

# Final Research Paper

## Overview

The Evolution of Segregation  
and Education

EC 970: Sophomore Tutorial  
Harvard University Department of  
Economics

Danielle Graves

**Final Due Date: May 1 at 5 pm**

48% of final grade

Throughout this course, you will build and present on a final research paper. The final product should be **15-18 pages** (size 12, TNR double-spaced). This paper will be on a topic of your choosing that falls in the realm (broadly defined) of this class. During the last two sessions of class, you will take turns presenting your work. **Combined with your final presentation, this is 48% of your grade in this class.**

You will have three opportunities to receive feedback on your paper before you turn in your final draft: at the idea, outline, and rough draft stage. I will be giving you feedback in office hours at the idea and outline stage. At the rough draft stage, you and a classmate will give each other feedback.

I am also asking you to turn in a description of the data you plan to use and summary statistics of that data. Finding and cleaning data *always* takes longer than you think it will (trust me). I will not give you feedback on this step – instead, you will get a completion grade.

You are of course welcome to come to my OH at any point in the semester to discuss your paper or anything else that has to do with the class.

At the end of the semester, we will host a two-class long “mini-conference.” Each day will be scheduled like sessions at a conference – the speaker will have 10 minutes to present their work, then the audience will have 5 minutes to ask the speaker questions. You will be graded both as a speaker and an audience member.

### Due Dates

All assignments due at **6pm**  
with the exception of the Final Paper, which is due at **5pm**

Ideas .....	Thursday, February 29
Data Description and Summary Statistics .....	Thursday, March 28
Introduction, Outline, and Empirical Strategy .....	Tuesday, April 2
Rough Draft .....	Tuesday, April 9
Rough Draft Peer Review .....	Thursday, April 11
In-Class Final Presentations .....	Thursday April 18 and Tuesday 23
Final Paper .....	Wednesday, May 1

# Three Ideas

**Due Date: February 29 at 6pm**

2% of final grade

**Discuss in OH 3/5 or 3/6**

In this assignment, you will write 2 pages describing 3 ideas for your final paper. Each idea should have 1-2 paragraphs explaining it containing the following:

- The research question (R): this should be concise and focused.
- A positioning statement (P): how does this fit in with the existing literature? Why should we care about this? Mention at least two papers to which your proposed idea relates.
- A description of the data you would use to address this. If you aren't sure the data exists, describe your ideal data set.

I'm asking you all to meet with me the week of 3/5 (the week before Spring Break) to discuss your ideas. My goal is for each of you to walk out of these meetings knowing which idea you will tackle and understanding the first step you need to take to approach that idea. I'll help you focus your research question and get a feel for what existing data you can use to answer that question.

You do not have to stick to one of these ideas for your final paper. If, for example, you find yourself more drawn to an idea that is inspired by one of your response papers, feel free to change your paper to that idea.

The research process consists of generating a lot of ideas. 97% of them are garbage. Your ideas do not have to be revolutionary, and I am *certainly* not expecting you to turn in three! revolutionary ideas.

Keep in mind that you only have a semester to write this paper. The papers we have been reading in class are often the result of multiple years of work.

**Please submit your ideas** to canvas as a word or PDF document by **6pm on Thursday, February 29**. Please name your file lastname\_a4.

<b>Rubric</b>	
• Three research ideas	20%
• Three positioning statements	20%
• Research ideas are thought out	20%
• Data descriptions	10%
• Student comes to OH and is engaged	30%

# Data Description and Summary Statistics

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**Due Date: March 28 at 6pm**

3% of final grade

1-2 pages describing the data you will use to answer your research question. This should include the coverage (think: years and number of observations), advantages, and limitations of your data. You should also discuss how you process (or clean) the data, including any judgement calls you had to make.

**It is important that you download and review the data documentation** that accompanies your chosen data set.

These graphs will likely not go into your final paper. That's ok! The purpose of this exercise is to give you practice checking the quality of the data you'll be analyzing. Too often, researchers run regressions without performing this crucial step. You should make it a point to visualize and inspect your data before beginning any analysis.

In addition to this description, using the skills you've learned in your Stata / R problem sets, you will put together the following summary statistics describing the data:

- Mean
- Median
- Standard deviation
- Number of missing observations by relevant category  
*Make sure to read the documentation to know how missing values are coded. Write a comment in your code that indicates how they are coded.*
- Histogram of proposed outcome variable
- Plot of correlation between X variable and Y variable
- If applicable, time series plot of Y variable and X variable. If not applicable, an additional correlation plot of two variables of your choosing

**Please submit your log file and your data description** to canvas by **6pm on March 28**. Please name your files lastname\_a5.

Rubric	
• Advantages, coverage, and limitations of data described	20%
• Outline of how you'll clean the data and judgement calls	10%
• Mean, median, standard deviation	10%
• Missing observations for outcome and treatment variable	10%
• Missing values coded correctly	5%
• Histogram	15%
• Correlation plot	15%
• Time series / correlation plot 2	15%

# Intro, Empirical Strategy and Outline

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**Due Date: April 2 at 6pm**

2% of final grade

## Discuss in OH 4/9 or 4/12

These three items will help you *focus* your analysis. With your brief intro, you will provide the motivation for your research question. Writing down your empirical strategy will provide clarity on how you will answer that research question. Your outline will spell out the steps you need to take in order to get to that answer.

I do not expect these to be polished. I expect you to revise these components for inclusion in your final draft based on the written feedback that we will discuss in office hours.

When you turn this assignment in, please include your intro and empirical strategy under the relevant headers in your outline.

**Please submit your papers** to canvas as a word or PDF document by **6pm on April 2**. Please name your file `lastname_a6`.

## Rubric

- **Introduction** .....40%  
1-2 pages that communicate your Research Question, Answer, and Positioning Statement (RAP). We will discuss techniques on writing introductions in class.
  - Research question .....10%
  - Motivation .....5%
  - Three relevant papers .....10%  
*“What does this build on?” In your final paper, you will flesh this out into a full literature review.*
  - Contribution to literature .....5%  
*“What gap does this fill?”*
  - Answer 5%  
*I do not expect you to have results yet. Rather, I want to know the form your answer will take*
- For the final paper, you will expand on this by including a preview of your results.
- **Outline** .....20%  
1-2 pages outlining your paper. See example outlines on Blackboard.
  - Informative section headers .....10%  
*E.g. do NOT just write “Results”*
  - Topic paragraph for each section and one sentence for each subsection .....10%
- **Empirical Strategy** .....40%  
1-2 pages outlining your identification approach.
  - Equation written down with notation explained .....10%
  - Justification of identification approach .....10%
  - Acknowledgement of at least one identification challenge based on *setting* .....10%
  - Acknowledgement of at least one identification challenge based on *specification assumptions* .....10%

For the final paper, you will expand on this and add more details (ones you will likely come across as you dive deeper into the data). Keep it brief for this assignment.

# Rough Draft and Peer Review

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**Due Date: April 9 at 6pm**

**Feedback to Partner Due: April 11 at 9am**

3% of final grade

This should be a *15-18 page* draft that builds on your existing work and incorporates results and discussion. Refer to the "Final Paper" outline for structure guidance.

- I won't provide feedback on this draft, but feel free to ask questions during office hours.
- While I expect you to include all my feedback in your final draft, you decide which suggestions from your partner to incorporate.
- Offering clarity on confusing points is excellent feedback for your partner!

## Submission Deadlines:

- Email your draft to both your partner and me by **6pm on April 9**. Please name your file `lastname_a7` and make the subject of your email `EC970 lastname_a7`
- Email your feedback with your partner and me by **9 am on April 11** (before class). You and your partner will discuss your feedback with each other in class. Please make the subject of the email `EC970 lastname_a8`

## General Comments

Include these in 2-3 paragraphs in the body of your e-mail.

1. What do you like about your partner's paper?
2. Evaluate the paper's organization. Should sections be rearranged for better clarity?
3. Assess the clarity of the research question, answer, and positioning statement.

## Line Comments

Attach annotated PDF feedback (using tools like Acrobat comments) or include in your email (e.g., "Page 1, paragraph 2: typo 'economics'").

1. Are concepts and acronyms explained?
2. Do paragraphs transition in a logical, coherent way?
3. Do you understand their explanation of their empirical strategy? Do you buy it?
4. Do you agree with their interpretation of their results?
5. Are facts properly cited?
6. If possible, ask questions instead of telling your partner what to do. For example, "Can you clarify what you mean here?" is better than crossing out a sentence and rewriting it in *your* voice.

Feel free to give your partner copy edits (grammar, spelling). Your focus, however, should be to give feedback on content and structure.

## Rubric

I will grade you on the effort you put into reviewing your partners' work and the completeness of the rough draft you send in.

- Rough draft complete and turned into partner and canvas on time ..... 50%
- Feedback submitted to your partner and canvas on time ..... 50%

# In Class Final Presentations

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**Presentations: April 18 and April 23**

**Slides due 6pm**

**the night before you present**

5% of final grade

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Speakers often present works-in-progress at conferences with the intent of getting feedback that will improve their research project.

I encourage you to come to office hours to get feedback on your presentation before you present.

Submit your slides as either a Powerpoint or PDF document to canvas by **6pm the night before you present**. Title your slides `lastname_a9`

**Final Presentation** ..... 10%  
15 minute talk on your paper. You will expect to answer questions during your talk, and you will be expected to ask questions of your peers.

## Presentation Tips

1. Practice speaking slowly. You're probably talking faster than you realize!
2. If you can make a table a graph, do.
3. Practice your talk. Practice it again. I will cut you off at 15 minutes.
4. I recommend the "Perf timer" app.
5. Be conscious of how much time you're spending on each section.

## Rubric.....

- **Content and Organization** ..... 60%
  1. **Introduction** (10%):
    - Clearly states the research idea's motivation.
    - Briefly touches on relevant background.
    - Concisely discusses relevant literature.
    - Connects related papers to the research idea.
  2. **Contribution** (5%):
    - Clearly articulates the speaker's contribution.
    - Demonstrates the significance of the research.
  3. **Empirical Strategy** (15%):
    - Briefly outlines the empirical strategy.
    - Highlights key methodologies employed.
    - Discusses assumptions made.
  4. **Results** (25%):
    - Presents results clearly and concisely.
    - Connects results to the research contribution.
    - Interprets results within the limitations of identification setting.
  5. **Conclusion** (5%):
    - Summarizes key points.
    - Discusses directions for future research.

*"If I had a million hours and unlimited resources, I would also..."*
- **Q&A Session** ..... 40%
  - Provide thoughtful responses to questions asked during *your* presentation.

- Asks thoughtful questions during *others* presentation.

# Final Paper

## The Evolution of Segregation and Education

**Due Date: Wednesday, May 1 5pm**

33% of final grade

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15-18 pages of a revised, polished draft. This is what you've been working towards! Most successful research papers follow the structure outlined in the rubric.

I expect you to use the building blocks we've been working on throughout the semester in your final draft. However, **you must incorporate relevant feedback.**

**Submit your papers to canvas by 5 pm** on May 1. Please name your submission lastname\_a9.

## Rubric

<b>Content</b>	<b>70%</b>
1. <b>Introduction</b>	<b>25%</b>
• Research question	
• Motivation	
• Three relevant papers ( <i>"What does this build on?"</i> )	
• Contribution to literature ( <i>"What gap does this fill?"</i> )	
• Answer	
2. <b>Literature Review</b>	<b>15%</b>
• Comprehensive review of relevant literature.	
• Clear connection between literature and research question.	
3. <b>Data</b>	<b>10%</b>
• Clear and justified choice of data sources	
<i>If the reader needs to know information from the data documentation, include here</i>	
• Advantages, coverage, and limitations of data	
• Description of how you cleaned the data	
• Description of judgement calls and potential biases induced by these calls	
4. <b>Empirical Strategy</b>	<b>15%</b>
• Equation written down with notation explained	
• Justification of identification approach	
• Acknowledgement of at least one identification challenge based on <i>setting</i>	
• Acknowledgement of at least one identification challenge based on <i>specification assumptions</i>	
5. <b>Results</b>	<b>25%</b>
• Presents results clearly and concisely.	
• Connects results to the research contribution.	
• Interprets results within the limitations of identification setting.	
6. <b>Conclusion</b>	<b>5%</b>
• Recap of major findings	
• Discussion of policy implications (if relevant)	
• Directions for future work	
<b>Writing and Organization</b>	<b>30%</b>
• Well-organized and logically structured paper	



- Clear, concise, and grammatically correct writing
- Incorporation of feedback given throughout the semester