(1) Analyzing the Effects of Wal Mart on the North Bay Economy
Use the North Bay QCEW and Wal Mart openings data sets to answer the following questions.

(a) In what year and city did Wal Mart enter Napa County?
(b) How many Wal Mart’s are in Napa County to date?
(c) Using 1990 as the before date, and 1995
(d) Using the retail sector in Napa as the treatment group and Marin County as the control
group, analyze the difference in difference of annual wages, employment, and
establishments.
(e) Use the manufacturing and services sectors as additional controls to analyze the
difference in difference in difference.

Time Series Analysis

(f) Construct a separate time series of employment, annual wages and establishments. Show graphically. Does there appear to be a difference in the trends before and after the entrance of Wal Mart?
(g) Use an F-test to test for difference in the trends of employment, annual wages and
establishments in Napa County after the entrance of Wal Mart. Show graphically and
explain fully.
(h) Construct a separate time series of employment, annual wages and establishments in
Napa and Marin counties. Show graphically. Does there appear to be a difference in
the trends in Napa relative to Marin after the entrance of Wal Mart?
(i) Use the Cuellar test whether the trend in annual wages, employment and
establishments differ in Sonoma and Napa after the entrance of Wal Mart. Show
graphically and explain fully.
(j) Compare the trends in employment, annual wages and establishments in Sonoma and
Napa counties. Show graphically.

Indexing a Time Series

(k) For ease of comparison, index the trends in employment, annual wages and
establishments in both in Sonoma and Napa counties to zero in 1990.
(l) Use an F-test to test for a difference in the trends of employment, annual wages and
establishments in Sonoma and Napa counties. Show graphically and explain fully.
(m) For ease of comparison, index the trends in employment, annual wages and
establishments in both Sonoma and Napa counties to zero in the year of entry.
(n) Use an F-test to test for a difference in the trends of employment, annual wages and
establishments in Sonoma and Napa counties. Show graphically and explain fully.