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Price Discrimination

Previously

- While competitive markets generally bring about welfare-enhancing outcomes for society, monopolies often do the opposite.
- Perfectly competitive markets and monopoly are market structures at opposite extremes.
- Like perfectly competitive firms, a monopoly tries to maximize its profits.
- From an efficiency standpoint, the monopolist charges too much and produces too little.

Big Questions

1. What is price discrimination?
2. How is price discrimination practiced?

Practice What You Know—Price Discrimination

- Question for the day:
  - Is price discrimination legal in the United States?
- Further questions:
  - Who pays in-state tuition?
  - Who pays out-of-state tuition?
  - Has anyone ever used a coupon?
  - Has anyone ever received a student discount?
  - Those are all examples of (legal) price discrimination!

Price Discrimination

- Tuition question:
  - Did you know that in-state and out-of-state tuition prices are different?
- Flown before?
  - On a flight with 100 passengers, there may have been 100 different prices paid for the flight.
- But…
  - There is no difference in service. There is no difference in the education students get, and all passengers on the flight still arrive at their destination.

Price Discrimination

- Price discrimination
  - A firm sells the same good to different consumers at different prices *for reasons NOT associated with cost differences*
- Discrimination
  - Has a negative connotation
  - However, in this chapter, we'll see that price discrimination benefits both firms and consumers.

Examples of Price Discrimination

- College tuition (in state, out of state)
- Airline tickets
- Movie matinee (weekday afternoon instead of Saturday night)
  - Inter-temporal price discrimination
- Selected "discounts"
  - Student
  - Senior citizen
  - Military
  - Employee

Conditions of Price Discrimination

- Two conditions must be met for price discrimination to be successful
  1. Firm must be able to distinguish groups of buyers with different price elasticities of demand (different willingness to pay)
  2. Firm must prevent resale of the good or service

Distinguishing Groups of Buyers

- General rule
  - Charge higher price to relatively inelastic consumers
  - Charge lower price to relative elastic consumers
- How to find these people?
  - Let the consumers “self-select” into a group
    - Offer price discounts at certain times (blue plate special, Sunday movie matinee)
  - Have consumers show you their group
    - Got your student ID? Get student discount!

Preventing Resale

- Having two different prices won't work if the "low" price group can buy at the low price and resell the goods and services to the "high" price group.
  - This is called arbitrage
- Preventing arbitrage examples
  - Airlines require photo ID
  - Time-stamped movie tickets
  - Price discrimination with services rather than goods

Arbitrage Example

- Suppose your university sells a popular magazine publication called "U Magazine"
- The magazines are sold to everyone on campus, and the following signs are displayed:

U Magazine

Faculty Price

$2.00

U Magazine

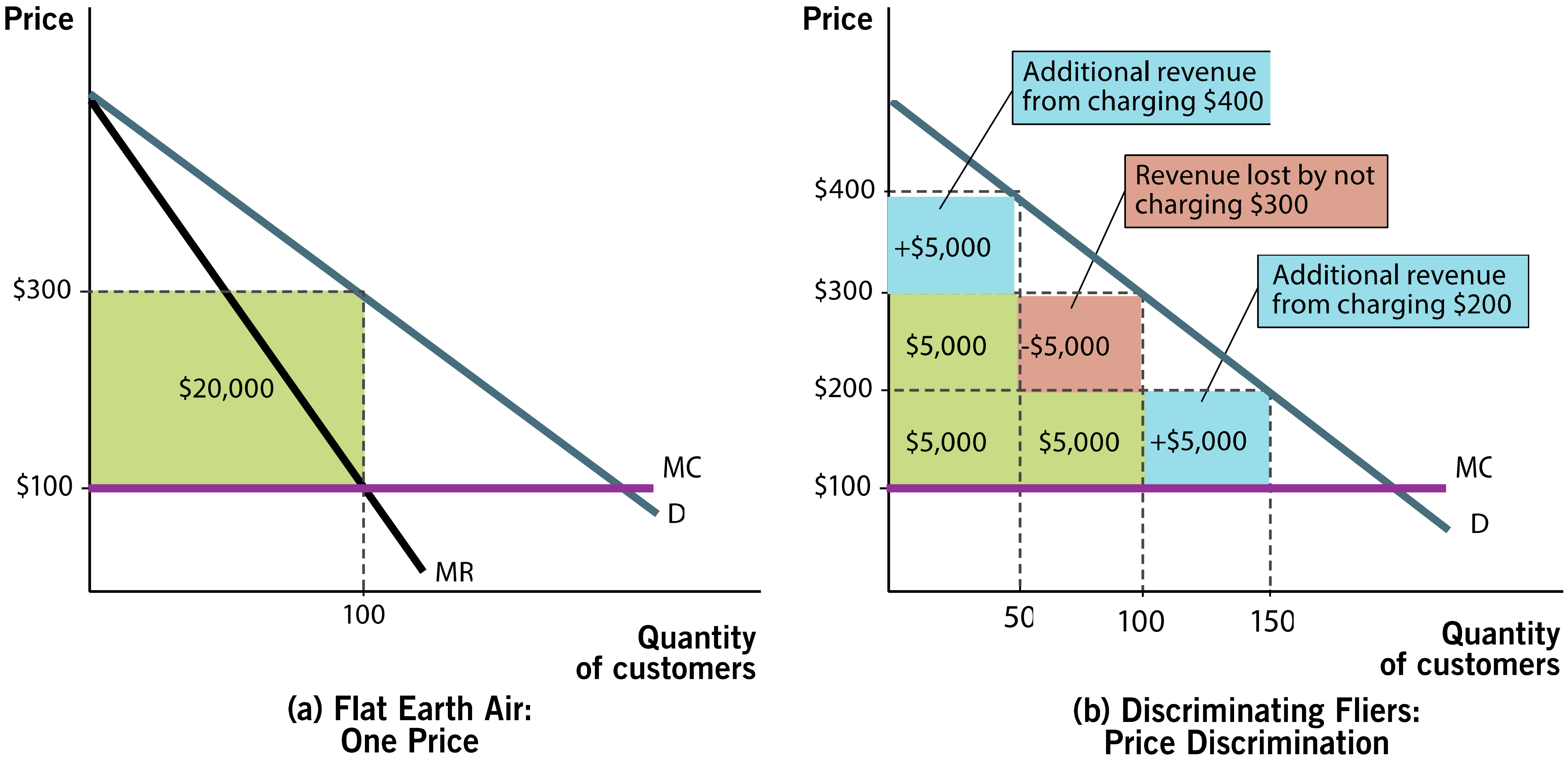
Student Price

$1.00

Perfect Price Discrimination

- Perfect price discrimination
  - Firm charges a unique price to each consumer equal to their maxium willingness to pay
  - Reservation price = max willingness to pay
  - If a firm is able to do this, there will be zero consumer surplus. Why?
- Hard to implement in real life. Why?
  - Difficult to know every individual reservation price
  - Jewelry stores, pawn shops, and car dealerships may attempt to do this with price negotiations

One Price versus Price Discrimination



Graph Summary

- Compare a single-price firm to a price-discriminating firm
- With price discrimination:
  - The most inelastic people pay a higher price
  - A lower price is also charged, which will attract more elastic consumers into the market
  - The overall amount of sales increases
  - Overall welfare increases and deadweight loss is decreased

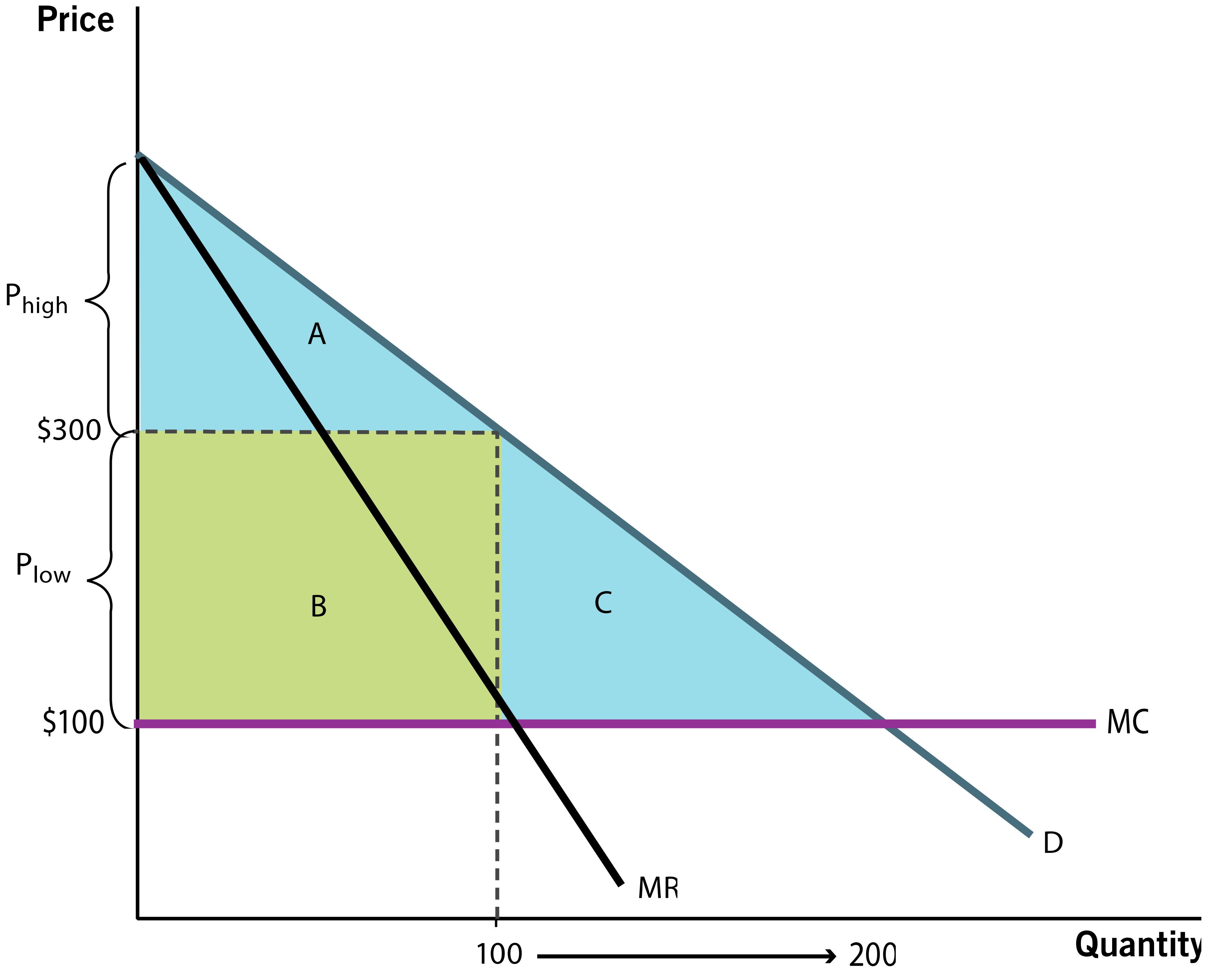
The Welfare Effects of Price Discrimination

- Producers
  - Have higher PS
  - Firms make a higher profit
- Consumers
  - Benefit from more units being offered for sale, and more trading occurs
  - Certain cases have higher overall CS
- Overall
  - Welfare increases and DWL decreases

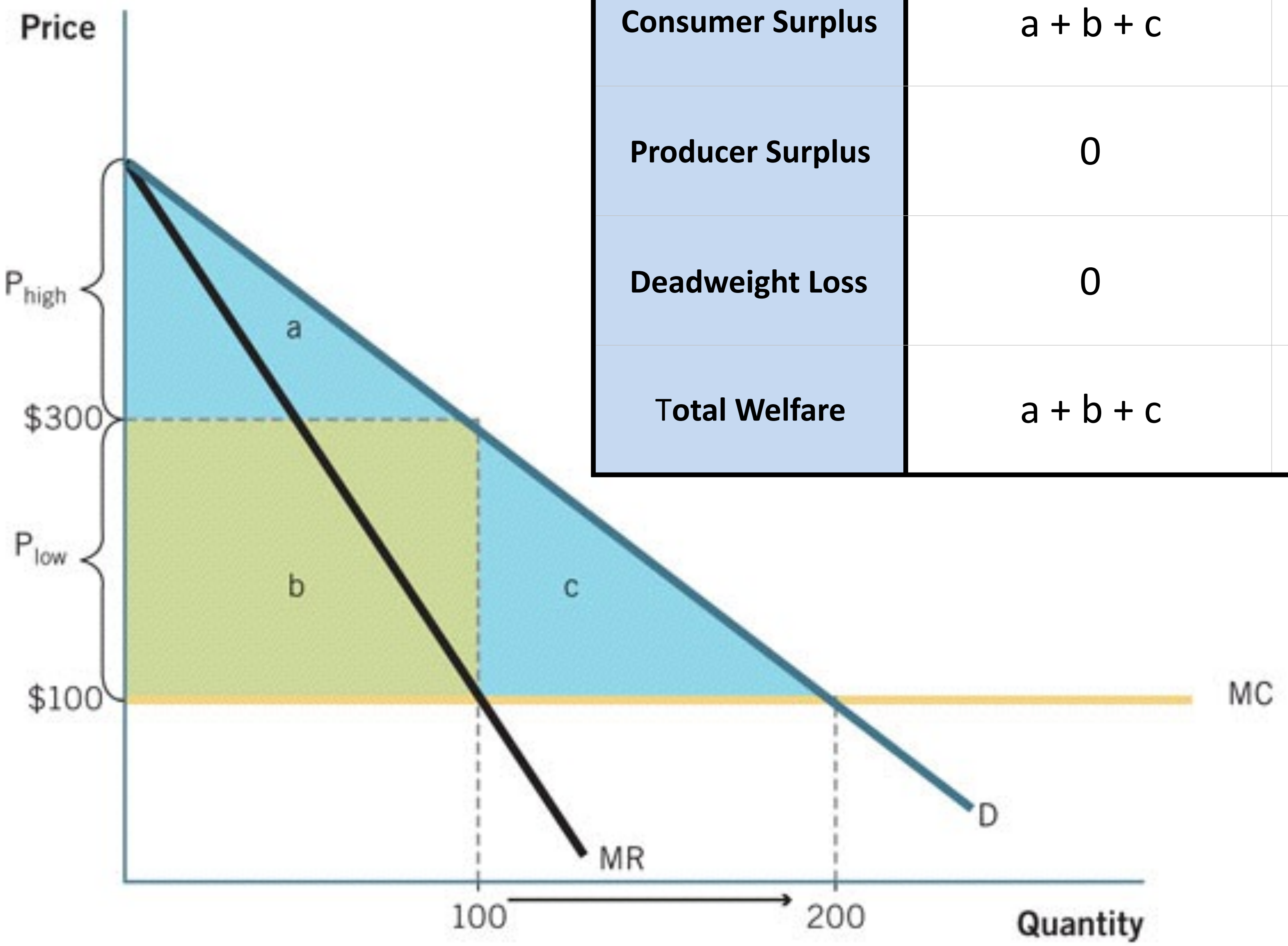
Airline Itinerary Prices

Purchase Date	Itinerary Price	Example of Traveler
3 months before flight	$300	Couple planning vacation. Able to choose cheapest departure day.
2 weeks before flight	$550	Job interview candidate
2 days before flight	$750	Businessperson, meeting with client during week. Company paid for flight.
Standby ticket, purchased at any time	$120	Price-sensitive person with desire to travel and flexible schedule. Undergrad during summertime.

Perfect Price Discrimination



Comparing Market Structures



	Perfect Competition	Single Price Monopoly	Perfect Price Discrimination
Consumer Surplus	a + b + c	a	0
Producer Surplus	0	b	a + b + c
Deadweight Loss	0	c	0
Total Welfare	a + b + c	a + b	a + b + c

Economics in *Legally Blonde*

- A salesperson tries to use Perfect Price Discrimination to make Elle pay full price for a dress. The attempt fails because the salesperson underestimates Elle's knowledge of fashion.

Economics in *Extreme Couponing*

- Using a coupon is a form of price discrimination
- People that use coupons get the same good at a lower price
- Sales and coupons help distinguish consumer groups

Price Discrimination at the Movies

- Time of the show
  - People who can attend afternoon shows may be more price elastic due to lower incomes (retired, no job, summer vacation student)
  - People self-select based on schedule flexibility and price sensitivity
- Age or student status
  - Children, students, and seniors get discounts, but we all see the same movie!
  - Income and “tastes and preferences” may decrease demand among very old or very young moviegoers

Price Discrimination at the Movies

- Concession pricing
  - Price inelastic consumers
    - Will eat theater snacks, willing to pay high price
  - Price elastic consumers
    - Will not eat theater snacks or will smuggle in their own food
  - Which customers does the theater want?
    - It wants both of them in the seats watching the movie. Empty seats are lost revenue.

Price Discrimination on Campus

- Tuition
  - FAFSA lowers tuition costs for qualifying students
  - In-state students pay less tuition
    - Parents have been paying state taxes for many years already
  - Out-of-state students pay more in tuition
    - Perhaps more inelastic, really like the school more than another local school
  - Private colleges
    - Set a high starting price, then discount as necessary to gain enrollment and maximize revenues

Price Discrimination on Campus

- Student discounts
  - Bars, restaurants, shops, software, among others often give student discounts in college towns
  - Student discounts are a way to increase a firm’s customer base and get students in the door to purchase goods
  - Nonstudent consumers are charged more
  - Main reason?
    - Students often have lower income and are much more price elastic

Conclusion

- Price discrimination helps us see how many markets function since instances of perfect competition and monopoly are rare.
- Price discrimination general rule:
  - Charge higher price to relatively inelastic consumer group
  - Charge lower price to relatively elastic group
- Results of price discrimination
  - Increasing social welfare
  - Decreasing deadweight loss
  - Creates a more efficient outcome