

Subnational Legislative Network: A Preliminary Analysis in Chiayi City

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Introduction

In unitary systems with Single Non-Transferable Vote in Multi-Member Districts (SNTV-MMD), local legislators possess limited bill-making power. Conventional wisdom suggests they should prioritize constituent service over policy resolutions (Cox, 1997). Moreover, voters in multi-member districts rarely scrutinize proposal performance. Paradoxically, council members persistently initiate proposals each session despite their non-binding nature and apparent voter indifference. This study posits that proposals serve as a signaling mechanism for council members' political capital.

This research addresses the following question: How do legislators' network positions in policy-making processes relate to their overall influence and effectiveness in small local legislatures, and how do policy specialization and party dynamics moderate this relationship?

Employing social network analysis, text analysis, and qualitative methods, I examine legislative behavior in Taiwan's 10th Chiayi City Council. The primary data source is the council's official convention minutes, providing a comprehensive record of legislative activities and interactions. By focusing on a small local legislature and utilizing these detailed records, I aim to elucidate the underlying dynamics of influence and effectiveness where formal powers are constrained. This approach allows for a nuanced analysis of proposal patterns, co-sponsorship networks, and policy priorities as documented in official proceedings.

The Chiayi City Council offers an illuminating context, reflecting broader East Asian local governance patterns. Taiwan's established democracy and vibrant local political culture provide an ideal setting to examine subnational legislative behavior

nuances. The council's limited size and informal structure create an environment where interpersonal relationships and network dynamics significantly shape policy outcomes. This context allows observation of how legislators navigate formal power constraints through informal channels and personal influence.

My analysis reveals several key insights into local legislative dynamics. Frequent cross-party proposal co-sponsorship indicates limited party influence in subnational councils, suggesting a more fluid political environment than typically observed in national legislatures. Counterintuitively, the most senior council members exhibit the lowest levels of proposal activity, challenging assumptions about the relationship between experience and legislative engagement in local contexts. Proposal content analysis demonstrates a focus on local concerns like recreation and estate matters over traditional party issues, underscoring the distinctive nature of subnational legislatures and their responsiveness to immediate community needs.

Qualitative interviews further illuminate the strategic use of proposals by council members. These legislative initiatives serve dual purposes: they stake claims on specific areas of constituency service, effectively notifying other members not to encroach on these domains while simultaneously shielding council members from potential voter criticism. This finding supports my central argument that proposals function as signals of political capital within the local legislative arena.

This study contributes to our understanding of legislative behavior in constrained local contexts, offering insights applicable to emerging democracies with similar subnational governance structures. By examining the intricate ways in which local legislators navigate their limited formal powers, I shed light on the informal mechanisms that shape policy outcomes and political influence at the subnational level.

The Importance of Studying Subnational Legislatures

The importance of studying subnational legislatures cannot be overstated, as several key factors underscore their significance in the broader landscape of democratic governance and policy-making. These factors collectively demonstrate why a deeper understanding of state and local legislative bodies is crucial for a comprehensive grasp of political processes and outcomes in modern democracies (Snyder et al., 2019).

The remarkable diversity of structures and processes found among the local legislatures provides an unparalleled opportunity for comparative analysis. Unlike the

relatively uniform structure of the national legislature, subnational bodies exhibit a wide range of organizational models, procedural rules, and political dynamics. This variability offers a rich tapestry of institutional arrangements, allowing researchers to examine how different legislative structures and processes influence policy outcomes, representational effectiveness, and democratic responsiveness. By studying this diversity, scholars can identify best practices, understand the implications of various institutional designs, and contribute to more informed debates about legislative reform and optimization.

The uniquely close relationship between local legislators and their constituents offers another rich area for study. In contrast to federal representatives, who often operate at a considerable distance from their electorate, local legislators typically have more direct and frequent interactions with the citizens they serve. This proximity creates a distinctive dynamic of representation and accountability, potentially influencing how legislators make decisions, respond to constituent needs, and balance local interests with broader policy considerations. Studying these closer citizen-legislator relationships can yield important insights into the translated into policy outcomes.

In sum, the study of subnational legislatures is not merely an academic exercise but a vital endeavor for understanding the full spectrum of democratic governance in complex, multi-tiered political systems. These legislative bodies are where much of the day-to-day work of democracy occurs, where policies that most directly affect citizens' lives are crafted, and where the principles of representative government are put to the test in the most immediate and tangible ways. As such, deepening our understanding of these institutions is essential for enhancing the quality of governance, improving policy outcomes, and strengthening democratic processes at all levels of government.

Legislative Networks and Social Capital Theory

In local legislative contexts, political capital can be conceptualized as a legislator's capacity to influence outcomes through informal means, with information flow serving as a critical component. This perspective on political capital is particularly relevant in local governance settings, where formal powers are often limited, and the ability to acquire, control, and strategically disseminate information becomes a significant source of influence (Casey, 2005; Ocasio et al., 2020).

The manifestation of information as political capital in local legislatures is multifaceted. In terms of constituent service in multi-member districts, the incumbent legislators need to avoid wasting their restricted resources in overlapping constituency services. For example, when one council member takes care of a special requirement of a neighborhood, other council members may consider not to be involved in the case. That is, when the party hardly plays the role of coordination, the council members need to figure out another mechanism to exchange the information. Similarly, information about constituent needs and preferences allows legislators to align their actions with local demands, enhancing their perceived effectiveness. Connections with local stakeholders, government officials, and other legislators facilitate access to diverse information streams, increasing a legislator's value within the council. Moreover, a thorough understanding of legislative procedures and informal norms enables legislators to navigate the political process more effectively.

The importance of information-based political capital in local legislatures is amplified by several factors inherent to municipal governance. Resource constraints, including limited staff and research capabilities, increase the value of legislators who can independently gather and analyze relevant information. The proximity to local issues means that timely, granular information about community concerns is highly prized. Additionally, the prevalence of informal decision-making processes in local councils elevates the role of information exchange in shaping outcomes.

The relationship between this form of political capital and party ideology in local legislatures is complementary. While party affiliation cannot provide access to certain information channels, the localized nature of issues often necessitates cross-party information sharing. Legislators who can effectively manage information flows across party lines may accumulate more political capital than those who adhere strictly to ideological boundaries. This dynamic underscores a political environment where influence is often derived from one's ability to be a key node in information networks rather than from formal positions or strict party allegiances.

This emphasis on information as political capital in local legislatures reveals a unique political landscape. It suggests that in these settings, the power to influence outcomes is closely tied to a legislator's ability to acquire, interpret, and strategically deploy information. This perspective offers a fresh lens through which to examine the

informal power dynamics that drive local legislative processes, contributing to a more comprehensive understanding of governance at the municipal level.

Party Politics and Personal Networks in Local Legislatures

While party affiliation is a dominant factor in many legislative studies, its role in local politics is often more complicated. Scholars have noted that party discipline and ideological coherence can be weaker at the local level. The influence of parties in European local governments varied significantly across different local contexts (Copus & Erlingsson, 2012). In some cases, local issues and personal relationships played a more significant role in shaping legislative behavior than party affiliation. This finding suggests that the dynamics of party politics may operate differently in local councils compared to national legislatures.

In small local councils, legislators may find it necessary to work across party lines more frequently, given the limited number of colleagues and the pressing nature of local issues. Personal relationships and shared local concerns might supersede party loyalties in many instances.

That is, in many state legislatures, party leaders strongly dominate the legislative agenda, potentially creating a different dynamic than that observed in Congress. He notes cases where a small group of party leaders effectively make all significant legislative decisions, with rank-and-file members having little input (Briffault, 2003). This concentration of power in party leadership might affect how party affiliation influences network formation and legislative effectiveness.

Understanding how party dynamics interact with personal networks in shaping legislative behavior is essential for our analysis. Our study seeks to examine whether party affiliation moderates the relationship between network position and legislative influence in the context of a small local council. This examination can provide insights into how local legislators navigate the dual pressures of party expectations and local imperatives and how these factors interact with their positions within informal networks to shape their influence and effectiveness.

Centrality Measures in Network Analysis

Social network analysis provides a suite of measures to quantify an actor's position within a network. This study focuses on three particularly relevant measures:

degree centrality, betweenness centrality, and closeness centrality. Each of these measures captures a distinct aspect of a legislator's position within the network of legislative relationships (Bloch et al., 2021; Zhang et al., 2023).

Degree centrality quantifies the number of direct connections a legislator maintains, potentially indicating their level of collaborative activity. In legislative networks, a high degree of centrality may suggest a legislator who frequently collaborates with numerous colleagues (Freeman, 1978). Such legislators might be perceived as approachable and amenable to cooperation, potentially augmenting their influence through the sheer volume of interactions.

Betweenness centrality indicates the frequency with which a legislator acts as a bridge between others, possibly reflecting their role in facilitating cooperation across different groups. Research has shown that legislators with high betweenness centrality are more likely to be pivotal in the legislative process. These legislators may be particularly crucial in coalition-building or bridging divides between different factions within the legislature (Barthelemy, 2022).

Closeness centrality reflects the efficiency with which a legislator can reach others in the network, possibly indicating their capacity for rapid information dissemination or influence. Legislators with high closeness centrality may be well-positioned to swiftly mobilize support for initiatives or gather information from across the legislative network (Skibski, 2023).

While these measures have been applied in various legislative studies, their relative importance may vary in different contexts. In a small local council like Chiayi City, the dynamics of centrality might differ from those observed in larger legislatures (Bratton & Rouse, 2011; Le Foulon Morán, 2020). The intimate nature of a small council might render certain forms of centrality more salient than others. For instance, in a setting where all legislators are personally acquainted, betweenness centrality might be less crucial than in a larger, more fragmented legislature.

This study aims to assess which of these measures best captures the dynamics of influence in a small, local legislature. By examining how different forms of centrality relate to legislative influence and effectiveness, we can gain insights into the specific ways that network position matters in small local councils. This analysis can contribute

to a more nuanced understanding of how social capital operates in these understudied legislative contexts.

Case Selection

I focus on the Chiayi City Council in Taiwan as an exemplar of a small local legislature with limited formal powers. Serving a population of approximately 270,000, the 33-member council operates within a political system where national party politics intersect with local issues and personal networks.

Several key factors justify the selection of Chiayi City Council. First, with 24 active members, the council represents an optimal size for network analysis—large enough for meaningful patterns to emerge, yet small enough to exhibit distinct dynamics from larger legislative bodies potentially. Second, the council's restricted formal powers mirror those of many local legislative bodies, providing an opportunity to examine how legislators navigate and exert influence through informal channels. Third, the presence of multiple parties within the council allows for an examination of party dynamics and their interaction with network position and policy specialization in shaping legislative influence. Lastly, the availability of comprehensive bill co-sponsorship data and council members' willingness to participate in interviews facilitate an in-depth, mixed-methods analysis of legislative dynamics.

While the single-case design limits broad generalizability, it enables a nuanced examination of the mechanisms through which network position influences legislative effectiveness in a small local context. This approach provides rich insights into the subtle dynamics of legislative behavior, laying a foundation for future comparative studies across multiple local councils.

The Chiayi City Council case thus offers a unique opportunity to explore the interplay of formal constraints and informal influence in local legislative processes, contributing to our understanding of subnational governance in emerging democracies.

Data Sources

This study employs a mixed-methods approach, combining quantitative and qualitative data to provide a comprehensive understanding of legislative dynamics in the Chiayi City Council. This methodology allows for triangulation of findings and

offers a nuanced perspective on factors influencing legislative influence and effectiveness.

The quantitative data serves as the foundation for network analysis and statistical modeling. I collected data on all bills proposed in the council from 2019 to 2022, encompassing primary sponsors and co-sponsors. This dataset comprises approximately 900 proposals, providing a robust basis for network analysis. Each record includes the bill ID, primary sponsor, co-sponsors, proposal date, and policy area, enabling the construction of a comprehensive co-sponsorship network and analysis of collaboration patterns over time.

Supplementing the bill co-sponsorship data, I gathered information on each council member's party affiliation, tenure, age, gender, education level, and previous political experience. This legislator attribute data allows for controlling individual characteristics that may influence legislative effectiveness. By incorporating these variables, I can isolate the effects of network position and policy specialization from other factors potentially affecting a legislator's influence.

To enrich the quantitative data, I conducted semi-structured interviews with two current council members. These interviewees represent diverse parties, tenures, and perceived influence levels, offering varied perspectives on council dynamics. The interview protocol covered collaboration patterns and strategies, perceptions of influence within the council, the role of party affiliation in daily council operations, the importance of policy expertise, and informal norms and practices shaping legislative outcomes.

These interviews provide crucial context for interpreting the quantitative findings and offer insights into informal dynamics not captured by the network data. They allow exploration of legislators' subjective experiences and strategies, providing a richer understanding of how influence operates in practice. The qualitative data also aids in interpreting unexpected findings from the quantitative analysis, potentially revealing factors or dynamics not captured in the formal data.

By integrating these quantitative and qualitative data sources, I aim to present a comprehensive and nuanced analysis of legislative dynamics in the Chiayi City Council. This mixed-methods approach enables not only the identification of patterns and relationships but also an understanding of the mechanisms and motivations behind

these patterns, contributing to a more holistic understanding of legislative behavior in small local councils.

Analysis

Network Structure and Cross-Party Collaboration:

The Council Member Co-sponsorship Network (Figures 1 and 2) reveals a densely interconnected structure characterized by extensive cross-party collaborations. This network configuration provides strong evidence that party affiliation exerts limited influence on legislative behavior in the Chiayi City Council. The high degree of cooperation across party lines indicates a legislative environment where issue-based alliances supersede strict party ideology, aligning with recent scholarship on the diminishing role of party politics in local governance (Clark and Krebs, 2012; Tavares and Carr, 2013).

The varying node sizes in Figure 2, representing seniority, demonstrate the active engagement of both junior and senior members in the co-sponsorship network. This observation nuances our initial finding regarding IoIr proposal activity among senior members. While senior members may initiate feIr proposals, their prominent positions in the co-sponsorship network suggest they remain influential in the legislative process, possibly leveraging their experience to support and shape initiatives. This complex relationship between seniority and legislative engagement contributes to ongoing debates about the role of experience in local political effectiveness (Krebs and Pelissero, 2010).

Figure 1 highlights two notable outliers, 廖天隆 (Liao Tian-Lung) and 郭明賓 (Kuo Min-Bing), who appear disconnected from the main cluster. These cases suggest the existence of alternative legislative strategies or distinct policy foci. Since both of the two cases are senior members, it reveals that they may pay attention to the constituent service rather than proposals. Such outliers may provide insights into specialized policy niches or unique constituent service strategies in local governance.

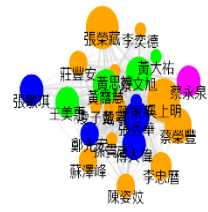
On the other hand, the distribution of betweenness and closeness centrality reveals the length of the path a council member finds a cosigner. In figure 3, I can see it still shows a cross-party structure in the city council. Several independent (IND) members, such as 蔡榮豐 (Tsai Jung-Feng), exhibit high betweenness and closeness centrality, suggesting he not only plays a crucial role as a policy broker, facilitating the flow of information and ideas across diverse issue areas but also get closed with other

members. This positioning aligns with theories of issue-network governance in local politics (Agranoff and McGuire, 2003).

Interestingly, the diversity in closeness centrality values across different party affiliations indicates that any single party does not monopolize the ability to access and disseminate information in the council quickly. Instead, it suggests that influence in issue networks is more likely determined by individual members' engagement with diverse policy areas and their ability to foster broad collaborations.

The network analysis reveals a legislative environment in the Chiayi City Council characterized by cross-party collaboration and issue-based alliances, and it is worth digging out what issues they focus on. This structure facilitates a form of governance where individual members' positions within issue networks, rather than strict party affiliations, play a crucial role in shaping policy outcomes.

Council Member Co-sponsorship Network



廖文隆

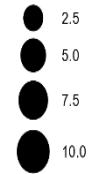
Co-sponsorships



Party



Seniority



郭明賢

Council Member Co-sponsorship Network (Zoomed)

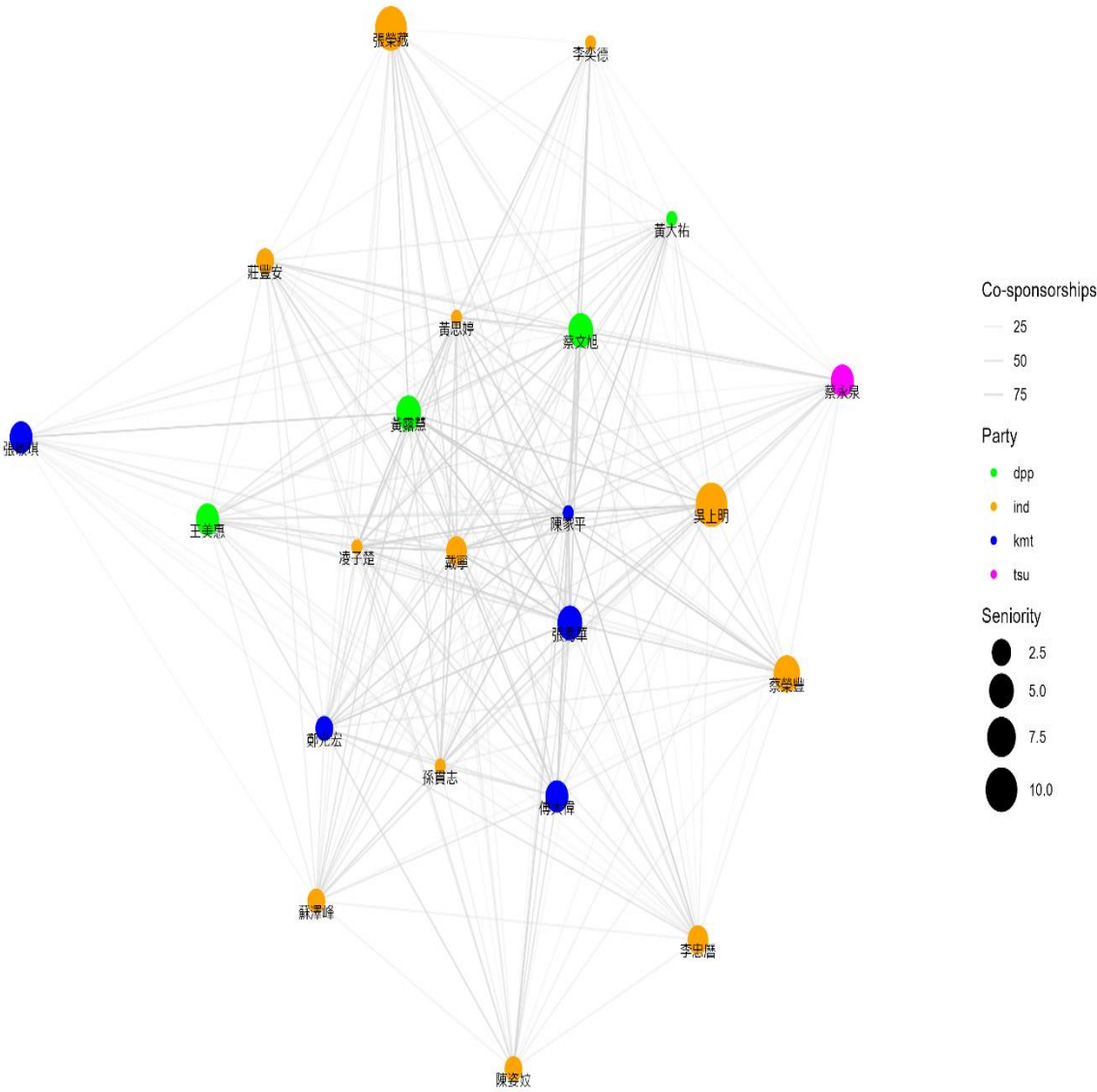


Figure 2: Council Member Co-sponsorship Network (cluster)

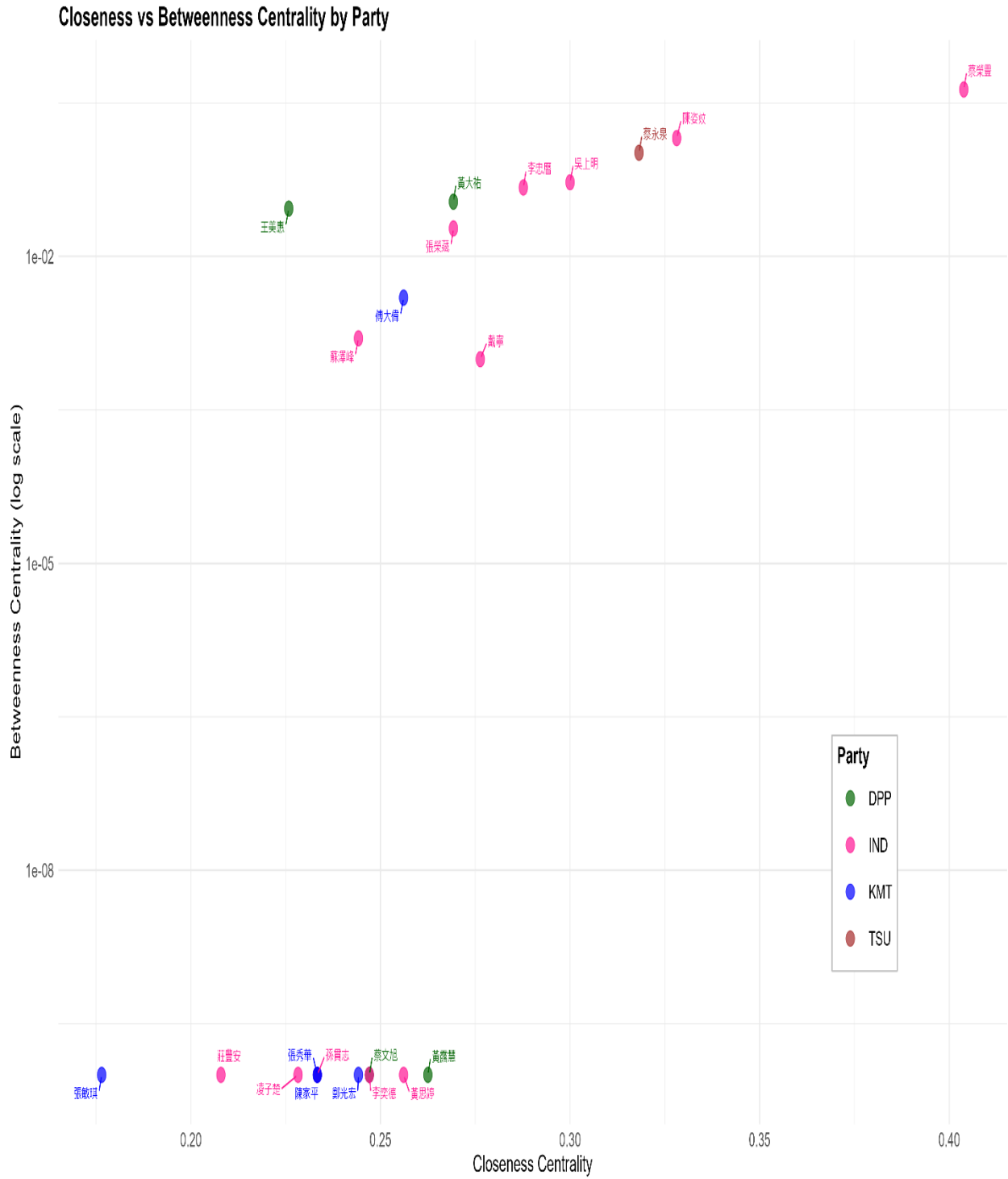


Figure 3: Closeness and Betweenness Centrality

The Major Issues for Network

Since the previous results show a cross-aisle issue network in the city council, we want to whether their range of issues. The analysis reveals a legislative agenda dominated by locally oriented concerns, with prominent themes including community services, urban development, safety and security, and parks and recreation. This strong local focus aligns with and helps explain the limited influence of party affiliation observed in our network analysis. The prevalence of terms related to infrastructure development, public spaces, and community well-being across multiple policy domains suggests that council members' legislative priorities are primarily shaped by constituent needs and local development imperatives rather than partisan ideologies.

The cross-cutting nature of certain issues, particularly safety ("安全") and parks ("公園"), which appear consistently across various policy areas, provides insight into the dense interconnectedness of the co-sponsorship network. These themes likely serve as common grounds for collaboration, facilitating the cross-party cooperation evident in our network structure. This finding supports recent scholarship on the diminishing role of party politics in local governance and the rise of issue-based alliances in subnational legislatures.

The topic model also highlights the budget is the priority of local governance, evidenced by terms like "經費" - funds, and "補助" – subsidies, intertwining with development initiatives and public services. Council members who can effectively navigate these interconnected policy domains, particularly those demonstrating high betweenness centrality, may be leveraging their expertise to bridge different issue areas and build broad coalitions. When it comes to budget, one of the interviewees points out the council members will coordinate not to overlap the subsidies. Still, the interviewee does not address the mechanism of coordination. Probably proposing is a signal to notify other members.

The appearance of region-specific terms (e.g., "西區" - 1st District) in the urban development topic suggests that geographical considerations play a role in shaping legislative priorities. This regional focus may contribute to the formation of subgroups or clusters within the co-sponsorship network, reflecting shared concerns among representatives of particular areas.

Interestingly, the topic model reveals an emphasis on interactions with central government support, as evidenced by the "Support from central" category. This aspect of local governance may explain some of the high betweenness centrality positions observed in our network analysis, where certain council members might act as crucial intermediaries between local needs and national resources or policies.

In synthesizing these findings with our network analysis, I can conclude that the Chia-Yi City Council operates within a non-partisan policy environment where local concerns, constituent needs, and development imperatives intersect to shape legislative behavior. The diversity of policy areas and their interconnected nature support our findings on the complexity of issue networks and underscore the importance of legislators who can effectively navigate multiple policy domains.

Top Terms for Chia-Yi City Council(2019-2022)

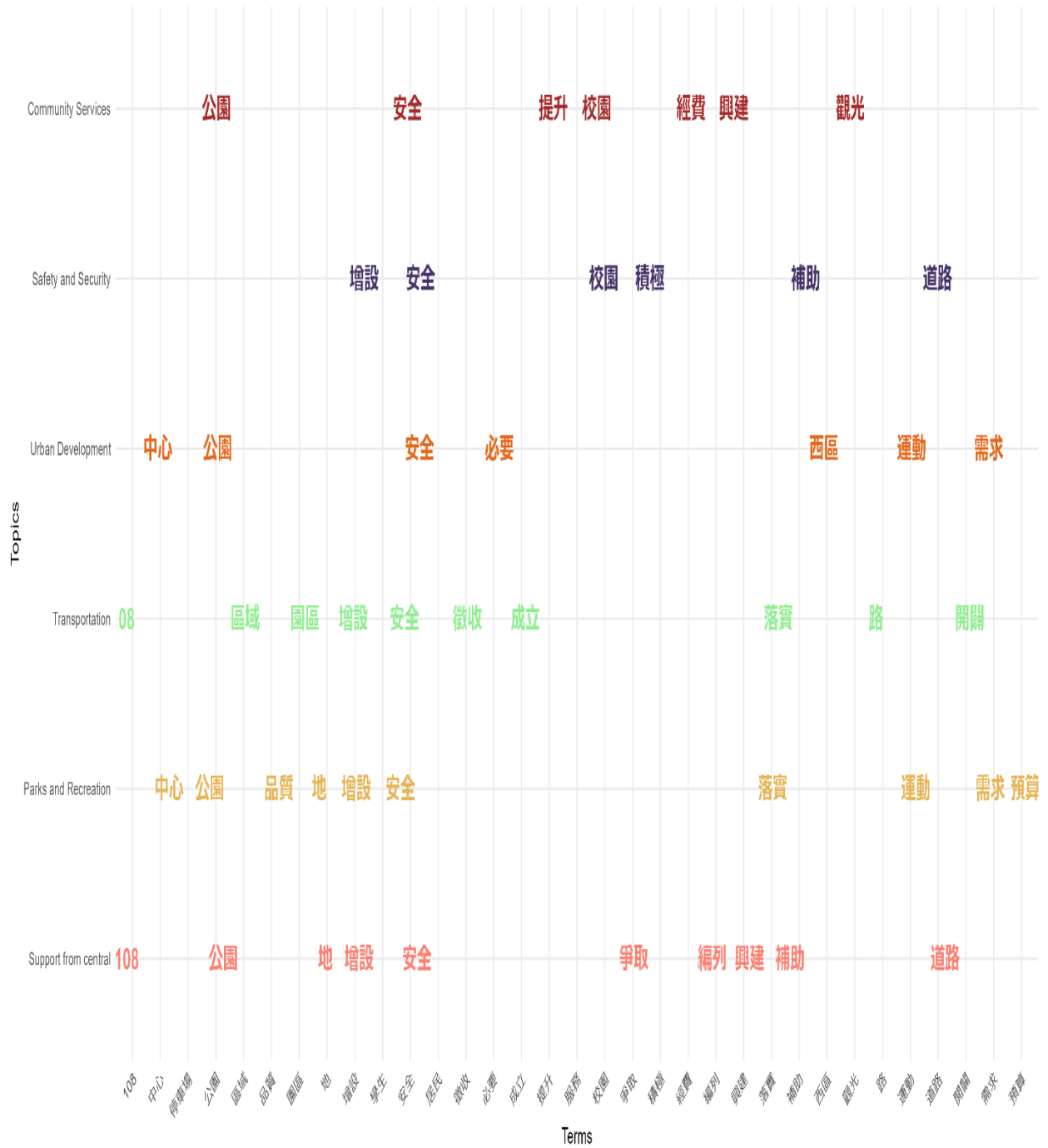


Figure 4: The Top Terms for the Main Six Topics

Discussion and Question

This integrated analysis of network structure and policy content offers a mechanism for proposing in the subnational legislature. Although in a unitary system, the subnational legislature has limited power on bills, the subnational legislative members use proposals to signal their resource distribution. The finding reinforces the need for a multifaceted approach to studying local legislatures, one that considers both the relational aspects of legislative behavior and the substantive content of policy-making activities.

The analysis of the Chia-Yi City Council reveals a legislative environment characterized by extensive cross-party collaboration and a strong focus on local issues. The network analysis demonstrates a densely interconnected co-sponsorship structure that transcends party lines, with both junior and senior members actively engaged. Centrality measures indicate that certain members, particularly independents, play crucial roles as policy brokers. The topic model analysis complements these findings, highlighting a legislative agenda dominated by community services, urban development, and public safety. The prevalence of cross-cutting themes such as safety and parks across multiple policy areas aligns with the collaborative patterns observed in the network structure, showing the council members use the proposals to coordinate the resource distribution.

Despite the insights gained, our study has several limitations. The analysis is confined to a short period and a small case; whether to increase the timeline or cases should be considered. The study focuses on a single legislative term (2019-2022) in one city council, potentially limiting the generalizability of our findings to other subnational contexts or periods. While co-sponsorship networks provide valuable information about collaborative relationships, they may not capture all forms of legislative cooperation or influence. On the other hand, one single case study, Chia-Yi City, may be difficult to generalize to all subnational legislatures. Probably, the study has better consider including Hsin-Chu City and Keelung City for increasing generalizability.

Second, the study needs to measure the informal interactions and behind-the-scenes negotiations, which are not reflected in our data. Additionally, our topic model analysis, while informative, may not fully capture the nuances of policy debates or the strategic framing of issues by council members. The reliance on frequency-based term

extraction might overlook less common but potentially important policy areas or emerging issues. In particular, the study should interview the outliers of the network, both the most connected and disconnected members, to probe the mechanism.

Future studies could also link network positions and policy priorities to actual policy outcomes, helping to quantify the effectiveness of different legislative strategies in subnational contexts. Investigating how council members' network positions and policy focus relate to their engagement with constituents could provide valuable insights into local democratic processes. A more detailed examination of council members who appear isolated in the network or who focus on unique policy areas could reveal alternative strategies for influence in local governance.

In brief, the study contributes to the growing body of literature on subnational governance by demonstrating the complex interplay between network structures, policy priorities, and legislative behavior in local councils. By highlighting the importance of signaling and the multifaceted nature of legislative influence, this research underscores the need for nuanced approaches to studying and evaluating the effectiveness of local governance. Future research in this area will not only enhance our theoretical understanding of local governance but also provide practical insights for improving the functioning of city councils and other subnational legislative bodies.

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Appendix

Record of Interviewee

	Gender	Date	Location	Note
Senior Member (3 terms)	Male	July 15, 2024	Coffee Shop	
Junior Member (1 term)	Male	July 18, 2024	Local Office	