

1) From FRED (Federal Reserve Economic Database) download the following monthly non-seasonally adjusted variables for Florida and the U.S., and name them as indicated:

Geography	FRED Series Name	Rename
Florida	All Employees: Total Nonfarm in Florida	fl_nonfarm
Florida	Civilian Labor Force in Florida	fl_lf
Florida	New Private Housing Units Authorized by Building Permits for Florida	fl_bp
U.S.	Employment Population Ratio	us_epr

2) Prepare to analyze the data:

- Read the documentation so you know your data
- Load the data
- Turn on a log file
- Generate a monthly date variable (make its display format monthly time, %tm)
- tsset your data
- Generate natural logs of the four variables to be used in the analysis.

3) Static Model

- Explain why the size of Florida's labor force, the prime age employment to population ratio, and Florida building permits, might be closely related to the number of nonfarm jobs in Florida in a static long run sense. You might want to make some time series plots to give your data context. (Perhaps where one variable is employment and the other, on the other axis, is one of the other variables.)
- Estimate the static model relating monthly nonfarm employment in Florida to the other three variables (all in logs) without controlling for seasonal impacts or a time trend.
- Estimate the static model with month indicators and a time trend.
- Compare your results from b and c and interpret any differences. What do the seasonal and time trend variables contribute?
- Why should you be cautious using the results of these models for testing any hypotheses about the underlying relationships?

4) Finite Distributed Lag Model

- Estimate the distributed lag model relating monthly nonfarm employment to lags 0 to 12 of the three predictor variables without month indicators and a time trend.
- Estimate the model in (a) but add month indicators and a time trend.
- Compare your results from a and c and interpret any differences. What do the seasonal and time trend variables contribute?
- Estimate two alternative models that contain month indicators and a time trend but that impose a more parsimonious lag structure for the predictor variables. Explain your choices.

5) Provide a neat report writing up your answers to 3 and 4. Do not simply post screenshots of the Stata results window. Rather, provide neat professional looking tables of the results you obtain. Estout and esttab are probably the easiest tools for this. Make sure any results you refer to in your answers appear near enough to the answers so that your overall submission is easy to make sense of. One exception to that might be when you need exceptionally long tables.

6) As Appendix A, include the clean do file to replicate your analysis.

7) As Appendix B, include the log file of a run of your clean do file to your write up.

8) Submit a **single electronic file** containing the answers and appendices. Preferably a pdf.