# Computational Requirements

- Software Requirements
- Computational Requirements
- Time Requirements
- Package Installation

## 2 Instructions

### Overview 2.1

As of July 12th, 2023 the file master.do contains the code to create the two final datasets, cz\_pooled.dta and cz\_stacked.dta. To be precise, it sets up and runs the subfiles in the correct order to create those datasets. To run it, you need to add the absolute paths on your computer to the if-else block at the top of the file as I have for my (Everett Stamm's) computer. You will need a path to the dropbox folder where the data is stored, a path to the repository where the code is stored, a path to your FFMPEG installation (only necessary for map creation, not data cleaning), a path to your Rterm.exe installation, and a flag for if you will use the gz7 function.

## 2.2gz7 setup

As of 05.17.2022, the gause package no longer works on Windows computers. To get around this, I created the wrapper function gz7 that calls 7zip to unzip the file. To set this up, please install 7zip and add it to your system path. https://www.7zip.org/download.html

### 2.3R setup

You will need the following R packages. Please install them before running the code:

- tidyverse
- sf
- haven
- tigris
- stringr
- readxl

## 2.4 Derenoncourt setup

The entirety of the Derenoncourt "Can You Move to Opportunity? Evidence from the Great Migration." replication package is in the dropbox in "/municipality\_proliferation/derenoncourt\_opportunity/replication\_AER: Within this, the folder "code" is her original replication code and the folder "code\_replication" replicates it to our specifications. To make things easier, I've copied the files with major changes into the repository. All of the do-files starting with A are new and used to create new data for the decades stacked sample. 4\_final\_dataset.do and 4\_final\_dataset\_split.do are modified versions of Derenoncourt's similarly named file that only includes variables we need and modifies it in some other ways for our analysis (e.g. raw instruments instead of rank).

## 3 Data Sources (INCOMPLETE)

### 3.1 Derenoncourt 2022

Availability:

Usage: Users should download the full repository into /municipality\_proliferation/derenoncourt\_opportunity/ and then follow the instructions in ReadMe.pdf to acquire the necessary data. Note that none of the data listed as unavailable is required for our analysis.

Citation: Ellora Derenoncourt. Can you move to opportunity? evidence from the great migration. American Economic Review, 112(2):369-408, 2022. doi: https://doi.org/10.1257/aer.20200002

### 3.2**IPUMS USA**

Availability: Extracts permitted for replication purposes.

Citation: Steven Ruggles, Sarah Flood, Matthew Sobek, Danika Brockman, Grace Cooper, Stephanie Richards, and Megan

Schouweiler. IPUMS USA: Version 13.0. [dataset], 2023. URL https://doi.org/10.18128/D010.V13.0

## 3.3 NHGIS

Availability: Extracts permitted for replication purposes.

Citation: Steven Manson, Jonathan Schroeder, David Van Riper, Tracy Kugler, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 17.0. [dataset], 2022. URL http://doi.org/10.18128/D050.V17.0

## 3.4 US Census Codes

Availability: Public

Citation: US Census Bureau. American National Standards Institute, Federal Information Processing Series, and Other Standardized Geographic Codes. [dataset], 2023. URL https://www.census.gov/library/reference/code-lists/ansi.html

## References

- US Census Bureau. American National Standards Institute, Federal Information Processing Series, and Other Standardized Geographic Codes. [dataset], 2023. URL https://www.census.gov/library/reference/code-lists/ansi.html.
- Ellora Derenoncourt. Can you move to opportunity? evidence from the great migration. American Economic Review, 112(2):369–408, 2022. doi: https://doi.org/10.1257/aer.20200002.
- Steven Manson, Jonathan Schroeder, David Van Riper, Tracy Kugler, and Steven Ruggles. IPUMS National Historical Geographic Information System: Version 17.0. [dataset], 2022. URL http://doi.org/10.18128/D050.V17.0.
- Steven Ruggles, Sarah Flood, Matthew Sobek, Danika Brockman, Grace Cooper, Stephanie Richards, and Megan Schouweiler. IPUMS USA: Version 13.0. [dataset], 2023. URL https://doi.org/10.18128/D010.V13.0.