Firms and customers II

MPA 612: Public Management Economics

February 14, 2018

Fill out your reading report on Learning Suite!

Current events

Now expanded to take advantage of your new vocabulary!

Plan for today

Scale, location, networks, and time

Raspberry cordials

ϵlasticitiϵs of dϵmand

Scale, location, networks, and time

Things that make costs wibbly wobbly

Size and location

Economies of scale (Dis-)

Cost to make stuff goes down as you make more stuff

Economies of agglomeration

Cost to make stuff goes down as you clump together

Network effects

Cost to make stuff goes down when everyone uses your stuff

Economies of scale

If you double the inputs, you get more than double the outputs

If you {{increase}} the inputs, you get more than {{that increase in}} the outputs

Scale, location, network, or nothing?

eBay and PayPal

QWERTY and Dvorak keyboards

Doubling a recipe

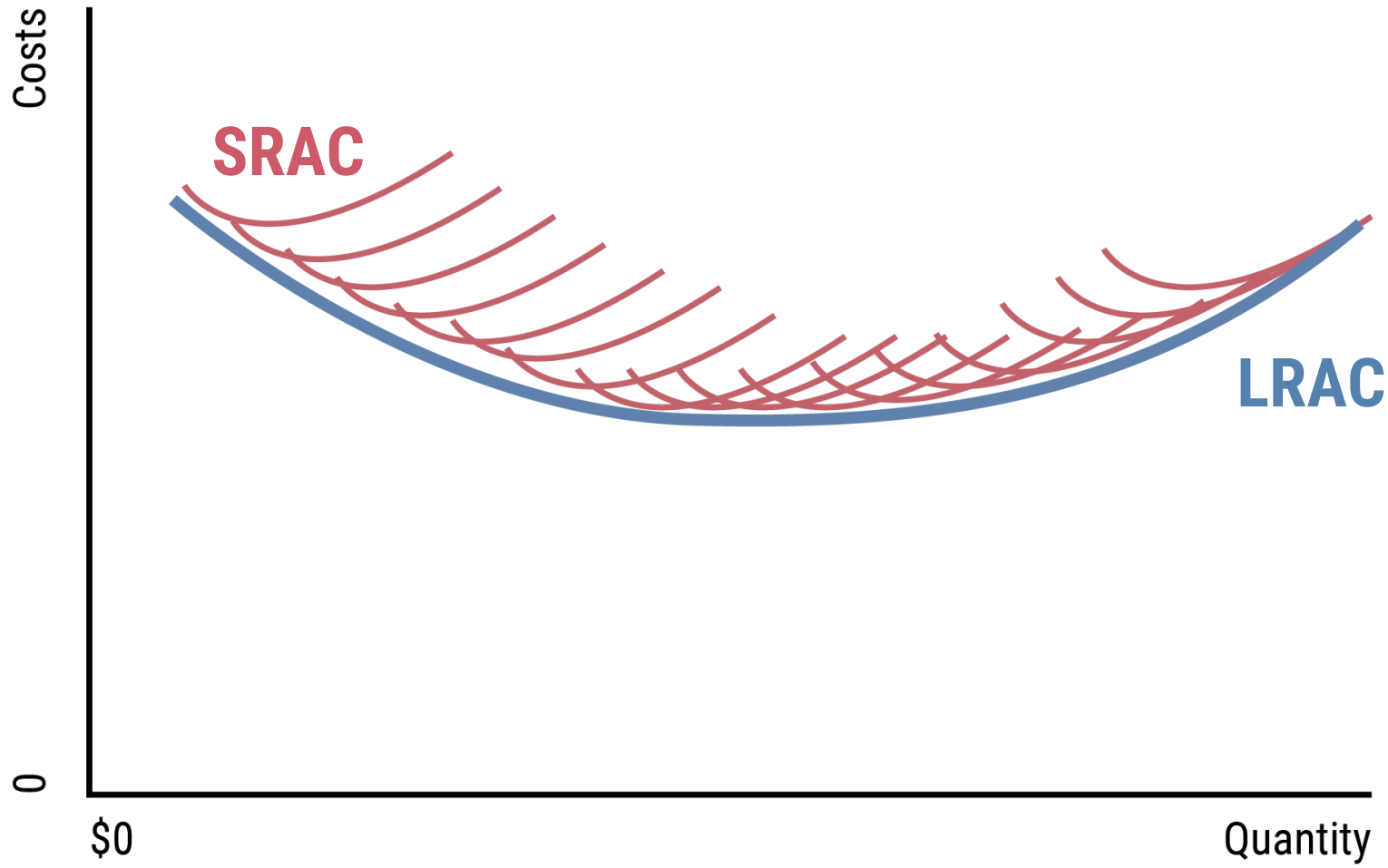
Walmart’s distribution network

Costco

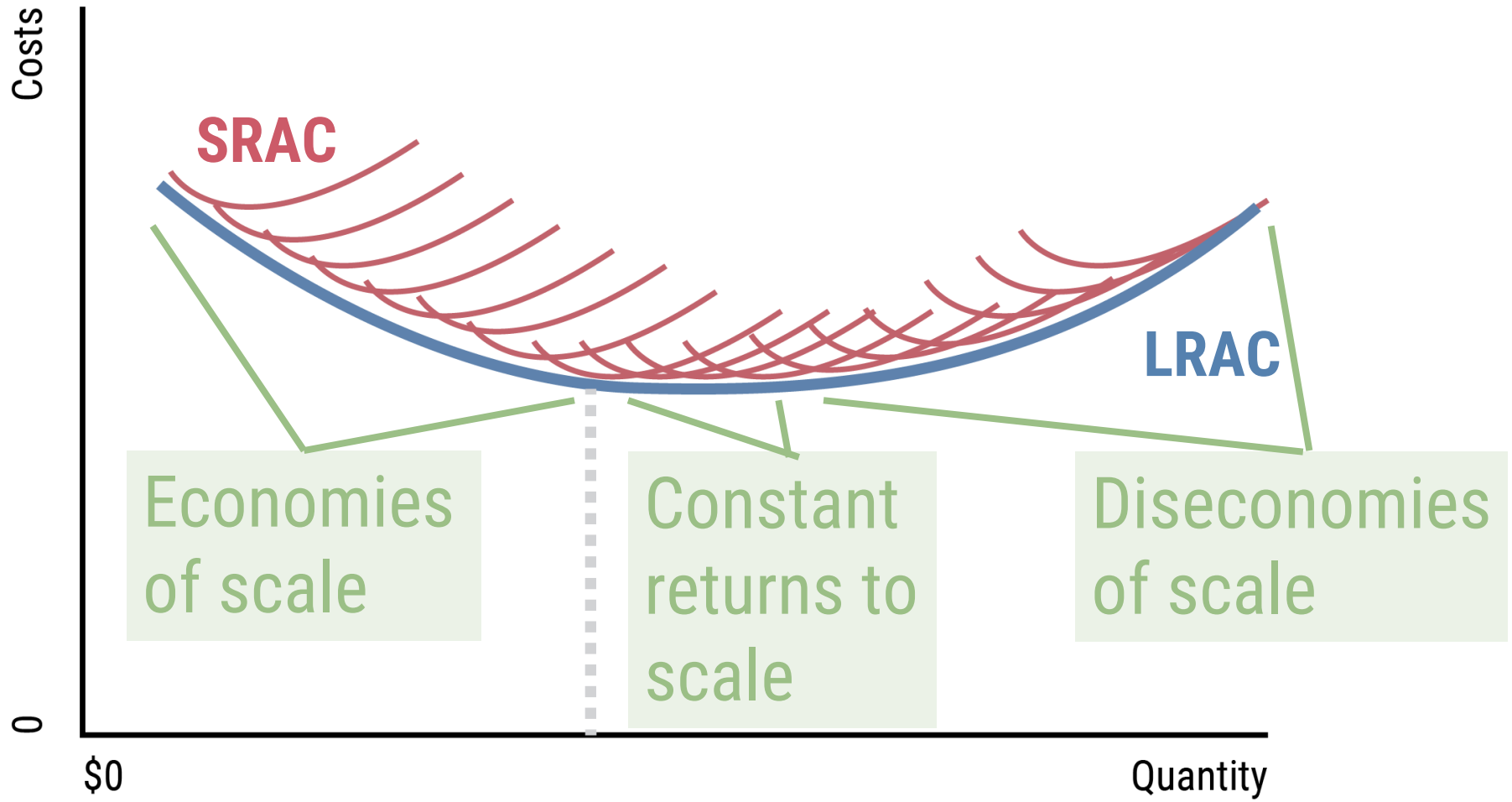
Henry Ford’s assembly line

Rural Chinese moving to cities

Long-run vs short-run costs



Costs and scale



Raspberry cordials

Q, TVC, TFC, TC, MC, AVC, AFC, and ATC, oh my!


FULLSTEAM
BBQ


Raspberry
Cordial

Excel time!

Go to the web page for today's class and download the starter Excel file

ϵlasticitiϵs of dϵmand

What happens to quantities as prices change?

Responsiveness to price changes

$$\varepsilon = -\frac{\%\ \text{change in demand}}{\%\ \text{change in price}}$$

% change in demand that follows a 1% change in price

Q ↑ P ↓
or
Q ↓ P ↑

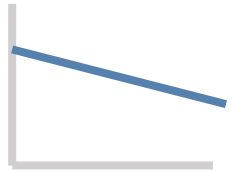
ϵ = 2: ”If price increases by 10%, quantity decreases by 20%”

ϵ = 0.5: ”If price increases by 10%, quantity decreases by 5%”

$\epsilon = \infty$ = Perfectly elastic	Any change in price moves quantity to 0	Identical goods *Two vending machines*
$\epsilon > 1$ = Elastic	Changes in price change the quantity a lot	Goods with substitutes *Diet Coke*
$\epsilon = 1$ = Unit elastic	Changes in price change the quantity the same	
$\epsilon < 1$ = Inelastic	Changes in price change the quantity a little	Goods with few substitutes *AIDS medicine*
$\epsilon = 0$ = Perfectly inelastic	Changes in price do nothing to the quantity	Survival goods *Water in the desert*

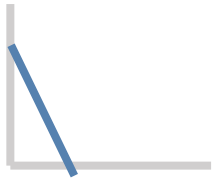
$\epsilon = \infty$ = Perfectly elastic

$\epsilon > 1$ = Elastic



$\epsilon = 1$ = Unit elastic

$\epsilon < 1$ = Inelastic

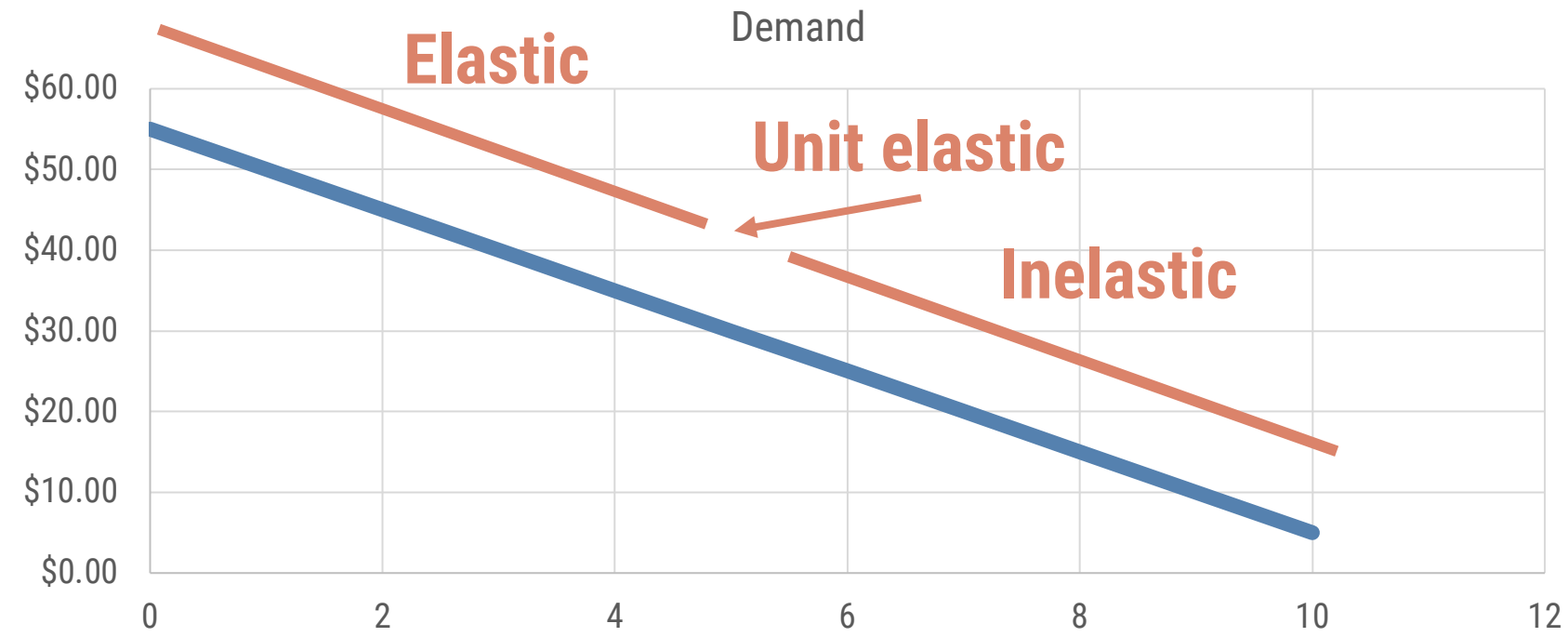


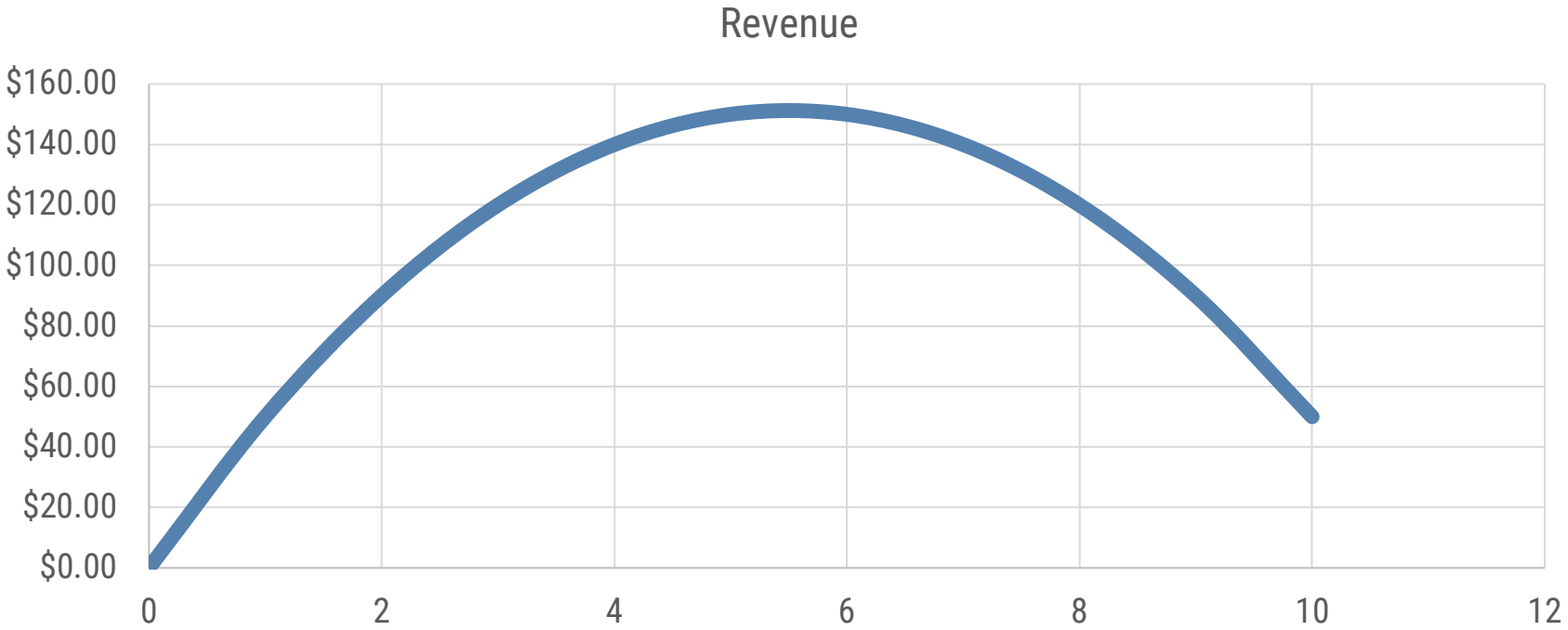
$\epsilon = 0$ = Perfectly inelastic

Warning though!

Elasticities are not the same as the demand curve

A linear demand curve has lots of elasticities!


Demand
Elastic
Unit elastic
Inelastic
$60.00
$50.00
$40.00
$30.00
$20.00
$10.00
$0.00
0
2
4
6
8
10
12


Revenue
$160.00
$140.00
$120.00
$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
0
2
4
6
8
10
12

Excel time!

Go back to the Raspberry Cordial worksheet

Why do elasticities matter in public policy?

Taxing things changes their prices

Changing prices changes quantities

Taxing elastic goods will make quantities go down a lot and decrease tax revenues

Taxing inelastic goods will make quantities go down slightly and not hurt revenues