

Response Outreach Area Mapper (ROAM) Frequently Asked Questions (FAQs)

www.census.gov/roam

Background Information FAQs

Q: Why was ROAM created?

A: This application was developed to make hard-to-survey areas easier to identify and to provide a socioeconomic and demographic profile of these areas using American Community Survey (ACS) estimates available in the Planning Database. You can learn more about the data on the Census Bureau's [Planning Database webpage](#). Learning about each hard-to-survey area allows the Census Bureau to create a tailored communication and partnership campaign, and to plan for field resources including hiring staff with language skills. These and other efforts can improve response rates.

Q: What is ROAM?

ROAM is a web mapping application that shows the Low Response Score (LRS) by census tract for the country and reveals other neighborhood characteristics found in the Planning Database. ROAM provides access to a subset of Planning Database information through a web mapping application and allows you to download up to 5,000 data records from the application in a single transaction.

Q: What is the Low Response Score?

A: The Low Response Score (LRS) is a metric developed by the Census Bureau to classify geographic areas according to their propensity to self-respond in surveys and censuses. Simply, the LRS is the predicted mail non-response rate. The score is updated yearly and included in the Planning Database. The higher the LRS value, the harder-to-count that area is.

Q: How is the Low Response Score calculated?

A: The Low Response Score (LRS) is calculated using the Ordinary Least Squares (OLS) regression model with a set of characteristics available in the Planning Database. In order to predict areas that are less likely to respond, the return rate is subtracted from 100 and used as the dependent variable in calculating the LRS. In other words, the LRS, or fitted value from the OLS regression, is synonymous with "predicted mail non-response rate." For more information, including more methodology details, please see "[The Low Response Score \(LRS\): A Metric to Locate, Predict, and Manage Hard-to-Survey Populations.](#)"

Q: Why do some census tracts have a Low Response Score that is "Not calculated"?

A: A Low Response Score is not calculated when a census tract: 1) contains zero housing units, 2) falls below a minimum threshold for qualifying addresses in the 2010 Census mailback areas, 3) has its 2013-2017 ACS 5-year estimates suppressed to avoid data disclosure, or 4) experiences a geographic boundary change between its 2010 Census geography and 2017 geography for which the 2013-2017 ACS 5-year estimates are based, making it non-comparable.

Q: Why is the Low Response Score for Puerto Rico always “Not calculated”?

A: The American Community Survey does collect and disseminate data for Puerto Rico so those values are included in the Planning Database. However, in the Planning Database, the Low Response Score is not included for census tracts in Puerto Rico. The predictive model of mail return behavior used for the contiguous United States, Alaska, and Hawaii was not highly predictive of mail return behavior when applied to Puerto Rico.

Q: What levels of geography get a Low Response Score?

A: Currently, the Low Response Score is calculated at two levels of geography—census tract and block group. At this time, ROAM only contains the census tract-level data. It was decided that ROAM would be developed with census tracts as a base because census tracts are more likely to meet the minimum household count thresholds required to calculate a Low Response Score and because there are fewer instances of ACS estimate suppression to avoid data disclosure at the census tract level. You can download either level of geography’s data from the [Planning Database webpage](#).

Q: Can I aggregate the Low Response Score to a different level of geography?

A: The Low Response Score should NOT be aggregated (i.e., summed or averaged) to different geographies than it is calculated. The Low Response Score is based on a linear regression model that utilizes multiple characteristics of a given census tract or block group to predict mail non-return rates for that particular geography. Even though census tracts nest within a county, you should not sum or average the Low Response Score across all census tracts in a county to arrive at a county-level Low Response Score. Separate models would need to be developed for other levels of geography (e.g., county, state).

Q: Where can I find Low Response Score data?

A: Low Response Score data is in the Planning Database. You can access the Planning Database and documentation from the [Planning Database webpage](#).

Q: What is the Planning Database? Where can I find more information about it?

A: The Planning Database exists to plan field activities and for research purposes. The Planning Database includes the Low Response Score, 2010 Census operational data, and select American Community Survey (ACS) estimates. In its raw form, the Planning Database can be used in many ways, including the following:

- Identifying areas where special outreach and promotion efforts could be considered.
- Linking spatial map data files to create thematic maps.
- Generating reports, cross tabulations, and simple analyses.
- Planning recruitment activities.

To learn more, you can access the Planning Database and documentation from the [Planning Database webpage](#).

Q: What is the American Community Survey? Where can I find more information about it?

A: The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about our nation and its people. More information on the ACS can be found on the [American Community Survey webpage](#).

Q: Are there more ACS 5-year estimates associated with the Low Response Score than are included in the application?

A: Yes, there are more ACS 5-year estimates in the Planning Database than are included in ROAM. You can access and download the Planning Database from the [Planning Database webpage](#) if you are interested in the full dataset.

Q: What is Margin of Error?

A: Margin of Error (MOE) is a measure of the possible variation of an estimate. MOEs are provided for every American Community Survey (ACS) estimate in the same unit of measure as their respective estimate. At a given confidence level, the estimate and the actual value will differ by no more than the value of the MOE. The Census Bureau standard is the 90% confidence level. You can learn more about this concept by referencing the [Using American Community Survey \(ACS\) Estimates and Margin of Error presentation](#).

Q: How is the Margin of Error (MOE) calculated in the Planning Database?

A: The MOE for any estimate needs to be considered when using any single estimate, as it provides the best indicator of the variability across units within the estimate. There are various accepted formulas for calculating MOEs. An advisory group in the development of the Census Tract Planning Database decided to use the formula noted in [A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know](#) for calculating MOEs from grouped summary data.

Using the Application FAQs

Q: What is the best resource for learning how to use ROAM?

A: Please refer to the “User Guide” on www.census.gov/roam.

Q: Where can I find a list of the variables and what each one means?

A: Please refer to the “Data Dictionary” on www.census.gov/roam.

Q: Can I access the spatial data used to create the web map?

A: TIGER/Line Shapefiles and related documentation can be found on the [TIGER/Line Shapefiles webpage](#). The Cartographic Boundary Shapefiles and related documentation can be found on the [Cartographic Boundary Shapefiles webpage](#). Both of these shapefile sources were used to develop and publish the REST Services that support ROAM. If you are developing your own web-based application and would like to integrate our data into your own GIS or custom

web-based application, you may do so by visiting the “ROAM Rest Services” section of www.census.gov/roam.

Q: Can I add my own spatial data layers to ROAM?

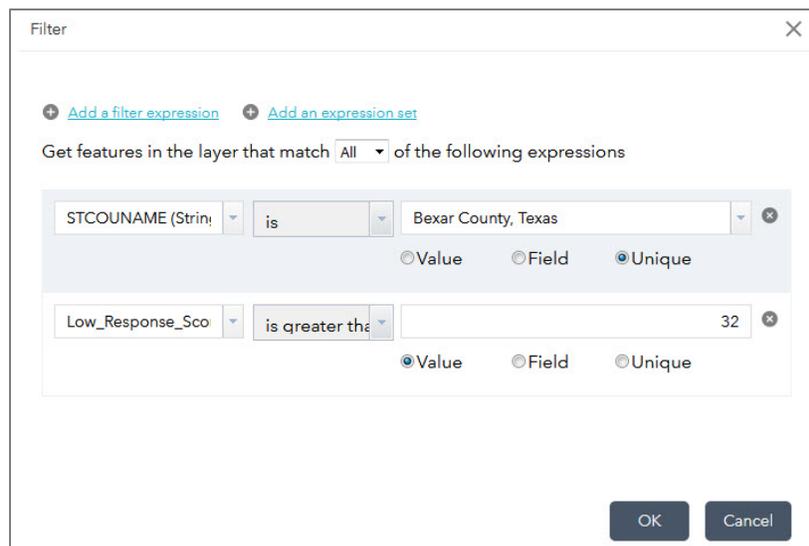
A: You can temporarily add layers to the map. They will not be saved to the map for next time. Use the “Add Data” button under the search box. You can add data layers searchable from the Add Data “Search” tab or you can add a pre-existing web service from the Add Data “URL” tab. For example, you can add the transportation layer from TIGERweb by pointing to <https://tigerweb.geo.census.gov/arcgis/rest/services/TIGERweb/Transportation/MapServer>. Other TIGERweb REST Services are available [here](#). See Section 5.8, *Add Data* in the User Guide on www.census.gov/roam for more information.

Q: What if I turned on a layer in the Layer List by clicking the checkbox and cannot see it in the map?

A: Some layers do not display in the map until you are zoomed in to a specific extent. If you turn on a layer, zoom in further until you see it in the map area.

Q: Can I search for census tracts that meet certain criteria in ROAM?

A: Yes. You can search for census tracts in the ROAM Data Table that meet a certain set of criteria based on any of the data available in the Data Table. Let’s say you want to select all census tracts in Bexar County, Texas that have a Low Response Score greater than 32. You can create a filter expression using the Filter option on the Data Table that will return the 23 census tracts that meet that criteria:



Q: Is there a specific web browser I should use to access ROAM?

A: No. ROAM should be functional in most common web browsers and on many mobile devices.

Q: Can I download or print the map?

A: Unfortunately, there is not a pre-formatted print feature directly in ROAM at this time. However, you can use your device's print screen or screenshot functionality. You can also use your web browser's File menu (Print option) Print functionality to print to a printer or print to a PDF document. The process to save a map will vary depending on the browser.

Q: Can I share the map via URL?

A: Yes. You can share a URL generated within ROAM with other users to allow other users to see the same map extent you are interested in sharing with them. See Section 5.12, *Share* in the User Guide on www.census.gov/roam for more information.

Q: Can I download data from the ROAM Data Table?

A: Yes. You can download contents of the Data Table into .csv format. However, there is a 5,000 record limit per download. All columns that exist in the Data Table will download whether or not you have them hidden in the ROAM Data Table interface. You can limit the number of records in the Data Table by using the Filter option. If you need to download more than 5,000 total records, you can create multiple different filters using the Filter option to restrict your record count below 5,000 records, export/save the results, and then copy and paste your data back together using a different piece of desktop software that can read .csv files. You can also go directly to the [Planning Database webpage](#) and download the full dataset outside of ROAM.

Q: Why am I experiencing performance problems?

A: ROAM should be responsive, but sometimes a server may experience slowness due to large number of users or other unexpected problems. Our servers are monitored, and we work to resolve any issues in a timely manner.

Q: How do I find a census tract of interest to me on the map?

A: If you know the "GEOID" of the census tract as identified by the "GEOID" column in the Data Table, the best way is to type that into the search box. It will zoom into the location. You can also use the Filter option of the Data Table to locate the record for that census tract. If you double click on the record in the Data Table, it will zoom you to the census tract.

Q: Why are Minor Civil Divisions only shown in certain states?

A: Minor Civil Divisions (MCDs) are shown in the following states in which some or all MCDs function as general-purpose governmental units: Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Q: What is 2020 Census Audience Segmentation data?

A: Tract segments are groups of census tracts with similar predicted self-response behavior and similar demographic variables associated with self-response. Final tract segments were selected for their distinctive patterns of media consumption and distribution of census mindsets. The eight 2020 Census tract segments in the U.S. range from highly likely to respond to the census to unlikely to respond. In-depth descriptions of each segment are available on the [2020 Census webpage](#).