

## ECONOMICS DEPARTMENT--BRIGHAM YOUNG UNIVERSITY

Econ 463

**Introduction to Labor Economics**

Spring Semester, 2006

Lecture: 12:00-1:20 p.m., M, T, W, TH B060 JFSB

Instructor:

Dick "Coach" Butler 183 FOB

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Office Hours : Tue, Thur 1:30pm -2:30 pm and by appointment

Required Texts:

George Borjas, *Labor Economics* 3rd edition, Irwin/McGraw-Hill, 2005. **Notes** available on my departmental Webpage (from the departmental webpage, click "faculty&staff," then "Butler," then "463")

You must regularly check your EMAIL, and initially email me your questions about course material before coming to see me during office hours. For this course will be expected to use the following software:

STATA, SAS, or SHAZAM: to do regressions for your papers (use STATA in class)

INTERNET: "ferret.bls.census.gov" for data and "scholar.google.com" for literature review

POWERPOINT: classroom presentation at end of the semester

I'll illustrate these programs (FERRET & STATA) the first week as follows: Tues, May 2, 5:00-7:00 pm (102 SWKT); Wed, May 3, 5:00-7:00 pm (102 SWKT); and Thurs, May 4, 5:00-7:00 pm (102 SWKT).

STATA and SAS software is installed at all open access computer labs on campus.

Course Objectives:

To provide students with the basic analytical tools and institutional background to understand labor markets in developed countries, particularly the United States. The topics covered include: labor supply and demand analysis, determination of wages, employment and unemployment, accumulation of human capital and investment in education and training, wage and employment differences by gender and race, implicit employment contracts, and government programs addressing workplace safety (workers' compensation) and unemployment (unemployment insurance). You will develop your skills through reading, doing the problem sets at end of each chapter (on your own), and writing an original empirical research paper.

Grading: Grades are only determined by the final allocation of points. There are no make-ups or extra credit projects. Points are allocated as follows:

Homework 100 points

Midterms(2): 200 points

Paper: 200 points (30 first paper; 30 comments; 40 attendance; 100 second paper)

Final: 200 points

TOTAL 700 points

Notice that you are not graded on attendance (except when classmates are giving their presentations). However, it would be unwise to miss the lectures. The readings, and questions in the book, and lectures are cumulative in the sense that later topics often build on previous topics. You must email me with your questions if you don't understand the material (please **email me FIRST before coming to my office**: I will remove your name from the email and send a reply to you and all of your classmates, many of them will likely have the same questions as you do). Don't ask me to solve any problems from the book until you and your group have tried to work them out already: show me what you've done so far.

**Computer** analysis for your paper can be handled on your own computer (if you have the correct software), at the department's computer lab in 136 FOB, or in 112/105 SWKT all day, or from any open access computer lab on campus.

**Exams** will cover materials from all the lectures, the readings, and the text. Again, go over all the problems in the text. Some exam problems will be drawn from (with alterations) from the problems in the back of our text as well as from the class notes. A calculator may be required for some of the exams. The exams will be closed book and closed notes.

**Papers.** Two papers are due this semester, both must be original empirical research involving at least one regression (with auxiliary regressions as your topic warrants for your second paper). BOTH papers must use topics, broadly defined, derived from labor econ topics. You will be pulling the data for these papers off of the Internet, accessing data through the ferret portal. Paper length on **first paper** should be 2 to 3 pages long, double-spaced, including a small table of descriptive statistics and another of the regression, with a short write-up of the results (include discussion of hypotheses tested and your empirical results). The **second paper** should be about 15 to 20 pages, including tables and references (and a brief literature review—use [www.scholar.google.com](http://www.scholar.google.com)). There is an appendix to lecture 1 explaining some of topics that you might consider for your paper, and how to download the data. The second paper may NOT use the current population report with wage or income as the dependent variable, but must use some other dependent variable or some other data set. Note from the class schedule that the first paper is due **May 9**, one week after class starts.

You will be randomly assigned to a review group which will help you edit your second research paper, but which will not be involved in your first research paper. Each group will consist of 3 or 4 students, who will review each others' research papers. The first draft of the second research paper is due to the members of your review group, by **June 8** (you will lose 40 points on your paper if the draft is not turned in to members of your review group by this date, or you turn in a piece of junk thrown together at the last minute). Your comments to other members in your review group will be turned in (back to the original authors) on **June 13**. All of you should look over the comments and incorporate the useful ones into your final draft. The final draft and comments (made by others on your paper) are to be turned into me by **June 19** (Monday, the last lecture day) at 5:00 p.m. (to my mail box or under the door to my office). I need the comments made by others on your paper so I can grade them (see below). I will read only the final drafts of the papers, and students' comments on the first draft of the second paper. To be acceptable, your paper must meet the following requirements:

1. employ data recent data from one of the data sets through the "ferret" portal—see the handout on paper topics). You cannot use the CPS march supplement data for your second paper (as often done in the past) if you are using wages or income as your dependent variable.
2. you must include a copy of **all STATA, SAS, or Shazam programs and a copy of the data set** you downloaded on a **diskette (or CD, or Zipfile)** to be turned in with the paper (if there is no diskette with programs and data sets, your grade will be zero for this part of the course—you can pick up the diskettes after exam week from the departmental secretaries, along with the final graded paper—we will toss them all by summer semester),
3. your paper must specify the data selection criteria and the variables downloaded in sufficient detail that the reader can replicate your results (at the very least, so that I can replicate all of your results) and,
4. your paper is **original research**: you do the regressions; you write the paper yourself; the paper has not been used for another class; and the paper is not concurrently being handed in to meet the requirements for another class (unless you have the express written consent of both that other instructor and myself). **Papers that are not original in these senses are violations of BYU Honor code.**

Your paper grade (200 points) is divided into four parts: 30 points for the first paper, 100 points for the final revision of your second paper (remember that you are only graded on the final quality of the paper and not by how much it might have improved from the first draft), 30 points for the quality of your comments on the other papers in your review group, and 40 points for your attendance during others' presentations. You are graded both on the technical competence of the study (how well you employed and interpreted the appropriate econometric techniques to relevant labor economics issues), and how well you communicated your results (your

writing style). Your comments on the other papers in your review group must consist of legible remarks written on the paper itself. You (in your role as paper commentator) must write your name on the first page so that Coach knows which person's comments he is grading.

There is no set **paper format for the second paper**, but you **must include a table of descriptive statistics** (means, variances, maximum and minimums for the data set used), and **tables of all the important regressions**. One "traditional" layout might be as follows:

1. Abstract (optional, but a good idea)
2. Introduction, Model, Data and Hypotheses
  - \*What is the problem that the paper addresses?
  - \*Why should we be interested in this problem?
  - What can we learn from empirical research about this issue (either policy relevant things, or scientific-behavior things)?
  - \*What model is being used for the statistical analysis?
  - \*What specific hypotheses will be tested?
  - \*What data are used to make the tests?
3. Literature review—what have others reported about this topic (search on scholar.google.com)
4. Empirical results--BE SPECIFIC IN YOUR DISCUSSION OF THE RESULTS
  - \* remember the table of descriptive statistics and table of regression results
  - \*"Table ZZZ indicates that a 10 percent increase in XXX leads to a 2 percent decline in YYYY. This implies that....."—i.e., be specific in your description of the results
  - \*What are some of potential biases in your study, or shortcomings in the analysis?
- 5 Conclusions
  - \*Summarize your findings. How do they compare with other researchers in this area?
  - \*Suggested directions for future research? Policy implications?
6. References mentioned in Literature Review
7. Tables—if not already included in the body of your paper

Some Common Mistakes:

1. "hetcov" doesn't change the  $R^2$  or coefficients, only the covariance matrix of the estimated betas and their associated t-statistics.
2. Were all the variables downloaded from the Internet converted to the appropriate dummy variables (or other type variables—you can tell by looking carefully at the descriptive statistics)?
3. Did you include a table showing the descriptive statistics for all the variables, both the dependent and independent variables?
4. Did you rid the language in your paper of redundancies? Did you remove all the material that was like the material before it? Did you make sure you aren't repeating the same thoughts by editing your paper? Did you make sure you didn't say the same thing over and over? Did you delete the duplications? Do you get the point?
5. You can show either the estimated equation (but be sure to include the p-values, or t-stats for the coefficients underneath them in parenthesis), or you can cut and past the regression output into your text, but don't do both. It's redundant.
6. Have you considered whether your model is heteroskedastic (this is where you use the 'hetcov' option in Shazam)?

**Behavior at BYU and in Coach's 463 class:**

**TURN OFF YOUR CELL PHONES WHEN YOU COME TO CLASS.**

While students are encouraged to discuss homework or their research papers with other students, everyone must write-up their own problems and their own research independently. Copying someone else's

homework or presenting someone else's research as your own (or handing in work used by yourself or others in previous classes) is strictly prohibited in this class.

I have tried to minimize the potential for plagiarism by assigning original, empirical research on recent data. Nonetheless, Satan has great hold on many of our hearts. So I must warn you anyway: Copying someone else's research as your own is strictly prohibited in this class. See the discussion above concerning original papers. You do your own regressions; you write up your results. You are welcome, however, to have your friends and families make helpful suggestions or comments on your paper drafts. In fact, you are encouraged to rewrite your papers several times. Please know that as your professor I will notice instances of cheating on exams or plagiarizing on papers. See <http://www.byu.edu/honorcode> for specific examples of intentional, inadvertent plagiarism, and fabrication, falsification.

**Honor Code, Sexual Harrassment, Students with Disabilities** please go to the following internet site: [www.byu.edu/fc/pages/tchlrlpages/SyllabusInsert.htm](http://www.byu.edu/fc/pages/tchlrlpages/SyllabusInsert.htm) and read BYU's policies regarding these matters.

**Writing Style.** A Few Notes on Writing Styles from Trimble's Writing with Style (one of many good books, Strunk and White being another):

1. start with an interesting introduction, not with formulaic phrases like "This study shows that.."; "The data indicate that.."; or "I will examine..."

2. see the reader as a friend with a warm sense of humor and an appreciation of simple straightforwardness

3. write as if you were talking to that friend, but talking with enough leisure to develop your thoughts concisely & interestingly

4. substitute **that** for **which** whenever possible, and then get rid of all the "that"s in your paper you can

5. us contractions, but only occasionally

6. use dashes to isolate concluding phrases for humorous effect or for emphasis

7. vary your sentences, short sentences are OK

8. for abstract arguments, use illustrations, analogies, etc. to aid the reader's understanding

9. keep adjectives to a minimum (use strong nouns instead)

10. avoid trite adverbs like **very**, **extremely**, **really** and **terribly**.

11. use the fewest words possible and the simplest words possible

12. make sure your sentences are connected to the ones before and after it

13. periodically summarize you argument

14. use semicolons to reduce choppiness, especially when you have several related sentences in parallel structure (but only use if they are each complete sentences that could be separated by periods. Otherwise, use commas to separate incomplete sentences. Commas are also used for "natural" pauses in the text, or when necessary to clarify the meaning).

15. read your research paper aloud

16 instead of saying "first" and "second", actually use the numerals themselves in parentheses

17. use numerals for 10 and higher (some use it for numerals up to 100), spell out one, two, three...nine

18. if you begin a sentence with and or but, don't use a comma after it

19. its OK to use humor

20. choose your paragraphs with care--vary them to keep your writing interesting

21. choose your title with care

22. avoid exclamation points

23. redo heavy, tortured paragraphs by remembering your friend in number 1

24. take a break from writing, and rewrite when you return

25. when it sounds natural, and does not lead to ambiguities, you can:

a. end sentences with prepositions (with, about, etc.)

b. use split infinitives (to **fully** cooperate)

26. state the main theme of the paper early and frequently relate your discussion back to that main theme

BELOW ARE SOME RESEARCH QUESTIONS OF THE TYPE THAT WILL BE ASKED ABOUT YOUR PAPER WHEN YOU PRESENT IT TO THE REST OF THE CLASS:

Implications of the research:

main theme of the paper:

\*Give the main theme in two sentences

\*Describe your main statistical findings in two sentences

alternative interpretations of the results:

\*Your interpretation of the result is that X causes Y; are there other interpretations--

Z causes both X and Y (how would you deal with this)

Y causes X (what assumption does this violate, and what does it imply?)

\*Are all the conclusions that you draw in this paper justified by your empirical findings? The findings of others? What additional assumptions are you making when drawing your conclusions?

\*Are there any other tests (statistical analysis) that you might do that would confirm/contradict your finding that \_\_\_\_\_?

for private firms:

\*As demographics change in the future, what implications does your study have for employee costs? The optimal design of employee benefits? What are some of the elements that would need to be considered in the optimal design of \_\_\_\_\_?

for public policy:

\*What does your research say about the proposed (or recently enacted) law to change \_\_\_\_\_?

\*What does your research suggest, if anything, about optimal public policy in \_\_\_\_\_? (What laws would be Pareto improving?)

Research Design:

Sample design:

\*What other things could you have done with more time and research resources?

\*If you had unlimited resources to create the ultimate research design to address your question, what would it be like? How does your sample fall short of the ideal?

\*Are your results generalizable? Why?

\*Did you have a lot of missing observations in your sample? Were they missing systematically, or randomly? Will this affect any of your results?

Appropriate Statistical tools:

\*What kind of sample would enable you to use a simple t-test to get the same information that you estimate from your multiple regression?

What questions can your sample address:

\*What are the types of issues that you can and cannot address with this data?

BUT MOSTLY: How do your empirical results relate to models developed or discussed in class?

Limitations of the study:

limitations due to missing variables

\*What is the bias from omitting \_ in your analysis?

are there statistical issues that you could not address?

Technical questions about your regression:

\*How do you interpret:

intercept                      slope coefficient              dummy variable

t-statistics                      probability significance level or "p-values"

F-test for model fit              R<sup>2</sup>, adjusted R<sup>2</sup>

residual plots                      interaction effects: age-square, male\*age, age\*income, male\*white

null hypothesis, critical region, acceptance region

partial F-tests (Chow tests)

Its Place in your Coursework:

\*What theory did you learn in this class that says something about what you might have expected to find in your empirical results?

\*What did you learn from your research that modifies or enriches your understanding of \_\_\_\_\_ ?

### Econ 463 Coach Butler's Spring 2006 class

| date/lecture   | Topic                            | Readings in Borjas | Homework (due date: #s) |
|--|----------------------------------|--------------------|-------------------------|
| May 2, #1  | syllabus, testing models         | 1 (and appendix)   |                         |
| 3, #2  | Labor Supply                     | 2                  | Due 5/8: 6, 10, 14      |
| 4, #3  | Labor Supply                     | 2                  |                         |
| 8, #4  | Household production, life cycle | 3                  | Due 5/15: 1, 8, 12      |
| <b>May 9 Paper #1 is due today</b>   |                                  |                    |                         |
| 9, #5  | Household production continued   | 3                  |                         |
| 10, #6   | Labor demand                     | 4                  | Due 5/22: 4, 7, 10      |
| 11   | Review papers and Ferret         |                    |                         |
| 15, #7   | Labor demand                     | 4                  |                         |
| 16, #9   | Labor demand elasticities        | 4                  |                         |
| 17, #10  | Quasi-fixed labor costs          | 4                  |                         |
| <b>18 IN CLASS MIDTERM</b>   |                                  |                    |                         |
| 22, #11  | Market equilibrium               | 5                  | Due 5/30: 3, 10, 11     |
| 23, #12  | Compensating differentials       | 6                  | Due 5/30: 4, 6, 8       |
| 24, #13  | Compensating differentials       | 6                  |                         |
| 25, #14  | Human capital and education      | 7                  | Due 5/30: 1, 6, 8       |
| 29   | <b>MEMORIAL DAY</b>              |                    |                         |
| 30, #15  | Human capital and wage structure | 8                  | Due 6/5: 8, 10, 11      |
| 31, #16  | Discrimination                   | 10                 | Due 6/5: 4, 5, 12       |
| June 1,  | Discrimination                   | 10                 |                         |
| 5, #18   | Implicit contracts               | 12                 | Due 6/12: 1, 3, 5       |
| 6, #19   | Implicit contracts               | 12                 |                         |
| <b>7 IN CLASS MIDTERM</b>  |                                  |                    |                         |
| 8  | <b>No CLASS LECTURE</b>          |                    |                         |
| <b>8 First Draft of the Paper is Due to Group Review Members Today (or lose 40 points)</b>   |                                  |                    |                         |
| 12, #20  | Unemployment                     | 13                 | Due 6/19: 1, 3, 10      |
| <b>13 Comments to those in your review group are due today</b>   |                                  |                    |                         |
| 13, #21  | Unemployment                     | 13                 |                         |
| Jun 14 #23   | Workers' compensation            |                    |                         |
| 15   | Student presentations            |                    |                         |
| 19   | Student presentations            |                    |                         |
| June 19, Monday <b>Final Draft Paper (and diskette/CD)</b> Due by 5:00pm, along with <b>Comments</b> that others in your review group made on your paper |                                  |                    |                         |
| June 22, Thursday, 1 p.m. - 3:00 p.m. <b>Comprehensive Final Examination</b>   |                                  |                    |                         |