

SYRACUSE UNIVERSITY
The Maxwell School of Citizenship and Public Affairs

PA 812: Ph.D. Seminar in Public Finance

Professor Yinger, Spring 2017

Final Exam

This is a closed-book exam. It is designed to take two hours, but you may take two and one-half hours if you wish.

The purpose of this exam is to test your skills as a public finance scholar. Focus on presenting the conceptual foundations of and the methodological approaches to the various questions. You should cite key studies in the literature when possible, but it is better to provide a complete conceptual and methodological answer than to worry about remembering every citation.

You may assume that you have any data that you need. Make sure you are clear about any other assumptions you are making, as well.

You must answer any 2 of the following 5 questions.

1. Do Homebuyers Care about Value Added?

You have decided to determine whether homebuyers care about the level of local elementary school performance, the value added to elementary school performance, or both when they are bidding on a house. Explain how you would address this question. Describe in detail the data you would need and the methods you would use. Be sure to define your terms carefully.

2. Expanding Cost Functions Beyond Education

You have decided to study the application of cost function methods developed for public education to other state and local public services. Select one local public service other than education and explain how you would estimate a cost function for that service. Describe in detail the data you would need and the methods you would use. Be sure to define your terms carefully.

3. Industrial Parks and Economic Development

The State of Notlikely wants to help its many struggling cities boost their economic performance. It has settled on a policy of promoting industrial parks, called PIP. The state will pay for some cities to identify large tracts of land in which many vacant lots and/or abandoned commercial/industrial properties are located; buy up the land; demolish existing buildings; clear the lots; and install or repair standard infrastructure, such as streets, sidewalks, curbs, lights, storm sewers, and so on. Business that subsequently locate in these reclaimed industrial parks will be eligible for a 50 percent reduction in local property taxes. This property tax relief would not be paid for by the state. The land would be sold to the firms at below-market rates.

The most unusual feature of PIP is that the state decided to select recipient cities randomly. Notlikely is a large state and it has 63 cities with populations between 50,000 and 1 million inhabitants—which are the cities eligible for this program. One-third of these cities would receive PIP funding the first year. If the program seems to be working, the state would fund more cities in the future, but probably not before four or five years have passed.

Your job is to devise a method for evaluating the PIP program. How would you determine whether it is boosting economic development? Describe in detail the data you would need and the methods you would use. Be sure to define your terms carefully.

4. Interpreting an Education Production Function

Two of your colleagues are having a debate about education production functions. They are both estimating a regression with the change in a student's test score as the dependent variable. However, Colleague A says this approach assumes that a student's skills do not degrade from one year to the next, whereas Colleague B says that this approach assumes complete skill degrading. Who is

right? Can you devise a method that would resolve this debate? If not, explain why not. If so, describe in detail the data you would need and the methods you would use. In either case, be sure to define your terms carefully.

5. A Progressive Sales Tax Extension?

The sales tax in your state does not apply to services, such as dry cleaning, car washing, haircuts, and yard work. The governor of your state has just proposed extending the sales tax to all services and has made the claim that this extension will make the sales tax less regressive. You have decided to look into this claim. Explain what would have to be true for the governor's claim to be correct. Devise an empirical procedure that would allow you to test this claim. Describe in detail the data you would need and the methods you would use and the assumptions you would make. Be sure to define your terms carefully.