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The Rise and Fall of Unions in the United States

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Abstract

Union membership in the United States displayed a ∩-shaped pattern over the 20th century, while income inequality sketched a ∪. A model of unions is developed to analyze these facts. There is a distribution of productivity across firms in the economy. Firms hire capital, plus skilled and unskilled labor. Unionization is a costly process. A union chooses how many firms to organize and the union wage. Simulation of the model establishes that skill-biased technological change, which affects the productivity of skilled labor relative to unskilled labor, can potentially explain the observed paths for union membership and income inequality.
Keywords: Mass Production, Computer Age, Skill-Biased Technological Change, Income Inequality, Union Membership
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1. Introduction

In 1910, around 10% of the American workforce in the non-agricultural private sector were union members. As shown in Figure 1, the percentage of union members rose until the middle of the century, reaching its apex at roughly 40%. It then began a slow decline. By the end of the century, only about 8% of American workers belonged to a union. Income inequality followed a different path. At the beginning of the 20th century, the income share of the top 10% was 40%. This measure of income inequality first declined, hitting a low of 31% around mid-century. It then steadily increased to about 42% around 2000.[1] What could have caused the ∩-shaped pattern of union membership and the ∪-shaped one for income inequality? Are they

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[1] All supplementary material is available as an Online Appendix on Science Direct. The income inequality measure is before individual income taxes–see the Online Appendix for more detail. Therefore, changes in the progressivity of income taxation do *not* account for the ∪-shaped pattern in income inequality. The rise in inequality since the 1970s is well documented and holds for a wide variety of inequality measures–see Juhn, Murphy, and Pierce (1993) for an early documentation of this trend for many measures of wage inequality. Some other time series measures of income inequality are shown in Figure 4. They all display the same ∪-shaped pattern.