

TA names and codes

Mon 4-4:50 (first half)	283	Vinny Alladi
Mon 4-4:50 (second half)	305	Michael Sharifi
Mon 10-10:50	314	Matthew Louie
Wed 3-3:50	284	Roy Allen
Wed 5-5:50	292	Martha Gimbel
Fri 4-4:50	110	Soojin Jo
Fri 5-5:50	288	Ayal Chen-Zion

- (1) Bubble in TA code beginning with left column
- (2) Use 2 forms if you interacted with 2 TAs
- (3) Please separately complete CAPE evaluation for Professor Hamilton online

Rough grading scale for second exam:

- A: 85-100
- B: 72-84
- C: 55-71
- D: 40-54
- F: below 40
- average score on first exam: 68

Your second exam can be picked up from your TA either after class on Monday November 21 or during their discussion section or office hours the week of Nov 21-23

Practice final reviewed week of Nov 28 – Dec 2

Chapter 13: Labor Markets, Poverty, and Income Distribution

- G. Measuring inequality
- H. Trends in inequality
- I. Policies for addressing inequality
 1. Raising the minimum wage
 2. Taxes
 3. Direct assistance
 4. Negative income tax

Negative income tax:

If your income is Y , your tax is $-\$10,000 + 0.25 \times Y$

wage income	taxes owed	after-tax income		
0	-10,000	10,000		
6,000	-8,500	14,500		
12,000	-7,000	19,000		
50,000	2,500	47,500		
100,000	15,000	85,000		

wage income	taxes owed	after-tax income	average tax rate	
0	-10,000	10,000	0	
6,000	-8,500	14,500	0	
12,000	-7,000	19,000	0	
50,000	2,500	47,500	0.05	
100,000	15,000	85,000	0.15	

wage income	taxes owed	after-tax income	average tax rate	marginal tax rate
0	-10,000	10,000	0	0.25
6,000	-8,500	14,500	0	0.25
12,000	-7,000	19,000	0	0.25
50,000	2,500	47,500	0.05	0.25
100,000	15,000	85,000	0.15	0.25

Potential advantage of negative income tax:
redistributes income to poorer household
without weakening work incentives

Potential drawback: making sure resources
support children's basic needs (food
stamps, Medicaid)

Chapter 14: The Environment, Health, and Safety

A. The optimal amount of safety

One view: human life is priceless

Does this mean all expenditures that make
us safer are a good idea?

Should we build
pedestrian walkways
at every intersection?



Should we keep
ourselves in bubbles
to reduce risk of
infectious disease?



Economists' perspective:

There is an optimal level of risk that we should tolerate

It is possible to have too much risk or too little risk

Principle:

Weigh costs against benefits

How measure costs?

- Dollar value of what we have to give up to get more safety

How measure benefits?

- Dollar value of what we're willing to give up to get more safety

Optimal level of safety:

marginal benefit = marginal cost

We know marginal cost of building another pedestrian bridge

Need to put a dollar value on benefit of reducing risk to pedestrians

Chapter 14: The Environment, Health, and Safety

- A. The optimal amount of safety
- B. Workplace safety regulation

Example:

controlling cotton dust exposure in the textile industry



Byssinosis ("brown lung disease"); mild wheezing to severe respiratory problems



Suppose that without worker protection, 1 in 12 textile workers would eventually develop byssinosis

Suppose that it would cost the firm \$2,000 per worker each year to improve ventilation system to reduce this risk

Optimality principle:

- If it's worth more than \$2,000 per year to the worker to reduce the risk, improved ventilation is a good idea.
- If it's worth less than \$2,000 per year to the worker to reduce the risk, improved ventilation is not a good idea.

1. Outcome when there are no government regulations over worker safety

- Let's say that nobody used to think there was any danger from working in a textile plant, and the wage paid textile workers used to be \$25,000 per year.
- Then a new scientific study establishes the risk of byssinosis.

Suppose first that the cost of improved ventilation is \$2,000 per year and the value to the worker of improved ventilation is \$3,000 per year (so improved ventilation is a good idea)

If firm makes no changes at all, some workers would quit.

- Workers used to see \$25,000 as adequate compensation for the job
- Given the new scientific information and the value workers place on safety, workers would now need \$28,000 to remain
- If firm makes no safety improvements, it would have to raise the wage to \$28,000 to keep all its workers

Alternatively, the firm could make the ventilation improvements at a cost of \$2,000 per worker and keep the wage at \$25,000 per worker.

- Cost per worker when the firm makes no safety investment = \$28,000
- Cost per worker when the firm does make safety investment = \$27,000
- A profit-maximizing firm would choose to make the safety investment
- Conclusion: when added safety investment makes economic sense, the firm's desire to maximize its profit would lead it to make the investment

Suppose instead that the cost of improved ventilation is \$2,000 per year and the value to the worker of improved ventilation is \$1,000 per year (so improved ventilation is not a good idea)

- If firm makes no changes at all, some workers would quit.
- Workers used to see \$25,000 as adequate compensation for the job
 - Given the new scientific information and the value they place on safety, workers would now need \$26,000 to remain
 - If firm makes no safety improvements, it would have to raise the wage to \$26,000 to keep all its workers

- Cost per worker when the firm makes no safety investment = \$26,000
- Cost per worker when the firm does make safety investment = \$27,000
- A profit-maximizing firm would choose not to make the safety investment
- Conclusion: when added safety investment does not make economic sense, the firm's desire to maximize its profit would not lead it to make the investment

1. Outcome when there are no government regulations over worker safety
2. Outcome when the government forces firm to improve ventilation system

Suppose as in the last case that the cost is \$2,000 per worker and value to worker is only \$1,000

With no government regulation, wage would be \$26,000 and firm's cost per worker would be \$26,000

With government regulation, wage would be \$25,000 and firm's cost per worker would be \$27,000

Conclusion: the regulation will raise firm's costs (leading them to lay off workers) and lower the workers' wages

Both workers and firm will be worse off than they would have been with no regulation

3. Actual response to the new scientific evidence about byssinosis:

Firms resisted improving ventilation

Firms forced to adopt higher standards by Occupational Safety and Health Administration (OSHA)

Why profit-maximization might not lead to socially optimal level of safety investment

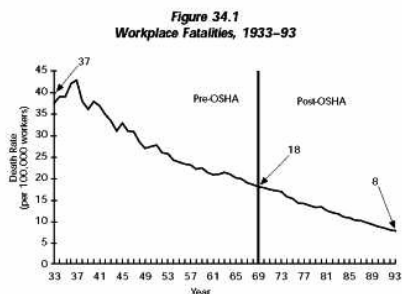
(a) workers have poor information about the risks

But an OSHA employee has a hard task assimilating all the scientific evidence, firm's costs, and worker's preferences

(b) Workers may have limited mobility (stuck in current job)

But, if firm would not lose any workers if it lowered the wage to \$23,000, why was it paying them \$25,000?

One possible answer: if job is riskier, firm would have to raise wage by less than \$1,000 because more risk-taking individuals than those currently employed would take the job



Source: Authors' calculations based on National Safety Council, *Accident Facts, 1994* (Itasca, Ill.: NSC, 1994).

Source: <http://divisionoflabour.com/archives/004409.php>