

Determinants and Labour Market Consequences of Domestic Outsourcing: Direct Evidence for Germany

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Collaboration among firms is a very common practice in order to produce goods and provide services. In Germany predominantly two contractual institutions are used for firm collaboration. Firms can either contract out work or use temporary work. Both forms of collaboration can be defined as domestic outsourcing and entail a temporary supply of labour of one firm to another. Tasks and functions used to be performed in-house will be performed by workers of the contracted firm or by individual contractors.

Existing literature on firms' domestic outsourcing decision, referring to the implications on the structure of work, mainly investigate the consequences on the quality of jobs (Bernhardt et al., 2016), the restructuring of the labour force (Crinò, 2010; Cortes and Salvatori, 2016) or wage inequality (Barth et al., 2014; Handwerker and Spletzer, 2015). However, for Germany, research on the consequences of domestic outsourcing so far has to deal with limitations of existing data sources. Especially existing research on contract work considers only specific groups of workers and has to rely on indirect measures of domestic outsourcing (Addison et al., 2011; Goldschmidt and Schmieder, 2015).

This paper uses new evidence from a firm-level survey to investigate whether contract work leads to more polarisation and specialisation on the labour market. Card et al. (2013) show that rising dispersion in wage premia at the establishment level considerably contributes to overall wage dispersion in West Germany. Yet, they ascribe this development partly to an increase in unexplained establishment-level heterogeneity. We therefore investigate whether domestic outsourcing via contract work can explain part of the wage polarisation between firms. Domestic outsourcing could be used to avoid rent sharing of firm profits among workers who are less productive and would therefore be paid a lower wage outside the firm.³ This leads to an increasing divide in firms with high and low wage premia. The change of a firm's wage premium may be interlinked with the change in the firm's employment structure. We therefore also investigate whether there are simultaneous changes in the skill level and tasks of the workforce when a firm uses contract work.

The paper uses data from a new and comprehensive representative survey among more than 8,500 German firms. These data provide first direct evidence on the extent of domestic outsourcing via contract work in Germany. We are able to differentiate between different types of contract work. These include the use of contract work for business services which substitute a firm's main activities and ancillary business services which are complements of the firm's main activities (e. g. cleaning, security or logistic services). Furthermore, we distinguish between the types of contract work which

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³ Otherwise sharing firm's profit would include all workers because of efficiency wage and fairness considerations (Akerlof and Yellen, 1990; Card et al., 2012).

are performed on the client firm's worksite and off-site services. The survey also contains the information whether a firm contracts out part of its services and provides at the same time services to other firms. The types of contract work can be linked to characteristics of the firm and direct evidence on the firm's motives for contract work. The empirical investigation on wage polarisation and specialisation can therefore be related to the different economic explanations for a firm's "make or buy" decision, such as the relative costs of in-house versus outsourced production (Coase, 1937; Williamson, 1975, 1985) or the interaction with wage setting institutions (Card et al., 2004; DiNardo and Lee, 2004).

In the first step of the empirical analysis we present evidence on the extent of domestic outsourcing via different types of contract work in Germany. In a second step we compare the survey's direct evidence with indirect measures of outsourcing (e. g. the share of intermediate inputs) of the IAB Establishment Panel, which is a representative employer survey of employment parameters. To combine the information from both data sets, we use statistical imputation methods (Arellano und Meghir, 1992, Rubin, 2002, Rässler, 2004). The IAB Establishment Panel is linked to detailed current and past administrative data on the establishment's wage and employment structure. In the third step we use this administrative information to investigate the consequences of contract work on polarisation and specialisation on the labour market.

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