Telecommunication Infrastructure and Pork Barrel Politics? An Investigation of the National Broadband Network Early Rollout and Voting Behaviour in Australia

Abstract: It has been argued that infrastructure unevenness rigidifies into more lasting structures of socio-economic and political advantage and disadvantage. This paper focuses on telecommunication infrastructure as the backbone of a fast-growing digital economy, and raises important questions about the early National Broadband Network (NBN) in Australia. Previous studies argued that the early NBN rollout gives the release sites a regional competitive advantage against other localities that have to wait up to several years to receive similar infrastructure. This paper, however, takes the discussions on the provision of telecommunication infrastructure in Australia to a new level, and raises important questions about the political economy of infrastructure provision. It asks firstly whether there was any case of pork barrelling in the early NBN rollout; and secondly if the (targeted) infrastructure funding swung votes at all. In order to answer these critical questions, the paper examines voting patterns in the earlier NBN release sites versus all electorates in the federal elections in 2007-2013 using the data available via Australian Electoral Commission. Findings show trends of targeted funding with a focus on marginal seats, followed by vote swings in the following election.

Introduction

The link between planning and infrastructure has been a topic of investigation for numerous studies (Graham and Marvin, 2001; Swyngedouw, 1997). The investigations, for the last two decades, mostly included a strong focus on infrastructure security closely linked to the conventional treatments around technical and engineering aspects of infrastructure provision and maintenance. It has been only over the last few years that a surge of interest in the socio-economic and political character of infrastructure formation has been witnessed (Dodson, 2009; Kaika and Swyngedouw, 2000; Lorrain, 2001). It has been argued that infrastructure unevenness rigidifies into more lasting structures of privilege and advantage (Bröcker, et al., 2010; Dodson, et al., 2007).

More recently, planning literature has shown growing interest in broadband technology as the key telecommunication infrastructure, and also as the backbone of the fast-growing knowledge economy (Eskelinena, et al., 2008; Ford and Koutsky, 2005). In the US, consequences of uneven distribution of the new infrastructure have been studied with focus on 'islands of inequity' that are simultaneously victimized by the deregulated telecommunications market, and by local governments not promoting an equitable distribution of broadband services (Grubesic, 2004, 2006; Grubesic and Murray, 2004). In Australia, referring to the ongoing investment on the National Broadband Network (NBN), it has been argued that the early rollout gives the release sites a regional competitive advantage against other localities that have to wait up to several years to receive the telecommunication infrastructure (Alizadeh, 2013).

This paper, however, takes the discussions on the provision of telecommunication infrastructure in Australia to a new level, and raises important questions about the political economy of infrastructure provision. It asks firstly whether there was any case of pork barrelling in the early NBN rollout; and secondly if the (targeted) infrastructure funding swung votes at all.

In order to answer the above critical questions, the paper starts with an investigation of political economy of infrastructure investment both internationally and in Australia. It then focuses on telecommunication infrastructure with a review of the ups and downs of the NBN since its announcement in April 2009. An analysis of the distribution of the early NBN rollout across Australian federal electorates is then conducted. The analysis is structured in two parts focusing on the 2007 and 2010 federal elections (as pre-early rollout elections), and 2013 federal election (as the post-early rollout election). The analytical structure is set to examine firstly, if there was any pork barrelling in the infrastructure investment, and secondly, if it worked at all; meaning if the targeted funding swung votes between the 2007 and 2013 elections.

Such an examination has its limitations—while the early NBN rollout gave the local communities a competitive advantage, the new telecommunication infrastructure was only a fraction of total federal government investment. In other words, the NBN rollout was only one possible way that the government could direct resources towards particular electorates. Decisions over the location of universities, hospitals, military bases, and government offices can all be implemented in a partisan manner.

Political Economy of Infrastructure Investment: Pork Barrel Politics

The surge of interest in infrastructure, over the last few years, has involved a shift from conventional treatments organized around technical and engineering discussions to more recent approaches that emphasize the socio-economic and political character of infrastructure formations (Alizadeh, et al., 2014; Dodson, 2009; Kaika and Swyngedouw, 2000; Lorrain, 2001). Much of this new interest in infrastructure stems from the recognition that many processes, structures and practices in modern life are mediated through or made possible by infrastructure (Furlong, 2011; Geels, 2004; Guy, et al., 2010; Rutherford, 2011). Modern cities are now comprised of multiple, inter-connected and/or overlapping networks of physical and digital infrastructure conveying not only people, water, waste and energy, but also information (Graham and Marvin, 2001). The utmost level of integration of modern life with infrastructure has resulted in governments' investment in different infrastructure projects. This has also made infrastructure a desirable target of pork barrel politics.

Pork barrel politics - the practice of targeting public funds to particular regions or local districts based on political considerations - has been in existence for at least two centuries (Leigh, 2008). The ability of governments to apportion local-level expenditure for political purposes has long been investigated (Evans, 2004). One set of studies has focused on the relationship between electoral systems and pork barrel politics. A key question, in this line of studies, is whether politicians allocate resources primarily towards swing seats or safe seats. While Cox and McCubbins (1986) posited a model in which politicians are risk-averse, and therefore channel resources more generously towards their core supporters, Dixit and Londregan (1996) argued that in certain circumstances, politicians prefer to spend money on swing voters. Another important question is whether and if yes, how much pork barrelling matters at the ballot box. While some studies have observed little or no relationship between local expenditure and vote share (Feldman and Jondrow, 1984; Stein and Bickers, 1994), others have found that more spending influences people's voting behaviour (Alvarez and Saving, 1997b; Levitt and Snyder, 1997).

There is a well-established body of international literature around political economy of infrastructure investment (Cadota, et al., 2006; Gramlich, 1994), covering a wide range of traditional infrastructure projects (transport, energy, etc.). Previous studies, analysing the main determinants of the regional allocation of infrastructure investment, have argued over and over that efficiency criteria play only limited roles in the geographical distribution of government funding. There actually remains considerable disagreement as to the impact of government investment in infrastructure on economic activity and employment at the national level (Crain and Oakley, 1995; Edelberg, et al., 2002). The literature concludes that the main political factor considered in infrastructure allocation is a measurement of the electoral productivity of funds invested in each region (Castells and Solé-Ollé, 2005).

International perspective

The politics of infrastructure provision, has been widely studied across the US (Alvarez and Saving, 1997a; Crain and Oakley, 1995; Feldman and Jondrow, 1984); with abandoned evidence suggesting that political conditions such as legislative stability and voter volatility are systematically related to infrastructure differences across states (Alvarez and Saving, 1997b; Evans, 2004).

Similar patterns are observed across Europe, and research has shown historic trends of pork barrelling in a number of countries including Italy (Golden and Picci, 2008), Spain (Castells and Solé-Ollé, 2005) and France (Cadota, et al., 2006). For example, Castells (2005) analysed the main determinants of the regional allocation of infrastructure investment, with a focus on transport spending in Spain during the period 1987–1996. The results suggested that efficiency criteria played only a limited role in the geographical distribution of infrastructure spending. Nevertheless, electoral concerns appeared to be, indeed, significant determinants of the cross-regional allocation of transportation infrastructure investments.

Empirical evidence from South and Central America also show a culture of 'political opportunism' and 'local pork barrel politics' in infrastructure investment at different levels (Costa-I-Font, et al., 2003; Schady, 2000). Drazen and Eslava (2005, 2006, 2010) in a series of studies presented a model of the political budget cycle – across Colombian municipalities - in which targeted investments were devised to influence voters by changing the composition of government spending. These studies also showed that, in Colombia, opportunistic targeted expenditures are most often associated with infrastructure development projects, as they seemed to be the most attractive to voters, especially in swing regions.

The data coming out of the fastest growing economies in the world, China and India, seem to also be telling similar stories of pork barrel politics (Khemani, 2010; Luo, et al., 2010). For example, Khemani (2010) examined the variation pattern of public spending in infrastructure across India over time, and argued that it was due to infrastructure projects being used at the margin for political gain. In other words, Khemani (2010), similar to many international authors, noted that greater infrastructure spending at least in some cases might have been targeted at political gain rather than the actual delivery of broad public goods for growth.

Australian perspective

Research in parliamentary democracies has traditionally been less concerned about the issue of pork barrelling than in the US (Leigh and Neill, 2011). There is still a relative shortage of pork barrel studies in Australia, as a parliamentary democracy. Previous Australian studies of pork barrelling, however, have identified solid evidence of the phenomenon specially around infrastructure spending. Earlier studies of pork barrelling in Australia focused on federal programs for the unemployed (Andrews, et al., 2005), and sports grants program (Denemark, 2000; Gaunt, 1999); and concluded that the spending was skewed towards marginal electorates.

In order to understand the extent and effects of pork barrelling in infrastructure funding in Australia, Leigh (2008) analysed four discretionary programs funded by the Australian Federal Government during the 2001–2004 election cycle. Results showed that electorates held by the governing Coalition received a disproportionately larger share of discretionary funding, and a larger number of program grants. Among government seats, funding did not appear to have been directed towards those that were more marginal. More discretionary funding—particularly for road-building—was associated with a larger swing towards the government in the 2004 election.

Telecommunication Infrastructure

Telecommunication infrastructure has been of interest to many national l governments as an area of critical infrastructure with direct implications for national security (Moteff and Parfomak, 2004). It is also appreciated as the backbone of a fast-growing digital economy (Carter, 2013; Jayasundara, 2011). Indeed, different governments' direct and indirect involvement with telecommunication infrastructure is often justified on social equity grounds (Faulhaber and Hogendorn, 2000; McMahon and Salant, 2001); and is based on assumptions that the new technology-based infrastructure will facilitate long-term economic development (Alizadeh, et al., 2011; Martin, 1999; Willson, et al., 2009). For example, in August 2011, the Standing Committee on Infrastructure and Communications of the Parliament of Australia tabled its report on the potential of the NBN to enhance economic and regional development and social and community activity (Parliment of Australia, 2011). Throughout the report there was a great emphasis on the significant role of the NBN to ensure greater equity across Australia's communities in regard to access to government services through e-government, e-health, and e-education particularly in regional and rural areas, and for people who are geographically isolated.

Having said this, previous research acknowledges that it is extremely complex to establish beyond doubt that telecommunication infrastructure per se results in a change in economic indicators (Lee et al., 2005; Strategic Networks Group, 2003). So, this paper takes a different perspective and focuses on the potential political gain behind the order of the new infrastructure provision in Australia. In other words, it questions whether there was any case of pork barrelling in the early NBN rollout and if so, did it swing votes in the subsequent election?

Considering that the NBN started as the largest single infrastructure project in the history of the nation, these are questions worthy of investigation. The following section offers a brief review of the ups and downs of the NBN, since its introduction, which will set the foundation for the analysis to come afterwards.

The NBN Rollout in Australia

In response to the increasing concerns about the quality of Australia's broadband and telecommunication infrastructure (Barr, 2008; Given, 2008; Middleton and Chang, 2008), the Australian Federal Labor Government in 2009 approved the construction of Australia's NBN (NBN Co. Ltd., 2010b). Labor's plan was to provide terrestrial fibre network coverage for 93 per cent of Australian premises by the end of 2020, with the remaining seven per cent served by fixed wireless and satellite coverage (NBN Co. Ltd., 2010a). Following approval for the construction of the NBN, the Federal Labor Government announced the formation of the National Broadband Network Company (NBN Co.), in April 2009, responsible for the design, construction and operation of the NBN.

The NBN rollout began with the announcement that the island of Tasmania was the launch state (NBN Co. Ltd., 2010a). The rollout of the NBN on mainland Australia started one year later in March 2010 when the NBN Co. announced the first five release sites as part of live trials of the network design and construction (NBN Co. Ltd., 2010c). The second stage of the mainland rollout, announced in July 2010, included fourteen new locations and five sites adjacent to the existing first release sites (NBN Co. Ltd., 2011b). This was followed by the release of a twelve month national rollout schedule plan, announced by NBN Co. in October 2011, listing the final 60early rollout locations where the construction would begin prior to September 2012(NBN Co. Ltd., 2011a).

Additionally, in March 2012, NBN Co. announced the first stage of the large-scale rollout to connect 3.5 million premises in 1500 communities in every state and territory to the fibre optic component of the network (NBN Co. Ltd., 2012b). It was envisioned that the localities included in the first stage of the large-scale rollout would be connected to the fibre-optic component before mid-2015. However, the result of the Federal election in 2013 changed the fate of the NBN rollout (NBN Co. Ltd., 2013). The elected Coalition Federal Government decided to reassess the scale of the national fibre project, and put the first stage of the large-scale NBN rollout on hold. Connection dates were scrapped for almost two-thirds of premises previously scheduled to connect to the NBN in the first stage of the large-scale rollout. As of October 2013, only 300,000 premises were still guaranteed to be connected directly to the fibre network (Duke, 2013; Turner, 2013). The latest announcements made by the Coalition Federal Government suggest that a mixed technology network will be adopted (Turnbull, 2014), which means the roll-out speed could be significantly different for the rest of the country.

This recent decision to continue the NBN using a mixed technology intensifies the socio-economic and political implications of the earlier NBN rollout, as those early release sites could potentially be the only ones across the nation that enjoyed fibre to premise NBN. While this paper – with a narrow focus on the early rollout - cannot offer a comprehensive resolution on the political economy of telecommunication infrastructure provision across the nation; it proffers the more modest objective of throwing new light on the political economy of infrastructure planning in the digital age; and expanding the methodological possibility to investigate this line of inquiry.

The present paper supports the advancement of socially and politically sensitive telecommunication research. There have been some speculations about the political agenda behind the earlier NBN release site selection (King, 2011). However, the NBN Co. on different occasions presented a range of engineering and logistic criteria including the availability of existing core infrastructure to connect the access network to, and also access to the transit network and fibre access nodes (DBCDE, 2011; NBN Co. Ltd., 2012a). This paper, however, articulates a methodology and examines the earlier NBN release sites to understand their relative position across the political spectrum in Australia. This will take the earlier speculations to a next level as it backed up by real data and statistical analysis.

Methodology

In order to understand the distribution of the NBN early rollout sites across the political spectrum in Australia, this paper focuses on the early rollout sites across three sates of New South Wales, Victoria and Queensland. These three states are the most populated ones across the nation, and are home to 77% of Australia's population (ABS, 2014). Moreover, about half of the NBN early release sites were located in these three states, which make it sufficient to investigate any possible political agenda behind the selection of the order of the rollout.

The data required to analyse the relationship between voting behaviour and the early NBN rollout was obtained from the independent Australian Electoral Commission (AEC)'s Virtual Tally Room (http://results.aec.gov.au/). The data downloaded from the AEC was for the 2007, 2010 and 2013 Australian federal elections for the House of Representatives and was organised on a two party preferred basis (The two parties being the Australian Labor Party and the Liberal/National Coalition). The data was downloaded at the polling place level rather than electorate or suburban level. This was because in a number of the NBN early release sites, the rollout only covered a small portion of the suburb/electorate. As a result, due diligently all of the electorate maps were cross examined against the NBN rollout sites; and only the relevant polling places were included in the analysis.

Analysis involved identifying the seat classification for each polling place in Victoria, New South Wales and Queensland for the aforementioned three federal elections. The AEC classifies seats as marginal, fairly safe or safe. Following the AEC's guidelines, a seat was classified as 'marginal' where the winning candidate received less than 56% of the two candidate preferred vote, considered 'fairly safe'

between 56%-60% and classified 'safe' when more than 60% (Australian Electoral Commission 2014). Applying this classification of seats, the seat classification for the Australian Labor Party and the Liberal/National Coalition was then tallied.

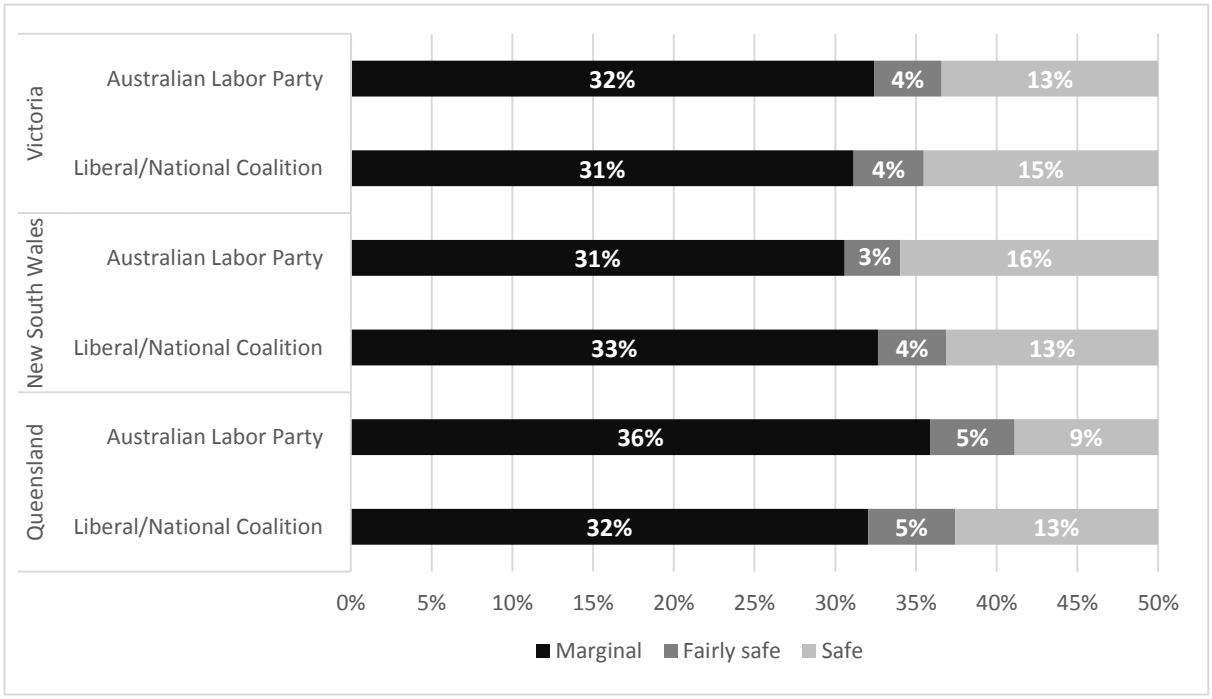
The NBN Rollout and Voting

Before the NBN: 2007 Federal Election Voting Behaviours

The Australian federal election in 2007 ended an era during which for 11 years the Liberal/National Coalition was in power. The NBN was included as part of the winning policy platform set by the Australian Labor Party prior to the election. However, many would argue that the Liberal/ National Coalition lost the election for broader reasons including, but not limited to, a very unpopular 'Work Choices' regime (Wooden, 2006). In this paper we analyse the voting behaviour during the 2007 federal election, as one that belonged to the pre-NBN time.

In the 2007 Australian federal election, the voting behaviour across Victoria, New South Wales and Queensland was similar. Across the three states, the majority of seats held by both parties was classed as marginal (Figure 1). Both parties held almost the same number of marginal, fairly safe and safe seats in each of the states, with the number of each seat classification similar across the three states. Specifically, in Victoria and Queensland, the Australian Labor Party secured slightly more marginal seats, while slightly more safe seats were held by the Liberal/National Coalition. The opposite was evident in New South Wales. All in all, across the three states, the distribution of votes between the two parties in the 2007 federal election resulted in a significant proportion of seats being held marginally.

Figure 1. Australian 2007 Federal Election Seat Classification Percentage in All Polling Places of Victoria, New South Wales and Queensland



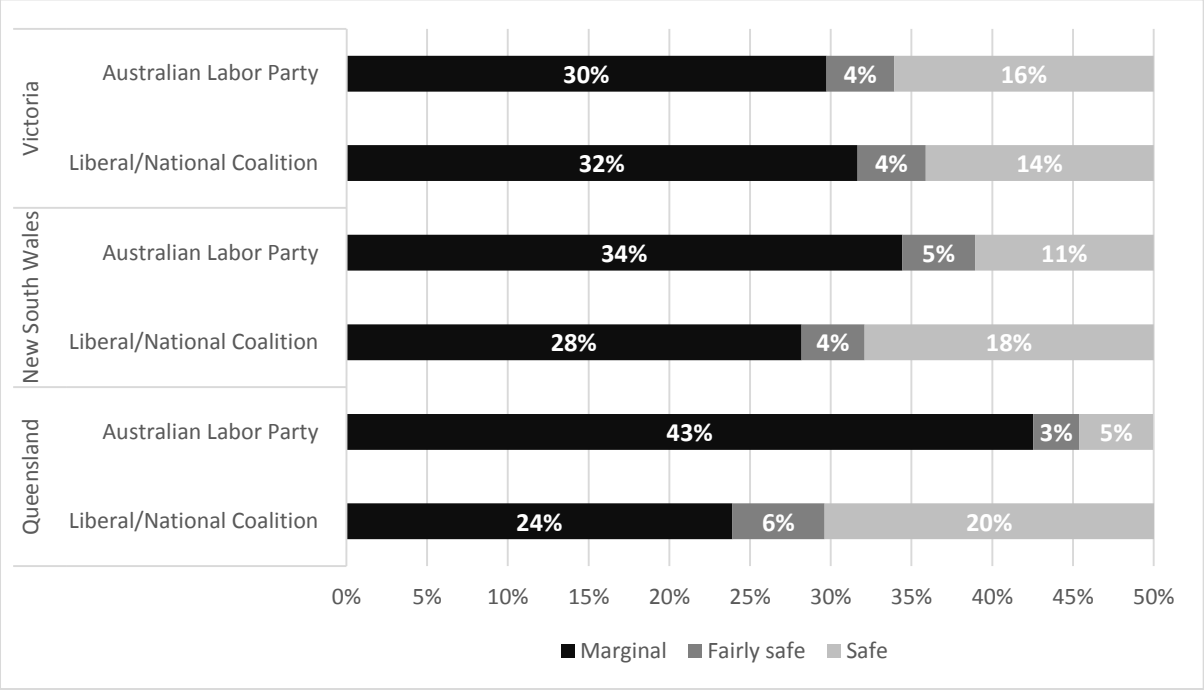
During the Early Rollout: 2010 Federal Election Voting Behaviours

The 2010 Australian federal election was very different from the 2007 one. Unlike the 2007 election which had Labor as the clear winner, the 2010 election ended up with a hung parliament. The election had occurred just one year after the introduction of the NBN, and the establishment of the NBN Co. which had initiated the trial phase of the rollout in the very first release sites. However, many would argue that the voting behaviour changed because of a number of reasons other than the NBN including the intense internal power conflicts within the Labor Party (Johnson, 2011).

Compared to the 2007, the overall voting behaviour pattern for the 2010 Australian federal election in the states of Victoria, New South Wales and Queensland was similar. Hence, the majority of seats held were marginal (Figure 2), with more than double the number of marginal seats obtained than safe seats in each of the states. In Victoria, both parties held almost the same number of marginal, fairly

safe and safe seats. Differing from 2007 however, the Liberal/National Coalition secured slightly more marginal seats, while slightly more safe seats were held by the Australian Labor Party. Unlike Victoria, in New South Wales, a difference in the number of marginal and safe seats obtained by the two parties was more prominent. Here, the Australian Labor Party held 6% more marginal seats and 7% fewer safe seats than the Liberal/National Coalition. In Queensland, this difference was even more significant, with the Australian Labor Party obtaining almost double the number of marginal seats and four times fewer safe seats than the Liberal/National Coalition. Overall, like in 2007, the 2010 Federal Election resulted in the majority of seats being held marginally.

Figure 2. Australian 2010 Federal Election Seat Classification Percentage in All Polling Places of Victoria, New South Wales and Queensland

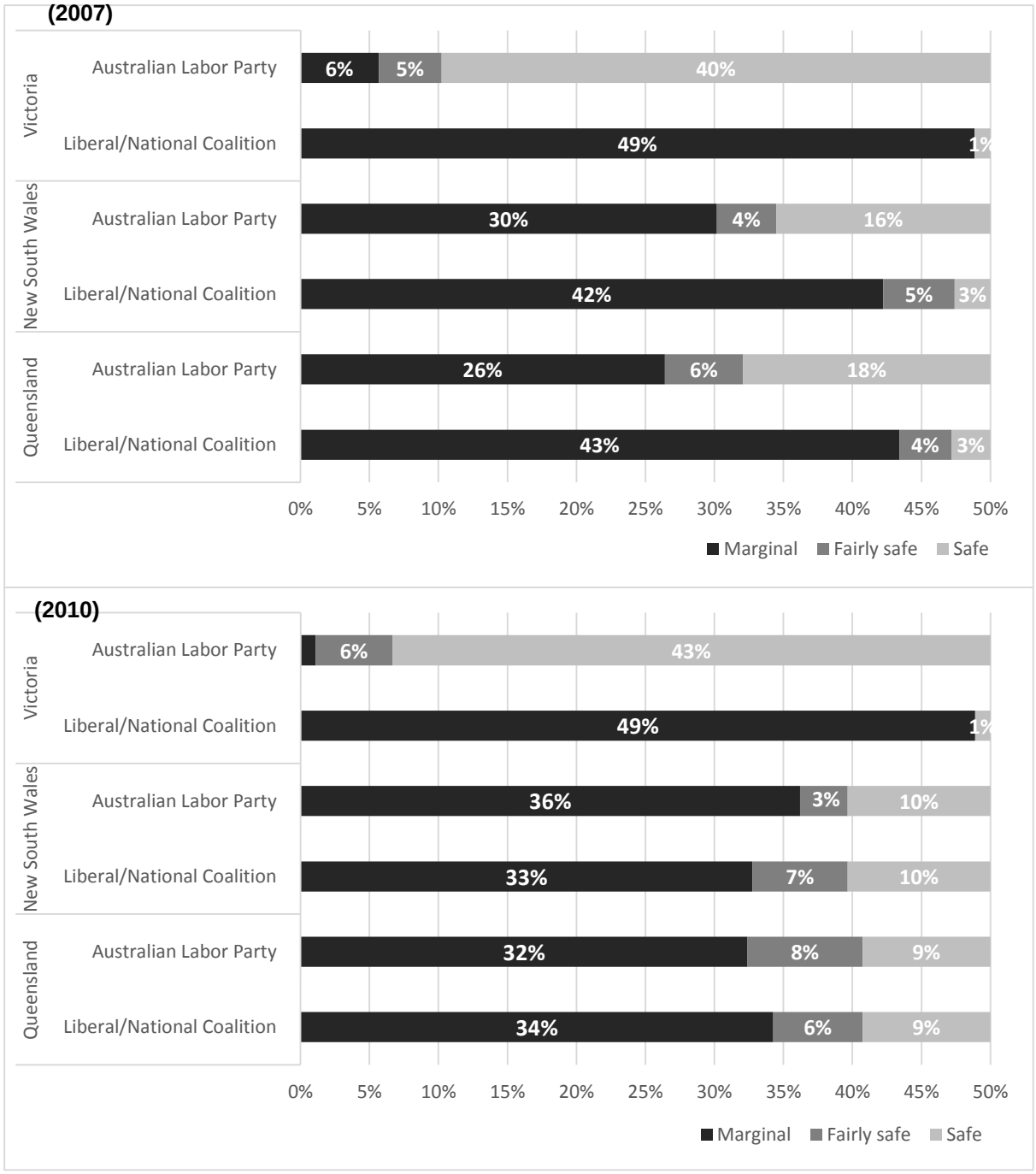


Who Received the NBN?

Discussions on the provision of the NBN commenced following the 2007 election. The selection of the NBN early release sites therefore could be said to be guided by voting behaviours in the 2007 Australian federal election. Moreover, at the time of the 2010 election, 19 NBN release sites were introduced, with the full list of 60 sites announced in October 2011. Hence, the voting behaviour in the 2010 election could still have guided the selection of the NBN early release sites.

An analysis of the voting behaviours within the suburbs that were selected by governing Australian Labor Party, for the early NBN release, reveals that those suburbs that voted for the opposition Liberal/National Coalition and where the Coalition-held marginal seats were the key beneficiaries. This pattern occurred in all three states, as highlighted in Figure 3. In New South Wales and Queensland, electorates where either party held marginal seats had the most likely chance of receiving the NBN, followed by those were the Australian Labor Party-held safe seats. Chances of receiving the NBN in Victoria differed to the northern states, with electorates where the Australian Labor Party-held safe seats almost as likely as suburbs where marginal seats were held by the Liberal/National Coalition to receiving the NBN in the early rollout. Moreover, across the three states, the opposing Liberal/National Coalition-held safe seats were least likely to receive the NBN. With this said, fairly safe-held seats by either party also lucked out, although those held by the Australian Labor Party overall had slightly higher chances. Thus, in terms of receiving the NBN early rollout, the overall winners were those seats held marginally by the opposing Liberal/National Coalition. At the same time, the biggest loosers where the safe seats held by the opposing Coalition.

Figure 3. Australian 2007 and 2010 Federal Election Seat Classification Percentage in Early NBN Rollout Suburbs of Victoria, New South Wales and Queensland



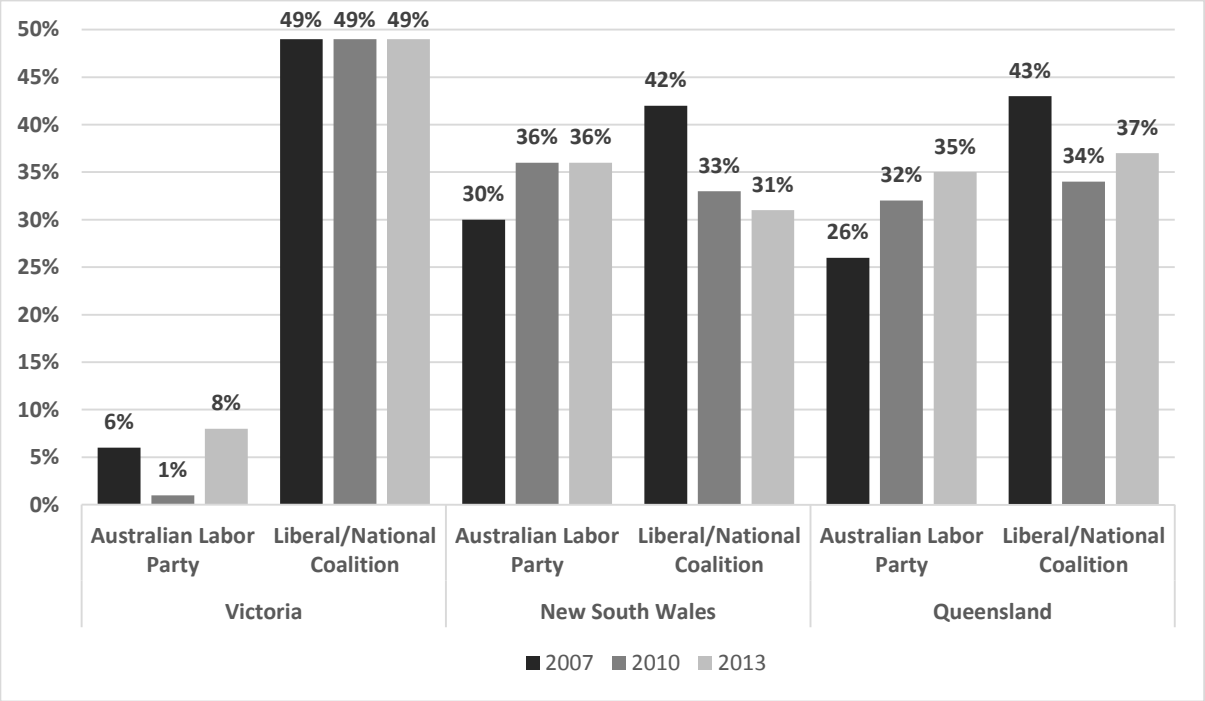
Did the Early NBN Rollout Swing votes?

After the early rollout: 2013 Federal Election Voting Behaviours

The 2013 Federal election occurred when the early rollout was well under-way and the plans for the first stage of the large-scale rollout across all Australian states and territories were also announced. The Australian Labor Party however, lost the election which changed the fate of the NBN. This time, similar to the previous elections, a number of factors such as the ongoing frustrating internal power conflicts within the Labor Party and a campaign against carbon pricing influenced people's preferences. However, the NBN was also widely discussed prior to the election and was one of the deciding factors.

A comparison of the voting behaviour in NBN-recipient suburbs before the provision of the infrastructure and post NBN delivery shows a slight change in votes towards the Australian Labor Party. Like the 2007 and 2010 elections, the majority of rollout suburbs voted marginally in the 2013 elections. Figure 4 shows, however, that in the rollout areas across all three states the percentage of marginal seats held by the Australian Labor Party increased from 2007 to 2013. On the contrary, the percentage of marginal seats held by the Liberal/National Coalition over this time period declined in New South Wales and Queensland and remained the same in Victoria. This trend suggests that the significant NBN investment to sites where the Liberal/National Coalition held marginal seats may have influenced the voting behaviour of the residents to favour the Australian Labor Party. We have to remember that this swing for the Labor Party happened during an election that did not have them as the winner. In other words, while the Labor Party experienced an overall negative swing across the nation, which costed them the election, they enjoyed a positive swing in the NBN early release sites. This positive swing could perhaps be linked to the provision of the hefty infrastructure which distinguished the release sites from the rest of the nation.

Figure 4. Changes in Two Party Preferred Marginal Seat Percentage in Early NBN Rollout Suburbs of Victoria, New South Wales and Queensland from 2007, 2010 and 2013 Australian Federal Election



Conclusion

This paper acknowledges the utmost level of integration of modern life with infrastructure which has resulted in governments' investment in different infrastructure projects all around the world. It then focuses on telecommunication infrastructure as the backbone of the fast-growing digital economy, and scrutinizes the political economy of the provision of the high-speed broadband in Australia. The paper asks whether there was any case of pork barrelling in the selection of the early NBN release sites that enjoyed a regional competitive advantage against other localities that had to wait several years to receive the infrastructure. The answer to this question then leads to a second question about the degree to which the voting in the early NBN release sites swing following the infrastructure rollout. In order to answer these questions the paper examines the voting patterns in the earlier NBN release sites versus all electorates in three states of New South Wales, Victoria and Queensland, using the data available via Australian Electoral Commission. The analysis is offered in two parts focusing on the 2007 and 2010 federal elections (as pre-early rollout elections), and the 2013 federal election (as the post- early rollout election).

An analysis of the voting behaviours within the suburbs that were selected by the then in power, Australian Labor Party Government, for the early NBN release, reveals that the opposition (Coalition) held marginal seats were the key beneficiaries of the infrastructure provision. This pattern was observed in all the three states. In New South Wales and Queensland, marginal seats (whether held

by the governing Labor or opposition Coalition) had the most likely chance of receiving the NBN, followed by those were the Australian Labor Party-held safe seats. Chances of receiving the NBN in Victoria differed to the northern states, with electorates where the Australian Labor Party held safe seats almost as likely as the marginal seats held by the Liberal/National Coalition to receiving the NBN in the early rollout. Moreover, across three states, wherever the opposing Liberal/National Coalition-held safe seats were least likely to receive the NBN. With this said, fairly safe-held seats by either party also lucked out, although those held by the Australian Labor Party overall had slightly higher chances. Thus, in terms of receiving the NBN early rollout, the overall winners were those seats held marginally by the Liberal/National Coalition.

Earlier studies of pork barrelling in Australia found the funding to be more generously targeted towards marginal electorates (Andrews, et al., 2005 {Gaunt, 1999 #1457; Denemark, 2000). In the case of the NBN, while there seems to be a tendency towards marginal seats, it is interesting to see that the opposition-held marginal seats had a greater share in comparison with the governing Labor-held marginal seats. Having said this, the fact that the opposition-held safe seats had the lowest ever chance to enjoy the early NBN rollout, suggests that the funding was skewed up for potential political gains.

The paper then moves to the second question on whether the targeted funding worked and swung votes for Labor in the following 2013 federal election. The analysis of voting in the NBN early rollout areas before the provision of the infrastructure and post NBN delivery shows a slight swing towards the Australian Labor Party. We have to remember that this swing for the Labor Party happened during an election that did not have them as the winner. In other words, while the Labor party experienced an overall negative swing across the nation, which cost them the election, they enjoyed a positive swing in the NBN early release sites. This positive swing could perhaps be linked to the provision of the hefty infrastructure which distinguished the release sites from the rest of the nation. Nevertheless, it is important to remember the limits of this study, as the NBN was only one of the many factors that could impact voting behaviours.

This study does not claim to offer a solid resolution on the political economy of the NBN provision in Australia. Instead, it calls for further investigation of the distribution of the ongoing NBN rollout, now using a mixed technology, across the Australian political landscape. Such an investigation is necessary to unravel the complexity of political economy of infrastructure provision in the digital age.

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