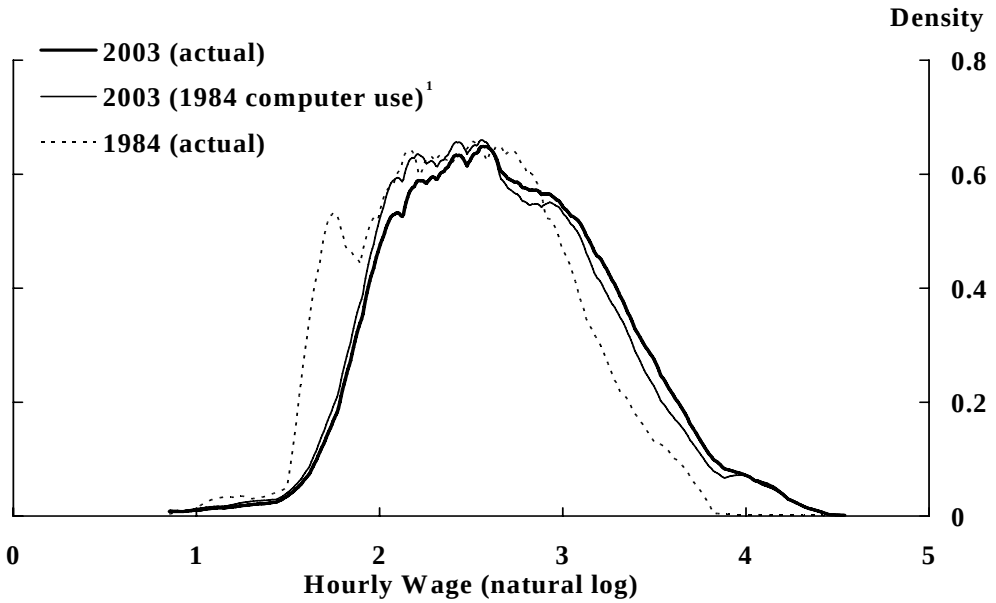
IN SHORT

Computers and Wage Inequality

The introduction and widespread diffusion of desktop computers has transformed the American workplace during the past few decades. Between 1984 and 2003, the percentage of individuals who directly use a computer at work more than doubled, increasing from about 25 percent to nearly 60 percent. One potential impact of this "computer evolution" is on the wage structure. In particular, some analysts have argued that rising computer use is a manifestation of "skill-biased technological change" (SBTC), which increases relative demand and wages for highly skilled workers, thereby increasing wage inequality.

Direct examination of the impact of computers on the wage distribution is not supportive of the SBTC view, however. This impact is depicted in the following figure, which displays three wage distributions: the actual (observed) distributions of wages in 1984 and 2003, and the distribution that would have been observed in 2003 if the level and pattern of computer use had remained the same in 2003 as they were in 1984. The chart shows that the level of wages and degree of wage inequality increased between 1984 and 2003, as indicated by rightward shift and somewhat wider distribution plot in 2003. However, as indicated by the similarity in the adjusted and unadjusted plots for 2003, rising computer use had only a limited impact on the wage distribution, suggesting that computers have not been a source of SBTC.

Wage Distributions



[1]Adjusted by the relative probability of computer use in 1984, conditional on other wage determinants.

For details, see Valletta (2005) "The Computer Evolution: Diffusion and the U.S. Wage Distribution, 1984-2003."

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