HIGH TECH EMPLOYMENT: SMALL VS. LARGE FIRMS (INTERACTIVE PAPER)

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Principal Topic

The purpose of this paper is to examine the job creation role of small high technology firms. Nearly all newly formed firms begin small so that tracking small firms over time should include the growth effect of newly formed firms. This will provide insights to the relative contributions of small and large firms to economic growth and should be an indicator of the impact of U.S. government policies promoting new, high tech businesses. Econometric work has both confirmed and cast doubt upon this role for small firms. And there has been little descriptive information published.

Method

Most of the technologically innovative start-up firms in the U.S. began as small firms and the minority that grew into large firms created many new jobs. Therefore, we examine five years of employment in both large and small firms to determine the relative growth of each. We use the definitions of “high-tech NAICS codes” created by the U.S. Department of Labor (DOL) and a recently developed database drawn from the Bureau of Census’ longitudinal data on all businesses in the U.S. Special tabulations were obtained for employment in high tech and all other businesses. We tabulated both the overall employment change and identified the number of firms with various ranges of growth in each group. We determined the employment changes by size of firm and DOL high tech industry codes along with all other industries as a comparative category.

Results and Implications

To avoid the complexity of major changes in business coding (from SIC to NAICS) in 1997, we began with 1997 and ended five years later with 2002. Since 2002 was the last year of a major recession in technology industries, we found larger high-tech firms suffered declines in employment. However, small high-tech firms showed an increase in employment. This result agrees with Kirchhoff’s (1994, pp.123-124) findings that across all industry sector, small firms gain employment during recessions while large firms lose employment. Still, the high-tech firm findings reported here remain preliminary and better longitudinal research should be conducted when Census has accumulated 10 years NAICS data.

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