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The labor market effects of non-wage compensations

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Abstract

Contrary to the argument that non-wage compensation is a tax on labor reducing employment, we find that employment may increase in response to an increased demand for benefits (a decreased cost of providing benefits or increased government-mandated benefit levels), under the assumption of strong cross-economies of scale. When there are strong cross-diseconomies of scale, employment and hours both decrease. The secular increase in employer-provided insurance and the growth in U.S. employment may well reflect the role of cross-economies of scale, which seems to exist in larger firms with lower marginal non-wage benefit costs.

JEL classification: J30; J32; J38

Keywords: Employment; Fringe benefits; Labor market; Non-wage compensation

1. Introduction

Non-wage compensation measured as a percentage of total labor compensation has risen significantly in the United States and other developed countries over the past few decades (Hart et al., 1988). For example, in the firms surveyed by the

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Chamber of Commerce, fringe benefits grew from 16.0% of total compensation in 1951 to 31.6% in 1994 (see Table 1). Two fringe benefit items have experienced particularly large increases over this period: Social Security has increased from 1.1 to 5.5% of total compensation, while the insurance component (life, health, and dental premiums; death benefits) has risen from 1.1 to 8.4%. [1] Existing economic analyses suggest that, to the extent that these non-wage payments are quasi-fixed costs, such increases in fringe benefits should reduce employment. [2] The argument is that non-wage compensation is a tax on labor that increases total labor cost inducing employers to reduce employment.

Because they have been conducted at the firm level, previous analyses tend to assume non-wage payments to be exogenous. [3] As Fig. 1 demonstrates, both the legally required (exogenous) and the voluntary (endogenous) components of fringe benefits have grown substantially over the past 40 years, with the voluntary component far outpacing the legally required component after the early 1980s. Clearly, a comprehensive analysis would require that non-wage compensation be modeled as endogenous since the voluntary increases in these payments surely are induced by the market.

Accordingly, we present a market level analysis to see how an increase in non-wage benefits affects equilibrium employment, wages, and benefit levels. We focus on three exogenous sources of increased benefits; an increase in the demand for benefits, a decrease in the cost of providing benefits, and an increase in the mandated benefits. Contrary to the conventional view, our analysis shows that employment may increase, rather than decrease, in response to increased non-wage payments.

Our predictions depend critically on whether there exist cross-scale effects. There exist cross-economies of scale if an increase in benefits (employment) lowers the marginal non-wage cost of employment (benefits). The opposite case exhibits cross-diseconomies of scale.

Our main findings are as follows. When there are strong cross-economies of scale, employment and benefits rise and hours of work and the wage fall. When

[1] The U.S. Bureau of Labor Statistics (BLS) (United States Department of Labor, Bureau of Labor Statistics, 1977, 1995) is another source of benefit data, but its data is available only for the years 1966–1974 and 1987–1995. The available BLS data show similar trends in the growth of the components of fringe benefits. For example, social security climbed from 3.2 to 6.0% of total compensation from 1966 to 1995; insurance rose from 2.0 to 6.7% over the same period. Overall, fringe benefits grew from 16.9 to 28.3% of total compensation. [See Hashimoto, 1994 for an update in Table 1 of Woodbury, 1983.]

[2] This analytical result seems robust to various assumptions. In particular, when the model of employment-hours decisions is expanded to allow for changes in capital, many of the results concerning hours become ambiguous; however, the fixed-cost effect on employment remains intact (Hart, 1984; Hamermesh, 1993).

[3] See, for example, Oi (1962), Rosen (1968), Ehrenberg (1971), Hart (1984), and Hamermesh (1993).