

# Work Systems and Employment Relations in the Australian Automotive Manufacturing Industry

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## **Abstract**

This paper examines the scale of production, productivity, skill development, work organization, and industrial relations in the Australian automotive manufacturing industry. The paper draws on data from the 1993 and 2000 rounds of the surveys conducted by the International Motor Vehicle Program. The conclusions raise serious questions about the future viability of the Australian automotive manufacturing industry.

## **Introduction**

The Australian car market is relatively small in comparison with those of the major automotive manufacturing regions of North America, Europe, and Japan. Nevertheless, the automotive manufacturing industry has played an important role in the development of the Australian economy. It accounts for nearly 6 percent of the total value added for manufacturing, making it one of Australian manufacturing's largest sectors and among Australia's most significant export industries. The automotive industry comprises several hundred component suppliers and four vehicle manufacturers: Ford, General Motors (GM)-Holden, Toyota, and Mitsubishi—the first two are American and the latter two are Japanese. The impact of reductions in Australian tariffs and increasing global competition has resulted in increases in the proportion of sales of imported vehicles. The proportion of locally made vehicles sold in Australia declined steadily from 63 percent in 1993 to 41 percent in 2000. In recent years Toyota has gained the largest increase in market share while Mitsubishi has experienced the most severe decline.

As the lower-cost international competition has increased, especially from Asia, it would appear that Australian manufacturers have experienced declining profits. This has prompted governments, manufacturers, and unions to examine ways to

reinvigorate the industry. Government action has largely been pursued through the dismantling of tariffs to expose local automotive producers to greater import competition. As one consequence some of the Australian manufacturers have broadened their focus from the local market to include overseas markets as well, particularly the Middle East. The number of cars produced by the four companies for the domestic market declined from around 300,000 in 1994 to less than 260,000 in 2000. However, The number of cars produced for export increased from around 25,000 to more than 100,000 over the same period. Nonetheless, the value of exports by Australian producers is much less significant than the growth in imports. While some of the manufacturers have been successful in adapting to the increasingly competitive environment, others have been less successful.

Recent announcements of plant closures and redundancies in the manufacturing and component-making sectors show that the state of Australian automotive manufacturing remains perilous. Nevertheless, the car manufacturers have been continuing to invest in Australia in manufacturing and especially on associated research and development.

### **The Scale of Production**

Annual production of vehicles in Australia fluctuated between around 300,000 and 350,000 during the 1990s. The four Australian plants had an average total daily output of 453 units in 2000. This compares with an output of 1,104 units by U.S.-owned plants in North America, 1,280 by plants in Europe, and 1,299 by plants in Japan.<sup>1</sup> Between 1993 and 2000 the average daily production in Australia declined by more than 30 percent. Compared with the major auto-producing regions, only Japan fared worse, as its daily production declined by 41 percent during the same period. However, this needs to be seen in the context of the average daily output of Japanese plants being almost three times that of plants in Australia. By contrast, North American and European plants posted increases of 14 percent and 7 percent respectively during this period.

One explanation for the decline in auto production in Australia was the shift by manufacturers toward larger and more capital-intensive products. In 1993 Australian manufacturers produced 48,364 small cars. By 2000, however, import competition had induced local manufacturers to discontinue producing small cars. Conversely, Australian manufacturers increased their production of medium and large cars by 45 percent over the same time period. Therefore, the declining daily production of the Australian automotive industry reflected the shift to a segment of the market that could potentially be more profitable. However, the future viability of this strategy is uncertain; with the rise in oil prices, there is a trend away from the medium and large segments of the vehicle market. Between 1993 and 2000 small vehicle sales in Australia almost doubled, while medium car sales almost halved over the same time period. Sales of large cars increased from 157,413 to 198,766, but the total has declined after reaching a peak of around 217,000 units in 1998. Thus, Australian automotive manufacturers appear to be concentrating on a shrinking part of the domestic market, which perhaps explains why they increased exports of Australian-made vehicles fourfold between 1993 and 2000. Thus, unless the local producers

completely reconfigure their domestic production strategies, they will have to pursue a more export-focused strategy. This reflects the sentiments of one automotive industry executive in our interviews, who claimed that there has been a "seismic shift" in demand away from larger vehicles toward more compact cars, leaving local producers in difficulties.

## **Productivity**

In 2000 manufacturers in Japan outstripped all others in productivity (twelve hours per vehicle), with North Americans being slightly more efficient than Europeans. Australians lagged behind. There was a relatively even reduction in hours worked per vehicle of between 20 and 30 percent in all four companies. The Australian plants have increased productivity since the early 1990s. They performed reasonably well in "first time capability in assembly"—ahead of Europe, on par with North America, and only five percent behind Japan. The Productivity Commission (1996) argued that although there have been improvements in productivity during the early 1990s, the number of hours taken to produce a vehicle in Australia was still substantially greater than in comparable countries. While such an assessment appears to be valid in light of the 2000 data, the improvement during the 1990s was impressive. However, there was considerable variation between the time taken to produce a vehicle among the Australian manufacturers. At one plant it took less than sixteen hours per vehicle, compared to more than forty-five hours at another plant. Similarly, there were disparities in terms of first time through assembly, which ranged from 68.5 percent to 91 percent. These findings suggest that despite some improvements, Australian plants continue to have an "automation gap" as noted by MacDuffie and Pil (1997). The number of vehicles produced per employee at Australian plants rose from 10.8 to 16.1 in the first half of the 1990s, but it rose to only 16.8 by 2000. This suggests that productivity improvements increased during the first half of the 1990s but slowed in the second half of the decade. With further investment in plant and equipment and model rationalization, the productivity levels should increase, but the relatively small size of plants and production runs in Australia will tend to constrain the degree of productivity improvements.

## **Training and Skill Development**

Skill formation has become increasingly important in the industry. According to one manager who started on the shop floor in the early 1980s, a motto then was "turn your brain off at the gate," but today it is no longer apt. A Vehicle Industry Certificate (VIC) was introduced in the late 1980s as part of Australia's award<sup>2</sup> restructuring program. This aimed to establish career paths and link pay levels to skills. The VIC encompassed different levels for production work and the maintenance trades. As the benchmark for skills is industry-wide, there should be little variation between the companies. The VIC encompassed both on- and off-the-job training and was intended to provide automotive workers with a "portable" qualification that would enable them to move between employers within the industry and gain recognition for skills acquired. The VIC has been revised in recent years and is currently known as

Certificate II. According to workers' representatives and managers, the majority of employees across all four companies have completed or are in the process of completing VIC/Certificate II training.

Between 1993 and 2000 Australia's relative position appears to have declined from having the highest number of training hours for production workers in their first six months of employment to the second lowest—a decline from 412 hours in 1993 to 84 hours in 2000. This dramatic fall was paralleled in training for new supervisors and engineers, while plants in all other regions either improved their position or remained steady. The situation is different for experienced workers. Even though their number of training hours declined markedly since the early 1990s, Australian plants still provide more training to their supervisors than all others and are second only to plants in Japan in terms of hours of training provided for production workers. Notwithstanding the implementation of the VIC, vehicle manufacturers in Australia evidently provide much less training than before. Despite assumptions that the VIC would result in an approximate equivalence of training provision across the industry, there still appears to be considerable variation among the four manufacturers.

### **Work Systems and Organization**

Australian plants had more suggestions per worker than those in North America. In contrast to European manufacturers, however, employee suggestions in Australian plants decreased during the 1990s and continued to trail well behind Japan. The average number of employee suggestions at each automotive plant in Australia varied widely, as did the extent to which such suggestions were implemented. The Australian plants had a very low proportion of workers in quality circles by 2000. In contrast, 69 percent of their employees had been members of quality circles in 1993. The presence of quality circles in European and North American plants also declined, with less than half of workers in quality circles, compared to almost 100 percent of employees in the Japanese companies. Production and skilled workers in the Australian plants played little role in quality inspection and on this dimension ranked last among the countries surveyed. The Australian plants used job rotation more than those in North America, but less so than those in Europe and Japan. While the differences between Australian producers in the extent of job rotation between 1993 and 2000 has fallen only marginally, the decline in relative terms was more pronounced than elsewhere. All of the Australian automotive companies where data was available recorded a medium-scale rating or above in terms of job rotation for 2000.

The labor market and industrial relations reforms in Australia during the 1980s and 1990s precipitated a reduction in the number of job classifications for production workers and skilled trades (see Lansbury and Baird 2002). This has resulted in fewer organizational levels in Australian plants. Only the European plants have a flatter organizational structure than those in Australia. Furthermore, Australian plants have fewer production-based job classifications than the European, Japanese, or U.S. plants. One explanation for the rationalization of occupational and organizational structures in Australia reflects the "award rationalization" policy that was initiated in the late 1980s. As a consequence, the number of job classifications in the automotive industry declined from 240 to only 3 non-trade levels and 6 trade levels in a few

years. These reforms came about following a policy adopted by the then Labor government in cooperation with the Australian Council of Trade Unions to restructure awards. This policy coincided with each of the companies trying to promote lean production principles that require flatter job structures and the reduction of demarcations between various categories of workers. Hence, all automotive manufacturing sector awards since 1988 contained new classification structures setting out the job requirements in terms of competencies, qualifications, general duties, and responsibilities for all nonsalaried occupations. The International Motor Vehicle Program (IMVP) data reveals that while there had been significant rationalizations to classification structures by 1993, the improvements evident by 2000 suggest that award restructuring and the adoption of lean production have taken some years to fully implement.

Substantial efforts have been made in recent years to reduce demarcations between trade and nontrade employees in Australian plants. While some managers claim that there is greater scope for production workers to become skilled maintenance workers, problems have started to re-emerge over the delineation of duties between certain trade workers and technicians. One worker claims that this is because "people identify with their job area." These initiatives have been accompanied by the implementation of industry-wide training standards through the VIC and its successor, Certificate II. According to several managers, this has meant that the companies can now recruit at a significantly higher level in terms of skills than they could twenty years ago, which has resulted in a better educated and more capable workforce. However, some employees argue conversely that these changes, combined with technological advances, have meant there is more pressure on employees to work faster.

## **Conclusions**

In the early 1990s, following considerable rationalization induced by government-initiated industry restructuring, there was optimism about the future of Australian automotive manufacturing. While the industry rated comparatively poorly on indicators such as production and automation, many hoped that the adoption of export-oriented strategies and increased investment in technology would revitalize the Australian industry (see Bamber and Lansbury 1997). In recent years two of the companies announced substantial investments in their manufacturing plants. However, one of the four companies recently closed its Australian engine plant and one eliminated a third shift, which led to layoffs of manufacturing workers.

In addition to such retrenchments, our findings raise concerns about the future of the Australian automotive industry. Across a range of variables, it would appear that Australia has slipped in terms of its relative performance in the early 1990s and continues to struggle compared with the leading automotive producing regions. An analysis of the 1993 round of IMVP data found that it took twice as many hours for manufacturers to produce a vehicle in Australia compared to those in Japan. While Australia has improved on its previous performance in this regard, by 2000 it took plants in Australia on average 2.3 times longer to produce a vehicle than plants in Japan. In other words, although Australian plants have improved, Japanese plants have improved even more.

The number of hours invested in training and skill development by automotive manufacturers in Australia has also been declining. The automotive industries in Europe, Japan, and North America either increased or maintained the number of hours invested in training during the 1990s. The average Australian plant, by contrast, reduced its investment in training and skill development. This fall might reflect, first, pressures on company profitability, which induced firms to cut their training budgets, and second, increasing moves toward labor market deregulation. This included the abolition of the Australian Training Guarantee Levy in 1996. The Levy had induced a dramatic, but temporary, increase in the provision of training by Australian firms. Its abolition signalled the government's withdrawal of active training interventions in the labor market.

Australia's performance has been mixed with regard to work organization. There was a flattening of organizational structures and a rationalization of job classifications in the 1990s. However, these improvements can largely be attributed to policies in the late 1980s and early 1990s that facilitated the rationalization of awards and aimed to increase productivity. Formal programs to encourage employee involvement in decision making, however, waned in the last half of the 1990s, especially after the Australian Labor Party government was replaced by a conservative coalition government in 1996. This change of government heralded the phasing out of governmental attempts to engage in active industry and labor market planning. The influence of work teams on workplace decisions declined, as did the use of employee suggestion schemes and job rotation. Australia's less than satisfactory performance on industrial relations issues may be seen as the consequence of declining rates of production and investment in human capital. Labor turnover increased threefold, and the average tenure of production workers was only 40 percent of the levels of North American and European plants and less than 30 percent of those prevailing in Japanese plants. A decline in absenteeism was the only positive sign in terms of industrial relations indicators.

Perhaps this decline in absenteeism reflected employers adopting tougher management styles, which may have reflected the post-1996 government implementing a more stringent regime with regard to strikes and unions. However, further research would be necessary to provide satisfactory explanations of such changes. In the meantime, the main findings in this paper indicate that the future of the Australian automotive industry appears at best uncertain. It would seem that there is a continuing need for the auto companies with plants in Australia to improve their production arrangements to maintain competitiveness and thereby facilitate the survival of this vital industry in Australia.

## **Acknowledgments**

We acknowledge the assistance of Ford, GM- Holden, Mitsubishi, and Toyota, as well as the Australian Manufacturing Workers' Union. Each of the companies completed surveys undertaken under the auspices of the International Motor Vehicle Program (IMVP) at MIT and each has helped further by allowing us to conduct interviews with union representatives, managers, and other employees. We also thank Frits Pil of the University of Pittsburgh for helping us to complete the conduction and analysis of the

IMVP 2000 survey in Australia and for giving us access to the data from earlier IMVP surveys. In view of LERA's space constraints, this version does not include the IMVP data. For any comments, please contact greg\_bamber@yahoo.com.au or r.lansbury@econ.usyd.edu.au.

## Notes

1. Unless otherwise specified, the sources of the data cited in this paper are the IMVP International Assembly Plant Surveys, which relate to the situation in 2000 and in 1993.

2. An "award" is the Australian analogue of a U.S. labor contract, but awards are either ratified or arbitrated by an independent industrial relations commission (see Lansbury and Wailes 2004).

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