## Social Welfare 553 Contemporary Social Policy Midterm exam

## **Instructions**

You have three consecutive hours (180 minutes) to complete the exam and deliver it to me. Reply on a separate piece of paper. Number each response.

Be sure to draw graphs carefully and label all relevant parts.

Point values are given for each question. If you spend one minute per point (i.e. 20 minutes on a 20-point question), you will complete the exam in 100 minutes. This will allow 80 extra minutes for checking answers and making sure you can return the exam.

## Returning the exam

All exams must be returned within three hours of distribution. There are two options.

- 1. *Hard copy* Write your answers on paper. Staple responses to the printed exam and place in an envelope, then into my box in the mailroom. I suggest you make a photocopy of your responses before you hand them in.
- 2. Fax and hard copy to follow Write your answers on paper. Fax them to 206/543-1228 attention "J. Romich." Bring the printed exam, original responses and the fax confirmation sheet with you to class on Tuesday. I suggest you keep a photocopy of your work as well.

## **Honor and expectations**

Social workers are bound by a code of ethics that includes honesty. In taking this exam, you agree to

- 1. complete this exam on your own
- 2. limit the time you work on the exam from first reading it to turning it in to no more than three hours consecutive hours
- 3. not share any details about the exam or your reaction to it directly or indirectly with classmates until the end of the exam period (i.e. 5pm, Monday February 10).

Please acknowledge these conditions by writing "I agree" and signing your name below.

- 0. Please record your start time
- 1. [40 points] Please draw the following on one graph. You may use the graph that has been provided on the last page of this exam or you may draw your own.
  - i. Abe can work up to 16 hours per day at his job, which pays \$5/hour. Draw Abe's daily possibility frontier with a solid line.
  - ii. Draw an indifference curve showing that Abe works 8 hours per day. Label this curve  $I_1$ .
  - iii. Put a smiley face  $\odot$  at some point where Abe would have \$40/day but he would be happier than he is anywhere along  $I_1$ .
  - iv. Put a frowney face  $\odot$  at some point where Abe would still earn \$5/hour, but would be less happier than on  $I_1$ .
  - v. Suppose Abe gets a raise to \$10/hour. Draw his new possibility frontier with a dashed line.
  - vi. For Abe, the income effect of this change in hourly pay dominates the substitution effect. Draw an indifference curve that reflects how much he now works. Label this curve I<sub>2</sub>.

Three weeks after the raise, Abe gets called into the office and informed that his wages will be docked for his delinquent child support payments. He can keep the first \$50/day that he earns, but after that he has to pay \$4 in child support for every \$5 he earns.

- vii. Draw this third possibility frontier with a wiggly line. ~~~~~
- viii. How many hours per day does Abe now work? Explain how you got this answer. You may add elements to the graph.

2. [40 points. Caution: this question is *similar to but not the same as* Problem Set 4 #1]

Imagine that you are the director of Health and Human Services for a state with very low unemployment among nurses but very high unemployment among the kind of young, low-skilled workers who generally work in minimum wage jobs.

At your executive staff meeting, the analysts in your public agency present a cost-benefit analysis of whether the state should open up care facilities for the elderly. Such a system would involve hiring 4,000 nurses and 4,000 minimum wage assistants over the course of a year.

Minimum wage is \$7.15/hour [roughly \$15,000/year] and nursing salaries average \$50,000/year.

[helpful calculations--  $4000 \times \$50,000 = \$200 \text{ million}; 4000 \times \$15,000 = \$60 \text{ million}]$ 

- i. Draw a graph of the labor market for nurses. Show what will happen to the nurses' salaries if the state opens these facilities.
- ii. Is the change in the labor market for nurses a shift in supply or a shift in demand?

The analysts predict that the budgetary cost associated with hiring the nurses is \$20 million.

- iii. State if this is correct or incorrect. If this is correct, explain where they got this figure. If this is not correct, explain how the correct answer could be calculated [you do not need to actually calculate it.]
- iv. Does the budgetary cost in this case over-estimate or under-estimate the total short-run cost of the program to society? Explain in words.

Assume that the state currently has 10,000 unemployed young, low-skilled workers.

- v. Draw a graph of this labor market for young, low-skilled workers. Draw a horizontal line to indicate the minimum wage. Did you draw this line at, above or below the point at which supply and demand intersect? Explain your choice.
- vi. What will be the budgetary cost associated with hiring the care facility assistants?

This question is a two-part essay. I expect that each part will require a paragraph of 3-6 sentences.

- 3. [20 points] Your consulting group has been hired for a study of whether access to high-speed internet capabilities is a key factor in determining whether HMO patients will access health-related information on-line. From a recent survey, you know that there is a very high correlation between whether a family has a high-speed internet connection and whether they use the web to research health issues.
  - i. You cannot conclude from this information that access to high-speed internet increases the use of web-based health information. Explain the problem, using the term "selection."

Doing all this research has made you realize that you should get high-speed internet for yourself at home. Your neighbor across the street, who has had it for a year, tells you that Company A is the only company that provides it.

You call Company A and the operator tells you that the service is not yet available for anyone who lives on the south side of the street. In fact, in the whole service area, only people who live on the north side of the street have access. However, people who live on the south side of the street will get the high speed access starting in July.

- ii. You go back into work tomorrow and propose a new and slightly different study to your client. What do you propose and why?
- 4. Please record your finish time.

You may use this graph for #1. Note that it is 16 units wide and 20 units high. Be sure to thoroughly label important elements.

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