SPRING 2010
NEW YORK UNIVERSITY
ROBERT F. WAGNER GRADUATE SCHOOL OF PUBLIC SERVICE

P11. 2902 REGRESSION AND INTRODUCTION TO ECONOMETRICS

Times and Place: Spring 2010
Mondays, 1:00 to 2:40 pm
194 Mercer, room 307

Prerequisites:
P11.1011; Pass on SPSS exam if waive
waive Stat I; Purchase Wagner Way at
Wagner Café to review SPSS if needed

Faculty:
Leanna Stiefel
Name and email:  Naiqi Sun
e-mail: leanna.stiefel@nyu.edu
time and place: Saturdays 10:00 to noon, 3051
Office:  Puck, 295 Lafayette, 3098
Name and email: Kristin VanBusum
Time:    Wednesdays 4 to 5:30 pm
or by appointment
time:  Thursdays 4:00 - 6:00pm, Humayan

Tutors (all at Puck)

COURSE DESCRIPTION

Multiple regression is the core statistical technique used by policy and finance analysts in their work. In this course, you will learn how to use and interpret this critical statistical technique. Specifically you will learn how to evaluate whether regression coefficients are biased, whether standard errors (and thus t statistics) are valid, and whether regressions used in policy and finance studies support causal arguments.

In addition, using a number of different datasets, you will compute the statistics discussed in class using a statistical computer package, and you will see how the results reflect the concepts discussed in class. If you choose, you can do a larger data and regression project in a team.

FUTURE COURSEWORK AND BECOMING PROFICIENT WITH STATISTICAL DATA ANALYSIS

If you wish to become expert in hands-on work with statistics, data sets and statistical computer packages, then the following four courses at Wagner are highly recommended: P11.1011, P11.2902, P11.2875 and P11.3148 (research capstone). In addition E10.2110 Applied Statistics: Using Large Databases in Education Research can be taken at the same time as Stat II and it will teach STATA and use of large databases. That said, P11.2902 has considerable computer work assigned, and if you wish a more data-intensive experience in this course, you can do the data and regressions project (see below).
COURSE REQUIREMENTS AND GRADING

1. **(10%) Problems and computer exercises**

Written and computer exercises must be handed in *during the class in which they are listed on the syllabus*. Answers will be posted on Blackboard following the class they are due. The assignments will be returned to your Puck mailbox with a check for satisfactory. List your mailbox number on your papers.

2. **(50%) Exam**

An in-class midterm will be given during Class 10 (*April 12*).

3. **(25%) Articles or Project**

In a group of five to six students, either:

- **Present or discuss a published article** during one of the last four classes, handing in a copy of the PowerPoint slides for your presentation and discussion

For this option, during **Class 6 (March 8)**, hand in a ranking of the articles from your first to your seventh choice for presentation/discussion. If you have no preference or if some preferences are tied, please let me know. I will put you in groups. NB: Some articles may be moved to other dates and/or not discussed depending on the number of students who choose to do the project option rather than the article option.

Close to the time of your presentation, your group will schedule an hour and a half with me to go over the article in detail.

- **Do and present a data and regression project** (more below).

For this option, if you wish to do it, let me know by email by **class 2 (week of February 1)** with what your proficiencies are from the list described under the project description, below, and I will put you in a group with which you can communicate to make sure you are all on board and to decide what database you will use and to download it. Then your group will contact me to **meet during the week of class 3 (week of February 8)**, to show me the database you choose, ask questions and discuss how the project will get done. During the **week of class 4 (week of February 22)**, the group will give me a list of which task each team member will lead, at least one equation that will be estimated, and a copy of the database.
4. **(15%) Explanations of how statistics support causality**

Each week of presentations, for *each* of the *two* articles, write one page or less that describes in your own words the primary causal relationship the article aims to test, what the main “threats” to the causal interpretation are, and how the statistical methods are used to address the threats. Then, describe one of the dependent variables that the authors analyze and the coefficient on the independent variable that is the main focus of the study and interpret in quantitative terms the meaning of the coefficient.

**Hypothetical Example of Paragraph on Causality**

In “Does Head Start Work?” Sopsyec (200X) aims to determine if attending a Head Start program *causes* increases in academic performance and health outcomes in the four years following attendance. The main threat to a causal interpretation of the effect of Head Start attendance is that the comparison groups of children attending other day care options (including none) are likely to differ not only in observable but also in unobservable ways from Head Start attendees. For example, children in the various options may differ with respect to innate health or academic endowments. The author addresses this concern using *family fixed effects*, whereby there are at least two children per family, with only one attending Head Start. Average differences between the two children within families provide the estimate of the effects. Family fixed effects control for differences in genetic endowments across children, unobserved differences in parental interest in education or health outcomes, and perhaps some unobserved nurture of children as well.

**Dependent variable:** Score on test of verbal ability, ranging for 0 to 500  
**Independent variable:** Dummy for whether attends Head Start Program or not (not stays home or attends another child care option)  
**Coefficient on Head Start Dummy:** 6.3 (standard error 3.1)  
**Interpretation:** Students attending a Head Start Program achieve 6.3 higher than children who do not. The coefficient is significant.
More on Data and Regression Project

Due the last day of class – paper, presentation, and SPSS output

A few groups of five to six students each can do a data project instead of a presentation of an article at the end of the semester. Some students in the past have wanted more hands-on data work in this course and this project will provide that. The project will take more time than the article presentation and for that reason project groups will read only three of the assigned articles for the weeks they are not presenting. Students who do the project should:

1. Have time before the midterm to devote to finding data and specifying a model (see the specific dates above, under data and regression project). Beginning around the second week of class, you will start to develop a proposal and then meet with me the third week. The fourth week, you will hand in your plan of work for the rest of the semester with assignments to group members for leading specific parts of the project.

2. Want a more intense hands-on experience with obtaining, analyzing, writing about and presenting statistics (in advance of taking other follow-on courses such as P11.2875: Estimating Impacts, or P11.3148: Applied Research Capstone, or E10.2110: Applied Statistics, all three of which provide more hands-on work).

3. Have proficiency on the part of at least one team member to:
   - download data into a file to import to SPSS and teach the others how to do it
   - easily run SPSS programs and teach others in the group to do it if they are having trouble (we will be doing this in class, but you need to do more of it. You learned this in Stat I but not everyone is comfortable by the time Stat II begins)
   - write a paper of results well
   - keep the team on a schedule and be responsible for getting each member to do his/her job

The paper would involve developing a straightforward model that uses data obtained from the web and can be estimated using regression, for example from the World Bank on countries over time (see data section of the following site -- http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/0,,menuPK:476823~pagePK:64165236~piPK:64165141~theSitePK:469372,00.html) or from the U.S. Census on states or counties or cities or metropolitan areas over time (see the following site and the sources referenced there on the right hand side on cities, states, counties http://www.census.gov/compendia/statab/). Also see page 77 HALCOUSSIS text (your textbook) for a table with many data sources from the

You would do a regression that contained at least two years of data for each observation so you have the data to do a “fixed effects” regression (we will be learning about this). The years should not be consecutive if there are only two.

The end result would be a paper, with two or three tables and five sections (to mimic the articles we will read) and a presentation of your results the last day of class. You would still read three of the assigned articles and you would circulate your paper for the rest of the class to read at least a day before your presentation.

Paper Outline

Note: The following two or three tables of results would be woven into the sections as indicated below.

Table 1: Descriptive statistics of all the variables in your model(s)
Table 2: Results of your models, presented as in the papers we read
Table 3??? If relevant, a table that shows your testing for problems with your regression (such as autocorrelation or heteroskedasticity, if not taken care of in Table 2).

I. Introduction – what is the goal of your statistical regression study? Why is it interesting; why do we care? (This does not have to be momentous – just say something about why the results could be interesting or valuable to someone).

II. Data – what are your sources and discuss the descriptive statistics in Table 1

III. Empirical Strategy – what is your model (equation) and how does it address the goal of your analysis? Why are the specific variables used and measured as they are?

IV. Results – Discuss the results in Table 2 (and Table 3 if you have one)

V. Conclusions – what does your model say about your goal or issue? What is the next step in this research?

Some ideas on topics (dependent variables) you could model and estimate with a regression equation are listed below. Each of these could be obtained for two or more years (not necessarily close in time) so you could look at changes. There are many, many more possible dependent variables.
Once you agree on one, then you have to locate enough relevant independent variables to make a good, lowest bias, model:

- Labor force participation rate by state (or for females or by race or by age)
- Unemployment rate by state
- College educated population over 25 by state
- Crime by city
- Spending on local government per person by city, country or state
- NAEP test scores (national education test) by state
- Mortality or birth rate by country
- GDP by country
- Literate population by country

This kind of project is entirely doable, if you want to put the time into doing it. Or you could read the articles and present, which will teach you how to understand and use the literature on policy and finance and you could wait until your next classes for more hands-on work. Again, there will be some hands-on work in the class for the computer problem sets, but this project would involve more and more independent work. I hope some of you will take advantage of the opportunity, but it is not required to receive a good grade!
COURSE MATERIALS

1. Dennis Halcoussis, Understanding Econometrics, South-Western, US, 2005, cited as HALCOUSSIS in the rest of the syllabus.

2. **Optional:** Leo Kahane, Regression Basics, Sage Publications, CA, 2001, cited as KAHANE, is useful for an alternative presentation of material and a source of more examples.

3. Seven studies to read critically. Go to the class Blackboard site to obtain the articles. We will read all of the articles and you will pick one, with a group of your classmates, to present or discuss in front of the class. On all others, you will write a paragraph on causality.


4. Other Assigned Exercises (shown on the syllabus as OTHER ASSIGNED EXERCISES.) A pdf file with exercises in addition to the ones from HALCOUSSIS is available on Blackboard under Assignments. You should download this file and then see the syllabus for the date when each exercise is due.
5. Computer Exercises and Data Sets to download from Blackboard. See syllabus for when they are due in class. The exercises are in one file under Assignments. The data and the answers are under the class when they are assigned (and due).

BLACKBOARD

You will need to have access to the class Blackboard site, found under “academics” on your NYU home location (https://home.nyu.edu/) or at http://classes.nyu.edu/. All announcements and class related documents (computer exercises, datasets, answers to exercises, optional exercises, occasional class notes etc.) will be posted here. If you have not activated your NYU net account or have forgotten your password, you can activate or change your password at http://start.nyu.edu. You must activate your account in order to access course materials and announcements on Blackboard.

Once you have accessed Blackboard, please change your e-mail address to whatever you use most often by going to “Tools” and then “Personal Information.” Some class announcements may be distributed via Blackboard’s e-mail list, thus it is important that you have an active e-mail account.

If you do not already have Adobe Acrobat Reader installed on your computer, go to http://www.adobe.com/products/acrobat/ and follow the download instructions. You will need this (free) software in order to read and print some of the materials on Blackboard.
## Summary of Assignments/ Due Dates -- P11.2902

1. 10% Problems and Computer Exercises  
2. 50% Exam  
3. 25% Studies or Projects  
4. 15% Explanation of how statistics support causality  

Key: H= Halcoussis text

<table>
<thead>
<tr>
<th>CLASS</th>
<th>DUE DATE</th>
<th>READING</th>
<th>HOMEWORK</th>
<th>OTHER</th>
</tr>
</thead>
</table>
| One   | January 25 | H Ch. 1 | • H Ch. 1 ex. 7, 13  
• H Ch. 2 ex. 6, 7, 8 | Email Professor if you want to do Data and Regression Project instead of Article Presentation |
| Two   | February 1 | H Ch. 2 | | Meet with Professor if doing Data Project |
| Three | February 8 | H Ch. 3 | • Computer Exercise Class 3 (bwght) | |
| Four  | February 22 | H Ch. 5 85-90, 97-100, 105 (section 5-4) | • H Ch. 3 ex. 5, 14, 15  
• Other Assigned Exercises (from Blackboard) 4.1 (a, b, c) 4.5 (a,b,c) | Send model, dataset, and group assignments to Professor if doing Data Project |
| Five  | March 1 | H Ch. 5 90-95, 100-104, 105-110 (section 5.5) | • H Ch. 5 ex. 4, 5, 8  
• Other Assigned Exercises 4.2, 5.1, 5.3, 5.4, 5.5, 5.7  
• Computer Exercise Class 5 (gphahs) | |
| Six   | March 8 | H Ch. 6 & 7 | • Computer Exercise A Class 6 (hpriceb)  
• Computer Exercise B Class 6 (wage). | Hand in article ranking for presentation if doing article presentation |
|       | March 15-20 | SPRING BREAK | | |
| Seven | March 22 | H Ch. 8 | • H Ch. 6 ex. 1, 4  
• H Ch. 7 ex. 3, 5, 7, 8, 10  
• Computer Exercise H Ch 6 ex. 13  
• Computer Exercise H Ch. 7 ex. 11 | |
| Eight | March 29 | H Ch. 9 | • H Ch. 8 ex. 2,3,4,5,6,8,9,10  
• Computer Exercise H Ch. 8 ex 14, 15 parts b,c,d | |
| Nine  | April 5 | H Ch. 12, 257- | • H Ch. 9 ex. 2, 4 | |
| Ten   | April 12 | 265   | Other assigned 8.1  
|       |          |       | Computer Exercise  
|       |          |       | Class 9            |
|       |          |       | MIDTERM EXAMINATION |
| Eleven| April 19 |       | H Ch. 12, 266-280  
|       |          |       | Houston & Richardson  
|       |          |       | 645-660.           |
|       |          |       | H Ch. 12 Ex 1, 4,  
|       |          |       | 6, 7, 8            
|       |          |       | Explanation of Causality  
|       |          |       | Presentations      |
| Twelve| April 26 |       | Abadie & Gay 599-620  
|       |          |       | Langhein 417-428    |
|       |          |       | Explanations of Causality  
|       |          |       | Presentations      |
| Thirteen| May 3  |       | Ellen & Voicu 31-52  
|        |          |       | Fernandez & Folgi 146-177  
|       |          |       | Explanations of Causality  
|       |          |       | Presentations      |
| Fourteen| May 10 |       | Welsh & Zimmer 1-25  
|        |          |       | Boyd et al 793-818   |
|        |          |       | Explanations of Causality  
|        |          |       | Presentations      |
TOPICS AND ASSIGNMENTS

CLASS 1: OLS BIVARIATE REGRESSION MODEL WITH ERROR TERM
(January 25)

(Theoretical regression line; deterministic versus stochastic relationships; population versus sample regression line; error and residual; OLS estimators)

Reading:
- HALCOUSSIS: Chapter 1

Optional Reading:
- KAHANE: Chapter 1 and Chapter 2, pages 19 to 29.

CLASS 2: OLS MULTIPLE REGRESSION AND ASSUMPTIONS ABOUT ERROR TERM
(February 1)

Please let me know if you want to do the Data and Regression Project
(instead of the article presentation)

(Motivation – reduction in bias and more plausible causality; interpretation of coefficients; BLUE; model assumptions)

Reading:
- HALCOUSSIS: Chapter 2

Optional Reading:
- KAHANE: Chapter 2, pages 30 to 34; Chapter 4

Exercises:
- HALCOUSSIS: Chapter 1, Exercises 7 and 13; Chapter 2, Exercises 6, 7, 8.
CLASS 3:  HYPOTHESIS TESTING (t AND F) IN OLS MULTIPLE REGRESSION CONTEXT AND UNDERSTANDING REGRESSION COMPUTER OUTPUT  
(February 8)  
Please make an appointment to meet with me if you are doing the Data and Regression Project  
(Significance tests; confidence intervals; F test; $R^2$; Adjusted $R^2$; Interpretation of regression computer output)  

Reading:  
-HALCOUSSIS: Chapter 3  

Optional Reading:  
-KAHANE: Chapter 3  

Computer Exercise:  
-Computer Exercise Class 3 (bwght). The necessary data are on Blackboard under Class 3 assignments. (The assignment on what to do with the data is with all other computer assignments, in one file, under assignments – “Computer Assignments”)  

FEBRUARY 15: PRESIDENTS’ DAY HOLIDAY, NO NYU CLASSES  

CLASS 4:  FUNCTIONAL FORM PART I: DUMMY VARIABLES, F TESTS (ANOTHER APPLICATION) AND POLYNOMIALS  
(February 22)  
Please send me model, dataset and the assigned responsibilities for each group member if you are doing the Data and Regression Project  
(Flexibility of regression line; use of dummies; testing for significance of dummies as a group – F test again; curved lines with polynomials)  

Reading:  
-HALCOUSSIS: Chapter 5, pages 85 to 90; 97 to 100; 105 (section 5-4)  

Optional Reading:  
-KAHANE: Chapter 5, pages 79-92  

Exercises:  
-HALCOUSSIS: Chapter 3, Exercises 5, 14, 15  
-OTHER ASSIGNED EXERCISES, 4.1 (a,b,c), 4.5 (a,b,c).  

(Note: Download these OTHER ASSIGNED EXERCISES from Blackboard as one file for all
CLASS 5: FUNCTIONAL FORM PART II: INTERACTIONS AND LOGARITHMIC TRANSFORMATIONS
(March 1)

(Interactions dummies, continuous, continuous and dummy; logarithmic or percentage change or elasticity transformations)

Reading:
-HALCOUSSIS: Chapter 5, pages 90 to 95, 100 to 104, 105 to 110 (section 5.5)

Optional Reading:
-KAHANE: Chapter 5, pages 92 to end.

Exercises:
-HALCOUSSIS: Chapter 5, Exercises 4, 5, 8
-OTHER ASSIGNED EXERCISES, 4.2, 5.1, 5.3, 5.4, 5.5. 5.7

Computer Exercise:
- Computer Exercise Class 5 (gpahs). The necessary data are on Blackboard under Class 5 assignments. (The assignment on what to do with the data is with all other computer assignments, in one file, under assignments – “Computer Assignments”)

CLASS 6: MULTICOLLINEARITY AND AUTOCORRELATION, PROBLEMS WITH STANDARD ERRORS
(March 8)

Please hand in your preferences for articles to present or discuss if you are doing the article presentation (and not doing the data and regression project).

Reading:
-HALCOUSSIS: Chapters 6 and 7

Optional Reading:
-KAHANE: Chapter 6, pages 113 to 119, 127 to end.

Computer Exercises:
- Computer Exercises A Class 6 (hpriceb) and Computer Exercise B Class 6 (wage). The necessary data are on Blackboard under Class 6 assignments. (The assignment on what to do with the data is with all other computer assignments, in
MARCH 15: NYU SPRING BREAK, NO CLASSES

CLASS 7: HETEROSKADASTICITY, PROBLEMS WITH STANDARD ERRORS (March 22)

Reading:
-HALCOUSSIS: Chapter 8

Optional Reading:
-KAHANE: Chapter 6, pages 119 to 126

Exercises:
-HALCOUSSIS: Chapter 6, Exercises 1, 4; Chapter 7, Exercises 3, 5, 7, 8, 10

Computer Exercise:
-HALCOUSSIS, Chapter 6, Exercise 13 on multicollinearity and Chapter 7, Exercise 11 on autocorrelation. The necessary data are on Blackboard under Class 7 assignments.

CLASS 8: FIXED EFFECTS REGRESSION WITH PANEL DATA PART I (March 29)

(Pooled cross section and time series data; panel data; fixed effects regressions; random effects regressions; motivation – less omitted variable bias and better causality)

Reading:
-HALCOUSSIS: Chapter 9

Exercises:
-HALCOUSSIS: Chapter 8, Exercises 2, 3, 4, 5, 6, 8, 9, 10

Computer Exercise:
-HALCOUSSIS, Chapter 8, Exercise 14 and 15 – parts b,c,d only -- on heteroskadasticity. For Part b, transform the variables, for which it makes sense, to per capita. That is, convert Taxrev and gsp, but not unemployment, by dividing them by population. DO NOT USE WLS IN SPSS AS IT GIVES YOU AN INCORRECT ANSWER DUE TO USE OF THE WRONG WEIGHTS. The
necessary data is on Blackboard under Class 8 assignments.

**CLASS 9:** FIXED EFFECTS REGRESSION WITH PANEL DATA PART II AND LINEAR PROBABILITY MODELS  
(April 5)

**Reading:**  
-HALCOUSSIS: Chapter 12, pages 257-265.

**Exercises:**  
-HALCOUSSIS: Chapter 9, Exercises 2, 4  
-OTHER ASSIGNED EXERCISES: 8.1

**Computer Exercise:**  
Exercise 9 Beer Tax. The necessary data are on Blackboard under Class 9 Assignments. (The assignment on what to do with the data is with all other computer assignments, in one file, under assignments – “Computer Assignments”)

**CLASS 10:** MIDTERM EXAMINATION  
(April 12)

You may bring two pages of notes (any font, any size paper, one sided) and you should bring a calculator. All necessary statistical tables (t, F etc.) will be supplied.
CLASS 11: MORE ON QUALITATIVE DEPENDENT VARIABLES AND PRESENTATION  
(April 19)

Reading:
-HALCOUSSIS: Chapter 12, pages 266-280.

Exercises:
-HALCOUSSIS: Chapter 12, Exercises 1, 4, 6, 7, and 8.

Presentation:
All presentations must stay strictly to the following time limits. (There will be a time keeper assigned to notify you of time left and to cut off the presentations if they run over.) Twenty minutes for the article presentation; 20 minutes for the discussion; 5 minutes for questions and answers. Be sure that each member of the team has an assigned role.

Reading:

Homework:
Hand in explanation of causality for this study even if you are presenting.
CLASS 12: PRESENTATIONS  
(April 26)

All presentations must stay strictly to the following time limits. (There will be a time keeper assigned to notify you of time left and to cut off the presentations if they run over.) Twenty minutes for the article presentation; 20 minutes for the discussion; 10 minutes for questions and answers. Be sure that each member of the team has an assigned role.

Reading:


Homework:  
- Hand in explanations of causality.

CLASS 13: PRESENTATIONS  
(May 3)

All presentations must stay strictly to the following time limits. (There will be a time keeper assigned to notify you of time left and to cut off the presentations if they run over.) Twenty minutes for the article presentation; 20 minutes for the discussion; 5 minutes for questions and answers. Be sure that each member of the team has an assigned role.

Reading:


Homework:  
- Hand in explanations of causality.
CLASS 14: PRESENTATIONS INSTEAD OF FINAL EXAMINATION
(May 10)

All presentations must stay strictly to the following time limits. (There will be a
time keeper assigned to notify you of time left and to cut off the presentations if
they run over.) Twenty minutes for the article presentation; 20 minutes for the
discussion; 5 minutes for questions and answers. Be sure that each member of the
team has an assigned role.

Reading:
Welsch, David M. and David M. Zimmer (2008). “After-School Supervision and
Children’s Cognitive Achievement,” The B.E. Journal of Economic Analysis and
Policy, 8(1): 1-25.

Narrowing Gap in New York City Teacher Qualifications and Its Implications for
Achievement of Students in High-Poverty Schools.” Journal of Policy Analysis

Homework:

-Hand in explanations of causality.
GRADING CRITERIA

Grades will be assigned according to the following criteria:

A  Excellent: Exceptional work for a graduate student. Work at this level is unusually thorough, well reasoned, creative, methodologically sophisticated, and well written. Work is of exceptional, professional quality.

A-  Very Good: Very strong work for a graduate student. Work at this level shows signs of creativity, is thorough and well-reasoned, indicates strong understanding of appropriate methodological or analytical approaches, and meets professional standards.

B+  Good: Sound work for a graduate student; well-reasoned and thorough, methodologically sound. This is the graduate student grade that indicates the student has fully accomplished the basic objectives of the course.

B  Adequate: Competent work for a graduate student even though some weaknesses are evident. Demonstrates competency in the key course objectives but shows some indication that understanding of some important issues is less than complete. Methodological or analytical approaches used are adequate but student has not been thorough or has shown other weaknesses or limitations.

B-  Borderline: Weak work for a graduate student; meets the minimal expectations for a graduate student in the course. Understanding of salient issues is somewhat incomplete. Methodological or analytical work performed in the course is minimally adequate. Overall performance, if consistent in graduate courses, would not suffice to sustain graduate status in “good standing.”

C/-/+Deficient: Inadequate work for a graduate student; does not meet the minimal expectations for a graduate student in the course. Work is inadequately developed or flawed by numerous errors and misunderstanding of important issues. Methodological or analytical work performed is weak and fails to demonstrate knowledge or technical competence expected of graduate students.

F  Fail: Work fails to meet even minimal expectations for course credit for a graduate student. Performance has been consistently weak in methodology and understanding, with serious limits in many areas. Weaknesses or limits are pervasive.
STUDENT INFORMATION SHEET

Name ____________________________________________________________

Name of undergraduate institution and year of graduation:

Previous experience in statistics? When?

Previous professor for statistics if Wagner? ____________________________

Program (circle one)       Health          Public and Nonprofit           Urban Planning          Other

Expected specialization (circle)          Finance       Policy      Management     International   Other

Brief description of work experience (if any):

Specific areas of interest in public policy or finance:

What do you hope to learn or gain from taking this course?

Other information of interest, especially to help me get to know you faster.