

Abstract: We document how plants belonging to the same firm are heterogeneous in their characteristics and then quantify a previously undocumented margin of aggregate labor productivity changes: within-firm across-plant reallocation of resources. Exploiting Mexican manufacturing plant-level panel data from 2003 to 2010, which allow us to identify which plants belong to which firms, we find that plants that have a bigger size within firm (i) are more productive, (ii) pay higher wages, (iii) are more likely to be export-oriented, and (iv) depend more on imported intermediate inputs. Reallocation of resources across plants within firms is a non-negligible part of aggregate labor productivity changes, especially for some important industries. We then explore the implication of within-firm across-plant heterogeneity, in particular non-exporting plants of exporting firms, on inferences from plant-level data and firm-level data. Within an exporting firm, non-exporting plants enjoy the same productivity levels as exporting plants, suggesting that the link between exporting and productivity arises at the firm level, but not additionally at the plant level. This induces plant-level data analysis to underestimate the exporter premium on productivity. On the other hand, non-exporting plants of exporting firms did not suffer at all during the trade crisis of 2008-09, which induces now firm-level data analysis to underestimate the impact of trade crisis. These findings together suggest that resource allocation within firms across plants is an important component of productivity changes and that conclusions drawn from the two types of data without considering this resource allocation may not be quantitatively comparable, and may also result in misleading inferences.