Institut für Arbeitsmarkt- und Berufsforschung
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IAB-Colloquium
zur Arbeitsmarkt- und Berufsforschung

Einladung 1/2010

Firm Size and Employment Dynamics

Estimations of Labor Demand Elasticities Using a Fractional Panel Probit Model and Establishment Data

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This paper deals with the broad discussion on the relationship between job creation or destruction and firm size. To look if the argument that small and medium sized establishments (SME) show higher employment dynamics is confirmed or not, the following work uses elasticities from a standard labor demand model that are derived from the estimations of fractional probit models for panel data suggested by Papke and Wooldridge (2008). Elasticities are a useful measure of employment dynamics if it is assumed that small and large establishments act on the same markets. The results show that firm size does matter for the increase or decrease of employment. SME with less than 10 workers exhibit a higher employment dynamic compared to other entities. Additionally, the outcome of the analysis weakly confirms the hypothesis that smaller firms are more restricted to the capital markets compared to large entities. But the results also show that firm size explains only one part of the size of job creation and destruction. As stated in the well-known Hicks-Marshall rules for elasticities of factor demand, the results feature that the reaction of labor demand on economic changes increases with the use of the factor labor itself. Firms with a high share of labor also have larger elasticities compared to firms with a strong use of capital. Both effects, the size effect and the effect of the use of labor, should mix up in reality and therefore possibly lead to controversial results for the relationship between firm size and employment dynamics. Also, it seems clear that a model of a negative relationship among both variables is too simple to explain the behavior of firms.

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