

## Microeconomics, Module 20: "Factors of Production"

### *Micro module 20: Readings for ninth edition*

(The attached PDF file has better formatting.)

{The Landsburg textbook is excellent. We say to read certain sections and to skip others. This does not mean that certain sections are better; it means that the homework assignments and exam problems are based on the sections that you must read for this course. Some skipped sections are fascinating, but are not tested.}

Read section 15.1, "The Firm's Demand for Factors in the Short Run." Focus on the section "The Algebra of Profit Maximization" on pages 477-480. These relations are not new, but they summarize the chapter. Know the definitions of *complements* and *substitutes in production* on the side of page 481.

- Secretaries and voice mail are substitutes, since voice mail replaces the secretary.
- Actuaries and laptops are complements, since a laptop makes an actuary more productive and increases the demand for actuaries.

These relations are similar to substitutes and complements in consumption.

- Cameras and film are complements, since greater use of cameras makes consumers demand more film. A lower price for cameras increases the number of cameras bought and raises the demand for film.
- Wall phones and cellular phones are substitutes. A lower price for cellular phones increases the number of cellular phones bought and lowers the demand for wall phones. Similarly, desktops and laptops are substitutes.

Read section 15.2, "The Firm's Demand for Factors in the Long Run," on pages 483-489. Focus on substitution and scale effects on page 485, and know the lines in colored type that summarize the concepts.

Know how to construct the labor demand curve. The effects of changes in the wage rate (and minimum wage laws) are on both the microeconomics and macroeconomics final exams. These conclusions are purely the economic effects; they do not relate to other social rationales for minimum wage laws. The U.S. has a heated public policy debate about why the unemployment rate is so high. The causes of high unemployment are well known, but politicians don't want to make choices that hurt their supporters.

Skip sections 15.3 and 15.4. Read the first half of the summary at the end of the chapter.

Review questions R4 and R5 on page 495.

Review exercise N1 on pages 495-496. The exercise uses variables for each item. The final exam gives numerical values and solves for K or L.

Review exercise N2 on page 496. The exercise ensures that you understand the reasoning in the text.

Review problem 3 on page 497.