Extended Benefits Model

Purpose: To make weekly State forecasts of the amount of extended benefits paid for ten years into the future.

Platform: The program is written in Excel and run with the State Benefit Model (SBM). It consists of fifty-five worksheets (a sheet for each state, a summary table, and a settings sheet).

Methodology: The forecasted amount of total and insured unemployment by state by quarter is gotten from the SBM. This data is translated into weekly data for each state. Then the criteria for triggering on Extended Benefits is applied to each state in order to calculate the amount of extended weeks compensated and total extended benefits paid.

More specifically, for each State, for each quarter an amount of First Payments is found (from regression). For each quarter of the forecast the number of exhaustions is found (from regression) the number of exhaustions is divided by the number of weeks in the quarter (13) to get the number of people entering EB each week when EB has been determined to be on. Then a weekly survival rate is applied to the number on EB to get the number of weeks compensated each week. The average weekly benefit for the quarter in the State is then multiplied by the number of weeks to get the total extended benefits paid.

EB is on when the State 13 week running IUR reaches a value of 5.0% and is greater than 120% of the average of the prior two years corresponding values. Also some States have the option to trigger on EB when the IUR reaches 6.0% or when the SA Total Unemployment Rate (SATUR) reaches a value of 8.0%. These later two options can be triggered on or off by the user for each year of the forecast.

Worksheets

Settings Worksheet (1): Contains the control variables for the entire program. Specifically, the time period of the forecast, including the base year and first year of the forecast period. The title of the run and which State Benefit Model is being used for the forecasted data. Also, a trigger value for each state to allow the user to set if the State will adopt the high IUR or the TUR option. The user can set the TUR trigger anytime in the future.

State Worksheet (53): The TUR, IUR, First Payments and Exhaustions for each State for each quarter are passed from the State Benefit Model. The quarterly values are then

converted into weekly numbers using simple linear interpolation. For each week that EB is on, a weekly flow chart of EB participants is tracked and summed for state totals.

Summary Worksheet (1): For each state the weekly numbers are added up for quarterly totals and for calendar and fiscal year totals.