# Technological Innovation and the Distribution of Labor Income Growth*

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**Abstract**

We examine how the distribution of worker earnings growth shifts following major technological advances by the firm, or its competitors, using administrative data from the US. Specifically, we find that own firm innovation is associated with a modest increase in worker earnings growth, while innovation by competing firms is related to lower future worker earnings. Importantly, these earnings changes are asymmetrically distributed across workers: both gains and losses are concentrated on a subset of workers, which implies that the distribution of worker earnings growth rates becomes more right- or left-skewed following innovation by the firm, or its competitors, respectively. These effects are particularly strong for the highest-paid workers. Our results suggest innovation is associated with a substantial increase in the labor income risk, especially for workers at the top of the earnings distribution. Our simulations reveal that the increased disparity in innovation outcomes across firms in the 1990s can account for a significant part of the rise in income inequality. In sum, our evidence is consistent with the view that innovation leads to substantial reallocation in labor income across workers through creative destruction in the product market and displacement of their human capital.

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