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# **Student Demand Projections**

**Supporting Analysis: Gippsland Tertiary Education Plan**

**SV31032011**

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**Submitted to Skills Victoria**

**By**

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## Introduction

### Background

There is considerable interest in the provision of, and access to, tertiary education within Victoria by the State Government. In 2010, a Tertiary Education Plan was released by the Government, detailing various targets and policy objectives in this sector. Despite a change of Government, the broad objectives in the plan continue to be pursued. As such, a number of more specific plans, based on geographic locations within Victoria, are being constructed. One such plan is being constructed for Gippsland. An Expert Panel has been formed to create the plan for Gippsland, chaired by Professor Kwong Lee Dow.

This document provides supporting analysis for the Expert Panel to use in the formation of the Gippsland Tertiary Education Plan. Specifically, this document provides a modelling of tertiary demand in the Gippsland region. For contextual purposes, it should be read in conjunction with the other two reports provided to the panel:

- an analysis of industry, employment and population in Gippsland; and
- a student cohort analysis.

### Focus of this document

As noted above, this document provides one part of the wider analysis being undertaken for the Expert Panel. It provides three projections of attendance rates at technical and vocational courses, and tertiary courses, for persons aged 18-65 in the Gippsland region.

For the purpose of this project, Gippsland is divided into 6 Local Government Areas (LGA). These are Baw-Baw, Bass Coast, East Gippsland, La Trobe City, South Gippsland and Wellington.

### Method and Approach

The analyses in this document utilise a number of datasets. These are outlined below:

- ABS Census for 1996, 2001 and 2006 – most tables in this document have been extracted from the Census product *Table Builder*; and
- Population projections for Victoria calculated by the Victorian DPCD. On the advice of DPCD a minor alteration of the projection figures for the Latrobe LGA have been imputed by ACER. Detail of this change is provided in the appendix in this document.

The projections in this report are modelled from 2006-2026 using yearly population figures provided by DPCD, disaggregated by age. For convenience, figures and tables show projections at five year intervals. 2006 figures have been cross-checked against ABS attendance and population figures for the Gippsland region.

In presenting this modelling, the following should be noted. ABS census data provides attendance figures in the following categories (ABS wording):

- Technical or Further Educational Institution (including TAFE colleges)
- University or other Tertiary Institutions

These categories are shortened to ‘TAFE’ and ‘university’ in the text below.

The geographic location of attendees at these institutions is determined using the ‘Place of usual residence’ variable. For this variable, participants are asked to indicate the address at which they usually live at the time of the census. As such, persons aged 18-65 at the time of the census who were schooled in Gippsland and whose parents’ residential address is in Gippsland, but who were,

for example, living in Melbourne in order to attend university, are likely to have indicated their Melbourne address.

As university offerings in the Gippsland region are limited, it is likely that the number of Gippsland school leavers in tertiary education is higher than the numbers provided here. It should be noted that projections are based primarily on persons aged 18-65 years of age who are attending a tertiary institution while residing within a Gippsland LGA.

For further context please refer to the Population Profile provided in a separate document, and figures 10-12 in that document.

The projections in this report were developed using the following steps:

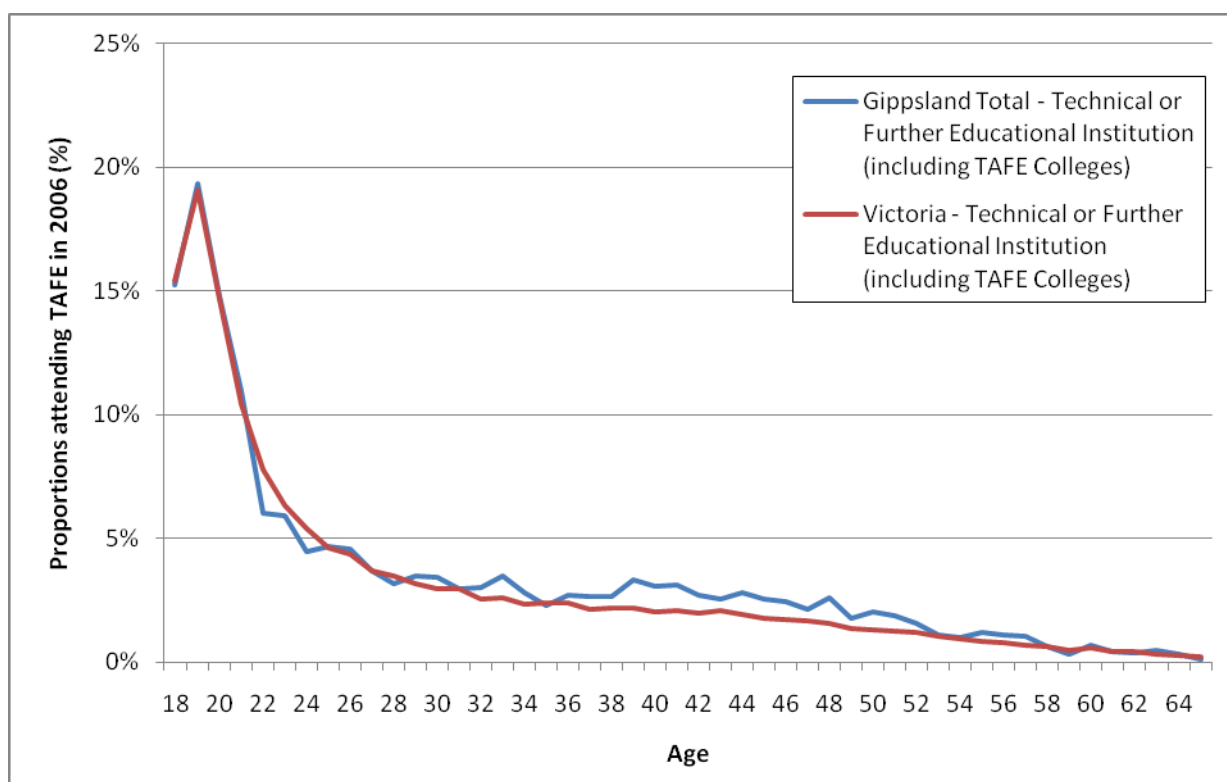
1. Obtained the proportion of persons aged 18-65 attending TAFE and university from ABS 2006 data for each Gippsland LGA;
2. Disaggregated DPCD population projections for individual age groups for 18-65 year olds for each Gippsland LGA for each year 2006-2026;
3. Based TAFE and university attendance projections on trend data using ABS data for 1996, 2001 and 2006, disaggregated by Gippsland LGAs and individual ages 18-65.

The document is in three parts. Part 1 briefly documents the methodology and the figures on which the projections are based. Part 2 presents three projections disaggregated by TAFE, university, and LGA and showing projected actual attendance figures and projected five year percentage point changes. Part 3 compares the three projections aggregated for the Gippsland region, for TAFE and university.

### Part 1: Currently available education attendance rates

Figure 1 shows the proportions of persons resident in Gippsland aged 18-65 attending TAFE, in comparison to the overall proportion of Victorians, taken from ABS 2006 census data. The 18-22 age group remains of greatest interest due to the higher proportions of this age group attending TAFE.

As can be seen in Figure 1, participation rates in Gippsland for the age group 18-22 are very similar to those of Victoria as a whole. While proportions decline very slightly from age 28-48, less than five per cent of persons of any given age over 25 attend TAFE. While proportions of Gippsland residents are slightly higher, notably in the 38-48 age group, these proportions are still only about one per cent higher, and are still below the five per cent mark.



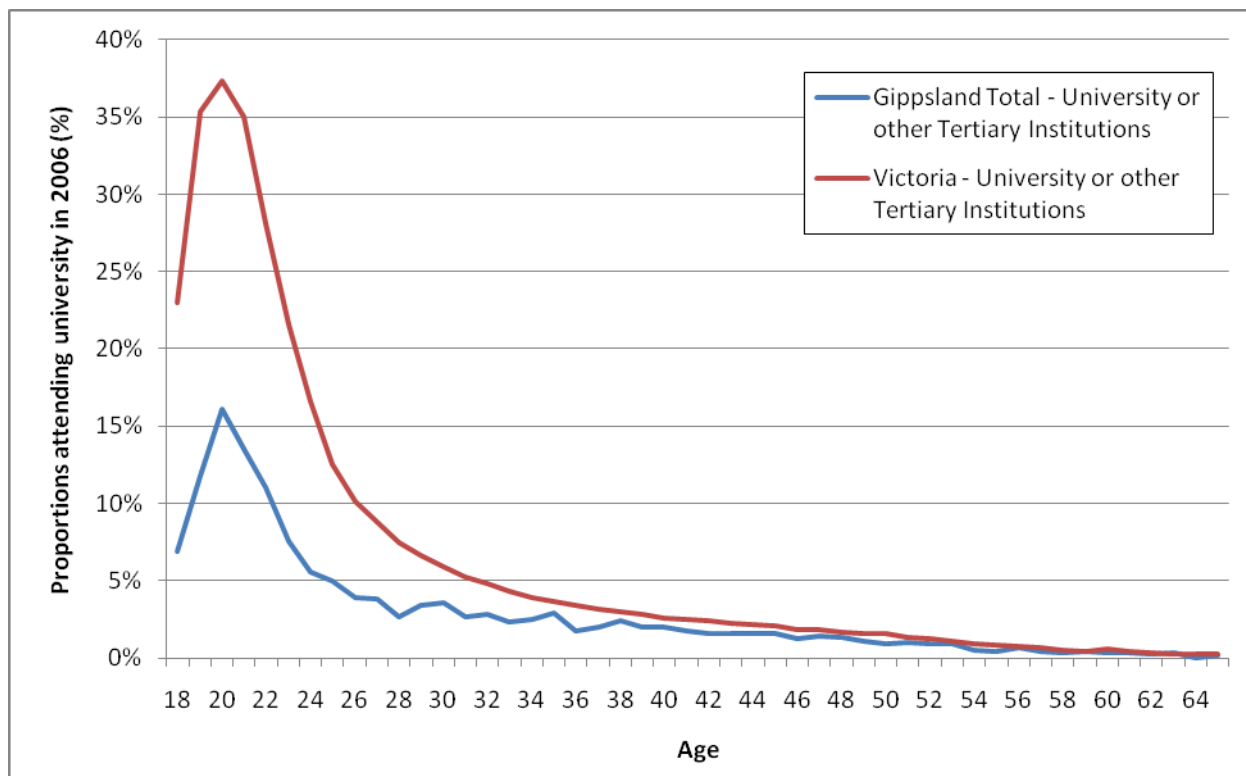
**Figure 1: TAFE participation rates by age, persons aged 18-65 resident in Gippsland and Victoria, 2006**

Source: ABS Census 2006

Similarly, Figure 2 shows the proportions of persons resident in Gippsland aged 18-65 attending university, in comparison to the overall proportion of Victorians, taken from ABS 2006 census data. Again, the younger age groups are of most interest due to higher participation rates.

This figure is striking in showing the differences in participation rates at university between Gippsland and Victoria as a whole, particularly among persons aged 18 to 25.

In Victoria, university attendance drops below five percent of all ages from about age 31. Attendance rates of persons resident in Gippsland drops below five per cent at age 25.



**Figure 2: University participation rates by age, persons aged 18-65 resident in Gippsland and Victoria, 2006**

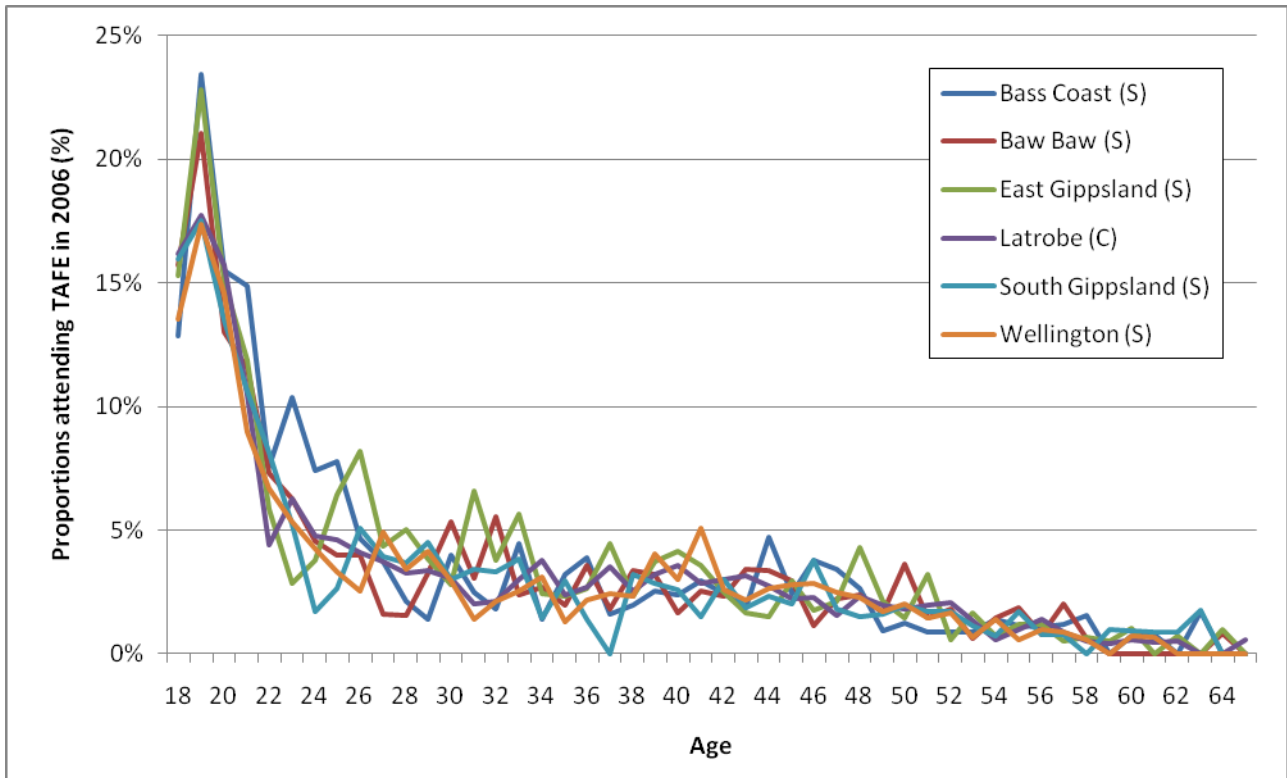
Source: ABS Census 2006

Figure 3 disaggregates TAFE attendance rates in Gippsland by six Local Government Authorities (LGAs) in 2006 from ages 18-65, while Figure 4 disaggregates university attendance in the same way.

In terms of providing projections of attendance, the disaggregated proportions demonstrate the difficulty with any projection that tries to anticipate attendance figures amongst the older age groups. As can be seen, there can be differences of three or four percentage points between individual ages, and these are likely to fluctuate considerably each year. Such differences would be minor if proportions were above 20 per cent or so, but as the proportions are themselves below five per cent these yearly fluctuations become significant.

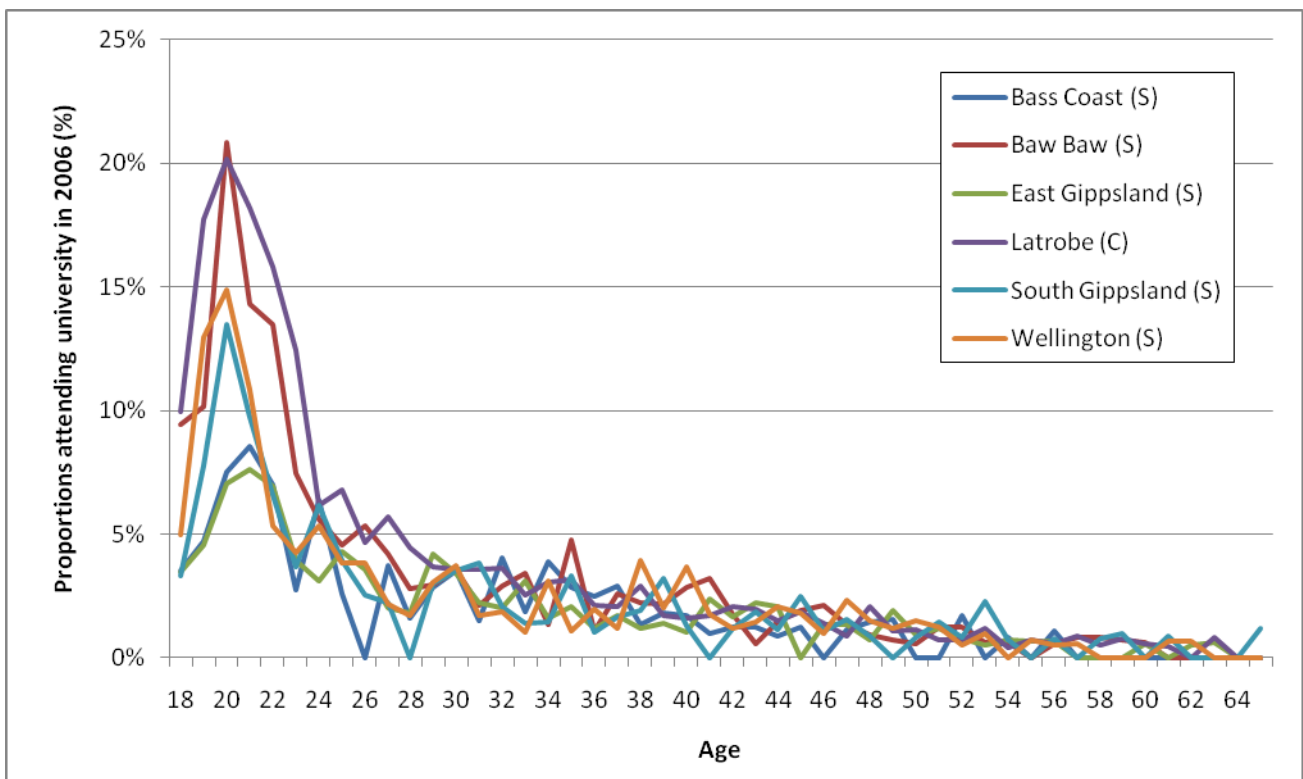
For example, it may be appropriate to assume that in Wellington, the age group 43-48, which has a lower participation at TAFE than some other LGAs at about 2.5 per cent, may rise to 5 per cent in some years. Equally, however, those aged 39-41, where there is higher TAFE participation (up to 5 per cent), may fall in some years. Due to the low proportions and actual numbers involved (single or low double figures), and DPCD population projections that already estimate some growth or decline across years at each age level, it seems more appropriate to retain the 2006 attendance rates for all individual ages from age 29 and apply them at a flat rate across the DPCD projections.

As such, the bulk of discussion concerning projections will be based on age group 18-22, both because proportions of this population attending TAFE or University are higher, and because, particularly for university attendance, Victorian figures overall do suggest that there is scope for growth amongst this population.



**Figure 3: TAFE participation rates by age, persons aged 18-65 resident in Gippsland LGAs, 2006**

Source: ABS Census 2006

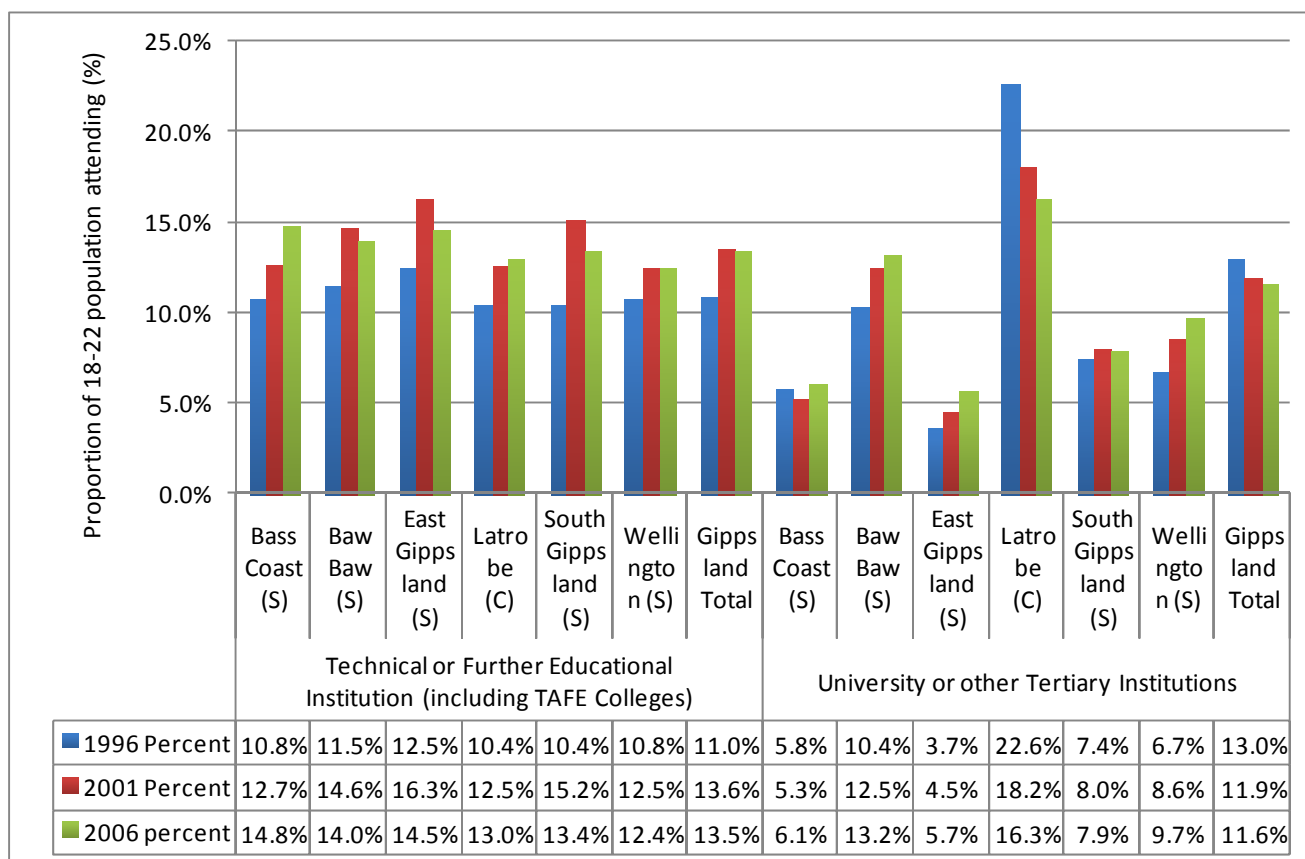


**Figure 4: University participation rates by age, persons aged 18-65 resident in Gippsland LGAs, 2006**

Source: ABS Census 2006

Figure 5 presents the proportions of persons aged 18-22 attending TAFE or university for the years 1996, 2001 and 2006, based on ABS data. As well as the total, the Gippsland figures are provided for six LGAs: Bass Coast, Baw Baw, East Gippsland, Latrobe and Wellington.

It is worth noting that Latrobe has a larger population than other LGAs in Gippsland and thus changes in the proportions of the Latrobe population attending University or TAFE have considerable impact on the overall Gippsland figures.



**Figure 5: Proportion of persons aged 18-22 in Gippsland attending TAFE or University for the years 1996, 2001 and 2006, based on ABS figures, by shire/city.**

Source: ABS Census 1996, 2001, 2006

Tables 1 and 2 show the differences in participation rates between these years, and over the 10 years from 1996 to 2006, for TAFE and university attendance respectively among the 18 to 22 year age group.

The TAFE percentage point changes (ppc) in participation rates presented in Table 1 show a marked difference in trends across the ten years. Between 1996-2001 there were increases in attendance of 1.7 to 4.8 ppc. Between 2001-2006 there were decreases in attendance from 0.1 to 1.8 ppc. Bass Coast bucks this trend with a similar rise in both five year periods of about 2 per cent.

By contrast, although the amount of increase varies (Figure 5), university attendance showed a generally upward trend across LGAs (Table 2), with the significant exception of Latrobe which dropped 4.5 ppc from 1996-2001 and 1.8 ppc from 2001-2006. (As noted in the introduction to this report, the overall decline in university attendance in Gippsland from 1996-2006 is based on a decline in the numbers of 18-22 year olds *residing* in Gippsland while attending university, including



those who have moved in from other areas. It does not include Gippsland school-leavers who choose to reside, for example, in Melbourne while completing a tertiary course.)

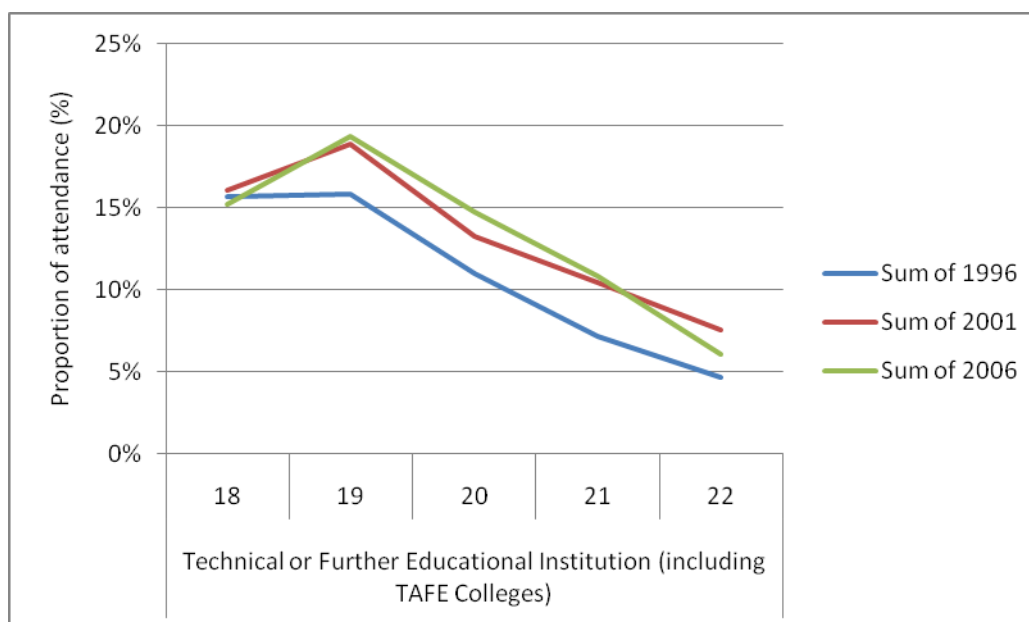
**Table 1: Percentage point change (PPC) in TAFE participation rates of persons aged 18-22 years for 1996, 2001 and 2006**

	Technical or Further Educational Institution (including TAFE Colleges)						
	Bass Coast (S)	Baw Baw (S)	East Gippsland (S)	Latrobe (C)	South Gippsland (S)	Wellington (S)	Gippsland Total
PPC 1996-2001	1.87	3.10	3.83	2.09	4.75	1.68	2.65
PPC 2001-2006	2.06	-0.67	-1.77	0.46	-1.74	-0.07	-0.17
Ave PPC per 5 years	1.97	1.22	1.03	1.28	1.50	0.80	1.24

**Table 2: Percentage point change (PPC) in University participation rates of persons aged 18-22 years for 1996, 2001 and 2006**

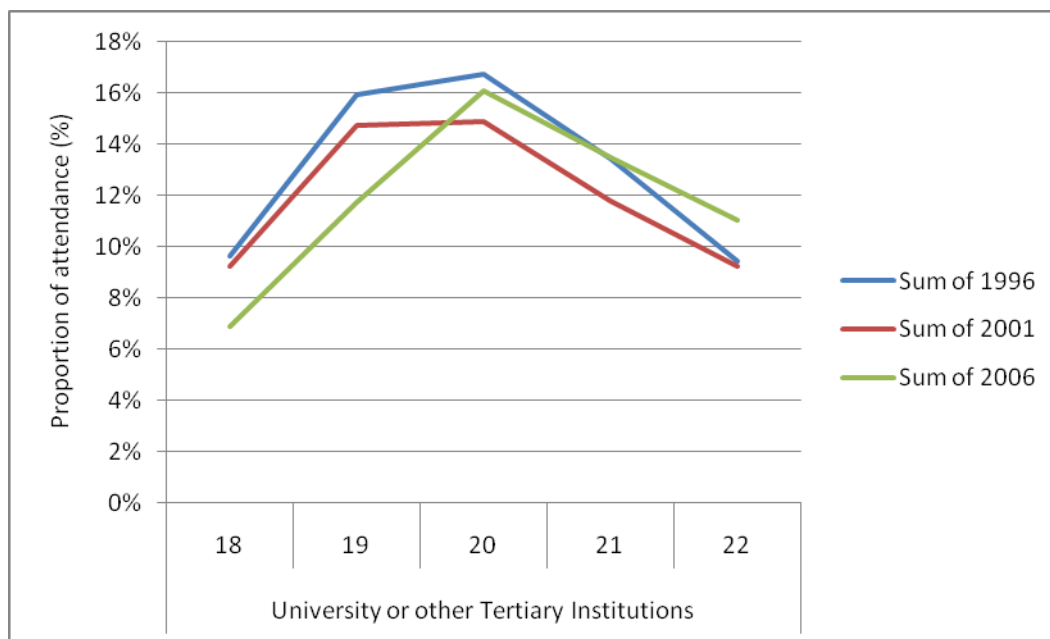
	University or other Tertiary Institutions						
	Bass Coast (S)	Baw Baw (S)	East Gippsland (S)	Latrobe (C)	South Gippsland (S)	Wellington (S)	Gippsland Total
PPC 1996-2001	-0.48	2.04	0.81	-4.47	0.58	1.91	-1.07
PPC 2001-2006	0.80	0.77	1.19	-1.84	-0.10	1.08	-0.27
Ave PPC per 5 years	0.16	1.40	1.00	-3.16	0.24	1.49	-0.67

Figures 6 and 7 show the participation rates in Gippsland for TAFE and university respectively, by age (18-22), for three time points, 1996, 2001 and 2006. For TAFE attendees in this age range, the participation rate peaks at age 19 at about 19 per cent, falling to under 8 per cent by age 22. University attendance peaks at age 20 at about 16 per cent. The ABS figures vary somewhat for the 19 year old group, aggregated to Gippsland.



**Figure 6: TAFE participation rates, persons aged 18-22 resident in Gippsland, 1996, 2001 and 2006.**

Source: ABS Census 2006



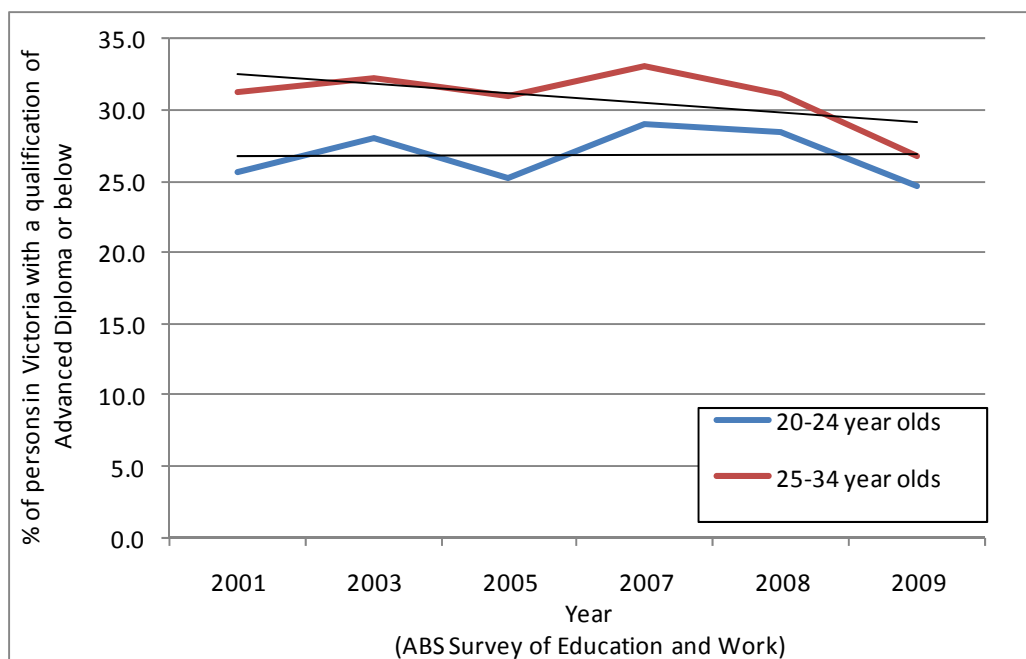
**Figure 7: University participation rates, persons aged 18-22 resident in Gippsland, 1996, 2001 and 2006.**

Source: ABS Census 1996, 2001, 2006

The university attendance trend over the ten years to 2006 shows a slight rise in all Gippsland LGAs except Latrobe, which has a declining trend. These trends form the basis of the conservative Projection 1 and optimistic Projection 2 for university attendance.

The TAFE trends present some difficulty in terms of defining an appropriate trend on which to model projections. On average across the ten years 1996-2006 there is a rise in the participation rate of about 1.0 to 1.5 ppc per five years. However it is clear that this masks a noticeable rise in the five years 1996-2001 and a decline from 2001-2006.

To clarify likely trends post 2006 it is helpful to consider alternative relevant ABS data. Figure 8 shows the percentage of persons in two age groups in Victoria for several years from 2001-2009 who have an Advanced Diploma or below, based on the ABS Survey of Education and Work.



**Figure 8: Percent of persons in Victoria with a qualification of Advanced Diploma or below by age**

Source: Survey of Education and Work, ABS, 2001-2009

State-wide, there has been quite a decline from 2007-2009 in both age groups presented. However, the overall trend from 2001-2009 suggests that younger age group in particular are a fairly stable TAFE population.

Of course, average trends across Victoria have only limited value as a proxy for likely trends in Gippsland, which will be affected by, among others, the availability of work in the region, the mobility of the population, the availability and perceived quality of providers and courses and trends in the industry.

With these issues in mind, the three projections undertaken below each make different assumptions. In the Flat Projection it is assumed that 2006 proportions of attendees will remain stable, so these proportions are applied to the population projections out to 2026. In the conservative Projection 1, it is assumed that the proportion of the 18-22 age group attending TAFE will decline (by less than 1 ppc per five years), while in Projection 2 it is assumed that TAFE attendance will rise (by 1 ppc or more per five years). More detail is provided in each projection.

## Part 2: Projections

Three projections have been calculated for this project:

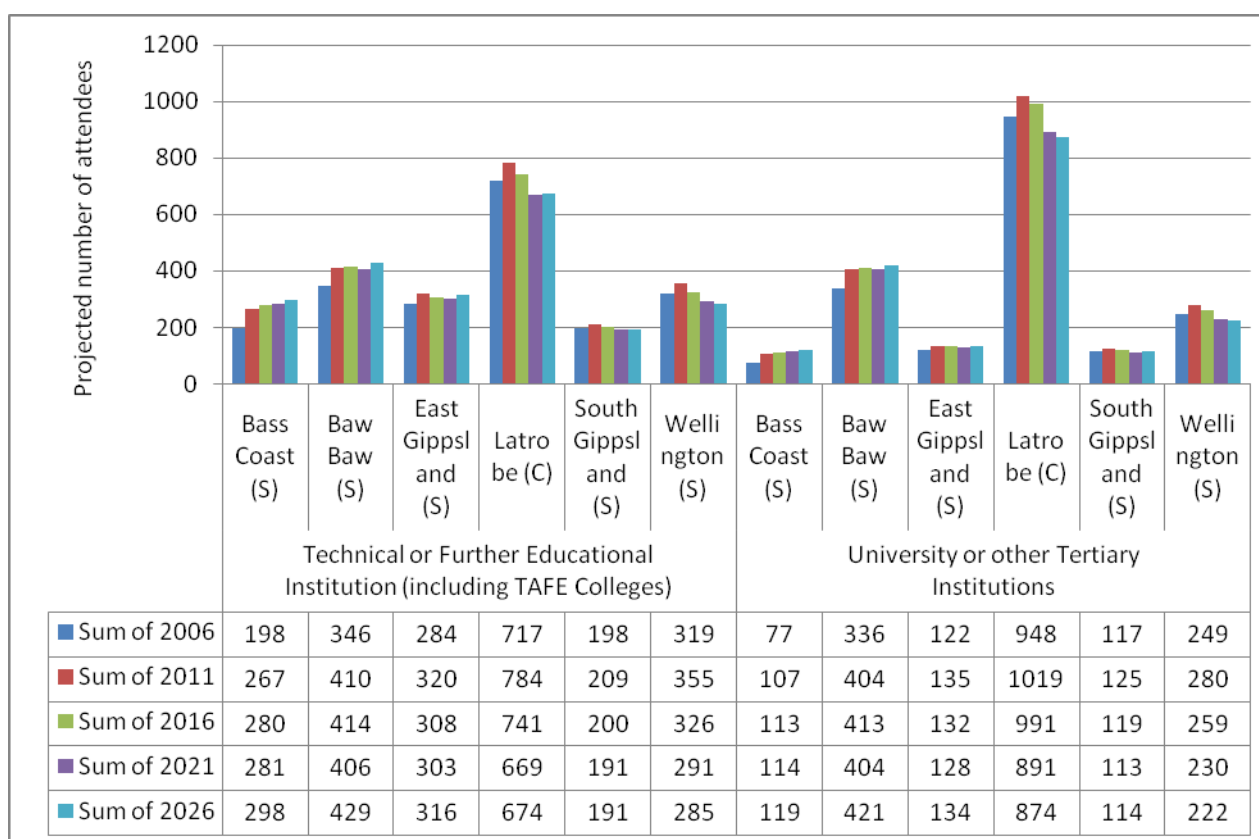
1. Flat Projection – assuming no change in participation rates in tertiary education.
2. Conservative Projection – with changes in participation based on assumptions of a slow continuation of trends identified over the past decade.
3. Optimistic Projections – with assumptions based around growth in participation.

Projections are presented here in different figures for the main tertiary attending age group – 18 to 23 year olds, as well as for a much wider attendance cohort of 18 to 65 year olds. Discussion and explanation of these outcomes is provided in bullet point format.

Further explanation of the assumptions behind the models used in these projections is provided in the summary discussion which takes place in Part 3 of this document.

### Flat Projection

#### Young tertiary attendance cohort (18 to 23 years)



**Figure 9: Flat Projection – from 2006 to 2026 for TAFE and University attendance of persons aged 18-23 by Gippsland LGA.**

- Population projections are based on DPCD figures. Latrobe population revised based on ABS figures to 2010, and Latrobe figures to 2026 also revised based on DPCD comments (See Appendix).
- Proportions of persons aged 18-23 based on ABS 2006 figures with no change in proportion of population attendance to 2026 (For details of these proportions disaggregated by age see figures 1 and 2).

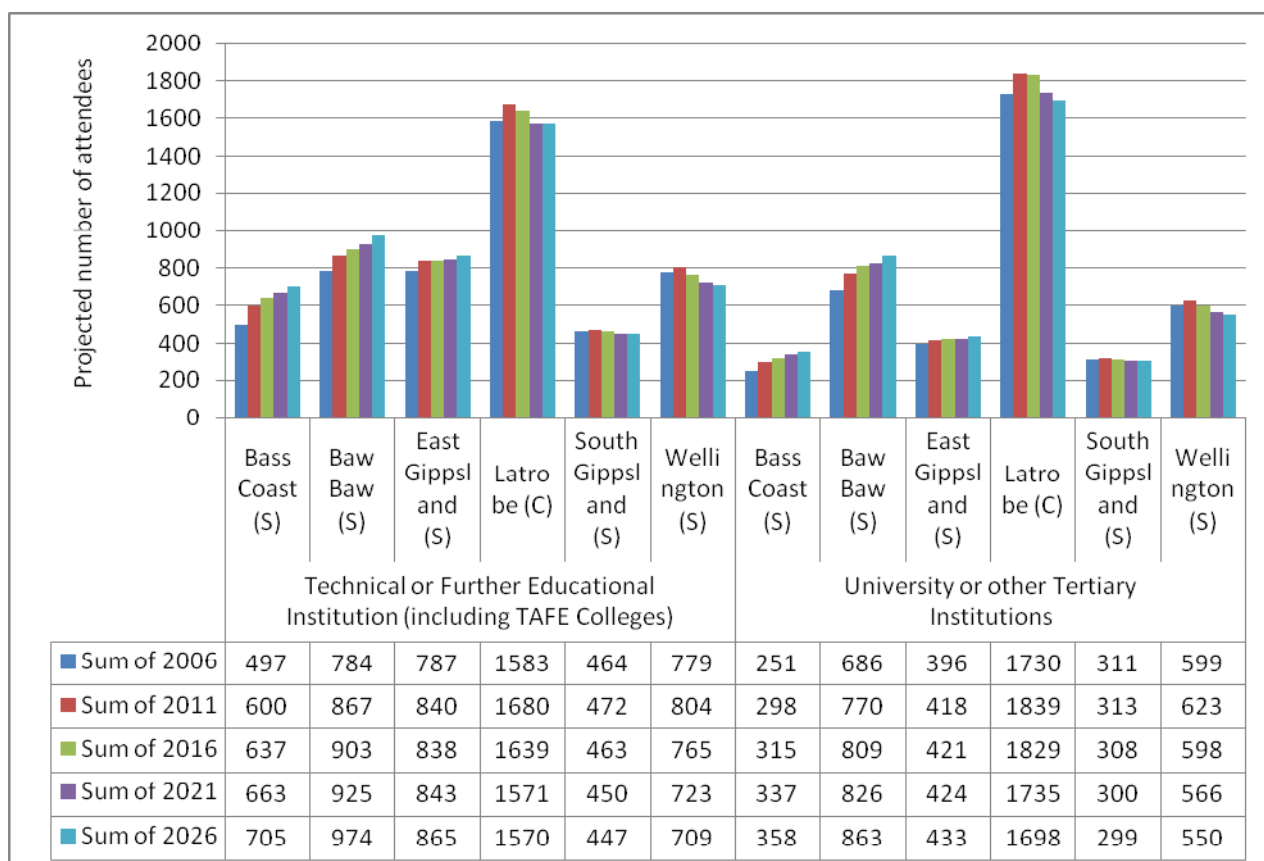
**Table 3: Sum and participation rates ('proportion') of TAFE and University attendance of persons aged 18-23 and 24-29 based on Flat projection figures**

	Attendance of persons aged 18-23 in Gippsland				Attendance of persons aged 24-29 in Gippsland			
	TAFE		University		TAFE		University	
	Sum	Proportion	Sum	Proportion	Sum	Proportion	Sum	Proportion
<b>2006</b>	2063	12.3%	1849	11.0%	584	4.0%	589	4.1%
<b>2011</b>	2345	12.3%	2070	11.0%	653	4.0%	661	4.1%
<b>2016</b>	2269	12.3%	2026	11.0%	700	4.0%	704	4.1%
<b>2021</b>	2141	12.3%	1880	11.0%	701	4.0%	703	4.1%
<b>2026</b>	2193	12.3%	1883	11.0%	663	4.0%	661	4.1%

**Table 4: Participation rates of TAFE and University attendance of persons aged 18-23 by Gippsland LGA, based on Flat projection figures**

	Proportion of persons aged 18-23 in Gippsland LGAs attending TAFE or University											
	Bass Coast		Baw Baw		East Gippsland		Latrobe		South Gippsland		Wellington	
	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %
<b>2006</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2011</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2016</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2021</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2026</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8

**Full tertiary attendance cohort (18 to 65 years)**



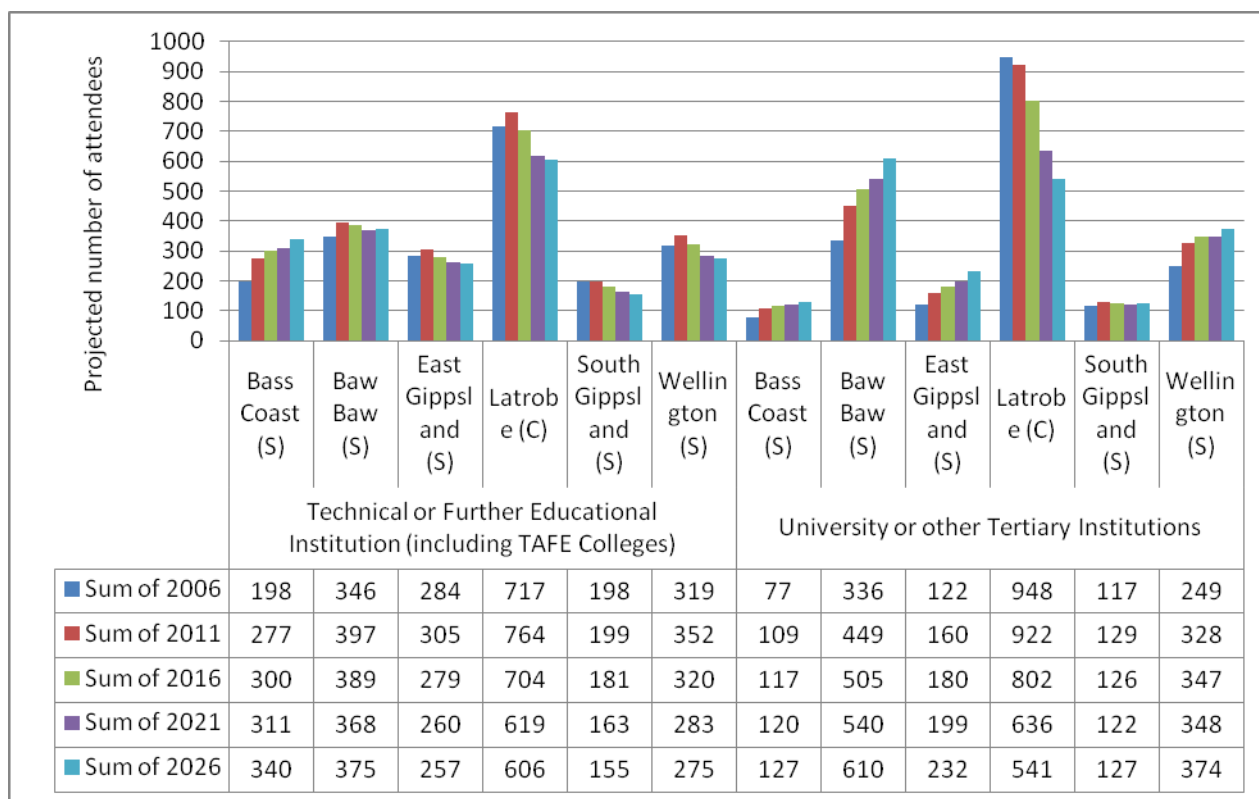
**Figure 10: Flat Projection – from 2006 to 2026 for TAFE and University attendance of persons aged 18-65 by Gippsland LGA.**

**Table 5: Sum of TAFE and University attendance of persons aged 18-65 based on Flat projection figures**

	Sum of attendance of persons aged 18-65 in Gippsland	
	TAFE	University
<b>2006</b>	4895	3972
<b>2011</b>	5264	4262
<b>2016</b>	5245	4280
<b>2021</b>	5175	4187
<b>2026</b>	5269	4202

### Projection 1 – Conservative

#### Young tertiary attendance cohort (18 to 23 years)



**Figure 11: Projection 1 (Conservative) – from 2006 to 2026 for TAFE and University attendance of persons aged 18-23 by geographic location.**

- Population projections based on DPCD figures. Latrobe population revised based on ABS figures to 2010, and Latrobe figures to 2026 also revised based on DPCD comments.
- Proportions of persons aged 18-22 based on ABS 2006 figures with proportional trends based on ABS figures for 1996, 2001 and 2006, as shown in tables 1 and 2 and discussed in Part 1. Percentage point changes (ppc) in proportions are as follows:

#### TAFE

- Bass Coast rising by 0.5 ppc per 5 years;
- Baw Baw falling by 0.4 ppc per 5 years;
- East Gippsland falling by 0.6 ppc per 5 years;
- Latrobe falling by 0.3 ppc per 5 years;
- South Gippsland falling by 0.6 ppc per 5 years;
- Wellington falling by 0.1 ppc per 5 years.

#### University

- Bass Coast rising by 0.1 ppc per 5 years;
- Baw Baw rising by 1.4 ppc per 5 years;
- East Gippsland rising by 1.0 ppc per 5 years;
- Latrobe falling by 1.5 ppc per 5 years;
- South Gippsland rising by 0.2 ppc per 5 years;
- Wellington rising by 1.5 ppc per 5 years.

Table 6 shows the percentage point rise or fall in participation rates for TAFE and university attendance across the six Gippsland LGAs in five-year intervals from 2006-2026.

**Table 6: Participation rates for TAFE and University of persons aged 18-23 by Gippsland LGA, based on Conservative projection figures**

	Proportion of persons aged 18-23 in Gippsland LGAs attending TAFE or University											
	Bass Coast		Baw Baw		East Gippsland		Latrobe		South Gippsland		Wellington	
	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %
<b>2006</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2011</b>	14.7	5.6	12.5	13.9	12.2	6.5	11.7	14.2	11.8	7.5	11.2	10.3
<b>2016</b>	15.2	5.7	12.1	15.3	11.6	7.5	11.4	12.7	11.2	7.7	11.1	11.8
<b>2021</b>	15.7	5.8	11.7	16.7	11.0	8.5	11.1	11.2	10.6	7.9	11.0	13.3
<b>2026</b>	16.2	5.9	11.3	18.1	10.4	9.5	10.8	9.7	10.0	8.1	10.9	14.8

Table 7 provides the projected overall numbers of attendees resident in Gippsland in the 18-23 and 24-29 age groups, and the proportions of Gippsland attendees, in five-year intervals from 2006-2026.

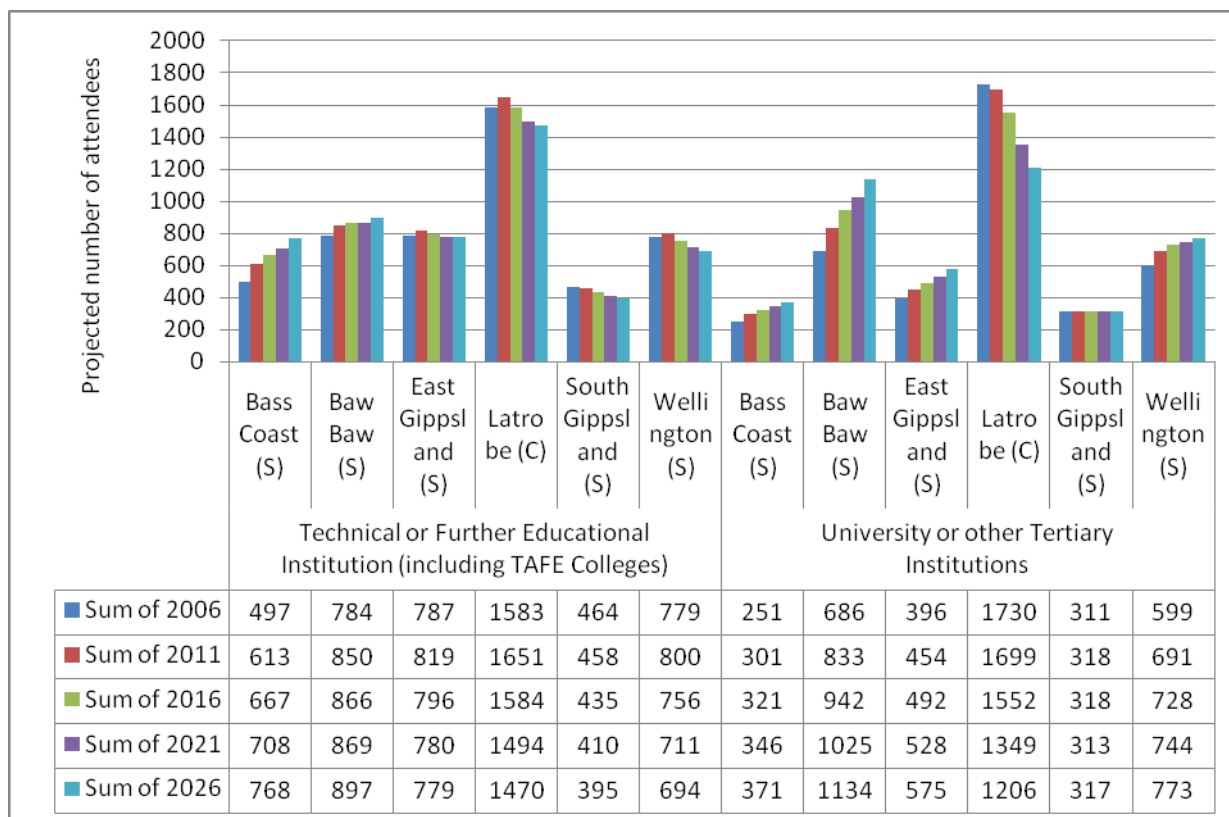
**Table 7: Sum and participation rates ('proportion') of TAFE and University attendance of persons aged 18-23 and 24-29 based on Conservative projection figures**

	Attendance of persons aged 18-23 in Gippsland				Attendance of persons aged 24-29 in Gippsland			
	TAFE		University		TAFE		University	
	Sum	Proportion	Sum	Proportion	Sum	Proportion	Sum	Proportion
<b>2006</b>	2063	12.3%	1849	11.0%	584	4.0%	589	4.0%
<b>2011</b>	2294	12.2%	2097	11.1%	631	3.9%	668	4.1%
<b>2016</b>	2172	11.7%	2076	11.2%	655	3.8%	726	4.2%
<b>2021</b>	2005	11.5%	1965	11.3%	635	3.6%	735	4.2%
<b>2026</b>	2008	11.4%	2010	11.4%	581	3.5%	710	4.3%



### Full tertiary attendance cohort (18 to 65 years)

Figure 12 provides projected attendance figures for each LGA for ages 18-65. There is no change in the projected participation rates of persons aged 30-65, which remain constant at ABS 2006 figures.



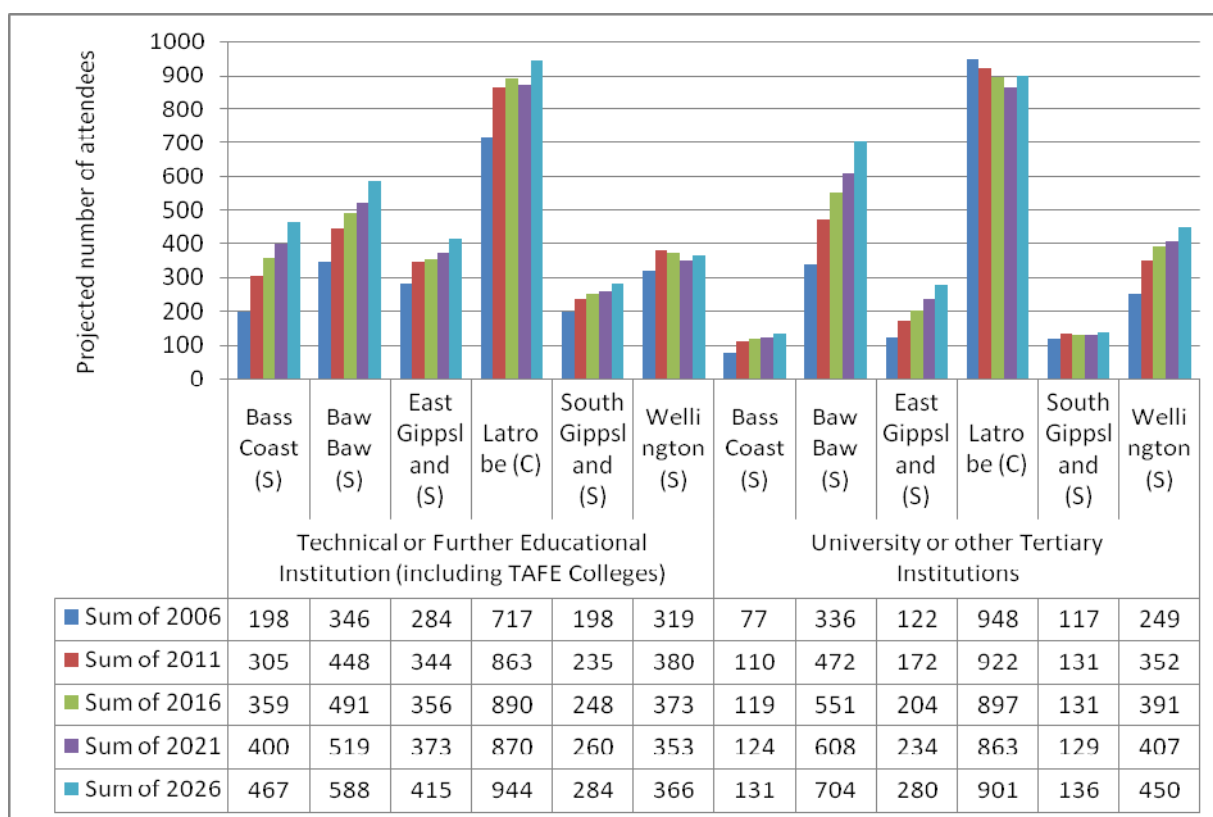
**Figure 12: Projection 1 (Conservative) – from 2006 to 2026 for TAFE and University attendance of persons aged 18-65 by geographic location.**

**Table 8: Sum of TAFE and University attendance of persons aged 18-65 based on Conservative projection figures**

	Sum of attendance of persons aged 18-65 in Gippsland	
	TAFE	University
<b>2006</b>	2063	1849
<b>2011</b>	2294	2097
<b>2016</b>	2172	2076
<b>2021</b>	2005	1965
<b>2026</b>	2008	2010

## Projection 2 – Optimistic

### Young tertiary attendance cohort (18 to 23 years)



**Figure 13: Projection 2 (Optimistic) – from 2006 to 2026 for TAFE and University attendance of persons aged 18-23 by geographic location.**

- Population projections based on DPCD figures. Latrobe population revised based on ABS figures to 2010, and Latrobe figures to 2026 also revised based on DPCD comments.
- Proportions of persons aged 18-23 are based on ABS 2006 figures as shown in figures 2 and 3. TAFE attendance growth rates are based on averaged ABS figures for the 10 years from 1996-2006, assuming the fall in attendance from 2001-2006 is arrested. University attendance rates are half again the rise noted in Projection 1, an optimistic forecast based on stronger attendance than is suggested by the ABS figures for the previous 10 years (1996-2006). Percentage point changes (ppc) in proportions from 2012-2026 are as follows:

#### TAFE

- Bass Coast rising by 2.0 ppc per 5 years;
- Baw Baw rising by 1.2 ppc per 5 years;
- East Gippsland rising by 1.0 ppc per 5 years;
- Latrobe rising by 1.2 ppc per 5 years;
- South Gippsland rising by 1.5 ppc per 5 years;
- Wellington rising by 0.8 ppc per 5 years.

#### University

- Bass Coast rising by 0.15 ppc per 5 years;
- Baw Baw rising by 2.1 ppc per 5 years;
- East Gippsland rising by 1.5 ppc per 5 years;
- Latrobe falling by 1.5 ppc from 2006-2011, no change from 2012-2016, rising by 1.0 ppc per 5 years from 2016-2026;
- South Gippsland rising by 0.35 ppc per 5 years;
- Wellington rising by 2.25 ppc per 5 years.

Table 9 shows the percentage point rise or fall in participation rates for TAFE and university attendance across the six Gippsland LGAs in five-year intervals from 2006-2026.

**Table 9: Participation rates for TAFE and University of persons aged 18-23 by Gippsland LGA, based on Optimistic projection figures**

	Proportion of persons aged 18-23 in Gippsland LGAs attending TAFE or University											
	Bass Coast		Baw Baw		East Gippsland		Latrobe		South Gippsland		Wellington	
	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %	TAFE %	Uni %
<b>2006</b>	14.2	5.5	12.9	12.5	12.8	5.5	12.0	15.7	12.4	7.3	11.3	8.8
<b>2011</b>	16.1	5.6	14.1	14.6	13.8	7.0	13.2	14.2	13.9	7.6	12.1	11.0
<b>2016</b>	18.1	5.8	15.3	16.7	14.8	8.5	14.4	14.2	15.4	8.0	12.9	13.3
<b>2021</b>	20.1	5.9	16.5	18.8	15.8	10.0	15.6	15.2	16.9	8.3	13.7	15.5
<b>2026</b>	22.1	6.1	17.7	20.9	16.8	11.5	16.8	16.2	18.4	8.7	14.5	17.8

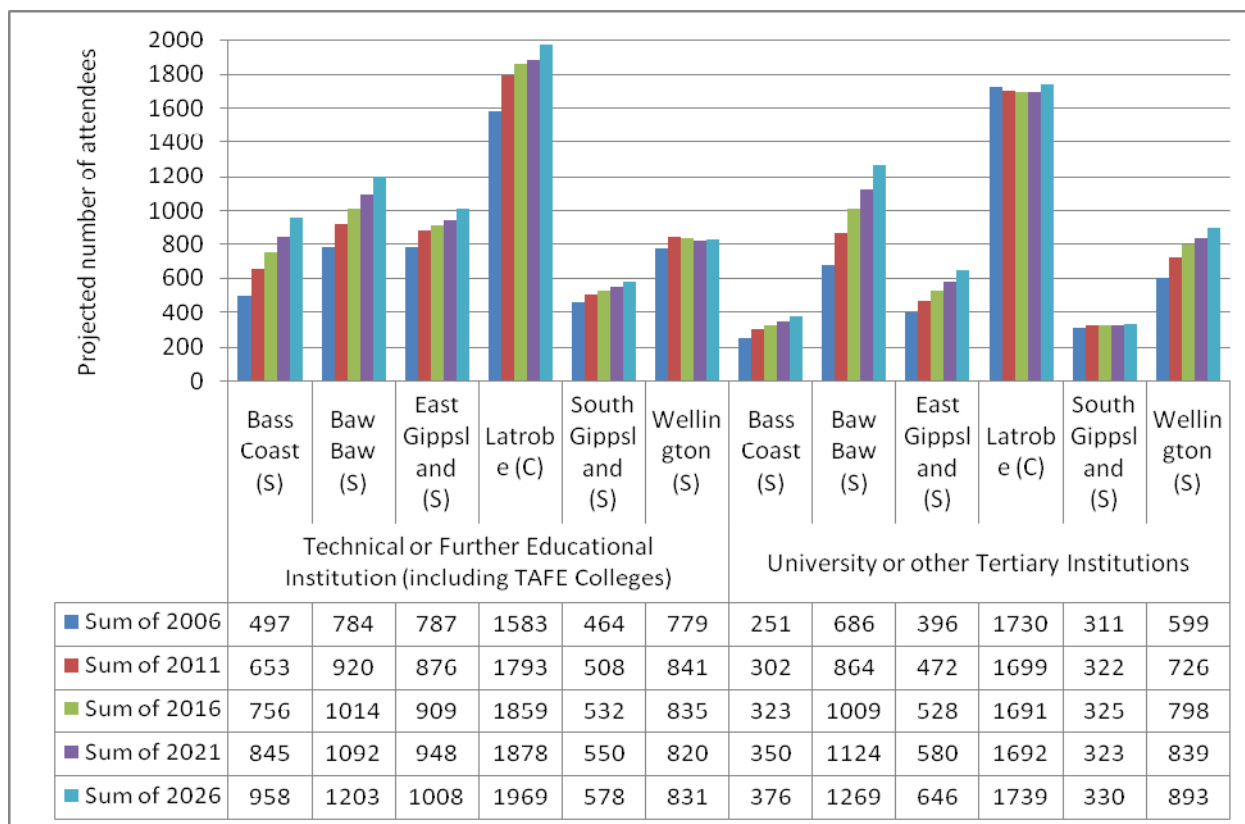
Table 10 provides the projected overall numbers of attendees resident in Gippsland in the 18-23 and 24-29 age groups, and the participation rates of Gippsland attendees, in five-year intervals from 2006-2026.

**Table 10: Sum and participation rates ('proportion') of TAFE and University attendance of persons aged 18-23 and 24-29 based on Optimistic projection figures**

	Attendance of persons aged 18-23 in Gippsland				Attendance of persons aged 24-29 in Gippsland			
	TAFE		University		TAFE		University	
	Sum	Proportion	Sum	Proportion	Sum	Proportion	Sum	Proportion
<b>2006</b>	2063	12.3%	1849	11.0%	584	4.0%	589	4.0%
<b>2011</b>	2575	13.5%	2159	11.5%	751	4.6%	695	4.3%
<b>2016</b>	2716	14.7%	2292	12.4%	913	5.2%	829	4.8%
<b>2021</b>	2777	15.9%	2364	13.8%	1023	5.8%	940	5.4%
<b>2026</b>	3063	17.2%	2603	15.1%	1071	6.4%	993	6.1%

### Full tertiary attendance cohort (18 to 65 years)

Figure 14 provides projected attendance figures for each LGA for ages 18-65. There is no change in the projected participation rates of persons aged 30-65, which remain constant at ABS 2006 figures.



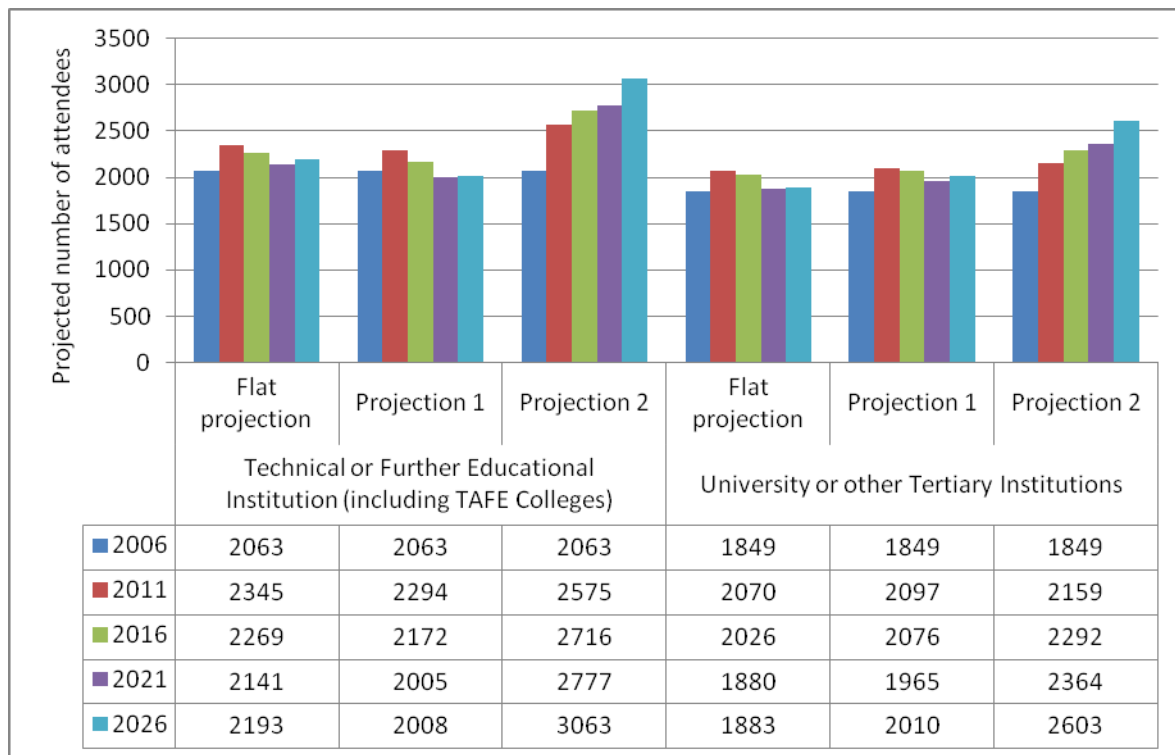
**Figure 14: Projection 2 – from 2006 to 2026 for TAFE and University attendance of persons aged 18-65 by geographic location.**

**Table 11: Sum of TAFE and University attendance of persons aged 18-65 based on Optimistic projection figures**

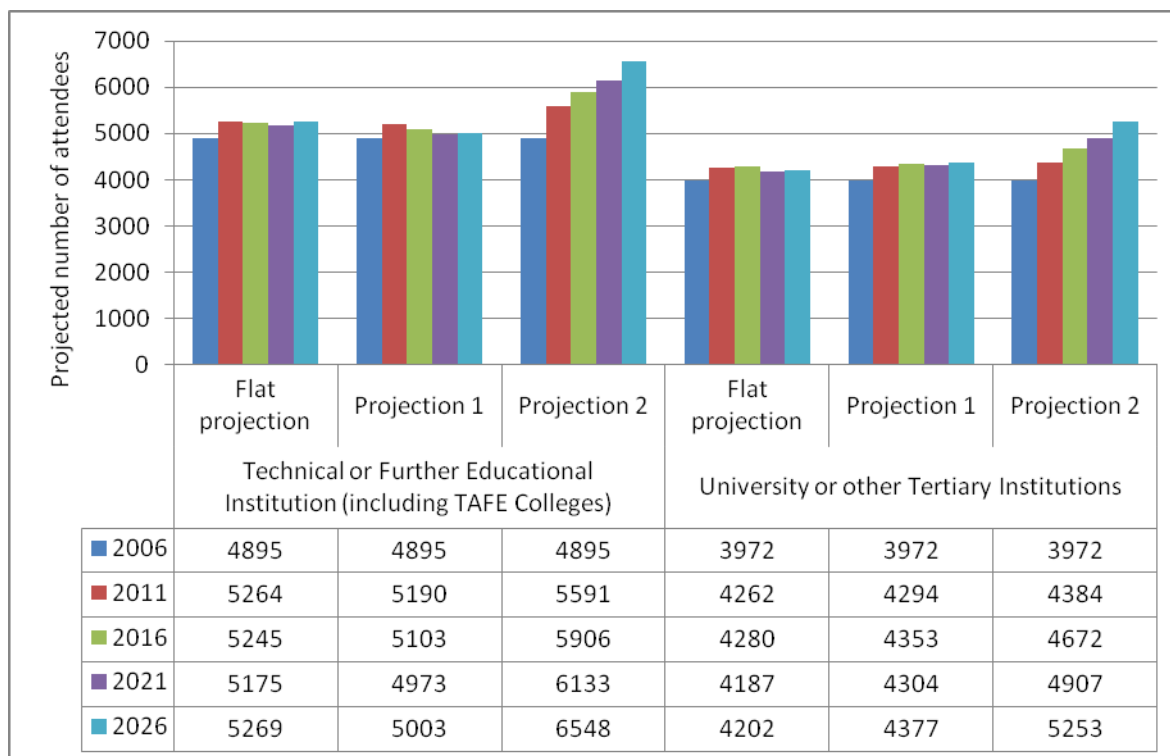
	Sum of attendance of persons aged 18-65 in Gippsland	
	TAFE	University
<b>2006</b>	2063	1849
<b>2011</b>	2575	2159
<b>2016</b>	2716	2292
<b>2021</b>	2777	2364
<b>2026</b>	3063	2603

### Part 3: Summary of projections

Figure 15 presents a summary of figures for Gippsland in five-year time intervals from 2006-2026 for attendance of persons aged 18-23 at TAFE and university, based on the three projections discussed above. While Figure 16 shows the figures for the full 18 to 65 cohort.



**Figure 15: Total projected attendance at TAFE and University for years 2006-2026, for persons aged 18-23 in Gippsland, based on the numbers derived from the three projections described above.**



**Figure 16: Total projected attendance at TAFE and University for years 2006-2026, for persons aged 18-65 in Gippsland, based on the numbers derived from the three projections described above.**

As shown in the Industry, Employment and Population Profile document that is part of this project, DPCD population projections for Gippsland show a peak in the 18-23 age group in 2011 followed by a decline to 2026. The ‘Flat projection’ above assumes that attendance rates amongst 18-23 year olds remains at the same proportions as was the case in 2006 (based on ABS attendance figures). There is a clear decline in TAFE attendees post 2011 on this basis. University attendance peaks in 2011 before declining back to 2006 levels by 2021.

In Projection 1 (Conservative), participation rates rise or fall based on the trends visible in ABS data from 1996 to 2001 to 2006, and discussed above. The rates of change applied in this model were conservative estimates, particularly in those cases where the trend was for falling attendance, as was taken to be the case for TAFE in most Gippsland LGAs, and for university attendees in the most populous area – Latrobe City. If the apparent trend of the 5 years from 2001-2006 continues, it is likely that the proportion of TAFE attendees in this age group will decline somewhat through 2026, a decline accelerated by the falling population.

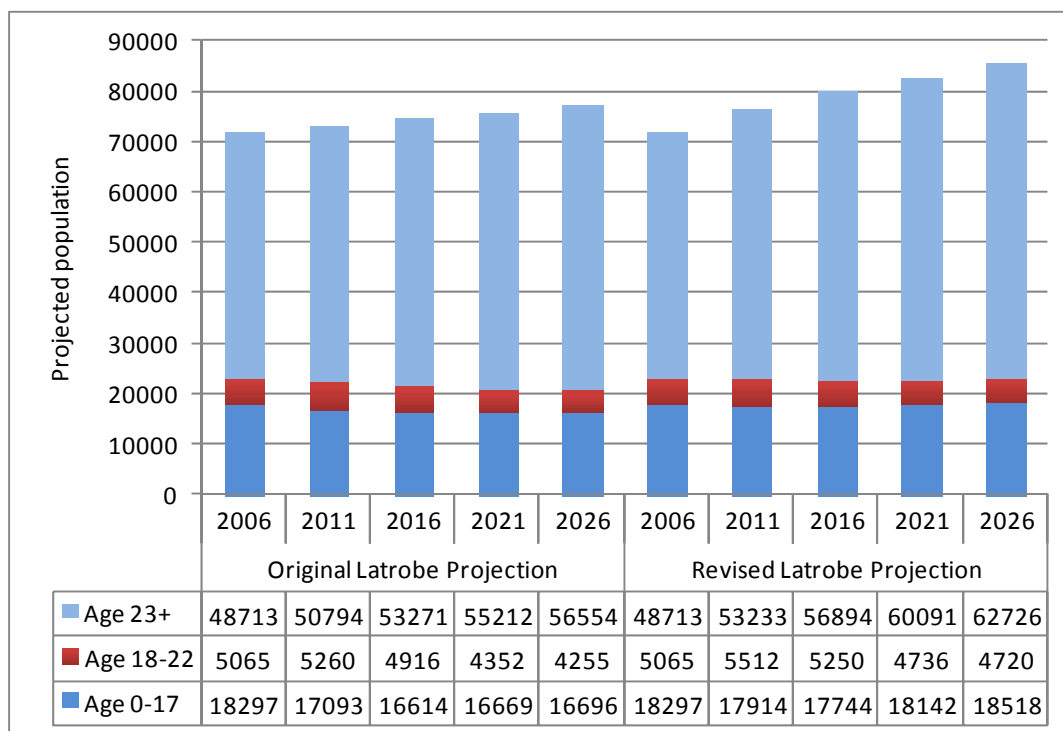
University figures for the Conservative Projection are similar to the flat projection: the rise in Baw Baw and Wellington being offset by the fall in Latrobe City.

Projection 2 (Optimistic) assumes an increase in the participation rates for TAFE based on averaging the five year trends between 1996-2001 and 2001-2006. The TAFE projections may be somewhat optimistic, based on the caution needed in interpreting the 10 year rise of 1.24 ppc from 1996-2006 against the fall of the five years 2001-2006 of 0.17 ppc.

The university figures in the Optimistic Projection are based on an increase of half again the current percentage point rises in participation over 5 year intervals. Where the participation rates had been falling in Latrobe, it was assumed that any decline would be arrested by 2011 and slight growth

would occur from 2016 on. In this projection, university attendance continues to rise slightly through 2016-2021. The sharp rise at 2026 is primarily a product of a sharp increase in population in Gippsland overall according to DPCD projections. For university attendance, Projection 2 (Optimistic) could reasonably be considered an estimate of strong growth.

### Appendix – Revised population projections for Latrobe City



**Figure 17: DPCD VIF 2008 population projections and revised population projections for Latrobe City from 2006-2026.**

Figure 17 shows revised population figures for Latrobe City, including the anticipated figures for the 18-22 age group. The revised figures are not the state government’s official projections but are based on DPCD VIF2008 projections, taking into account recent trends as advised by DPCD.

Based on 2010 ABS population figures, DPCD suggested that the population of Latrobe City should be based on ABS figures to 2010 and then raised across the entire age range by a total of 10,000 persons in 2030, with the population changed proportionately across years from 2010-2030. The resulting population estimates for all ages and for the 18-22 age group are shown in Figure 9.