

Quick-Start Guide to the Worker Paid Leave Usage Simulation (Worker PLUS) Model

This guide provides users with a quick overview for launching the Worker Paid Leave Usage Simulation (Worker PLUS) model. The Worker Paid Leave Usage Simulation Model User Manual provides two options for launching the model (options 1 and 2) and two options for downloading the American Community Survey (ACS) input files to run model simulations (options A and B). This guide focuses on option 1 for quickly launching the model's graphical user interface (GUI) in Python and option A for downloading the ACS input files. Users following this quick-start guide do not need to have Python installed to launch the GUI.

Note: Users experienced with the R and Python open-source programming languages and interested in adapting the underlying code or data in R or Python can refer to the Worker PLUS Model User Manual for more details and options for launching the model and downloading input files.

1 Download model

- Extract Microsimulator.zip from the Department of Labor's website: <https://www.dol.gov/agencies/oasp/evaluation/completedstudies/Microsimulation-Model-on-Worker-Leave>

2 Set up file structure

The Microsimulator.zip file contains the input files required to run the model simulations under option A and programming code to launch the model under option 1. The model requires two input datasets: ACS and Family and Medical Leave Act (FMLA) Employee Survey.

- For the ACS dataset, extract the contents of the 2020.zip file from the "acs_default" folder on the site. The extracted 2020.zip file should contain the following four folders: "household_files," "person_files," "pow_household_files," and "pow_person_files." Copy the extracted folders from the 2020.zip file to the "Microsimulator/data/acs/2020" folder.

Note: The 2020.zip file may take a few minutes to extract. The "Microsimulator/data/acs/2020" folder is automatically created when the Microsimulator.zip file is extracted. The "acs_all_options" folder is for users running model simulations under option B.

- The FMLA dataset required to run the model is provided in the "Microsimulator/data/fmla" folder when the Microsimulator.zip file is extracted.

3 Launch GUI

- Open GUI by clicking the *Microsimulator.exe* file contained in the extracted "Microsimulator" folder.

Note: The executable file (.exe) will only run on Windows-based machines. It may take a few minutes to open.
- Use the "Browse" button to insert the full file path for the FMLA file and the directories for the ACS file and output files:

FMLA File:	<input type="text"/>	<input type="button" value="Browse"/>
FMLA Wave:	2018	<input type="button" value="Browse"/>
ACS Directory:	<input type="text"/>	<input type="button" value="Browse"/>
Output Directory:	<input type="text"/>	<input type="button" value="Browse"/>
State to Simulate:	AL	<input type="button" value="Browse"/>

Note: The Output directory is created when the Microsimulator.zip file is extracted.

FMLA File: *Microsimulator/data/fmla/fmla_2018/FMLA_2018_Employee_PUF.csv* (include full file path for FMLA file)

ACS Directory: *Microsimulator/data/acs*

Note: Users do not need to specify the ACS data year (e.g., 2020). The file path should end at the "acs" folder.

Output Directory: *Microsimulator/output*

- Select FMLA Wave (e.g., 2018).

Note: If the 2012 FMLA file is used, the user should update the FMLA File path and select the 2012 FMLA Wave from the dropdown menu.
- Select State to simulate (e.g., AL).

4 Adjust parameters and run simulation

- Adjust parameters in Program, Population, and Simulation tabs.

Program

Adjust eligibility rules, maximum number of weeks, eligible employee types, benefit financing, and wage replacement

Population

Adjust take up rates and share of eligible workers who can receive leave benefits from both employer and State programs

Simulation

Option to use policy parameters that characterize an existing State program from California, New Jersey, or Rhode Island

Note: If an existing State program is selected, the parameters on the Program tab are replaced with the policy parameters for the selected State program.

- Additional options
 - Compare button: compare multiple simulations while preprocessing input data only once
 - Advanced parameters: additional simulation options, including selecting the simulation method
- Model execution
 - Click the "Run" button to run simulation results. Simulator will produce a runtime display.

Note: Runtime may vary depending on State population and/or simulation method. Average runtime varies by State size. A small State can take less than 1 minute to run, while a large State can take up to 15 minutes.

See chapter 3 of *Worker Paid Leave Usage Simulation Model User Manual* for more details.

5 Review simulation results

- Simulation output contains three tabs:

Summary

Contains graphs on simulated program benefit costs and number of leave takers participating in the program

Benefit Financing

Contains simulated results on benefit financing and tax revenue by wage, age, gender, and worker class

Population Analysis

Contains histograms of estimated worker counts

- Results are stored in the "output" folder as .CSV files.

See chapter 4 of *Worker Paid Leave Usage Simulation Model User Manual* for more details.