Using State-Level Data to Study Inflation

In this assignment, students create an Excel spreadsheet that displays nominal and real GDP at the state level in tables and graphs. The data in FRED are available from 1997 to the most recent year.

To collect the state-level nominal GDP data:

* Go to the FRED website (http://research.stlouisfed.org/fred2/)
* Click on the tab at the top left labeled, “Categories”
* Scroll down to “U.S. Regional Data” section and click on the link to “Sates”
* Click on the link to the specific state chosen to study.
* Under “Related Tabs” on the left, select “BEA.” This limits the number of datasets to choose from.
* Select the series, “Total Gross Domestic Product by State.” This should lead to a new page with a graph of the entire series.
* Copy and paste the graph generated by FRED into an Excel spreadsheet and/or
* Click on the link to the top left of the graph to “Download Data in Graph” or in the link on the “Tools” menu on the left to “Download Data.” NOTE: access to these links seems to vary from series to series, so look for whichever is available.

To collect the state-level real GDP data:

* Go to the FRED website (http://research.stlouisfed.org/fred2/)
* Click on the tab at the top left labeled, “Categories”
* Scroll down to “U.S. Regional Data” section and click on the link to “Sates”
* Click on the link to the specific state chosen to study.
* Under “Related Tabs” on the left, select “BEA.” This limits the number of datasets to choose from.
* Select the series, “Real Total Gross Domestic Product by State.” This should lead to a new page with a graph of the entire series.
* Copy and paste the graph generated by FRED into an Excel spreadsheet and/or
* Click on the link to the top left of the graph to “Download Data in Graph” or in the link on the “Tools” menu on the left to “Download Data.” NOTE: access to these links seems to vary from series to series, so look for whichever is available.

To collect and graph both nominal and real GDP data at the same time:

* Go to the FRED website (http://research.stlouisfed.org/fred2/)
* Click on the tab at the top left labeled, “Categories”
* Scroll down to “U.S. Regional Data” section and click on the link to “Sates”
* Click on the link to the selected state.
* Under “Related Tabs” on the left, select “BEA.” This limits the number of datasets to choose from.
* Check the boxes in each series that indicate, “Millions of Chained 2005 Dollars, Annual, Not Seasonally Adjusted” and “Millions of Dollars, Annual, Not Seasonally Adjusted” for “Real Total Gross Domestic Product by State” and “Total Gross Domestic Product by State,” respectively
* Click on the “Add to New Graph” button at the top, center. This should lead to a new page with a graph of both series.
* Copy and paste the graph generated by FRED into an Excel spreadsheet and/or
* Click on the link to the top left of the graph to “Download Data in Graph”

Part A: Create a tab named, “Nominal GDP.” Insert the state-level nominal GDP. Copy and paste the graph from FRED or use the data to create a graph that illustrates nominal GDP from 1997 to the present. Write a brief discussion of what the graph indicates about the state’s nominal GDP.

 Part B: Create a tab named, “Real GDP.” Insert the state-level real GDP. Copy and paste the graph from FRED or use the data to create a graph that illustrates real GDP from 1997 to the present. Write a brief discussion of what the graph indicates about the state’s real GDP.

Part C: Create a tab named “Nominal and Real GDP.” Copy the Year and the Nominal GDP columns into this tab. Add a copy of the Real GDP column in the next column. Copy and paste the graph with both series from FRED or use the data to create a graph of the state’s nominal and real GDP from 1997 to the present. Write a brief discussion of what the graph indicates about inflation.

Part D: Create a tab named “GDP Deflator and Inflation Rates.” Copy the Year, the Nominal GDP and the Real GDP columns into this tab. Create a column with the GDP deflator for the state for each year. Use the formula,

GDP Deflator = (nominal GDP/real GDP) x 100

Format with one place after the decimal point.

Create a column with the inflation rates for the state for each year starting with 1998. Use the formula,

Inflation Rate = (GDP Deflator for the 1st Year – GDP Deflator for the 2nd Year)/GDP Deflator for the 1st Year.

Format as a percentage with two places after the decimal point.

Write a brief discussion of trends in the state’s inflation rates from 1997 to the present.