# Getting Started with `ipd_2017`

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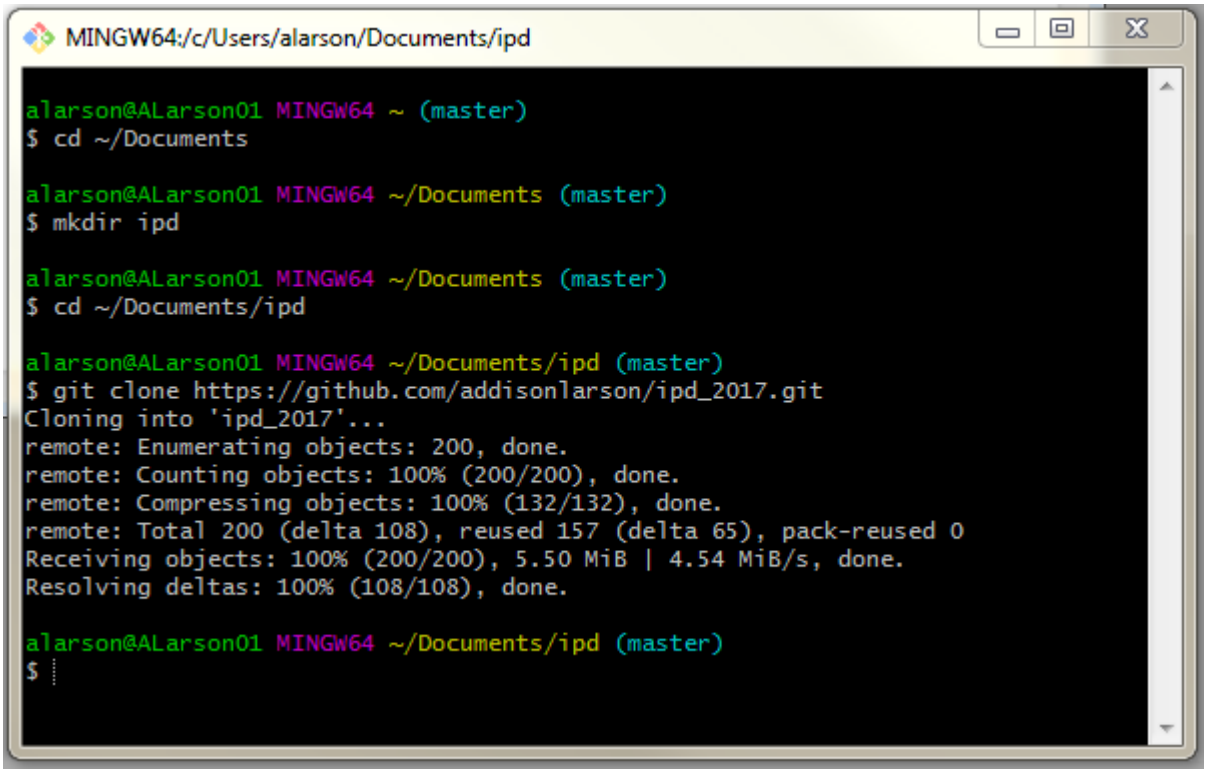
## Before getting started

### 1. Download the code.

There are two ways to do it:

1. From online, visit https://github.com/addisonlarson/ipd_2017, click `Clone or Download`, save the ZIP file somewhere on your PC, and unzip it.
2. From Git BASH, clone the repository with `https://github.com/addisonlarson/ipd_2017.git` or `git@github.com:addisonlarson/ipd_2017.git`. The few lines of sample code below create a folder called "ipd" in My Documents and download the repository's contents there.




### 2. Download and install software.

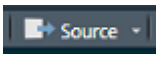
1. Get `R` from https://www.r-project.org/.
2. Get `RStudio` from https://www.rstudio.com/products/rstudio/#Desktop.

# Next steps

Now that you have the code and software:

1. Open RStudio.
2. Open `ipd_2017.Rproj` from `File -> Open Project -> <Folder where you saved the repository> -> ipd_2017.Rproj`.
3. Open `script.R`.
4. Check that the input fields listed under `Fields` are up to date by verifying the newest data schemata on American FactFinder and Census Developers. Save any changes.
5. Check that the ACS data year is up to date under `Year`, and that `States` and `Counties` correspond to your desired study area. If you're updating IPD for the DVRPC region, then you won't need to touch `States` or `Counties`. Save any changes.

```
# Year
ipd_year <- 2014
# States
ipd_states <- c("NJ", "PA")
# Counties
ipd_counties <- c("34005", "34007", "34015", "34021",
                  "42017", "42029", "42045", "42091", "42101")
```

6. Run the code by clicking the Source  button or `Ctrl+A` followed by `Ctrl+Enter`. If you see the error message `Error in library(<name of package>) : there is no package called '<name of package>'`, go to Package Dependencies below.
7. Outputs are saved in `<Folder where you saved the repository>/outputs`.

## Package dependencies

The error message `Error in library (<name of package>) : there is no package called '<name of package>'` appears when the required packages aren't installed. `script.R` has five package dependencies:

```
library(plyr); library(here); library(sf); library(summarytools);
library(tidycensus); library(tidyverse); library(tigris)
```

It's easy to install packages. Open RStudio if it's not open already, go to the console (typically it's shown on the bottom of the screen), and type `install.packages('<name of package>')`. One package at a time; quotation marks required. You may have to do this seven times—once for each package—if you've never run `R` before.