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## Visualising Organisations over Time and Space: The Visual Atlas of Australian

Co-operatives<sup>1</sup>

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### Abstract

*There has been an upsurge of interest in co-operatives as an alternative business model since the Global Financial Crisis and the UN's declaration of 2012 as the International Year of Co-operatives. While this upsurge of interest is welcome, there has been a long history of co-operatives in Australia since at least 1833. Unfortunately, the rich history of Australian co-operatives is poorly documented and overlooked in the major accounts of Australian history. The Visual Atlas of Australian Co-operatives History Project aims to explain the fluctuations in co-operatives over time and regional clusters through combining the skills of historians and business information researchers. The data is drawn from a wide range of sources including published histories, the Trove newspaper database, government sources and co-operative records. The Visual Atlas is based on Tableau software which allows researchers to chart the development of Australian co-operatives over time and space. This chapter besides outlining the theoretical explanations of co-operative development and the VAACHP, also highlights a preliminary result in terms of the upsurge of co-operatives in Western Australia following the First World War.*

The International Co-operative Alliance (ICA, 2018a) - the international umbrella organisation of member-owned co-operatives - defines a co-operative as ‘an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise’. Five broad types, or traditions, of co-operative activity have developed internationally since the mid-nineteenth century: retail (or consumer); financial (or banking); agricultural; worker; and services. While co-operatives are governed by a set of principles, which were originally inspired by the Rochdale consumer co-operative movement, these have changed over time. The seven current principles include ‘voluntary and open membership’, ‘democratic member control’ and ‘concern for community’ (ICA, 2018a). In an international context, the ICA has 313 member organisations from 109 countries and co-operatives have an estimated 1.2 billion members and generate 280 million part and full time jobs worldwide (ICA, 2018b). There are an estimated 2,000 co-operative and mutual businesses operating in Australia with total memberships of 14.8 million (Business Council of Co-operatives and Mutuals, 2018).

This chapter will examine the Visual Atlas of Australian Co-operatives History Project (VAACHP), which tries to map Australian co-operatives over time and space. It combines history with emerging visualisation approaches in information technology and draws upon skills from academics in the two areas. It first examines the background to the project drawing upon the historiographical literature on co-operatives particularly regarding Australia and ideas that explain the growth, decline and survival of co-operatives. The chapter then focuses on the project itself and concludes with some early findings, particularly regarding the dramatic growth in co-operatives following the First World War in WA.

## **Background**

The idea of Rochdale consumer co-operatives was imported from the United Kingdom (UK), where the movement began to combat low wages, high prices and poor quality food, to Australia as early as 1859. Rochdale co-operative societies have played an integral role in the lives of many Australians in coal mining areas, but also in rural regions and metropolitan centres (Balnave and Patmore, 2010). Australian farmers also adopted the idea of co-operatives to help pool resources for the storage, production and market of their produce and cut out the intermediaries who took their produce to market (Lewis, 2006).

There have been waves of interest in co-operatives in Australia with consumer co-operatives commencing in the 1850s and fluctuating in significance until the 1940s when they reached a peak in Australia. While a small number of these consumer co-operatives survived and there has been a recent resurgence of interest in local food co-operatives, the Australian consumer co-operative movement went into decline in the post-war period (Balnave and Patmore, 2012). Agricultural co-operatives were a second major wave of co-operation. These co-operatives date from at least the 1880s and fluctuated over time reaching a peak in the 1970s when there began a strong push towards demutualisation. There are still significant examples of agricultural co-operatives in Australia (Lewis, 2006), with Co-operative Bulk Handling (CBH) in WA being a major exporter of Australian wheat with a revenue of nearly 3.5 billion Australian dollars (CBH, 2017: 6). Finally, while building societies operated in Australia from the 1840s (Butlin, 1964: 251), there was a third major wave of co-operatives in the form of credit unions from the 1940's. Credit unions have become an important part of the Australian financial system and have developed into a movement that sees itself as distinct from the general Australian co-operative movement, with their own national and international peak bodies (Catturani and Cutcher, 2015; Lewis, 1996).

While there have been fluctuations both in numbers of co-operatives and the types of co-operatives, there have also been clusters of Australian co-operatives in geographical terms. Consumer co-operatives tended to be found in the coalmining areas of NSW, Victoria and WA. Consumer co-operatives have been found in rural areas such as the Riverina in NSW and the Barossa Valley in South Australia (Balnave and Patmore, 2012). Agricultural co-operatives were generally found in areas where there were concentrations of dairy farmers, orchardists, sugar cane farmers, wheat farmers and grape-growers. These farmers tended to be small landholders who found it beneficial to pool their resources to construct a sugar cane mill, wheat silo and fruit packing shed (Lewis, 2006). Sometimes areas can be a cluster of a variety of different co-operatives such as the North Coast of NSW, which currently has consumer, agricultural, fishing and financial co-operatives. The co-operatives within these clusters reinforce each other either through economic transactions and ideologically through reinforcing the viability of the co-operative model. Such close relationships between co-operatives however may have negative consequences should a significant co-operative in the cluster face problems and perhaps collapse.

While the focus of co-operative historians has been on consumer co-operatives, historians have suggested economic, political and social factors that assist the formation and growth of co-operatives. Market failures are an important explanation for the rise of co-operatives. Price inflation and its impact on real wages and purchasing power is one key factor for consumer co-operatives. As prices rise, consumers look for ways to reduce their grocery bills. By cutting out the 'middle man' and redistributing the surplus back to consumers, co-operatives can have a downward effect on prices. There can be similar issues regarding financial co-operatives when individuals desire credit to rebuild following an economic or climatic upheaval or build a house

and are unable to obtain it from the existing financial system or face excessive charges in terms of transaction costs and interest rates. If primary producers are unable to gain access to important markets for their produce, they will organize co-operatives to transport, market and process their crops and livestock. Co-operatives engage in collective bargaining to negotiate better prices for quality goods and services and capital formation to build necessary infrastructure to overcome the market failure whether it be a fruit packing shed, milk processing factory, retail store, professional offices or internet platform (Birchall, 2011: 27-28).

Periods of unrest, when disenchantment with the prevailing economic and social order leads to an interest in alternative ways of controlling both consumption and production, is another important factor in explaining the development of co-operatives. Such periods include the industrial revolution in the UK, the Great Depression of the 1930s, the counterculture movements of the 1960s and 1970s and the recent Global Financial Crisis (GFC), when co-operatives were praised for contributing to a fairer and more stable economy and society. One notable response to these periods of unrest from the earliest days was to build utopian communities based on co-operative ideals. Another response was recently against the background of the most extreme state neo-liberal reforms and consequent rising unemployment in Argentina during the 1990s and 2000s, worker unrest underpinned the development of a movement of worker-owned factories (Patmore and Balnave, 2018: 14-15).

Once a favourable political and legal environment is established for co-operatives this may further enhance the growth and development of co-operatives. A good example of the state encouraging co-operatives can be seen in Italy (Sarina and Fici, 2015). After World War II the Italian co-operative movement developed in a context of general recognition for the role

it could play in the economic and social development of the country. Article 45 of the 1946 Italian Constitution claims the social role of co-operatives is based on mutuality and non-profit goals, and involves the government in promoting its development. Favourable laws followed that assisted the growth of co-operatives, such as 1977 legislation that allowed undistributed profits to be set aside in indivisible reserves and not be liable for corporate tax, a measure that increased self-finance considerably (Battilani, Balnave and Patmore, 2015: 65-67).

Immigration and religion played an important role in spreading co-operative ideas internationally. British immigrants in Australia and New Zealand, particularly in coalmining areas, and Finns, notably in Michigan, Minnesota and Wisconsin in the USA, established consumer co-operatives in those countries (Balnave and Patmore, 2008a, 100; Curl, 2012: 161). An important Catholic movement in promoting co-operatives can be seen in the example of the Antigonish movement. It started at St Francis Xavier University in Nova Scotia, Canada in 1930, and approached co-operative development with study circles that identified local problems and proposed co-operative solutions, particularly credit unions. The Antigonish movement had an international impact in encouraging the establishment of credit unions. While the Catholic Church played an important role in the international spread of co-operatives, Protestant clergy were also important (Patmore and Balnave, 2018: 15-16). Alf Clint, an Australian Anglican minister, promoted co-operatives in Australian indigenous communities and Papua New Guinea (Loos and Keast, 1992).

Technological change also played a role in the development of co-operatives. In the dairying industry the cream separator, which was invented in 1878, had major implications for the development of co-operatives. In Denmark, freehold farmers with small landholdings and a few cows were unable to produce quality cheese and butter. Through establishing co-

operative dairies and pooling resources to purchase cream separators, which had been first used by the large landowners, they were able to gain economies of scale that allowed them to produce quality butter for the same high prices that had previously been attained by the large landowners. A hauler picked up daily the small quantities of milk from each co-operative farmer and took them to the co-operative dairy for processing. The first Danish co-operative dairy was established in 1882 (Birchall, 2011: 156; Fay, 1939: 465-468).

Several scholars have recently attributed the continued appeal of surviving consumer co-ops to their link to the community, particularly in rural areas. They become enmeshed in the cultural and social environment of the community by, for example, sponsoring local sporting groups through financial sponsorship and other forms of assistance. Co-operatives become a core institution in the local community promoting employment and retaining profits within the community. They promote 'buy local' campaigns to ensure that residents of particular communities purchase from local businesses and do not spend money elsewhere. These campaigns are designed to preserve local job opportunities and maintain viable communities (Balnave and Patmore, 2006; Robertson, 2012).

Co-operatives have also faced challenges that have led to their decline and disappearance. Explanations for the decline of co-operatives include economic prosperity, in the case of consumer co-operatives, demographic changes and competition from the non-co-operative sector. The decline of working-class communities in mining areas and the waning population in rural areas due to mechanization in agriculture and economies of scale brought about by the consolidation of rural properties have had a negative impact on consumer and agricultural co-operatives. Increasing car ownership in rural areas in developed economies created further difficulties for consumer co-operatives reliant on their remoteness for success.

Some co-operatives cease to exist because their industry ceases to exist as in the case of isolated mining communities (Patmore and Balnave, 2018: 18).

There can also be ideological challenges to the principles that underlay co-operatives that weakens them. Anti-democratic movements and ideas that promote individual over collective behaviour do not favour co-operatives. Communist and Fascist states have attacked co-operatives and incorporated them into the state (Patmore and Balnave, 2018: 18). The recent rise of the Chicago School of Economics and the push towards privatization and deregulation during the 1980s and the following two decades created a climate that favoured the investor owned business (IOB) and co-operative demutualization, particularly for financial co-operatives. The push towards demutualization was abruptly stopped by the GFC in 2008 with the recognition that co-operatives are safer than other business models as they are generally more risk adverse (Battilani and Schröter, 2012).

Academic historians in Australia have largely overlooked co-operatives. Labour historians do not generally view co-operativism as significant, since the Australian labour movement preferred to take the path of trade unionism and the Labor Party rather than pursue co-operativism. There have also been doubts about the significance of ‘islands of socialism’ such as co-operatives as an effective challenge to capitalism (Balnave and Patmore, 2011: 147). With few exceptions, studies of co-operatives have focussed on Rochdale consumer co-operatives in coal mining districts, with many arguing that it was only in these areas that the movement was of any importance. Further, while there are commemorative histories published by the larger farmers’ co-operatives (e.g. Ayris, 1999; Linn, 1988), academic historians have generally overlooked the importance of agricultural co-operatives in rural Australia for farmers and their local communities. Gary Lewis (1992, 1996, 2006) has written the most important



histories of the Australian co-operative movement. However, his research generally does not explore detailed case studies at the local level, provide a long-term set of data on Australian co-operatives, or develop a long-term theoretical perspective that explains the development of the co-operative movement in Australia. Existing literature in Australia generally focuses on one state (NSW) and does not provide insights into why co-operatives were more successful in other states such as SA and WA.

## **The Project**

The project, which is funded by the Australian Research Council Discovery Program, aims to investigate the development of co-operatives in Australia and provide other researchers with a tool to investigate the co-operative sector in interactive and visual ways. Specifically, the project aims to:

- Develop an online visual database of co-operatives, the VAACHP, that enables its users to explore co-operative development both over space and time in a visual and highly interactive way
- Fill major gaps in the existing literature on co-operatives in Australia by undertaking detailed case studies of co-operatives
- Develop a theoretical framework based on the atlas/database that attempts to explain the growth, decline and revival of co-operatives in Australia since their first appearance in the 1820s

The project focuses on all forms of co-operatives in Australia including retail co-operatives, agricultural co-operatives and financial co-operatives, such as credit unions, and

co-operative building societies. It also includes co-operative federations and auxiliary organisations such as co-operative women's guilds. The project draws upon a range of data sources. It is the first to use the National Library Trove newspaper database to develop a long-term picture of the development of a business model, particularly for the nineteenth century. The general data relating to the development of Australia co-operatives is obtained from a variety of sources including the limited surviving records of various state and national bodies relating to the movement. This material can be found at the National Library in Canberra, Mitchell Library in Sydney, the Newcastle University Archives, the Battye Library in Perth and the Co-operative Federation of Western Australia (CFWA) or now Co-ops WA. This material is supplemented by public sources such as newspapers, particularly at community level, published co-operative histories, parliamentary papers and debates, and material sent to the various Registrars of Co-operative Societies. While the research primarily focuses on Australian sources, Eklund (2007) has highlighted the value of examining the international records of the English Co-operative Wholesale Society (CWS) in Manchester for obtaining further information on nineteenth century Australian co-operatives. One significant English source, *The Co-operator*, published reports and correspondence relating to Australian co-operatives and the CWS developed a commercial relationship with Australian co-operatives, both as an importer of agricultural goods and an exporter of consumer goods. The CWS also established for varying periods manufacturing facilities and an office in Sydney and CWS officials visited Australia on several occasions (Lewis, 2006: 7-9). At least one Australian consumer co-operative, the Adelaide Co-operative, affiliated with the CWS.<sup>2</sup>

Another dimension of the project is a series of case studies to allow greater insights into the growth and decline of co-operatives. These case studies involve an examination of the records of the co-operative such as reports, minutes and publications, from their formation.

There are co-operatives with considerable surviving records that have operated for long periods. One of the earliest examples was the Adelaide Co-operative, which operated from 1868 until 1962. Currently operating consumer co-operatives with extensive archives include Junee and Nuriootpa, which were established in 1923 and 1944 respectively (Balnave and Patmore, 2008a: 99-100, 103; Balnave and Patmore, 2015: 1148). A notable example of agricultural co-operative with extensive archives is NORCO, which was founded in 1892 (Ryan, 1995). There is also a major credit union archives in Sydney with the records of a significant number of organisations. Oral histories of participants in these organisations supplement the written records. The project aims to have at least 12 detailed long term case studies with coverage of significant regions for co-operative activity such as the Riverina, the Hunter Valley and West Australian wheat belt.

The data collected is organised on a Visual Atlas of Australian Co-operatives – a central, open-data platform of co-operatives. This concept has been inspired by the recent development of the National Atlas of Productive Aging (Analysis & Policy Observation, 2018). The Visual Atlas is implemented using a state-of-the-art data visualisation software called Tableau. The main data inputted include location, date of operation, type of co-operative, membership, employment and finances. The financial data includes assets, turnover, liabilities and surpluses/losses. Locations include for example branch stores and produce handling facilities. The information is inputted from data sets, such as Trove and Registrars reports, that examine co-operatives over long periods, rather than short term data that may cover only one or two years, to highlight trends and allow patterns of growth and decline to be visible with only a small proportion of the population of co-operatives. As more data is inputted in the Atlas these patterns will become clearer. The Atlas currently contains data up to the present and it is planned to make this a permanent resource for co-operatives and the public. It enables the

analysis and visualisation of data by the researchers to develop explanation for changes in size of the co-operative movement over time and space. Researchers can use the Atlas to highlight where co-operatives are concentrated geographically, provide estimates the average life span of co-operatives and examine issues such as demutualisation over time and space.

## **Early Findings**

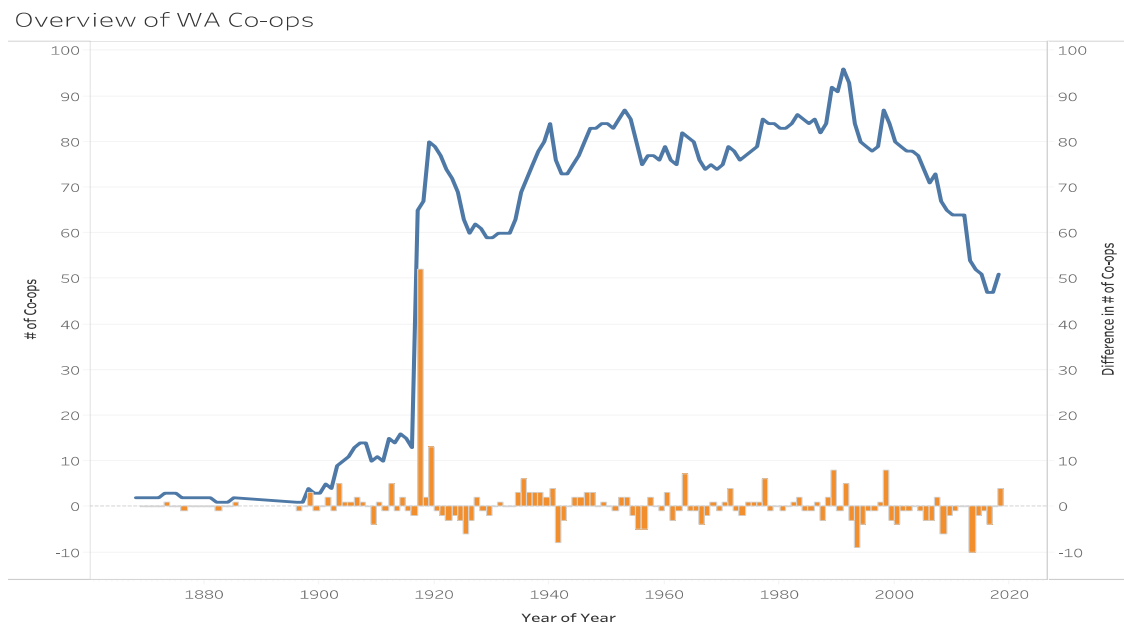
As Figure 1 below shows, early data indicates that the number of co-operatives in Australia have fluctuated over time with notable peaks occurring after the First World War and after the Second World War. On the surface these surges reflect market failures in the wake of the two World Wars. The rising cost of living at the end of the First World War fuelling a growth in consumer co-operatives and agricultural supply co-operatives. Following the Second World War the difficulties of individuals finding finance from established financial institutions to fund the building of houses and the purchase of items arising from pent-up consumer demand such as cars and whitegoods increased interest in building societies and credit unions. The experience of the two World Wars contributed to some questioning of the prevailing economic and social order fuelling discussion concerning alternative economic models to IOB such as state ownership and co-operatives.

Figure 1 – Overview of Australian Co-operatives (Visual Atlas Version 10)



As Figure 2 below concerning WA highlights, the data at this stage can be disaggregated on a state level with the Atlas being further refined in the future so that it may be disaggregated further on a regional level. Since federation co-operatives have been the prime responsibility of the states meaning that the legislative regimes governing co-operatives may vary. Differing patterns of economic activity and settlement between the states may also contribute to variations in the number and type of co-operatives in each state. One particularly notable aspect of the WA experience is the dramatic growth in co-operatives at the end of the First World War, which the rest of the paper will attempt to explain.

Figure 2 – Western Australian Co-operatives (Visual Atlas Version 10)



The West Australian economy developed slowly from white settlement in 1829 with a population by 1891 of 49, 782. There major upsurge in economic activity arising from the discovery of gold at Coolgardie in 1892 and the population grew more rapidly reaching 332,732 by 1921 (Bolton, 2008: 62; Caldwell, 1987: 26). While there were earlier examples of WA co-operatives, such as the consumer co-operative in Perth that operated from 1869 to 1881<sup>3</sup>, there was small surge of interest in co-operatives following the passage in 1903 of the Co-operatives and Provident Societies Act, which drew upon existing friendly societies legislation. Mainly urban co-operatives influenced by Rochdale principles registered under the legislation. The Collie Industrial Co-operative Society, which was formed by coal miners working 213 kilometres south of Perth in 1901, registered under the legislation and continued

to trade until 1982. Farmers and rural businesses were critical of legislation claiming that it was unsuitable for their businesses (Balnave and Patmore, 2008b: 17-18; Lewis, 2006: 98).

There was to be a push for agricultural co-operatives in WA arising from the spread of wheat farming in WA. The development by William Farrer of drought resistant wheat in 1901 and the growing availability of superphosphate allowed wheat growing in the inland South-West of WA. The spread of wheat farming was assisted by government land grants, finance through the State Agricultural Bank and the advice for novice farmers provided by the expanded state Department of Agriculture. Crown land was initially granted along existing railways and new railways were built as demand increased for land (Bolton, 2008: 87-89; Sandford, 1955: 15). In WA, the railway network grew from 2,181 kilometres in 1901 to 6,425 kilometres in 1921, while the wheat sown for grain increased from 74,000 to 1,276,000 acres (Davidson, 1987: 76; Vamplew and Mclean, 1987: 168). Townships spread along the railways at intervals of 15 to 20 kilometres, which was a distance that allowed farming families a one day return journey to town. Some towns failed to prosper such as Madinga, which is 264 kilometres north-east of Perth and gazetted in 1919. The pioneer families faced isolation relying on water carted in over long distances (Bolton, 2008: 90; CBH, 2012: 12).

A major impetus for wheat farmers to form co-operatives came from Westralian Farmers' Ltd., which was registered under company law in June 1914, but based its constitution on Rochdale principles. It marketed agricultural products and expanded into insurance, fertiliser distribution and the wholesale grocery trade. Westralian Farmers opposed an attempt by WA Labor Government, whose majority had been eroded by desertions by the end of 1915 and eventually lost government after the fledgling WA Country Party switched

support to the Liberals, to establish a state wheat marketing board. Westralian Farmers sought to control the marketing of WA wheat crop by setting up an alternative network of farmers' co-operatives to act as its agents in purchasing wheat. Many of these co-operatives extended beyond their agency role and expanded into retailing by purchasing a local store. Westralian Farmers eventually gained control of the entire wheat crop in 1918 and its network of independent co-operatives grew from 49 in 1917 to 92 in 1921. Westralian Farmers also convened the first meeting of the CFWA, the peak body of WA co-operatives, in October 1919 (Bolton, 2008: 102; Lewis, 2005: 99-102; Sandford, 1955: 34; Thompson, 2014: 59-61, 67-69).

While Westralian Farmers played an important role in spreading co-operation among farmers, farmers were attracted to co-operation for a variety of reasons. There was criticism of 'middle-men' over how they treated farmers during a bad drought in 1914-1915 and for growing rich at the expense of farmers. There were hopes that the co-operatives would reduce prices of agricultural inputs and household goods during a period of price inflation. Returned soldiers and ex-miners from the Goldfields, who took up wheat farming after a disappointing experience with gold mining, were attracted to idealism of co-operativism that challenged the existing order of Society. The Westralian Farmers' certainly drew upon the Rochdale co-operative pioneers and success of the movement in the UK to win support for the co-operative movement. While many of these co-operatives survived, some failed due to inadequate capital and exaggerated expectations as to the levels of lucrative income that would arise from wheat handling (Sandford, 1955: 43-47).<sup>4</sup>

While there was a surge of farmers' co-operatives in rural areas, there was some co-operative interest in metropolitan Perth. There was industrial unrest among maritime workers



and strikes by public servants and teachers in 1920 over working conditions and the erosion of wages by war and post-war inflation. Radical ideas associated with One Big Union and the Communist Party highlight dissatisfaction with the political and social order during and after the First World War. One major example was the WA Metropolitan Industrial Co-operative (WAMIC), which was formed in 1919 as a response to rising prices and praised the Rochdale co-operative movement. Westralian Farmers and the English CWS were its wholesalers and at its peak had stores in Perth and five nearby locations with 2,400 members. Arising from a painters' strike in 1919 there arose the WA Workers' Co-operative Society (WAWC), a worker co-operative. Neither the WAMIC or the WAWC survived the post-war recession of the early 1920s (Bolton, 2008: 116-117; Oliver, 2003: chaps 3-4).<sup>5</sup>

## Conclusion

The VAACHP combines the fields of history and visualisation to map and explain the development of Australian co-operatives over time and space. While there are number of explanations that have been put forward the growth, decline and re-birth of co-operatives, there has been no systematic attempt to develop a comprehensive theory for co-operative development in Australia. Early findings indicate varying patterns of co-operative development at a state and regional level with a rapid growth in WA at the end of the First World War. This can be partially explained by Westralian Farmers' strategy of establishing a network of agencies for the handling of wheat, but also reflects farmers' concerns with the role of 'middlemen', rising prices and the social order following the trauma of the First World. While not as a dramatic surge of co-operatives, workers similar concerns about economic and social conditions and experimented with co-operatives.

References: -

Analysis & Policy Observation (2018) Atlas of Productive Ageing. Available at:

<http://apo.org.au/node/22639> (accessed 15 August 2018).

Ayris C (1999) *A Heritage Ingrained. A history of Co-operative Bulk Handling Ltd. 1933-2009*. West Perth: CBH.

Balnavé N and Patmore G (2006) Localism and Rochdale Co-operation: The Junee District Co-operative. *Labour History* (91): 47-68.

Balnavé N and Patmore G (2008a) Practical Utopians: Rochdale Consumer Co-operatives in Australia and New Zealand. *Labour History* (95): 97-110.

Balnavé N and Patmore G (2008b) Rochdale Consumer Co-operatives in Australia: A Case of Rural Survival. *Journal of Co-operative Studies* 41(1): 11-21.

Balnavé N and Patmore G (2010) Marketing community and democracy: Rural Rochdale co-operatives in Australia. *Consumption Markets & Culture* 13(1): 61-77.

Balnavé N and Patmore G (2011) The Politics of Consumption and Labour History. *Labour History* 100: 145-65.

Balnave N and Patmore G (2012) Rochdale consumer co-operatives in Australia: Decline and survival. *Business History* 54(6): 986-1003.

Balnave N and Patmore G (2015) The outsider consumer co-operative: lessons from the Community Co-operative Store (Nuriootpa), 1944–2010. *Business History* 57(8): 1133-54.

Battilani P Balnave N and Patmore G (2015) Consumer Co-operatives in Australia and Italy. In: Jensen A Patmore G and Tortia E (eds) *Cooperative Enterprises in Australia and Italy. Comparative analysis and theoretical insights*. Florence: Firenze University Press: 57-73.

Battilani P and Schröter H (2012) Demutualization and Its Problems. In Battilani P and Schröter H (eds) *The Co-operative Business Movement, 1950 to the Present*. Cambridge (UK): Cambridge University Press, pp. 150-171.

Birchall J (2011) *People-Centered Businesses. Co-operatives, Mutuals and the Idea of Membership*. Houndsmills (UK): Palgrave Macmillan.

Botlon G (2008) *Land of Vision and Mirage. Western Australia since 1826*. Crawley (WA); UWA Publishing.

Business Council of Co-operatives and Mutuals (2018). About us. Available at:

<http://bccm.coop/about/#.W3Es4359gcg> (accessed 13 August 2018).

Butlin NG (1964) *Investment in Australian Economic Development 1861-1900*. Cambridge (UK): Cambridge University Press.

Caldwell JC (1987) Population. In: Vamplew W (ed) *Australians. Historical Statistics*.

Broadway (NSW): Fairfax, Syme & Weldon Associates, pp. 23-41.

Catturani I and Cutcher L (2015) Financial Co-operatives in Australia and Italy. In: Jensen, A

Patmore G and Tortia E (ed) *Cooperative Enterprises in Australia and Italy. Comparative*

*analysis and theoretical insights*. Florence: Firenze University Press, pp. 76-88.

CBH (2012) *Revitalising Rail. The Co-operative Way*. West Perth: CBH.

CBH (2017) *Annual Report 2017*. West Perth: CBH.

Davidson B (1987) Agriculture. In: Vamplew W (ed) *Australians. Historical Statistics'*

Broadway (NSW): Fairfax, Syme & Weldon Associates, pp. 70-85.

Eklund E (2007) Retail Co-operatives as a Transnational Phenomenon: Exploring the composition of Australian colonial society and culture. *Journal of Colonial Australian History* 9: 127-145.

Fay CR (1939) *Co-operation at Home and Abroad. A Description and Analysis. Vol. II.*

1908-1938. London: P.S. King & Son.

ICA (2018a.) About us. Available at: <https://www.ica.coop/en/the-alliance/about-us>

(accessed 13 August 2018).

ICA (2018b) Identity, Value and Principles. Available at: <https://www.ica.coop/en/whats-co-op/co-operative-identity-values-principles> (accessed 13 August 2018).

Lewis G (1992) *A Middle Way. Rochdale Co-operation in New South Wales 1859-1886*. Sydney: Australian Association of Co-operatives Ltd.

Lewis G (1996), *People Before Profit. The Credit Union Movement in Australia*, Kent Town (SA): Wakefield Press.

Lewis G (2006) *The Democracy Principle. Farmer Co-operatives in Twentieth Century Australia*. Wambion (NSW): Gary Lewis.

Linn, R. (1988) *Dairy Vale. A History of Co-operation*. Dairy Vale Co-operative: Adelaide.

Loos N and Keast R (1992) The radical promise: The aboriginal Christian cooperative movement. *Australian Historical Studies*, 25(99): 286-301.

Oliver B (2003) *Unity is Strength. A history of the Australian Labor Party and the Trades and Labor Council in Western Australia*. Perth (WA): API Network.

Patmore G and Balnave N (2018) *A Global History of Co-operative Business* Abingdon (UK): Routledge.

Robertson N (2010) *The Co-operative Movement and Communities in Britain, 1914-1960*. Ashgate (UK): Farnham.

Ryan M (1995) *A Centenary History of Norco 1895-1995* Lismore (NSW): Norco.

Sandford J (1955) *Walter Harper and the Farmers*. Perth (WA): Westralian Farmers' Co-operative Printing Works.

Sarina T and Fici A (2015) A Comparison Between Australian and Italian Co-operative Law. In: Jensen A Patmore G and Tortia E (eds) *Cooperative Enterprises in Australia and Italy. Comparative analysis and theoretical insights*. Florence: Firenze University Press, pp. 21-36.

Thompson P (2014) *Wesfarmers 100. The People's Story 1914-2014*. Perth: Wesfarmers.

Vamplew W and McLean I (1987) Transport and Communication. In: Vamplew W (ed) *Australians. Historical Statistics*. Broadway (NSW): Fairfax, Syme & Weldon Associates, pp. 166-182.

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<sup>2</sup> Adelaide Co-operative Committee Minutes, 19 January 1901. State Library of South Australia, BRG 50/1/7

<sup>3</sup> *The Inquirer and Commercial News* (Perth), 29 December 1869: 2; *The West Australian*, 28 January 1881: 4.

<sup>4</sup> *Gnowangerup Star and Tambellup-Ongerup Gazette*, 17.01.1920: 3; *The Blackwood Times*, 6 September 1918: 4.

<sup>5</sup> *Daily News* (Perth), 9 July 1919: 9, 10 December 1919, pp. 1, 9, 16 December 1919: 2, 10 February 1920: 7, 5 May 1920: 4, 20 July 1920: 6; *Primary Producer* (Perth), 7 May 1920: 4; *Swan Express*, 4 July 1919: 2, 21.05.1920: 2; *West Australian*, 2 April 1919: 9, 12 March 1920: 3, 25 June 1920: 6, 18 February 1922: 10 17 March 1923: 10; *West Australian Government Gazette*, 29 March 1923: 570, 5 September 1924: 1617; *Westralian Worker*, 15 August 1919: 6, 10 February 1920: 7, 12 March 1920: 3, 5 May 1920: 4, 25 June 1920, pp. 2, 6, 20 July 1920: 6, 20 August 1920: 4.