

# So you're thinking about a PhD in Economics?

“Sweet dreams are made of this.  
Who am I to disagree?  
Travel the world and the seven seas  
Everybody's looking for something...”

*(the Marilyn Manson version!)*

## I. What makes you likely to succeed as an academic economist?

### A. Types of People Who Have No Business in an Economics Ph.D. Program

Here are some useful thoughts from Mike Moffatt at

[http://economics.about.com/od/applyingtograduateschool/a/why\\_economics.htm](http://economics.about.com/od/applyingtograduateschool/a/why_economics.htm)

1. **Not a superstar in mathematics.** By mathematics, I do not mean calculus. I mean, the *theorem - proof - theorem - proof* type mathematics of real analysis. If you are not excellent at this type of mathematics, you will not make it to Christmas in your first year.
2. **Love applied work but hate theory.** Do a Ph.D. in Business instead - it is half the work and when you leave you get twice the salary. It's a no-brainer.
3. **Are a great communicator and teacher, but bored by research.** Academic economics is set up for people who have a [comparative advantage](#) in research. Go somewhere where a comparative advantage in communication is an asset - such as a business school or into consulting.

### B. Types of People Who Succeed As Academic Economists

A recent [blog post](#) by GMU Economics Prof Tyler Cowen, titled [Trudie's advice to would-be economists](#) that is an absolute must-read for anyone considering attempting a Ph.D. in Economics. Here is an excerpt that may be useful:

*Two core groups of people are well-suited to be economists:*

1. *You math GRE score is over 800, you are totally focused, you love working long hours on your own, and you have good enough letters of recommendation to get into a Top Six or perhaps Top Ten graduate school. Note that white Americans from this category have been partially preempted by competition from foreigners.*
2. *You could be happy as an academic without much of a research career. Working at a teaching school is a rewarding life, albeit a poor one relative to your investment in human capital.*

*There is a third category, although you will fall into it (or not) ex post:*

3. You do not fit either #1 or #2. Yet you have climbed out of the cracks rather than falling into them. You do something different, and still have managed to make your way doing research, albeit of a different kind. You will always feel like an outsider in the profession and perhaps you will be underrewarded. But you will have a great deal of fun and in the long run perhaps a great deal of influence.

Sadly, the chance of achieving #3 is fairly low. You need some luck and perhaps one or two special skills other than math.

Did I mention that if you have a clearly defined "Plan B" your chance of succeeding at #3 diminishes? It is important to be fully committed.

Greg Mankiw is a classic #1. Brad DeLong started off as a #1, although he has been evolving into a #3. Maybe he was a #3 in hiding all along. I've been a #3, although with a dose of #1 from having gone to Harvard...

**Another thing:** Don't expect any classes to be interesting. How should I put it? "Most professors suck." But a good professor can make almost any topic interesting. So your reaction to the courses is just a reaction to the instructors you have sampled. Treat that as noise, although I will ask why you are worse at picking teachers than at picking advice columnists.

### C. High Opportunity Costs Destroy Grad School Completion Rates

Here are some other useful thoughts from Mike Moffatt at [http://economics.about.com/od/applyingtograduateschool/a/why\\_economics.htm](http://economics.about.com/od/applyingtograduateschool/a/why_economics.htm)

Needless to say, I was surprised when I read Cowen's advice. I always hoped to fall into the #3 camp, but he's correct - in economics, it's very, very tough to do. I can't stress enough the importance of **not** having a plan B. Once you get into a Ph.D. program, everyone is very bright and talented and everyone is at least moderately hard working (and most could be described as workaholics). The most important factor I've seen that determines whether or not someone completes their degree is the availability of other lucrative options. If you've got nowhere else to go, you're a lot less likely to say "to heck with this, I'm leaving!" when things get really tough (and they will). The people that left the Economics Ph.D. program I was in (University of Rochester - one of those Top Ten programs Dr. Cowen discusses) weren't any more or less bright than those who stayed. But, for the most part, they were the ones with the best external options. Opportunity costs are the death of graduate school careers.

## II. How to pick graduate schools?

- A. Based on rank;
- B. Based on field.

Grijalva and Nowell (2008). "A Guide to Graduate Study in Economics: Ranking Economics Departments by Fields of Expertise," <i>Southern Economic Journal</i> , 74(4), 971-996
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Suggested sources:

1. Graduate school FAQs: <http://www.davidson.edu/academic/economics/foley/gradschool.htm>
2. Rankings: <http://www.vanderbilt.edu/AEA/gradstudents/Rankings.htm>

### III. Do you have enough math?

The courses below are standard requirements for MS programs in Economics

**Mth 251-253: Univariate Calculus**

**Mth 254: Multivariable Calculus**

**Mth 261: Linear Algebra**

**Mth 311 and 312: Introduction to Proof, Analysis, and Topology**

The courses below should be considered as preparation for a PhD in Economics:

<b>Subject Area</b>	<b>Course Number*</b>
Real Analysis	Mth 411/511; Mth 412/512; Mth 413/513
Set Theory	Mth 434/534; Mth 435/535; Mth 436/536
Game Theory	Mth 457/557; Mth 458/558
Applied Probability	Mth 467/567; Mth 468/568
Systems Analysis: Calculus of Variations	Mth 480/580

\*Please see current catalogue for course prerequisites

### IV. Tips on how to prepare a good application packet:

- A. Excellent transcript**
- B. Excellent GRE scores (Math and verbal)**
- C. Recommendation letters**

Get to know your professors! Getting excellent grades in their courses is a great start but you need to also make yourself memorable by meaningfully interacting with the people you will ask to write a letter of recommendation for you. Seek advice, learn about their research, share your plans for the future with them as the opportunity arises. Your reference letters may very well be the *most important* part of your application (along with evidence of your quantitative and math skills and a strong SOP, of course). Remember! Your competition will have great letters, so you need to make sure you do as well. Consider even the possibility of going to a neighboring University to take a course with a really well-known professor - the likelihood that your recommendation letter will be weighted heavily toward a favorable admission decision is positively correlated with the reputation of the professor who writes it, all else equal.

#### **D. Tips on writing a strong Statement of Purpose (SOP)**

Here are some tips from: <http://www.infozee.com/application-issues/essays-sop.htm>

*Your previous academic background and scores in the standardised tests ( GRE / SAT) show what you are capable of delivering. The admissions committee also wants to know what are the motivations that are driving your life at this point in time. Why do you want to pursue the course you are applying for?*

*How relevant is the course to your long term goals?*

*Since you will not go through an interview, the admissions committee gets to know about you as a person through your SOP. SOP is very important. Spend time to get it right.*

*How can you get it right? - by being honest about yourself and projecting your true self in the SOP.*

*What should you do to write a good SOP?*

*Think about yourself and do the following exercise:*

- *Write down all your past accomplishments - academic, extra curricular, social contributions, sports - whatever you've done well in life. Also write down all the things that you feel or care for strongly.*
- *What is it that you want to do in life? What is the career you want to choose for yourself in the future and why?*
- *Write down the area that you want to study further in. How will taking up this course of study help you achieve your long term career goals that you described above?*
- *Now, write down why should you have the life that you want? Why should you get all the things you listed above? What qualifies you to have all the success you desire?*

*There's another thing you got to do, use the internet or the university prospectus to study about the university you are applying to and the course you want to study. Then, You MUST mention in your SOP as to why you chose the university you are applying to.*

*Now, you've got the contents of your SOP in place.  
The next step is to write it in the form of an essay.*

*Make sure your SOP is grammatically correct, is written in a good flow and does not exceed the prescribed word limit. The SOP should be enthusiastic, friendly and confident in tone. If writing is not your strength, don't hesitate to take the help of a friend or colleague who can write well.*

## **Sample Essays**

### **Statement of Purpose 1 - PhD (Economics)**

When introduced to economics in high school I realized that it interestingly qualified as a subject of both Arts and Science. It was an area defined by precise rules, principles and axioms and yet there was tremendous scope for self-expression in the form of interpretation and analysis. This facet of economics intrigued me very much and I decided to pursue further studies in Economics.

During my Master's program I equipped myself as best as I could, with various tools used in economic analysis. I obtained rigorous training in mathematics, econometrics and game theory. After completing the Master's program, I joined National Institute of Public Finance and Policy, as I was very eager to see how one might use economics to tackle real life problems, where

simplified models, and assuming away of problems may offer no respite. I did some very interesting work here, which is described in my resume. I want to delve deeper into the subject to be able to carry out independent research and analysis, hence my decision to join the Ph.D. program at UCLA.

International Economics is an area I would really like to explore. I am fascinated by game theoretic modeling of issues pertaining to International Economics. I believe that game theoretic models can be effectively used in international economics as many policy issues such as negotiations over mutual reductions in tariffs, formation and preservation of customs unions, establishment of cartels in the case of internationally traded goods, all have some game theoretic character.

The current "Regionalism versus Multilateralism" debate holds its own attraction. It should be interesting to analyze the trade diversion effects of Preferential Trading Agreements and also their impact on multilateral institutions like GATT. The strategic trading that takes place in foreign exchange markets and the variety of auction like mechanisms that have been used for foreign exchange trade, especially in developing countries, are intriguing.

During my graduate studies I aim to equip myself with some advanced tools and develop my analytical and research capabilities. I want to get an excellent command over econometrics to be able to confront stochastic statistical data with exact models of economic theories and also for empirical verification of other models, which might otherwise be set in a partial equilibrium framework. I expect to emerge as an economic engineer and an expert in model building. Econometrics per se, also interests me as a subject of economics and I might like to research in econometric methodology. I want to be an academic economist. I have cleared the National Eligibility test conducted by the University Grants Commission of India, which makes me eligible to teach an undergraduate course in economics in any Indian university.

I want to study at UCLA, as it emphasizes on the rigor and analytical tools that are necessary for academic research. I have well-developed analytical and mathematical skills and I want to exploit these skills to the greatest extent. I feel the help and guidance that can be provided to me by the distinguished faculty of your university will be invaluable. I am sure if I am given the opportunity to study at your university that attracts some of the best students from all over the world, it will provide an environment competitive enough to bring out the best in me.

### **Sample Statement of Purpose 2 - PhD (Economics)**

My experiences over the past several years have led me on an initially desultory but always valuable path which I believe is excellent preparation for a PhD in economics at Berkeley. I entered [my university] as an art major because of what I valued most- creativity. However, I soon realized that art was not the proper outlet for me to develop this ideal. During my sophomore year studying abroad in France, I took a few economics classes by chance and have been fascinated with the field ever since. I am lucky to have found my true passion, economics, and I feel proud to have excelled in it. As a means of complementing my economics classes, I focused on studying math and doing research for my last two years at [my university]. I am confident that I have the technical capabilities to succeed in Berkeley's core requirements for the

PhD. However, I feel that my best strengths are my passion, creativity, and ability to work independently. These skills are what I believe will help me to become a successful researcher.

My passion for research comes from two sources- intellectual curiosity and my experiences in developing countries. Having spent significant time in Moldova, Morocco, and Colombia, I now have refined ideas regarding my specific interests within economics. For example, I developed an interest in the causes and effects of income inequality from observing the two extremes of Bogotá, which provide a much starker contrast than the two sides of the Tijuana-San Diego border. This overwhelming disparity defied the knowledge that I had acquired from scholastic economics (e.g., Law of One Price). My frequent volunteer trips into the most impoverished part of Bogotá, Ciudad Bolívar, provided me with an introduction to poverty and inequality that no class or text book could have adequately illustrated. This suppression of social mobility pervades all aspects of Colombia's economic and social structures. Social connections play a far more important role in getting high-placed jobs than in richer countries. Hence, it is hard to imagine how commonly suggested improvements, such as improving public education, can have a strong impact on incomes if in the job market, human capital is humbled in importance by social connections. Living in Colombia helped me to discern fundamental differences between developed and developing countries, and how these variances often lead to violations of assumptions on which economic theories rely.

Upon returning from Colombia, I undertook a research project analyzing the effects of study abroad on a student's grade point average. I began the project in the honors sections of Professors [Name1] and [Name2]. I was allowed a lot of latitude regarding what I could do to complete the requirements. I responded very well to this type of freedom and ended up spending more time on the project than on any of my classes. After satisfying the demands of the honors sections, I continued to develop the project under their guidance and finally wrote a comprehensive paper. My analysis was more effective than ones used in similar studies because I collected better data and used a superior methodology. In order to identify the causal effect, I control for selection into the study abroad program by only using students who applied and were accepted. I learned a lot from this experience about control groups and various applied econometric tools. I found that, for undergraduates, studying abroad has a significantly positive impact on grades in classes taken at [my university] after return. In addition to plans for publishing the paper, I also presented it at a conference of the Association of International Educators. I am most proud of the fact that I carried this project from start to finish without extra incentives. I was not in an undergraduate thesis program, and I was not even sure about pursuing a PhD at the time; I simply enjoyed the challenge.

During a summer fellowship at the [Name of a small institute], I completed another individual research project hypothesizing a cause for the lack of a leap-frog effect in regards to property rights in developing countries. These individual research endeavors led me to participate in projects coordinated by professors. I helped Professor [Name1] on a project analyzing the outcomes of children who receive special education as the result of a governmental program, Supplemental Security Income. Similarly, I contributed to a project coordinated by Professor [Name2] by researching terrorist groups and their suspected hierarchical structures. Finally, I assisted Professor [Name3] on a project dealing with variation in the amount of different industries in which there is trade between two given countries. I am now co-authoring a paper

with Professor [Name3] on the development of the Arab world, which will be published in [Name of a journal].

In addition to development economics and international trade, I am also interested in other sub-fields of economics in the context of troubled countries. For example, public economics, monetary economics, and labor take on different forms in the framework of developing countries. I plan on scrutinizing the underlying characteristics of developing countries which yield different outcomes from developed countries.

The research and life experiences I have had, combined with my training in theory, provide me with a good start towards becoming a successful researcher. My goal is to be a professor of economics at a leading research university. Generating new ideas is the most exciting activity possible for me. The challenge of coming up with something original, thinking in a way or with a subtlety that was previously ignored, turns research into an art which requires creativity and perseverance. Working without daily supervision necessitates a passion that I know I have. I can tell that research is right for me because I have fun doing it. I am determined to make the most of the education that I have received from my classes and life by following my indefatigable quest for knowledge and sharing what I discover with the academic world.

#### **Final Tip:**

If you are not comfortable with editing your own essays. Use a Professional Essay Editing Service. There are many **Essay Editing** Services available on the Web. Do compare and make an analysis before you take up a service.

### **V. Your Econ PhD utility function should include more than money!**

An excellent source for salary and placement information for new PhDs in Economics is the survey of the PhD labor market in Economics conducted every year by the CBER at University of Arkansas (<http://cber.uark.edu/>):

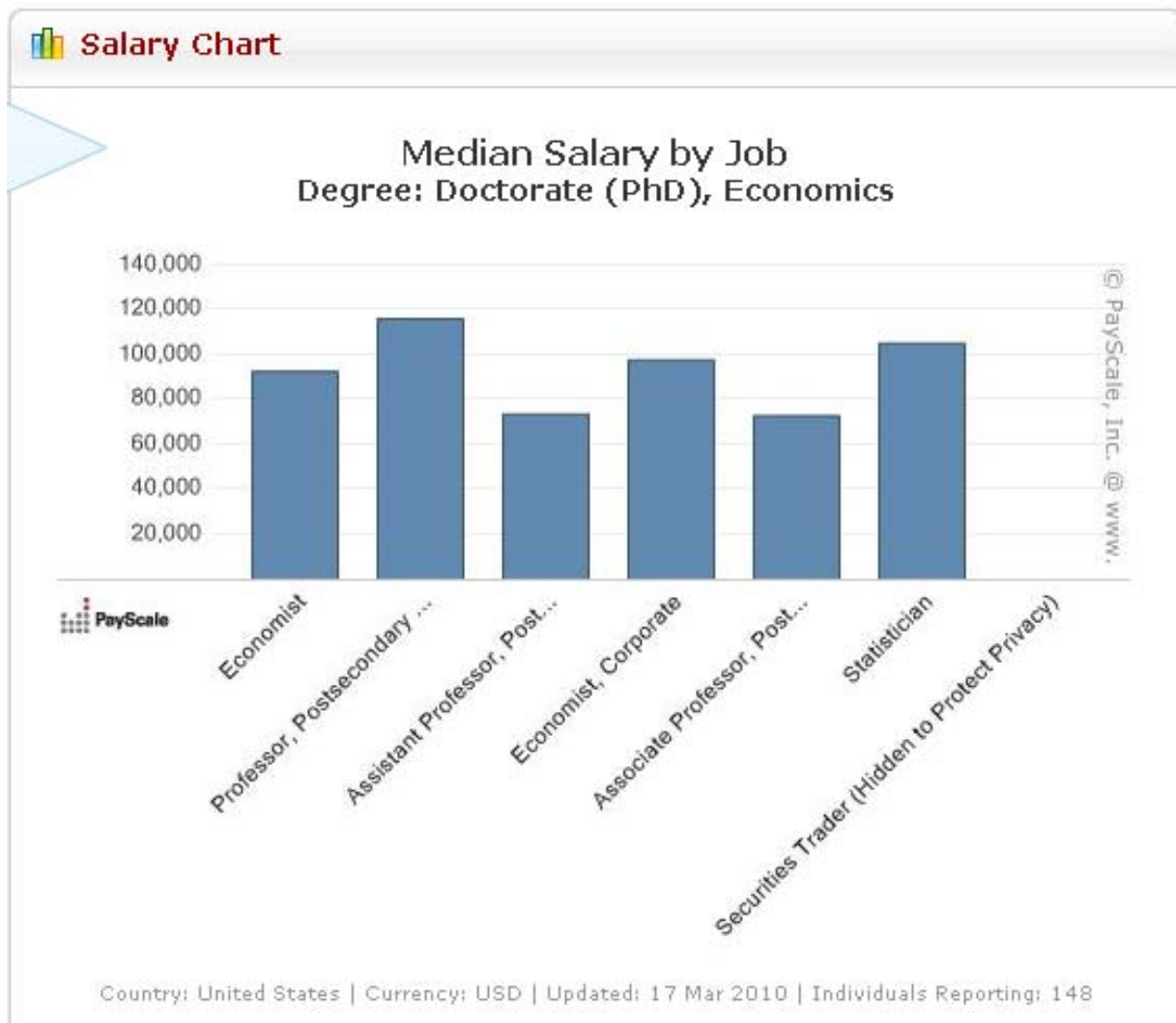
[http://cber.uark.edu/2010-11\\_New\\_PhD\\_Labor\\_Market\\_Survey\\_Report.pdf](http://cber.uark.edu/2010-11_New_PhD_Labor_Market_Survey_Report.pdf)

The reality is that if you are going to do a PhD in Economics, you are probably not in it for the money. Other PhD tracks in Financial Economics, Business Administration would most likely allow you to make twice as much after graduation with (on average) less effort. Higher salaries in these fields are mostly driven by private sector demand.

In addition to the report linked above, below is a chart that gives you some perspective on average pay scales across the types of employment an Economics PhD can obtain. A tenure-track position as an Assistant Professor (which is what you may be when you first get hired after getting your PhD) is certainly much lower than what private sector employment can offer.

The bottom line then is that pursuing a PhD in Economics is a lifestyle choice!





Oh, and don't forget you need to also learn how to get external funding for your research while you are still doing your PhD in Economics... but that's the topic of a whole new session.

***Best of luck to all!***

If you have further questions please feel free to contact me (see full contact information below):

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