



NSF's
Regional Innovation
Engines Program



NSF ENGINES

Region of Service Map Builder Guide



Using data.census.gov
Basic Mapping

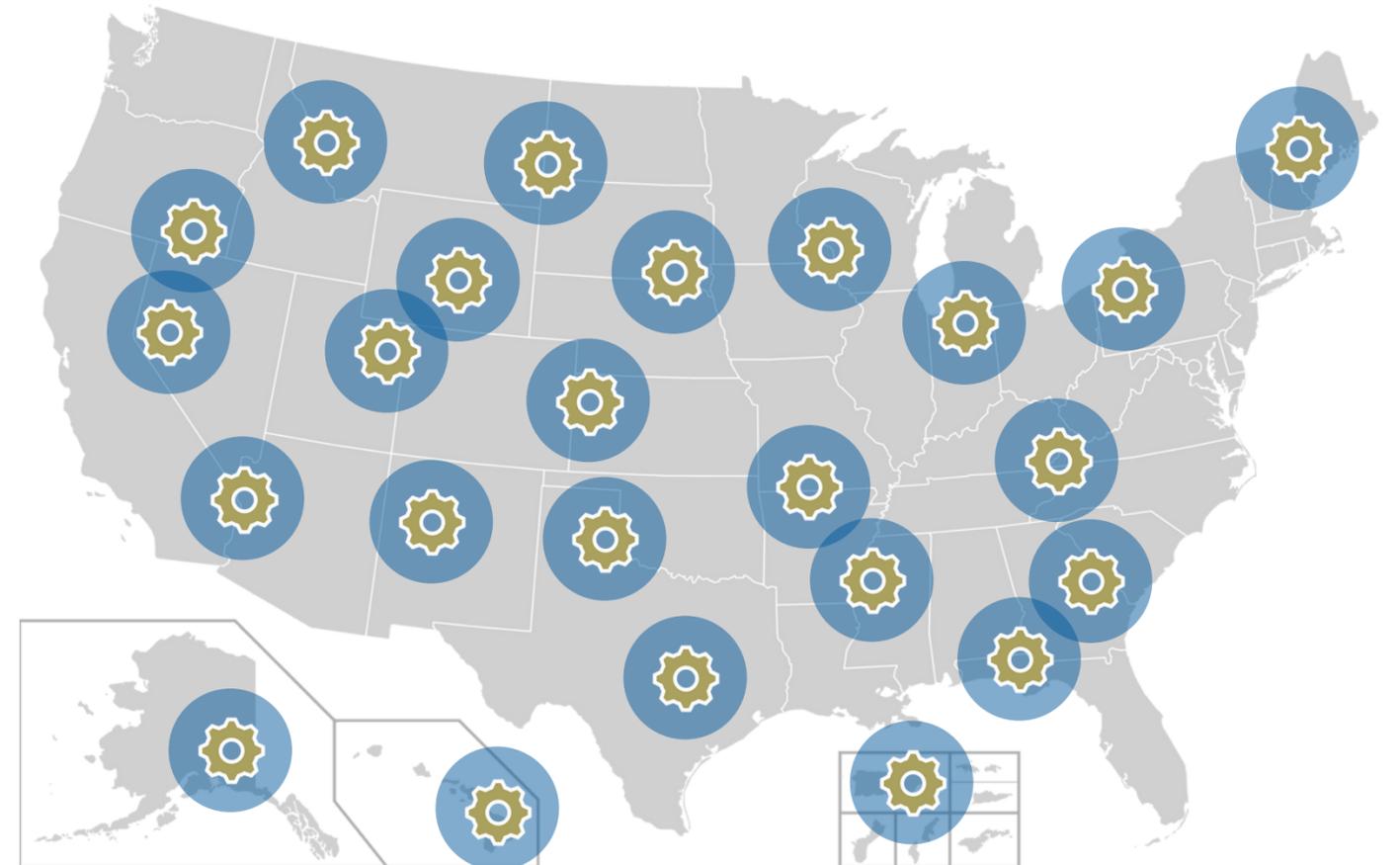
Purpose >>>

As part of your Type-2 NSF Engines application, a Region of Service (RoS) Map Builder is required as a supplemental document.

NSF is collecting this information to gain a precise understanding of your defined region of service and the overall geographic distribution of NSF Engine applicants.

To help facilitate the uniformity of your customized map, the Engines team has identified a two step process:

- 1) Draw RoS using the [Census Mapping Tool](#)
- 2) Compile in the RoS Map Builder



Find a Filter

Search

123 Codes >

Geography >

Surveys >

Topics >

Years >

SELECTION MAP

Decennial Census

P1 | RACE

[View All 11 Products](#)

American Community Survey

S0101 | AGE AND SEX

[View All 22 Products](#)

American Community Survey

DP05 | ACS DEMOGRAPHIC AND HOUSING ESTIMATES

[View All 23 Products](#)

American Community Survey

S1901 | INCOME IN THE PAST 12 MONTHS (IN 2021 INFLATION-ADJUSTED DOLLARS)

[View All 22 Products](#)

American Community Survey

DP03 | SELECTED ECONOMIC CHARACTERISTICS

[View All 25 Products](#)

Decennial Census

Selection Map

Select Identify Layer Year Basemap Boundaries Notes

Here you can customize your map.

LEGEND YEAR: 2020

- Selected Geographies 0

Styles

- State
- County

5154 Results

View: 10 | 25 | 50

[Download Table Data](#)

SELECTION MAP

Decennial Census

P1 | RACE

[View All 11 Products](#)

American Community Survey

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American Community Survey

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American Community Survey

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[View All 25 Products](#)

Decennial Census

Selection Map

- Select
- Identify
- Layer**
- Year
- Basemap
- Boundaries
- Notes

- Region
- Division
- State
- County
- Place

LEGEND YEAR: 2020

Selected Geographies 0

Styles

- State
- County

Make sure you are on *County* in the *Layer* setting.



Select



Identify



Layer



Year



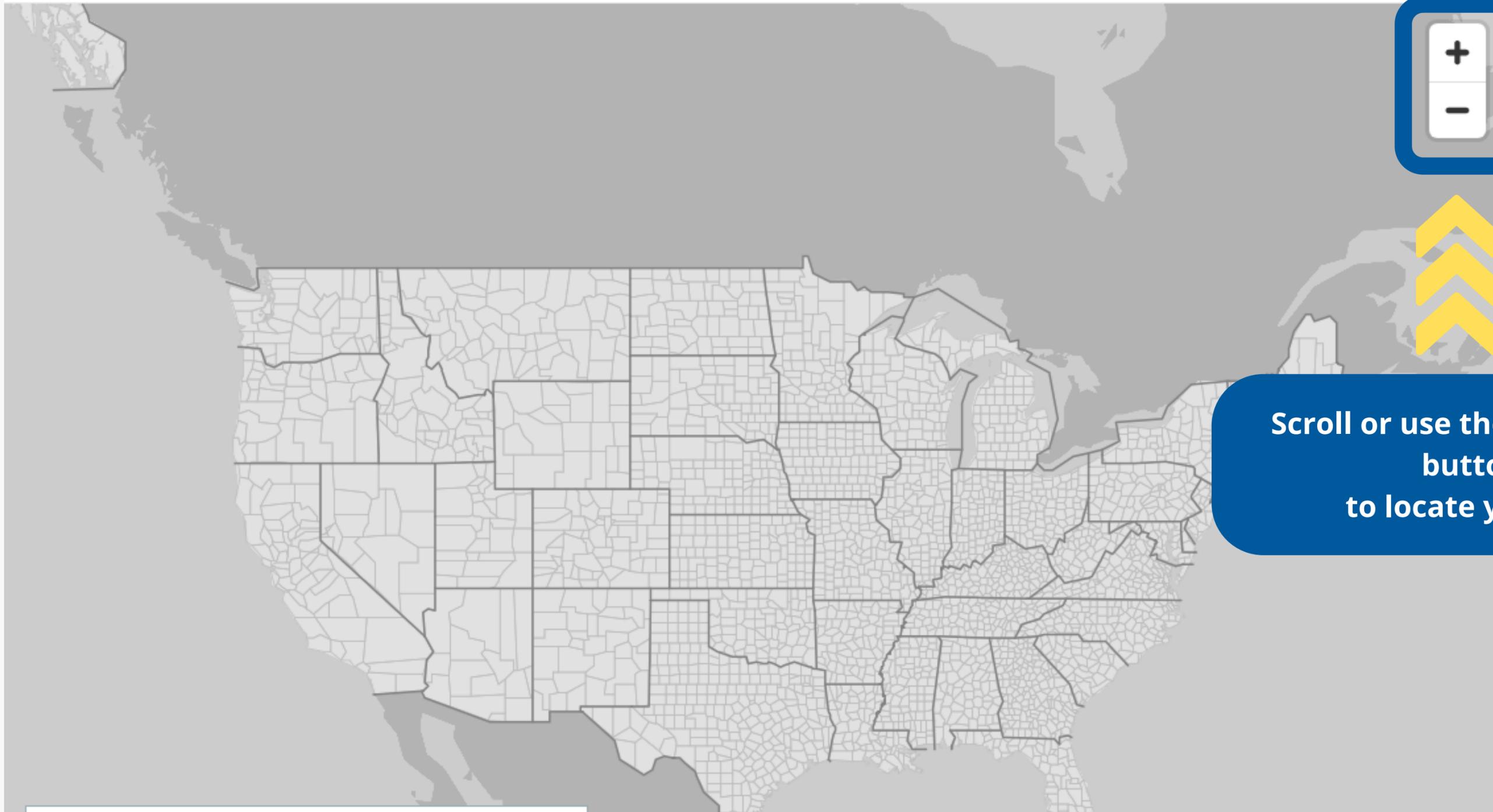
Basemap



Boundaries



Notes



Scroll or use the zoom in/out buttons to locate your RoS.

54 Filters ?

Filters

5154 Results

- Henry County, Illinois x
- Delaware County, Iowa x
- Houston County, Minnesota x
- Whiteside County, Illinois x
- Cedar County, Iowa x

[Clear all filters](#) [View + 49 More](#)

Find a Filter

Search

123 Codes >

Geography >

Surveys >

Topics >

Years >

5154 Results

View: 10 | 25 | 50 [Download Table Data](#)

SELECTION MAP

Decennial Census
P1 | RACE
[View All 11 Products](#)

American Community Survey
S010 | ...
[View All 23 Products](#)

American Community Survey
DP05 | ACS DEMOGRAPHIC AND HOUSING ESTIMATES
[View All 23 Products](#)

American Community Survey
S1901 | INCOME IN THE PAST 12 MONTHS (IN 2021 INFLATION-ADJUSTED DOLLARS)
[View All 22 Products](#)

American Community Survey
DP03 | SELECTED ECONOMIC CHARACTERISTICS
[View All 25 Products](#)

Decennial Census
P2 | HISPANIC OR LATINO, AND NOT HISPANIC OR ...

Select Geography in the map [EXIT SELECT TOOL](#)

Select Clear Geos Layer Year Basemap Boundaries

LEGEND YEAR: 2020

- Selected Geographies 54

Styles

- State
- County

1) Hit the *Select* tool

2) Click and drag your cursor across the map to select the counties in your RoS.

Please Note: Any geography that touches the rectangle will be added.

Refining your Region of Service Selection



Search Advanced Search

All **Maps** Pages Microdata Help FAQ Feedback

54 Filters ?

- Henry County, Illinois ×
- Delaware County, Iowa ×
- Houston County, Minnesota ×
- Whiteside County, Illinois ×
- Cedar County, Iowa ×

Clear all filters View + 49 More

Find a Filter

- Search
- 123 Codes >
- Geography >
- Surveys >
- Topics >
- Years >

5154 Results Download Table Data

View: 10 | 25 | 50

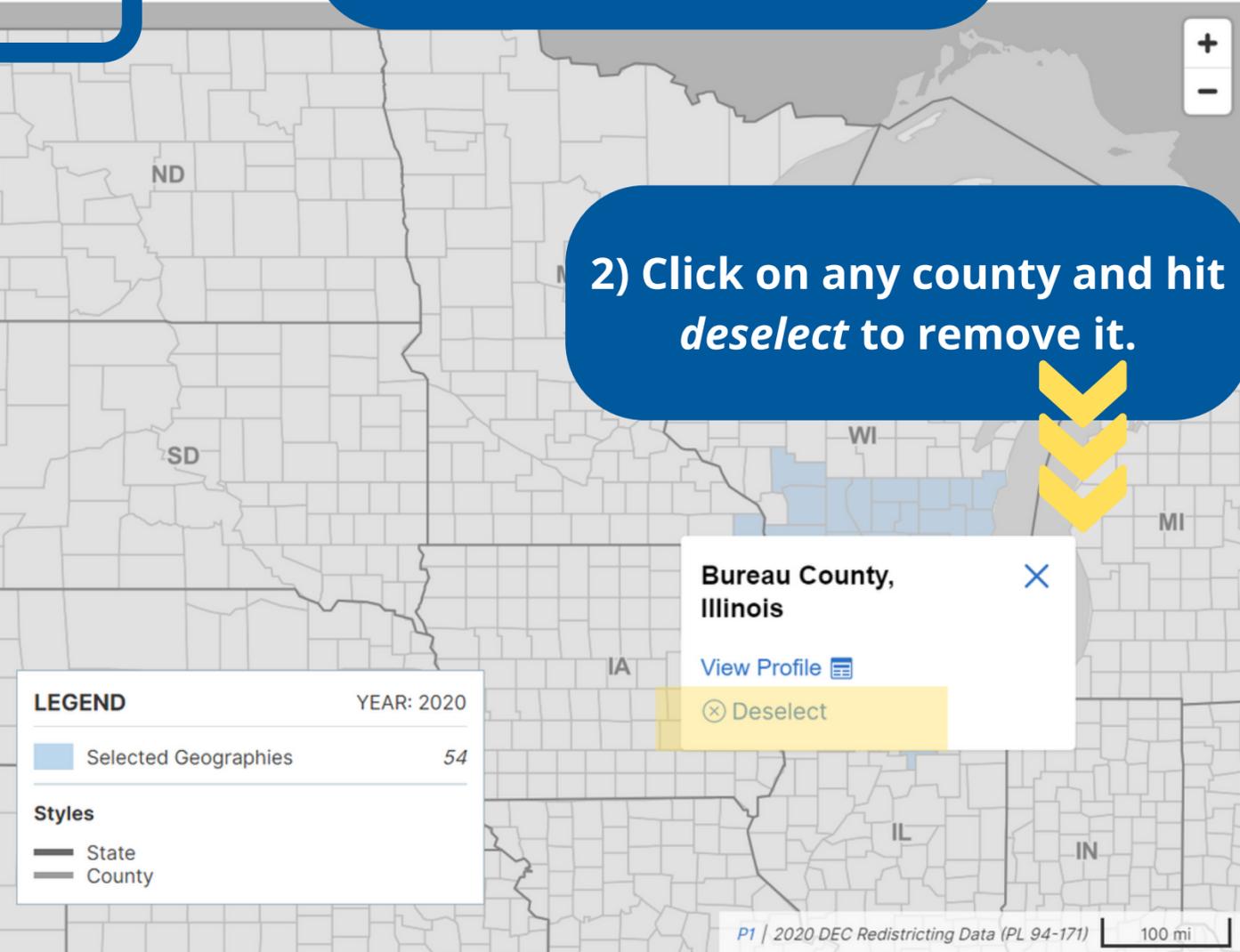
SELECTION MAP

- Decennial Census
P1 | RACE
View All 11 Products
- American Community Survey
S0101 | AGE AND SEX
View All 22 Products
- American Community Survey
DP05 | ACS DEMOGRAPHIC AND HOUSING ESTIMATES
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S1901 | INCOME IN THE PAST 12 MONTHS (IN 2021 INFLATION-ADJUSTED DOLLARS)
View All 22 Products
- American Community Survey
DP03 | SELECTED ECONOMIC CHARACTERISTICS
View All 25 Products
- Decennial Census
P2 | HISPANIC OR LATINO AND NOT HISPANIC OR LATINO

Selection Map

Select Identify

1) Hit the *Select* tool.
(make sure it is no longer highlighted)



2) Click on any county and hit *deselect* to remove it.

LEGEND YEAR: 2020

- Selected Geographies 54

Styles

- State
- County

Bureau County, Illinois ×

[View Profile](#)

Deselect

Search

All Tables **Maps** Pages

Feedback

After making edits and deselections,
your RoS is ready to be exported by
copying the URL link.



50 Filters ?

- Henry County, Illinois x
- Delaware County, Iowa x
- Whiteside County, Illinois x
- Columbia County, Wisconsin x
- Lafayette County, Wisconsin x

[Clear all filters](#) [View + 45 More](#)

Find a Filter

Search

123 Codes >

Geography >

Surveys >

Topics >

Years >

3248 Results

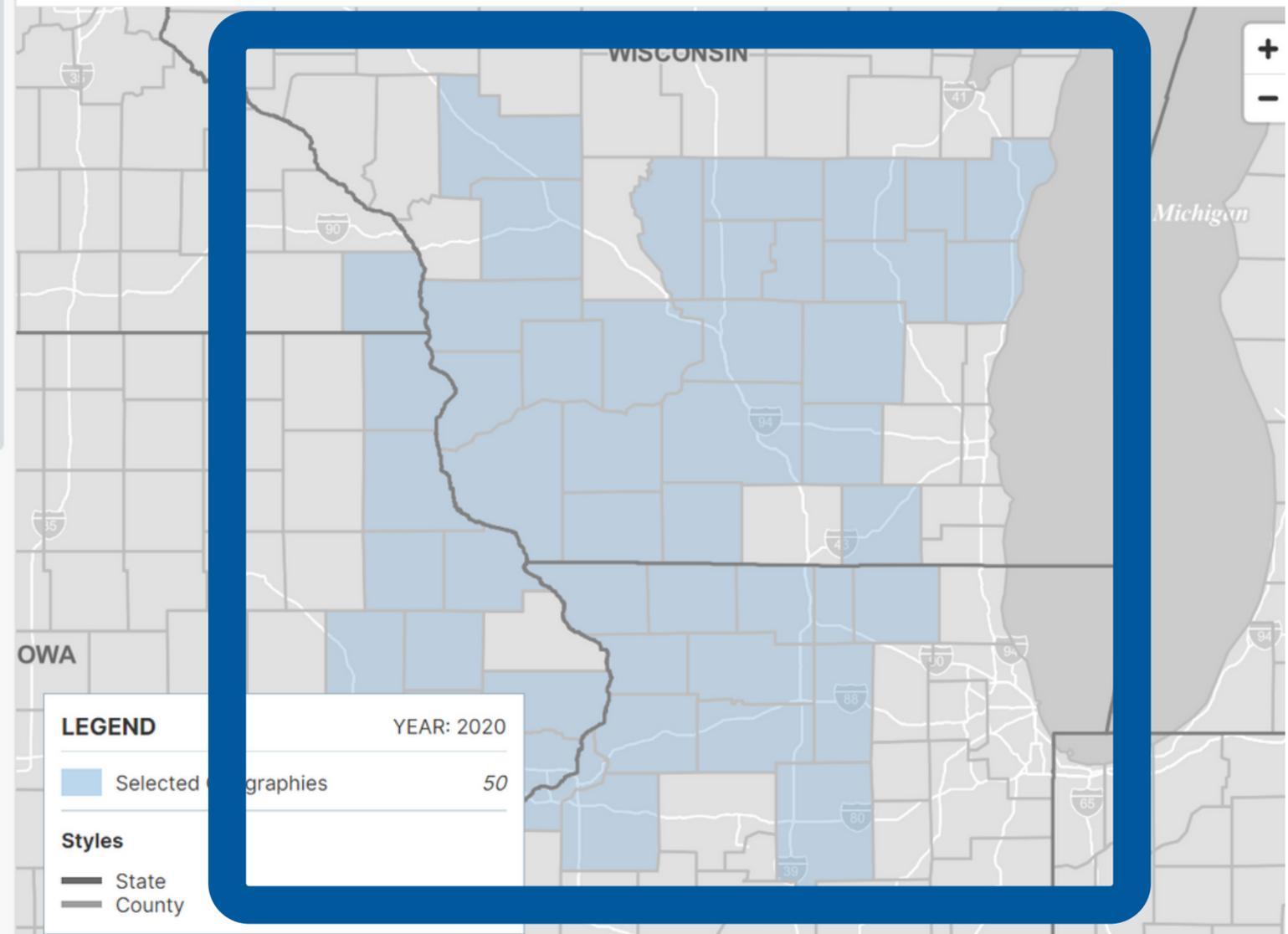
View: 10 | 25 | 50 [Download Table Data](#)

SELECTION MAP

- American Community Survey
S0101 | AGE AND SEX
[View All 22 Products](#)
- American Community Survey
S0102 | POPULATION 60 YEARS AND OVER IN THE UNITED STATES
[View All 20 Products](#)
- American Community Survey
S0103 | POPULATION 65 YEARS AND OVER IN THE UNITED STATES
[View All 16 Products](#)
- American Community Survey
S0601 | SELECTED CHARACTERISTICS OF THE TOTAL AND NATIVE POPULATIONS IN THE UNITED STATES
[View All 22 Products](#)
- American Community Survey
S0701 | GEOGRAPHIC MOBILITY BY SELECTED CHARACTERISTICS IN THE UNITED STATES

Selection Map

Select Identify Clear Geos Layer Year Basemap Boundaries Notes



data.census.gov/cedsci/map?g=0500000US17007,17011,17015,17037,17063,17073,17085,17089,17093,17099,17103,17111,17131,17141,17155,17161,17175,17177,17195,17201,19005,19...

An official website of the United States government [Here's how you know](#)



Search [Advanced Search](#)

All Tables **Maps** Pages Microdata Help

80 Filters

- Tama County, Iowa
- Iowa County, Iowa
- Mitchell County, Iowa
- Henry County, Illinois
- Delaware County, Iowa

[Clear all filters](#) [View + 75 More](#)

Find a Filter

- Codes
- Geography
- Surveys
- Topics

5154 Results

View: 10 | 25 | 50

[Download Table](#)

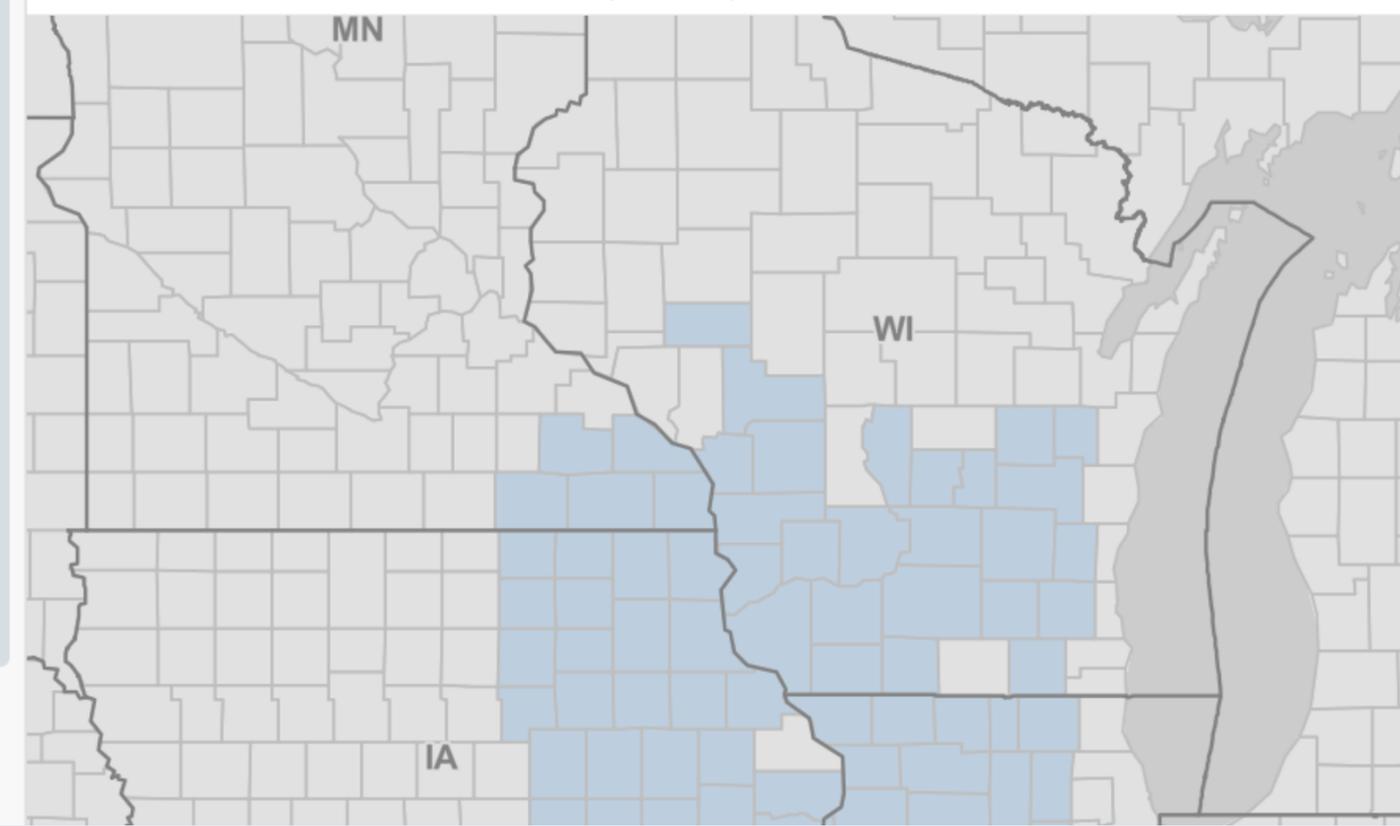
SELECTION MAP

Decennial Census
P1 | RACE
[View All 11 Products](#)

American Community Survey
S0101 | AGE AND SEX
[View All 22 Products](#)

American Community Survey
DP05 | ACS DEMOGRAPHIC AND HOUSING ESTIMATES
[View All 23 Products](#)

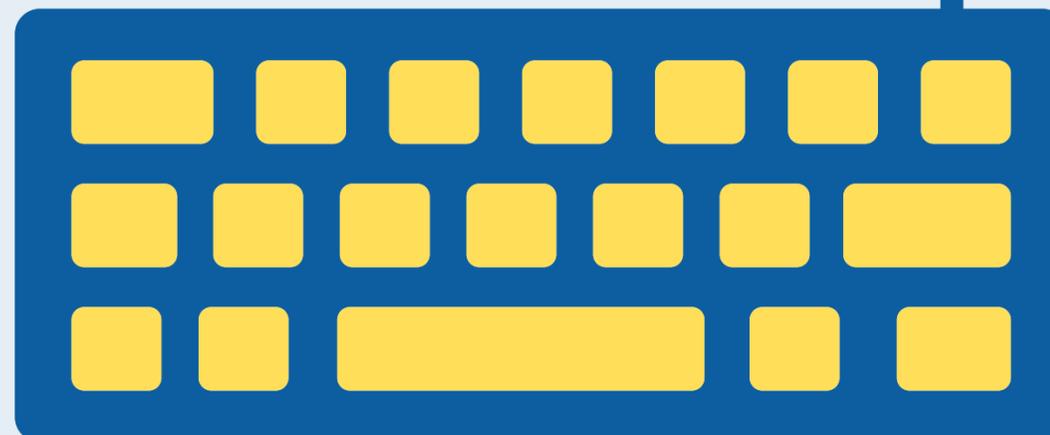
Scroll to the top of the address bar and copy the URL. Remember to copy the entire link.



**Now you are ready to open the Map
Builder**



Excel



```
https://data.census.gov/cedsci/map?g=05000000US17007,17015,17037,17073,17085,17099,17103,17111,17141,17161,17177,17195,17201,19005,19031,19043,19045,19055,19061,19103,19105,19113,19139,19163,19183,27055,55001,55015,55021,55023,55025,55027,55039,55043,55045,55047,55049,55053,55055,55065,55071,55077,55081,55103,55111,55117,55123,55127,55137,55139&layer=VT_2020_050_00_PY_D1&loc=42.7886,-89.8354,z6.1349
```

1 Proposal Tracking Number: Required

2 Submission Title Required

2) Paste the URL link.



Please fill in the URL below

URL:

Reference: [202 State, County, Minor Civil Division, and Incorporated Place FIPS Codes](#)

No.	FIPS	State	County	From States:	Number of Counties:
5	17007	Illinois	Boone County	Illinois	50
6	17015	Illinois	Carroll County	Iowa	
7	17037	Illinois	DeKalb County	Minnesota	
8	17073	Illinois	Henry County	Wisconsin	
9	17085	Illinois	Jo Daviess County		
10	17099	Illinois	LaSalle County		
		Illinois	Lee County		
		Illinois	McHenry County		
		Illinois	Ogle County		
		Illinois	Rock Island County		
		Illinois	Stephenson County		
		Illinois	Whiteside County		
		Illinois	Winnebago County		
17	17201	Illinois	Winnebago County		
18	19005	Iowa	Allamakee County		
19	19043	Iowa	Cedar County		
20	19043	Iowa	Clayton County		
21	19055	Iowa	Clinton County		
22	19055	Iowa	Delaware County		
23	19061	Iowa	Dubuque County		
24	19103	Iowa	Johnson County		

1) Make sure you're on the URL Mapping Tool sheet in excel.



URL Mapping Tool

No.	FIPS	State	County	From States:	Number of Counties:
5	17007	Illinois	Boone County	Illinois	50
6	17015	Illinois	Carroll County	Iowa	
7	17037	Illinois	DeKalb County	Minnesota	
8	17073	Illinois	Henry County	Wisconsin	
9	17085	Illinois	Jo Daviess County		
10	17099	Illinois	LaSalle County		
11	17103	Illinois	Lee County		
12	17111	Illinois	McHenry County		
13	17141	Illinois	Ogle County		
14	17161	Illinois	Rock Island County		
15	17177	Illinois	Stephenson County		
16	17195	Illinois	Whiteside County		
17	17201	Illinois	Winnebago County		
18	19005	Iowa	Allamakee County		
19	19031	Iowa	Cedar County		
20	19043	Iowa	Clayton County		
21	19045	Iowa	Clinton County		
22	19055	Iowa	Delaware County		
23	19061	Iowa	Dubuque County		
24	19103	Iowa	Johnson County		

The screenshot shows a software interface with a left-hand navigation menu and a main content area. The navigation menu includes options: Home, New, Open, Info, Save, Save As, Save as Adobe PDF, Print, Share, Export (highlighted in green), Publish, and Close. The main content area is titled 'Export' and contains three options: 'Create Adobe PDF' (highlighted in grey), 'Create PDF/XPS Document', and 'Change File Type'. A blue callout box with white text points to the 'Export' menu item.

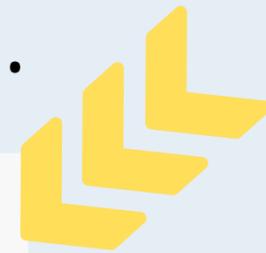
1) Pasting the URL will automatically produce a list of states, FIPS codes and counties below.

2) If the data looks correct, export the sheet to a PDF & include it as an addendum in your application..

Please Note: If you'd like to make any changes or edits to your region of service, there are three options for you.

Want to make changes to your RoS?

Option A: Go back to data.census.gov and redraw your RoS.



The screenshot shows the United States Census Bureau website interface. At the top, there is a search bar and navigation tabs for 'All', 'Tables', 'Maps', and 'Pages'. The 'Maps' tab is selected. On the left, there is a 'Filters' sidebar with '0 Filters' and a 'Find a Filter' section containing categories like 'Codes', 'Geography', 'Surveys', 'Topics', and 'Years'. The main content area displays '5154 Results' and a 'Selection Map' of the United States. Below the map, there is a list of filters with details for each, including the survey name, product code, and topic. A legend for the map is visible at the bottom left, showing 'Selected Geographies' and 'Styles' for State and County. The map itself shows state and county boundaries with a legend indicating 'Selected Geographies' and 'Styles' for State and County. The year 2020 is specified in the legend.

United States Census Bureau

Search [] Advanced Search

All Tables **Maps** Pages

Microdata Help FAQ Feedback

Filters 0 Filters ?

5154 Results

Find a Filter

- Search
- 123 Codes >
- Geography >
- Surveys >
- Topics >
- Years >

5154 Results

View: 10 | 25 | 50 Download Table Data

SELECTION MAP

Decennial Census
P1 | RACE
+ View All 11 Products

American Community Survey
S0101 | AGE AND SEX
+ View All 22 Products

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+ View All 22 Products

American Community Survey
DP03 | SELECTED ECONOMIC CHARACTERISTICS
+ View All 25 Products

Decennial Census

Selection Map

Select Identify Layer Year Basemap Boundaries Notes

LEGEND YEAR: 2020

- Selected Geographies 0

Styles

- State
- County

P1 | 2020 DEC Redistricting Data (PL 94-171) 500 mi

Want to make changes to your RoS?

Option B: You can remove or add counties using the tab entitled *Editable Template*.

The screenshot shows an Excel spreadsheet with a formula bar at the top containing the formula: `=IF(ISBLANK(url),"",IF(ISBLANK(B12),"",ROW(B12)-7))`. The spreadsheet has several tabs: "Background", "URL Mapping Tool", "Editable Template", and "Multiple". The "URL Mapping Tool" tab is active, displaying a URL: https://data.census.gov/cedsci/map?g=0500000US30003,30005,30007,30013,30015,30027,30031,30033,30037,30043,30045,30049,30059,30065,30067,30069,30071,30073,30087,30095,30097,30099,30103,30105,30107,30111&layer=VT_2020_050_00_PY. Below the URL is a note: "Note: To make changes to the county list, edit the FIPS code in url, re-upload the region of service from census.gov, or copy and paste (values only) the below list of counties and states into a Tab entitled 'Rough Draft.'". A reference link is provided: "Reference: 202 State, County, Minor Civil Division, and Incorporated Place FIPS Codes". A table of counties is shown, with columns: No., FIPS, State, County, From States, and Number of Counties. The table lists 30 counties from Montana. A blue box highlights the table, and a yellow circle highlights the "Editable Template" tab in the Excel interface.

No.	FIPS	State	County	From States:	Number of Counties:
5	30003	Montana	Big Horn County	Montana	26
6	30005	Montana	Blaine County		
7	30007	Montana	Broadwater County		
8	30013	Montana	Cascade County		
9	30015	Montana	Chouteau County		
10	30027	Montana	Fergus County		
11	30031	Montana	Gallatin County		
12	30033	Montana	Garfield County		
13	30037	Montana	Golden Valley County		
14	30043	Montana	Jefferson County		
15	30045	Montana	Judith Basin County		
16	30049	Montana	Lewis and Clark County		
17	30059	Montana	Meagher County		
18	30065	Montana	Musselshell County		
19	30067	Montana	Park County		
20	30069	Montana	Petroleum County		
21	30071	Montana	Phillips County		
22	30073	Montana	Pondera County		
23	30087	Montana	Rosebud County		
24	30095	Montana	Stillwater County		
25	30097	Montana	Sweet Grass County		
26	30099	Montana	Teton County		
27	30103	Montana	Treasure County		
28	30105	Montana	Valley County		
29	30107	Montana	Wheatland County		
30	30111	Montana	Yellowstone County		

1) Copy your list of counties, states and FIPS codes from the *URL Mapping Tool sheet*.

2) Select the *Editable Template Sheet*.

Want to make changes to your RoS?

Option B: You can remove or add counties using the tab entitled *Editable Template*

The screenshot shows a spreadsheet with a context menu open over a table. A blue callout bubble with the text "Paste values." points to the "Paste Values" option in the menu. The table has columns for "No.", "State", "County", and "From States".

No.	State	County	From States

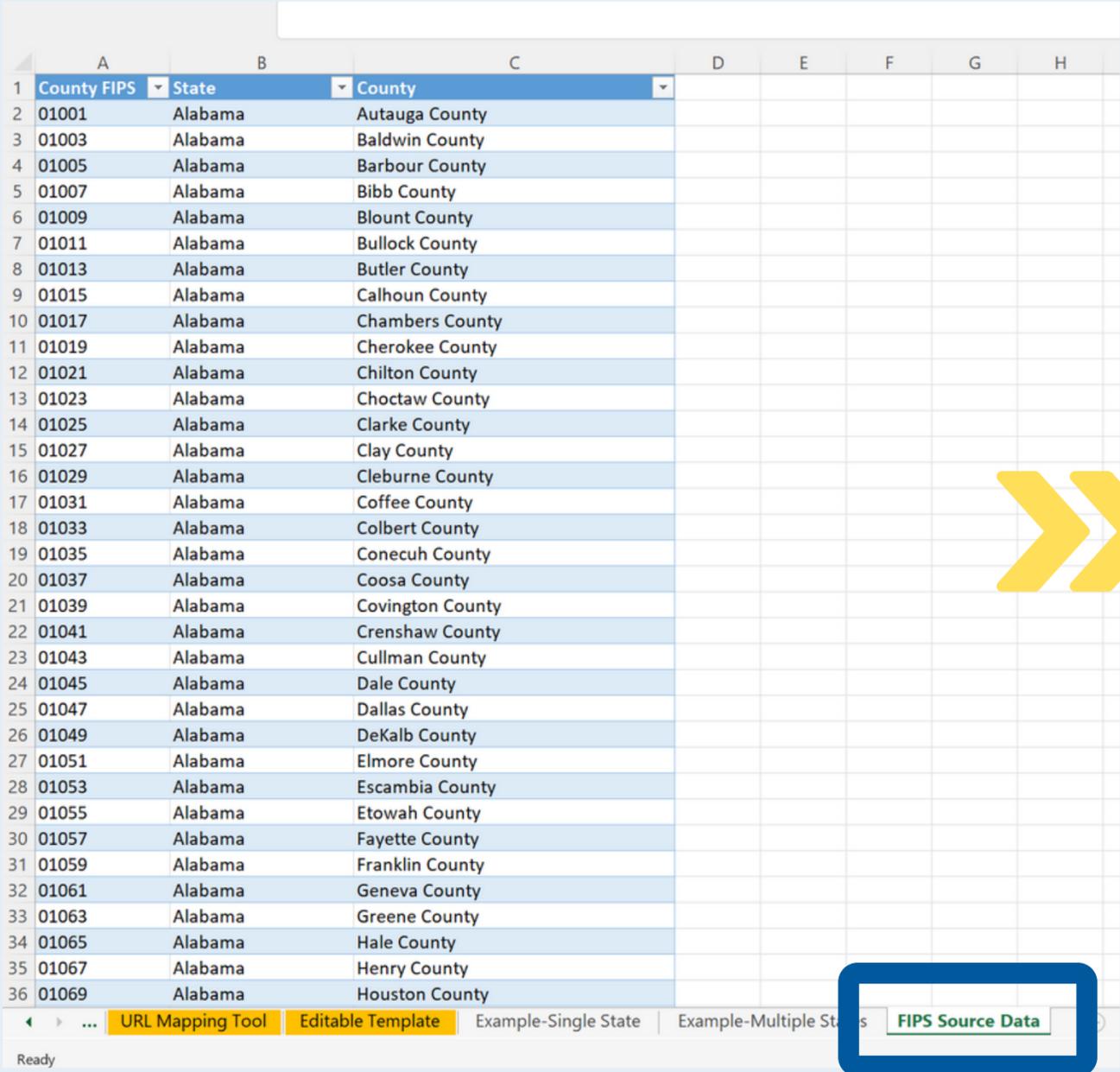


The screenshot shows a spreadsheet with a table of Montana counties. A blue callout bubble with the text "You can then delete, add, or change counties as you see fit." is positioned over the table. The table has columns for "No.", "FIPS", "State", "County", "From States", and "Number of Counties".

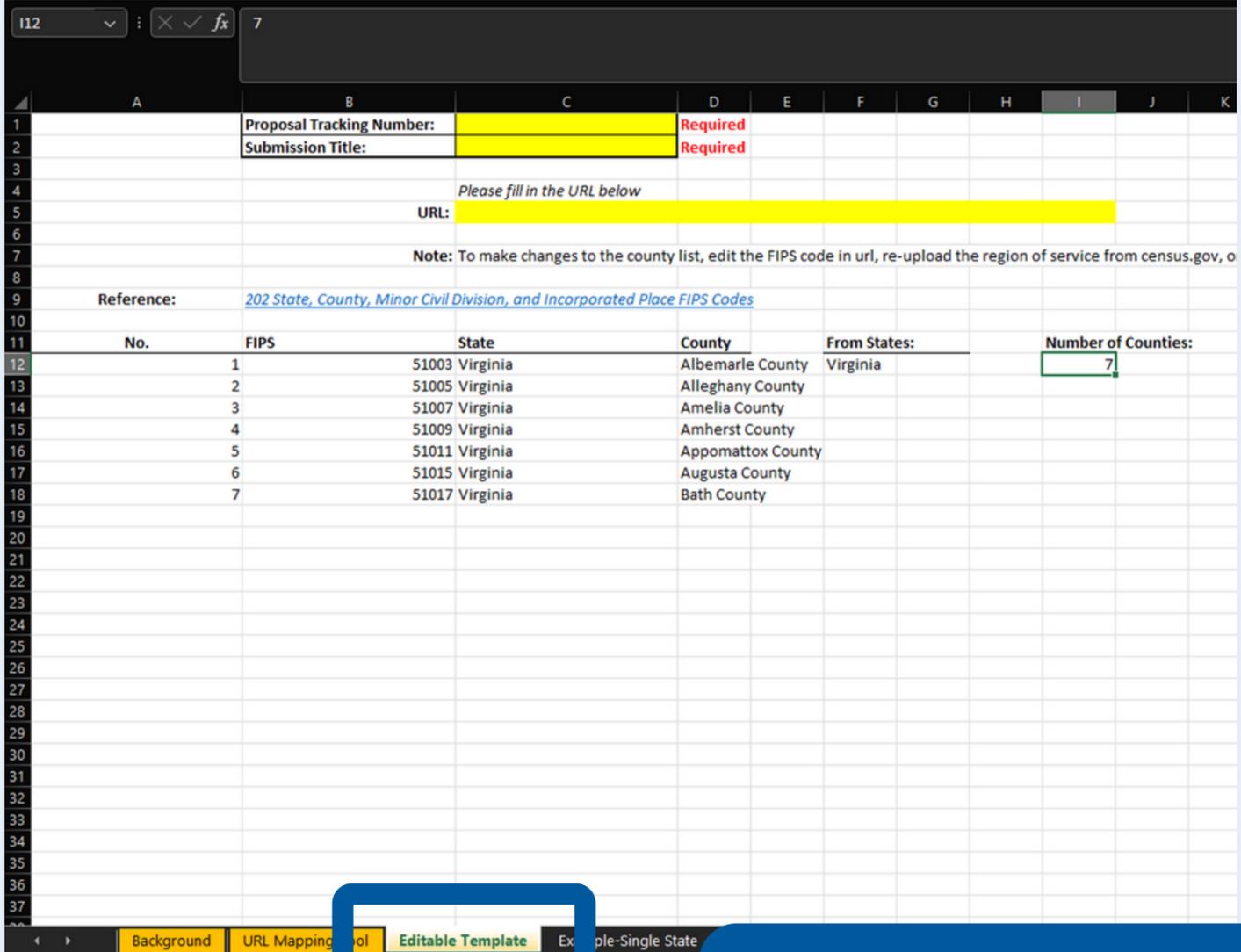
No.	FIPS	State	County	From States	Number of Counties
5	30003	Montana	Big Horn County	Montana	26
6	30005	Montana	Blaine County		
7	30007	Montana	Broadwater County		
8	30013	Montana	Cascade County		
9	30015	Montana	Chouteau County		
10	30027	Montana	Fergus County		
11	30031	Montana	Gallatin County		
12	30033	Montana	Garfield County		
13	30037	Montana	Golden Valley County		
14	30043	Montana	Jefferson County		
15	30045	Montana	Judith Basin County		
16	30049	Montana	Lewis and Clark County		
17	30059	Montana	Meagher County		
18	30065	Montana	Musselshell County		
19	30067	Montana	Park County		
20	30069	Montana	Petroleum County		
21	30071	Montana	Phillips County		
22	30073	Montana	Pondera County		
23	30087	Montana	Rosebud County		
24	30095	Montana	Stillwater County		
25	30097	Montana	Sweet Grass County		
26	30099	Montana	Teton County		
27	30103	Montana	Treasure County		
28	30105	Montana	Valley County		
29	30107	Montana	Wheatland County		
30	30111	Montana	Yellowstone County		

Want to make changes to your RoS?

Option C: You can create your own list of county codes by referring to the county FIPS codes in the *FIPS Source Data* sheet and manually entering counties into the *Editable Template* tab.



County FIPS	State	County
01001	Alabama	Autauga County
01003	Alabama	Baldwin County
01005	Alabama	Barbour County
01007	Alabama	Bibb County
01009	Alabama	Blount County
01011	Alabama	Bullock County
01013	Alabama	Butler County
01015	Alabama	Calhoun County
01017	Alabama	Chambers County
01019	Alabama	Cherokee County
01021	Alabama	Chilton County
01023	Alabama	Choctaw County
01025	Alabama	Clarke County
01027	Alabama	Clay County
01029	Alabama	Cleburne County
01031	Alabama	Coffee County
01033	Alabama	Colbert County
01035	Alabama	Conecuh County
01037	Alabama	Coosa County
01039	Alabama	Covington County
01041	Alabama	Crenshaw County
01043	Alabama	Cullman County
01045	Alabama	Dale County
01047	Alabama	Dallas County
01049	Alabama	DeKalb County
01051	Alabama	Elmore County
01053	Alabama	Escambia County
01055	Alabama	Etowah County
01057	Alabama	Fayette County
01059	Alabama	Franklin County
01061	Alabama	Geneva County
01063	Alabama	Greene County
01065	Alabama	Hale County
01067	Alabama	Henry County
01069	Alabama	Houston County



No.	FIPS	State	County	From States:	Number of Counties:
1	51003	Virginia	Albemarle County	Virginia	7
2	51005	Virginia	Alleghany County		
3	51007	Virginia	Amelia County		
4	51009	Virginia	Amherst County		
5	51011	Virginia	Appomattox County		
6	51015	Virginia	Augusta County		
7	51017	Virginia	Bath County		

Remember to use our format!

Export and you're all set!

The screenshot shows the Microsoft Office ribbon with the 'Export' tab selected. The 'Export' menu is open, and the 'Create Adobe PDF' option is circled with a '2'. A yellow arrow points from the 'Export' menu to a blue callout box. The callout box contains the text: 'Please Note: When exporting, make sure *Editable Template* is in the *Sheets in PDF* column instead of *URL Mapping Tool*.' Below the callout box, a yellow arrow points to the 'Acrobat PDFMaker' dialog box. In the dialog box, the 'Conversion Range' is set to 'Sheet(s)', and the 'URL Mapping Tool' sheet is highlighted in the 'Sheets in PDF' column. The 'Editable Template' sheet is in the 'Sheets in Excel' column. The 'Convert to PDF' button is highlighted with a yellow box, and a yellow arrow points to it from a circle containing the number '3'.

Please Note: When exporting, make sure *Editable Template* is in the *Sheets in PDF* column instead of *URL Mapping Tool*.



NSF's Regional Innovation Engines Program

**If you have any question, please email
engines@nsf.gov**