

Discussion: "Engaging Undergraduate Students in Applied Economics Research"

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Summary and Overview

Karen Bernhardt-Walther: Helping students get started in applied economic research – some practical suggestions for faculty

Four sections:

- ① Motivation (bridge the gap)
- ② Overview and Timeline
- ③ Modules (interest, skills, knowledge, project)
- ④ Recognizing when "research" is not a good fit and pointing students in other directions

Modules: Setting goals, identifying challenges, suggesting approaches

Appendix: Reading list (units) and excel resources (and exercises)

Challenges and Gaps

There is a gap between what the standard undergraduate curriculum teaches and what an undergraduate student wishing to work as an RA or wishing to go on to a graduate program in Economics needs to know.

- ① Experience reading economics papers.
- ② Exposure and basic knowledge of broad subfields of economics.
- ③ Programming experience and data analysis.
- ④ Academic writing skills, both general and economic specific ones.
- ⑤ Working through a small "stepping stone" project to understand the process from developing a question, over tackling it, to drafting, editing, and polishing the write-up.

Many students are interested in "economic research" but have limited opportunity to find out whether research is a good fit for them

Source: Karen Bernhardt-Walther

Modules and Approaches

- ① Determining the student's interest (paper classification, meeting with students, "ask the genie")
- ② Building programming skills (BASIC, Excel, Stata/Matlab)
- ③ Broad knowledge of economic fields, reading economic papers, and developing writing skills (reading list, response, summary)
- ④ Developing a "stepping stone project" (look for the data)

Source: Karen Bernhardt-Walther

Comments and Extensions

- ① Opportunities: independent study, senior seminar, selective major courses, research method course
- ② Final product: short report, term paper, presentation, honors thesis, capstone, poster session...
- ③ Programming skills or data analysis and econometrics
- ④ Instruction documents: pre-requisite, checklist, roadmap, rubrics, step-by-step guidance, and feedback channel
- ⑤ Evaluation: what constitute a good undergraduate research project?

Dowd et al. (2015) Improved Reasoning in Undergraduate Writing through Structured Workshops. *Journal of Economic Education*, 46-1, pp. 14-27

Fenn et al. (2010) Doing Publishable Research with Undergraduate Students. *Journal of Economic Education*, 41-3, pp. 259-274

Steele (2008) Web-based Surveys Facilitate Undergraduate Research and Knowledge. *Journal of Economic Education*, 39-1, pp. 41-49

Gajwani and Miron (2015) Engaging Undergraduates in Economics. *Journal of Economic Education*, 46-2, pp. 200-206

Applied Economic Research

- ① Research methods
- ② Find a research question
- ③ Literature selection and review
- ④ Economic reasoning, theory and models
- ⑤ Data collection, analysis, and visualization
- ⑥ Econometric models (and hypothesis testing)
- ⑦ Writing (reference and citation) and presentation
- ⑧ Meeting other internal and external requirements

Challenges and Potential Solutions...

So much uncertainty facing students: No idea where to start and focus?
And later on, how to avoid getting stuck?

How about a backward approach?

- A designated presentation
- A replication project

How about a group project?

- Division of work
- Mutual support
- More solutions

Where to get started?



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- Research Highlight Articles
- Research Highlight Podcast
- Research Highlight Featured Charts
- 2022 Top 10 Featured Chart [\[Link\]](#)
- 2022 Top 10 Research Highlights [\[Link\]](#)

Other Resources

Short introduction videos

Quantitative research made easy [\[Link\]](#)

Undergraduate applied research textbook

Jonathan Gruber (2022) Public Finance and Public Policy [\[Link\]](#)

Undergraduate econometric textbook and video

Angrist and Pischke (2014) Mastering Metrics [\[Link\]](#)

Mastering Econometrics with Joshua Angrist [\[Link\]](#)

Course: Introduction to modern applied economics

Using Big Data to Solve Economic and Social Problems [\[Link\]](#)