

Name _____

Economics 320

Problem Set 4

Suppose we can divide labor into two groups, low-skill and high-skill. Both low-skill and high-skill labor are used in the production of output. The Iowa State legislature recently increased the minimum wage from \$5.15 to \$7.25. When implemented, this change effectively raised the price for an estimated 100,000 low-skilled workers. At the same time, wages for high-skilled labor are well above the minimum wage level.

- a. Using the long-run model of labor demand, analyze the effects of the increased minimum wage on the demand for low- and high-skill workers. (Assume that low- and high-skill workers are the only inputs and put low-skill labor on the horizontal axis). Indicate the direction of the scale and substitution effects. Can you predict unambiguously that low-skill labor demand will rise or fall? Can you predict unambiguously that high-skill labor demand will rise or fall? Explain your answers.

- b. Redo part a. for the case where low- and high-skill labor cannot be substituted for each other. What does the isoquant look like? What happens to the demand for low- and high-skill labor? Explain.

- c. What must be true about the relative size of the scale and substitution effects to insure that high-skill workers benefit from the increase in the minimum wage? Explain.