More on Consumer Surplus

- The Concept of Consumer Surplus is quite powerful.
- I want to show some applications of this concept.

Valuing the Benefit of a Project

- The Government builds a new dam, creating a new lake. What are the recreational benefits from this lake?
- We can analyze this with consumer surplus.
More on Consumer Surplus

Valuing the Benefit of a Project

• Demand for a swimming pool: 
  \[ V = 300,000 - 30,000p \]

\[ CS = \frac{1}{2} BH = \frac{1}{2} (25)(40) = 500 \]
A Simple Application

- Demand for a swimming pool:
  \[ V = 300,000 - 30,000p \]
- Current capacity is 200,000

A Simple Application

- Demand for a swimming pool:
  \[ V = 300,000 - 30,000p \]
- Current capacity is 200,000
- What Price Restricts Demand?
  \[ 200,000 = 300,000 - 30,000p \]
  \[ p = 3.33 \]

A Simple Application

- Demand for a swimming pool:
  \[ V = 300,000 - 30,000p \]
- Current capacity is 300,000
- What Price Restricts Demand?
- Should it be expanded to 300,000?
More on Consumer Surplus

A Simple Application

V = 300,000 - 30,000p

Gain = \frac{1}{2} BH = \frac{1}{2} (100,000)(3.33) = $166,667

So what are the Costs?

If C <$166,667 Expand

If C > $166,667 Don’t

End