

# How to get started on research in economics?

Steve Pischke

June 2011

Also see: <http://econ.lse.ac.uk/staff/spischke/phds/>

## *Research is hard!*

It is hard for everyone, even the best researchers. There is no template: you have to learn it by trial and error. Mostly error! There are no clear rules (including any of the ones below!)

Most ideas fail. This means it's important to generate many ideas, sort out the good from the bad ones quickly, and not be frustrated.

Talk to people: your fellow students, faculty, but also non-economists, etc.

## *What makes a good topic, research question?*

It should be interesting – original – feasible. Tradeoff: the more novel is what you are doing, the lower the standards for execution you will get away with.

Three broad categories of research in economics:

- real theory: contribute a mechanism for others
- applied theory: illuminate the economics of a particular issues
- empirical work: test a model or estimate a parameter

Both theory and empirics: don't just change an assumption compared to previous work at will, motivate why you expect this particular change in assumptions to make a big difference in terms of insights gained.

## *How do I find a topic, idea?*

- Go to seminars but not too many (go to at least one real seminar and one Ph.D. work-in-progress seminar a week).
- Read but don't read too much (look at abstracts of JPE, QJE, AER, or NBER working papers, etc.)
- Read survey articles in your research field (Journal of Economic Literature, Handbooks of Economics); but grad students elsewhere will read those too!
- Read old journals
- Read bad journals
- Read journals in other social sciences
- Read the newspaper
- Talk to each other
- Talk to non-economists about issues that interest you as an economist
- Find datasets/read codebooks
- For empirical work: you come across a good instrument
- Never take anything for granted
- Why did you study economics in the first place?

You should from very early on work on a concrete project (i.e. something with the potential to lead to a research paper), however modest. Working on a project in a clearly defined research area is typically the best way to see new questions, avenues, etc. Just going to the library, browsing the internet, doing literature reviews, etc., while sometimes necessary, should not be an occupation for months, particularly after your first summer of research.

Don't expect to get a good topic from your supervisor. If it's a good topic, I will work on it myself.

### *Triaging ideas:*

Talk to others about your ideas. You might be either

- over-optimistic about your ideas (after all, they were yours!)
- too pessimistic (if it was a good idea, wouldn't somebody have done it already?)

A topic should be interesting not just to you but to others in the profession

Talking to your supervisor: Your supervisor (and other faculty) may shoot down many of your ideas but remember: we are your friends, and we help you save time. You don't want your ideas being shot down in a job market seminar or a thesis exam!

Triaging takes work:

- What is the best case scenario for a project?
- What is the worst case scenario for a project? (Would it still result in a publishable paper?)
- What are the costs of a project? Finding data or data entry, programming work, proving a theorem, etc.
- How much insight can you get on a project from two weeks of work? Simple analysis of the easiest available data, write down the simplest possible model, etc. If it takes you longer to find out, make sure your supervisor (and better other faculty as well) feel it is a worthwhile investment of time.

### *Working on your research project*

Remember the forest for the trees. Work on the big picture first and don't get bogged down in details early on. Once you get to the details, set aside some time to think about the big picture once a week. Questions can change: sometimes your research may suggest it is more interesting to answer a question different from the one you started on.

Be prepared to throw stuff away if it doesn't work or detracts from the big picture. You want the end product to contain your best work, not everything you have ever done during your PhD (nobody else will be interested in hearing about all the things you did which didn't work).

Progress on research is often non-linear: there are often big hurdles, and periods where nothing seems to go forward, but there are also big leaps.

Early on, it might be good to think about more than one idea at a time. Sometimes you are stuck with something, and it's good to put it aside and do something else. If you have a good project, and it's clear that it's feasible, drop everything else and work on this one only.

When you are stuck with a problem on your research, talk to people. Of course, do try to solve your problem yourself but if you don't make progress (for a week or so) talk to other students about it and of course to your supervisor. That's what your supervisor is there for (although often we won't have the solution either). But it is important not to spend weeks or months in a dead end without making any progress. If there is no way out, try a different alley. Your supervisor can give advice on these things.

### *Organizing your life*

Research takes time, make sure you set aside enough time to work on your research every week. Your research should pervade your life—it's really an activity that never stops.

Don't let other activities take over: Because research is hard it is easy to spend time on more immediately satisfying activities: teaching, RA work, taking another course, reading too much, the internet. DON'T!

Don't be a perfectionist: Once you have started on a good question, a typical project in economics should yield a draft within six months. (But do the best you can)

Don't procrastinate: Set realistic goals. Make sure you are working on SOMETHING all the time, even if it is a modest project.

### *Giving a presentation in the work-in-progress seminars*

Remember the goal: to get feedback on your work from others. This is different from an academic seminar you will give later, which also is used to showcase your work.

- Tell us about your work, not the work of others (skip literature reviews)
- Keep the introduction short (5 minutes!)
- Encourage us to make comments (here I am stuck, could I do this better?, which alternative approach should I take to this issue?). Think about some questions you would like answers to before you give your presentation
- Manage your time. Make sure we have an opportunity to comment on the aspects of your work you would like feedback on
- Getting feedback means being open to making changes, doing things differently. This sometimes may involve throwing out something you have worked on for weeks (which might strike you as wasteful – but remember sunk costs!). The goal is to do things better in the end even if it involves more work