Papua New Guinea election results: trends and patterns 1972-2012

Terence Wood

Abstract

This paper draws on the new Papua New Guinea Election Results Database to describe trends in key electoral features in Papua New Guinea. It provides contextual background and electoral history. It discusses trends in candidate numbers and winning candidate vote shares. It looks at incumbent turnover and how long the typical MP stays in parliament. It discusses the performance of women candidates and it looks at the impact of limited preferential voting. Where appropriate, the paper looks both at trends over time and differences across the different regions of Papua New Guinea.

Papua New Guinea election results: trends and patterns 1972-2012

Terence Wood

Terence Wood is a Research Fellow at the Development Policy Centre.¹

Wood, T 2017 "Papua New Guinea election results: trends and patterns 1972-2012," *Development Policy Centre Discussion Paper 55*, Crawford School of Public Policy, The Australian National University, Canberra.

The Development Policy Centre is a research unit at the Crawford School of Public Policy, The Australian National University. The discussion paper series is intended to facilitate academic and policy discussion. Use and dissemination of this discussion paper is encouraged; however, reproduced copies may not be used for commercial purposes.

The views expressed in discussion papers are those of the authors and should not be attributed to any organisation with which the authors might be affiliated.

For more information on the Development Policy Centre, visit

<http://devpolicy.anu.edu.au/>

To access the data that this report is based on visit

<http://devpolicy.org/pngelections/>

¹ I would like to thank the Papua New Guinea Electoral Commission, Jon Fraenkel, Bill Standish, Colin Filer, Ron May, David Hegarty and Nicole Haley for sharing data and/or offering advice. I'm grateful to Tatia Currie and Wilma Gillies for research assistance. I'm particularly grateful to Salwa Dastgeer for her help with analysis. I'm grateful to Jack Corbett, the State Society and Governance in Melanesia program, and the Centre for Democratic Institutions for early support. I am particularly grateful to Professor Stephen Howes and Michael Cookson of the Development Policy Centre for their enthusiastic support of the project. The Development Policy Centre gratefully acknowledges funding from the Australian Aid Program in support of the ANU-UPNG partnership.

Contents

1. Introduction	4
2. Sociodemographic context	7
3. Political and electoral basics.....	7
4. Turnout	9
5. Candidate numbers.....	13
6. Winning candidate vote shares.....	18
7. Candidate numbers and winning candidate vote shares.....	22
8. Incumbent turnover	23
9. Terms in parliament.....	27
10. Women.....	29
11. Limited preferential voting.....	32
12. Conclusion	39
References	42

Papua New Guinea election results: trends and patterns 1972-2012

1. Introduction

Papua New Guinea held its first national election while still under Australian colonial rule in 1964 (Hughes & van der Veur 1965).² Since independence in 1975, the country has held eight general elections, the first in 1977, the most recent in 2012. The next general election is scheduled for 2017. Although there have been problems with electoral quality, particularly since the late 1990s, the country has remained a democracy, continuing to hold elections at regular intervals. For a poorly-governed, low income country this is an achievement.

This paper is part of a larger project aimed at preserving election results from Papua New Guinea and making them available for the public and researchers. In the paper I detail the key features of Papua New Guinea's election results. I also describe how these features have changed over time and how they vary across the country's geographical regions. (These regions can be seen in Figure 1). This is just a small sample of the analysis that can be conducted using the Papua New Guinea Election Results Database that lies at the heart of these preservation efforts. You can access the database from:

<http://devpolicy.org/pngelections/>.

The data used in this project were provided by a number of different people. Jon Fraenkel provided pre-2007 data. Nicole Haley, Bill Standish and Ron May provided 2007 data. (Other 2007 data were also obtained from Wayback Machine archives of the Papua New Guinea Electoral Commission's website.) The Papua New Guinea Electoral Commission provided me with data from the 2012 election. Along with research assistants, I took the source data, combined it, standardised the spelling of constituencies and winning candidates' names, and coded variables for features such as incumbency and incumbent re-election.

² Previously, some candidates had been elected to governing councils. However, franchise was limited and governing councils were predominantly appointed.

As you read the rest of this paper be aware that:

1. The election results in the database, which I draw on here, are a research tool only. They should not be treated as official election results. (Such official results may be available from the Parliamentary Gazettes).
2. The election results database is not 100 per cent complete. In some years, a small number of electorates are missing. Only very limited data are available for most electorates in 2007. (Specifically, candidate numbers, as well as winning candidate names and vote shares, are available for 2007, other data are usually missing.) Obviously, missing data are not included in the analysis that follows. The nature of the missing data is such that its absence does not have a substantial impact on the analysis. In 1977 and 2002 a small number of constituencies were deemed to have had failed elections. Re-runs of the failed elections were eventually held. However, data on these re-runs were not available. As a result, in the following analysis data from the failed elections is included in figures on candidate numbers (which would not have been affected by the malfeasance that caused the elections to be failed). However, the failed elections are excluded from analysis such as winner vote share calculations and incumbent turnover rates as these figures may have been affected by the failed results. Because the number of constituencies with failed elections was small, the impact of these exclusions is minor.
3. Although I have focused on geographical regions in this report, there is also much variation from province to province and constituency to constituency. There is not space to capture this variation here. However, you can make use of the election results database to examine these types of detail.
4. I have generally avoided trying to explain why electoral politics takes the form it does in Papua New Guinea. (For a selection of articles that do tackle these questions see: Anere 1997; Burton 1989; Filer 1996; Fraenkel 2011; Fraenkel et al. 2007; Fukuyama 2007; Gibbs et al. 2004; Hegarty 1983; Kurer 2007; May 2006;

Okole 2002; Reilly 1997; Standish 1989; Standish 2007; Wood 2016.)³ Instead, my focus here is on describing key electoral features.

The rest of this paper is laid out as follows. First, I provide some brief background on Papua New Guinea. I then provide basic details on Papua New Guinea's electoral system. I follow this by running through salient details of the country's election results. I start with voter turnout, then cover candidate numbers, winning candidate vote shares, incumbent turnover, and MP tenure. I then look at the fate of women candidates and the impact of the introduction of limited preferential voting on election outcomes.

Figure 1 – Regions and provinces of Papua New Guinea

³ Until the 2012 election, books were published on each general election in Papua New Guinea. Many of these can be found by scrolling down on the following webpage: <http://pacificinstitute.anu.edu.au/resources>

2. Sociodemographic context

In terms of GDP adjusted for purchasing power parity, Papua New Guinea was in the bottom quartile of countries in 2012. In 2012, Papua New Guinea was also in the bottom quartile in the World Bank's rankings of government effectiveness (World Bank 2013; World Bank 2014).

Papua New Guinea's population was 7,275,324 at the time of the 2011 Census (Papua New Guinea National Statistics Office 2013, p. 7). There are questions about census accuracy (Allen 2014) and 7.2 million is quite possibly an underestimate. Papua New Guinea's population is growing, and is more than double the 1980 population (Papua New Guinea National Statistics Office 2013, p. 9). The 2011 census reports that 39 per cent of the population lives in the Highlands region, 26 per cent lives in Momase, 20 per cent lives in the Southern region and 15 per cent lives in the Islands region (Papua New Guinea National Statistics Office 2013, p. 7).⁴ Of these regions, the Highlands region has the highest population growth rate, while Momase has the lowest (Papua New Guinea National Statistics Office 2013, p. 9).

Papua New Guinea is home to over 800 languages (Reilly 2001b, p. 763) and is the world's most linguistically fragmented country (Fearon 2003, p. 216; Reilly 2006, p. 57). With the state weak, clans or communities tend to be the dominant units of governance in most people's lives (Oliver & Johnson 1989; Reilly 2001a). The structure of clans varies considerably throughout Papua New Guinea. In coastal PNG, clans are usually small and not particularly strongly bound; however, in parts of the Highlands, they tend to be larger and more cohesive (Standish 2007).

3. Political and electoral basics

Papua New Guinea is a unicameral parliamentary democracy. Two types of MP are elected to parliament. The first are elected from "open" constituencies: standard

⁴ Although there is considerable within region variation in demographic and political characteristics, these regions are the standard geographical divisions used in discussion of PNG.

electorates of the sort found in parliamentary democracies. There are currently 89 open constituencies in Papua New Guinea. This number has not changed since independence and there is now considerable malapportionment between different open constituencies. The second type of MP comes from so-called ‘provincial-seats’. One provincial MP is elected per province. This person serves both in the national parliament and, usually, as the provincial governor. From independence until 2007, there were 20 provincial MPs. In 2012 this number increased to 22. Voters elect open and provincial MPs at the same time, casting two ballots, one for their open MP and one for their provincial MP. Table 1 shows the number of provincial and open MPs for each of the country’s regions.

Table 1 – MPs by region (2012)

MP Type	Highlands	Islands	Momase	Southern
Open	34	12	25	18
Provincial	7	5	4	6
Total	41	17	29	24

Papua New Guinea used a single member district plurality electoral system (also known as a first past the post system) for both its open and provincial seats from its first post-independence election in 1977 until 2002. (Prior to independence, in the 1964, 1968 and 1972 elections, it used a form of optional preferential voting.) After 2002, Papua New Guinea replaced its single member district plurality system with a limited preferential voting system, which it has kept since (the 2007 general election was the first general election held under the new system). In the limited preferential voting system, voters indicate their first, second and third candidate preferences on the ballot. Initially, the first preferences recorded on ballots are counted. If any candidate wins more than 50 per cent of first preference votes, he or she is deemed elected. However, if no candidate wins more than 50 per cent of first preference votes, there is a second count. In the second count, the lowest polling candidate is eliminated, and the second preferences of those voters who voted for the candidate are distributed among the other candidates. This process of lowest polling candidates being eliminated and their votes being distributed following voters’ second or third preferences is continued until a candidate wins more than 50 per cent of the remaining non-exhausted ballots. (A voter’s ballot is said to be exhausted if

the candidates that they voted for with their first, second and third preferences have all been eliminated.) In the 2007 and 2012 elections, exhausted ballots were a significant share of total votes cast in many constituencies.

While it is beyond the scope of this paper to discuss why voters in Papua New Guinea vote for the candidates they vote for, one point needs to be noted. Although political parties exist in Papua New Guinea, voters rarely choose who to vote for on the basis of candidates' party affiliations. Instead, when they are free to choose, voters almost always choose on the basis of candidates' personal attributes (Saffu 1989; Standish 2007). Parties play a role in politics as political coalitions struggle to cohere after elections. And candidates sometimes benefit from party affiliation through parties providing them with resources to campaign with or, in instances, people who are willing to help them campaign. However, the impact of such assistance is often minor. Because parties are of limited electoral importance, my descriptions below focus on candidates, not parties.

4. Turnout

Both because of active efforts aimed at subverting it, and simple neglect, the electoral roll in Papua New Guinea has been inflated for many years. In 2002, according to Notarpietro et al. (2003, p. 10), the electoral roll was twice their estimate of the country's voting age population. Henderson and Boneo (2013) provide a similar estimate, although they limit their claims to the Highlands. Roll inflation substantially reduces calculated voter turnout when the roll is used as a denominator. For this reason, my turnout calculations here use census-based estimates of the voting aged population. Such estimates are themselves imperfect. Census figures are almost certainly underestimates of voting-age population.⁵ Moreover, people who were born in particular regions but who have migrated to others, sometimes return home for elections. Such voters would not be recorded in census data.

⁵ There are two issues with census data, one is undercounting in recent years. The other is that my estimated voting aged population, is the population over 20, rather than over 18. This is because data disaggregated by year were not available for older censuses.

This might skew turnout figures for individual regions. As a result, although my turnout calculations are the best available, they are inexact.

Figure 2 shows my estimates of voting-age population and votes cast for the country as a whole.⁶

Figure 2 – Voting-age population and total votes cast nationally

Total votes cast exceed my estimate of the voting-age population in the 2002 election (generally regarded as very poorly run election). In other years, votes cast have been less than estimated voting-age population. However, this should not be taken as signifying the absence of electoral fraud. Turnout rates are still very high, particularly in recent years. As I will show, in part this is because of implausibly high turnout in the Highlands region. Figures 3, 4, 5 and 6 show turnout over time in each of Papua New Guinea's four geographical regions. (Note the different scales of the y-axes of the charts.)

⁶ In years where data were missing for individual electorates I estimated votes cast in these electorates by interpolating from figures for the same electorates for neighbouring years. In instances where census years and election years were not the same I interpolated census figures from neighbouring census years.

Figure 3 – Voting aged population and votes cast in the Highlands region

Figure 4 – Voting aged population and votes cast in the Islands region

Figure 5 – Voting aged population and votes cast in the Momase region

Figure 6 – Voting aged population and votes cast in the Southern region

The figures suggest that turnout rates have been suspiciously high in the Highlands since at least 1992, were at their worst in 2002 (a fact that was also reported by observers), and have improved somewhat since, although they still appear too high. Possibly some of the turnout issues in the Highlands may stem from census problems or from people from the Highlands who normally reside in Port Moresby returning to the region to vote in elections. These facts may explain apparent issues in some years, although they are very unlikely to be the cause of all of the 2002 discrepancy.

In Southern and Momase, on the other hand, rates have fluctuated but have generally been reasonable. The charts reveal one other puzzle though: turnout appears to be declining in the Islands region. This warrants further investigation.

5. Candidate numbers

The number of candidates that stand in some electorates in Papua New Guinea is striking. In 2012, for example, 72 challengers stood in the Chimbu Provincial constituency, trying to unseat the incumbent, John Garia. Not all electoral contests are this busy, however. In the years since independence there have been instances when only two candidates have stood in some electorates.⁷ The following figures show the number of candidates standing in the electorate with the fewest candidates, the electorate with the median number of candidates and the electorate with the most candidates in each general election since 1977. Nationally, as Figure 7 shows, candidate numbers have risen dramatically.⁸

While it is true that the electorates with the largest number of candidates in recent years have been provincial constituencies, candidate numbers have increased in open electorates as well. This can be seen in Figure 8, which is identical to Figure 7 except that it is limited only to open electorates.

⁷ In 1972 several electorates had only one candidate standing.

⁸ Although it is beyond the scope of this paper, related features such as the effective number of candidates (a measure which draws on both candidate numbers and candidate competitiveness) have also risen significantly.

Figure 7 – Minimum, maximum and median candidate numbers nationally

Figure 8 – National candidate numbers (only open electorates)

Candidate numbers have increased in each of Papua New Guinea’s regions, although, as the figures below show, regional change has varied. The Highlands region had the highest maximum number of candidates in 2012; however, from 1997 until 2007, that distinction fell to the Southern region, and in 2012 the number of candidates in the median electorate

was higher in Southern than in Highlands. The Highlands region also had the electorate with the fewest candidates in 2012 (the electorate of Prime Minister, Peter O'Neill).

Figure 9 – Minimum, maximum and median candidate numbers, Highlands

Figure 10 – Minimum, maximum and median candidate numbers, Islands

Figure 11 – Minimum, maximum and median candidate numbers, Momase

Figure 12 – Minimum, maximum and median candidate numbers, Southern

Because there is malapportionment between electorates, one possible explanation for variation in candidate numbers could be differences in electorate size. I could not create census-based estimates of voting populations by electorates; however, for two years – 2002 and 1977 – estimates produced by Papua New Guinea’s Electoral Boundaries Commission exist.⁹ When I compared electorate populations to candidate numbers for 2002 I found the following:

- There was no relationship between population and candidate numbers in provincial seats. (Because these seats are much more populous than open seats, they are difficult to include in charts, and are excluded from the following figure.)
- Either including or excluding provincial seats, for the country as a whole, electorates with higher populations did not, on average, have more candidates. (If provincial seats were included the relationship was actually negative albeit weak.)
- However, there was variation between regions, and a relationship between electorate size and candidate numbers is visible in some regions.

This final point can be seen in Figure 13, which contains scatter plots for the four regions using 2002 data from open constituencies. Each point on the charts is a constituency. There is a positive relationship in the Islands region, a possible positive relationship in Momase, and no relationship in Southern and Highlands.

When I undertook the same exercise with 1977 data I found somewhat clearer positive relationships but they were still surprisingly weak. Throughout much of Papua New Guinea, factors other than population size appear to be central in determining candidate numbers.

⁹ Their estimates were based on the most recently available census data, but were based on total population, rather than voting age population. This is a potential limitation although there is no reason to think the differences between the two measures will systematically bias estimates of relationships.

Figure 13 – Population and candidate numbers by region, open seats in 2002

6. Winning candidate vote shares

Winning candidate vote shares can often be very low in Papua New Guinea. In the Northern Provincial seat during the 2002 election, the last held under a SMDP electoral system, a candidate named Bani Hiovo emerged victorious having won just under 6 per cent of the votes cast. Low winner vote shares were not just limited to provincial seats in 2002: Ben Merere Kiagi won the open seat of Daulo by winning just over 7 per cent of votes. The introduction of limited preferential voting has changed matters somewhat; however, in 2012, Isaac Waigavara was able to win Okapa Open with just 15 per cent of the total votes cast in that constituency, even after taking preferences into account.

However, as with candidate numbers, there is much variation across the Papua New Guinea. Winner vote shares are not universally low. In 2002, for example, Allan Marat won Rabaul Open with a vote share of nearly 59 per cent. Within-country variation can be seen in Figure 14, which plots maximum, median and minimum winning candidate vote shares for each election. (The figure plots final, after preference, vote shares for 2007

and 2012. These are calculated as winners' final votes divided by the total votes originally cast in the electorate.) A downwards trend in winner vote shares is also visible in Figure 14. The trend is less pronounced than the positive trend in candidate numbers, but it is present until 2002. Between 2002 and 2007 the trend is reversed with the introduction of limited preferential voting. Given the chart is reporting on final vote shares after preference allocations, any other result would have been very surprising. The impacts of the introduction of limited preferential voting are discussed further later in the paper.

Figure 14 – Winning candidate vote share over time, nationwide

Figures 15, 16, 17 and 18 show trends in winner vote share over time broken down by region. Some care needs to be taken in interpreting these charts. In particular, the trendline of maximum winning candidate vote share can be deceptive as it can be shifted considerably by only one constituency. For instance, in 2012, absent Ialibu Pangia Open, the maximum winning candidate vote share would have been 52 per cent in the Highlands.

When looking for trends the most reliable number to look at is the median. Other than in the Islands region, the median trends down until 2007 in each of the regions.

Figure 15 – Winning candidate vote share over time, Highlands

Figure 16 – Winning candidate vote share over time, Islands

Figure 17 – Winning candidate vote share over time, Momase

Figure 18 – Winning candidate vote share over time, Southern

7. Candidate numbers and winning candidate vote shares

The fact that winning candidate vote shares have tended to decline while candidate numbers have increased suggests there may be a relationship between candidate numbers and winning candidate vote shares. Figure 19 shows this is the case.

Figure 19 is a combined chart of all electorates for all years. Each point is an electorate in a given year. It shows a clear negative relationship: more candidates are associated with lower winning candidate vote shares. However, the strength of the effect diminishes as candidate numbers increase.

Although the relationship is clear, there is the occasional electorate that bucks the trend. Most obviously, in Kandep Open in 2012 there were many candidates but the winning candidate was still able to win more than 50 per cent of the (first preference) votes cast.

Because the chart uses combined data the following should be noted:

- For 2007 and 2012, I have used winning candidate first preference vote share. However, a similar relationship exists for winners' vote shares after preference allocations.
- When I look at individual years separately, all show a negative relationship between candidate numbers and winning candidate vote shares. This is true both for older elections and more recent ones.
- A negative relationship between candidate numbers and winning candidate vote shares exists both for open electorates and provincial electorates.
- Negative relationships can be found in all of the different regions.

Figure 19 – Relationship between candidate numbers and winner vote shares

Of course, all the chart identifies is a correlation. It does not show that increased candidate numbers necessarily cause lower winner vote shares. It could be the case that when incumbent MPs are unpopular and likely to win lower vote shares, more candidates choose to contest elections as they view their own chances of winning as being higher. Were this true, rather than candidate numbers causing lower winner vote shares, a third variable—MP performance—would be the key causal factor driving both candidate numbers and winning candidates' vote shares. Other omitted variables, such as clan fragmentation, could also be driving the relationship. This is an area where there is scope for much further research.

8. Incumbent turnover

On average, incumbent turnover rates are high in general elections in Papua New Guinea. As Figure 20 shows, turnover rates (defined as instances where sitting MPs have

defended their seats and lost)¹⁰ have averaged slightly over 50 per cent. Unlike candidate numbers and winning candidate vote shares, there are no time trends present in turnover rates. There is, however, some variation between years. In particular, turnover rates were very high in 2002.¹¹

Figure 20 – Incumbent turnover rates nationally for each general election

The absence of obvious trends in incumbent turnover rates over a period of time in which winning candidate vote shares have generally decreased is a puzzle. It seems reasonable

¹⁰ There are also some instances of sitting MPs not defending their seats. Seats without incumbents are excluded from calculations.

¹¹ Some MPs are removed from office mid-term and replaced in by-elections. It has been hard to obtain by-election results. This has complicated the process of coding incumbents in general elections. To an extent, I was able to overcome this problem using MP biodata, which usually states when an MP first entered parliament. Even so, it is likely that some MPs elected in by-elections have been missed. As a result, a small number of MPs who actually were incumbents will not have been coded as such. This will have led to a slight overstating of incumbent turnover rates. However, the overall effect is small.

to anticipate that winners who command smaller and smaller vote shares would be more vulnerable to electoral defeat. And yet this does not appear to be the case. One potential explanation for this fact is that increasing candidate numbers are reducing the vote shares of all strong candidates, not just winners.

As always, incumbent turnover rates vary considerably around the country. Sir Michael Somare has successfully defended his seat of East Sepik Provincial in every general election since at least 1977. And those sitting MPs who have defended the seats of Moresby Northwest Open and Samarai Murua Open have never been unsuccessful in their defences (sitting MPs have not always defended these seats though). At the other end of the spectrum the seat of Kandrian Gloucester Open has never been successfully defended by an incumbent candidate. Figures 21-24 show regional variation in incumbent survival rates. Reflecting a common pattern, average turnover rates are lowest in the Islands region and highest in the Highlands (although rates are generally high in Momase and Southern too).

Figure 21 – Incumbent turnover rates for each general election, Highlands

Figure 22 – Incumbent turnover rates for each general election, Islands

Figure 23 – Incumbent turnover rates for each general election, Momase

Figure 24 – Incumbent turnover rates for each general election, Southern

9. Terms in parliament

Unsurprisingly, given high incumbent turnover, at any given point in time Papua New Guinea's parliament is predominantly made up of MPs who have not been in parliament for prolonged periods of time. Table 2 and Figure 25 show this. Both show the composition of the parliaments that have formed after Papua New Guinea's post-independence elections broken down by length of MP tenure. Because I have only incomplete data on pre-independence elections, only terms in post-independence governments are recorded in the table and chart. (This is why 100 per cent of MPs in the 1977 parliament are recorded as being in their first term).

Table 2 – Parliaments by MP tenure (post-independence)

Year	1st term	2nd term	3rd term	4th term	5th term	6th term	7th term	8th term
1977	100.0%							
1982	56.9%	43.1%						
1987	52.3%	32.1%	15.6%					
1992	60.6%	22.9%	10.1%	6.4%				
1997	49.5%	34.9%	9.2%	2.8%	3.7%			
2002	74.3%	13.8%	9.2%		0.9%	1.8%		
2007	58.7%	28.4%	7.3%	3.7%	0.9%		0.9%	
2012	54.1%	25.2%	16.2%	2.7%		0.9%		0.9%

Figure 25 – Parliaments by MP tenure (post-independence)

Also, because I do not have complete data for by-elections, terms are only counted if they started with election in a general election. Both of these facts make the parliaments seem to be comprised of less experienced MPs than was actually the case. However, by 1992 this effect is very small, and the key fact—that parliaments are predominantly occupied

by comparatively inexperienced MPs still stands. In every parliament since 1992 more than 80 per cent have been either first or second term MPs.¹²

10. Women

Since 1972 only seven different women have been elected to parliament in Papua New Guinea. Some of these women have won more than once, but, even so, there have only been 12 instances of women winning elections in Papua New Guinea. The largest vote share won by a woman candidate in elections in Papua New Guinea was just under 50 per cent won by Josephine Abaijah in the National Capital District provincial seat in 1977. Table 3 shows instances of women candidate victory for all elections since 1972.

Table 3 – Winning women candidates

Year	Region	Constituency	Name	First pref %	After pref %
1972	Southern	Central Provincial	Josephine Abaijah	33%	41%
1977	Islands	Manus Open	Nahau Kambuou Rooney	25%	
1977	Southern	National Capital District Prov	Josephine Abaijah	50%	
1977	Southern	Middle Fly Open	Waliyato Clowes	31%	
1982	Islands	Manus Open	Nahau Kambuou Rooney	nd	
1997	Southern	Milne Bay Provincial	Josephine Abaijah	23%	
1997	Southern	Moresby South Open	Carol Anne Kidu	22%	
2002	Southern	Moresby South Open	Carol Anne Kidu	24%	
2007	Southern	Moresby South Open	Carol Anne Kidu	34%	43%
2012	Highlands	Eastern Highlands Provincial	Julie Soso	8%	28%
2012	Momase	Lae Open	Loujaya Toni	7%	29%
2012	Southern	Sohe Open	Dellilah Pueka Gore	8%	17%

In the wake of the 2012 election three women were elected to Papua New Guinea's parliament. This was a higher number than at any time since 1977. However, women MPs still only make up 2.7 per cent of total MPs and the 2012 result, while an improvement on

¹² When comparing this chart and table to turnover rates readers should note that turnover rates are those for MPs who contest given elections. Because not all MPs contest re-election the number of first term MPs in any given parliament is higher than the number of incumbents who contest and lose their seats. Also, occasionally MPs successfully re-contest seats they have previously lost. When this has occurred older terms are included in MPs' total numbers of terms.

years since 1977, is not clear evidence of any increase in female candidate competitiveness.

Unfortunately, while the gender of Members of Parliament is known, with the exception of the 2012 and 2007 elections, there is no accurate data on candidate gender. It may be possible to generate these data over time, but—because of difficulties in determining people’s gender from their names alone—this will not be an easy task. For now, my analysis of the performance of women candidates is limited to the last two general elections.

Figure 26 shows the breakdown of overall candidates by gender for the 2007 and 2012 elections.

Figure 26 – Candidate breakdown by gender

Clearly, most candidates in PNG elections are still male. Figure 27 shows variation across the four different regions. Although there is some variation across the regions, at the regional level there is also a non-trivial degree of variation across the two elections. For this reason, it is probably wise to abstain from making strong claims about certain regions having more women candidates on average until a longer series of data are available.

Figure 27 – Percentage of candidates in region who were female, 2007 and 2012

On average, those women who do stand are not particularly competitive. Figure 28 shows mean, minimum and maximum first preference vote shares for women candidates for each of the regions in PNG in the 2012 election. (2012 is used because of better quality results data for non-winning candidates than 2007.)

Figure 28 – Women vote shares: minimum maximum and mean by region

Figure 29 shows 2012 average women candidate first preference vote shares by region and compares them to mean male candidate vote shares. Women candidates clearly perform worse, on average, than men.

Figure 29 – Average male and female candidate vote shares by region

11. Limited preferential voting

After the 2002 general election, Papua New Guinea changed from a single member district plurality electoral system to a limited preferential system of voting. The 2007 general election was the first general election held using the new system. A range of justifications were given for the change including reducing election-related violence and electing candidates with a larger mandate. Whether the change has met expectations or not is disputed (Haley 2011; Reilly 2002; Reilly 2006, p. 117; Standish 2006). Election results data on their own cannot speak to all the debates about whether limited preferential voting has been beneficial or not, but they can provide some insights into how key electoral features have shifted (or not) with the shift in voting systems.

Figure 30 shows average (mean) winning candidate vote shares over time for all elections from 1977 onwards. The winning candidate vote shares that are shown for 2007 and 2012 are after-preference vote shares. As ought to be the case given winners are now

drawing on second and third preference votes cast by supporters of non-winning candidates, winning candidate vote shares increased notably post 2002. One argument made by some advocates of limited preferential voting is that it ought to increase the share of electorates' populations who MPs feel inclined to deliver material support to as a quid pro quo for electoral support in the form of votes. Limited preferential voting has increased winning candidates' (after preference) vote shares and so may have brought benefits in this sense. However, although the change in system has delivered increased winner vote shares, even with preferences included winning candidates have only managed to win with about a third of votes cast on average. Moreover, the fact that incumbent turnover rates in 2012 were close to long run averages suggest voters remain as dissatisfied as ever with the performance of their members of parliament. Also, although 2007 saw a dip in candidate numbers, by 2012 the number of candidates in the median electorate was higher than it had been in 2002, suggesting no reduction in the number of people eager to unseat their MP. At present, election results do not provide strong evidence that limited preferential voting has brought improved MP performance.

Figure 30 – Average winning candidate vote share, nationally

Interestingly, as Figures 31-34 show, while the national figures are broadly reflected in three of PNG's regions, in the Islands region the change associated with the introduction of limited preferential voting appears to have been quite different. Although 2007 brought with it a significant rise after-preference winning candidate vote shares in the Islands region, by 2012 winning candidate vote shares were only marginally higher than they had been prior to the introduction of limited preferential voting.¹³ Why this has been the case will be an interesting topic for further study.

Figure 31 – Average winning candidate vote share, Highlands

¹³ The same pattern is apparent when I compare median winner vote shares over time in Islands region too, meaning the observed pattern is not a product of the mean being skewed by outliers.

Figure 32 – Average winning candidate vote share, Islands

Figure 33 – Average winning candidate vote share, Momase

Figure 34 – Average winning candidate vote share, Southern

Although the shift to limited preferential voting was likely to increase winning candidate after-preference vote shares, its potential impact on winners' first preference vote shares was less clear. Plausibly, the shift to limited preferential voting might have increased winners' first preference vote shares by causing candidates to campaign more broadly in the hope of winning second and third preference votes, which in turn, might have seen them win additional first preference votes from a more diverse group of voters. If this occurred, it might suggest that limited preferential voting was having an additional impact on the nature of electoral politics. However, as Figure 35 shows, there is little evidence of this having taken place for Papua New Guinea as a whole. The trend of decreasing winning candidate vote shares that was present from 1977 until 1997 has halted, but this change appears to have commenced in 2002, not 2007.

Figure 35 – Winning candidate first preference vote shares, nationwide

Once again though, there is regional variation, and as the figures below show – outside of the Islands region – an optimistic assessment might be that limited preferential voting has brought with it increased first preference vote shares too. Although even an optimist would have to concede the effect is too small to be clearly established.

Figure 36 – Winning candidate first preference vote shares, Highlands

Figure 37 – Winning candidate first preference vote shares, Islands

Figure 38 – Winning candidate first preference vote shares, Momase

Figure 39 – Winning candidate first preference vote shares, Southern

12. Conclusion

This paper has identified three trends of change in electoral politics in post-independence Papua New Guinea.

1. Electoral quality, as proxied by unusually high voter turnout, declined, at least until 2002.
2. Candidate numbers have increased.
3. Winning candidate vote shares have decreased (although only until 2002).

It has also identified two areas where electoral politics have shown less change.

1. Even though data are less complete than is desirable, there is little evidence to suggest the lot of women candidates has improved.
2. Incumbent turnover rates have always been high, but are not becoming higher.

The period of time covered by the data used here has also seen a significant change in terms of a shift to limited preferential voting. In most of the country this has brought a

substantial increase in after preference winning candidate vote shares. However, it does not appear to have brought any systematic changes in winning candidate first preference vote shares. Nor is there any evidence in the form of lower incumbent turnover rates to suggest voters are any happier with their MPs, although this assessment could potentially change over time.

This paper has also shown that there is considerable variation in the key features of electoral politics across Papua New Guinea. In the case of electoral quality (as proxied by voter turnout), the Highlands region is an obvious outlier. However, in other electoral statistics the Highlands is not dramatically different from Southern and (to a lesser extent) Momase. The real outlier in most areas is the Islands region, where candidates have tended to be fewer, winners have tended to win greater vote shares (at least before 2007), and incumbents have tended to be more likely to win. The Islands region also appears to have responded differently to the introduction of limited preferential voting.

This paper has provided basic descriptions, and has identified trends and inter-regional variation. There are four obvious ways to take this work forward. The first is simply to continue to add to the dataset at each general election. (This is not necessarily as easy a task as it sounds given data challenges.) Doing this will not only continue to keep this dataset relevant, but it will also allow for better analysis of the impact of the introduction of limited preferential voting and trends in the competitiveness of women candidates. The second way to build on existing work is to use election results data to identify instances of electoral fraud. Doing this would necessitate access to population data at the electorate level and, ideally, election results from individual polling stations. It would also work best if coordinated with election observation missions. Although difficult, such tasks ought not be impossible. And if the work is undertaken, techniques used in other countries could be fruitfully applied to Papua New Guinea (for international examples see, Beber & Scacco 2012; Enikolopov et al. 2013). The third way of building on existing work is to look more carefully within geographical regions and to examine differences between units that are substantively different. This, for example, could involve comparing provinces or electorates that have different geographies, colonial histories, or clan systems. These types of comparisons have the potential to explain some of the broader

variations I have identified. Similarly, better data on candidate attributes might be used fruitfully in future large-N work aimed at identifying factors that contribute to electoral success. The fourth way of building on what I have done here is to take these data and combine them with qualitative case studies of electoral politics in particular locations. Amongst other things, such work has the potential to increase our understanding of the interaction between the country's cultural context, and issues such as voters' choices and electoral fraud. There is a rich tradition of electorate case studies in Papua New Guinea, and these have produced very useful insights into the nature of the country's electoral politics. Hopefully, these insights can be taken and combined with quantitative analysis of results data now that these data are available.

References

- Allen, B (2014) Papua New Guinea Census 2011: rates of population change in local level government areas. *State, Society and Government in Melanesia in Brief* 2014(44).
- Anere, R (1997) Rigo Open: the Local Factor. In. R. May and R. Anere (eds) *Maintaining Democracy: The 1997 Elections in Papua New Guinea*, 79-84. Department of Political Science, School of Humanities and Social Sciences, University of Papua New Guinea, Canberra.
- Beber, B and Scacco, A (2012) What the Numbers Say: A Digit-Based Test for Election Fraud. *Political Analysis* 20(2), 211-234.
- Burton, J (1989) Tribal structure and rural ballot box counts in Hagen Open. In. M. Oliver (eds) *Eleksin: The 1987 National Election in Papua New Guinea*, 253-284. University of Papua New Guinea, Port Moresby.
- Enikolopov, R, Korovkin, V, Petrova, M, Sonin, K and Zakharov, A (2013) Field experiment estimate of electoral fraud in Russian parliamentary elections. *Proceedings of the National Academy of Sciences of the United States of America* 110(2), 448-452.
- Fearon, JD (2003) Ethnic and Cultural Diversity by Country. *Journal of Economic Growth* 8(2), 195-222.
- Filer, C (1996) 'Steak and Grease': A Short History of Political Competition in Nuku. In. Y. Saffu (eds) *The 1992 Papua New Guinea elections: change and continuity in electoral politics*, 168-218. Australian National University Department of Political and Social Change, Canberra.
- Fraenkel, J (2011) The Atrophied State: A Supply-Side Perspective on Politician 'Slush Funds' in Western Melanesia. In. R. Duncan (eds) *The Political Economy of Economic Reform in the Pacific*, 298-311. Asian Development Bank, Manila.
- Fraenkel, J, Hegarty, D and Nelson, H (2007). *Patrons Without Clients? Towards a Sociology of Political Power in the Pacific. Paper presented at Executive Power and the Battle for Parliamentary Confidence in the Pacific Islands Conference* Port Vila, Vanuatu.
- Fukuyama, F (2007). *Governance Reform in Papua New Guinea*. Johns Hopkins University Working Paper.
- Gibbs, P, Haley, N and Mcleod, A (2004) Politicking and Voting in the Highlands: the 2002 Papua New Guinea National Elections. *State, Society and Governance in Melanesia Discussion Paper* 2004(1).

- Haley, N (2011) Electoral Administration. In. R. J. May, R. Anere, N. Haley and K. Wheen (eds) *The Shift to Limited Preferential Voting in Papua New Guinea*, 55-74. The National Research Institute, Port Moresby.
- Hegarty, D (1983) The 1977 national elections in Papua New Guinea - an overview. In. D. Hegarty (eds) *Electoral Politics in Papua New Guinea: Studies on the 1977 National Elections*, 1-17. University of Papua New Guinea Press, Port Moresby.
- Henderson, S and Boneo, H (2013). *Australian Aid for Electoral Assistance in Papua New Guinea 2000-2012 -- independent evaluation*. Department of Foreign Affairs and Trade, Canberra.
- Hughes, CA and van der Veur, PW (1965) The Elections: An Overview. In. D. G. Bettison, C. A. Hughes and P. W. van der Veur (eds) *The Papua New Guinea Elections 1964*, 388-429. The Australian National University, Canberra.
- Kurer, O (2007) Why do Papua New Guinean voters opt for clientelism? Democracy and Governance in a Frail State. *Pacific Economic Bulletin* Volume 22(1), 39-53.
- May, R (2006) The 'clan vote' in Papua New Guinea open electorates: data from Angoram. *The Journal of Pacific Studies* 29(1), 108-130.
- Notarpietro, N, Talao, F, Morgan, J, Standish, B and Ketan, J (2003). *Review of Australia's electoral assistance program to PNG*. AusAID, Canberra.
- Okole, H (2002) Political participation in a fragmented democracy: ethnic and religious appeal in Papua New Guinea. *Development Bulletin*(59), 31-34.
- Oliver, DL and Johnson, L (1989) *Oceania: the native cultures of Australia and the Pacific Islands*. University of Hawaii Press, Honolulu.
- Papua New Guinea National Statistics Office (2013). *Final Figures: national population and housing census 2011*. Government of Papua New Guinea, Port Moresby.
- Reilly, B (1997) Continuity and Change in Papua New Guinea Elections 1964-1997. In. R. May and R. Anere (eds) *Maintaining Democracy: The 1997 Elections in Papua New Guinea*, 17-37. University of Papua New Guinea, Port Moresby.
- Reilly, B (2001a) *Democracy in Divided Societies*. Cambridge University Press, Cambridge.
- Reilly, B (2001b) Papua New Guinea. In. D. Nohlen, F. Grotz and C. Hartmann (eds) *Elections in Asia and the Pacific: a data handbook*, 763-777. Oxford University Press, Oxford.
- Reilly, B (2002) Back to the Future? The Political Consequences of Electoral Reform in Papua New Guinea. *The Journal of Pacific History* 37(2), 239-253.

- Reilly, B (2006) *Democracy and Diversity: political engineering in the Asia-Pacific*. Oxford University Press, Oxford.
- Saffu, Y (1989) Survey Evidence on Electoral Behavior in Papua New Guinea. In. M. Oliver (eds) *Eleksin: the 1987 national election in Papua New Guinea*, 15-36. University of Papua New Guinea, Port Moresby.
- Standish, B (1989) 'After the Big One': the 1982 Chimbu Provincial Campaign. In. P. King (eds) *Pangu Returns to Power: the 1982 Elections in Papua New Guinea*, 163-205. Department of Political and Social Change, Australian National University, Canberra.
- Standish, B (2006) Limited preferential voting in Papua New Guinea: some early lessons. *Pacific Economic Bulletin* 21(1), 195-211.
- Standish, B (2007) The dynamics of Papua New Guinea's democracy: an essay. *Pacific Economic Bulletin* 22(1), 135-157.
- Wood, T (2016) Is Culture the Cause? Choices, Expectations, and Electoral Politics in Solomon Islands and Papua New Guinea. *Pacific Affairs* 89(1), 31-52.
- World Bank (2013) Worldwide Governance Indicators. viewed 21/10/2013
<www.govindicators.org>
- World Bank (2014) World Bank World Development Indicators. viewed 17/09/14
<<http://data.worldbank.org/data-catalog/world-development-indicators>>