

COMPREHENSIVE ANALYSIS FINAL REPORT

**STATISTICAL PATTERN ANALYSIS AND HYPOTHESIS
TESTING OF THE 2005 PARLIAMENTARY ELECTION IN
ZIMBABWE**

CONDUCTED BY

ZIMBABWE ELECTION SUPPORT NETWORK

22 APRIL, 2005

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ACKNOWLEDGEMENTS

Our sincere gratitude goes to the consultants who produced this report as well as continued support from our partners.

ACCRONYMS

MDC	Movement Democratic Change
ZANU Ndonga	Zimbabwe African National Union
ZANU PF	Zimbabwe African National Union Patriotic Front
ZDP	Zimbabwe Democratic Party
ZEC	Zimbabwe Election Commission
ZESN	Zimbabwe Election Support Network
ZIYA	Zimbabwe Youth Alliance

EXECUTIVE SUMMARY

Analysis of voting patterns at polling stations per constituency has been done to show how the people voted in those polling stations where ZESN observers were deployed. ZESN deployed about 6000 accredited observers countrywide. This report does not cover five constituencies. ZESN data used in this report does not include postal votes.

The major findings in this report using **ZESN data at polling station level only** in which the organisation had a high level number of observers show that the ZEC results which indicated that ZANU PF won, vary with the ZESN pattern in four constituencies, Chipinge South, Buhera South, Makoni East and Gwanda. The other three constituencies Gweru Rural, Harare South and Zhombe also show some inconsistencies between ZEC results and ZESN data although ZESN had few observers in those places. In Bubi Umguza, the ZESN pattern shows that in most polling stations there was a close contest between ZANU PF and MDC except at some few polling stations where ZANU PF had high picks, which probably made ZANU PF win in these constituencies. ZESN data shows that these high picks were recorded at polling stations like Imbizo Primary School in Llewellyn Army Barracks and another at Khami Prison. In Insiza at one polling station, Mpalani Homestead there is also a sharp increase in ZANU PF votes. ZESN in its preliminary statement of the 2005 Parliamentary Election noted that some of these polling stations were located in non-neutral places.

Other constituencies of interest noted in ZESN data at polling station level are Chipinge North, Chimanimani, Kariba, Chegutu, Bikita East, Matobo, Hwange East, Gutu South, Masvingo Central and Mutasa South, Kwekwe where the results show a close contest between MDC and ZANU PF.

The study further used hypothesis testing method comparing ZEC constituency results as announced on national television and ZESN data at polling station level (*see annexure 2 on statistical validation*). Even though ZANU PF and MDC won with huge margins in some constituencies, the ZEC results and ZESN data show inconsistencies. The constituencies for which there are significant differences using hypothesis testing are as follows: one (1) no variance (0.9%), 53 (46.1%) very close, moderate 32 (27.8%), high 29 (25.2%) as presented in annexure 1. They are

categorised into ‘no variance’ which means ZEC results and ZESN data are similar, ‘very close’ means the ZEC results and ZESN data are almost similar, ‘moderate variances’ meaning that there is no significant difference between the two sets of election data. Whilst the ‘high variances’ means there are significant differences between the two sets of data. The variances are defined as follows: greater than **zero percent** to **2 percent** variance is considered very close, **3 to 5 percent** is classified as moderate and **5 percent** and above is categorised as high variance. Statistically it is accepted the fact that any percentage difference between any two numbers of 5% or greater is of significant. Usually in most cases, the count observed by independent bodies tallies perfectly with announced results. However the Zimbabwe 2005 election results prevents this due to the following reasons; the major one is the non-availability of data regarding postal votes, limited access and transparency in tabulation of results at constituency and national level. Furthermore official results were not posted at most polling stations for the public, as the law requires.

In the absence of official copies of tabulation of results at polling stations and constituency level as well as the numbers and distribution of postal votes by ZEC to the general public and all interested stakeholders, many questions remain unanswered.

1. INTRODUCTION

ZESN fielded 6000 observers for the 2005 Parliamentary election. This is a comprehensive in-depth analysis report on the statistical validation of the 2005 Parliamentary Election, which was conducted on 31st March 2005 in Zimbabwe. The sources of data for the detailed pattern analysis and the statistical test of difference (*hypothesis testing*) presented in this report are ZESN observers stationed in most of the constituencies in the country and ZEC results as announced on public television as at 8pm on 2nd April, 2005. **The ZESN observers were present during the voting and counting processes in the polling stations observed. The results, which are used in this analysis, were announced by the presiding officers soon after counting at polling stations.** However some of the ZESN observers did not witness counting. The ZESN observers' data does not include postal votes, as they were not released at polling station level. ZESN has requested ZEC to give the organisation copies of results per polling station and postal votes results per constituency to compare with ZESN data. At the time of writing this report, the organisation had not received the requested information. The statistical significance testing presented in this report is for MDC and ZANU PF, the major contesters in the election.

The analysis presented in this report is based on 115 constituencies for which ZESN had data. The remaining 5 constituencies had no data due to reasons as given in Table 1 below:

Table 1: Constituencies where no data received

Province	Constituency	Reason for not deploying observers
Matabeleland South	Bulilima	The page not signed by the Minister for accreditation
	Mangwe	The page not signed by the Minister for accreditation
Midlands	Mberengwa West	Internal delays
	Zvishavane	Internal delays
	Gweru Rural	The page not signed by the Minister for accreditation later on deployed 12 observers from Gweru urban
Mashonaland East	Mudzi East	Training workshop for observers was cancelled and later on reorganised and one participant turned up for training.

2. METHODOLOGY

Data entry was conducted using the Excel programme. A preliminary analysis (mentioned earlier) was conducted based on the 10 percent sample of all the polling stations observed by ZESN. The sample design utilised the Probability Proportional to Size (PPS) method within a two-stage stratified sample design.¹

To facilitate the comprehensive analysis presented in this report, the data was imported from EXCEL into SPSS (Statistical Package for the Social Sciences) for the computation and presentation of histograms and significance testing of differences of proportions. In order to determine the significance of the difference of proportions of the Election Results (MDC and ZANU PF political parties) and the voting pattern, a comprehensive statistical analysis of all the 115 (95 percent) constituencies was undertaken. This is the number upon which the analysis in this report is based.

The voters' roll is the universe (population) from which the persons who eventually vote (the sample) is drawn. Both the ZESN result and the ZEC result are from this population. The voters' roll is the population so any sample from it should yield the same proportions. The population and the number of voters are normally distributed at each polling station, constituency and province. The proportions from ZEC and the proportions from ZESN all estimate the population proportion of MDC and ZANU PF supporters.

¹ Please refer to the Preliminary Statistical Report for details of the Sample Design and Findings.

3. ANALYSIS AND RESULTS

This section presents the analysis of the 2005 election results from ZESN and ZEC (as announced as at 8pm on 2nd April, 2005).

3.1: PATTERN ANALYSIS

In this section the pattern analysis of the data is presented.

3.1.1: ANALYSIS OF INDIVIDUAL CONSTITUENCIES BY PROVINCES

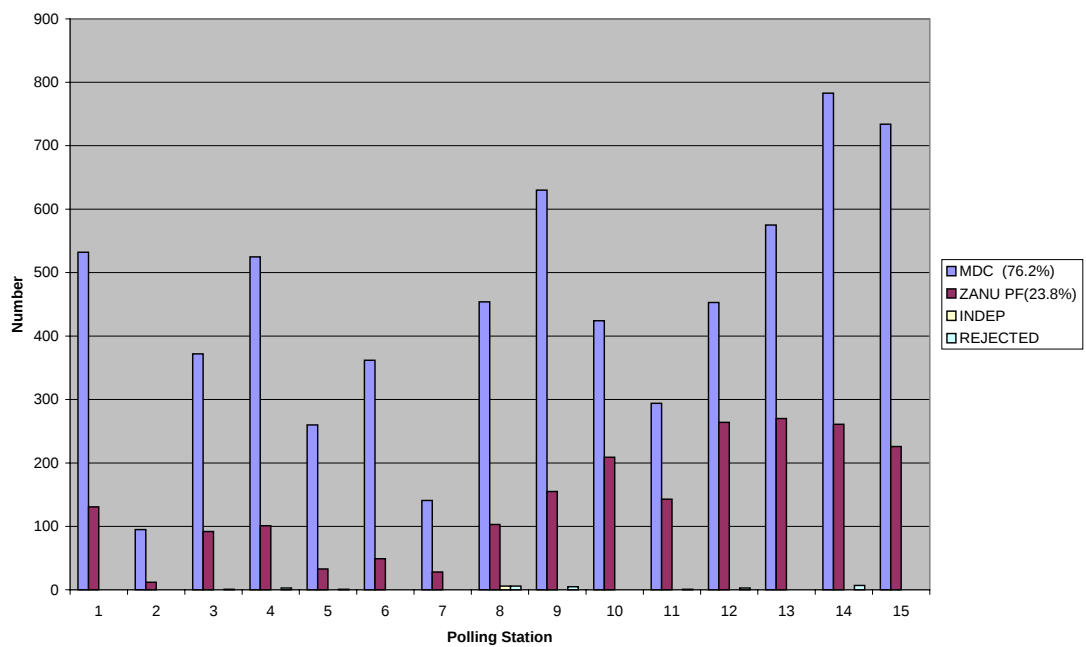
The election data are analysed by determining voting patterning using bar charts. Constituencies are further analysed by province.

1). BULAWAYO PROVINCE CONSTITUNCIES

(1) BULAWAYO PROVINCE CONSTITUNCIES

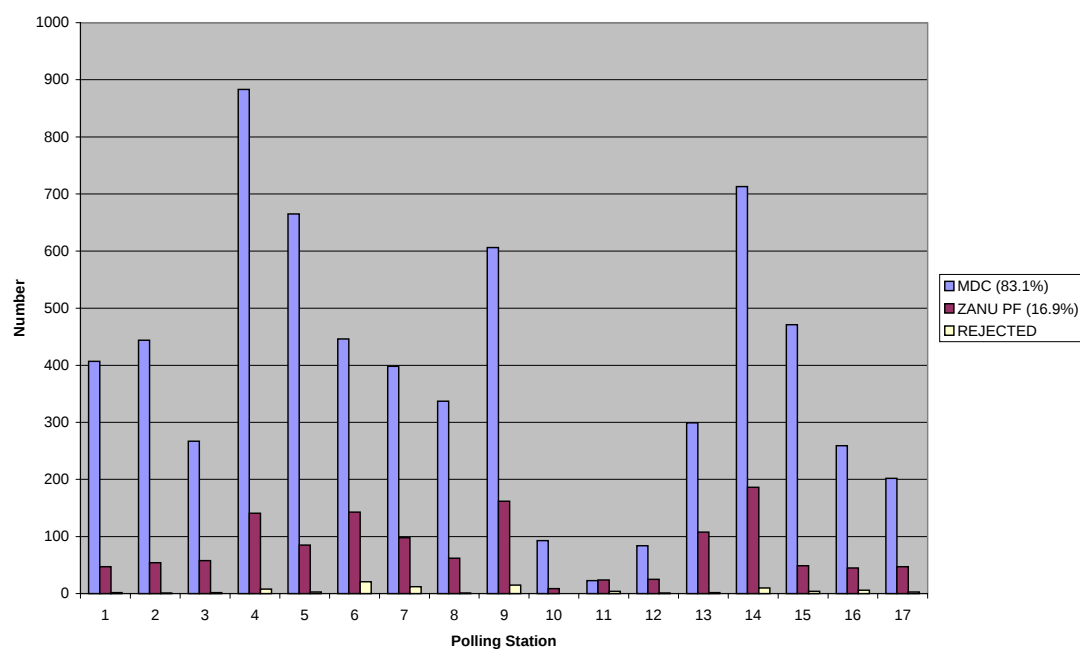
The voting patterns of the seven constituencies in Bulawayo are as follows.

Fig 1: Poll Votes by Polling Station, Bulawayo South Constituency



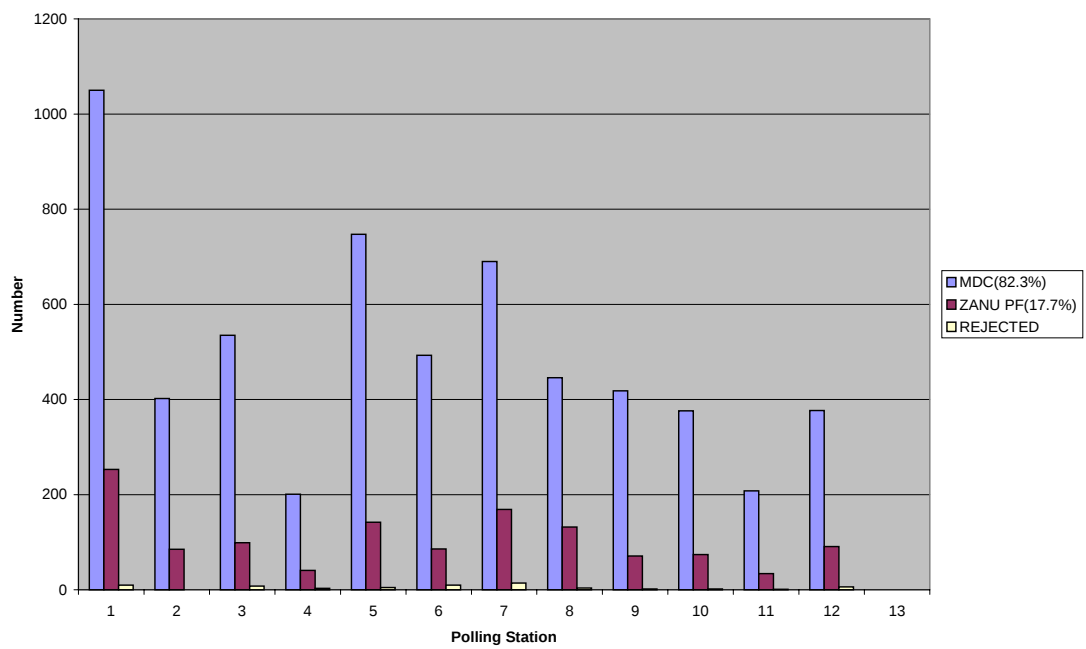
ZEC Results (ZPF 76.2%, MDC 23.8%)

Fig 2: Poll Votes by Polling Station, Bulawayo East Constituency



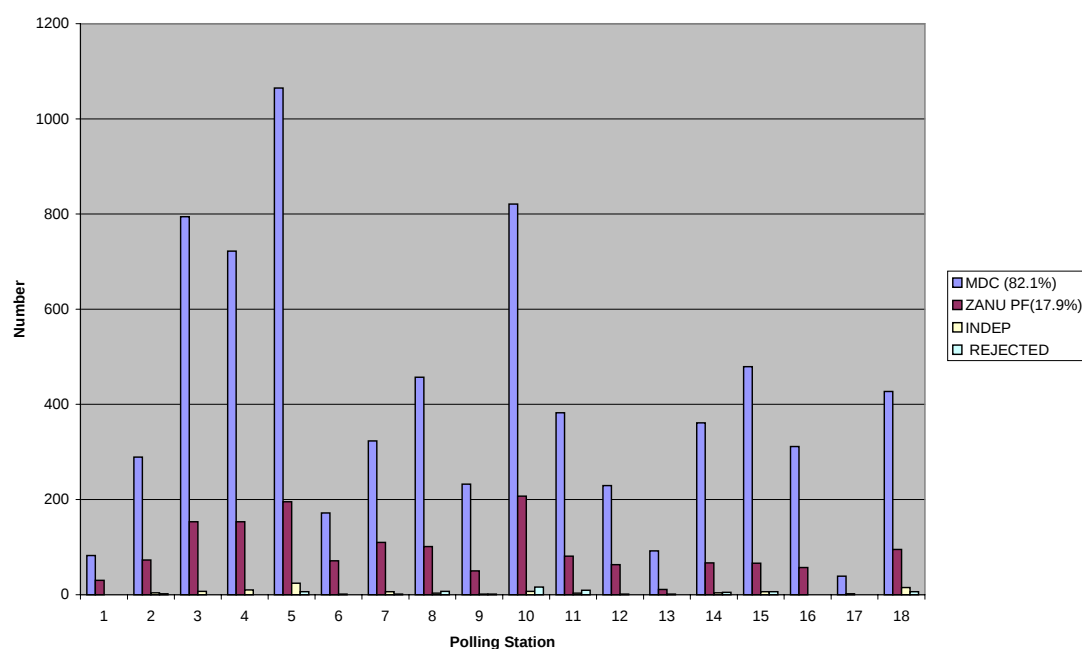
ZEC Results (ZPF 18.8%, MDC 81.2%)

Fig 3: Poll Votes by Polling Station, Lobengula-Magwegwe Constituency



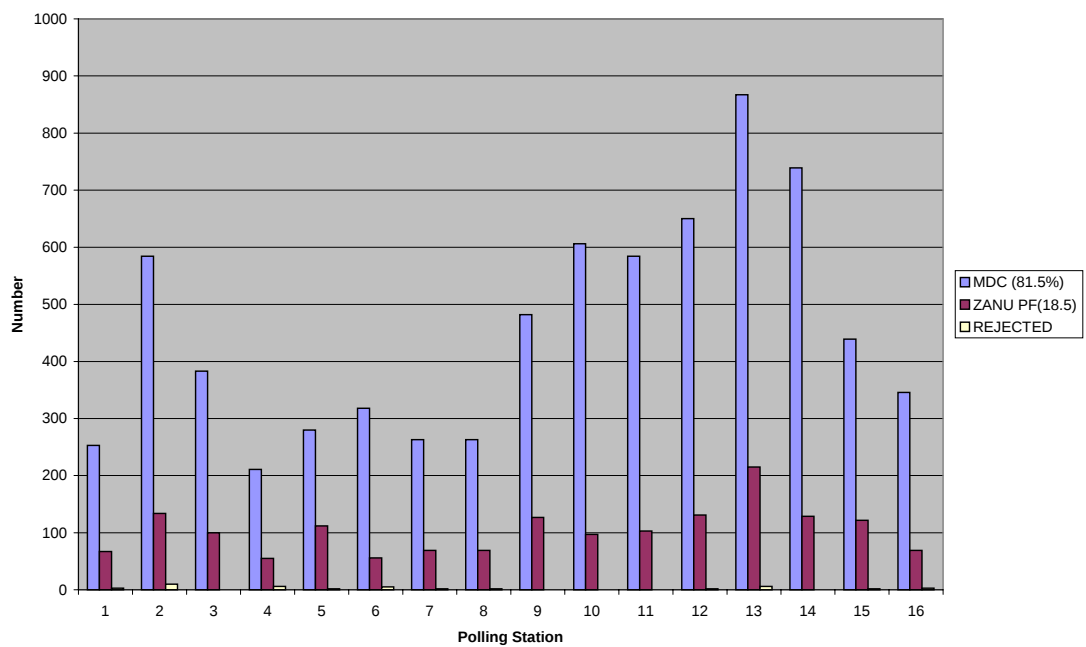
ZEC Results (ZPF 18.7%, MDC 81.3%)

Fig 4: Poll Votes by Polling Station, Makokoba Constituency



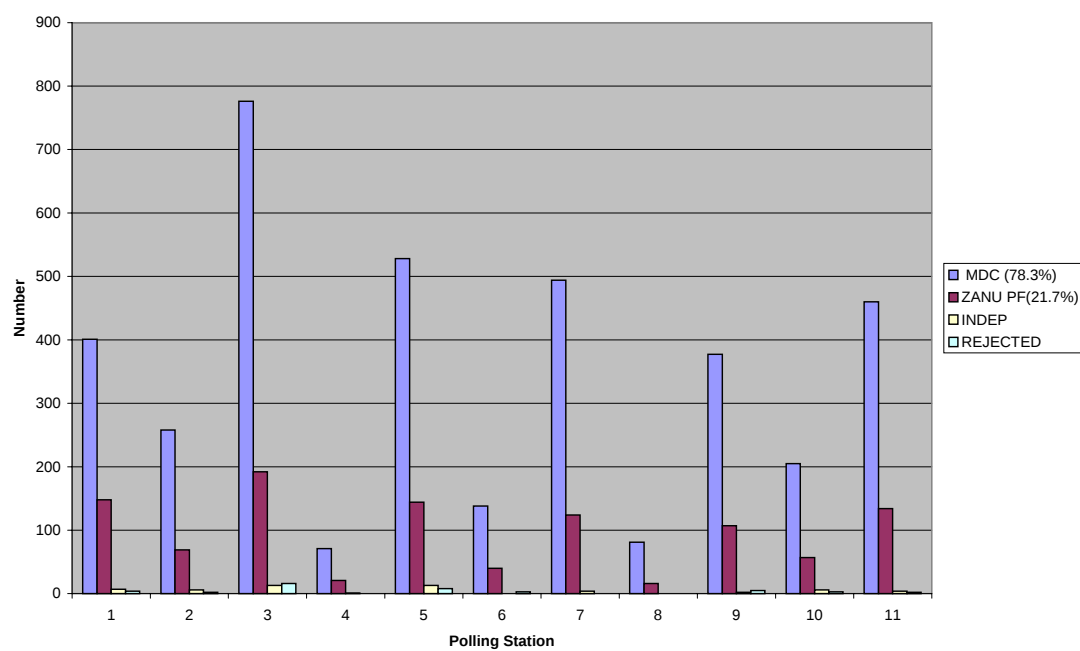
ZEC Results (ZPF 22.1%, MDC 77.9%)

Fig 5: Poll Votes by Polling Station, Nkulumani Constituency



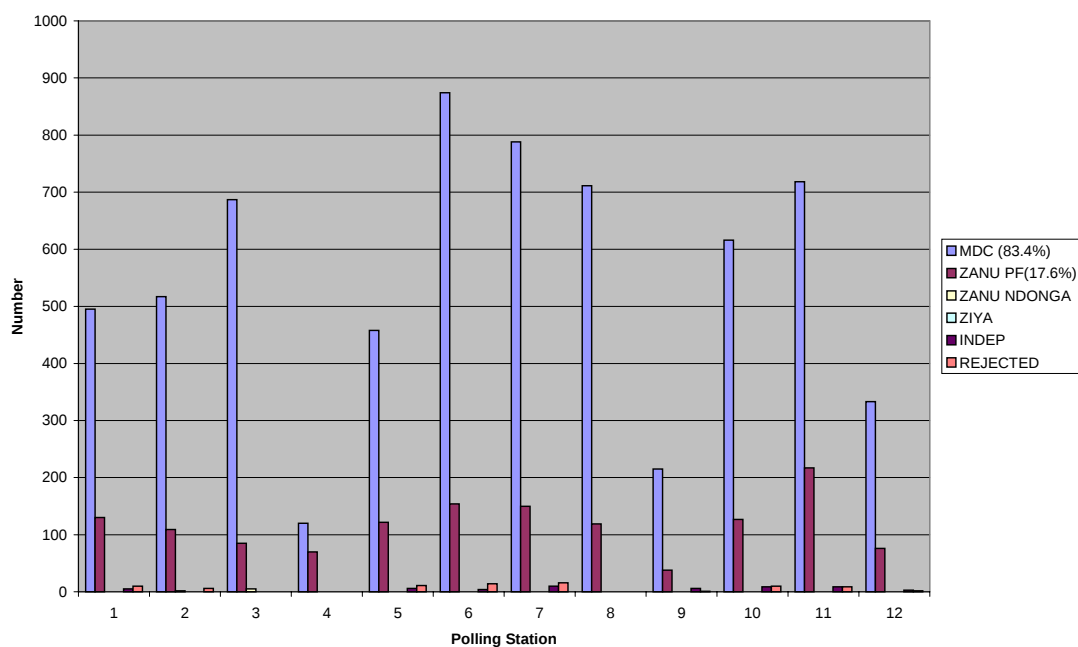
ZEC Results (ZPF 20.7%, MDC 79.3%)

Fig 6: Poll Votes by Polling Station, Pelandaba-Mpopoma Constituency



ZEC Results (ZPF 21.8%, MDC 78.2%)

Fig 7: Poll Vote By Polling Station, Pumula-Luveve Constituency



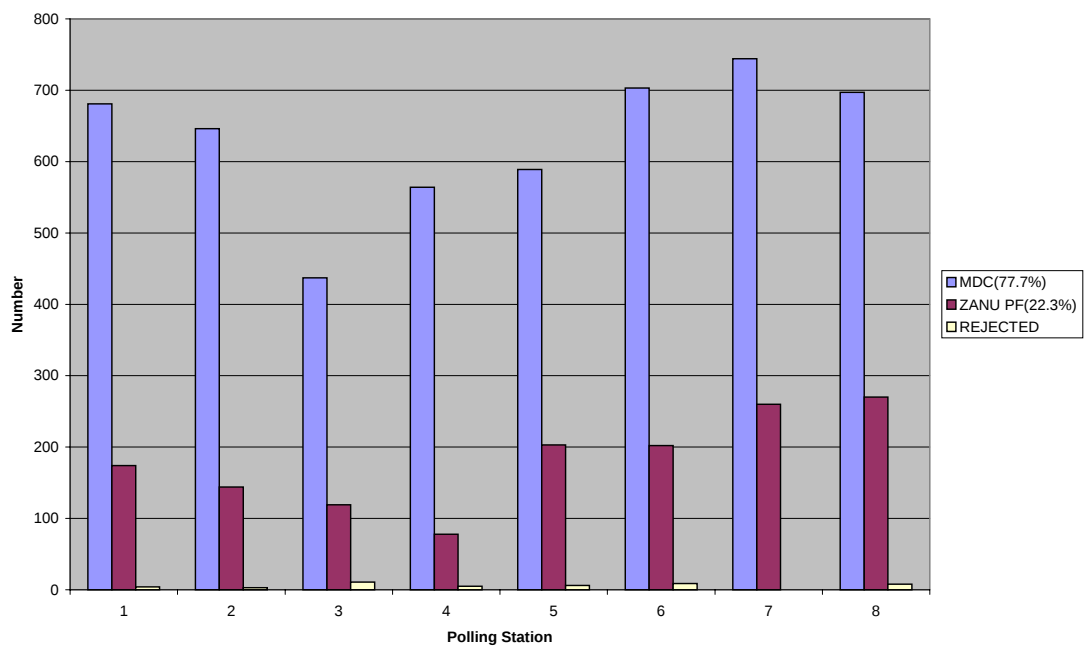
ZEC Results (ZPF 20.3%, MDC 79.7%)

The results in all the seven constituencies indicate that the MDC was winning in all the polling stations observed by ZESN which agrees with the results published by ZEC.

(2) HARARE PROVINCE CONSTITUENCIES

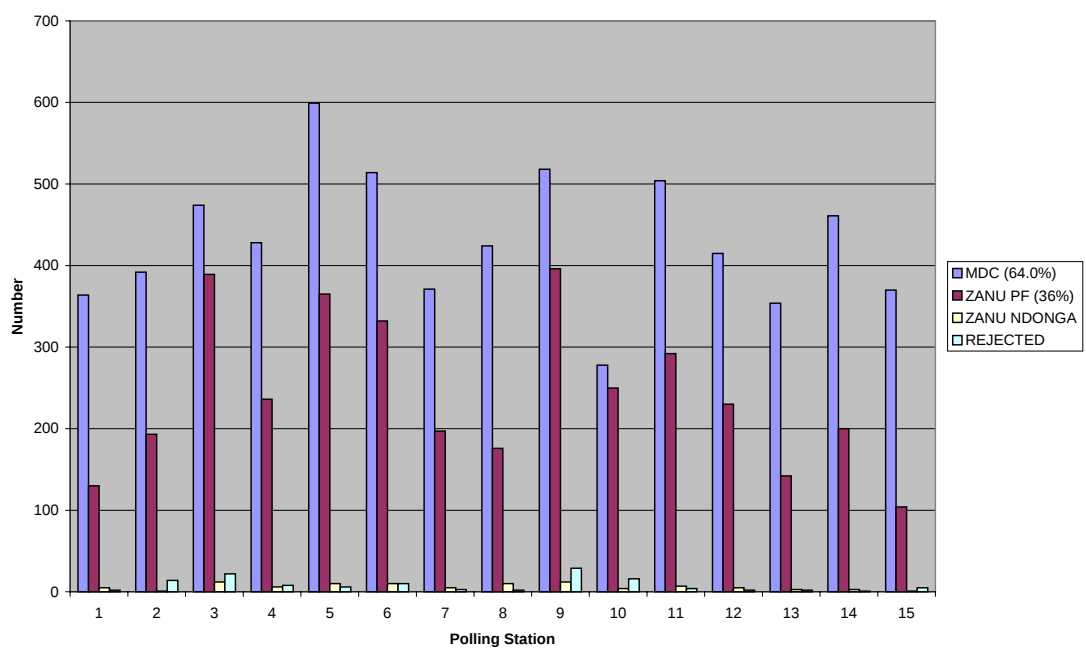
Harare constituencies are as follows,

Fig 8: Poll Vote By Polling Station, Budiriro Constituency



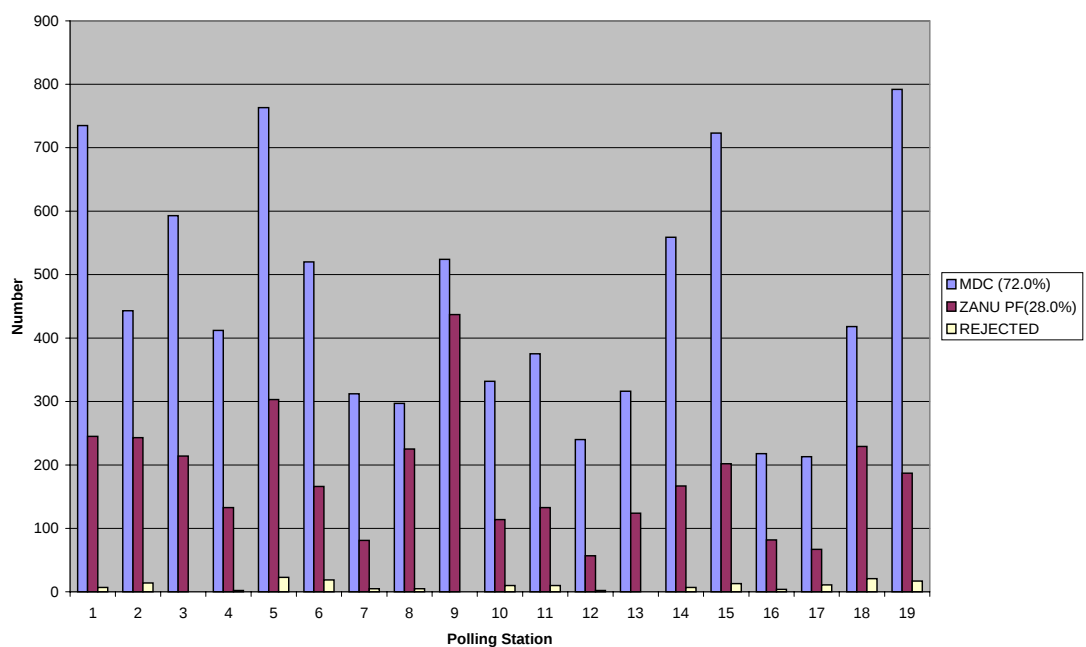
ZEC Results (ZPF 21.6%, MDC 78.4%)

Fig 9: Poll Vote By Polling Station, Chitungwiza Constituency



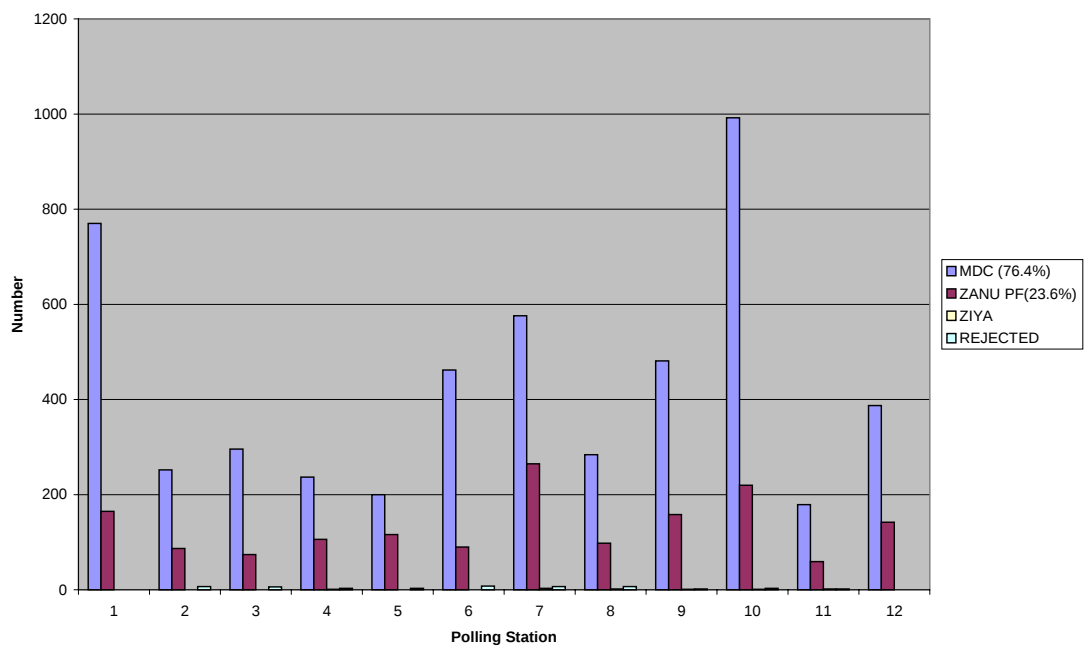
ZEC Results (ZPF 40.3%, MDC 59.7%)

Fig 10: Poll Vote By Polling Station, Dzivarasekwa Constituency



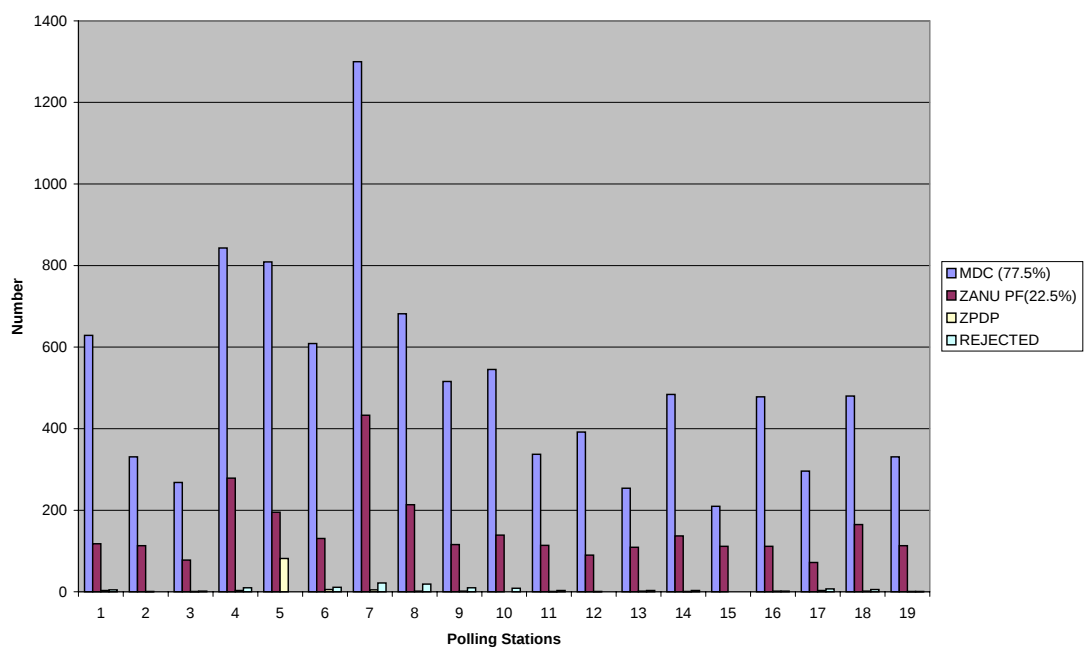
ZEC Results (ZPF 30.1%, MDC 69.9%)

Fig 11: Poll Vote By Polling Station, Glen Norah Constituency



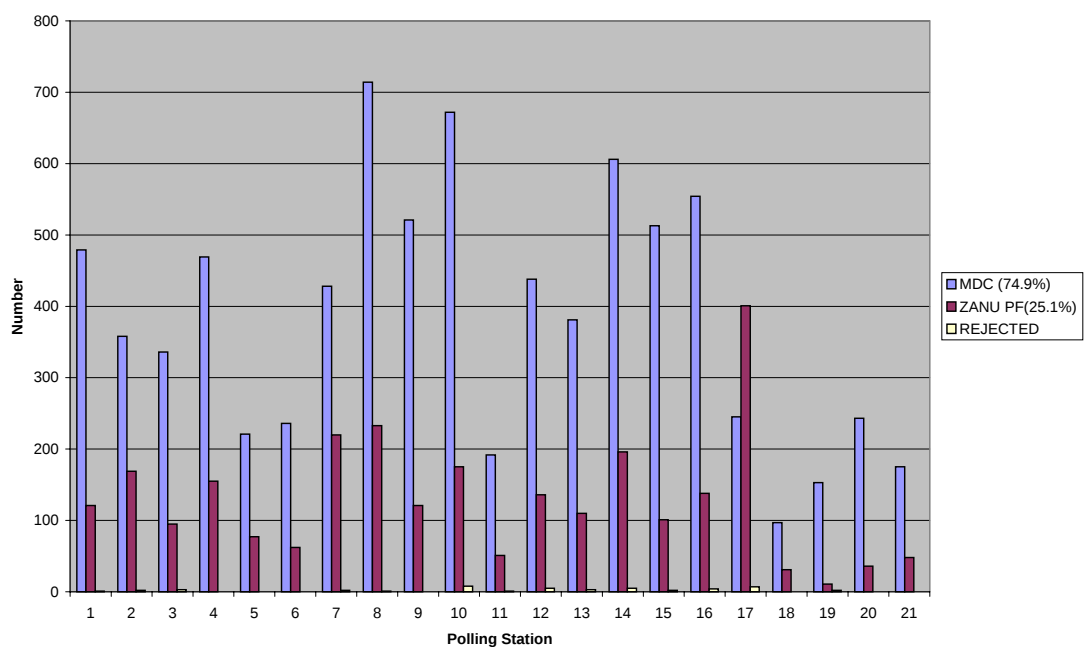
ZEC Results (ZPF 23.8%, MDC 76.2%)

Fig 12: Poll Vote By Polling Station, Glen View Constituency



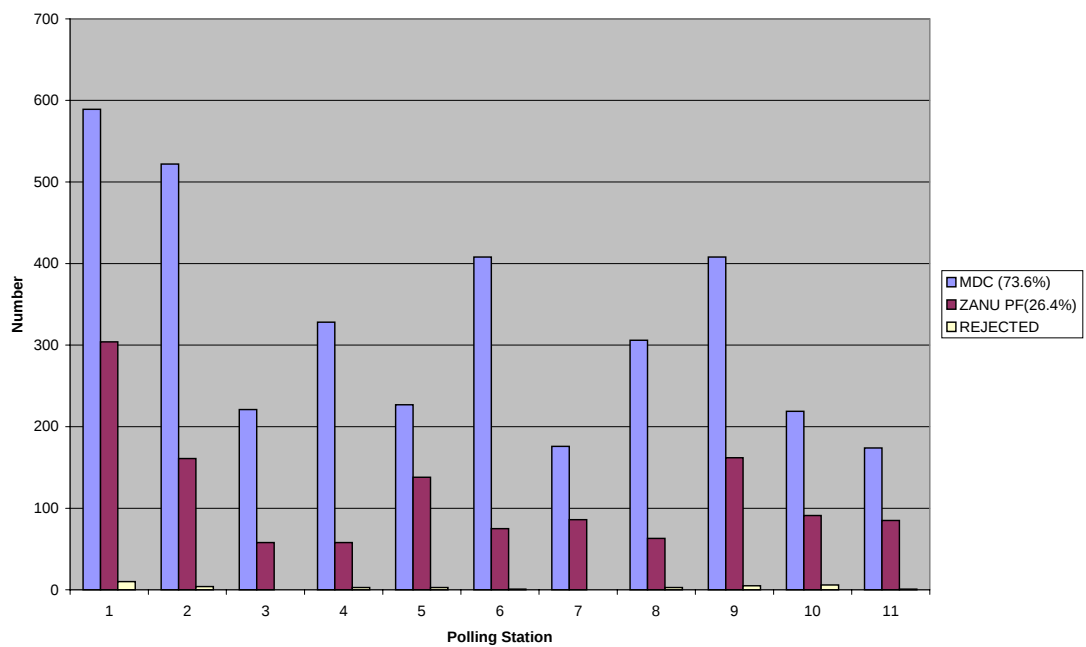
ZEC Results (ZPF 21.9%, MDC 78.1%)

Fig 13: Poll Vote By Polling Station, Harare Central Constituency



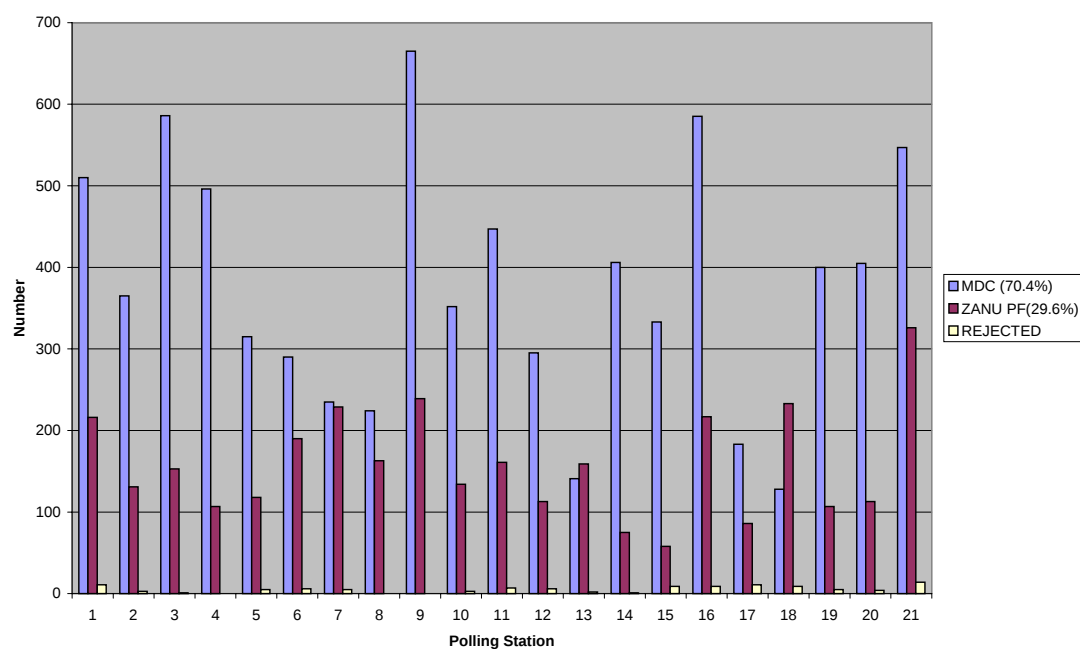
ZEC Results (ZPF 29.7%, MDC 70.3%)

Fig 14: Poll Vote By Polling Station, Harare East Constituency



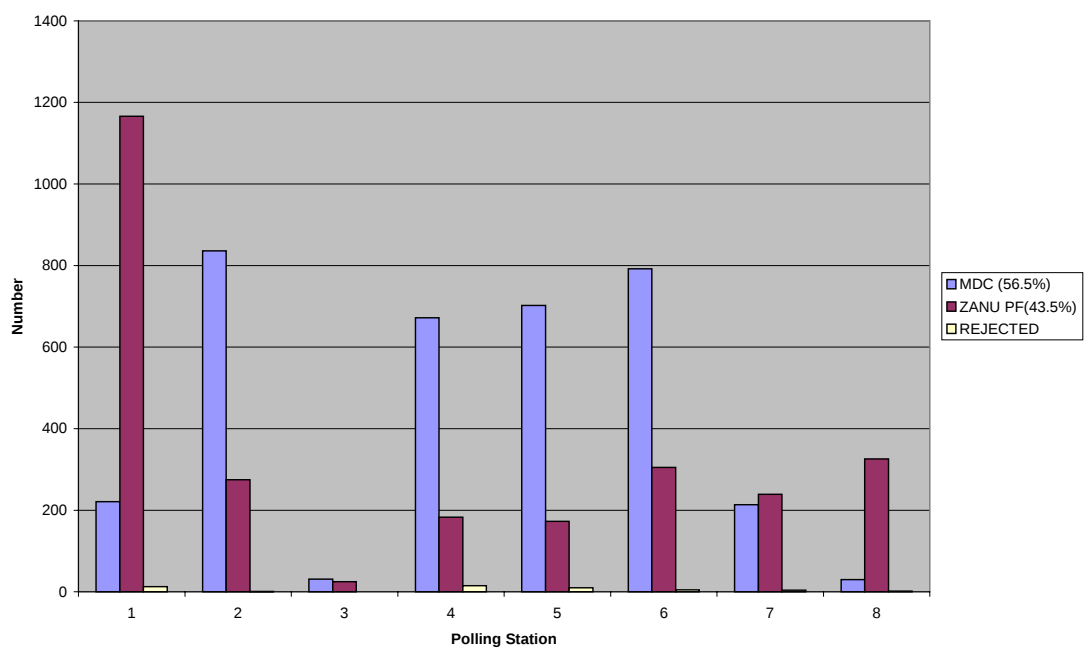
ZEC Results (ZPF 32.0%, MDC 68.0%)

Fig 15: Poll Vote By Polling Station, Harare North Constituency



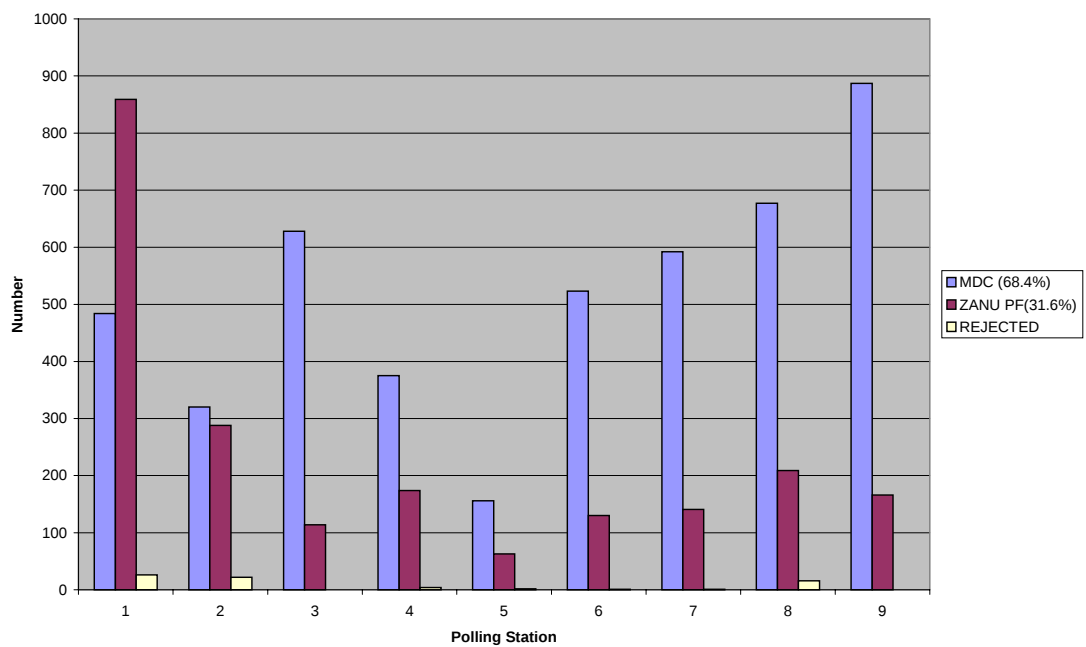
ZEC Results (ZPF 31.3%, MDC 68.7%)

Fig 16: Poll Vote By Polling Station, Harare South Constituency



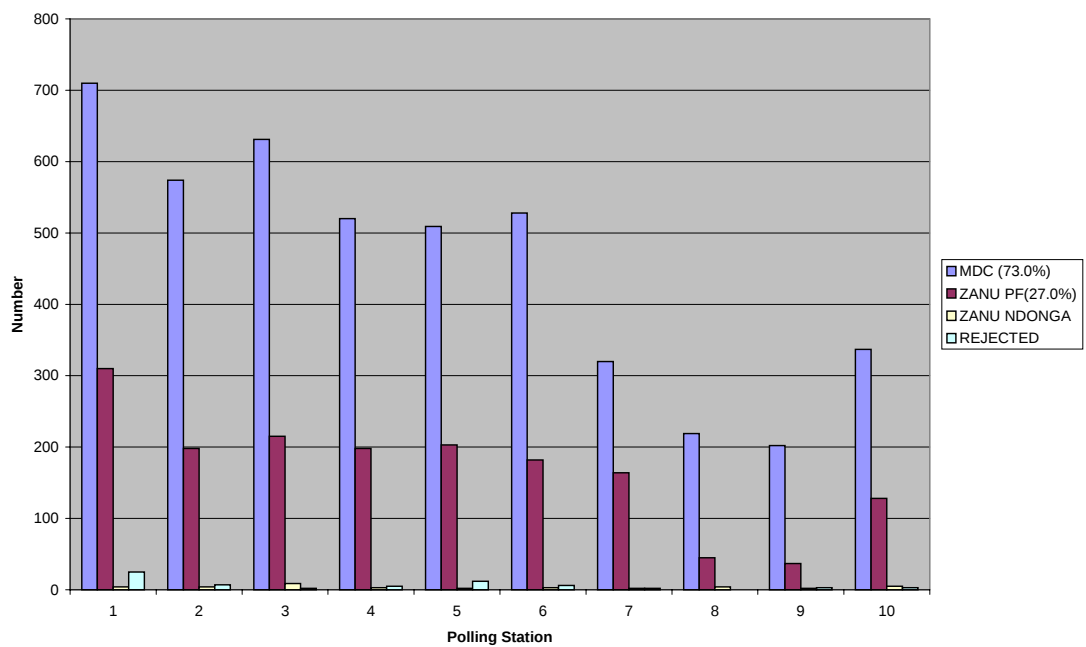
ZEC Results (ZPF 51.9%, MDC 48.1%)

Fig 17: Poll Vote By Polling Station, Hatfield Constituency



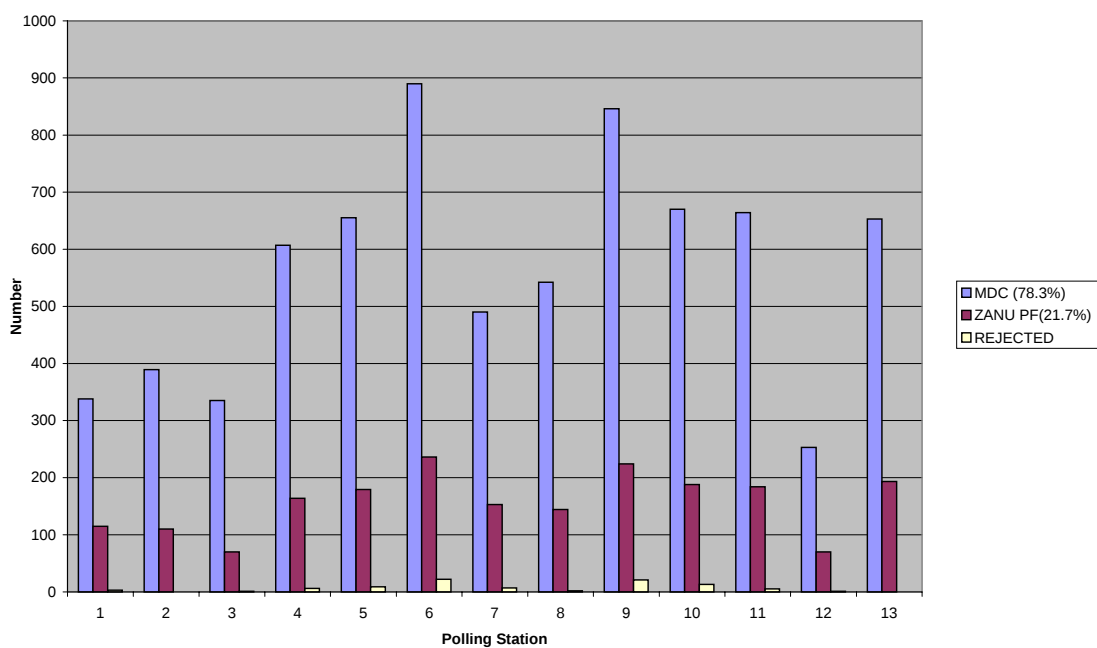
ZEC Results (ZPF 44.7%, MDC 55.3%)

Fig 18: Poll Vote By Polling Station, Highfield Constituency



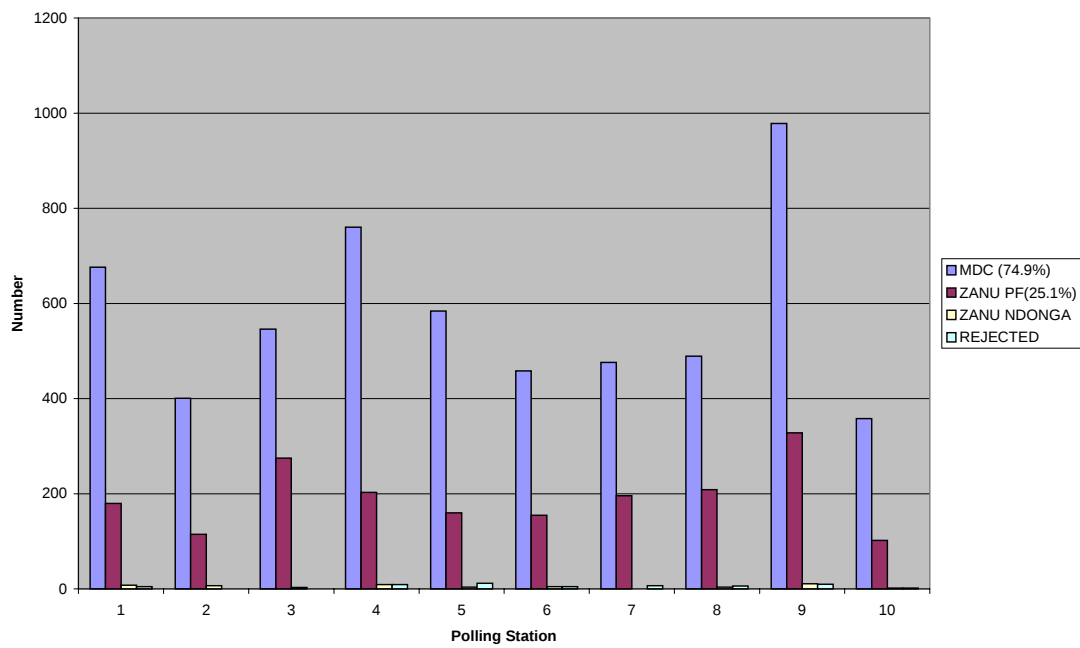
ZEC Results (ZPF 25.4%, MDC 74.6%)

Fig 19: Poll Vote By Polling Station, Kambuzuma Constituency



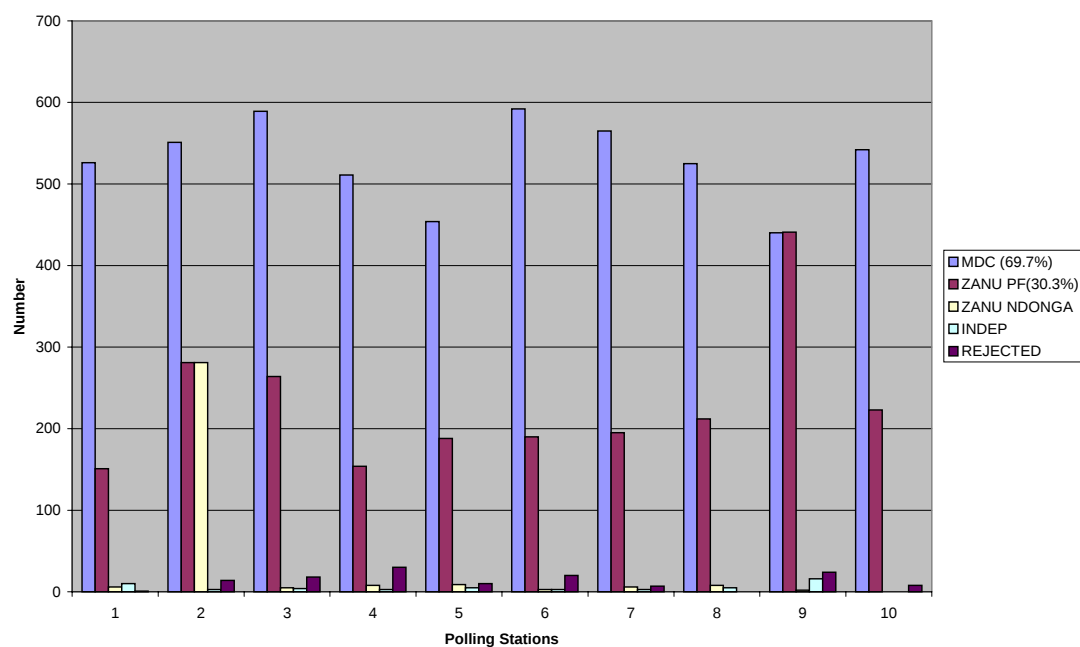
ZEC Results (ZPF 24.2%, MDC 75.8%)

Fig 20: Poll Vote By Polling Station, Kuwadzana Constituency



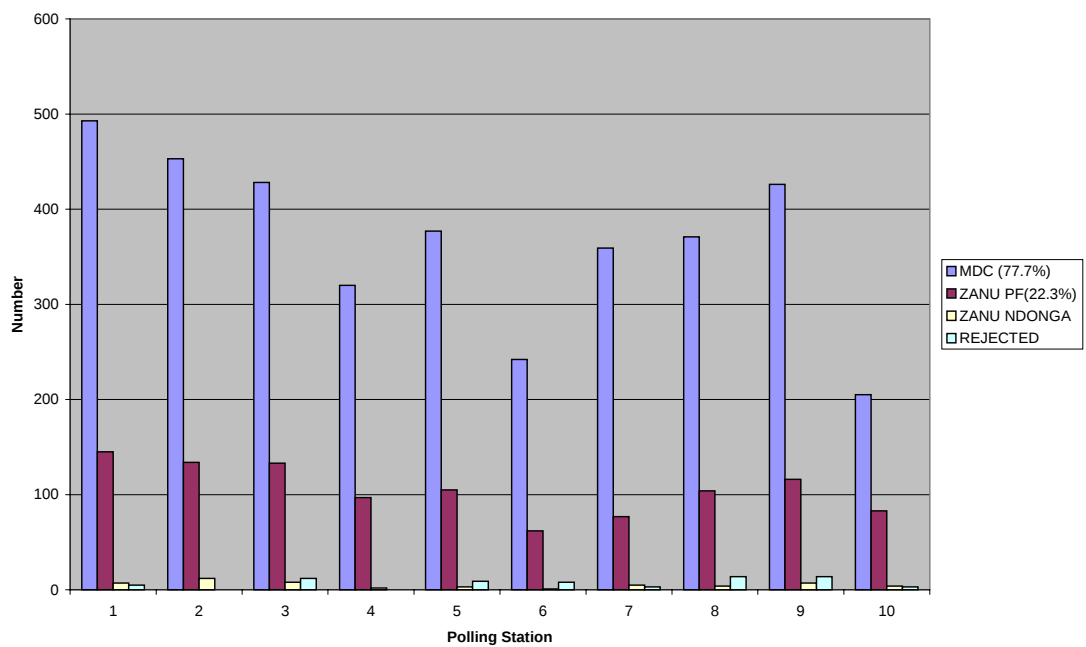
ZEC Results (ZPF 26.6%, MDC 73.4%)

Fig 21: Poll Vote By Polling Station, Mbare Constituency



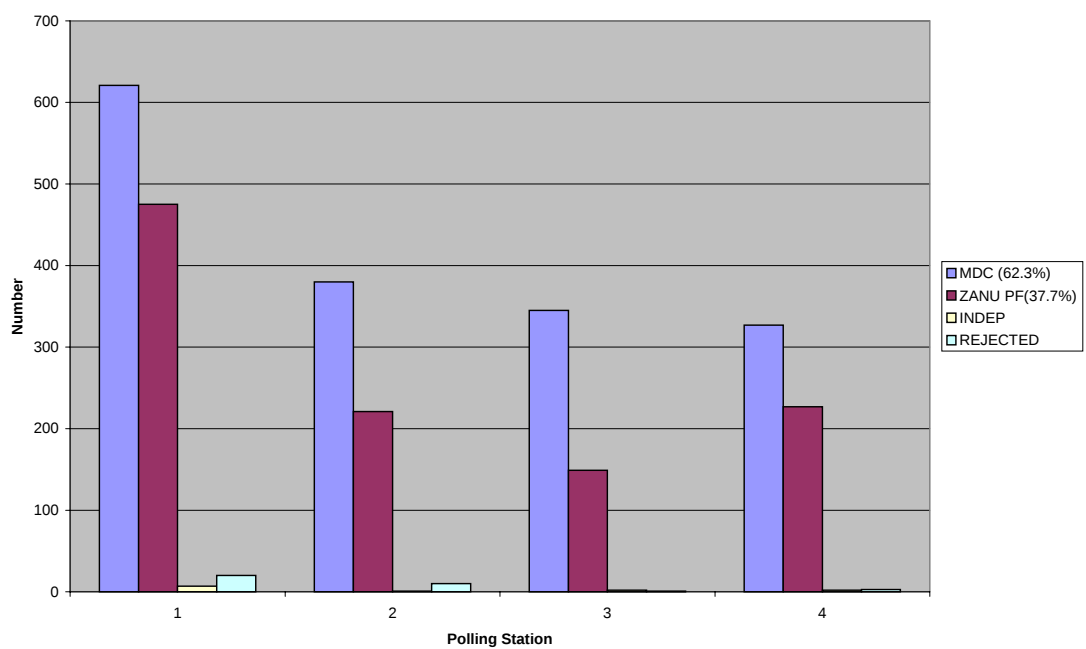
ZEC Results (ZPF 37.9%, MDC 62.1%)

Fig 22: Poll Vote By Polling Station, Mufakose Constituency



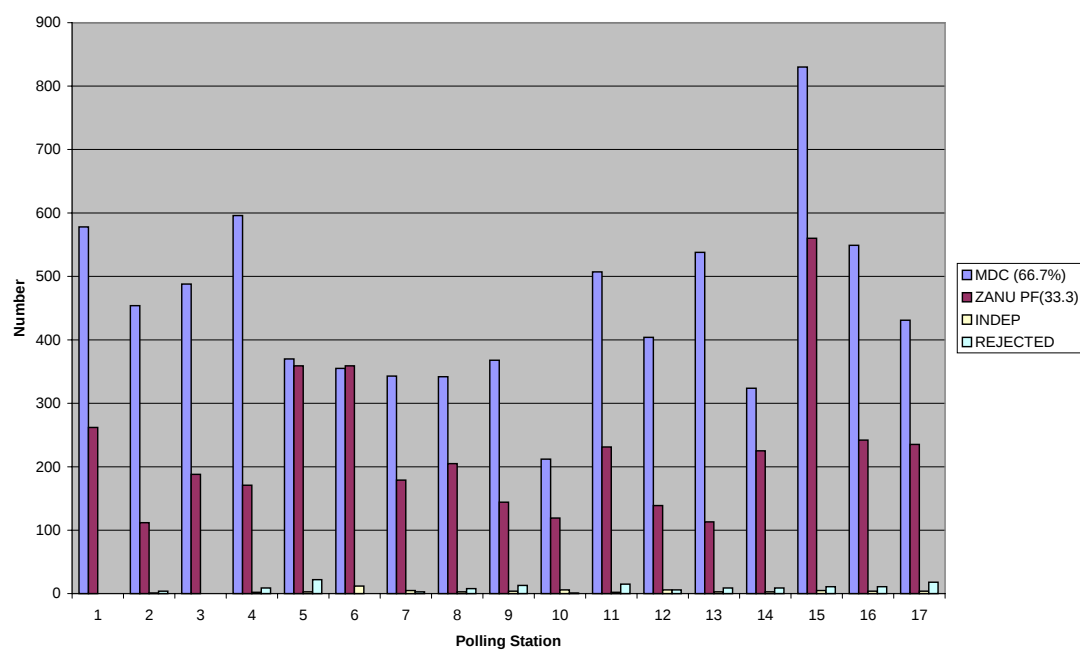
ZEC Results (ZPF 24.1%, MDC 75.9%)

Fig 23: Poll Vote By Polling Station, St Marys Constituency



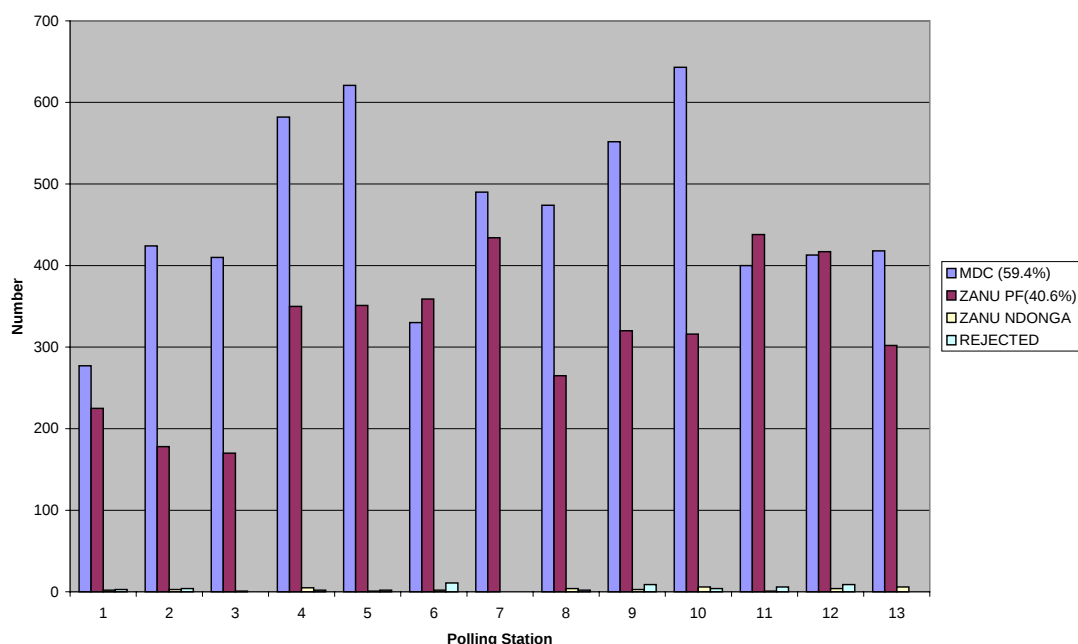
ZEC Results (ZPF 35.9%, MDC 64.1%)

Fig 24: Poll Vote By Polling Station, Tafara-Mabvuku Constituency



ZEC Results (ZPF 31.1%, MDC 68.9%)

Fig 25: Poll Vote By Polling Station, Zengeza Constituency



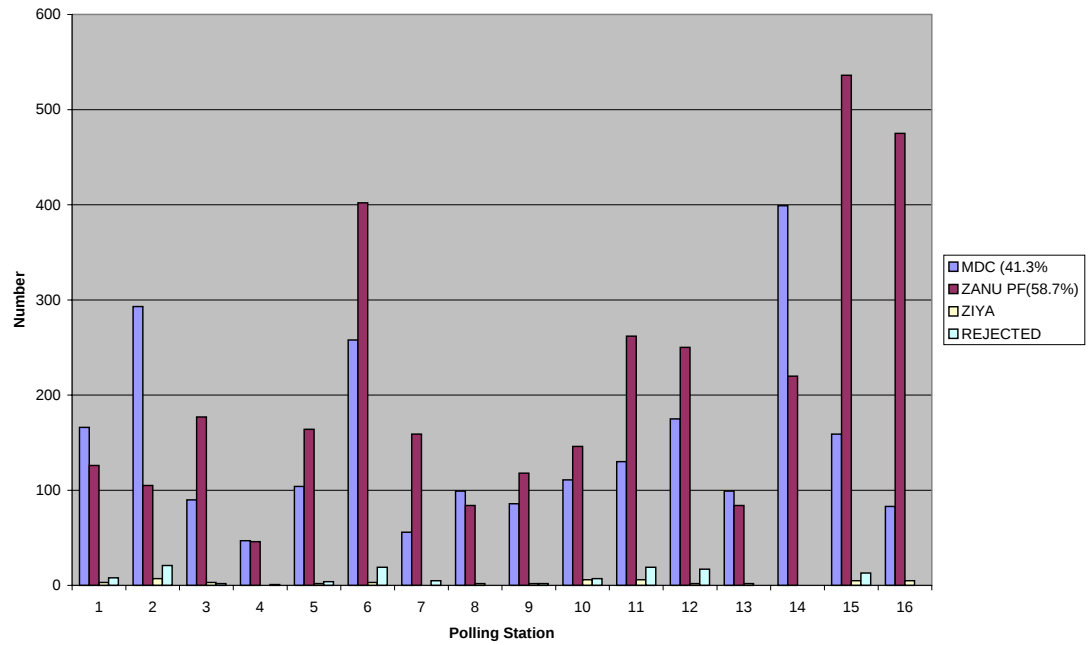
ZEC Results (ZPF 41.8%, MDC 58.2%)

In all the 18 Harare constituencies the MDC was winning all the constituencies which is the same as the ZEC results except in the case of Harare South which was won by ZANU PF there is an unusual number of voters recorded at polling station number 1 which is Adbennie Primary school where 1387 people voted and ZANU PF got the lion's share with 1166 votes.

(3) MANICALAND PROVINCE CONSTITUENCIES

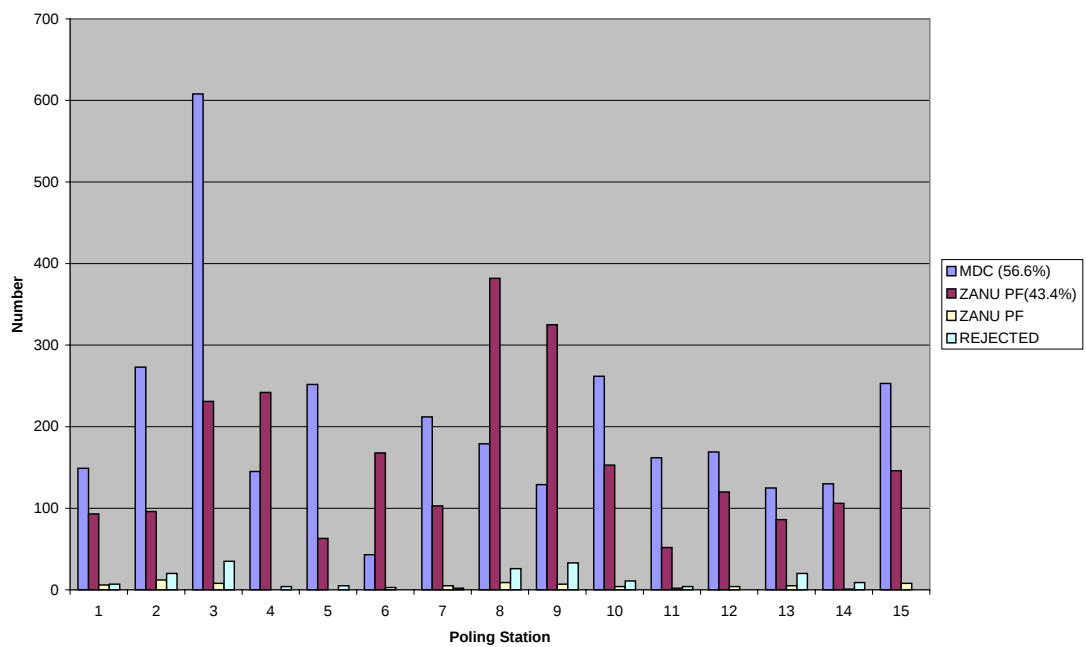
The pattern in Manicaland is show below,

Fig 26: Poll Vote By Polling Station, Buhera North Constituency



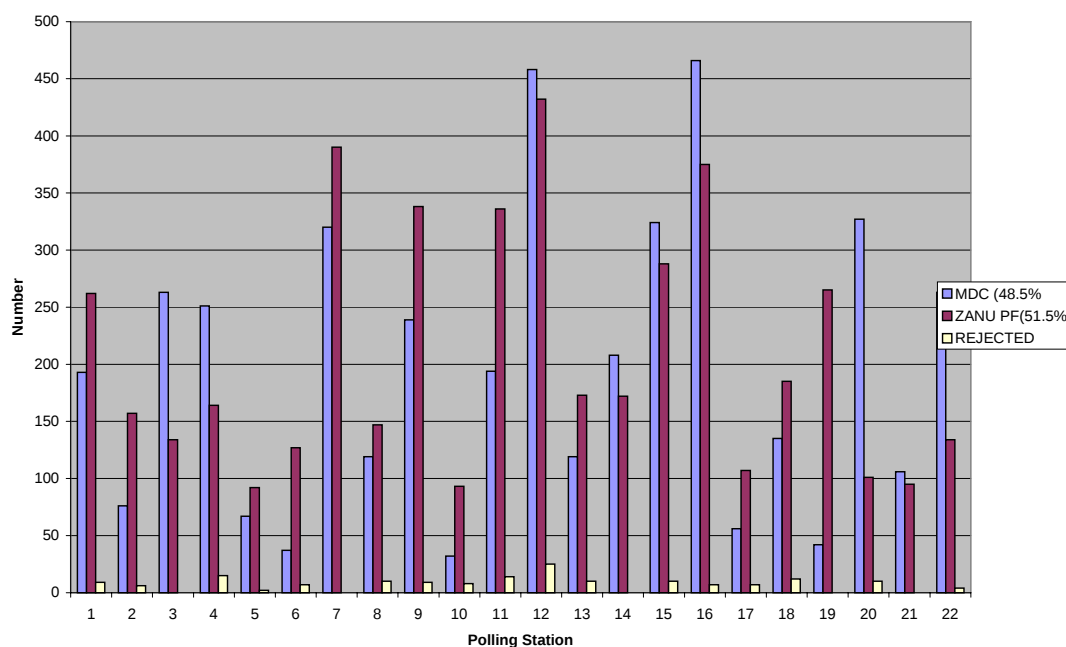
ZEC Results (ZPF 58.2%, MDC 41.8%)

Fig 27: Poll Vote By Polling Station, Buhera South Constituency



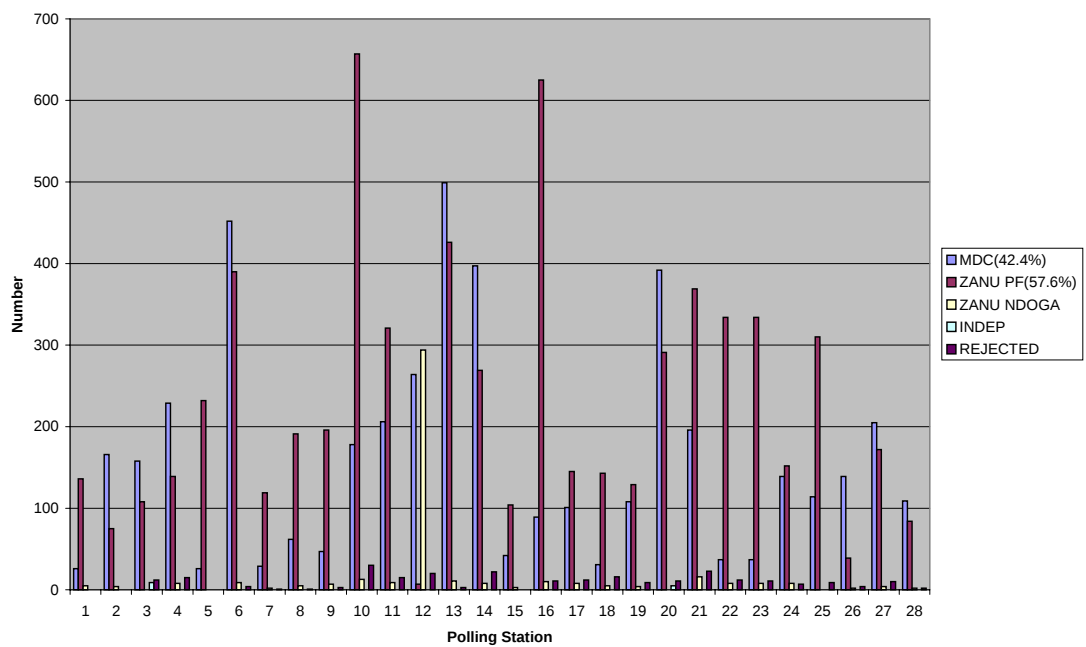
ZEC Results (ZPF 52.0%, MDC 48.0%)

Fig 28: Poll Vote By Polling Station, Chimanimani Constituency



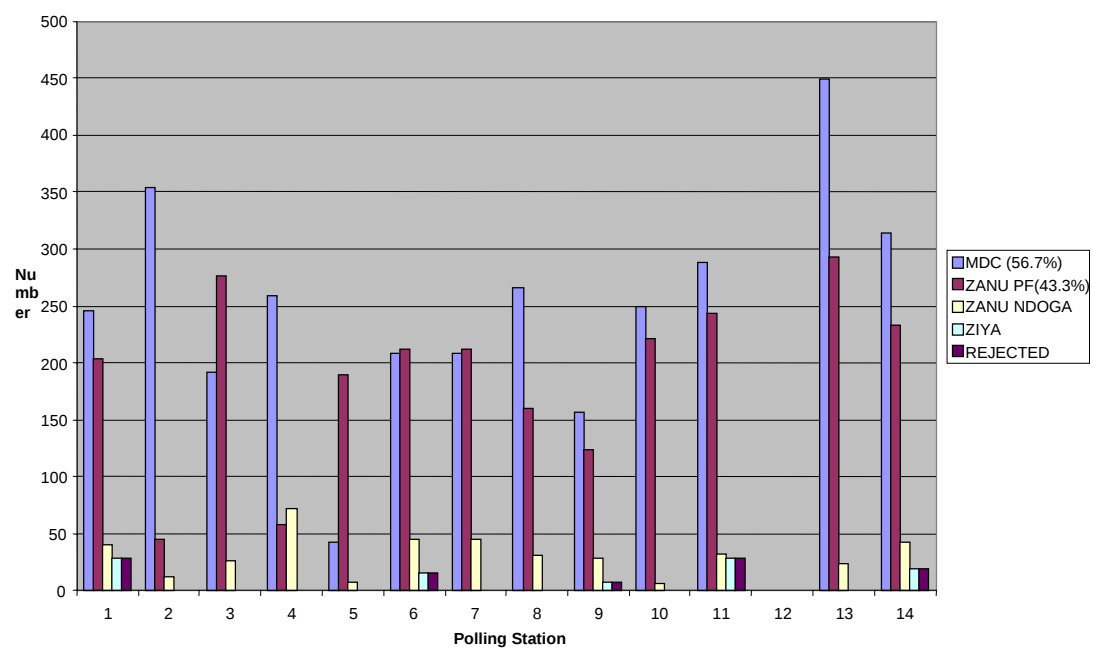
ZEC Results (ZPF 58.9%, MDC 41.1%)

Fig 29: Poll Vote By Polling Station, Chipinge North Constituency



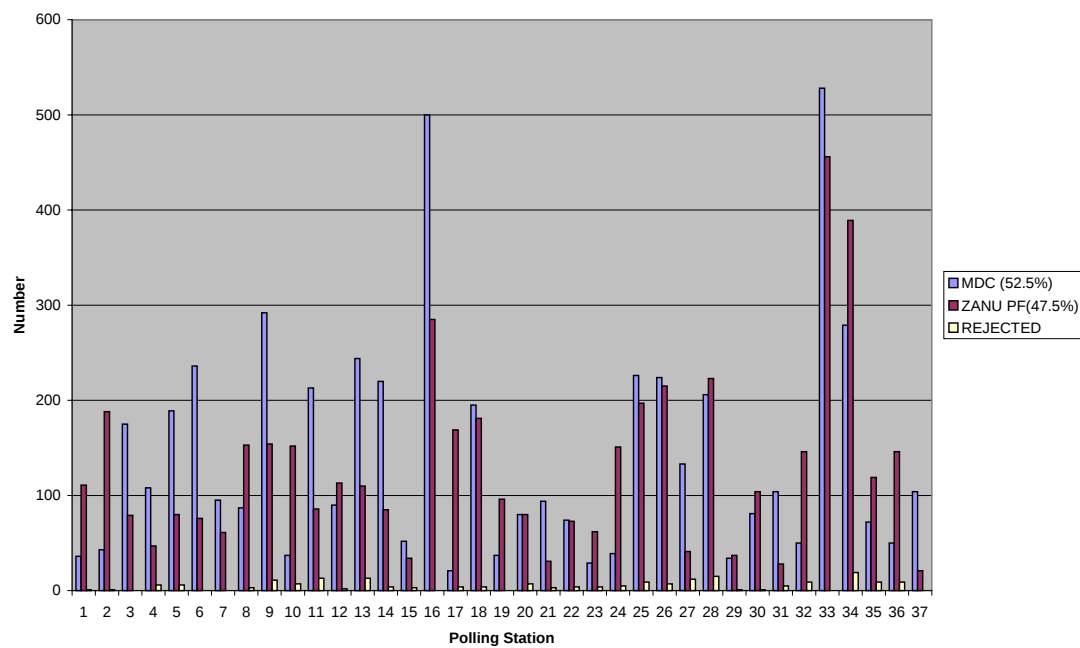
ZEC Results (ZPF 60.4%, MDC 39.6%)

Fig 30: Poll Vote By Polling Station, Chipinge South Constituency



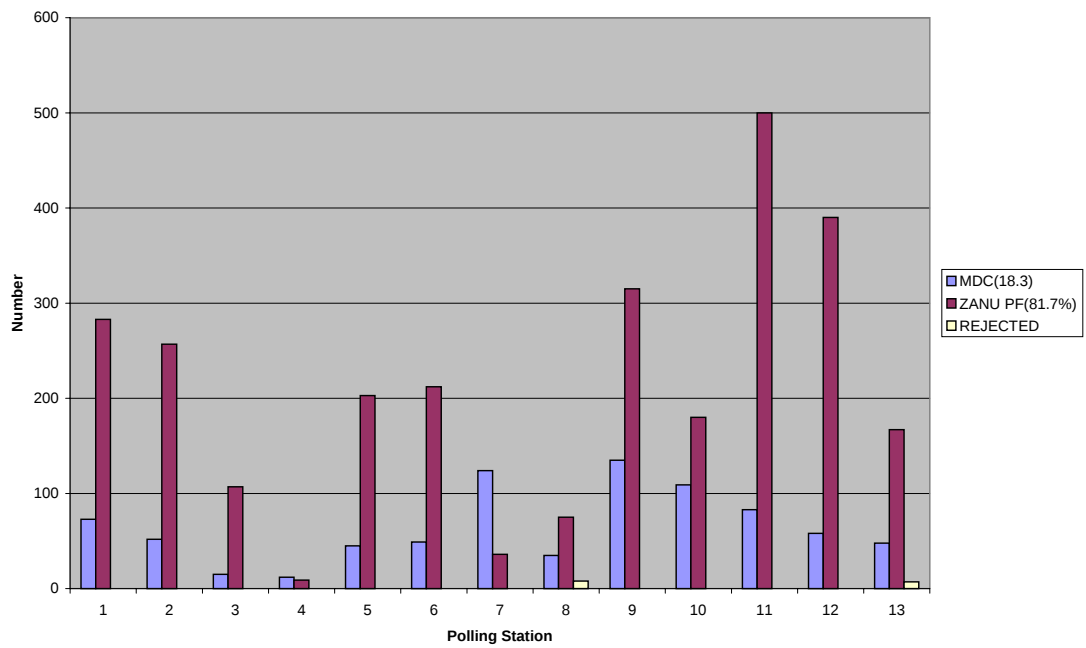
ZEC Results (ZPF 57.4%, MDC 42.6%)

Fig 31: Poll Vote By Polling Station, Makoni East Constituency



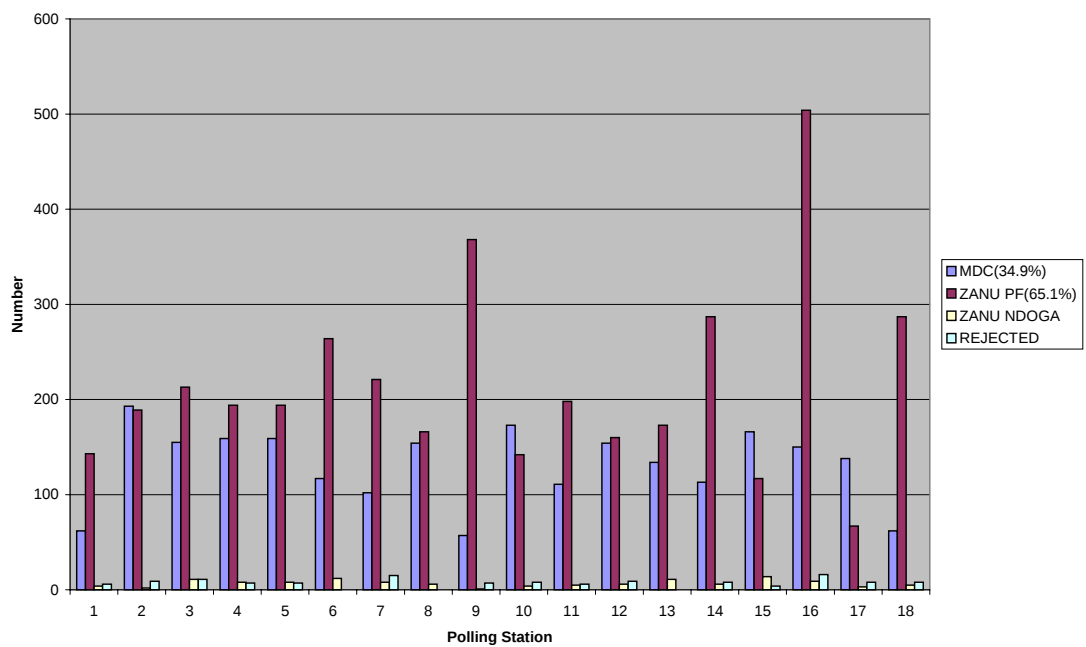
ZEC Results (ZPF 54.4%, MDC 45.6%)

Fig 32: Poll Vote By Polling Station, Makoni North Constituency



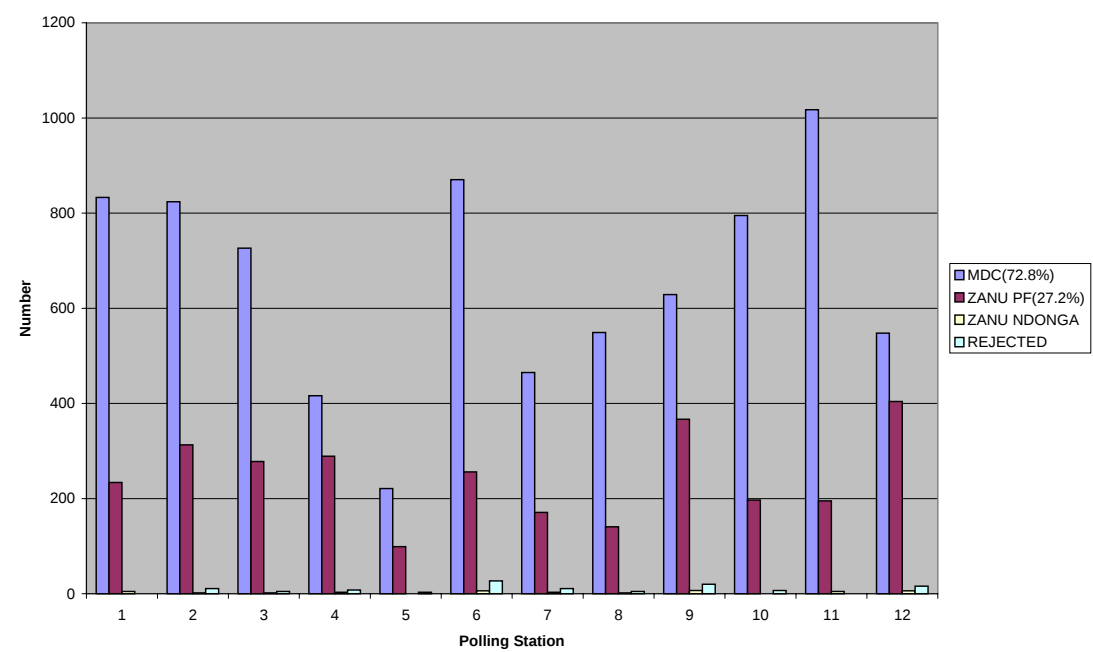
ZEC Results (ZPF 73.6%, MDC 26.4%)

Fig 33: Poll Vote By Polling Station, Makoni West Constituency



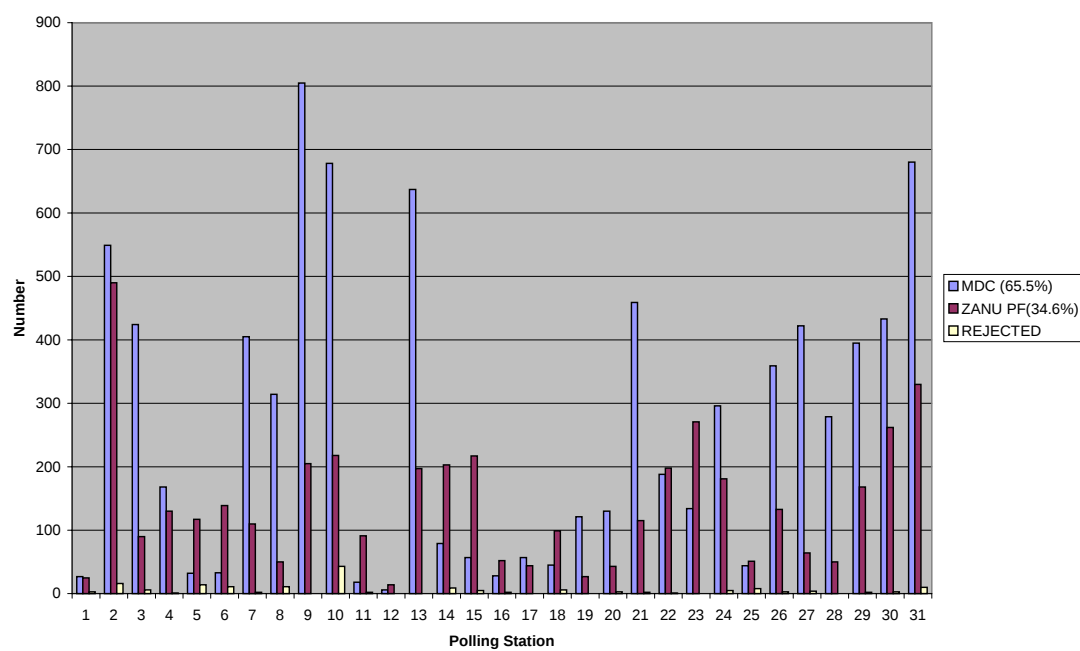
ZEC Results (ZPF 64.5%, MDC 35.5%)

Fig 34: Poll Vote By Polling Station, Mutare Central Constituency



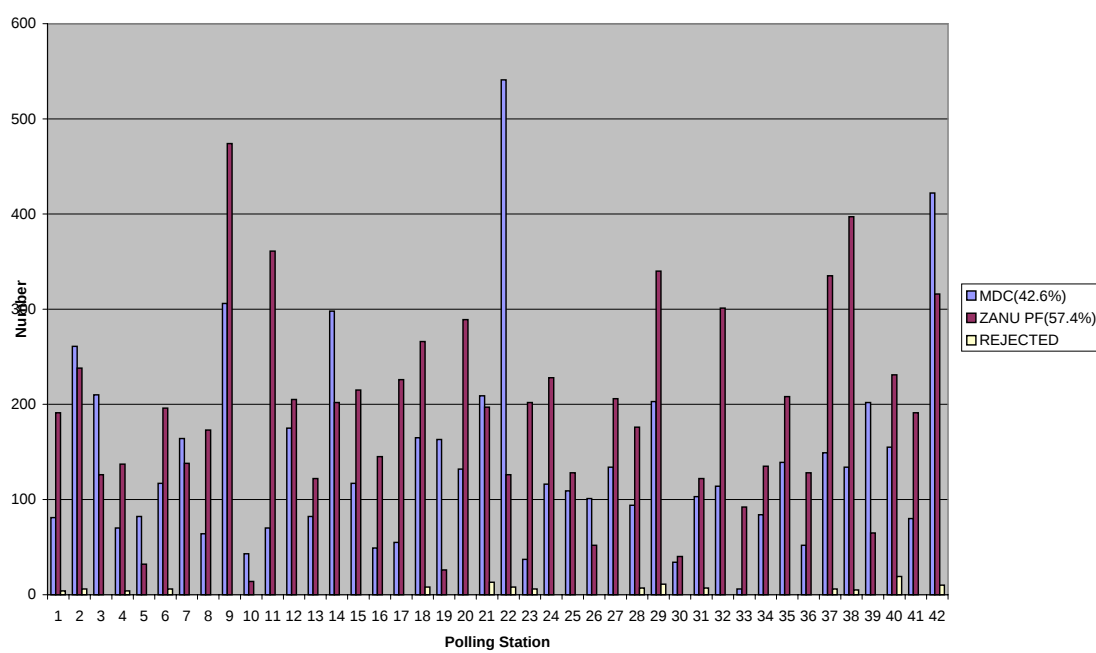
ZEC Results (ZPF 27.7%, MDC 72.3%)

Fig 35: Poll Vote By Polling Station, Mutare North Constituency



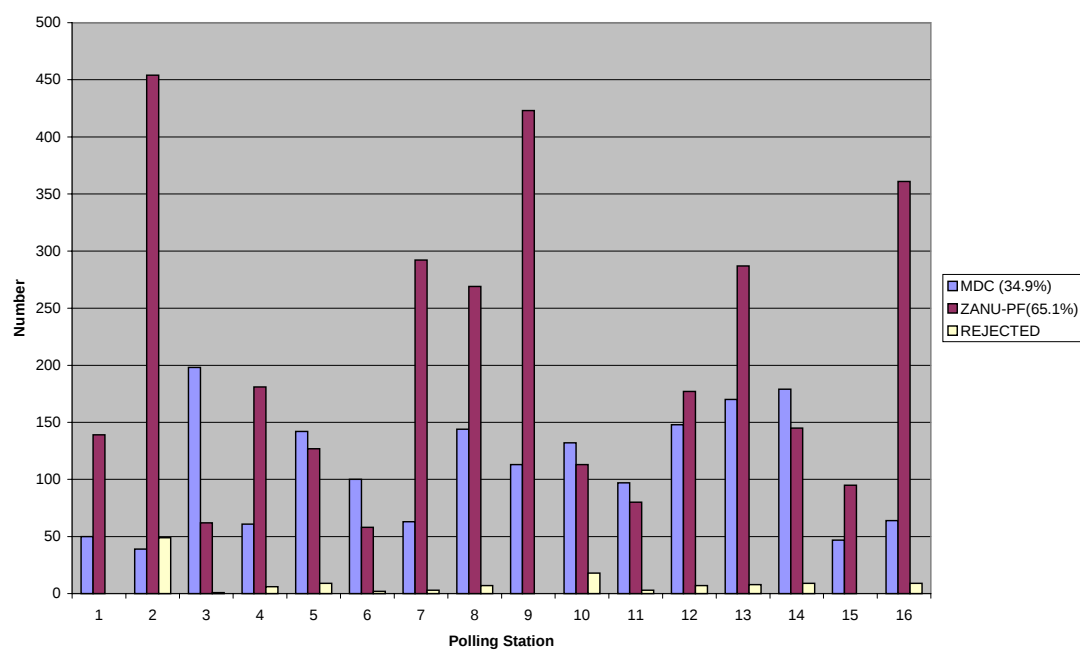
ZEC Results (ZPF 37.9%, MDC 62.1%)

Fig 36: Poll Vote By Polling Station, Mutare South Constituency



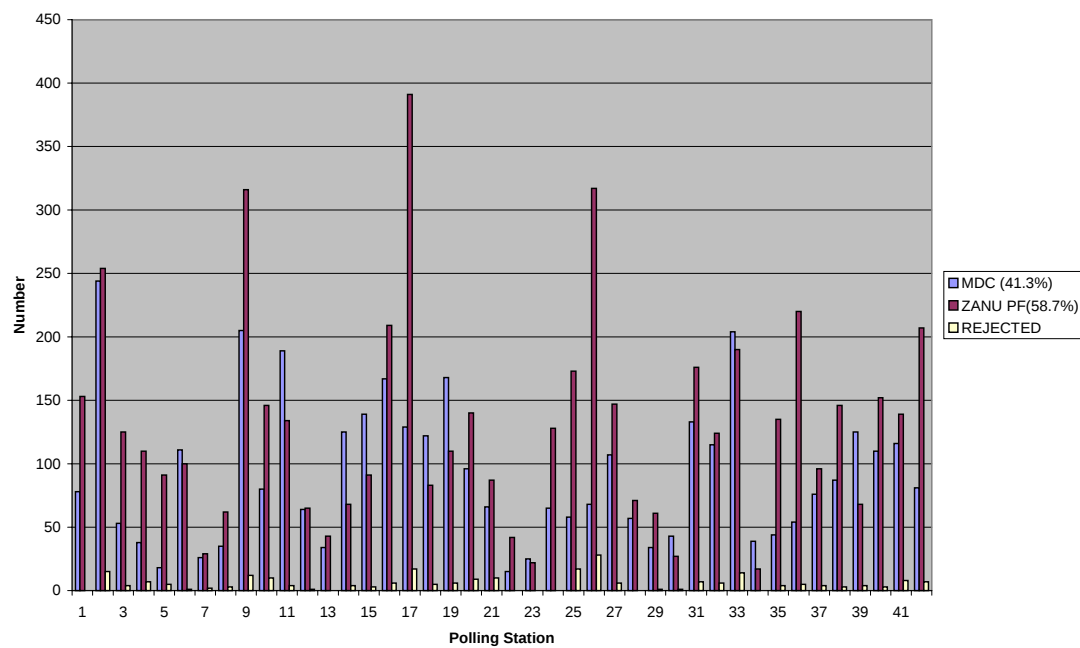
ZEC Results (ZPF 58.4%, MDC 41.6%)

Fig 37: Poll Vote By Polling Station, Mutare West Constituency



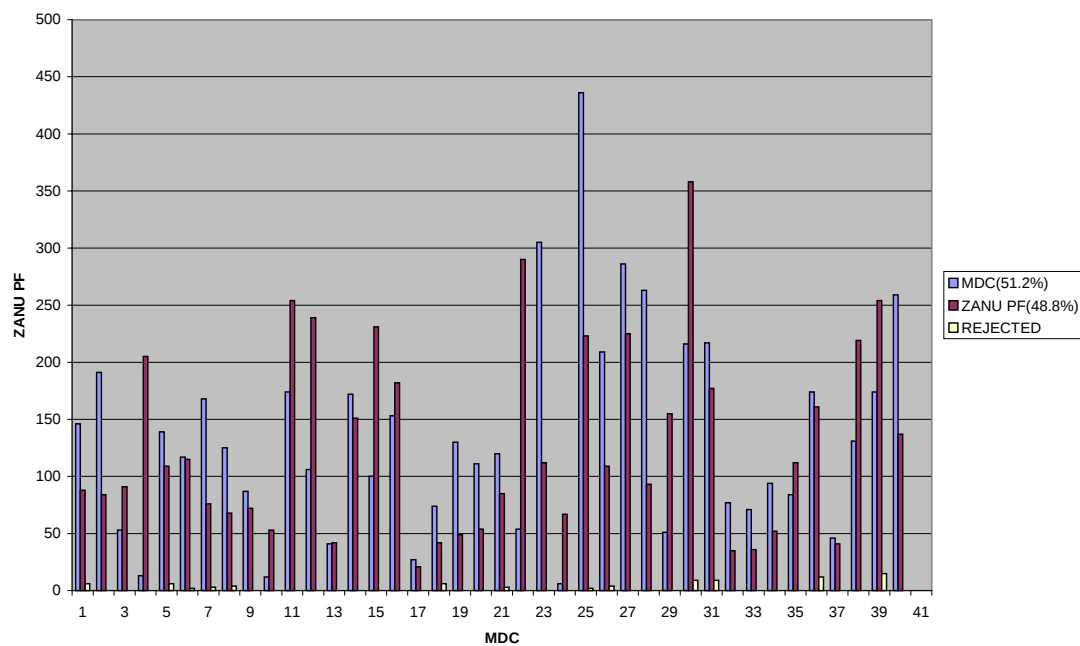
ZEC Results (ZPF 65.2%, MDC 34.8%)

Fig 38: Poll Vote By Polling Station, Mutasa North Constituency



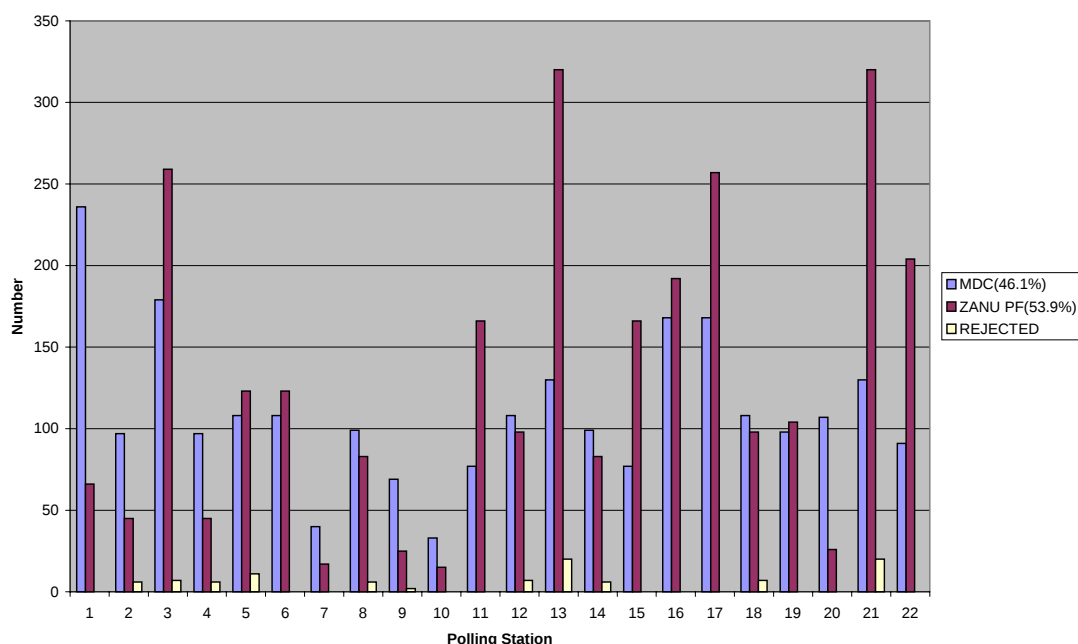
ZEC Results (ZPF 60.5%, MDC 39.5%)

Fig 39: Poll Vote By Polling Station, Mutasa South Constituency



ZEC Results (ZPF 50.9%, MDC 49.1%)

Fig 40: Poll Vote By Polling Station, Nyanga Constituency



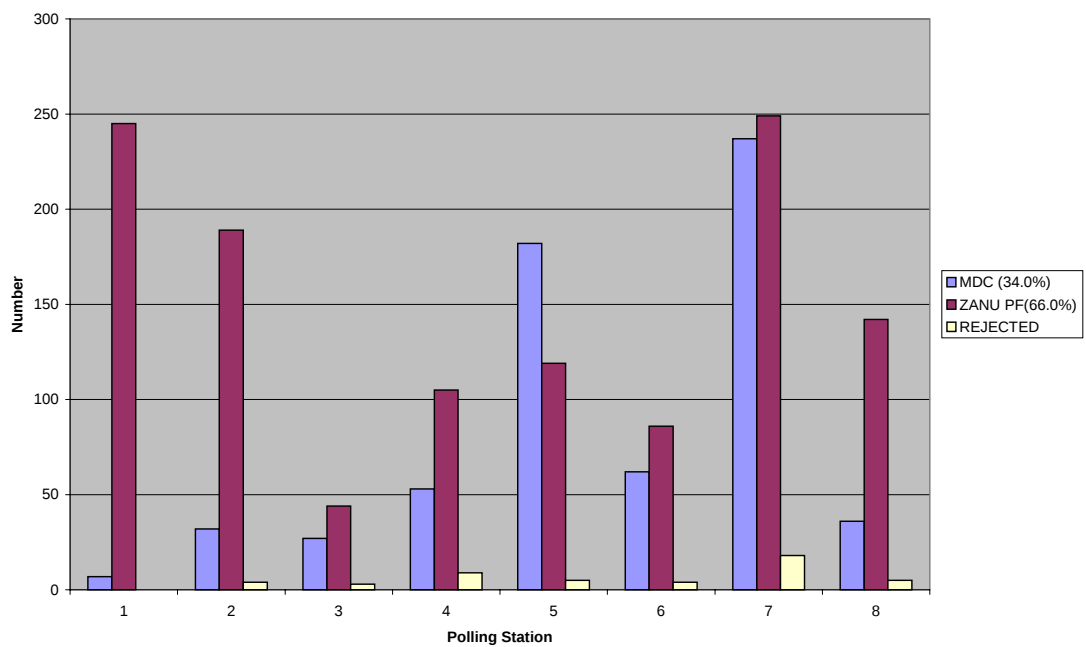
ZEC Results (ZPF 57.4%, MDC 42.6%)

The Manicaland Province patterns differ in several constituencies with the ZEC results especially Buhera South, Mutasa South, Chipinge South, Chipinge North (which contained outliers at polling stations like Holland and Southdown), Makoni East, where the MDC did better at polling station level.

(4) MASHONALAND EAST CONSTITUENCIES

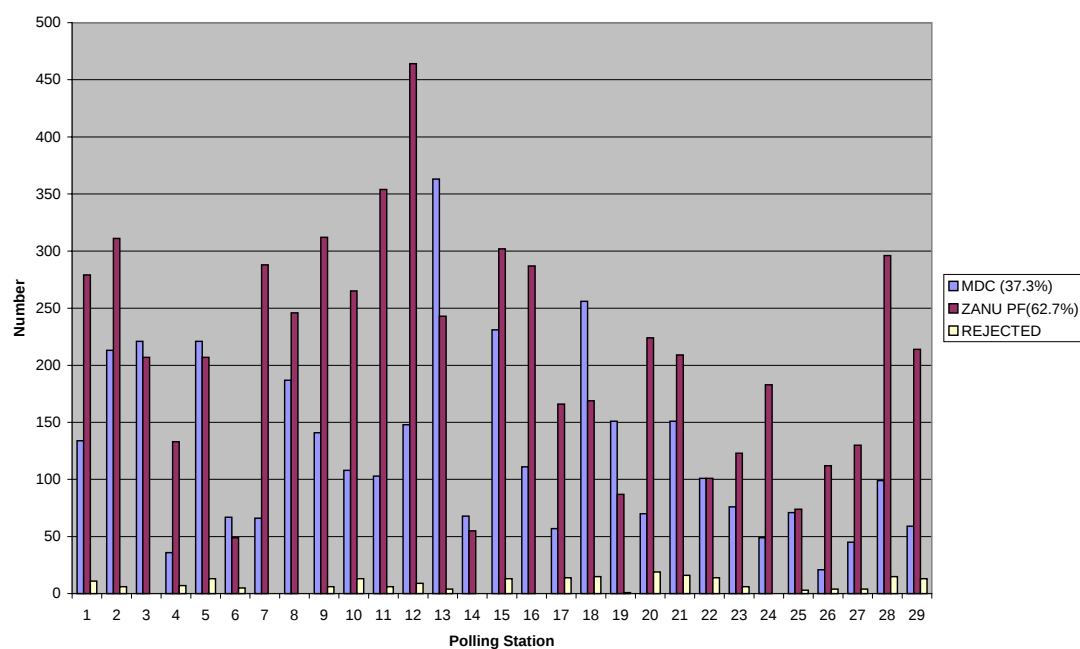
The 11 constituencies excluding Mudzi East and Hwedza show the following patterns,

Fig 41: Poll Vote By Polling Station, Chikomba Constituency



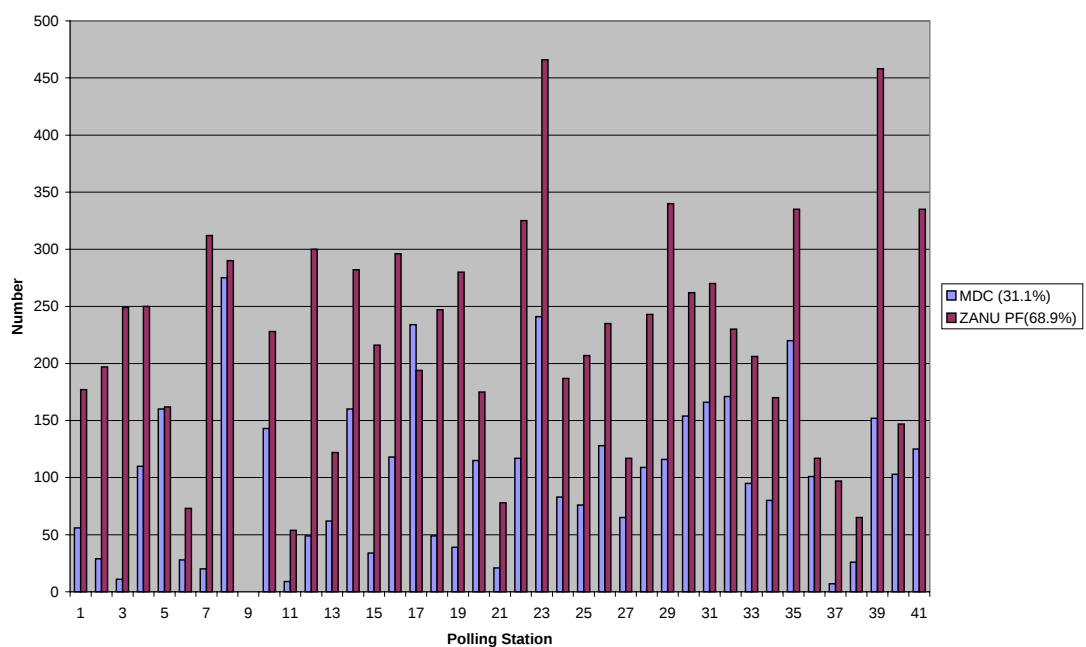
ZEC Results (ZPF 70.8%, MDC 29.2%)

Fig 42: Poll Vote By Polling Station, Goromonzi Constituency



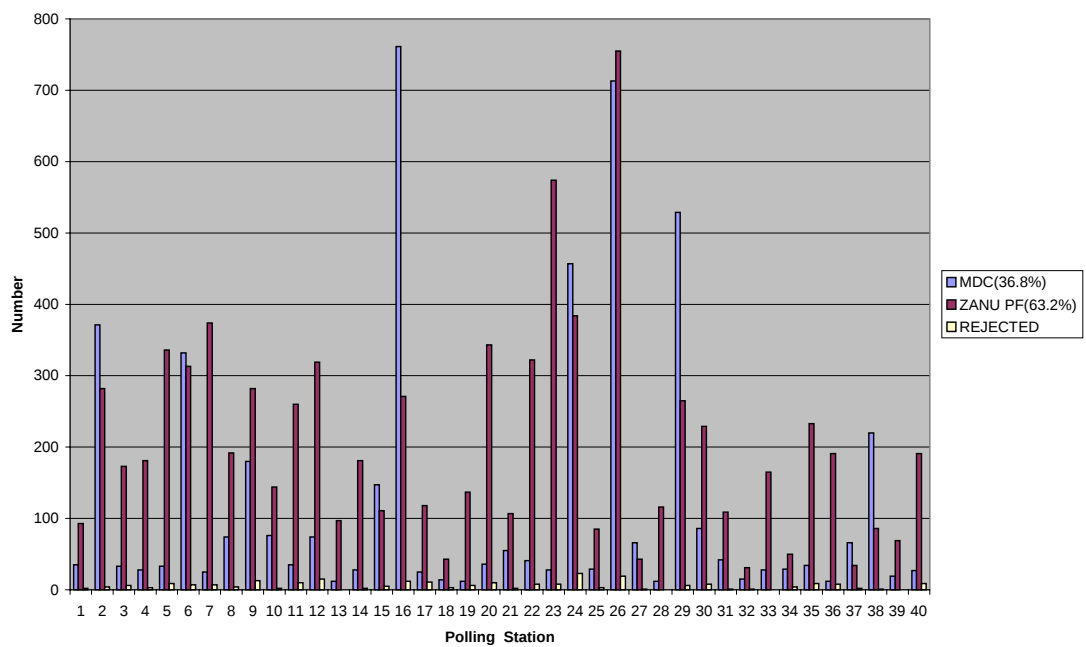
ZEC Results (ZPF 66.2%, MDC 33.8%)

Fig 43: Poll Vote By Polling Station, Hwedza Constituency



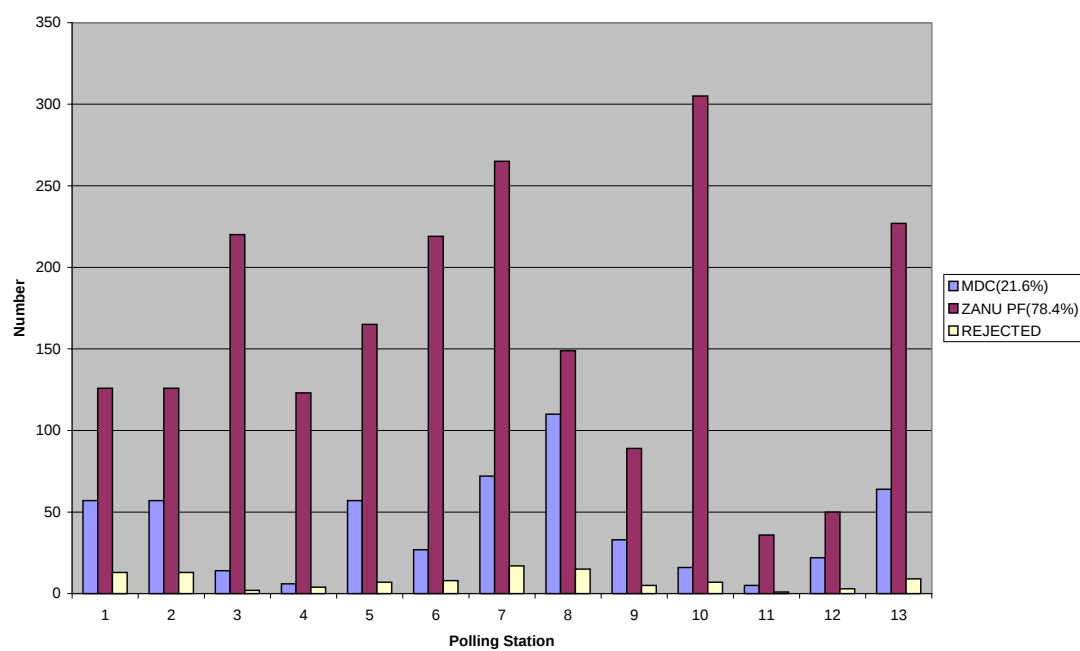
ZEC Results (ZPF 67.9%, MDC 32.1%)

Fig 44: Poll Vote By Polling Station, Marondera East Constituency



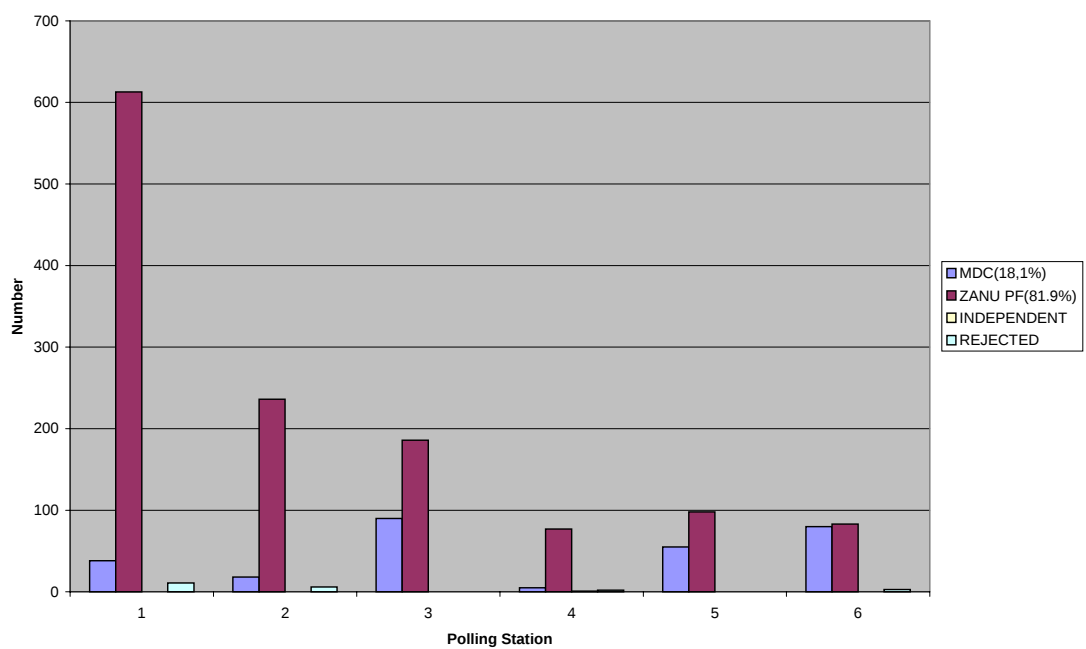
ZEC Results (ZPF 65.6%, MDC 34.4%)

Fig 45: Poll Vote By Polling Station, Marondera West Constituency



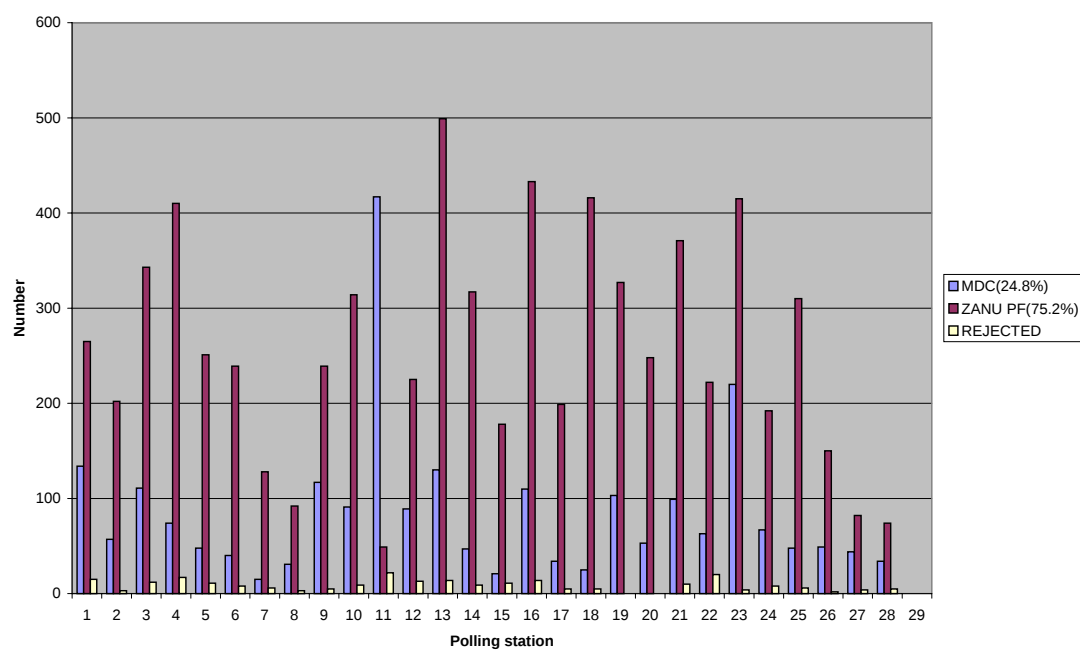
ZEC Results (ZPF 78.2%, MDC 21.8%)

Fig 46: Poll Vote By Polling Station, Mudzi West Constituency



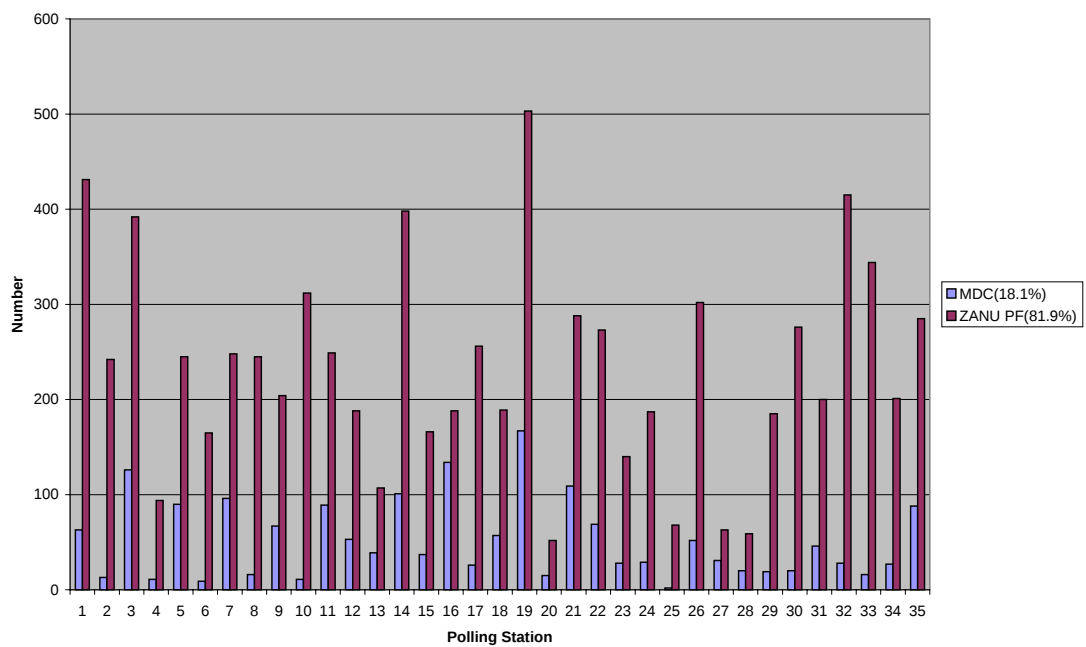
ZEC Results (ZPF 83.6%, MDC 16.4%)

Fig 47: Poll Vote By Polling Station, Murehwa North Constituency



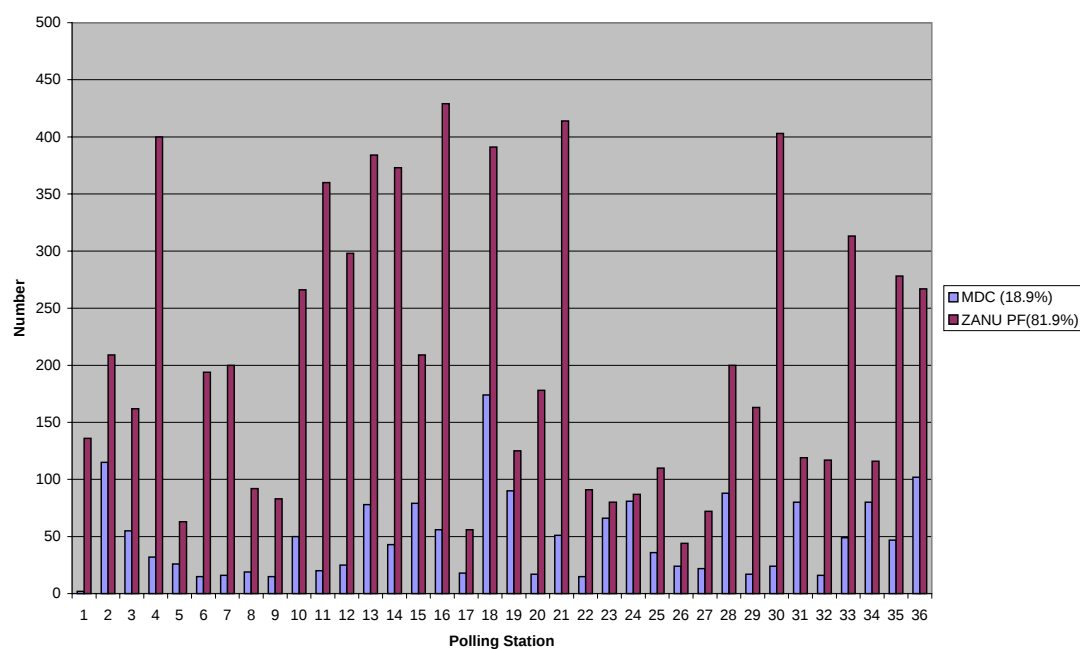
ZEC Results (ZPF 81.0%, MDC 19.0%)

Fig 48: Poll Vote By Polling Station, Murehwa South Constituency



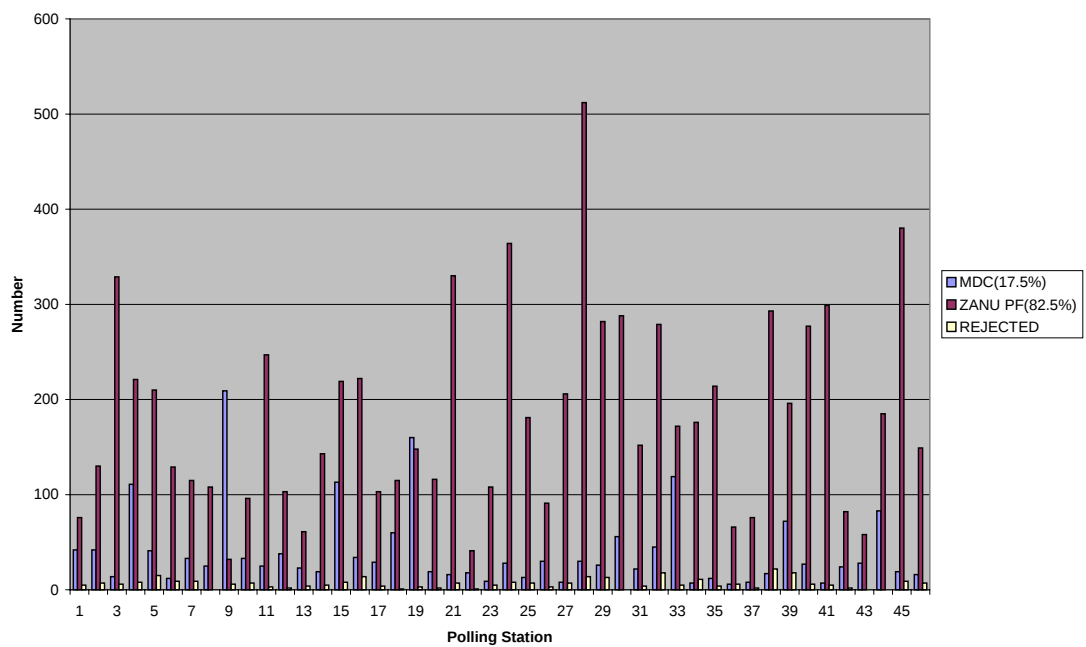
ZEC Results (ZPF 66.7%, MDC 33.3%)

Fig 49: Poll Vote By Polling Station, Mutoko North Constituency



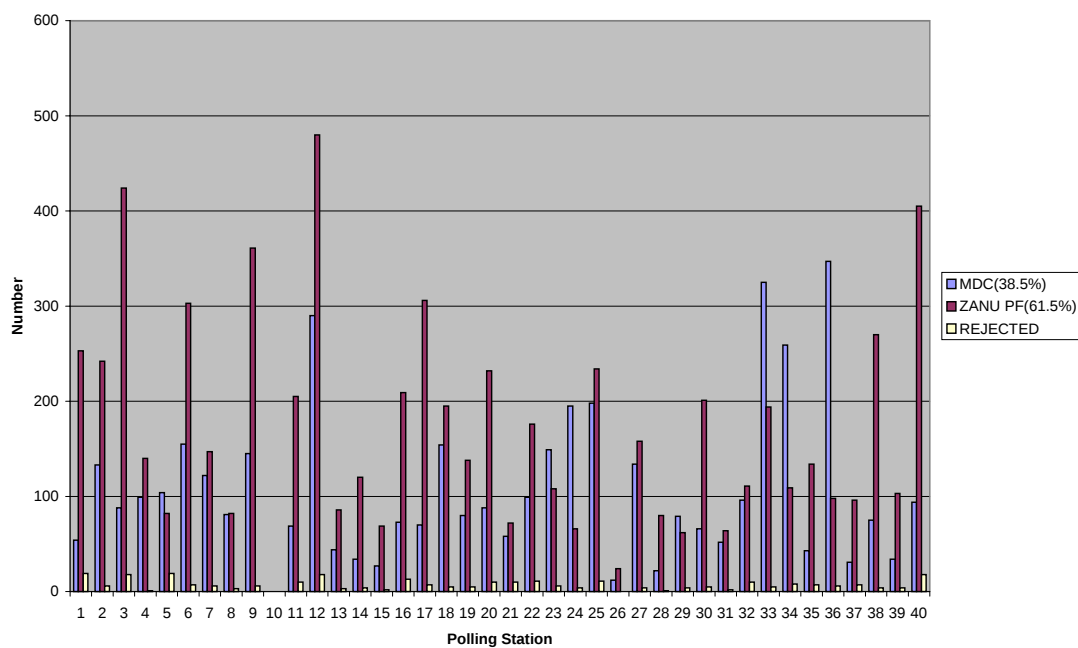
ZEC Results (ZPF 81.1%, MDC 18.9%)

Fig 50: Poll Vote By Polling Station, Mutoko South Constituency



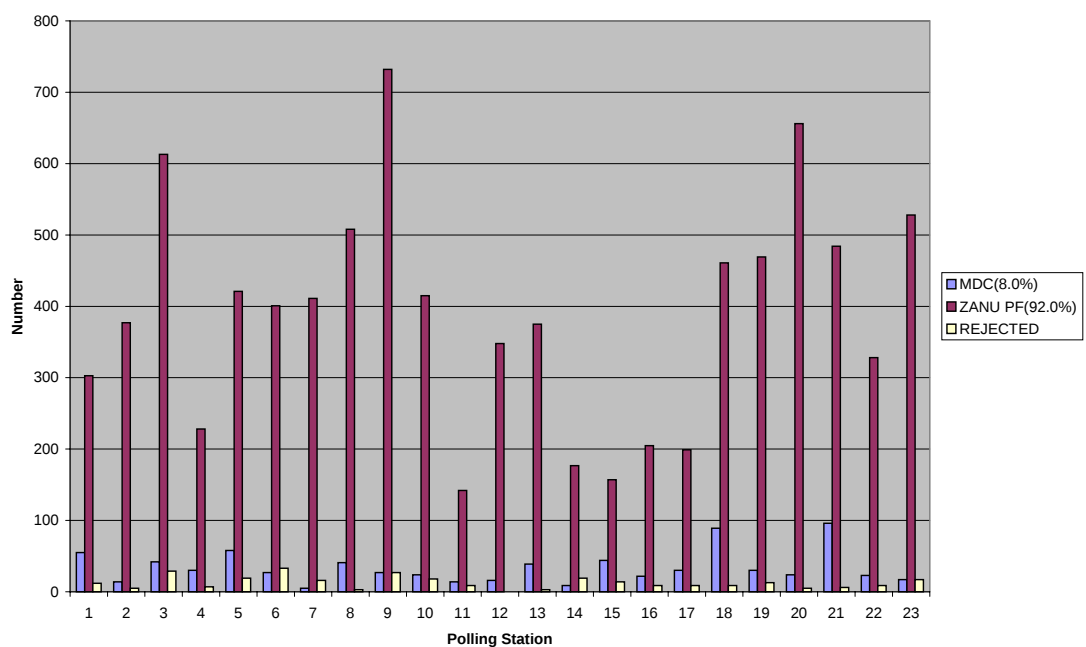
ZEC Results (ZPF 85.2%, MDC 14.8%)

Fig 51: Poll Vote By Polling Station, Seke Constituency



ZEC Results (ZPF 63.6%, MDC 36.4%)

Fig 52: Poll Vote By Polling Station, UMP Constituency



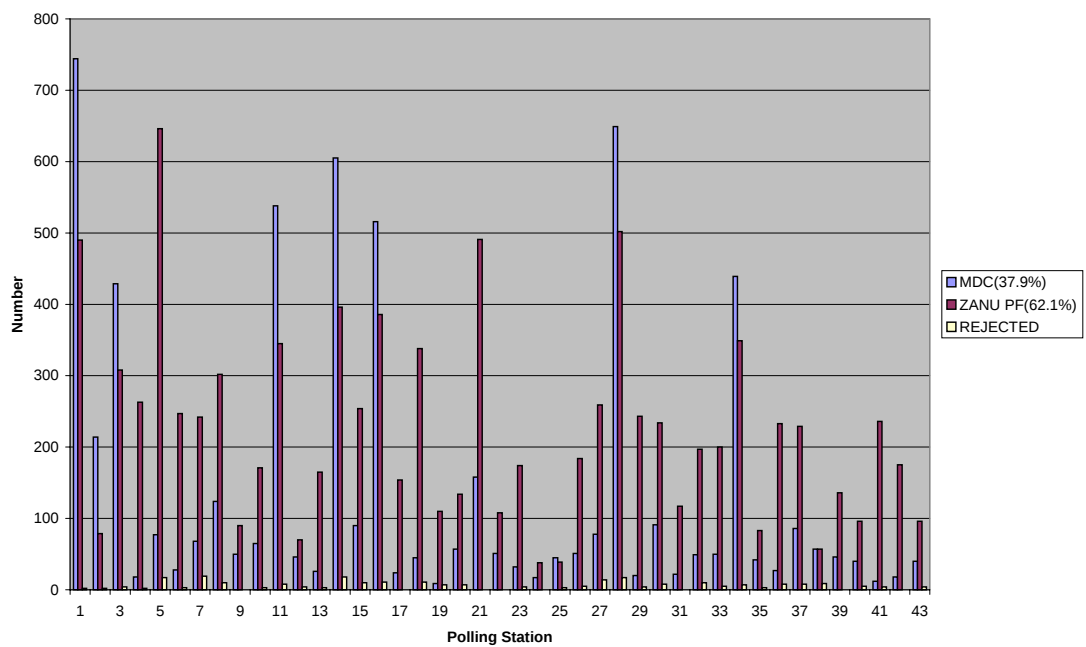
ZEC Results (ZPF 90.5%, MDC 9.5%)

The patterns displayed in different constituencies show ZANU PF winning all seats in the province as confirmed by ZEC.

(5) MASHONALAND WEST CONSTITUENCIES

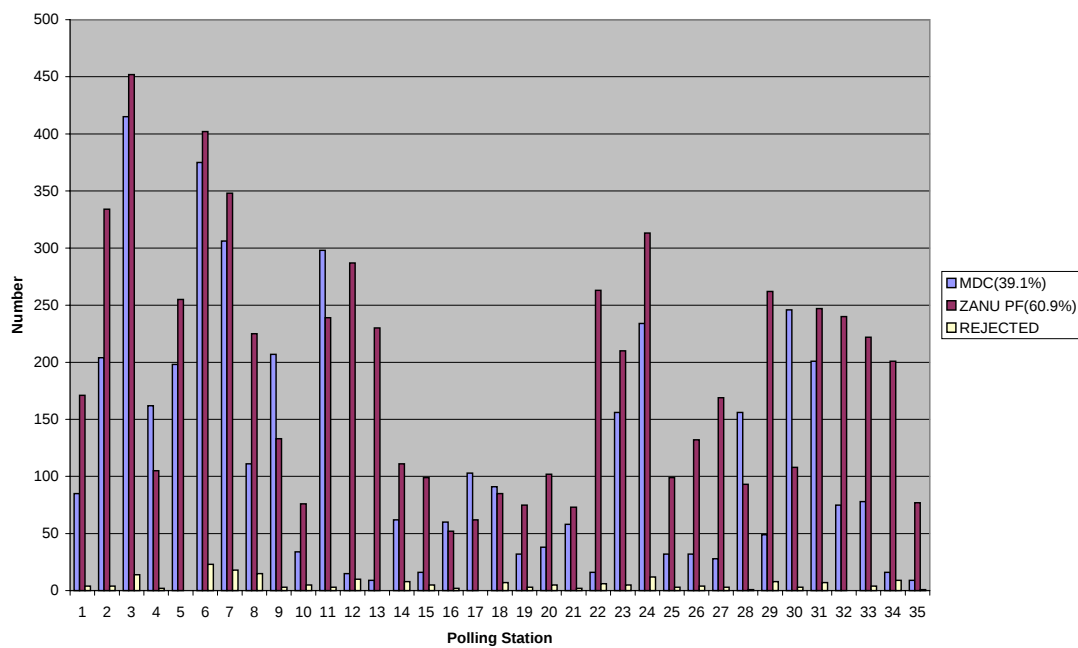
Patterns for the 13 constituencies are displayed below,

Fig 53: Poll Vote By Polling Station, Chegutu Constituency



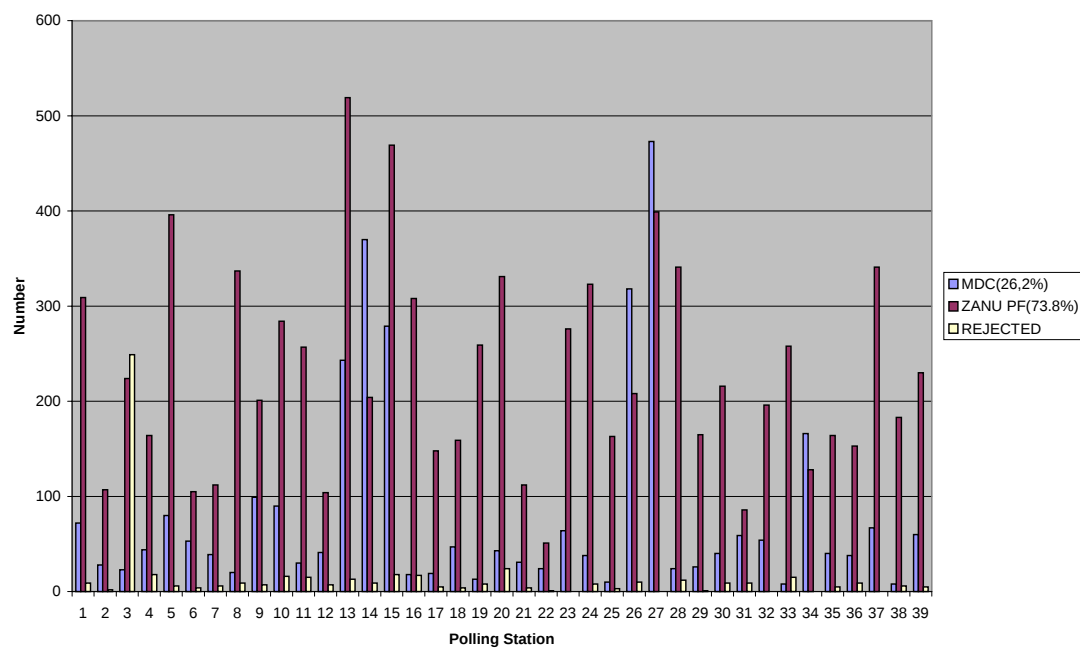
ZEC Results (ZPF 66.6%, MDC 33.4%)

Fig 54: Poll Vote By Polling Station, Chinhoyi Constituency



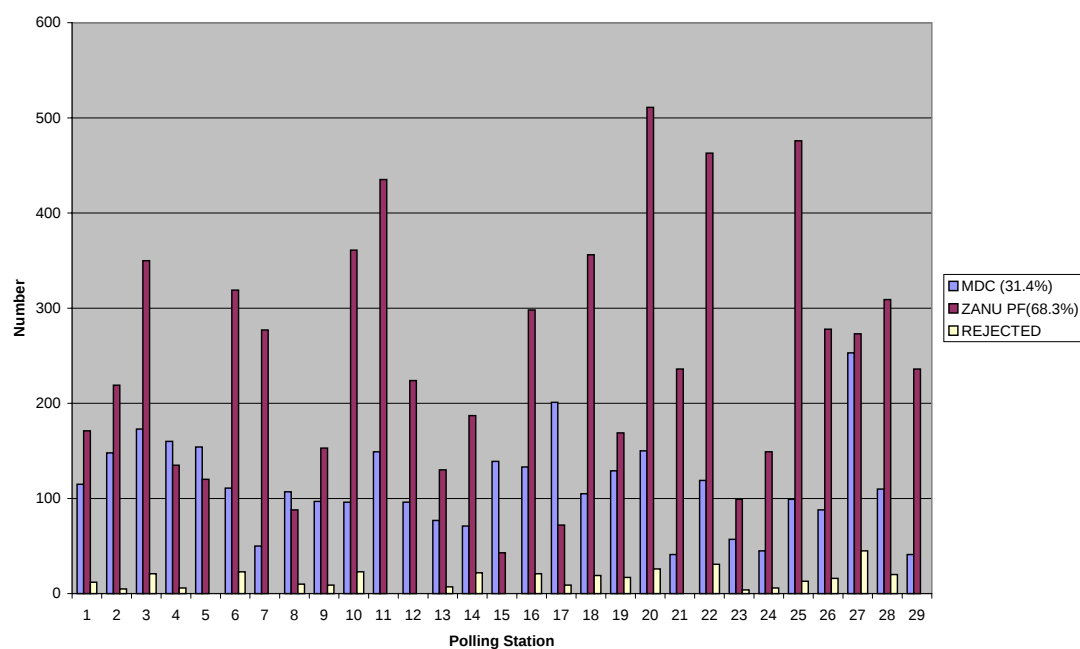
ZEC Results (ZPF 62.1%, MDC 37.9%)

Fig 55: Poll Vote By Polling Station, Hurungwe East Constituency



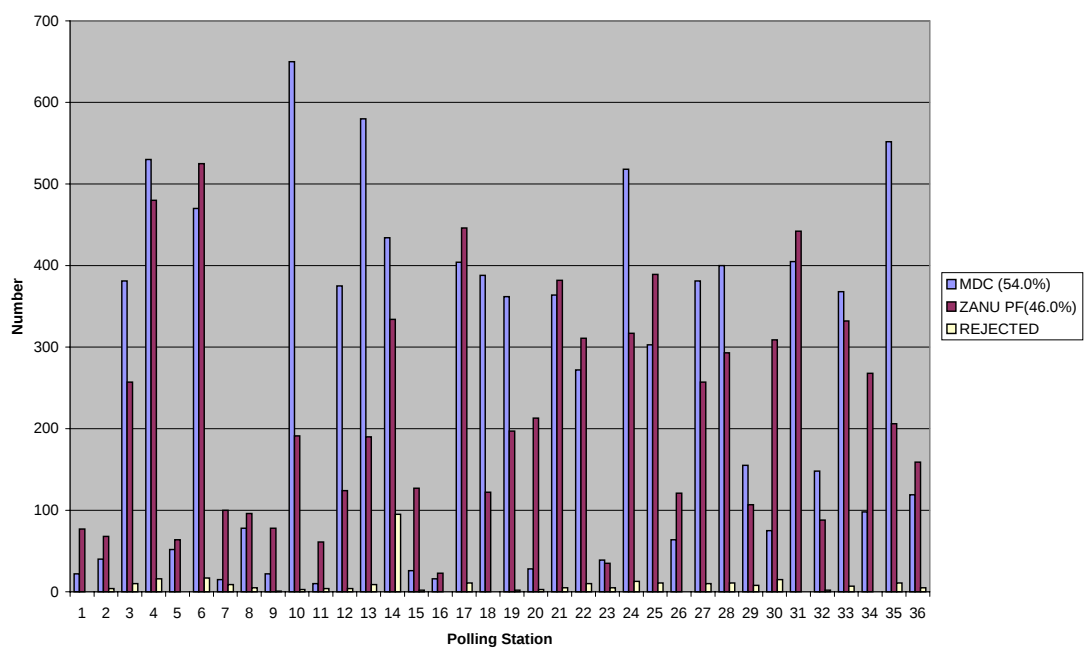
ZEC Results (ZPF 76.4%, MDC 23.6%)

Fig 56: Poll Vote By Polling Station, Hurungwe West Constituency



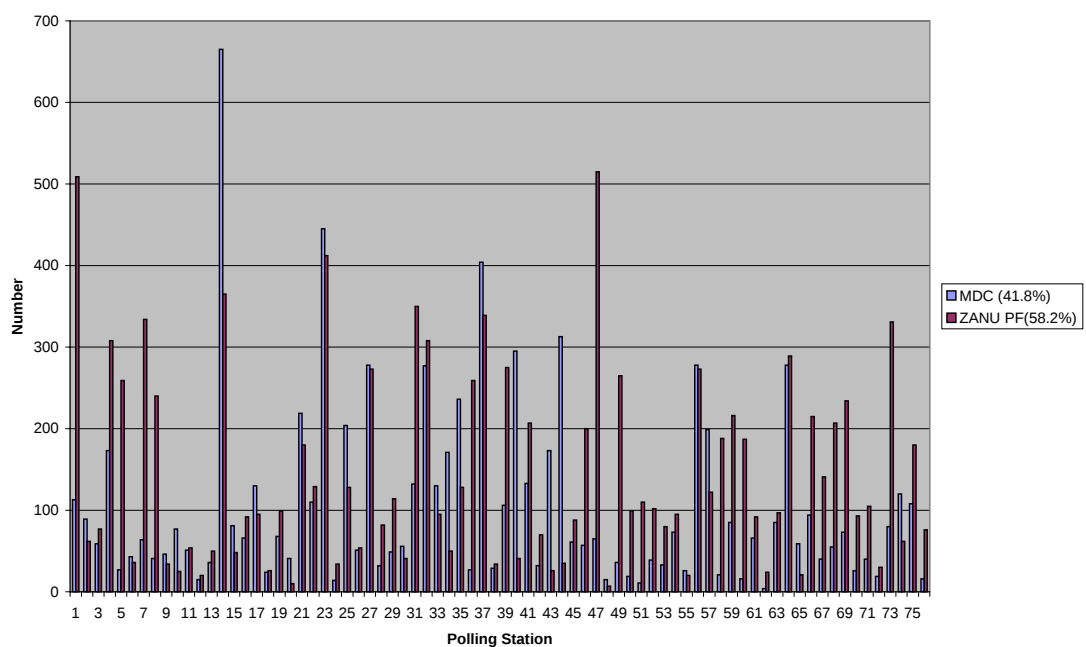
ZEC Results (ZPF 69.3%, MDC 30.7%)

Fig 57: Poll Vote By Polling Station, Kadoma Constituency



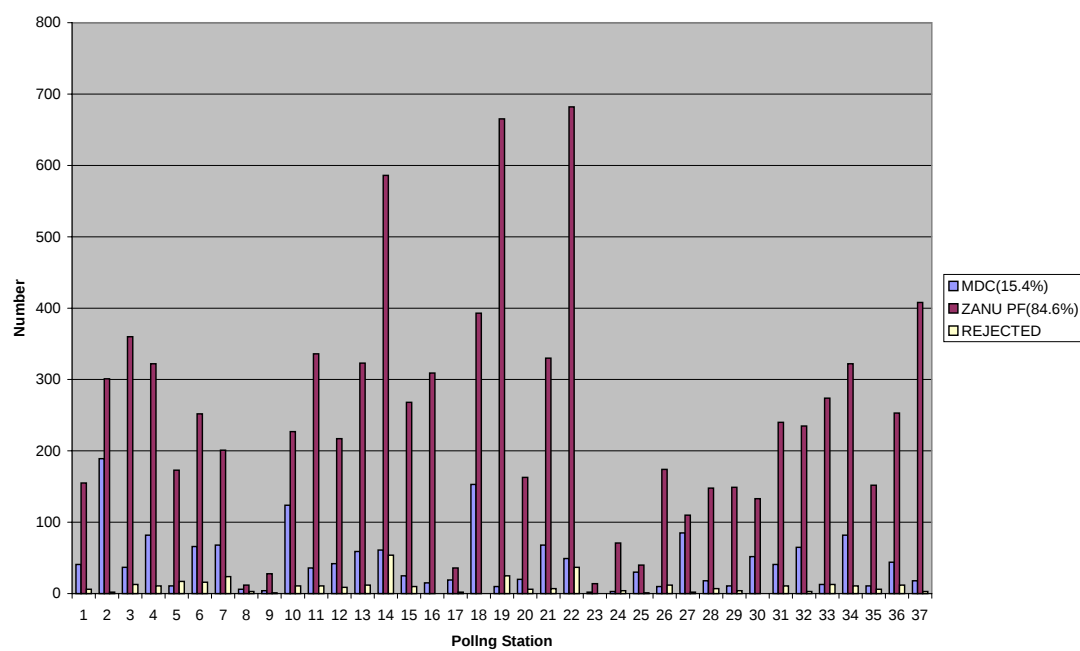
ZEC Results (ZPF 46.6%, MDC 53.4%)

Fig 58: Poll Vote By Polling Station, Kariba Constituency



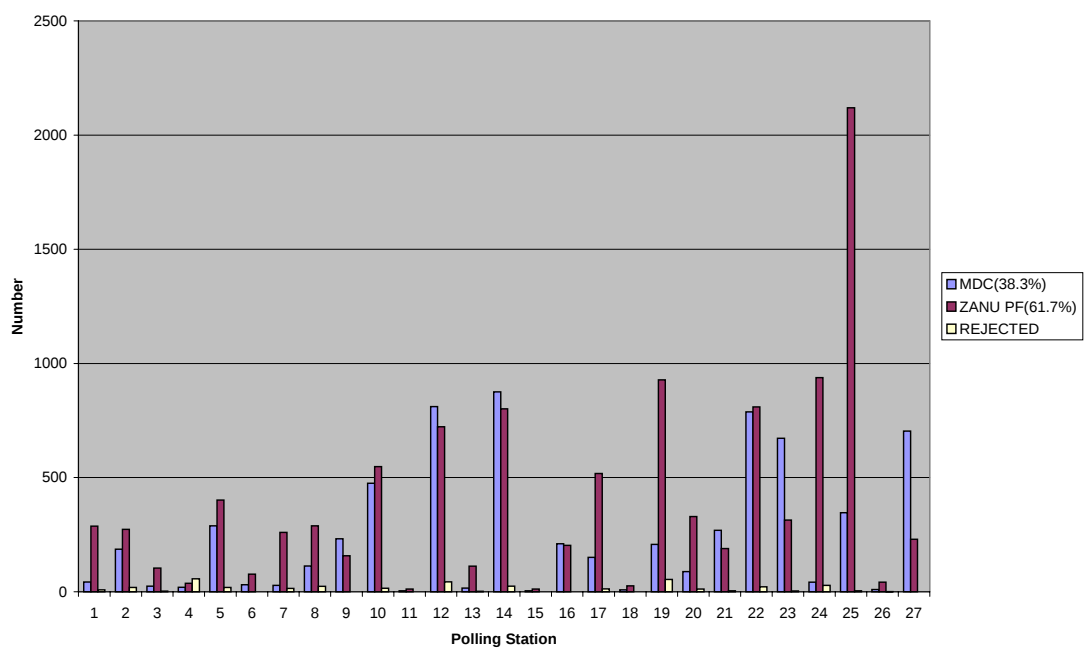
ZEC Results (ZPF 59.0%, MDC 41.0%)

Fig 59: Poll Vote By Polling Station, Makonde Constituency



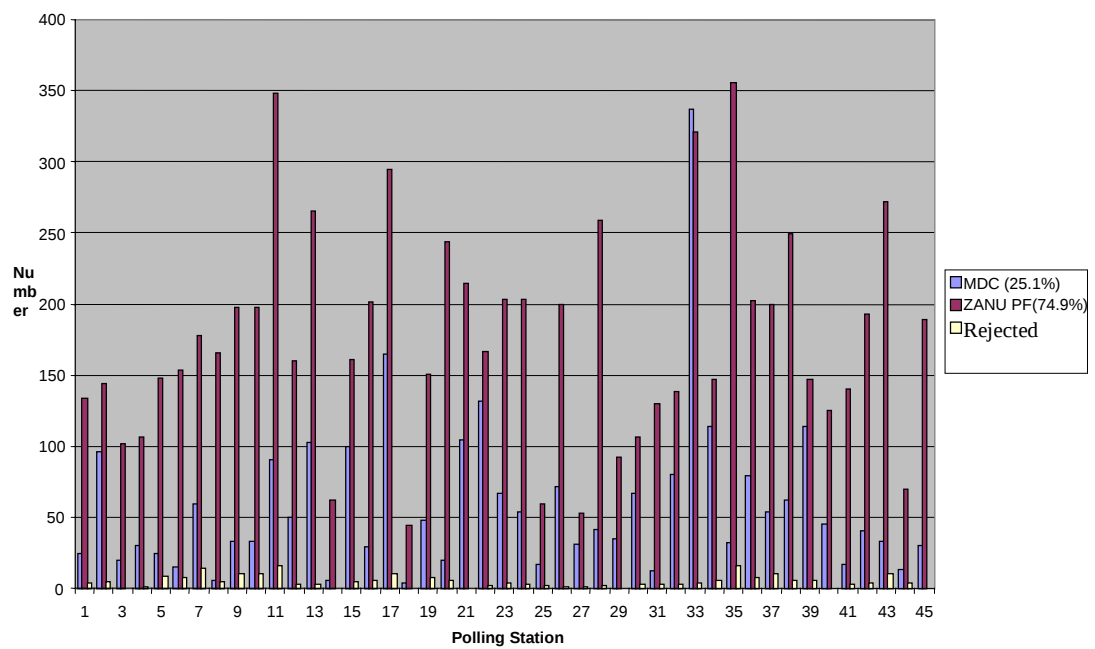
ZEC Results (ZPF 83.6%, MDC 16.4%)

Fig 60: Poll Vote By Polling Station, Manyame Constituency



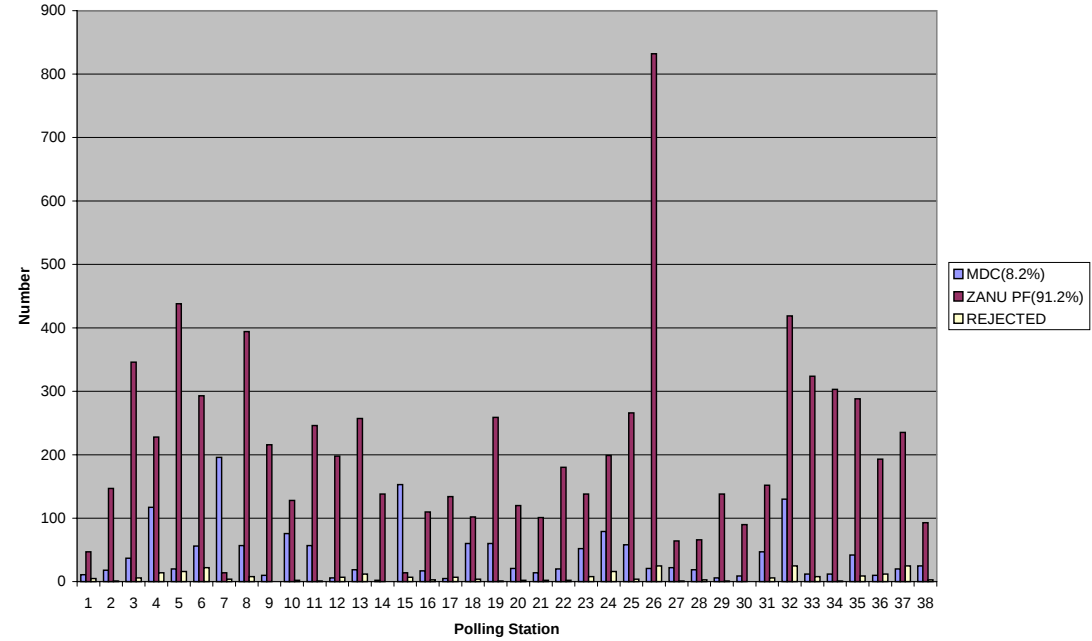
ZEC Results (ZPF 65.0%, MDC 35.0%)

Fig 61: Poll Vote By Polling Station, Mhondoro Constituency



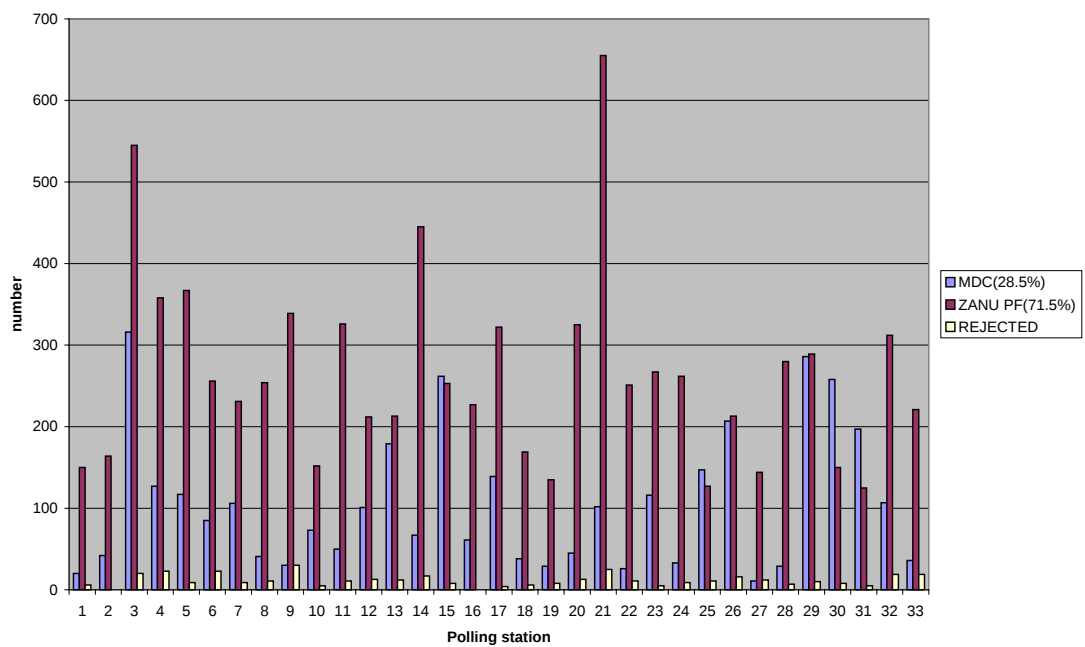
ZEC Results (ZPF 77.7%, MDC 22.3%)

Fig 62: Poll Vote By Polling Station, Ngezi Constituency



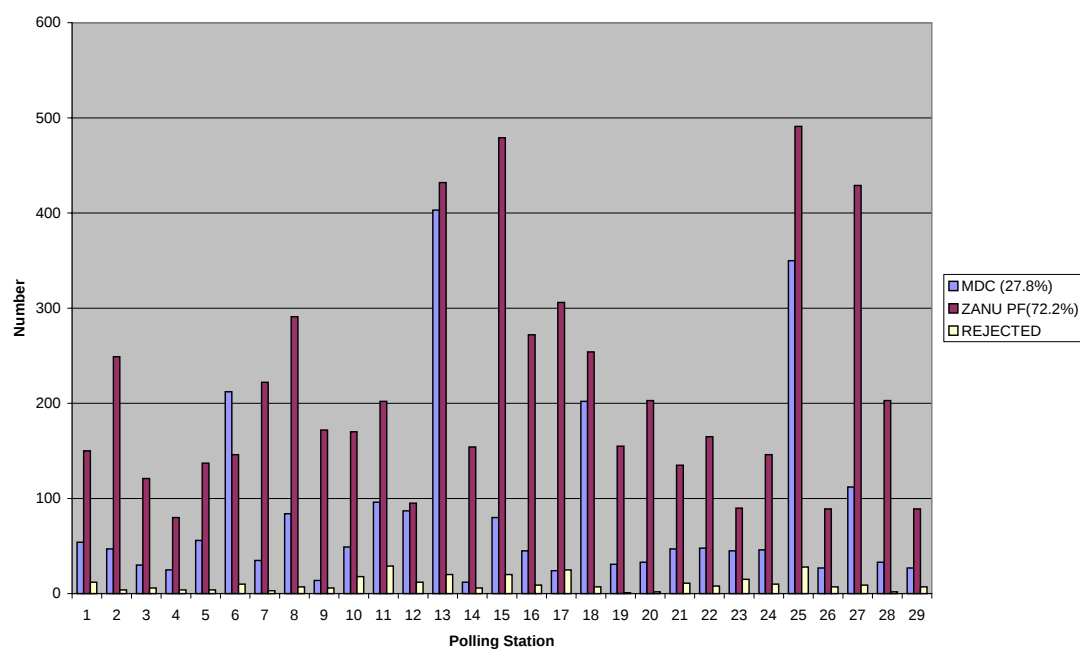
ZEC Results (ZPF 87.5%, MDC 12.5%)

Fig 63: Poll Vote By Polling Station, Sanyati Constituency



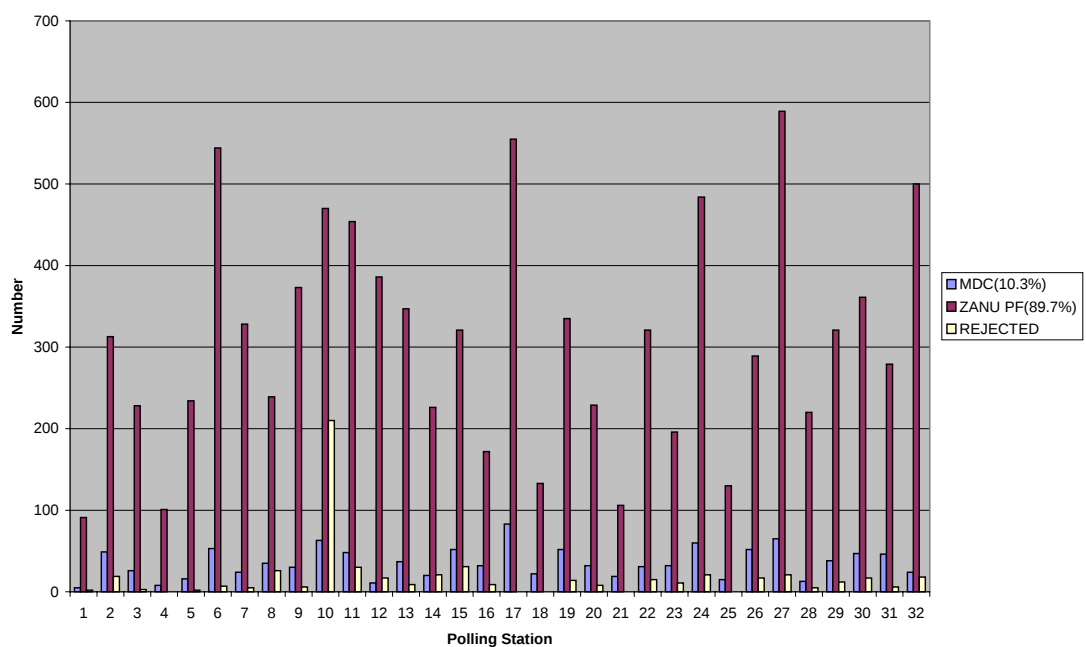
ZEC Results (ZPF 77.0%, MDC 23.0%)

Fig 64 Poll Vote By Polling Station, Zvimba North Constituency



ZEC Results (ZPF 83.3%, MDC 16.7%)

Fig 65: Poll Vote By Polling Station, Zvimba South Constituency



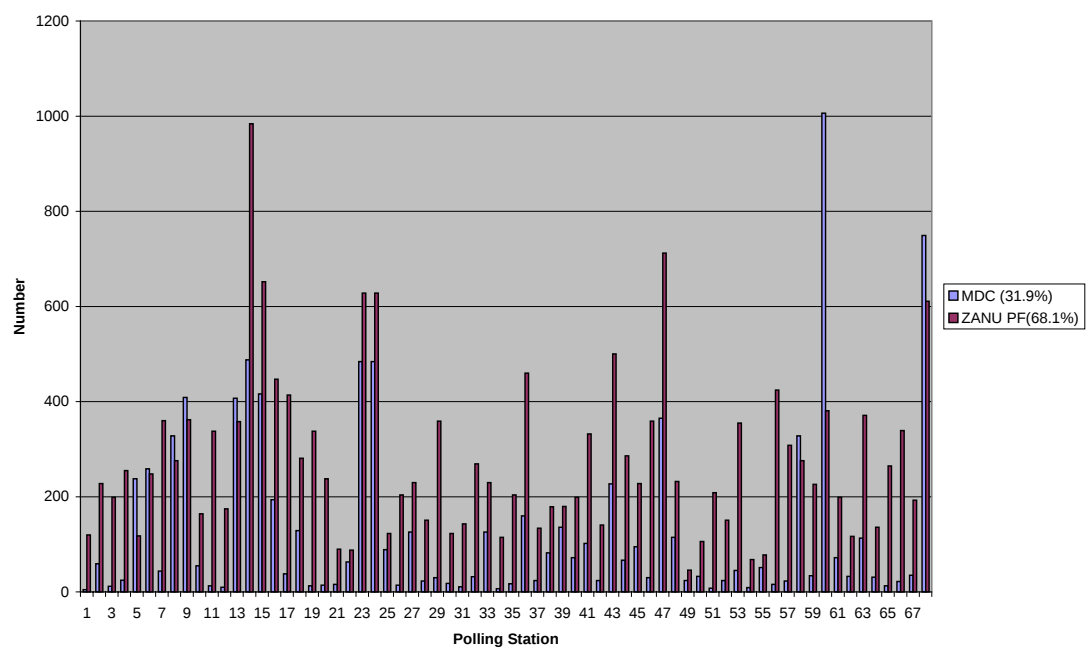
ZEC Results (ZPF 87.9%, MDC 12.1%)

The patterns generally agree with the ZEC results except for Kariba which has significant MDC wins per polling station.

(6) MASHONALAND CENTRAL CONSTITUENCIES

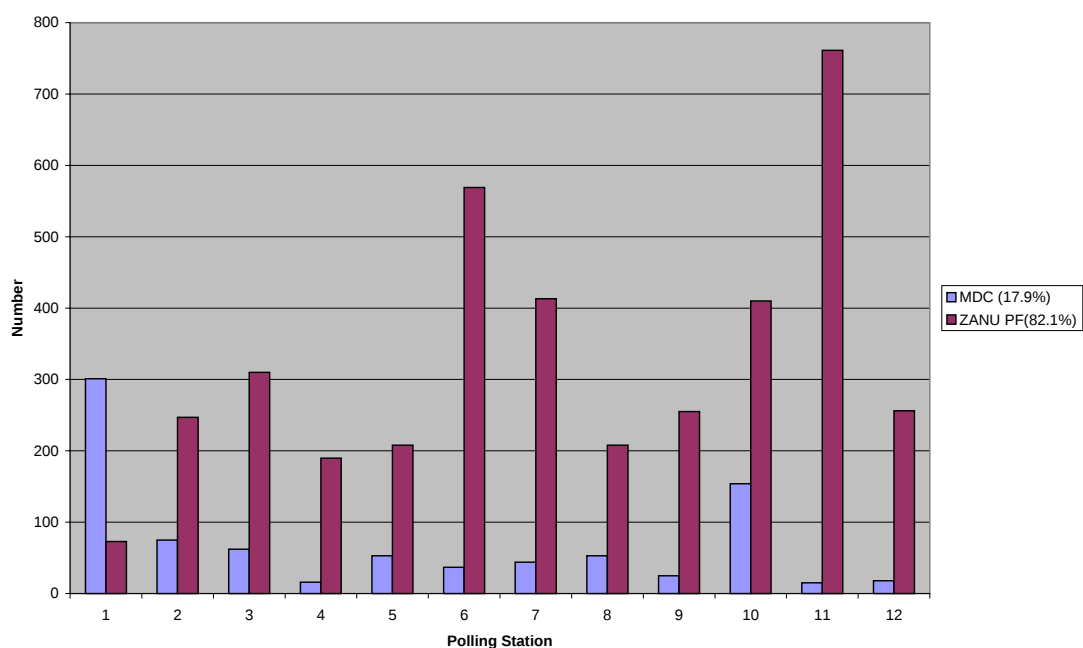
The patterns displayed by the 11 constituencies are shown below,

Fig 66: Poll Vote By Polling Station, Bindura Constituency



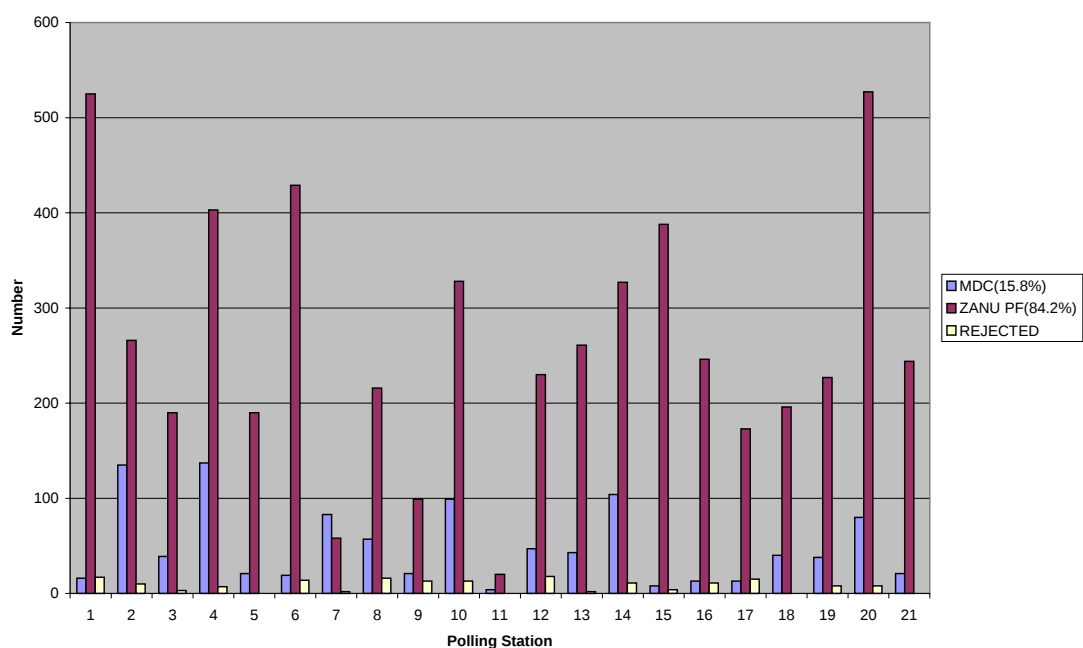
ZEC Results (ZPF 71.0%, MDC 29.0%)

Fig 67: Poll Vote By Polling Station, Guruve North Constituency



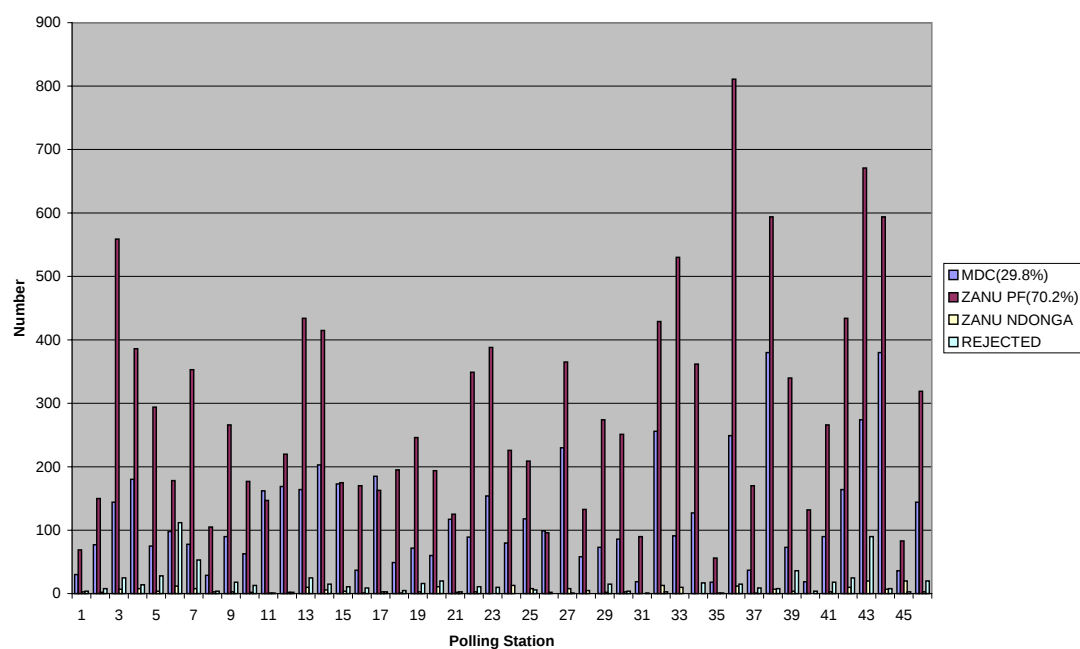
ZEC Results (ZPF 90.0%, MDC 10.0%)

Fig 68: Poll Vote By Polling Station, Guruve South Constituency



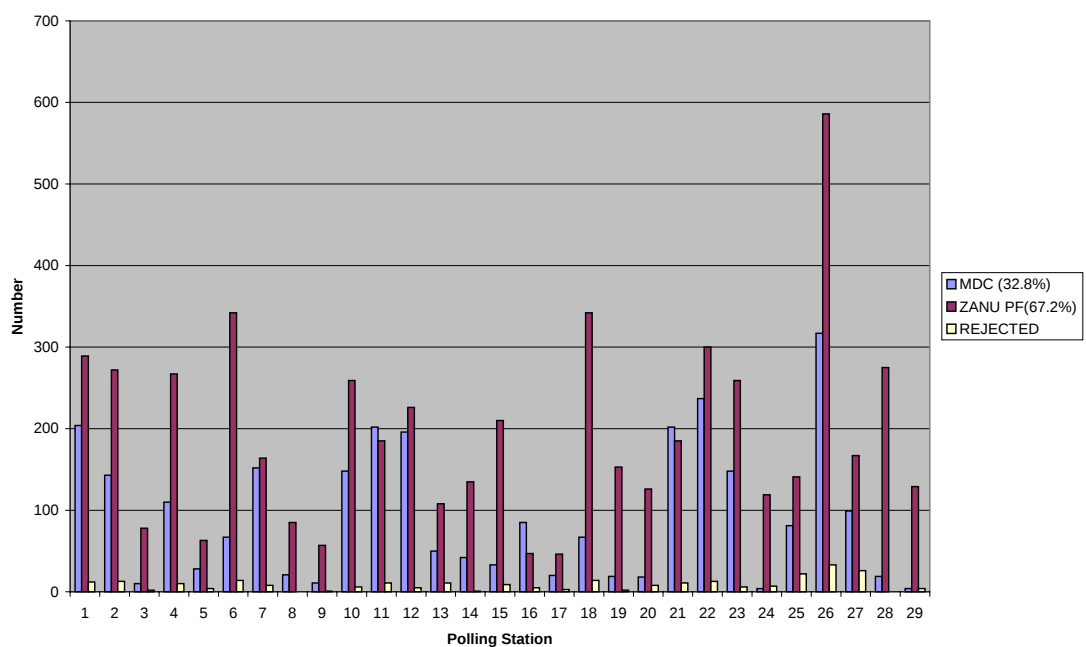
ZEC Results (ZPF 83.3%, MDC 16.7%)

Fig 69: Poll Vote By Polling Station, Mazowe East Constituency



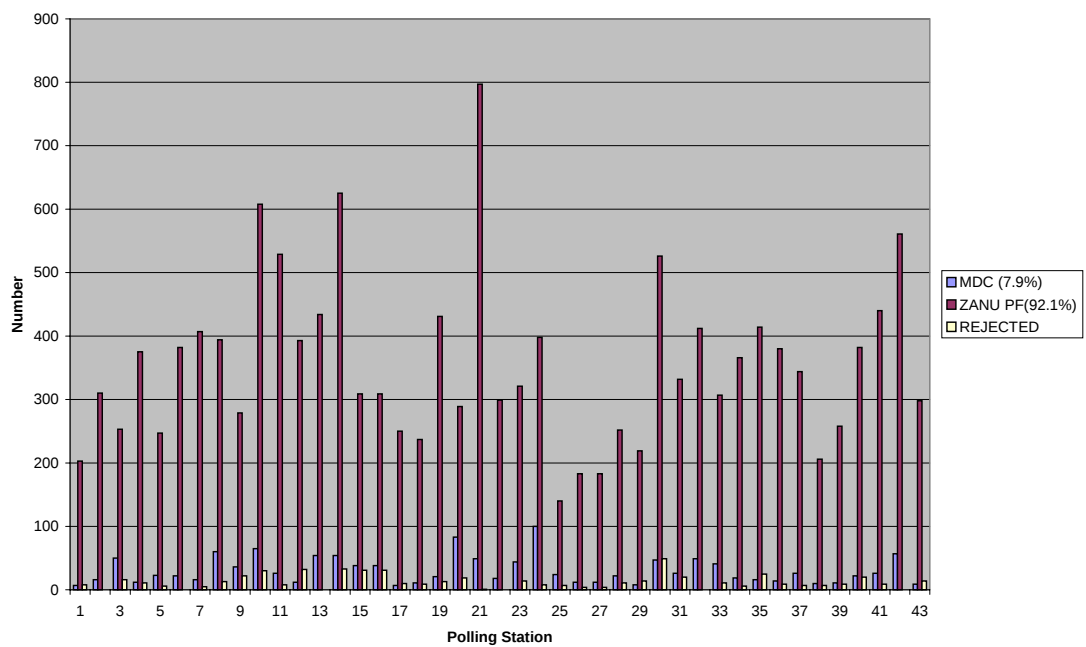
ZEC Results (ZPF 70.5%, MDC 29.5%)

Fig 70: Poll Vote By Polling Station, Mazowe West Constituency



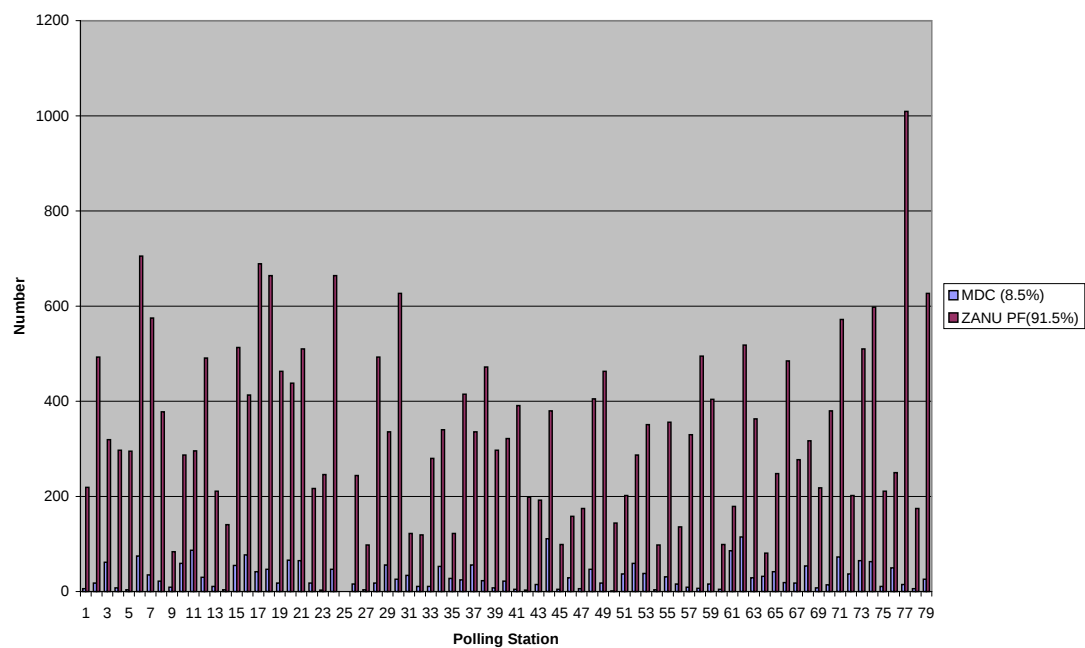
ZEC Results (ZPF 72.4%, MDC 27.6%)

Fig 71: Poll Vote By Polling Station, Mount Darwin North Constituency



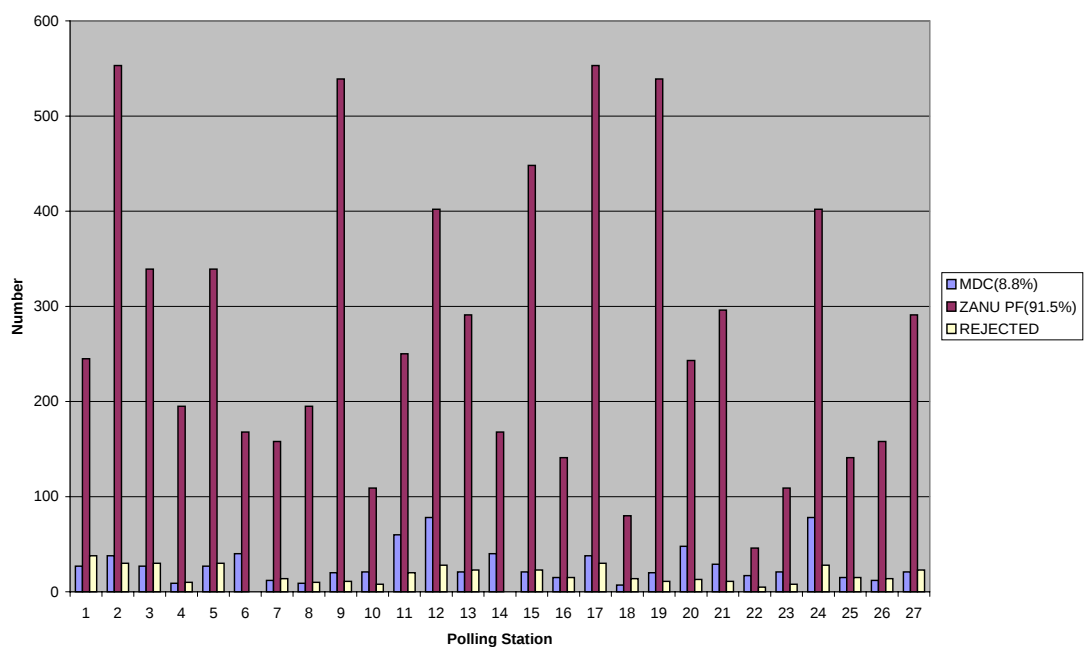
ZEC Results (ZPF 92.9%, MDC 7.1%)

Fig 72: Poll Vote By Polling Station, Mount Darwin South Constituency



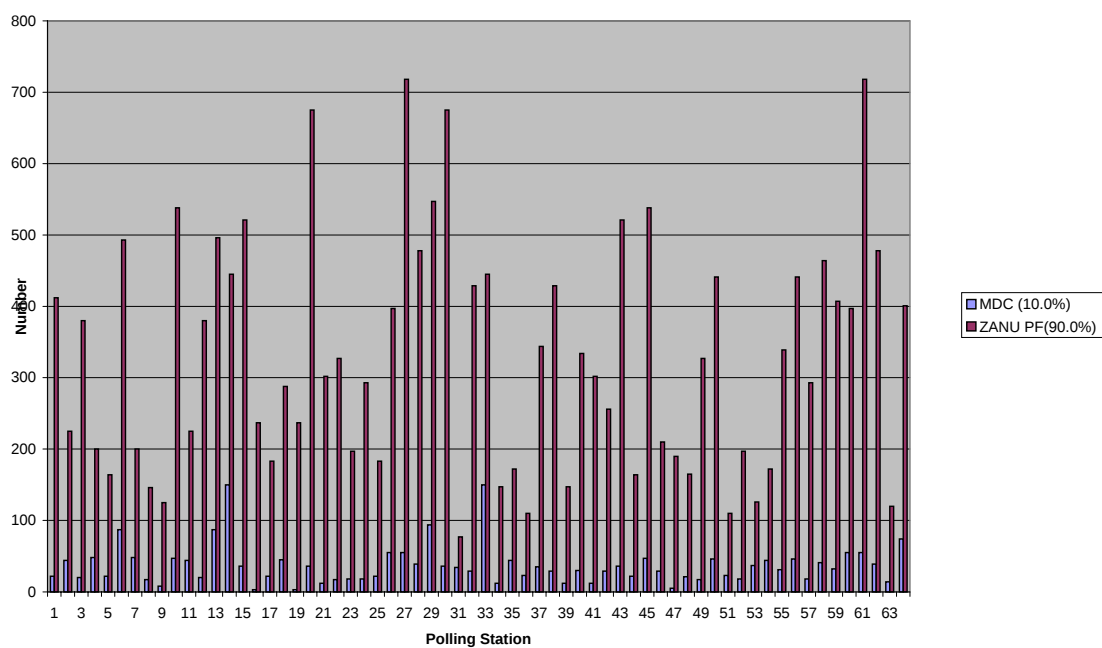
ZEC Results (ZPF 91.6%, MDC 8.4%)

Fig 73: Poll Vote By Polling Station, Muzarabani Constituency



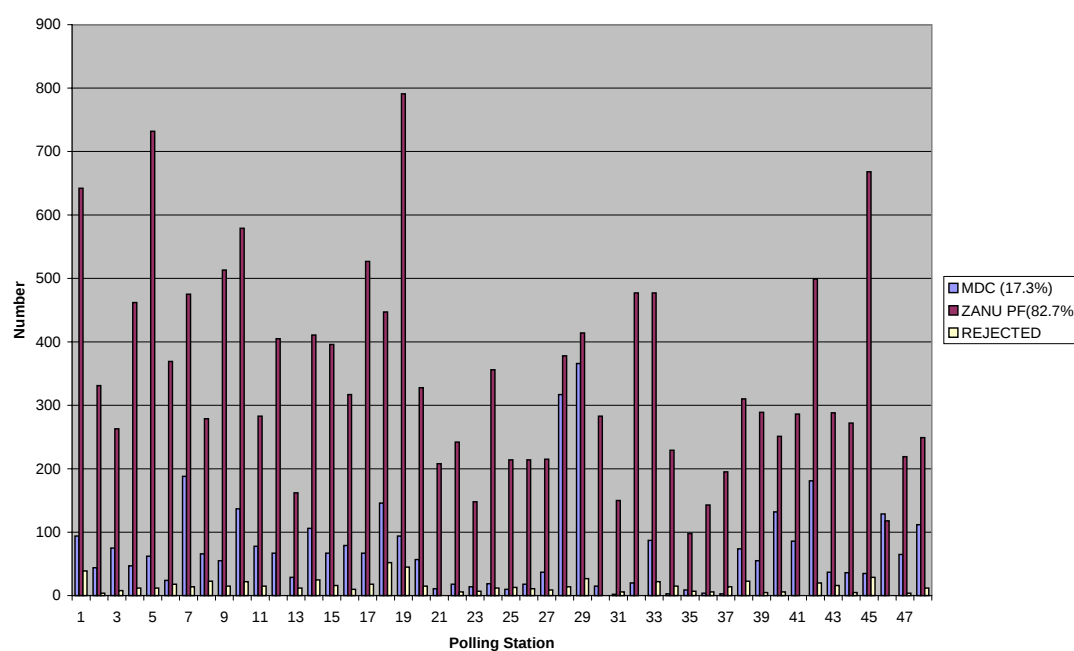
ZEC Results (ZPF 88.7%, MDC 11.3%)

Fig 74: Poll Vote By Polling Station, Rushinga Constituency



ZEC Results (ZPF 90.7%, MDC 9.3%)

Fig 75: Poll Vote By Polling Station, Shamva Constituency



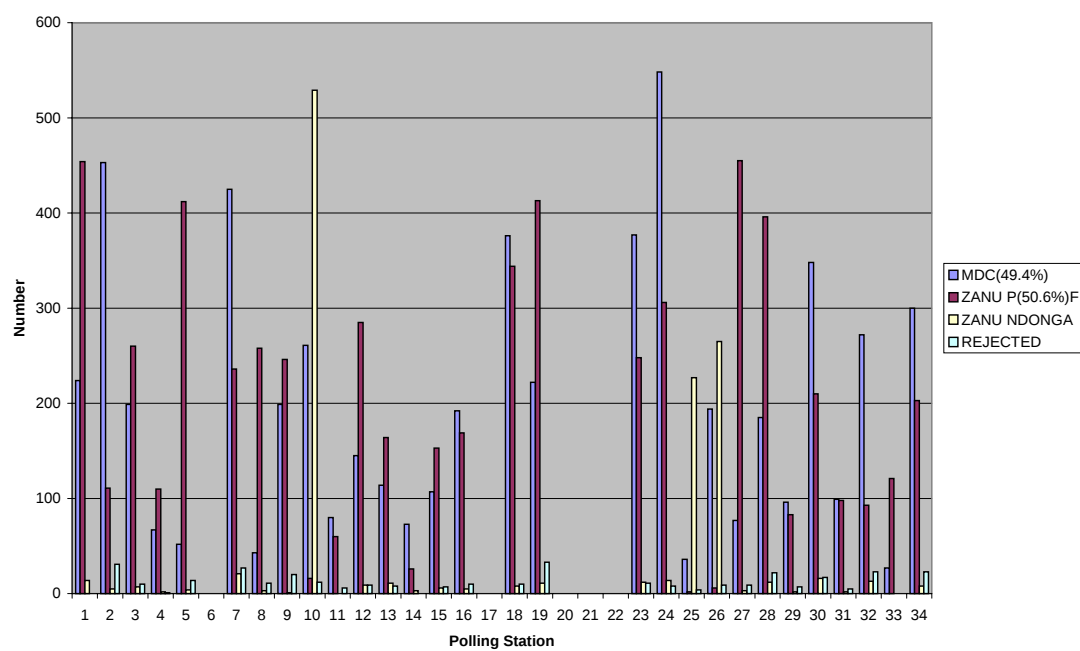
ZEC Results (ZPF 85.8%, MDC 14.2%)

ZANU PF wins in all the constituencies with the MDC doing better in semi urban polling station. There are also a number of unusually high figures like the 1009 and 797 votes for ZANU PF at Tsakare Hall in Mt Darwin South and Kapiripiri Primary School in Mt Darwin North respectively.

(7) MASVINGO CONSTITUENCIES

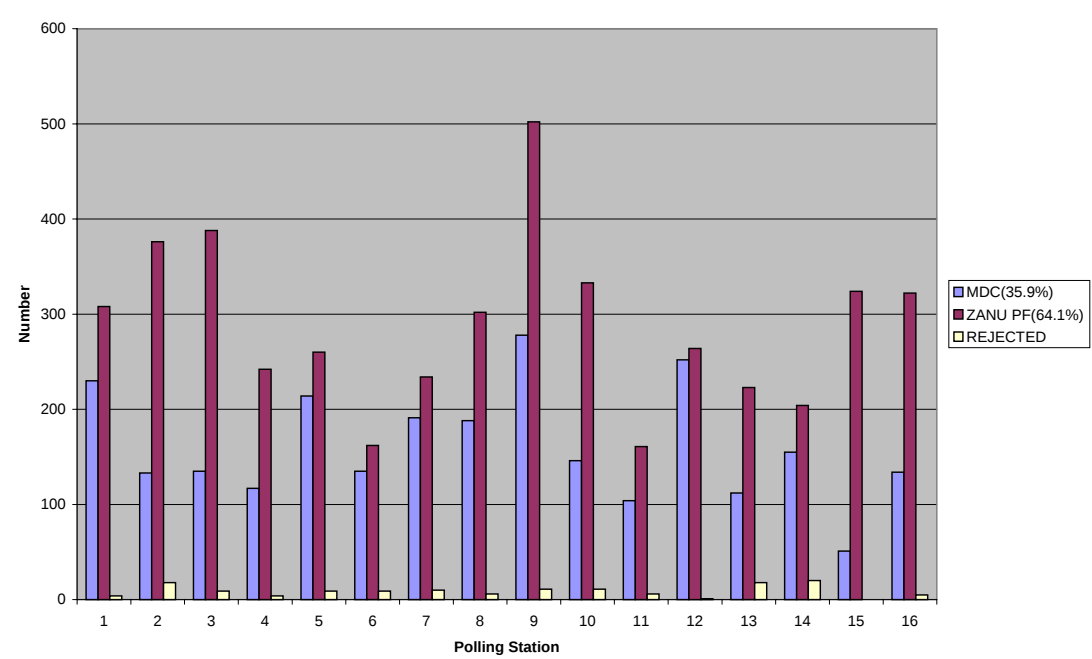
The voting patterns of the 14 constituencies are displayed below,

Fig 77: Poll Vote By Polling Station, Bikita East Constituency



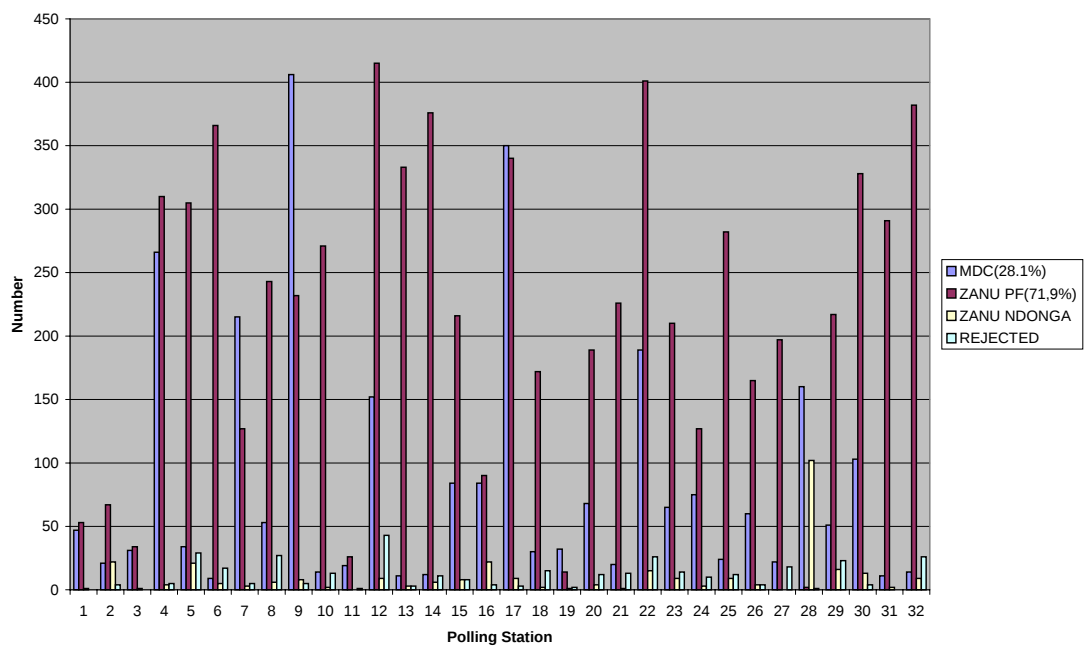
ZEC Results (ZPF 70.8%, MDC 29.2%)

Fig 78: Poll Vote By Polling Station, Bikita West Constituency



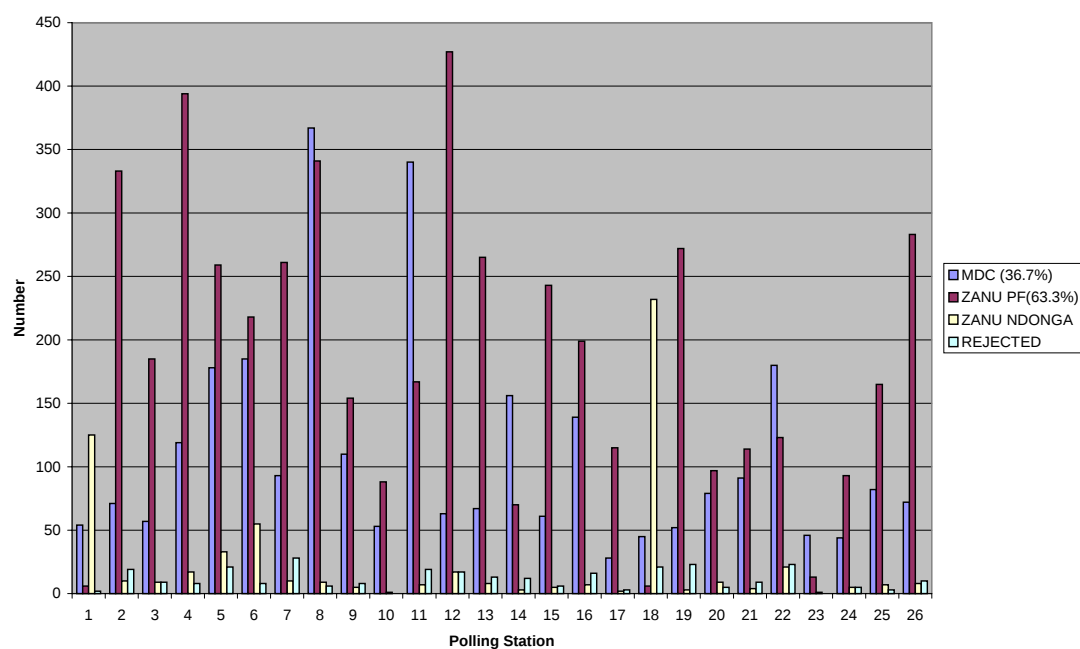
ZEC Results (ZPF 61.4%, MDC 38.6%)

Fig 79: Poll Vote By Polling Station, Chiredzi North Constituency



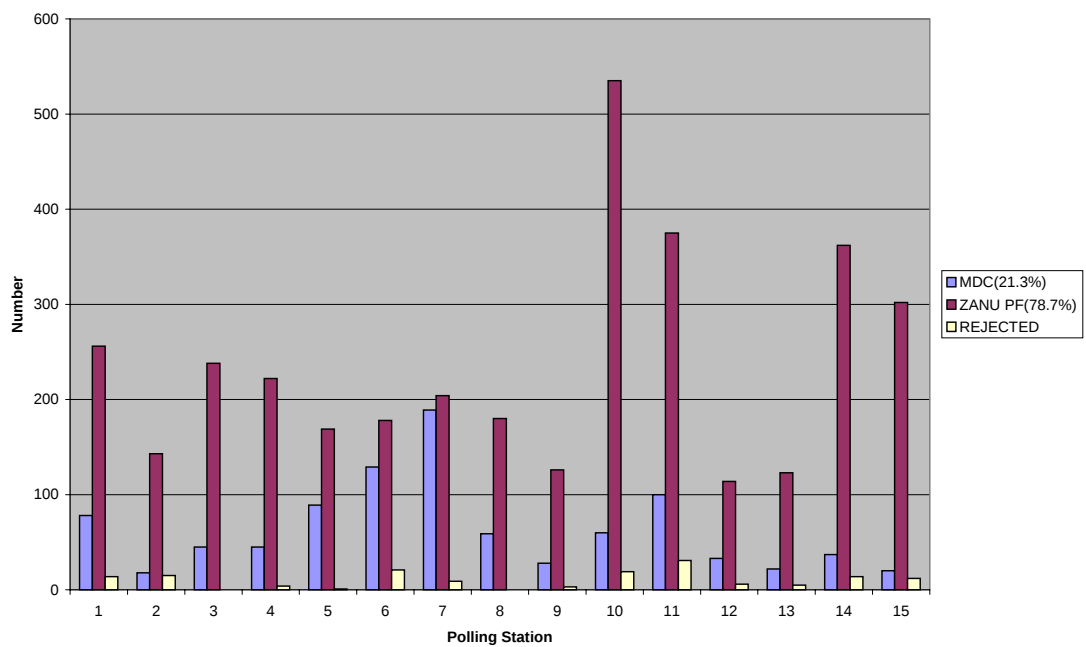
ZEC Results (ZPF 72.3%, MDC 27.7%)

Fig 80: Poll Vote By Polling Station, Chiredzi South Constituency



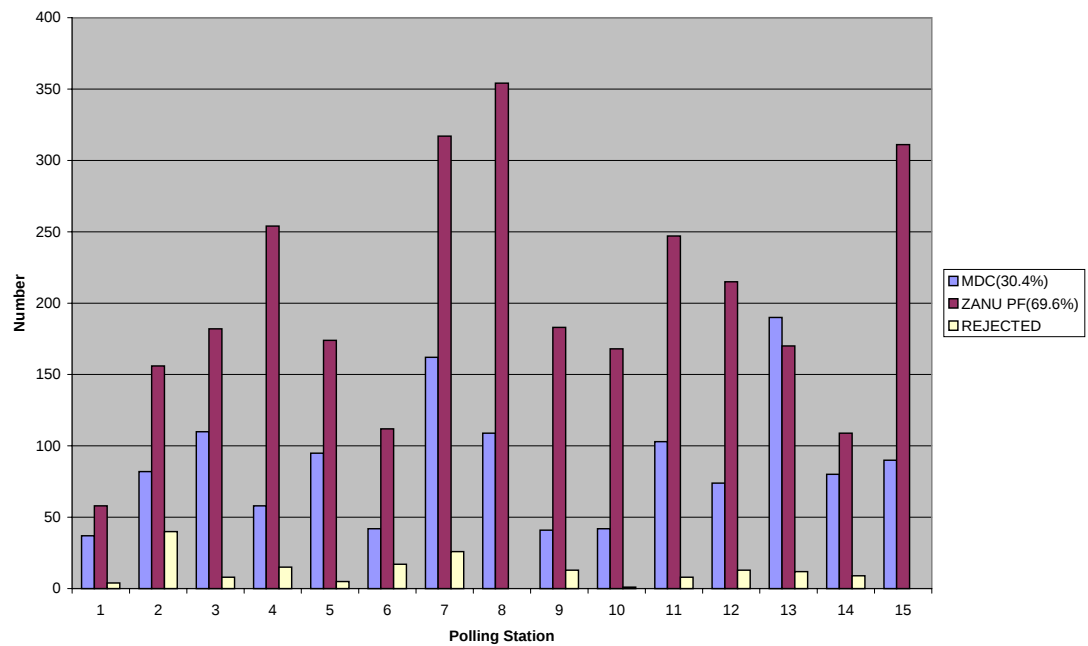
ZEC Results (ZPF 69.7%, MDC 30.3%)

Fig 81: Poll Vote By Polling Station, Chivi North Constituency



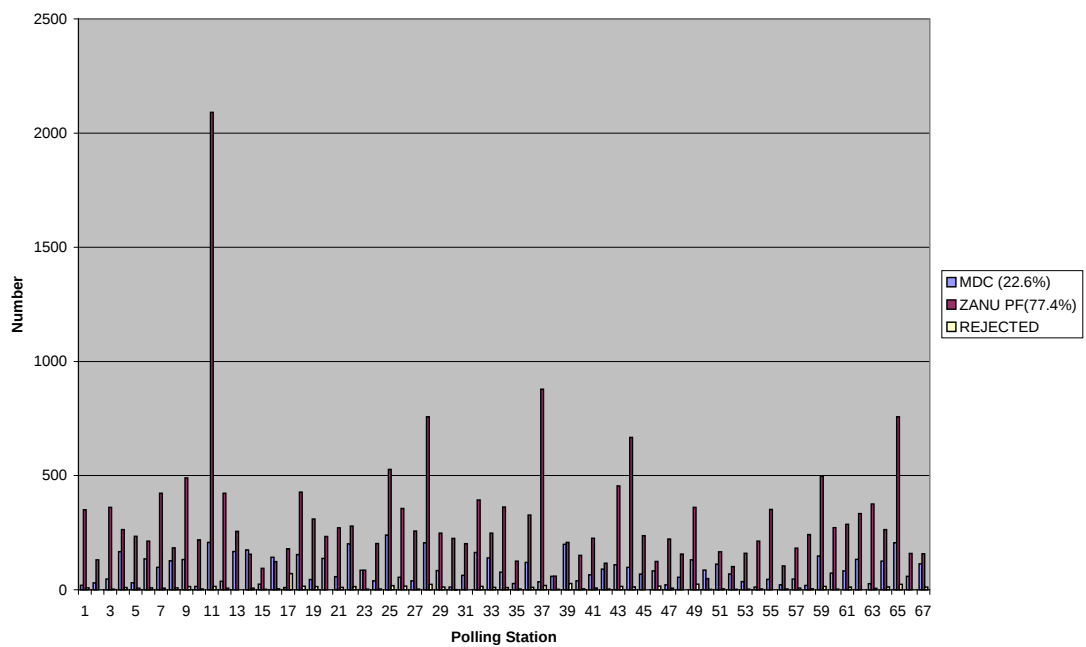
ZEC Results (ZPF 77.7%, MDC 22.3%)

Fig 82: Poll Vote By Polling Station, Chivi South Constituency



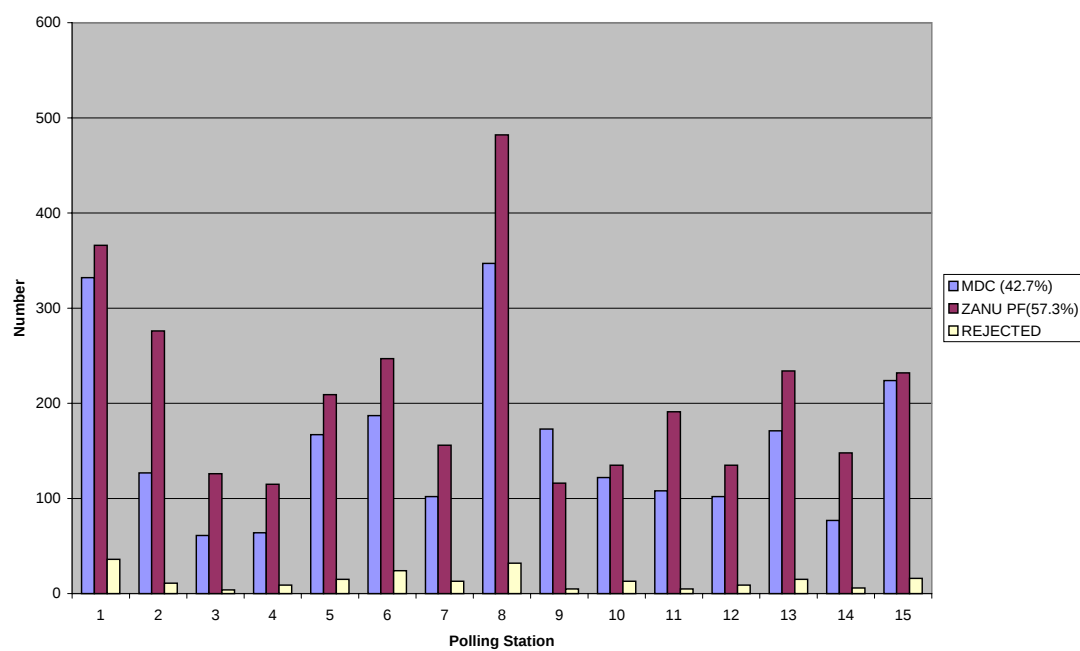
ZEC Results (ZPF 73.1%, MDC 26.9%)

Fig 82: Poll Vote By Polling Station, Gutu North Constituency



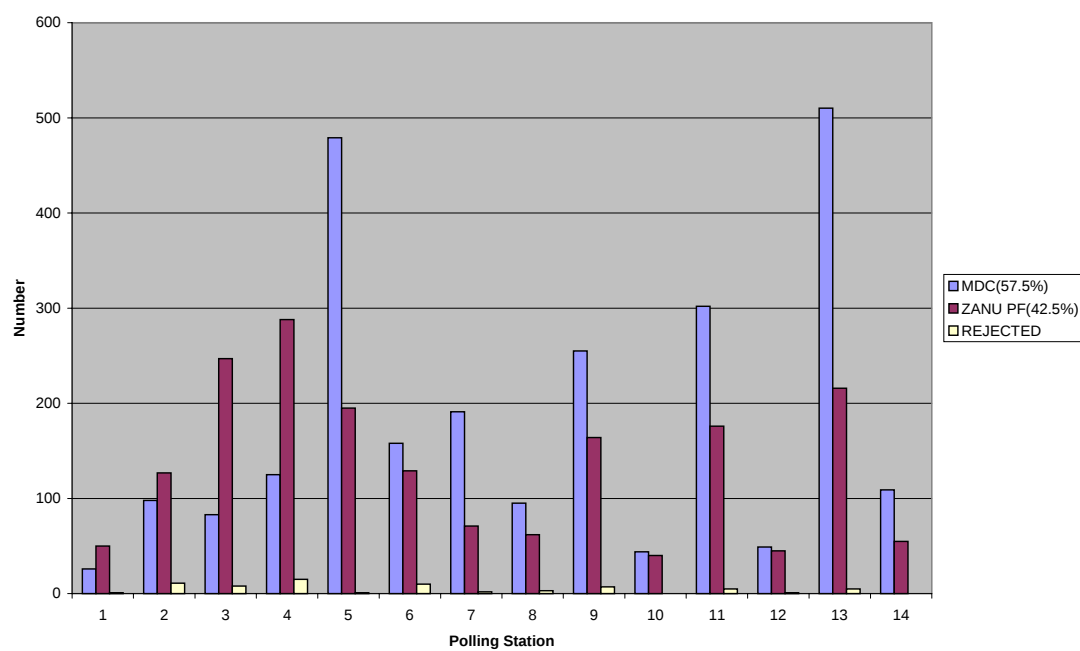
ZEC Results (ZPF 79.4%, MDC 20.6%)

Fig 83: Poll Vote By Polling Station, Gutu South Constituency



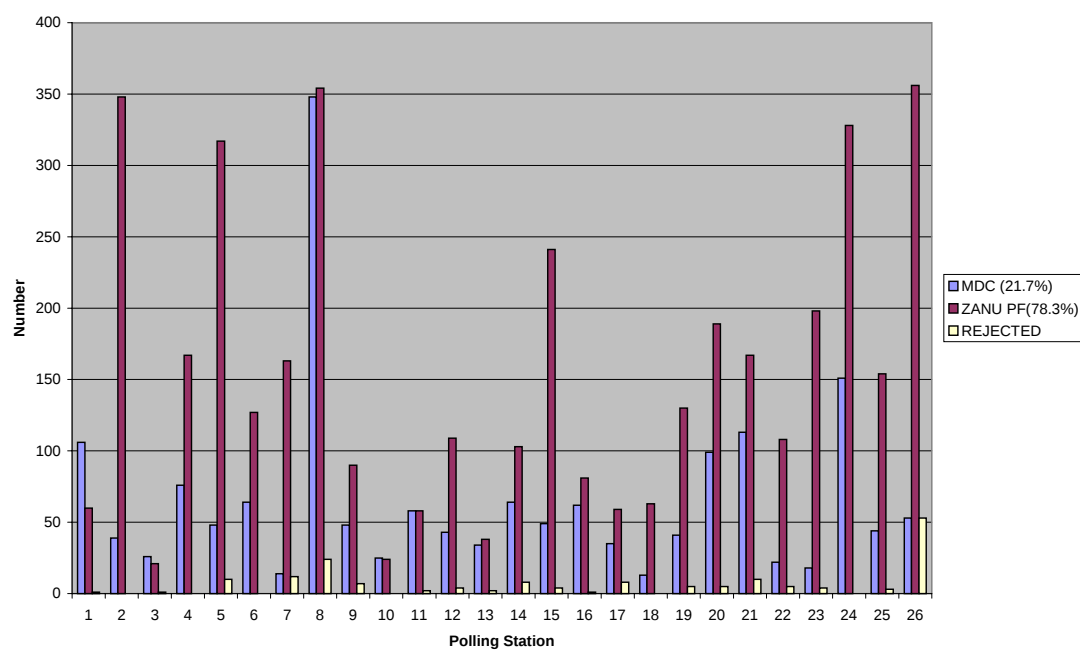
ZEC Results (ZPF 54.2%, MDC 45.8%)

Fig 84: Poll Vote By Polling Station, Masvingo Central Constituency



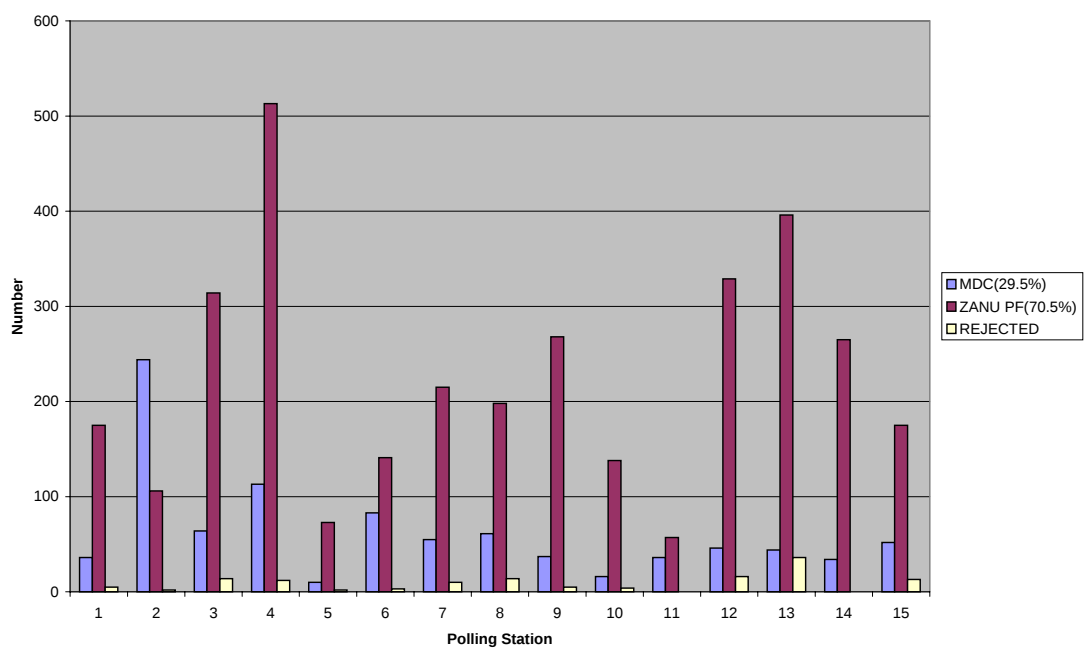
ZEC Results (ZPF 49.5%, MDC 50.5%)

Fig 85: Poll Vote By Polling Station, Masvingo North Constituency



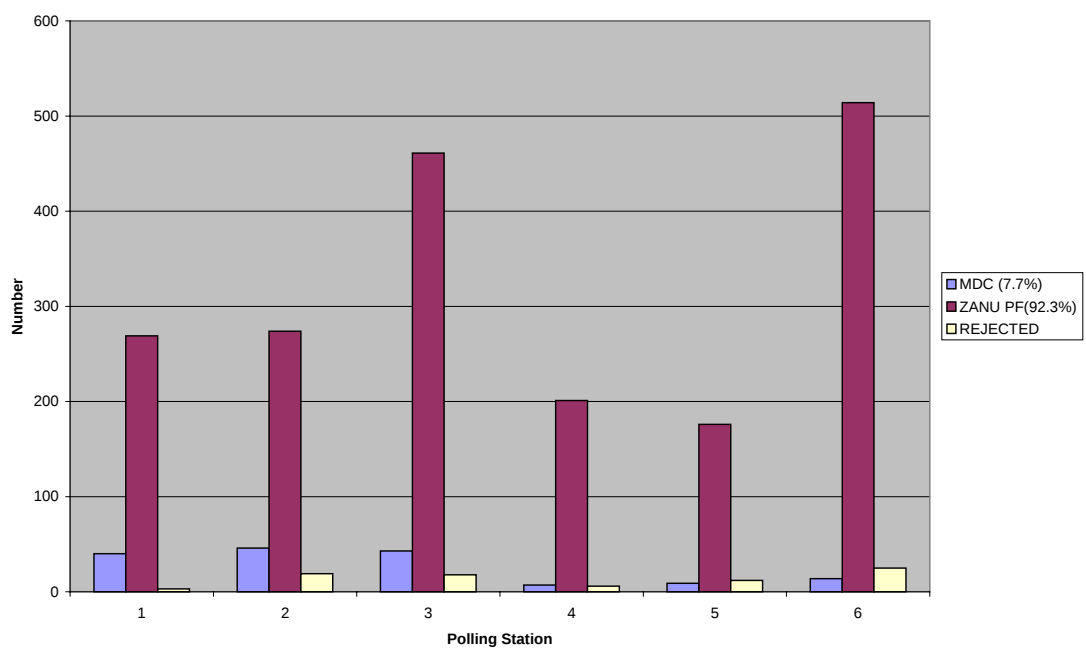
ZEC Results (ZPF 66.4%, MDC 33.6%)

Fig 86: Poll Vote By Polling Station, Masvingo South Constituency



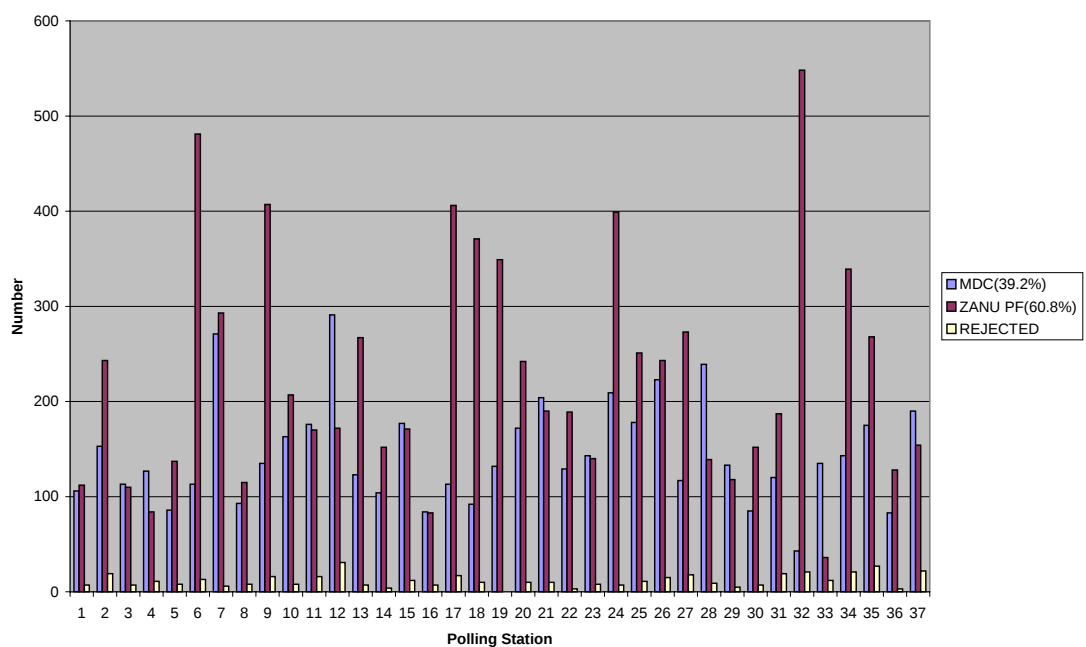
ZEC Results (ZPF 84.6%, MDC 15.4%)

Fig 87: Poll Vote By Polling Station, Mwenezi Constituency



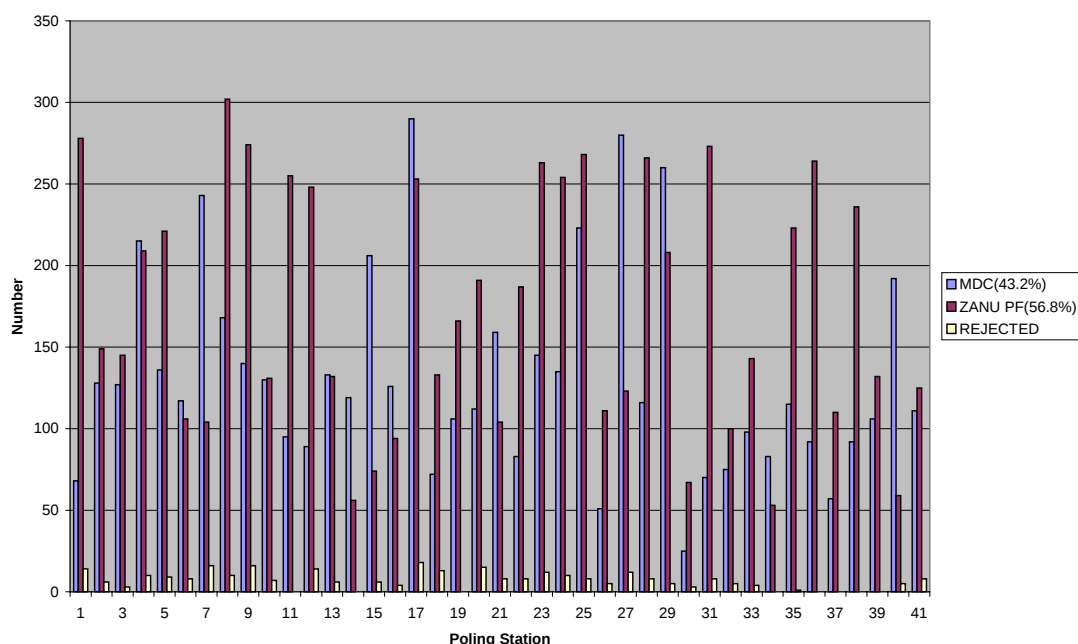
ZEC Results (ZPF 87.8%, MDC 12.2%)

Fig 88: Poll Vote By Polling Station, Zaka East Constituency



ZEC Results (ZPF 60.7%, MDC 39.3%)

Fig 89: Poll Vote By Polling Station, Zaka West Constituency



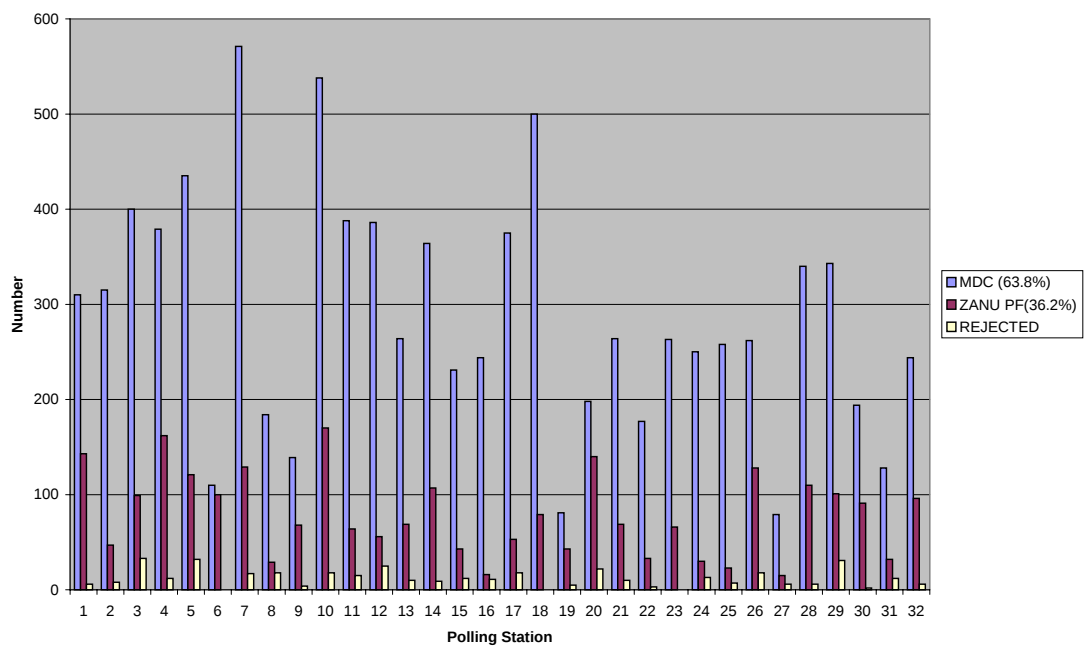
ZEC Results (ZPF 59.3%, MDC 40.7%)

The patterns yield conclusions similar results to those given by ZEC but there are also some unusually high figures like 2090 votes for ZANU PF at Chiriga Primary School in Gutu North. Masvingo Central results show a close contest.

(8) MATABELELAND NORTH PROVINCE CONSTITUENCIES

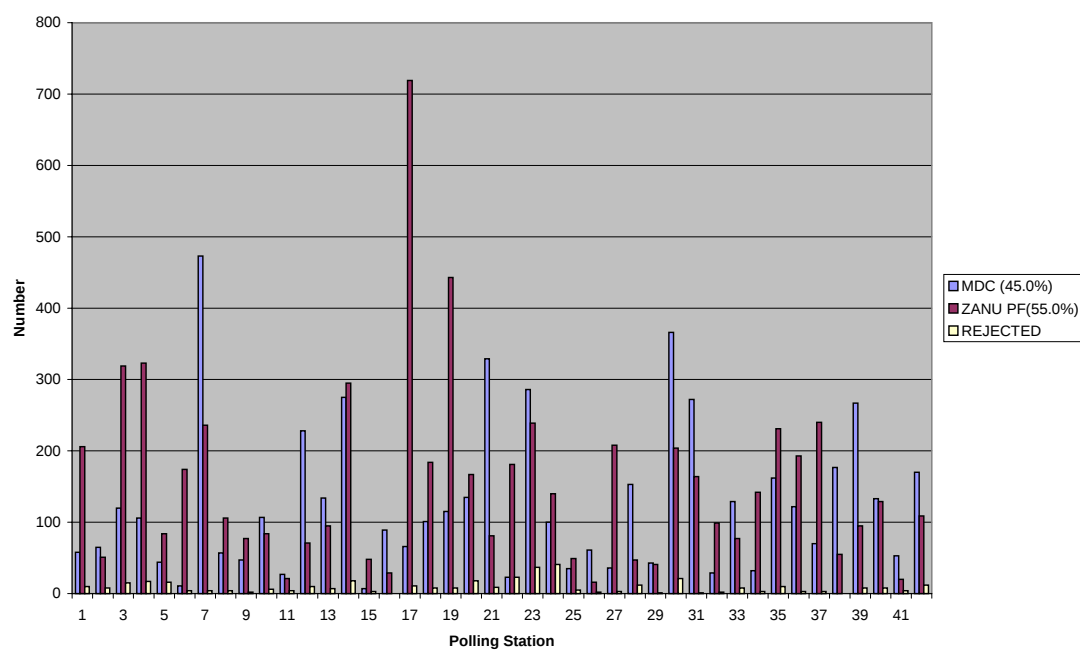
The patterns displayed by the 7 provinces are displayed below.

Fig 90: Poll Vote By Polling Station, Binga Constituency



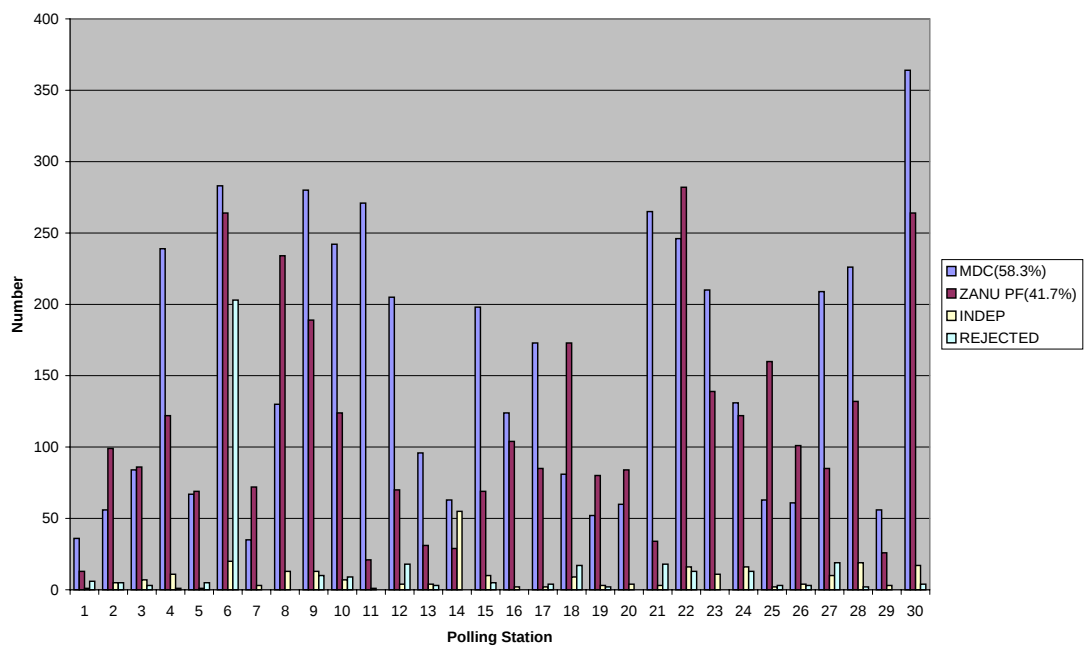
ZEC Results (ZPF 24.9%, MDC 75.1%)

Fig 91: Poll Vote By Polling Station, Bubi-Umguza Constituency



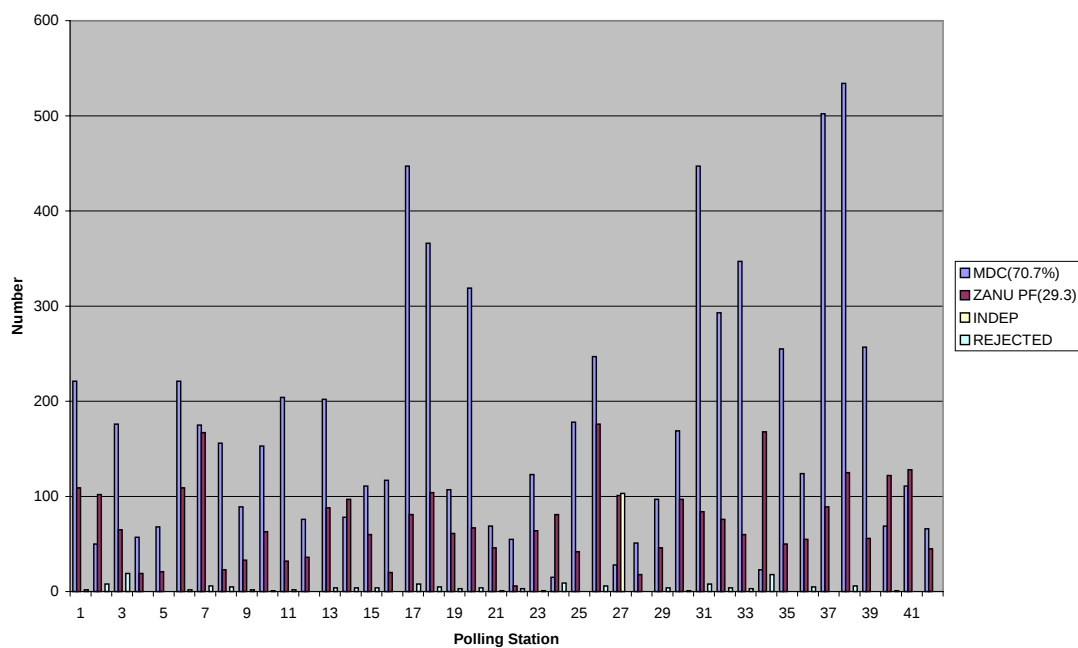
ZEC Results (ZPF 61.5%, MDC 38.5%)

Fig 92: Poll Vote By Polling Station, Hwange East Constituency



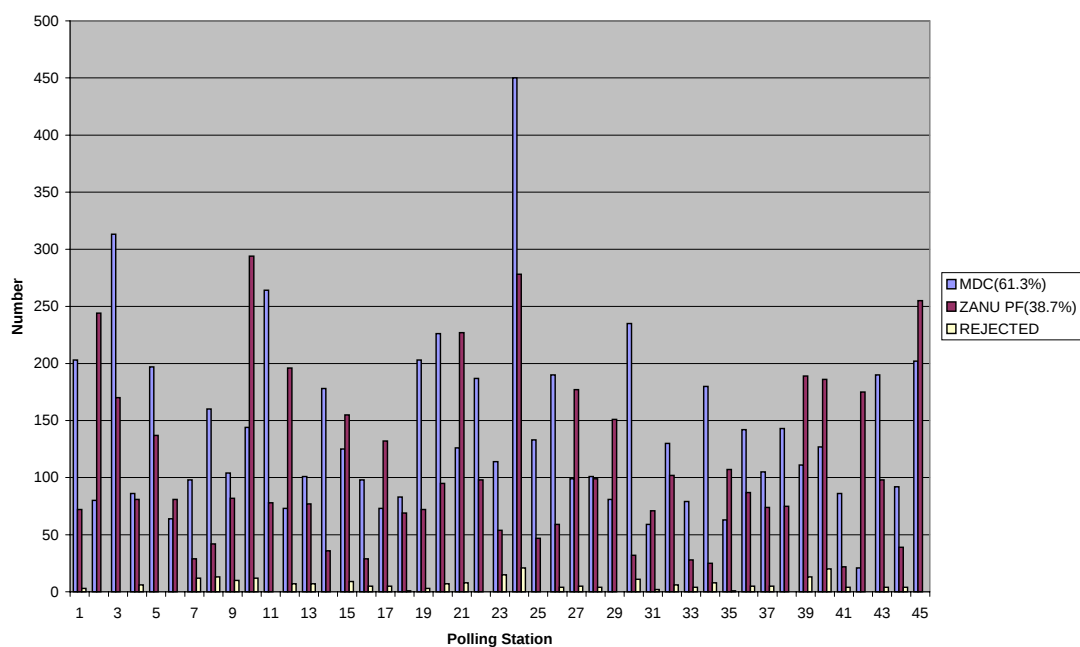
ZEC Results (ZPF 46.4%, MDC 53.6%)

Fig 93: Poll Vote By Polling Station, Hwange West Constituency



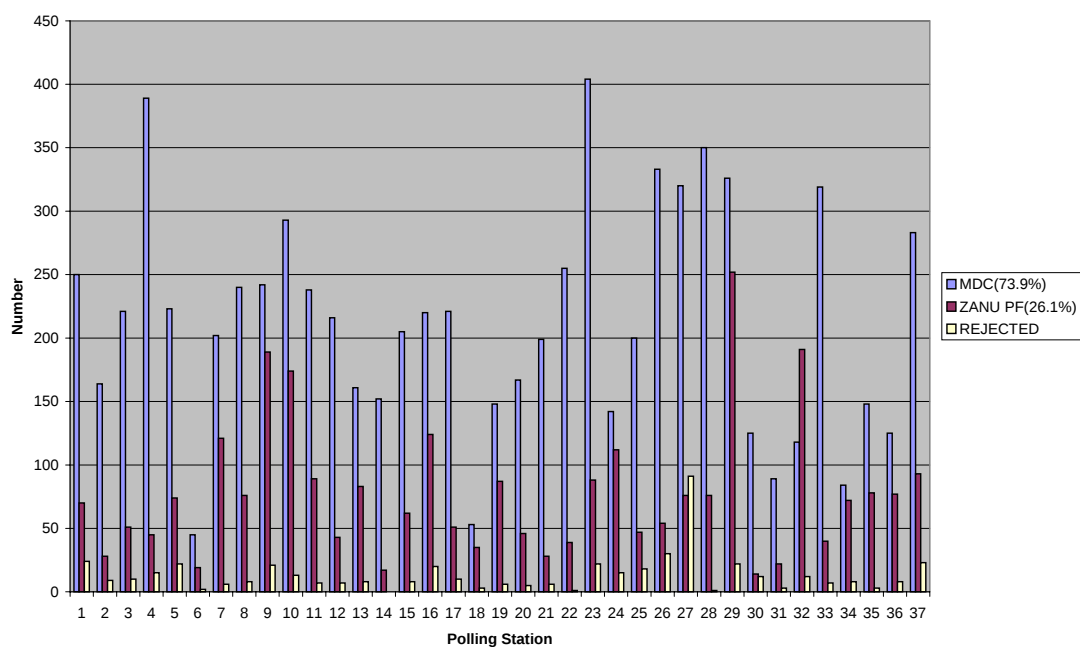
ZEC Results (ZPF 32.0%, MDC 68.0%)

Fig 94: Poll Vote By Polling Station, Lupane Constituency



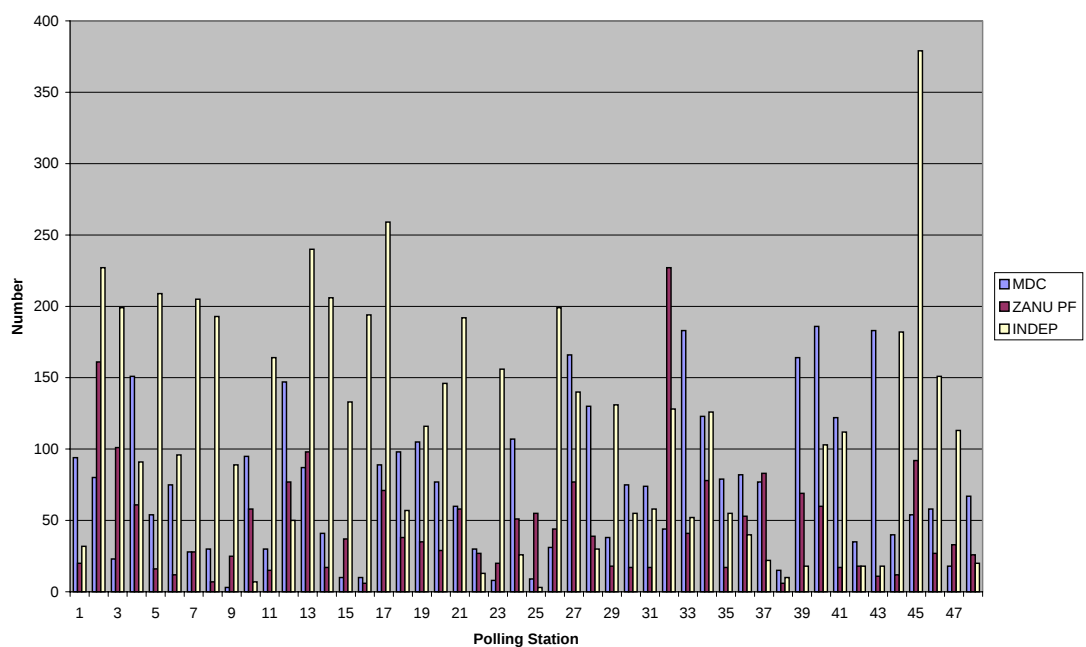
ZEC Results (ZPF 46.7%, MDC 53.3%)

Fig 95: Poll Vote By Polling Station, Nkayi Constituency



ZEC Results (ZPF 30.7%, MDC 69.3%)

Fig 96: Poll Vote By Polling Station, Tsholotsho Constituency

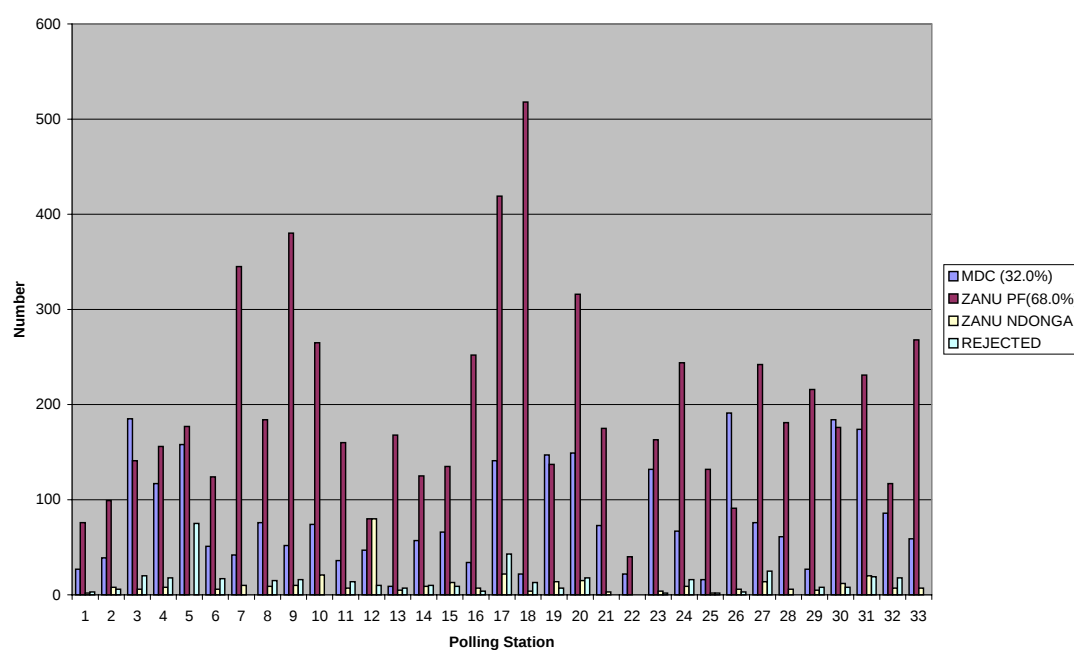


The patterns agree to those announced by ZEC but notable points are that at Bubi-Umguza votes at Imbizo Primary School at Llewellyn Barracks and Khami Prison yielded 719 and 443 ZANU PF respectively which are very high votes compared to the rest of the centres.

(9) MATABELELAND SOUTH CONSTITUENCIES

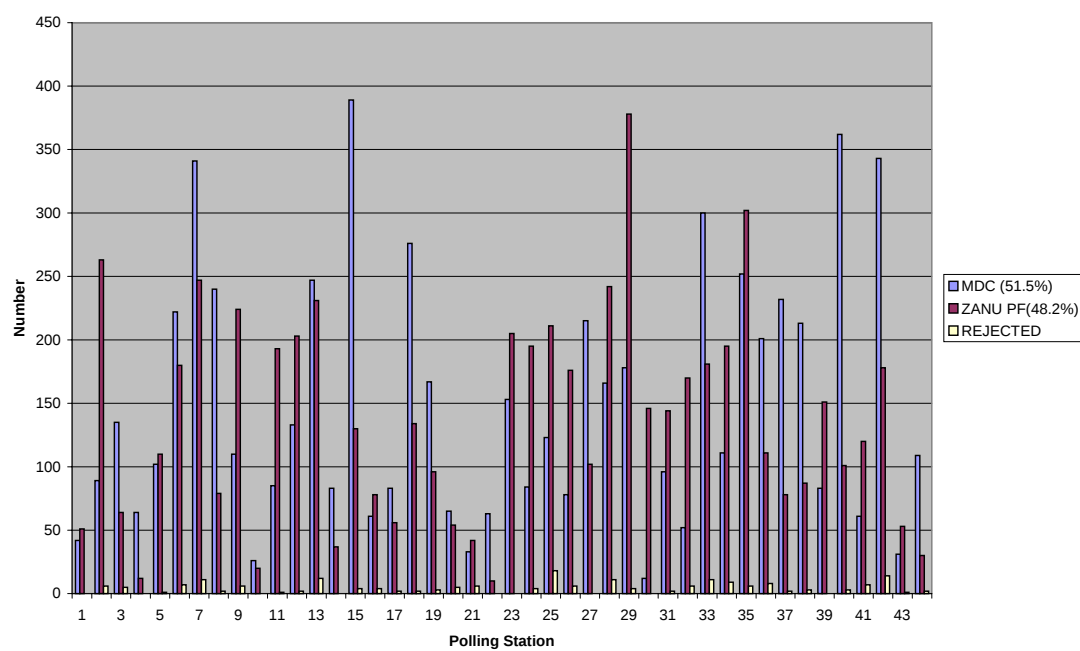
The patterns for the 5 constituencies excluding Bulilima and Mangwe are as below,

Fig 97: Poll Vote By Polling Station, Bietbridge Constituency



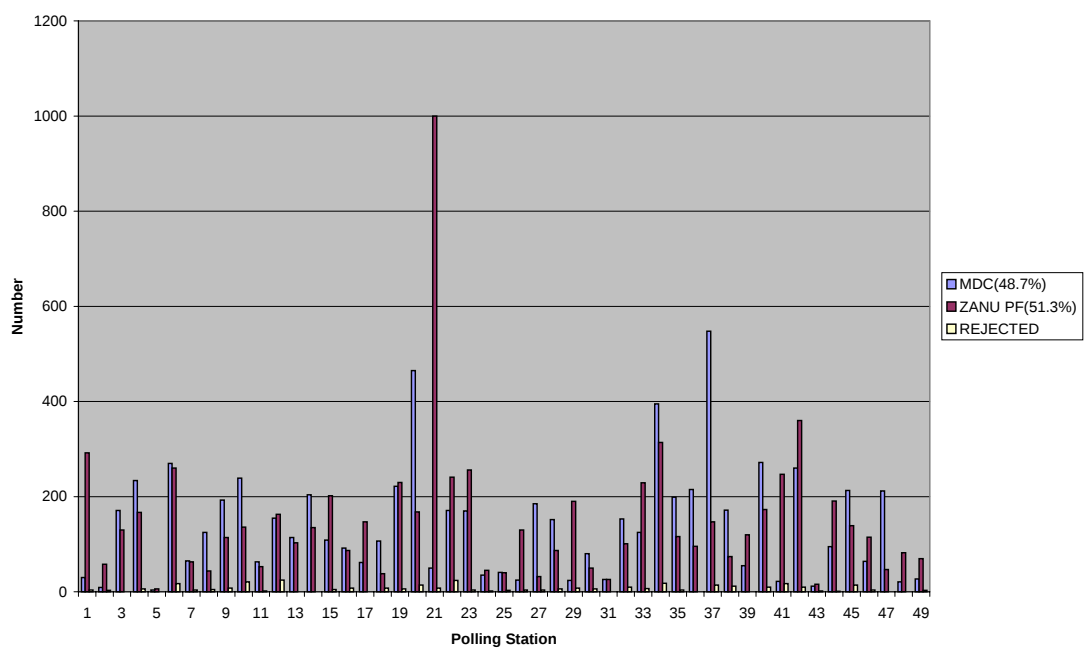
ZEC Results (ZPF 69.4%, MDC 30.6%)

Fig 98: Poll Vote By Polling Station, Gwanda Constituency



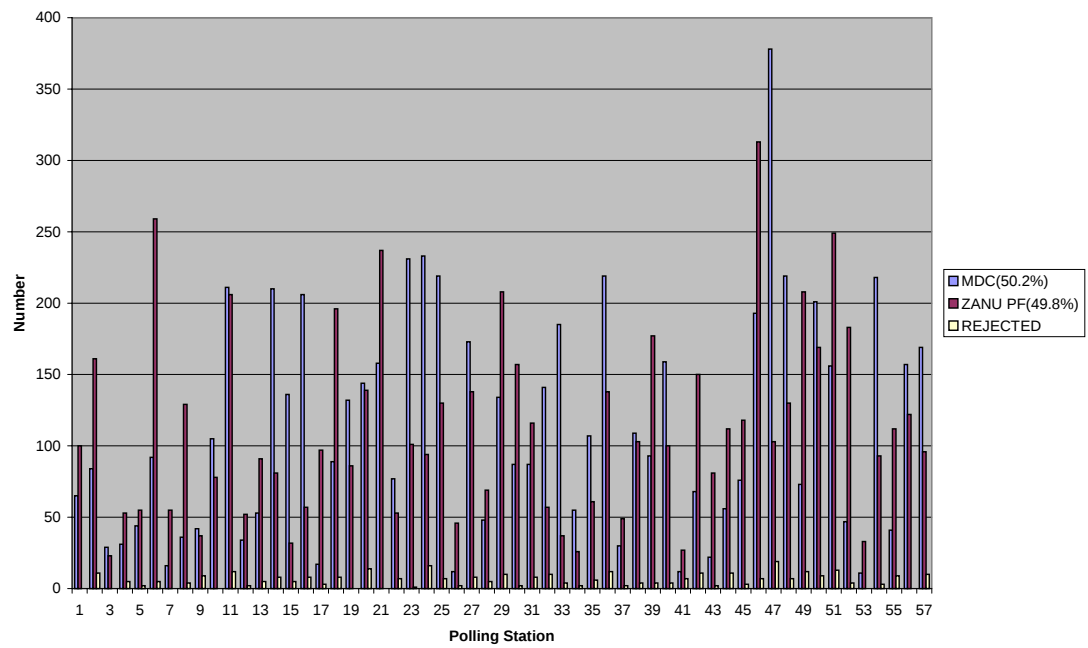
ZEC Results (ZPF 54.5%, MDC 45.5%)

Fig 99: Poll Vote By Polling Station, Insiza Constituency



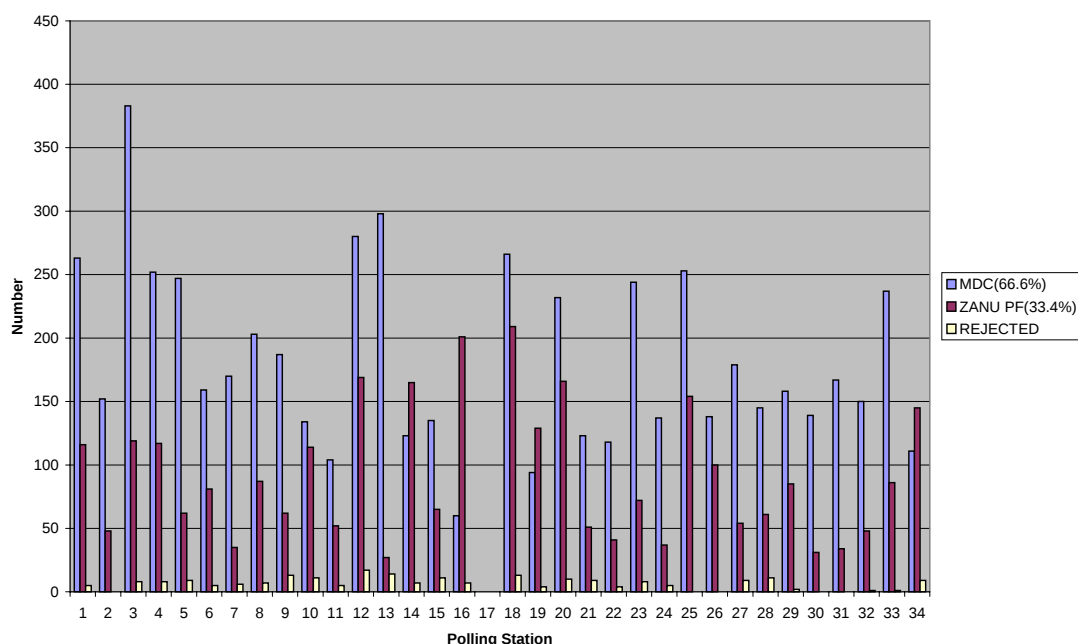
ZEC Results (ZPF 58.6%, MDC 41.4%)

Fig 100: Poll Vote By Polling Station, Matobo Constituency



ZEC Results (ZPF 48.7%, MDC 51.3%)

Fig 101: Poll Vote By Polling Station, Umzingwane Constituency



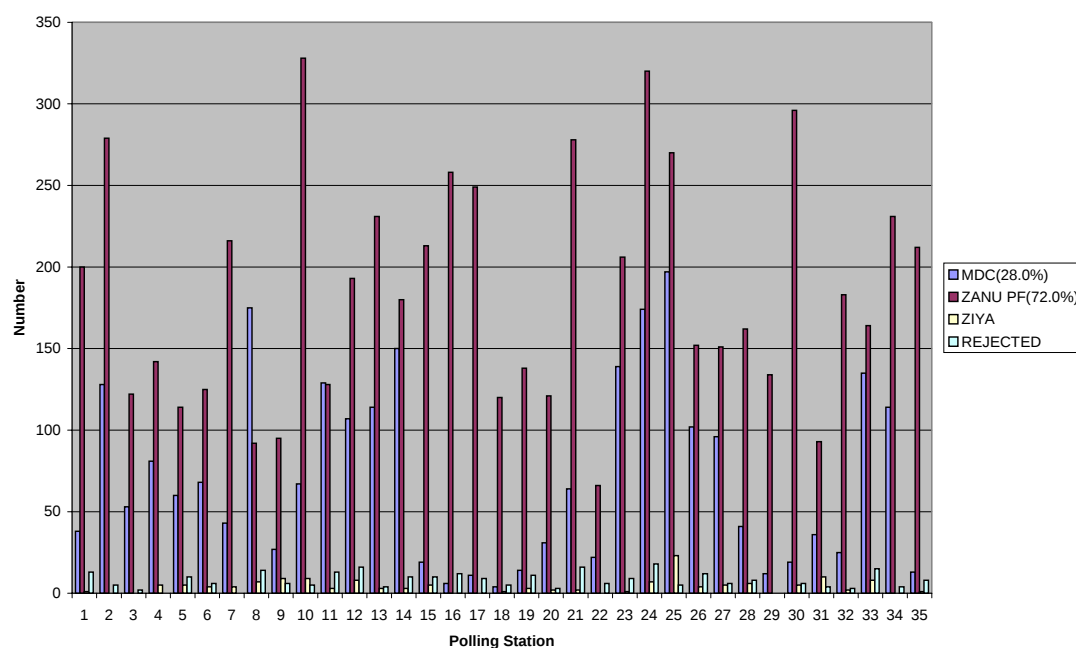
ZEC Results (ZPF 40.0%, MDC 60.0%)

The results generally lead to the same conclusions as those of ZEC but one notable point is that in Insiza at Mpalani Homestead polling station an unusually high figure of 1000 vote for ZANU PF is recorded which offset all MDC's gains from all other polling stations.

(10) MIDLANDS PROVINCE CONSTITUENCIES

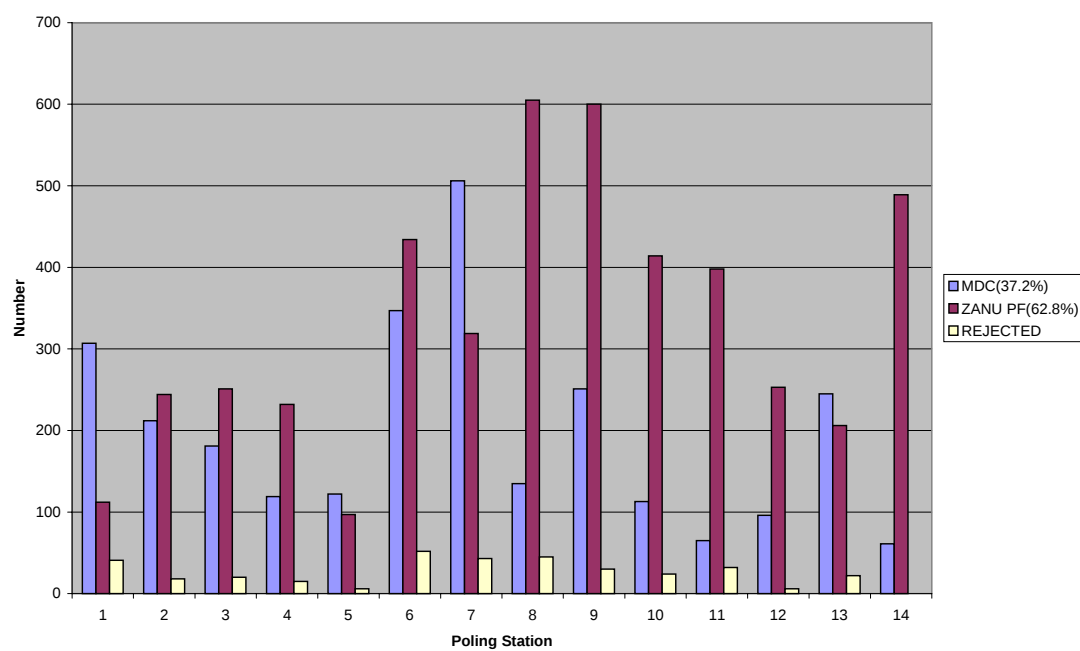
The patterns for the 14 constituencies excluding Mberengwa West and Zvishavane are displayed below,

Fig 102: Poll Vote By Polling Station, Chirimuhanzu Constituency



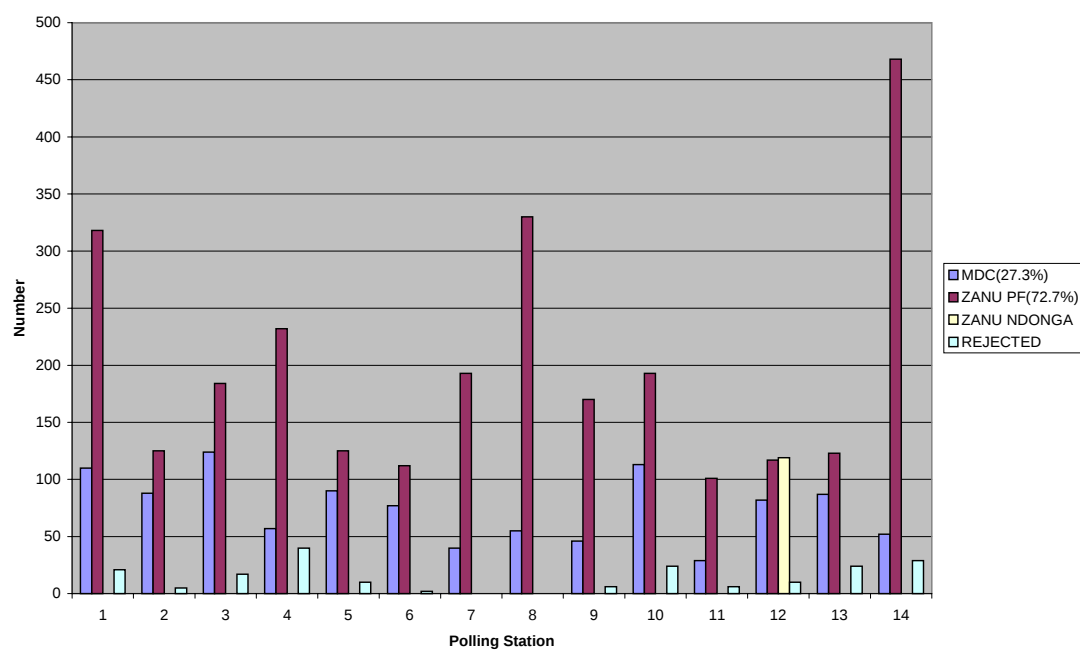
ZEC Results (ZPF 72.9%, MDC 27.1%)

Fig 103: Poll Vote By Polling Station, Gokwe Chireya Constituency



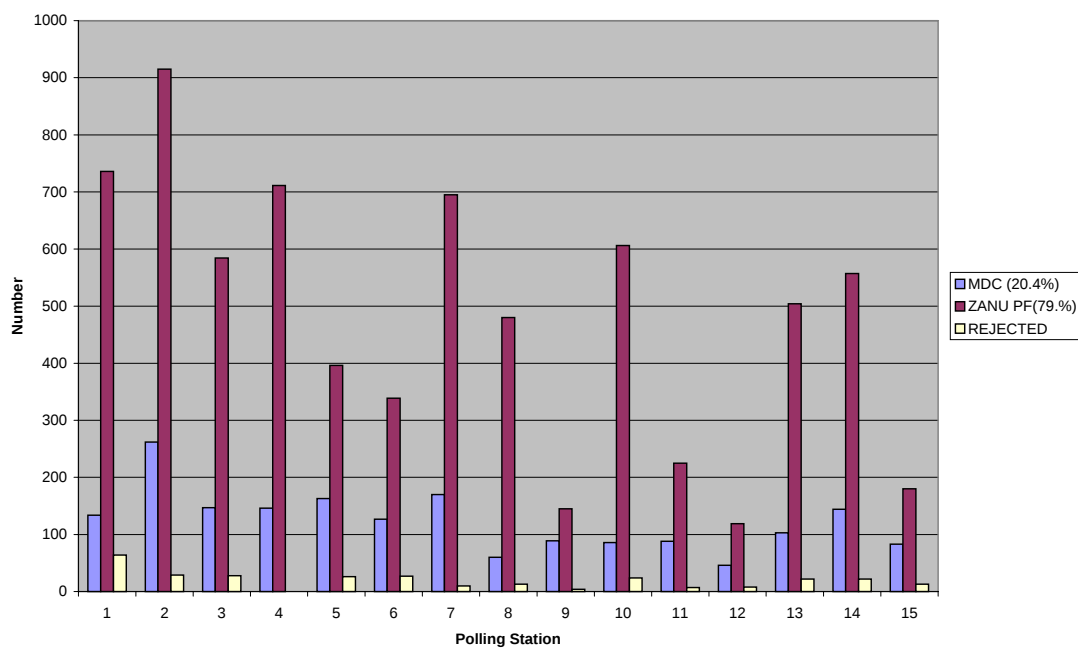
ZEC Results (ZPF 66.9%, MDC 33.1%)

Fig 104:Poll Vote By Polling Station, Gokwe Kana Constituency



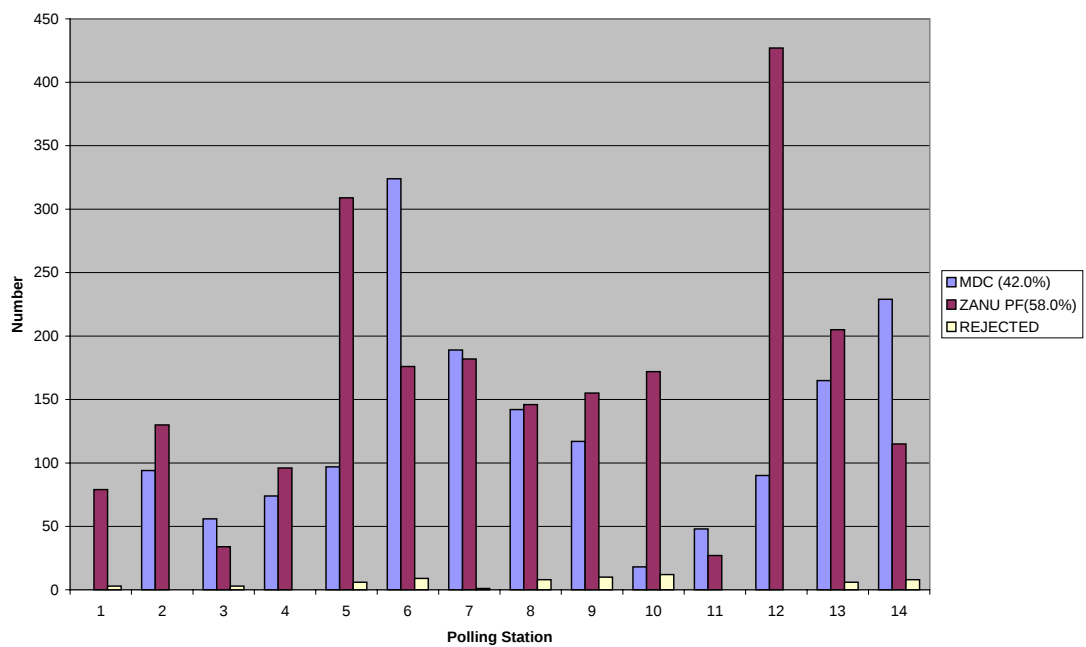
ZEC Results (ZPF 72.4%, MDC 27.6%)

Fig 105: Poll Vote By Polling Station, Gokwe Nembudziya Constituency



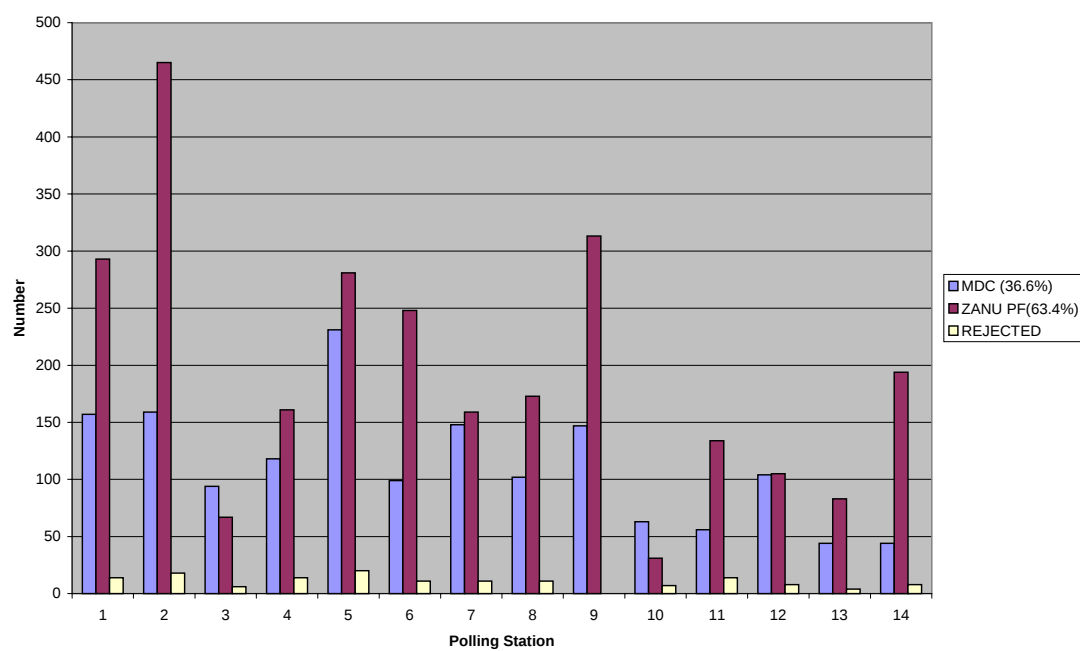
ZEC Results (ZPF 76.9%, MDC 23.1%)

Fig 106: Poll Vote By Polling Station, Gokwe Constituency



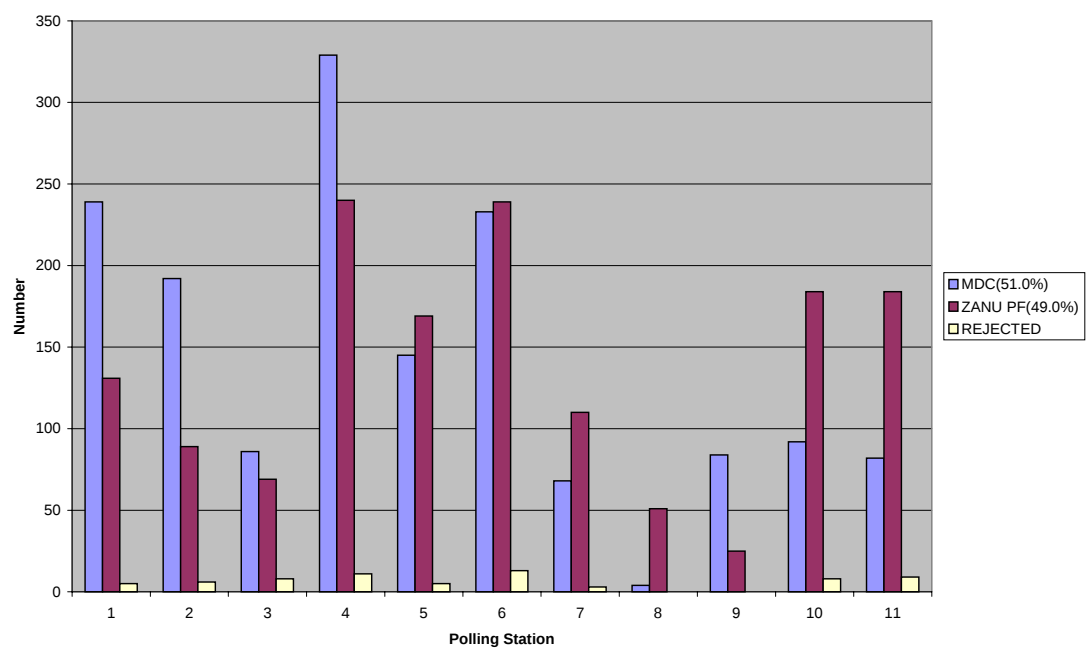
ZEC Results (ZPF 61.1%, MDC 38.0%)

Fig 107: Poll Vote By Polling Station, Gokwe Sengwa Constituency



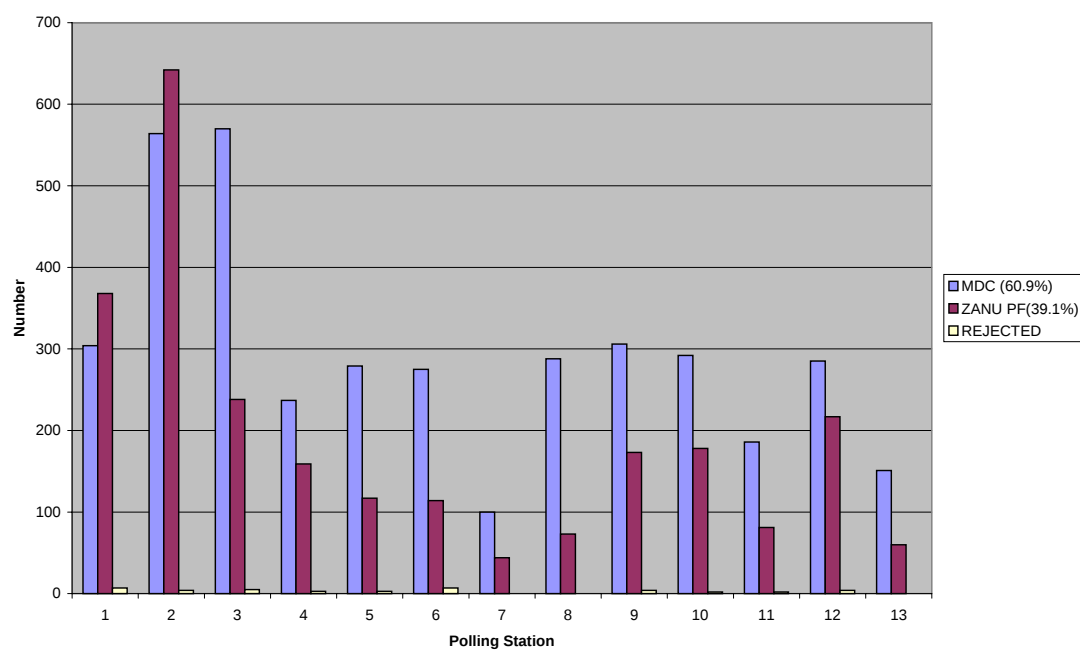
ZEC Results (ZPF 66.5%, MDC 33.5%)

Fig 108: Poll Vote By Polling Station, Gweru Rural Constituency



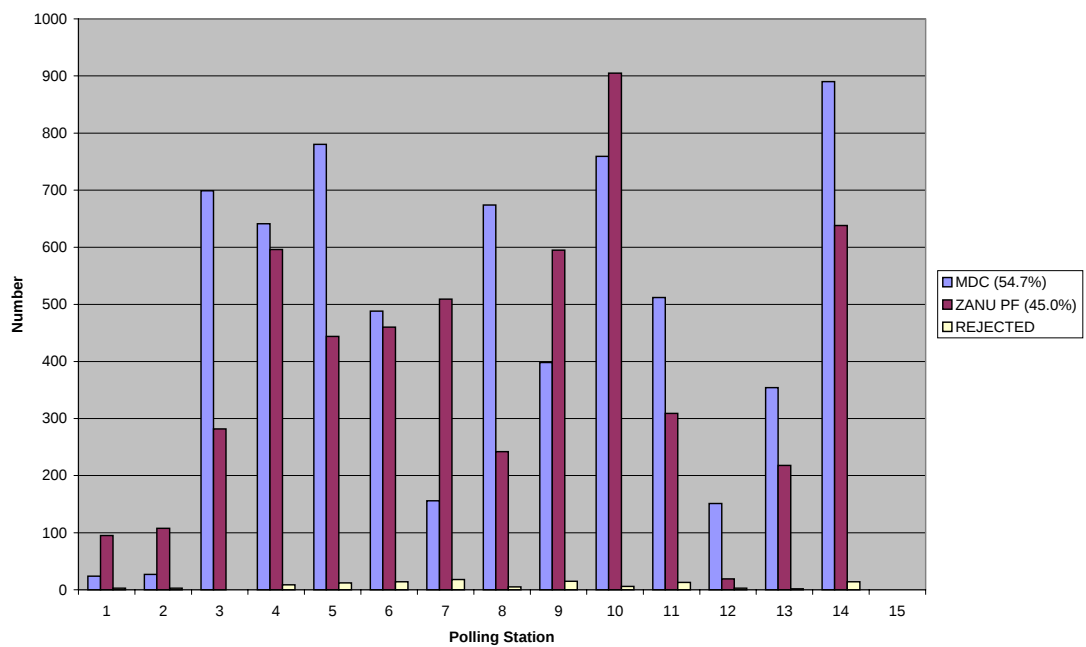
ZEC Results (ZPF 57.7%, MDC 42.3%)

Fig 109: Poll Vote By Polling Station, Gweru Urban Constituency



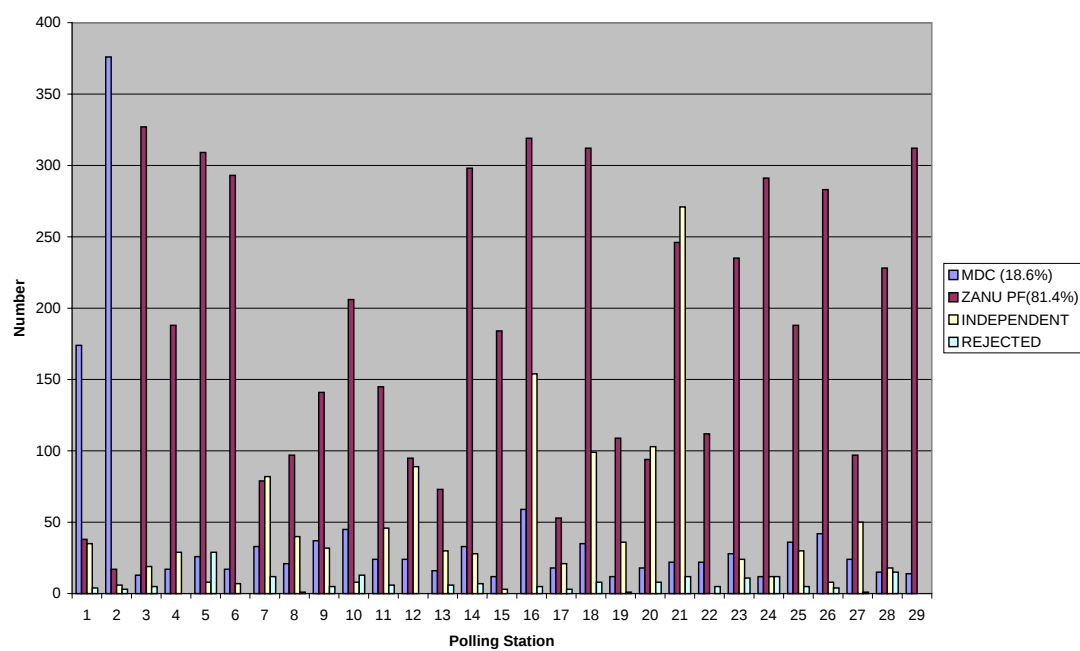
ZEC Results (ZPF 45.1%, MDC 54.9%)

Fig 110: Poll Vote By Polling Station, Kwekwe Constituency



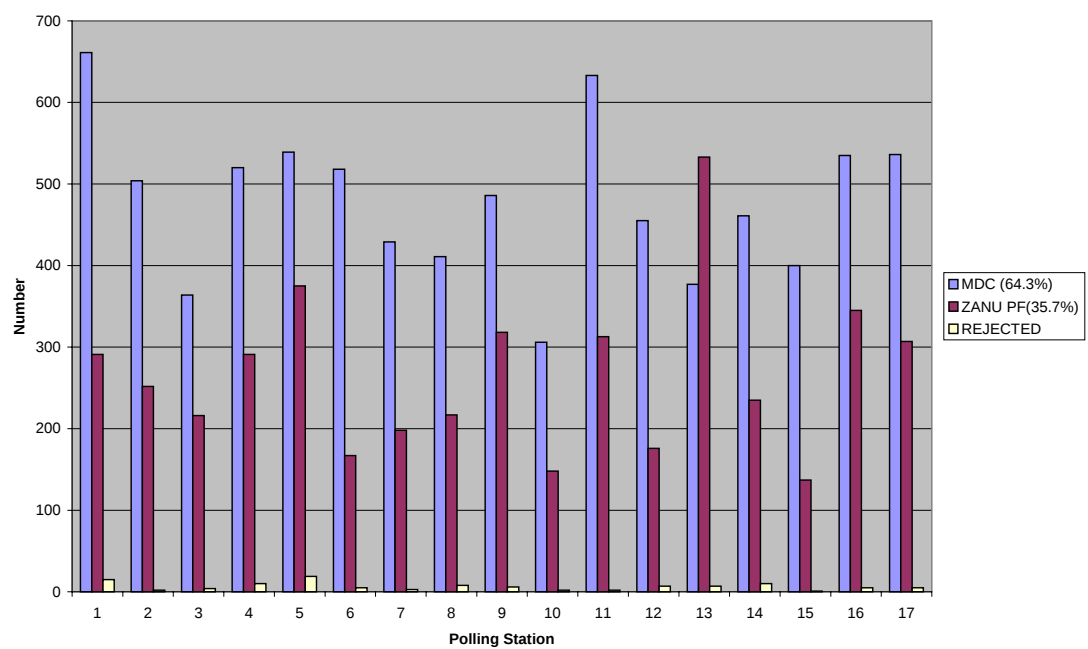
ZEC Results (ZPF 46.1%, MDC 53.9%)

Fig 111: Poll Vote By Polling Station, Mberengwa East Constituency



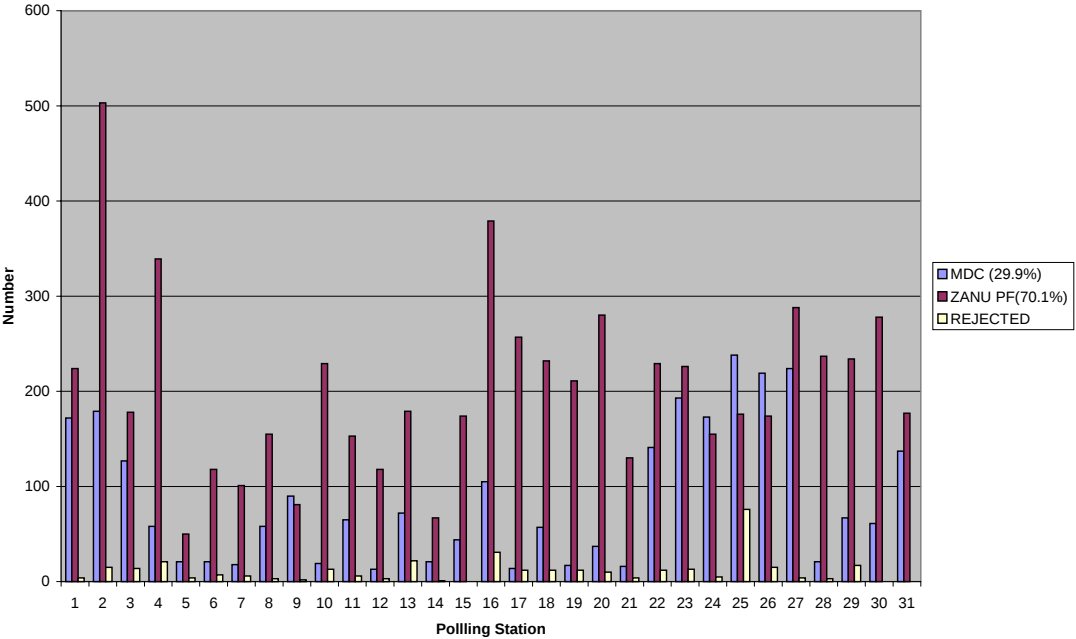
ZEC Results (ZPF 88.6%, MDC 11.4%)

Fig 112: Poll Vote By Polling Station, Mkoba Constituency



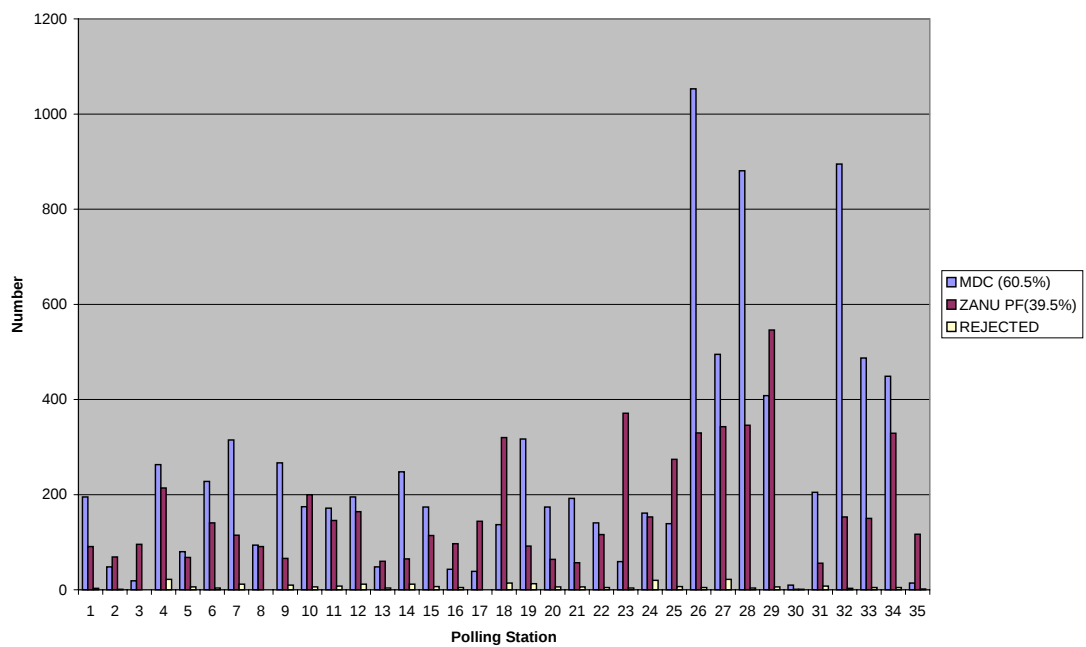
ZEC Results (ZPF 35.5%, MDC 64.5.8%)

Fig 113: Poll Vote By Polling Station, Shurugwi Constituency



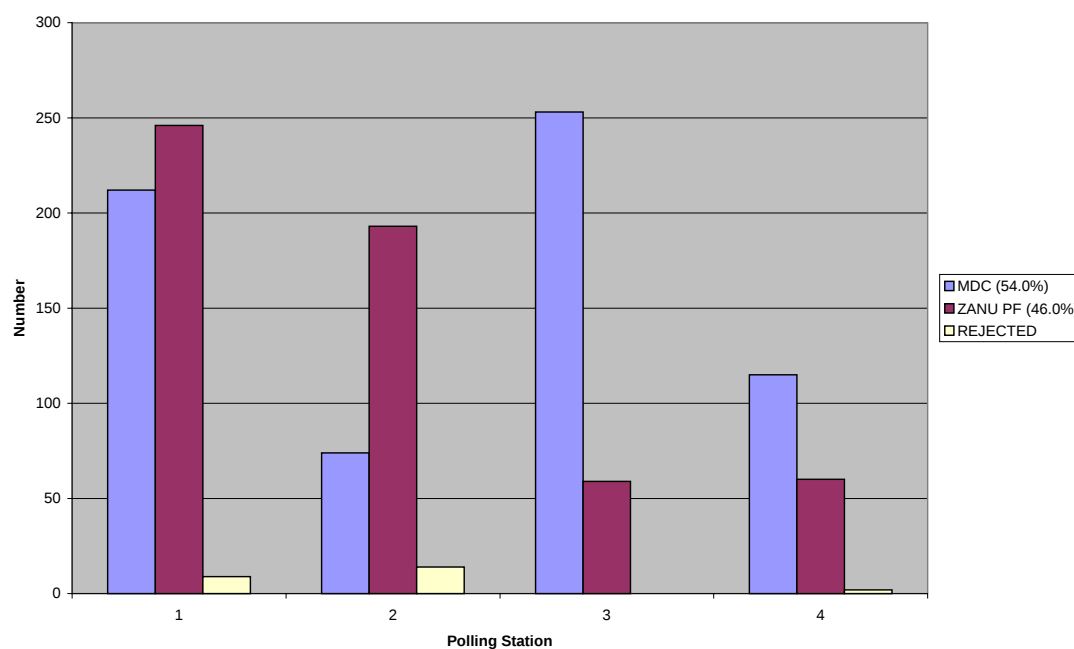
ZEC Results (ZPF 76.0%, MDC 24.0%)

Fig 114: Poll Vote By Polling Station, Silobela Constituency



ZEC Results (ZPF 46.7%, MDC 53.3%)

Fig 115: Poll Vote By Polling Station, Zhombe Constituency



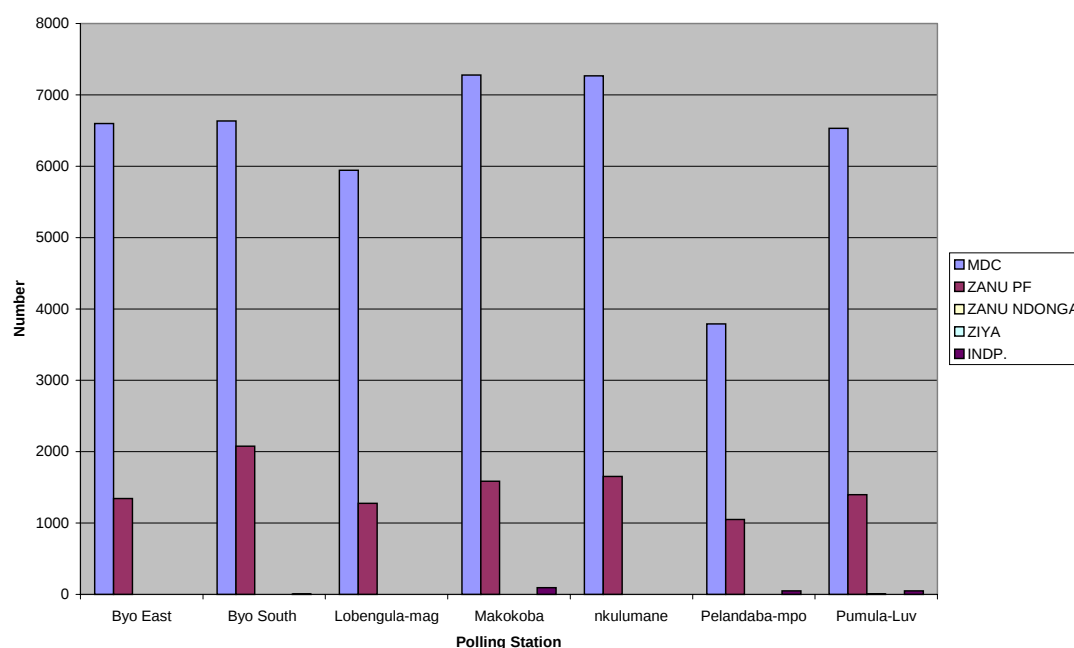
ZEC Results (ZPF 63.3%, MDC 26.7%)

The Midlands patterns do not lead to the same conclusions in certain cases especially the Gweru Rural constituency where the MDC wins in several polling stations. In Silobela constituency there is an outlier where MDC wins by 1053 at Torwood Hall which is an urban polling station.

ANALYSIS OF CONSTITUENCIES BY PROVINCE

(1) BULAWAYO PROVINCE

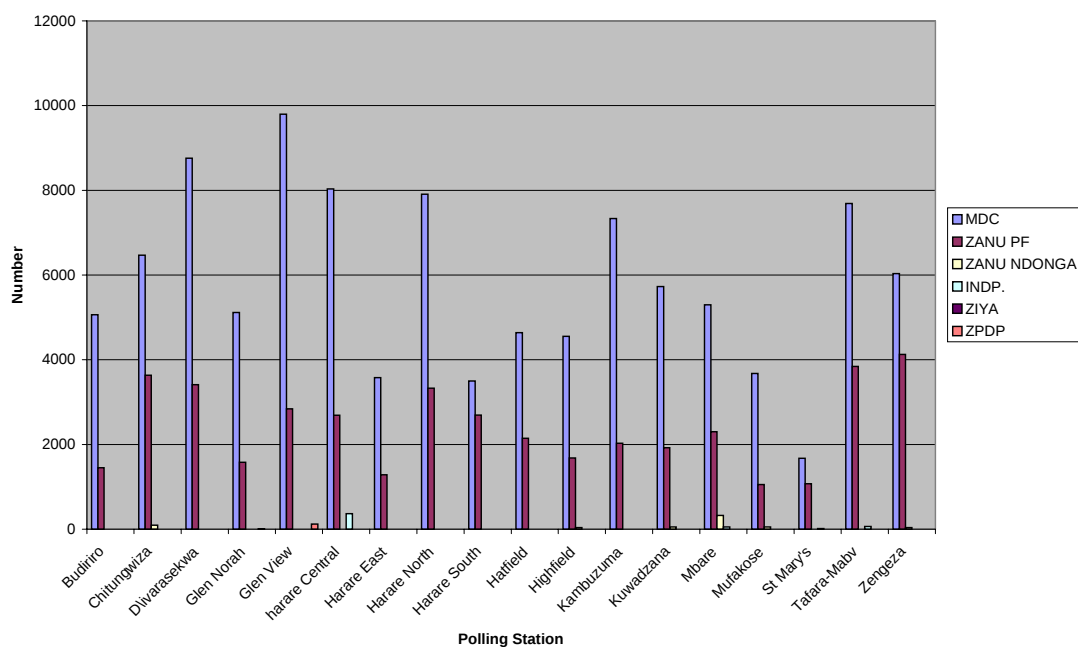
Fig 116: Poll Vote By Polling Station, Bulawayo Province



The Bulawayo Province chart clearly shows that all provinces were won by the MDC as declared by ZEC.

(2) HARARE PROVINCE

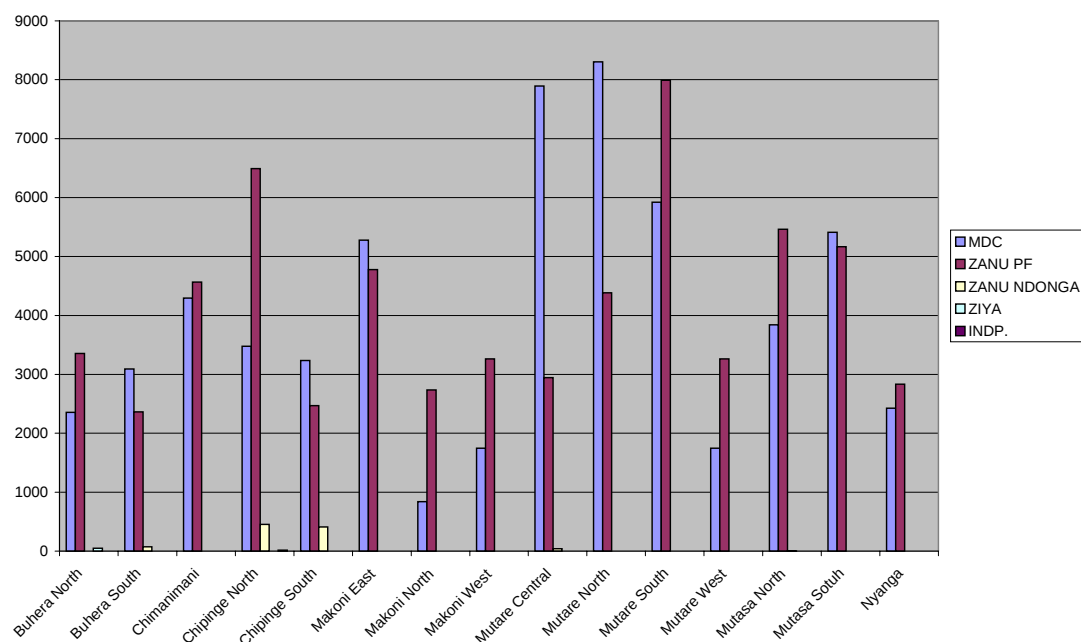
Fig 117: Poll Vote By Polling Station, Harare Province



The Harare provincial analysis shows that the MDC won all the constituencies in the province including Harare South.

(3) MANICALAND PROVINCE

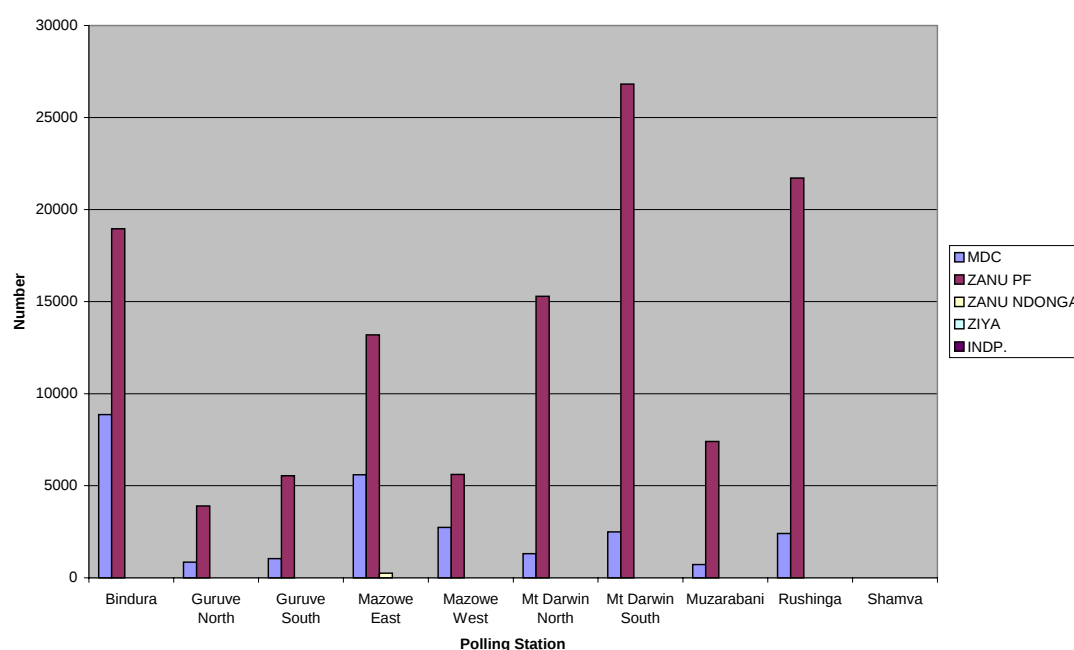
Fig 118: Poll Vote By Polling Station, Manicaland Province



The Manicaland provincial chart confirms that the MDC won in Mutare Central, and Mutare North. In Buhera South, Chipinge South, Makoni East and Mutasa South ZESN data is the opposite of the ZEC results, which shows ZANU PF winning.

MASHONALAND CENTRAL PROVINCE

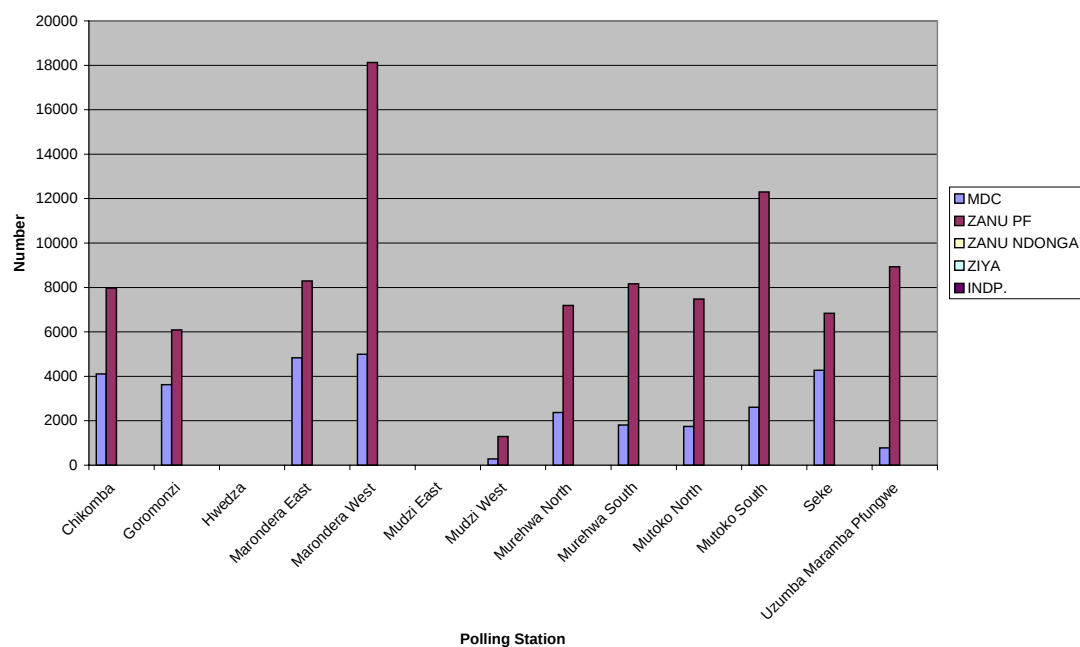
Fig 119: Poll Vote By Polling Station, Mashonaland Central Province



This chart confirms ZANU PF winning resoundingly in every constituency of this province as announced by ZEC.

(4) MASHONALAND EAST PROVINCE

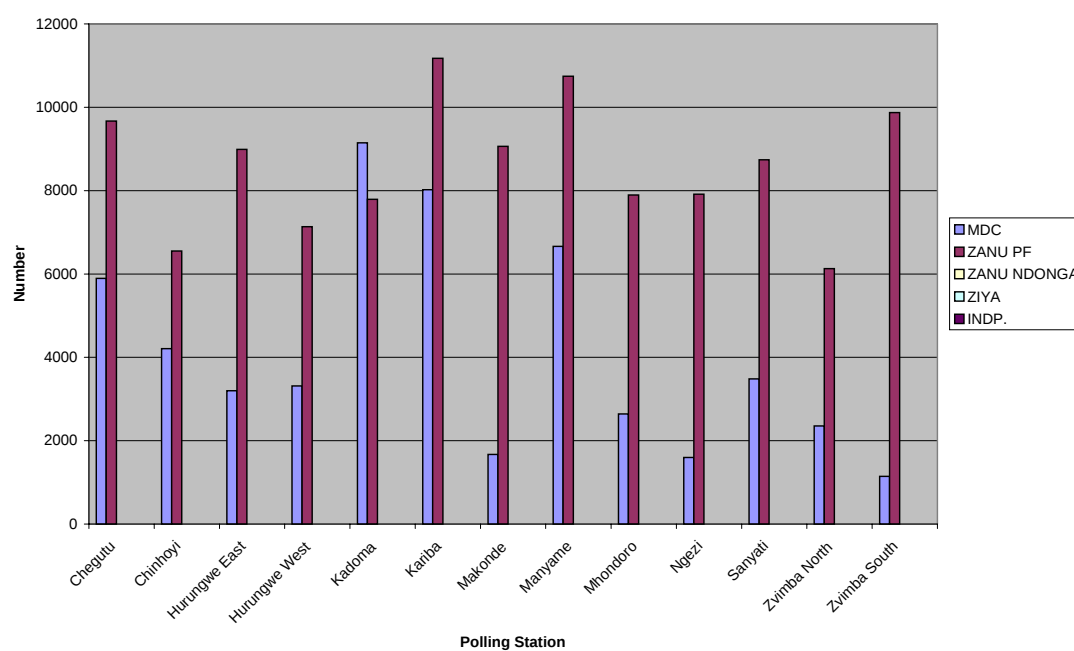
Fig 120: Poll Vote By Polling Station, Mashonaland East Province



Mashonaland East emerged as another a ZANU PF stronghold as shown in the chart.

MASHONALAND WEST PROVINCE

Fig 121: Poll Vote By Polling Station, Mashonaland West Province

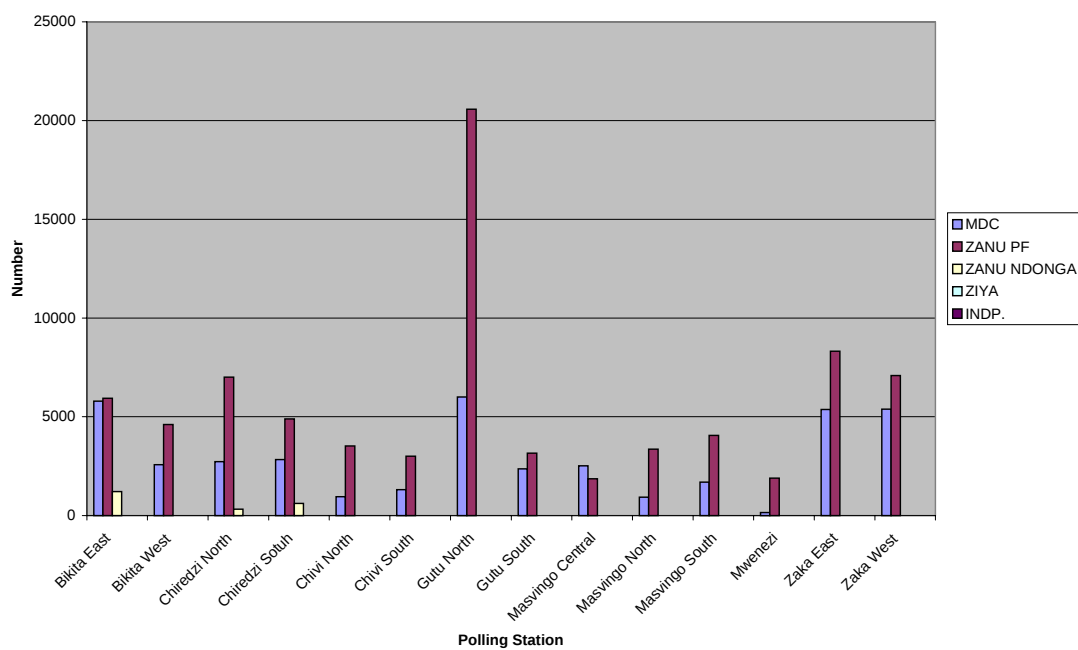


The ZESN chart shows that Kadoma is the only MDC win in this province but there are substantial votes for MDC in Chegutu, Manyame and Kariba.

(5) MASVINGO PROVINCE

Fig 122: Poll Vote By Polling Station, Masvingo Province

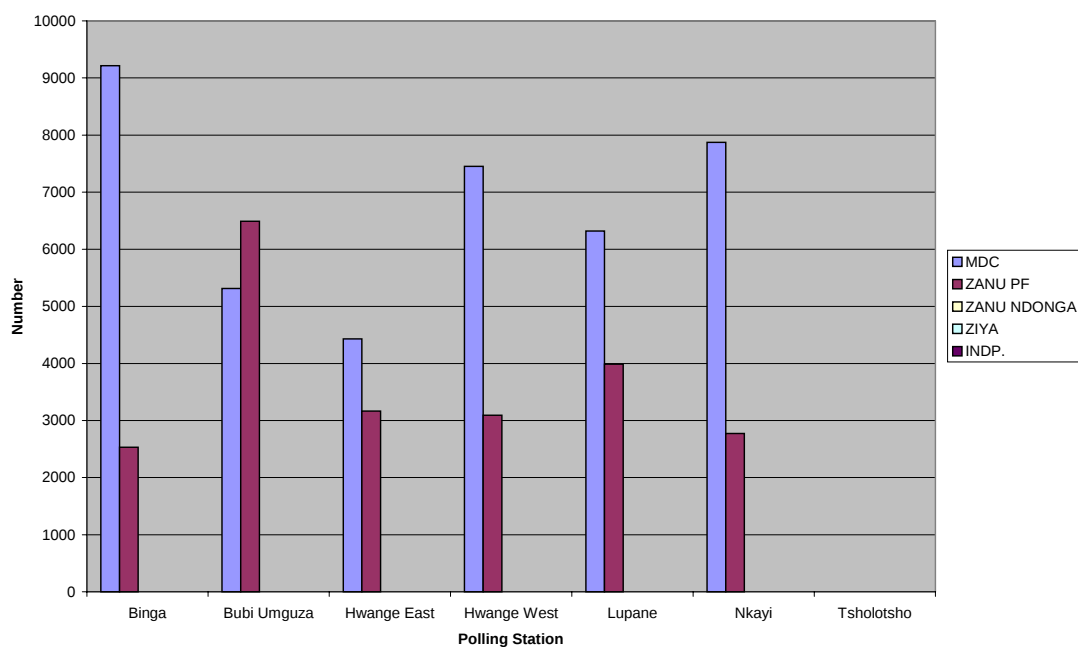
I



In Masvingo province the MDC won Masvingo Central and almost won Bikita East while ZANU PF got the rest of the constituencies with Gutu North voters voting resoundingly for them.

(6) MATABELELAND NORTH PROVINCE

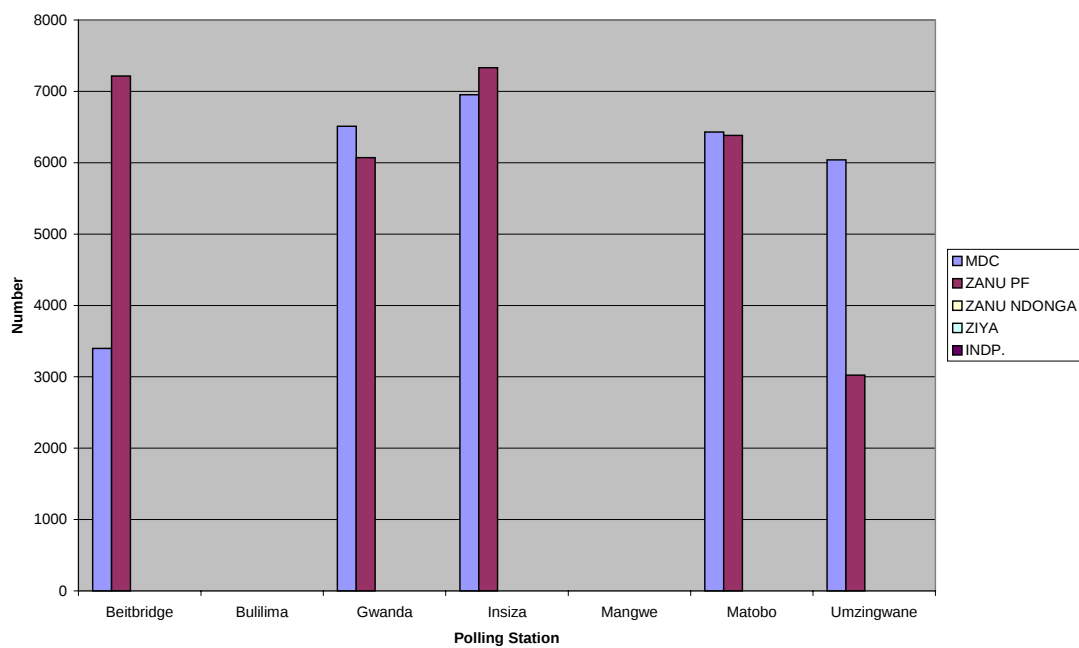
Fig 123: Poll Vote By Polling Station, Matabeleland North Province



Matabeleland North voters voted for the MDC in 5 constituencies. Tsholotsho was won by an independent in an unprecedented occurrence. Bubi-Umguza went to ZANU PF as announced by ZEC.

(7) MATABELELAND SOUTH PROVINCE

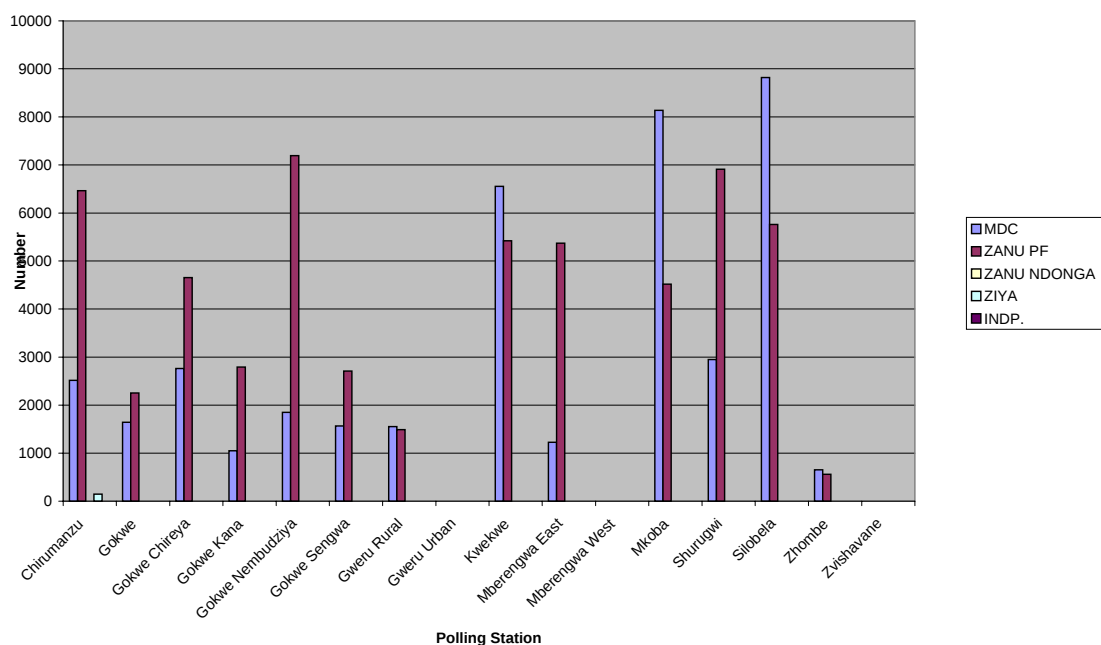
Fig 124: Poll Vote By Polling Station, Matabeleland South Province



Matabeleland South shows that 2 of the constituencies were won by ZANU PF with Insiza and Matobo showing a very tight contest resulting in the former being won by ZANU PF and the latter the MDC.

(10) MIDLANDS PROVINCE

Fig 125: Poll Vote By Polling Station, Midlands Province



Midlands province chart confirms MDC winning in Kwekwe, Gweru urban , Mkoba and Silobela as announced by ZEC . ZESN data is contrary to the ZEC results for Gweru Rural and Zhombe constituencies although ZESN had few observers deployed in those places.

3.2: SIGNIFICANCE TESTING OF DIFFERENCE OF PROPORTIONS

A test of significance of difference of proportions also known as hypothesis testing, is a statistical test which is used to determine the area within which the null hypothesis is rejected or not rejected. The null hypothesis is a statement of the expected relationship between two or more variables. In this analysis, the null

hypothesis is that the proportions of votes for MDC and ZANU PF from ZESN results and ZEC results should be more or less the same. The null hypothesis is either rejected or not rejected on the basis of the results from the z-score statistical test of difference between proportions. By ‘rejected’ it is implied that the results do not show the expected pattern and by ‘not rejected’ it is implied that the results reveal the expected pattern. The researcher usually sets the bounds within which the statistical decision regarding the null hypothesis is made. In this case we have set the confidence interval at 95% within a two- tailed significance test. The significance level is therefore 0.05 percent. In order to determine the bounds of significance of difference, *z-scores* were computed. The formula used is based on the statistical difference of P_1 and P_2 values and their total values, total values being the total number of votes obtained by the two political parties in each of the 115 constituencies. The formula used is presented below:

$$Z = \frac{P_1 - P_2}{\sqrt{\frac{p_1 q_1}{n_1} + \frac{p_2 q_2}{n_2}}}$$

Formula for Computing *z- score*

The results for the significance testing are presented in Table 2. We observe that out of the 115 constituencies, in 28 constituencies (24.3 percent) the null hypothesis is **not rejected** while in the remaining 87 (75.7 percent) the null hypothesis is **rejected**. By null hypothesis we imply that $P_1 = P_2$. This translates to say that the proportion of votes from the ZESN data set should be equal to that from the ZEC data set for a specific political party. Since the decision to reject or not to reject the null hypothesis is based on the prerequisite for consistency of proportions as obtained by MDC and ZANU PF in the election as reflected in the ZESN data set and ZEC data set, the pattern obtaining from this analysis is that

Table 2: Hypothesis Testing @ 95% Confidence Interval (N = 115)

Province	Do not Reject Null Hypothesis		Reject Null Hypothesis		Total No. of Constituencies
	#	%	#	%	
Manicaland	5	17.8	10	11.5	15
Mashonaland Central	3	10.7	7	8.0	10
Mashonaland East	3	10.7	9	10.3	12
Mashonaland West	3	10.7	10	11.5	13
Masvingo	3	10.7	11	12.6	14

Matabeleland North	1	3.6	6	6.9	7
Matabeleland South	0	0	5	5.7	5
Midlands	4	14.3	10	11.5	14
Bulawayo	3	10.7	4	4.6	7
Harare	3	10.7	15	17.2	18
Total	28 (24.3%)	100.0	87 (75.7%)	100.0	115 (95.8% of 120) 100.0

From the analysis in Table 2, it is clear that 75.7% (87) of the 115 constituencies fall within the “**reject**” region of the z-score critical values at 95% confidence interval, while the remaining 24 percent (28) fall within the “**do not reject**” region. This is an indication that one of the data sets is inconsistent. It is expected that the variance should be constant since the voting population is drawn from a homogenous population, which is the voters’ roll, in this case. That there is significant variance is therefore an indication that the population is not homogenous.

A closer look at the constituent variations reveals that the majority of constituencies in which the null hypothesis is not rejected are in Manicaland province 5 or 17.8 percent, followed by Midlands 4 or 14.3 percent. There are no constituencies for which the null hypothesis is not rejected in Matabeleland South province. Only one constituency in Matabeleland North has a “**do not reject**” outcome. Harare province has the highest number of “**rejected**” cases of the null hypothesis (17.2 percent), followed by Masvingo province (12.6 percent), which in turn is closely followed by Manicaland, Mashonaland West and Midlands provinces (11.5 percent each).

Table 3: Hypothesis Testing @ 99% Confidence Interval (N= 114)

Province	Do not Reject Null Hypothesis		Reject Null Hypothesis		Total No. of Constituencies
	#	%	#	%	
Manicaland	4	12.1	11	13.4	15
Mashonaland Central	2	6.1	8	9.7	10
Mashonaland East	4	12.1	8	9.7	12
Mashonaland West	5	15.1	8	9.7	13
Masvingo	3	9.1	11	13.4	14
Matabeleland North	1	3.0	6	7.3	7
Matabeleland South	0	0	5	6.1	5
Midlands	4	12.1	10	12.2	14
Bulawayo	3	9.1	4	4.9	7
Harare	7	21.2	11	13.4	18
Total	33 (28.7%)	100.0	82 (71.3%)	100.0	115 (95.8% of 120) 100.0

Table 3 presents the summary results of the test of significance of the difference between proportions at 99% Confidence Interval. The distribution pattern observed is synonymous with that from the test of the difference at 95% Confidence Interval presented in Table 2. Seventy-one percent (82) of the 115 constituencies fall within the “**reject**” region of the critical values of the test of significance of difference of proportions, while the remaining 29 percent (33) fall within the region of “**no rejection**”.

The significance analysis indicates that the outcome holds at both the 95% and 99% confidence intervals that there is a significant difference in the proportions from ZESN results and ZEC results. This is not as expected since both are supposed to draw from the same homogenous population (that is the voters roll). Please refer to Appendixes for the Significance testing results at polling station, constituency and province levels for the detailed analysis.

Table 4 shows data on the number of observers not allowed to observe the election. There were a total of 163 observers turned away in all the 10 provinces. The highest number of observers turned away was in Masvingo province where 60 observers were turned away. The least number was in Bulawayo where one observer was turned away. The reasons for being turned away ranged from

“Observer told that he could not observe counting process”

“Observer instructed to observe polling process from outside the polling station”

“Presiding Officer not accepting the observers accreditation card”

“Told to stay 200m away from polling station by Presiding Officer”

Table 4: ZESN Accredited Observers Turned Away by Province and Constituency

Province	Constituency	Number of Observers
Manicaland	Chimanimani	5
	Chipinga North	1
	Chipinga South	8
	Buhera North	2
	Nyanga	1
	Mutare West	1
Sub – Total		18
Mashonaland East	Murehwa South	3
	Chikomba	2
	Murehwa North	4
	Goromonzi	1
	Seke	5
	Mudzi	1
	Marondera	19

	Mutoko North	5
	Marondera West	1
Sub-Total		41
Mashonaland Central	Mazowe East	1
	Shamva	3
	Mt Darwin South	3
	Mt Darwin North	1
	Rushinga	1
	Mazowe West	1
Sub-Total		10
Mashonaland West	Makonde	1
	Chegutu	2
	Hurungwe West	1
	Ngezi	1
	Sanyati	1
	Zvimba South	1
	Kadoma	1
	Chinhoyi	1
	Zvimba North	1
Sub- Total		10
Midlands	Kwekwe Central	1
	Mberengwa East	1
	Mberengwa South	1
	Silobela	1
	Gokwe Kana	2
	Gokwe Nembudziya	1
Sub-Total		7
Bulawayo	Makokoba	1
Matabeleland North	Hwange West	4
	Lupane	1
	Bubi-Umguza	1
	Hwange East	1
	Tsholotsho	1
Sub-Total		8
Masvingo	Chivi South	8
	Chivi North	5
	Gutu North	4
	Masvingo Central	18
	Masvingo South	1
	Bikita West	10
	Bikita East	1
	Chiredzi North	1
	Mwenezi	5
	Zaka East	4
	Zaka West	3
Sub-Total		60
Harare	Harare East	1
	Dzivaresekwa	1
	Kuwadzana	1
	Hatfield	3
	Mbare	1
	Glen View	1
Sub-Total		8
Grand Total		163

4. DISCUSSION OF FINDINGS

The major findings in this report using **ZESN data at polling station level only** in which the organisation had a high level number of observers show that the ZEC results which indicated that ZANU PF won, vary with the ZESN pattern in four

constituencies, Chipinge South, Buhera South, Makoni East and Gwanda. The other three constituencies Gweru Rural, Harare South and Zhombe also show some inconsistencies between ZEC results and ZESN data although ZESN had few observers in those places. In Bubi Umguza, the ZESN pattern shows that in most polling stations there was a close contest between ZANU PF and MDC except at some few polling stations where ZANU PF had high picks, which probably made ZANU PF win in these constituencies. ZESN data shows that these high picks were recorded at polling stations like Imbizo Primary School in Llewellyn Army Barracks and another at Khami Prison. In Insiza at one polling station, Mpalani Homestead there is also a sharp increase in ZANU PF votes. ZESN in its preliminary statement of the 2005 Parliamentary Election noted that some of these polling stations were located in non-neutral places.

Other constituencies of interest noted in ZESN data at polling station level are Chipinge North, Chimanimani, Kariba, Chegutu, Bikita East, Matobo, Hwange East, Gutu South, Masvingo Central and Mutasa South, Kwekwe where the results show a close contest between MDC and ZANU PF.

The study further used hypothesis testing method comparing ZEC constituency results as announced on national television and ZESN data at polling station level (*see annexure 2 on statistical validation*). Even though ZANU PF and MDC won with huge margins in some constituencies, the ZEC results and ZESN data show inconsistencies. The constituencies for which there are significant differences using hypothesis testing are as follows: one (1) no variance (0.9%), 53 (46.1%) very close, moderate 32 (27.8%), high 29 (25.2%) as presented in annexure 1. They are categorised into ‘no variance’ which means ZEC results and ZESN data are similar, ‘very close’ means the ZEC results and ZESN data are almost similar, ‘moderate variances’ meaning that there is no significant difference between the two sets of election data. Whilst the ‘high variances’ means there are significant differences between the two sets of data. The variances are defined as follows: greater than **zero percent** to **2 percent** variance is considered very close, **3 to 5 percent** is classified as moderate and **5 percent** and above is categorised as high variance. Statistically it is accepted the fact that any percentage difference between any two numbers of 5% or greater is of significant. Usually in most cases, the count observed by independent bodies tallies perfectly with announced results. However the Zimbabwe 2005 election

results prevents this due to the following reasons; the major one is the non-availability of data regarding postal votes, limited access and transparency in tabulation of results at constituency and national level. Furthermore official results were not posted at most polling stations for the public, as the law requires.

5. FURTHER ANALYSIS BY SIGNIFICANCE TESTING POLLING STATIONS PER CONSITUENCY

Further analysis of the polling stations per constituency has been done to determine which polling stations' data do not conform to the general pattern. This is determined by showing which polling stations have numbers of votes falling out of the estimated confidence limits. These limits have been estimated for each party and for the total number of votes. One thing to note though is that the nonconformity of urban polling stations can be due to high voter turn-outs. Of interest to note is that this feature occurs in some rural areas and particularly at polling stations noted by ZESN as non-neutral e.g. at Khami prison, Imbizo Primary at Llewellyn Barracks, Mpalani Homwestead in Insiza and Mahusekwa Police station. Large sample estimates of Confidence Intervals were used regardless of sample size. (Please refer to Annexure 2).

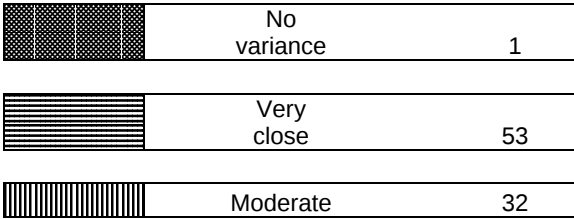
Annexure1: Variance Analysis: ZESN and ZEC Result

No.	PROVINCE	ZESN Result					ZEC Result					% DIFF	Variance Scaling
		MDC		ZANU PF		TOTAL	MDC		ZANU PF		TOTAL		
	Manicaland	#	%	#	%	#	#	%	#	%	#	%	
1	Buhera North	2355	41.3	3354	58.7	5709	11286	41.8	15714	58.2	27000	-0.5	
2	Buhera South	3091	56.6	2366	43.4	5457	13893	48.0	15066	52.0	28959	8.7	
3	Chimanimani	4295	48.5	4567	51.5	8862	11031	41.1	15817	58.9	26848	7.4	
4	Chpinge North	4778	42.4	6497	57.6	11275	10920	39.6	16647	60.4	27567	2.8	
5	Chpinge South	3233	56.7	2470	43.3	5703	12163	42.6	16412	57.4	28575	14.1	
6	Makoni East	5277	52.5	4779	47.5	10056	7708	45.6	9201	54.4	16909	6.9	
7	Makoni North	838	18.3	3734	81.7	4572	6775	26.4	18910	73.6	25685	-8.0	
8	Makoni West	1747	34.9	3263	65.1	5010	7954	35.5	14436	64.5	22390	-0.7	
9	Mutare Central	7893	72.8	2944	27.2	10837	13289	72.3	5088	27.7	18377	0.5	
10	Mutare North	8302	65.4	4384	34.6	12686	11597	62.1	7066	37.9	18663	3.3	
11	Mutare South	5922	42.6	7992	57.4	13914	8220	41.6	11552	58.4	19772	1.0	
12	Mutare West	1747	34.9	3263	65.1	5010	7055	34.8	13216	65.2	20271	0.1	
13	Mutasa North	3843	41.3	5465	58.7	9308	6605	39.5	10135	60.5	16740	1.8	
14	Mutasa South	5412	51.2	5167	48.8	10579	9380	49.1	9715	50.9	19095	2.0	
15	Nyanga	2427	46.1	2835	53.9	5262	9360	42.6	12602	57.4	21962	3.5	
	Mash Central												
16	Bindura	8864	31.9	18961	68.1	27825	8616	29.0	21079	71.0	29695	2.8	
17	Guruve North	853	17.9	3900	82.1	4753	2679	10.0	24163	90.0	26842	8.0	
18	Guruve South	1038	15.8	5543	84.2	6581	3375	16.7	16801	83.3	20176	-1.0	
19	Mazowe East	5599	29.8	13193	70.2	18792	7567	29.5	18041	70.5	25608	0.2	
20	Mazowe West	2737	32.8	5615	67.2	8352	5477	27.6	14396	72.4	19873	5.2	
21	Mt. Darwin North	1313	7.9	15282	92.1	16595	2205	7.1	28943	92.9	31148	0.8	
22	Mt. Darwin South	2484	8.5	26814	91.5	29298	2712	8.4	29549	91.6	32261	0.1	
23	Muzarabani	717	8.8	7398	91.2	8115	3118	11.3	24569	88.7	27687	-2.4	
24	Rushinga	2408	10.0	21710	90.0	24118	2298	9.3	22494	90.7	24792	0.7	
25	Shamva	3477	17.3	16602	82.7	20079	4848	14.2	29287	85.8	34135	3.1	
	Mash East												
26	Chikomba	4101	34.0	7974	66.0	12075	7403	29.2	17928	70.8	25331	4.7	
27	Goromonzi	3624	37.3	6090	62.7	9714	8578	33.8	16782	66.2	25360	3.5	

28	Hwedza	4057	31.1	8994	68.9	13051	8314	32.1	17608	67.9	25922	-1.0	
29	Marondera East	4835	36.8	8289	63.2	13124	10066	34.4	19192	65.6	29258	2.4	
30	Marondera West	4997	21.6	18129	78.4	23126	4457	21.8	16029	78.2	20486	-0.1	
31	Mudzi East												
32	Mudzi West	286	18.1	1293	81.9	1579	3636	16.4	18547	83.6	22183	1.7	
33	Murehwa North	2371	24.8	7190	75.2	9561	4137	19.0	17677	81.0	21814	5.8	
34	Murehwa South	1805	18.1	8160	81.9	9965	4586	33.3	9200	66.7	13786	15.2	
35	Mutoko North	1743	18.9	7482	81.1	9225	3782	18.9	16257	81.1	20039	0.0	
36	Mutoko South	2611	17.5	12295	82.5	14906	3358	14.8	19390	85.2	22748	2.8	
37	Seke	4278	38.5	6839	61.5	11117	8843	36.4	15434	63.6	24277	2.1	
38	UMP	776	8.0	8938	92.0	9714	3289	9.5	31351	90.5	34640	-1.5	
	Mash West												
39	Chegutu	5893	37.9	9666	62.1	15559	8286	33.4	16547	66.6	24833	4.5	
40	Chinhoyi	4207	39.1	6552	60.9	10759	5773	37.9	9462	62.1	15235	1.2	
41	Hurungwe East	3199	26.2	8990	73.8	12189	6090	23.6	19670	76.4	25760	2.6	
42	Hurungwe West	3314	31.7	7137	68.3	10451	7663	30.7	17295	69.3	24958	1.0	
43	Kadoma	9144	54.0	7789	46.0	16933	10023	53.4	8740	46.6	18763	0.6	
44	Kariba	8022	41.8	11171	58.2	19193	9540	41.0	13719	59.0	23259	0.8	
45	Makonde	1670	15.4	9162	84.6	10832	3643	16.4	18607	83.6	22250	-1.0	
46	Manyame	6659	38.3	10744	61.7	17403	8312	35.0	15448	65.0	23760	3.3	
47	Mhondoro	2642	25.1	7892	74.9	10534	4015	22.3	13966	77.7	17981	2.8	
48	Ngezi	1596	8.2	17910	91.8	19506	2404	12.5	16801	87.5	19205	-4.3	
49	Sanyati	3483	28.5	8739	71.5	12222	4919	23.0	16512	77.0	21431	5.5	
50	Zvimba North	2354	27.8	6127	72.2	8481	4834	16.7	24071	83.3	28905	11.0	
51	Zvimba South	1140	10.3	9875	89.7	11015	2439	12.1	17797	87.9	20236	-1.7	
	Masvingo												
52	Bikita East	5791	49.4	5938	50.6	11729	7403	29.2	17928	70.8	25331	20.1	
53	Bikita West	2575	35.9	4605	64.1	7180	7936	38.6	12628	61.4	20564	-2.7	
54	Chiredzi North	2732	28.1	7007	71.9	9739	6671	27.7	17385	72.3	24056	0.3	
55	Chiredzi South	2832	36.7	4891	63.3	7723	6170	30.3	14165	69.7	20335	6.3	
56	Chivi North	952	21.3	3527	78.7	4479	4304	22.3	14990	77.7	19294	-1.1	
57	Chivi South	1315	30.4	3010	69.6	4325	4684	26.9	12749	73.1	17433	3.5	
58	Gutu North	6002	22.6	20577	77.4	26579	6054	20.6	23386	79.4	29440	2.0	
59	Gutu South	2364	42.7	3168	57.3	5532	12778	45.8	15116	54.2	27894	-3.1	
60	Masvingo Central	2524	57.5	1865	42.5	4389	10298	50.5	10103	49.5	20401	7.0	
61	Masvingo North	931	21.7	3363	78.3	4294	6594	33.6	13015	66.4	19609	11.9	
62	Masvingo South	1693	29.5	4053	70.5	5746	3377	15.4	18498	84.6	21875	14.0	
63	Mwenezi	159	7.7	1895	92.3	2054	3549	12.2	25453	87.8	29002	-4.5	
64	Zaka East	5373	39.2	8326	60.8	13699	8462	39.3	13078	60.7	21540	-0.1	
65	Zaka West	5388	43.2	7090	56.8	12478	9126	40.7	13278	59.3	22404	2.4	
	Mat North												
66	Binga	9214	63.8	5232	36.2	14446	21906	75.1	7264	24.9	29170	11.3	
67	Bubi-Unguza	5313	45.0	6492	55.0	11805	9502	38.5	15158	61.5	24660	6.5	
68	Hwange East	4430	58.3	3165	41.7	7595	9488	53.6	8202	46.4	17690	4.7	
69	Hwange West	7453	70.7	3092	29.3	10545	10415	68.0	4899	32.0	15314	2.7	
70	Lupane	6319	61.3	3988	38.7	10307	11749	53.3	10301	46.7	22050	8.0	
71	Nkayi	7870	73.9	2773	26.1	10643	16350	69.3	7254	30.7	23604	4.7	
72	Tsholotsho*	3585	61.9	2205	38.1	5790	6310	52.8	5646	47.2	11956	9.1	
	Mat South												
73	Beitbridge	3399	32.0	7214	68.0	10613	6297	30.6	14305	69.4	20602	1.5	
74	Bulilima												
75	Gwanda	6511	51.8	6070	48.2	12581	10951	45.5	13109	54.5	24060	6.2	
76	Insiza	6952	48.7	7330	51.3	14282	8840	41.4	12537	58.6	21377	7.3	
77	Mangwe												
78	Matobo	6430	50.2	6383	49.8	12813	10074	51.3	9572	48.7	19646	-1.1	

79	Umzingwane	6041	66.6	3023	33.4	9064	13198	60.0	8784	40.0	21982	6.6	
	Midlands												
80	Chirumanzu	2515	28.0	6462	72.0	8977	4971	27.1	13373	72.9	18344	0.9	
81	Gokwe	1634	42.0	2253	58.0	3887	8987	38.9	14113	61.1	23100	3.1	
82	Gokwe Chireya	2760	37.2	4654	62.8	7414	8951	33.1	18111	66.9	27062	4.2	
83	Gokwe Kana	1050	27.3	2791	72.7	3841	6306	27.6	16568	72.4	22874	-0.2	
84	Gokwe Nembudzi	1848	20.4	7192	79.6	9040	7104	23.1	23664	76.9	30768	-2.6	
85	Gokwe Sengwa	1566	36.6	2707	63.4	4273	9048	33.5	17922	66.5	26970	3.1	
86	Gweru Rural	1554	51.0	1491	49.0	3045	8230	42.3	11226	57.7	19456	8.7	
87	Gweru Urban	3837	60.9	2464	39.1	6301	8011	54.9	6589	45.1	14600	6.0	
88	Kwekwe	6553	54.7	5420	45.3	11973	12989	53.9	11124	46.1	24113	0.9	
89	Mberengwa East	1225	18.6	5369	81.4	6594	2297	11.4	17915	88.6	20212	7.2	
90	Mberengwa West												
91	Mkoba	8135	64.3	4519	35.7	12654	10191	64.5	5608	35.5	15799	-0.2	
92	Shurugwi	2951	29.9	6911	70.1	9862	5113	24.0	16212	76.0	21325	5.9	
93	Silobela	8820	60.5	5759	39.5	14579	12293	53.3	10768	46.7	23061	7.2	
94	Zhombe	654	54.0	558	46.0	1212	8569	36.7	14750	63.3	23319	17.2	
95	Zhishavane												
	Bulawayo												
96	Bulawayo East	6597	83.1	1343	16.9	7940	10804	81.2	2506	18.8	13310	1.9	
97	Bulawayo South	6634	76.2	2077	23.8	8711	12120	76.2	3777	23.8	15897	-0.1	
98	Lobengula - Magw	5943	82.3	1277	17.7	7220	12603	81.3	2892	18.7	15495	1.0	
99	Makokoba	7277	82.1	1585	17.9	8862	12138	77.9	3438	22.1	15576	4.2	
100	Nkulumane	7268	81.5	1655	18.5	8923	12392	79.3	3243	20.7	15635	2.2	
101	Pelandaba-Mpo	3789	78.3	1052	21.7	4841	11587	78.2	3228	21.8	14815	0.1	
102	Pumula-Luveve	6532	82.4	1397	17.6	7929	13810	79.7	3527	20.3	17337	2.7	
	Harare												
103	Budiriro	5061	77.7	1450	22.3	6511	17753	78.4	4886	21.6	22639	-0.7	
104	Chitungwiza	6466	64.0	3632	36.0	10098	12024	59.7	8126	40.3	20150	4.4	
105	Dzivaresekwa	8756	72.0	3409	28.0	12165	11617	69.9	5014	30.1	16631	2.1	
106	Glen Norah	5116	76.4	1580	23.6	6696	14841	76.2	4648	23.8	19489	0.3	
107	Glen View	9794	77.5	2840	22.5	12634	14231	78.1	3993	21.9	18224	-0.6	
108	Harare Central	8031	74.9	2687	25.1	10718	10462	70.3	4423	29.7	14885	4.6	
109	Harare East	3578	73.6	1281	26.4	4859	9259	68.0	4363	32.0	13622	5.7	
110	Harare North	7908	70.4	3328	29.6	11236	11262	68.7	5134	31.3	16396	1.7	
111	Harare South	3498	56.5	2692	43.5	6190	10716	48.1	11545	51.9	22261	8.4	
112	Hatfield	4642	68.4	2144	31.6	6786	11652	55.3	9408	44.7	21060	13.1	
113	Highfield	4550	73.0	1680	27.0	6230	12600	74.6	4296	25.4	16896	-1.5	
114	Kambuzuma	7332	78.3	2030	21.7	9362	17394	75.8	5555	24.2	22949	2.5	
115	Kuwadzana	5726	74.9	1923	25.1	7649	13870	73.4	5024	26.6	18894	1.4	
116	Mbare	5295	69.7	2299	30.3	7594	15543	62.1	9480	37.9	25023	7.6	
117	Mufakose	3674	77.7	1056	22.3	4730	12643	75.9	4016	24.1	16659	1.8	
118	St Marys	1673	62.3	1012	37.7	2685	13369	64.1	7498	35.9	20867	-1.8	
119	Tafara - Mabvuku	7689	66.7	3843	33.3	11532	13473	68.9	6078	31.1	19551	-2.2	
120	Zengeza	6034	59.4	4125	40.6	10159	12129	58.2	8718	41.8	20847	1.2	

Variance
Scale
Guide:



	High	29
Total		115