Regional Favouritism and Economic Development: Evidence from cabinet minister origins and 72 Municipalities in Zambia

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Disclaimer:

This document represents part of the author's study programme while at the International Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

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List of Acronyms

TNDP	Transition National Development Plan
FNDP	Fifth National Development Plan
SNDP	Sixth National Development Plan
LCMS	Living Conditions Monitoring Surveys
NAZ	National Assembly of Zambia
CSO	Central Statistical Office
MLGRD	Ministry of Local Government and Rural Development
NRFA	National Road Fund Agency
RDA	Road Development Agency
HIPC	High Indebted Poor Countries
GRZ	Government Republic of Zambia
UNDP	United Nations Development Programme

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"Blessed is man who trust in the LORD, whose confidence is in him".

Abstract

The paper examines regional favouritism as proxied by cabinet minister origins and local economic development in 72 municipalities of Zambia using panel data aggregated from four household surveys (2002,2006,2010 & 2015 Living Conditions Monitoring Surveys). Using fixed effect models, I find no evidence of regional favouritism by cabinet ministers as proxied by differential household expenditure trends across 72 municipalities of Zambia. I further go beyond cabinet ministers as a proxy of political connections to the central government by also looking at ruling party alignment. Again, I find no evidence of regional favouritism by Ruling Party. I discuss limitations and my findings within the literature on distributive politics as well as the context of Zambia.

Relevance to Development Studies

Economic Development and Poverty alleviation relate to the 17 Goals of the United Nations agenda for Sustainable Development set to be achieved by 2030. Understanding the relationship between regional favouritism and its potential towards economic development, is crucial for promoting equitable distribution of national resources to accelerate inclusiveness and sustainable development goal of ending extremely poverty by the year 2030.This paper contributes to literature on regional favouritism by providing empirical evidence on cabinet ministers' origin municipalities and household expenditures over time as a proxy variable for economic development.

Keywords

Regional Favouritism, Cabinet ministers, Local Economic Development, 72 Municipalities, Zambia

Chapter 1
Introduction

Regional favouritism refers to political partiality towards a region—more especially, the constituency or place of birth of an elected official (Vu & Yamanda,2021,p.713). Hodler and Raschky (2014,p.999) revealed that nations with weak political institutions and undereducated citizens have the highest rates of regional favouritism. Ahlerup & Isaksson (2015,p.143) observed the widely held notion that particularized loyalties have a significant impact on African politics and that African policymakers favor their own countries and ethnic groups when allocating public funding. According to Bandyopadhyay and Green (2019) when distributing personal goods (like cabinet positions), co-ethnic groups can be directly targeted; however, when distributing fixed public goods (like hospitals, schools, and roads), the president's home region is more likely to be the recipient.

For instance, Ahlerup & Isaksson (2015,p.143) observed cases of regional favouritism in Africa; *"the Ivorian president Félix Houphouët-Boigny made his birthplace Yamoussoukro the national capital… president Mobutu turned his small Zairean home village of Gbadolite into a luxurious city often nicknamed 'Versailles of the jungle"*. President Michael Sata of Zambia had two pet projects: Link Zambia 8000 and Pave Zambia 2000. His goals were to build 8000 kilometres of new roads and 2000 km of urban road rehabilitation, respectively. However, there was evidence that Sata used these projects for personal benefit. For example, in November 2011 alone, an associate of the road contractor China Jiangxi paid over $33,000 in deposits into Sata's personal bank account; as a result, China Jiangxi was given contracts by the government to build roads in Muchinga, Sata's home province(Mwenya,2014, as cited in Bandyopadhyay & Green,2019,p.9).

Vu & Yamanda(2021) noted that the motivations for political authorities' preference for certain regions over others, such as securing a political stronghold in a leader's preferred regions, family backing, clan loyalty, and ethnic support.While De Luca *et al*.,(2018,p.126) also noted that ethnic parties may encourage ethnic favouritism and that one major reason for it are electoral considerations. Posner (2005, p. 97) noted that the *"lesson that the president will favour his own ethnic group has become, for many Zambians, an axiom of politics."* Indeed Zambia is not an exception when it comes to ethnic political parties and politics, however, the focus of this paper is to document political favouritism related to election area(constituents for cabinet ministers) as proxied political connections to the president.

On the other side Malizia et al., (2020,p.16) defined Economic Development as *"a process, program, group of policies, or activity that seeks to improve the economic well-being and quality of life for a community by creating and /or retaining jobs that facilitate growth and provide a stable tax base"*. Ban, 2016,p.1) observed that the Millennium Development Goals (MDGs) served as a crucial foundation for development between 2000 and 2015 and were successful in a number of areas, including the reduction of poverty and the enhancement of health and education in poor nations. Economic Development and Poverty alleviation relate to the 17 Goals of the United Nations agenda for Sustainable Development set to be achieved by 2030. "*More than 190 countries had committed to achieving these goals, to end extreme poverty, fight inequality & injustice, protect the planet, fix climate change, and ensure prosperity for all as part of a new sustainable development agenda"* (Ban, 2016,p.1). Just like other nations had committed in achieving the 17 Goals, the Zambian Government was not exception, some goals may have been attained while other goals remains a challenge.

During the period under review, the office of the independent evaluation of the United Nations Development Programme(UNDP) conducted an independent country programme evaluation in Zambia that covered UNDP work specifically from 2002-2010. United Nations Development Programme Report (2010,p.10) noted that "*abject poverty remains the greatest challenge to development in Zambia"*. Zambia's development challenge was additionally fueled by 7.1 billion USD external debt meant that repaying the debt severely limited the Government Republic of Zambia's capacity to fund its development, and for a considerable amount of time, foreign direct investment was low, in part because of the high levels of corruption in the investment environment and investors' anxieties about having their assets nationalized (United Nations Development Programme Report ,2010,p.10).

In Zambia, local authority governments are the vehicle in which the Five Years National Development Plan is implemented and actualized by the Central Government, but minimal financial resources is allocated to support the delegated responsibilities. The Five Years National Development plan is a strategy in which the central government outline it's national development strategy to achieve the 17 Sustainable development Goals. The United Nations Development Programme (2010,p.9) revealed one challenge, which is that the greatest impact on people's lives is handled by the central government, while local governments are only given a small amount of funding. The Government of the Republic of Zambia (GRZ) sometimes redistributes budgeted cash to other projects that might be more susceptible to unforeseen political developments.

Why regional favouritism is a concern in the strand of literature ? Regional policy bias towards public resources allocation may potentially cause regional disparities in local economic development and poverty levels across the nation, and ultimately leads to rural -urban migration.

The concept of regional favouritism is closely linked to political corruption which is very difficult to eradicate because it gives governing authorities wealth and power, incentives for controlling the state, keeps the regime together and afloat, whereas bureaucratic corruption can be eradicated if the pollical governing authorities so desire(Amundsen,2019,p.1). The result is that those in positions of political power end up enriching themselves, their family and relatives, friends, political allies, and their ruling parties and governments.

I use appointments of Cabinet ministers because they represent national government and provide more sources of variation rather than just focusing on presidents. A cabinet is an executive organ of the government responsible for policy formulation and implementation. The cabinet members include Ministers, and Deputy ministers. The constitution of Zambia empowers the cabinet as key custodian of executive authority of the government (ACT No.2 of 2016 ,CAP:114).Cabinet ministers are responsible for developing their ministerial budget and managing financial resources allocated to their ministries, align government's national development plan of five years to meet the objectives and goals set by addressing various social, economic and developmental challenges facing the country. They oversee a wide range of government policies and monitor progress being made, ensure that government resources are used efficiently and effectively to meet government's objectives enshrined in the ***Five Years National Development Plan.*** These policies have effect on living economic conditions at subnational regions and national level.

Why economic development? I focus on economic development because it is the key goal target set at global level to end extreme poverty and improve the standard of living by 2030. The units of observations in analysis is a regional municipality and I follow Hodler and Raschky (2014) used nighttime light intensity as a proxy variable to measure economic development or economic activity in their cross country sample covered 38,437 subnational regions from 126 countries and annual observation from 1992 to 2009. I leave satellite data

on nighttime light intensity for future work and instead, I use logarithm of mean per capita expenditure from household expenditure data collapsed at municipality level as a proxy variable to measure local economic development across 72 municipalities of Zambia for the period 2002-2015.

I rely on distributive politics theory in studying the relationship between the appointments of cabinet ministers from their origins municipalities and economic development. My empirical strategy is to compare two groups of municipalities , one with a cabinet minister and without a cabinet minister. The Hausman test confirmed that the appropriate model for reliable estimates was from Fixed Effect model.

I find that being a cabinet minister's origins municipality is positively associated with the logarithm of mean per capita expenditure, but not significantly after controlling municipality fixed effect to account for time-invariant regional characteristics, Year dummy variable to control for municipality wide changes over time and control for changes in population size over time. I interpret the positive association between minister's origins municipality and logarithm of mean per capita expenditure as absence of evidence of regional favouritism by cabinet minister towards economic development. I find no evidence that ministers favour their origins municipality.

The relevance of this paper is to contribute to literature on regional favouritism towards political stronghold or election area. The paper contribute to literature studying the relation between regional favouritism and economic development proxied as household expenditure by having looked systematically at cabinet minister's origins municipality in the context of within country study. To be more specific, the paper contribute to understanding the important of relation between political governance and economic development as a pillar of achieving sustainable development. The paper seeks to understand whether cabinet ministers favour their origins municipality. Bias in policy toward certain regions may create disparities in development pattern and exacerbate poverty levels within Zambia. Understanding the relationship between regional favouritism and its potential relation towards economic development, is crucial for promoting equitable distribution of national resources to accelerate inclusiveness and sustainable development goal of ending extremely poverty by the year 2030.The paper seek to complement the literature studying regional favouritism by earlier studies closely related to Hodler, & Raschky (2014) and De Luca et al.,(2018).

1.1 Research Questions and Objectives

The main goal of this paper is to examine whether cabinet ministers favour their origins municipalities in terms of economic development proxied as household expenditure representative at municipality level. Furthermore, to examine whether there is a relation between belonging to a ruling party and development. The learning outcome from this paper is to show that such a relation between cabinet minister's origins municipality and regional local economic conditions has potential mechanism to further widen regional disparities towards economic development in the long run, and consequently leads to; inequality in the level of local economic development, infrastructure development and ultimately rural-urban migration. The paper aims to achieve the following objectives.

- To provide empirical evidence of regional favouritism by systematically looking at changes in political appointments of cabinet minister and household expenditures
- To provide empirical evidence of regional favouritism of belonging to Ruling Party
- To contribute to literature on relation between regional favouritism and household expenditures proxied as economic development over time in the context of Zambia.

To achieve the stated objectives and research questions, the paper will begin to examine the relation between cabinet minister's origins municipality and local household expenditures ,then further proceed to examine with Ruling Party alignment and household expenditures. As of my best knowledge as of 2023, no study has examined the relationship between regional favouritism of political appointments of Cabinet minister and regional local household expenditure in the context of Zambia.

1.2 Hypothesis

In this paper, I hypothesize that cabinet minister's origins municipalities are more likely to have higher or better economic development as proxied by household expenditure trajectories than municipalities in the control group. The mechanism is that cabinet ministers will favour their regions by pushing for example developmental projects toward their origin's municipalities. Being in a cabinet, they have executive power and are more likely to influence the allocation of public infrastructures development towards their constituencies (election area) and ultimately impact on economic development in their origin's municipalities. Cabinet ministers have a direct link to the Republic President who has more executive powers to influence government policies. I also hypothesize that municipalities belonging or aligned to a Ruling party are more likely to be politically favoured in term of better economic development than municipalities belonging to the opposition. These hypothesis are consistent with the literature and theoretical framework on distributive politics. Hodler & Raschky (2014,p.997) tested the hypothesis that "*..whether subnational administrative regions have more intense nighttime light when they are the birth region of the current political leader".* De Luca *et al.*(2018,p.116)) tested the hypothesis that " *being the political leaders' ethnic homelands is positively associated with nighttime light intensity*". The above mentioned studies employed the theory of distributive politics in studying this phenomenon, I follow the same approach in studying this relation.

1.3 Limitation and Scope

The study is limited to 72 municipalities, with total number of 98 cabinet ministers; 35 cabinet ministers served for the period from (2002-2006), 29 for (2006-2011),and 34 for (2011-2016) respectively. Currently, Zambia has 116 municipalities, however, I tracked municipalities that were available from 2002 to 2015 in the LCMS and some municipalities were newly created, thus were left from the coverage. Data on municipalities that were included in this study has been attached in the appendices.

The study has limitations in analysing this relations because it relies on household expenditure level data collapsed at municipality proxied to capture level of economic development, which it may not equally capture all other relevant indicators. Satellite data on night-time light would have been the most reliable data. De Luca *et al.,*(2018,p.119) cautioned about the use of quality data which could be manipulated by an opportunist politician and recommended satellite data on night time light as the most reliable in analyzing this relation.Posner & Simon (2002,p.314) also noted a similar attitude "*Aggregate figures almost certainly mask a great deal of subnational variation in living conditions. For example, high rates of wealth accumulation among a small segment of the population might raise the average per capita gross domestic product (GDP) even as the majority of citizens in the country suffer declining living standards".* Lack of availability of disaggregated data on government expenditures, developmental infrastructures at municipality limit the analysis to delve in depth, as such data would also have enabled a more rigorous casual relation on re-distributive resources allocation, rather than proxied relation analysis.

Some critical information may not be directly observed but play positive role in assessing the relation between having cabinet minister and regional local economic development received in form of public infrastructures developmental projects in these municipalities, such as the relative of important of the city. For instance, city municipalities are more likely to receive more public resources allocation because of the demand driven projects from both government and stakeholders while those in other municipalities have less chances. City municipality have a large number of representatives in the parliament or ministers than rural municipalities this might also increases their chances to push for developmental projects. Furthermore, city municipalities are attractive to investors because of existing infrastructure development. There are other factors that could influence this relation, Sindzingre (2008,p.5*)" local institutions were considered to play a key role in the process of development".* Additional problems that could impede regional local economic development include ineffective markets, poor coordination, natural disasters, and weak cross-sector ties(Sindzingre, 2008,p.7)).Overall, lack of instrumental variable to address the potential endogeneity in my empirical strategy limit the ability to present unbiased estimates of the findings.

1.4 Research Ethics

The research rely on secondary data already available for public domain and can be traced with available sources and the research look at cabinet ministers as per group not as per individual, does not pose any risk at all. I traced members of cabinet ministers without specifically stating their names for ethical standard. In this research what matters was where they were elected, period served in office and the portfolio they held in the cabinet for the period of analysis.

The remaining of the paper is organized in as follow; Chapter two include Research Background, Chapter Three Theoretical framework and empirical evidence, Chapter Four include empirical strategy , Chapter Five present results, Chapter Six discussion and Chapter seven conclusion.

Chapter 2 Research Background

Background

Zambia's regional disparities in local economic development is not a new phenomenon but an old issues inherited back in colonial era period, British colonizer had established mining activities and administrative structures along the railway line with interest to exploit Zambia's natural resources. Scotto (2018,p.82) With the majority of population, businesses, and services centred along the Rhodesia Railway, independent Zambia inherited the territorial imbalance brought about by the railway as well as the boundaries between Crown land and native reserves. Copperbelt province was the most preferably regional, while Lusaka was convenient for administrative purpose and other Towns like Livingstone and Kabwe, while the rest of other regions were not equally developed.

Zambia's political landscape has undergone several changes after the grant of independence from the British Colonizer in 1964.The post-colonial era period was characterized by change of political system from multi-party system (1964-1973) to One party system (1973-1991) and returned to multi-party system in 1991. In the early year of independence, President Kaunda united the Country by the slogan of 'One Zambia One Nation' and the other songs was most rehearsed and popular among Zambian was 'Tuyende Pamozi Namutima umozi' which '*means let's us move together by one heart'*. Larmer(2016,p.16) Tribal balancing, a political tactic adopted by President Kenneth Kaunda, reduced the risk of interethnic conflict and, over time, promoted ethnically based representation in national politics, which shaped how state resources were distributed to individual provinces and districts (municipalities).

According to Zambia Chapter One (1992,p.1) there are 73 officially recognised ethnolinguistic groups in Zambia. The Bemba, Kaonde, Lozi, Lunda, Luvale, Mambwe, Ngoni, Nyanja, Tonga, and Tumbuka are the ten largest and most influential ethnic groups.. Posner (2005,p.30) documents that inter-party rivalry was banned in Zambia, as it was everywhere, mostly due to the fact that it led to interethnic conflict.

With the above outlined brief history, Zambia's regional disparities in local economic development was characterized by two period phases, one where the British Colonizers were only interested in developing regions with rich in natural resources while undeveloped municipalities without natural resources. During colonial period, Scotto (2018,p.72) the Copperbelt's mining business prospered because of the railroad's efficiency and the steady rise in copper prices, and the line eventually became the colony's main source of revenue. While the scant population relied on subsistence farming in the more remote provinces, the majority of urban communities, industry, and economic activity grew in a constrained area along the rail line.

The second phase period was the post-colonial period where political power rivalry among ethnic groups dominated, a period where local regional development was aligned to political ethnic and Ruling party alignment.

Amidst of these political changes, Zambia experienced seven changes of National leaders; from 1964-1991 under the leadership of Kenneth Kaunda, from 1991-2002 under the leadership of Frederick Chiluba, from 2002-2008 under the leadership of Levy Mwanawasa, from 2008-2011 under the leadership of Rupiah Banda, from 2011-2014 under the leadership of Micheal Sata, from 2015-2021 under the leadership of Edgar Lungu and the current incumbent, Hakainde Hichilema from 2021 to present.

Chapter 3
Theoretical Framework and Empirical Evidence

3.1 Introduction

Regional favouritism has been widely studied in the current global context on international development studies and most especially in the field of Political Science and development economics. Regional favouritism manifest itself by unequal distribution of resources; goods and services which result into other geographical regions of being favoured within a country.

Current literature review, seems to suggest that there are three types of favouritism; ethnic favouritism, birthplace favouritism/political favouritism and rent-seeking behaviour.This literature review seeks to explore the relationship between regional favouritism and economic development to provide a comprehensive overview of the existing studies. Understanding the relationship between regional favouritism and economic development is important for the following reasons; First, Bias in policy toward certain regions may create disparities in development pattern and exacerbate poverty levels/ income inequalities within a country. Second, Economic development is the desired outcome goal of the 17 goals of the United Nations to achieve inclusive and sustainable development, which requires equitable distribution of resources leaving no one behind. Third, understanding this relation is crucial to governing political authorities seeking to promote unity, credible public institutions and transparency in governance of their Country.

3.2 Theoretical Framework

The theoretical framework for analyzing the relationship between regional favouritism by cabinet ministers and economic development is based on re- distributive politics theory. The phenomena is often practiced by political actors when dealing with income re-distribution and resources allocation mostly public goods and services to advance their personal interests. Political authorities may prefer to choose policies that benefit their birthplace or their constituents for stronghold support. The governing political authorities in exercising their executive powers, they allocate resources based on political considerations. Political concerns dominate the distribution of resources, accounting for the interaction of several elements like race, ethnicity, electoral support, familial relationships, personal connections, religion, and geographic affinities (Wang & Lu, 2022).

In political arena , this phenomena is common as political authorities usually favours their birth place. De Luca et al.,(2018,p.116) noted that regional favouritism particularly ethnic favouritism by governing political authorities does not lead to sustainable economic development but only lead to temporal development. Hodler & Raschky (2014) also noted that more education and improved political institutions both lessen regional favouritism and argued that the degree of regional favouritism is contingent upon various circumstances, including the robustness of democratic institutions, the accessibility of foreign aid and natural resource rents, and the degree of corruption.

The theoretical frameworks rely on the assumption that political leaders may engage in regional favouritism, utilizing their political power to influence the allocation of resources to their birthplace or electoral stronghold areas or co-ethnic group.

3.3 Empirical Evidence of Regional Favouritism

There are several studies on distributive politics that have examined the relation on regional favouritism toward various economic outcomes. These studies are categorized in two aspects ; one aspect is within country context and cross country studies (global context).

3.3.1 Country Context Studies (Within Country)

Lu & Wang(2020) explains the theoretical impact of birthplace-based regional favouritism on the growth of construction land. Created an econometric model that represents the association between regional favouritism and construction land expansion using a dataset at the province level and comprehensive information about political cadres in the Ministry of Land and Resources in China. The findings revealed that, when all else is equal, political cadres' birthplaces see higher levels of land expansion for construction than other localities.

Vu & Yamada (2021) analyzed how firm-minded people responded to high-ranking politicians' favouritism of their birth areas, Utilized an uneven panel of 539 Vietnamese districts from 2000 to 2010 along with the political features of the respective districts. Their findings indicate that after politicians take office, the number of businesses tends to rise in their home districts. Their study also is connected to my study in a similar approach on the use of political leader's birthplace while this study use election areas(constituent).

Wang & Lu(2022) investigated the effects of regional favouritism on public investment in the development of educational resources in the context of China using data for 282 Chinese cities between 1996 and 2016 that had endogeneity treated using the Lewbel two-stage least squares estimator. Their results demonstrate that provincial political leaders in China are in favour of expanding educational opportunities in their home regions, with this influence being more pronounced within provinces and higher-class, affluent cities. Their study was related to birthplace favouritism while this study looks at favouritism towards election area(constituency), employ a similar approach on use of information on political leaders.

3.3.2 Cross Country Studies (Global Context)

The study by Hodler & Raschky (2014) examined the prevalence of regional favouritism in a diverse range of countries and factors which contribute to its occurrences. The study used a panel data set covered 38,423 sub-national regions in 126 countries and annual observations from 1992 to 2009.Their study utilized satellite data on nighttime light intensity as a proxy variable for economic activity and also collected information on birthplace of political leaders, and examined whether a subnational regions of political leader have higher levels of nighttime light. The findings revealed evidence that the proxy dependent variable used for night time light was more intense in sub-national regions of a current leaders' birthplace. Their study relate to this paper in similar approach on collecting information on political leaders' on election area(constituents) and studying economic development proxied as household expenditure at municipality level , while in their study use economic activity measured as proxy variable nighttime light intensity captured by satellite.

De Luca et al.,(2018) examined ethnic favouritism in a worldwide sample and used the intensity of evening light to capture a wide range of preferential policies aimed at the ethnic homelands of political leaders. Created two panel data sets that include annual observations from 1992 to 2013 and several thousand ethnographic regions from about 140 multiethnic countries. The study also used satellite data on nighttime light intensity as proxy variable for economic development and collected information on political leaders' ethnicities matching their ethnic categories to two type of data; ethnologue data and Geo -Referencing of Ethnic

Group(GREG) data and examined whether political leader favour their co- ethnic before and after election. Their study had several research questions that seek to answer to main research question of examining the prevalence and determinants of ethnic favouritism in political leadership across the global. The study found a strong evidence of ethnic favouritism: in the ethnic homelands of the political leaders, nighttime illumination increases by 7% to 10%. My study relate to their study by applying a similar approach of collecting information on political leaders(cabinet ministers) and studying economic development proxied as household expenditure at municipality while them use nighttime light intensity.

Bandyopadhyay & Green(2019) examined the connection between Sub-Saharan Africa's regional favouritism and road quality,used information on paved roads and regional, round, and country/round fixed effects from rounds 3 through 6 of the Afrobarometer, data from up to twelve nations. They found a negative impact towards co-regional president implying that their homelands had poor quality roads. Their study relate to this study in the context of political authority aspect, their study looked at presidents at cross country focusing on regional road quality while this paper look at political cabinet minister's origins municipality within country context and focusing economic development proxied as household expenditure at municipality.

Bandyopadhyay & Green (2023) used numerous data sources from over two dozen Sub-Saharan African nations to evaluate the effects of having a co-ethnic president on various outcomes. Created country-district-year panel datasets with full details on the percentage of residents who share the President's ethnicity using more than 200 country surveys from the Demographic and Health Survey (DHS) and Afrobarometer databases from the late 1980s to the present, along with geo-coded data on paved roads going back to 1960. The study found no evidence that having a co-ethnic president has a favourable impact on any objective outcome of interest; in fact, they discover evidence that it has a negative impact on a number of outcome.

Osei-Tutu & Weill(2023) aanalyzed how regional favouritism affects businesses' ability to obtain finance. Utilising firm-level data from a sizable sample of 29,000 businesses spanning 47 nations, they looked into the theory that businesses in the birth regions of political leaders in national economies have easier access to finance.The study used World Bank Enterprise survey data and birthplaces of pollical leaders. Their study found evidence that businesses (firms) in political leaders' birth regions are less likely to face financial constraints. Their study relate to this paper by applying a similar approach of collecting information on political leaders.

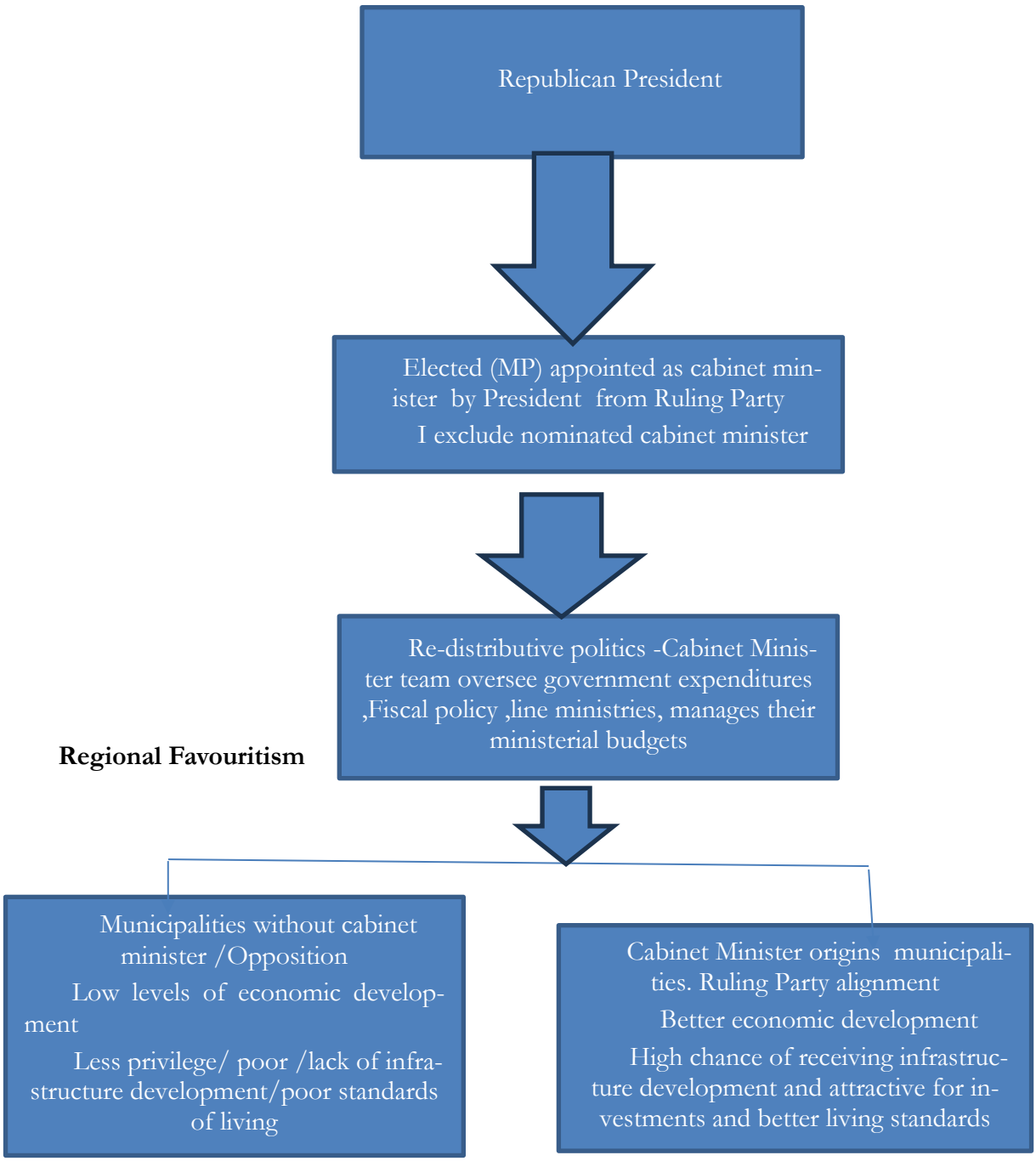
An overview of the existing studies in the literature suggest that there is a positive association between political leader's homelands and economic outcomes and contrary to this assertion studies by Bandyopadhyay & Green(2019:2023) found a negative effect.

3.2 Conceptual Framework

To understand the conceptual framework linking cabinet minister to local economic development , I propose looking at process of appointing cabinet ministers and the resources distribution which manifest in forms of infrastructure development. Figure 1 summarize the process from President appointing cabinet minister and origin municipality' regional development.

I propose looking at process of appointing cabinet ministers and the resources distribution which manifest in forms of infrastructure development. Figure 1 summarize the process from President appointing cabinet minister and origin municipality' regional development.

Figure 1 Political favouritism chart flow



Economic development as an outcome

The flow chart above illustrate the relation between cabinet minister and origins municipalities(place of election -constituent within a municipality).Cabinet ministers have political connections to the president who influences government's policies. Posner(2005,p.59) revealed that a Zambian politician can use language to define himself in the context of a conflict over the allocation of funds for national development, cabinet positions, civil service jobs, or parastatal posts, for example, in order to indicate the size and political significance of the coalition whose backing he can claim to represent.

I explore why would political governing engage in regional favouritism when actually it might politically disadvantage them at national level in term of political support? There two obvious reasons as to why would Zambian politician engage into political favouritism ;

First, there is a claim among politicians that politics in Zambia is based on tribal voting and coalition building (teaming up within dominant ethnic groups to secure political power).For instance, losing politicians always complain about not being voted in other regions even when they campaign so much and others even went on social media complaining about ethnic politics in Zambia while some incite it on public. Posner(2005,p.113) observed a political strategy which political parties use denouncing tribalism while in public but behind the scene incite it.

Posner(2005,p.113)document a *"correlation between the share of dominant tribe voters and the share of votes won by dominant tribe candidates is 0.54 in the one· party cases and 0.40 in the multi-party cases*". Voters are more likely to cast vote for a candidate who come from their own tribe. Based on the voting pattern, political authorities are likely to take development to regions where they would gain support than regions where they will not gain electoral support. Posner(2005,p.107) find that candidates are cautious to run in seats where they are members of the majority tribe, indicating that a candidate's tribal identification counts. De luca.,(2018) observed that ethnic parties may encourage ethnic favouritism and that one major reason for it is electoral concerns.

Cabinet ministers are members of parliament elected and appointed by the incumbent President, mostly from the stronghold areas of the president. In most cases, a loss of constituency held by cabinet minister implies a loss to the incumbent's support towards stronghold areas, hence the political connections between cabinet ministers and the incumbent are more likely to be co-ordinated to ensure that they maintain political support in their stronghold areas.

Figure 2 the link between Cabinet Minister and Economic Development process

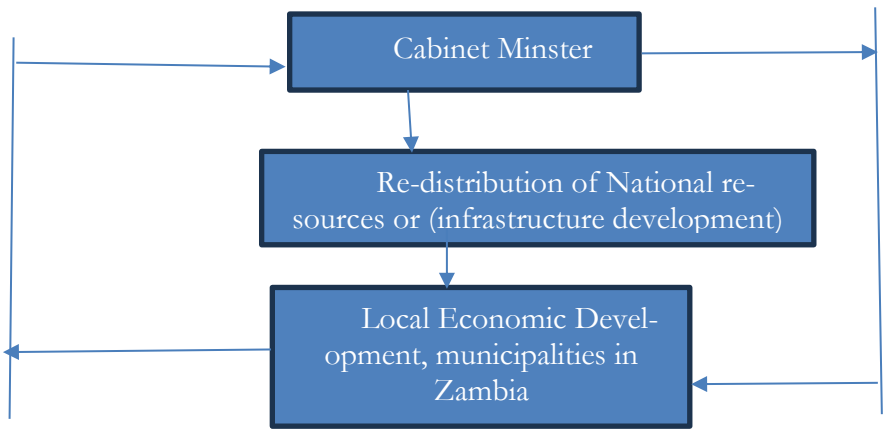


Figure 2, summarize the circle of process that takes place from an election and expectations of voters from their minister origins municipalities.

As seen in the figure.1 cabinet positions are mostly rewarded from the Incumbent's stronghold areas, hence being associated to the ruling party has the possibility of having a cabinet positions and access to resources distribution infrastructure development. These are proxied political connections to the President.

3.2.1 Political Context

The study looks at cabinet ministers who served under President Levy Mwanawasa from 2002 to 2006, from 2006 to 2011, the period where President Mwanawasa passed away and was succeeded by President Rupiah Banda, and from 2011-2015 under the President Michael Sata, also passed away in 2014.

The Mwanawasa's administration came to power in 2002 after winning a tightly contested election by about 29 percent of casted votes which was conducted in 2001.President Mwanawasa reduced his cabinet ministers to about 20 ministers , the number of deputies ministers could not be traced for the period from 2002 to 2006.Two members of his cabinet ministers who were re-appointed had court cases from the previous government. According to National Assembly (2021) Mwanawasa had 69 member of parliaments out of 150 seats in the National Assembly for the period from 2002 -2006 and 72 members of parliaments out of 148 from 2006-2011.President Mwanawasa embarked on conducting Parliamentary bye-elections which were unnecessary to increase the number of seats in the National Assembly.

First, I provide circumstances that shows that political connections to the President matters in Zambian Politics. The New Humantarian (2002) noted that two cabinet ministers in President Mwanawasa's cabinet ministers had previous court issues but were re-appointed to ministerial positions, for instance *"Mwaanga was linked to drug trafficking offences in the late 1980s and was forced to resign from the cabinet in 1994 following donor protests at his appointment. However, Chiluba reappointed him to the cabinet last year. Kalumba was linked to the diversion of two billion Kwacha (about US $500,000) in public funds last year, but was subsequently cleared by a government tribunal".*

President Mwanawasa dismantled the Presidential Housing Initiative (PHI), which was supposedly established to jumpstart a stagnant home ownership program but was mostly perceived as an attempt to enrich the former president and his allies(The New Humantarian (2002)).For instance, The New Humantarian (2002) *"the Anti-Corruption Commission disclosed last year that it was investigating Chiluba's press aide Richard Sakala for various offences he allegedly committed as PHI boss. Among other things, he is alleged to have arbitrarily awarded lucrative PHI contracts to companies in which he or his relatives had interests, and to have employed relatives under preferential conditions of service".*

Mwanawasa's administration was characterized by a rigorous fight against corruption and a task force team was formed to investigate corruption cases. Chêne(2008,p.5)President Mwanawasa received appreciation for his dedication to fighting corruption and was recognized with elevating the issue on the political agenda of the nation.

President Rupiah Banda took over the office after the death of President Mwanawasa. During his term in office, Chêne(2008,p.5)the Anti-Corruption Commission Act's abuse of authority section was eliminated by the government, eliminating a crucial instrument for the prosecution of high-level corruption in Zambia; The ex-president Chiluba was found not guilty; and in 2010 the Task Force on Corruption was disbanded. According to NORAD (2011), former president Banda was implicated in suspicions of corruption pertaining to an

oil procurement contract. Senior officials of the Banda government are also at the centre of several significant new cases (Bertelsmann Foundation, 2014, as cited in Chêne,2008,p.5).

National Assembly (2021) President Sata had 60 members of Parliaments in 2011 elections out of 150 seats for the period 2011-2016. McCartney (2023) When Patriotic Front President Michael Sata took office in 2011, his newly formed administration pledged to pursue a more expansive fiscal strategy, which was partially funded by infrastructure investment. Between 2011 and 2017, roads accounted for 42% of all non-financial asset spending. Furthermore, the Zambia 8000 Accelerated National Roads Construction Programme (ANRCP) of 2012 pledged to upgrade or renovate 8,000 kilometres (4970 miles) of roads to satisfy bituminous surface international requirements (,Zajontz 2022,as cited in McCartney ,2023,p.7).

3.3.2 Economic Development Context(National Level)

MPR (2021) Over the years 2004 to 2014, Zambia saw unheard-of growth, averaging 7.4% annually. As a result, the country's GDP per capita increased by about 53%, and in 2011 it attained lower middle-income status. These accomplishments came after the High Indebted Poor Countries (HIPC) program's debt relief in 2005, improved agricultural and mining output, higher global copper prices, and investments in the social sectors(MPR,2021). In the period under review, Zambia's economic development strategy was guided by three National Development Plans; Transitional National Development Plan(TNDP) which was implemented from 2002-2006 , and Fifth National Development Plan (FNDP) 2006-2011 under President Mwanawasa who passed away in 2008 and President Rupiah Banda take over from 2008-2011 and the Sixth National Development Plan (SNDP) under President Sata's administration from 2011-2015.

3.3.2 Local Economic Development

In Zambia, major infrastructure projects that have impact on local economic development are under the jurisdiction of the central government. These infrastructure projects include; Road building, education infrastructure, health infrastructure and services, utility services, energy infrastructure, communication facilities and other infrastructure. For instance, McCartney(2023,p.16) observed that Zambia established the Road Development Agency (RDA) under the Ministry of Public Works in 2002 and the National Road Fund Agency (NRFA) under the Ministry of Finance in 1994 in an effort to lessen political meddling in infrastructure projects. McCartney (2023,p.16) also noted that based on a database of contracts from 2008 to 2011, a research by (Raballand et al. 2013) found that the establishment of the semi-autonomous NRFA and RDA did not lead to a decrease in political influence.

On the other side, Zambia's local economic development strategy is guided by the Ministry of local Government that oversees the administration of 116 Councils(municipalities). The local authorities are the vehicle in which the Government Republic of Zambia (GRZ)'s Five Years National Development Plan is implemented to promote sustainable socio economic development. The Ministry of Local Government's main duties is to support decentralized and local government systems and make it easier for local residents to receive high-quality municipal services (MLGR, 2022). However, most of economic activities with main sources of revenues still remains under the Central Government.

Local governments are headed by elected Chairperson /Mayor as the head of the Council and councilors. The councilors and mayor's office oversees the political administration of the local authority in their jurisdiction. Local Authorities have many responsibilities to

provide to the local communities. Most municipalities lack adequate revenue to provide delivery of quality services to their communities due to limited local revenue generated from their localities. Resnick Danielle (2019) Without adequate resources to provide services and the freedom to set local policy priorities, local governments are unable to improve their communities. Local governments receives monthly financial grand from the Central Government to supplement their locally generated revenues to provide delivery of quality municipal services, unfortunately most of the financial grand received is far from meeting the required municipal local budgets and also most of the grand goes towards salaries of employees. Chonzi & Mulenga(2021,p.20) observed that Local governments are not effectively in rendering their municipal services and local developmental projects due highly dependence on financial grand from the central government which in most cases untimely disbursed.

3.2 Control variable Population Size

The relation between population size and per capita income has been analyzed in the literature and there seems to be no concise agreement to whether the relation is positive or negative associations because of the opposing factors. The optimum population theory has been applied to the relationship between population and per capita income(Coale & Hoover ,2015). Coale & Hoover (2015,p.19) Two competing forces are at play: diminishing returns, which result in a declining per capita income with a growing population, and economics of scale, which favors a rising per capita income. Furthermore, Coale & Hoover (2015) noted that the availability of other production inputs affects the entire subject of growing and shrinking returns in relation to labor force size.

In this paper, I hypothesize that a positive relation between per capita expenditures proxied as local economic development and population size given the literature seems to suggestive that a positive or negative association is possible.

Chapter 4
Methodology

4.1 Empirical Strategy

The main objective of the study is to explore whether cabinet ministers favour their origins municipalities. The paper uses fixed effects regressions to examine the relation between cabinet minister and local economic development proxied as household expenditure(mean per capita expenditure and mean education expenditure) at municipality level in 72 municipalities of Zambia for the period 2002 to 2015.The basic empirical strategy is to compare local economic expenditure, municipalities with cabinet ministers as (treated group) and while others (control group) municipalities. I run municipality level fixed effects regression of outcome variable mean per capita expenditure at municipality proxy variable for economic development on Cabinet minister fraction variable and only control for population size.

$$lnY_{mt} = constant + \gamma Cabinetministers_{mt} + \beta_1 Popsize_{mt} + \delta_t + \theta_m + \varepsilon_{mt} \quad (1)$$

Where Y_{mt} is the outcome dependent variables, logarithm of mean per capita expenditure of municipality at time t.. The co-efficient γ measure the positive association between cabinet minister and origin municipality, dummy cabinet ministers(1 if the municipality has at least a cabinet minister at a specific period served a full term in office which is 4years, 0.75 if minister served at least 3 years, 0.5 if minister served 2 years, 0.25 if minister served 1 year and 0 otherwise), $\boldsymbol{\delta}_t$ is a full set of year dummies, capturing specific period (2002,2006,2010, and 2015), β1 measure changes in population size over time across municipalities , θ is the municipality fixed effect , and ε is the clustered error term at municipality level.

I expect a positive co-efficient of γ which implies that cabinet minister's origins municipalities have higher per capita expenditures than other municipalities without cabinet ministers. The assumption is that cabinet ministers are the reason these municipalities have higher per capita expenditures because they oversees national development resources allocation, for example infrastructures development which have direct impact on the living economic conditions.

The positive association of the co-efficient γ and significant will implies there is a regional favouritism by cabinet minister. Hodler & Raschky (2014,p.999) observed of a possible potential endogeneity in estimating γ, if some municipalities might have already higher per capita expenditures and also higher chances of having a cabinet minister than other municipalities. As a result, I would anticipate that some municipalities would have more higher per capita expenditures both before and probably even after having a cabinet minister from the regions.

The estimate γ could also be bias to measurement errors as the dependent variable logarithm of mean per capita expenditure household data was collected from cross section surveys, and the estimates could also suffer from omitted variables bias as the existing quality of infrastructure development could possibly impact regional local economic development. Overall the analysis suffer from potential endogeneity and limit the ability to delve into rigorous estimate the casual effect of this relation as lack of effective instrumental variable to address the problem.

4.2 Sources of Data

The paper uses the data from the Living Conditions Monitoring Survey(LCMS) collected by Zambia Central Statistical Office for the year 2002, 2006, 2010 and 2015. This data was reshaped to Pseudo panel with two cohorts (mean per capita expenditure and mean education expenditure household) collapsed at municipality level with 72 municipalities. Based on the information from the National Assembly of Zambia Booklet available at the website on all politicians who served in the parliament and cabinet, I constructed the variable cabinet minister and Ruling party by systematically tracing their constituencies and matched them to the LCMS data with municipalities. The Data on LCMS is household National cross section survey intended to monitor poverty levels in Zambia and the impact of government policies over five years period. Since the survey started, seven(7) surveys have been conducted and the first survey was conducted in 1996 and latest was in 2015. The survey was designed to provide reliable estimates at National level, Provincial , district, rural/urban levels.

However, in this study the focus is mainly from 2002-2015 surveys due to different methodology adopted was different from previous surveys. The dependent variables are from pseudo panel data, cohort on mean per capita expenditure and mean education expenditure used as proxy variables to measure local economic development. I tracked cabinet ministers who served in each government and matched their constituencies to the municipalities (Districts) where they came from in 72 municipalities data from where the (LCMS) was conducted. Information on ministers and members of parliament was collected from; : https://www.parliament.gov.zm/sites/default/files/images/publication_docs/Members%20of%20Parliament%20of%20Zambia%201924-2021%20First%20Edition%20March%202021..pdf

4.3 Measurement of Variables

In this paper, I use two dependent variables; mean per capita expenditure and mean education expenditure at municipality level as proxy variables to measure local economic development in 72 municipalities of Zambia. The dataset is from cross section surveys and variables are in nominal value measured in Zambian currency hundred (Kwacha) mean per capita expenditure and mean expenditure on education. Due to currency re-basement of local currency in 2011, the data from cross section surveys for 2002,2006 and 2010 was also rebased to standardize the unit value of the currency. While the data on cabinet ministers is collected from the Parliament document available online at the website of National Assembly of Zambia, the variable minister is measured as fraction variable expressed as number of years served divided the total number of a full term of four years in office. The variable has four fraction entry; 1 if minister served full term (4)years, 0.75 if minister served (3) years, 0.5 if minister served (2) years, 0.25 if minister served (1)years and zero (0) otherwise. The variable Ruling party alignment is also a dummy variable,1 if the municipality had at least a member of parliament from the ruling party during the period of analysis and 0 otherwise.

4.4 Table of Descriptive statistics

In this paper, the summary statistics are based on aggregated household expenditure data from the Living Conditions Monitoring Surveys and information on ministers.

Table 1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Year	288	2008.25	4.82	2002	2015
Municipality	288	36.50	20.82	1	72
Mean Per Capita expenditure	288	217.19	177.75	24.77	1626.86
Population size	288	146114	219072	20102	2025428
Mean Education Expenditure	288	190.25	251.44	.84	1597.83
minister	288	.46	.45	0	1
Log mean per capita expenditure	288	5.16	.65	3.21	7.39
Ruling Party Alignment dummy	288	.63	.48	0	1
Log Mean Education Expenditure	288	4.45	1.42	-.17	7.38

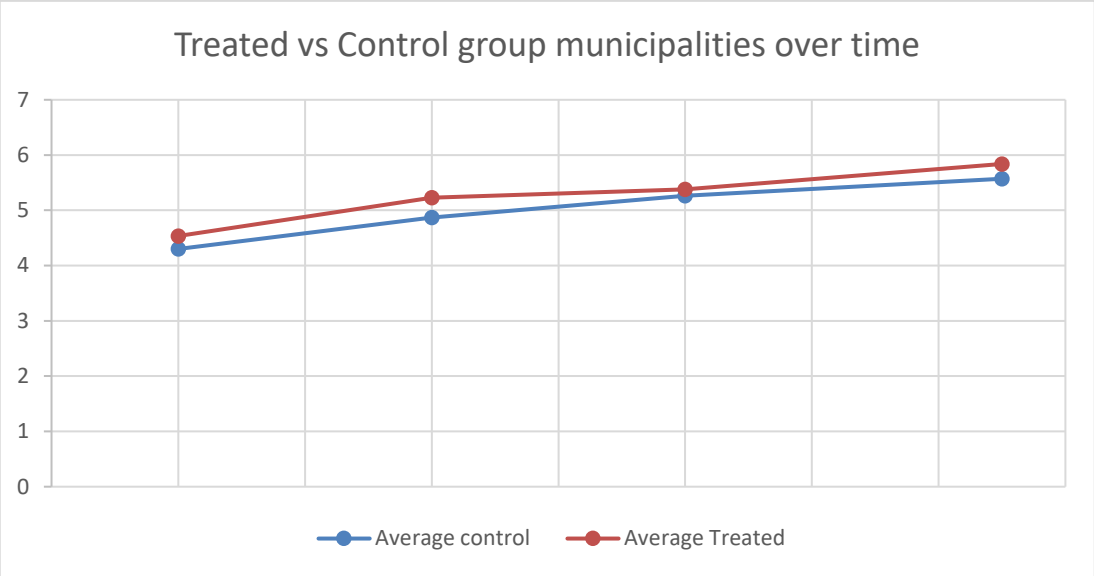
Source: Author's own constructed data based on National Assembly of Zambia and Living Conditions Monitoring Surveys

Note, summary statistic based on aggregated household level data from the surveys and Data on ministers for the period from 2002 to 2015.

From the table , the average mean per capita expenditure across municipalities is 217.19 Kwach monthly expenditures for households. The standard deviation of 177.75 suggests that most of the data points are spread further away from the mean.

Figure 3 control and treated municipalities, minister

Figure 4.1 shows the graph between the control and treated municipalities, minister as the explanatory variable over time.



Source : Author's own calculation based on LMCS data and Data on ministers for the period from 2002 to 2015.

Average of logarithm mean per capita expenditure on y-axis .

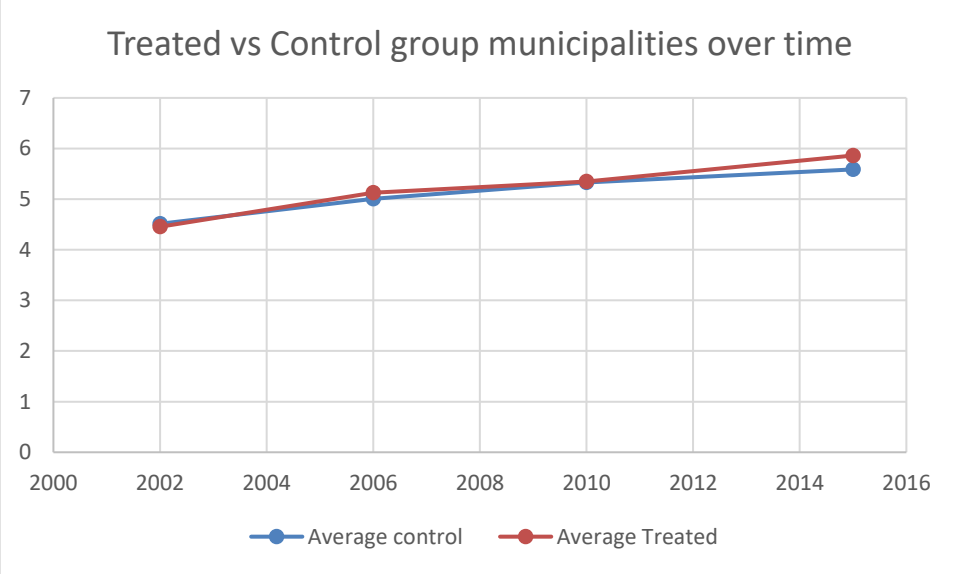
Note: the graph is produced by taking the average of logarithm of mean per capita expenditures across municipalities treated group and control group over time dimension(dummy year).I compute averages for each year both in treated and control municipalities over time.

The casual relation graphs above seems to suggest that there is a minimal difference between the treated and control group on average ,as the graph above indicate that the municipalities with cabinet ministers are above the control group. The difference between the two group on average is minimal ,thus I fail to detect statistical significance because the variations in the dependent variable seems to suggest that the difference in living economic conditions across municipalities is almost on average the same. This may not reflect the actual reality on the ground because there are disparities in living economic conditions across municipalities in Zambia. For instance, City and Town Municipalities have better services and infrastructures development compared to Rural Municipalities, thus living economic condition is better than those in Rural Municipalities as this is evidenced by Government policy of paying monthly Rural Hardship allowance towards Government employees working in Rural Municipalities due to hardship and difficult living economic conditions they are exposed to, most unwilling to stay in such environment.

Figure 4.2 control and treated municipalities, Ruling Party

Figure 4.2 shows the graph between the control and treated municipalities, Ruling Party as the explanatory variable over time.

Figure 4 Treated vs Control group municipalities Ruling Party



Source : Author's own calculation based on LMCS data

Average of logarithm mean per capita expenditure on y-axis .

Note: the graph is produced by taking the average of logarithm of mean per capita expenditures across municipalities treated group and control group over time dummy year.

The graph seems to suggest that between 2002 to 2010, on average mean per capita expenditure were on average the same between the two groups as shown in the graph, the gap became only slightly difference between 2010 and 2015 .This suggest the reason for not detecting statistical significance as the average difference between the two groups appears to be on average the same based on the LMCS data.

Chapter 5
Results

This chapter presents the findings from the study; first the chapter begin presenting results from the Random Effects Regressions, followed by combined tables of Ordinary Least Square (OLS) regressions and the baseline Fixed Effects Regressions appropriate for the model specified in this study. The Chapter also present the discussion. The Hausman test was conducted to determine which model was appropriate, and the result from the test suggested that Fixed Effect regression was the appropriate.

5.1 Random Effect Estimates Results (Minister the explanatory variable)

The Random effect regression model assumes that unobserved individual specific effect are not correlated with independent variables and that error terms are independently and identically distributed across time and individual entity. Table 2 present results from random effect regressions minister as the explanatory variable. Logarithm of mean per capita expenditure and mean education expenditure are the dependent variables.

Table 2 Random effect estimates results minister as explanatory variable

Dependent variable	Logarithm of mean per capita expenditure		logarithm of mean education expenditure	
	(1)	(2)	(3)	(4)
Minister	0.13**	0.11	0.22*	0.18
	(0.06)	(0.06)	(0.11)	(0.11)
Constant	4.43***	4.40***	2.65***	2.61***
	(0.06)	(0.06)	(0.11)	(0.11)
Number of Municipality	72	72	72	72
Observations	288	288	288	288
Year Dummy	Yes	Yes	Yes	Yes
Population Size	No	Yes	No	Yes
Overall R-square	0.48	0.49	0.65	0.66

*Notes: column (1)and (3) report random effect estimates without controlling for population size and column (2) and(4) report random effect estimates including population size , in parenthesis are normal standard errors. ***, **, * indicates significance at 1,5 and 10 % level, respectively.*

First, in column (1) I start with regressing logarithm of mean per capita expenditure on minister and only controlling for time dimensions(Year dummy).The co-efficient for minister is 0.13 and statistically significant at 5 percent level of significance. In column (2), I add population size and the co-efficient for minister reduces to 0.11 and no longer significant. This indicates the sensitivity of the results to several model specifications. The Overall R-square improve from 0.48 to 0.49. In column (3), regress logarithm of mean education

expenditure on minister and only controlling for time dimensions(Year dummy).The co-efficient for minister is 0.22 and statistically significant at 10 percent level of significance. In column (4), I add population size and the co-efficient for minister reduced to 0.18 and no longer statistically significant. The Overall R-square improve from 0.65 to 0.66.

5.2 Random Effect Estimates Results (Ruling Party the explanatory variable)

Table 3 present results from random effect regressions Ruling Party as the explanatory variable. Logarithm of mean per capita expenditure and mean education expenditure are the dependent variables.

Table 3 Random effects estimates results Ruling Party explanatory variable

Dependent variable	Logathrism of mean per capita expenditure		logathrism of mean education expenditure	
	(1)	(2)	(3)	(4)
Ruling Party Alignment	0.09	0.09	0.1	0.1
	(0.06)	(0.06)	(0.11)	(0.11)
Constant	4.43***	4.39***	2.64***	2.62***
	(0.06)	(0.07)	(0.11)	(0.11)
Number of Municipality	72	72	72	72
Observations	288	288	288	288
Year Dummy	Yes	Yes	Yes	Yes
Population Size	No	Yes	No	Yes
Overall R-square	0.47	0.49	0.66	0.66

*Notes: column (1)and (3) report random effect estimates without controlling for population size and column (2) and(4) report random effect estimates, I add population size , in parenthesis are normal standard errors. ***, **, * indicates significance at 1, 5 and 10 % level, respectively.*

First, in column (1) I start with regressing logarithm of mean per capita expenditure on Ruling Party and only controlling for time dimensions(Year dummy).The co-efficient for minister is 0.09 and not statistically significant. In column (2), I add population size and the co-efficient for minister remains to 0.09 and not statistically significant. The Overall R-square improve from 0.47 to 0.49. In column (3), regress logarithm of mean education expenditure on Ruling Party and only controlling for time dimensions(Year dummy).The co-efficient for minister is 0.1 and not statistically significant. In column (4), I add population size and the co-efficient for minister remains to 0.1 and not significant. The Overall R-square improve from 0.65 to 0.66.

5.3 Fixed Effect estimates results (Minister the explanatory variable)

The Fixed effect regression model assumes that unobserved time-invariant individual effect are constant over time. As stated in the empirical strategy, the estimate γ could be bias to potential endogeneity which cannot be addressed. Table 3 present results from Fixed effect regressions minister as the explanatory variable. Logarithm of mean per capita expenditure and mean education expenditure are the dependent variables. Column (1) and column (4) are Ordinary Least Square (OLS) Regressions.

Table 4 Fixed effects estimates results, minister explanatory variable

Dependent variable	Logarithm of mean per capita expenditure			logarithm of mean education expenditure		
	(1)	(2)	(3)	(4)	(5)	(6)
Minister	0.13**	0.07	0.08	0.22*	0.13	0.13
	(0.07)	(0.08)	(0.08)	(0.11)	(0.14)	(0.14)
Constant	4.43***	4.45***	4.41***	2.65***	2.68***	2.71***
	(0.04)	(0.06)	(0.11)	(0.11)	(0.11)	(0.14)
Number of Municipality	72	72	72	72	72	72
Observations	288	288	288	288	288	288
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Population Size	No	No	Yes	No	No	Yes
Municipality Fixed Effect	No	Yes	Yes	No	Yes	Yes
R-squared	0.48	0.75	0.75	0.66	0.85	0.85

*Notes: column (2)and (5) report fixed effect estimates without controlling for population size, and column (3) and(6) report fixed effect estimates, I add population size , in parenthesis are clustered standard errors at municipality and also in column (1) and (4) are OLS estimates with robust standard errors. ***, **, * indicates significance at 1,5 and 10 % level, respective.*

First, in column (1) I start with simple Ordinary Least Square(OLS) model, regressing logarithm of mean per capita expenditure on minister and only controlling for time dimensions(Year dummy).The co-efficient for minister is 0.13 and statistically significant at 5 percent level of significance. The R-squared is 0.48 similar with the Random Effect model in table 4.1 column (1). In column (4), I also regress logarithm mean of education expenditures on minister controlling for time dimensions (Year dummy).The co-efficient for minister is 0.22 and significant at 10 percent level of significant similar to table 4.1 of the random effect model estimates.

Fixed effect estimates

In column (2), I regress logarithm of mean per capita expenditures on minister controlling for time dimensions(Year dummy) to account for changes over times and also for invariant-time regional characteristics to account for unobserved individual effect that do not change over time, and cluster standard errors at municipality level. The co-efficient for minister is 0.07 and not statistically significant .In column (3), I add population size, the co-efficient for minister increases to 0.08 but not statistically significant. The R-square remains the same.

In column (5), I regress logarithm of mean of education expenditures on minister and also controlling for time dimensions(Year dummy*)* to account for changes over times, and for invariant-time regional characteristics to account for unobserved individual effect that do not change over time, and cluster standard errors at municipality level. The co-efficient for minister is 0.13 and not statistically significant. In column (6), I add population size, the co-efficient for minister remains to 0.13 but not significant. The R-square remains the same.

5.4 Fixed Effect regression estimates (Ruling Party Alignment the explanatory variable)

Table 4 present results from Fixed effect regressions Ruling Party Alignment as the explanatory variable. Logarithm of mean per capita expenditure and mean education expenditure are the dependent variables.

Table 5 Fixed effect estimates results Ruling party explanatory variable

Dependent variable	Logarithm of mean per capita expenditure		logarithm of mean education expenditure	
	(1)	(2)	(3)	(4)
Ruling Party Alignment	0.18	0.17	0.23	0.23
	(0.13)	(0.12)	(0.19)	(0.19)
Constant	4.38***	4.35***	2.61***	2.63***
	(0.11)	(0.13)	(0.14)	(0.17)
Number of Municipality	72	72	72	72
Observations	288	288	288	288
Year Dummy	Yes	Yes	Yes	Yes
Population Size	No	Yes	No	Yes
Municipality Fixed Effect	Yes	Yes	Yes	Yes
R-square	0.75	0.75	0.85	0.85

*Notes: column (1)and (3) report fixed effect estimates without controlling for population size and column (2) and(4) report fixed effect estimates controlling for population size , in parenthesis are clustered standard errors at municipality. ***, **, * indicates significance at 1,5 and 10 % level, respectively.*

In column (1), I regress logarithm of mean per capita expenditure on Ruling Party controlling for time dimensions(Year dummy*)* to account for changes over times, and for invariant-time regional characteristics to account for unobserved individual effect that do not change over time, and cluster standard errors at municipality level. The co-efficient for Ruling Party is 0.18 and not significant. In column (2), I add population size, the co-efficient for Ruling Party reduces to 0.17 but not significant. The R-square remains the same.

In column (3), I regress logarithm mean of education expenditures on Ruling Party and also control for time dimensions(Year dummy*)* to account for changes over times, and for invariant-time regional characteristics to account for unobserved individual effect that do

not change over time, and cluster standard errors at municipality level. The co-efficient for Ruling party is 0.23 and not significant. In column (4), I add population size, the co-efficient for Ruling Party remains the same to 0.23 but not significant. The R-square also remains the same.

5.5 Robustness Tests

I conducted several robustness tests to validity my findings. I test the sensitivity of the results to several model specifications (Random effect and Fixed Effect), and also inclusion of control variable(Population size), and alternative measures of the dependent variables(log-arithm of mean per capita expenditure and mean education expenditure).The finding from fixed effect regressions are consistently not significant, thus I draw a conclusion that there is no empirical evidence of favouritism.

Chapter 6
Discussion of Results and Policy Relevance

6.1 Discussion of Random Effect results(minister)

Table 1 present the findings from the dependent variable logarithm of mean per capita expenditure. In column (1) and (3),the result suggest that there is evidence of regional favouritism by cabinet ministers, the co-efficient for minister is respectively positive with co-efficient of 0.13 and 0.22 significant at 5 and 10 percent level of significant. I interpret the positive association between the logarithm mean per capita expenditure and minister as the evidence of regional favouritism. The result suggest that being a cabinet minister's origins municipalities increases the logarithm of mean per capita expenditures by 100(exp(γ)-1)%.Being cabinet minister's origins municipality increase the logarithm of mean per capita expenditure by 14 percent. The magnitude size effect is relative to the findings in the literature particularly with De luca.,(2018);Hodler & Raschky (2014).In their studies they found percent ranging from 7-10, while using Fixed effect models.

In column (2) and (4). The results suggest that there is no evidence of regional favouritism after controlling for population size. The co-efficient for minister is 0.13 and 0.11respectively not significant. The magnitude is large and is consistent with the finding in the literature. I interpret the co-efficient for this finding as absence of regional favouritism towards economic development.

6.2 Discussion of Random Effect results(Ruling Party)

Table 2 present the finding from the dependent variable logarithm of mean per capita expenditure and explanatory variable Ruling Party. In column (1) and (2),The result also suggest that there no is evidence of regional favouritism of belonging to Ruling Party, as the co-efficient for Ruling Party is positive and not significant. The co-efficient for Ruling Party is 0.09 and the magnitude have policy relevance considering other studies in the literature. Belonging to Ruling Party is positively associated with the increase in logarithm of mean per capita expenditures by 9.4 percent.

Table 2 , column (3) and (4) present the finding from the dependent variable logarithm of mean education expenditure and explanatory variable Ruling Party. The result also suggest that there is no evidence of regional favouritism of belonging to Ruling Party, as the co-efficient for Ruling Party is positive and not significant. The co-efficient for Ruling Party is 0.1 and the magnitude have policy relevance as the size effect is similar to other studies in the literature. Belonging to Ruling Party is positively associated with the increase in logarithm of mean per capita expenditures by 11 percent.

6.3 Discussion of Fixed Effect results(minister)

Table 3 report the main results for fixed effect model regressions with the explanatory variable minister. The dependent variable is logarithm of mean per capita expenditures and mean education expenditures. First , I start with column (1) and (4) reports Ordinary Least Square regressions (OLS)estimates, the model specification only include regional year dummy and no regional fixed . The result suggest that the minister co-efficient is positively associated with the logarithm of mean per capita expenditures , mean education expenditures

respectively significant at 5 & 10 percent level of significant. Having a cabinet minister from minister's origins municipalities is associated by 0.13 compared to other municipalities without ministers..

Table 3, column (2) suggest that there is no evidence of regional favouritism by cabinet minister, as the co-efficient for the variable minister is 0.07 and not significant after controlling for time fixed effect to account for changes over times and also for invariant-time regional characteristics to account for unobserved individual effect that do not change over time. Being a cabinet minister in origins municipality is positively associated with the logarithm of mean per capita expenditure, after including time fixed effect and time invariant regional characteristic. I interpret the positive association between minister and logarithm of mean per capita expenditure as no evidence of regional favouritism since the co-efficient is not significant.

In column (3), I add population size but the co-efficient for minister increases to 0.08 but still not significant. In Column (5) the dependent variable is logarithm mean education expenditure and the co-efficient for minister is 0.13 and not significant. In column (6), I add population size and the co-efficient for minister remains at 0.13. The positive association between minister and logarithm mean of education expenditure is 0.13 and not significant, hence I interpret this also as no evidence of regional favouritism by cabinet minister.

Equation (1) suggest that being a cabinet minister's origins municipalities increases the logarithm of mean per capita expenditures by $100(\exp(\gamma)-1)\%$. Thus baseline specified model result in this study is 0.08, suggest that mean per capita expenditures increases by 8.3 percent. The magnitude of the co-efficient is relative sizeable effect for policy relevance, even those they are not significant. The co-efficient is similar to the findings in the literature.The study is closely related to those of De luca.,(2018);Hodler & Raschky (2014) as these studies employed a fixed effects model . Hodler & Raschky (2014) found that subnational regions birthplace of political leaders had more nighttime light intense of around 4 percent than the counterfactual. De luca.,(2018) document that co-ethic of a political leaders had more nighttime light intensity of about 7-10 percent. The paper has found that minister's origin municipalities have higher mean per capita expenditures of around 8.3 percent than those in the control group, the finding does not have statistical significance.

6.4 Discussion of Fixed Effect results (Ruling Party)

The finding from table 4, column (1) and (2) suggest that there is no evidence of regional favouritism on belonging to Ruling Party, as the co-efficient for the variable Ruling Party is positively associated with the dependent variable logarithm mean per capita expenditure but not significant after including time fixed effect and time invariant regional characteristic. The co-efficient for Ruling Party is 0.18 and not significant .The size of the magnitude is large and has policy relevance. In column (2), I include the population size , the magnitude on Ruling Party reduces to 0.17 and also not significant. I interpret the positive association between ruling party and logarithm mean per capita expenditure as no evidence of regional favouritism by cabinet minister.

The finding from table 2, column (3) and (4) suggest that there is no evidence of regional favouritism on belonging to Ruling Party, as the co-efficient for the variable Ruling Party is positively associated with the dependent variable logarithm mean education expenditure but

not significant after including time fixed effect and time invariant regional characteristic. The co-efficient for Ruling Party is 0.18 and not significant .The size of the magnitude is large and have policy relevance. In column (4), I include the population size , the magnitude on Ruling Party remains the same and also not significant. I interpret the positive association between ruling party and logarithm mean per capita expenditure as no evidence of regional favouritism.

The study did not find evidence of regional favouritism could be possibly due to several factors; first the variations in the dependent variable household expenditure data across municipalities was very minimal, which may not reflect the reality on the ground in term of living conditions or standards of living. Second there could be measurement error in the dependent variable household expenditure data aggregated from four surveys over time.

6.5 Policy Implications and Relevance

The study did not find a statistical significance on regional favouritism by cabinet ministers, the results from the study appears to have practical relevance to policy makers. The co-efficient estimates have a reasonable size effect which have impact in policy decisions and alternatively can help to re-assess regional development strategies to address regional disparities and promote equitable development across Zambia.

For instance policy makers wishing to implement a regional development strategy to address the regional disparities can use these findings to tackle issues of lacking infrastructure development in other municipalities to improve living economic conditions for the people. From the study, minister's origins municipalities have higher per capita expenditures by 8.3 percent, policy makers can leverage these findings by assessing what types of infrastructure development could help to improve the living economic conditions in other municipalities that do not have essential infrastructure development to attain the 17 Goals on sustainable development more especially the ending extremely poverty by 2030.

Such policy can have impact in improving the living standards of the people across Zambia. Having a balanced regional development strategy that promotes fairness and equitable development will definitely have a meaningful impact in improving the living economic conditions in areas of socio- economic development. However, it is important to consider local people's needs when designing such policy that target on improving community's well-being, municipalities have different unique challenges and some requires more infrastructures development to provide conducive environment and opportunities.

The findings on ruling party reveals an interesting large relative magnitude of 0.17 and 0.23 respectively. This implies that municipalities belonging to the ruling party enjoys about 18.5 percent higher per capita expenditure than their counterpart belonging to the opposition. The results have economic significance but lack statistical significance. This seems to suggest that belonging to Ruling party has more influence on development than having a cabinet minister in the government. In Zambia political favouritism towards electoral support is not an exception, however, I found no empirical evidence of this claim. The implication of the result seems to suggest that in Zambia political affiliations to party in power has more influence in promoting regional development, the findings have economic significance or policy relevance but lack statistical significance.

Policy makers can curb political favouritism towards electoral support or strongholds areas by ensuring that both municipalities receive equal treatment in terms of development regardless of whether they have a member of parliament from the ruling party.

Chapter 7
Conclusion

The conclusion from the study rely on the fixed effect model as the Hausman test conducted suggested that the appropriate model preferred was from the fixed effect. The findings from the study suggest that there is no evidence of regional favouritism by cabinet minister, as the co-efficient for minister was not significant but positively associated with logarithm of mean per capita expenditure. The positive association is in consistent with the finding in the literature, however, in this study, I found no evidence of regional favouritism. The co-efficient estimate of interest on minister is similar to of those of Hodler & Raschky (2014) found that leader's birthplace region enjoy 4 percent higher levels of economic activity than other regions, De luca et al.,(2018) found that leader's co-ethnic enjoy 7.0 percent higher levels of economic development than other regions.

The study found that minister's origin municipalities enjoy 8.3 percent higher per capita expenditures proxied as economic development than their counterpart but not significant. The findings must be cautiously interpreted considering that the sample size had only about 288 observations compared to the above mentioned studies which had hundreds thousands observations. As observed from the fixed effects results, the estimate for co-efficient minister is 0.07 without controlling for Population size, the size of the magnitude is equivalent to De luca et al.(2018), and I argue that such size effect has economic significance or policy relevance as few observations might have limited the ability to detect a meaningful statistical significance.

On the Ruling Party, the finding also suggest that there is no evidence of regional favouritism of belonging to ruling party, as the co-efficient for ruling party was positively associated with the dependent variable and not significant. The positive association is consistent with the findings in the literature.

However, the finding from this study have relevance support in the content of the literature , De Luca et al.(2018) noted that regional favouritism particularly with ethnic favouritism does not lead to sustainable development and observed that it was temporal. In this paper I hypothesized that cabinet minister's origins municipalities are more likely to have higher level of economic development than those in the control group. The study used the data from household expenditure aggregated from four cross section surveys to capture local economic conditions. However, the limitation of data from household expenditure does not capture other key economic indicators which exist within and across municipalities to measure the prevailing local economic development. The favoured municipalities may not directly benefit from these developmental projects if some of the projects are abandoned /incomplete due to misappropriated of funds. Another possible reason could be change of government from different political party could lead to abandoned some of developmental projects which were already in the process.

As mentioned in empirical strategy and limitations for studying this relation was the potential endogeneity, first I study a proxied relation analysis. Cabinet minister as proxied to political connections to the president, which itself is endogenous, establishing a casual association requires an instrumental variable and on the other hand a household expenditures data as proxied for economic development may be subject to measurement errors, mostly under-estimated especially from the surveys data.

The findings from the study has internal validity as the results reflect the context of Zambia and may not be generalized to other context of other countries due to the nature of

political system, multi-ethnic nature and quality of public institutional could influence the findings in a different political setting of a country. Therefore, the study has limited external validity.

The paper has examined the relations between regional favouritism and economic development, the findings does not provide empirical evidence. Future studies on similar research topic or within country context, or specifically on Zambia can contribute certainly to literature by finding a reliable instrumental variables to address the problem of endogeneity. Further studies can also improve on the measure of dependent variable data, use satellite data on nighttime light intensity which has been recommended by scholars in this field.

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Appendix ATable with information on Cabinet Ministers who served in the Government from the period 2002-2015.

The data assign cabinet ministers to their origin municipality by matching their constituency to a municipality, a place where these political leaders were elected for the period under review.

Data on cabinet ministers was collected from National Assembly of Zambia website;

Code	MUNICIPALITY	CONSTITUTIENCY	SERVED CABINET MINISTERS			Years Served in Cabinet		
			2002-2006	2006-2011	2011-2016	**2002-2006**	**2006-2010**	**2010-2015**
101	Chibombo	Keembe	■	■		3	4	
		Katuba		■			2	
102	Kabwe	Kabwe central						
		Bwacha	■	■		2	1	
103	Kapiri Mposhi	Kapiri	■	■		3	4	
104	Mkushi	Mkushi South	■			4		
		Mkushi North	■	■		4	4	
105	Mumbwa	Mumbwa		■			4	
		Nangoma	■			3		
106	Serenje	Serenje	■			2		
		Muchinga	■	■		2	4	
201	Chililabombwe	Chililabombwe	■		■	4		4
202	Chingola	Chingola			■			4
		Nchanga	■		■	3		4
203	Kalulushi	Kalulushi			■			4
204	Kitwe	Kwacha	■			4		
		Chimwemwe	■			2		
		Wusakile	■		■	4		4
		Kamfinsa	■			2		
		Nkana	■		■	4		2
205	Luanshya	Luanshya Central						
		Roan			■			4
206	Lufwanyama	Lufwanyama	■	■		4	4	
207	Masaiti	Masaiti	■	■		4	4	
		Kafulafuta	■	■		4	2	
208	Mpongwe	Mpongwe	■	■	■	4	2	3
209	Mufulira	Mufulira	■		■	3		4
		Kankoyo						
		Kantanshi			■			4
210	Ndola	Ndola central			■			4
		Chifubu			■			4
		Bwana mkumba	■		■	4		4
		Kabushi	■		■	3		4
301	Chadiza	Chadiza		■			2	
		Chasefu						

302	Chipata	Chipata Central					4	
		Luangeni					4	4
303	Katete	Mkaika					4	2
		Milanzi				3		
304	Lundazi	Lundazi					1	
305	Mambwe	Malambo					4	
306	Nyimba	Nyimba						2
307	Petauke	Petauke central				2	2	2
		Kaumbwe						
308	Chienge	Chienge				1		
401	Kawambwa	Kawambwa						4
		Pambashe				1		4
402	Mansa	Mansa central				3	3	3
		Bahati						4
403	Milenge	Chembe				1		
		Milenge						
404	Mwense	Mwense				4		4
		Mambilima				3	4	
405	Nchelenge	Nchelenge				2		1
406	Samfya	Bangweulu						
407	Chongwe	Chongwe				3	2	3
501	Kafue	Kafue					4	1
502	Luangwa	Feira						4
503	Lusaka	Lusaka central				4		
		Mandevu				1		4
		Kanyama						1
		Kabwata						3
		Munali						4
		Matero				1		4
		Chawama				4		4
504	Chama	Chama south				1	4	
		Chama north					3	
601	Chinsali	Chinsali					4	
602	Isoka	Isoka						
603	Mafinga	Mafinga						
604	Mpika	Mpika central						4
605	Nakonde	Nakonde				4		
606	Chilubi	Chilubi				4		2
607	Kaputa	Kaputa				3		1
608	Kasama	Kasama central						2
		Lukanshya				1		3
609	Luwingu	Lubasanshi				4		
610	Mbala	Mbala				4	4	
611	Mporokoso	Mporokoso				1		4
612	Mpulungu	Mpulungu				4	3	4
701	Mungwi	Malole				4		4

702	Chavuma	Chavuma						4
703	Ikelenge	Ikelenge						1
704	Kabompo	Kabompo					4	4
		Manyinga						
705	Kasempa	Kasempa				1	4	
706	Mufumbwe	Mufumbwe						
707	Mwinilunga	Mwinilunga				2		
801	Solwezi	Solwezi Central					3	
		Solwezi West						
		Solwezi East					4	1
802	Zambezi	Zambizi West						2
802	Zambezi	Zambizi East						4
803	Choma	Choma central						
		Mbabala						
804	Gwembe	Gwembe						
805	Itezhi Tez	Itezhi Tezhi				4		
806	Kalomo	Kamolo Central						
		Dundumwezi						
807	Kazungula	Kazungula						
		Katombola						
		Chirundu						
		Mapatizya						
808	Livingstone	Livingstone						2
809	Mazabuka	Mazabuka Central						
		Magoye						
810	Monze	Monze Central						
		Bweengwa						
		Moomba						
811	Namwala	Namwala						
901	Siavonga	Siavonga						
902	Sinazongwe	Sinazongwe						4
903	Kalabo	Kalabo Central						1
		Liuwa					2	3
904	Kaoma	Kaoma central				3		
		Mangango					3	4
905	Lukulu	Lukulu East					3	
		Mitete				2		
906	Mongu	Mongu Central					3	
		Nalikwanda					4	
907	Senanga	Senenga					3	

Sources: Author's own table based on National Assembly of Zambia(2021)

Note: I only select atleast one cabinet from each municipality in the sample size 72 and match to the data the Living Conditions monitoring survey.