



# North-South Trade and Income Inequality

- Over the last 40 years, countries like South Korea, Mexico, and China have exported to the U.S. goods intensive in unskilled labor (ex., clothing, shoes, toys, assembled goods).
- At the same time, income inequality has increased in the U.S., as wages of unskilled workers have grown slowly compared to those of skilled workers.
- Did the former trend cause the latter trend?



# North-South Trade and Income Inequality (cont.)

- The Heckscher-Ohlin model predicts that owners of relatively abundant factors will gain from trade and owners of relatively scarce factors will lose from trade.
  - Little evidence supporting this prediction exists.
- 1. According to the model, a change in the distribution of income occurs through changes in output prices, but there is no evidence of a change in the prices of skill-intensive goods relative to prices of unskilled-intensive goods.



# North-South Trade and Income Inequality (cont.)

2. According to the model, wages of unskilled workers should increase in unskilled labor abundant countries relative to wages of skilled labor, but in some cases the reverse has occurred:
  - Wages of skilled labor have increased more rapidly in Mexico than wages of unskilled labor.
  - But compared to the U.S. and Canada, Mexico is supposed to be abundant in unskilled workers.



# North-South Trade and Income Inequality (cont.)

3. Even if the model were exactly correct, trade is a small fraction of the U.S. economy, so its effects on U.S. prices and wages prices should be small.
- The majority view of trade economists is that the villain is not trade but rather new production technologies that put a greater emphasis on worker skills (such as the widespread introduction of computers and other advanced technologies in the workplace).



# Skill-Biased Technological Change and Income Inequality

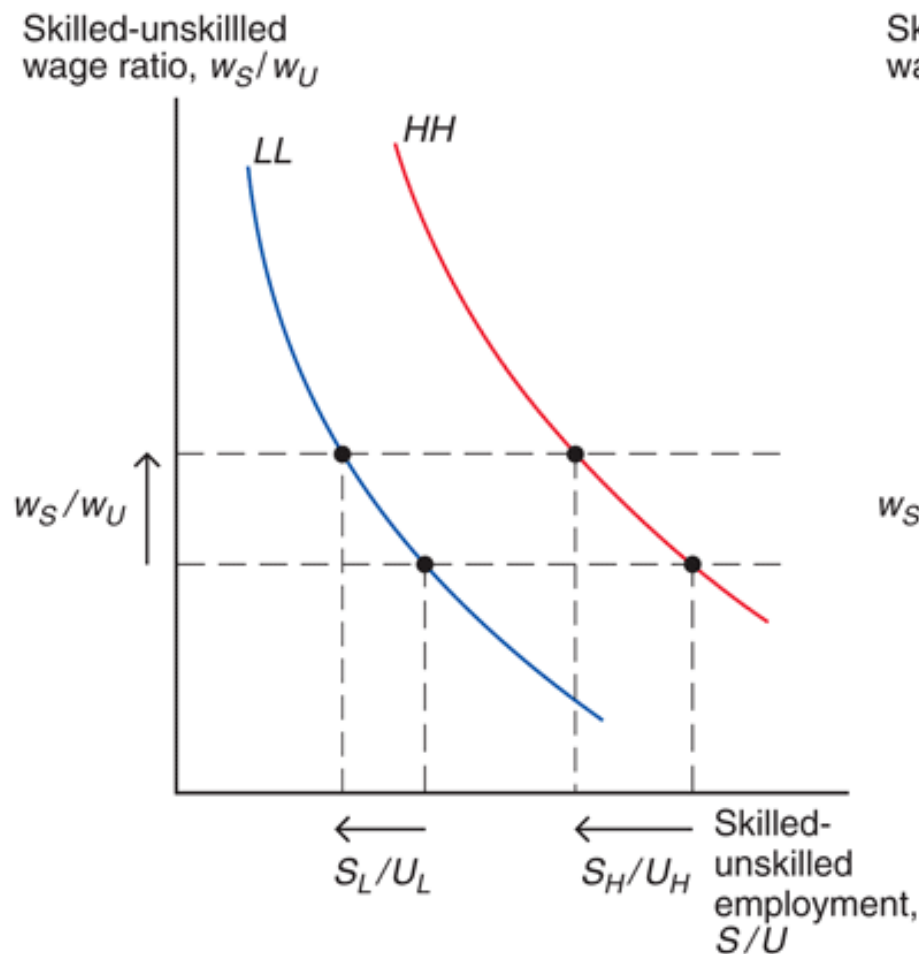
- Even though skilled labor becomes relatively more expensive, in panel (b) producers in both sectors respond to the skill-biased technological change by *increasing* their employment of skilled workers relative to unskilled workers.
  - The trade explanation in panel (a) predicts an opposite response for employment in both sectors.
- A widespread increase in the skilled labor ratios for most sectors in the U.S. economy points to the skill-biased technological explanation.



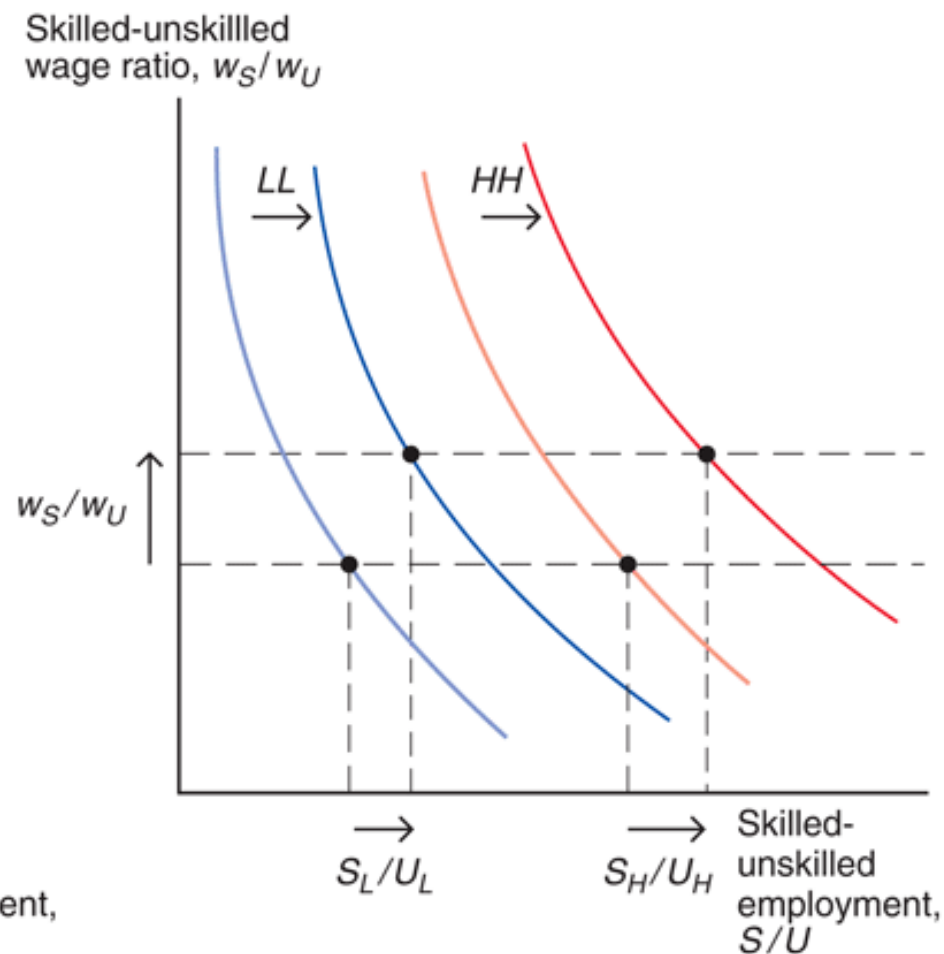
# **Skill-Biased Technological Change and Income Inequality (cont.)**

- Trade likely has been an indirect contributor to increases in wage inequality, by accelerating the process of technological change.
  - Firms that begin to export may upgrade to more skill-intensive production technologies.
  - Trade liberalization can then generate widespread technological change by inducing a large proportion of firms to make such technology-upgrade choices.
- Breaking up the production process across countries can increase the relative demand for skilled workers in developed countries similar to skill-biased technological change.

## Fig. 5-10: Increased Wage Inequality: Trade or Skill-Biased Technological Change?



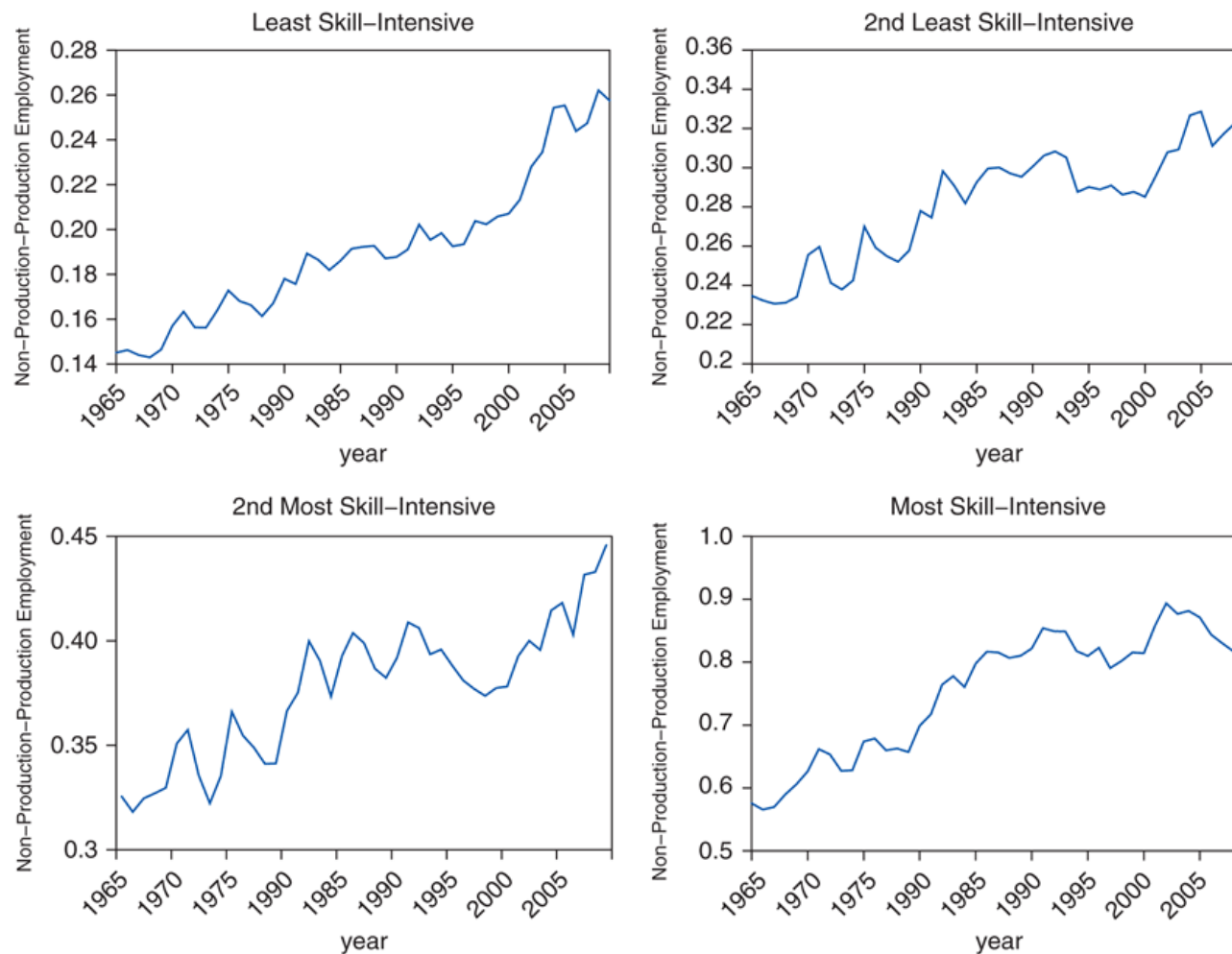
(a) Effects of trade



(b) Effects of skill-biased technological change



# Fig. 5-11: Evolution of U.S. Non-Production–Production Employment Ratios in Four Groups of Sectors



Source: NBER-CES Manufacturing Productivity Database