

Cost of Living

An executive of a multinational corporation may have to locate to another part of the globe for a period of time. These companies often rely on cost of living indices to compensate the executives fairly. The website Numbeo.com provides free and independent data on over 200 cities. You'll find the data in **Cost_of_living_2012**. Included are four indices (comparing prices as a percent to New York): an overall *Cost of Living* index, a *Rent* index, a *Groceries* index, and a *Restaurant* index. For example, a 60 in the *Rent* index means that the average cost of renting a comparable apartment in that city is 60% of the 2012 average New York City price.

¹²Sources: Unemployment rate—U.S. Bureau of Labor Statistics. See unemployment page at www.bls.gov/cps/home.htm#data. Interest rates—Federal Reserve. See www.federalreserve.gov/releases/H15/update/. Home Depot stock prices on HD/Investor Relations website. See ir.homedepot.com/quote.cfm.

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Examine the relationship between each of these individual items. Verify the necessary conditions and describe the relationship in as much detail as possible. (Remember to look at direction, form, and strength.) Identify any unusual observations.

Based on the correlations and linear regressions, which item would be the best predictor of overall cost of living in these cities? Which would be the worst? Are there any surprising relationships? Write a short report detailing your conclusions.