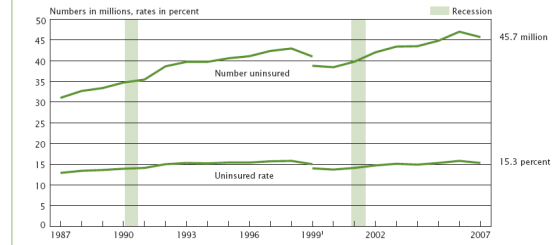


Employer mandates and health insurance reform

ECON 40447
Bill Evans

Figure 6.
Number Uninsured and Uninsured Rate: 1987 to 2007



Uninsured Non-Elderly Population by Work Status of Family Head, 2007

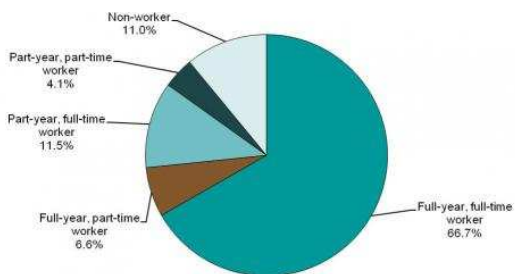
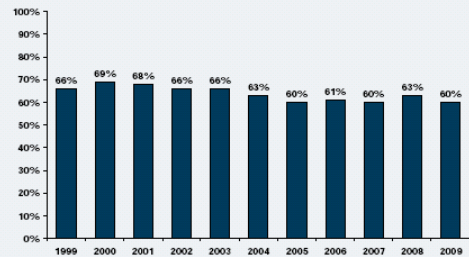


Exhibit 2.1
Percentage of Firms Offering Health Benefits, 1999-2009*



* Tests found no statistical difference from estimate for the previous year shown ($p < .05$).
Note: As noted in the Survey Design and Methods section, estimates presented in this exhibit are based on the sample of both firms that completed the entire survey and those that answered just one question about whether they offer health benefits.
Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2009.

Exhibit 2.2
Percentage of Firms Offering Health Benefits, by Firm Size, 1999-2009

FIRM SIZE	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
3-9 Workers	56%	57%	58%	58%	55%	52%	47%	48%	45%	49%	46%
10-24 Workers	74	80	77	70*	76	74	72	73	76	78	72
25-49 Workers	86	91	90	86	84	87	87	87	83	90*	87
50-199 Workers	87	97	96	95	95	92	93	92	94	94	85
All Small Firms (3-199 Workers)	65%	68%	68%	66%	65%	63%	59%	60%	59%	62%	59%
All Large Firms (200 or More Workers)	99%	99%	99%	98%	98%	99%	98%	98%	99%	99%	98%
ALL FIRMS	66%	69%	68%	66%	66%	63%	60%	61%	60%	63%	60%

* Estimate is statistically different from estimate for the previous year shown (p<.05).

Note: As noted in the Survey Design and Methods section, estimates presented in this exhibit are based on the sample of both firms that completed the entire survey and those that answered just one question about whether they offer health benefits.

Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2009.

Introduction

- Tax code encourages firms to provide health insurance to workers
- Therefore, employers are the primary source of health insurance for the non-elderly, non-indigent
- Also the primary reason for such a high uninsurance rate
- Many reform proposals are centered around expanding insurance through employers

6

Pay or Play

- Firms must pay minimum fraction of wage bill to health insurance or pay that as a fine
- Proposed in 26 states in 2006, adopted in MA as part of their major health care reform
- Language -- firms must pay 'their fair share'

7

- Insurance is one component of a compensation package
- Increased costs in one area will be paid for by reducing on costs in another (wages)
- In long run, costs will be borne by workers

8

Current examples

- House bill: Pay 72.5%/65% or individual/family premium or pay 8% payroll tax. Exempt firms < \$500K payroll
- Senate HELP bill: pay 60% of premium or \$750 fine for each uninsured fulltime employee (exempt firms w/<25 workers)

9

Will firms pay or play?

- In March 2007, Private industry
 - Average hourly comp. \$27.61
 - Wages/salaries \$18.34 (71%)
 - Health insurance \$ 1.83 (7.1%)
 - The 7.1% includes lots of firms that pay nothing, so, conditional on providing health care, firms larger fraction of wage bill on ins.
- Wal-Mart pays 5-7%
 - 40% workers covered by insurance provided by Wal-Mart

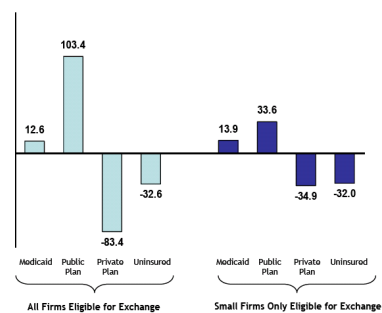
10

Estimates of House plan

- CBO estimates fines will generate \$33 bill per year
- Average per worker cost is \$56K (2000 hours x \$28/hour)
- 8% is \$4480
- \$33 billion/\$4480 = 7,366,071 will ignore
- There are roughly 16 million uninsured workers

11

Figure 5
Changes in Sources of Coverage under the American Affordable Health Choices Act Assuming All Firms are Eligible for the Exchange 2011 (millions)¹⁰



12

Tradeoffs

- The government sometimes mandates employers provide a particular benefit
- Sometimes the government taxes the firm and then provides the benefit to all
- When is one more preferred than another? Do we get less distortions from one program than another?

13

Current context

- Should the government
 - Mandate firms provide health insurance
 - Tie the benefit to employment
 - only benefit those that work
 - Should it tax current workers and provide the benefit directly to all
- Similar but distinct distortions in both cases

14

Examples

- Many examples of government mandates
 - firms required to provide some benefit to workers – a benefit tied to employment
- Three key examples
 - Unemployment insurance
 - Workers compensation
 - Social security

15

Example: Unemployment insurance

- All states required to pay for unemployment insurance (UI) for workers
- Workers receive UI if they are fired/layed off
- Do not receive benefits if they quit
- Premium is a function of
 - Earnings
 - benefit level
 - firm's previous history of job turnover

16

- Premiums are collected from firms
- Benefits are provided by state UI programs
- Program taxes firms, then provides workers with a benefit

17

Raise taxes to pay for some Government-provided benefit

- Suppose that the govt. will provide some benefit TO ALL – not just to workers
- Benefit is not contingent on employment
- The funds for this program must come from somewhere
- For simplicity, lets assume it will come from a payroll tax collected from firms
 - Fixed costs per hour of employment
 - Increase in the hourly costs of labor

18

What might that tax be?

- Example: cost of health insurance
- Average workers works 2000 hours/year
 - 50 weeks, 40 hours/week
- Assume health insurance costs \$5000/person per year and people work 2000 hours/year
- Roughly \$2.5/hour of work

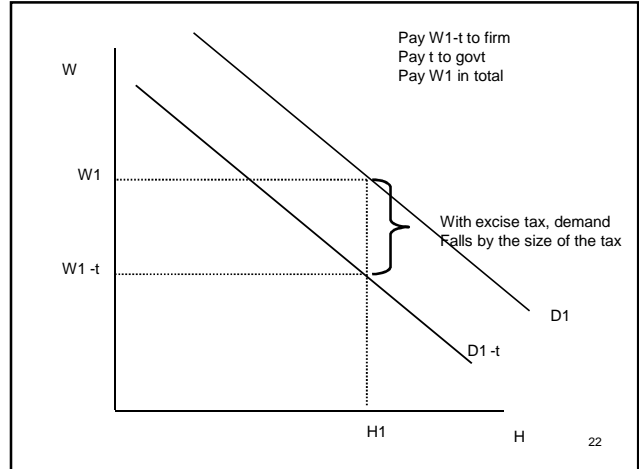
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- D1 is the original demand for labor before the payroll tax
 - At W_1 firms willing to hire H_1 hours
- Remember, Y axis is the wage transacted between firms and employees
- Impose a payroll tax of $\$t$ /hour
- For every hours hired
 - Firms pays wage to worker
 - Additional $\$t$ to government

20

- Under the payroll, how much are firms willing to hire?
- To hire H_1 hours, wage must fall to $W_1 - t$
 - Firms is only willing to pay a total of W_1 per hour if it hires H_1 workers
 - Firms pays $W_1 - t$ to workers
 - Addition t to the govt.
 - Total of W_1
- Payroll tax shifts down the demand for labor by amount equal to the tax

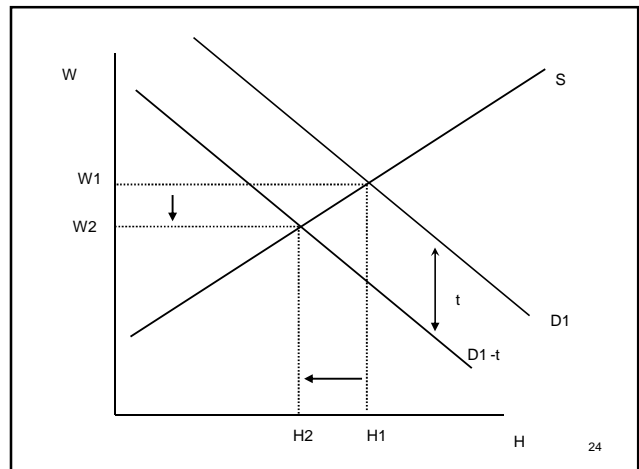
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22

- Market equilibrium before tax
 - W_1, H_1
- Payroll tax shifts down the demand for labor by an amount equal to the tax
- Market clearing wage falls to W_2 , employment falls to H_2
- The payroll tax to fund health insurance has distorted the labor market

23



24

Tax incidence – who pays for the tax?

- Notice two things
 - Wage received by workers has fallen from W_1 to W_2 . Workers are paying for the coverage in the form of lower wages
 - Wage paid by the firm has increased
 - Wage transacted between firm/worker fallen from W_1 to W_2
 - Total compensation is $W_2 + t$, so, cost has increased from W_1 to $W_2 + t$

25

- Old friend dead weight loss has appeared again
- Because labor demand had declined, consumer's surplus has shrunk
 - Old CS = Area above line W_1d and below demand
 - New CS = Area above line W_2a and below demand

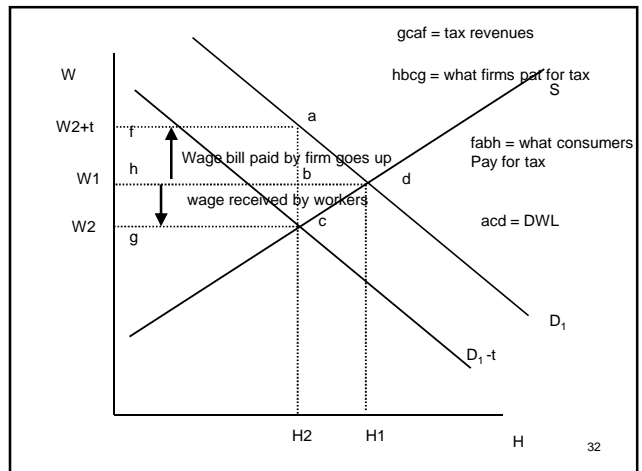
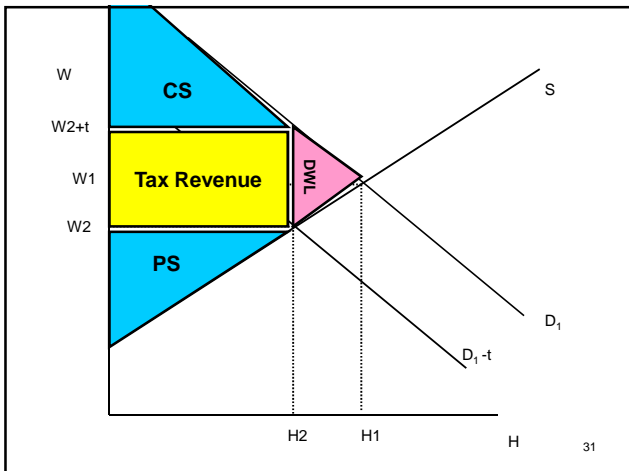
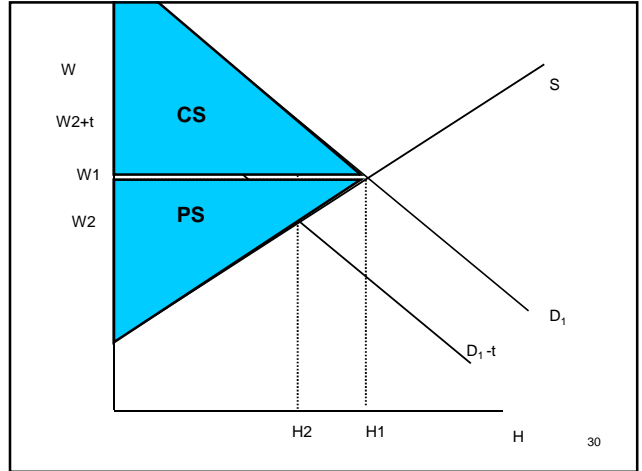
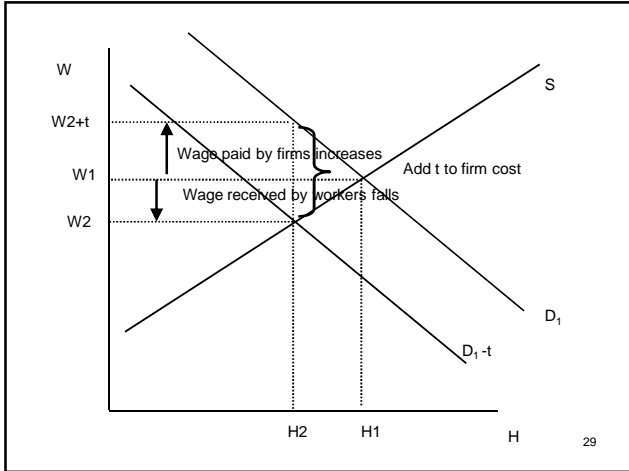
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- Because supply has fallen, there is a change in producers surplus
 - Old PS = area below line W_1d and above supply
 - New PS = area below W_2C and above supply
- Total surplus has fallen by
 - Area $facdg$

27

- Some of that area is captured by the government in the form of taxes
- $H_2(t)$ = area $(facg)$
- Firms pay area $(fabh)$
- Workers pay area $(hbcg)$
- An area is lost (adg) -- dead weight loss of taxation

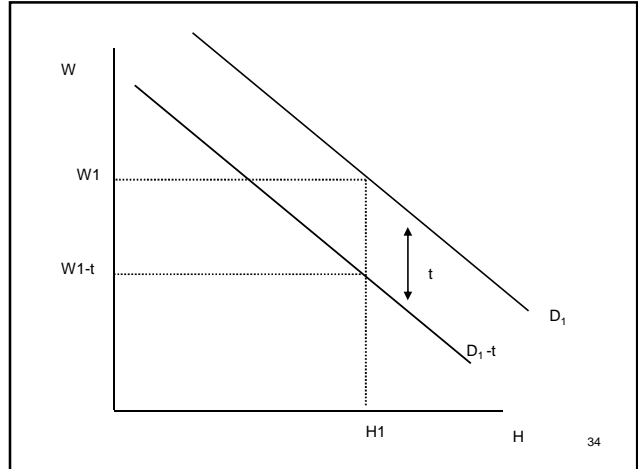
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Employer mandate

- Employers must provide health insurance to workers
- Suppose that the cost of the program is $\$t$ per hour to the firm
- The mandate has the same impact as a per unit payroll tax
 - To hire H_1 hours, firm is willing to pay W_1
 - With a tax, the only way they would hire H_1 is if wages fell to W_1-t

33



34

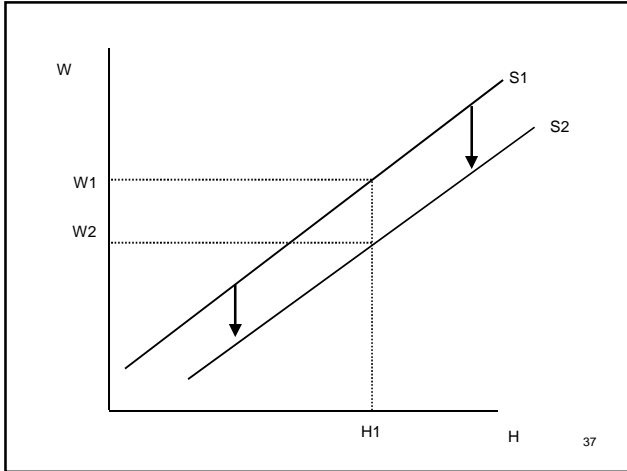
What about labor supply?

- Height of supply curve represents what people would supply to labor market at prevailing wage
- Position of labor supply curve is a function of job attributes
 - When the job 'improves', people willing to supply more at any prevailing wage
 - As quality of job declines, they supply less

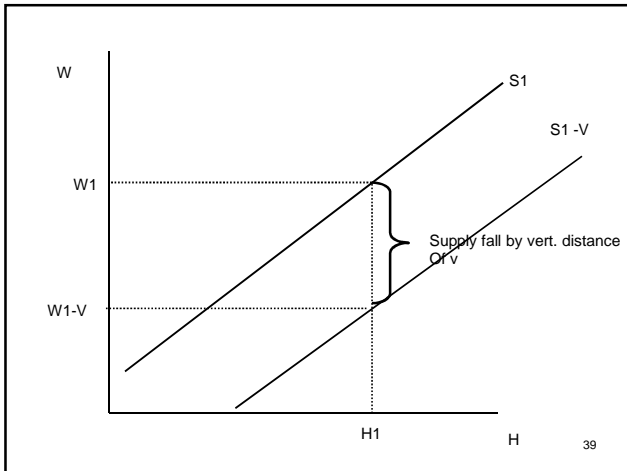
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- Original supply curve is S_1
 - At wage W_1 , workers willing to supply H_1
- With employer mandate, firms now provide health insurance
- Workers value the insurance, so at any hours, they are willing to take less in wages for the same job
- supply curve shifts down by a distance equal to the benefit (S_1+V)

36



- ### Put some more structure
- Monetize the benefits that workers place on the new mandate
 - Workers value at an amount equal to \$V per hour
 - Supply curve shifts down by an amount just equal to the value
 - Before mandate: willing to supply H1 at W1
 - After: willing to supply H1 at W1-V
 - Receive W1-v from job
 - Receive V from new mandated benefit or W1 in total



- ### Three cases
- Case 1: $V=0$
 - workers do not value mandate at all
 - Case 2: $V < T$
 - Workers value the mandate less than they pay in taxes
 - Case 3: $V = T$
 - Workers value the mandate at what it costs them in taxes

What we are going to do

- Consider what is more efficient: govt mandate firms provide or govt tax and then provide
- E1 is initial equilibrium
- E2 is equilibrium under govt tax/provision
- E3 is equilibrium under employer mandate

41

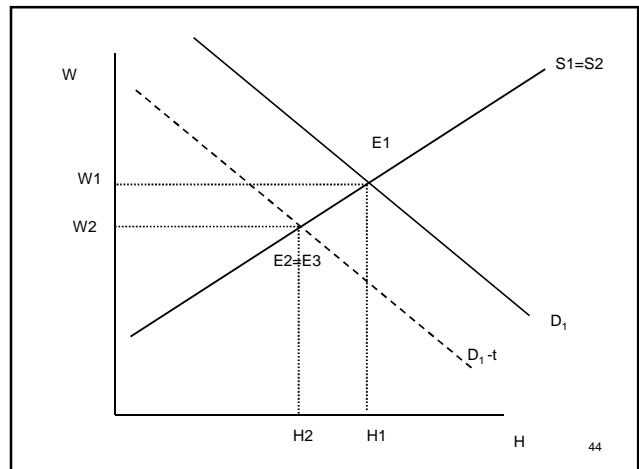
Case 1

- Labor demand
 - Under tax will shift down by the amount of the tax
 - Under mandate, will shift down by the amount of the implicit tax
- Labor supply:
 - Will not change in either situation because workers do not value E1 original equilibrium

42

- What would be the equilibrium if the govt taxed firms and directly provided the benefit?
- Would be the same – firm has an increased cost of employment, labor supply stays the same
- In this case, govt mandate and govt provision is the same

43

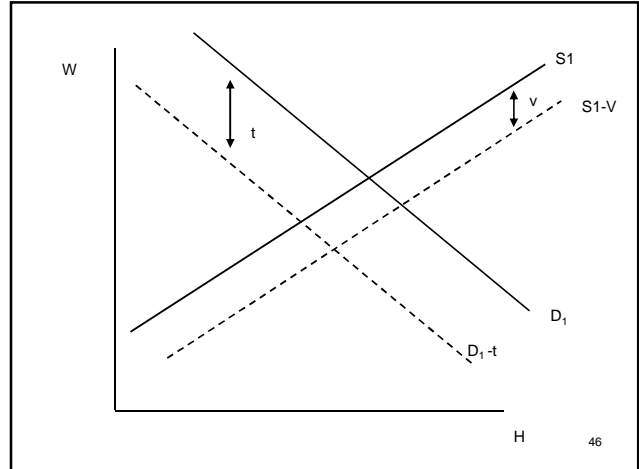


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Case 2: $V < t$

- Demand curve falls by t
- Supply curve falls by v

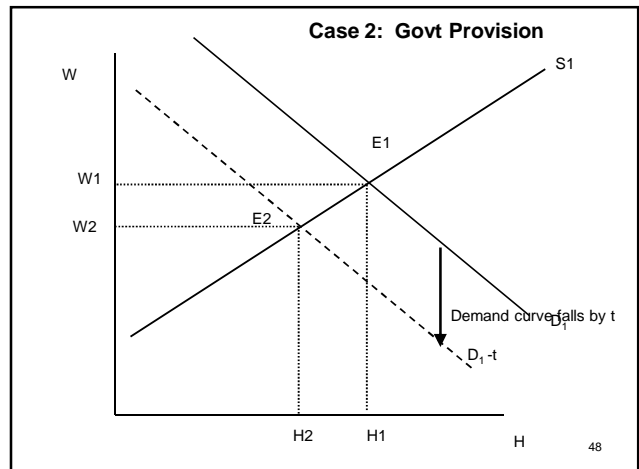
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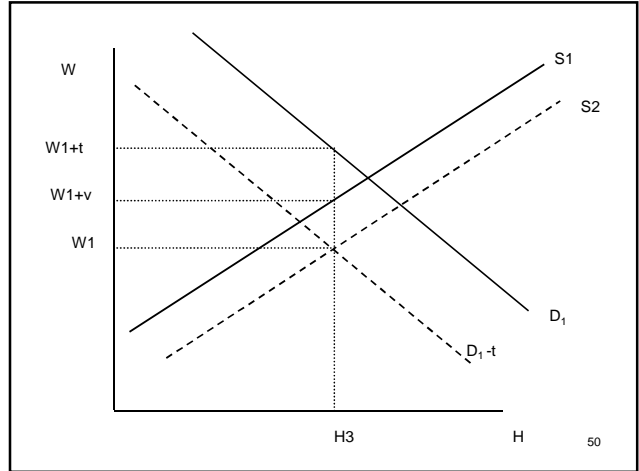
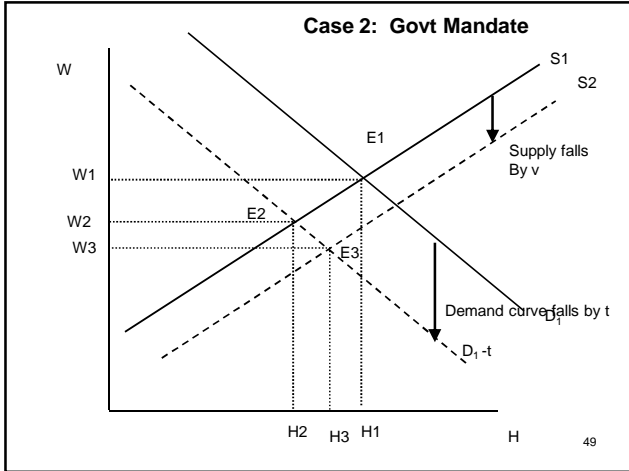
46

- Without mandates, Equilibrium E_1 . H_1 hours, workers required W_1 in wage.
- With mandates, equilibrium E_3 . Quality of the job improves, so supply curve falls, new hours/wages are H_3/W_3
- What is the equilibrium if the govt taxes and provides the benefits directly? E_2
- Govt mandates look superior in this case

47

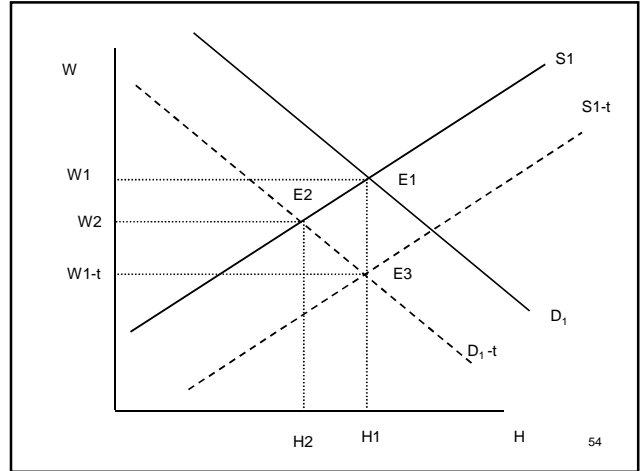
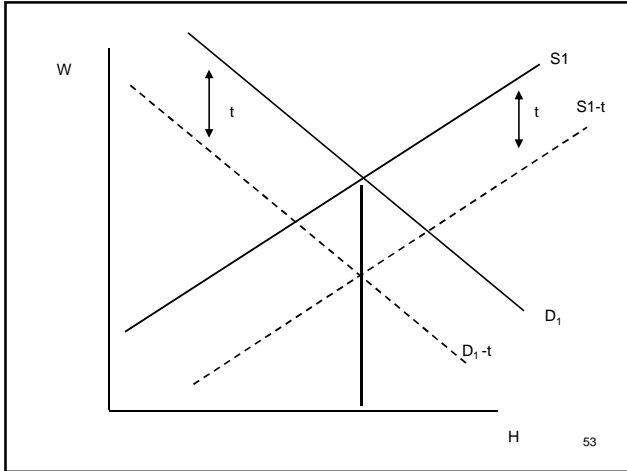


48



- Case 2: Govt mandate**
- Workers
 - Get hourly wage of $W1$
 - Receive benefit of v
 - Get job worth $W1+v$ per hour
 - Firms
 - Pay hourly wage of $W1$
 - Pay tax of t per hour
 - Have hourly costs of $W1+t$
- 51

- Case 3: $V=t$**
- Demand curve shifts down by t
 - Supply curve shifts down by v
- 52



- Workers
 - Receive $W1-t$ in an hourly wage
 - Receive t in benefits
 - Receive $W1-t+t = W1$ in hourly benefits
- Firms
 - Pay $W1-t$ in hourly wage
 - Pay t in benefits
 - Pay $W1$ in total compensation per hour

- ### When workers value the benefit
- Mandates are superior to govt tax/provision
 - Why: when tie benefits to the job, the labor market distortions of govt tax/provision are reduced/eliminated because of a supply response
 - Key result: if workers value benefits – they pay for the mandated benefits in the form of lower wages --

Example

- Supply: $W_s = 40 + (1/3)L$
- Demand: $W_d = 190 - (2/3)L$
- W is daily wage, L is number of workers willing to work a full day
- Market equilibrium:
 - $W_s = W_d$
 - $40 + (1/3)L = 190 - (2/3)L$
 - $150 = L$
 - $W = 40 + (1/3)(150) = 90$

57

- Case 1: Suppose a mandate increases costs by \$30/day. Workers do not value the benefit. What is the market outcome?
- Demand for workers will fall by a vertical distance of the tax or \$30
- Nothing will happen to supply
- $W_d - t = 190 - (2/3)L - 30 = 160 - (2/3)L$
- $W_d - t = W_s$

58

- $160 - (2/3)L = 40 + (1/3)L$
- $L = 120$,
- $W_s = 40 + (1/3)L = 50 + (1/3)120 = 80$
- L has fallen by 30 units
- Wage received by workers has fallen by \$10 (from \$90 to \$80)

59

- Cost per day for firms hiring workers has increased by \$20
 - Old wage is \$90
 - New cost is \$80 wage + \$30 = \$110 cost per day in benefits

60

Case 3

- Suppose workers value the benefit at \$30/day ($V=30$)
- Labor supply curve will shift down by an amount equal to the benefit
- $W_d - t$ is still $160 - (2/3)L$
- Supply is now $W_s - v = 40 + (1/3)L - \30
- $W_s - V = 10 + (1/3)L$

61

- New market equilibrium
- $W_d - t = W_s - v$
- $160 - (2/3)L = 10 + (1/3)L$
- $L = 150$
- $W_d = 60$

62

- Workers receive a job that is valued at \$90/day
 - \$60 in wages
 - \$30 in benefits
- Firms are paying \$90 per day in employment
 - \$60 in wages
 - \$30 in benefits

63

Gruber

- Prior to 78, few plans covered childbirth
- 1975-79, 23 states passed laws mandating coverage for childbirth
- 1978 Pregnancy Discrim Act, prohibited any differential treatment of pregnancy in employment relationship
- State/Fed law increased cost of health insurance by expanding benefits

64

- Research question: who pays for the additional benefit?
- Readily-identifiable beneficiaries:
 - Families w/ worker/spouse in childbearing age
- Easily identifiable group who receive no benefit
 - Single men
 - Older couples past childbearing age

65

- Efficiency of group mandates assumes cost shifting via wage
- Some limits
 - Anti-discrim laws
 - Min wage
 - Work practices (unions) that make pay uniform
- If you cannot shift costs, may change incentive to hire the group receiving the benefit

66

Experimental Design

- Difference-in-difference-in-difference
- 1st difference
 - Treatment states before and after intervention
 - Treatment group are people likely impacted by the law (married women)
- 2nd difference
 - Treatment states before and after intervention
 - Control group are people not likely impacted (single males and older women)

67

Two potential experiments

- Experiment 1
 - Treatment: states that adopted laws
 - Control: those that did nothing
- Experiment 2:
 - Treatment: Federal law
 - Control: states that had a statute in place

68

- Data: May CPS – used to identify insurance status (Now is done in March)
- Problem: Prior to 1978, not all states identified – some in state groups
- Three large states with laws: IL, NJ, NY
- All other states from same region that can be identified prior to 1978 are in control

69

- Controls:
 - IL (OH and IN)
 - NY and NJ (MA, CT and NC)

70

TABLE 1—THE COST OF ADDING MATERNITY BENEFITS TO A HEALTH INSURANCE PACKAGE

Coverage	Demographic group	Annual cost (1990 dollars)	Annual cost (1978 dollars)	Cost as percentage of 1978 weekly earnings
Family	20–29-year-old females	\$984	\$360	4.6
Family	30–39-year-old females	\$756	\$277	3.5
Individual	20–29-year-old females	\$324	\$119	1.5
Individual	30–39-year-old females	\$252	\$92	0.9
Family	20–29-year-old males	\$984	\$360	2.9
Family	30–39-year-old males	\$756	\$277	1.7

71

DDD, Mean Log Hourly Wage

		Before	After	Δ
Treatment: Mar.	Reform	1.547	1.513	-0.034
Women 20-40	No ref.	1.369	1,397	0.028
			$\Delta\Delta$	-0.062
Control: older women and single males	Reform	1.759	1.748	-0.011
	No ref.	1.630	1.627	-0.003
			$\Delta\Delta$	-0.008
			$\Delta\Delta\Delta$	-0.054

72

- Previous two slides
 - Maternity benefits are 4-5% of weekly wages for married women < 40
 - Wages of this group fell by 5-6%
- What does this imply about efficiency of labor market?

73

Burkhauser/Simon

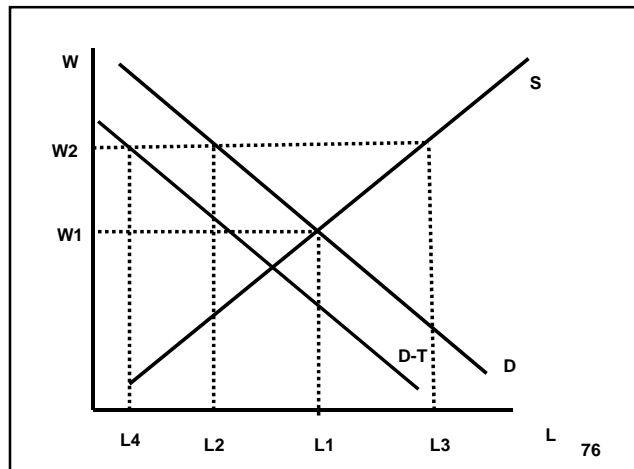
- Standard prediction: pay or play will reduce wages of newly insured
- Implicit tax on business of \$2-\$3/hour
- Problem: uninsured concentrated in low wage jobs and wages cannot fall below minimum level
- What will happen for these workers?

74

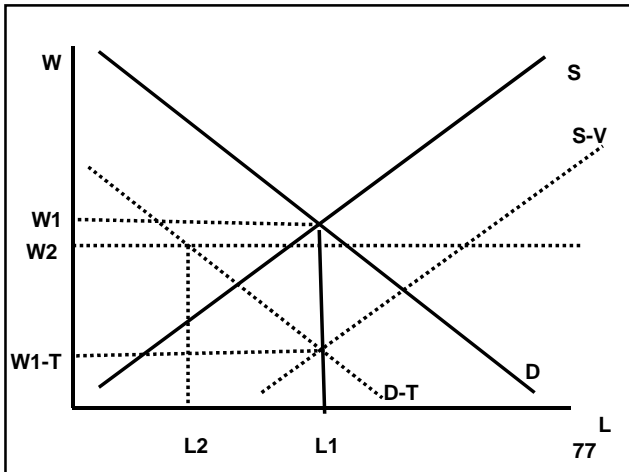
Current minimum wage

- Min wages set at the federal level
 - \$7.25 effective July 24, 2009
- States can raise but not lower
 - WA \$8.55
 - OR \$8.40
 - VT \$8.06
 - IL/DC \$8.25
 - CA \$8.00

75



76



Wages	% of workers	% uninsured
\$0-\$4.99	1.86	4.15
\$5.0-\$7.24	8.58	19.62
\$7.25-\$10.24	19.61	36.49
\$10.25-\$14.99	25.50	24.04
\$15+	44.45	15.70
	100.00	100.00

Firm size	% of workers	% uninsured
<25	24.9	43.19
25-99	14.94	16.16
100-499	15.36	11.84
500+	44.81	28.82
	100.00	100.00

**Two groups
(25+ employee size)**

- If wages are currently below \$7.25, pay-or-play, none of the mandate will be captured in the form of lower wages
- If wages are \$7.25 to \$10.25, some of the pay or play mandate cannot be captured in the form of lower wages (assume \$3.00/hour cost)

Results

- 386K employees without insurance will lose their job as a result of pay or play initiative
- 363K workers employees with insurance from spouse but without EPHI will lose job
- 11 million will gain insurance, cost is roughly 750,000 greater unemployed (0.75 per pt rise in unemployment rate)
- What are the two key assumption?

81