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SELECTION OVER SANCTIONS:
Investigating the Drivers of Political Representation in One-Party Singapore through Parliamentary Questions from 2011 - 2020

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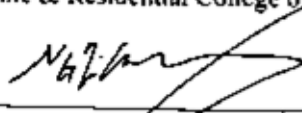√ Access restricted to Yale-NUS College for a limited period

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Acknowledgements

Abstract

Can one-party dominant parliaments be representative of diverse interests, especially of marginalized constituents, and how? An emerging focus in studies of political representation is through Parliamentary Questions (PQs), a common feature in national legislatures where Members of Parliament (MPs) raise questions to ministers on any topic. This study likely constitutes the most comprehensive analysis of political representation via PQs conducted outside of liberal democracies to date. A quantitative content analysis of all 8246 PQs filed by 100 MPs in Singapore's Parliament from 2011 to 2020 is performed, simultaneously tested against 12 determinants of representation across three dimensions of the individual, electoral, and institutional. I find that personal identity and political micro-institutions consistently influenced PQ quantity and content. On the other hand, electoral performance largely had no association with PQ activity, except for representation of local constituency issues. Together, the results support recent literature on the relative salience of representative selection over sanctions as the main driver of representative authoritarianism. Micro-institutions strengthen the influence of either selection or sanctions-driven representation, while also artificially engineering MP representational focuses within bounds. Unique to existing empirical studies on PQ representation, the quantitative findings are corroborated and contextualized through qualitative insights from in-depth interviews with 7 MPs from the 12th and 13th Parliament, across parties and MP types. The interviews uncover additional factors such as representative philosophies, extra-parliamentary representation, and parliamentary prudence in shaping PQ activity.

Keywords: Political Representation, Representative Authoritarianism, Intersectionality, Sanctions, Selection, Descriptive-Substantive Link, Electoral Motivations, Micro-Institutions

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Preamble

"In the beginning of human life each man lived for himself and looked to his own interests. There was such a thing as the common benefit, yet no one seems to have promoted it. Then someone came forth who did not think of benefit in terms of his own benefit but sought to benefit all-under-Heaven, and who did not think of harm in terms of harm to himself but sought to spare all-under-Heaven from harm. Thus, his labors were a thousand times greater than the labor of ordinary men. [...]

In the ancient times the prince treated his ministers with such courtesy that when a minister bowed to the emperor, the emperor always bowed in return. After the Ch'in and Han this practice was abandoned and forgotten, but still when the prime minister presented himself to the emperor the emperor rose from the throne, or if he were riding, descended from his carriage. When the prime ministership was abolished, there was no longer anyone to whom respect was shown by the emperor. Thus, it came to be thought that the Hundred Offices were created just for the service of the prince. [...]

Therefore, what gave the real powers of the prime ministers to the palace menials was the mistake in abolishing the prime ministership."

— Huang Zong Xi, *Waiting for the Dawn: A Plan for the Prince,* 1663

(Huang and De Bary 1993)

"The aim of every political Constitution, is or ought to be, first to obtain for rulers men who possess most wisdom to discern, and most virtue to pursue, the common good of society; and in the next place, to take the most effectual precautions for keeping them virtuous whilst they continue to hold their public trust."

— James Madison, *Federalist No. 57,* 1788 (Besley 2005)

1   Introduction

Is democracy necessary for effective political representation? On one hand, in the absence of genuine electoral competition and accountability, authoritarian parliaments are generally seen as rubber-stamp institutions, where representatives toe the party line to the detriment of marginalized communities and emerging societal concerns. On the other hand, there is emerging literature on the possibility of a certain degree of accountability and genuine representation in hybrid regimes like Singapore. Two classical models of representation are the sanctions and the selections model. The former theorizes that representatives represent constituent interests due to electoral rewards or punishments, while the latter says that representatives are intrinsically motivated to represent constituent interests. In the context of authoritarian parliaments, where electoral accountability is weak and party control is stronger, does the selection model of representation still apply?

An increasing focus of research on political representation studies the platform of Parliamentary Questions (PQs) – time during Parliament sessions for backbencher Members of Parliaments (MPs) to file questions to Ministers on any topic. This study explores the existence and drivers of political representation via PQs in Singapore's 12th and 13th Parliament. Did PQ use vary across MPs? What kind of topics and interests did they ask about, and what systemic factors might influence such representation? Who speaks up for marginal communities like women's issues, or emerging issues like climate change? More broadly, the study builds on long-standing research on parliamentary representation, on why representatives represent constituent views.

I investigate the drivers of political representation in Singapore through a mixed-methods empirical analysis comprising a quantitative content analysis of the 8246 PQs filed by 100 MPs in the 12th and 13th Parliament of Singapore (from 2011 to 2020), and qualitative

interviews with seven Members of Parliaments from those Parliaments. To test competing hypotheses of representation, I developed a three-dimensional model of parliamentary representation, testing three broad classes of MP characteristics: the individual, electoral, and institutional. Under individual characteristics, I test for personal identity and expertise, while I under electoral motivations account for electoral pressure, political seniority, and future party selection. I also control for the key political micro-institutions in Singapore: electoral district type variations, non-electoral representative schemes, intra-parliamentary bodies; and party affiliation.

Through a series of regression models, I simultaneously test these 12 characteristics against PQ activity, specifically PQ quantity, topics, and purpose. The 9 marginal topics coded for in this study are PQs on women, minority, elderly, the low-income, mental/disabled welfare, LGBT, foreign worker, climate change, and civil rights issues. I also code if a question references an MP's local electoral constituency, and if it raises a policy proposal. In addition, I develop a novel first-difference model to isolate the role that an intra-parliamentary body, the Government Parliamentary Committees, plays in PQ topics. Through this, the study explores the hypothesis that representative selection is the primary driver of representative authoritarianism, in contrast to the role it shares with representative sanctions in Western liberal democracies.

The study finds that personal identity is a significant determinant of PQ quantity and content. Gender, race, and career background are especially salient in increasing PQs to corresponding topics where these identities provide shared experiences. Meanwhile electoral factors are largely insignificant – winning margin has no significant association with any PQ activity besides PQs on local constituency issues. Instead, political seniority plays a bigger role – more junior MPs are associated with better PQ representation across essentially all PQ metrics measured, driven by political progression and personal interest motivations. Micro-

institutions effect intra-system shifts in representative links. For instance, Government Parliamentary Committees (GPCs) can informally amplify the effects of personal identity and artificially allocating representational focuses. Single Member Constituencies strengthen electoral accountability, with MPs responding to their win margin. Authoritarian innovations like the Non-Constituency MP (NCMP) and Nominated MP (NMP) schemes do promote additional parliamentary representation within bounds, while party affiliation can strengthen or weaken selection-driven representation through channels beyond formal party controls. Overall, the study finds evidence for the importance in selecting for the "right" representatives in authoritarian parliaments, in contrast to relying on electoral punishments, and the tangible impact of intra-system political micro-institutions in influencing PQ representation.

The paper proceeds as follows. Section 2 provides a literature review of the relevant theories on political representation, Singapore's unique political system, and the latest empirical research done on representation via PQs. Section 3 introduces the theoretical model incorporating the three dimensions of parliamentary representation and hypotheses to be tested. Section 4 introduces the methodologies for data collection & coding, quantitative PQ content analysis, and qualitative interviews with MPs. Section 5 provides a descriptive overview of the key basic trends regarding MP characteristics and PQ metrics. Section 6 presents the quantitative results from the various regression models. Section 7 presents the qualitative insights from the interviews and integrates them with the quantitative results in a discussion on the findings. Section 8 concludes.

2   Literature Review

This study builds on extensive literature across theoretical and empirical political science. The relevant literature can be broadly classified into three clusters: 1) the global theory on political representation in parliament; 2) local research on Singapore's unique political system; and 3) empirical research investigating representation through parliamentary questions.

2.1   Theories on Political Representation in Parliament

Since the 1990s, the study of political representation has been resurgent, especially with regard to fair representation and social justice (Brito Vieira 2017). Representatives are expected to convey the views of the citizens in Parliament (Proksch and Slapin 2015). Yet, representation has historically excluded and underrepresented marginalized groups such as women or ethnic minorities (Malkopoulou and Hill 2017). This is because constituent views, especially marginalized ones, can often be at odds with the ruling party's policy positions and goal of projecting party unity (Proksch and Slapin 2015). Of particular interest are theories on the drivers of representational equality and representation in the context of electorally uncompetitive parliaments.

2.1.1   The Determinants of Representation

Much theoretical literature on political representation builds on the seminal work of Hannah Pitkin. Pitkin's core contribution was the idea of *descriptive representation*, the physical presence of members from each constituency [1] in parliament and *substantive*

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[1] In this paper, I use "constituency" to broadly refer to any salient personal characteristic the electorate can be grouped into, including identity like gender, statuses like socioeconomic class, and professional career affiliations like industry sector. Where I refer to an MP's specific electoral constituency, I use "local constituency".

representation, the act of actually making claims aligned with each constituency's interests (Pitkin 1967). Descriptive representation goes beyond visual characteristics like race or gender. As Jane Mansbridge, a political scientist widely recognized for her pioneering work on the drivers of representation says, it is "the virtue of shared experience", for instance socioeconomic status or geographical roots (Mansbridge 1999). Such a definition is relevant to recent literature on *intersectional analysis*, which "promotes the multiplicate effects of social categories" on political power relations, in other words the importance of the various dimensions of each MP's identity (Bäck and Debus 2020).

A key debate is whether descriptive representation leads to substantive representation, called the *descriptive-substantive link* (Somfalvy 2020). Similar concepts include *the politics of presence* (Wängnerud 2009) and the *role congruity theory of prejudice*, which argue that shared identities lead to top-down party expectations and personal intrinsic preferences of an MP to speak up for one's constituency (Bäck and Debus 2020). On one hand, having a "critical mass" of similar representatives might indeed encourage airing of constituency-based interests, yet institutional or electoral barriers make this uncertain (Bäck and Debus 2020). Mansbridge also argues that marginalized groups benefit from proportional descriptive representation by enhancing deliberation of new policy ideas, having sufficient coverage of the multitude of policy areas, and reflecting diverse within-group preferences (Mansbridge 1999).

Today, a multitude of empirical literature demonstrates the descriptive-substantive link, that "the identities and life experiences of legislators significantly influence their representational behavior" (Tam 2019), especially along ethnic, gender and socioeconomic lines (Mansbridge 2015; Wängnerud 2009). For instance, female politicians were more likely than males to view representing women's interests as their duty, with one key factor being greater connections to women's organizations beyond parliament (Wängnerud 2009).

Yet, it is still unclear whether identity-based representation is an intrinsic tendency or one driven by external motivations. As cited in the preamble, James Madison, author of the U.S. Constitution, also pondered the effectiveness of institutional incentives versus selecting the right representatives in the first place (Besley 2005). Mansbridge characterized these dual forces as the question of the *sanctions model of principal-agent relations*, in contrast to the *selection model* of representation (Mansbridge 2009). The sanctions model assumes that representatives have conflicting interests with their constituents and thus need to be "sanctioned" through electoral rewards and punishments to effectively represent their constituency's interests. The selection model assumes that representatives are self-motivated to represent their constituents regardless of sanctions, for instance through shared personal interests or philosophies such as possessing a "public spirit" to do common good (Mansbridge 2009). This study is concerned with this central question: are sanctions or selections primarily responsible for representative equality?

2.1.2   Representative Authoritarianism

The question of sanctions or selection becomes even more salient in the context of non-electorally competitive political systems where the power of sanctions are presumably weak (Wang 2020; Somfalvy 2020). Even in democratic settings, some evidence has been found that representatives are not influenced by reelection pressures, implying that electoral accountability may not be required for representation (Mansbridge 2009). This invites the question of *representative authoritarianism*, whether democracy and competitive elections are necessary for representative equality (Somfalvy 2020).

Traditional literature on representation in authoritarian legislatures focused on how ruling parties institutionally co-opted opposition for increased control and stability. For instance, authoritarian regimes nominally co-opt organized labor into legislatures in order to

control worker dissent (Kim and Gandhi 2010). Such political systems with nominal descriptive representation that "facilitate the stability of authoritarian rule", dubbed *electoral authoritarian regimes*, are seen to want only the "right kind of representation", or *representation within bounds* acceptable to the ruling party (Somfalvy 2020). However, the question of whether such legislatures do ultimately allow for some degree of representative diversity remains open.

Recent literature from the past five years offers evidence of genuine representation emerging within authoritarian legislatures. China is the largest focus of such studies. The implementation of local Chinese congress elections was found to shift delegate ideologies towards substantive representation and enable voters to select representatives who "reliably represent local interests" (Manion 2014; 2017). The creation of a national-level non-electoral accountability system has also shown top-down representative authoritarianism in the absence of electoral accountability (Wang 2020). Meanwhile, Somfalvy finds that Kazakh and Kyrgyz parliaments with limited competitiveness "still manage to represent their voters" as representatives are still "self-interested rational actors" with individual motivations, even as they have to maneuver within regime constraints (Somfalvy 2020).

2.2   Context of Singapore's Unique Political System

Singapore's electoral system fits within the electoral authoritarian regime classification. The lack of electoral competition is well-documented (Rodan 2009). Most fundamentally, the ruling People's Action Party (PAP) has successfully drawn on its developmental track record to imprint party credibility as the main electoral consideration of Singaporeans, putting all opposition parties at significant competitive disadvantages on valence considerations (Oliver and Ostwald 2018). The overall lack of electoral competition impacts parliamentary

representation, as there is less political incentive for individual representatives for substantive policy control (Sánchez de Dios and Wiberg 2011).

Of particular relevance are a basket of electoral innovations that have eroded electoral competition and altered voting behaviour, such as Group Representation Constituencies (GRCs), Non-Constituency Members of Parliament (NCMPs), and Nominated Members of Parliament (NMPs) (Tey 2008). GRCs are a form of the party block vote system, where parties compete as teams in three- to six-member districts, with one seat reserved for an ethnic minority candidate (Abdullah 2016; Tan 2016; Tey 2008). This raises the costs for opposition parties to compete through raising the difficulty to field a credible slate of candidates – no opposition parties won a GRC for 23 years since its introduction in 1988 to 2011 (Tey 2008; Abdullah 2016; Tan 2016; Goh and Chong 2020).

The NCMP scheme, introduced in 1984, provides parliamentary seats for a limited number of best-performing losers from the opposition, ensuring at least 9 opposition members in Parliament from 2011 to 2020 (Tey 2008). On the other hand, the NMP scheme, introduced in 1990, co-opts into Parliament up to 9 accomplished non-political representatives from various public constituent groups, from industry-based to cause-based constituencies (Rodan 2009; Abdullah 2016). Within Parliament itself, an innovation are Government Parliamentary Committees (GPCs), where ruling party backbencher MPs are appointed into Ministry-specific groups to scrutinize the policies of their respective ministries, as a form of internal system of checks (Rodan 2009).

Crucially, these electoral innovations have been theorized to impact constituent representation in different ways. During Singapore's founding years, ruling party backbenchers were found to actively perform the role of the opposition, and there was evidence of expectations for descriptive representation (Chan 1976). Yet the gradual introduction of these

electoral and parliamentary innovations since 1984 have weakened this dynamic. This manifests in two ways: GRCs "dilute the representational link" of individual MPs to their local districts (Tey 2008), and decrease overall electoral competition. In GRCs, electoral success is heavily dependent on the senior Ministerial-level candidate leading the group, limiting the power of voters over their MP's reelection (Tan 2016; Bailer 2011). A safer prospect for reelection is known to reduce MP representation of constituency-focused interests in favour of national interests or the party line, through not needing to earn a personal vote (Searing 1995; Strøm 1997; Blidook and Kerby 2011). On top of electoral accountability, a larger district size has also been found to make it less likely for MPs to even perceive their constituency in terms of geography (Somfalvy 2020).

The GRC system is also said to impact minority representation. The GRC system means minority MPs are selected and elected at least in part on account of their race, and thus are expected to represent ethnic issues (Zainal and Abdullah 2019). Yet, due to Singapore's equalized racial demographic distribution across districts, these minority MPs are still elected by a Chinese-majority constituency. Hence, it is argued that minority MPs cannot prioritize ethnic interests that clash with majority-race interests, nor can minority voters meaningfully sanction their representatives (Tey 2008), with "national interest" according to the ruling party taking precedence instead (Goh and Chong 2020; Zainal and Abdullah 2019; Tey 2008).

The NCMP scheme, while intended to artificially induce opposition scrutiny in parliament, is "not based on a clear electoral mandate like the elected MP" (Tey 2008). Although voters could theoretically still reward NCMPs who contested in their district in the next election, the frequent shifting of electoral boundaries and subsummation of single-member districts into GRCs often render opposition NCMPs alienated from their prior geographical constituency by the next election (Yee 2021). The representative effects of the NMP scheme are equally ambiguous – NMPs have both been said to shy away from challenging the status

quo, while yet retaining the unique potential to represent marginalized demographics and politically sensitive issues (Abdullah 2016). GPCs are seen as high constrained forms of representative institutions, that seek to recast political issues as policy issues (Rodan 2009). The effect of these electoral innovations on representation is a central question of this study.

2.3   Existing Empirical Research on Parliamentary Questions

This study's empirical strategy of studying parliamentary representation through PQs is not new. Since the turn of the 21st century, a slew of empirical research has been, yet most of such work has focused on democratic Western parliaments. I review both the global work and the emerging research being done on PQs specific to authoritarian contexts, and in Singapore.

Why PQs in the first place? Various value-propositions of PQs in understanding representative activity have been suggested. Functionally, PQs are a critical source of information, platform for promoting constituency interests, and tool for government oversight (Blidook and Kerby 2011; Martin and Rozenberg 2012). Significantly, PQs can offer unique insight into representative interests as they are typically more free from party controls, compared to votes, and avoid survey bias present in interview-based representative research (Rozenberg and Martin 2011; Martin 2011). The nuances of individual policy preferences are less precisely expressed in votes (Proksch and Slapin 2015).

2.3.1   Global Research on Representation via PQs

A series of studies of Western parliamentary representation via PQs have been conducted since 2011. Relevant to the descriptive-substantive link, an analysis of 16,000 PQs filed in the UK Parliament from 2005-10 found that minority MPs tend to ask "significantly more questions about ethnic diversity and equality issues" (Saalfeld 2011). German MPs with

a migrant background were found to represent migrant rights more (Bäck and Debus 2020), while female minority MPs tabled more questions on minority women's issues in the Netherlands (Mügge, van der Pas, and van de Wardt 2019). Yet, connections to interest groups did not explain questions in Switzerland (Bailer 2011).

Several studies investigate the salience of electoral pressure to PQ activity. Canadian MPs are more likely to represent constituency-specific interests in PQs when they have smaller win margins (Blidook and Kerby 2011). Yet, intra-system electoral variations in Switzerland were not found to impact constituency-specific questioning behaviour (Bailer 2011). Instead, political progression factors were key – in Italy and Switzerland, less experienced representatives used PQs more to gain crucial information and strengthen their political presence (Russo 2011; Bailer 2011). A 2017 study revisiting UK minority representation also found that institutional predictors, in particular party affiliation, were stronger than ethnic identity in influencing PQ content (Kolpinskaya 2017).

Of particular interest are emerging empirical research analyzing PQ representation outside of Western liberal democracies. In the two new democracies of Kenya and Zambia, electoral pressures such as winning margin influenced PQ quantity and constituency-focused content (Wegmann and Evequoz 2019). A content analysis of Vietnamese delegate questions found that higher electoral competition increased government scrutiny (Malesky and Schuler 2010). Individual professional expertise and interests such was also reflected in delegate questions, implying the presence of the descriptive-substantive link in Vietnam's authoritarian parliament (Malesky and Schuler 2010).

2.3.2 Local Research on Representation via PQs

In Singapore, the first 1.5 hours of each Parliamentary sitting is allocated for Question Time, where MPs raise questions to Ministers as part of their "Inquisitorial" legislative

responsibility, and receive oral or written replies (Parliament of Singapore 2021a; 2021b). Former NCMP Yee Jenn Jong from the opposition Worker's Party recounts in his autobiography that PQs are especially useful to request data, raise data for parliamentary attention, and presenting policy proposals (Yee 2021).

PQs have been an increasing focus of scrutiny in the country's emerging independent media. Female MPs were observed to file more PQs from 2006 to 2009 (Tan 2016). *The Kontinentalist* found that MPs with an activist background like Louis Ng and Anthea Ong were most active in asking environment-related PQs, and that 4 non-elected MPs dominated the top-ten "most vocal climate change askers" list – 3 NCMPs and 1 NMP (SG Greenies 2020). NMPs were more active in ministry-specific scrutiny via PQs, fielding questions related to their sectoral affiliation, while another common PQ topic was constituency municipal issues related to each MP's geographical district (Lim 2019). In contrast to the early years of the GPC formation in the 1980s when PAP backbenchers actively protested ministry-specific policies, GPC membership no longer seemed to have an impact on PQs in the 13th Parliament, with few PQs being filed to the relevant Ministries even by the Chairs or Deputy Chairs of the corresponding GPC (Lim 2021; 2019). Instead, the role of GPCs now appear confined to the annual Budget debtates (Lim 2019).

To date, only two formal studies have been conducted on parliamentary representation via PQs in Singapore on minority and women's representation. By Tam Waikeung, both studies employ a similar empirical strategy – a content analysis of minority and women's topics raised in the 6,678 PQs filed from the 10th to 12th Parliament (2002 – 2015), tested against MP identity factors of ethnicity, gender and party affiliation (Tam 2019; 2020). On minority representation, Tam finds that minority and opposition MPs raise more questions on minority issues. On women's representation, Tam finds that female MPs provide more substantive representation on women's interests than male MPs, while ethnic minority and opposition MPs were more

likely to ask about traditional women's concerns, (Tam 2020). Explanations offered include the descriptive-substantive link and role socialization, the lack of meaningful electoral competition, and opposition MPs having higher incentive to scrutinize the government (Tam 2020). Notably, Tam also found that a longer MP tenure lead to decreased number of questions on women's issues, explained through electoral security; and a higher education level (Master's or PhD) lead to more questions on women's education, explained through their professional experiences (Tam 2020).

This study corroborates and expands upon Tam's work by extending the study to the 13th Parliament and including more variables of MP characteristics to test diverse arguments for PQ representation. Interviews conducted also provide qualitative evidence for Tam's theories and new explanations.

3   Theoretical Model

While existing work has identified multiple drivers of PQ representation, to isolate the fundamental drivers of representation, all these factors need to be tested simultaneously. This is arguably more important in the authoritarian context – with the general lack of political pressure and obscurity around the role of political institutions, isolating fundamental drivers of representation is key. Consider the following question published in *RICE* in 2021: "if MPs are enthusiastic in their GPC capacities, is it because the role aligns with their hobby horses or due to the collective work of the committee?" (Lim 2021). To achieve this, I created the most comprehensive model of PQ representation applied to authoritarian political systems, consisting of 12 variables along three dimensions. I also develop novel measures for PQ outcomes, notably measuring representation of specific marginal or emerging policy topics, and the purpose of PQs. Through this, the model enables the development of a broader hypothesis on the salience of the sanctions model and the selection model, in Singapore's context and representative authoritarianism more broadly.

3.1   The Three-Dimensional Model of Parliamentary Representation

The model incorporates 12 MP-specific factors that hypothetically influence their PQ representational behaviour along the three core dimensions of *Personal Identity, Electoral Motivations,* and *Political Micro-Institutions* (Figure 1). These dimensions have been previously tested in liberal democracies – for instance Blidook and Kerby used "interest, electoral, and institutional variables" to test competing theories of questioning in Canada's Parliament, Bailer sought to "disentangle" the various MP motivations of representational philosophy, electoral links, and political ambitions in the Swiss Parliament (Blidook and Kerby 2011; Bailer 2011). The closest holistic study in authoritarian parliaments is Malesky and Schuler's study of Vietnam, which simultaneously tested the impact of "institutional roles and

electoral backgrounds" on PQ activity (Malesky and Schuler 2010). I discuss the rationale for the individual factors within these three dimensions.

The Three-Dimensional Model of Parliamentary Representation

Personal Identity	Electoral Motivations	Political Micro-Institutions
Identity: Ethnicity, Gender, Age, Education	**Electoral Pressure:** Win Margin	**Electoral System:** GRC or SMC
Expertise: Career	**Political Progression:** Parliamentary Tenure	**Non-Electoral Schemes:** MP or NCMP & NMP
	Party Selection: Impending Retirement	**Parliamentary Bodies:** GPC Members & Chairs
		Party Controls: PAP or Opposition

PQ Quantity: PQs filed + Supplementary Questions

PQ Topic: by Ministry & Marginal Topics

PQ Purpose: Proposals

Figure 1 - The Three-Dimensional Model of Parliamentary Representation

The Three-Dimensional Model of Parliamentary Representation (Figure 1) tracks the impact of the 12 factors on three PQ outcome variables – PQ quantity, topic, and purpose. A novel metric of PQ quantity is Supplementary Questions (SQ), defined as the number of follow-up questions to Ministerial replies for Oral Questions. Another novel contribution is the measuring of questions representing specific Singaporean marginalized communities – the elderly, the less socio-economically privileged, the physically and mentally disabled, foreign workers, the LGBT community, and emerging topics – climate change, mental health, and civil rights. A similar set of marginal topics in Singapore has been previously identified by Garry

Rodan, who found that NMPs tend to represent marginal issues more, including "environmentalism, feminism, gay rights, treatment of foreign workers, urban design, and constitutional reform concerns" (Rodan 2009). The final novel outcome metric is PQ Purpose – given a key component of an MP's intensity in promoting constituency interests is the proposal of solutions, understanding the drivers of PQ activity at this intensive margin is valuable (Rozenberg et al. 2011; Yee 2021).

3.1.1 Personal Identity: Selection & the Descriptive-Substantive Link

Two broad individual attributes are tracked under this dimension – identity and expertise. Identity is measured through the four traits of ethnicity, gender, age, and education level, while expertise is tracked by an MP's career background. Once again, ethnicity and gender has been found to influence both PQ topics and quantity (Saalfeld 2011; Tan 2016; Besley 2005). Age and education level are likely associated with an MP's issue and policy preferences, due to generational differences in ideology and education level being closely linked to socioeconomic status (Tam 2020).

On expertise, even in authoritarian parliaments, functional expertise from career background is a significant determinant of PQ content, due to specialized knowledge, personal interests, and connections (Malesky and Schuler 2010; Somfalvy 2020; Yee 2021). For instance, MP Louis Ng asked the most number of PQs on climate and the environment in the 13th Parliament, given his career in environmental activism (SG Greenies 2020).

3.1.2 Electoral Motivations: The Presence of Sanctions

Electoral pressure, specifically win margin, has a well-documented effect on PQ topics across both democratic and authoritarian parliaments (Blidook and Kerby 2011; Malesky and Schuler 2010). Electoral pressure affects PQ activity as PQs and parliamentary representation

more broadly are an important avenue for political performance and signalling of constituency service, key for cultivating a personal vote for reelection (Rozenberg et al. 2011; Strøm 1997). Yet, a dominant party system can result in little incentive for ruling party MPs to execute "hard-nosed control" of government policies (Sánchez de Dios and Wiberg 2011).

Political tenure is closely linked to an MP's political stability and need to pursue activity aligned with political progression. Especially in uncompetitive electoral systems where a candidate's political survival depends on party selection, party selection motivations need to be analysed separately from those for reelection (Strøm 1997; Somfalvy 2020). While junior parliamentarians gain reselection through demonstrating parliamentary activity, senior representatives rely more on their established reputation (Russo 2011; Rozenberg et al. 2011). Thus, political tenure plausibly affects motivation for PQ representation focus and consequently PQ activity (Somfalvy 2020; Rozenberg and Martin 2011).

A final novel factor is impending retirement – whether an MP retires in the next election. This is relevant to electoral motivations as MPs are often notified in advance of elections on whether the party intends to continue to field them in the future. An MP who is aware of their political retirement in advance, thus faces no electoral pressure for re-selection or re-election, resulting in a significant shift in electoral motivations.

3.1.3 Micro-Institutions: Their Influence on the Selection vs Sanctions

The four key political micro-institutions relevant to this study of PQ representation are: 1) the electoral GRC/SMC system; 2) the non-electoral NCMP and NMP schemes; 3) the parliamentary GPC groups; and 4) party affiliation. Broadly, the literature on representative authoritarianism emphasizes the need to account for structural system-specific micro-institutions, which influence "micro-level dynamics" that define the framework and behaviour of questioning patterns, and vary across regime types (Gandhi and Lust-Okar 2009; Rasch

2011; Somfalvy 2020). The PAP in particular has made a series of constitutional innovations, which has restructured voting behaviour and adversely impact political pluralism (Tey 2008).

As covered previously, the GRC system is a case of an intra-system electoral rule that affects the MP representational link (Bailer 2011; Manion 2014; Somfalvy 2020). Singapore offers an interesting within-system variation in election systems, similar to the Swiss parliament, and such the influence of GRCs and SMCs on representational activity, especially local district interests, should be investigated (Bailer 2011). The ambiguous effects of NCMP and NMP representation should also be investigated. Meanwhile, GPCs were set up as formal portfolios for ruling party MPs to hold ministries to account – similar PQ studies elsewhere also control for such parliamentary positions (Blidook and Kerby 2011). Yet, GPCs have not had evident impact on PQs in recent years (Rodan 2009; Lim 2019). These four micro-institutions are thus important factors of study of PQ activity and topical representation.

Finally, party affiliation is likely the single largest micro-institutional factor influencing MP representation activity, especially so in one-party dominant systems like Singapore. Parties differ in ideology, resulting in differential representational topic focuses (Blidook and Kerby 2011). Parties also seek to represent new policy topics in attempt to dislodge an incumbent (Shepsle 2003). Another central factor is party discipline and loyalty, crucial for parties to maintain control over their representatives to preserve party unity, and intrinsic to each MP's political survival (Proksch and Slapin 2015; Sánchez de Dios and Wiberg 2011). Parties exercise this through pre-approval of PQs, though there is yet no evidence of this in Singapore's context (Proksch and Slapin 2015). Previous studies also found that opposition WP MPs appear to be more active in parliament, and that WP MPs represent women's and minority interests more (Ng and Yang 2020; Tam 2020). Accounting for party affiliation will thus shed important insight on the impacts of dominant one-party rule on representation.

3.2   Broader Hypothesis: Selection over Sanctions?

Beyond individual factors of representation, this study is a unique opportunity to study the salience of the sanctions and selection models of representation in an authoritarian context. Selection matters for two reasons: 1) assuming policy positions of MPs are to an extent predetermined, then representative selection is key for policy adoption; and 2) if electoral control is limited, then the quality of political representation depends on selecting good MPs in the first place (Besley 2005). Taken to the fullest extent, the selection model implies that the selection of "good types" is sufficient for effective representation, with electoral sanctions not needed (Manion 2017).
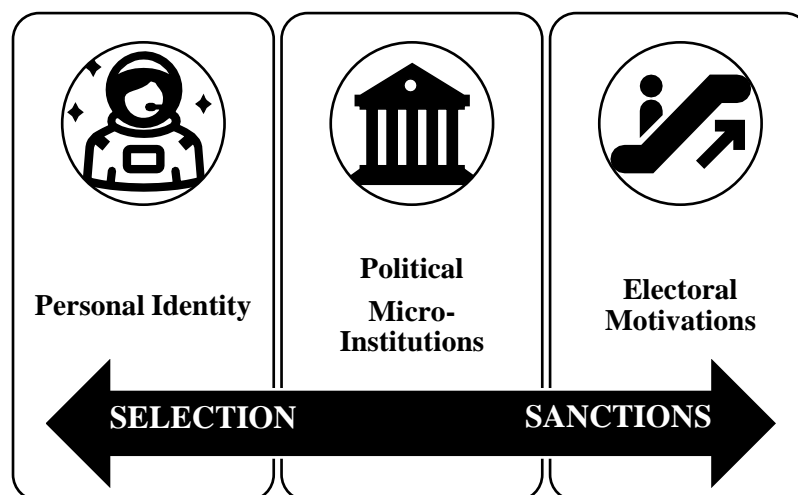
Figure 2: Selection over Sanctions – a Hypothesis on Representative Authoritarianism

As seen in *Figure 2,* the three representative dimensions of the individual, electoral, and institutional, provide a novel test of the competing theories in the sanctions versus the selection model for representative motivation in authoritarian settings. Personal identity is a key factor in "selecting" for MPs who are intrinsically motivated to represent their respective constituent views. Electoral motivations are the primary channel for Sanctions, punishing and rewarding MPs. Micro-institutions influence electoral links and representational orientations,

amplifying or suppressing either selection or sanctions. By observing the collective salience of the individual variables within each dimension, we can make a broader argument on whether Selection or Sanction is key to representation in Singapore's context.

Specifically, I seek to test the following key hypotheses:

- **Sub-Hypothesis #1:** Personal identity significantly increases PQ representation of specific topics where the identity confers shared experience or expertise.

- **Sub-Hypothesis #2:** Electoral motivations significantly increase overall PQ activity with increasing uncertainty of political survival.

- **Sub-Hypothesis #3:** Political micro-institutions significantly increase or decrease specific aspects of PQ representation relevant to the intra-system changes effected by each institution.

- **Overall Hypothesis #1:** Selection, over Sanctions, is the primary driver of Representative Authoritarianism in Singapore.

- **Overall Hypothesis #2:** Micro-institutions each increase the salience of either Selection or Sanctions over PQ representation by influencing representational orientations and links.

Beyond Singapore, these hypotheses are key questions in the debate on the conditions required for representative authoritarianism.

4   Research Methodology

To investigate the hypotheses, I employ a multi-method strategy with two research components: 1) a quantitative analysis analyzing the quantity and content of all 8246 PQs filed in the last 10 years; and 2) a qualitative analysis involving in-depth interviews with 7 Members of Parliaments from the 12th and 13th Parliament, across parties and MP types. Existing literature recommends such a combination of content analysis with survey research in order to more accurately infer representation motivations from their PQ behaviour (Rozenberg and Martin 2011). This study is the first known to adopt such a multi-method methodology in an authoritarian context.

4.1   Quantitative Analysis of PQ Quantity and Content

This section overviews the data collection, coding, and regression analysis methods. Three types of regression models are used in the study to study the determinants of PQ quantity and content: negative binomial and poisson GLM models for count data, and quasibinomial logit models for fractional data, and normal OLS models for all other data.

4.1.1   Quantitative Data Collection

The two types of data collected are the PQs filed and the relevant personal, electoral, and institutional background of the Members of Parliament in the 12th and 13th Parliament of Singapore (2011-2020).

During this period, a total of 8246 PQs were filed, across s Oral and Written Questions. PQ records are publicly available online at the Singapore Parliament's Official Reports on Parliamentary Debates (Hansard).[2] Through manual web scraping, the following data was

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[2] https://sprs.parl.gov.sg/search/home

collected for each PQ: 1) Parliament Number; 2) Session Number; 3) Question Title; 4) Question Text; 5) Questioning MP; 6) Addressed Ministry; and 7) Number of Supplementary Questions by Questioning MP (Oral PQs only).

There are a total of 100 unique MPs in the 12th and 13th Parliament. MP electoral information was retrieved from the Singapore Election Department's election public records.[3] The following electoral data for each MP was collected from this source: 1) Win Percentage; 2) Constituency Type (GRC or SMC); 3) Party Affiliation.

MP personal background and micro-institutional affiliation was retrieved from the Singapore Parliament's detailed MP public records.[4] In the case of retired MPs without live MP profiles, past Parliamentary records are publicly available on the global web archive service, the Internet Archive's Wayback Machine. The following personal data for each MP was collected from this source: 1) Political Office held; 2) Race; 3) Gender; 4) Age; 5) Educational Qualifications; 6) Career Experiences; 7) GPC Membership and Chairmanship; 8) Parliamentary Tenure; and 9) NCMP / NMP Status.

Our analysis excludes all political office holders, including Ministers, Ministers of States, Parliamentary Secretaries, and the Speaker of Parliament, who are respectively responsible for replying questions and chairing parliamentary sessions respectively and do not ask questions (Tam 2019).

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[3] https://www.eld.gov.sg/elections_past_parliamentary.html
[4] https://www.parliament.gov.sg/mps/list-of-current-mps

4.1.2   Quantitative Data & Variable Coding

Two key outcomes of PQ representational content are topics, specifically marginal and emerging topics, and PQ purpose. I coded each PQ for its relevance to marginal topics and purpose using the following coding schemas.

I read every PQ and manually coded it for whether it is related to local constituency issues or the following 9 marginal and emerging topics: questions related to women, minorities, elderly, the less socio-economically privileged, disabled and mental welfare, foreign workers, the LGBT community, climate change, and civil rights. In contrast to a simple keyword search used by some PQ studies (Saalfeld 2011), which sacrifices accuracy, I classify PQ topics by the broad criteria in *Appendix A*. Such a topic classification method is similar to the global *Comparative Agendas Project*, a coding scheme used to classify 21 major policy topics based on general rules and examples, and coding guidelines from similar empirical PQ studies (Comparative Agendas Project n.d.; Blidook and Kerby 2011; Saalfeld 2011; Tam 2019; 2020; Wegmann and Evequoz 2019).

I also classify each PQ by purpose – whether the question raises a policy proposal, in contrast to merely raising or seeking information. This builds on existing literature on the value of PQs which specify what should be done, rather than simply problem-raising (SG Greenies 2020). The coding criteria is*: Question includes a proposal to introduce or expand a specific policy, excluding simply clarifying existing policies or asking for plans to address an issue.* Typical phrasing for such PQs include "whether the ministry will consider [specific plan]" or "whether there are plans for [specific solution]".

Regarding MP data, the only variable that requires aggregative coding is career background. I code an MP's career primarily by the broad sectoral role they held for the longest time, with exceptions for MPs with later-stage careers that has come to define their professional

expertise. Case in point – MP Denise Phua, who after 20 years in business made a mid-career pivot to become a social sector leader. I classify the myriad of careers into the following 10 aggregated clusters below in *Table 1*. The career clusters align with earlier research on Singaporean MP demographics – in 1976, Chan Heng Chee classified MPs into "university academics", "journalists", "civil servants", "business and industrial management", "teachers and principals" and "career trade unionists" (Chan 1976). Garry Rodan also observed "medical and legal professions", and societal "champions of environmentalism or social welfare" amongst local MP backgrounds (Rodan 2009).

Career Cluster	Criteria
Academia	Professors, Academic Researchers
Business	Corporate Business, Consultancy, Entrepreneurs
Culture	Arts, Sports, the Media
Medical	Doctors
Finance	Banking & Finance, Accountancy, Economists
Law	Lawyers
Labour	Full-time Trade Unionists
Public Sector	Civil Servants, Police, Educators
Social Sector	Social Service / Welfare Organizations
Technical	Engineers, Architects, IT Specialists

Table 1: Career Cluster Coding Scheme

A total of 12 independent variables are tested in the quantitative analysis. Each variable represents individual characteristics specific to each MP (i) per Parliament (p). This is also the unit of analysis of my study – one observation per MP per parliament, similar to earlier studies (Blidook and Kerby 2011; Tam 2019; 2020). The variables are: 1) Parliament number; 2) Race; 3) Gender; 4) Age; 5) Highest education attained; 6) Career background; 7) Win percentage from the last election; 8) Parliamentary experience; 9) Retirement in the next election; 10) Electoral constituency type; 11) GPC membership; and 12) Party. Details on the precise coding

of these regression variables and their similarity to previous empirical studies are available in *Appendix B.* Such variable coding aligns with similar PQ studies, notably Race (Saalfeld 2011), Age (Tam 2019), Win percentage (Tam 2019; Saalfeld 2011), GPC (Blidook and Kerby 2011), and Party (Saalfeld 2011; Blidook and Kerby 2011).

4.1.3 Normal OLS Model: PQ Quantity

The main outcome of PQ quantity under study is the average amount of PQs and Supplementary Questions (SQs) filed by MPs, and how it varies across the 3 dimensions. Using a standard OLS model, I estimate the average number of PQs filed by each MP (*i*) per Parliament (*p*) using the following equation:

$$AvgPQ_{i,p} \sim \lambda + \alpha \; x \; \text{identity\_factors} + \beta \; x \; \text{electoral\_factors}$$
$$+ \; \delta \; x \; \text{institutional\_factors} + \; \varepsilon_{i,p}$$

where $AvgPQ_{i,p}$ is the average number of PQs or SQs filed per seating and λ is the y intercept.

Two models are run per outcome variable, one for all MPs, and one restricted regression including only elected MPs. All 12 independent variables are included, barring impending retirement and win margin for the model with non-elected MPs due to irrelevance.

4.1.4 Count GLM Models: Marginal Topic Representation

On topical representation, I seek to understand the determinants of representation of the 10 marginal topics coded. Count GLM models, specifically Poisson and Negative Binomial models, are used to estimate the variation in number of PQs filed on each marginal topic per MP. These models were previously used by empirical PQ studies, as they help account for overdispersion (Blidook and Kerby 2011; Saalfeld 2011; Tam 2019; 2020).

Per marginal topic, I estimate the average number of related PQs filed by each MP (*i*) per Parliament (*p*) using the following equation:

$$\text{Topic\_Count}_{i,p} \sim \lambda + \alpha \ x \ \text{identity\_factors} + \beta \ x \ \text{electoral\_factors}$$

$$+ \ \delta \ x \ \text{institutional\_factors} + \ \varepsilon_{i,p}$$

where Topic_Count$_{i,p}$ is the average number of PQs filed on each marginal topic and λ is the y intercept. Specific to constituency PQs, I also include an additional interaction term between *Win$_{i,p}$* and *GRC$_{i,p}$* to isolate differential impacts of electoral pressures along electoral system variations. This is a reasonable hypothesis as constituency issues, which affect all electoral district constituents, are most likely to be linked to winning margin and a personal vote.

For the marginal topics of Women's, Minority, and Constituency issues, a more detailed analysis is performed with zero-inflated count GLM models. As it is likely that majority of MPs do not raise a single PQ on each marginal topic, zero-inflated models help to accurately account for such an excess of zero counts by separately modelling for a bivariate outcome with a logit model, and accounting for the count values with a negative binomial or poisson model. (UCLA IDRE n.d.). This is the first known PQ study to employ zero-inflated models. Once again, two models are run for each outcome, for all MPs and only elected MPs respectively. Due to convergence issues, the independent variables for the logit sub-models are restricted to *Parl, Exp, Win*, and the most important independent variable for each outcome (*Race2/Gender/GRC*). Results are verified through removal of outliers.

For the other key marginal topics under investigation – Climate Change, Elderly, Socioeconomic, and Mental/Disabled Health issues – I perform a separate negative binomial and logistic regression per outcome, to account for all variables. Only one model is run per outcome which includes all MPs, as electoral pressure is unlikely to significantly affect

representation of such niche marginal topics. All 12 independent variables are included, barring *Retired* and *Win* for the model with non-elected MPs due to irrelevance.

4.1.5 Fractional Quasibinomial Models: PQ Ministry & Overall Metrics

Beyond marginal topics, PQ distribution by Ministry is another key area for investigation. In particular, the impact of career and GPCs on PQs to the respective ministries has not been explored in existing literature. Due to the large number of Ministries (15) and GPCs (12), I perform a basic regression analysis on proportion of PQs per Ministry, controlling only for GPC and Career, within the 13th Parliament. As many MPs change GPCs between the 2 sessions of each Parliament, to accurately account for this within-Parliament GPC changes, the unit of analysis for this model is MP PQs to each Ministry per Session. Using a quasibinomial logit model for fractional data, I estimate the proportion of PQs filed by each MP (i) to each Ministry (m) per Session (s) using the following equation:

$$\text{Ministry\_Prop}_{i,m,s} \sim \lambda + \alpha \ x \ \text{GPC}_{\text{membership}} + \beta \ x \ \text{GPC}_{\text{chair}} + \delta \ x \ \text{Career} + \ \varepsilon_{i,p}$$

where Ministry_Prop$_{i,m,p}$ is the proportion of total PQs that were filed to each Ministry and λ is the y intercept. This model uses a restricted dataset of only 13th Parliament backbencher MPs who were in at least 1 GPC.

Notably, the trend of backbencher MPs changing GPCs mid-way through Parliaments, from the 1st Session to the 2nd, offers a unique opportunity to isolate the precise impact GPC membership on Ministry PQs. A problem the prior model faces is that despite controlling for career, an MP's personal policy interest is still not fully captured – interest is correlated with both GPC membership and Ministry PQ representation. Accordingly, the question remains whether the increased proportion of PQs filed to Ministries which the MP is a GPC member

of, is due to their intrinsic preference to question those topics, or due to the institutional role of GPCs in focusing representation (Lim 2021).

Assuming that change in personal interest and seasonal topics is insignificant across sessions, I exploit the intra-parliament GPC change within the 13th Parliament via a first-difference estimator to isolate the institutional effect of GPCs. Using a normal OLS model on a restricted dataset of 13th Parliament MPs with GPC membership, I analyze the change in proportion of PQs filed to such Ministries per MP (i), Ministry (m), and Session (s), using the following equation:

$$\Delta \text{Ministry\_Prop}_{i,m,s} \sim \lambda + \alpha \ x \ \Delta \text{GPC}_{i,m,s} + \Delta \text{GPC\_Chair}_{i,m,s} + \varepsilon_{i,p}$$

where $\Delta \text{Ministry\_Prop}_{i,m,s}$ is the change in proportion of total PQs that were filed to a Ministry by each MP between the two sessions of the 13th Parliament, $\Delta \text{GPC}_{i,m,s}$ is a categorical variable with the three levels: 1 – for joining a GPC between the two sessions; 0 – for no change in GPC membership; and -1 – for leaving a GPC, $\Delta \text{GPC\_Chair}_{i,m,s}$ is a categorical variable with the three corresponding levels as $\Delta \text{GPC}_{i,m,s}$, and λ is the y intercept.

Finally, I study three overall fractional metrics of PQ content: 1) the distribution equality of Ministries addressed, where I assume that an MP asking more ministries questions is more representative; 2) the percentage of questions on all marginal topics; and 3) the percentage of questions which propose a solution. I estimate these metrics for each MP (i) per Parliament (p) using the following equation:

$$\text{Prop\_Metric}_{i,p} \sim \lambda + \alpha \ x \ \text{identity\_factors} + \beta \ x \ \text{electoral\_factors}$$
$$+ \ \delta \ x \ \text{institutional\_factors} + \ \varepsilon_{i,p}$$

where Prop_Metric$_{i,p}$ is the three outcomes of: 1) Gini-coefficient of PQ Proportion to all Ministries; 2) Proportion of PQs addressing marginal topics; and 3) Proportion of PQs with policy proposals, and λ is the y intercept. Once again, two models are run for each outcome, for all MPs and only elected MPs respectively. All 12 independent variables are included, barring *Retired* and *Win* for the model with non-elected MPs due to irrelevance.

4.2   Qualitative Interviews with Members of Parliaments

To corroborate observations from the quantitative analysis, I conducted in-depth interviews with Members of Parliament from the 12th and 13th Parliament. A total of 7 MPs were interviewed, comprising 4 MPs from the ruling PAP, 2 MPs (including NCMPs) from the opposition Worker's Party, and 1 NMP. The purpose of the interviews was to tap on MP experiences and opinions on PQ representation to corroborate and provide critical context to quantitative findings, and to unearth new unobserved factors of PQ representation.

Interviewees were sourced through maximum variation and purposive sampling, to ensure representation of views across parties, constituency types, political tenure, age, gender & race identities, and career backgrounds. Six interviewees were sourced via cold emailing, and one interviewee sourced through personal connections.

Interviews were semi-structured, one-hour long on average, and intended to gather anecdotes and opinions. Participants were asked three broad types of questions: 1) their motivations for filing of selected historical PQs; 2) their observations on PQ activity trends and determinants of PQ representation; and 3) their opinions on the hypothesized factors and quantitative findings of this study. The full list of broad interview questions is available in *Appendix C*.

To guarantee participant safety and enable frank sharing of opinions, all interview insights are anonymized, except for party affiliation, MP type, and one broad MP characteristic where relevant, and presented in summary form.

5   Descriptive Data Trends

This section reports notable summary statistics and broad trends regarding MP demographics and PQ characteristics from the 12th and 13th Parliament.

5.1   MP Demographics & Background

The overall composition of backbencher MPs across the 12th and 13th Parliament by personal identity – Race, Gender, Age, Education, and Career background – are presented here. MPs who are present is both Parliaments are counted twice.
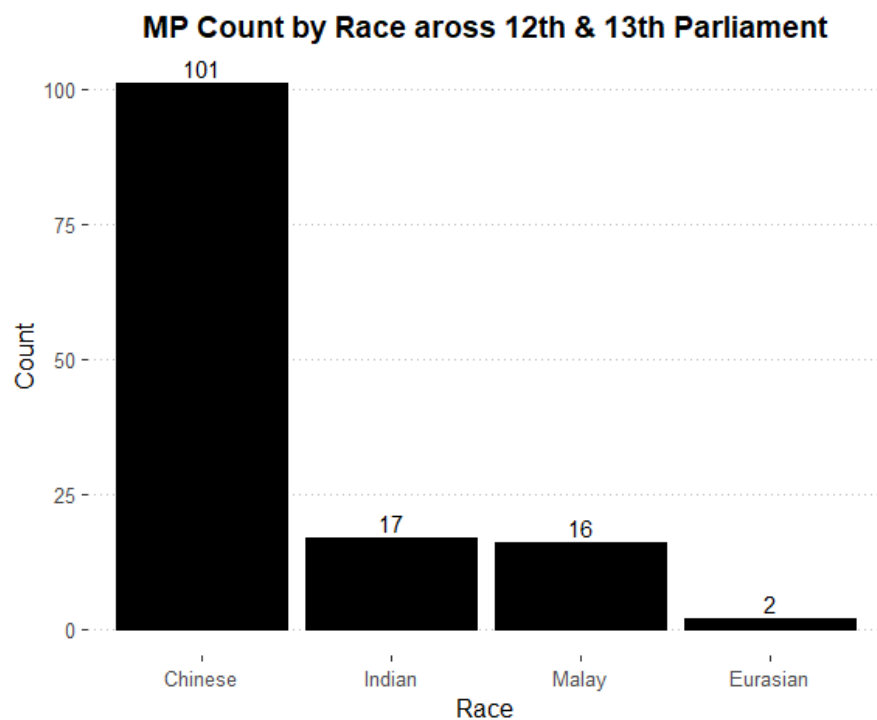
Figure 3: No. of MPs by Race during the 12th and 13th Parliament

Figure 3 shows that 74.3% of all MPs were from the majority Chinese race, 12.5% of Indian ethnicity and 11.5% of Malay ethnicity. While minority representation broadly aligned with the country's demographics of 76.2% ethnic Chinese, Indians (7.4%) were slightly over-represented and Malays slightly under-represented (15%).
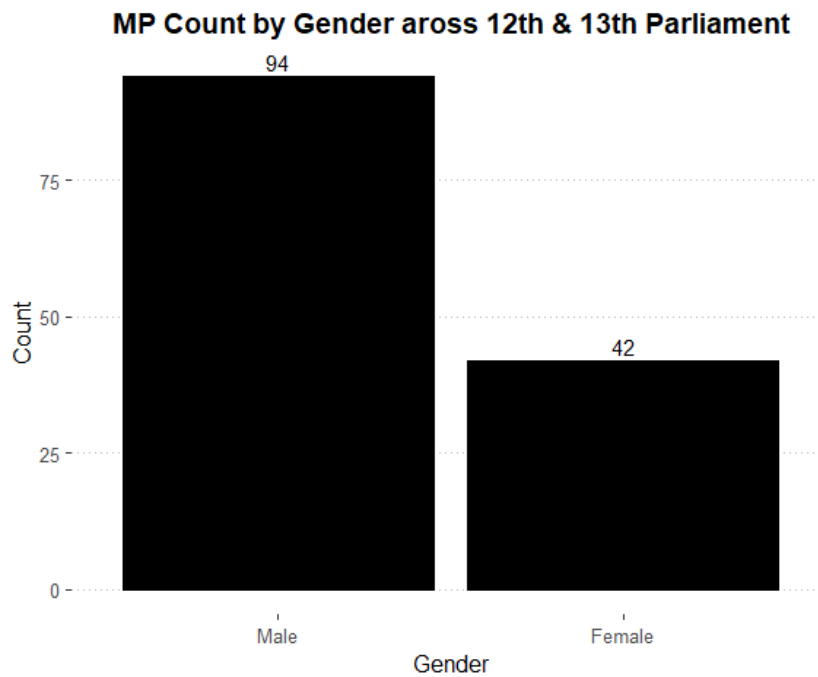
Figure 4: No. of MPs by Gender during the 12th and 13th Parliament

As per *Figure 4,* there was under-representation of women in the 12th and 13th Parliament, with 69% of MPs being Males and only 31% being females. That said, this is still an improvement from the 11th and 12th Parliament, when elected female MPs comprised 16.7% and 18.5% of all elected MPs (Tam 2020).
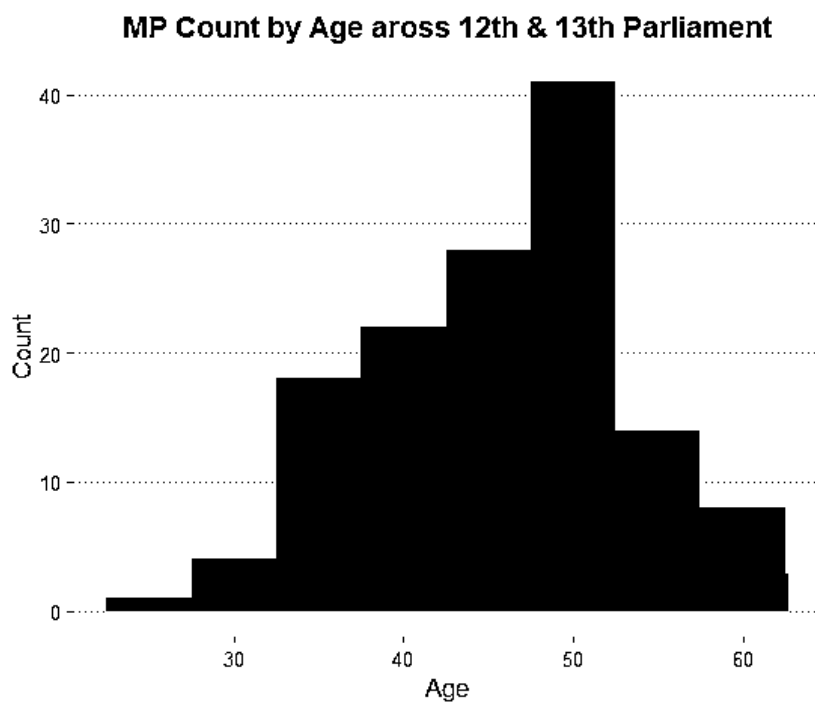
The average age of all MPs was slightly below 50, with the largest number of MPs just turning fifty, and a left skew of MPs in their mid-thirties and -forties. In contrast, half of PAP MPs in 1968 were in their thirties (Pang 1971).
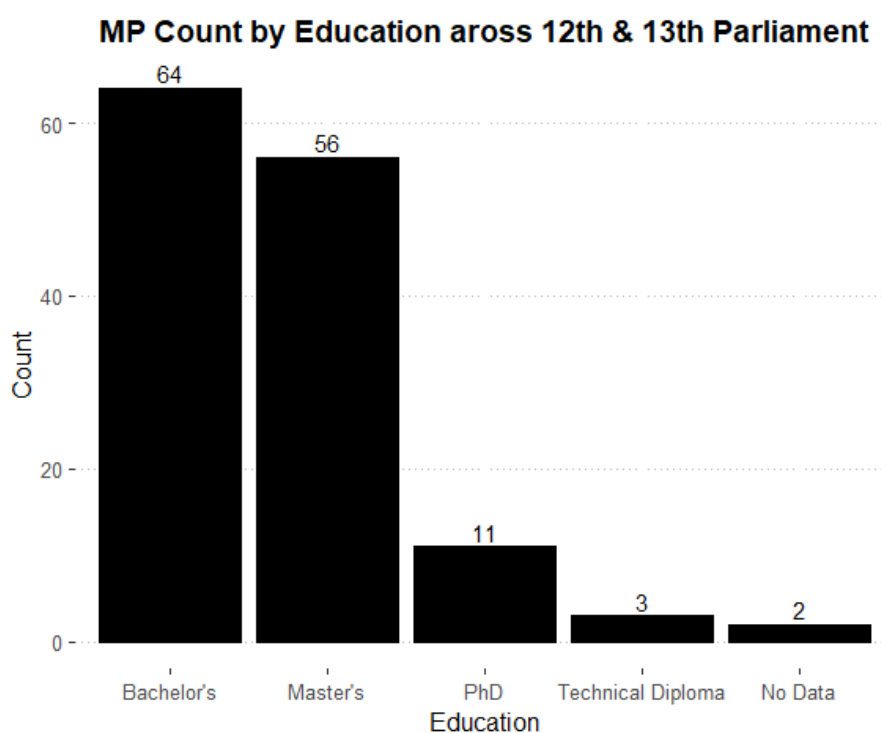
Figure 6: No. of MPs by Education during the 12ᵗʰ and 13ᵗʰ Parliament

Singaporean MPs from 2011-2020 possessed a high education level. Half of MPs had post-graduate academic qualifications at the Master's or PhD level, with essentially all other MPs having at least a Bachelor's degree. Only 3 MPs did not go to college. This is in stark contrast to PAP MPs in Singapore's founding years, when only 39.6% of MPs in 1968 received a Bachelor's education or above (Pang 1971).
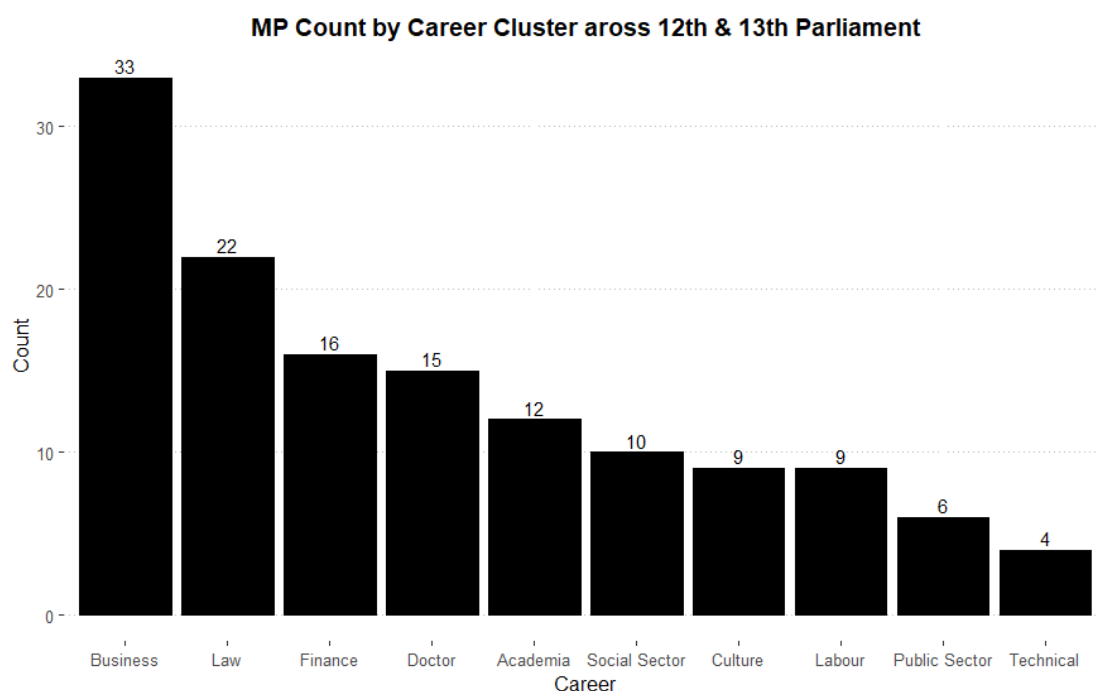
Figure 7: No. of MPs by Career during the 12th and 13th Parliament

A full one-third of all MPs came from a business or finance private sector background, with another quarter being professional doctors or lawyers. MPs who represented all other sectoral backgrounds only comprised 36% of all MPs, with greatest representation from academics, social sector leaders and unionists. Notably, this marks a decrease from 65% of backbencher MPs having non-business or professional occupations during Singapore's founding years in 1972 (Chan 1976). This trend was also observed by Rodan, who noted a "sustained bias" towards medical and legal professionals, demonstrating the "elitist and functional premises of the PAP's technocratic ideology" (Rodan 2009). The presence of unionists from Singapore's state-controlled unions points towards corporatist arrangements (Kim and Gandhi 2010).

5.2   PQ Quantity & Content Trends

A selection of key descriptive trends across PQ quantity and topic are presented here, to provide a contextual overview of PQ activity before the in-depth regression analyses.
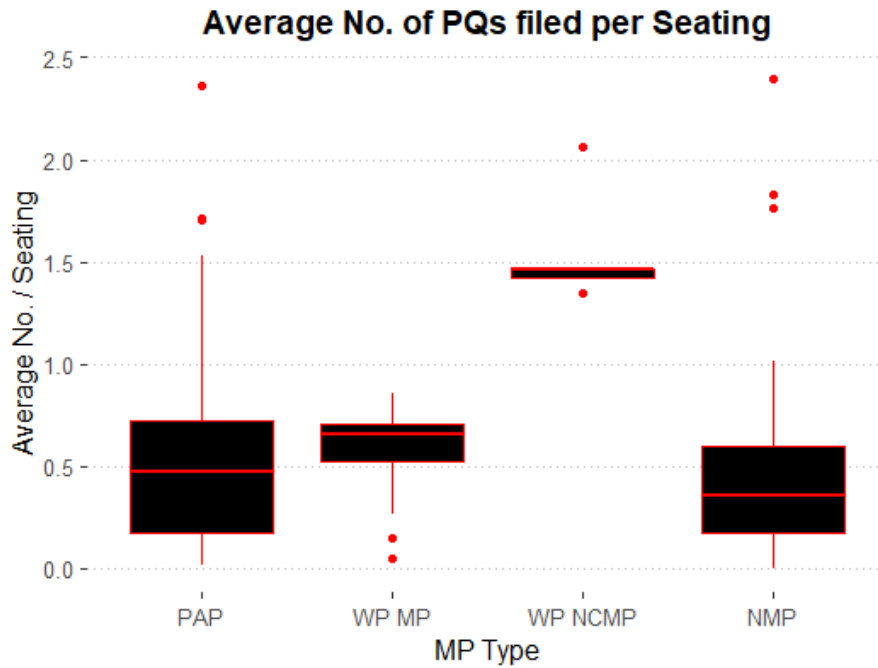
Figure 8: Average No. of PQs filed per Seating, by MP Type, in 12th & 13th Parliament

As per *Figure 8*, MPs on average (median) tend to file about 0.5 PQs per seating, which is low considering that each MP can file up to 6 PQs per seating. WP MPs file slightly more PQs then PAP MPs, with NCMPs in particular filing almost double the rate of PQs relative to all other MPs. NMPs file the least number of PQs on average.
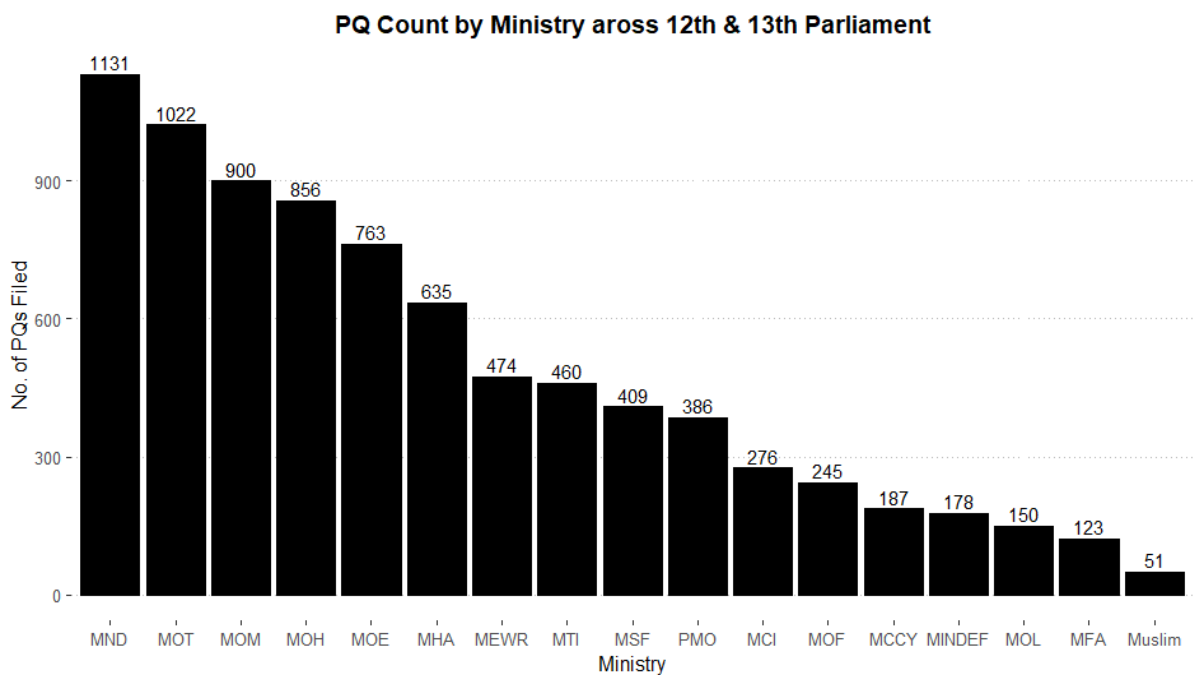
Figure 9: Total No. of PQs by Ministry in 12th & 13th Parliament

Across the 12th and 13th Parliament, most PQs were filed to the Ministries for National Development, Transport, and Manpower, while the least PQs were filed to the Ministries for Defence, Law, and Foreign Affairs. Common topics filed to the Transport Ministry include public transportation and personal mobility devices, while common topics for the Ministry for National Development include public housing access and municipal infrastructure maintenance (Lim 2019).
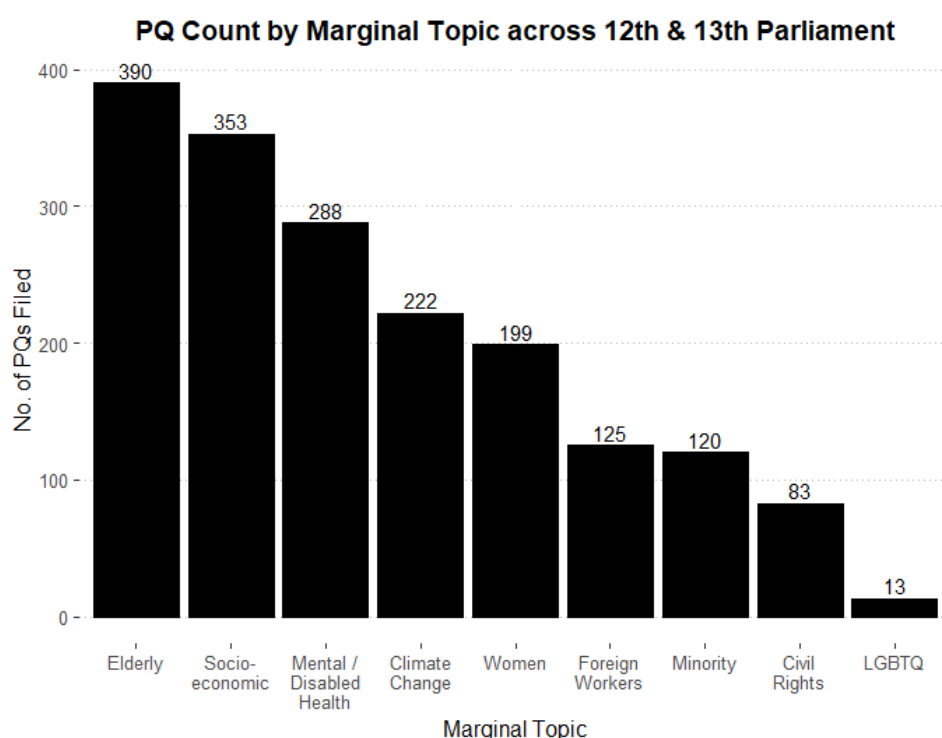
Figure 10: Total No. of PQs filed on Marginal Topics in 12th & 13th Parliament

Turning to marginal and emerging topics, traditional marginalized communities like the elderly and the low-income were the subject of the most marginal PQs. More contemporary marginal identities and emerging topics ranked next, such as mental and disabled health, climate change, and women's issues. Notably, there were more PQs filed on foreign worker welfare then on Minority issues – that said, this statistic should be seen in context of increased focus on foreign workers due to the Covid-19 pandemic in 2020. Least represented are PQs on civil & political rights, and LGBTQ welfare.

Proportional Change in No. of Marginal PQs from 12th-13th Parliament
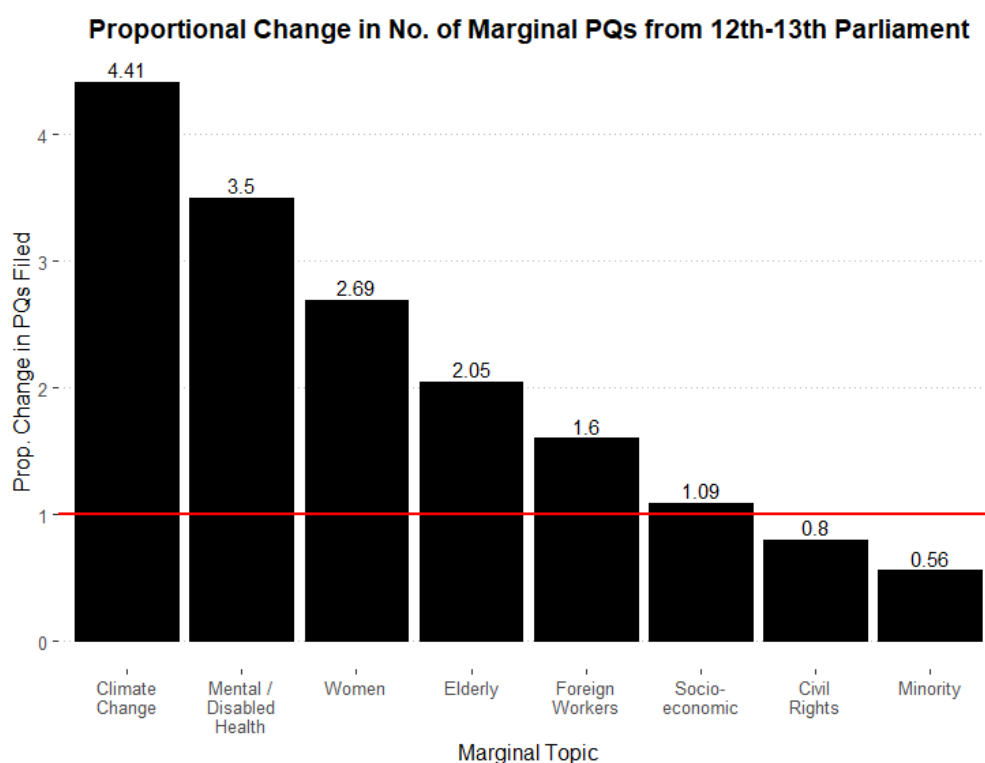
Figure 11: Proportional Change in Marginal PQs from the 12ᵗʰ to the 13ᵗʰ Parliament

As political and civil discourse in Singapore has noticeably been on the rise in recent years, I am also interested in the change in marginal topic representation across Parliaments. Rising concerns such as climate change, mental/disabled health, and women's issues are indeed seeing the largest increases in representation, while representation of the long-standing issue of socioeconomic inequality has remained stagnant. Notably, the number of PQs on civil rights and minority issues actually declined from the 12ᵗʰ to the 13ᵗʰ Parliament, with minority PQs essentially halving. LGBT PQs were removed from the graph due to the small baseline of only 1 PQ in the 12ᵗʰ Parliament – the proportional change is otherwise 12x.

Proportion of PQs which address Marginal Topics
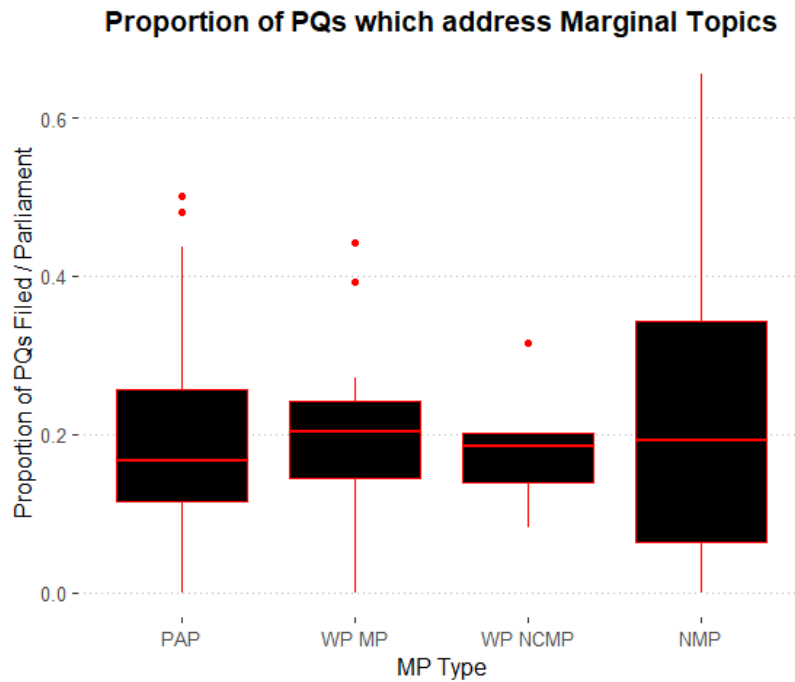
Figure 12: Proportion of Marginal PQs by MP Type, in 12th & 13th Parliament

Figure 12 illustrates that across the board, marginal topic representation is actually basically constant, regardless of party affiliation or MP type. All MPs on average (median) devote about 20% of their PQs to marginal topics. A notable difference is the wider variance of marginal representation by NMPs, the reason for which will be discussed in greater depth.

No. of PQs which address Women's Issues
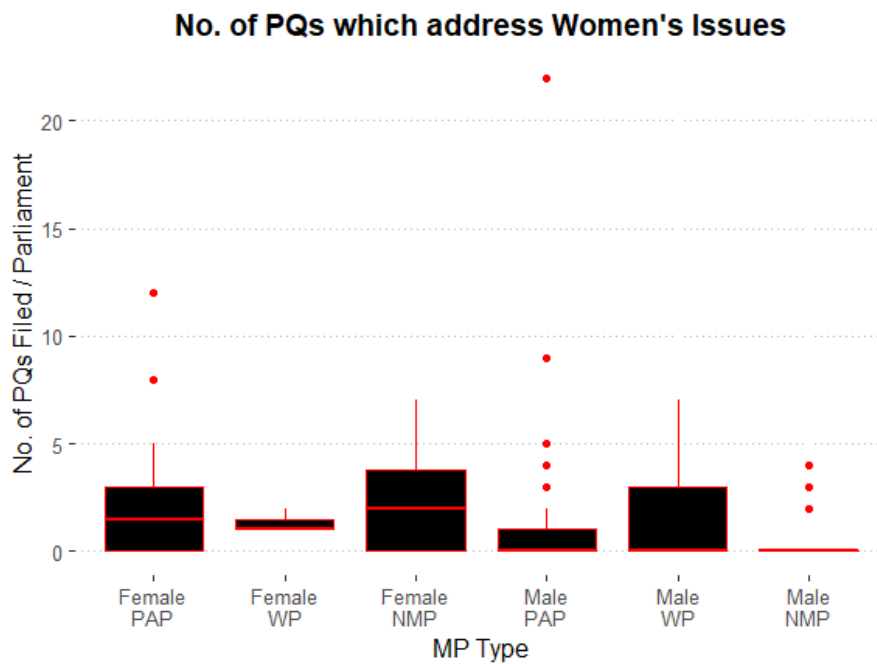
Figure 13: No. of PQs on Women's Issues by MP Type, in 12th & 13th Parliament

On PQ representation of women's interests, there is an obvious and large difference on differential gender representation across parties and MP types. The median number of PQs filed on women's issues per Parliament ranges from 1 to 2.5 for female MPs but is 0 for all Male MPs. Tam similarly found that female MPs asked 80% of all women's rights questions (Tam 2020). Female NMPs have a higher variance of women's PQs then female PAP MPs, while only a few outlying male NMPs ask any questions on women's issues at all.
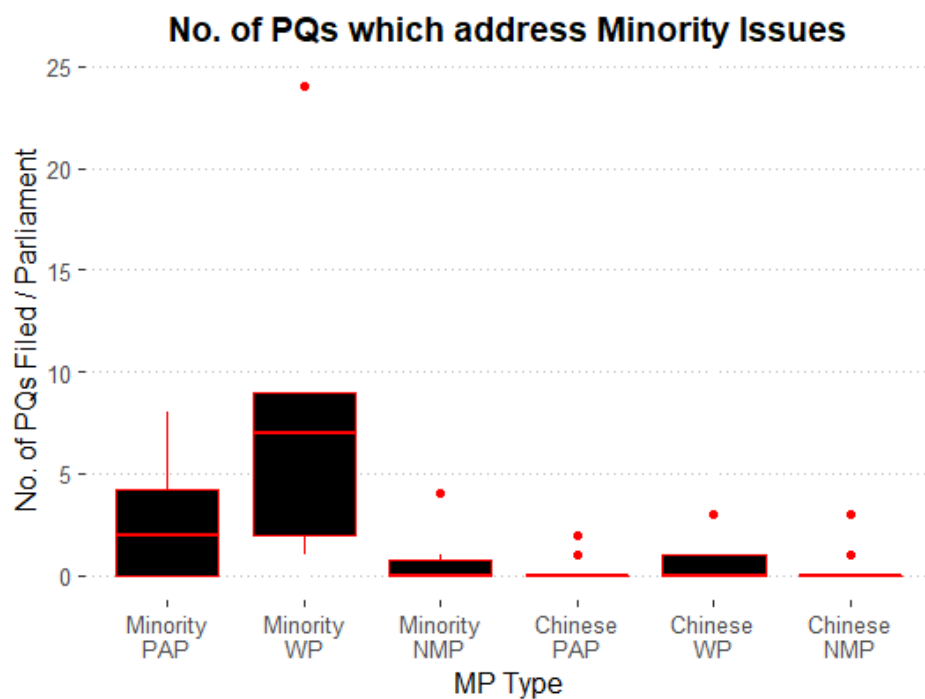
Figure 14: No. of PQs on Minority Issues by MP Type, in 12th & 13th Parliament

A similar stark difference in representation across personal identity is observed for minority representation. Across the board, Chinese MPs essentially filed no PQs on minority issues in the 12th or 13th Parliaments, besides a couple of outliers. Within minority MPs, opposition Worker's Party minority MPs asked about 3 times more minority PQs on average then ruling party minority MPs, with Malay MP Faisal Manap asking 24 PQs on minority issues in one Parliament. Majority of minority NMPs do not ask any minority PQs. These observations align with Tam's earlier findings on minority representation (Tam 2019).

No. of PQs which address Constituency Issues
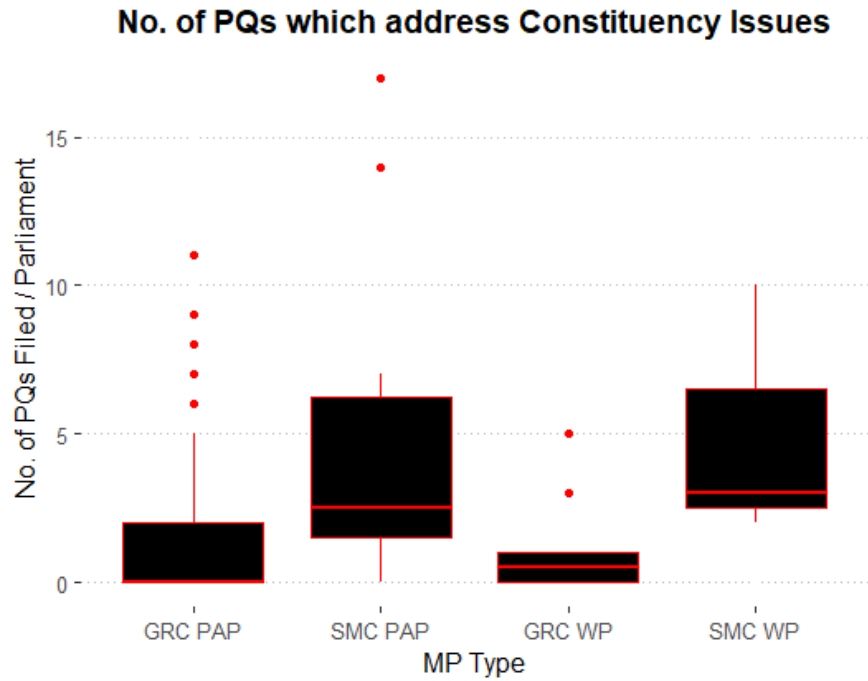
Figure 15: No. of PQs on Constituency-specific Issues by MP Type, in 12th & 13th Parliament

Finally, there is also a clear relation between the type of constituency (GRC/SMC) and the number of PQs an MP files on issues specific to their geographical electoral constituency. MPs from SMCs, regardless of party, filed about 2.5 constituency PQs on average (median), in contrast to about 0.5 PQs for WP GRC MPs and 0 more PAP GRC MPs. This is a significant trend which will be explored in greater depth.

6   Quantitative Results

The regression results from the 25 models used to understand the determinants of 12 outcomes of PQ quantity and content, along the individual, electoral, and institutional dimensions, are presented here. A condensed summary of results can be found in *Appendix E*.

6.1   OLS Model: PQ Quantity

The OLS model analyzes the PQ outcomes of number of PQs filed per seating per MP, and the number of follow-up SQs filed after an MP's Oral PQs.

TABLE 2   **Quantity of Parliamentary Question & Supplementary Questions**

	ln(PQs / Seating)		Follow-up SQs / Oral PQ	
	All MPs	Elected MPs	All MPs	Elected MPs
Parl13	0.295*	0.566***	-0.208*	-0.201
	(0.160)	(0.212)	(0.105)	(0.150)
Race2M	-0.010	0.277	-0.001	0.118
	(0.190)	(0.253)	(0.126)	(0.180)
GenderF	0.084	0.085	0.144	0.214
	(0.180)	(0.228)	(0.120)	(0.164)
Age	0.041	-0.027	0.053	-0.046
	(0.108)	(0.152)	(0.072)	(0.109)
Age2	-0.0005	0.0004	-0.001	0.001
	(0.001)	(0.002)	(0.001)	(0.001)
GRCNonC	0.818		0.173	
	(0.518)		(0.339)	
GRCSMC	0.157	0.192	-0.330*	-0.320
	(0.265)	(0.287)	(0.176)	(0.206)
Exp	-0.480***	-0.492***	0.119*	0.111
	(0.107)	(0.137)	(0.071)	(0.099)
Edu2H	0.064	0.138	0.233**	0.346**
	(0.174)	(0.210)	(0.116)	(0.152)
Ret1		-0.169		-0.149
		(0.248)		(0.177)
CareerAcad	-0.016	-0.186	-0.143	-0.461
	(0.342)	(0.550)	(0.226)	(0.390)
CareerCulture	0.085	0.386	0.101	-0.313
	(0.359)	(0.605)	(0.238)	(0.428)

CareerDoc	0.314	0.397	0.193	0.202
	(0.301)	(0.356)	(0.201)	(0.254)
CareerFin	0.310	0.428	-0.102	-0.082
	(0.289)	(0.324)	(0.193)	(0.232)
CareerLabour	0.354	0.227	-0.169	-0.099
	(0.371)	(0.447)	(0.246)	(0.317)
CareerLaw	-0.276	-0.230	-0.005	-0.020
	(0.259)	(0.302)	(0.176)	(0.219)
CareerPublic	0.947**	0.862*	0.002	-0.082
	(0.424)	(0.448)	(0.280)	(0.317)
CareerSS	0.324	0.236	0.141	-0.143
	(0.340)	(0.431)	(0.226)	(0.307)
CareerTechnical	-0.923		0.355	-0.010
	(0.701)		(0.336)	(0.510)
PartyNMP	-1.044*		-0.536	
	(0.548)		(0.362)	
Win		-0.002		0.007
		(0.014)		(0.010)
PartyWP	0.623**	0.584*	0.203	0.264
	(0.286)	(0.337)	(0.194)	(0.241)
Constant	-1.848	-0.635	-0.143	1.348
	(2.356)	(3.465)	(1.560)	(2.472)
Observations	132	92	132	92
R^2	0.396	0.447	0.284	0.233
Adjusted R^2	0.281	0.302	0.147	0.016

Note: Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01.
Corrections: Heteroscedasticity and residual skew via log transformation of AvgPQ and removal of outlying datapoints. Results for CareerTechnical and PartySPP not reported due to influence by single outlier.

For PQ quantity per seating, I find significant results for Parliament, Experience, Career and Party. An increased number of PQ per seating is associated with the 13th Parliament over the 12th, with MPs from public sector careers, and with the opposition Worker's Party MPs over PAP MPs. Increased tenure and NMPs are associated with decreased PQ quantity.

For number of follow-up SQs per Oral PQ, within elected MPs, the independent variables do not explain the outcome due to low adjusted R^2. Across all MPs, MPs with at least a Master's degree file more SQs, while senior MPs file less SQs, and there were less SQs in the 13th Parliament.

6.2 Count Models: PQ Marginal Topics

The count models analyze the determinants of the number of PQs each MPs files on Constituency-specific issues plus the 6 marginal topics of Women's issues, Minority issues, Climate Change, Socioeconomic Status, Elderly, and Mental/Disabled Health.

TABLE 3   Quantity of PQs on Constituency, Women's & Minority Topics

	Women		Minority		Constituency
	zero-inflated negative binomial		zero-inflated poisson		zero-inflated negative binomial
	All MPs	Elected	All MPs	Elected	Elected
Parl13	0.409*	0.659*	-1.008***	-1.776***	-0.466
	(0.231)	(0.359)	(0.249)	(0.402)	(0.316)
Race2M	-0.475**	-0.564*	1.168***	2.233***	0.477*
	(0.219)	(0.308)	(0.385)	(0.417)	(0.259)
GenderF	0.502**	1.013***	-0.147	0.729*	0.222
	(0.240)	(0.300)	(0.301)	(0.425)	(0.248)
Age	-0.042***	-0.039*			-0.336***
	(0.015)	(0.021)			(0.018)
GRCNonC	2.214***				
	(0.559)				
Age2					0.004
Win		0.022		0.046	0.038*
		(0.021)		(0.033)	(0.022)
GRCSMC	-0.880**	-0.752*		0.918*	6.421**
	(0.371)	(0.383)		(0.525)	(2.716)
GRCSMC*Win					-0.082*
					(0.044)
Exp	0.525**	0.631***	0.613**	0.860**	0.371*
	(0.233)	(0.229)	(0.245)	(0.356)	(0.196)
Edu2H	0.325	0.360	0.558**	1.241***	0.035
	(0.217)	(0.248)	(0.264)	(0.360)	(0.231)
Ret1		-0.299		0.255	-1.349***
		(0.319)		(0.372)	(0.375)
CareerAcad	-0.489	-0.322	0.365	-0.767	-0.861
	(0.377)	(0.690)	(0.500)	(0.708)	(0.813)
CareerCulture	-1.198**	-0.887	-11.115	-13.064	-0.871
	(0.510)	(0.879)	(169.251)	(664.958)	(0.901)
CareerDoc	-0.436	-0.275	-0.125	0.176	0.512
	(0.439)	(0.455)	(0.459)	(0.502)	(0.398)

CareerFin	-0.296	-0.629	-0.131	0.729	1.126***
	(0.356)	(0.390)	(0.570)	(0.652)	(0.330)
CareerLabour	-0.363	-0.150	-1.361**	-1.449**	1.203**
	(0.430)	(0.493)	(0.645)	(0.732)	(0.469)
CareerLaw	0.076	0.475	-0.526	0.135	-0.069
	(0.339)	(0.366)	(0.369)	(0.471)	(0.336)
CareerPublic	0.184	0.549	0.466	0.606	0.733
	(0.439)	(0.429)	(0.448)	(0.529)	(0.453)
CareerSS	1.426***	2.353***	1.213***	2.753***	-0.192
	(0.323)	(0.405)	(0.406)	(0.710)	(0.585)
CareerTechnical	-0.294	0.161	-1.242	-16.305	
	(0.463)	(0.584)	(1.136)	(3,993.112)	
PartyNMP	-2.325***		-1.275***		
	(0.625)		(0.435)		
PartyWP	-0.935**	-0.834*	0.946***	0.974*	0.607
	(0.374)	(0.475)	(0.340)	(0.508)	(0.407)
Constant	2.060***	-0.378	-0.402	-5.296**	4.980***
	(0.653)	(1.585)	(0.482)	(2.438)	(1.632)
Zero-inflation model coefficients (binomial with logit link)					
Parl	-1.109*	-1.433		-7.200	
	(0.518)	(1.164)		(7.167)	
Exp	0.959***	2.497**	1.831***	4.842	1.564**
	(0.350)	(1.076)	(0.661)	(5.221)	(0.735)
Win		-0.045		0.134	0.130
		(0.067)		(0.161)	(0.087)
Gender	-1.222**	-0.131			
	(0.599)	(1.106)			
Race2			-4.471***	-9.193	
			(1.515)	(9.176)	
GRCSMC					14.205
					(18.915)
Win*GRCSMC			-4.458***	-9.074	-0.211
			(1.657)	(9.071)	(0.288)
Observations	136	94	136	94	92
Log Likelihood	-184.608	-115.481	-104.578	-70.001	-163.780

Note: Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01.
Corrections: Negative binomial or poisson models for count data are selected based on diagnostic results specific to each outcome variable – tests performed are the Log-Likelihood, Dispersion, Vuong, and Zero-Modelling tests. Some models have Parl, Age2 or GRC removed due to model convergence issues.

Gender impacts representation of women's issues. As per *Table 3*, female, minority, younger, social sector, and Non-Constituency MPs, were associated with increased PQs filed on Women's issues. More women's PQs were also filed in the 13th Parliament then the 12th.

On the other hand, SMC, opposition, and Nominated MPs asked less questions on women on average. Political tenure decreased the probability of an MP filing any women PQs in the first place but increased the number if they did file. Across all MPs, MPs with a Master's education filed more women's PQs and Culture MPs filed less, but the results were not significant within elected MPs only.

The descriptive-substantive link is also observed for minority issues. Minority, social sector, opposition, and MPs with Master's degrees filed more PQs, while labour MPs and NMPs filed fewer PQs. Fewer minority PQs were filed in the 13th Parliament. Similar to women's PQs, political seniority lead to a decreased likelihood of filing any minority PQs – yet, a senior MP who does file minority PQs will file more. A further finding only within elected MPs is that female and SMC MPs filed more PQs on women's issues.

GRCs reduce local district representation and electoral accountability. SMC MPs filed a larger quantity PQs on local constituency-specific issues, though it is inconclusive whether that they were more likely to file any PQs at all, relative to GRC MPs. More constituency PQs were also associated with minority MPs and MPs from finance and labour career backgrounds. Older MPs and MPs who were slated to retire filed less PQs. Political seniority significantly reduced whether an MP filed any constituency PQs but increased the number of PQs if they did file at least one. A crucial finding for constituency-specific issues is that an MP's winning margin is related to their questioning of such issues. Specifically, GRC MPs with higher winning margin were associated with increased filing of constituency PQs, while SMC MPs with higher winning margin were associated with decreased filing of constituency PQs. The implications of these are explored in the discussion.

TABLE 4   Quantity of PQs on Climate Change, Elderly, Low-Income, and Mental/Disabled

	Climate Change	Elderly Issues	Socio-economic Issues	Mental/Disabled Issues

	negative binomial	logistic	negative binomial	logistic	negative binomial	logistic	negative	logistic
				All MPs				
Parl13	1.221***	2.747***	0.607***	0.537	0.175	-0.021	1.267***	1.675***
	(0.298)	(0.616)	(0.209)	(0.425)	(0.184)	(0.439)	(0.225)	(0.463)
Race2M	0.407	0.148	-0.238	0.324	0.154	0.476	0.190	0.421
	(0.318)	(0.593)	(0.248)	(0.535)	(0.215)	(0.578)	(0.243)	(0.572)
GenderF	-0.559*	-1.840***	0.404*	1.604***	0.336	1.018*	0.752***	0.653
	(0.332)	(0.652)	(0.228)	(0.531)	(0.206)	(0.541)	(0.225)	(0.515)
Age	0.201	-0.097	0.052	0.130	0.041	-0.143	0.041	-0.187
	(0.241)	(0.401)	(0.150)	(0.278)	(0.137)	(0.287)	(0.156)	(0.306)
Age2	-0.003	0.001	-0.001	-0.001	-0.001	0.002	-0.001	0.002
	(0.003)	(0.005)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)
GRCNonC	2.786***		0.131	-0.064	0.760		1.973***	
	(0.810)		(0.622)	(1.579)	(0.516)		(0.592)	
GRCSMC	-0.811		0.309	1.774**	0.225		0.419	
	(0.545)		(0.335)	(0.868)	(0.313)		(0.360)	
Exp	-0.250	-1.473***	-0.578***	-0.648**	-0.371***	-0.729**	-0.443**	-0.884***
	(0.231)	(0.463)	(0.159)	(0.295)	(0.139)	(0.307)	(0.182)	(0.324)
Edu2H	0.387	1.963***	-0.318	-0.142	-0.067	0.687	-0.370	-0.788
	(0.302)	(0.627)	(0.223)	(0.497)	(0.198)	(0.549)	(0.234)	(0.523)
CareerAcad	-0.483	0.126	0.556	-0.527	0.245	-0.163	0.548	0.988
	(0.577)	(1.046)	(0.449)	(0.932)	(0.410)	(0.932)	(0.454)	(0.996)
CareerCulture	-1.604*	-0.313	-0.318	1.056	-0.018	0.339	-0.319	-0.348
	(0.891)	(1.433)	(0.539)	(0.934)	(0.475)	(0.914)	(0.571)	(1.017)
CareerDoc	-0.872	-0.054	0.078	-0.266	-0.344	0.126	0.380	0.801
	(0.575)	(0.973)	(0.405)	(0.756)	(0.400)	(0.747)	(0.404)	(0.818)
CareerFin	-0.299	0.459	0.232	-0.203	0.406	0.643	-0.564	-1.260
	(0.471)	(0.924)	(0.358)	(0.749)	(0.326)	(0.775)	(0.421)	(0.774)
CareerLabour	-36.889	-19.217	0.087	-0.048	0.980**	1.895	-1.391	-2.166*
	(21,960,727.000)	(1,678.679)	(0.496)	(0.858)	(0.393)	(1.186)	(0.859)	(1.281)
CareerLaw	0.320	0.302	-0.114	-0.891	-0.329	-0.585	0.500	-0.818
	(0.426)	(0.794)	(0.333)	(0.705)	(0.314)	(0.752)	(0.334)	(0.683)
CareerPublic	-1.185*	-2.074*	1.200**	16.728	1.293***	16.345	0.543	1.080
	(0.697)	(1.240)	(0.486)	(1,483.728)	(0.426)	(1,561.016)	(0.492)	(1.372)
CareerSS	1.574***	1.975*	0.391	0.905	1.062***	1.740	1.640***	1.731
	(0.533)	(1.094)	(0.435)	(1.035)	(0.363)	(1.253)	(0.392)	(1.101)
CareerTechnical	-1.214	2.238	-0.301	-0.806	0.080	-0.575	0.791	1.725
	(1.486)	(2.144)	(1.005)	(1.715)	(0.587)	(1.428)	(0.630)	(1.443)
PartyNMP	-3.694***	-3.972***	-1.219*	-1.689	-1.630***	-1.965***	-2.922***	-2.300***
	(0.913)	(1.069)	(0.677)	(1.624)	(0.578)	(0.727)	(0.662)	(0.769)
PartyWP	-1.902***	-2.187**	0.230	1.223	0.477	2.793**	-0.919**	0.500

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	(0.640)	(0.904)	(0.369)	(0.939)	(0.326)	(1.271)	(0.418)	(0.767)
Constant	-3.845	1.580	-0.333	-2.603	-0.106	3.443	-0.426	4.975
	(5.220)	(8.745)	(3.227)	(6.141)	(2.919)	(6.418)	(3.318)	(6.762)
Observations	133	133	134	134	136	136	136	136
Log Likelihood	-148.243	-51.467	-262.551	-69.129	-259.588	-63.652	-209.156	-66.265
theta	1.223*** (0.380)		1.245*** (0.303)		1.798*** (0.437)		1.799*** (0.561)	
Akaike Inf. Crit.	340.486	142.933	569.102	182.258	563.177	167.304	462.312	172.531

Note: Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01.
Corrections: Negative binomial or poisson models for count data are selected based on diagnostic results specific to each outcome variable – tests performed are the Log-Likelihood, Dispersion, Vuong, and Zero-Modelling tests. Logistic regression linearity assumption, influential values, and multicollinearity checks are performed. Influential values, outliers, and insignificant multicollinear variables are removed.

Table 4 indicates clear differential trends of marginal topic representation across MP types. On climate change, social sector MPs, NCMPs, and 13th Parliament MPs filed more PQs, while public sector, cultural, opposition MPs and NMPs filed less. Female MPs and senior MPs were more likely not to file any climate change PQs, while MPs with at least a Master's degree were more likely to file at least 1 PQ.

More PQs on elderly issues were filed in the 13th Parliament, and by female and public sector MPs. MPs with longer political tenure filed fewer elderly PQs. SMC MPs were more likely to file at least one PQs on elderly issues.

Socioeconomic representation was strongest by career background. MPs from labour, public sector, and social sector backgrounds asked more PQs for the low-income, while senior MPs and NMPs asked less. Female and opposition MPs were also more likely to ask at least one PQ on SES.

On issues concerning mental health and disabled welfare, more PQs were filed by female MPs, MPs from the social sector, NCMPs, and in the 13th Parliament. More senior MPs, opposition MPs, and NMPs filed fewer PQs for the mental/disabled community on average. Labour MPs were more likely not to file any PQs on this topic.

6.3   Fractional Models: Ministry PQs & Overall Metrics

This section reports the results for: 1) how GPC membership and Career influence the proportion of PQs an MP files to the corresponding ministry on average; and 2) how the 3 dimensions of MP characteristics influence the overall proportion of PQs filed on all marginal topics, the equality of topic distribution across ministries, and the proportion of PQs including policy proposals.

TABLE 5   Summarized Results –
Proportion of PQs to Ministries by GPC and Career

Proportion of PQs to Ministry	Ministry GPC	Ministry GPC Chair	Ministry Linked Career
MCCY		+	
MCI	+ *		NA
MEWR	+		
MFA			NA
MHA	+	+	
MINDEF	+		NA
MND	+	+ **	
MOE	+	+ **	+ (Public)
MOF	+		+ (Fin)
MOH	+ ***		+ * (Doctors)
MOL	+ *		+ (Law)
MOM	+ **		
MOT	+ *	+	NA
MSF	+ ***		+ (Social Sector)
MTI		+ ***	+ ** (Biz)

Note: + Top 3 Performance; *p<0.1; **p<0.05; ***p<0.01.

Table 5 presents the summary results from the 15 separate regression models run, with one for each ministry. From each model, only the coefficients for the relevant GPCs and careers linked to each ministry is reflected. Some ministries do not have an obvious associated career – for instance, the Ministry of Foreign Affairs. Beyond significant results, coefficients are also reported if the corresponding GPC and career ranked in their respective top 3 of impact on ministry PQs.

Of the 15 ministries, membership in 6 corresponding GPCs were found to significantly increase PQs to those Ministries, while another 6 GPCs had a top-three, though insignificant impact. Chairmanship of GPCs had an additional significant positive impact for 3 ministries, and another 3 of ministries with top-three positive impact. Meanwhile, only 2 corresponding careers were significantly associated with more PQs – doctors asked more questions to the Ministry of Health and private sector business MPs asked more questions to the Ministry of Trade and Industry. Another 4 careers had a top-three but insignificant impact on the relevant ministry. These results suggest that GPCs and personal career background did influence topical PQ representation to an extent. That said, a key omitted variable is personal policy interest, which is not fully accounted for by an MP's professional career. The next results address this concern.

TABLE 6   Descriptive Statistics –
Proportion of Ministry PQs against Intra-Parliament GPC Change

	Min.	1st Quartile	Median	Mean	3rd Quartile	Max.
% Proportion of PQs to Ministry	0.00%	0.00%	2.92%	6.41%	9.09%	100.00%
% Change in Proportion of PQs to Ministry with GPC membership	-15.15%	+0.00%	+0.93%	+3.79%	+5.81%	+60.00%

Table 6 says that when an MP changed GPCs within the 13th Parliament, the proportion of PQs to those Ministries was about 1% (median) higher when they were in the corresponding GPC, compared to the adjacent session when they were not. This 1% increase should be seen in context of the average proportion of PQs per ministry, which stands at 2.92% (median). Thus, descriptive trends alone point to a small increase in ministry PQs due to GPC membership.

TABLE 7   First-Difference Model - Proportion of Ministry
PQs against Intra-Parliament GPC Change

	Proportion of PQs to Ministry
GPC Membership	0.032**
	(0.016)
GPC Chairmanship	0.082***
	(0.031)
Observations	570
R^2	0.022
Adjusted R^2	0.019

Note: *p<0.1; **p<0.05; ***p<0.01.

I also conducted a first-difference regression analysis on this dataset and found a positive and significant effect for GPC membership on PQ proportion to ministries. The results from *Table 7* suggest that, after controlling for personal interest, GPC membership independently increases PQ proportion to the corresponding ministry by 3.2%, while GPC chairmanship has nearly thrice that effect at 8.2%. The low-R-squared value is accepted for this model as I only seek to show a significant relation between the variables, rather than to explain all the variation in the dataset. I also rely on the assumption that MP personal topic interests did not vary significant between the 2 sessions of the 13th Parliament, where the results would be upwards biased if the shift in interest favouring certain ministries was correlated with the change in GPCs to those ministries, and that seasonal hot policy topics do not shift in the same direction as any change in the distribution of GPC membership across ministries.

TABLE 8   Various Overall Proportional PQ Representation Metrics

	Gini Index of PQs by Ministry		Proportion of PQs with Marginal Topics		Proportion of PQs with Proposal	
	All MPs	Elected	All MPs	Elected	All MPs	Elected
Parl13	-0.204**	-0.356***	0.214	0.211	-0.004	-0.305*
	(0.098)	(0.127)	(0.142)	(0.168)	(0.128)	(0.173)
Race2M	0.069	0.008	0.175	0.369*	-0.057	0.082
	(0.117)	(0.150)	(0.166)	(0.191)	(0.153)	(0.202)
GenderF	-0.139	-0.104	0.652***	0.389**	0.204	0.003
	(0.110)	(0.134)	(0.150)	(0.171)	(0.142)	(0.185)
Age	-0.050	0.032	-0.030	-0.124	0.006	-0.066
	(0.069)	(0.091)	(0.093)	(0.116)	(0.088)	(0.127)
Age2	0.001	-0.0002	0.0001	0.001	0.00002	0.001

	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
GRCSMC		0.001		-0.032		0.388
		(0.170)		(0.240)		(0.234)
Exp	0.093	0.128	-0.080	-0.251**	-0.188**	-0.248**
	(0.067)	(0.082)	(0.103)	(0.116)	(0.094)	(0.119)
Edu2H	-0.131	-0.190	-0.094	0.189	0.070	0.205
	(0.107)	(0.124)	(0.154)	(0.164)	(0.142)	(0.170)
Ret1		0.050		0.122		0.180
		(0.147)		(0.198)		(0.204)
CareerAcad	0.101	0.124	0.129	0.405	-0.023	-0.284
	(0.215)	(0.338)	(0.310)	(0.421)	(0.286)	(0.448)
CareerCulture	-0.020	-0.440	0.074	0.230	0.026	-0.293
	(0.227)	(0.356)	(0.325)	(0.461)	(0.295)	(0.499)
CareerDoc	0.084	-0.185	-0.119	0.315	0.007	-0.214
	(0.188)	(0.212)	(0.284)	(0.286)	(0.249)	(0.301)
CareerFin	-0.081	-0.172	-0.104	-0.055	0.294	0.310
	(0.177)	(0.192)	(0.272)	(0.275)	(0.227)	(0.252)
CareerLabour	-0.029	0.019	0.422	0.539	0.475*	0.336
	(0.230)	(0.269)	(0.320)	(0.345)	(0.285)	(0.347)
CareerLaw	-0.060	-0.100	0.090	0.031	0.142	0.102
	(0.159)	(0.180)	(0.233)	(0.249)	(0.217)	(0.252)
CareerPublic	-0.194	-0.248	0.283	0.206	0.438	0.342
	(0.253)	(0.261)	(0.365)	(0.346)	(0.319)	(0.337)
CareerSS	-0.334	-0.153	1.030***	1.198***	0.410	0.796**
	(0.205)	(0.254)	(0.261)	(0.296)	(0.267)	(0.335)
CareerTechnical	-0.028	-0.671	-0.571	-0.435	0.503	
	(0.305)	(0.416)	(0.522)	(0.614)	(0.378)	
PartyNMP	0.431***		0.006		-0.188	
	(0.160)		(0.222)		(0.207)	
PartySPP	-1.239*		-0.542		-0.405	
	(0.659)		(1.157)		(0.859)	
Win		0.008		-0.002		0.029***
		(0.008)		(0.011)		(0.011)
PartyWP	-0.390**	-0.361*	0.113	0.037	-0.617***	-0.464
	(0.153)	(0.199)	(0.225)	(0.264)	(0.230)	(0.294)
Constant	1.406	-0.708	-0.776	0.815	-1.339	-1.709
	(1.493)	(2.060)	(1.998)	(2.632)	(1.905)	(2.863)
Observations	134	94	133	94	134	92

Note: Standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01.
Corrections: Logistic regression linearity assumption, influential values, and multicollinearity checks are performed. Influential values, outliers, and insignificant multicollinear variables are removed.

Higher equality in PQ topic representation across ministries is significantly associated with opposition MPs from the Worker's Party and NMPs, and there was more equal representation across the board in the 13th Parliament. Social sector MPs, especially non-elected ones, also had more equal representation across ministries.

On representation of all 9 marginal topics coded, all female MPs and social sector MPs devoted more of their PQs to marginal issues. Within elected MPs only, minority MPs also had a higher proportion of marginal PQs, while the proportion decreased while increasing political seniority.

Finally, looking into the purpose of PQs, I find that more senior MPs and opposition MPs tended to propose less solutions in their PQs. Social sector MPs proposed more PQs, particular amongst elected MPs, while the same was found for non-elected Labour MPs. The 13th Parliament saw a decrease in proportion of PQs with proposals. Notably, an increased win margin was found to significantly increase the proportion of PQs with solutions. Potential explanations are discussed in the next section.

7 Qualitative Results & Discussion

To corroborate and provide essential context for the quantitative trends uncovered, in-depth interviews were conducted with 7 Members of Parliaments of Singapore from the 12th and 13th Parliament. This section integrates the quantitative results with key insights from the interviews, to form holistic understanding of the main factors at play in PQ representation in Singapore. For brevity, aggregated interview insights across all MPs are presented here – detailed responses attributed to each MP, by PQ factor, are available in *Appendix D.*

7.1 PQ Purposes, Sources & Activity

As hypothesized in existing literature, MPs shared that PQs are primarily used to: 1) request information on issues or policies; 2) draw attention to issues; 3) raise policy ideas for consideration; 4) debate policies with officeholders; and 5) perform representation to constituents. Oral PQs in particular were valued by MPs for the opportunity to directly engage Ministers on key issues, via being able to respond and provide more evidence through immediate follow-up supplementary questions. MPs also said that PQs were a critical channel for "last-resort" political advocacy, citing cases of immediate action upon PQ filing and "very important" platform for dynamic questioning.

Consistent sources of PQ topics across MPs interviewed were: 1) constituency feedback; 2) current topics in public discourse; 3) personal interest or observations; and 4) personal connections. The significance of grassroots activities in generating PQ topics align with existing literature on the role of the MPS as a form of democratic representation that mitigates the weaknesses of authoritarian institutions (Ong 2015). Some MPs were more proactive in reaching out to various interest groups to understand their issues.

These insights demonstrate that PQs are an important record of MP's individual representative activity and policy orientation, and that personal interest is a key factor of PQ topics. This in turn provides crucial rationale for investigating the role of personal identity, intuitively the most important determinant of personal interests.

7.2   Personal Identity: Selection & the Descriptive-Substantive Link

Personal identity was found to have a significant influence on PQ representation, if not the most influence, both in the quantitative analysis and MP interview. Shared experience is key. For instance, a PAP MP cited the need to be "personally knowledgeable" about issues being filed, while another PAP MP said that their personal experiences of policies, what they encountered and observed, were a key factor of their motivation to file related PQs.

The quantitative findings found that women asked more PQs on women's issues. Female MPs cited the role of gender role expectations, higher personal interest, and shared experiences in shaping both their own awareness of issues, but also contributing to more women constituents giving them feedback on relevant issues. One MP also cited an underrepresentation of women's issues, that gender-based issues were not a very salient topic. Female MPs were also found to dedicate a higher proportion of PQs to marginal topics than male MPs, especially on elderly issues, mental/disabled welfare, socioeconomic status, and minority issues, though they asked less PQs on climate change. This could be due to females being more exposed to traditional marginalized communities through gender role burdens.

On ethnicity, minority MPs asked more minority PQs, even after controlling for all 12 MP characteristics. From the interviews, this was due to informal descriptive representation expectations from both the constituents and fellow MPs, shared experiences, personal interests, and constituency feedback. Chinese MPs cited a fear of misrepresentation as a factor for the lower minority representation by Chinese MPs, and public image concerns if they were to raise

minority issues which the minority MPs did not. Opposition minority MPs also filed more minority PQs than PAP minority MPs, explained through opposition MPs not having extra-parliamentary channels to address issues, unlike PAP MPs, and having fewer MPs to cover all minority issues. Taken together, the evidence suggests that not only is shared experience important for representation, its converse, the lack of shared experience, is itself a separate driver in actively discouraging majority-race MPs without shared experience from representing other constituent views. The apparent practice of back-door discussions on "sensitive" racial issues by PAP MPs also reduces formal, public, and parliamentary representation of minority interests. The quantitative results also found that minority MPs file more PQs across all marginal topics and local constituency issues. These findings affirm the need for descriptive representation on the gender and ethnic dimension, and that the impacts of descriptive representation go beyond the direct constituency represented – marginalized representatives often face intersectional burdens, and thus can be more motivated to represent a wider range of marginal interests.

Another key dimension is the apparently low number of PQs filed on minority issues across all MPs. Consider how more PQs were filed for foreign workers than minority issues. This was also observed by Tam's prior study, who gave an explanation that this was due to the lack of minority-dominated electoral districts, and a "PAP-constructed civic national identity" that prioritizes civic interests and downplays the salience of ethnicity in politics and policy (Tam 2019). Responses and explanations from MPs included: 1) playing down the statistic, that there were not too many salient minority-issues to begin with; 2) being constrained not by party controls over PQs but by answers from political officeholders denying the existence of issues and the MP's lack of data beyond anecdotal evidence; 3) agreement in theory that minority-dominated districts could reduce minority representation; 4) disagreement with Tam's "civic identity" theory, citing that the PAP in fact emphasizes ethnic identity rather than

seeking an amalgamation into a national identity; and 5) hypothesizing the existence of an "internal rule" among PAP MPs to raise sensitive minority issues behind closed doors. The interview insights suggest that rather than the imposition of formal limits on minority PQ representation, other indirect forms of representation suppression can include political office-holder unwillingness to acknowledge issues and extra-parliamentary channels to raise minority issues that do not have sufficient public attention to necessitate being raised in parliament.

An MP's age largely did not affect PQ activity, except for number of PQs filed on women's and constituency issues, which decreased with increasing age. MPs said that age is not a significant influence on PQs, suggesting political seniority instead, and then younger MPs do tend to be more attuned to the "more altruistic" ideals of the younger generation.

A higher tertiary education level appears to lead to increased representation only for certain marginalized issues. Specifically, MPs with at least a Master's degree asked more PQs on minority issues and climate change. These MPs also asked more questions on minority issues, though the result is not significant. As the trend between education and marginal topic representation is mixed, no broader conclusion is drawn on this variable.

Some career backgrounds represent marginal issues collectively more than others, notably when they involve work with marginalized community or emerging issues. For instance, MPs from the social sector had significantly better representation across all marginal issues, except for elderly issues. Social sector MPs also had a higher proportion of PQs with proposals, and a more equal distribution of PQs across ministries. A social sector MP said that their professional background provided skillsets, perspectives, and connections which shape their approach to political representation and constituent interactions. Labour MPs also filed a higher proportion of marginal PQs and PQs with proposals, and more PQs for the socioeconomic and constituency issues, but less on minority and mental/disabled issues. This

is a significant finding as labour MPs are argued to be co-opted into Parliament to represent working class needs, exactly socioeconomic issues, and to push for change within Parliament. Public sector MPs were found to file more PQs representing traditional marginal interests like socioeconomic and elderly issues, but less PQs on emerging concerns, specifically climate change. Interestingly, MPs from the cultural sector filed less PQs on women's issues and climate change.

More broadly, career background, in terms of professional expertise, aligned with PQ topical focus, with 6 careers out of 11 placing in the top 3 of PQs filed to their relevant ministries. This is explained by: 1) personal interest; 2) personal expertise in the subject matter; and 3) connections with relevant stakeholders that provide information on the realities and policy preferences of constituents. An MP noted strong career effects for MPs from the business, medical, and law professions on the respective ministry by topic, corresponding with the quantitative findings, while another MP cited the need for diverse career representation in Parliament to have a "balance of different views". These insights from MPs lend evidence to the argument for the role of the descriptive-substantive representation in Singapore's Parliament, along lines of professional expertise.

That said, one key individual-level factor that MPs cited, which the quantitative analysis is unable to account for, was personal philosophy of each MP on the representational role of an MP. The variations in philosophies are along the aspects of: 1) their fundamental beliefs on a representative's responsibilities; 2) their preferences for performing parliamentary representation or taking action; and 3) their opinions on how PQs are best used. For instance, MPs described their role as "resident-centric", or to "share the stories of everyone they meet". Some MPs deliberately limited their PQs to topics they were personally knowledgeable about, rather than raising all issues that their constituents brought up, while others deliberately sought to raise marginal issues never raised in Parliament. Another point of disagreement was whether

PQs should be for national-level issues or for local constituency issues. Other MPs simply prefer to act. These insights demonstrate the critical role that personal philosophies play on representation, that range from ideas on representative responsibilities to effective use of PQs.

7.3   Electoral Motivations: The Presence of Sanctions

An MP's winning margin was found to have no significant impact on PQs across quantity and topics, with the sole exception of PQs on local constituency issues, which will be discussed in the later section on the GRC system. This general lack of salience of electoral performance at the individual MP level was corroborated with interviews, with multiple MPs observing no relation. However, MPs said that the overall electoral performance of the ruling party does matter on the macro-scale, that a more highly contested political environment does lead to an overall increase in parliamentary activity. These suggest that while electoral pressure does impact party-level representational activity, it is not salient enough to impact each MP on the individual level. There are two possible explanations this. The first is that elections are simply not competitive enough – a lower winning margin does not entail significant political risk for each MP to lose their seat in the next election to affect their PQ activity. Another explanation is that PQs are not relevant to electoral performance. MPs said that historically little public attention has been giving to parliamentary activity. This suggests that electoral sanctions on PQ representation is absent due to a lack of genuine electoral risk and the electorate's apathy to parliamentary representation. Curiously, a higher winning margin was found to have a positive association with proportion of PQs with proposals. A possible explanation is reverse causality – that MPs who had a track record of active constituency service via fighting for policies then gain a higher winning margin through a personal vote.

Political seniority was associated with worse performance in virtually all the PQ metrics. Senior MPs filed fewer PQs, devoted a smaller proportion of PQs to all marginal

issues, were more likely not to ask any questions concerning women, minority, climate change, and constituency issues, and asked fewer questions on the elderly, socioeconomic inequality, and mental/disabled welfare. Senior MPs also included less proposals in their PQs. MPs explained this through: 1) political progression motivations for junior MPs; 2) newer MPs having more unaddressed issues of personal interest; 3) senior MPs tending to use speeches or extra-parliamentary channels to resolve issues. Newer MPs thus have more interest-based and progression-based motivations to file more PQs, while having fewer channels to represent constituents. This is similar to observations in the Swiss Parliament where more experienced parliamentarians chose different means to communicate their policy opinions (Bailer 2011). These results also suggest a possible lack of electoral accountability on PQ representation, where MPs can leverage their political seniority and do not face any electoral pressure to continue to perform parliamentary representative activity via PQs.

Finally, an MPs impending retirement was found to only have a significant impact on the number of PQs raised on constituency-specific issues. A PAP MP said that they did not observe any reduction in PQ activity from retiring MPs, citing a few case studies of such MPs who continued to ask many PQs. This could show that MPs do have intrinsic motivation to continue asking PQs on topics beyond local issues, possibly through personal interest or GPC role, even without future electoral accountability. Conversely, this could also mean that MPs who do not have strong personal ties with their geographical constituency no longer have any intrinsic motivation to file PQs for them, suggesting that electoral accountability, though weak, is not completely absent.

7.4   Micro-Institutions: Their Influence on Selection vs Sanctions

Compared to GRC MPs, SMC MPs filed more PQs on local constituency issues, minority issues, and had more PQs with proposals. Crucially, the GRC system was found to

affect the association between an MP's winning margin and the number of PQs they file on local constituency issues. For GRC MPs, a lower vote share in the prior election was associated with fewer constituency PQs filed, but the trend is reversed for SMC MPs. The lower a SMC MP's vote percentage, the more constituency PQs they filed in the next Parliament, implying the existence of electoral accountability in SMCs but not GRCs. This suggests that the GRC system does impact the representational link of MPs to their specific district, as hypothesized by existing literature. MPs interviewed said that while they did not personally observe any obvious links between the district type, electoral pressure, and representation of local issues, there were certainly underlying representational dynamics that qualitatively strengthen the representational links of SMC MPs. In particular, they cited SMC MPs as having their electoral votes as their "report card" and having to bear exclusive responsibility to represent local constituency issues. Meanwhile GRC MPs were said to "ride on the coat-tails" of ministers. Together with the quantitative findings, this constitutes substantial evidence for the argument that the GRC system does reduce electoral sanctions by diluting the representative link and weakening electoral accountability of MPs to their specific districts.

NCMPs were associated with increased PQs filed on the marginal topics of women's issues, climate change, and mental/disabled welfare. NCMPs interviewed attributed their higher level of PQ activity to PQs being the sole platform for them to perform representation and be profiled, unlike elected MPs who can engage in physical constituency activities. NCMPs however also said that they were constrained by the lack of an electoral constituency to receive ground feedback from, and that they were not exempt from electoral accountability, as they usually still seek election in the future. The NCMP scheme thus does offer meaningful representation, where NCMP are motivated contribute actively to parliamentary representation, though the representational focus of NCMPs is less grounded in constituency issues and more on the personal orientations of the MP.

Meanwhile, NMPs were associated with decreased questions filed on all explicitly analyzed marginal topics besides elderly issues. NMPs also have a more unequal distribution of PQs across ministries, implying more targeted questioning. This was explained to be due to the specific sectoral focus of each NMP and the personal risk aversion of NMPs to stay clear of extra-sectoral issues they were unfamiliar with, though a minority of NMPs do represent broad interests. NMPs also said that personal motivations across NMPs vary, affecting willingness to be seen representing diverse interests. Thus, while the NMP scheme theoretically allows for the representation of a broad range of marginal interests, free from electoral accountability, in practice most NMPs only feel qualified to file PQs within their expertise. This limits the overall impact of the NMP scheme on PQ representation.

GPCs were found to have a small but significant impact on ministry-specific questions overall, and some GPC were more salient than others. The first-difference model showed that on average, controlling for each MP's interests, GPC membership increased PQ proportion to a ministry by 3.2%, and GPC chairmanship by 8.2%. Qualitatively, while ruling party MPs were unanimous in affirming that GPCs are not officially involved in PQs, GPCs can still informally affect PQ activity via privileged access to ministry information, ad-hoc GPC discussions on issues, and individual initiatives by GPC chairs to coordinate the representative activities of their committees more. A PAP MP best illustrated this informal function of GPCs by sharing that some GPC members do update each other on the latest issues in the media via social media such as WhatsApp or email, and plan relevant PQs for the next seating. Crucially, this informal nature of GPCs vis a vis PQs was valued. A PAP MP said that a formalized GPC involvement in PQs was not desirable, as that would mean that a lot of questions would be "filtered down", instructed from the top, rather than the current status quo of ground-up issue raising driven by GPC members personal interests. Overall, the interviews provide important context for the quantitative findings of the small impact of GPCs on PQs to ministries, by

showing that GPCs only informally influence PQ content by providing a platform for information sharing, rather than having any systematic function to scrutinize ministry policies via PQs. Through this, GPCs can still help MPs manifest their personal interests into PQ representation, or artificially allocate MP issues focuses when they join a GPC ministry which they do not have a personal interest in.

Party affiliation is a core determinant of PQ activity. The quantitative results found that opposition MPs, in contrast to ruling party MPs, filed more PQs and distributed their PQs more equally amongst the ministries. Opposition MPs also filed more PQs on the marginal topics of minority and socioeconomic issues, but less PQs on women's issues, climate change, and mental/disabled health. From the interviews, four factors explain this difference in PQ quantity and topics: 1) party ideology; 2) opposition informational disadvantages; 3) allocation of topic portfolios to each MP; and 4) parliamentary prudence, where MPs from each party avoid filing PQs on the same topics as fellow party MPs, resulting WP MPs filing more PQs per topic on average. PAP MPs cited the absence of formal restrictions on PQs, while a NMP said that rather than formal limits, underlying party "dynamics such as backbenchers keeping in "close touch" with ministers do influence representative activity. These insights suggest that parties do not have formal controls on PQ content, but still significantly influence PQ activity through party ideology, close interactions between officeholders and backbenchers, in allocating representational responsibilities. One final quantitative finding is that WP MPs included fewer proposals in their PQs. A WP MP shared their difficulty in finding key information to understand policies, thus this could be an explanation as WP MPs have to devote more PQs to extracting information first.

7.5   Selection over Sanctions

Overall, the results collectively show that individual attributes across personal identity, representational philosophies, and professional background do significantly impact PQ representation even in Singapore's uncompetitive political system, suggesting that individual MPs have space to pursue their personal policy preferences. On the other hand, from 2011 to 2020, electoral performance has insignificant effect on an individual MP's PQ representational activity outside of SMCs. MPs are also able to reduce their formal PQ representation with increasing seniority without repercussions, implying a lack of representative sanctions at the individual level. This supports the argument that the crucial determinant of effective representation in Singapore is selecting MPs with intrinsic motivations to represent relevant constituencies.

The micro-institutions in Singapore's political system also play a key role in engineering types of representation and influencing the salience of both selection and sanctions. For instance, quantitative results suggest that SMC MPs better represent constituency interests due to the presence of electoral pressure, and the interviews affirm that single-member districts do qualitatively strengthen representative links and expectations. The NMP and GPC schemes on the other hand boost representation by selection by providing MPs a platform to act on their personal interests. Finally, party ideology and portfolio assignments are also a key enabler of MP personal interests, constituting a key mechanism to strengthen representation by selection, while also artificially allocating representative focuses.

Crucially, the observed prominence of selection over sanctions is fundamentally linked to the low level of electoral competitiveness the 12th and 13th Parliament. Thus, the findings are context-specific to these two parliaments which saw relatively constant conditions regarding electoral competitiveness. With the increasing competitiveness of local elections with the opposition's capture of a 2nd GRC in 2020 and the presence of 10 elected opposition

MPs in the 14th Parliament, the systemic structures and institutional incentives driving MP representational behaviour may very well change from the 14th Parliament, potentially shifting the salience of selection and sanctions over PQ representation.

7.6   Broader Trends on PQ Use

The quantitative analysis uncovered key shifts in PQ activity from the 12th to 13th Parliament, including more PQs being filed, increased number of PQs filed on all marginal topics bar minority issues, and a more equal distribution of PQs across ministries. MPs interviewed attributed this to generational shifts in ideals, increasing expectation for political representation, and the impact of social media on the visibility of national issues and parliamentary activity. Given that social media is only going to become more widespread and emerging concerns come to the forefront of policymaking, effective representation via PQs will become increasingly critical, increasing the importance of understanding its drivers.

8   Conclusion

Through testing a diverse set of PQ representational outcomes against the three dimensions of MP-specific characteristics – the individual, electoral, and institutional – this study highlights personal identity and representative selection as the main driver of representative authoritarianism in Singapore. It also sheds light on the salience of micro-institutions to political representation in Singapore, suggesting that each small political innovation can meaningfully nudge representation towards selection or sanctions-driven representation. The broader implications are that in the absence of competitive elections, effective representation within bounds can still be possible via selecting the "right MPs" and creating electoral and parliamentary micro-institutions to nudge and create MP representational links.

On the identity spectrum, I find that gender, minority, and selected career backgrounds significantly influenced PQ representation towards the corresponding topics, largely through shared experiences, personal interest, and feedback from professional connections. Social sector and labour MPs represent marginalized communities particularly well. A higher education level also influences an MP's representational orientation towards marginal issues. Age is mostly not related to PQ quantity or content. A myriad of personal philosophies on representative duties, opinions on effective PQ use, and an MP's ability to pursue extra-parliamentary action also heavily shape an MP's use of PQs. These findings provide evidence for the importance of selecting descriptive representatives that reflect the demographics of the citizens, be it through personal identity, expertise, or philosophy.

Electoral winning margin had no effect on PQ representation in the 12th and 13th Parliament, besides PQs on local constituency issues, due to a combination of uncompetitive elections and irrelevance of PQ activity to constituents. In contrast, political tenure, was

significantly associated with almost all PQ metrics. Specifically, more junior MPs filed more PQs overall, on minority issues, and had a higher proportion of PQs with proposals, driven by political progression goals, having more outstanding issues of interest, and less extra-parliamentary channels for representation. Impending retirement also had no significant impact on PQ representation, suggesting that the prospect of electoral sanctions from upcoming elections were not significant in driving PQ activity in during the earlier tenure of MPs. Together, these results provide evidence for the lack of meaningful electoral sanctions on PQ representation, due to both a lack of genuine competition and other systemic structures that dilute the accountability link. This suggests that representation was primarily driven via intrinsic MP motivations like shared experiences or personal interests.

Micro-institutions either strengthened selective or sanctions-driven representation. The GRC system was found to weaken electoral accountability on representation of local constituency issues, with a decreased vote percentage significantly linked to increased representation for only SMC MPs. The NCMP and NMP schemes created space for limited additional representation, often within the MP's personal interests, as they were constrained by lack of institutional support and individual risk aversion. GPCs were found to have a small but significant institutional impact in directing MP representation to corresponding ministries, though this was driven not by formal GPC roles but by informal information aggregation and interest amongst GPC members, thus serving to both amplify personal interests and artificially engineer representational focuses. Party affiliation can strengthen or weaken selection-driven representation through channels beyond formal MP control, such as party ideology, informal interactions between officeholders and backbencher MPs, access to resources, and allocation of MP representational portfolios.

This study shares the common limitation of quantitative social science research that it does not employ causal identification methods. Thus, this paper makes no claims to causal

links between MP characteristics and PQ activity – it only highlights correlations between them. That said, there is still much to be gleaned from associational trends. A more fundamental limitation is that observing associational trends by PQ quantity and broad topic alone may be inadequate. Essentially, accounting for the broad topic of PQs alone is insufficient to determine the intensity of political scrutiny and interest representation – it makes a difference whether PQs are merely seeking a routine update on policies or are raising new information or evidence for added ministerial and parliamentary scrutiny. PQs also do not provide the whole picture of parliamentary representation – as multiple MPs have raised, MPs can also convey their policy preferences via speeches, debates, extra-parliamentary lobbying, or taking individual action, all of which are key facets of political representation not captured in this study.

There remains much to be explored via empirical analysis of PQ representation, even in Singapore. For one, more detailed coding of PQ content can be done, beyond ministries and marginal topics, through natural language processing for instance. The content of Supplementary Questions also deserves to be investigated further, and this study also did not study SQs by other MPs beyond the original PQ questioner. On the MP level, other specific personal-level identities can be explored, such as religiosity, whether an MP is a former government scholarship holder, and their path to politics – whether an MP was a long-time PAP party cadre or constituency volunteer.

Given the increasing electoral competition with the opposition's capture of a 2nd GRC in 2020, and with the increasing salience of PQs to national civil discourse, the dynamics of selection over sanctions will continue to evolve and follow-up research should be done on 14th Parliament PQs. Beyond PQs, parliamentary speeches and debates are another rich source of identifying MP representational orientation, with multiple interviewees mentioning that some MPs tend to focus their activity on debates and speeches rather than PQs. Finally, pertinent to

the study of the selection model of representation is the preceding stage of candidate selection

– the PAP's internal selection process for MPs, of which little research has been done to date.

9   References

Abdullah, Walid Jumblatt. 2016. 'Electoral Innovation in Competitive Authoritarian States: A Case for the Nominated Member of Parliament (NMP) in Singapore'. *Japanese Journal of Political Science* 17 (2): 190–207. https://doi.org/10.1017/S1468109916000037.

Bäck, Hanna, and Marc Debus. 2020. 'Personalized versus Partisan Representation in the Speeches of Migrant Members of Parliament in the German *Bundestag*'. *Ethnic and Racial Studies* 43 (9): 1673–91. https://doi.org/10.1080/01419870.2019.1654112.

Bailer, Stefanie. 2011. 'People's Voice or Information Pool? The Role of, and Reasons for, Parliamentary Questions in the Swiss Parliament'. *The Journal of Legislative Studies* 17 (3): 302–14. https://doi.org/10.1080/13572334.2011.595123.

Besley, Timothy. 2005. 'Political Selection'. *Journal of Economic Perspectives* 19 (3): 43–60. https://doi.org/10.1257/089533005774357761.

Blidook, Kelly, and Matthew Kerby. 2011. 'Constituency Influence on "Constituency Members": The Adaptability of Roles to Electoral Realities in the Canadian Case'. *The Journal of Legislative Studies* 17 (3): 327–39. https://doi.org/10.1080/13572334.2011.595125.

Brito Vieira, Mónica, ed. 2017. *Reclaiming Representation: Contemporary Advances in the Theory of Political Representation*. Routledge Advances in Democratic Theory 7. New York, NY: Routledge.

Chan, Heng Chee. 1976. 'The Role of Parliamentary Politicians in Singapore'. *Legislative Studies Quarterly* 1 (3): 423. https://doi.org/10.2307/439506.

Comparative Agendas Project. n.d. 'CAP Topics'. Accessed 13 March 2021. https://www.comparativeagendas.net/pages/master-codebook.

Gandhi, Jennifer, and Ellen Lust-Okar. 2009. 'Elections Under Authoritarianism'. *Annual Review of Political Science* 12 (1): 403–22. https://doi.org/10.1146/annurev.polisci.11.060106.095434.

Goh, Daniel P. S., and Terence Chong. 2020. '"Chinese Privilege" as Shortcut in Singapore: A Rejoinder'. *Asian Ethnicity*, December, 1–6. https://doi.org/10.1080/14631369.2020.1869519.

Huang, Zongxi, and William Theodore De Bary. 1993. *Waiting for the Dawn: A Plan for the Prince ; Huang Tsung-Hsi's Ming-i-Tai-Fang Lu*. Translations from the Asian Classics. New York: Columbia Univ. Press.

Kim, Wonik, and Jennifer Gandhi. 2010. 'Coopting Workers under Dictatorship'. *The Journal of Politics* 72 (3): 646–58. https://doi.org/10.1017/S0022381610000071.

Kolpinskaya, Ekaterina. 2017. 'Substantive Religious Representation in the UK Parliament: Examining Parliamentary Questions for Written Answers, 1997–2012'. *Parliamentary Affairs* 70 (1): 111–31. https://doi.org/10.1093/pa/gsw001.

Lim, Sean. 2019. 'Which MPs Have Asked the Most Questions in Parliament?' Our Class Notes. 26 September 2019. https://www.ourclassnotes.com/post/which-mps-have-asked-the-most-questions-in-parliament.

———. 2021. 'Just Kill Off GPCs. They're No Longer Relevant Today'. RICE. 5 March 2021. https://www.ricemedia.co/current-affairs-commentary-gpcs-no-longer-relevant/.

Malesky, Edmund, and Schuler. 2010. 'Nodding or Needling: Analyzing Delegate Responsiveness in an Authoritarian Parliament'. *The American Political Science Review* 104 (3): 482–502.

Malkopoulou, Anthoula, and Lisa Hill, eds. 2017. *Equality and Representation: New Perspectives in Democratic Theory*. London New York: Routledge.

Manion, Melanie. 2014. 'Authoritarian Parochialism: Local Congressional Representation in China'. *The China Quarterly* 218 (June): 311–38. https://doi.org/10.1017/S0305741014000319.

———. 2017. '"Good Types" in Authoritarian Elections: The Selectoral Connection in Chinese Local Congresses'. *Comparative Political Studies* 50 (3): 362–94. https://doi.org/10.1177/0010414014537027.

Mansbridge, Jane. 1999. 'Should Blacks Represent Blacks and Women Represent Women? A Contingent "Yes"'. *The Journal of Politics* 61 (3): 628–57. https://doi.org/10.2307/2647821.

———. 2009. 'A "Selection Model" of Political Representation'. *Journal of Political Philosophy* 17 (4): 369–98. https://doi.org/10.1111/j.1467-9760.2009.00337.x.

———. 2015. 'Should Workers Represent Workers?' *Swiss Political Science Review* 21 (2): 261–70. https://doi.org/10.1111/spsr.12160.

Martin, Shane. 2011. 'Parliamentary Questions, the Behaviour of Legislators, and the Function of Legislatures: An Introduction'. *The Journal of Legislative Studies* 17 (3): 259–70. https://doi.org/10.1080/13572334.2011.595120.

Martin, Shane, and Olivier Rozenberg. 2012. *Roles and Function of Parliamentary Questions.* Place of publication not identified: Routledge.

Mügge, Liza M., Daphne J. van der Pas, and Marc van de Wardt. 2019. 'Representing Their Own? Ethnic Minority Women in the Dutch Parliament'. *West European Politics* 42 (4): 705–27. https://doi.org/10.1080/01402382.2019.1573036.

Ng, Nelle, and Sheryl Yang. 2020. 'How Active Are Your MPs in Parliament? Exploring MPs' Attendance and Speaking Count'. The Kopi. 23 June 2020. https://thekopi.co/2020/06/23/singapore-parliament-performance/.

Oliver, Steven, and Kai Ostwald. 2018. 'Explaining Elections in Singapore: Dominant Party Resilience and Valence Politics'. *Journal of East Asian Studies* 18 (2): 129–56. https://doi.org/10.1017/jea.2018.15.

Ong, Elvin. 2015. 'Complementary Institutions in Authoritarian Regimes: The Everyday Politics of Constituency Service in Singapore'. *Journal of East Asian Studies* 15 (3): 361–90. https://doi.org/10.1017/S1598240800009115.

Pang, Cheng Lian. 1971. *Singapore's People Action Party - It's History, Organization and Leadership*. London: Oxford University Press.

Parliament of Singapore. 2021a. 'Functions | Parliament Of Singapore'. 2021. https://www.parliament.gov.sg/about-us/parliament-information/functions.

———. 2021b. 'Sitting of Parliament | Parliament Of Singapore'. 2021. https://www.parliament.gov.sg/about-us/parliament-information/sitting-of-parliament.

Pitkin, Hanna. 1967. *The Concept of Representation*. Berkeley, Los Angeles, London: University of California Press.

Proksch, Sven-Oliver, and Jonathan Slapin. 2015. *The Politics of Parliamentary Debate: Parties, Rebels, and Representation*. Cambridge University Press.

Rasch, Bjørn Erik. 2011. 'Behavioural Consequences of Restrictions on Plenary Access: Parliamentary Questions in the Norwegian *Storting*'. *The Journal of Legislative Studies* 17 (3): 382–93. https://doi.org/10.1080/13572334.2011.595131.

Rodan, Garry. 2009. 'New Modes of Political Participation and Singapore's Nominated Members of Parliament'. *Government and Opposition* 44 (4): 438–62. https://doi.org/10.1111/j.1477-7053.2009.01297.x.

Rozenberg, Olivier, Olivier Chopin, Catherine Hoeffler, Bastien Irondelle, and Jean Joana. 2011. 'Not Only a Battleground: Parliamentary Oral Questions Concerning Defence

Policies in Four Western Democracies'. *The Journal of Legislative Studies* 17 (3): 340–53. https://doi.org/10.1080/13572334.2011.595127.

Rozenberg, Olivier, and Shane Martin. 2011. 'Questioning Parliamentary Questions'. *The Journal of Legislative Studies* 17 (3): 394–404. https://doi.org/10.1080/13572334.2011.595132.

Russo, Federico. 2011. 'The Constituency as a Focus of Representation: Studying the Italian Case through the Analysis of Parliamentary Questions'. *The Journal of Legislative Studies* 17 (3): 290–301. https://doi.org/10.1080/13572334.2011.595122.

Saalfeld, Thomas. 2011. 'Parliamentary Questions as Instruments of Substantive Representation: Visible Minorities in the UK House of Commons, 2005–10'. *The Journal of Legislative Studies* 17 (3): 271–89. https://doi.org/10.1080/13572334.2011.595121.

Sánchez de Dios, Manuel, and Matti Wiberg. 2011. 'Questioning in European Parliaments'. *The Journal of Legislative Studies* 17 (3): 354–67. https://doi.org/10.1080/13572334.2011.595129.

Searing, Donald D. 1995. 'Backbench and Leadership Roles in The House of Commons'. *Parliamentary Affairs*, 418–37.

SG Greenies. 2020. 'Questions about Climate Change: What Goes on in Singapore's Parliament? | Kontinentalist'. Kontinentalist. 12 June 2020. https://kontinentalist.com/stories/climate-change-in-singapore-environmental-policy-issues-parliament.

Shepsle, Kenneth A. 2003. 'Losers in Politics (And How They Sometimes Become Winners): William Riker's Heresthetic'. *Perspectives on Politics* 1 (2): 307–15.

Somfalvy, Esther. 2020. *Parliamentary Representation in Central Asia: MPs Between Representing Their Voters and Serving an Authoritarian Regime*. 1st ed. Routledge. https://doi.org/10.4324/9780367809751.

Strøm, Kaare. 1997. 'Rules, Reasons and Routines: Legislative Roles in Parliamentary Democracies'. *The Journal of Legislative Studies* 3 (1): 155–74. https://doi.org/10.1080/13572339708420504.

Tam, Waikeung. 2019. 'Political Representation of Racial Minorities in the Parliament of Singapore'. *Japanese Journal of Political Science* 20 (4): 225–39. https://doi.org/10.1017/S1468109919000094.

———. 2020. 'Women's Political Representation in a Hybrid and Patriarchal Regime: Evidence from Singapore'. *Parliamentary Affairs* 73 (4): 759–89. https://doi.org/10.1093/pa/gsz019.

Tan, Netina. 2016. 'Why Are Gender Reforms Adopted in Singapore? Party Pragmatism and Electoral Incentives'. *Pacific Affairs* 89 (2): 369–93. https://doi.org/10.5509/2016892369.

Tey, Tsun Hang. 2008. 'Singapore's Electoral System: Government by the People?' *Legal Studies* 28 (4): 610–28. https://doi.org/10.1111/j.1748-121X.2008.00106.x.

UCLA IDRE. n.d. 'Zero-Inflated Poisson Regression | R Data Analysis Examples'. Accessed 13 March 2021. https://stats.idre.ucla.edu/r/dae/zip/.

Wang, Zhongyuan. 2020. 'Engineering Representation in A Single-Party Regime: A Mobilizational Model of Political Representation in China's Local Congresses'. *Journal of Chinese Political Science* 25 (3): 371–93. https://doi.org/10.1007/s11366-020-09662-y.

Wängnerud, Lena. 2009. 'Women in Parliaments: Descriptive and Substantive Representation'. *Annual Review of Political Science* 12 (1): 51–69. https://doi.org/10.1146/annurev.polisci.11.053106.123839.

Wegmann, Simone, and Aurélien Evequoz. 2019. 'Legislative Functions in Newly Democratised Countries: The Use of Parliamentary Questions in Kenya and Zambia'. *The Journal of Legislative Studies* 25 (4): 443–65. https://doi.org/10.1080/13572334.2019.1697057.

Yee, Jenn Jong. 2021. *A Journey in Blue A Peek into the Workers' Party of Singapore*. World Scientific. http://www.vlebooks.com/vleweb/product/openreader?id=none&isbn=978981123016 5.

Zainal, Humairah, and Walid Jumblatt Abdullah. 2019. 'Chinese Privilege in Politics: A Case Study of Singapore's Ruling Elites'. *Asian Ethnicity*, December, 1–17. https://doi.org/10.1080/14631369.2019.1706153.

10 Appendix A – PQ Topics Coding Scheme

Topics	Criteria	Examples
Constituency	Issues with mention of geographic location within an MP's electoral constituency (GRC/SMC)	Municipal infrastructure issues, noise pollution, local services
Women	Issues related to women-specific interests, excl. family or child issues that impact both partners	Gender inequality, women-specific health issues, sexual harrassment
Minority	Issues related to minority-specific interests, excl. non-minority specific radicalization	Muslim affairs, ethnic integration policy, racial discrimination
Socioeconomic Status	Issues related to socioeconomic inequality and the low-income, excl. general cost of living	Wealth distribution, homelessness, rental flats, COMCARE, Progressive Wage Model, Workfare, CHAS
Climate Change	Issues related to climate change & sustainability, excl. traditional environment issues like industrial pollution, water conservation	Sustainable energy, animal welfare & endangered species, recycling, food waste
Mental Health & Disabled	Issues related to mental health & disabled welfare	Mental illness, counselling, suicide prevention
Elderly	Issues related to post-retirement affairs > 65 years, excl. general older worker concerns, pre-retirement CPF issues like withdrawal at age 55	Re-employment, CPF retirement payouts, Pioneer & Merdeka Generation, nursing homes, senior daycare & caregivers
Foreign Workers	Issues related to migrant laborers and foreign domestic workers, excl. Singapore-centric concerns such as cost of foreign labour, security	Work permit holder issues, worker housing, rights, and amenities
Civil Rights	Issues related to civil rights & partisanship, excl. fake news	Freedom of speech, media censorship, information privacy from government, political dissent & activism, election affairs, POFMA rulings, partisan bias
LGBT	Issues related to LGBTQ concerns	Discrimination, support

Appendix B – Regression Variables Coding Scheme

To account for trends over time:

- $Parl_{i,p}$ is a binomial dummy variable that indicates if the MP is in the 12th or 13th Parliament, with the 12th Parliament as the base case.

The 5 identity factor variables include the following:

- $Race2_{i,p}$ is a binomial dummy variable that indicates the MP's ethnic majority or minority status, with Chinese MPs as the base case.
- $Gender_{i,p}$ is a binomial dummy variable that indicates the MP's gender, with males as the base case.
- $Age_{i,p}$ is a count variable that indicates the MP's age calculated as the difference between their year of election (2011/2015) and their year of birth. $Age2_{i,p}$ is the square of $Age_{i,p}$, to account for non-linear effects of age.
- $Edu2_{i,p}$ is a categorical variable that indicates the MP's highest educational qualification attained, with the 2 levels of: Bachelor's degree or less (base case), and Master's degree or PhD doctorate. This division approximately corresponds to the population median.
- $Career_{i,p}$ is a categorical variable that indicates the MP's dominant career background, with the 10 levels of: Academia, Business (base case), Culture, Doctor, Lawyer, Finance, Labour, Public Sector, Social Sector, and Technical professions.

The 3 electoral factor variables include the following:

- $Win_{i,p}$ is a continuous variable that indicates the MP's winning vote percentage for the prior elections.
- $Exp_{i,p}$ is a count variable that indicates the number of Parliaments the MP has been part of, prior to the current Parliament.
- $Retired_{i,p}$ is a binomial dummy variable that indicates if the MP stayed on in the next Parliament, with presence in the next Parliament as the base case.

The 3 institutional factor variables include the following:

- $GRC_{i,p}$ is a categorical variable that indicates the MP's constituency type, with the 3 levels of: GRC, SMC, and Non-Constituency (NCMPs and NMPs).
- $Party_{i,p}$ is a categorical variable that indicates the MP's party affiliation, with the 3 levels of: PAP (base case), WP, and Independent (NMP).

- *$GPC_{i,p}$* is a categorical variable that indicates the MP's GPC membership, with 12 levels corresponding to the 12 GPCs covering 15 Ministries.

Appendix C – Interview Questions

Category	Questions
Opening Qs	What is a good PQ like, and why? What are your common PQ topics, and why?
Historical PQs	**Source:** How did you come across this issue? **Motivation:** Why did you decide to file a PQ for this issue?
Overall PQ Trends	**Quantity:** Have you observed variations in the quantity of PQs each MP raises, and what kind of personal or systemic factors might influence it? **Topic:** Have you observed variations in the topics of PQs each MP raises, and what kind of personal or systemic factors might influence it? **Marginal Topics:** Have you observed some MPs representing marginal interests more than others? What personal or systemic factors might influence that? **Trends:** What is behind the increasing focus on PQs by MPs?
Specific PQ Factors	**Identity:** Might personal identity, across the following dimensions, influence PQ quantity/content, both for yourself, and MPs in general? How would you explain these statistics? - Gender - Race - Age - Education - Career Background **Electoral:** Might the following electoral motivations influence PQ content/quantity? How would you explain these statistics? - Win Margin - Tenure - Retirement **Institutional:** How do the following influence PQ representation, based on your personal experiences within these institutions and your observations of parliamentary trends? How would you explain these statistics? - GRC / SMC - GPC Membership - NCMP / NMPs - Party Affiliation

Appendix D – Detailed Interview Insights by Factor

Factor	Insights per MP
PQ Purpose	- A PAP MP said that PQs were an opportunity to raise and understand issues of public interest better, and to ask ministers for the rationale behind policies. - A WP MP said that PQs were useful to retrieve data from ministries that are not publicly available, which are crucial to further public understanding of policy issues. - A PAP MP shared that PQs were a critical tool for last-resort political advocacy – when extra-parliamentary channels for policy representation were not successful, PQs were an effective tool to direct immediate ministry attention to address policy issues. - A PAP MP said that PQs offered a "very important" platform for political discourse by virtue of its dynamic process, where majority of MPs come up with the follow-up Supplementary Questions on the spot, based on the minister's responses. - Three PAP MPs said that one purpose of PQs was to perform representation to their constituents, to demonstrate that they were speaking up for constituent interests.
PQ Sources	- All 6 elected MPs interviewed cited ground-up constituency feedback as one of the key sources for PQ content. - A PAP MP shared that their personal interest in issues and causes that they "feel for", feedback from "friends", current affairs hot topics covered by the media, and interactions with a broad range of Singaporeans all contributed to their filing of relevant PQs. - A PAP MP said that they personally proactively met with various national interest groups to understand their issues and see how they can be represented via PQs. - A WP MP said that personal connections do approach MPs and request issues to be raised in Parliament. - A NMP said that the PQs they filed depended on personal professional interest, and whether one was prepared to take on pushback for the issue.
Gender	- A female PAP MP said that there are expectations on female MPs to represent female interests. - A female PAP MP said that female MPs were more interested in women's issues than male MPs, excluding a "very small" number of exceptions, leading to more women's PQs filed by female MPs. - A female PAP MP shared that their personal experiences of parenthood increased both their awareness and attention plus feedback from constituents on relevant issues.

	• A male WP MP said that female MPs do push women's issues more, and that it was "harder" for men to do so. • A NMP said that representation of women's issues was "more muted" than one would expect, that there was underrepresentation, and that female MPs appeared to prefer representing national issues over women-specific issues.
Race	• A PAP Chinese MP said that minority MPs were expected to speak for their respective ethnic communities. • A PAP minority MP said that there was an "unwritten rule" that minority MPs were expected to speak up for minority issues, rather than an official party requirement, and that they raised minority issues out of personal experience of policies, interest, and minority constituency feedback. • A WP Chinese MP said that it is better for minority MPs to champion their own interests as they are formally meant to represent the racial demographic in GRCs, and it "doesn't look right" if a Chinese MP files PQs on minority issues when the minority representative does not raise the issue as well. • An WP minority MP shared that role expectations may not even be formal – that majority-race MPs simply have an "unconscious bias" in delegating minority issues to minority MPs. • An WP minority MP shared that majority MPs have a "risk aversion", for fear of misrepresenting minority interests through "lack of proper context". • A WP MP said that opposition minority MPs file more PQs, and also more sensitive topics, as: 1) PAP MPs can "go under the radar" to address minority issues, while WP MPs do not have those channels and only have the parliamentary platform to push for change; and 2) PAP minority MPs can "take turns" to file PQs on salient minority issues, while the sole Malay WP MP has to file PQs for every issue that comes into public discourse.
No. of Minority PQs	• A WP Chinese MP cautioned against reading too much into the apparently low number of minority PQs, saying that: 1) there were perhaps not a lot of "super big" minority-specific issues to begin with, though there certainly issues; and 2) there were fewer minority MPs to raise minority issues, while all the other marginalized issues were being raised by all MPs. • A PAP minority MP said that minority MPs were expected to ask sensitive questions to political officeholders, and that important questions that should be asked, need to be asked. On the other hand, they mentioned being constrained by the replies of political officeholders, who can simply deny the existence of the issue, leaving the MPs unable to substantively respond due to the lack of public data on issues beyond anecdotal evidence and feedback. • A WP minority MP agreed that the lack of minority-dominated districts could possibly reduce minority representation, as neither the MP nor the party would want to alienate the majority. • A WP minority MP disagreed with Tam's civic identity argument – they rejected the argument that the PAP seeks to construct a civic culture beyond race, and instead argued that the PAP in fact emphasizes ethnic identities, giving the example of the various self-help groups along racial lines, and thus

	very much emphasizes racial identity rather than seeking an amalgamation of ethnicities into a national identity. • A WP minority MP hypothesized that PAP MPs might have an "internal rule or agreement" to raise sensitive minority issues behind closed doors, rather than publicly.
Age	• A PAP MP said that age was not a key influence on PQs, but rather political seniority. • A NMP said that younger MPs do tend to be more attuned to the interests of the younger demographic more, including bigger picture and "more altruistic" ideals like wellness and climate change.
Career	• A PAP MP said that there is an obvious correlation between career and PQ topics. • A WP MP observed some correlation between careers and PQ topics, and specifically observed MPs from the business sector, doctors, and lawyers as tending to focus questions on businesses, healthcare, and law respectively, corroborating with the quantitative analysis. • A PAP MP focused their PQs on topics that they were an "expert" in, where they could "value-add" to the discussion. • A PAP MP cited their professional connections as a key source of PQ topics, as sectoral constituents would raise their issues and questions to the MP. • A WP MP said that their own domain knowledge helped them effectively question policy areas and "avoid embarrassment", and their professional affiliation gave them access to sectoral connections who are willing to share domain insights, opinions, and "insider information". • A PAP MP expressed the need for a variety of careers in Parliament, to have a "balance of different views".
Personal Philosophy	• A PAP MP said that they were "resident-centric", that it was their "duty" to speak up for residents without worry of party backlash. • A PAP MP said that their personal representative philosophy was that MPs should not just share their personal views, but to share the stories of everyone they meet and raise difficult questions in Parliament. • A PAP MP said that they focused on more marginalized issues, in contrast to "bread-and-butter" issues, as some of those questions have never been raised in Parliament and deserved airtime as well. • A WP MP cited their observations of MPs who take their representative role more seriously, while there are other MPs who hardly file any PQs. • A PAP MP said that some MPs feel that filing PQs is important, while others prefer to do groundwork and act beyond parliament. • A PAP MP said that in contrast to other MPs who file PQs on every topic, they chose to limit their PQs to topics they had personal experience or background in, where they could personally contribute something to the discussion, rather than simply being a "mouthpiece" for constituents.

	• A PAP MP attributed their personal low count of constituency-specific PQs to their belief that PQs should be for national-level issues affecting a larger group of Singaporeans, and that local constituency issues do not need to be raised at the parliamentary level as MPs can directly contact relevant agencies. • A NMP said that some MPs are very grounded in their constituencies, picking up a lot of issues. They also said that while some MPs are more selective on the topics of representation, others will ask anything that is of public interest.
Winning Margin	• Two PAP MPs shared that they did not observe any relation between winning margin and PQ activity. • A PAP MP said that if constituents felt that the MP was working hard to speak up for constituent interests and solve their problems, they would give their support. • A PAP MP said that winning margin does matter for PQ activity at the party level, that the "very low" percentage of votes the PAP got in the 2011 election led to party leaders instructing PAP MPs to ask all questions without "self-censure", that "nothing is taboo", to represent the interests of Singaporeans. • A PAP MP pointed to the increase PQs across all MPs after the lower overall winning margin of the PAP in the 2020 election. • A WP MP said that they didn't think there is a specific relation between win margin and PQ activity, but said that a more highly contested political environment does generally lead to more PQs filed across all MPs. • A WP MP cited the frequent constituency swopping amongst ruling party MPs, as a factor for the weak link between parliamentary activity and electoral performance. • A PAP MP questioned whether the electorate cares for what goes on in Parliament, and that it was their goal to change this via social media campaigns. • A WP MP said that parliamentary activity was "not so obvious" to the people, that MPs the electorate would not know of MPs with low PQ activity.
Political Seniority	• A PAP MP said that first-term MPs are generally more enthusiastic, as they need to "show their performance". • A WP MP said that PQ activity is one metric for PAP MP selection, and that backbencher PAP MPs interested in a political career would be more active, leading to future political office appointments. Conversely, MPs who are not active are retired in the next election. • A PAP MP observed newer MPs as having more interest in marginal issues. • A PAP MP affirmed this trend and said that more senior MPs usually have "exhausted" personal issues they are interested in because they have become familiar with the government's stance or have moved on to act. • A PAP MP said that more senior MPs might raise issues in speeches instead, where the impact can be higher, and they can elaborate on their position more. • A PAP MP said that senior MPs usually have more extra-parliamentary channels to achieve their policy goals, which could be a more efficient way to address issues.

	• A WP MP said that senior MPs give space to junior MPs to file PQs, due to the limited time available for Oral PQs.
The GRC Scheme	• All 4 PAP MPs said that they did not observe any relation between an MP being in a GRC or SMC and PQ activity. • A PAP GRC MP said that they still asked questions in the interests of their specific division constituents within the GRC, but supported the hypothesis that SMC MPs faced a more direct electoral impact from PQ representation. • A PAP SMC MP with previous experience in a GRC said that they were not consciously aware of any change in representative link or activity with the constituency change, nor of any change in constituency expectations on PQs, but conceded that there might still be an "indirect influence" of competing as a single representative and where "your vote is your report card". • A PAP MP shared that MPs in GRCs are aware of their personal vote count within their sub-district – thus there is still individual electoral vote feedback, just that this information is not public, reducing public pressure and accountability. • A WP MP said that the GRC system influences representation – MPs in GRCs can "ride on the coat-tails" of ministers, while SMC MPs bear the burden of being the "sole person responsible" with exclusive responsibility and burden to represent local constituency interests, increasing the pressure to perform representation.
The NCMP Scheme	• A WP NCMP said that NCMPs tend to be "the most hardworking" in PQ activity as parliament is the only national platform for them to be profiled, in contrast to elected MPs who can walk the ground and directly engage with residents. • A WP NCMP said that due to the low NCMP pay ($2,000), resulting in them having to continue with their full time work, plus the lack of a constituency to gain feedback, this constrained the constituency input they received on possible PQ topics. • A WP NCMP shared that electoral accountability is not absent for them as NCMPs typically still intend to run in the next elections.
The NMP Scheme	• A NMP said that NMPs represent a sectoral interest. They said that while other NMPs do have broader interests, but they were personally more "cautious" and stayed clear of issues they "did not know much about". • A NMP said that the motivations of each NMP matters – some seek to be noticed representing a diverse range of interests, but they personally did not want to be noticed, and thus were more selective on the PQ topics. • A NMP said that NMPs do not have institutional or grassroots support, and thus are on their own to find issues and constituent feedback for representation.

	• A WP MP said that NMPs are not beholden to the electorate and are free to bring up controversial issues without worrying about popularity, though NMP selection is still largely controlled by the ruling party.
GPCs	• A PAP MP mentioned that their membership in a GPC over both Parliaments and appointment as Vice-Chair were factors in the larger quantity of PQs filed to that ministry. • All four PAP MPs said that GPCs have no formal role regarding PQs. • A NMP said that one "could miss" the GPCs in Parliament, that they did not feel their presence at all, and that GPCs had no official role for PQs. • A PAP MP said that the main focus of GPCs is the annual budget debates, and that GPC members can arrange for a separate briefing by the minister if they feel strongly about an issue, and thus do not need to rely on PQs. • A PAP MP shared that GPCs only meet formally twice a year, when they get briefings and information from the ministries on upcoming policy developments, which gives them an opportunity to think of questions to ask. • A WP MP said that GPC members get access to ministry briefings and direct communication with ministries, and so are supported to find issues to raise. • A PAP GPC Chair said that it is largely up to the GPC Chairs to coordinate members in parliamentary activity and cited their personal innovations for more coordinated representation and public education. • A PAP MP said that GPCs may have some role in PQ topics through personal identity, as GPC membership is often (but not always) linked to an MP's professional background, which in turn affects their personal attention on relevant topics. • A PAP MP said GPCs are a "fair amount of autonomy" to ask relevant PQs, and this mainly involved informal discussion amongst GPC members on social media such as WhatsApp or email, where members update each other on the latest issues in the media, and plan relevant PQs for the next seating. • A PAP MP said that a formalized GPC involvement in PQs was not desirable, as that would mean that a lot of questions would be "filtered down", instructed from the top, rather than the current status quo of ground-up issue raising driven by GPC members personal interests.
Party Affiliation	• All four PAP MPs said that there are no formal party guidelines on PQ topics. • A PAP MP said that they have never been asked not to raise a PQ • A PAP MP said that they would ask questions without constraints, "point-blank", if there was enough interest from constituents. • A WP MP acknowledged that some PAP MPs do ask "hard questions" and "use their questions quite well". • A NMP said that they did not observe any party constraints on PQs, but rather than formal limits, there were underlying party "dynamics" or discipline, as MPs have regular meetings with ministers and keep in "close touch" with them. • A WP MP shared that a key determinant of the issues WP MPs represent is due to party ideology. Specifically, they said that the WP considers themselves as

	"centre-of-left", and the PAP as "centre-of-right", and this correspondingly leads the WP to be more interested in issues around "discrimination, equity, and fairness",
	• A WP MP said that the opposition wants to champion the freedom of people to express themselves, to have more open conversations and a more open society.
	• A WP MP said that as they do not get access to ministry information unlike PAP MPs, they maximize their PQs for information gathering, to better understand issues in the first place.
	• A PAP MP conversely said that WP MPs are under pressure to demonstrate representation across diverse demographics, and with fewer MPs to distribute topics, each MP files more PQs.
	• A WP MP shared that all WP MPs in Parliament are given ministry portfolios to cover. Due to the small number of opposition MPs, each MP thus has many ministries to cover, leading to higher quantity of PQs and the larger diversity of ministries filed by WP MPs.
	• Both a PAP MP and a WP MP said that PAP MPs avoid filing overlapping PQs on the same issues, thus on a per MP basis each PAP MP files fewer PQs as each issue is distributed amongst more PAP MPs, compared to WP MPs.
PQ Trends	• A PAP MP cited the evolution of the electorate with the newer generation, where the focus has shifted from bread-and-butter issues to "higher order" and "aspirational" interests like diversity, representation, and participation.
	• A PAP MP said that there is increasing expectations for MPs to convey the "people's voices".
	• A PAP MP cited the difficulty of showcasing PQ activity in the past, as few citizens accessed the Hansard, in contrast to the prevalence of social media today that allows for easy sharing of both parliamentary videos and PQ responses, as a factor for the increasing political salience of PQs.
	• A PAP MP said that, in contrast to 5 years ago, "a lot more work" goes into publicizing their PQs on social media, via light-hearted videos, to get more public excitement on the role of Parliament and why the electorate should care.
	• A WP MP said that the proliferation of social media is the main driver of increasing PQ representation – where the public was previously dependent on the press for information, reporting of policy issues and publicity of parliamentary activity is much easier now.
	• A NMP said that with social media, MPs are unable to avoid addressing issues of national interest, and have to raise PQs on the issue.

Appendix E – Summary Table of Regression Results

Model	Sub-Mod	Dep	MPs	Parl	Race2	Gender	Age	Age2	GRC	Exp	Retired	Edu	Career	Party	Win	Win**
Normal	OLS	AvgPQ	All	+									Public (+)	WP +		
Normal	OLS	AvgPQ	Elected	+									Public (+)	WP (+)		
Normal	OLS	AvgSQ	All	(-)					SMC (-)	-		M +				
Normal	OLS	AvgSQ	Elected													Indp Vars do not explain Outcome
Count GLM + Binomial Logit (NB 0+)	Count	Women	All	+	M (-)	F +	-		NonC +, SMC -	+		M (+)	SS +, Culture (-)	NMP & WP -		
	Binomial	Women	All	(+)	M (-)	F +			SMC (-)	-						
	Count	Women	Elected	+	M (-)	F +	(-)			+			SS +	WP (-)		
	Binomial	Women	Elected							-						
Count GLM + Binomial Logit (P 0+)	Count	Minority	All	-	M +					+		M +	SS +, Labour -	WP +, NMP -		
	Binomial	Minority	All		M +					-						
	Count	Minority	Elected	-	M +	F (+)			SMC (+)	+		M +	SS +, Labour -	WP (+)		
	Binomial	Minority	Elected							-						
(logit sign inverted to same direction as count) (NB 0+)	Count	Cons	Elected		M +		-		SMC +	+	-		Fin, Labour +		(+)	(-)
	Binomial	Cons	Elected							-						
	NB Count	Climate Change	All	+		F (-)			NonC +	+		M +	SS +, Public & Culture (-)	NMP & WP -		
	Logit Binomial	Climate Change	All	+		F -				-			SS (+), Public (-)	WP -, NMP -		
	NB Count	Elderly	All	+		F +				+			Public +	NMP -		
	Logit Binomial	Elderly	All			F +			SMC +	+						
	NB Binomial	SES	All							-			Labour, Public, SS +	NMP -		
	Logit Binomial	SES	All			F (+)				-				WP +, NMP -		
	NB Count	Mental +	All	+		F +			NonC +	-			SS +	WP -, NMP -		
	Logit Binomial	Disabled	All	+						-			Labour (-)	NMP -		
	QB	TopicGini	All	-						-			SS (-)	WP -, NMP +		
	QB	TopicGini	Elected	-		F +				+				WP (-)		
	QB	AvgMarg	All		M (+)	F +				-			Social Sector +			
	QB	AvgMarg	Elected							-			Social Sector +	WP -		
	QB	AvgProp	All							-			Labour (+)		+	
	QB	AvgProp	Elected	(-)						-			SS +			