Econ 131
Spring 2017
Additional Practice [optional]

Tax Incidence

1. Gruber 19.14

In which case will workers bear a larger share of the tax burden, when taxes are imposed in a single locality or when taxes are imposed throughout an entire state? Why will your answer differ between the short run and the long run?

Answer: Workers are relatively mobile in the short run, so a tax in a single locality will induce workers to seek jobs in nearby towns. A statewide tax will make it more difficult for workers to seek jobs since untaxed towns are farther away, reducing their supply elasticity. Thus, in the short run, workers bear a larger share of the tax burden when the tax increase is statewide. Employers will carry the tax burden in the short run if it is imposed in a single locality, but in the long run they might also move to other places. In fact, investment capital may be even more mobile than labor in the long run, as some workers may not wish to leave their hometowns. Theoretically, you would expect the least-mobile physical capital (land) to bear the entire burden of these location-specific taxes once the mobile factors have adjusted to the change, and for workers to bear none of the burden.

2. Gruber 19.6

To finance a new health insurance program, the government of Viedma imposes a new $2 per hour payroll tax to be paid by employers.

a. What do you expect to happen to wages and the size of the workforce?

Answer: You might expect the new tax to reduce cash wages by the entire amount of the tax: labor supply tends to be inelastic, particularly in this case, in which the same tax will be imposed on every job in Viedma. Thus the size of the workforce will not change. Furthermore, the tax is being imposed to fund something that benefits the workers and their families, so workers may be willing to consider it a payment for health insurance rather than a cut in pay. But pay cuts are extremely unpopular and difficult to implement. Firms may think that the public will perceive a wage cut as a signal of poor economic strength, and workers are likely to complain bitterly. As a result, even though economic theory suggests that the workers, whose supply is inelastic, will bear the tax, employers may accept some of the burden. Thus, wages may fall but not by the full amount of the tax.

b. How will this answer change in markets where labor is inelastically demanded?

Answer: If demand for workers is inelastic, it is much more likely that firms will have to bear the tax incidence, so wages would not decrease. This might be the case if the workers have specialized training or there is a tight labor market. Either case would lead to a situation in which firms did not have substantial flexibility in their hiring, so the size of the workforce would remain the same.

3. Gruber 19.4

The demand for football tickets is $Q = 360 - 10P$ and the supply of football tickets is $Q = 20P$. Calculate the gross price paid by consumers after a per-ticket tax of $4. Calculate the after-tax price received by ticket sellers.

Labor Income Taxation

1. Gruber 21.8 (EITC)

Suppose that the government introduces an Earned Income Tax Credit such that for the first $8,000 in earnings, the government pays 50c per dollar on wages earned. For the next $3,000 of earnings, the credit is held constant at $4,000, and after that point the credit is reduced at a rate of 20c per dollar earned. When the credit reaches zero, there is no additional EITC.

a. Draw the budget constraint that reflects this earned income tax credit for a worker who can work up to 4,000 hours per year at an hourly wage of $10 per hour.

b. Illustrate on your graph the portions of the budget constraint where the labor supply effects of the policy are positive, negative, or ambiguous, relative to the "no policy" status quo.

Answer: this is the same exercise we solved in section. Check the solution in that section note.