Quantifying the effect of labor market size on learning externalities

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So far, there is only little empirical evidence on the mechanisms behind the urban wage premium. Especially the role of learning externalities is still unclear. Provided that individuals learn by interacting with one another, a dense urbanized environment is supposed to enhance learning opportunities as it increases the rate of new contract between individuals (Glaeser, 1999). To analyze dynamic agglomeration benefits and the importance of learning effects, this paper makes use of a micro econometric framework described by Combes and Gobillon (2015) and extents the work by De la Roca and Puga (2013). In contrast to previous papers, it provides a consistent estimate of the elasticity between wages and the size of the labor market where experience was acquired. The analyzed wages refer to new employment relationships in Germany between 2005 and 2011, indicating how firms value working experience depending on the location where it was acquired.

The analysis bases on a 5 percent sample of the Integrated Employment Biographies (IEB) of the Institute for Employment Research (IAB). It contains detailed information on the employment biographies from 1975 onwards. The results indicate that experience acquired in large local labor markets has in fact a significantly higher value than experience acquired in small labor markets. The corresponding elasticity has a fixed component and a component that depends on the size of the labor market where experience is used. The fixed component is about 0.07. It supports the interpretation that workers learn more by working in large than in small local labor markets, and that at least parts of the accumulated knowledge are transferable to other regions. The value of experience is highest if experience was acquired and if it is used in a large local labor market.
One reasonable explanation is a combination of learning and matching effects. Since jobs in large labor markets are more specialized than jobs elsewhere, workers who worked in a large labor market accumulated knowledge that refers to the 'core task' of a job. The wage premium for this knowledge is supposed to be larger in large labor markets, as it is more likely there than in smaller labor markets, that a firm demands this specific knowledge. Moreover, a worker, moving from a large to a small labor market, may lose since the new job contains a wider range of tasks.