Honors Thesis Research – Econ 199D

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Introduction

An economics honors thesis is an original contribution to the discipline. It either answers a research question that had not been addressed before, or it contributes a new perspective, new data, new analysis to a research question that had already been studied.

Stanford Econ honors students have answered a wide range of research questions in different fields of economics, using both traditional economic tools as well as methodologies originally developed in other disciplines. Prospective honors students are encouraged to browse through the thesis titles and abstracts of their predecessors. Past honors theses are available at the Stanford Digital Repository and linked from https://economics.stanford.edu/honors-program/honors-theses.

Each year the top theses are recognized with university and departmental awards (https://economics.stanford.edu/undergraduatehonors/honors-prize-and-award-winners). Prospective honors students are encouraged to read some of these theses and gain a better understanding of what a great economics honors thesis looks like.

Learning outcomes

By the end of the honors thesis research process, students will have demonstrated mastery of the following skills:

- Conducting research (whether empirical or theoretical, or a combination of both) to answer a research question.
- Applying existing economic models and tools (possibly from other disciplines as well).
- Writing in the format and style specific to economic research.

Requirements

- Complete all requirements for the economics major, plus 5 units, for a total of 85 units for the BAH, at the end of senior year.
- Complete Econ 102B and at least two Econ upper division courses relevant to the proposed topic of the honors thesis by the end of junior year.
- Achieve a grade point average (GPA) of at least 3.5 for the units required for the Economics major. Units of 199D or 139D do not count in the computation of the GPA requirement for honors. The GPA will be calculated at two points: (1) when the student applies to the honor program, and (2) at the end of the quarter in which the student graduates. If the GPA is below 3.5 at the end of the quarter in which the student graduates, the student will have to drop honors in order to graduate.
- Candidates must write and present an honors thesis in their senior year, for one to nine units of credit in their thesis advisor's section of Econ 199D. Students should talk with their thesis advisor

- and the Director of the Honors Program before deciding how to allocate Econ 199D units among the three quarters of their senior academic year.
- Additionally, in winter quarter of senior year, enroll in one unit of the Director of the Honors Program's Econ 199D section (199D-20).
- The thesis must be of very high quality and written under the direction of a member of the department or its affiliated faculty. The successful completion of an honors thesis and at least five units of credit in the Econ 199D section of the thesis advisor may replace the requirement for Econ 101, as long as the number of units for the BAH is at least 85.
- Note that the honors program lasts one academic year. The normal cycle is from fall to spring of your senior year (three quarters). Occasionally, a student may start their honors program off cycle. For example, a student who is planning on graduating in fall quarter of their fourth year at Stanford may start the honors program in winter quarter of their third year at Stanford, if they fulfill all the other honors requirements. Exceptionally, a student may be granted an additional quarter to finish their honors program. For example, when a student takes a one-quarter leave for medical or family reasons. The Director of the Honors Program decides whether a student can start the honors program off cycle, or whether an honors student will be granted an exception for an additional quarter to finish their honors thesis.

Application

Communicate with the Director of the Honors Program as soon as you think you are interested in doing honors research, and no later than the second Monday of fall quarter of senior year.

By the third Wednesday of fall quarter of senior year, prospective candidates for the honors program must submit the following items online at

https://app.smartsheet.com/b/form/f06a2ec6669044aca264dfc612d442c7:

- 1. A one-page description of the proposed thesis topic and research question
- 2. A one-page proposed timeline
- 3. Other information requested in the application form. For example, some courses taken, student information.

After you submit your application, your thesis advisor and the Director of the Honors Program will review it and (if everything is fine) approve it. After you are given the go-ahead, you can declare the Econ BAH in Axess and register in Econ 199D units (do not register in Econ 199D before that point!).

Timeline

Honors students must meet specific deadlines established by the University, the Department of Economics, and the Honors Program Director to (1) become an honors student, (2) continue as an honors student, (3) be considered for departmental and university awards, and (4) graduate with honors. Beyond these general deadlines, pairs of students and thesis advisors will determine multiple intermediate milestones that will facilitate and encourage research progress with timing and feedback relevant to each specific project.

First week of fall quarter. Contact the Director of the Honors Program about your possible intent to participate in the Honors Program.

Third Wednesday of fall quarter. Complete the honors program application.

Third Friday of fall quarter, before noon. Declare Econ BAH in Axess.

Monday of the seventh week of fall quarter. Submit draft of literature review to your thesis advisor and the Director of the Honors Program.

First week of winter quarter. Enroll in one unit of the Director of the Honors Program's Econ 199D section (Econ 199D-20).

Fourth Monday of winter quarter. Submit methodology/study design to your thesis advisor and the Director of the Honors Program.

Seventh Monday of winter quarter. Submit preliminary results to your thesis advisor and the Director of the Honors Program.

First day of classes in spring quarter. Submit first full draft to your thesis advisor and the Director of the Honors Program.

Fifth Wednesday of spring quarter. Submit honors thesis to your thesis advisor and the Director of the Honors Program. If your thesis is in its final form, you will be considered for department and university prizes. If your thesis is not in its final form, you will have another chance to submit a revised, final thesis.

Sixth week of spring quarter. Oral presentations. For 2025 we have reserved the Lucas Conference Room A at the Landau Building on May 5-9, so make sure you will be available and on campus during those dates. The precise timing of the presentations will be determined in April 2025.

Ninth week of spring quarter. Submit your honors thesis to the Stanford Digital Repository.

Friday, June 6, before noon. (This date corresponds to 2025; it changes every year). Submit honors thesis to your thesis advisor and the Director of the Honors Program (for those who did not submit their final thesis by the fifth Wednesday).

Note: if you will not be graduating in spring quarter, talk with the Director of the Honors Program about possible changes in this timeline.

Relationship student-advisor

The thesis advisor serves as the mentor for the student, the main source of guidance and feedback during the student's honors research process.

Typically, the student-advisor pair meets every other week, though depending on the stage of the research and the working relationship of student and advisor, the frequency of meetings ranges from weekly to monthly.

The student-advisor pair determines the nature of their meetings. Productive meetings many times include the discussion of a specific document or set of ideas, shared in writing a day or two before the actual meeting.

A critical component of this working relationship is the feedback-revision cycle from early draft to final version of each section as well as the whole thesis. This cycle not only improves the content and the writing quality of the thesis, but it is also essential for reaching the learning outcomes stated on page 1 of this document.

Grading

The Econ 199D grade depends on the quality of the honors thesis. If the student takes Econ 199D units in the fall and/or winter quarters, the thesis advisor enters a temporary grade of N or N-. As described by the Registrar's Office, "N represents satisfactory progress in a course that spans quarters but is not yet completed" (N- represents unsatisfactory progress). When the thesis is finished in spring quarter, the thesis advisor retroactively replaces the fall/winter N with the final letter grade.

How are letter grades determined?

The thesis advisor and the Director of the Honors Program determine whether each thesis meets the standards of the Economics Honors Program. The typical outcome is that the thesis meets these standards. In that case, the thesis advisor decides on one of the following letter grades, according to the quality of the thesis: A+, A, A-, B+. A final grade of at least a B+ is necessary to graduate with honors.

Usual assessment criteria include (1) originality, (2) rigorous deployment of research method, (3) value of research to the field, (4) quality of argument, (5) quality of presentation. For extraordinary theses, we also evaluate (6) potential for publication and (7) advancing research on the field.

In the very rare case that the thesis is completed but it does not quite meet the standards of the Economics Honors Program, then a passing (but lower than B+) grade will be entered in Econ 199D. If at least five units of Econ 199D were taken, then it may replace the requirement for Econ 101.

If a student enrolls in 3 or more units of Econ 199D with their advisor and does not finish their thesis, then the student will receive an NP. Thus, we strongly recommend that you are conservative when registering in Econ 199D units, and do not enroll in more than 2 units in total until you are quite certain that you will finish your thesis. If a student enrolls in up to a total of 2 units but is unable to complete their thesis, finishing the literature review would be considered enough work to get a letter grade for those one or two units.

Economics and Public Policy Style Guide

Created by Geoffrey Rothwell, revised by Marcelo Clerici-Arias

Style Guide for Term Papers and Honors Theses, Department of Economics and the Public Policy Program, Stanford University

This guide will help you prepare the drafts of your Term (or Working) Papers and Honors Theses. While there is a tendency to wait until the end of your research to "write it up," you will have a much better idea of what your paper is about **after** you finish the first draft. So, write early and often. Get frequent feedback from your advisor, professors, and peers.

An Economics or Public Policy Working Paper or Honors Thesis has seven sections:

- 1. **Title Page** that identifies you and your thesis topic,
- 2. **Introduction**, where you identify your question and its importance,
- 3. **Literature Review** in which you compare and contrast the relevant literature in the field,
- 4. **Methodology** or **Model** that describes the analysis you will apply to your question,
- 5. **Analysis** applies your methodology to the question (for empirical theses this usually involves separate Data Description and a Statistical or Econometric Results sections),
- 6. **Conclusion** that answers your question, and
- 7. **Reference List** that identifies all the sources you have cited (and no others).

These are the basic sections of any social science (or legal) paper. Whether you announce the results in your Introduction and whether you summarize your thesis in your Conclusion is a question of personal style. For general suggestions on writing and writing style, see, McCloskey, D. 1985. "Economical Writing," *Economic Inquiry 24*: pp. 187-222. For an excellent introduction to the structure and writing of theses, see Chaubey, V. 2018. *The Little Book of Research Writing. The structural challenge of communicating knowledge + a method to meet it.*

Formatting Details

- 1. All pages after the Title Page **must** be numbered. The header should have your name, the date, and the page number. There should be no Footer.
- 2. Font should be 12 point (anything smaller will lead to illegible subscripts and superscripts).
- 3. Margins should be 1 inch (top, bottom, left, and right). Double space all text.
- 4. Keep Roman numerals and Latin to a minimum. Use Arabic numbers to number sections, etc.
- 5. Footnotes should be kept to a minimum. Assume that the reader will not read them. (Incorporate all one sentence footnotes into your text, for example, in parentheses.) If your word processor is incapable of putting footnotes on the correct page, use endnotes. Number all footnotes consecutively (do not start renumbering with new sections). Never use *ibid*. or *op cit*.
- 6. The paper or thesis will not be accepted if it has not been spell checked (remember theses are going on a web site for everyone in the universe to access, including future employers, Senate subcommittees, etc.) Use the grammar checker, but do not rely on your word processor to know the

difference between "there," "their," and "they're." When in doubt, use spelling from *Webster's Collegiate Dictionary*. Finally, it is now acceptable to use plural pronouns in place of gender specific pronouns, e.g., one can use "their" in place of "his" and "hers," etc.

Title Page

The Title Page should include

- a title that announces the question you are addressing in your paper or thesis,
- the date of the draft,
- your name and email address,
- your adviser and department, and
- an abstract of 100 to 200 words identifying your question, how you are addressing the question, and your main findings.

The Title Page of your final draft should also include acknowledgements, and because your thesis will be on the Stanford Digital Repository at the Stanford Library, keywords that help web searchers find your thesis. (Keywords should not be words from your title or your abstract, but words that someone looking for your paper or thesis might put in a search engine; for example, if the word "Chinese" appears in your title, one keyword would be "China.")

General Guidelines

Using Quotes

For quotes shorter than three lines: Use double quotation marks to surround a direct quote. If a quotation appears within a quote, use single quotes. Always include punctuation inside the quotes. (This can be confusing because the British use a different system; see *The Economist*.) When editing a quotation, use an ellipsis (. . ., note there is a space between each period) to fill in for words that have been cut. If a direct quote is longer than three lines, indent the quotation, use single spaced text, and do not use quotation marks (as with this paragraph). **All quotes must have page numbers.** (So, record these in your notes.)

Citations

Include all citations in the text of your paper; do not use footnotes for citations. You should cite all sources using the author (date) style. For example,

This theory was first presented in Arrow (1962).

Learning has been the subject of economic theory for at least four decades (Arrow 1962).

"Learning is a product of experience" (Arrow 1962, p. 310).

See any issue of the *American Economic Review* (AER) for more examples. For **more than three** authors use the first author and "et al." (there is no period after et; there is a period after al.) in the text only. (**Never** use et al. in the reference list; all authors **must** be identified.) For multiple references, separate

them with a semicolon: (Arrow 1962; David 1975). If you cite multiple works from one author (or set of authors), list the publications as 2001a, 2001b, etc. For institutional authorship and references with unknown authors, e.g., newspaper articles, use a minimum identification in the text so that the reader can easily find the complete reference in the Reference List. Use the name of the institution or newspaper as the author.

Mathematical Equations

Equations should be on a separate line and numbered consecutively in the right-hand margin. Use *italic* for parameters and scalar variables. Use **bold** for vectors and matrices. Keep Greek letters to a minimum (they do not always translate well from format to format).

Tables and Figures

If possible, Tables and Figures should appear when they are first cited in the text. Tables and Figures should be numbered consecutively with Arabic numerals. Place a zero in front of the decimal point (e.g., 0.1, not .1). Table footnotes should be designated with lower case letters, starting over with each table. Identify the source of the information in Tables and Figures under each.

Words

Some words or phrases are overused or used incorrectly. These include

"As," when used as "because," should be replaced with "because."

"Certain," as in "certain scenarios," should be replaced with "specific scenarios;" the word "certain" should be reserved for references to probability statements.

"Impacted" refers to teeth, therefore replace with "affected" or "influenced."

"In order to" can be reduced to "to" in most cases.

"Means," as in "This result means," should be replaced with "shows;" the word "means" should be reserved for references to averages.

"Regression" usually refers to the use of a member of the Ordinary Least Squares family to calculate parameter values; use "estimation" with Maximum Likelihood Estimations.

"Very" can only be used once in your paper; you decide which one you want to keep.

"Which" should be replaced with "that" in most cases, except for clauses.

For others, see McCloskey (1985).

Reference List

You might think that it will be easy to find the references once you know those you will cite, but in the rush of completing your final draft, the last thing you will want to do is track down page numbers in the library. So, keep track of your references in a Bibliography (you can annotate it as you read). The final version of the paper or thesis should organize all cited works in the Reference List. This list should be placed at the end of the paper (after all appendices, tables, figures, etc.), so the reader can find it easily. Your Reference List should include all cited references and no others (this is not a bibliography). List references in alphabetical order according to the authors' last names. (If the author is unknown, use the publisher.) If you have more than one reference from the same author, list the earliest publication first. For more than one citation in a year, order alphabetically by the first word of the title. (When in doubt, order as your computer would order the references.) The following is adapted from the *American Economic Review* style guide.

For Books: Author(s) or Editor(s). Year. Title. Place of publication: Publisher.

Arrow, K.J. 1983. Social Choice and Justice. Cambridge, MA: Belknap Press.

Board of Governors of the Federal Reserve System. 1988. *Flow of Funds Accounts,* Fourth Quarter 1987. Washington, DC: Board of Governors of the Federal Reserve System.

Council of Economic Advisers. 1986. *Economic Report of the President*. Washington, DC: U.S. Government Printing Office.

U.S. Bureau of the Census, Department of Commerce.1960. *Historical Statistics of the United States, Colonial Times to 1957*. Washington, DC: U.S. Government Printing Office.

For Journal Articles: Author(s). Year. "Title of Article," *Journal*, month or season of issue *volume* (and issue number) in Arabic numerals, inclusive page numbers. Specify if volume is part of title (*volume* 2) or not (Vol. 2).

Arrow, K.J. 1962. "The Economic Implications of Learning by Doing," *American Economic Review*, May 96(2): pp. 308-312.

Levin, J. 2001. "Information and the Market for Lemons," *Rand Journal of Economics*, Winter *32*(4): pp. 657-666.

McKinnon, R.I. 2001. "The International Dollar Standard and the Sustainability of the U.S. Current Account Deficit," *Brookings Papers on Economic Activity* (1): pp. 227-239.

Rothwell, G.S. 2009. "Market Power in Uranium Enrichment," Science & Global Security 17(2-3): 132-154.

For Unpublished Papers: Author(s). Year. "Title," Institution. Working paper or discussion paper (including number if any), month. (This includes theses and dissertations.)

Bhattacharya, Jayanta. 2000. "Lifetime Returns to Specialization in Medicine," Stanford University. Ph.D. dissertation.

Bresnahan, T.F. and Reiss, P.C.. 1986. "Entry in Monopoly Markets," Stanford Graduate School of Business. Research Paper No. 883, May.

Lazear, E.P. 2002. "Entrepreneurship," National Bureau of Economic Research (Cambridge, MA) Working Paper No. 9109, August.

Rothwell, G.S. 1974. "The Future Market of the Uranium Enrichment Industry," Mimeo, The Evergreen State College, March.

For Chapters in Edited Volumes: Author(s). Year. "Title," Editor, *Volume Title*. Place of publication: Publisher, inclusive page numbers. Specify if volume is part of title (*volume* 2) or not (Vol. 2).

David, P.A. 1975. "The Mechanization of Reaping in the Ante-Bellum Midwest," in P.A. David, ed., *Technical Choice, Innovation and Economic Growth.* Cambridge, U.K: Cambridge University Press.

Goulder, L.H. 2004. "Optimal CO2 Abatement in the Presence of Induced Technological Change," in M.A. Tolman and B. Sohngen, eds., *Climate Change*. Aldershot, U.K. and Burlington, VT: Ashgate, pp. 197-234.

Noll, R. 1979. "Antitrust and Labor Markets in Professional Sports," in D.J. Slottje, ed., *The Role of the Academic Economist in Litigation Support*. Amsterdam: Elsevier Science, North Holland, pp. 167-188.

For newspaper or magazine articles: Author(s). Year. "Title," Source, Month, Day: pages.

The Economist. 2003. "On the Rebound?" The Economist, August 30: p. 12.

Krugman, P. 2003. "Another Friday Outage," The New York Times (National Edition), September 2: p. A23.

For web pages: Author(s). Year. "Title." Last update date. <u>URL</u>, access date. (Do not reproduce URLs longer than one line, they change too often; instead refer readers to the home page.)

Journal of Economic Literature. 2011. "JEL Classification Codes Guide." Last updated November 2011. http://www.aeaweb.org/jel/guide/jel.php, accessed January 19, 2012