

This file provides an overview of the data and code used to produce the results in “How Tight is the U.S. Labor Market?” by Katharine Abraham, John Haltiwanger and Lea Rendell, BPEA, Spring 2020. The online appendix of this paper provides detailed guidance about the measurement and estimation approaches used in the paper and should be consulted prior to using the code and data outlined in this document.

Given the substantial number of robustness checks on alternative approaches to measurement of effective searchers and effective vacancies are included in the analysis, there are multiple versions of analytical database. The alternative versions have a similar structure and naming conventions of variables. The alternative analytical databases are in different sub-directories and there are also distinct subdirectories for the output (e.g., figures) from the different sensitivity analyses. For example, the sub-director Data\_Baseline includes the analytical database for the baseline analysis and the sub-directory Graphs\_Baseline is the location that the AHR\_Baseline.do code described below places the output of the figures that emerge from the Baseline analysis.

Listing of program code and data used for each program:

1. AHR\_Baseline.do: This code generates most of the tables and figures in the paper. This code provides the analysis of the baseline case with 22 effective searcher groups with relative job search intensities constant values in 2006 using the demographically adjusted job finding rates. The baseline case also has relative job search intensity groups with recruiting intensity equal to one. It also generates the results for the time varying relative search intensity and time varying recruiting intensity results (Figures 9 and 10 and Table 4).
  - a. Input: AHR\_Baseline.dta
  - b. Output:
    - i. Figures 1-10
    - ii. Tables 2-4.
    - iii. Appendix Figures A.4, A.12-A.13
    - iv. Appendix Table B.3
  - c. Notes:
    - i. For the Beveridge Curve Figures see the spreadsheets Figure4.xls and Figure5.xls that are in the Data\_Baseline subdirectory. This produces the Beveridge curves. See notes in these files.
    - ii. For Tables 2-4, these are summary statistics of various measures (e.g., standard deviations, correlations, RMSE) that are produced in the AHR\_Baseline.log file. See notes in the code to find the relevant places where these summary statistics are provided.
    - iii. Similarly, there is a place in the code where the descriptive regressions reported in Table B.3 are in the log file. See the code with a note for Table B.3.
2. AHR\_raw.do: This code generates some of the robustness results in the paper. This code provides the analysis of the cased with 22 effective searcher groups with relative job search intensities measured from the raw CPS data (means in 2006). Recruiting intensity=1. This is a modified version of the baseline code with most analysis commented out.
  - a. Input: AHR\_raw.dta
  - b. Output:
    - i. Figures A.1, A.5, A.9

3. AHR\_Barnichon.do: This code generates some of the robustness results in the paper. This code provides the analysis of the case with 22 effective searcher groups with relative job search intensities from the baseline case. Recruiting intensity=1. The difference from the baseline is the use of the Barnichon (2010) vacancy series from 1994:1-2000:12. This is a modified version of the baseline code with most analysis commented out.
  - a. Input: AHR\_Barnichon.dta
  - b. Output:
    - i. Figures A.8
4. AHR\_11groups: This code generates some of the robustness results in the paper. This code provides the analysis of the case with 11 effective searcher groups with relative job search intensities constant values in 2006 using the demographically adjusted job finding rates. Recruiting intensity=1. This is a modified version of the baseline code with most analysis commented out.
  - a. Input: AHR\_11groups.dta
  - b. Output:
    - i. Figures A.2, A.6, A.10
5. AHR\_Appendix\_D: This code generates the figures in Appendix D of the online appendix.
  - a. Input: AHR\_Final\_baseline\_May\_1.dta
  - b. Output:
    - i. Figures D.1-D.3
6. AHR\_5groups: This code generates some of the robustness results in the paper. This code provides the analysis of the case with 5 effective searcher groups with relative job search intensities constant values in 2006 using the demographically adjusted job finding rates. Recruiting intensity=1. This is a modified version of the baseline code with most analysis commented out.
  - a. Input: AHR\_5groups.dta
  - b. Output:
    - i. Figures A.3, A.7, A.11
7. AHR\_Tables\_1\_B1\_B2.do: This code generates Table 1 in main text and Table B.1 and Table B.2 in online appendix. Table 1 presents the annual job finding rate in 2006 and 2010 for the baseline 22 group effective searchers and a column using the raw job finding rate of the 22 groups that comes directly from the data. Table B.1 shows the Elasticity with Effect to Vacancy Duration and the Trend in Efficiency for the five following groups: Richmond group, Pooled Unemployment, U6 Pooled, the 22 groups and the 22 groups using the raw job finding rate. Table B2 shows the heterogeneous elasticities for the 22 groups.
  - a. Input:
    - i. Empirical Job Finding Rate Dataset:  
Tables\_1\_B1\_B2\data\microdata\_raw\_JFR\_annual.dta
    - ii. Estimated Job Finding Rate Dataset:  
Tables\_1\_B1\_B2\data\jf1\_annual\_20052007.dta
    - iii. Group population share in 2005-2007 for:  
22 Groups and Richmond Index:  
Tables\_1\_B1\_B2\data\stocks.dta  
Pooled U6:

Tables\_1\_B1\_B2\data\stocks\_U6.dta

*Pooled Unemployment:*

Tables\_1\_B1\_B2\data\stocks\_pooled.dta

iv. Estimated Monthly Job Finding Rate Dataset:

*22 Groups and Richmond Index:*

Tables\_1\_B1\_B2\data\jf1\_20052007.dta

*Pooled U6:*

Tables\_1\_B1\_B2\data\jf1\_20052007\_U6.dta

*Pooled Unemployment:*

Tables\_1\_B1\_B2\data\jf1\_20052007\_pooled.dta

*Raw Job Finding Rate:*

Tables\_1\_B1\_B2\data\microdata\_raw\_JFR.dta

v. JOLTS Dataset with Opening and Hires:

Tables\_1\_B1\_B2\data\JOLTS\_update.dta

vi. Current Establishment Survey (CES) payroll employment:

Tables\_1\_B1\_B2\data\nfp.xlsx

b. Output:

i. Tables\_1\_B1\_B2\tables\Table\_1\_2006.tex

ii. Tables\_1\_B1\_B2\tables\Table\_1\_2010.tex

iii. Tables\_1\_B1\_B2\tables\Table\_B1.tex

iv. Tables\_1\_B1\_B2\tables\Table\_B2.tex

c. Notes:

i. There is a README file located in the folder Tables\_1\_B1\_B2 that has step by step instruction for producing the tables.

ii. The additional do files that are called in the main do file are located in the folder Tables\_1\_B1\_B2\dofiles