University of California, Davis
Department of Economics
ECONOMICS 131

Spring 2010 L. Jay Helms

Problem Set #2: General Equilibrium Tax Incidence

1. The Burden of a Selective Payroll Tax (continued)

Suppose that the government decides to impose an extra payroll tax on employees of educational institutions to finance the maintenance and improvement of national parks. Assume that all workers are equally productive and that labor is perfectly mobile between the educational and the noneducational sectors. Use fully labeled diagrams to answer the following questions:

b. Suppose that the educational and the noneducational sectors have the *same* capital/labor ratios and also the same elasticities of substitution between capital and labor. To what extent would the burden be shifted from labor to capital?

c. How would your answer have been different if the educational sector were relatively capital intensive?

d. How would your answer have been different if the sectors were equally capital intensive but in the educational sector labor (teachers) and capital (classrooms) could only be combined in fixed proportions?

2. General Equilibrium Tax Incidence and the Elasticity of Substitution

Consider an economy in which the corporate (X) and noncorporate (Y) sectors have the same factor intensities ($K_X/L_X = K_Y/L_Y$). Let S_X be the elasticity of substitution of capital for labor in X and let S_Y be the elasticity of substitution of capital for labor in Y. The total amounts of capital and labor in the economy are fixed, but both capital and labor are freely mobile between sectors. There is a tax on capital in the corporate sector only.

a. (5) Will the owners of capital receive a higher, a lower, or the same rate of return in X as compared to Y? (A verbal explanation is sufficient.)

b. (10) Would an increase in S_X result in the owners of capital bearing more or less of the burden of the tax? Explain, using appropriate labeled diagrams.

c. (10) Would an increase in S_Y result in the owners of capital bearing more or less of the burden of the tax? Explain, using appropriate labeled diagrams.