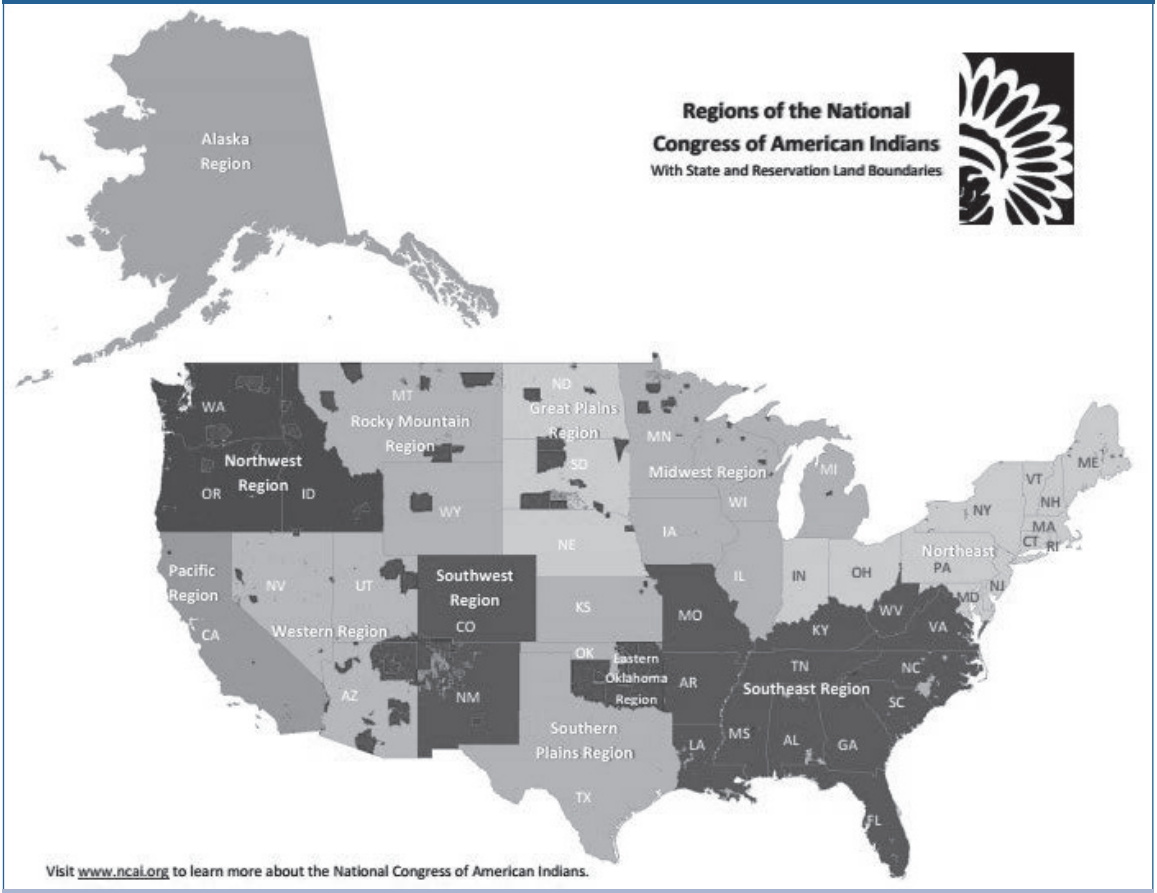
6. CASE STUDIES USING ACS DATA

Case Study #1: National Congress of American Indians Regional Profiles

Skill Level: Intermediate
Subject: Earnings
Type of Analysis: Understanding a Demographic Group and Analyses of Trends/Patterns Within a Community
Tools Used: American FactFinder, spreadsheet
Authors: Malia Villegas, Director, Policy Research Center, National Congress of American Indians; Amber Ebarb, Budget/Policy Analyst and PRC Program Manager, National Congress of American Indians; and Sarah Pytalksi, Policy Research & Evaluation Manager, National Congress of American Indians

The National Congress of American Indians (NCAI) is a nonprofit organization that uses American Community Survey (ACS) data at the national, regional, and local level to provide tribal leaders with the best available knowledge to make strategically proactive policy decisions. For example, we have produced a series of Regional Profiles that combine data from the 2010 Census with more recent information from the ACS to provide information about the American Indian and Alaska Native population for 12 regions across the United States (see Figure 6.1).[39] American Indian areas are shown as the darker color on the map. The Regional Profiles provide demographic data and information about trends in education, household, and economic characteristics for each region and for individual states within those regions.

Figure 6.1. **Twelve Regions of the National Congress of American Indians**



Source: <www.ncai.org>.

[39] National Congress of American Indians, Regional Profiles, <www.ncai.org/resources/ncai-publications/regional-profiles>.

We believe that context is important for understanding issues relevant to the American Indian and Alaska Native populations. For example, issues relevant to American Indians living on tribal reservations may or may not be relevant to those living in urban areas, and vice versa. Similarly, we may discover an issue that affects Alaska Natives in a certain age group, but would be missed by looking at the population as a whole. For this reason, we try to disaggregate data whenever possible by tribal nation, geography, demographic characteristics (e.g., gender or age group), or language (e.g., Native language speaker or non-speaker). Accordingly, the Regional Profiles also provide several useful comparisons:

- Comparisons between the American Indian and Alaska Native populations and other groups (e.g., non-Hispanic Whites).
- Comparisons across states within a given region (e.g., Idaho, Oregon, and Washington in the Northwest Region profile).
- Comparisons by place (e.g., on reservation compared with off reservation, urban compared with rural).
- Comparisons by demographic category (e.g., women versus men, families with and without children).

For many of these comparisons, we rely on data from the ACS. For example, in the Southern Plains and Eastern Oklahoma Profile, we use the ACS to compile data on the gender wage gap—the ratio of women's earnings to men's earnings among full-time, year-round workers. [40]

To create this measure, we start with the Advanced Search feature on the U.S. Census Bureau's American FactFinder (AFF). Go to the AFF Web site and choose the Advanced Search option (see Figure 6.2).[41]

Figure 6.2. **Advanced Search in American FactFinder**

Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

While single-year estimates are available at the state level, the ACS data are less reliable for small populations, such as American Indians and Alaska Natives. To address this issue, 5 years of data are pooled into multiyear

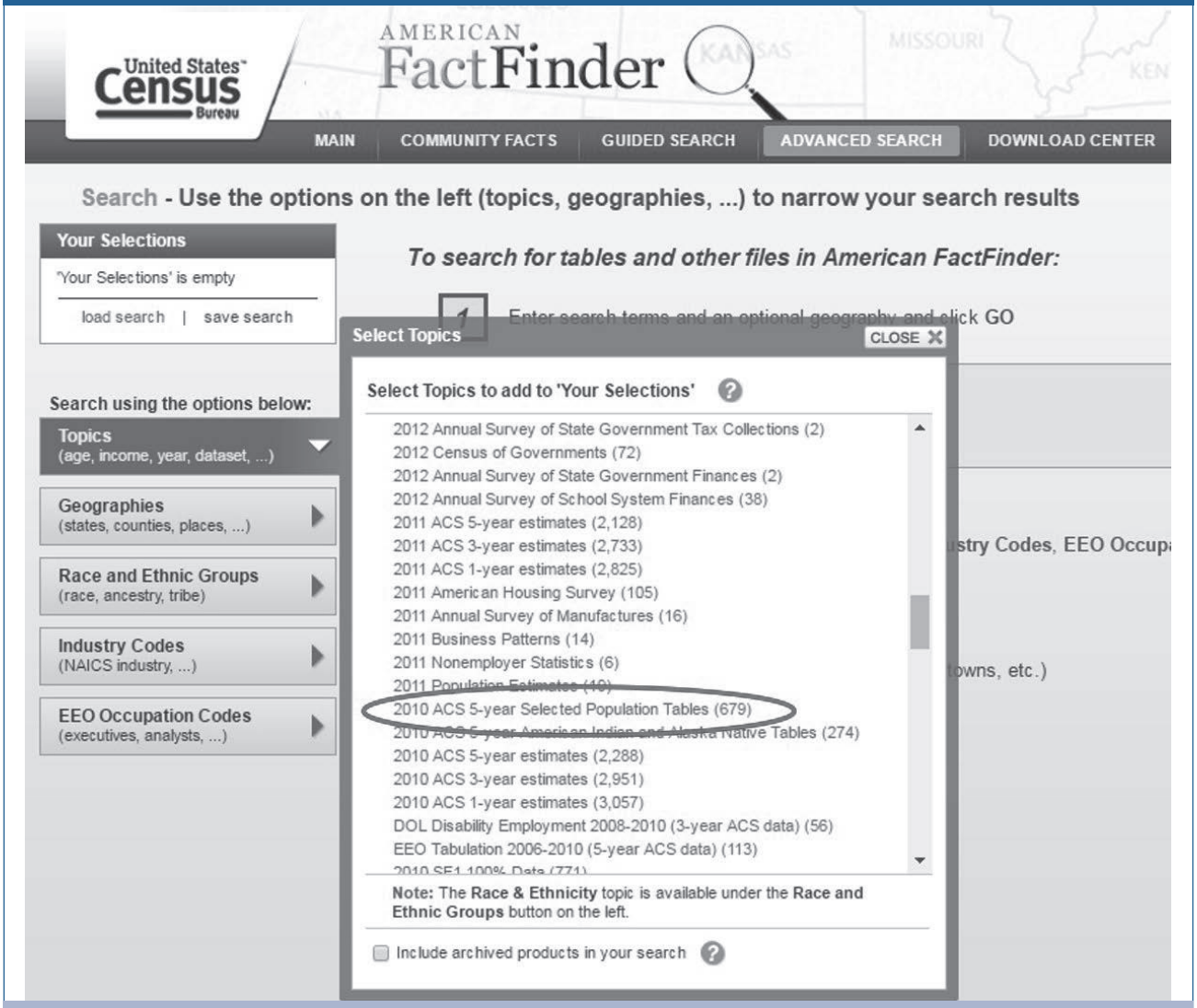
[40] National Congress of American Indians, Regional Profiles, Southern Plains and Eastern Oklahoma Profile, <www.ncai.org/policy-research-center/research-data/prc-publications/Southern_Plains_and_Eastern.pdf>.

[41] U.S. Census Bureau, American FactFinder, <https://factfinder.census.gov/>.

estimates. While 5-year estimates improve statistical reliability, they may obscure year-to-year changes in socio-economic conditions (e.g., recent trends in employment or income), and users should keep this in mind when interpreting results.

For our example, we use 5-year estimates for 2006 to 2010. Under "Topics," expand the "Dataset" tab, and click "2010 ACS 5-year Selected Population Tables," and then close the pop-up window (see Figure 6.3).[42] Your 2010 ACS 5-year data selection now appears in the "Your Selections" box on the upper left-hand side of the page.

Figure 6.3. **Selecting 5-Year Estimates**

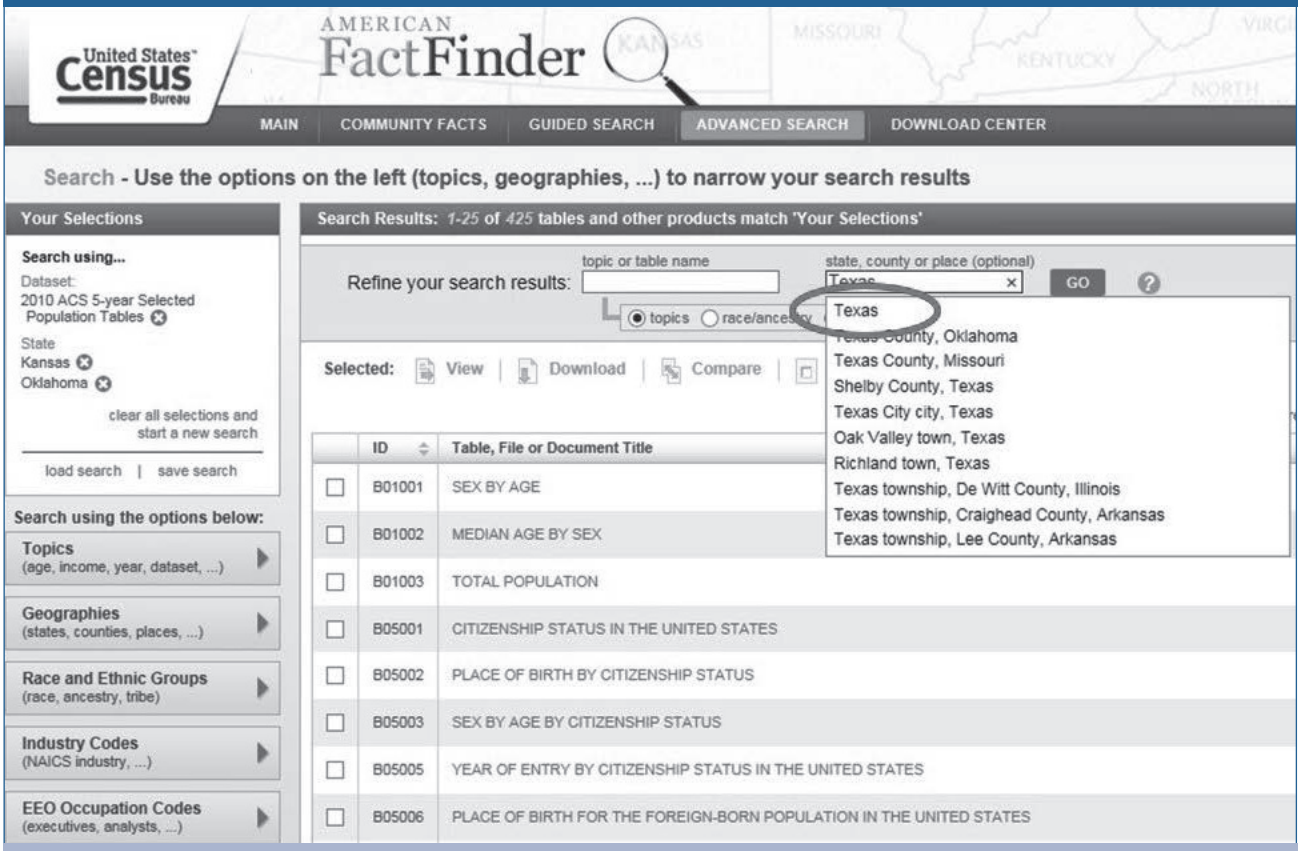


Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

[42] The ACS 5-year Selected Population Tables provide the most detailed ACS data on American Indian and Alaska Native tribes and tribal groups since the 2000 Census. Scheduled to be released every 5 years, the tables provide ACS 5-year estimates of demographic, social, economic, and housing characteristics for selected race, Hispanic origin, tribal, and ancestry populations.

For this Regional Profile, we need data for Kansas, Oklahoma, and Texas. In the "Refine your search results" bar labeled "state, county or place (optional)" type each state name, highlight it in the drop-down list that appears, and click "Go" to add it to our query (see Figure 6.4).

Figure 6.4. **Selecting Geographic Areas in American FactFinder**

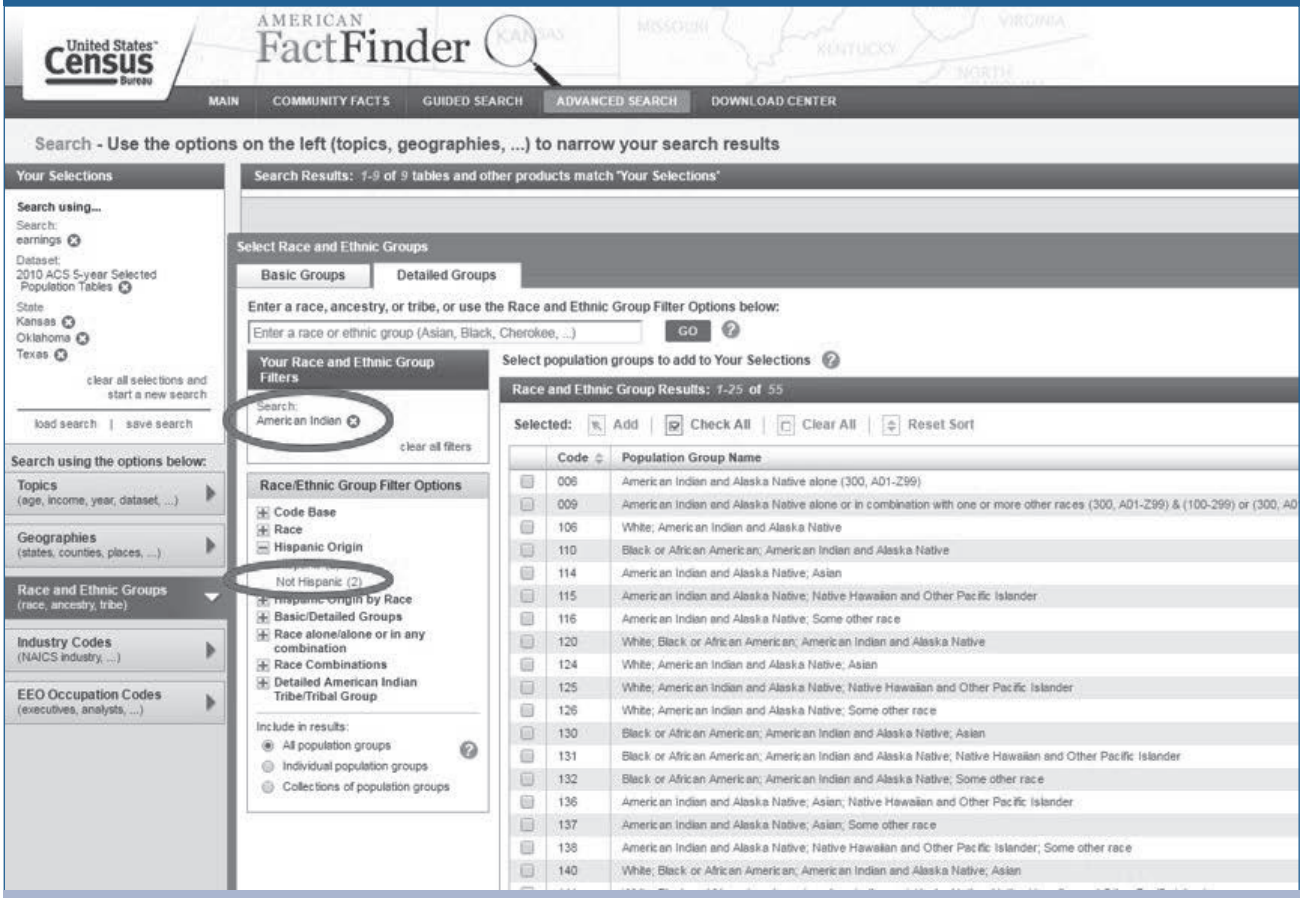


Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

We also know that we are searching for earnings data for American Indians and Alaska Natives. Type "earnings" into the search box and click "Go." From these results, we find that one of the tables—B20017—has information about median earnings by sex and work experience. Selecting that table would provide data for the total population 16 years and over with earnings. However, we are interested in data for the non-Hispanic American Indian and Alaska Native alone population.[43] To generate results for that group:

1. Click on "Race and Ethnic Groups" in the left-hand navigation.
2. Click on the "Detailed Groups" tabs to display the "Race/Ethnic Group Filter Options."
3. Type "American Indian" into the search box and click "Go."
4. Select the "American Indian and Alaska Native alone" population group (see Figure 6.5).
5. Select "Not-Hispanic" under the "Hispanic Origin" heading in the "Race/Ethnic Group Filter Options" (see Figure 6.5)

Figure 6.5. **Selecting Detailed Race and Ethnic Groups**



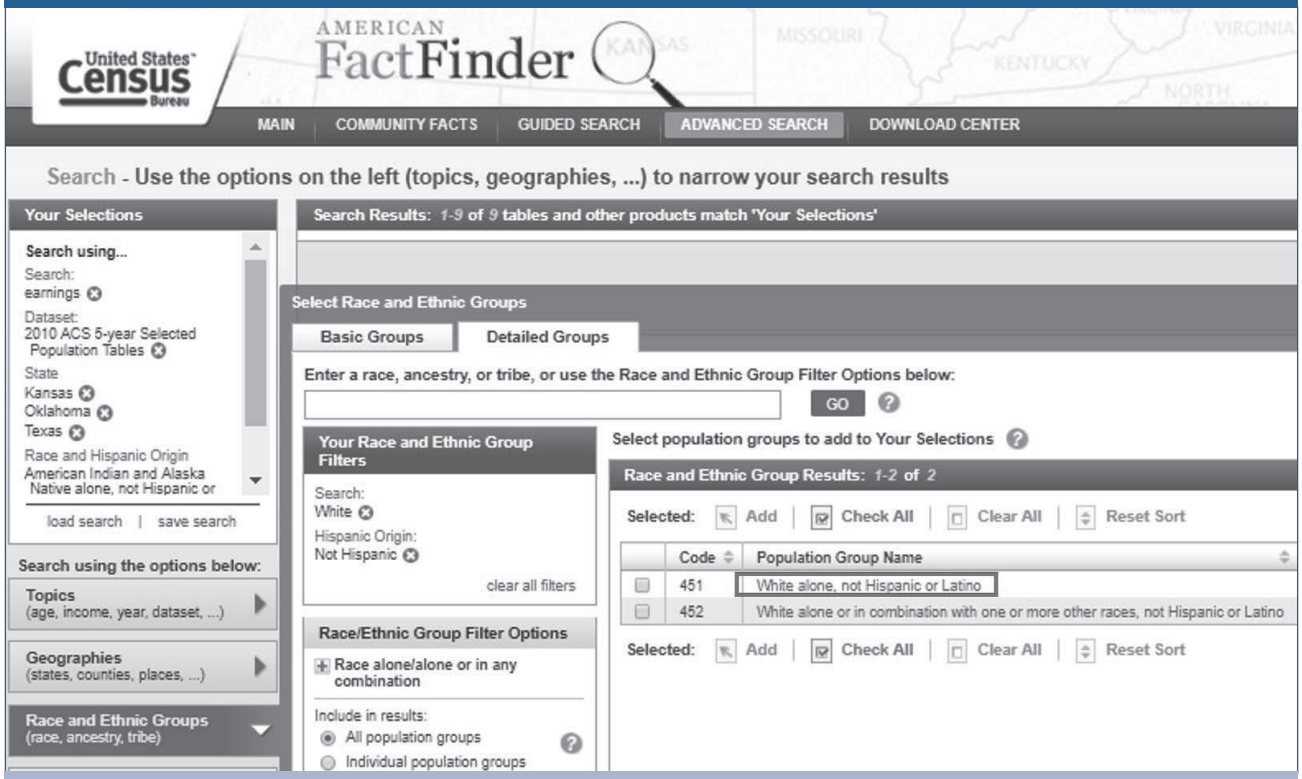
Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

[43] Note that race data are reported in two different ways: "alone" or "alone or in combination with one or more other races." "Alone" means that a respondent checked only that race option on the survey form. "In combination" means that the person checked that race and at least one other race. In this example, the table we are using is for the American Indian and Alaska Native alone population.

6. Click on the link for “American Indian and Alaska Native alone, not Hispanic or Latino” population group to add it to your selections.

7. We also want comparable data for the non-Hispanic White population. To get those data, clear the race and ethnic group filters by clicking on the “clear all filters” link, then repeat the same process to add data for White, non-Hispanic. Type “White” in the search box and click “Go.” Add the filter for non-Hispanic. Click on the link for “White alone, not Hispanic or Latino” to add it to your selections (see Figure 6.6).

Figure 6.6. **Adding Additional Race/Ethnic Groups to Selections**

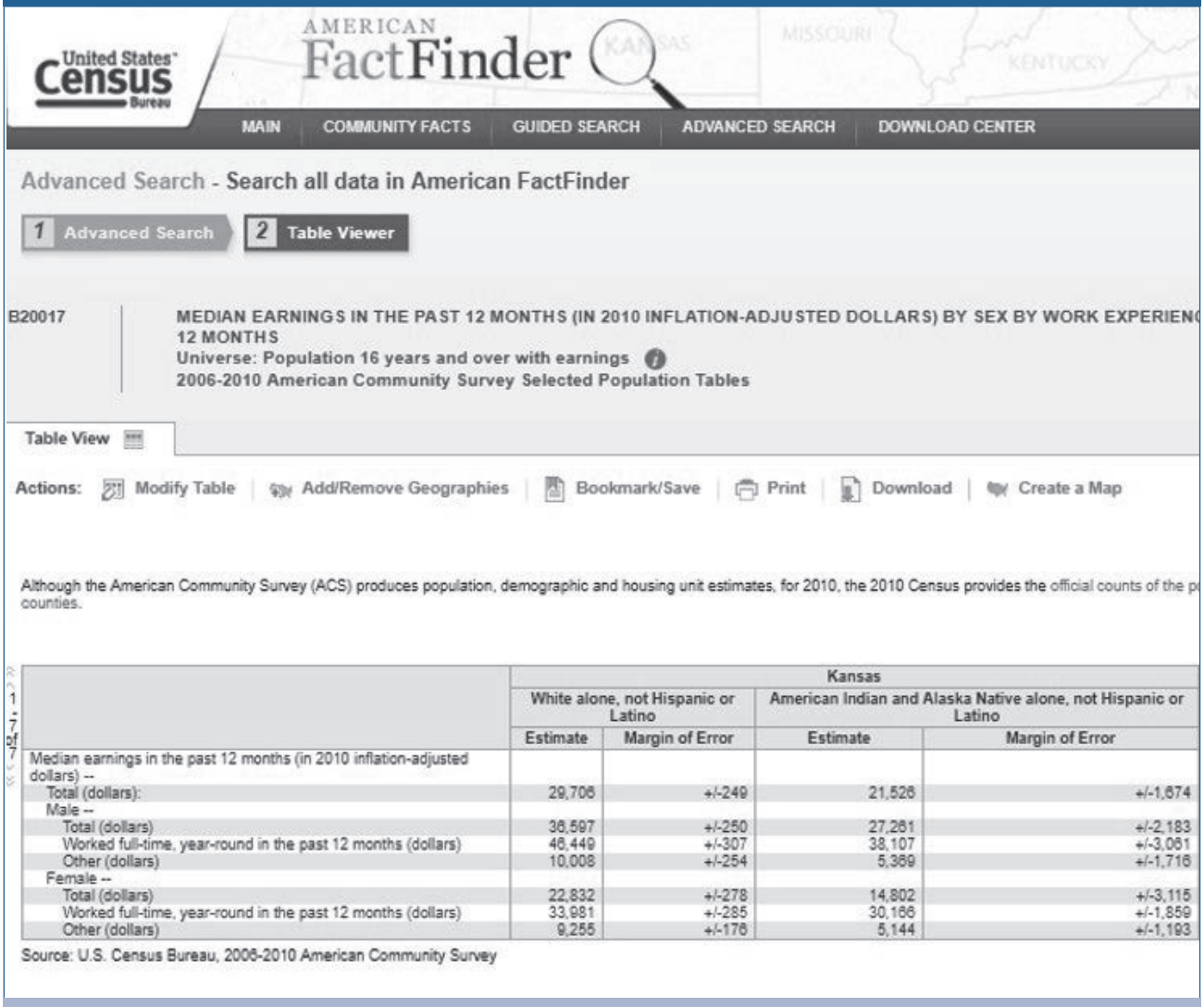


Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

8. Close the “Select Race and Ethnic Groups” window.

9. In the list of results that appears, click on the link for "MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS) BY SEX BY WORK EXPERIENCE IN THE PAST 12 MONTHS FOR THE POPULATION 16 YEARS AND OVER WITH EARNINGS IN THE PAST 12 MONTHS" (see Figure 6.7).

Figure 6.7. **Results**



	Kansas			
	White alone, not Hispanic or Latino		American Indian and Alaska Native alone, not Hispanic or Latino	
	Estimate	Margin of Error	Estimate	Margin of Error
Median earnings in the past 12 months (in 2010 inflation-adjusted dollars) --				
Total (dollars):	29,706	+/-249	21,526	+/-1,674
Male --				
Total (dollars)	36,597	+/-250	27,261	+/-2,183
Worked full-time, year-round in the past 12 months (dollars)	46,449	+/-307	38,107	+/-3,061
Other (dollars)	10,008	+/-254	5,369	+/-1,716
Female --				
Total (dollars)	22,832	+/-278	14,802	+/-3,115
Worked full-time, year-round in the past 12 months (dollars)	33,981	+/-285	30,166	+/-1,859
Other (dollars)	9,255	+/-176	5,144	+/-1,193

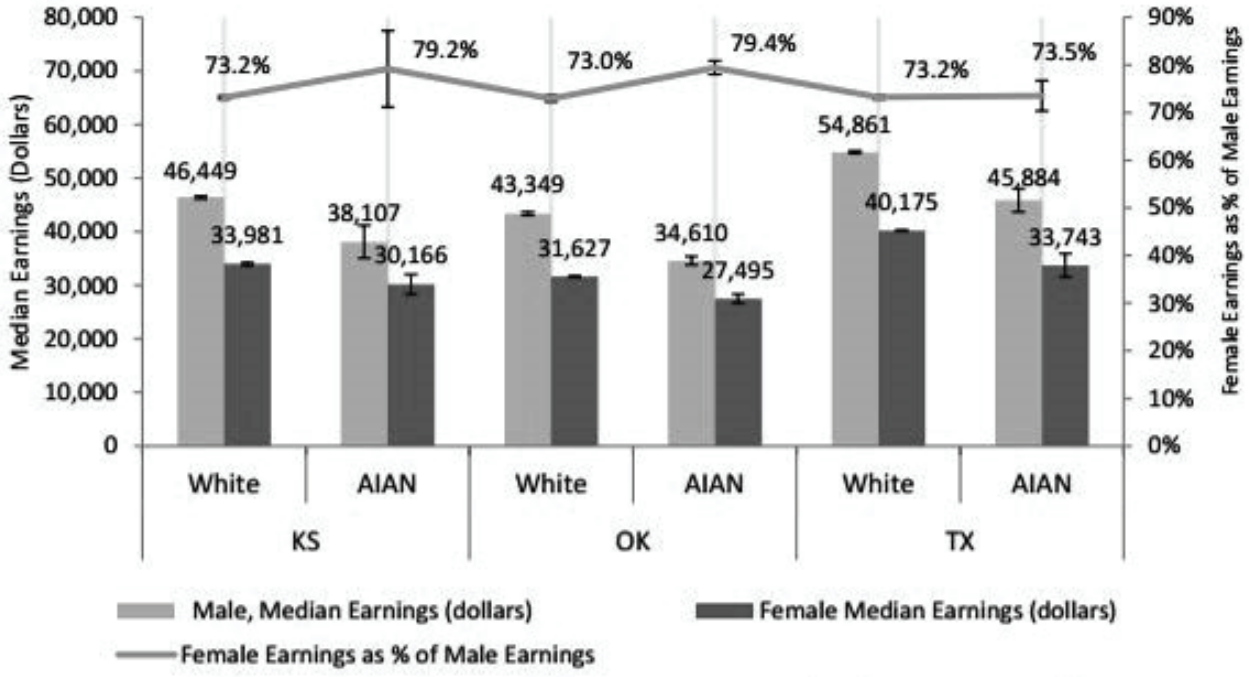
Source: U.S. Census Bureau, 2006-2010 American Community Survey

Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

From here, click on the "Download" button to download the data to a spreadsheet.

We take the data and calculate the earnings ratio for each state and for each demographic group, and use that data to create a chart that compares the 12 categories (3 states, 2 race/ethnic groups, 2 gender groups). On the chart, we also show the margin of error for each estimate, which is included in each of the tables we downloaded (see Figure 6.8). The margin of error provides a measure of reliability for a given estimate.

Figure 6.8. **Gender Earnings Gap for American Indian and Alaska Natives and Non-Hispanic Whites in Kansas, Oklahoma, and Texas: 2006-2010**



Source: U.S. Census Bureau, 2006–2010 American Community Survey Selected Population Tables, Table B20017.

We produced similar analyses for a variety of other topics, including educational attainment, poverty, employment, homeownership, and median home values.

Policy Applications of the Data

The Regional Profiles were developed by the NCAI in response to a request from our Executive Board to provide clearer demographic and economic portraits of the communities and regions beyond their own. These communities are being called upon to testify before Congress as national leaders and as representatives of Indian Country as a whole—not only for their respective tribal communities. Since their release, these Regional Profiles have been used by regional intertribal organizations, tribal Community Development Financial Institutions (CDFI), as well tribal program administrators engaged with YouthBuild in their efforts to advocate for federal funding, increase data collection, apply for grants, and educate policymakers at state and federal levels.

One of the first explicit data requests the NCAI Policy Research Center received came from the Executive Director of the United Southern and Eastern Tribes (USET), who was in need of economic data for the entire eastern region. He was amazed that within five minutes of his request, we had printed a copy of the Eastern Regional Data Profile with the exact information that he and his staff were seeking. Conveniently, he was heading to testify on the Hill later that afternoon and he quickly amended his prepared comments to include several data points.

Another request came from the Executive Director of the Native CDFI Network, who was eager to incorporate economic data in grant proposals and funding requests to private and federal partners. She knew how critical data would be in telling the story of economic disparity and the lack of access to capital so many of the communities across Indian Country face—and how the Native CDFIs are poised to meet and fill those resource gaps. She was thrilled to realize that the Regional Profiles had been produced and that they covered topics such as housing and broadband connectivity in addition to employment and income information. She immediately disseminated the profiles to their respective CDFI regional representatives within her network.

Last but not least, various tribal program administrators met with NCAI and the U.S. Department of Labor to determine what more could be done to secure access to funding through the YouthBuild program. When they were told how heavily data and evaluation were factored into competitive applications, many expressed frustration that their programs did not have sufficient capacity to collect and analyze data to the extent required. The NCAI Policy Research Center shared the Regional Profiles as a resource, and the representatives took great comfort in having these baseline data about the communities within their state and how they compared to non-Native populations—enabling them to highlight the need for increased investment in workforce development and economic opportunity.

Case Study #2: American Indian and Alaska Native Retirement Security

Skill Level: Intermediate/Advanced
Subject: Retirement Security
Type of Analysis: Analysis of Retirement Income Among American Indians and Alaska Natives
Tools Used: ACS Public Use Microdata Sample (PUMS) data
Author: John Murphy, Social Science Research Analyst, Social Security Administration

The American Indian and Alaska Native (AIAN) population faces significant economic challenges, which can play a role in the financial resources available in retirement. These challenges include lower average wages and higher rates of disability, both of which can reduce the amount of future income available through pensions, savings, and Social Security for AIANs. Because there has been little research that has specifically addressed retirement income among AIANs, I wanted to compare retirement income among AIANs with that for the total population.

I previously examined retirement outcomes for AIAN communities and other populations using the Health and Retirement Study (HRS). The HRS is a rich data source for individuals aged 50 and older with information about wealth and retirement for various racial and ethnic groups. However, the HRS sample is far smaller than the ACS Public Use Microdata Sample (PUMS) and is restricted by age. The HRS has about 30,000 respondents, which means there are only 300 to 500 AIAN respondents—far too few to conduct a meaningful subanalysis for the target group. In comparison, the ACS PUMS data has millions of participants with tens of thousands of AIAN respondents.

Because the AIAN community is diverse, with different subgroups exhibiting unique characteristics, I analyzed data for three different categories of AIAN respondents:

- AIAN. A binary (two-category) variable listing a participant as either American Indian/Alaska Native or not, based on self-reporting. This recoded variable (RAC1P) was taken directly from the PUMS file and includes all respondents who selected American Indian or Alaskan Native alone or in combination with one or more other races. The RAC1P variable is also used to create the two additional variables described below.

- Single-race AIAN. A binary, self-reported variable indicating that the respondent listed American Indian or Alaskan Native alone for his or her racial identification.

- Multiple-race AIAN. A binary, self-reported variable indicating that the respondent listed American Indian or Alaskan Native in combination with one or more other races.

The ACS includes data on a variety of sources of income, including earnings, public assistance, Social Security, retirement income, and other sources of income (e.g., dividends, interest, and rental income).

Annual retirement income is a self-reported, continuous variable denoting the amount of retirement income received during the past 12 months, which includes:

1. Retirement pensions and survivor benefits from a former employer; labor union; or federal, state or local government and the U.S. military.

2. Disability income from companies or unions; or federal, state, or local government and the U.S. military.

3. Periodic receipts from annuities and insurance.

4. Regular income from IRA (individual retirement account) and Keogh plans. This does not include social security income.

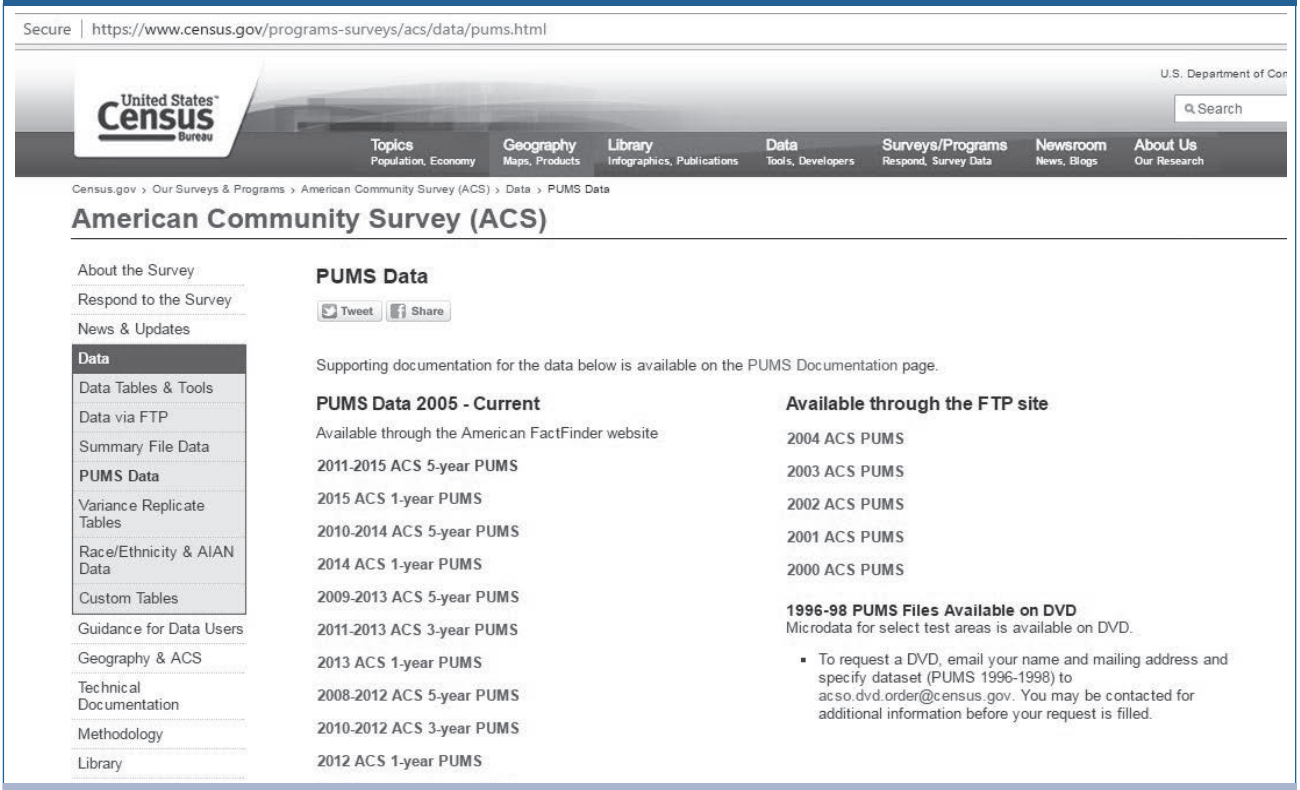
Annual social security income is a self-reported, continuous variable of social security income for the past 12 months, which includes benefits received through Social Security's Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) programs. Definitions for these, and other key concepts, can be found in American Community Survey Subject Definitions.[44]

[44] U.S. Census Bureau, American Community Survey Subject Definitions, <www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html>.

Accessing and using the PUMS data is pretty simple, if you have access to statistical software (e.g., SAS, SPSS, or STATA) that you can use to analyze the data. This case study describes how to get the PUMS data you need if you are using statistical software. Analysts who do not have statistical software can extract detailed cross tabulations using the Census Bureau's online query tool, DataFerrett.[45]

To download PUMS data, go to the Census Bureau's ACS PUMS Data Web site (see Figure 6.9).[46]

Figure 6.9. **ACS PUMS Data Repository**



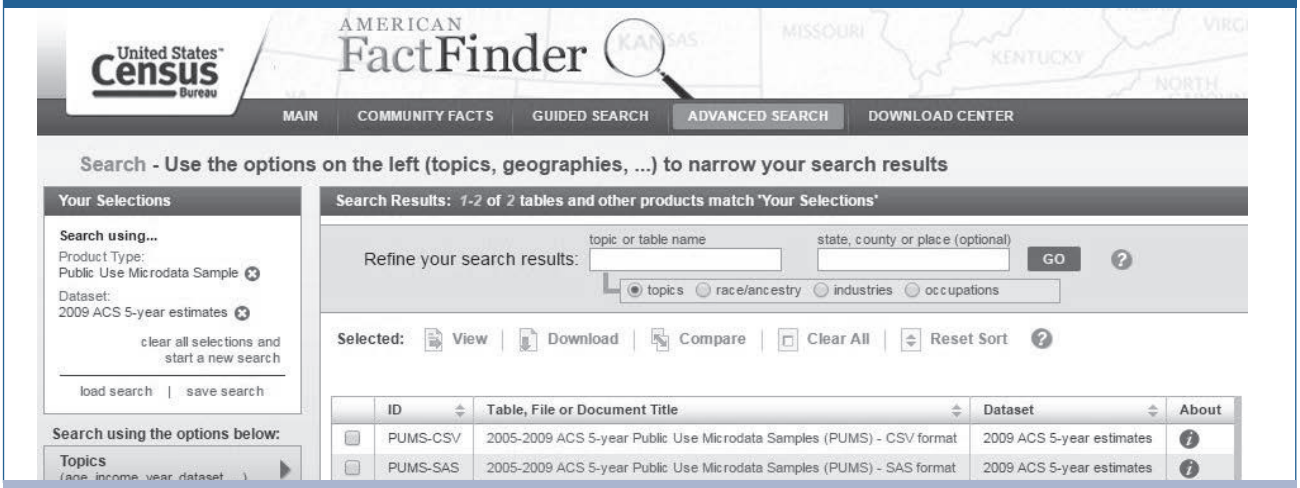
Source: U.S. Census Bureau, PUMS Data, accessed at <www.census.gov/programs-surveys/acs/data/pums.html>.

[45] U.S. Census Bureau, DataFerrett, <https://dataferrett.census.gov/>.
[46] U.S. Census Bureau, ACS PUMS Data, <www.census.gov/programs-surveys/acs/data/pums.html>.

Select the timeframe for the PUMS data you want. Data are available from the year 2005 to the present.[47] You can select single-year or multiyear data. For this study, I used unique respondent data available from the 2009 ACS 5-year file (2005 to 2009) so that I would have a larger pool of AIANs, thus avoiding problems of too few respondents for subanalysis.

Once you have selected a data file, you will be taken to a page in American FactFinder, where you can choose between downloading the data in CSV format (comma-delimited data) or SAS format (see Figure 6.10).

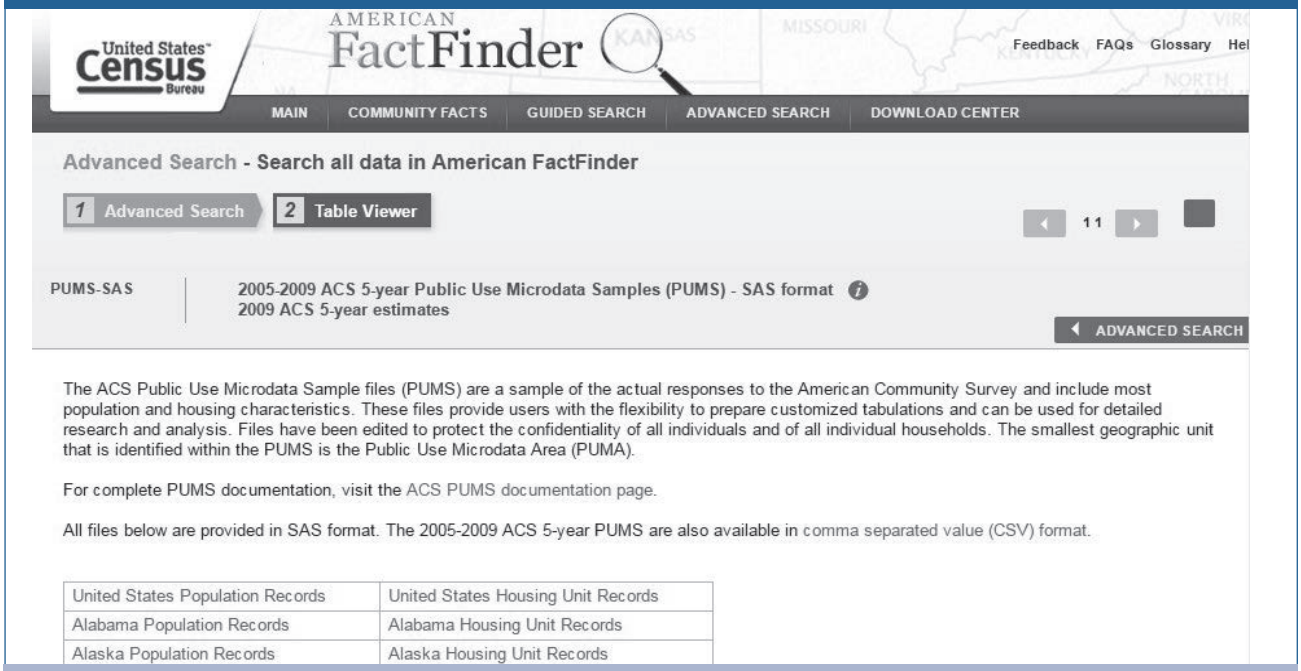
Figure 6.10. **ACS PUMS Data Download**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

After you make your selection, clicking "View" brings you another page where you can choose between population records (total U.S. population or a specific state) or housing records (entire United States or a specific state) (see Figure 6.11). For my study, I used total U.S. population records.

Figure 6.11. **ACS PUMS Downloads by Geography (Nation and States) and File (Population and Housing)**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

[47] ACS PUMS data for earlier years are available through the Census Bureau's FTP site at <www2.census.gov/programs-surveys/acs/data/pums/>.

You will then need to download a zip file of the data. It may take quite a while to download the file, depending on the size of the file and your Internet connection. (The download for my analysis took about 15 minutes.)

Once I downloaded the file, I used a statistical program to query information about the retirement income for each of the race categories described above. To determine which variables contained the data I needed for this analysis, I used the PUMS Data Dictionary.[48] Using the dictionary, I select two variables for analysis: 1) Retirement income past 12 months (RETP) and 2) Social Security Income past 12 months (SSP). Combining income from these two sources provides an estimate of total retirement income during the previous 12 months. I also limited the population to adults aged 62 and older (using the AGEP variable).

The preliminary analysis suggests that AIANs have lower retirement incomes than the overall population and that single-race AIANs may be particularly at risk of economic insecurity (see Table 6.1). However, this research is meant to provide a "jumping off point" for researchers and to inform policy makers. More exploration and research is warranted to investigate the nuances and obstacles of retirement security among AIANs.

Table 6.1. **Comparison of Total Annual Retirement Income by Race for the Population Aged 62 and Older: 2005–2009**

Race	Total Annual Retirement Income
AIAN	*$12,183
Single-Race AIAN	*$10,559
MultiRace AIAN	*$14,900
White	$16,832
Black	*$13,662

*Indicates that the value is statistically significant at p<=0.05 when compared to Whites.
Source: Author's derivation from 2005-2009 American Community Survey (ACS) 5-year Public Use Microdata Sample.

A version of this analysis appeared in the report "Retirement Income Among American Indians and Alaska Natives in the American Community Survey."[49]

[48] U.S. Census Bureau, PUMS Data Dictionary, <www.census.gov/programs-surveys/acs/technical-documentation/pums/documentation.html>.
[49] John Murphy and Brent Huggins, "Retirement Income Among American Indians and Alaska Natives in the American Community Survey," Social Security Administration Research and Statistics Note, 2015-01 (2015), <www.ssa.gov/policy/docs/rsnotes/rsn2015-01.html>.

Case Study #3: Employment Data for the Standing Rock Sioux Tribe

Skill Level: Introductory
Subject: Unemployment
Type of Analysis: Understanding Employment Data for American Indians on Reservations
Tool(s) Used: American FactFinder, spreadsheet
Author(s): Cheryl Penny, Employment and Training Director, Standing Rock Sioux

The Employment and Training Director for the Standing Rock Sioux Tribe received two related questions that needed answers. How many American Indian people on the reservation are unemployed? And how many are out of a job but not even counted as unemployed because they have barriers to employment that prevent them from actively looking for work?

The question about the number of unemployed and not working Indians on the reservation is important because it indicates the need for services provided by the tribal employment and training program. In addition, the count of the Indian unemployed on the reservation—the service area for the tribe's program—is a key factor determining the amount of funding the tribe receives under the special Native American workforce program administered by the U.S. Department of Labor.

Where can the Director look for answers? Who counts unemployed Indian people in reservation areas? The planner for the reservation has an idea: try the Census Bureau. It counts people in lots of ways and could be a good place to start.

When she checks around, she finds that the Census Bureau itself has staff in each Regional Office called Data Dissemination Specialists who are there to help census data users find the information they need.[50] There are also Census Information Centers around the country that specialize in helping those looking for data specifically on the American Indian and Alaska Native population.[51]

The Director learns that the Census Bureau's continuously updated ACS is the only federal program that publishes detailed information on the Indian population in reservation areas. She also learns that data from the ACS is available to the public through the Census Bureau's American FactFinder (AFF) Web site.[52]

However, the AFF Web site presents its own challenges. It has so much data that finding exactly what she wants takes some practice, even with the helpful American FactFinder tutorial.[53] So the Director asks an expert to guide her through the process.

The first step is to clearly specify the information she is looking for. In this case, the Director is looking for 1) the number of persons counted as unemployed and 2) the number counted as being of working age (aged 16 and older) but neither employed nor unemployed—or "not in the labor force" in the language of employment statistics. While unemployment statistics are often calculated based on the ratio of unemployed to the labor force, the U.S. Department of the Interior, Bureau of Indian Affairs includes people who are available for work, but may not be actively looking for work due to barriers to employment. For more information on the challenges of calculating unemployment and labor force statistics for tribal areas, view the U.S. Department of the Interior's *2013 American Indian Population and Labor Force Report.*[54]

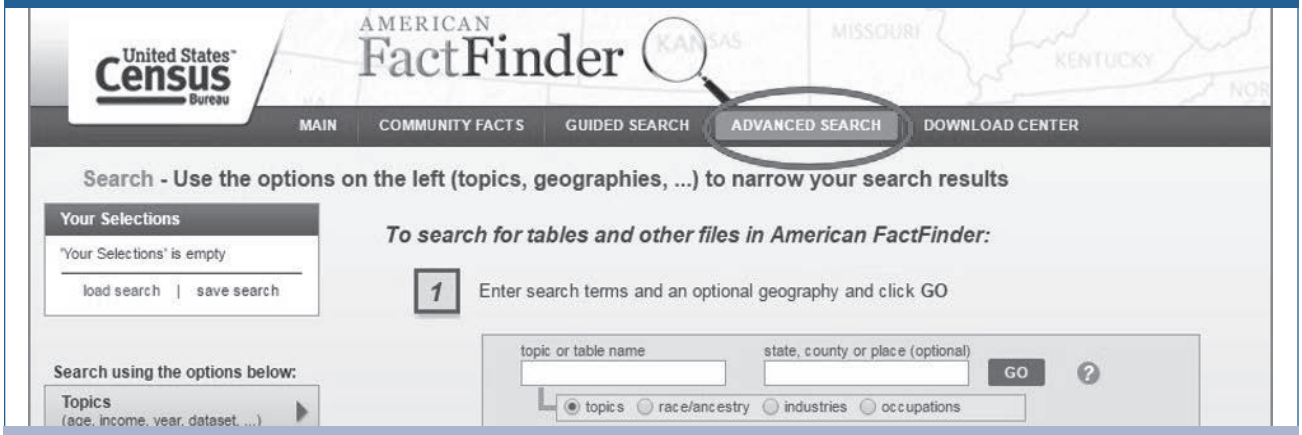
Then there is geography to consider. The numbers that the Director needs are those just for people living on the reservation. Fortunately, the Census Bureau publishes data for reservation areas. Other sources of employment information, such as the Bureau of Labor Statistics, do not.

But, the Director does not want numbers for everyone living on the Standing Rock reservation; roughly 25 percent of persons living on the reservation are not American Indian people. The total numbers of people who are unemployed and not in the labor force for the area are not sufficient. She needs to consider only those people on the reservation who identify themselves on the ACS questionnaire as Indian people.

[50] U.S. Census Bureau Regional Offices, <www.census.gov/regions/>.
[51] U.S. Census Bureau, Census Information Centers, <www.census.gov/about/partners/cic/network.html>.
[52] U.S. Census Bureau, American FactFinder, <https://factfinder.census.gov/>.
[53] U.S. Census Bureau, FactFinder Help, <https://factfinder.census.gov/help/en/index.htm#>.
[54] U.S. Department of the Interior, Bureau of Indian Affairs, *2013 American Indian Population and Labor Force Report*, <www.bia.gov/sites/bia.gov/files/assets/public/pdf/idc1-024782.pdf>.

To extract unemployment and not in labor force data from AFF, for American Indian people living on the Standing Rock reservation, she begins by using "Advanced Search" (see Figure 6.12).

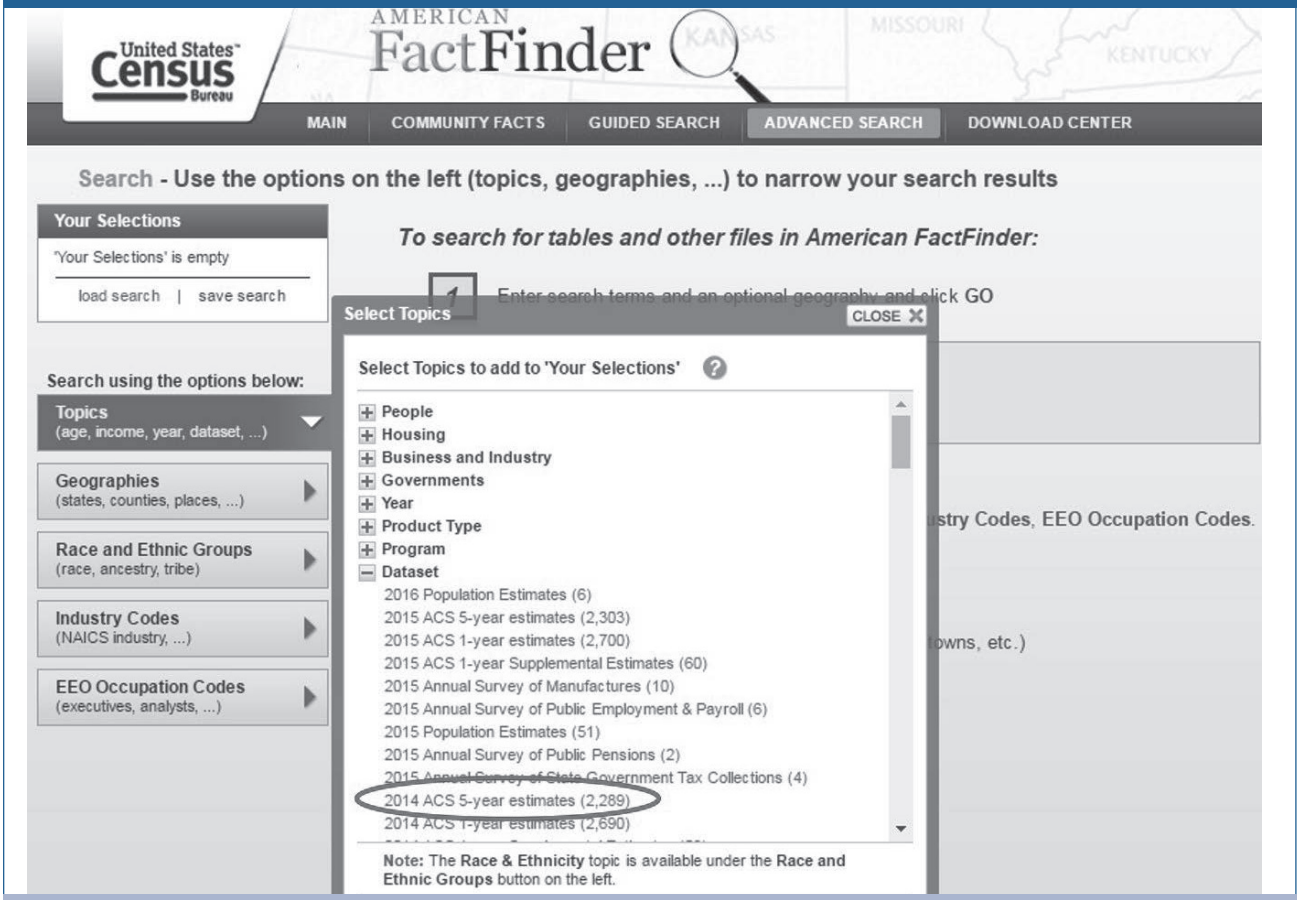
Figure 6.12. **Advanced Search in American FactFinder**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

On this page, the Director checks the "Topics" box and specifies a recent set of ACS 5-year estimates, the data set that has detailed information about the characteristics of people in small geographic areas. In this case, we use 2014 ACS 5-year estimates (see Figure 6.13).

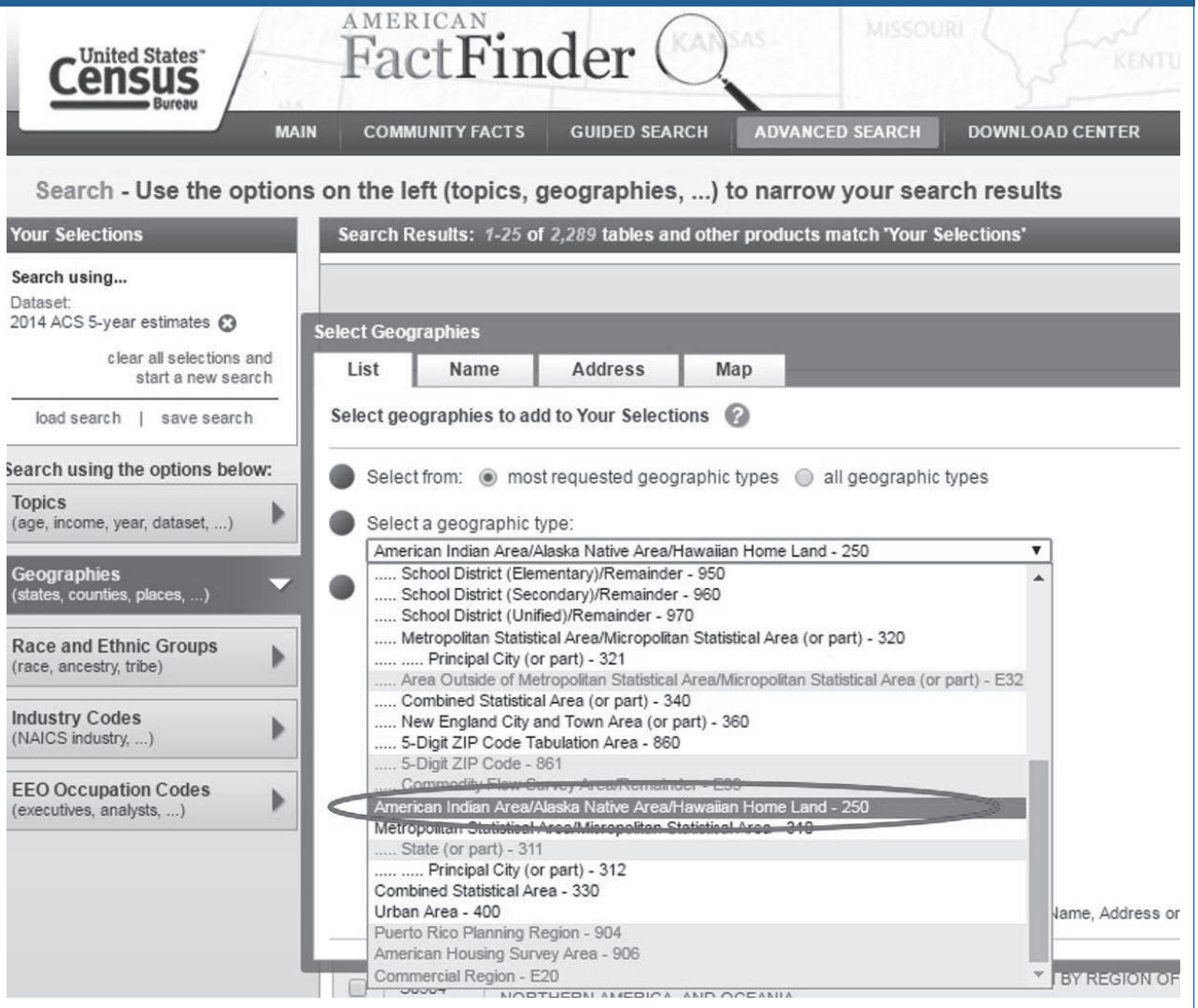
Figure 6.13. **Selecting a Dataset**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

In the "Geographies" box, the Director scrolls down through the different types of geographic areas—the nation, states, counties, etc.—until she finds the line that reads "American Indian/Alaska Native Area/Hawaiian Home Land – 250" (see Figure 6.14).

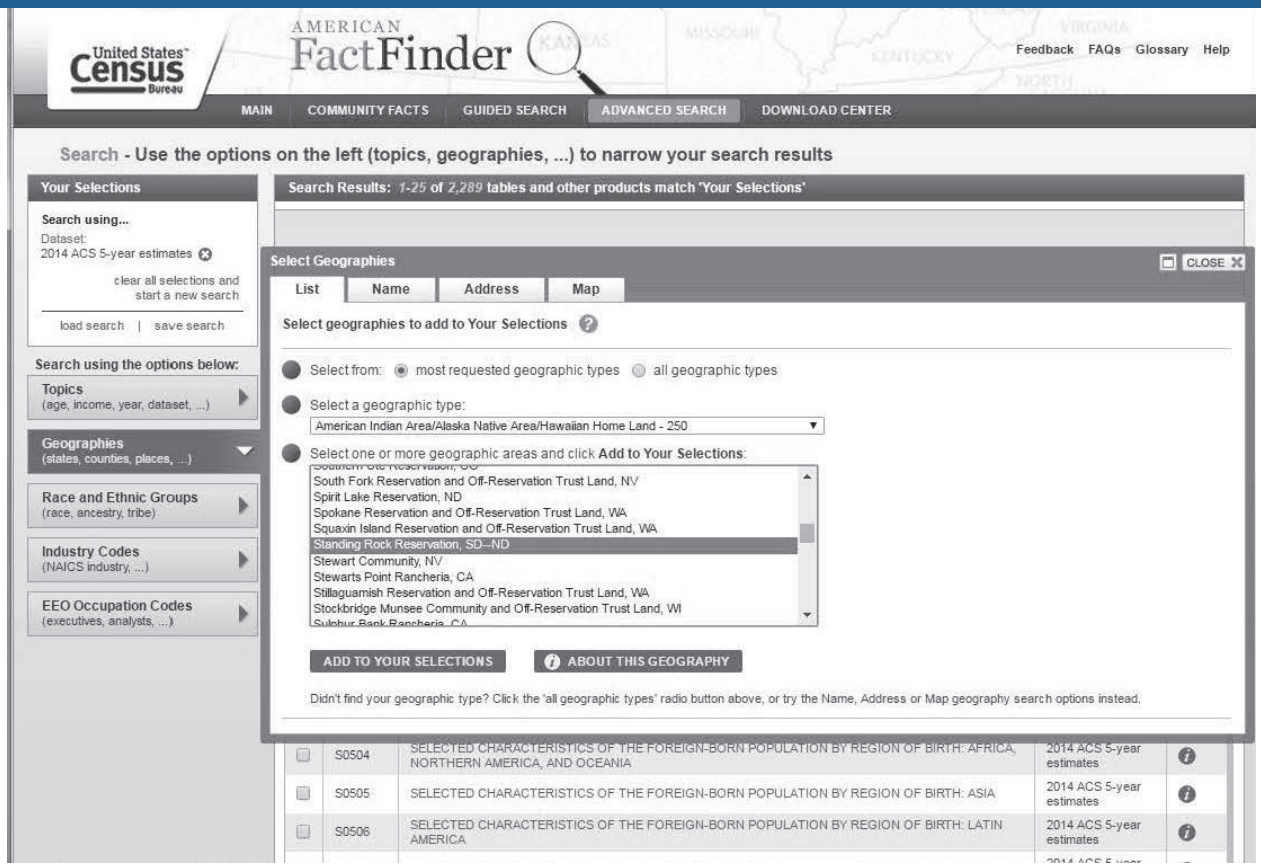
Figure 6.14. **Selecting a Geographic Type**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

Clicking on that line brings up a list of these areas, with reservations listed first, alphabetically by reservation name (see Figure 6.15).

Figure 6.15. **Selecting a Geographic Location**

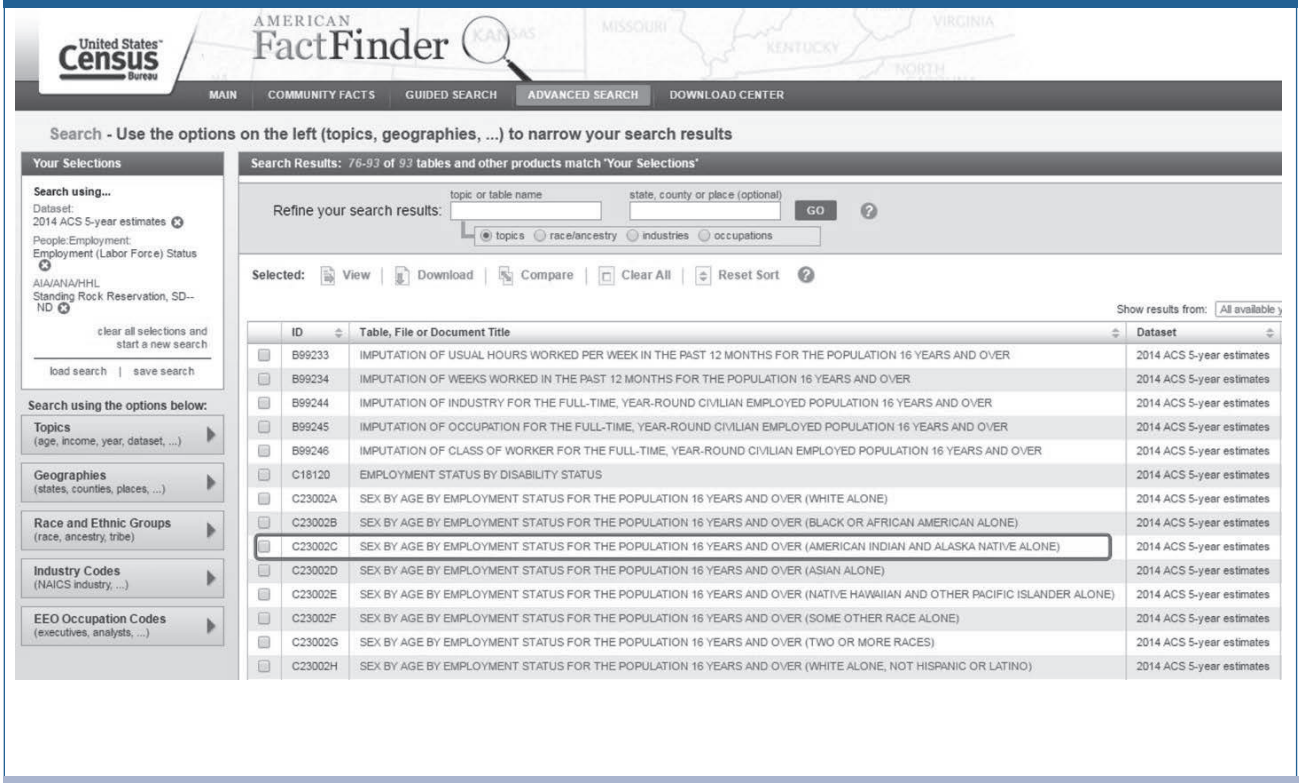


Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

Here the Director scrolls through the list of reservations, selects Standing Rock Reservation, SD—ND, clicks "Add to Your Selections," and then closes the geography pop-up window. At this point, she could click through dozens of screens to scan through more than 900 tables, using the numbers and arrows in the upper right corner of the box, until she gets to the page with the table that she is looking for. As an alternative, to narrow the list further, she could go to Topics, select People, then select Employment, and then click on "Employment (Labor Force) Status," or type the word "employment" in the "Refine your search results" bar at the top of the screen. Either filter would narrow the list of results from 956 tables to fewer than 100. To preview any table, click on the blue table title text, which is a link that opens the table.

On this page (see Figure 6.16), the Director checks the box next to the table number C23002C, "Sex by Age by Employment Status for the Population 16 Years and Older (American Indian and Alaska Native Alone)." That is the table with the employment, unemployment, and not in the labor force numbers.

Figure 6.16. **Results**

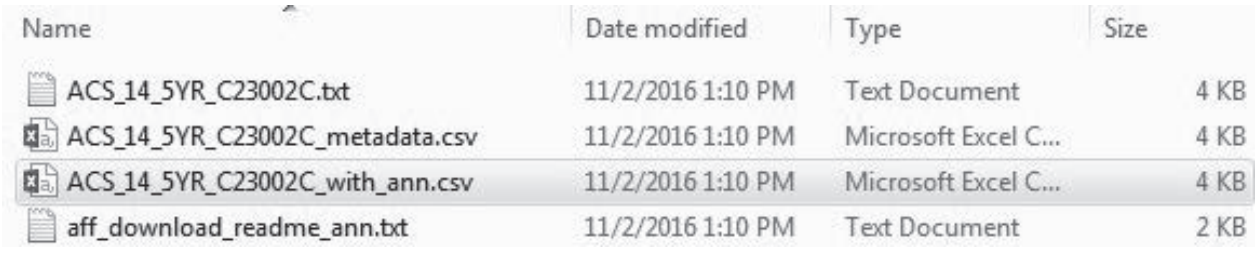


Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

By clicking on the "Download" tab at the top of the screen, and then clicking "OK" in the first pop-up box that appears, and "Download" in the second pop-up box that appears, the Director receives a zipped file "aff _download_zip" on her computer.

Unzipping the file produces four individual files, three with explanatory information, and one with data—the file with "_with_ann" at the end of the file name (see Figure 6.17).

Figure 6.17. **Four Files Extracted From Zipped Download**



Source: U.S. Census Bureau, American FactFinder, accessed at <https://factfinder.census.gov>.

The Director opens the data file (that is, the file with "_with_ann.csv" in the file name) using a spreadsheet. The file contains many columns of data: some are labeled "estimate" and some are labeled "margin of error." Reformatting the text in row 2 can be helpful for reading the data. In the spreadsheet, she adds up the estimates to find out how many American Indian people on the reservation are unemployed or not in the labor force (see results, Figure 6.18).

Figure 6.18. **Results**

D7 =R3+AB3+AR3+BB3

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	GEO.id	GEO.id	GEO.display-label	HD01_VD(	HD02_V	HD01_VD(	HD02_VI	HD01_VD(	HD02_VC	HD01_VD(	HD02_VC	HD01_VD(	HD02_VD(	HD01_VD(	HD02_VD	HD01_VD(	HD02_VD(	HD01_VD(	HD02_VD(	HD01_VD(	H
2	Id	Id2	Geography	Estimate; Total:	Margin of Error; Total:	Estimate; Male:	Margin of Error; Male:	Estimate; Male: - 16 to 64 years:	Margin of Error; Male: - 16 to 64 years:	Estimate; Male: - 16 to 64 years: - In labor force:	Margin of Error; Male: - 16 to 64 years: - In labor force:	Estimate; Male: - 16 to 64 years: - In labor force: - In Armed Forces	Margin of Error; Male: - 16 to 64 years: - In labor force: - In Armed Forces	Estimate; Male: - 16 to 64 years: - In labor force: - Civilian:	Margin of Error; Male: - 16 to 64 years: - In labor force: - Civilian:	Estimate; Male: - 16 to 64 years: - In labor force: - Civilian: - Employed	Margin of Error; Male: - 16 to 64 years: - In labor force: - Civilian: - Employed	Estimate; Male: - 16 to 64 years: - In labor force: - Civilian: - Unemployed	Margin of Error; Male: - 16 to 64 years: - In labor force: - Civilian: - Unemplo	Estimate; Male: - 16 to 64 years: - Not in labor force	M o M 1 y N la fo
3	2500000	3970	Standing Rock Reservation, SD--ND	4089	46	2003	30	1848	29	1102	65	0	16	1102	65	659	60	443	51	746	
4																					
5				Number																	
6			Employed	1,550																	
7			Unemployed	784																	
8			In Labor Force	2,334	= Employed + Unemployed																
9			Unemployment Rate	33.6%	= Unemployed / In Labor Force																
10																					
11			Not in Labor Force	1,755																	
12			Total	4,089	= In Labor Force + Not in Labor Force																
13		Percent Unemployed and Not in Labor Force		62%	= (Unemployed + Not in Labor Force) / Total																
14																					

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-year estimates.

To find out the number of unemployed, she sums the following categories:

- Estimate; Male: - 16 to 64 years: - In labor force: - Civilian: - Unemployed
- Estimate; Male: - 65 years and over: - In labor force: - Unemployed
- Estimate; Female: - 16 to 64 years: - In labor force: - Civilian: - Unemployed
- Estimate; Female: - 65 years and over: - In labor force: - Unemployed
- Total = 443 + 8 + 333 + 0 = 784

To find out the number of civilians in the labor force, she sums the following categories:

- Estimate; Male: - 16 to 64 years: In labor force: Civilian
- Estimate; Male: - 65 years and over: In labor force
- Estimate; Female: - 16 to 64 years: In labor force: Civilian
- Estimate; Female: - 65 years and over: In labor force
- Total = 1,102 + 45 + 1,136 + 51 = 2,334

The resulting estimate of the unemployment rate is 33.6 percent (784 civilian unemployed divided by 2,334 civilians in the labor force). Unfortunately, even at this high level, the unemployment rate does not tell the full story of employment challenges on the reservation. To understand the full magnitude of the problem—including those not working because they may have barriers to searching for employment—she also estimates the number of people not in the labor force.

To find out the number of people not in the labor force, she sums the following categories:

- Estimate; Male: - 16 to 64 years: Not in labor force
- Estimate; Male: - 65 years and over: Not in labor force
- Estimate; Female: - 16 to 64 years: Not in labor force
- Estimate; Female: - 65 years and over: Not in labor force
- Total = 746 + 110 + 763 + 136 = 1,755

To find out the total number of civilian adults, sum the number of civilians in the labor force (2,334) and the number not in the labor force (1,775). The total is 4,089.

Dividing the numbers of people who are unemployed and not in the labor force (784 + 1,755 = 2,539) by the total population aged 16 and older (4,089) yields the percentage of people unemployed and not in labor force—62 percent—that the Director is looking for.

If she wanted to calculate a similar rate for the population aged 16 to 64, she would add the unemployed and not in labor force estimates for men and women aged 16 to 64 (443 + 746 + 333 + 763 = 2,285) and divide that by the population aged 16 to 64 (1,848 + 1,899 = 3,747) to get 2,285 / 3,747 = 61 percent.

Finding these answers was not simple, but the Employment and Training Director can now answer both of her questions about unemployment among American Indian people on the reservation. The official unemployment rate among American Indian people on the reservation—33.6 percent in 2010-2014—was more than three times the rate for the U.S. population as a whole (9.2 percent). However, this 33.6 percent unemployment rate does not include all of the Indians on the reservation who need a job but do not have one.[55] Taking into account those who are not in the labor force and cannot look for a job until their barriers to employment are resolved—like needing reliable transportation so that a person living in a remote community on this rural reservation can take a job—the rate jumps to over 60 percent. These results based on ACS data provide a useful starting point for those seeking to improve conditions for American Indians on the Standing Rock Reservation.

[55] Unemployment rate estimate from Table S2301, accessed at <https://factfinder.census.gov/bkmk/table/1.0/en/ACS/14_5YR/S2301/2500000US3970>.