

Library Resources for Research and Communication in Economics

14.33

Spring 2012

Goals for Today

- Give you skills for finding research information for your main class project
- Increase your efficiency
- Describe Libraries' resources in the context of the research process
- In parallel to support from your professor/TAs

Research Process

1. Select a topic and define your research question
2. Scan the literature for previous work in your area
3. Find evidence relevant to your economic question
4. Analyze and process your information
5. Write your paper

Select a Topic

- Get advice from your professor/TAs
- Scan the literature (articles and books)
- Identify data available
- Iterative process
- Sample Topics
 - Do interventions in developing countries in health status have a direct effect on economic performance of that country?
 - Brief exploration of pollution and power plants

Scan the Literature

- Gives the context for your argument; your paper is part of the larger cycle of economics literature and publication
- See what others have written on your topic
- Starting points for literature on a topic:
 - bibliographies, Handbooks in Economics, Econlit, Journal of Economic Literature (JEL), review articles, and syllabi for graduate classes
- Role of working papers

Find Evidence

- Search the economics literature (articles, books, and other formats)
- Define the kind of data needed
- Search for data
 - Statistics
 - Research datasets
- Interlibrary Borrowing/Suggest a Purchase

Who Might Collect Your Data

- Data is usually expensive and time-consuming to collect, store, and publish
- Consider:
 - Who has the time, resources, and authority to collect the data?
 - Who is responsible for collecting or managing the data?
 - Who has an interest in your topic?
 - Who is producer and how might that affect quality of the data?

Who has an incentive to collect data?

- Example: pharmaceutical patent expiration dates
- Currently active patents listed in the U.S. FDA Electronic *Orange Book*
 - U.S. FDA (Food and Drug Administration) collects this data for regulatory purposes
- But say that you need to find a list of older, expired patents...
 - There exist old, annual paper copies of the US FDA *Orange Book*
 - Feasible to enter the data for prior years in order to observe now-expired patents...but not on the time horizon of 14.33
- Who else would have an incentive to collect this data?
 - One answer: the Indian government
 - Goal is to encourage Indian generic pharmaceutical industry
- Pharmexcil (<http://pharmexcil.org/>)
 - Pharmaceuticals Export Promotion Council
 - Set up by Ministry of Commerce & Industry Govt. of India
 - Looking on their website turns up this list of patent expirations from 2005-2010:
 - http://pharmexcil.org/uploadfile/ufiles/1656836632_List_US_Patent_expiry_2005_2010.doc

Hunting for Data via Literature

- Useful technique: search the literature for articles/books on your topic
- Examine their data sources and see if they can help to answer your research question
- Avail yourself of the work someone else already has done identifying data sources
- But how?

Example Case

- Recent issue of *American Economic Review*
- Muller, Nicholas Z.; Mendelsohn, Robert; Nordhaus, William (August 2011). Environmental Accounting for Pollution in the United States Economy. *American Economic Review*, 101, 1649–1675.
doi=10.1257/aer.101.5.1649
- “This study presents a framework to include environmental externalities into a system of national accounts. The paper estimates the air pollution damages for each industry in the United States. ”
- Lots of data sources!

Data Citation Practices

1. In reference list
2. Passing mention of data producer
3. No mention

Tip: Statistical Abstract of the U.S.:

<http://purl.access.gpo.gov/GPO/LPS2878>

Another option: journal replication data

Research Data File Structure

- Fixed-field vs. delimited
- Rectangular vs. card image vs. hierarchical
- Unit of analysis (e.g., person, household, administrative unit, event)

Types of Variables

- Alpha/character vs. numeric
- Continuous vs. discrete/categorical
- Micro-level vs. summary-level/aggregate
- Weight variables

Sample Codebook

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APPENDICES
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MASTER CODES
>> NOTES ON SAMPLING VARIABLES
>> CENSUS DEFINITIONS
>> 2000 TYPE OF RACE

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Inter-university Consortium for Political and Social Research (ICPSR)

- World's largest social science data archive
- Collects and preserve research data
- Search or browse by topic
- Bibliography of Data-related Literature
- Evaluate potential studies
- Access via MyData or
HMDC (<http://libraries.mit.edu/get/hmdc>)

Evaluate Your Information

- Are you using scholarly or popular resources?
- What is the authority of the source?
- Do I have the rights under intellectual property to use this data?
- Did you find the right data relevant to your economic question?
- Is the search tool you're using appropriate for the topic?

Analyze and Process your Information

- Explore, clean, and analyze your data
- Consult TAs regarding Stata
- GIS Services
- Discuss with your professor/TAs: how to interpret your results

Write your Paper

- Write
- Discuss with your professor/TAs: how to explain your results and write in the form of economics
- Cite your literature and data
- Citation Software at MIT

Conclusion

- Utilize the Libraries to increase your efficiency

MIT OpenCourseWare
<http://ocw.mit.edu>

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