

Problem Set 1.

Due on Nov 14, 2023, in class

You are encouraged to type your answers and supplement it with hand-drawn figures. Poor handwriting will make it harder to evaluate your answers.

Please first read the article ***Supply, Demand, and Marriage*** from NYTimes Aug 6, 2011. Now suppose marriage is a market where men is the demand side for wife, and women is the supply side of wife.

- a. In this market, what does the “quantity” mean? What does the “price” mean?
- b. Suppose originally there were 100 single women and 108 single men. Now the situation changes to that there are 100 single women and 120 single men. Which curve will be shifted, supply or demand? Which direction is the shift? Illustrate your view using graph and arrow.
- c. In your answer to b, find out what is the old equilibrium versus the new equilibrium. Label the two equilibriums on the graph. Use words to describe how the equilibrium changed.
- d. In the article from NYTimes, what did the researchers (Xiaobo Zhang, Shangjin Wei) used as a proxy for the “price”?
- e. Xiaobo Zhang and Shangjin Wei did not discuss about the “quantity” change. Do you think the change in equilibrium quantity will be big or small? Why? What data will you need to collect to support your view?
- f. Suppose the government now charges a marriage tax. More specifically, if two individuals are married, they need to pay more income tax together than if they stay single and pay taxes separately. How will this tax change the equilibrium “quantity” on the marriage market? Use graph to show which areas stand for tax revenue, deadweight loss, change in “consumer’s” surplus, and change in “supplier’s” surplus. (Do not use the graph in b. Start with a new graph.)
- g. Suppose that more and more women in Southeastern Asian country learn Chinese and are willing to come to China to live. Now Chinese men can not only marry Chinese women, but also marry women from Southeastern Asian. Which curve, supply or demand, will be shifted? Towards which direction? Use graph to show.

- h. How will the situation described in g change the surplus of Chinese single women vs. Chinese single men in China? Explain with areas on graph and words.
- i. Why the situation described in g will shift one curve, rather than leading to a flat supply curve with a fixed world price?
- j. Any further thoughts/comments on the idea to use supply and demand curve to analyze marriage market? Or any comments on Chinese marriage market?