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UST 603/PAD 603/PDD603

PUBLIC FINANCE AND ECONOMICS

FALL 2006

WEDNESDAY SESSION

I. COURSE OBJECTIVES

1. To provide an understanding of basic economic concepts and tools used by economists and show how economists use these in thinking, talking, and writing about issues of government spending, taxing, and regulation.
2. To provide an understanding of the economist's view of how the world works and the contributions of this view to thinking about public policy and budgeting issues.

II. REQUIRED TEXTS

1. Texts

David Hyman. Public Finance. Eighth Edition. Dryden Press. 2005.

Steven Landsburg. The Armchair Economist. Free Press. 1993

Ansel Sharp, Charles Register, and Paul W. Grimes. Economics of Social Issues. Seventeenth Edition. Irwin, 2005.

Earlier editions of the first two texts may be usable. However, it is your responsibility to determine equivalent page numbers in these texts where partial chapters are assigned.

2. Reserve reading

Robert Anthony and David Young."Program Analysis" in Management Control in Nonprofit Organizations. Irwin, 1988 or 1994.

Steven Rhoads, "Do Economists Overemphasize Monetary Benefits." Public Administration Review, Volume 45, Number 2, 1985: 815-819

III. COURSE REQUIREMENTS

1. Three Midterms, September 20, October 18, November 15 (16.67% each)
2. Final Comprehensive Examination, December 13 (50%)

All of these examinations are designed to assess your knowledge of economic and public finance concepts and your ability to apply them to concrete real-world situations. The purpose of holding exams so frequently is to provide you with timely feedback on how well you are grasping the material so that you can improve your work on later exams. Exams will include questions on some arguments in the Hyman and Landsburg texts, but not covered in class. All exams will be open-book, but please come as well prepared as you would be for a regular exam. Make-up exams will be granted only in cases of a documented emergency and, whenever possible, you should notify me prior to the scheduled exam. Any make-up exams must be taken by appointment during regular office hours (9am-5pm) and no later than 48 hours after the normally scheduled exam.

3. Class Participation

IV. GRADING POLICY

Final grades will be assessed on an A-B-C-F scale. Pluses and minuses will be shown on graded assignments for advisory purposes only.

V. COURSE OUTLINE

Reading assignments should be completed prior to coming to class. Please read the Sharp assignments before the Hyman assignments where both are assigned. In the Sharp text, please try to understand the basic economic arguments advanced and don't dwell on the institutional data. .

Session 1: Introduction. Scarcity and the Need to Choose; Opportunity Cost; The Nature of Economic Theory; Economic Efficiency.

Assignments: Sharp et al., Chapter 1, 13(358-363); Hyman, Chapter 1 (3-28), 2 (52-59)

Session 2: Supply and Demand.

Assignments: Sharp et al., Chapter 2

Session 3: Supply and Demand (cont'd); Markets, Efficiency, and The Role of Government; The Effects of Subsidies on Efficiency; Efficiency versus equity.

Assignments: Sharp et al., Chapter 14 (387-391). Hyman, Chapters 1 (41, 50-51), 2 (59-75); Landsburg, Chapters 1, 4, 5, 6, 7, 8.

Session 4: Midterm I

Session 5: Rationale for Government Action: Monopoly; Negative Externalities.

Assignments: Sharp et al., Chapters 8, 4; Hyman, Chapter 3 (96-101, 104-110, 112-134) Landsburg, Chapters 9, 17, 24.

Session 6: Rationale for Government Action: Positive Externalities; Public Goods.

Assignments: Sharp et al. Chapters 6, 5; Hyman, Chapters 3 (101-104, 110-111), 4 (139-152, 162-167)

Session 7: Methods of Expenditure Analysis and Budgeting.

Assignments: Hyman, Chapter 6; Landsburg, Chapter 10

Anthony and Young. "Program Analysis" in Management Control in Nonprofit Organizations. Irwin, 1988 or 1994 (Reserve Reading).

Session 8: Midterm II.

Session 9: Income Distribution and Redistribution.

Assignments: Sharp et al, Chapters 7, 3, 15 (408-413); Hyman, Chapter 7 (251-263, 265-273, 283-298); Landsburg, Chapter 13.

Session 10: Principles of Taxation.

Assignments: Sharp et al. Chapter 14; Hyman, Chapter 1(19-21), 10 (395-412), Landsburg, Chapter 7.

Session 11: Principles of taxation (contd.).

Assignments: Hyman, Chapters 2 (63-65), 14 (536-547), 16(610-617 624-629, 630-631), 17 (641-645, 650-654, 658-670),

Session 12. Midterm III

Session 13: Public choice and the Politics of Budgeting and Taxation.

Assignments: Hyman, Chapter 5 (170-209); Landsburg, Chapter 6.

Session 14: Public Choice (cont'd); Public Finance and Federalism

Assignments: Hyman, Chapters 5 (209-213), 18 (675-697, 701-708)

Session 15: Limitations of Economics

Steven Rhoads, "Do Economists Overemphasize Monetary Benefits." Public Administration Review, Volume 45, Number 2, 1985: 815-819 (Reserve reading).

IV. HOMEWORK QUESTIONS

The following questions are designed to help you test your understanding of and ability to apply course material. You should come to the session indicated below prepared to both provide an answer to the question for that session and also to explain your reasoning for the answer, drawing graphs where appropriate. Your exams will take the form of questions of this type.

Session 2

1. An outward shift (shift to the right) in the production possibility frontier would occur in all of the following cases below EXCEPT:
 - a. illegal immigration into the community
 - b. technological innovation
 - c. discovery of new oil reserves
 - d. a reduction in unemployment
 - e. none of the above (i.e. they all shift the frontier outward)

2. The true economic cost of a new government program is measured by:
 - a. the resulting loss of private goods and services
 - b. the resulting increase in government spending
 - c. the resulting increase in government spending on goods and services
 - d. the amount that society is willing to pay for the program
 - e. the resulting increase in taxation

Questions 3 and 4 are based on the following information. A study has been instituted to

determine the benefits and costs of a crime prevention program at different levels and the results are listed in the following table. Figures for costs for the program are also included:

Units of Crime Prevention	Total Social Benefit (\$)	Total Social Costs (\$)
1	75,000	55,000
2	145,000	110,000
3	210,000	165,000
4	270,000	220,000
5	325,000	275,000
6	375,000	330,000
7	420,000	385,000
8	460,000	440,000
9	495,000	495,000
10	520,000	550,000

3. The economically efficient level of crime prevention is about:
 - a. 3 units
 - b. 5 units
 - c. 6 units
 - d. 7 units
 - e. 9 units

4. Assuming an output of 8 units:
 - a. a reduction in output is necessary to attain economic efficiency
 - b. an increase in output is necessary to attain economic efficiency because total benefits still exceed total costs
 - c. net social benefit of the existing output of 8 units is \$460,000
 - d. a. and c.
 - e. b. and c.

Session 3

1. Trained computer programmers are having difficulty finding work, this suggests that the wage paid for programmers' services is:
 - a. currently higher than the equilibrium wage
 - b. currently lower than the equilibrium wage
 - c. can be expected to rise

- d. a. and c.
 - e. b. and c.
2. All but one of the following is likely to cause the demand curve for higher education to shift to the right. Which is this?
 - a. tax credits for higher education for students
 - b. a reduction in tuition fees
 - c. a reduction in wages paid to high school graduates
 - d. an increase in population
 - e. higher wages paid to college graduates
 3. According to supply and demand theory, an increase in the price and quantity of housing can be expected to result from:
 - a. higher government standards for private housing construction
 - b. government subsidies for home buyers
 - c. higher property taxes for home owners
 - d. tax credits or subsidies for home builders
 4. According to supply and demand, tightening restrictions on the loads that truckers can carry and on the hours they can work can be expected to lead to (hint: road and rail freight can be considered substitutes for buyers):
 - a. an increased supply of trucking services
 - b. higher prices for trucking services
 - c. lower prices for freight carried by rail
 - d. b. and c.
 - e. all of the above

Session 4

1. You are in charge of the local city-owned golf course. You need to increase the revenue generated by the golf course in order to meet expenses. The mayor advises you to increase the price of a round of golf. The city manager recommends reducing the price of a round of golf. You realize that
 - a. the mayor thinks demand is elastic and the city manager thinks demand is inelastic
 - b. both the mayor and the city manager think that demand is elastic
 - c. both the mayor and the city manager think that demand is inelastic
 - d. the mayor thinks demand is inelastic and the city manager thinks demand is elastic
2. The demand for oil is relatively inelastic with respect to price. If the federal government decides to draw down on its oil reserves and sell some oil on the market, this will lead to:
 - a. higher oil prices and increased oil revenues for oil companies
 - b. lower oil prices and reduced oil revenues for oil companies

- c. higher oil prices and reduced oil revenues for oil companies
 - d. lower oil prices and increased oil revenues for oil companies
3. Assuming that, in the absence of government intervention, the market for housing operates efficiently, then subsidies to homebuyers will:
- a. lead to economic inefficiency because such subsidies will result in marginal social cost exceeding marginal social benefit for housing
 - b. result in a smaller than efficient output of housing
 - c. lead to an increase in the price of housing
 - d. a. and c.
 - e. all of the above
4. A city currently operates its own snowplow trucks to remove snow from the streets. Its total costs are as follows

Hundreds of tons of snow removed (Per week)	Total Costs (\$).
1	4,000
2	7,000
3	9,000
4	12,000
5	18,000
6	27,000
7	42,000
8	60,000

Suppose the city could contract out snow removal to a private firm at a cost of \$9,000 per hundred tons. Assuming 8 hundred tons of snow must be removed, the city should:

- a. shut down its snow removal services and pay private firms to remove all 8 hundred tons of snow
- b. remove up to 4 hundred tons of snow itself and then pay private firms to remove the rest
- c. remove up to 6 hundred tons of snow itself and then pay private firms to remove the rest
- d. remove up to 7 hundred tons of snow itself and then pay private firms to remove the rest
- e. remove all 8 hundred tons of snow itself

Session 6

The following data should be used for questions 1 and 2. The table below shows the demand curve and marginal cost curve facing an oil monopoly:

Output (Barrels)	Price (\$)	Marginal Cost (\$)
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1	110	34
2	100	39
3	90	44
4	80	49
5	70	54
6	60	59
7	50	64

1. The marginal revenue earned by the firm for the sixth barrel is:
 - a. \$360
 - b. \$10
 - c. \$60
 - d. -\$10
 - e. \$1

2. If the monopoly firm wishes to maximize profits, the firm will:
 - a. produce 1 barrels at a price of \$110 per barrel
 - b. produce 3 barrels at a price of \$90 per barrel
 - c. produce 4 barrels at a price of \$80 per barrel
 - d. produce 6 barrels at a price of 60
 - e. produce 7 barrels at a price of \$50

3. An external cost results from the use of SUV's because of air pollution. If SUV's are sold in a competitive market, it follows that:
 - a. too many SUV's will be produced unless a subsidy is provided for SUV's
 - b. too few SUV's will be produced unless a subsidy is provided for SUV's
 - c. too many SUV's will be produced unless a tax is imposed on SUV's
 - d. too few SUV's will be produced unless a tax is imposed on SUV's

4. The marginal cost per unit of a pollutant discharged into a lake by a competitive chemical industry is estimated at \$250 per ton. A pollution tax of \$350 per ton is in effect. The marginal cost to the firm of cleaning up a ton of discharge is \$300 at current clean-up levels. Given these conditions:
 - a. the firm will clean up more of the discharge and this is the correct decision from the point of view of economic efficiency because pollution is reduced
 - b. the firm will clean up more of the discharge but this is not the correct decision from the point of view of economic efficiency
 - c. the firm will not clean up any more of the discharge and this is the correct decision from the point of view of economic efficiency
 - d. the firm will not clean up any more of the discharge but this is not the correct decision from the point of view of economic efficiency

.Session 7

1. An example of external benefits arising from health care would include:
 - a. improvements in the quality of life of patients using the services
 - b. income earned by health care providers
 - c. a reduction in communicable disease
 - d. all of the above
 - e. none of the above

2. University researchers create a positive externality because others who haven't contributed to the research costs can easily learn what they discover in their research labs. What could the federal government do to make equal the equilibrium quantity of university research and the quantity of university research that should be produced?
 - a. tax university researchers
 - b. offer grants to university researchers
 - c. eliminate subsidized student loans
 - d. nothing

3. The following are examples of public goods:
 - a. national defense
 - b. public housing
 - c. a flood control system for a coastal city
 - d. a. and b.
 - e. a. and c.

4. If energy conservation were a public good then the most efficient response by government would be:
 - a. educational programs that alert energy users to the social benefits of conservation
 - b. government regulations on the use of energy
 - c. a tax on the users of energy
 - d. a subsidy to energy producers for each unit of energy produced
 - e. government ownership of energy producers

Session 8

1. A city is considering whether or not to build a sports stadium. The front-end investment cost to acquire the land and build the stadium is \$15 million. The stadium is expected to yield a net annual income of \$2 million for 40 years. Assuming a discount rate of 8%, on the basis of a cost-benefit analysis using these figures, the stadium has:
 - a. a net present value of about \$24 million and should be built

- b. a net present value of about \$ 9 million and should be built
 - c. a net present value of about \$65 million and should be built
 - d. a net present value of about minus \$15 million and should not be built.
 - e. a net present value of about \$ 22 million and should be built.
2. Assuming a discount rate of 10%, what is the maximum you should pay for a computer system that will save you \$40,000 each year in staff costs for the next five years and can be traded in at the end of this time for a lump (one-time) sum of \$5000?
- a. \$154,700
 - b. \$151,600
 - c. \$27,900
 - d. \$170,600
3. Two government projects each have an investment cost of \$25,000,000. Project X yields \$5000,000 per year for eight years. Project Y yields \$8,000,000 per year for five years. Assuming a discount rate greater than zero, which of the following statements is accurate:
- a. Since both projects have the same investment cost and yield the same total future benefits of \$40,000,000, their net present values to the community are the same
 - b. Since total future benefits exceed the investment cost for both projects, both projects must always have a positive net present value
 - c. The net present value of Project X will be greater than the net present value of Project Y
 - d. The net present value of Project Y will be greater than the net present value of Project X
 - e. c. or d. may be true depending on the discount rate selected
4. In cost-benefit analysis of capital projects, using a discount rate which is lower than that which measures the true opportunity cost to society of resources invested in a capital project:
- a. will lead to the rejection of projects which are justifiable on efficiency grounds by lowering their rate of return
 - b. is economically justifiable if the government can borrow funds at the lower rate
 - c. is economically justifiable if the project provides a public good
 - d. will lead to the adoption of projects that are not justifiable on efficiency grounds

Session 10

1. Laws imposing caps (i.e. maximum limits) on the compensation of upper-level corporate managers are likely to lead to:
- a. a shortage of corporate management services
 - b. increased employment among corporate managers because corporations can afford to hire more of them
 - c. lower compensation among corporate managers
 - d. a. and c.

- e. all of the above
2. Total reliance on voluntary charity to help the poor is unlikely to lead to economic efficiency because:
 - a. potential donors lack sufficient compassion for the poor
 - b. potential donors just do not have sufficient resources of their own to help the poor adequately
 - c. potential donors are likely to engage in free-rider behavior
 - d. the marginal social benefit to donors from assisting the poor will be greater than the marginal social cost
 - e. c. and d.

 3. A cash subsidy designed to replace heating bill subsidies for the poor and leave recipients just as well off would:
 - a. cost the taxpayer more than heating bill subsidies
 - b. cost the taxpayer less than heating bill subsidies
 - c. reduce heating bills for everyone
 - d. b. and c.
 - e. a. and c.

 4. Suppose that families of four are to be supported at a minimum income of \$15,000 per year by a negative income tax program with a tax rate of 30%. A family is able to earn \$20,000. Total family income including earned income and the negative tax payment will be:
 - a. 9,000
 - b. \$29,000
 - c. \$35,000
 - d. \$1,500
 - e. \$16,500

Session 11

1. If a poor family has three children in public school and a rich family has two children in private school, the benefits principle would suggest that:
 - a. the poor family should pay more in taxes to pay for public education than the rich family.
 - b. the rich family should pay more in taxes to pay for public education than the poor family.
 - c. the benefits of private school exceed those of public school.
 - d. public schools should be financed by property taxes.

2. An income tax taxes all income below \$40,000 at 20% and all income in excess of \$40,000 at 30%. A household earning \$80,000 faces:
 - a. an average tax rate of 20% and marginal tax rate of 30%
 - b. an average tax rate of 30% and marginal tax rate of 20%
 - c. an average tax rate of 30% and a marginal tax rate of 30%
 - d. an average tax rate of 30% and a marginal tax rate of 25%
 - e. an average tax rate of 25% and a marginal tax rate of 30%

3. Assuming that the economic burden of the property tax is borne by the owners of wealth or capital, the substitution of state sales taxes in place of local property taxes as a revenue source for public education is likely to make the overall state and local tax burden:
 - a. more regressive with respect to income than before
 - b. more progressive with respect to income than before
 - c. neither more regressive or progressive since both are flat-rate taxes
 - d. neither more regressive or progressive since both are regressive taxes

4. If a tax is imposed on the sellers of airline travel,
 - a. the burden of the tax on buyers will be larger and the reduction in air travel will be smaller when the demand for air travel is more elastic with respect to the price.
 - b. the burden of the tax on buyers and the reduction in air travel will be smaller when the demand for air travel is more elastic with respect to the price.
 - c. the burden of the tax on buyers will be smaller and the reduction in air travel will be larger when the demand for air travel is more elastic with respect to the price.
 - d. the burden of the tax on buyers and the reduction in air travel will be larger when the demand for air travel is more elastic with respect to the price

Session 12

1. A tax leads to an excess burden or efficiency loss because
 - a. it induces the government to spend more
 - b. it induces buyers to consume less and sellers to produce less.
 - c. it causes a disequilibrium in the market.
 - d. the loss to buyers is greater than the loss to sellers.

2. Assuming that wage levels are higher for lawyers working in the private sector than for comparably qualified lawyers working in the public sector. An increase in the tax rate on higher incomes will lead to:
 - a. a reduced supply of lawyers working in the public sector

- b. a reduced supply of lawyers working in the private sector
 - c. higher before-tax wages for public sector lawyers
 - d. a. and c.
 - e. all of the above
3. In the absence of market failures, tax preferences given to certain activities under the Federal income tax:
- a. decrease efficiency by encouraging less than the efficient amount of the activities to be undertaken
 - b. decrease efficiency by encouraging more than the efficient amount of the activities to be undertaken
 - c. have a larger effect on the amount of activities undertaken when income tax rates are increased
 - d. a. and c.
 - e. b. and c.
4. A selective tax on the supply of luxury boats:
- a. imposes an economic burden on both the buyers and builders of boats
 - b. is likely to impose a greater deadweight loss when demand is more elastic
 - c. is likely to impose a greater deadweight loss when demand is less elastic
 - d. a. and b.
 - e. a. and c.

Session 14

1. A state is going to vote on how much money to spend building roads. 40% of voters want to spend \$5 billion, 15% of voters want to spend \$10 billion, 3% of voters want to spend \$15 billion and 42% of voters want to spend \$20 billion. Voting will be done in a pair-wise fashion, that is, only two of the four options will be considered at a time, with the winner of each vote then being paired with a remaining option. According to the Median Voter Theory, the winner
- a. will be \$20 billion.
 - b. will be \$15 billion.
 - c. will be \$10 billion.
 - d. will be \$5 billion
2. Suppose three equal size groups, X, Y, and Z are voting on how to share a given tax burden. Tax proposal A would divide the burden equally among the three groups. Tax proposal B would impose 25% of the burden on X, 50% of the burden on Y and 25% of the burden on Z. Tax proposal C would impose 20% of the burden on X, 40% of the tax burden on Y, and 40% of the tax burden on Z. Given these alternatives and assuming each group wishes to keep its tax burden as low as possible, which tax proposal will win if the proposals are voted on using majority rule:

- a. tax proposal A
 - b. tax proposal B
 - c. tax proposal C
 - d. there is no clear winner
3. Given the case above, if X, Y, and Z can agree that each of them should bear at least 25% of the tax burden, which tax proposal will win if the proposals are voted on using majority rule:
- a. tax proposal A
 - b. tax proposal B
 - c. tax proposal C
 - d. there is no clear winner
4. According to public choice theory, health care policy-makers are most likely to be subject to organized political pressure exerted by groups of:
- a. doctors
 - b. taxpayers
 - c. patients
 - d. voters

Session 15.

1. Examine again the data for the crime prevention program used above in the homework for Session 2 in questions 3 and 4. Assuming that the program was delivered by a budget-maximizing bureaucracy:
- a. the bureaucracy will produce 5 units and this is the efficient amount
 - b. the bureaucracy will produce 9 units and this is the efficient amount
 - c. the bureaucracy will produce 9 units and this exceeds the efficient amount
 - d. the bureaucracy will produce 9 units and this is less than the efficient amount
 - e. the bureaucracy will produce 10 units and this is more than the efficient amount
2. A decentralized system of government:
- a. tends to result in uniformity in the level and mix of government services between jurisdictions
 - b. allows diversity in the level and mix of government services
 - c. makes it easier to reach national goals for government services
 - d. is undemocratic
3. According to most economists, the redistribution of income is most effectively carried out by:

- a. a national government
 - b. a local government
 - c. a state government
 - d. a regional government
4. Suppose investment in crime control by a local jurisdictions in urban areas leads to increased public safety for both the local and surrounding jurisdictions. In this case, a national or state government could best improve economic efficiency by:
- a. providing an unconditional or general-purpose grant to the jurisdiction to enable it to afford more crime control
 - b. providing a block grant that pays for the full cost of investments in crime control
 - c. providing a matching categorical grant that pays for the spillover or interjurisdictional benefits of crime control
 - d. not providing any aid since citizens can always move to jurisdictions which maximize their economic well-being