

Victoria: 100 years since Federation

On 1 January 1901, Victoria made the transition from being an independent colony to one of the States of a federated Australia. After having been strong supporters at the 1899 referendum for the move to Federation (94% Yes vote), the citizens of Victoria in 1901 had extra cause to celebrate. On 9 May 1901 the Exhibition Building in Melbourne was the site for the opening of the inaugural Commonwealth Parliament, and on 3 September of the same year the new Australian flag was officially flown for the first time atop this site.

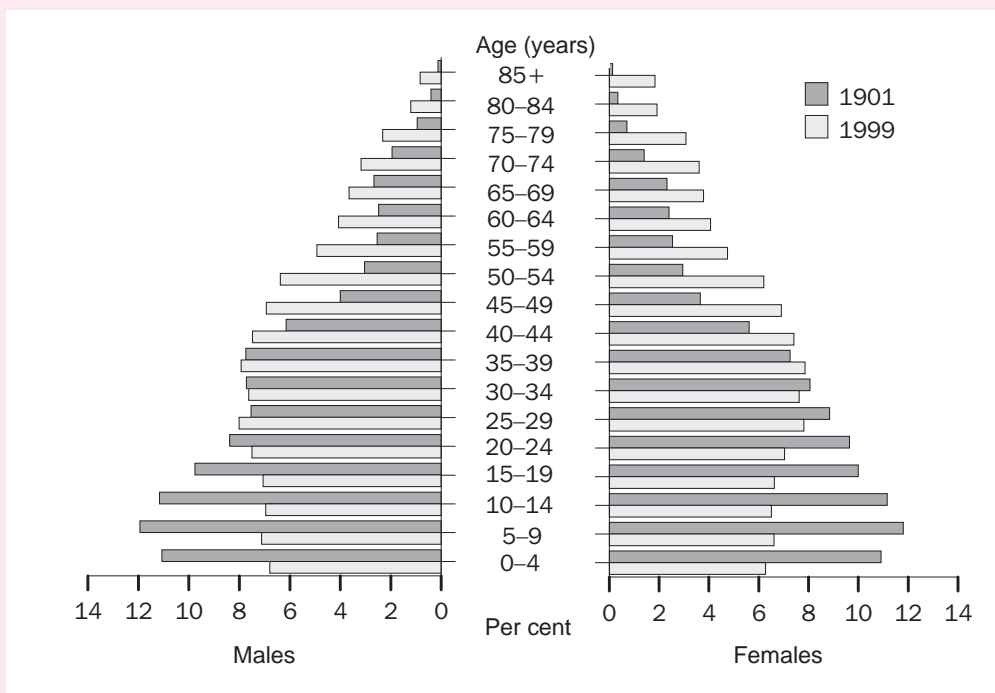
During the ensuing 100 years since Federation, fundamental changes to all aspects of Victoria — its society, economy and environment — have led to a Victoria which is in many ways markedly different to that of 1901. This article provides a statistical insight into Victoria at these two points in time, as well as a description of some of the policy initiatives and thinking around the time of Federation which were shaping Victorian society. However, describing change often does not answer underlying questions as to whether, and by how much, a society has progressed. The article concludes by looking at the interest of today's planners and policy makers to better understand what comprises well-being and progress, and how to measure them.

As it entered the 20th century, Victoria was still suffering the effects of a severe drought that commenced in the mid-1890's. The State had also recently gone through a severe economic depression which saw many banks and other financial institutions collapse, and significant declines in economic activity and employment, with associated social hardship and personal suffering. Victoria, in 1901, had an estimated population of 1,209,900 or nearly 32% of Australia's total population. Melbourne, as the capital of the State, was home to 501,580 people.

While Melbourne had experienced strong growth during the period prior to the 1890's, a Victorian in 1901 was more likely to be living in the regional centres or rural areas than in Melbourne itself, with almost 60% of the State's population living outside of Melbourne. During the early 1900's the State Government's settlement policies, particularly in relation to more dense settlement, more intensive agriculture, and opening up of Crown lands, saw an increase in the population of areas based primarily on agriculture. However, this trend did not continue, partly as a consequence of expansion into areas that subsequently proved to be unsuitable for agriculture, but more as a result of improved agricultural productivity and the reduction in labour required for such activities. During the course of the 20th century, Melbourne increasingly became the main location of Victorian population increase and assumed a greater primacy. Between 1901 and 2000, Victoria's population grew by 293% to 4,765,856, while Melbourne's population grew by 581% over the same period. As at 30 June 2000, Melbourne's estimated population of 3,413,894 accounted for 73% of the State's total population.

Whereas males had slightly outnumbered females in 1901 with an average of 101.2 males for every 100 females, by 1999, the situation was the reverse, with there being 97.8 males for every 100 females. This is indicative of a long-term trend towards females increasingly accounting for the majority of the population. At the time of Federation the gender imbalance was more pronounced in rural areas of the State. As females tended to leave the country in much greater numbers than males after completing school, and head to the urban areas for employment, the result was 111.5 females for every 100 males in the urban areas and 115.6 males for every 100 females in rural Victoria. This led to lower marriage rates in the rural areas than the urban areas due to the lack of females of marriageable age.

Children aged 4 years or younger represented 11% of Victoria's population in 1901, by 2000 this had declined to less than 7%. Now, fewer females are having children, as well as fewer children per female — the overall effect being a declining birth rate (25.8 births per 1000 population in 1901, compared to 13.0 in 1998). There has been a marked increase in the average length of a person's life, resulting in a higher proportion of people aged 65 years or more (from approximately 6% in 1901, to 13% in 2000). Different population age structures result in different needs that a society must provide for, such as differing amounts and types of education, health care, accommodation and recreation.



Although there has been only a slight change to the growth rate for Victoria's population between 1901 and 2000 (rates of 1.1 and 1.2 persons per 1000 population respectively), there has been significant changes to the relative contributions of the various components of population growth, such as natural increase (net effect of births and deaths), net interstate migration, and net overseas migration.

In 1901, population growth was largely associated with natural increase, with the rate for excess of births over deaths being 12.6 persons per 1000; by 1999 this had decreased to 5.9. In terms of migration, as a consequence of the severe economic depression in the 1890's and the lure of the goldfields in Western Australia and South Africa, people had migrated from Victoria to the rest of Australia and overseas, especially young men. The result was that Victoria had a net migration rate of -1.2 persons per 1000 population in 1901. In recent years, however, this long-term trend has reversed, with more people moving to Victoria from other parts of Australia, than people leaving Victoria for the rest of Australia. In 1999, the overall net migration rate of 7.1 per 1000 was the major component of population growth, with much of this being based on overseas migration.

From the perspective of the composition of the population based on place of birth, Victoria in the early 20th century was a more homogeneous society than today. The birthplace profile of the Victorian population in 1901 was one which reflected the high levels of natural increase and the effects of the United Kingdom as the predominant source of immigration since settlement. At the time of the 1901 Census, 78% of Victorians had been born in Australia, with a further 18% born in either England, Wales, Scotland or Ireland. With net increases in migration to Victoria during the 20th century relying heavily on overseas migration, this has impacted on the composition of Victoria's population in terms of the birthplaces of its citizens and language. By 1996, 5.8% of the population had been born in East or Southern Asia and another 15.2% in Europe or the former USSR; persons born in the UK or Ireland comprised 5.5%.

The 1902 Victorian Year Book estimated the population of Indigenous persons living in Victoria in 1901 as 652. In comparison, by 1999, the ABS estimate of the Indigenous population in Victoria was 23,800. It should be noted that the definition of what constitutes "Indigenous" has changed and these figures should be compared with caution.

Whereas the composition of the population in terms of their birthplace may have been relatively homogeneous when compared to Victoria a century later, there were notable inequalities in terms of roles and opportunities amongst the citizens of Victoria in 1901.

Federation was clearly a time when the issue of governance and people's ability to input into decision making was, as is now, one which occupied people's thoughts. As at 1901, about half of the adult Victorian population was able to vote, with such rights only residing with men, with the exception of Indigenous and Chinese males. The right for women to vote in Federal elections was conferred nationally in 1902, however it was not until 1908 that Victoria's women were able to vote in State elections (and 1911 before they actually did). This was 51 years after 'universal' male suffrage was granted in 1857 to Victorian men, and after 19 private members' bills had been submitted to the Victorian Parliament on this issue since 1889. By March 2000, there were 33 female members of the Parliament of Victoria — of the 18 State Government Ministers, 8 were female. It was not until 1962 that the right to vote was conferred on Indigenous Victorians.

For a person in 1901 who came from a non-English speaking background, their ability to both migrate to Victoria (or anywhere in Australia) and actively participate in society's decision making processes was severely hampered due to restrictive laws. One of the first laws passed by the new Federal Government was the Restricted Immigration Act. The Act allowed for potential migrants to be given a test in any language as decided by the Immigration Official – the end result was largely a policy of exclusion for certain groups of applicants, in particular people of Chinese background. Even for those of Chinese background already residing in Victoria at the time of Federation, there were high levels of economic and social discrimination. They were subjected to a series of regulations specifically targeting them, including their working conditions. Another law to impact on those who were living in Australia was the 1902 Franchise Act which mostly excluded Indigenous Australians and those Australians from African, Asian and Pacific Island backgrounds, from voting in federal elections. The decision by governments of this era to not collect details of Indigenous Australians and the Chinese during population censuses (apart from a head count) further illustrates the perceived role (or lack of it) of these groups within society at that time. With the eventual abolition of these laws and practices, and the broader move to social equity through the removal of various barriers to participation, as well as improved community education, the involvement and input by all Victorians into decision making processes and all spheres of life, regardless of background, has become more widespread and more representative of the diversity that exists within the community.

As well as the issues considered above, many other notable changes to the social and economic circumstances of Victorians have occurred during this period. Outcomes such as decreasing rates of mortality, and increasing average disposable income, and educational participation and attainment, are viewed by many as being indicative of improvements that have been achieved. Yet against these are a range of other areas of change which many in society may not see as positive outcomes. Examples of these include the extent of families affected by separation or divorce, concerns about personal safety, income inequality, unequal economic growth across the State, the balance of work and personal life, and environmental degradation.

Victorians experienced numerous improvements to their health prospects by 1901, as reflected by decreasing mortality rates. However, in terms of health care facilities, overcrowding was evident in the Children's hospital, the hospital for the insane, the asylum for the insane, and the asylums for orphans. Of those admitted to the infant asylum, approximately 1 in 6 children died while at that institution.

A person born at the time of Federation had approximately a 1 in 10 chance of dying before their first birthday (higher if the child was a boy); by 1998 this likelihood had declined to less than 1 in 200. In relation to overall death rates, for a male these declined from 14.9 to 7.1 per 1000 between 1901 and 1998; for a female the rates decreased from 11.5 to 6.6 per 1000 during the same period. A male born in Victoria during the period 1891-1900 could expect to live for 51.1 years; a female born at that time could expect to live for 54.12 years. By 1998, the life expectancies for Victorians were 76.3 years for males and 81.7 years for females.

With the success in preventing or treating the leading causes of death which were prevalent 100 years ago (such as consumption, tuberculosis and influenza), Victorians are increasingly faced with new concerns surrounding their health and well-being relating to the proportion of their life where they can be active and experience good health. There has been an increase in the impact of 'degenerative' diseases of the body. This has led to an increasing proportion of the population who require support from carers, including institutionalisation, to address their aged-induced physical or mental infirmities. In 1995, 46% of persons aged 65 years or more required some type of assistance.

In terms of personal well-being, access to and participation in leisure activities, have an important role to play. The Victorian population has come to be associated with a love of sport and an adulation of its sporting heroes: "It adulates its football and cricket champions but, until they die or win fame abroad, it accords its statesmen, writers, artists and scientists a deliberately abstemious measure of appreciation".¹ Victorian's interest in attending sporting events was clearly evident by the time of Federation with 95,000 people attending the running of the 1901 Melbourne Cup - equivalent to nearly 1 in 5 of Melbourne's population at that time (in 2000, a record 121,015 people attended the Melbourne Cup). 30,031 people attended the Grand Final in Melbourne in 1901, with 96,249 attending the Australian Football League's Grand Final in 2000. In terms of active participation, an estimated 60% of Victorian males and 50% of females aged 18 years or more had taken part in sport or physical activity during 1999-2000.

While the adornment of the outside of the Exhibition Building in 1901 with light bulbs was a major source of attraction for many Melburnians, Victorians have come from a situation where electricity was a novelty at the commencement of 1901, to one where the expansion of communications technology has dramatically increased the leisure options available. Home-based recreational activities based on technology such as the television and, increasingly, computers, have added to the more 'traditional' leisure options such as sports, theatre, libraries, galleries or museums. By 1999, 51% of Victorian households had access to a computer.

Partly based around the consumption of alcohol, socialising in hotels or similar places was a significant leisure pursuit, especially for males, in 1901. Of the 58,559 offences reported in 1901, the predominant criminal activities were those associated with drunkenness, vagrancy, and larrikinism. The arrest rate for drunkenness was 14.43 per 1000 population in 1901. The extent of the alcohol abuse problem within the community was the driving force behind the existence and social reform activities of the Temperance Unions which were attempting to curb this social problem.

Of people sentenced in 1902, females were proportionally more likely to be sent to prison or reformatories than males, with fines being imposed at the rate of 344 per 1000 females sentenced compared with 451 per 1000 males sentenced. In terms of offences related to serious crime (defined at that time to be: murder, attempted murder, manslaughter, shooting, wounding etc; robbery and burglary; crimes of lust; and horse, sheep and cattle stealing), there were 482 cases investigated in 1902, with the overall rate for serious crime being 40.0 per 100,000 population. While changes to definitions and reporting make such comparisons over time difficult, by 1999 the rate for reported sexual assault was 59.2 per 100,000 population, for assault it was 357.6, and for armed robbery 39.9. Approximately 70% of Victorians aged 15 years or more indicated in April 1998 that they perceive there to be problems in their neighbourhood, indicating community concern over levels of crime.

Of the 1,144 children aged less than 15 years who were arrested in 1902, none could read or write well, with 55% being totally unable to read. Despite education being compulsory for children between the ages of 6 and 13 years in 1901, with free secular public education being provided, as well as a range of private schools being in existence, 13,504 children, or nearly 7% of school age children, were not receiving an education at this time.

Outside of the compulsory education sector, other options for accessing learning, especially for adults, included technical education (Working Men's Colleges and junior technical schools) and adult education (mechanic's institutes and the Worker's Educational Association). There was a need to provide further educational opportunities for Victorians, especially in relation to bridging the gap between State school education and the role of technical schools. This was recognised and acted upon as an outcome of the 1899 Royal Commission on technical education. The subsequent release of the 1901 Fink Report provided a wide range of recommendations covering the spectrum of educational institutions, and resulted in, amongst other things, the establishment of the Office of the Director of Education, and the creation of State continuation schools. Whereas only 1,438 students (or approximately 0.6% of all students) sat for Matriculation examinations in 1901 (a pre-requisite for entering University, and notionally the equivalent to present-day Year 12 examinations), in 1999, Year 12 students accounted for 13.3% of all students. An estimated 78.7% of students continued on past the compulsory school age of 15 to undertake Year 12 in 1999.

The role of non-government schools as providers of education has also expanded. Enrolments of students at State schools has increased by about 2.5 times between 1901 and 1999, while for non-government schools they have increased approximately six-fold. The result being that in 1901, 17.5% of Victoria's school students attended non-government schools and in 1999 this had increased to 33.8%, with the proportion being 41.7% for Year 12 students in 1999. The historical situation that students of private schools were more likely to be female, while for government schools students are more likely to be male, has continued through to the present day.

The changed emphasis on educational attainment based around the importance of continuing on to post-compulsory (particularly tertiary) education has seen a marked expansion in the role of universities within the education sector. While the overall population of Victoria has increased by less than three-fold (297%) since 1901, the number of students at university has increased over 300-fold in the period to 1998. During the 20th century the increase in participation by females in tertiary education has been marked: in 1901 females represented 27.2% of university students; by 1998, 54% of university students were females.

Other educational providers such as Adult and Community Education and TAFE have become significant providers of a wide range of education services to people from all walks of life. The move away from the 'traditional' full-time method of education delivery, primarily for those who recently left secondary school, to methods which fit in with the requirements of the broad range of students has seen part-time attendance become a significant element within adult education (including universities). To illustrate this change, in 1901 there were no part-time university students in Victoria, by 1998 approximately 38% of university students attended part-time. The expansion of educational opportunities reflects the importance being placed by governments, employers and individuals on the development of skills and knowledge, to better enable society and the economy to respond to the changes that are taking place.

Despite the directions for education at the time of Federation, employment of Victorians aged between 12 and 15 years of age in factories, increased during the early part of the 20th century. Between 1903, and 1906, the total number of children employed in factories increased from 5,028 to 6,210. For young girls who were working in factories in 1906 (about half of all child factory workers), 82% worked in clothing and textiles businesses; the industries that boys worked in were more evenly distributed. In terms of the children's working conditions, the 1901-07 Australian Year Book stated that 'On the whole the conditions of labour are satisfactory ... the early years of toil shall not exhaust the worker before the attainment of full growth'.

In 1901, the main employment for males was in primary production (e.g. agriculture, forestry, mining) which accounted for 36% of employed males, and manufacturing (16%). For females, employment was mostly to be found in the provision of 'board, lodging and attendance' (37% of working females) with another 22% in manufacturing (89% of females in manufacturing were working in those businesses associated with textiles and clothing). Overall, of those employed in 1901, 27% were female.

With the changes to social norms and legislation which previously had restricted many females' access to paid employment, changing marriage and fertility patterns, and a change in the mix of occupations from 'blue collar' positions towards office or service based positions, there has been a marked increase in the participation rate by females in the labour force. By August 2000, 44% of the paid workforce were females. This increase has been very evident in the growth in opportunities for part-time work, with 45% of all female employees in part-time positions. The majority (51%) of the increase in the number of employed that has occurred in the five years to 2000 have been part-time positions.

With the move to Federation came the abolition of the previous restrictions that individual Colonies had placed on trade between them via tariffs and other measures. In 1901, the Victorian economy was in the process of local industries adjusting to the effects of free trade within Australia, with a number of industries in decline due to higher costs in Victoria (e.g. costs of power were much lower in NSW at that time than in Victoria) and other industries which had comparative advantages expanding. At the time of the 1901 Census, 165,147 people were 'engaged on Land or with Animals, and in obtaining Raw products from Natural Sources', which accounted for 31% of all workers. By August 2000, employment in agriculture, forestry, fisheries and mining accounted for 4% of the total workforce.

Over the 20th century, Victoria has become the manufacturing 'heartland' of the country, accounting for 32% of the nation's manufacturing workforce and 16% of Victoria's total employment as at August 2000. In 1901 there were 3,249 manufacturing establishments employing 66,529 people, by August 2000 employment was 370,100. There has also been a marked growth in the service industries such as telecommunications, finance, legal, as well as in the government sector. In 1999, the government sector employed 17% of Victoria's total workforce, compared to 0.6% in 1901.

The introduction of Wages Boards in Victoria as one of the outcomes of the *Factories and Shops Act 1896*, resulted in the concept of minimum wage rates (initially developed on an industry by industry basis). The rates were determined by a Board comprised of 4 industry employer representatives, 4 industry employee representatives, and a Chair, who was selected by the Board members. One effect of these Boards was noticeable increases in earnings for employees. By 1902 a person working as a bread maker was earning an average weekly wage of (2pounds 2s 10d), an increase of 32% since 1896. For a Victorian worker employed in the furniture trade the average weekly wage was 1pound 19s 6d, a 36% increase since 1896, while someone in the pottery trade received on average (1pound 16s 4d), which was a 29% increase.

In the Living Wage Decision of 1907 (often referred to as the Harvester Case), the ruling by Mr Justice Higgins of the Commonwealth Court of Conciliation and Arbitration in Melbourne established the concept of a basic wage for unskilled labour in manufacturing industries of 42 shillings per week (a 20% increase). Implicit in this decision was that wages were no longer determined purely by the market forces of supply and demand, and that wage fixing had come into effect to ensure a wage which was enough to 'live' on. However, as the 1907 determination did not cover all workers (e.g. Victorians working in State instrumentalities such as the railways), it further strengthened the resolve of those in other industries in the State to improve their wages, and they often resorted to industrial action. By August 2000 the average weekly earnings for all employees (including part-time workers) was \$637.50, with those for full-time males being \$866.50 and for females \$738.10. Total average weekly earnings increased by 32% during the last 10 years to August 2000, and 5% in the 12 months to August 2000.

At the time of the 1901 Census, less than 3% of the population (excluding dependents) relied on the 'State or upon Public or Private Support'. By 1997–98, approximately 25% of income units (defined as that group of people within a household whose command over income is assumed to be shared: in many cases it equates to a household) in Victoria relied on government pensions and allowances as their principal source of income.

During the 20th century there has been an expansion in the proportion of the population who have retired from full-time work. At the commencement of the 20th century, 65 years was the minimum age for access to an age pension (except for those who had been disabled due to working in mining or any hazardous occupation). With the average life expectancy of a male in 1901 of 51 years, the situation for a Victorian male worker in 1901 was very different to that of a male worker in 1997 who might expect, on average, to live for another 18 years after retiring from full-time work. As females tend to retire from full-time work earlier than males (41 years compared with 58) and live longer, they can expect on average to live for another 40 years after retiring from full-time work. With such changes comes the increased need to plan and resource an increasingly longer period of retirement.

Although four of the members of the 1897 Royal Commission investigating old age pensions considered that "weakness of character" was the cause of poverty, and objected to pensions as a form of assistance in general, by 1901 improvements to living standards through more equitable remuneration and other social justice measures was starting to impact. The age pension introduced in Victoria in 1901 was, however, not universally available. Some of the eligibility criteria were that a recipient had to: be a resident of Victoria for a minimum of 20 years; be of 'good character' (i.e. no criminal record, including not having been convicted of drunkenness 3 times or more within the preceding 2 years, and not have deserted their family 'without just cause' within the last 5 years); and be a British subject by birth or be naturalised - Aborigines, Chinese and people from other Asian countries were specifically classed as being ineligible. It was also expected that relatives would provide support to those not working, rather than a pension being the first option, and in fact relatives of an applicant were summonsed to explain why they were not providing support and were made to do so. These criteria resulted in 21% of persons aged 65 years or more receiving the age pension in 1902-03. Initially the maximum pension in 1901 was 10 shillings per week for an unmarried person or 7 shillings 6 pence for each married person. This was soon reduced by the Amending Act of 1901 to 8 shillings per week for an unmarried person. As at November 1997, 23% of males and 21% of females (aged 45 years or more) who had retired from full-time work relied on an age or widow's pension as their main source of income at the time of retirement. While 16% of retired males relied on income streams derived from their superannuation as their main source of income, the figure for females was 4%.

The older inner suburbs of Melbourne such as Richmond, South Melbourne and Collingwood were experiencing a loss of population partly as a response to the cramped conditions and poorly built housing, as well as the displacement effect caused by the expansion of manufacturing and warehousing into these areas. A Parliamentary Enquiry in 1913 found that in all the inner suburbs of Melbourne and parts of Brunswick, Kew and Hawthorn, there were many crowded dwellings which were damp and badly drained. An outcome of this enquiry was that some minimum housing standards were made compulsory, especially the size of rooms, and proper provision made for sewerage.

Since Federation Melbourne has expanded through the development of suburbs with fully detached houses on their own blocks of land. Such expansion was initially made possible with the rapid development of public transport, in particular the tram, rail and bus networks, though the advent of the motor vehicle increased this impetus outwards. The latter 20th century has witnessed the process of urban consolidation through medium and, more recently, high density accommodation in inner areas of Melbourne, including the Central Business District. These areas have experienced strong population growth after many years of decline.

By 1999, nearly one in four (23%) of all households in Victoria were single person households. The growth in the number of one or two person households in the community has been partly as a result of the ageing of the population, as well as the increased incidence of divorce in the community. In the second half of the 20th century, the stock of dwellings has more than trebled, compared to a doubling of the population.

Then, as now, not all people had access to 'secure' accommodation. At 31 December 1902, there were 5,745 children classed as wards of the State who were living in various reformatories across the State or were being boarded out in foster homes. Of these, 5,402 had been described as 'neglected' children. Private charitable night shelters for the destitute and homeless in Melbourne accommodated 13,570 cases during the year ended 30 June 1902; 63% were men, 36% women, and slightly over 1% were children. On the night of the 1996 Census of Population and Housing, 17,840 people were identified as 'homeless' in Victoria, with the homeless rate being 41 per 10,000 population.

In terms of people's mobility, both for work and personal requirements, in Melbourne in 1901, there was an extensive network of cable trams to serve the transport needs of the city's inhabitants. The Melbourne tram system had 74 kilometres of double track serving 17 routes from the city centre to surrounding suburbs, which at its peak made it one of the largest cable tram networks in the world. The cable tram network was gradually replaced from 1906 onwards by the electric tram system. The continued role played by the tram system as an important form of public transport is evidenced by the system now being the fourth largest in the world, comprised of approximately 240 kilometres of double track and servicing 28 main routes. In 1997–98, there were 117 million passenger trips on the system.

Steam trains were instrumental in linking Melbourne with the rest of Victoria, as well as beyond, and until the advent of a regular service of electric suburban trains in Melbourne in 1919, they provided the basis of the rail network within Melbourne. As the metropolitan rail network converted to electric trains, it continued its expansion. As at 1997–98 it contained 366 route kilometres and provided approximately 114 million passenger trips. The train network provided the early impetus for the expansion of Melbourne's suburbs, although it was the advent of the motor car, as well as the extension of the bus network, which freed up many of the physical constraints imposed by systems which were restricted by their tracks.

In 1901, Victorians also made extensive use of omnibuses and cabs drawn by horses, but over time these were replaced by motor vehicles. From a situation where in the late 1800's the bus fleet consisted of 158 horse buses, the bus fleet comprised approximately 1,400 buses over 257 routes and provided 92 million passenger trips in 1997–98. Within Melbourne, an important role of the bus network is to provide a feeder service to the tram and train network, whereas across Victoria the network provides an important link between centres, as well as providing public transport routes within the larger centres.

A contrast between the beginning and end of the 20th century has been the changing role of private modes of transport compared with public transport. The introduction of the motor car, coupled with growing affluence in the population has led to a revolution in people's ability to move around, for work and personal reasons. By 1999, there were 147,653 kilometres of roads open for traffic, with 2,644,962 passenger vehicles and 87,954 motorcycles registered for use in Victoria. The large numbers of public transport passenger trips coupled with the numbers of motor vehicles on the roads has resulted in an expansion in people's personal mobility and the choices that this enables in terms of residential location and leisure pursuits. The advances in transport have also impacted on freight movement capabilities and greater scope to bring more distant parts of the State to ready access to markets, and open up options in terms of economic activity that can be undertaken in areas previously thought uneconomic.

The type of economic activity that accompanied the growth of Victoria up till the commencement of the 20th century, initially being strongly based on primary production and mining, resulted in early widespread impact on Victoria's physical environment. As at 1901, 5.7% of the land area was occupied for agricultural purposes, with 21% of the total area of Victoria being forest (including 8.3% of the State which had been designated as State forest and timber reserves). The impact on those areas which had been converted to agricultural land use or otherwise cleared of its original vegetation was also exacerbated by the severe droughts that affected much of Australia during the period from 1895, as well as introduced pests such as the rabbit which was still in plague proportions.

An increasing need for water, with its associated expansion of water catchment and storage areas, has been a result of the growth of both population and industry, including the changing pattern of residential accommodation with the rapid increase in the number of homes with front and back gardens. For the 1901 year, Melbourne's water storage capacity was approximately 30,000 megalitres, by November 2000 this had increased nearly 6,000% to 1,787,500 megalitres.

By 1901, an awareness of the importance of the environment and the effects of widespread land clearance through agriculture, timber harvesting and the impact of timber splitters was already evident, as this extract from the 1902 Victorian Year Book quotes the 1898 Royal Commission on State Forests and Timber Reserves: "the removal of trees should be carried out so as to ensure not only the economic harvesting of the forest produce, but also the other advantages that follow therefrom. ...that one direct result of the destruction of forests is the drying up of water courses. The supply [of water] for the lowlands is ... regulated by the tree-clad area, and the waste of water by its outpouring in torrents and freshets is prevented, and alternations of drought and flood checked."

What had been lacking until this time, however, was the necessary legislation, and an independent organisation to enforce these requirements. Prior to this “the only protection is that afforded by a department whose policy in general is to open all lands to settlers as quickly and freely as possible and ...that the issue of every licence to cut timber in State reserves is, more or less, a menace to forest protection.” One response was via the 1901 Forests Bill which put in place measures to protect mountain watersheds and lake and river frontages, better regulation of timber cutting on unreserved Crown land, encouraging tree planting on cleared areas and the imposition of more appropriate penalties for severe breaches of the law.

There has been a significant increase in areas set aside for environmental protection, with approximately 8.8 million hectares of public land (40% of the State), including 3.75 million hectares of parks and reserves as at 2000. Better knowledge about appropriate land management practices have also led to changes in Victoria’s land surface during the course of the 20th century. In part this has been due to continued population growth, and the associated pressure placed on the environment.

A new and ever increasing environmental problem has emerged through the impact of rising water tables, often the by-product of the removal of the native deep rooted perennial vegetation and its replacement by shallow rooted vegetation. This has led to increasing salinity such that the Victorian Department of Natural Resources and Environment have estimated that by 2000, there were 260,000 hectares affected by salinity. The affected areas are less capable of productive agricultural use, which further increases the pressures on remaining agricultural land, and the extent of degraded land areas within Victoria.

Many issues and concerns which occupied the thoughts of citizens and policy makers around the time of Federation are still with us. For example, improving health and well-being, education, standards of living, the longer term effects of a declining birth rate, leisure, welfare provision, the economy, the environment, and even the climate. While a number of the policies that were in place at 1901 or shortly thereafter have since been discarded as unacceptable, many were driven by the norms of the era and the perception at the time by those who wielded influence as to what type of society was seen to be desirable, and its associated priorities.

Describing change does not always make it possible for a reader to know whether a society is ‘better off’ (or not) compared to a previous situation for each area of economic, social or environmental interest, and is further complicated by different people having different perceptions as to what constitutes well-being or a desirable outcome. The desire by planners and policy makers to measure outcomes, such as an increasing proportion of the Victorian community reporting that their health is good, rather than simply measuring inputs, such as the number of doctors per 100,000 population, is an approach that is gaining widespread interest. Knowing whether the Victorian community has, for example, better and more equitable access to facilities and the benefits derived from economic growth, and whether progress is sustainable, have become questions which many existing measures are not well equipped to answer. To meet this need, a range of developments are taking place to better define what the outcomes are that are wanted by Victorians, and how, over time, these outcomes can be measured.

Within many organisations extensive work is occurring in relation to developing protocols as to what constitutes a useful indicator, what indicators are required, and how best to utilise available data or data collection methods and sources to be able to measure changes for these indicators. Included in this work is the Measuring Australia's Progress (MAP) project being undertaken by the ABS which aims to identify and produce, on an on-going basis, a set of 'headline' indicators covering key economic, social and environmental aspects of Australia's progress. Within organisations such as the Victorian State Government, local governments and academic institutions, a range of projects are underway attempting to identify what constitutes 'well-being' or 'sustainability', as well as suitable measures of these concepts. These projects are being done as a means of trying to determine community priorities, as well as monitor whether policies are having the desired impact. One end result being a greater ability to effectively and efficiently put in place appropriate measures which will enable Victorian communities to respond to the challenges that they face.

Many aspects of Victoria's economy, society and environment have changed since Federation. Just as Victorian's in 1899 saw the concept of Federation as a means to progress their society and voted for it accordingly, it is the domain of Victoria's citizens, planners and policy makers in the 21st century to determine the type and direction of change which reflect their aspirations for a better society; and act on them.

End notes

1 *The Centenary History of Victoria*, Ambrose Pratt, Robertson and Mullens Ltd., Melbourne, 1934, p.216.

Bibliography

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