

Mining - Coal -

Eller (1) 4x5

Salstrom 4

Fishback → safety (progressive era)
→ company store?

- Coal → after timber

↳ boom & bust phenomenon

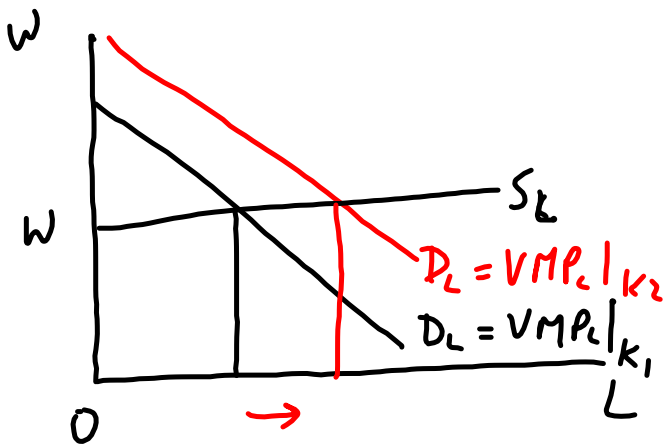
price ↑ - new sources of supply

demand shock ↓ price ↓

high cost sources shut in

lengthy period low prices

- Appal. coal.
 - $D \uparrow$ - output \uparrow quickly
 - new sources
 - transport infrastructure
 - rails
 - industrial expansion NE
 - new markets - Appal coal.
 - higher quality
 - lower wages



$K_2 > K_1$

mine labor

- derived demand
 - marginal physical product (MPP)
 - price of product
- $$VMP_L = MPP_L \cdot P_Q$$

If MPP changes
or P_{coal} changes

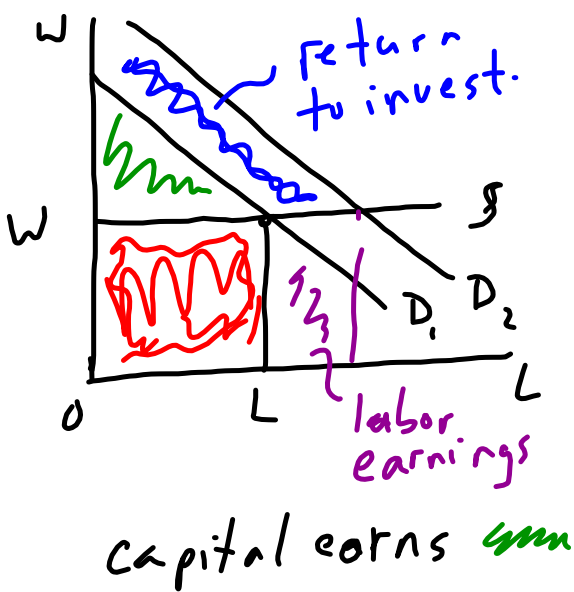
If supply L is very elastic then

$D \uparrow$ not increase wage -
(infinitely elastic extreme case)

- invest in K (mine capital or
transport capital)

- why L supply elastic? - few outside opp.
- population \uparrow

Functional shares of value of output



labor market

(but D is determined in part by stock of capital)

- labor earns $W \cdot L$

- total value of output is area under D (VMP_L) - green + red.

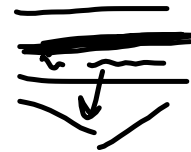
Eller (1) - 4

- people in area - patented only
few acres farmed
- State (WV, VA, KY, TN)
owned title → awarded to timber
& mining companies
- highly concentrated ownership of
mining rights
- induce railways → land grants

Boom & bust cycles

- price volatility
- severance taxes
 - resource base tax
 - ↳ "permanent fund."
 - generate future rev.
 - to offset loss of mineral revenues
- sev tax % of price
- supply & demand
- $P \uparrow \rightarrow$ easy entry industry - $S \uparrow$ & $P \downarrow$
- permit a new mine. ?

production process - Eller.



- piece rate wage
 - own tools
 - no pay for prep work
 - setting pit props
 - " charges
 - dangerous - explosions
 - ↳ "minor" accidents - roof collapse
- 1906-1935 16% due to explosions
7% roof collapse

- principal-agent relationship.

- principal - wants task done
- hires agent -

agent chooses process
principal - unable monitor activity

- who should set pit props?
 - miner - has incentive
 - but - compensation mech implies rush job -
- who should provide tools?
 - abuse problem
 - owner/user more care than user would
- housing } - provide these?
- store }