Part I: Introductions
- Fill out course questionnaire
- Introduction of course instructor
- Course participants introduce themselves

Part II: Course Formalities
- Course overview
- Syllabus: Nuts & bolts
  - E-mail and the course LISTSERV
  - Course website and materials updating
  - Exams and grading
  - Rescheduling next week's class.
- Dates/times for class meeting, optional lab
- Ordering & using Stata

Break
- Handle any registration issues
- Form homework groups during the break

Part III: The Ordinary Least Squares Model and Review of Basic Statistical Ideas
- Comparing OLS to randomized controlled trials (RCT) – the “gold standard” in causal research
  - Why randomization is your best friend
  - Analogizing from research in the hard sciences
- Why OLS instead of RCT in social science research
- Why does OLS work if it is second best?
- Basic OLS model
  - Minimizing squared differences
  - Estimating coefficients of relationships
  - Coefficients as realizations of random variables
    - Estimates of model parameters
    - Testing coefficients
    - Understanding the standard error
  - Understanding the concept of disturbance term AKA error term, residual, etc.
  - Regressions as estimates of conditional mean
- The Classical Linear Regression Model and the Gauss-Markov Conditions
- When estimators are good estimators
  - Unbiased
  - Consistent
  - Efficient
- OLS: The Best Linear Unbiased Estimator (BLUE)

Optional Stata Introduction

<table>
<thead>
<tr>
<th>Assignment</th>
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<tbody>
<tr>
<td>- Readings per the syllabus – including those listed for the first class meeting</td>
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<tr>
<td>- Join the course LISTSERV, if you haven’t already</td>
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<tr>
<td>- Purchase of Stata, if you so desire</td>
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<tr>
<td>- Form a study group</td>
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<tr>
<td>- Complete Problem Set #0, using <em>A Brief Introduction to Stata</em> for assistance as needed</td>
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</table>
. use "H:\Rockefeller Courses\PAD705\Problem Set Data\gender.dta"

. regress salary sex

. predict salhat
(option xb assumed; fitted values)

. reg salary age

. predict agehat
(option xb assumed; fitted values)

. predict sexhat
(option xb assumed; fitted values)

. reg salary age sex

. predict salhat
(option xb assumed; fitted values)