14.41 Problem Set #4
Due Friday, Nov. 12th, at 1PM

1) In 1981, the federal government passed a law that gave permission to states to change the structure of their Medicaid program. States could now, if they wished, require Medicaid beneficiaries to enroll in a Medicaid "Managed Care Organization" (MCO), so long as the Medicaid recipients were offered a choice of several plans. Medicaid recipients would be required to receive their medical care only through their MCO. These MCOs would receive fixed, regular payments from the state and, in return, would cover the medical expenses of their Medicaid enrollees.

a) Using what you know about Medicaid and managed care, explain several reasons why policymakers might support the requirement that Medicaid beneficiaries enroll in an MCO.

b) Again, applying what you know about Medicaid and managed care, how do you think that this requirement would affect the decision of people who are eligible to enroll in Medicaid? Be specific about which Medicaid eligibles are likely to change or not change their takeup decision.

c) How might this requirement affect overall access to care for Medicaid eligibles?

d) Some states chose to implement an MCO requirement right away, while others waited several years, and others never passed an MCO requirement. Discuss how we might use this experience to learn more about the impact of Medicaid MCOs.

2) The following question considers the possibility that employer-provided health insurance reduces job mobility – a phenomemon that has been termed job-lock. Job-lock prevents workers from transitioning to a job where their marginal productivity would be higher than at their current job.

Consider three workers with the following preferences:

$$U_{ij} = W_{ij} + 50*H_{ij}$$
$$U_{kj} = W_{kj} + 110*H_{kj}$$
$$U_{lj} = W_{lj} + 150*H_{lj}$$

Where W_{ij} is the wage at job j for worker i, H_{ij} is an indicator variable (i.e. it takes on a value of one or zero) for whether or not employer provided health insurance (EPHI) is offered to worker i at job j. Assume that there are no employee co-payements for the insurance and that the labor market is perfectly competitive. Workers i ,k and l all have a marginal product of $200. There are an arbitrarily large number of firms in the economy and they cannot offer worker specific compensation packages. If they provide EPHI to one worker, they must provide it for all of their workers. EPHI costs firms $100 per worker. Assume that there is full employment - all three workers will be employed.

a) What wage does each of these workers earn? Do they have EPHI? Is any worker earning a rent? What is the compensating wage differential for EPHI (i.e. the labor market wide decrease in wages at a job which provides EPHI)?

b) Now assume that there are two types of firms : type 1 and 2. Type 1's cost of providing EPHI is $200 per worker and type 2's cost of providing EPHI is $100.   At which type of firm is each of the three workers employed? Why? Which workers have EPHI?

c) Now assume that firms of type 1 develop a new technology that increases the marginal productivity of their workers to $230. At what firms do the workers work at now? Are any of them suffering job-lock?

3) Consider the following welfare system:

- welfare is available to single parents
- if you earn nothing, you get guaranteed benefit of $5000 and free health insurance coverage
- $1 of benefit is taxed away for every $2 that you earn
- when your benefits run out completely, you lose the health insurance

Suppose that single parents have a potential wage of $10 per hour, and that they can work up to 4000 hours per year (two full-time jobs).

a) Suppose that single parents value health insurance at $2000. Diagram their opportunity set [in (hours worked, consumption) space] under the assumption that they can't find a job that offers health insurance. Are there any hours points that they definitely won't choose? Why?

b) How would their opportunity set change if all jobs offered health insurance? What would be the likely effect on their hours of work?

c) Assume again that jobs don't come with health insurance and suppose that there are two classes of single parents: sick (who value health insurance at $3000) and healthy (who value health insurance at $1000). Diagram the opportunity set for each. How do their incentives to leave welfare differ?

d) Now, suppose that we impose a mandate that all employers must offer health insurance to their workers. What will this do to the incentives to leave welfare for each of these two groups of mothers?

4) One current government policy to increase the income of the poor is the Earned Income Tax Credit (EITC). The structure of this credit for tax year 2003 is as follows, for a single parent with one child:

- if you earn zero, you receive zero
- you receive a tax rebate of 33.96% of wages up to $7,500 of earnings

- you then receive a subsidy of 33.96% of $7,500 if you earn between $7,500 and $13,500
- you then are taxed at 16.43% on income between $13,500 and $29,000, at which point the EITC has been entirely taxed away

Ignore, for now, the other features of the tax code and of the welfare system.

a) Assume a parent can earn $10 an hour, and can work up to 4000 hours per year (two full-time jobs). Diagram the parent's budget set in [in (hours worked, consumption) space].

b) Discuss the possible effects of introducing the EITC on the labor supply of parents with different initial labor supplies.

c) You are asked to identify the effects of the EITC on single mothers' labor supply using data from a previous (1994) policy change that increased in the generosity of the EITC. You are given the following data (note that these data are made up):

	1993: maximum EITC=$1000		1995: maximum EITC=$2000	
	Labor-force participation rate	Average hours worked among those who work	Labor-force participation rate	Average hours worked among those who work
Single mothers with children	73%	1412	79%	1489
Single mothers with children, without high-school degree	52%	1120	61%	1262
Single mothers with children, with at least some college	90%	1650	91%	1676
Single women without children	86%	1670	89%	1750
Single women without children, without high school degree	75%	1450	80%	1595
Single women without children, with at least some college	95%	1850	96%	1875
Elderly women	22%	540	18%	480

i) Which of these groups would you recommend using as "treatment" and "control" groups to create differences-in-differences estimates of the effect of the EITC, and which would you not recommend? What are the pros and cons of those pairings? Which groups would you recommend to calculate a triple-differences estimate?

ii)   Using the pairs you've recommended, calculate the effect on labor force participation and hours worked among workers with respect to a $1000 increase in the EITC.

iii)   In a "14.01 world," we would not expect to find that the EITC has *only* positive effects on labor supply. Name at least one reason that we might find only positive effects in the real world.

iv)   What does their finding suggest about the benefits of using an EITC-based anti-poverty program rather than a traditional welfare program such as that in question 3?

v)   Why might society want to have traditional cash welfare, such as that in question 3, in addition to having an EITC?