

Federal Statistical Research Data Center

Disclosure Avoidance Review Procedures:

A Handbook for Researchers

2024

Table of Contents

THE DISCLOSURE REVIEW PROCESS	3
A. General Information to Consider Before Requesting the Release of Results	3
B. Timeline to Consider.....	4
C. Required disclaimer and DRB Approval Numbers.....	4
ROLES AND RESPONSIBILITIES	5
A. Researchers	5
B. Principal Investigator (PI).....	5
C. FSRDC Administrators (RDCA)	5
D. Disclosure Avoidance Officers (DAOs)	5
E. The Disclosure Review Board (DRB)	5
PREPARING THE DISCLOSURE AVOIDANCE REVIEW REQUEST	5
A. Quantitative Results	6
B. Sign and Significance Results.....	7
C. Research Notes and Qualitative Results	7
D. Program Releases.....	7
E. Transferring Programs to Another Project.....	9
F. Releasing Social Security Administration Output	9
G. Complete Requests.....	10
THE DISCLOSURE REVIEW BOARD (DRB).....	10
REQUESTING OUTPUT FOR PARTNERING AGENCY DATA PROJECTS	10
OPTIONS FOR DISCUSSION OF SIGN AND SIGNIFICANCE.....	11
A. After release of Sign and Significance results	11
B. Communication Between RDCs	11
Appendix A: Python Rounder Tutorial.....	12
Appendix B: List of Disclosure Resources	13
A. rdcdoc.....	13
B. Output Rounding Program.....	13
C. DAEcon.....	13
D. Stata .ado.....	13

Version	Date	Changes
1.0.0	2020/04/01	Baseline
2.0.0	2021/02/02	<ul style="list-style-type: none"> • Clarify Language throughout. • Section III: Added summary at beginning • Section III.B & C added sign and significance results instructions • Relocated Disclosure Statement from Section VI to beginning. • Updated Request Memo
3.0.0	2022/09/29	<ul style="list-style-type: none"> • Updated Request Memo • Added SSA-OIF and instructions • Clarified language throughout • Updated Sign and Significance and Research Notes policy
4.0.0	2023/09/15	<ul style="list-style-type: none"> • General Reorganization • Corrected Errors • Add Program/Code Release Checklist • Add CUI Label Policy • Update Disclaimer
5.0.0	2024/09/15	<ul style="list-style-type: none"> • Removed memos for version control • Updated CUI language • Corrected errors • Added partner agency procedure • Guidance for tracking samples

THE DISCLOSURE REVIEW PROCESS

FSRDC researchers must not discuss information about individual respondents, ever. Also, the presence or absence of a particular respondent (e.g., a firm, an individual) in a survey or data sample cannot be revealed. This is the single most important data stewardship requirement at the Census Bureau. Respondent information is protected by Title 13 law.

Researchers must not discuss specific results that have not been cleared—in your research papers or presentations; via e-mail, phone, or fax; or in casual conversation—with anyone, including with approved project researchers when they are outside secure Census Bureau facilities. This includes discussion with Special Sworn Status team members when you are not in the FSRDC.

In addition to avoiding the actual disclosure of confidential information, the Census Bureau also strives to avoid the perception of disclosure. If respondents perceive that their confidential data are being or will be disclosed (whether or not that is actually the case), they will be less likely to participate in Census Bureau data collections

The disclosure avoidance (DA) review process is required before ANY output (e.g., statistical outputs, notes, programs, and qualitative summaries) may be removed from a Federal Statistical Research Data Center (FSRDC). The process requires researchers to prepare a disclosure avoidance review request, RDC Administrators (RDCA) to review and approve the request, and a Disclosure Avoidance Officer (DAO) to review and approve the request or bring it before the Disclosure Review Board (DRB). Upon approval by the DAO or the DRB, the files will be released electronically to the researcher. This document explains disclosure avoidance review procedures for Census Bureau data products in the FSRDCs.

This handbook describes FSRDC-specific disclosure avoidance review procedures, but it does not outline all disclosure-related requirements covered under Census Bureau guidelines. For more information on such guidelines consult the FSRDC Disclosure Avoidance Methods Handbook. You may also consult with your administrator.

A. General Information to Consider Before Requesting the Release of Results

- It takes time to conduct disclosure analysis, and you must account for this in your project planning. Neither the RDCA nor the DAO will make rushed clearance decisions for events such as conference deadlines or the end of a project. Inform your RDCA as soon as you know you will need the release of research output and the approximate date you will need the output.
- Results must fall within the scope of the approved project. Results will not be released if they are determined to be outside the scope of the approved project topic.
- Requests for releasing "intermediate output" (i.e., output that you know will not appear in a publication) are **STRONGLY DISCOURAGED**. Since intermediate output often consists of detailed tables of preliminary descriptive statistics, or large numbers of similarly specified regression models, releasing this type of output can limit what is able to be released in future requests (for example, see the discussion in the FSRDC Disclosure Avoidance Methods Handbook about "implicit samples" and "volume of estimates").
- Emphasize model output rather than tabular output. Tabular output typically consists of descriptive statistics (e.g., counts, means) of the samples used in the models. Large tabulations that were not explicitly described in the approved proposal will not be approved for release.
- You must provide the appropriate documentation and prepare files as described in section III "Preparing Files for Disclosure Avoidance Review." Inappropriately documented or formatted requests will not be approved by the RDCA.

B. Timeline to Consider

- Plan to meet as early as possible with your RDCA and/or the reviewer of your clearance request. This will minimize learning time on both sides, avoid costly misunderstandings, and speed approval of your clearance requests.
- Allow for at least 8 weeks from the date of submission to the DAO to receipt of the final cleared file(s) for a typical release of output. Properly documented and formatted files can help to minimize RDCA review time and expedite approval by the DAO.
- Allow at least 1 week for receipt of cleared files for a typical release of programs or sign and significance results.
- Review times can be longer in certain cases, such as if the DAO determines that output has to go to the Census Bureau's Disclosure Review Board (DRB). Examples of output that often need to go before the DRB include requests for large amounts of output, estimates that comprise partial states, the presence of small cells, and estimates derived from unusual estimation methods.

C. Required disclaimer and DRB Approval Numbers

You must use the below disclaimer on all research output (including papers, articles, reports, and public presentations) that indicates that your views/results do not represent the opinions or views of the Census Bureau. Your research products are not considered official Census Bureau data products since they do not undergo an official Census Bureau review to ensure that they meet certain Bureau quality standards. The disclaimer may be modified to fit the number of authors and to include disclaimer information regarding other organizations.

DISCLAIMER: Any views expressed are those of the authors and not those of the U.S. Census Bureau. The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product. This research was performed at a Federal Statistical Research Data Center under FSRDC Project Number PPPP. (CBDRB-FYyy-Ppppp-Rrrrr)

The DRB Approval Number or DRB Delegated Authority number to be used in the disclaimer will be provided to you in the email containing your cleared results. If a DAO has used their delegated authority to approve your research output (most cases) then you will receive a number based the project number and request number submitted to the CED Project Management System (CMS). If your research output requires review by the DRB and the DRB approves your output then you will receive a DRB Approval Number. **Note, that if your research output contains results from multiple disclosure avoidance review requests, the disclaimer must include the approval numbers from all of those requests.**¹

DRB Approval Number Format
CBDRB-FY[##]-[#####]
Example: CBDRB-FY20- 0001

CMS/Delegated Authority Number
CBDRB-FY[##]-P[#####]-R[#####]
Example: CBDRB-FY20-P1234-R0001
P = Project, R= Request

¹ Please do not include approval numbers from other disclosure requests whose results are not in that specific research output.

ROLES AND RESPONSIBILITIES

This section discusses the disclosure avoidance roles of the various parties—the researcher, the Principal Investigator, the RDC Administrator, the Disclosure Avoidance Officer, and the Disclosure Review Board.

A. Researchers

- Complete the Clearance Request Memo in its entirety (see Appendix B for the location of the memo template).
- Provide properly documented programs, descriptions of data files, research output files, and disclosure analysis files.
- Prepare the disclosure avoidance supporting statistics for underlying samples used in the preparation of estimates. Every estimate has an underlying microdata sample used to create it. Disclosure avoidance statistics must be documented for each of these underlying samples. See the Disclosure Avoidance Methods Handbook “Section III Samples and Implicit Samples” for a discussion of what constitutes samples requiring disclosure statistics.
- Conduct the initial review of the output to ensure that all the parameters being requested meet the standard rules for release of the output.

B. Principal Investigator (PI)

- Must concur with the disclosure avoidance review request.

C. FSRDC Administrators (RDCA)

- Assist the researcher in understanding the rules.
- Ensure that the documentation is complete, formatted appropriately, and ready for review.
- Analyze the output to be released and the supporting documentation to ensure that there are no potential risks from releasing the output.
- Approve the output for release and advance the request to the Disclosure Avoidance Officer for further review and approval.

D. Disclosure Avoidance Officers (DAOs)

- Review and often make final approvals of release requests.
- Assist and inform the reviewers and administrators in their planning for complicated clearance requests.
- Identify output that does not meet disclosure avoidance criteria or is otherwise ineligible for approval at the level of a DAO.
- Take requests to the Disclosure Review Board as appropriate.

E. The Disclosure Review Board (DRB)

- Sets the standard disclosure avoidance rules and policies followed by FSRDC researchers and DAOs.
- Makes final decisions on disclosure avoidance review requests that the DAO is unable to approve.

PREPARING THE DISCLOSURE AVOIDANCE REVIEW REQUEST

Disclosure requirements vary depending upon if the output represents quantitative results, sign and significance results, research notes, or program code. All disclosure avoidance review requests, regardless of type, require that researchers create a directory in the “root/projects/disclosure” folder. For specific details about what should be put in that directory, see the section below that pertains to the specific type

of output to be released. Copies of analytical data sets are not necessary and should not be included in the disclosure directory.

For all files, researchers should include the appropriate Controlled Unclassified Information (CUI) labels. Output files, disclosure stats, and request memos that contain sensitive information should include a CUI suffix as part of the file name and the appropriate header within the file. Specifically:

- If the file contains Title 13 data only, the appropriate filename suffix should be “_T13,” as in “ModelResults_T13.xlsx.” The appropriate header within the file should be “CUI//SP-CENS. Disclosure Prohibited –T13 U.S.C.”
- If the file also contains Title 26 data, the appropriate filename suffix should be “_T13T26,” as in “ModelResults_T13T26.xlsx.” The appropriate header within the file should be “CUI//SP-CENS. Disclosure Prohibited –T13 U.S.C., Federal Tax Information Protected by Title 26 U.S.C.”

For Microsoft Office and LibreOffice documents, the expected label can be a header. For spreadsheet files with multiple sheets, the CUI label should appear on every sheet. For files—such as .csv or text files—where a header is not feasible, the CUI label should be included at the beginning of the file (e.g., as the first cell of a .csv).

For additional guidance and file templates, see [data/support/researcher/docs](#).

The threat of disclosure risk from advanced attacks, like a database reconstruction attack, goes up considerably as more output is released from the same sample of microdata. To help researchers track samples across disclosure requests and to keep a running tally of the total estimate count and the accumulated 30:1 ratio for each sample in the project, a tracking sheet is available at [/data/support/researcher/docs/](#). The project team should place this tracker in the main disclosure folder and update it for each new disclosure request generated. Samples should be named in a way that makes it easy to follow them across research streams and disclosure requests. The second sheet of the tracker should be used to accumulate the estimate count and 30:1 ratio for each research sample across all requests, to help verify whether the cumulative output is approaching the limits where DRB approval is required. Researchers are responsible for understanding how their samples relate to those used by others in the same project, and for jointly keeping the output tracker up to date.

A. Quantitative Results

Every disclosure avoidance review request for quantitative results requires that researchers prepare their directory workspace, finalize their results files, complete the clearance request memo describing the request, and generate disclosure avoidance statistics. The directory structure must follow the scheme below. The Disclosure Avoidance Methods Handbook provides detailed information on preparing these items.

1. “root/projects/disclosure” – the main disclosure directory in the project space on the IRE server
2. “root/projects/disclosure/YYYYMMDD/” – A directory containing all the disclosure materials for the current request with date in YYYYMMDD format (e.g., 20200414).
3. “root/projects/disclosure/YYYYMMDD/output” – This directory should ONLY contain the final results files you intend to have emailed to you. See the Disclosure Avoidance Methods Handbook Section II Types of Output” for descriptions of common types of output and acceptable file formats.
4. “root/projects/disclosure/YYYYMMDD/support” – This directory should contain materials demonstrating that the requested output meets disclosure avoidance requirements. It should include

- a. the clearance request memo – see Appendix A for the memo template;
- b. the disclosure statistics that demonstrate the underlying data samples are sufficiently large to support release of the estimates, thus protecting the confidentiality of information for an individual, household, firm, or establishment. See the Disclosure Avoidance Methods Handbook. Most output will require disclosure statistics described in Section IV Legacy Methods for a description of disclosure statistics;
- c. “root/projects/disclosure/YYYYMMDD/support/rounding” – This directory contains the results of a python program demonstrating that the requested output meets rounding rules (this folder should be created as a part of the DRB Rounder Tutorial – see Appendix A);
- d. all programs used to generate samples and produce output in this directory.

B. Sign and Significance Results

During the course of a project, researchers may want to release key results to obtain preliminary feedback, expedite the review process, or minimize the total volume of output released. In these instances, researchers have the option to submit a disclosure request for only the sign and significance of results.

The Disclosure Avoidance Methods Handbook provides detailed information on preparing these types of requests. Researchers should follow the directory structure below.

1. “root/projects/disclosure” – the main disclosure directory in the project space on the IRE server
2. “root/projects/disclosure/YYYYMMDD/” – A directory containing all the disclosure materials for the current request with date in YYYYMMDD format (e.g., 20200414).
3. “root/projects/disclosure/YYYYMMDD/output” – This directory should ONLY contain the final results files you intend to have emailed to you. See the Disclosure Avoidance Methods Handbook Section II Types of Output” for descriptions of common types of output and acceptable file formats.
4. “root/projects/disclosure/YYYYMMDD/support” – For sign and significance results, this directory should contain explanatory materials and, if applicable, documentation demonstrating that the request output meets disclosure avoidance requirements. It should at minimum include
 - a. the Sign and Significance Disclosure Request Memo – see Appendix B for the location of the memo template;
 - b. sample counts (i.e., counts of unique persons, households, or firms) that demonstrate the underlying analytical samples are sufficiently large to support release of the estimates, thus protecting the confidentiality of information for an individual, household, or firm. See the Disclosure Avoidance Methods Handbook for more information;

C. Research Notes and Qualitative Results

Researchers may want to release non-numerical notes on their project or results to document key assumptions of their analysis or variable definitions. Research notes include, but are not limited to, sample definitions, notes written during the research process that need to be shared or notes about an analysis conducted. Note that anything that can be written outside of the FSRDC using information gained from public knowledge or publicly available data (e.g., a description of the type of model used in an analysis) should not go through disclosure avoidance review. Narratives or descriptions of analysis may require simple sample counts or more detailed disclosure stats depending on the content of the language. The imprecise nature of research notes requires a full review and should be submitted as a standard disclosure request.

D. Program Releases

For program releases, researchers should follow the directory structure below.

1. “root/projects/disclosure” – the main disclosure directory in the project space on the IRE server

2. “root/projects/disclosure/YYYYMMDD/” – A directory containing all the disclosure materials for the current request with date in YYYYMMDD format (e.g., 20200414).
3. “root/projects/disclosure/YYYYMMDD/output” – This directory should ONLY contain the programs you intend to have emailed to you.

Programs may be released to facilitate replication and reproducibility. Programs that you only want to use in future FSRDC projects need not be released through disclosure review. See “Transferring Programs to Another Project” about procedures to save programs that can be transferred to other projects later.

All estimates released from the FSRDCs require extensive review to ensure the statistical results do not violate confidentiality standards. To facilitate researchers’ needs, programs are not required to go through such an extensive review. However, to allow this expedited review process, no data or other confidential information is allowed to be in programs. To determine if code falls within the scope of a program release (and out-of-scope for a full disclosure review), review the Program Review Checklist (see Appendix B for its location). If your program needs to use data and you want to be able to release the program, one approach is to have the data in a text file that the program calls. You may submit the estimates through the usual disclosure avoidance review process. Your RDCA may have additional advice.

A clearance request memo is not required for program releases.

The general principles for program releases include:

- Can contain pathnames but cannot contain usernames (i.e. “James Bond IDs”) or server host names.
- Cannot contain data or estimates in either code or comments, including record-level information, detailed categories, particular data points, or analysis results. Examples of these are cleaning steps, handling of outliers or miscoded observations, cutoffs that are data values, calculations of predicted values, and other miscellaneous data corrections. (See example scenarios below.)
- Cannot contain file layouts and variable labels taken from title-protected datasets. Indicate the source of variable labels (e.g., user-created, etc.). Researchers can describe user-created variables as long as the descriptions do not contain official layout, content, or label information about Census-provided variables.
- Volume of code should be minimized. Macros or Stata “include” statements should be used to avoid repetitive code.

Data should not be included in code. Generally, data are in programs for one of two reasons:

- 1) A priori or public knowledge
- 2) Knowledge gained after analyzing the confidential data

Neither of these reasons is a suitable justification for the release through the expedited disclosure review process. In the first case, if the data are already known, using the disclosure process is unnecessary and places an undue burden on the reviewers and officers to verify the public nature of the data. For example, keep deflators in a separate file. In the second case, releasing the data through code review instead of the much more in-depth quantitative results review is inappropriate.

While data references are generally not allowed, the disclosure reviewers and officers will have some discretion to facilitate exceptions that seem innocuous. For instance, generally, a statement like:

If sex = ‘F’ then do...

is technically referring to data, but in most instances should be considered unproblematic.

However, a statement like:

If county = ‘01001’ then do...

is problematic. If it’s public or a priori knowledge, there’s no need for it to go through disclosure review, simply redact it. If it’s there because the researcher learned its presence in the data and needs to account for it in some way, its presence in released code could be either a disclosure exposure, or a direct violation of Title 13, which, for many surveys, protects the information about which counties were in sample.

Here are some scenarios.

Usually acceptable	Not acceptable
State codes	County codes
2-digit NAICS codes	3-digit NAICS - 6-digit NAICS
Categories that are large	Very detailed categories
Cutoffs that appear to be independent of the exact distribution <ul style="list-style-type: none"> • e.g., income > 100,000 	Cutoffs that appear determined by the data <ul style="list-style-type: none"> • e.g., income > 104,326

E. Transferring Programs to Another Project

We encourage researchers to retain and leverage their RDC specific human capital and support moving programs from your current project to your next one. Caution is warranted, however, that the use of programs in a new project location must be consistent with the approved project scope for that activity. Moving programs into a new project location does not implicitly or explicitly proxy for an approval of a change in scope for that project.

Before your project ends and while you still have authorized access to the project space, collect the programs into a folder for the subsequent move (please use sub-folders sparingly). Your RDCA, as well as a second Census staff member, will review the programs to ensure there are no data in them. Following management approval, your RDCA will submit a request to have the programs copied to the new project location.

In addition to transferring code between projects, researchers can submit code to the RDC Code repository (found in /data/support/researcher/codelib/). The code repository is a resource that allows researchers to share code that could help future data users with basic yet sometimes complicated tasks such as data mergers or application of certain forms of analysis. Ask your RDCA about how to contribute code if you have something to share.

F. Releasing Social Security Administration Output

Projects requesting disclosure for output derived from Social Security Administration (SSA) must complete an Output Information Request (OIF) form. Complete the OIF project information (Project ID Number, Project Title, Output Title) and output description (SSA Data Files Used, Census Data Files Used, Output Description). DRB Approval Number and DRB Approval Date will be added by the DAO

when the output is approved. Include the SSA-OIF in the disclosure directory. Examples of SSA data include the Numident, LEHD-ICF, and SSA earnings records.

G. Complete Requests

When requests have been prepared following the above guidelines and are ready for review, researchers should contact their RDC Administrator for initial review. The Administrator will review and may have recommended changes to make before submission. If the Administrator approves the files for release, they will advance the request to the DAO for review. Files that are submitted for review should be considered final and not edited in anyway unless the Administrator requests changes. Files that are edited during review will be reviewed as a new request. Files that have been released should not be changed for any reason. If researchers want to reuse files (disclosure stats code, memo) in a new request, they should make copies and move into a new directory before making any changes.

THE DISCLOSURE REVIEW BOARD (DRB)

The Disclosure Avoidance Officers (DAOs) act with the delegated authority of the DRB and must follow DRB disclosure avoidance rules and policies. If the DAO cannot approve the output request for any reason, then the DAO submits the request for DRB review by 12pm EST Wednesday for meetings held every Monday. The RDCA and researcher will complete an easy-to-follow summary of the requested output, how that output relates to the approved project overall, the issues in the output requiring DRB review, and justification for releasing the requested output as is.

To defend the issues requiring review, the researcher should include how they will use the output to accomplish their research goals. This will help the DRB suggest ways to specify the output (if needed) so that it does not present non-trivial disclosure risk and yet conveys your intended message. If you are using terminology or statistics that would not be familiar to those outside your field, please write a description of those terms or statistics that someone not in your field can understand. These additional documents are meant to make it easier for the DRB (composed of people knowledgeable in statistics, but from varied backgrounds) to understand your output and make decisions on it.

Common Reasons for DRB Review

- Sample estimates exceed volume of output threshold
- Population analysis does not meet requirements
- Small samples and cells
- Unusual output format

REQUESTING OUTPUT FOR PARTNERING AGENCY DATA PROJECTS

Researchers on projects that exclusively use partnering agency data (AHRQ, NCHS, BLS, etc.) should speak with the data custodial agency about the specific disclosure statistics required and any other rules and requirements that need to be met. Your data custodial agency will review and assess your files for release. To prepare files to be sent to your agency, you should put the requisite files for that request into the project's disclosure directory under a dated subdirectory following format YYYYMMDD (e.g., /projects/disclosure/20240801). You should then inform the agency analyst of the name of the dated subdirectory. Notes about the disclosure for the analyst can be placed in a file in the directory. Your analyst requests the files be sent to them by Census for review and possible release to you. You should consult with your analyst regarding review times for output.

OPTIONS FOR DISCUSSION OF SIGN AND SIGNIFICANCE

A. After release of Sign and Significance² results

To accommodate interim discussion of results, sign and significance of model results have an expedited disclosure review process, which will usually take about one week. No results can be released or even shared verbally before they are approved for release. Researchers should follow the instructions in Section III of this handbook on how to prepare a Sign and Significance Disclosure Avoidance Review Request and Section X. Sign and Significance of the Disclosure Avoidance Methods Handbook for a more complete discussion of what is permissible to include in a sign and significance disclosure avoidance review request.

B. Communication Between RDCs

Most RDCs have a phone available to call between facilities. Undisclosed estimates can't be discussed over the phone, even between two SSS researchers within FSRDCs because the phone lines are not secured. For researchers collaborating across FSRDCs, only use of the lab-provided phones is permitted (no cell phones), and conversations should not discuss undisclosed numbers. It is recommended in these situations that both researchers use the lab phones, open the same document on each screen, and direct each other toward what to view (e.g., the result in column 2, row 5). Researchers may also communicate using the IRE Chat function. IRE chat exists within the secure computing environment and there are no restrictions for conversations held on the chat platform. Researchers can find instructions for launching IRE Chat on the IRE intranet (<https://rdcdoc.cods.census.gov>) under "User Docs."

² Note that sign and significance was previously referred to in the FSRDCs as Qualitative Output. To clarify what qualifies as qualitative output and to differentiate from the DRB's qualitative output terminology referring to information products based on interviews or content analysis, the FSRDCs will use the 'sign and significance' terminology.

Appendix A: Python Rounder Tutorial

The rounding program uses Python 3, which is installed as part of an Anaconda software distribution on the IRE. You do not need to know Python to use the rounding program. Simply follow the instructions below.

- 1) Log in to the applicable project space.
- 2) Navigate to the dated disclosure directory for this disclosure avoidance review request (e.g., YYYYMMDD).
- 3) Create a new directory called “rounding” in the support folder.
- 4) **Copy** appropriate files from the “output” directory into the “rounding” directory.
- 5) The current Python rounding program works on most text files and on .xlsx files. If there are any spreadsheets with a different extension, first manually convert them to .xlsx.
- 6) Open a command prompt and from the command line, navigate to the “rounding” directory in the dated disclosure directory’s support folder.
- 7) At the command prompt, type: **source /apps/anaconda/bin/activate py3** to activate the “py3” environment.
- 8) (RECOMMENDED) The rounding program is called **drb_rounder.py** and is available in /data/support/researcher/programs/rounding. To audit the numbers in a file, issue the command:

```
python /data/support/researcher/programs/rounding/drb_rounder.py [YOUR  
FILENAME] --highlight
```

- 9) **(NOT USUALLY RECOMMENDED) To round numbers in a file**, issue the above command without the option “ -- highlight”. This can be helpful but could result in incorrect rounding for integers that aren’t subject to entity count rules.

A helpful Conda cheat sheet: <https://conda.io/docs/downloads/conda-cheatsheet.pdf>.

Documentation for the Python code is here: https://github.com/uscensusbureau/drb_rounder.

Appendix B: List of Disclosure Resources

Below is a list of disclosure resources and the locations they can be found.

A. rdcdoc

An intranet site available on the IRE at <https://rdcdoc.cods.census.gov> → Users Docs

- RDC Disclosure Request Procedures Handbook
- RDC Disclosure Avoidance Methods Handbook
- Disclosure Request Memo
- Example Disclosure Request Memo
- Sign and Significance Request Memo
- Rounding tutorial
- Program Review Checklist

B. Output Rounding Program

Disclosure avoidance rules require all output requests of statistics or model parameters be rounded to no more than four significant figures. For a complete discussion of the Rounding Rules, see the Disclosure Avoidance Methods Handbook “Section IV.B Rounding Rules.” A python program is available to check and round figures according to DRB rounding rules. To use the rounding program, follow the tutorial available on RDC Docs. All disclosure avoidance review requests containing statistical output must include a file named “[output name]_rounded.xlsx” (the drb_rounder.py will automatically generate this file) in the support folder to demonstrate output meets disclosure rounding requirements.

C. DAEcon

A Stata program for carrying out primary disclosure avoidance analysis on economic data is available on the IRE. The programs contain protected values of the parameters p or k that are required to assess concentration thresholds. These values are confidential and must not be revealed to anyone outside the special sworn members of your project team. To do so is considered a disclosure of confidential information. The program is available to projects with economic data in data/support/deacon.

An unrestricted version of the program, as well as a training exercise is available by email upon request.

D. Stata .ado

Internally developed stata .ado files are available with help documentation.

- Pseudop.ado generates pseudo percentiles according to disclosure avoidance methods
- Rounddig.ado rounds Stata output according to disclosure rounding rules
- DAecon.ado prepares disclosure statistics

E. Population Analysis Tutorial

This tutorial includes sample code that demonstrates how to do population analysis for two common cases: a part-state sample and a national sample with geographically defined variables. It is available on IRE at /data/support/researcher/population_analysis.