

Homework 5

ECON 5332 Government, Taxes, and Business Strategy
Spring 2008

Due Tuesday, February 19, at 7:00 pm

1. In a recent study, Americans stated that they were willing to pay \$70 billion to protect all endangered species and also stated that they were willing to pay \$15 billion to protect a single species. Which problem with Lindahl pricing does this demonstrate? Explain.
2. The preference revelation problem associated with Lindahl pricing becomes more severe as the number of people in society increases. Why do you think this is true?
3. Major League Baseball used to use what is known as a 5-3-1 system to vote for the Most Valuable Player (MVP) in each league. Each voter gets to vote for three different players they consider worthy of the award. Their first-place candidate gets 5 points, their second-place candidate gets 3 points, and their third-place candidate gets 1 point. Points are then added up across all voters, and the player with the most total points wins the award. Suppose there are three voters - Neyer, Law, and Phillips - and five potential candidates for the award - Alex, David, Raffy, Manny, and Mario. The table below shows how each voter ranks the candidates. Raffy is embroiled in a substance abuse scandal. The “guilty” or “innocent” verdict will come out the day before voting, and a guilty verdict will ban him from being voted on as an MVP.

Rank	Neyer	Law	Phillips
Best	David	David	Raffy
Second Best	Alex	Alex	Alex
Third Best	Raffy	Raffy	Manny
Fourth Best	Manny	Manny	Mario
Fifth Best	Mario	Mario	David

- (a) Who will win the MVP if Raffy is found innocent?
 - (b) Who will win the MVP if Raffy is found guilty?
 - (c) What problem with consistent aggregation does this illustrate?
4. Empirical evidence suggests that when congressional districts are redrawn to include more elderly people, members of Congress become more likely to take pro-elderly positions in congressional votes. Why does the median voter model predict that this would be so?

5. When local telephone companies wish to raise the rates they charge to phone customers, they must first argue their case at a public hearing before a regulatory body. How does the free rider problem explain why telephone companies are usually successful in getting permission to raise their rates?
6. Alfie, Bill, and Coco each value police protection differently. Alfie's demand for the public good is $Q_A^D = 55 - 5P$, Bill's demand is $Q_B^D = 80 - 4P$, and Coco's demand is $Q_C^D = 100 - 10P$. If the marginal cost of providing police protection is \$13.50, what is the socially optimal level of police provision? Under Lindahl pricing, what share of the tax burden would each of the three people pay?
7. Carrboro has three equal-sized groups of people: (1) type A people consistently prefer more police protection to less; (2) type B people prefer high levels of police protection to low levels and they prefer low levels to medium levels; (3) type C people prefer medium levels to low levels, which they in turn prefer by a modest amount to high levels.
 - (a) Which types of people have single-peaked preferences? Which have multi-peaked preferences?
 - (b) Will majority voting generate consistent outcomes in this case? Why or why not?