



NSF's
Regional Innovation
Engines Program



NSF ENGINES

Region of Service Map Builder Guide



Using data.census.gov
Basic Mapping

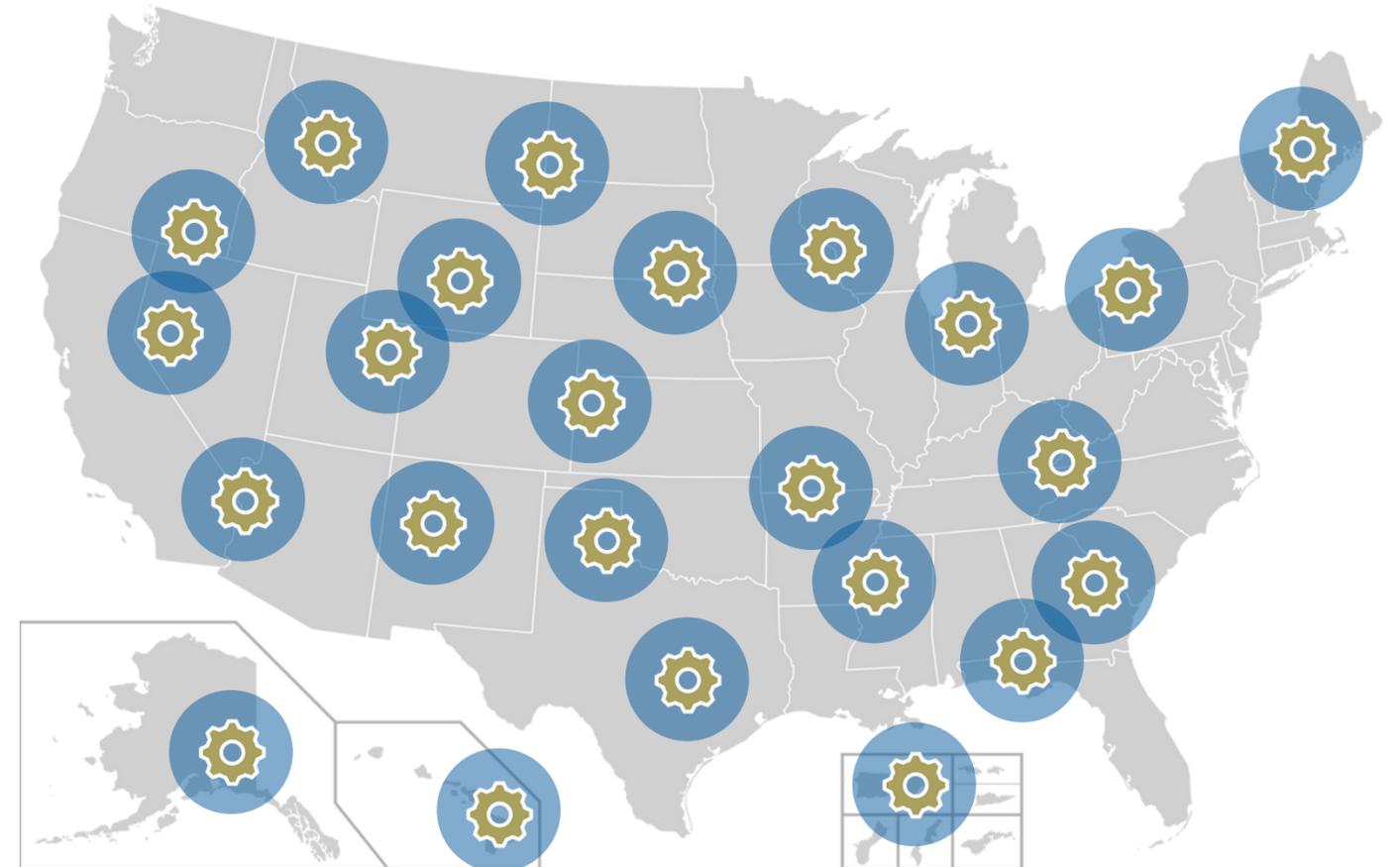
Purpose >>>

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

DPO5 | 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

DPO3 | 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

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

- 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
- 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

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

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

5154 Results 5154

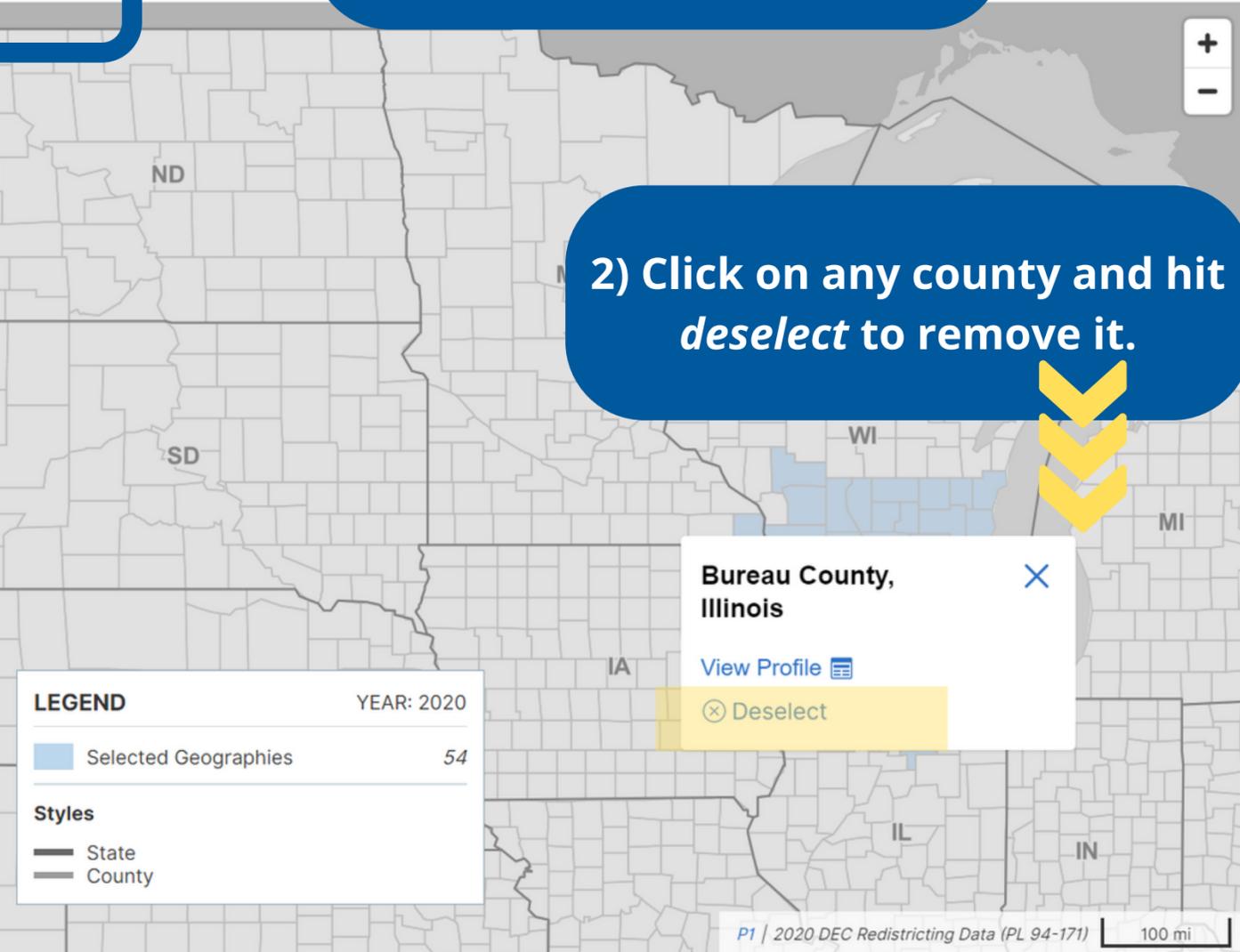
View: 10 | 25 | 50 Download Table Data

SELECTION MAP

- Decennial Census
P1 | RACE
View All 11 Products
- American Community Survey
S0101 | AGE AND SEX
View All 22 Products
- 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 LATINO

Selection Map

- Select**
- Identify
- Clear
- Reset



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

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

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

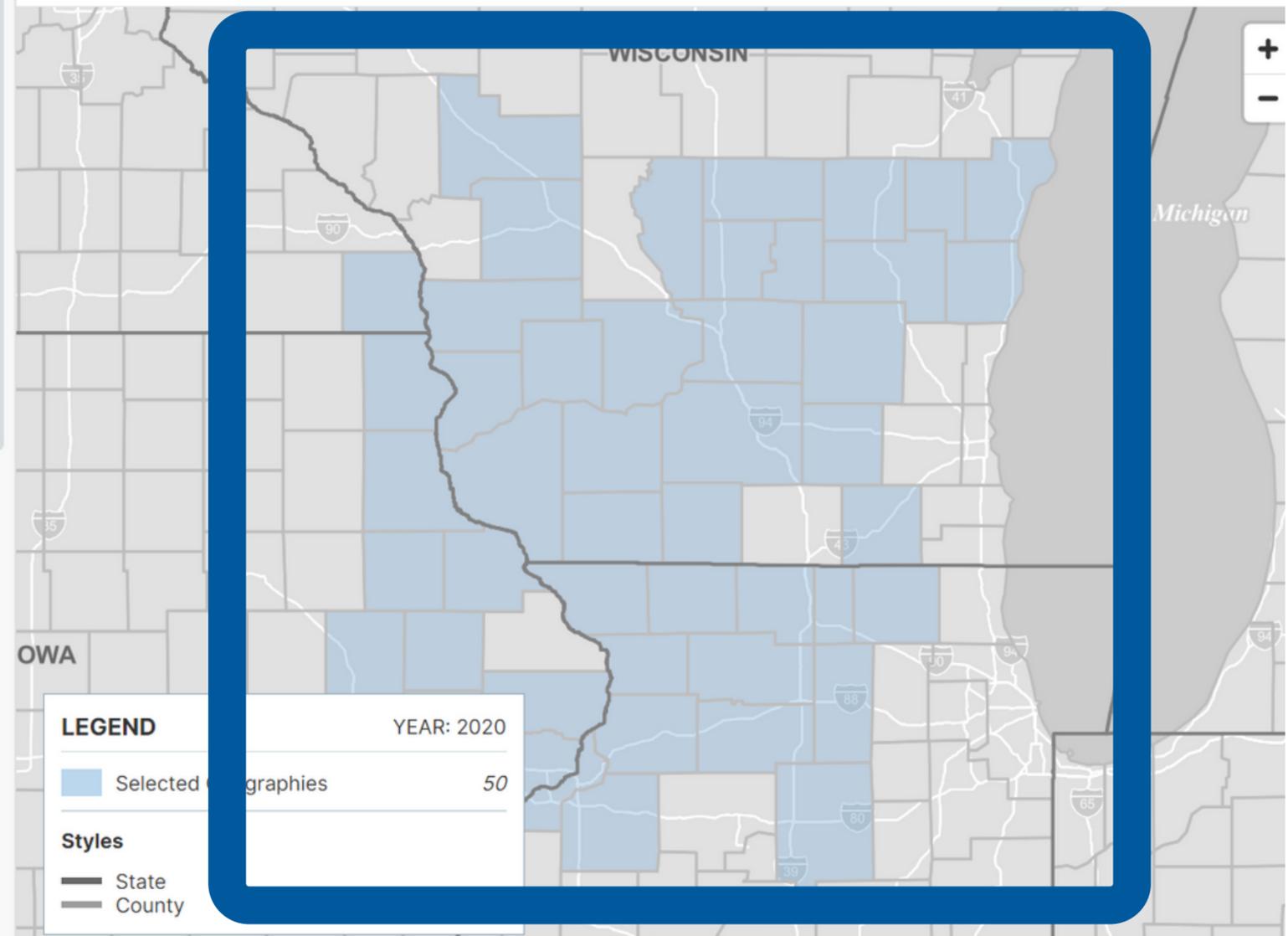
View: 10 | 25 | 50 [Download Table Data](#)

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

- Search
- 123 Codes
- Geography
- Surveys
- Topics

5154 Results

View: 10 | 25 | 50

[Download Table](#)

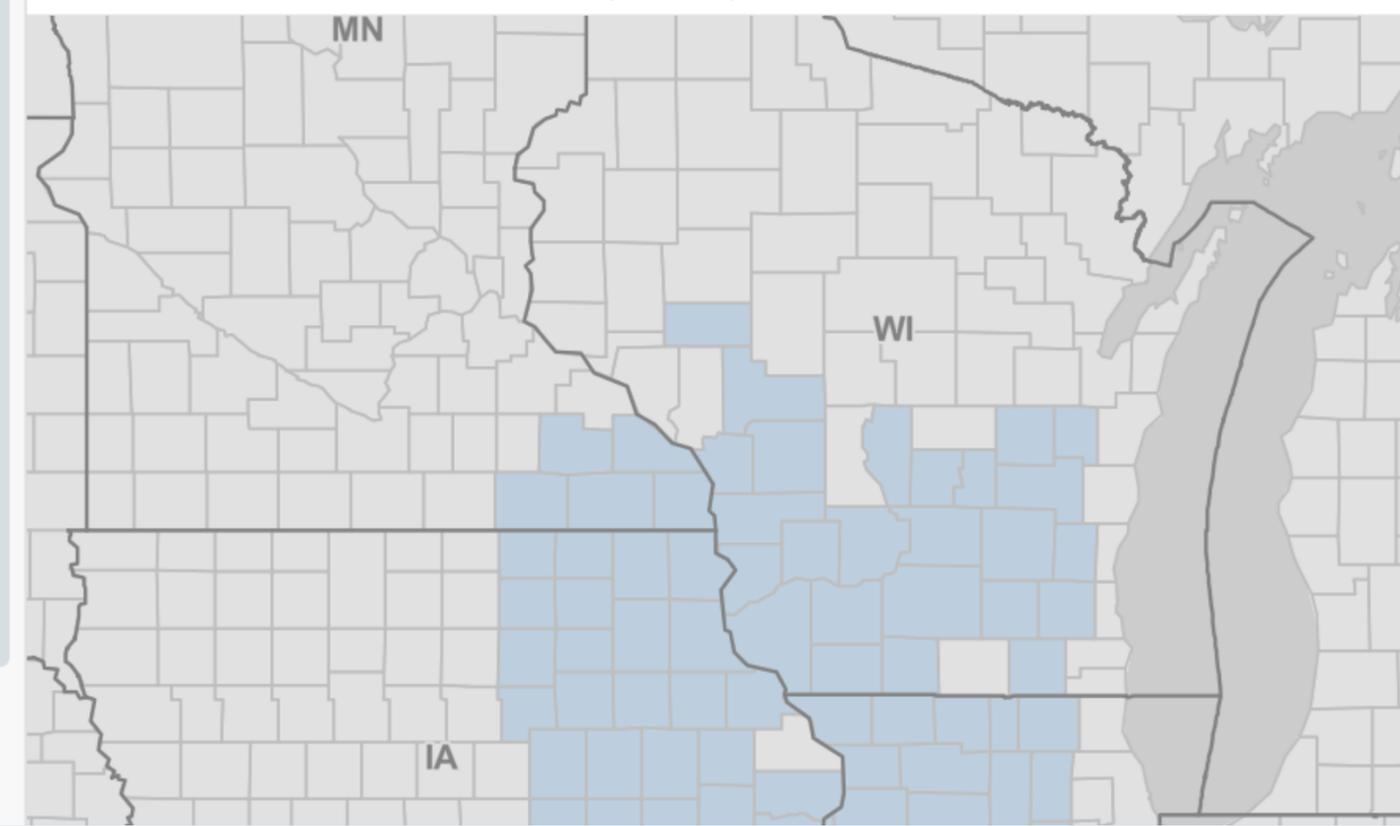
SELECTION MAP

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](#)

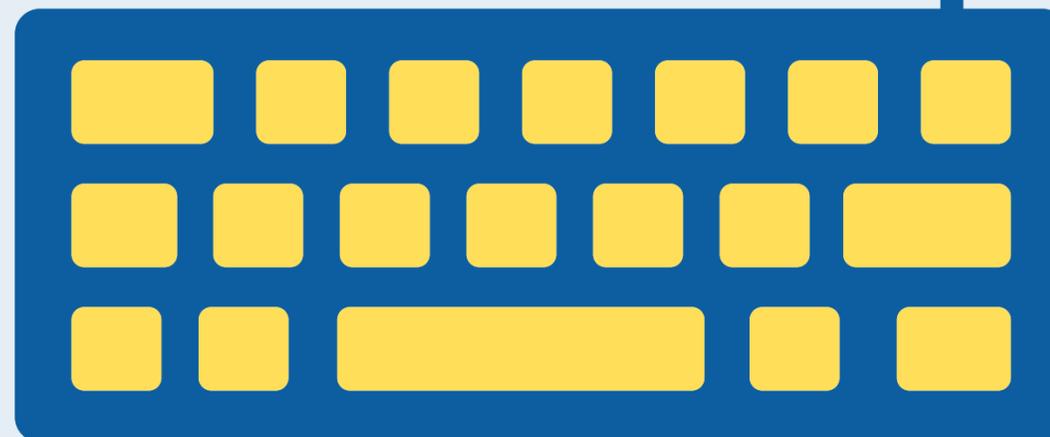
Scroll to the top of the address bar and copy the URL. Remember to copy the entire link.



**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 | | |
| 17 | 17201 | Illinois | Winnebago County | | |
| 18 | 19005 | Iowa | Allamakee County | | |
| 19 | 19043 | Iowa | Cedar County | | |
| 20 | 19055 | Iowa | Clayton County | | |
| 21 | 19061 | Iowa | Clinton County | | |
| 22 | 19103 | Iowa | Delaware County | | |
| 23 | 19105 | Iowa | Dubuque County | | |
| 24 | 19113 | 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 | | |

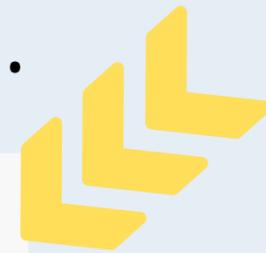
1) Pasting the URL will automatically produce a list of states, FIPS codes and counties below.

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 data.census.gov interface. At the top, there's a search bar and navigation tabs for 'All', 'Tables', 'Maps' (selected), and 'Pages'. On the right, there are links for 'Microdata', 'Help', 'FAQ', and 'Feedback'. The left sidebar shows '0 Filters' and a 'Find a Filter' section with categories like 'Codes', 'Geography', 'Surveys', 'Topics', and 'Years'. The main content area displays '5154 Results' and a 'SELECTION MAP' section. Below this, there are several filter cards for different census products, including 'Decennial Census P1 | RACE', 'American Community Survey S0101 | AGE AND SEX', 'American Community Survey DP05 | ACS DEMOGRAPHIC AND HOUSING ESTIMATES', 'American Community Survey S1901 | INCOME IN THE PAST 12 MONTHS (IN 2021 INFLATION-ADJUSTED DOLLARS)', and 'American Community Survey DP03 | SELECTED ECONOMIC CHARACTERISTICS'. The 'SELECTION MAP' section shows a map of the United States with state and county boundaries. A legend indicates 'Selected Geographies' with a count of 0. The map also includes a 'LEGEND' for 'YEAR: 2020' and 'Styles' for 'State' and 'County' boundaries. At the bottom right, there's a scale bar for 500 miles and a 'PR' label.

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 at the bottom: "Background", "URL Mapping Tool", "Editable Template", and "Multiple". The "URL Mapping Tool" tab is active and contains the following text:

Please fill in the URL below
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

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."

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

| 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*

Paste values.

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

| No. | State | County | From State |
|-----|-------|--------|------------|
|-----|-------|--------|------------|



Please fill in the URL below

URL: _____

Note: To make changes to the county list, edit the FIPS code in url, re-upload the region of service from census.gov, or

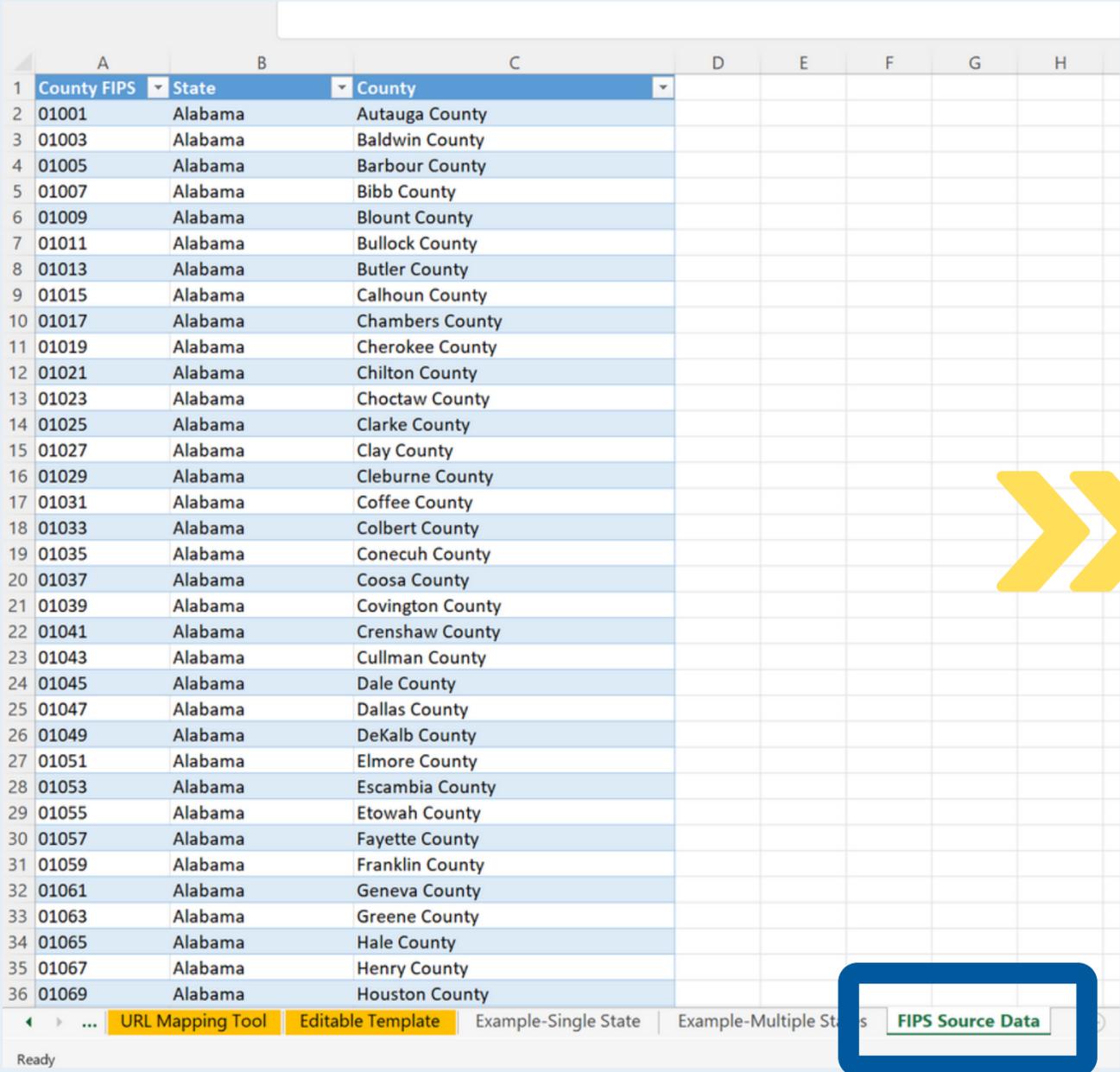
Reference: [202 State, County, Minor Civil Division, and Incorporated Place FIPS Codes](#)

| 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 | | |

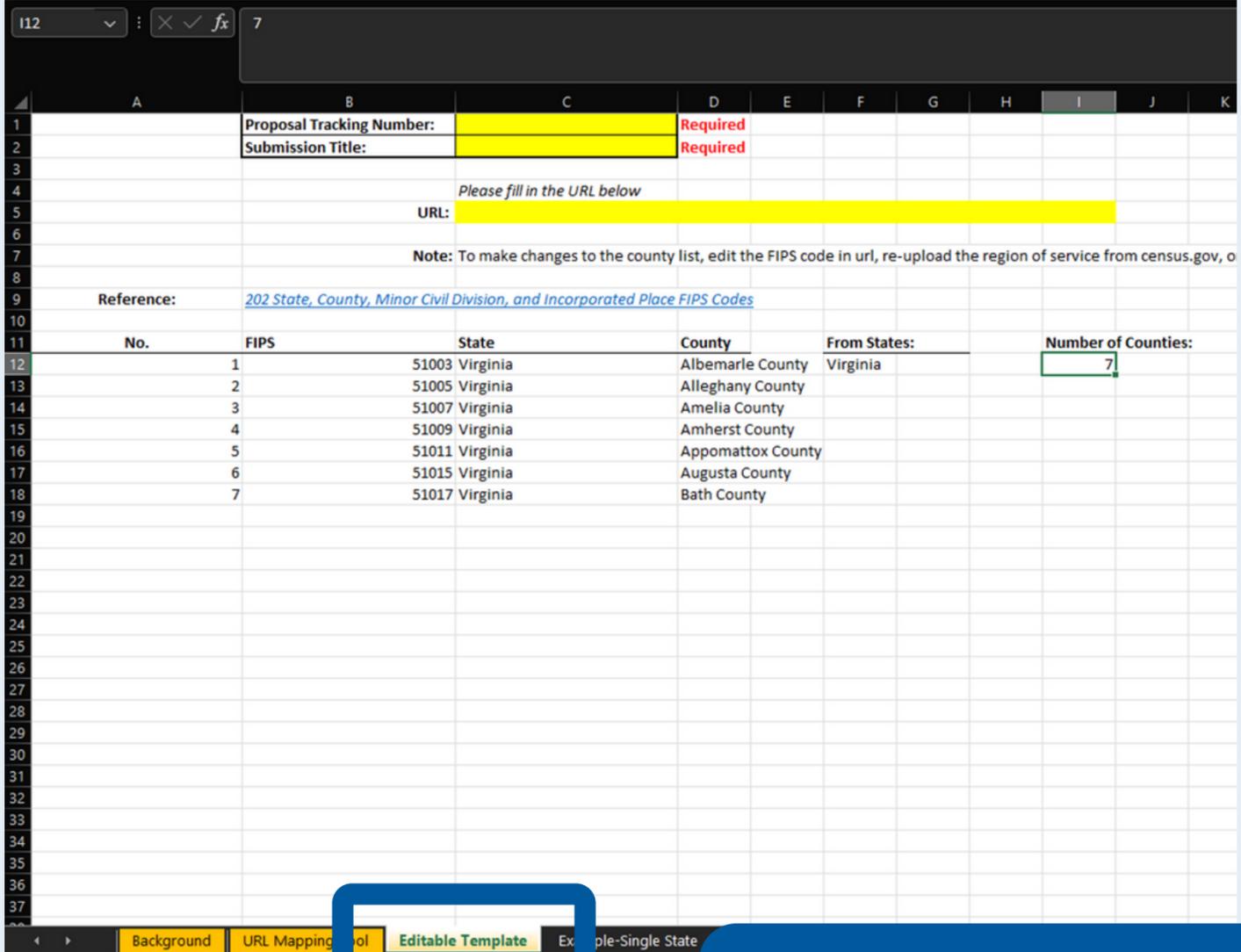
You can then delete, add, or change counties as you see fit.

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 'Export' menu item is circled with a '1'. The 'Create Adobe PDF' dialog box is open, showing the 'Conversion Range' section with 'Sheet(s)' selected. The 'Sheets in Excel' list includes 'Background', 'URL Mapping Tool', 'Editable Template', 'Example-Single State', 'Example-Multiple State', and 'FIPS Source Data'. The 'Sheets in PDF' list includes 'URL Mapping Tool'. The 'Convert to PDF' button is highlighted with a yellow box and circled with a '3'. A yellow arrow points from the 'Convert to PDF' button to the blue callout box.

1

2

3

Create Adobe PDF

Convert to PDF using Adobe Acrobat

- Viewable and printable on most platforms
- Reliable and secure way of exchanging and archiving documents
- Preserves original document look and feel

Conversion Range

Entire Workbook

Selection

Sheet(s)

Sheets in Excel

Background

URL Mapping Tool

Editable Template

Example-Single State

Example-Multiple State

FIPS Source Data

Sheet Selection

Add >

< Remove

Add All >>

Arrange

Move Up

Move Down

Sheets in PDF

URL Mapping Tool

Conversion Options

Actual Size

Fit to paper width

Fit Worksheet to a single page

Convert to PDF

Cancel

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**