

Statistics 626: Time Series Analysis  
Introductory Presentation

# US Employment Trends

## Group # 4

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	Travis Lilley	Bo Pang	

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## Introduction

Group Members

## Context

Goal

Data

## Visualization

Exploratory Plots



- ▶ Joseph Blubaugh
  - ▶ distance
  - ▶ code management
- ▶ Sean Roberson
  - ▶ on-campus (MS Mathematics, Industrial)
  - ▶ presentation
- ▶ Akarshan Puri
  - ▶ distance section - on-campus major
  - ▶ contributor
- ▶ Alison Shelton
  - ▶ distance
  - ▶ write-up
- ▶ Travis Lilley
  - ▶ distance
  - ▶ diagnostics
- ▶ Bo Pang
  - ▶ distance (MS Statistics), on-campus (PhD Psychology)
  - ▶ contributor

[https://github.com/JestonBlu/STAT626\\_PROJECT](https://github.com/JestonBlu/STAT626_PROJECT)

*Note: All students are contributing beyond what is listed. The project is being managed on GitHub and Overleaf to facilitate collaborative writing and analysis.*

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- ▶ As part of our analysis, we plan to examine how trends in unemployment correspond to political shifts in government.
- ▶ We can then predict how the results of the upcoming presidential election might impact unemployment in 2017.



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Purchase Only House Price Index



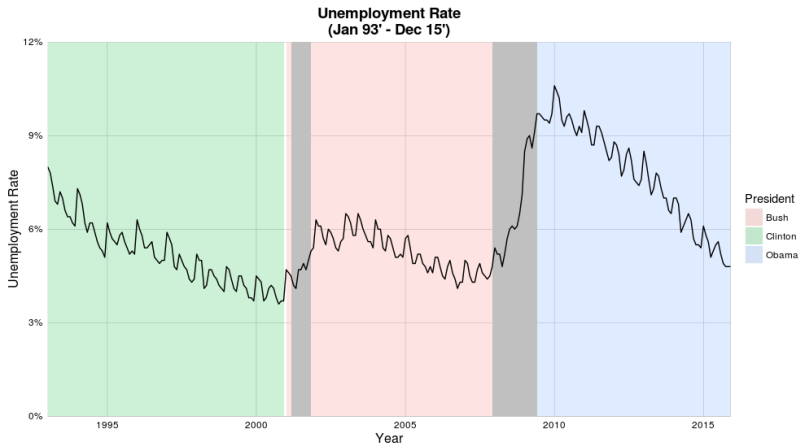
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  - ▶ Measure of single-family house prices relative to January 1991
- ▶ Total Construction Spending  
Retail Sales

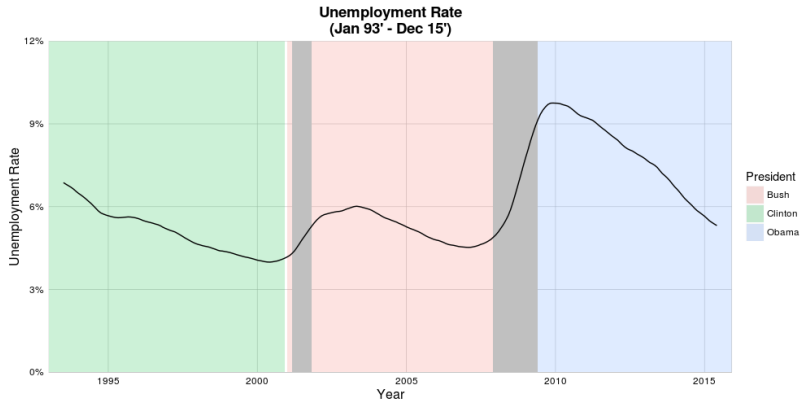
# US Unemployment by Month

Presidential Terms Highlighted: Raw Data



# US Unemployment by Month

Presidential Terms Highlighted: Smoothed Data





# US Unemployment Lag Plot

