



8 January 2006

Secretariat  
Australian Government  
House of Representatives

Dear Sir/Madam,

**Re: New Inquiry: Employment in Automotive Component  
Manufacturing**

Please accept the attached Victorian Automotive Manufacturing Industry Change Drivers Report as Automotive Training Victoria's submission to the House of Representatives inquiry into Automotive Component Manufacturing.

Contact details:

Automotive Training Victoria:

Tel: (03) 9866 1294

Email: [manager@atv.org.au](mailto:manager@atv.org.au)

Postal Address: P O Box 7428, St Kilda Road Melbourne 8004

Yours sincerely,

A handwritten signature in black ink, appearing to read "G Walsh", is written over a light grey circular watermark.

Greg Walsh

Executive Manager.

Automotive Training Victoria

PH: (03) 9866 1294

FAX: (03) 9866 1295

**VICTORIAN AUTOMOTIVE  
MANUFACTURING INDUSTRY**



**CHANGE DRIVERS REPORT**



**DECEMBER 2005**



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## **1. INTRODUCTION**

This Report details research carried out by Automotive Training Victoria (ATV) for submission to the House of Representatives Inquiry "Employment in Automotive Component Manufacturing".

Research was targeted to four key questions:

- Q1: What are the major change drivers impacting the industry and its sectors currently over the medium to long-term future?**
- Q2: What are the industry and enterprises responses to the impact of the change drivers?**
- Q3: What are the implications of the industry responses for skill needs in the industry?**
- Q4: What is the relative importance of changing skill sets for training provision now and in the future?**

## **2. REPORT METHODOLOGY**

This Report is specific to Victorian Automotive Vehicle Manufacturing and Original Equipment Manufacturing in the belief that the two sectors are interdependent.

This Report provides a review of the identified change drivers and industry response to the drivers impacting on Vocational Education and Training priorities over the medium to long-term future.

### **Source:**

- (i) Change Drivers Survey conducted by ATV in October 2005 – See Appendix 2
- (ii) Victorian Automotive Industry Change Drivers Report December 2004
- (iii) Automotive Intelligence Year Book 2005
- (iv) Industry Consultation – See attached contact list Appendix 1:
  - Enterprise
  - Automotive RS&R Council
  - Manufacturing Advisory Group
  - Victorian Heavy Vehicle Advisory Committee
  - Victorian Automotive Forum TAFE
- (v) Automotive Industry Strategic Action Group Project Report August 2005
- (vi) ATV Board Response "Victorian Government VET Inquiry 2005"
- (vii) Automotive Training Australia (ATA) "Change Drivers Report 2003"

# **PART 1 AUTOMOTIVE MANUFACTURING**

Appendix 1 provides an updated overview of Automotive Manufacturing Performance.

## **1.1 MANUFACTURING CHANGE DRIVERS**

**Q1: What are the major change drivers impacting the industry and its sectors currently over the medium to long-term future?**

**Q2: What are the industry and enterprises responses to the impact of the change drivers?**

The following Change Drivers are identified as having significant impact on employment and training in the manufacturing sector (vehicle and original equipment):

- ▶ Business Confidence & Labour Demand
- ▶ New & Emerging Technology
- ▶ Work Practices
- ▶ Compliance with Government Legislation

### **1.1.1 Business Confidence & Labour Demand**

- ▶ Demand for skilled labour in the manufacturing sector is determined by:
  - The level of future domestic and export market productivity under global efficiency plans and targets under parent company structures.
  - The flow-on effects of free-trade agreements and global competition for domestic sales and export markets.
  - Development of niche markets (component manufacturing)
- ▶ Original equipment manufacturers (components) although vulnerable to international competition on pricing and volume production efficiencies have a potential advantage in development of niche export markets through improved product technology.
- ▶ The Victorian manufacturing industry will rely on strategic total quality management systems and plans aimed at 97% efficiency to meet new levels of international competition.
- ▶ Of particular importance is the reduction of “down-time” through the introduction of new technology inclusive of robotics (production system) and new vehicle models.
- ▶ Passenger vehicle manufacturers have established career opportunities for graduates i.e. engineers. Community awareness, particularly young people, of the function of a manufacturing plant and the benefits of manufacturing in Victoria is slight and at best naive.
- ▶ This lack of understanding by the community is further exacerbated by the lack of quality education programs in schools to assist young people gain knowledge of the industry and opportunities for a career path in a global company.
- ▶ A lack of understanding and appreciation of the automotive manufacturing industry has impacted on company recruitment.

### **5 YEAR OUTLOOK "BUSINESS CONFIDENCE & LABOUR DEMAND"**

- ▶ Employment growth in passenger motor vehicle manufacturing will be marginal over the next five years due to the following factors:
  - 10% tariff reduction in 2005 (Passenger Motor Vehicles)
  - 5% tariff reduction in 2010 subject to review in 2008
  - Proposed free-trade agreement with China – annual growth rate 9.5%
  - Increased reliance on robotic production systems to meet efficiency targets
  - Ford (US) and General Motors (US) announcement of reduced profit margins in 2004 brought about by a downturn in vehicle sales due to increased fuel costs and vehicle over supply; this may impact on Ford and Holden Australia due to parent company restructure.
- ▶ Employment in truck assembly is projected to decline over the next five years taking into account:
  - Fluctuating sales heavy vehicles 15 tonne +
  - 40% increase truck registration fees (heavy vehicle – B Doubles/Triples)
  - Diesel fuel costs (decreasing government assistance)
  - Improved vehicle road-life (reduced sales)
- ▶ The original equipment (components) sector is particularly vulnerable to the impact of free trade agreements between Australia and countries where worker wages and production costs are much lower than can be achieved in the Australian environment. Local vehicle manufacturers are increasingly switching to more cost competitive suppliers i.e. Thailand and China.
- ▶ Emerging new component manufacturing opportunity in niche markets through new product technology.

### **10(+ ) YEAR OUTLOOK "BUSINESS CONFIDENCE & LABOUR DEMAND"**

- ▶ Rationalisation of Australian passenger motor vehicle manufacturing plants taking into account:
  - Zero tariff/assistance to domestic producers
  - Impact of free-trade agreements, particularly China
  - A minimum target of 97% efficiency to meet international cost competitiveness
  - Work practices and Commonwealth industrial arrangements (2005)
  - World vehicle oversupply
  - Cost of oil/petroleum
- ▶ Reduced original equipment (component) manufacturers through the effects of free trade agreements and competition for supply to domestic vehicle manufacturers.
- ▶ New component manufacturing opportunity in niche markets through new product technology.
- ▶ Victorian Truck assembly plants to remain at two subject to sales targets and efficiency plans.

#### **1.1.2 New & Emerging Technology**

- ▶ International competitiveness increases pressure on manufacturers to place equal emphasis on workplace culture, plant layout, automation and supplier involvement in the development of efficiency plans (Automotive Training Australia Change Drivers Report 2003).
- ▶ Development in product technology will assist original equipment manufacturers (components) develop niche export markets.



### **5 & 10(+) YEAR OUTLOOK "NEW & EMERGING TECHNOLOGY"**

- ▶ The Australian automotive manufacturing industry is unlikely to achieve the volumes to justify large-scale investment in automation. The manufacturing process will continue to depend on skilled workers encompassing a decision making process.
- ▶ Increased use of automation will increase middle level technical skill demand and a change in the way training is provided in the workplace:
  - Production operators
  - System programmers
  - System maintenance (mechatronics/robotics)
- ▶ The future manufacturing plant workforce must adapt to changes in technology with minimum downtime if efficiency targets are to be met.
- ▶ Original equipment manufacturers (components) to take advantage of new product technology and niche export markets.
- ▶ See Business Confidence and Labour Demand (1.1.1)

### **1.1.3 Work Practices**

- ▶ Work practices is an integrated element of parent company global positioning and efficiency planning with a focus on increased competition as outlined in Change Driver Responses 1.1.1 and 1.1.2

***This scenario is reflected in the Federal Government's reform to workplace industrial relations and a focus on individual workplace agreements designed to reflect business needs.***

- ▶ Each of the four passenger motor vehicle manufacturers in Australia has implemented a production system based on the Toyota Production System (TPS).

TPS or "Lean Manufacturing" aims at reducing waste through over production, lead-time or product defects enabling the manufacturer to become more competitive.
- ▶ Truck assemblers have implemented lean manufacturing principles based on Total Quality Management.
- ▶ Original equipment manufacturers (components) must interface with vehicle manufacturers to remain competitive.

### **5 & 10(+) YEAR OUTLOOK "WORK PRACTICES"**

- ▶ Work practices will impact on the type of skills required and the way training is to be delivered in a future manufacturing plant.
- ▶ Employee work practices will reflect parent company global directives and efficiency targets.
- ▶ See Business Confidence and Labour Demand (1.1.1)
- ▶ See New & Emerging Technology (1.1.2)

#### 1.1.4 Compliance With Government Legislation

- ▶ Compliance with Government legislation forms a significant business cost to manufacturing plants with flow-on effects to employee training demand. Significant areas include:
  - Occupational health and safety
  - Environmental waste management
  - Plant emissions
  - Energy consumption

#### **5 & 10(+) YEAR OUTLOOK "COMPLIANCE WITH GOVERNMENT LEGISLATION"**

- ▶ The concept of "whole of vehicle life" places environmental responsibility on manufacturers to account for all facets of the vehicle life from production to wrecking. Manufacturers are increasingly investing in materials recycling and implementing processes to meet vehicle disposal in accordance with legislation, i.e. European model. This has been adopted by parent companies and will likely impact on Australian production.
- ▶ Manufacturing plants will be required to adopt government guidelines in regard to:
  - Minimising energy consumption and the use of alternative energy sources.
  - Waste management and emissions control
- ▶ Increasingly strict Government regulations on vehicle emissions will continue to impact on vehicle design including development of sealed or encapsulated systems for example engines and transmissions (light vehicles and heavy vehicles).
- ▶ Occupational health and safety will continue to a focus of employee skills development.

## 1.2 MANUFACTURING SKILL NEEDS

Automotive Manufacturing skills needs (i) over the medium to long-term links to identified industry change drivers as follows (see also response to **Question 3** for detailed descriptions):

**Note (i):**

- ▶ *Automotive Industry Manufacturing Training Package AUM00 (to be replaced by AUM05/06)*
- ▶ *Competitive Manufacturing Training Package MCM04*
- ▶ *Metal & Engineering Training Package MEM98 (to be replaced by MEM05)*
- ▶ *Electro technology Industry Training Package UTE99*
- ▶ *Transport & Distribution Training Package TDT05*

**Key:** AQF – Australian Qualifications Framework by skill set or qualification

Manufacturing Change Drivers	Skill Needs
1. Business confidence & labour demand	<p>Business confidence and labour demand is dependent on global economies and plant efficiency plans that in-turn impact on recruitment levels and training of existing workers. Skill demand is integrated with technology, work practices and government compliance – see “Change Drivers” 2, 3 and 4.</p> <p>Skill needs:</p> <ul style="list-style-type: none"> <li>▶ Production (AQF II/III)</li> <li>▶ Team leader (AQF IV/Dip.)</li> <li>▶ Technical maintenance (AQF III/Dip.)</li> </ul>
2. New & emerging technology	<ul style="list-style-type: none"> <li>▶ Technical maintenance (AQF III/Dip.) <ul style="list-style-type: none"> <li>▪ Mechatronics</li> <li>▪ Engineering (mechanics, pneumatics, hydraulics, electrical)</li> <li>▪ Electronics</li> <li>▪ Programming</li> </ul> </li> <li>▶ Systems engineering (Degree/post grad)</li> </ul>
3. Work practices	<ul style="list-style-type: none"> <li>▶ Attitudinal (integrated Secondary): <ul style="list-style-type: none"> <li>▪ Industry/plant awareness</li> <li>▪ Careers</li> <li>▪ Communication</li> </ul> </li> <li>▶ Generic (integrated AQF II/III/short course): <ul style="list-style-type: none"> <li>▪ English (second language)</li> <li>▪ Communication</li> <li>▪ Basic computer</li> </ul> </li> <li>▶ Production/maintenance (AQF II/III): <ul style="list-style-type: none"> <li>▪ Quality</li> <li>▪ Systems process</li> <li>▪ Machine programming</li> <li>▪ OH&amp;S</li> <li>▪ Environmental</li> </ul> </li> <li>▶ Team leader (AQF IV/Dip.): <ul style="list-style-type: none"> <li>▪ Quality management</li> <li>▪ Continuous improvement</li> <li>▪ Communication</li> </ul> </li> </ul>
4. Compliance with Government legislation	<ul style="list-style-type: none"> <li>▶ Production/maintenance (AQF II/III): <ul style="list-style-type: none"> <li>▪ OH&amp;S</li> <li>▪ Environmental</li> </ul> </li> <li>▶ Team leader (AQF IV/Dip.): <ul style="list-style-type: none"> <li>▪ OH&amp;S management</li> <li>▪ Environmental management</li> </ul> </li> </ul>

**Q3: What are the implications of the industry responses for skill needs in the industry?**

Skill needs align to units of competence (skill sets) and qualifications by Australian Qualifications Framework (AQF) level outcomes as follows:

- ▶ Automotive Industry Manufacturing Training Package AUM00 (to be replaced by AUM05/06)
- ▶ Competitive Manufacturing Training Package MCM04
- ▶ Metal & Engineering Training Package MEM98 (to be replaced by MEM05)
- ▶ Electro technology Industry Training Package UTE99
- ▶ Transport & Distribution Training Package TDT05

**(i) Attitudinal Skills**

- ▶ A high priority for the manufacturing industry is attitudinal skills. These are skills designed to empower the worker with a sense of worth and ownership as a team member and producer of a quality product in a global environment.
- ▶ Attitudinal skills training is recommended to commence at secondary schools and followed through in entry-level apprenticeship/traineeship to existing worker skills development.

<b>ATTITUDINAL SKILLS</b>			
<b>Australian Qualifications Framework (AQF)</b>	<b>Current Need</b>	<b>5 Years</b>	<b>10 Years +</b>
i. Training Packages - AQF 1 to Advanced Diploma ii. Training Package competencies are recommended for review to integrate "attitudinal skills" with key competencies. iii. "Attitudinal skills" within secondary education curriculum years be developed as creative subjects through years 7 to 12	Yes	Yes	Yes

**(ii) Generic Skills**

- ▶ Generic skills demand with a focus on work place delivery comprising:
  - English as a Second Language
  - Communication skills
  - Basic computer skills

<b>GENERIC SKILLS</b>			
<b>Australian Qualifications Framework (AQF)</b>	<b>Current Need</b>	<b>5 Years</b>	<b>10 Years</b>
English as a Second Language – integrated with Training Package units of competence/qualifications - AQF II/III	Yes	*	*
Communication Skills: i. Training Packages AQF 1 – Advanced Diploma ii. MCM04 Competitive Manufacturing Training Package - AQF 3 to Advanced Diploma	Yes	Yes	Yes
Basic Computer Skills: i. Training Package - Selected competencies: ▪ Information Technology ▪ Metals & Engineering ▪ Automotive Manufacturing	Yes	Yes	Yes

**Note\*:** Subject to industry recruitment (production process)

**(iii) Production Skills**

- ▶ Production skills demand:
  - Total quality control/lean manufacturing
  - Occupational health and safety
  - Waste management/materials recycling
  - Machine setting/programming
  - Process specific (vehicle/component assembly, press operations, paint operations)

<b>PRODUCTION SKILLS</b>			
<b>Australian Qualifications Framework (AQF)</b>	<b>Current Need</b>	<b>5 Years</b>	<b>10 Years</b>
Training Package: ▪ AUM05/6 Automotive Manufacturing - AQF II (Passenger Motor Vehicle) ▪ AUM05/6 Automotive Manufacturing - AQF II/III (Truck Assembly) ▪ MEM05 Metals & Engineering – AQF II/III ▪ MCM04 Competitive Manufacturing – AQF III	Yes	Yes *	Yes **

**Notes:**

\* Existing worker skills update

\*\* Entry-level training demand subject to industry recruitment/business confidence and efficiency planning

**(iv) Technical Maintenance Skills**

- ▶ Maintenance and advanced technical with a mix of skills to meet the manufacturing plant's job requirements and production efficiency plans in such areas as:
  - Advanced technical – Mechatronics/Robotics
  - Electrical power
  - Electronics
  - Mechanical engineering and instrumentation
  - Machine setting/programming
  
- ▶ Demand for qualified (Bachelor Degree) systems engineers will continue.

<b>TECHNICAL MAINTENANCE SKILLS</b>			
<b>Australian Qualifications Framework (AQF)</b>	<b>Current Need</b>	<b>5 Years</b>	<b>10 Years</b>
Training Package: <ul style="list-style-type: none"> <li>▪ Metals &amp; Engineering - AQF III/Advanced Diploma</li> <li>▪ Automotive Manufacturing – Automotive Development AQF IV</li> </ul>	Yes	Yes	Yes
Higher Education: <ul style="list-style-type: none"> <li>▪ Systems engineering and design - Bachelor Degree</li> </ul>	Yes	Yes	Yes

**(v) Team Leader & Manager**

- ▶ Increasingly vehicle manufacturers are taking up responsibility for team leader training through their respective parent company with a focus on common global quality outcomes.
  
- ▶ Manufacturers are continuing to utilize the Competitive Manufacturing Training Package and Front Line Management for team leader training, however the effectiveness of these arrangements are under review in the context of quality outcomes in a global competitive environment.
  
- ▶ Demand for Higher education at Bachelor Degree will continue through public and private universities.

<b>TEAM LEADER &amp; MANAGER</b>			
<b>Australian Qualifications Framework (AQF)</b>	<b>Current Need</b>	<b>5 Years</b>	<b>10 Years</b>
Training Package: <ul style="list-style-type: none"> <li>▪ MCM04 Competitive Manufacturing – AQF III/Adv Dip (team leader/supervisor)</li> <li>▪ Front Line Management AQF IV/Diploma</li> </ul>	Yes	Yes	Yes
Higher Education: <ul style="list-style-type: none"> <li>▪ Systems engineering and design - Bachelor Degree (Manager)</li> </ul>	Yes	Yes	Yes

### **1.3 MANUFACTURING SKILL PROVISION**

#### **Q4: What is the relative importance of changing skill sets for training provision now and in the future?**

The type of skills required by the Vehicle Manufacturing and Original Equipment Manufacturing (components) Sectors over the medium to long- term is described in detail under Section 1.2.

Skill needs align to units of competence (skill sets) and qualifications under the Australian Qualifications Framework (AQF) level as follows:

- ▶ Automotive Industry Manufacturing Training Package AUM00 (to be replaced by AUM05/06)
- ▶ Competitive Manufacturing Training Package MCM04
- ▶ Metal & Engineering Training Package MEM98 (to be replaced by MEM05)
- ▶ Electro technology Industry Training Package UTE99
- ▶ Transport & Distribution Training Package TDT05

The importance of skills sets are identified as follows:

Production skills (AQF II/III):

- ▶ Manufacturing process
- ▶ Communication/attitudinal
- ▶ Machine programming
- ▶ Quality
- ▶ Work safety
- ▶ Environmental

Technical maintenance skills (AQF III/Adv Dip.):

- ▶ Mechatronics (robotics)
- ▶ Machine programming/setting
- ▶ Engineering (mechanical, electrical, fluid, hydraulics)
- ▶ Materials technology

Team leader/management (Cert IV/Dip.):

- ▶ Process management
- ▶ Continuous improvement
- ▶ Environmental management
- ▶ Work safety
- ▶ Communication

Engineering (graduate/post graduate):

- ▶ Environmental
- ▶ Production Systems
- ▶ Product Development
- ▶ Production Planning

**The following 5-year and 10(+) year outlook statements “Factors Impacting on Skill Provision” articulate processes and trends likely to impact on the priority skill sets.**

## **5 YEAR OUTLOOK MANUFACTURING –“FACTORS IMPACTING ON SKILL PROVISION”**

### **Government Funding:**

- ▶ The current funding model does not recognise the importance of industry/enterprise training centres within automotive manufacturing and their emerging role in the provision of strategic workplace training skill sets to meet global efficiency plans.
- ▶ Current government policy aimed at cost neutrality in the setting of priority training demand will increasingly determine funded training places through TAFE and university partnership arrangements with manufacturing plants. Effective partnership arrangements with manufacturing plants will depend on flexible delivery arrangements with a focus on workplace training to meet specific skill sets.

### **Industrial Relations:**

- ▶ Commonwealth reform to Australian Workplace Relations has legislated for flexible agreements between management and employees based on plant efficiency targets and workplace structures. Unlike existing Enterprise Bargaining Agreements, specific employee training arrangements will not necessarily be detailed in new agreements.

### **Vehicle Manufacturing & Original Equipment Manufacturing Trends:**

- ▶ Vehicle Manufacturers and Original Equipment Manufacturers will continue the development of plant specific “Workplace Training Models”. Employee training will focus on workplace training and assessment to specific skill sets to job profiles.
- ▶ Manufacturers will increasingly take up responsibility for middle level skills training:
  - Advanced technical skills training in such areas as robotics inclusive of programmable logic control, pneumatics and fluid power. Partnerships will continue to be negotiated with TAFE and universities.
  - Training will be conducted in the workplace using vendor/supplier expertise i.e. production system/robotics and in-house training appropriate to job requirements.
  - Management/team leader/supervisor training will be conducted in the workplace with a focus on global quality outcomes under parent company policies and direction.

### **TAFE Teacher Training Outlook:**

- ▶ The relevance of TAFE training to automotive manufacturers will be under review in such areas as middle level technical, team leader etc.
- ▶ Manufacturers increasingly to focus on workplace outcomes against employee job profiles and not necessarily qualification outcomes.
- ▶ Changes in technology and manufacturing work practices will impact significantly on TAFE teacher professional development and new teacher training.



## **10(+ ) YEAR OUTLOOK MANUFACTURING – FACTORS IMPACTING ON SKILL PROVISION”**

### **Government Funding:**

- ▶ Current government policy aimed at cost neutrality in the setting of priority training demand will increasingly lead to the funding of training places based on importance of industry demand to the economy.
- ▶ Demand for funded training places likely to be assessed against government criteria such as:
  - Defined skill shortages
  - Value added growth targets
  - New and emerging technologies

Under this model it does not automatically follow that all traineeships or apprenticeships will be funded.

- ▶ Industry training demand that fails to satisfy funding criteria (as above) will be delivered under:
  - Fee-for-service i.e. TAFE, university (private and public)
  - Vendor/supplier arrangements i.e. robotic system maintenance
  - In-house and parent company training

### **Vehicle Manufacturing & Original Equipment Manufacturing Trends:**

- ▶ Increasing global competition will link domestic Vehicle Manufacturers and suppliers (components) with parent company policies and global efficiency plans.
- ▶ Training provision will not necessarily focus on a prescriptive national qualification structure or local standards.
- ▶ Manufacturers will seek partnerships with universities to assist with product development
- ▶ New technology specialist skills and product specific skills training will be provided by the manufacturer or system supplier

## APPENDIX 1

### AUTOMOTIVE INDUSTRY OVERVIEW

## **ALL INDUSTRIES ECONOMIC TRENDS**

Source: Office of Training & Tertiary Education/Access Economics November 2005

- ▶ Manufacturing projected to see a falling share of total employment over time.
- ▶ Australian employment growth – 2004/05 (2.2%), 2005/06 (2.2%), 2006/07 (0.7%).
- ▶ Approaching peak in the total employment to total population ratio (Australia & Victoria).  
Projected downward trend caused by increasing “baby boomer” retirements.
- ▶ Downward trend in employment growth may necessitate higher skills in the workforce (higher productivity) to maintain overall economic growth – more retraining and up-skilling in place of entry-level training.

**TABLE 1**

<b>VICTORIAN KEY ECONOMIC AGGREGATE FORECASTS</b>						
<b>VICTORIA</b>	<b>FORECASTS</b>					
	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10
Population						
Total Population Persons ('000)	5,003	5,060	5,110	5,157	5,203	5,249
% Change	1.2%	1.1%	1.0%	0.9%	0.9%	0.9%
Population 15 years + (‘000)	4,045	4,105	4,160	4,212	4,264	4,315
% Change	1.5%	1.5%	1.3%	1.2%	1.2%	1.2%
Employment						
Employment Persons ('000)	2,452	2,502	2,506	2,540	2,572	2,577
% Change	3.4%	2.0%	0.2%	1.4%	1.3%	0.2%
Productivity						
Exports						
All industries (\$m)	19,153	22,389	25,918	28,622	30,705	32,008
% Change	-0.9%	16.9%	15.8%	10.4%	7.3%	4.2%
Imports						
All industries (\$m)	45,000	50,303	54,886	56,404	57,290	57,413
% Change	10.5%	11.8%	9.1%	2.8%	2.9%	-0.5%

### **Comments:**

- ▶ *Victorian population to marginally increase by an average 1.0 % (2005/2010).*
- ▶ *The 15 years and over age group is projected to increase by an average 1.3% (2005/2010). This will have a limiting effect on employment growth across industries.*
- ▶ *Trade deficit (export vs. imports) projected to increase over medium term with exports at \$32 billion and imports \$57.4 billion 2009/10. This will increase inflationary pressure and interest rates.*

## ***AUTOMOTIVE INDUSTRY OVERVIEW***

The Victorian Automotive Industry employs approximately 85,000 people in the key sectors of vehicle and original component manufacturing and automotive retail, services & repair.

### **AUTOMOTIVE MANUFACTURING**

Victoria accounts for approximately 55% of manufacturing activity encompassing passenger motor vehicles (Ford, Toyota), components (Holden engines, Hella, Robert Bosch, International Air, BPW Transpec etc), truck assembly (Paccar, Iveco) and truck body and trailer manufacturing (Vawdrey, Hercules etc).

- ▶ The Australian automotive manufacturing industry (2001) employed 52,752 comprising:
  - 23,243 – vehicle manufacturing
  - 29,509 – original equipment/component manufacturing
- ▶ Holden, Ford and Toyota recorded high profitability in 2003/04 highlighted by:
  - Output - 407,543 passenger motor vehicle units in 2004
  - Exports - 131,000 passenger motor vehicle units in 2004
- ▶ Passenger motor vehicle sales (6 cylinder) decline 3<sup>rd</sup> Quarter 2005 reflecting rising petrol costs.
- ▶ Heavy commercial vehicle sales by Victorian assemblers (Paccar and Iveco) increased from 2,317 units in 1999 to 4,801 in 2004; an increase of 107%.
- ▶ In the ten year period from 1990 to 2000 total employment in the manufacturing sector declined by 37% reflecting the effects of tariff reductions, international trade agreements and demand for increased efficiencies to remain internationally competitive.
- ▶ Employment may be set to decline further over the next ten years through:
  - 10% tariff reduction in 2005 (Passenger Motor Vehicles)
  - 5% tariff reduction in 2010 subject to review in 2008
  - Proposed free-trade agreement with China (current growth rate 9.5% - Access Economics 2005)
  - Ford (US) and General Motors (US) announcement of reduced profit margins in 2004 brought about by a downturn in vehicle sales due to increased fuel costs and vehicle over supply; this may impact on Ford and Holden Australia due to parent company restructure.
- ▶ The original equipment manufacturing sector (components) is particularly vulnerable to the impact of free trade agreements between Australia and countries where worker wages and production costs are much lower than can be achieved in the Australian environment. Local vehicle manufacturers are increasingly switching to more cost competitive suppliers i.e. Thailand. One key component manufacturer believes that a future competitive industry must develop and take advantage of new product technology in niche markets.

## **INVESTMENT – PASSENGER MOTOR VEHICLE MANUFACTURERS**

### **GM HOLDEN:**

- Employees (2004) – 5,800 (South Australia), - 2,500 (Victoria – Engine Plant)
- Strength – medium PMV (Vectra), large PMV (Commodore, Statesman), SUV (Jackaroo, Frontera, Adventra)
- Capacity 2004 – 180,000 vehicles (South Australia)
- \$200 million redevelopment of the Fishermen's Bend (Melbourne) head office site and an upgrade of the adjoining technical centre
- \$400 million HFV6 Engine Plant (Fishermen's Bend)
- \$408 million upgrade to Elizabeth (South Australia) assembly plant

### **TOYOTA:**

- Employees (2004) – 4,761 (Victoria)
- Strength – small PMV (Prius, Echo), medium PMV (Camry, Lexus), large PMV (Camry), SUV (Land Cruiser, Lexus)
- Capacity 2004 – 120,000 vehicles (Victoria)
- \$50 million new head office Port Melbourne
- \$47 million Technical Centre (Melbourne) for Asia Pacific Region
- Toyota Academy (Launch 2005)

### **FORD:**

- Employees (2004) – 5,350 (Victoria)
- Strength – small PMV (Focus), large PMV (Falcon), SUV (Territory)
- Capacity 2004 - 130,000 vehicles (Victoria)
- National Business Park adjacent to Ford's operations Campbellfield - direct access by resident component suppliers to Ford's assembly line.
- Ford Research Centre including new engineering and technology established at Campbellfield