This study assesses the impact of training sheet metal workers in Kenya on their uptake of learned skills and their income. Fifty-eight artisans trained in the construction of metal silos for hermetic grain storage were compared to a random sample of 123 untrained artisans. Results show that two-thirds of the trained artisans were making the silos, half of these in their own workshops and half as employees. The probability of using the skills learned declined with age but increased with previous experience in technical work. The training did not significantly increase the income of employed artisans, but increased the annual income of those who made the silos in their own workshops by KSh315,173 (about US\$3,600). The overall impact could be improved by better targeting of trainees, by using apprenticeships as an alternative mode of training, and by encouraging entrepreneurship through business training and provision of credit.