



Figure 2: Domestic vehicle production and output per worker

Author's own design.

The 38,600 workers employed by the manufacturers in 1995 produced 388,442 vehicles, averaging an output of 10 vehicles per worker. The rise in production surpassed half a million, reaching a peak of 652,965 vehicles in 2008. These were produced by a reduced workforce of 35,900 workers that is the 1995 workforce less 2,700 workers.

The average output per worker increased to about 16 vehicles in 2008. The increase reached double capacity in 2014 from that of 1995, to an average of 20 vehicles per worker. In 2014 the manufacturers workforce was reduced to 27,715 that is the 1995 workforce less 10,885 workers.

The trends presented here reflect the original equipment manufacturers' specific reality. The research findings show that there are production conditions that, if strong enough, can counteract the reduction in the workforce, and even result in an increase in the workforce, which is important for industrial policy. This is clearly demonstrated by the case of VW, highlighted below.

Worker agency

In 2015, VW decided to invest R6.1 billion, including R564 million for 330 new robots, at its vehicle body construction plant in Uitenhage, Eastern Cape province.

About 600 robots, including the 300 new ones, were expected to complete the structure of each vehicle in a reduced time of one minute and 57 seconds.

The new robots resulted in 40 qualified fitters being declared redundant (not to speak of less skilled workers). VW served the National Union of Metalworkers of South Africa (NUMSA) with a retrenchment notice. The union challenged VW, resulting in an agreement for the retraining of the fitters as electricians. This paved the way for their jobs to be saved.

VW globally also allocated more production volumes to its Uitenhage plant. This helped save the jobs of (less skilled) production workers that could otherwise have been disrupted by the use of robots. And it resulted in an additional 300 production workers being required.

The plant's production increased to 133,000 vehicles in 2018, of which

83,000 were for export markets. The 2018 output reflected an increase of 23,000 vehicles from 110,000 in 2017. In 2019 the plant reached its target of 160,000 vehicles, 27,000 more than in 2018.

Conclusion

The decline in overall manufacturers' employment from 1995 to 2017 in the context of increased capital investment and productivity underlines the necessity of increasing local production to save jobs and create additional employment. This social upgrading through the targeting of employment creation is an important industrial policy consideration and can be linked with the investment incentives given by the state.

The VW case shows that increased production localisation in global production networks can benefit employment in two important ways, despite technological disruption. Firstly, it counteracts retrenchments consequent on the way new technology is adopted. Secondly, it creates additional employment. As the role played by NUMSA at VW indicates, organised labour can shape the direction of new technology and its impact on workers.