BUS 230: Business and Economics Research and Communication
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SPSS Handout: Estimating Relationships
Spring 2012

1 Chi-Squared Test for Independence

Unsatisfied Customers: Reason for Hotel Guests' Stay vs. Reasons They will Not Return

	Reason for Not Returning		
Reason for Stay	Price	Location	Amenities
Personal/Vacation	56	49	0
Business	20	47	27

Using SPSS:

- Dataset: `hotel.sav`.
- First column, `ReasonStay`: 0=Personal/Vacation, 1=Business.
- Second column, `NoReturn`: 0=Price, 1=Location, 2=Amenities.
- Go to `Analyze`, `Descriptive Statistics`, `Crosstabs`.
- Put one of the variables in the `Row(s)` box.
- Put the other variable in the `Column(s)` box.
- Click `Statistics` button.
- Check the box for `Chi-square`.
- Click OK!

2 Correlation

Example: Public Expenditure

- Data from 1960! about public expenditures per capita, and variables that may influence it:
  - Economic Ability Index
  - Percentage of people living in metropolitan areas.
  - Percentage growth rate of population from 1950-1960.
  - Percentage of population between the ages of 5-19.

  - Percentage of population over the age of 65.
  - Dummy variable: Western state (1) or not (0).

- Is there a statistically significant linear correlation between the percentage of the population who is young and the public expenditure per capita?
- Is there a statistically significant linear correlation between the public expenditure per capita and whether or not the state is a western state?

1. Open the dataset *publicexp.sav* in SPSS.
2. For a parametric test (Pearson correlation):
3. Select `Analyze` menu, select `Correlate`, then select `Bivariate`.
4. Select at least two variables (it will do all pairwise comparisons) on the left and click right arrow button.
5. Select check-box for `Pearson` and/or `Spearman`.
6. Click OK!