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# **Trajectories of Change: How Regional Communities Adapt to the Closure of a Major Industry**

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## **ABSTRACT**

Primary industries such as forestry and dairy have responded to economic change over the past four decades. Associated secondary industries such as sawmills and dairy processing factories have also been affected by such change. Globalisation and the reduction of trade barriers have brought greater competitive pressure to bear on local industries and this has had a range of flow-on effects. Exit of less competitive enterprises has occurred, with specific shocks and periods of rapid change affecting both sectors. This paper presents findings from a study on the impacts and implications of economic shocks on small regional towns in Victoria. These shocks include the closure of a key processing facility such as a sawmill or dairy processing factory. The study explored ways in which regional communities are impacted by, and respond to, economic shocks and the ways in which individual and community adaptation occurs. Qualitative and quantitative research methods were used to examine a total of nine case study locations – three of these were analysed in greater depth using qualitative interviews, while the other six were investigated using quantitative and desktop research sources. Many assumptions are attached to the impacts of factory or sawmill closure. There is an expectation of flow-on effects such as declining house prices, increased unemployment and population decline. This paper challenges some of these assumptions by showing the divergence in the experience of towns dealing with such shocks. Reasons for different outcomes include: the specific geographical and social context of towns; the relative importance of industry shocks compared to less visible background trends (such as demographic and social change); and the ways in which individuals may already have adapted to a new economic and social reality, for example, through commuting in response to less stable spatial patterns of employment opportunity.

## **DISCLAIMER**

The views expressed in this paper are those of the author and should not be regarded as representing the views of the Victorian Government nor the Department of Planning and Community Development.

## INTRODUCTION

Many regional towns in Australia have had the experience of a major employer closing down. In the past 30 years, rapid economic change, deregulation and global competitive pressures have played a part in rationalisation, amalgamation and closure of factories and processing plants.

Research undertaken in 2012 for the Victorian government investigated a selection of industry closures which had represented significant economic shocks for towns in regional Victoria. Qualitative and quantitative approaches were used to examine a total of nine case study locations. Census and other data were reviewed for all nine locations and three of these were analysed in more depth using qualitative interviews. The case study towns were chosen on the basis of a range of criteria including: size of the shock (in terms of jobs lost and size of local labour market); size and location of town; timing of shock, and involvement by government in providing assistance. A balance of forestry-related and dairy-related shocks were chosen while locational and town size diversity was incorporated into the selection of case studies. For the three towns chosen for in depth analysis (Alexandra, Cann River and Camperdown), fieldwork was undertaken in order to conduct in-depth interviews with key informants. Ten to twelve people were interviewed in each location and these people represented key groups who had been affected by the closure or were close observers of it because of their role in the local community. The sampling methodology followed a rhizomatic (modified snowballing) approach along the lines of Waters *et al.* (2010).

Two aspects of this research form the basis of this paper. First, the nature of impacts from such economic shocks and the degree to which these impacts conformed with commonly held expectations and assumptions. Second, this paper looks at the process of adaptation following such shocks. Are some towns better positioned to deal with such shocks? Is this because of their location, economic profile, or even the attitude of their inhabitants? In concluding, the paper considers a more subtle set of impacts related to economic change – the experience of ‘distance’ that is felt by many regional communities. Rather than being an immutable characteristic of location, distance was found to be something which varied over time, with some towns’ inhabitants feeling more distant and disempowered from the centres of decision making than in the past while others felt a reduction in distance between themselves and large centres like Melbourne.

## THE ECONOMIC SHOCKS

Table 1 and Figure 1 summarise the closures which were selected for case study analysis. A total of nine towns were chosen with three of these being studied in greater depth through the use of qualitative interviews. Five of the case studies were forestry-related and four involved dairy processing facilities. Towns varied in remoteness and size with the smallest being Cann River (242) and the largest being Camperdown (3,028).

## ASSESSING THE IMPACTS OF ECONOMIC SHOCKS

### *Impacts on Population*

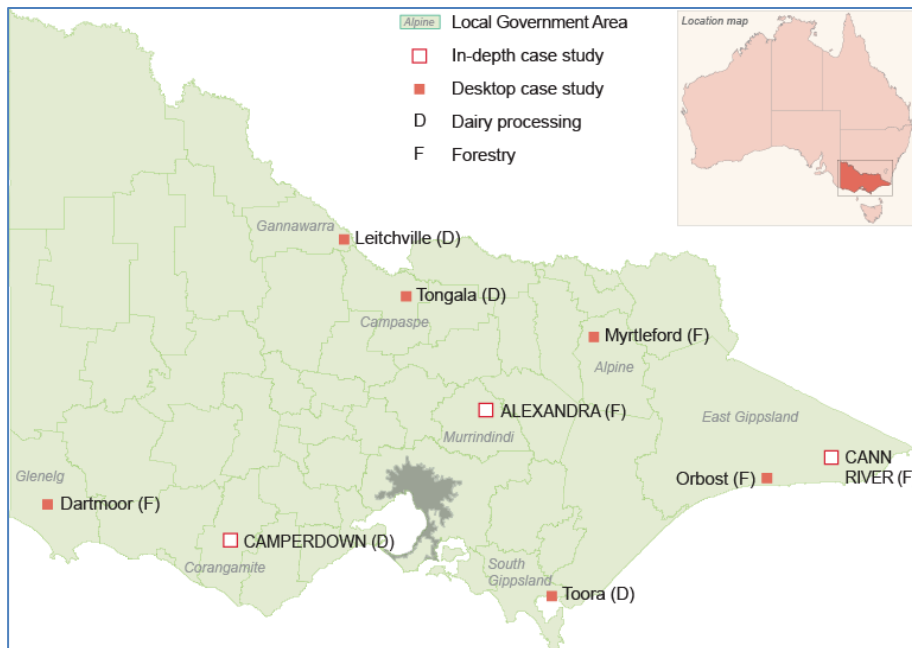
Figure 2 shows population change in each of the case study towns between 1981 and 2006. In some cases, the economic shocks occur in the middle of this period, allowing analysis of patterns before and after the event. However, no single or simple pattern emerges from this analysis. In some cases, the shock under review seems to have had a smaller impact than earlier events.

Table 1: Case Study Towns

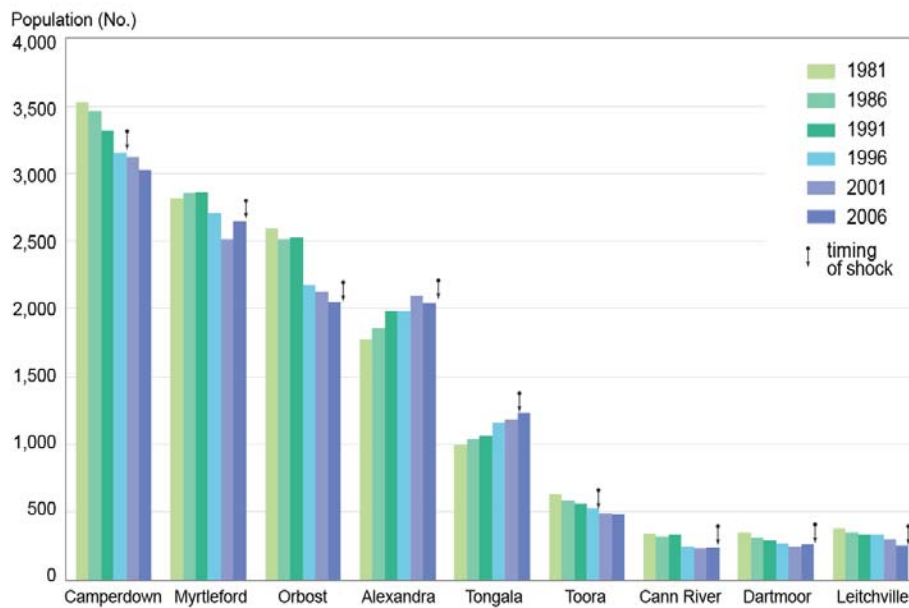
Town	Year of Shock	Nature of Shock	No. Resident Workforce	No. of Jobs Lost	Town size (No. of Persons)
Alexandra*	2011	Closure of sawmill	877	44	2,046
Cann River*	2002-08	Closure of sawmills	100	9	242
Camperdown*	2000	Closure of Bonlac factory	1,206	35	3,028
Orbost	2002	Closure of sawmills	693	35	2,055
Dartmoor	2008	Closure of sawmill	130	130	264
Toora	2000	Closure of Bonlac factory	165	70	481
Myrtleford	2008	Closure of sawmill	1,018	29	2,646
Tongala	2005	Nestle – downsizing of operations	462	147	1,623
Leitchville	2010	Closure of Murray Goulburn plant	110	80	271
Forestry shocks			Dairy processing shocks		
<p><i>Alexandra</i> experienced the closure of its sawmill at the end of 2010. The region had traditionally been an important area of native timber logging in Victoria but many small mills had closed in the 30 years prior to the <i>Alexandra</i> mill shutting its doors. Gunns had bought the mill in the late 2000s but closed it in order to consolidate its operations to Heyfield in Gippsland.</p> <p><i>Cann River</i> and <i>Orbost</i> are both located in Far East Gippsland. The region has seen progressive closure of small timber mills in recent decades, particularly after 2002 when the State Government introduced reductions in log allocations under the <i>Our Forests Our Future</i> policy. Both towns experienced closures in 2002 with additional closures occurring in 2006 (<i>Orbost</i>) and 2008 (<i>Cann River</i>).</p> <p>Other forestry towns reviewed included <i>Dartmoor</i> in the southwest of the state and <i>Myrtleford</i> in the north east. Both of these mill use plantation timber. The <i>Myrtleford</i> sawmill closed in 2008 as part of a restructuring of the Carter Holt Harvey operation to a plywood-only mill. The <i>Dartmoor</i> mill closed completely in the same year as the company consolidated its operations to Mount Gambier, 40 kilometres away in South Australia.</p>			<p><i>Camperdown</i> experienced the closure of its Bonlac dairy factory in 2000. This period was one of rapid change in the dairy industry due to the final stages of deregulation being implemented. Financial difficulties within the company led to a restructure of operations and the closure of three factories in Victoria in June 2000, including <i>Camperdown</i> and <i>Toora</i>. Shortly afterwards, the company was bought out by the multinational firm, Fonterra.</p> <p>The towns of <i>Tongala</i> and <i>Leitchville</i> are located in the northern Victorian irrigation area and dairy processing has been an important industry in both towns. Job losses occurred at the <i>Tongala</i> plant in 2005 as the company owners, Nestle, closed the dry milk facility. The factory continued to process liquid milk. By the end of the decade, the region was being impacted heavily by the Millennium Drought and closure of the Murray Goulburn plant at <i>Leitchville</i> in 2010 was precipitated by declining milk supplies due to the drought. The company consolidated its operations to other sites in the region.</p>		

\* These case studies included qualitative as well as quantitative analysis

**Figure 1: Case Study Location Map**



**Figure 2: Population of Case Study Locations, 1981 to 2006**



Source: DPCD (2008) *Towns in Time*.

For example, Gippsland forestry towns like Orbest and Cann River show the impact of events in the early 1990s recession, loss of council function and rationalisation of both government and private services. Reductions in timber allocations and subsequent job losses in the early 2000s appear to have had a smaller impact on overall population levels.

The data suggest that economic shocks can occur after periods of decline, raising the prospect that they may be as much a symptom of decline as a precipitator of it. Towns like Toora,

Cann River and Leitchville show such patterns of population decline. Intuitively this makes sense, as the pattern of population and economic decline having a cumulative impact on each other has been recognised for some time (see for example Sorensen, 1990).

Rather than impacts on aggregate population levels, economic shocks may have more subtle effects in turns of population churn and changes in population structure or economic base of the town. Literature suggests that economic shocks can hasten the structural ageing of a town as younger working ages and family groups move away (Grimes and Young, 2011, p. 284). While age structure and migration analysis does find some evidence of out-migration, the pattern of ageing in many towns is also attributable to existing patterns of youth out-migration as well as the attraction of some locations for retirees. While structural ageing of the population is evident in all of the towns under review, retention of the very old (75 years and over) is not as apparent in the smallest towns like Cann River, Toora or Dartmoor. This reflects an out-migration of this age group to towns with more services. In contrast to this are towns like Alexandra, Camperdown and Myrtleford which are becoming more popular for retirement and have the advantages of a local hospital and services for elderly residents. In all of these three cases, numbers and proportions in the 75-plus age groups rose in every intercensal period between 1981 and 2006.

In the Cann River interviews, the loss of industry and out-migration of workers was seen as having caused a transformation in social demographics. Respondents concluded that an exodus of timber industry workers and an absence of reliable employment left cheap housing available which was taken up by those who could not afford housing elsewhere. For Cann River interviewees these factors led to a transformation of the town's social landscape and an increase in health and economic problems. Many observed a two way migration, with those looking for work leaving town and those looking for cheap housing coming in.

“During [the sawmill closures] and afterwards, you saw a notable change in demographics in the community and that was concerning to a lot of people and I guess the compounding effect of that adjustment amongst the community is that a lot of other people then started to leave ... because they could see that it was changing, you know there's a change in demographic, there was less working people, there was a concern about it becoming a bit of a welfare town.” (Cann River Interview 13)

#### *Impacts on School Enrolments*

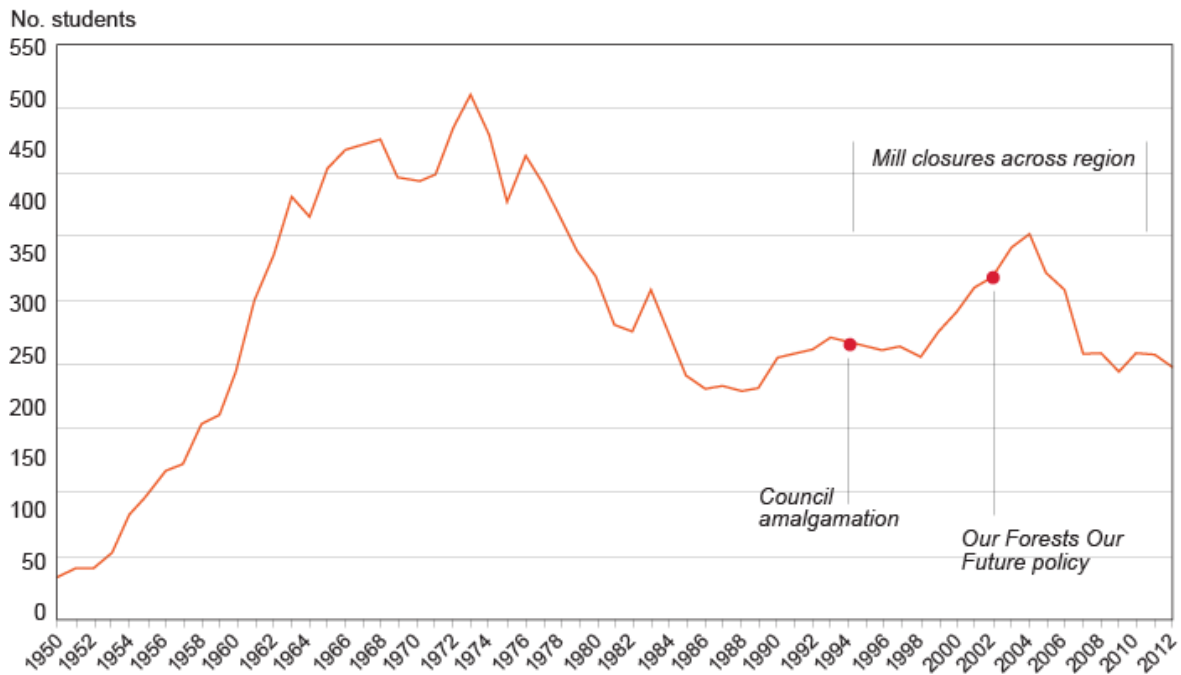
In the Alexandra interviews it was often assumed (or asserted) that the mill closure would have an impact on school enrolments. However, discussions with the school principal seemed to counter this expectation:

“... there was no student in the school who we lost directly as a result of the mill closing. I would suggest that where we're looking at it that if you looked at the workforce in the mill they were older or younger people.” (Alexandra Interview 3)

“... if it had of happened a year earlier there would've been a half a dozen or so that I know of who would've been directly affected but those kids were leaving school or one family's father changed jobs in that time. So there would've been a much greater impact a year earlier.” (Alexandra Interview 3)

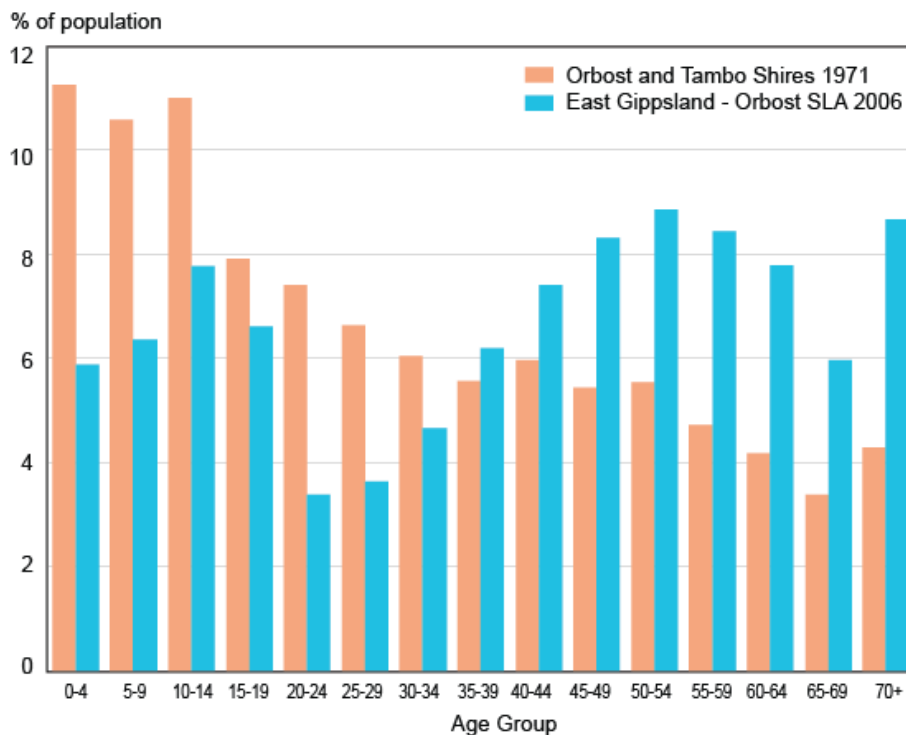
Historical data for Orbost Secondary College suggest that economic shocks are not necessarily the largest factor affecting population change and school enrolments. In fact structural demographic change seems to be a bigger factor in school enrolments than economic shocks. By reviewing enrolments (Figure 3) alongside age structure (Figure 4), it becomes apparent that changing age structure is likely to have had a major influence on changes in enrolments.

**Figure 3: Secondary school enrolments in Orbost, 1950 to 2012**



Source: Phillips (2012).

**Figure 4: Age structure of Orbost region\*, 1971 and 2006**



\* Note: In 1971, Orbost and Tambo Shires represented a similar area to the area defined by the East Gippsland - Orbost Statistical Local Area in 2006. While not having identical boundaries, the two geographical units are similar enough for the data above to be comparable.

Sources: ABS Census (1971 and 2006).

Findings by Schirmer (2011, p.6) also highlight the importance of scale when attributing impacts of a particular change. In her study of the relationship between blue gum plantation expansion in southwest Victoria and rural population decline, she found that there were much more significant factors affecting rural population than this single change in land use. These broader factors included: farm amalgamation, urbanisation, and sea change migration played a much greater role than the increase in plantations.

#### *Impacts on Housing Markets*

In many discussions about economic shocks, concern is raised over the potential impact on house prices. Related issues include: the ability of home owners to sell and move away; limited access to finance, and subsequent reduction in adjustment options for individuals or businesses.

Maré *et al.* (2009) examine the impacts of positive economic shocks in New Zealand. While focusing on events such as the opening up of an industry, they indicate that the findings of their analysis can also be used to shed light on the impacts of a negative shock such as a factory closure. Of particular interest is their analysis of house price impacts following an economic shock. They found that house prices responded differently at a national level than they did at a regional level. While national level shocks created noticeable impacts on house prices, this pattern was not seen at a regional level. The authors postulate a number of reasons why this may be the case:

1. the housing market may be to some extent a national rather than regional or local market;
2. housing market effects may be more localized than the scale used in the analysis;
3. relative sampling error in the data is high; and,
4. the dynamics of economic shocks and house prices are not closely related in the short time - a long run relationship between the data may still exist. (Maré *et al.*, 2009, p. 246)

Research by Grimes and Young (2011), examined the house price impacts of two mill closures in New Zealand – one in a location near a larger centre and one in a more remote location. The authors wanted to learn the degree to which remoteness affects the outcomes of an economic shock. Like Maré *et al.*, they found inconclusive results around house prices. In the case of Patea, a remote town in New Zealand, the loss of their (meat processing) factory led to a range of impacts such as out-migration and structural ageing of the town's population, however, house prices were not greatly affected. The authors follow Maré *et al.* in suggesting that housing markets may be part of a wider regional or national market (for example, the area remaining attractive for investment in second homes or retirement); however they do not find specific evidence for this supposition.

Data analysis for the Victorian case studies shows little evidence of a consistent relationship between economic shocks and house price responses. Table 2 and Figure 5 summarise the pattern of house price trends in the case study towns around the time of their respective economic shocks.

In some ways this variety of responses is not surprising. Despite common expectation or perception that house prices fall after a shock, the determination of price is more complex. Housing is not a standardised commodity and those buying it may be doing so for a variety of reasons – as a first home, family home, retirement residence and so forth. Site-specific factors such as the quality or design of a particular house location can play an important role in price, as can the quality of a view. Local supply of housing may be subject to shortages and surpluses at different time due to factors around planning, building and construction which

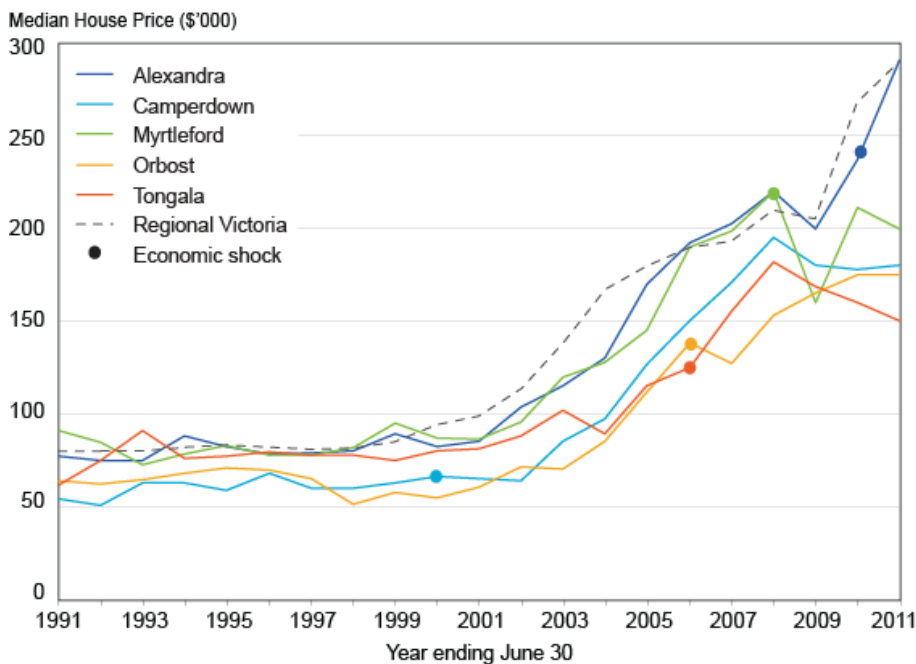
can create time lags in provision. In essence it is a market that does not respond rapidly in terms of supply, especially in regional areas where the capacity to build can be limited by skills availability and access to finance.

**Table 2: House Price Trends in Towns Affected by Economic Shocks**

Town	Timing of Shock	Post-shock Trend in Number of Sales	Post-shock Trend in Median House Price	Financial Year of House Price Data
Alexandra	Dec 2010	Down	Up	2010-11
Cann River	Aug 2008	Data unavailable due to small no. of sales		2008-09
Camperdown	30 Jun '00	Up	Flat	2000-01
Toora	30 Jun '00	Data unavailable due to small no. of sales		2000-01
Myrtleford	Late 2008	Up	Down	2008-09
Tongala	June 2005	Down	Up	2005-06
Orbost	May 2006	Down	Down	2006-07
Dartmoor	Oct 2008	Data unavailable due to small no. of sales		2008-09
Leitchville	Feb 2010	Data unavailable due to small no. of sales		2009-10

Source: Office of the Valuer General Victoria.

**Figure 5: Median House Prices for Selected Case Study Towns, 1991 to 2011**



Source: Office of the Valuer General Victoria

In addition, housing markets in a given location have their own variations – median house price in a given year may be determined by the types of houses placed on the market. Some locations will have high-value properties which may gain a good price irrespective of local economic conditions. An area like Alexandra which attracts investment from Melbourne-based residents seeking a holiday home or tree change residence may alter the dynamics of local housing markets – in this case keeping house prices buoyant in spite of any local economic issues. The local housing market is therefore partly affected by incomes earned in Melbourne.

## ADAPTATION

### *Out-migration as an Adaptive Response*

From an economic point of view, migration may be seen as a successful adaptation to changing spatial economy – that is, labour moving to new centres of growth and production. In all of the case studies there was evidence of some out-migration although this was often relatively small. Migration is a major decision for many people, especially those with family ties and a strong sense of identity to a particular location. Therefore, in response to an economic shock it was usually only one of several responses.

In Cann River, some workers have been able to remain employed at the one remaining mill but many have been forced to relocate over the past decade. In the interviews, there appeared to have been many people moving away, not only because of mill closures but also for education, more employment opportunities or to retire. Many were reported as having moved to Orbost which was relatively close but larger and was often the location for services that no longer existed in Cann River. For older residents, Lakes Entrance, Bairnsdale or Merimbula were likely destinations providing more services, particularly health services. Those still in the workforce had tended to move to locations where work opportunities were greater – Latrobe Valley, Western Victoria or interstate.

Even if out-migration is a significant response, the population of the town may not fall because others may move in. Thus there is no simple correlation between a shock and the population outcome. Camperdown and Toora suffered the withdrawal of Bonlac in 2000. Since then, however, the two towns appear to have had quite different experiences. Between 1981 and 2006, the population of Camperdown fell steadily at an average annual rate of 0.6 per cent, compared to Toora with an average annual loss of 1.1 per cent. While the small size of Toora makes it difficult to undertake detailed quantitative analysis, tenure and house sale data suggest that in the period immediately after the closure, there was a turnover of properties, indicative of people selling and moving away. If this is the case, it would appear to differ from the experience of Camperdown. Certainly, in terms of dairy processing workers, the interviews indicated that most workers at the Camperdown site were able to commute to other similar jobs in nearby towns, thus lessening the need to relocate.

An important consequence of out-migration in Toora would have been an available supply of relatively cheap housing following the closure. Findings from Cann River show that such a supply of cheap housing can attract population with limited means, including welfare migrants (those on pensions, unemployment benefits, etc.). Research on welfare migration shows a trend of people moving away from capital cities to non-metropolitan areas. This trend has been evident since the 1970s (Morrow, 2000, p.2). Australian welfare payments such as the aged pension, disability allowance, unemployment benefit or sole parent pension are paid irrespective of location; hence recipients can live in, or move to any town city or rural area. Research by Wulff and Bell (1997) indicated high rates of mobility among those receiving unemployment benefit or sole parent pension. In both cases, the desire to reduce housing costs was a key factor in peoples' location choices.

Interestingly, Toora seems to have had a reasonable number of welfare recipients before 2000, mostly old age pensioners who found it beneficial to be located in town near the aged care facility. After the Bonlac closure, and as some of the older population died, there appears to have been a shift in the welfare mix towards unemployed or single parent residents rather than old age pensioners. Some of these new residents had relocated from Melbourne where higher demand made public housing more difficult to access. While the details of such social shifts cannot be substantiated from desktop analysis and brief discussions with local

stakeholders, the in-depth fieldwork conducted in Cann River appears to show a similar sequence of events. Again, the out migration of those who lost jobs or sought new opportunities, created a pool of available cheap housing. Yet, by attracting people of limited means and in some cases, with complex personal needs, to small, poorly serviced towns, there has been a distinct change in the structure of these places.

Cann River displays another subsequent stage in this pattern with local professionals locating outside the town and commuting in. Such people are usually more mobile and able to afford a commuting alternative. Cann River, like Toora is located in an area with attractive coastal towns in the region. In the case of Cann River, a number of local workers commute in from Mallacoota or Marlo. Those remaining in the town who do not have employment face many challenges and this can contribute to a sense of disadvantage and decline in the area. One result of out-migration and relocation of professional workers has been a sharp decline in available volunteers or people to take up leadership positions.

“Committees struggle ... we can't get a president or a treasurer. People are keen to belong ... but no one wants to take on the responsibility of anything.” (Cann River Interview 2)

In many interviews it was noted that people such as teachers, administrators, or the local police officer could provide valuable skills and knowledge for local organisations. The loss of this segment of potential volunteers has had a profound impact on the town in its transition from a vibrant community comprising over 45 community groups (Joint Commonwealth and Victorian RFA Steering Committee, 1996) to one where it is difficult to get volunteers.

“There's no football club, there's no tennis club, there's no guides, no scouts. ... The SES and CFA and Red Cross are desperately fighting for new members.” (Cann River Interview 1)

#### *Commuting as an Adaptive Response*

The size of a town does not necessarily correlate with the size of the workforce because commuting presents a dynamic attribute of working populations. Towns located close to a larger centre may have high levels of commuting and hence low levels of ‘self-containment’ of the workforce. This is the case with settlements close to large regional centres where self-containment can be as low as 20-30 per cent. Another scenario is towns that are part of a regional economy – for example the Goulburn Valley where there is a high level of cross commuting between towns such as Kyabram, Rochester, Echuca and Tongala. In such cases, self-containment levels may be relatively low – around 30 per cent. In the case of very small centres like Dartmoor, the majority of the workforce may actually come from other settlements. More isolated towns like those in Far East Gippsland may have higher levels of self-containment because of the distances required to access alternative labour markets.

Following a closure or downsizing of an industry, displaced workers may remain in the town but access alternative employment opportunities via commuting. Chapain and Murie (2008) highlighted the importance of considering commuting patterns when assessing the impact of a major factory closure in Longbridge, England. Although many had discussed impacts in terms of the town's local economy, the researchers found that worker commuting patterns extended the impact to communities much further away from Longbridge than was expected. The settlement pattern of many parts of regional Victoria lends itself to the phenomenon of living in one town and working in another. Most of the case studies considered show this trend, particularly the smaller centres like Dartmoor and Leitchville. This study brings into question the assumption that a closure will cripple the town in which it operates. In fact it may be necessary to look further afield for impacts, and adjust our expectations in two ways: one being the reassessment of local impacts and understanding they may not be as contained as

expected, the other being the impacts to other communities and identifying where this is taking place.

Commuting was a common response following the closure of the Bonlac factory in Camperdown, as there were alternative dairy processing sites within commuting distance. Interestingly the region already had patterns of commuting – as early as the 1990s, the Camperdown factory attracted workers from nearby centres.

“Not only were Camperdown people employed at the dairy company, the people came all around the sub-region. You know, there are a lot of folk who live in [nearby] Terang or Noorat or Cobden who were employed at the factory, so it was never an exclusive Camperdown only sort of thing.” (Camperdown Interview 1)

After the closure of Bonlac, many Camperdown residents simply commuted to other dairy factories in the region.

“I remember people here use to carpool and drive to Cororooke to the factory down there (Camperdown Interview 9)

“Everybody went to Cobden to work; they still lived in Camperdown. (Camperdown Interview 10)

The town of Dartmoor had pre-existing patterns of commuting prior to the closure of the Carter Holt Harvey sawmill in 2008. At the time of the closure, of the 128 workers at the mill, 60 lived in Dartmoor, 10 in Heywood, 20 in Mount Gambier and 25 in Casterton (Figure 6). Following the closure, opportunities were provided for workers to gain employment at the Company’s Mount Gambier plant. For the employees who lived in Dartmoor and chose to stay there, this may have represented additional costs of commuting (time and money). Nevertheless, those who had previously commuted from Mount Gambier would likely have found the new arrangement much easier, while those commuting from Casterton may have faced a relatively simple change – a drive of 60 kilometres rather than 40 kilometres. The 10 workers based at Heywood may have faced a more difficult choice between commuting, out-migration or seeking alternative employment given that they are located 40 kilometres from Dartmoor but 80 kilometres from Mount Gambier.

One of the positive aspects of commuting as an adaptation response is that a community can maintain a degree of stability and social capital through avoiding the loss of critical human capital through out-migration.

A final way in which commuting is important in the story of spatial adjustment is that many regard it as holding the potential for future growth of their town. This is particularly the case for towns that have some proximity to the largest centres like Melbourne or Geelong. Improvement in road infrastructure can affect travel times and this, too, is seen as having potential benefits for some towns to grow.

“The dual highway, that’s being built at the moment. I think it’s getting to Winchelsea; it will eventually get to Colac, I think the long term plan is. Well that therefore then cuts the time down to go to Geelong or Melbourne, which then makes us within that range for people to come and visit us, or even if they want they can commute.” (Camperdown Interview 7)

“Melbourne’s getting closer all the time.” (Alexandra Interview 2)

**Figure 6: Source of Employees for the Dartmoor Carter Holt Harvey Timber Processing Facility, 2005**



Source: Data from Parliament of Victoria (2010).

## ECONOMIC ADAPTATION

### *Diversification*

Structural adjustment and sectoral change can challenge a community to diversify their economic base or find innovative opportunities within their existing economic base. The case studies reveal some examples of economic adaptation. At the micro scale, some local businesses had to adjust to the loss of a major employer. This often prompted a widening of their activities beyond the narrow base of timber or dairy processing workers who had been their main clients.

### *Modernisation*

In terms of the major businesses themselves, part-closure of operations was sometimes the first step in a process of reorienting or modernising the business. This was the case in Tongala where dry milk operations were closed in 2005. While this caused the loss of 147 jobs, the liquid milk processing function remained and, five years later, the company announced an investment of \$17 million to expand production at the site and position it as “food manufacturing hub for Oceania, Asia and Africa” (*Australian Food News*, 2010). This expansion began in 2011 with a total of 32 jobs expected to be created by 2013, adding to the existing 75 jobs at the plant (*Weekly Times Now*, 2010).

Myrtleford has experienced a similar set of events with its timber mill. Until 1999, the Myrtleford processing plant comprised a sawmill and pulp mill (established in 1975) and a plywood production facility (established in 1981). In 1995 the mill was bought by Carter Holt Harvey who ultimately changed the focus of the operation. The first step of this change involved the closure of the pulp mill in 1999. Ten years later, a phase-out of the sawmill function began, leading to the site being a plywood-only mill. At the same time, a \$50 million investment in upgrading equipment and processes in the plywood mill enabled Carter Holt Harvey to make it Australia’s largest plywood manufacturing facility (*Border Mail*, 22 June

2011). New systems also enabled the mill to run more cleanly, efficiently and quietly than it had done previously. Decommissioning of the sawmill and upgrade of plywood mill was done in the face of high running costs and outdated processes which were no longer competitive or sustainable (CHH 2011). Investment in the plywood mill provided greater security and a higher level of skills for the workforce who received a range of retraining for the plywood mill upgrade. Nevertheless, the facility in 2010 required a workforce of only 160 compared to the 2002 workforce of 370 (*Border Mail*, 22 June 2011).

A similar pattern of modernisation and job reduction was evident in Camperdown. Ten years after the dairy factory closed, Aussie Farmers Direct announced they would occupy the former Bonlac site and establish a new milk production facility. The workforce of this new plant is expected to be 100 by the year 2015. This compares with the 240 jobs which Bonlac offered in their factory in the early 1990s.

Ultimately, technology is a double-edged sword for communities – it maintains competitiveness of the enterprise but usually at the expense of jobs.

“Technology in itself in saw mills has decreased employment where four men used to saw up a long, now one stands there with a machine pushing buttons and it does it all.” (Cann River Interview 8)

“Big rotaries [on dairy farms]. Mechanism has put everybody out of work. Saw mills are the same.” (Cann River Interview 8)

In many cases, the inability or unwillingness to modernise will heighten the risk of closure. The need for plant modernisation was cited as an explanatory factor in a number of the case study closures:

“It seems to me that the previous owners of the mill failed to inject enough capital into it in order to keep it up to speed, to keep it modern so whenever that happens there’s a tendency for inefficiencies to creep in and inefficiencies in a country like Australia where our wages are so strong create a viability gap” (Alexandra Interview A9)

Linked to plant modernisation was the recognised need to maintain staff skills and competitiveness. This was also raised in relation to the mill closure at Alexandra where the lack of staff training was seen as a point of vulnerability:

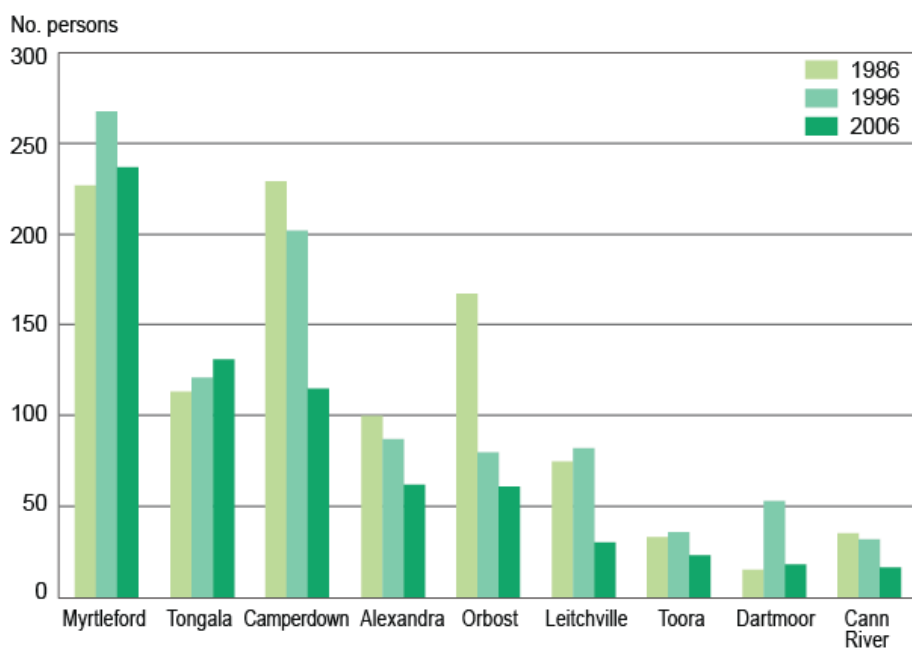
“There’s a whole training and education issue that we suffered a lack of too as an organisation. ... We didn’t invest enough in our people.” (Alexandra Interview 2)

### *Shifting Away from Manufacturing*

Most towns reviewed have experienced a decline in manufacturing employment since 1986 (Figure 7). Manufacturing job losses in the 1986-96 period were highest in Orbost (87 persons – 52 per cent of the workforce), while in the 1996-2006 period losses were highest in Camperdown (97 persons – 43 per cent) Alexandra (25 persons – 29 per cent) and Orbost (19 persons – 24 per cent).

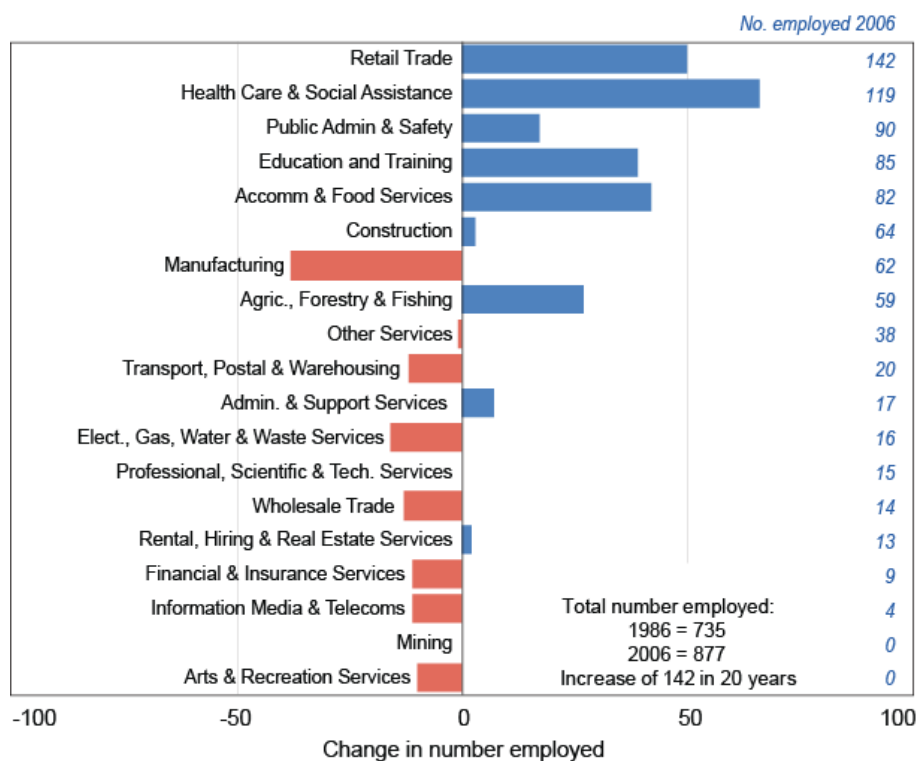
Declines in manufacturing are often balanced by gains in other sectors. In 2006 Retail Trade was the main employer in Camperdown (17 per cent or 208 persons) whereas 10 years earlier manufacturing employment represented the most important sector (17 per cent or 202 persons). Losses in manufacturing, agriculture and some services were balanced by gains in construction, health care and retail trade, so that the overall change in the size of Camperdown’s workforce was relatively small.

**Figure 7: Numbers Employed in Manufacturing, Case Study Towns, 1986, 1996 and 2006**



Source: DPCD (2008), *Towns in Time*.

**Figure 8: Change in Numbers Employed by Industry Sector, Alexandra, 1986 to 2006**



Source: DPCD (2008), *Towns in Time*.

While Alexandra saw a fall in manufacturing employment during the 1990s and 2000s, it gained in retail and healthcare. Each of these sectors represented over 10 per cent of employment as far back as the 1980s and this may have provided a level of diversity that buffered the town against the worst aspects of an economic shock in one industry. Findings from the interviews also supported this characteristic of Alexandra's economy.

The shift from a production-based economy to a service- or consumption-based economy is one that many of those interviewed were aware of and often concerned about. Manufacturing was seen by many interviewees as being intrinsically more valuable than consumption or service based industries. Adding value to primary products from the surrounding region provided an important sense of purpose for many regional communities – something which consumption based industries could not.

Processing facilities contribute greatly to the economic stability of small towns. By requiring a relatively large number of employees they provide a sense of reliability in the local job market and in some ways they represent a safety net for locals even if it is a psychological one. This sense of stability stimulates economic activity as people are more likely to invest and take financial risks when they know there is a fall back employment option if required.

Factory jobs could offer important pathways for young people or those not cut out for higher education. The processing facilities examined in the study often served as an employment stepping stone for young people entering the workforce. It was noted that even if a factory job doesn't represent a career for a young person, it assists them in establishing financial stability and creating a reliable image in the job market. Maintaining an industry base in a small town not only provides wages to employees every week, it provides business activity and a connection to the wider world of global commerce.

“What's hard to capture in something like that is what are the lost opportunities. For example, I grew up through that factory and studied dairy technology and was a powder maker and cheese maker and all those sorts of things. So that opportunity isn't there now so it's hard to know what has been lost in that regard and certainly some has.” (Camperdown Interview 12)

Factory jobs in dairy regions could also prove useful to those seeking some additional income as part of a wider financial strategy. Part time or seasonal factory work could provide off farm income for farmers or a way for young adults to accumulate capital for investment in a farm, home or business. In this way, local factories were more deeply embedded in regional economies than might be expected.

### *Economic Change and Income*

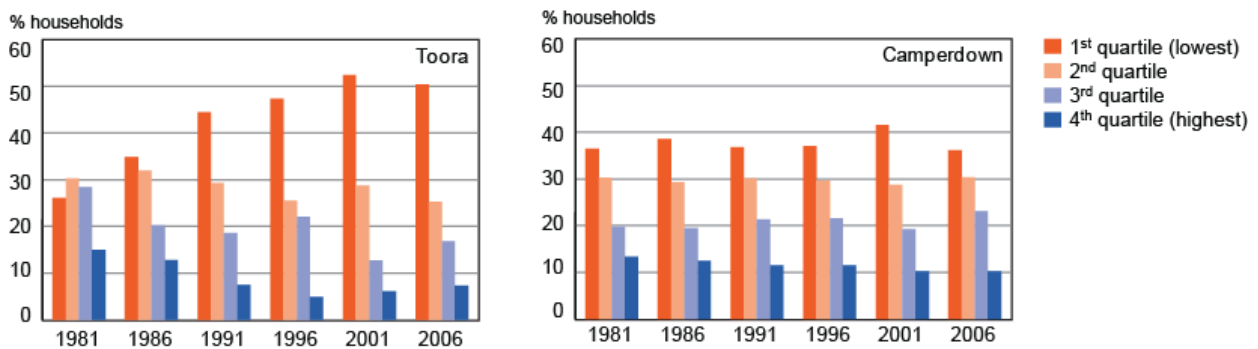
Economic adaptation may be expected to improve the welfare of a local community. However, broad shifts in economy and demography have not produced widespread improvements in regional incomes. In part this can be attributed to the older age profile of regional populations compared to metropolitan areas, but changes in industry mix may also be a contributing factor. As previously mentioned, the modernisation and innovation in some regional industries has not always meant a large number of jobs, hence the wealth generated from such change is not broadly spread across a community via wages.

Analysing income data can be difficult because of variable levels of self-reporting in the census and the ways in which household income can be distorted by different household types and sizes. Nevertheless, comparing income quartiles over time can give a sense of the trajectory of change in different towns and can highlight patterns of polarisation or disadvantage. Income quartiles are calculated for each census year, with household income levels in Victoria being distributed across four quartiles which form the baseline against which towns' income data can be compared. This allows trends over time to be analysed more

easily. Such analysis was done for the nine case studies under investigation and, in many cases, the trajectory of change appears to have been downwards.

Toora presents some difficulties for analysis because of its small size, however the income trend appears extreme, especially when compared with Camperdown which lost its dairy factory at exactly the same time as Toora in 2000 (Figure 9). The size of Toora’s workforce has not changed a great deal since 1981, but the income profile has gone from one that mostly reflects the state average to one where half the working age population are in the lowest quartile. The highest 2 quartiles have shrunk by nearly half. The contrast with Camperdown is extreme. Camperdown shows a relatively stable pattern of income distribution over the 1986 to 2006 period. In fact, the quartile graphs for 1981 and 2006 are surprisingly similar. There is a noticeable ‘blip’ in 2001 where the lowest income quartile increases but, interestingly, the highest income quartile does not seem to be strongly affected – it has shown a small decrease over time, but only by about 2 percentage points in the 25 year period.

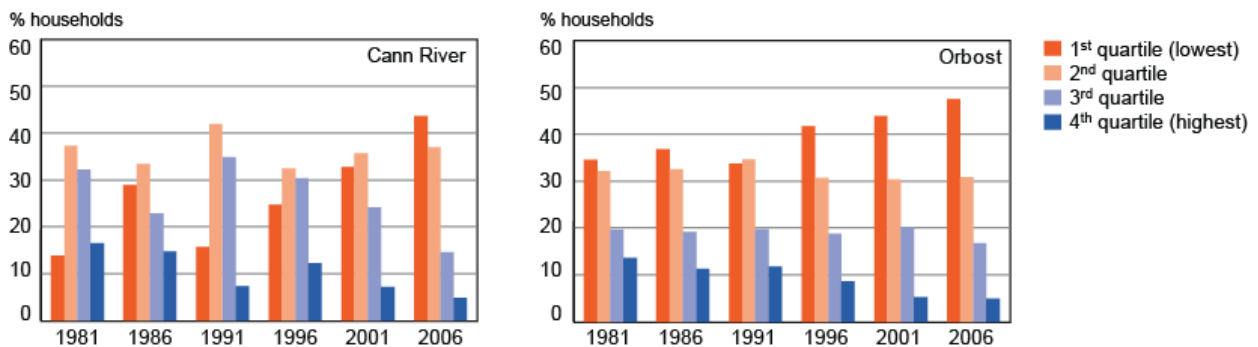
**Figure 9: Income Quartiles and Number of Income-earning Households, Toora and Camperdown, 1981 to 2006**



Source: DPCD (2008), *Towns in Time*.

The Gippsland towns of Cann River and Orbost provide a consistent pattern of declining high incomes and increasing low incomes (figure 10). The trend towards a poorer income profile deepened in the period after 1991 which correlates with major changes in the Orbost economy as the Council was amalgamated and relocated to Bairnsdale and as a range of government services and businesses were rationalised or closed.

**Figure 10: Income Quartiles and Number of income-earning households, Cann River and Orbost, 1981 to 2006**



Source: DPCD (2008), *Towns in Time*.

*Attitude and Adaptation*

An individual's human capital, including their skills, wellbeing, education and overall confidence has a significant influence on their ability to adapt to change (Schirmer *et al*, 2011, p. xvii). At the level of a township there can also be characteristics which can aid adaptation, although concepts of "optimistic" or "pessimistic" would be difficult to apply to a whole community. Nevertheless, the interviews contained questions relating to the future of the town and this often revealed a prevailing "mood" of the community. Camperdown showed signs of positive attitude which seem to be based on more than the recent event of the Bonlac site reopening. In fact, the positive attitude was evident in 2000 in the months leading up to the closure:

"It probably became an embarrassment when one of the sites that was picked to close, won just about every dairy award in the last couple of years for all of their product quality ... Hats off to the people in Camperdown and to the people who worked there for the way they conducted themselves during a pretty average period knowing there wasn't a future." (Camperdown Interview 12)

Curiously, in a 1986 study of the town, Henshall Hansen and Associates made the following observations:

From very early times, the people of Camperdown have shown the foresight and pride in their town which leads them to think positively about the future. (Henshall Hansen, 1988, p.107)

The report then proceeds to list a range of civic design initiatives and philanthropy through the late nineteenth century which benefitted the town to this day including: botanic gardens, treed avenues, and the public clock tower donated by a local pastoral family. In the mid-twentieth century the town's civic pride and optimistic outlook was still evident:

... the Borough of Camperdown came into being in mid-1952. Later it was to become the Town of Camperdown. The Town took as its motto "Strive for Better Things", a very positive and forward looking attitude for this small Victorian town. (Henshall Hansen, 1988, p.107)

Nevertheless, a more negative attitude may not preclude adaptation. Some East Gippsland timber businesses have undertaken some adaptive actions in order to reposition themselves. Yet the rifts created over the past 30 years of change have often made this a difficult transition. Such difficulties are clearly evident in the website of one sawmill where the business is presented as follows:

"The business was established out of the ashes of the old licensee system that used a much higher grade log resource. We take logs from a market area not previously sourced, as it is too big for pulp and too low grade for other mills to viably utilise. Working within the new system of log tendering<sup>1</sup> we are able to access a much lower grade log resource. Utilising the old technology of the four man bench we are able to maximise each cut, giving yields of a high grade timber product achieved only by the eye and skill of the bench-man and his crew." (Mectec, 2012)

The refusal to accept closure (in both senses of the word) is perhaps indicative of the undercurrent of anger that still persists in some locations. Nevertheless, this particular mill *is* still in business and has adapted to a new regime of log allocation as well as a new grade of log. Successful adaptation may not always mean happy adaptation.

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<sup>1</sup> A system to which many timber workers are vehemently opposed.

## LOSING CONTROL – INCREASING DISTANCE AND DISEMPOWERMENT

Geographers and regional scientists have an interest in distance – the role of space and place in economic activity. Distance need not be immutable. In fact a key finding from the interviews was the way in which distance was felt in multiple ways and how a sense of increasing or decreasing distance affected people’s view of their towns’ future.

A sense of increasing distance was felt in relation to decision making processes being taken out of the hands of local players by both corporate and government agencies.

### *Distance from Company Decision Making*

Interviews highlighted a local perspective and narrative around the way in which globalisation had led to an increasing remoteness of management as companies expanded into, or were taken over by, global corporations. Corporate control of business enterprises had been seen to move from local to metropolitan to international centres. Many local butter factories, for example, had been amalgamated and taken over by national and international corporations. Decision-making by these companies is inevitably influenced by a range of strategic considerations rather than being focused on a particular locality. As a consequence, the move from local to international management can leave some communities feeling disempowered.

“I think generally the community saw that it was just ... the big corporate coming in with a political agenda and with no respect for the community.” (Alexandra Interview 7)

“Those decisions aren’t made by people here; they’re made on a white board like that in head office in wherever the hell it is. So they’ll just look at the figures and they’ll say ‘which one’s got to go?’ and that’s it, they just put a line through it.” (Camperdown Interview 10)

### *Distance from Management*

Another form of separation of management and workers can occur through commuting patterns. Some small towns have inward commuting patterns and sometimes these have the effect of social segregation – middle class professionals favouring larger centres for the range of services and social activities while commuting to a job located in a smaller town.

Research undertaken by Courvanis (2007) in the small Goulburn Valley town of Stanhope (near Tongala) showed that managers of the local dairy factory were more likely to be living in larger centres like Shepparton or Echuca, while workers were more likely to be living in the town itself. In the case of Cann River, there appears to be a number of significant positions which are held by people who commute into the town from elsewhere, and this has created a ‘gap’ of human and social capital in the town.

“... they don't shop in the community, live in the community, take part in committees in the community. Our policeman doesn't even live in the community. (Cann River Interview 2)

### *Distance from Government*

Interviews undertaken in Cann River revealed long memories of past “shocks” but these were not always within the timber industry. The period of the early 1990s was remembered for the multiple impacts of service withdrawal through rationalisation, recessions and, significantly, the amalgamation of local governments which led to the municipal centre of Orbst being replaced by Bairnsdale as the municipal centre of the new East Gippsland Shire in 1994. In South Gippsland, the municipal centre based in Foster was replaced by Leongatha as the centre of the new South Gippsland Shire. For all these centres, government was effectively taken further away (Table 3). No other Victorian municipal centre exists east of Bairnsdale as the East Gippsland Shire extends to the NSW border. This may be a factor in the sense of political isolation that locals seem to feel.

**Table 3: Distance to Municipal Centre Before and After Amalgamation**

	1993	1994
Cann River	75 km	163 km
Orbost	0 km	88 km
Toora	11 km	48 km

In contrast, Camperdown and Alexandra retained their role as municipal centres. Interviews from the in-depth case studies presented some interesting insights in relation to attitudes towards government.

In Cann River and Orbost, there was an entrenched feeling of disenfranchisement. There is a pervasive sense that trust has been lost with “Government”. Communication of the importance of the timber industry is likely to be viewed against a backdrop of past disappointments. They were promised no net loss of jobs in 2002 under the “Our Forest Our Future” policy yet, in their own region, they have witnessed ongoing job losses since then.

“... they said there’ll be no job losses and no one believed them. Because we’ve been around for so long and, lo and behold there’s job losses happening now as a result...So I suppose we’ve just become so attuned to it now that we ... don’t trust anything the government says.” (Cann River Interview 9)

The Camperdown region has not experienced changes analogous to the reduction of timber allocation seen in East Gippsland. However, the local dairy industry has experienced periods of structural adjustment, company takeovers and factory rationalisation. Despite this, residents in Camperdown have maintained their faith in the future of the local dairy industry. The process of returning the Camperdown Bonlac site to a functional state involved a lot of negotiation – mostly undertaken at the level of local and state government.

“See, the shire and the state government formed partnerships and they got natural gas to the town, which then made that factory site more economical viable for a potential user” (Camperdown Interview 7)

During this time, most of the community were happy to let things happen at that higher level:

“... while the state government and the shire were working together, I think at community level they were happy to let that go on... It has to come from the higher level.” (Camperdown Interview 7)

This suggests a level of trust in government in Camperdown that was not evident in many of the Cann River interviews.

The experience of Alexandra showed the value of having easy access to local government. There was general awareness of what local government had done in response to the closure of the local sawmill and an understanding that municipal officers were in contact with other levels of government to provide a coordinated response. This response largely took the form of an information day in which affected workers could access a range of local, state and federal government assistance.

## CONCLUSION

Through the use of qualitative and quantitative research methods, this study has highlight the diverse trajectories of change that follow economic shocks such as the closure of a key

processing facility. Many assumptions are attached to the impacts of such closures. There is an expectation of flow-on effects such as: declining house prices; increased unemployment, and population decline. Yet the nine case studies examined in this report often challenged such assumptions. For some, an economic shock was a short-term difficulty from which the town recovered well. For others the shock was not an isolated event, but was seen as part of a series of changes. In towns like Orbost or Toora, the memory of closures and service rationalisation in the 1990s was still an important part of the (negative) narrative of change in 2012.

Adaptive responses to economic shocks may include out-migration, although this is often a small part of the response. If commuting is a viable alternative, then this is often a preferred option. While labour mobility is an economic assumption (and often seen as a desirable economic outcome), it can have negative social consequences for a town. The disruptive impact of out-migration was evident from the research, less for its impact on population levels than for its impact on social cohesion and social capital.

Towns where commuting rather than out-migration was an adaptive response often fared better because social stability was maintained. The opportunity to commute rather than relocate was notable in many locations and, while not without cost, such an option allowed towns like Camperdown to retain a level of social stability during a period of rapid and extensive economic change.

The study found no clear pattern in housing market responses to an economic shock. Yet some towns reveal ways in which housing markets can play an important role in determining the trajectory of change following a shock. Of some concern is the situation where a small town with existing low house prices experiences selective population churn after an economic shock. Even a small change in the social mix can trigger a discernible change in the character of the town. In the case of Cann River and Toora, this has had consequences for the wellbeing of the town.

Impacts from a single economic shock (like a factory closure) may not be the biggest contributor to changing town demographics. Structural population change, generational effects and policy decisions from decades earlier can have long term impacts on whether a town is growing, declining, ageing, becoming wealthier or poorer.

Changes in governance are an under-appreciated factor in how towns cope with change. Loss of a municipal office or increasing distance from local government centres can create feelings of disempowerment which remain a topic of discussion in towns like Cann River, Orbost and Toora, nearly 30 years after the event of amalgamation. In contrast, the town of Camperdown retained not only its municipal role, but a level of community trust in local government and its ability to speak and act on behalf of the community.

## ACKNOWLEDGEMENTS

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