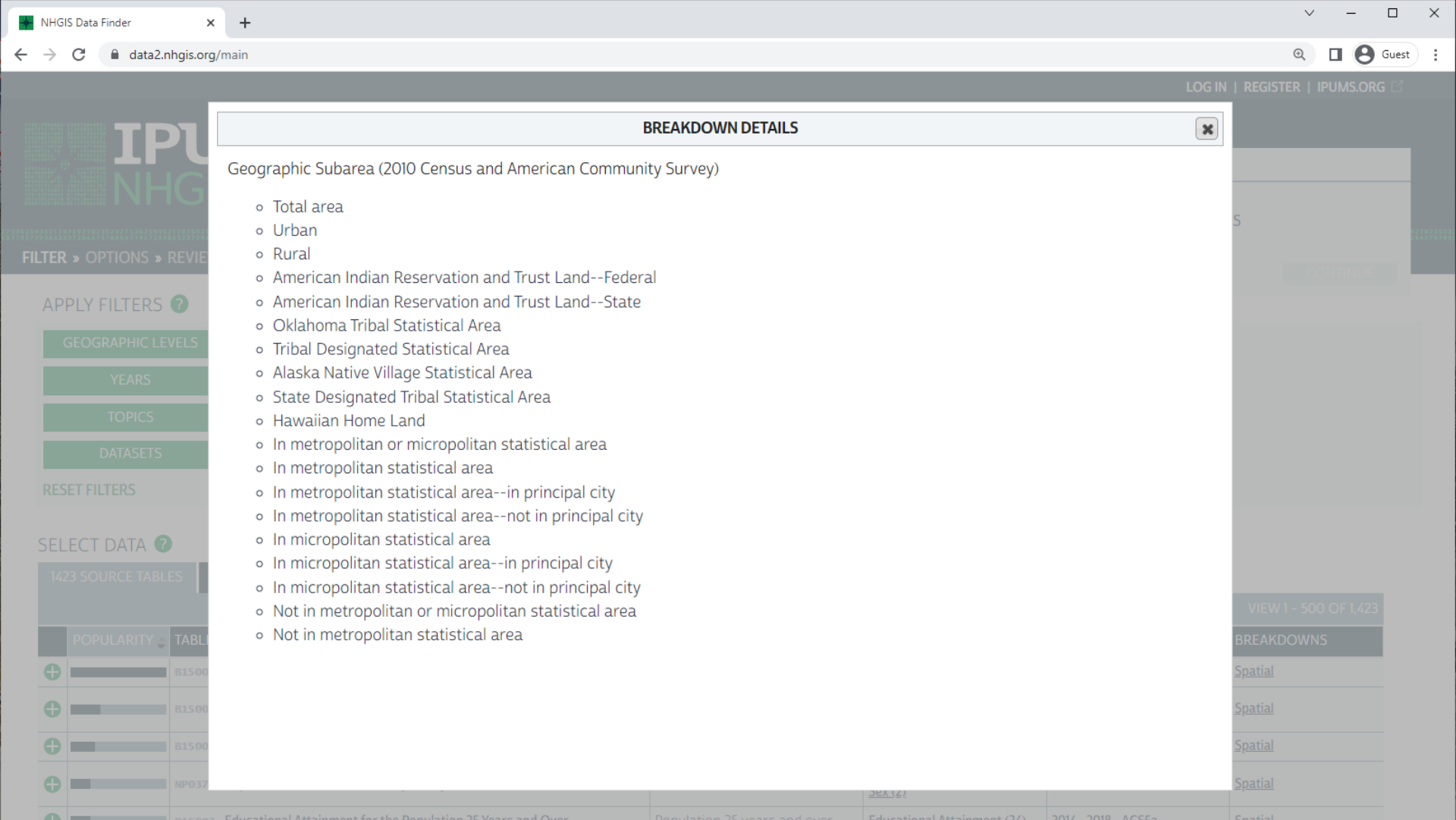
SELECT DATA ?

1423 SOURCE TABLES | 12 TIME SERIES TABLES | 1341 GIS FILES

PAGE 1 OF 72

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BREAKDOWN DETAILS ✕

Geographic Subarea (2010 Census and American Community Survey)

- Total area
- Urban
- Rural
- American Indian Reservation and Trust Land--Federal
- American Indian Reservation and Trust Land--State
- Oklahoma Tribal Statistical Area
- Tribal Designated Statistical Area
- Alaska Native Village Statistical Area
- State Designated Tribal Statistical Area
- Hawaiian Home Land
- In metropolitan or micropolitan statistical area
- In metropolitan statistical area
- In metropolitan statistical area--in principal city
- In metropolitan statistical area--not in principal city
- In micropolitan statistical area
- In micropolitan statistical area--in principal city
- In micropolitan statistical area--not in principal city
- Not in metropolitan or micropolitan statistical area
- Not in metropolitan statistical area



FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

GEOGRAPHIC LEVELS

YEARS

TOPICS

DATASETS

RESET FILTERS

SELECT DATA ?

1423 SOURCE TABLES

	POPULARITY	TABLE
+	<div style="width: 100%;"></div>	B1500
+	<div style="width: 100%;"></div>	B1500
+	<div style="width: 100%;"></div>	B1500
+	<div style="width: 100%;"></div>	NP037

LOG IN | REGISTER | IPUMS.ORG

CONTINUE

VIEW 1 - 500 OF 1,423

BREAKDOWNS

[Spatial](#)

[Spatial](#)

[Spatial](#)

[Spatial](#)

np037 Educational Attainment for the Population 25 Years and Over

Population 25 years and over

Educational Attainment (20

2016 - 2018 ACS5+

[Spatial](#)



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DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS FILES

SHOW SELECTIONS CONTINUE

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

HOW TO USE THE DATA FINDER

- GEOGRAPHIC LEVELS
- YEARS
- TOPICS
- DATASETS

INCLUDES Educational Attainment

RESET FILTERS

SELECT DATA ?

1423 SOURCE TABLES **12 TIME SERIES TABLES** 1341 GIS FILES

PAGE 1 OF 1 20

VIEW 1 - 12 OF 12

	POPULARITY	SEQUENCE	TABLE NAME	GEOGRAPHIC INTEGRATION	YEARS	GEOGRAPHIC LEVELS
+		5000.01	B69. Persons 25 Years and Over by Educational Attainment [3]	Nominal	1970, 1980, 1990, 2000, 2008-2012, 2015-2019	STATE , COUNTY , TRACT , CTY_SUB , PLACE
+		5000.02	BW7. Persons 25 Years and Over by Educational Attainment [5]	Nominal	1970, 1980, 2000, 2008-2012, 2015-2019	STATE , COUNTY , TRACT , CTY_SUB , PLACE
+		5000.03	B85. Persons 25 Years and Over by Educational Attainment [7]	Nominal	1990, 2000, 2008-2012, 2015-2019	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY_SUB , PLACE
+		5000.04	B86. Persons 18 Years and Over by Educational Attainment [3]	Nominal	1980, 1990, 2000, 2008-2012, 2015-2019	NATION , REGION , DIVISION , STATE , COUNTY , TRACT , CTY_SUB , PLACE



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DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS FILES

SHOW SELECTIONS CONTINUE

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

HOW TO USE THE DATA FINDER

- GEOGRAPHIC LEVELS
- YEARS
- TOPICS
- DATASETS

INCLUDES Educational Attainment

RESET FILTERS

SELECT DATA ?

423 SOURCE TABLES | 12 TIME SERIES TABLES | **1341 GIS FILES**

PAGE 1 OF 68 20

VIEW 1 - 20 OF 1,341

	POPULARITY	YEAR	GEOGRAPHIC LEVEL	EXTENT	BASIS
+		2019	Census Tract	United States	2019 TIGER/Line +
+		2020	Census Tract	United States	2020 TIGER/Line +
+		2010	Census Tract	United States	2010 TIGER/Line +
+		2020	County	United States	2020 TIGER/Line +
+		2010	County	United States	2010 TIGER/Line +
+		2019	County	United States	2019 TIGER/Line +



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DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS FILES

SHOW SELECTIONS CONTINUE

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

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INCLUDES Educational Attainment

RESET FILTERS

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1423 SOURCE TABLES 12 TIME SERIES TABLES 1341 GIS FILES

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	NP037C. Population 25 Years and Over by Sex by Educational Attainment	Persons 25 Years and Over	Educational Attainment (16). Sex (2)	2000_SF3a	Spatial
	B15003. Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (24)	2014_2018_ACS5a	Spatial



NHGIS GEOMARKER NATIONAL HISTORICAL GIS

HOME | SELECT DATA | MY DATA | SUPPORT

DATA CART

- 0 SOURCE TABLES
- 0 TIME SERIES TABLES
- 0 GIS FILES

SHOW SELECTIONS CONTINUE

FILTER > OPTIONS > REVIEW

APPLY FILTERS ?

HOW TO USE THE DATA FINDER

- GEOGRAPHIC LEVELS BLCK_GRP
- YEARS 2016-2020
- TOPICS INCLUDES Educational Attainment
- DATASETS

RESET FILTERS

SELECT DATA ?

19 SOURCE TABLES | 0 TIME SERIES TABLES | 54 GIS FILES

PAGE 1 OF 1 20

VIEW 1 - 19 OF 19

	POPULARITY	TABLE NAME	UNIVERSE	CLASSIFICATIONS	YEAR - DATASET	BREAKDOWNS
+	<div style="width: 100%;"></div>	B14005. Sex by School Enrollment by Educational Attainment by Employment Status for the Population 16 to 19 Years	Population 16 to 19 years	Educational Attainment (2) , Labor Force, Employment and Armed Forces Status (3) , School Enrollment (2) , Sex (2)	2016_2020_ACS5a	Spatial
+	<div style="width: 100%;"></div>	B15002. Sex by Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (16) , Sex (2)	2016_2020_ACS5a	Spatial
+	<div style="width: 100%;"></div>	B15003. Educational Attainment for the Population 25 Years and Over	Population 25 years and over	Educational Attainment (24)	2016_2020_ACS5a	Spatial

DATASETS



ALL

2020 CENSUS

+ 2020_PL94171 P.L. 94-171 Redistricting Data Summary File

SERIES TYPE:

2020 AMERICAN COMMUNITY SURVEY

- + 2016_2020_ACS5a 5-Year Data [2016-2020, Block Groups & Larger Areas]
- + 2016_2020_ACS5b 5-Year Data [2016-2020, Tracts & Larger Areas]
- + 2016_2020_ACS5c 5-Year Data [2016-2020, Summary by Residence 1 Year Ago]
- + 2016_2020_ACS5d 5-Year Data [2016-2020, Summary by Place of Work]

2019 AMERICAN COMMUNITY SURVEY

- + 2019_ACS1 1-Year Data
- + 2015_2019_ACS5a 5-Year Data [2015-2019, Block Groups & Larger Areas]
- + 2015_2019_ACS5b 5-Year Data [2015-2019, Tracts & Larger Areas]
- + 2015_2019_ACS5c 5-Year Data [2015-2019, Summary by Residence 1 Year Ago]
- + 2015_2019_ACS5d 5-Year Data [2015-2019, Summary by Place of Work]

2018 AMERICAN COMMUNITY SURVEY

- + 2018_ACS1 1-Year Data
- + 2014_2018_ACS5a 5-Year Data [2014-2018, Block Groups & Larger Areas]
- + 2014_2018_ACS5b 5-Year Data [2014-2018, Tracts & Larger Areas]
- + 2014_2018_ACS5c 5-Year Data [2014-2018, Summary by Residence 1 Year Ago]
- + 2014_2018_ACS5d 5-Year Data [2014-2018, Summary by Place of Work]

DECENNIAL CENSUS

AMERICAN COMMUNITY SURVEY

AGRICULTURE

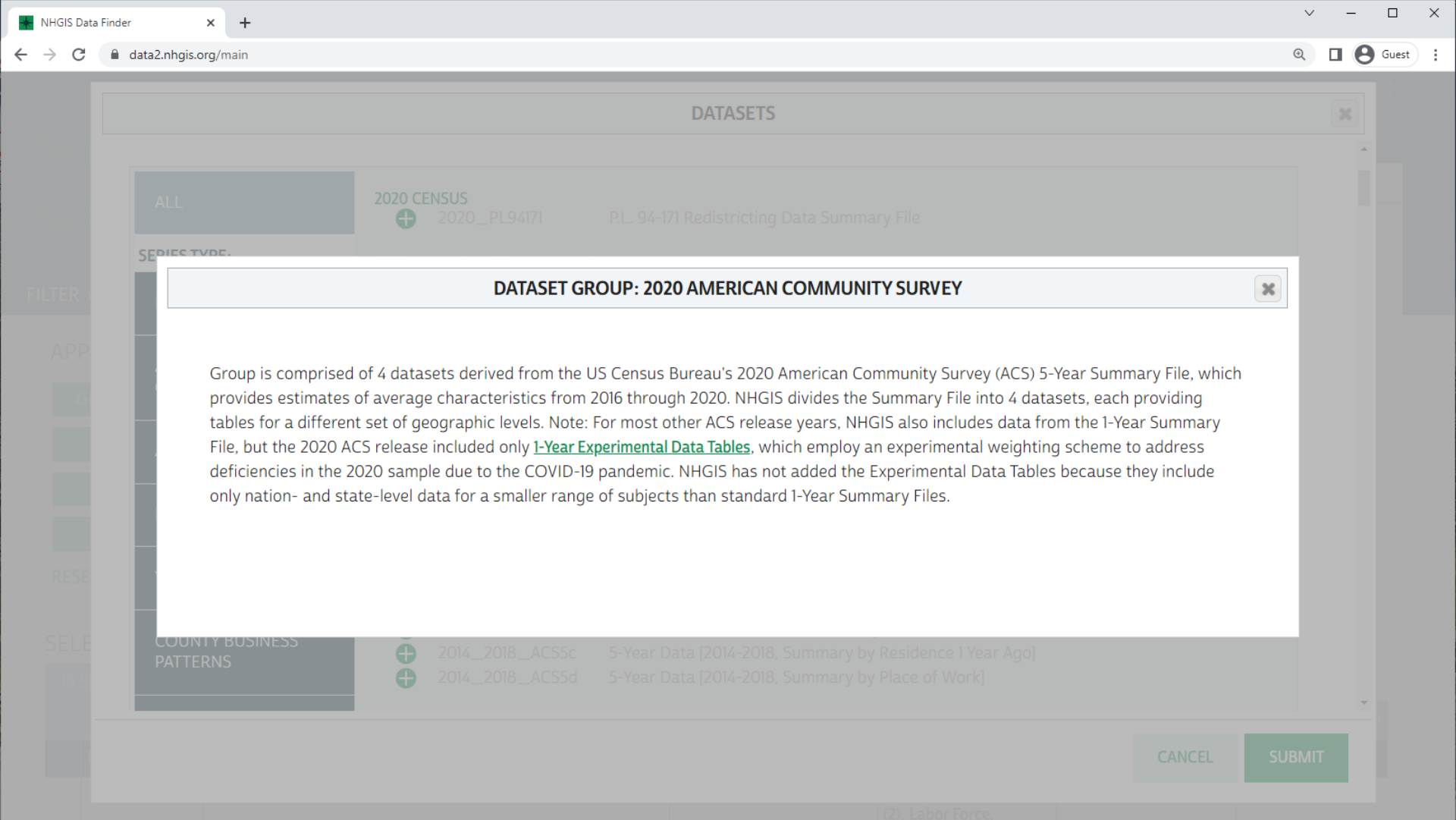
RELIGIOUS BODIES

VITAL STATISTICS

COUNTY BUSINESS PATTERNS

CANCEL

SUBMIT



DATASETS

ALL

2020 CENSUS



2020__PL94171

P.L. 94-171 Redistricting Data Summary File

SERIES TYPE

FILTER

APP

RESE

SELE

COUNTY BUSINESS PATTERNS



2014__2018__ACS5c

5-Year Data [2014-2018, Summary by Residence 1 Year Ago]



2014__2018__ACS5d

5-Year Data [2014-2018, Summary by Place of Work]

DATASET GROUP: 2020 AMERICAN COMMUNITY SURVEY

Group is comprised of 4 datasets derived from the US Census Bureau's 2020 American Community Survey (ACS) 5-Year Summary File, which provides estimates of average characteristics from 2016 through 2020. NHGIS divides the Summary File into 4 datasets, each providing tables for a different set of geographic levels. Note: For most other ACS release years, NHGIS also includes data from the 1-Year Summary File, but the 2020 ACS release included only [1-Year Experimental Data Tables](#), which employ an experimental weighting scheme to address deficiencies in the 2020 sample due to the COVID-19 pandemic. NHGIS has not added the Experimental Data Tables because they include only nation- and state-level data for a smaller range of subjects than standard 1-Year Summary Files.

CANCEL

SUBMIT

DATASETS



ALL

2020 CENSUS

+ 2020_PL94171 P.L. 94-171 Redistricting Data Summary File

SERIES TYPE:

2020 AMERICAN COMMUNITY SURVEY

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- + 2016_2020_ACS5c 5-Year Data [2016-2020, Summary by Residence 1 Year Ago]
- + 2016_2020_ACS5d 5-Year Data [2016-2020, Summary by Place of Work]

2019 AMERICAN COMMUNITY SURVEY

- + 2019_ACS1 1-Year Data
- + 2015_2019_ACS5a 5-Year Data [2015-2019, Block Groups & Larger Areas]
- + 2015_2019_ACS5b 5-Year Data [2015-2019, Tracts & Larger Areas]
- + 2015_2019_ACS5c 5-Year Data [2015-2019, Summary by Residence 1 Year Ago]
- + 2015_2019_ACS5d 5-Year Data [2015-2019, Summary by Place of Work]

2018 AMERICAN COMMUNITY SURVEY

- + 2018_ACS1 1-Year Data
- + 2014_2018_ACS5a 5-Year Data [2014-2018, Block Groups & Larger Areas]
- + 2014_2018_ACS5b 5-Year Data [2014-2018, Tracts & Larger Areas]
- + 2014_2018_ACS5c 5-Year Data [2014-2018, Summary by Residence 1 Year Ago]
- + 2014_2018_ACS5d 5-Year Data [2014-2018, Summary by Place of Work]

DECENNIAL CENSUS

AMERICAN COMMUNITY SURVEY

AGRICULTURE

RELIGIOUS BODIES

VITAL STATISTICS

COUNTY BUSINESS PATTERNS

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NHGIS Data Finder						
data2.nhgis.org/main						
		B01002E. Median Age by Sex (Native Hawaiian and Other Pacific Islander Alone)	People who are Native Hawaiian and Other Pacific Islander alone	Sex (2)	2019_ACS1	Spatial
		B01002F. Median Age by Sex (Some Other Race Alone)	People who are Some Other Race alone	Sex (2)	2019_ACS1	Spatial
		B01002G. Median Age by Sex (Two or More Races)	People who are Two or More Races	Sex (2)	2019_ACS1	Spatial
		B01002H. Median Age by Sex (White Alone, Not Hispanic or Latino)	White alone, not Hispanic or Latino population	Sex (2)	2019_ACS1	Spatial
		B01002I. Median Age by Sex (Hispanic or Latino)	Hispanic or Latino population	Sex (2)	2019_ACS1	Spatial
		B01003. Total Population	Total population		2019_ACS1	Spatial
		B02001. Race	Total population	Race (9)	2019_ACS1	Spatial
		B02003. Detailed Race [Data for nation level only]	Total population	Race (69)	2019_ACS1	Spatial
		C02003. Detailed Race	Total population	Race (18)	2019_ACS1	Spatial
		B02008. White Alone or in Combination with One or More Other Races	White alone or in combination with one or more other races		2019_ACS1	Spatial
		B02009. Black or African American Alone or in Combination with One or More Other Races	Black or African American alone or in combination with one or more other races		2019_ACS1	Spatial
		B02010. American Indian and Alaska Native Alone or in Combination with One or More Other Races	People who are American Indian or Alaska Native alone or in combination with one or more other races		2019_ACS1	Spatial
		B02011. Asian Alone or in Combination with One or More Other	Asian alone or in combination with one or		2019_ACS1	Spatial

+		Hispanic or Latino Groups [Data for nation level only]	Total population	Race (5)	2019_ACS1	Spatial
+		B98014 . Group Quarters Population Coverage Rate [Data for nation level only]	Population in group quarters		2019_ACS1	Spatial
+		B98021 . Housing Unit Response and Nonresponse Rates with Reasons for Noninterviews [Data for nation, state, and county levels only]	Housing units	Reason for Noninterview (8), Sample Basis (2)	2019_ACS1	Spatial
+		B98022 . Group Quarters Population Response and Nonresponse Rates with Reasons for Noninterviews [Data for nation and state levels only]	Population in group quarters	Reason for Noninterview (8), Sample Basis (2)	2019_ACS1	Spatial
+		B98031 . Overall Person Characteristic Allocation Rate [Data for nation and state levels only]	Total population		2019_ACS1	Spatial
+		B98032 . Overall Housing Unit Characteristic Allocation Rate [Data for nation and state levels only]	Total population		2019_ACS1	Spatial
+		B99011 . Allocation of Sex	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99012 . Allocation of Age	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99021 . Allocation of Race	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99031 . Allocation of Hispanic or Latino Origin	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99051 . Allocation of Citizenship Status	Total population	Imputation/Allocation (2), Nativity (2)	2019_ACS1	Spatial
+		B99052 . Allocation of Year of Entry [No data for Puerto Rico]	Population born outside the United States	Imputation/Allocation (2), Nativity (2)	2019_ACS1	Spatial
+		B99052PR . Allocation of Year of Entry for Population Born Outside Puerto Rico [Data for Puerto Rico only]	Population born outside Puerto Rico	Imputation/Allocation (2), Nativity (2), Place of Birth (2)	2019_ACS1	Spatial
			Foreign born, naturalized	Imputation/Allocation		

+		Hispanic or Latino Groups [Data for nation level only]	Total population	Race (5)	2019_ACS1	Spatial
+		B98014 . Group Quarters Population Coverage Rate [Data for nation level only]	Population in group quarters		2019_ACS1	Spatial
+		B98021 . Housing Unit Response and Nonresponse Rates with Reasons for Noninterviews [Data for nation, state, and county levels only]	Housing units	Reason for Noninterview (8), Sample Basis (2)	2019_ACS1	Spatial
+		B98022 . Group Quarters Population Response and Nonresponse Rates with Reasons for Noninterviews [Data for nation and state levels only]	Population in group quarters	Reason for Noninterview (8), Sample Basis (2)	2019_ACS1	Spatial
+		B98031 . Overall Person Characteristic Allocation Rate [Data for nation and state levels only]	Total population		2019_ACS1	Spatial
+		B98032 . Overall Housing Unit Characteristic Allocation Rate [Data for nation and state levels only]	Total population		2019_ACS1	Spatial
+		B99011 . Allocation of Sex	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99012 . Allocation of Age	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99021 . Allocation of Race	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99031 . Allocation of Hispanic or Latino Origin	Total population	Imputation/Allocation (2)	2019_ACS1	Spatial
+		B99051 . Allocation of Citizenship Status	Total population	Imputation/Allocation (2), Nativity (2)	2019_ACS1	Spatial
+		B99052 . Allocation of Year of Entry [No data for Puerto Rico]	Population born outside the United States	Imputation/Allocation (2), Nativity (2)	2019_ACS1	Spatial
+		B99052PR . Allocation of Year of Entry for Population Born Outside Puerto Rico [Data for Puerto Rico only]	Population born outside Puerto Rico	Imputation/Allocation (2), Nativity (2), Place of Birth (2)	2019_ACS1	Spatial
			Foreign born, naturalized	Imputation/Allocation		

NHGIS Data Finder		data2.nhgis.org/main		Guest		
		B06004BPR - <u>Place of Birth (Black or African American Alone) in Puerto Rico</u>	Black or African American alone population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004C - <u>Place of Birth (American Indian and Alaska Native Alone) in the United States</u>	American Indian and Alaska Native alone population in the United States	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004CPR - <u>Place of Birth (American Indian and Alaska Native Alone) in Puerto Rico [No data for this time period]</u>	American Indian and Alaska Native alone population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004D - <u>Place of Birth (Asian Alone) in the United States [No data for this time period]</u>	Asian alone population in the United States	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004DPR - <u>Place of Birth (Asian Alone) in Puerto Rico [No data for this time period]</u>	Asian alone population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004E - <u>Place of Birth (Native Hawaiian and Other Pacific Islander Alone) in the United States [No data for this time period]</u>	Native Hawaiian and Other Pacific Islander alone population in the United States	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004EPR - <u>Place of Birth (Native Hawaiian and Other Pacific Islander Alone) in Puerto Rico [No data for this time period]</u>	Native Hawaiian and Other Pacific Islander alone population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004F - <u>Place of Birth (Some Other Race Alone) in the United States [No data for this time period]</u>	Some Other Race alone population in the United States	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004FPR - <u>Place of Birth (Some Other Race Alone) in Puerto Rico [No data for this time period]</u>	Some Other Race population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004G - <u>Place of Birth (Two or More Races) in the United States [No data for this time period]</u>	Two or More Races population in the United States	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial
		B06004GPR - <u>Place of Birth (Two or More Races) in Puerto Rico [No data for this time period]</u>	Two or More Races population in Puerto Rico	Nativity (2) , Place of Birth (3)	2019_ACS1	Spatial



FILTER > OPTIONS > REVIEW

REVIEW AND SUBMIT ?

TABLE FILE STRUCTURE ?

- Comma delimited (best for GIS)
- Include additional descriptive header row (best for spreadsheets)
- Fixed width (best for statistical packages)

SOURCE TABLES

3 source tables

BREAKDOWN/DATA TYPE LAYOUT ?

- Combine different breakdowns/data types into a single data file
- Separate different breakdowns/data types into distinct data files

TIME SERIES TABLES

None selected

GIS FILES

None selected

DESCRIPTION ?

Empty text input field for description

Unique NHGIS needs

- *All* summary file tables: data & metadata
- Info on...
 - Summary levels & US/PR coverage by table
 - Complete variable labels & label components
- Ease in separating...
 - Specific summary levels & geographic components
 - Estimates & margins of error

USING THE NEW SUMMARY FILE FORMAT

ACS ingest team for IPUMS NHGIS

- IT Data Team
 - Kevin Van Horne
 - Jake Wellington
 - Colin Davis
 - Poornendu Narayanan
- IT director: Fran Fabrizio
- Graduate assistant: J.P. Bruno

Using the new summary file format

- *A very welcome change!*
 - Easier to understand & work with
 - Clarity about...
 - Columns \leftrightarrow Tables
 - Summary levels \leftrightarrow Files

Problematic changes

- Margins of error...
 - Interleaving of estimate & MOE columns
 - Some tables have no MOE columns
- Preferences for bulk processing...
 - Group the estimate columns separately from MOEs
 - Include MOE columns for all tables, even if blank
 - And/or indicate which tables lack MOE columns

Problematic changes

- Somewhat harder to determine each table's...
 - Summary levels covered
 - Areas covered (U.S. / Puerto Rico)
- Appendix A issues...
 - Not 100% thorough; designed for human reading
- Ideally...
 - Provide *auto-generated* machine-readable matrix of levels & US/PR coverage by table

Problematic changes

- Inconsistent geographic ID fields...
 - GEO_ID in data file & data.census.gov
 - = DADSID in geography file
 - ≠ GEOID in geography file
 - ≠ GEOID in TIGER/Line shapefile
 - GitHub documentation clarifies but any remaining inconsistencies will cause difficulties & confusion

Persistent concerns/opportunities

- Problematic character encoding
 - Summary files: Latin-1 (ISO-8859-1)
 - Common standard: UTF-8
 - API: Latin-1 converted to UTF-8 *twice*
 - “carro público” → “carro pÃºblico”

Persistent concerns/opportunities

- “Share more” with API
 - From API:
 - Fully concatenated variable names
 - From summary file docs:
 - Complete table metadata (universes)
 - Ordered variable listing
 - Geographic restrictions (& geographic components?)

Persistent concerns/opportunities

- Pipe-delimited is good... Why not use it everywhere?
 - Geography File still uses commas
 - Excel docs could also be pipe-delimited files
- Widths of geo codes available only in PDF table
- Drop the “BLANK” columns in Geography File?
- FTP is becoming outdated.
Consider HTTP / API for file delivery.

Acknowledgments

Eunice Kennedy Shriver National Institute of Child
Health & Human Development

[NIH-R01HD057929,
NIH-R24HD041023]

National Science Foundation

[SES-1324875]