

Problem Set #2

Sonoma State University
Economics 305- Intermediate Microeconomic Theory

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Use the supply and demand equations for housing in Rohnert Park derived in questions 9 and 10 of Problem Set #1 to answer the following questions.

- (1) Suppose there is an increase in the demand for housing around Sonoma State University. (Assume that the intercept term in the linear demand equation doubles). What is the new equilibrium price and quantity resulting from the increase in demand? Show graphically.
- (2) Suppose that a group of Sonoma State University students, upset about the increase in local rent, successfully lobby the Rohnert Park City Counsel to impose a ceiling on rent. The city council sets a maximum rent that landlords can charge at the original amount of \$500 per month.
 - (a) Explain the effects on the quantity supplied and demanded of rental housing after the imposition of rent control?
 - (b) Calculate the new levels of housing supplied and demanded resulting from the rent ceiling. Show graphically.
 - (c) Discuss who benefits and who loses under the rent control program.
- (3) Suppose that instead of a rent ceiling, the city of Rohnert Park decides to impose an excise tax of \$100 per unit of housing on landlords (i.e., suppliers of housing).
 - (a) What is the after tax rent paid by renters? Show graphically.
 - (b) What is the net rent retained by landlords? Show graphically.
 - (c) What is the new equilibrium quantity of housing? Show graphically.
 - (d) Who bears the burden of the tax?
 - (e) What is the amount of tax revenue? Show graphically.
- (4) Suppose now a subsidy is proposed. That is, the city of Rohnert Park decides to pay landlords \$100 for every unit of housing provided.
 - (a) What is the post subsidy rent paid by renters? Show graphically.
 - (b) What is the post subsidy rent retained by landlords? Show graphically.
 - (c) What is the new equilibrium quantity of housing? Show graphically.
 - (d) What is the total amount of the housing subsidy paid to landlords? Show graphically.
- (5) Based on your answers in 2- 4, which of the three programs used to improve housing conditions in Rohnert Park, which would you suggest Rohnert Park adopt? Explain why.