Migration has changed the cultural mix in many European societies. Recent work focuses on the effects of the resulting increased cultural diversity on the economic performance of regions. This paper takes the analysis one step further in that it looks at the effect of a culturally diverse workforce on the productivity at the establishment level. In this paper, we try to assess the impact of a culturally diverse workforce in production functions estimations for a comprehensive sample of German establishments. We augment the standard estimation equation with information on the composition of the plants’ workforce and with the respective regional characteristics to separate effects within the plant from regional effects. Potential endogeneity problems that arise due to unobserved plant characteristics and productivity shocks are addressed in a system GMM framework. Results indicate positive productivity effects of a diverse workforce with significant differences between industries and type of firms.