Time Series Data Analysis Portfolio

Assignment Description

Faculty Author: Jennifer Miller

Course: PPD 373 Public Policy and Planning Analysis

Department or School: Price School of Public Policy

Student Population: undergraduates, mostly seniors

Duration: semester

Deliverables:

• Topic proposal
• Portfolio memo 1
• Portfolio memo 2
• Portfolio memo 3
• Final portfolio

Keywords: public policy, data, quantitative, analysis, monetary, time series

Description

Summary
Five assignments collected together produce a portfolio showcasing students’ ability to present quantitative analyses for public policy, using 2 related and publicly available data series (one monetary and one non-monetary), numbers, graphs, and words.

Assignment Goals
The assignment is aligned with the following course learning outcomes.

Students will learn the value of quantitative methods for defining problems, making decisions, and evaluating outcomes in public policy and planning contexts.

Students will develop knowledge of the following specific topics:

• The public policy process and the roles of quantitative methods within that process.
• Methods to quantify magnitude, distribution, and trends for public problem definition and planning needs assessment.
The course provides an introduction to basic applications of the following specific techniques:

- **Indexing:** make quantitative comparisons among places and over time
- **Extrapolation:** use existing data to estimate unknown values.
- **Forecasting:** use data about the past and present to make predictions about the future.
- **Regression:** interpret results of multivariate regression analysis.

Students will develop the following specific skills using Microsoft Excel spreadsheet software:

- Format, and modify data
- Use graphing features to present data visually with clarity and integrity
- Use formulas and functions to create and interpret quantitative models

**Recommended Tools**

- Microsoft Office (Word, Excel, and PowerPoint)
- Lynda.com tutorials (accessed through Blackboard)
- Blackboard (quizzes, discussion boards, assignment descriptions and spreadsheet submissions, spreadsheet rubrics)
- Turnitin (memo rubrics, extensive use of commenting feature for feedback and accessed through Blackboard)
- [Voki Avatars](http://www.voki.com/pickup.php?scid=11326980&height=267&width=200)
- [RAND California](http://www.rand.org) and [DataPlanet](http://www.dataplanet.com) databases
- [Katharin Peter](http://www.usc.edu), USC Data Librarian

**Faculty Author Advice**

I purchased the Voki Presenter software for its broader selection of avatars, ability to record presentations longer than 1 minute, and ability to add backgrounds. Students had the option to earn credit on their final memo by recording a Voki avatar with an Executive Summary, using the free version of the Voki software, which has a 1-minute time limit (a positive feature). Sample student executive summary Voki avatar (with permission) by Mizuki Yamamoto at: [http://www.voki.com/pickup.php?scid=11326980&height=267&width=200](http://www.voki.com/pickup.php?scid=11326980&height=267&width=200)