

Rising income inequality and technological change

Much has been written about the increase in technology over the last several decades and its impact on the U.S. economy. A common view held by many economists is that technological advances, especially in the area of computers, have led to greater income inequality—more highly skilled workers are better able to use the new technologies and thus increasingly are paid more than less skilled workers. In other words, it is the increased use of technology that is driving inequality. But in a recent study published in the Federal Reserve Bank of Philadelphia's *Business Review* ("Is Technology Raising Demand for Skills, or Are Skills Raising Demand for Technology?"), economist Ethan Lewis challenges the standard view. Lewis makes a cogent argument that it's just as likely that businesses adopt or perhaps even develop new technologies as the supply of more highly skilled workers increases.

Since the late 1990s, incomes of the highest paid U.S. workers have increased more rapidly than those of lower wage workers. Although that trend follows a decade of relative stability in income distribution, it resumes a move toward greater inequality that began in the early 1970s. According to Lewis, a "standard explanation" is that the rise in technology in the workplace prompts business owners to hire more high-skilled workers, which renders some low-skilled occupations virtually obsolete. Economists call this phenomenon "skill-biased technological change," meaning that new technologies are biased toward increased productivity and thus higher wages. As a result, workers with greater ability to use the new technologies are benefiting relative to those with less ability.

Lewis cites a number of studies—including two earlier ones of his own—

that provide evidence in support of the opposite view. One such study, for example, argues that businesses do not automatically adopt new technologies, because doing so requires a supply of workers with sufficient skill to utilize the new technologies. If such workers are not readily available, firms will have little incentive to shift toward a more high-tech workplace. Another study suggests that inventors and developers put more effort into developing new technologies as the supply of more highly skilled workers increases. Thus, although technology is a major factor in rising income inequality, it is not necessarily the *cause* of it.

Lewis examines various aspects of rising inequality and its relation to technological change to support his view. He analyzes hourly wage trends from 1979 to 2003, for example, and concludes that falling wages among low- and median-level workers during the period contributed more to inequality than increased wages among higher paid workers. Moreover, he argues that other factors—such as an increase in the number of less skilled immigrant workers, continued declines in union participation, increased globalization, and more woman workers—may have contributed to greater income disparity as well.

Louisiana and Mississippi before and after Katrina and Rita

It's difficult for most of us to imagine such a weather forecast:

Most of the area will be uninhabitable for weeks...perhaps longer. ... Power outages will last for weeks. ... Water shortages will make human suffering incredible by modern standards.

So read an urgent weather message issued by the National Weather Service as Hurricane Katrina approached Louisiana

and Mississippi a year ago. (Urgent Weather Message. National Weather Service New Orleans, Louisiana. August 28, 2005, 10:11 a.m.) Less than a month later, Hurricane Rita made its way across the region.

In "Recovery Comes Slowly" (*Econ South*, Federal Reserve Bank of Atlanta, Second Quarter 2006) Michael Chriszt assesses recovery and rebuilding 9 months into the post-hurricane period.

Debris removal is one measure of recovery. The majority of debris on private land remains on the ground in Louisiana; by contrast, Mississippi has removed almost all of such debris. In Louisiana, particularly New Orleans, buildings were flooded—damaged but not destroyed. This, along with uncertainties regarding insurance settlements and the rebuilding of the levee system, leaves residents from those affected areas in limbo. Absent property owners, evacuated far and wide, have delayed municipal government action to condemn and demolish damaged structures. In coastal Mississippi, entire neighborhoods were completely destroyed by high winds, making removal of debris a foregone conclusion.

Sales tax revenues before and after the Hurricanes are another measure of recovery. Sales tax revenue in Orleans Parish (New Orleans) in the first quarter of 2006 is about two-thirds of what it was in the same period of 2005, but it is rising steadily. This is to be expected in a flooded and evacuated city. In adjoining Jefferson Parish, sales tax revenue is above the pre-Hurricane level. Some of the increase is due to spending that has moved out of New Orleans. In the affected areas along the Mississippi coast, Jackson and Harrison counties, sales tax revenues are also higher than those in the pre-Hurricane period. Nonetheless, residents are rebuilding homes and replacing possessions.

The number of employed people and the unemployment rate also are measures of recovery. The number of people employed in the New Orleans metropolitan area declined by 200,000 between August and September of 2005. The number has increased by 24,000 since then. New hires occurred in the leisure and hospitality, construction, and health-care sectors. During this time, the unemployment rate has hardly changed—people who would be unemployed if they stayed in New Orleans have moved elsewhere. In the Gulfport-Biloxi area,

the number of people employed has declined immediately after the hurricane and since then. The unemployment rate is higher than in the pre-hurricane period.

Housing statistics also tell part of the hurricane recovery story. In New Orleans, building permits for multifamily residential construction have increased since the hurricane, but are below pre-hurricane levels. Sales of existing homes are also down. In Mississippi, permits for single-family homes are

above levels for the previous year in the affected counties.

Tourism is a major part of the economy of the hurricane-affected region. In the months since the hurricanes only a fraction of hotels, restaurants, and casinos are open for business, employing workers, and serving customers. Louisiana and Mississippi were affected in different ways by Katrina and Rita and each faces its own difficulties on the road to recovery, but as Michael Chriszt writes, “thoughtful planning and leadership are paving the way.” □