

## Microeconomics, Module 12, "Price Discrimination"

### *Micro module 12: 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.}

This module covers pages 328-337 and 338-344 of Section 10.3. Price discrimination is illegal in the U.S., unless the supplier sets a lower price to meet the price of a competitor or because the cost of servicing a customer are lower than average. In practice, third degree price discrimination is common in many industries. No final exam problems test versioning (pages 337-338).

*Question:* What types of third degree price discrimination are common?

*Answer:* Seniors and high school students pay lower prices for train and bus service; students pay lower prices for magazine subscriptions; consumers with coupons pay lower prices for retail goods; and many others.

*Question:* Consumers pay lower prices; why should this be illegal?

*Answer:* Some consumers pay lower prices; other consumers usually pay higher prices. The monopolist does not give lower prices to seniors or high school students from altruism. The monopolist gains overall; if seniors pay less, others are usually paying more. It may be that consumers overall gain, but usually some lose.

In addition, the price discrimination is illegal not just because some consumers lose. It is illegal because the U.S. sees discrimination as morally unjust. In part, this stems from the Judeo-Christian foundations of U.S. society; in part, this stems from the post-Civil War realization that slavery and racial discrimination were/are unjust parts of U.S. culture.

Know the definitions of first, second, and third degree price discrimination on the side of page 331. Know the mathematics of the three types of price discrimination in this section. For third degree price discrimination, understand the relations of demand curves, elasticities, equilibrium prices, consumers' surplus, producers' surplus, and profits in the markets for each class of consumers. The same type of problem is in the "concepts and overview" posting, the practice problems, the homework assignment, and the final exam.

Review the summary from the last paragraph on page 343 through the end of the summary on page 344.

Some people presume the U.S. has open competition with free markets, so the study on monopoly power is not relevant. This chapter shows otherwise. For some goods (not many), competition is truly free. Everywhere else, firms try to optimize their profits. There is nothing wrong with this; we all wish to maximize income. For many products, suppliers offer discounts that are more than offset by monopoly profits elsewhere. If you buy a cell phone, the supplier may offer the phone itself for no charge (or a low charge), but the monthly usage charges more than make up for the loss on the hardware.

As actuarial candidates, you know about monopoly pricing. The SOA has a monopoly on its actuarial exams; they are the only means of getting an FSA. So the SOA can charge monopoly prices for its exams. You might think: an actuarial society like the SOA would not try to make money for its wealthy members by over-charging poor candidates. Think again. The SOA charges as much as employers are likely to pay for their actuarial students, and uses the money for services to its Fellows. *C'est la vie.*

Review question R10 on page 345. Monopolists who offer low costs to entice consumers are not necessarily altruistic.

Review exercise N2 on page 345. The final exam problems are similar to Parts A, B, and C of this exercise.

Review exercise N3 on pages 345. A final exam problem may give  $\eta_a$  and ask for  $\eta_c$ .

Review question 16 on page 347. Landsburg gives a table of discrete figures. The final exam problems use continuous functions (as in Numerical Exercise N2).

Review question 31 on page 350 and question 32 on page 350-351. These questions are harder, but all the needed figures are given in the graphs.