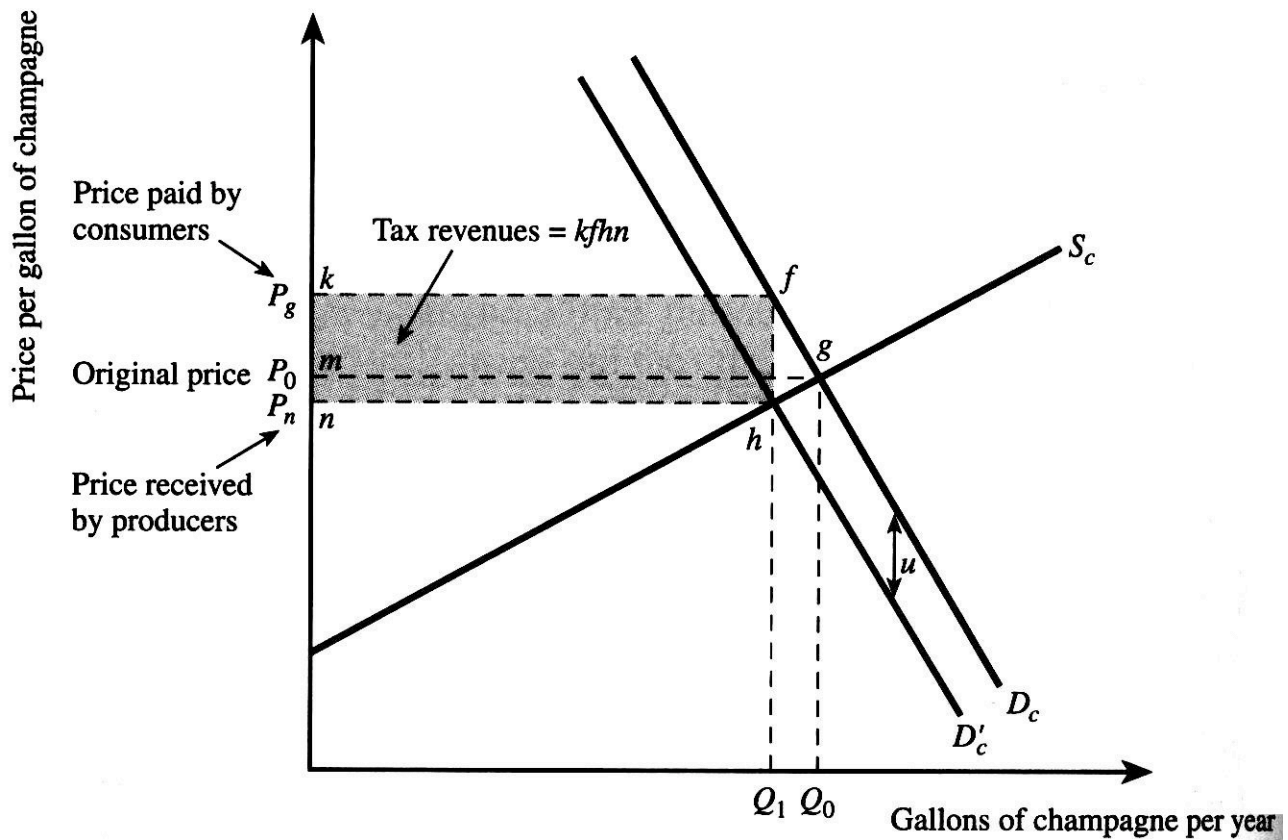


# Incidence of Unit Tax \$u\$ Paid By Consumers



Rosen Figure 13/12-2

From producer's point of view, effect of tax is basically to shift demand curve down by amount of unit tax

Eqbm quantity is reduced from  $Q_0$  to  $Q_1$

Consumers pay higher after-tax price  $P_g$

Consumers incidence:  $(P_g - P_0)Q_1$

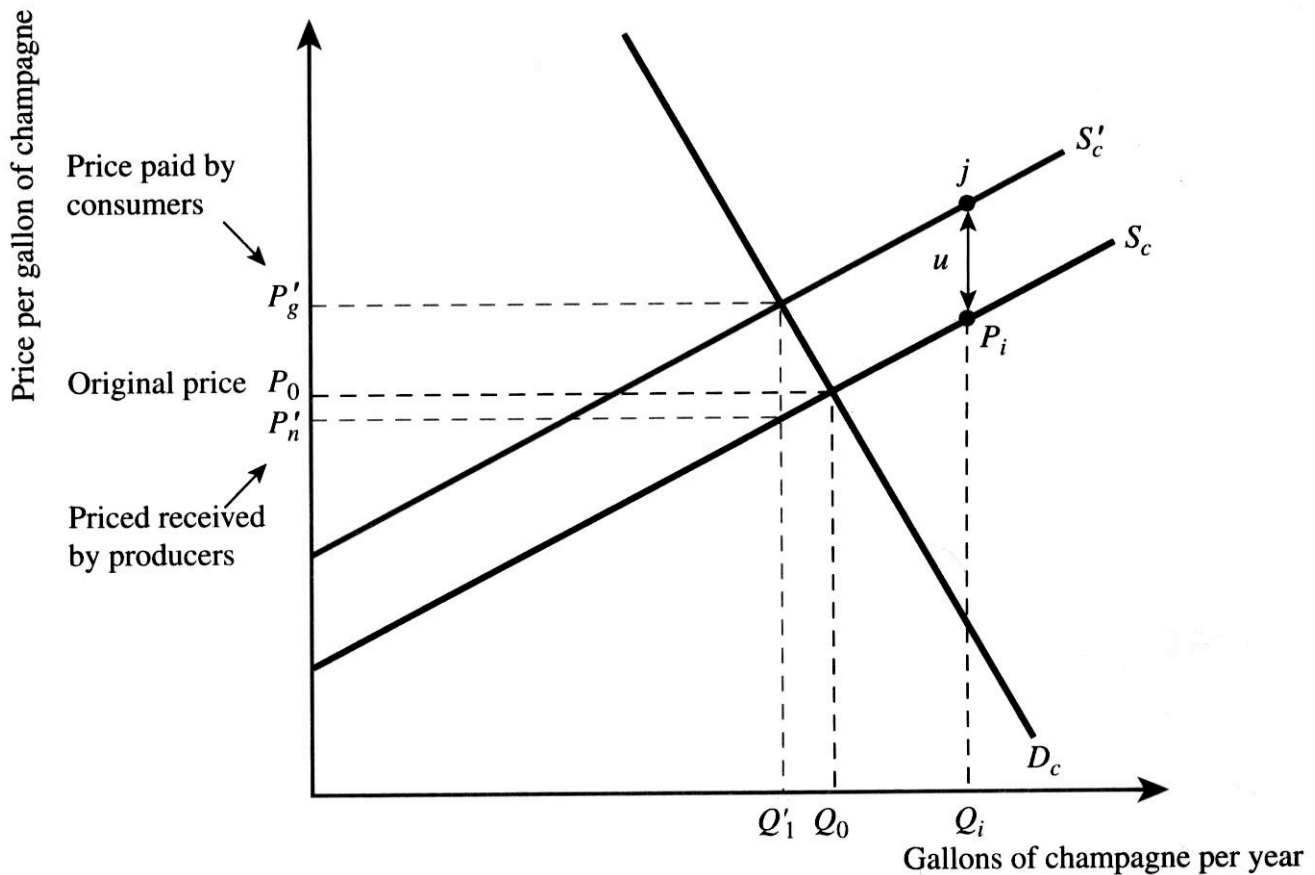
Producers receive lower after-tax price

Producers' incidence:  $(P_0 - P_n)Q_1$

Government receives revenue:  $kfh$

Deadweight loss from taxation is  $fgh$

# Incidence of Unit Tax $\$u$ Paid By *Producers*



Rosen Figure 13/12-3

From producer's point of view, effect of tax is basically to shift supply curve up by amount of unit tax

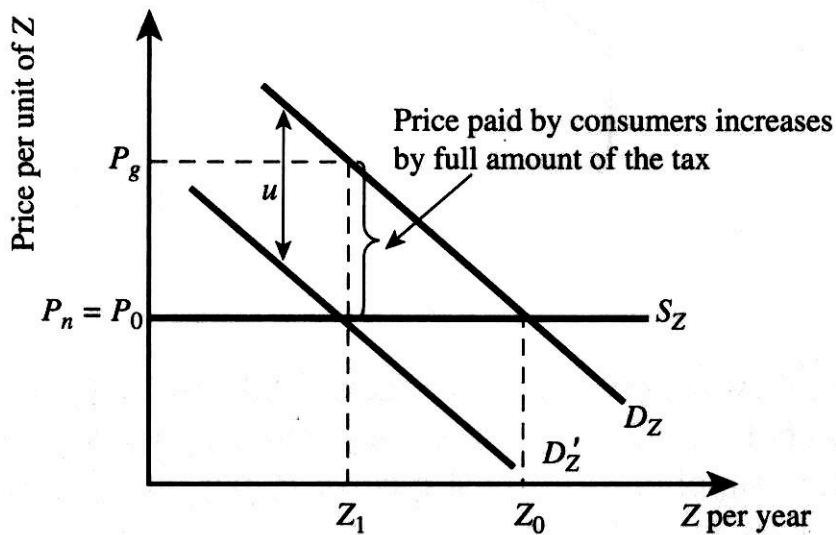
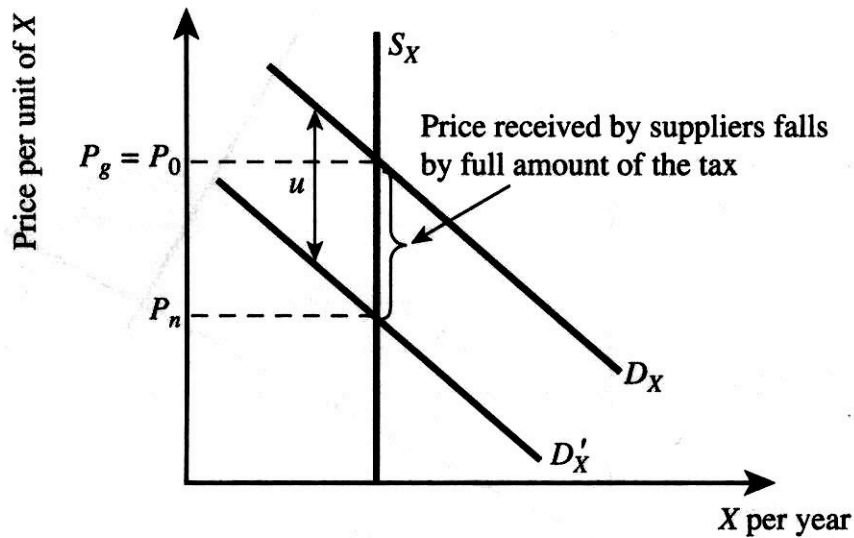
Results are *exactly the same* as when tax is paid by consumers

Why? Equilibrium depends on *relative positions* of demand and supply curves. Shifting  $D$  down by  $\$u$  has exactly the same effect on that relationship as shifting  $S$  up by  $\$u$

Incidence is identical, tax revenues are identical, after-tax price identical

Lesson: *Statutory* incidence is meaningless

# Incidence Depends on Elasticities of D and S

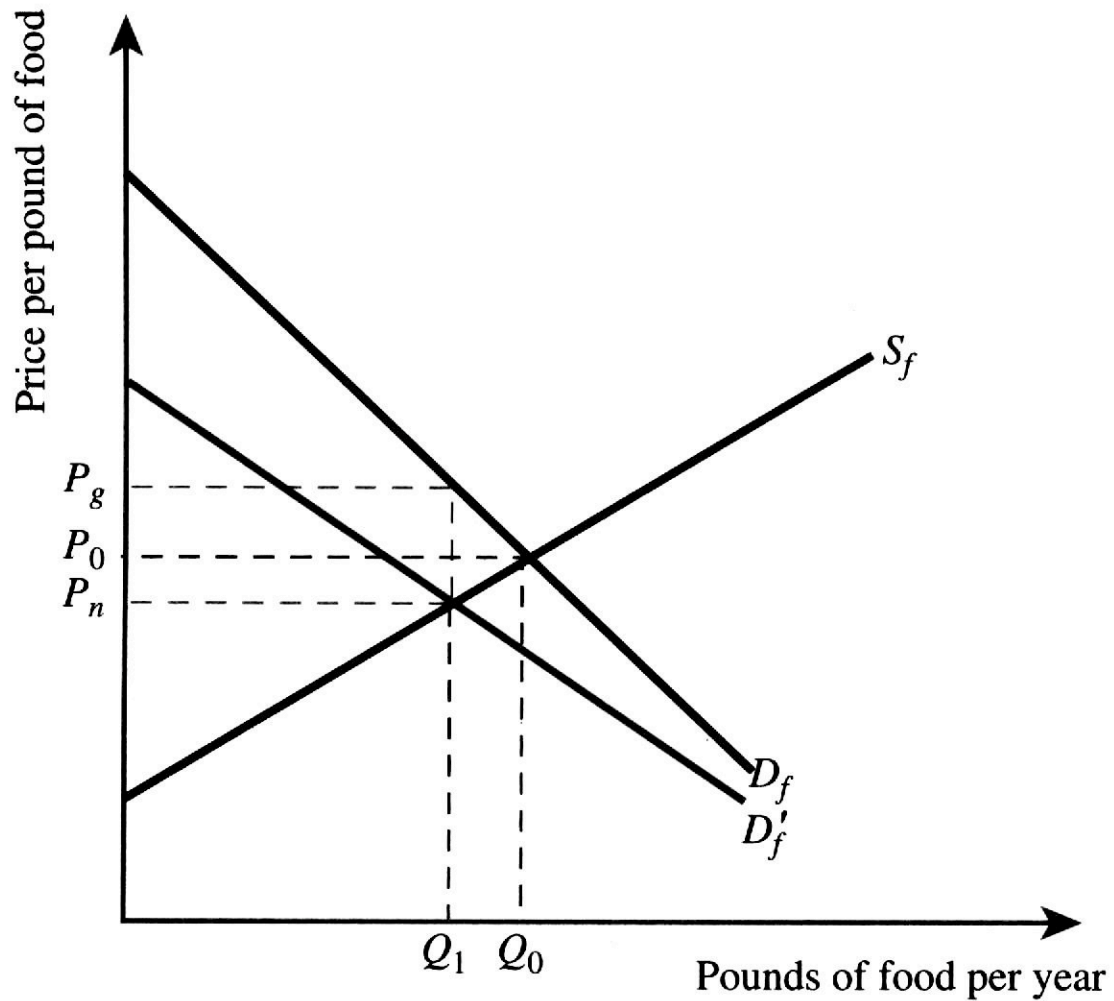


Rosen Figures 13/12-3 and 13/12-4

If supply is perfectly inelastic, supplier bears the full cost of the tax

If supply is perfectly elastic, consumers bear the full cost of the tax

## *Ad Valorem Taxes*

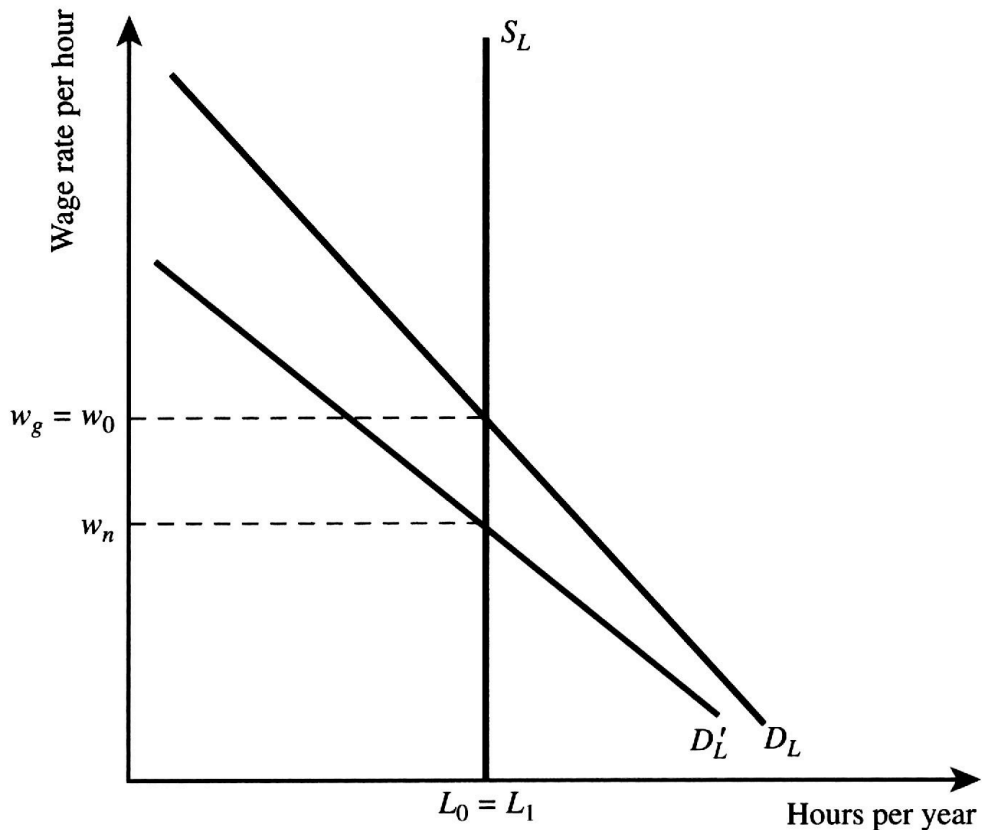


Taxes as a percent of price

Typical example: sales taxes

# An Application: The Social Security Tax

- Statutory incidence:
  - 6.2 percent of wages paid by employer, 6.2 percent by employee
- Economic incidence:
  - Labor supply is very inelastic
  - Labor demand is fairly elastic
  - Labor bears the entire 12.4 percent



# Monopoly

