



University of Colorado
Denver

Principles of Microeconomics

Lecture #16:

- I. Economic price discrimination (Ch. 16.4).**
 - A. Competition and Arbitrage.**
 - B. 3 forms of price discrimination.**
 - 1. Perfect.**
 - 2. Non-linear pricing.**
 - 3. Group.**

I. Economic Price Discrimination.

- ◆ Price discrimination is when a firm charges different prices for different units of the same good, not based on production costs, but based on the demand (i.e., based solely on who is willing to pay more).
- ◆ The economic term “price discrimination” does not apply to situations in which a firm charges different prices for different units because those units cost different amounts to produce or to ship.
- ◆ It does not apply to product differentiation, where the type or quality of the good or service vary by the type of customer.
- ◆ It does not apply to situations in which a firm charges different prices to different people because the seller personally likes some people and/or dislikes others (economic price discrimination is not the same as race, ethnic, gender, or other identity-based discrimination).

Examples of Price Discrimination



STUDENTS AND SENIORS
SAVE 15% ON BUS TICKETS
ANY DAY. EVERY DAY.



LOYALTY CARD
After 5 purchases, get 20% off your next visit!

○ ○ ○ ○ ○ ● 20% off



Examples of Price Discrimination

Ticket Prices

\$10⁰⁰ General Admission	\$7⁰⁰ Children (11 & Under)	\$7⁰⁰ Seniors (60 & Over)	MATINEE SHOWINGS \$7⁰⁰ Starting Before 6pm All Seats
---	---	---	--

EVERY TUESDAY IS FAMILY FUN DAY

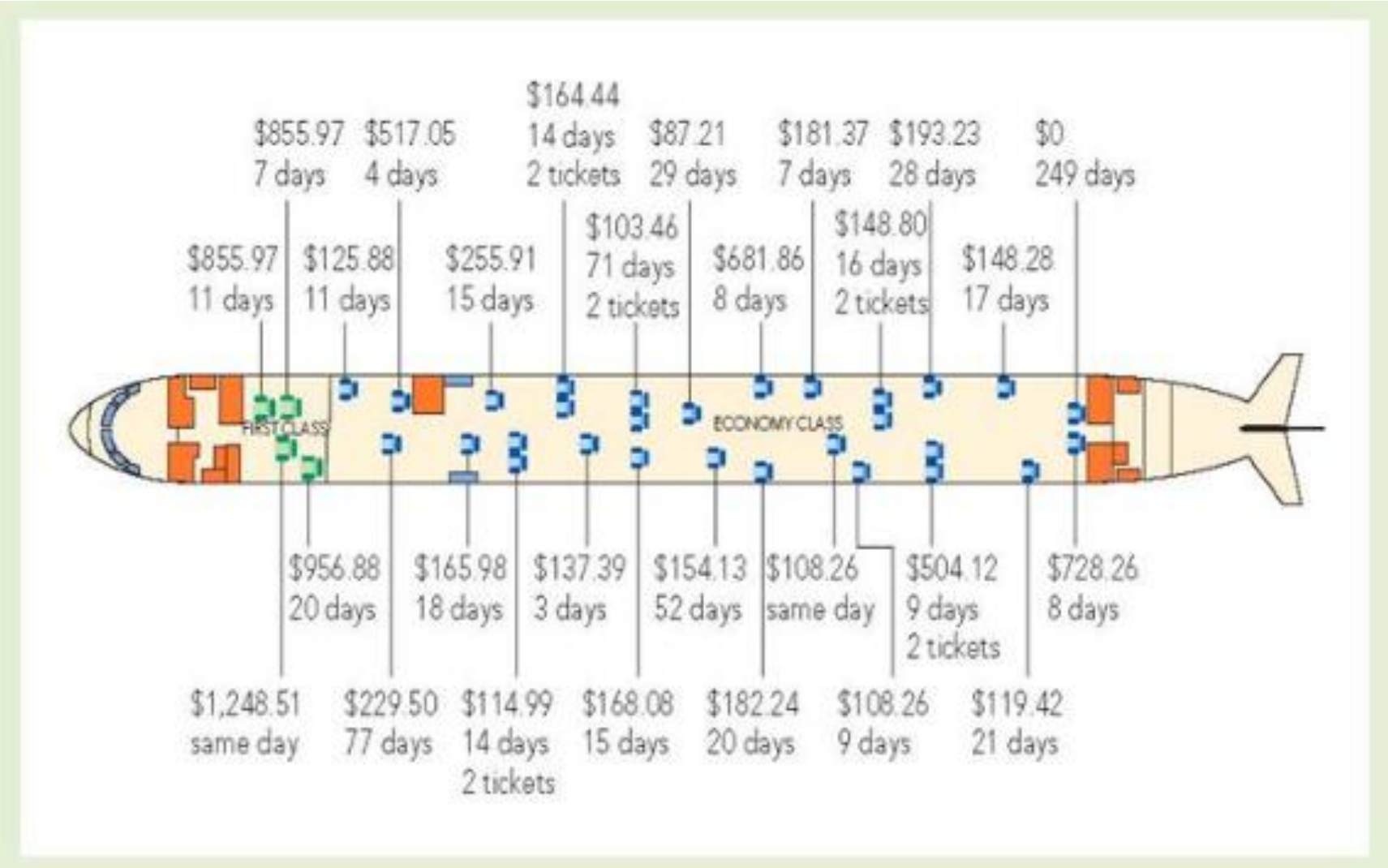
ALL SEATS \$5⁰⁰ ALL SHOWS EXCEPT SPECIAL ENGAGEMENTS

P L U S Buy a LARGE POPCORN and get a LARGE SOFT DRINK FREE!

Movie Tickets

Are these prices based on cost or on the consumers willingness to pay?

Examples of Price Discrimination



Are these prices based on cost or on the consumers willingness to pay?

Source: "So, How Much Did You Pay for Your Ticket?" Wald, Matthew L. 1998.

Examples of Price Discrimination



Yellow Tuesday's HAIR CLUB

Haircuts	
Child 6 & under.....	\$8
Child 7-12.....	\$13
Men's Cut.....	\$16
Men's Beard.....	\$5
Moustache Trim.....	\$3
Women's Cut.....	\$23
Cut & Blow Dry.....	\$27
Cut, Blow Dry & Style.....	\$33
Bang Trim.....	\$3
Texturizing.....	\$5



Unique Wave HAIR SALON

SERVICE MENU	
Women's cut full service	\$45+
Women's cut only	\$25+
Men's cut full service	\$25+
Men's cut only	\$13+
Children's cut (B/G)	\$20/35
Shampoo style	\$45+
Condition Treatment	\$50+
Spa Treatment	\$80+
Color process	\$70+
Gloss/Toner added	\$20+
Highlights full	\$95+
Highlights partial	\$65+
Low light	\$65+
Korean magic straight / Re-bonding	\$300+
Brazilian Organic Keratin Blowout	\$250+
Digital/ Organic Volume perm	\$180+
Regular Design perm	\$85+

Men's, Women's, Children Haircuts

Is this an example of economic price discrimination?

- If based on willingness to pay, then yes.
- If based on time/cost of service, then no.

When can a firm engage in price discrimination?

To be able to price discriminate:

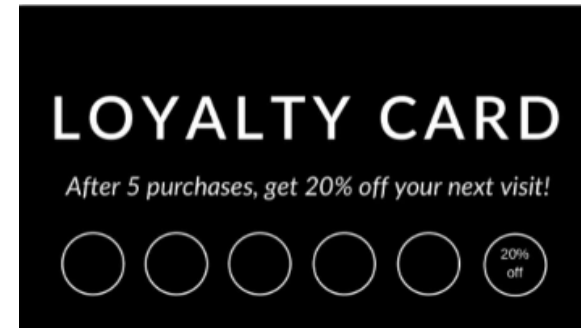
1. The firm must have some market power. Market power means that a firm faces a downward sloping demand curve for their product. For example, monopolies and monopolistically competitive firms can price discriminate.
 - Competitive firms cannot price discriminate (they are price takers).
2. The firm can identify and separate types of buyers based on their demand.
 - Consumers will not voluntarily reveal their willingness to pay.
3. The firm can cost effectively prevent arbitrage.

A. Competition and Arbitrage.

- ◆ Competition undermines a firm's effort to price discriminate.
- ◆ An individual firm would like to charge higher prices to consumers who are willing to pay more. However, competition from other firms will prevent any single firm from charging different prices for different units.
- ◆ A firm must have some monopoly power in order to successfully price discriminate.



STUDENTS AND SENIORS
SAVE 15% ON BUS TICKETS
ANY DAY. EVERY DAY.



What do these things have in common?
Answer: They are all services.

A. Competition and Arbitrage.

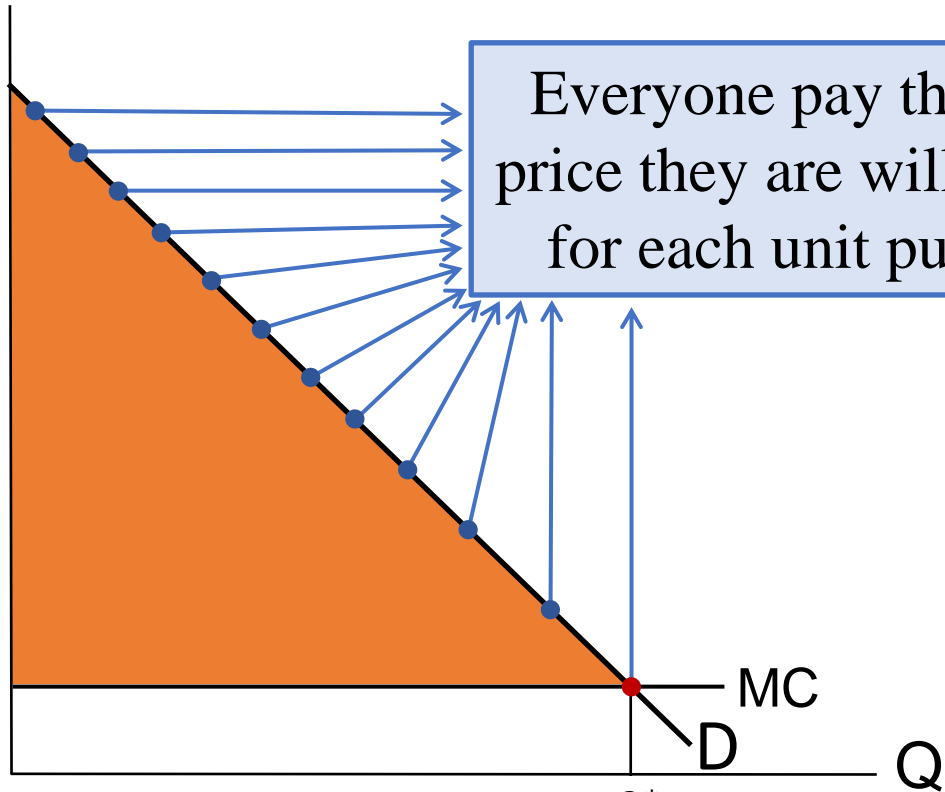
- ◆ Arbitrage is when some customers buy a good at a time or place when the price is low and sell it to other customers at a time or place when the price is high.
- ◆ Arbitrage also undermines a firm's effort to price discriminate.
- ◆ Price discrimination can create an arbitrage opportunity for the buyers of the low-priced units if they are able to resell the good to potential buyers of the higher-priced units.
- ◆ Therefore, firms selling services are more likely to be successful at price discrimination than firms selling a physical good, because services are often difficult to resale.

B. 3 forms of price discrimination.

1. Perfect price discrimination (1st degree price discrimination).

- ◆ The firm charges each person the maximum he or she is willing to pay (reservation price) for each unit of the good.
- ◆ Perfect price discrimination is an ideal situation for a firm, it is very bad for consumers. Firms extract all of the consumer surplus, gaining the highest possible profit.
- ◆ There is no deadweight loss (DWL) under perfect price discrimination.
- ◆ Perfect price discrimination is almost never possible. A firm would have to know the maximum amount each buyer is willing to pay for each unit.
- ◆ Buyers are unlikely to reveal their willingness to pay.

1. Perfect Price Discrimination.



Everyone pay the highest price they are willing to pay for each unit purchased.

Producer Surplus (PS) = 

Consumer Surplus (CS) = 0

Deadweight loss (DWL) = 0

- ◆ There is no “price.” Every unit is sold at a different price.
- ◆ The firm maximizes producer surplus.
- ◆ There is no consumer surplus.
- ◆ There is no deadweight loss.

Examples of Attempts at Perfect Price Discrimination



Market Haggling



Negotiations

- ◆ Perfect price discrimination is extremely difficult to pull off.
- ◆ The seller must know the absolute maximum price that every consumer is willing to pay. This is very unlikely.
- ◆ Some sellers attempt to approximate perfect price discrimination through negotiations and haggling.
- ◆ How do you think sellers estimate how much a buyer is willing to pay?

B. 3 forms of price discrimination.

2. Non-linear pricing (2nd degree price discrimination).
 - ◆ The price depends on how much you buy.
 - ◆ Even if a firm doesn't know a buyers demand curve, everyone knows that the law of demand predicts that buyers are willing to pay more for the first unit than for the second and so on.

Examples of Non-linear Pricing



**BOGO
SALE**

BUY ONE, GET ONE
50% OFF

Daycare & Package Pricing			
Full Day		Half Day (Up to 5 hours)	
One Dog	\$ 24	One Dog	\$ 16
Two Dogs	\$ 38	Two Dogs	\$ 28
10-Visit Full Day Package		10-Visit Half Day Package	
One Dog	\$ 220	One Dog	\$ 150
Two Dogs	\$ 320	Two Dogs	\$ 260
Three Dogs	\$ 420		
20-Visit Full Day Package		20-Visit Half Day Package	
One Dog	\$ 400	One Dog	\$ 280
Two Dogs	\$ 600	Two Dogs	\$ 480
Three Dogs	\$ 800		
Woofpack (unlimited daycare for 30 days plus one free bath)			\$ 340

Now 6 GB High Speed Data

\$35 /mo.
When you enroll in Auto Pay^①

On the Verizon 4G LTE Network.

Includes

4G LTE High Speed Data
HD-Quality Streaming

Now 16 GB High Speed Data

\$45 /mo.
When you enroll in Auto Pay^①

On the Verizon 4G LTE Network.

Includes

4G LTE High Speed Data
HD-Quality Streaming

Now 30 GB High Speed Data

\$65 /mo.
When you enroll in Auto Pay^①

On the Verizon 4G LTE Network.

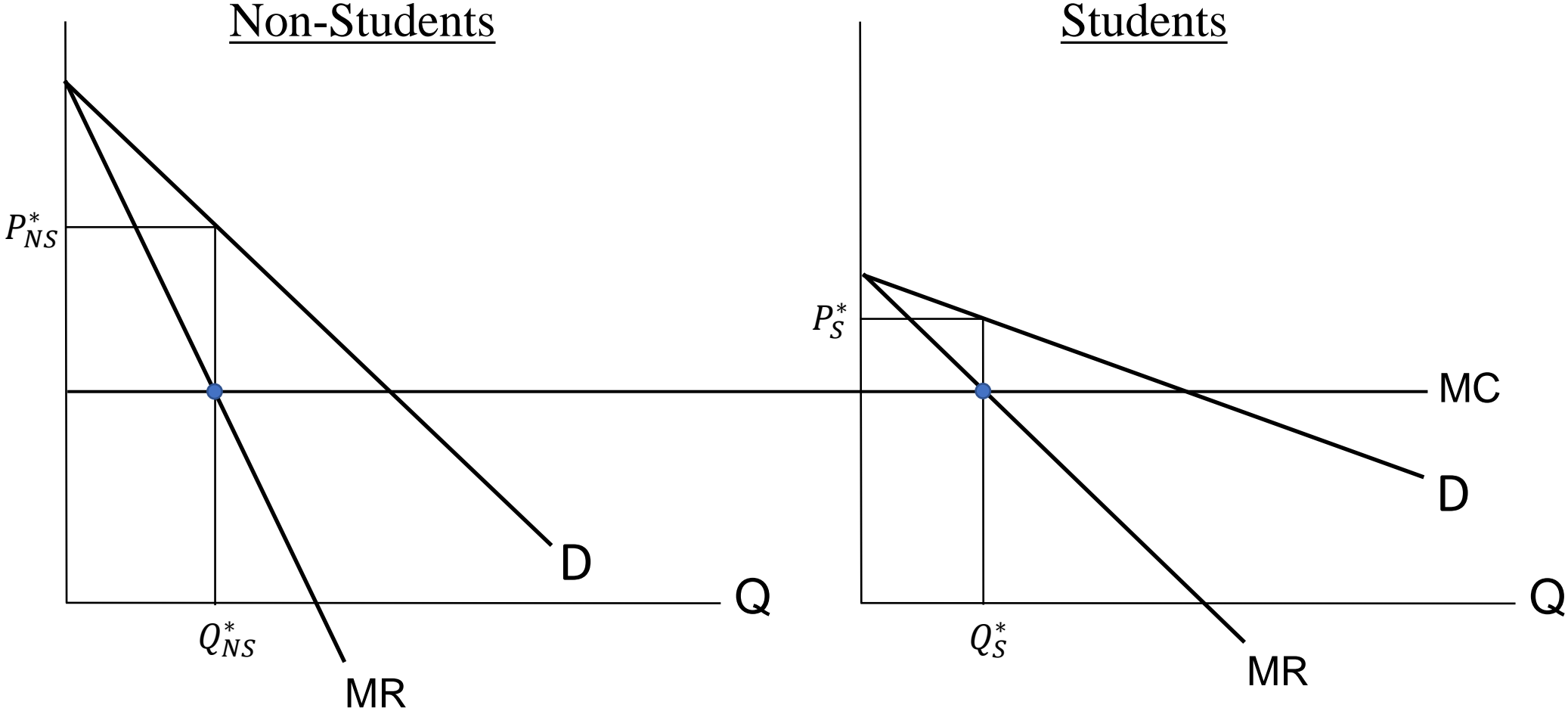
Includes

4G LTE High Speed Data
HD-Quality Streaming

B. 3 forms of price discrimination.

3. Group price discrimination (3rd degree price discrimination).
 - ◆ Different groups of people get charged different prices.
 - ◆ Works when certain groups of buyers have a different average willingness to pay for the same good.
 - ◆ Groups with a high average willingness to pay get charged a high price, groups with a low willingness to pay charged a low price.
 - ◆ To be successful, the different groups must be easily identifiable.

Group Price Discrimination



The price for students is lower than the price for non-students.
The single price monopoly price will be between P_{NS}^* and P_S^* .

Examples of Group Price Discrimination

IKON PASS

Get the most access and no blackout dates at 41 unique destinations worldwide.

\$999 USD
(Age 23+)

Renewal Price: **\$799 USD** ⓘ

Secure this pass with **\$199 USD** down ⓘ



NO BLACKOUT DATES



Renewal Discount

\$799 USD

Adult

Current 19/20 Ikon Pass and Ikon Base Pass holders save \$200 USD. Discount applied in checkout.



Nurses, Military, College

\$709 USD

TICKET PRICES	Super Saver Monday to Thursday before 5pm (except Bank Holidays)	Peak Monday to Thursday from 5pm, All day Friday to Sunday and Bank Holidays
Child <small>12 years and under</small>	£4.70	£6.30
Teen <small>Ages 13-17</small>	£5.30	£6.30
Student <small>Valid student card required</small>	£5.30	£6.30
Senior <small>Ages 60+</small>	£6.30	£7.40
Adult <small>Ages 18+</small>	£7.80	£9.20
Family <small>1 adult, 3 children or 2 adults, 2 children</small>	£18.80	£25.20
The Gallery <small>Ages 18+</small>	£14.75	£17.75
Film Fan Tuesday	ODEON Première Club - 25% discount off your ticket when booking in cinema (discount does not apply to card handling fee when booking online)	



Prime is just ~~\$12.99~~ **\$5.99/month*** for qualifying customers with an EBT or Medicaid card.