"Differences in skill utilization across firms and labor markets have been associated with wage inequality, but whether this relationship reflects differences in worker or firm heterogeneity is still unclear. Combining linked employer-employee data from Italy with detailed information on skill demand extracted from online job vacancies, we study the relationship between wages and a variety of skills demanded across firms and labor markets, which we then decompose into firm- and worker-pay components of the wage process. We find a positive relationship between wages and the demand for cognitive and social skills, which is pronounced when both skills are required jointly revealing their complementarity. Our decomposition suggests that higher wages in markets in which firms demand jointly cognitive and social skills is not a firm attribute, but it is rather driven by worker effects reflecting the higher market value of these skills. Instead, the wage premium in markets in which firms specialize their demand to either cognitive or social skills is due to firm-specific pay policies, while the market value of these specialized skills for workers is lower. These results highlight the role of worker and firm heterogeneity as channels through which skill demand differences affect overall wage inequality."