Seasonal Adjustment for CES Employment Data

The source data are as follows:

- WeatherData.xlsx gives the weather data in Sheet 1 and information on stations in Sheet 2 (used to create Table 1 in the paper). The RSI Index is index 1. Other versions of the RSI index that drop smaller storms are indices 2, 3 and 4, but these are not used.
- bls.xlsx gives the Not Seasonally Adjusted employment data in Sheet NSA. The other sheets in bls.xlsx are created by programs as described below and so are not source data.
- xtw.xlsx gives CPS work absences (both not seasonally adjusted and seasonally adjusted).
- hurricanes.xlsx gives dollar value of damage done by hurricanes.

To run the Matlab programs, you need the **Econometric Toolbox** and the **Optimization Toolbox**. They will not run otherwise. Also all the subdirectories have to be present (see notes below).

The program mastprog.m will run all the programs and create all the figures and Tables in one go. It takes a long time to run. Key programs that are run are:

- midas.m   Estimates the MIDAS polynomial.
- adjprog.m   Does the actual seasonal and seasonal-and-weather adjustment
- makefigs.m   Creates the Figures on the screen.
- maketables.m   Creates the data for Tables 3-5, displayed on the screen.

The SA and alternative SWA series are saved in the sheets of bls.xlsx. The "sa" sheet refers to seasonally adjusted data. The "swa1" sheet refers to seasonally-and-weather adjusted data using specification 1 and so on.

The sheet midasparams.xlsx saves parameters from estimating the MIDAS model. The data for Table 2 are also in this sheet (and marked as such).

Notes:
(i) The midas program generates results for specifications 9, 10 and 11 and places these in midasparams.xlsx. These specifications are not numbered in the paper. Specification 9 allows for hurricanes. Specification 10 allows for asymmetry. Specification allows for regional effects. Although these specifications are not numbered in the paper, the paper does refer to the results from the exercises in the text.
(ii) The iris subdirectory contains Matlab code for the X-13 seasonal adjustment. Each other subdirectory contains spec files for seasonal adjustment (spec0) or seasonal-and-weather adjustment with some specification (spec1-spec8) at the disaggregate level.

Seasonal Adjustment for NIPA data

The ordinary seasonally adjusted source data are in nipa.xlsx. Running nipaproc.m will create the SA and SWA data. The data for Tables 7 and 8 are then displayed on the screen.