Increased sorting of high-wage (low-wage) workers into establishments that pay high (low) wage premiums explains a large share of the rise in wage inequality in the U.S.A and Germany. I study how international trade affects the observed sorting pattern. The main contribution of this paper is to provide novel evidence on the role of observable and unobservable worker characteristics and the detailed mobility pattern of workers between establishments. To this end, I exploit Germany’s trade integration with Eastern Europe and China and make use of data on 50% of all West German male employees from 1985 through 2000. The results suggest that offshoring and import competition trigger a reallocation of workers with low formal education performing routine and codifiable tasks from high-wage towards low-wage establishments, contributing to the observed increase in sorting and wage inequality. Increased exports, in contrast, raise the probability of remaining employed by high-wage establishments. This effect is strongest for workers with low observable and unobservable skills and therefore counteracts the observed changes in the sorting pattern.