

# EKN-812 Lecture 6

## Elements of Supply (2)

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# Setup

- many locations  $j = 1, \dots, J$
- fixed number of fishermen  $N$
- total output  $g_j(N_j)$  increasing and concave
  - concavity implies that the per-worker catch  $g_j(N_j)/N_j$  is decreasing in  $N_j$
  - think of this as due to congestion
- competitive market for fish, so take  $P$  as given
- government charges a fee  $C$  for using each site

# Labor Supply

- what will determine the number of fishermen in each location?
  - does this vary with the fee charged by the government?
  - does the price of fish,  $P$ , affect the allocation of fishermen across locations?

# Price and Quantity in Equilibrium

- given the allocation of fishermen to locations, what is the equilibrium price?
  - and, what is the equilibrium quantity?

# Supply with Differential Fees

- now, suppose the government charges different fees  $C_j$  for each location
  - could be, but not necessarily, related to the “capacity” of each location
- what will the equilibrium look like now?
  - will the locations with high fees have higher average yields?
- is supply upward sloping (in price) now?
  - could we have a negatively sloped supply curve? Why or why not?

# Privatization

- now assume one of the locations is privatized, so the owner can set  $C_1$  at will
  - would the private owner choose to set  $C_1$  higher or lower than the government fee?
    - ▶ does it matter whether the government fees are common to all locations or not?
  - what if all fishermen could obtain a given wage  $w$  outside of the industry?
- what if *all* locations were privatized and could set their own fees?
  - how would each owner choose to set  $C_j$ ?
  - what will the equilibrium allocation of fishermen across locations be?
  - what will be the aggregate supply of fish now?
  - will the market ever yield the same flat fee structure as the government?

# References



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