# Description of Data and Programs

This document describes the data and programs used to obtain all the results in the article and online appendices. The data are stored in Excel workbooks. The programs are executed with Matlab.

## 1 Data

There are five Excel workbooks.

data_coverage_unemployment.xlsx contains the data used to construct the coverage rate of the UI program and the unemployment rate in the United States.

data_effective_replacement_rate.xlsx contains the data used to construct the effective replacement rate of the UI program in the United States.

data_recruiter_producer_ratio.xlsx contains the data used to construct the alternative measures of recruiter-producer ratio.

statistics.xlsx and statistics_m.xlsx contain the computed results of the three Excel workbooks above, including the unemployment rates, recruiter-producer ratio, the coverage rate and effective replacement rate of the UI program in the United States. The data are directly used by project.m, quarter.m and RP.m.

## 2 Programs

There are three Matlab programs.

quarter.m transforms a monthly time series into a quarterly time series.

RP.m computes the corresponding set of optimal replacement rates from an input set of coverage rate data.

project.m uses the data in statistics.xlsx and statistics_m.xlsx to produce all the figures in the article and online appendices.