Instructions for replicating results for the paper

"Do the Long-term Unemployed Benefit from Automated Occupational Advice

during Online Job Search"

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January-15-2025

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Introduction

This file describes the datasets contained within the replication package and their origin, as well as the scripts that generate all empirical results in the corresponding paper (Belot et al, forthcoming)

The replication package contains the following folders:

Folder	Contents
analysis_data	*Contains all datasets used for replication*
figurestables	*Empty folder to store generated figures and tables*
dofiles	*Contains all Stata do-files necessary to generate the empirical results*

1. Datasets

The empirical analysis uses the following datasets (included in the folder "*analysisdata*"):

Name	Contents
activity.dta	List of activities on the platform including timestamp
registration.dta	List of registration dates on the platform
no_qualification_suggestions	The occupations that were suggested on the platform as requiring "no-qualifications" (part of the treatment)
new_jobs_sources.dta	List of sources of new jobs (recommendation, no-qualification suggestions, other)
monthly_earnings_panel.dta	Earnings from employment measured on the first day of each month
demographics_and_outcomes.dta	Individual characteristics and job outcomes
jobsearch.dta	Individual job search on the platform

Note: the folder also contains each dataset in csv-format.

Data availability statement. All of these datasets stem from the field experiment conducted by the authors of the manuscript in a research collaboration between the University of Edinburgh and Ingeus UK Limited (see Belot et al, 2018, for details).

Statements of rights.

- *The authors of the manuscript certify that they have legitimate access to and permission to use the data used in this manuscript.*
- *The authors of the manuscript certify that they have documented permission to redistribute/publish the data contained within this replication package.*

All data provided within this replication package have been processed to ascertain full anonymity: all potentially identifying information has been removed. In addition the data has been split into the datasets listed above, which cannot be linked to each other (with the exception of demographics_and_outcomes, new_jobs_sources and monthly_earnings_panel).

Below we provide details about each of these datasets:

activity.dta

Variable name	description
date_activity	Date of activity on platform
treatment_group	

registriation.dta

Variable name	description
treatment_group	
date_of_registration	Date of registration on platform

no_qualification_suggestions.dta

Variable name	description
soc	the suggestions shown as requiring no qualifications

new_jobs_sources.dta

Variable name	description
ID	Individual identifyer
treatment_group	Treatment group
SOC2010_stablejob	Occupational code of new stable job
job_from_suggestions	Indicator occupation stable job coincides with suggestion
job_no_qual	Indicator occupation stable job coincides with no-qualification occupation
active_searcher	Indicator participation used platform at least once

monthly_earnings_panel.dta

Variable name	description
ID	Individual identifier
day	Day since registration
total_daily_earnings	Daily earnings
cum_earnings	Cumulative earnings since registration

demographics_and_outcomes.dta

Variable name	description
ID	Individual identifier
treatment_group	Treatment group
nonwhite	Non-white ethnicity
disability	Disability
couple	Married/Cohabiting
children	Children
unempl_dur	Unemployment duration (months)
unemployment_length	Unemployment duration (survey response)
gender	Gender
education_level	Education level
date_of_registration	Date of registration
jobseeker_allowance	Receives jobseekers allowance. 'No' means other/no benefits
interview	Number of interviews
start_date_firstjob	Start date first job
end_date_firstjob	End date first job
first_interview_dur	Duration (days) until first interview
jobfound	Job found
jobfinding_dur	Duration (days) until first job
stablejob_finding_dur	Duration (days) until first stable job
quarter_of_registration	Quarter of registration
earnings_threshold_dur	Duration (days) until earnings threshold
fraction_employed	Fraction employed of 15 months since registration (or period until jan15-2021)
censoring_duration	Duration (days) between registration and censoring (occurs Jan-15-'21)
never_searched	Never searched on the platform

jobsearch.dta

Variable name	description
treatment_group	Treatment group
jobgoals_no_quals	Mean nr saved no-qual. suggestion from carousel

jobgoals_regular	Mean nr manually saved jobgoals
num_noqual_jobgoals	Mean nr saved no-qual. jobgoals (added manual or carousel)
nr_jobgoal_searches	Total nr of jobgoal searches
nr_keyword_searches	Total nr of keyword searches
nr_jobgoals_included	Average nr of included jobgoals (excl sug's)
nr_jobgoal_suggestions	Average nr of included suggestions
radius_jobgoal	Average radius in jobgoal searches
results_jobgoal_searches_median	Median nr of results in jobgoal searches
radius_keyword	Average radius in keyword searches
results_keyword_searches_median	Median nr of results in keyword searches
never_searched	Never searched on the platform
suggestions_ever	At least one suggestions-search
total_jobgoals	Mean nr saved jobgoals
at_least_one_jobgoal	Saved at least one jobgoal
at_least_one_manual	Saved at least one manual jobgoal
at_least_one_no_qual	Saved at least one no-qual. suggestion
any_noquals	Jobgoals contain at least 1 no-qual occ

2. Scripts

All empirical results are created using the Stata do-files in the folder "dofiles". The file "00_MASTER.do" will run all scripts, which will create all tables and figures and store them into the folder "figurestables".

Note that the master script can only be run after setting the working directory on top of the script.

The various scripts require the following external packages: byhist, balancetable, estout. These are automatically installed when running 00_MASTER.do.

The scripts have been run using Stata 18 and take approximately 2 minutes on a normal laptop (Intel(R) Core(TM) i5-10210U CPU @ 1.60GHz).

The Master do-file calls 9 analysis do-files, of which the details are provided in the table below:

Script name	Description	Data used	Output produced
00_MASTER.do	Set path, call all other do-files		
01_descriptive_tables.do	Creates various tables	demographics_and_outcomes.dta jobsearch.dta	Tables 1, 3, 4, A.2, A.3, A.4, A.10, A.12
02_registration_activity_dates.do	Distribution of registration and activity dates	registration.dta, activity.dta	Fig. A.1
03_treatment_effects_linear_model.do	Treatment effects (linear models)	demographics_and_outcomes.dta	Fig. 1, 2, 3, 4, A.4, A.5, A.6, A.7
03a_treatment_effects_linear_model_FUNCTION.do	Called by do-file 03		
04_control_treatment_means_over_time.do	Compare mean outcomes for control and treatment	demographics_and_outcomes.dta	Fig. A.2
05_treatment_effect_fraction_employed.do	Treatment impact on fraction of time employed	demographics_and_outcomes.dta	Fig. A.5

06_duration_models.do	Estimate duration models for treatment impact	demographics_and_outcomes.dta	Tables A.6, A.7, A.8, A.9
06a_duration_models_FUNCTION.do	Called by do-file 06		
07_treatment_effect_cumulative_earnings.do	Estimate treatment impact on cumulative earnings	demographics_and_outcomes.dta, monthly_earnings_panel.dta	Fig. A.8
08_histogram_occupations.do	Compare distribution of occupations treatment vs control	demographics_and_outcomes.dta, new_jobs_sources.dta	Fig. A.10
09_treatment_effect_occupations.do	Estimate treatment impact on occupations of new jobs	demographics_and_outcomes.dta, new_jobs_sources.dta	Table 2, A.11, Fig. 5, A.9

Note: some scripts also generate additional statistics that are mentioned in-text in the paper.

Bibliography

Belot, Michele, Philipp Kircher and Paul Muller. "Providing labor market information to long-term unemployed". *Economic Journal (forthcoming)*

Belot, Michele, Philipp Kircher and Paul Muller. 2018. "Providing labor market information to long-term unemployed." *AEA RCT Registry*. October 22. https://doi.org/10.1257/rct.3433-1.0