

Sharing our voice: the value of incorporating student leaders in institutional community engagement during shifting climates

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Sharing our voice: Incorporating student leaders in institutional community engagement

Introduction

Student councils are necessary additions to educational spaces that teach students leadership and advocacy, while providing educators insight into student life. Student councils take many forms across a multitude of academic environments, but we will focus on student advisory councils in collegiate institutions. Based on the work of Michael J. Worth, the working definition of advisory councils is groups “where members are elected or appointed with no governing authority, are directed primarily by an administrative leader, and serve varying entities” [1]. In 2021, within Carnegie Mellon University’s (CMU) College of Engineering, a student advisory council was introduced, comprising undergraduates and graduate engineering students who work in conjunction with the school’s community engagement office. The council focuses on four key areas: support the college’s commitment to creating a community where all members can thrive, foster a welcoming environment within the college, engage in open and multidisciplinary dialogue, and provide a space for students to advocate on behalf of the engineering community.

The council’s work in collaboration with the engineering college’s faculty and staff is best described as a shared equity leadership model. This model [2] is a distributed approach to equity work in which the responsibility is shared across campus stakeholders (administrators, faculty, students, and staff), who work together to advance equitable outcomes within the community.

The literature on student leadership has traditionally focused on the effectiveness of the students’ participation within councils, the enhancement of those individuals’ characteristics as leaders and professionals [3], [4], and their improved sense of belonging, rather than their broader impact on institutional climate. Additionally, recent studies and national reports [5], [6] of inclusion initiatives in STEM spaces primarily focus on courses, climate interventions, mentorship, institutional task forces, or administrative initiatives, leaving these shared equity-driven student councils underexamined. There is a critical need to examine student roles within shared equity leadership models where students are not merely recipients of programming, but co-creators of the institutional climate [7], [8], [9].

Despite the potential of including student councils in community engagement efforts, there is limited evidence on the effect that their collaboration with institutional decision-makers has on inclusion and belonging. Accordingly, this study examines the College of Engineering student community engagement advisory council at CMU operating within a shared equity leadership model. We ask: How do current and former council members describe (a) their perceived influence on community engagement and inclusion/belonging efforts, and (b) the ways they adjusted priorities, practices, and initiatives in response to shifting cultural and policy contexts? This paper presents a preliminary understanding of this structure by analyzing interviews with former and current council members. We aim for our work to augment the literature on shared equity leadership and serve as a basis for justifying the implementation of student advisory councils in collegiate spaces.

Experimental Methods

To address the research question, we conducted interviews with present and prior student advisory council members. In these interviews, we asked questions related to the following: 1) motivation to join the council, 2) expectations versus reality, 3) related work, 4) challenges, 5) collaboration, 6) impact, and 7) adaptation to cultural shifts. These questions provide context on the background of students involved in the council, their contributions, personal experience, and adjustments to cultural shifts induced by the 2024 federal election and the 2025 federal administration change. Interviews were conducted via Zoom, and transcripts were saved and anonymized. Some metadata was kept for each interview, including the years of participation, and whether they were on the council during the 2025 federal administration transition, was included. This metadata was kept to stratify responses for council members who served prior to the administration change. 13 interviews were completed. Of the 13 interviews, 4 were members who joined after the 2025 federal government transition, while 6 were from members on the council during the 2024 federal election. None of the authors of this paper was interviewed to avoid a conflict of interest. Two of the authors conducted the interviews with participants, and were excluded from the initial coding of the transcripts as outlined below.

We conducted an inductive thematic analysis of the interview transcripts, guided by the interview protocol while allowing for emergent coding related to shared equity leadership within a DEI context. Transcript preprocessing was performed using custom Python scripts to remove filler language (such as “mhm”) and ensure anonymization. To develop the coding framework, two of the authors independently open-coded an initial subset of transcripts (20%; 3 of 13). This process was used to establish and refine code definitions, decision rules, and representative exemplar quotes, resulting in a shared codebook. Each transcript was coded by two of the authors. Following initial coding, the coders met to compare code applications, resolve discrepancies, and reconcile differences through discussion, producing a single agreed-upon coded version of each transcript. This reconciliation process ensured consistency across the dataset. All coding was conducted using the open-source qualitative analysis software Taguette [11].

Following transcript-level coding, the authors collaboratively synthesized codes across all transcripts to develop higher-order themes and subthemes. These themes were constructed by identifying patterns and relationships across participants, with attention to variation captured through participant metadata. Finally, we examined the sentiment of responses (e.g., positive, negative, neutral) within each theme to contextualize perceived impact. Sentiment was assigned by qualitatively reviewing all the unique codes that emerged from the inductive analysis by reviewing the adjectives in the codes. For example, codes with words including “improvement”, “strengthen”, “unity”, and “inspiring” were treated with a positive sentiment, while words such as “fear”, “anxiety”, and “uncertainty” were tagged with negative sentiment. Finally, a neutral sentiment was assigned to codes including “evolving”, “dynamic priorities”, and “recruitment”.

An Institutional Review Board (IRB) exemption was granted by CMU’s IRB. Data collection and analysis procedures follow ethical best practices: participants provided informed consent, transcripts were anonymized, and all materials are stored on secure university-approved systems.

Results

Major Themes and Code Frequencies

Figure 1 presents the seven major themes identified through the inductive thematic analysis, along with their associated subthemes and the percentage of all codes that fell under each respective subtheme. The frequency percentages (calculated as the number of times a subtheme code was applied divided by the total number of codes applied across all transcripts) indicate the relative salience of each concept in the participants' narratives.

Eight major themes emerged from the inductive thematic analysis: 1) *Community Building*, 2) *Political Disruption*, 3) *Motivation and Purpose*, 4) *Barrier to Council's Mission*, 5) *Internal Affairs*, 6) *Advocacy and Representation*, 7) *Support Systems*, and 8) *Outreach and Visibility*. Themes such as *Community Building* and *Political Disruption* represent a significant portion of the coded data, at 21.8% and 20.8%, respectively. Their dominance highlights their importance in shaping council members' experiences and perceived influence on institutional engagement and adaptation. Various subthemes emerged from each major theme. The subthemes helped capture nuances between the codes related to each theme. For example, within the *Political Disruption* theme, some codes were associated with negative subthemes such as *emotional fallout* and *negative changes*, while others were associated with more neutral subthemes, including *adaptation*.

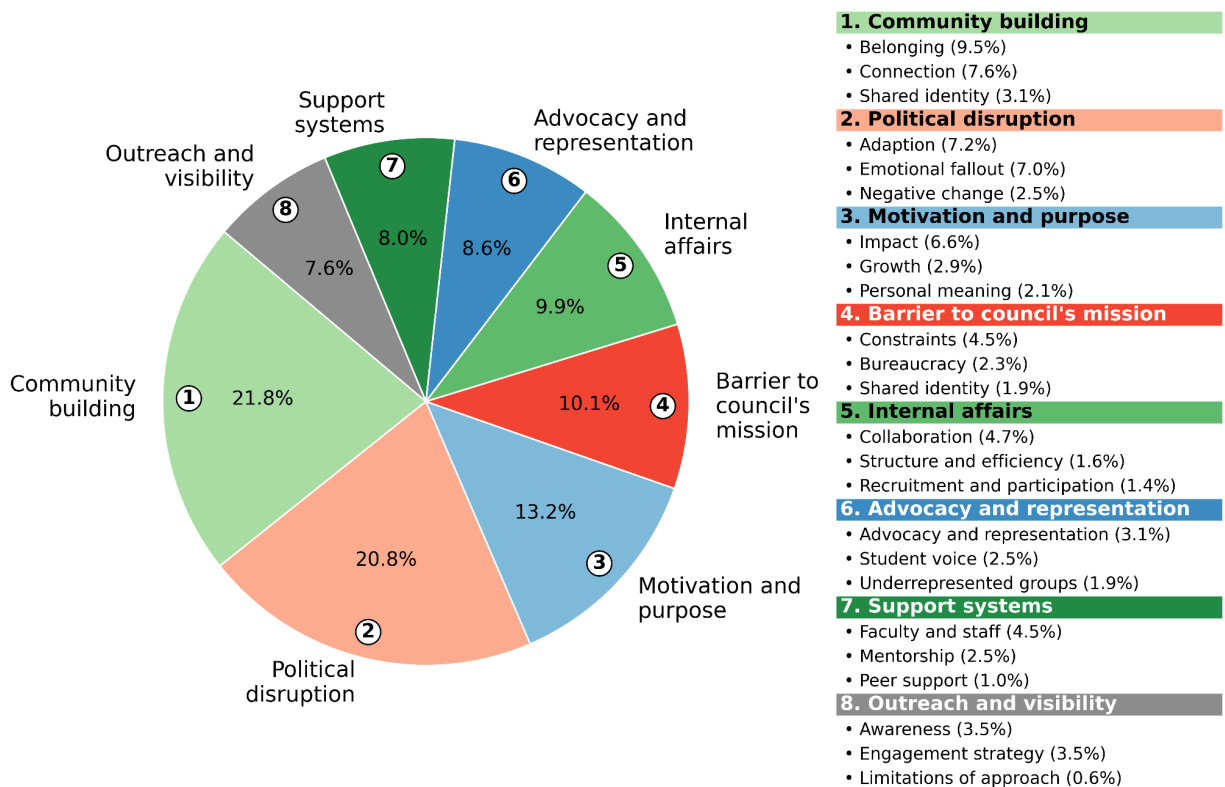


Figure 1: Pie chart (left) showing the percent of major themes that emerged from the inductive coding analysis of interviews with 13 student council members. Table (right) showing the top subthemes that emerged from each theme, with the percent of overall codes they comprised. Colors are associated with the sentiments assigned to each theme.

The inductive thematic analysis led to a large, heterogeneous set of codes, with 204 unique codes that were mentioned 486 times in total. The top 10 codes are shown in Figure 2, colored by the valence of their associated sentiment. The codes “building community” and “university & council adaptation to political shift” were the two most common ones.

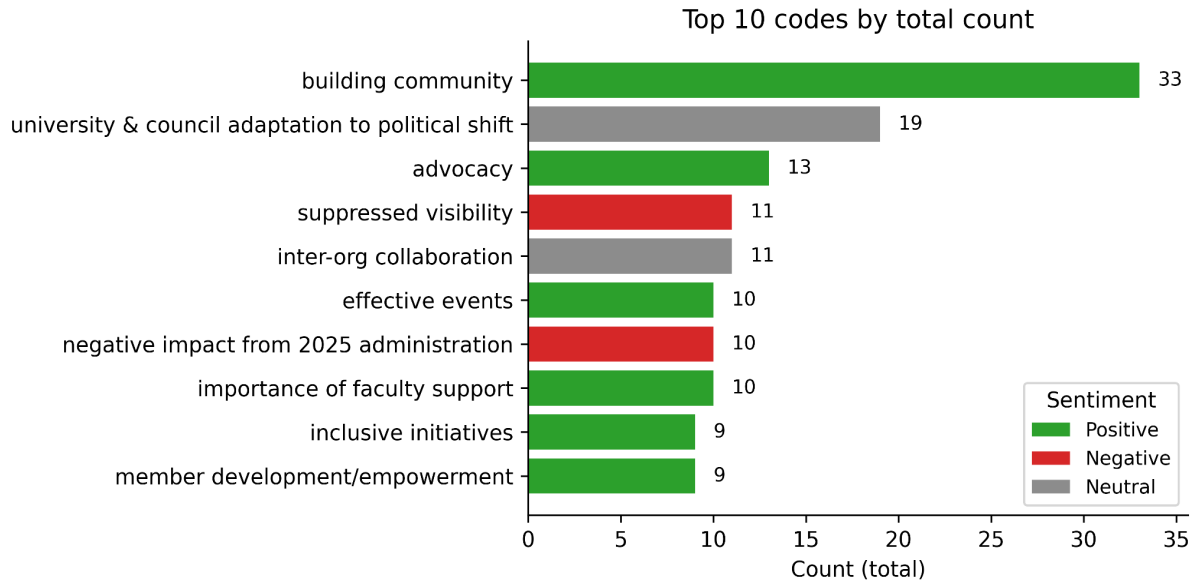


Figure 2: Bar plot of the top 10 codes assigned during the inductive analysis of the interview transcripts. Colors are associated with the sentiment of the code (positive, negative, or neutral).

Sentiment Valence

Figure 3 shows the sentiment composition for each theme from the inductive thematic analysis. The colors indicate the sentiment of the codes associated with each theme. This breakdown helps emphasize which themes are most strongly associated with either positive, negative, or neutral sentiments. For example, the themes *Community Building*, *Motivation and Purpose*, and *Support Systems* had codes with mostly positive sentiment, while *Political Disruption* and *Barrier to Council's Mission* had mostly negatively associated codes. Approximately 58.6% of all codes were positive, 22.9% were negative, and 18.5% were neutral.

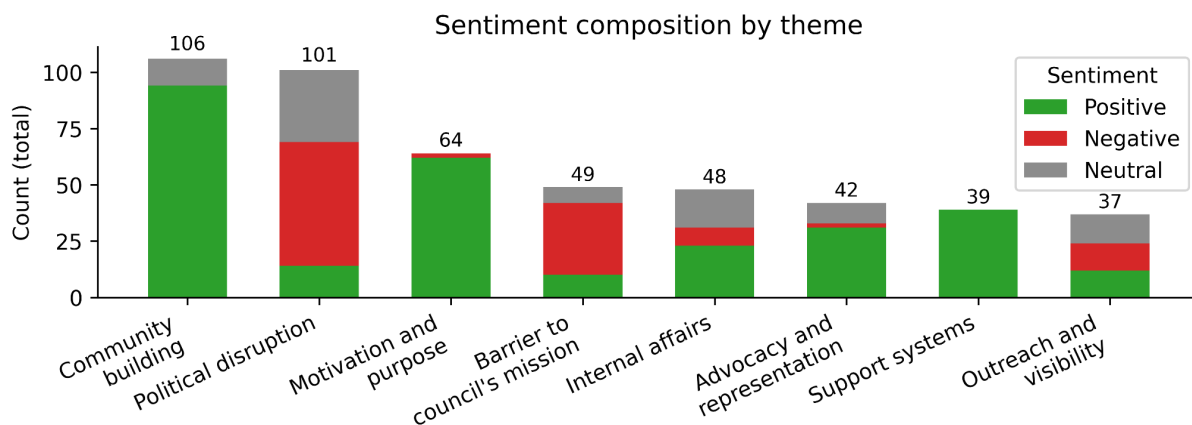


Figure 3. Sentiment composition for each major theme. This figure illustrates the distribution of positive, negative, and neutral sentiments associated with the codes for each theme that emerged from the inductive thematic analysis. Themes such as Community Building, Motivation and Purpose, and Support Systems are predominantly associated with positive sentiment, while Political Disruption and Barrier to Council's Mission have a mainly negative sentiment.

Figures 4 and 5 offer a comprehensive analysis of the sentiments expressed in council members' responses, categorized by their active membership during the 2024 federal election and if they joined the council after the 2025 federal administration change, respectively. The mean count for each code, delineated by sentiment, is normalized by the number of interviews in each category. For instance, the aggregate number of positive, negative, and neutral codes derived from interviews with council members who were active during the 2024 federal election is divided by n=6.

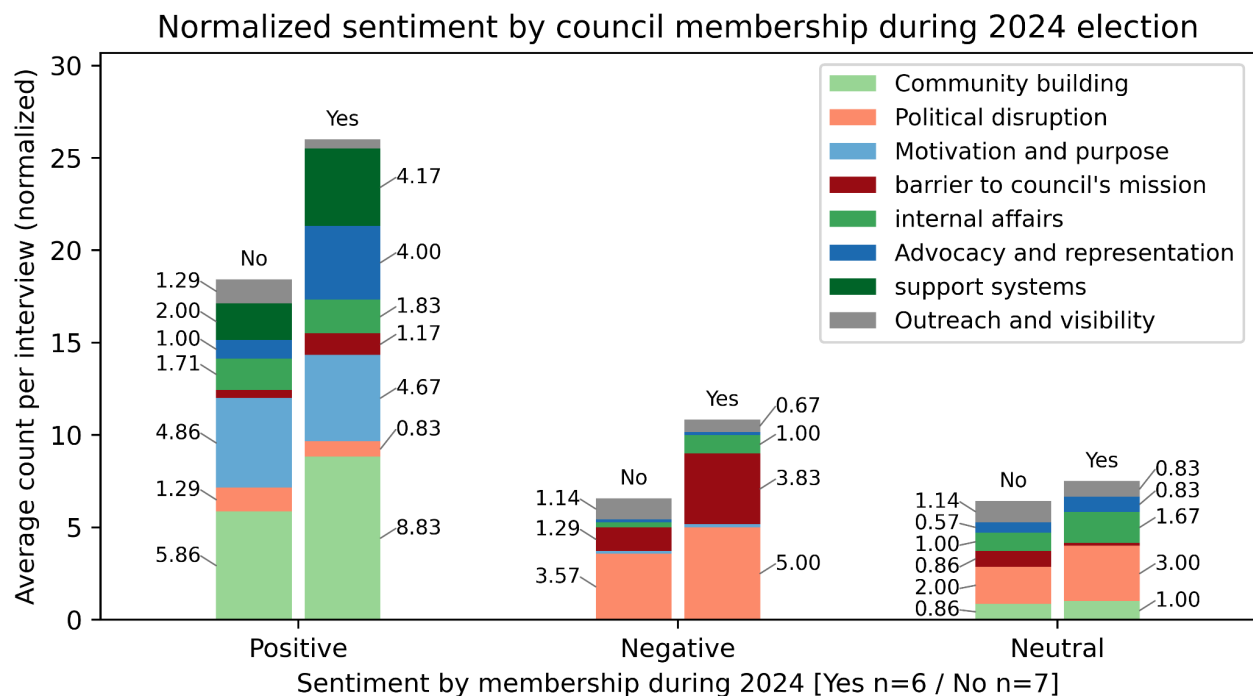


Figure 4: Mean count of sentiment codes (positive, negative, and neutral) expressed in council members' responses, normalized by the number of interviews with members active (yes, n=6) or inactive (no, n=7) during the 2024 federal election.

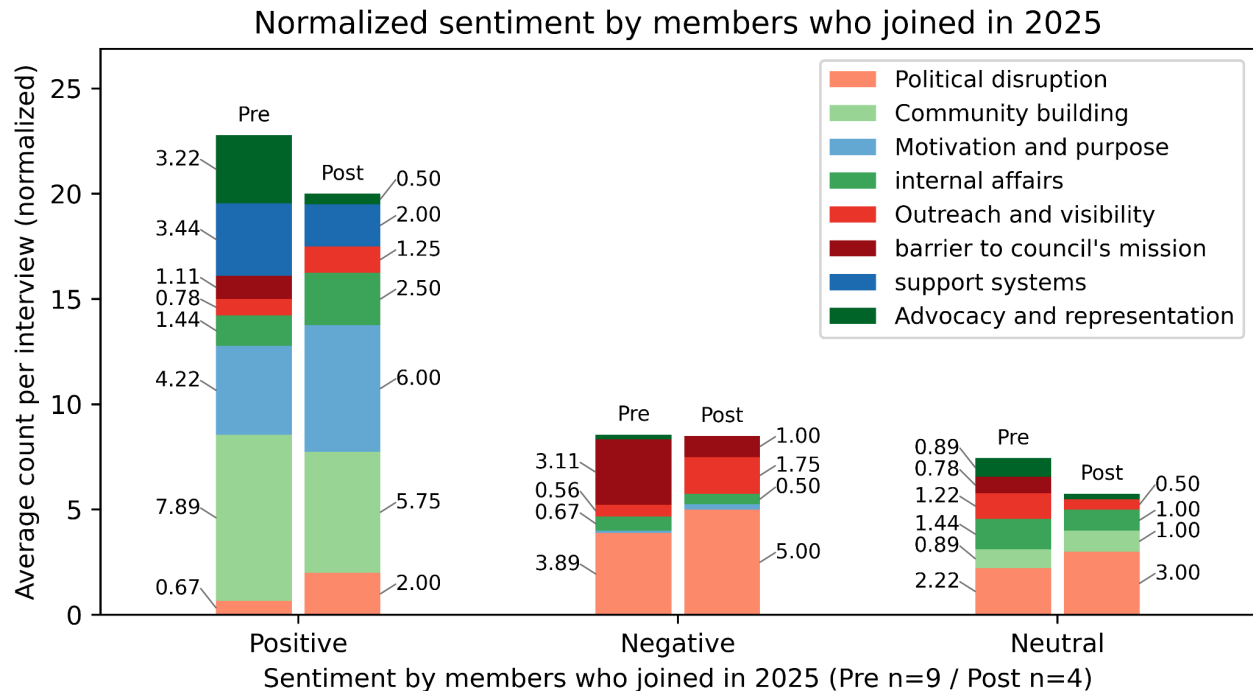


Figure 5: Mean count of sentiment codes (positive, negative, and neutral) expressed in council members' responses, normalized by the number of interviews with members who joined the council in 2025 (post, n=4) and those that joined before (pre, n=9).

Summary of Themes and Supporting Quotes

We provide additional explanation for each of the major themes, as well as supporting quotes.

Community Building

Description: This theme refers to creating connections and a shared identity amongst the student, faculty, and staff populations within CMU's College of Engineering. This theme encapsulates codes related to a sense of belonging and common ground that the council seeks to implement both internally for its members and externally for the community it serves. The two primary methods found to conduct community building are by leveraging commonality or outreach opportunities. It directly answers the interview question on their perceived influence on community engagement and inclusion efforts, with community building being a major impact.

Supporting Quotes:

- "In particular, the Neurodivergence and Disability Lunch. I feel I didn't know that many people at CMU who are disabled or neurodivergent in a way that strongly impacts their lives. And it was great to see and make a community on that day, that's continued since."
- "The initiative that I'm a part of... it's... involved in the community, providing resources, food drives... I think it gives people a sense of community and being connected, as a student... I think sometimes you get so deep into what you're doing... that you miss that interpersonal connection... it doesn't matter what you're studying... at the end of the day, we're doing it to be a contributing part of society."

Outreach and Visibility

Description: This theme emphasizes the council's efforts to make itself and its mission visible to the broader engineering community, which encompasses member recruitment, event engagement, and organizational presence. The theme captures two directions: how members believe visibility is built and where it falls short. Members consistently point to open dialogue, informative initiatives, and low-barrier informal events as the mechanisms through which the council creates meaningful engagement, with structured dialogue seen as more effective than passive social events. At the same time, a persistent frustration runs through the codes that the council's reach remains narrow, citing an inability to penetrate beyond already-engaged audiences. This is sharpened by contrast with other campus organizations whose communication is more consistent and frequent. There is also a smaller dialogue of shifting cultural and policy contexts, increasing the hurdles associated with visibility.

Supporting Quotes:

- "The communication is more limited [compared to another org]. I always know what they're doing, even if it's something very small... with the student council stuff, it doesn't reach me the same way. Maybe because they send emails to just general students... that's how I know more of what those groups are doing."
- "Now the council has to be a little bit careful about certain things that we may promote, to just not get in trouble with certain guidelines that may be placed..."

Advocacy and Representation

Description: The codes under this theme center on one of the founding motivations of the council, which is advocating to reduce student barriers by serving as the bridge between the institution and the student body. More specifically, advocating for underrepresented groups. Many members argued that their motivation for joining the council was their desire to make a difference and to voice concerns of their colleagues, a passion that has only been reinvigorated by recent shifts in politics and culture, with one outlier noting that they can directly generate beneficial relationships for identity-based student organizations that they themselves are a part of. These interviewees demonstrated the perceived influence of their work being effective in bulk toward these representation efforts across the engineering college, with some members who served earlier during the council's history citing the weakened community at the beginning of council inception, stemming from the gap in advocacy that the council works to fill.

Supporting Quotes:

- "Even the fact that we got to do office hours with people and they could come and tell us — oh, this is what I think is something that we could work on, because it's such a big campus, such a big community. And then we could just tell [our] Faculty Advisor, this is what this person communicated to us. I think it's very valuable."
- "I think because of the change in federal administration, I felt it was more important to be a part of the Council now than before. But at the same time, just university-wide, society-wide, there's just a lot of pessimism and doom and gloom. It makes you feel powerless — what are we really doing if we're hiding..."
- "I think since the Council has started, and even with the limited visibility we've had, people have been more open, or I've noticed that people are more open to ask a question"

when they don't know what's going on. People who didn't know about trans people felt they could ask questions and did not just have to answer it for themselves...”

Internal Affairs

Description: This theme describes the inner workings of the council, highlighting the strengths and weaknesses of collaboration and mutual understanding. It reveals the members' perception of its past and current structure in both event planning and execution, as well as membership recruitment and retention practices, which are primarily through emailed invitations. This theme highlights that the current council structure does leave room for inefficiencies such as uneven workloads and that a lack of interpersonal connection prevents council members from having more genuine interactions during open dialogue sessions on sensitive topics. Despite this, there are positive claims of mutual respect, with mixed feedback surrounding the imbalance of contribution throughout the year due to the mix of undergraduate and graduate members.

Supporting Quotes:

- “We were essentially given the freedom to choose which projects we wanted to work on, and I think that helped, because people were... doing what they were interested in.”
- “Even though our mission was to be a very welcoming community, within this council, I felt I struggled to become close to people within the group. I think there's just maybe not enough time spent together.”
- “It has been great. It is a very collaborative environment, and everyone's very open to listen to each other and contribute to the different groups and events that are going on.”
- “Because the makeup of the council changes every year... it can sometimes be hard to carry through the same plans throughout multiple years.”

Political Disruption

Description: The theme revealed the understood effects of recent federal government changes and subsequent cultural shifts within academia by highlighting the concrete changes within the institution, its members and engaged communities' well-being, and alterations to the council's goals. The quotes for this theme indicate the emotional fallout amongst council members and the wider student community, resulting in a dual effect on council member motivation. For many, it invigorated members' passion for advocacy through the committee initiatives, whilst also depleting their sense of progress. Within the context of codes related to adaptations, the council and its safe spaces shifted through relabelings to satisfy new regulations around verbiage, which diluted event targeting toward the intended audiences. Interestingly, the adaptations also confused the identity of the council as current members highlight the need to evolve, but struggle to decide on a direction of growth. Positively, the group's preexisting relationships with other institutional organizations prevented the changes from being overly destabilizing.

Supporting Quotes:

- “I remember feeling worried about being in the council too, how much do I have to censor myself? ... We don't want to become a target.”
- “A lot of those goals had to be shifted to meet what students actually care about. A lot of the projects that we wanted to do, we ended up not doing, because as a council we didn't feel that was a priority anymore because... there are just bigger things to worry about.”

- “I think we had at least one or two just mental health meetings during the council, where we didn't even talk about projects or updates, it was literally, we're just gonna make space for whatever you need to get off your chest. There [were] at least one or two meetings where we were all just, "This sucks. I feel my entire identity is being threatened now.””
- “If anything, it made it more important [the council's work], because there was already an established relationship with people in the Academic Division A outside of our org. While there was fear and anxiety, I think there was less distrust.”

Barriers to the Council Mission

Description: This theme highlights external barriers to council ideas as a combination of institutional bureaucracy, resource constraints, and lack of support. The codes under this theme indicate that a lack of buy-in from both sides of the institutional coin, faculty and staff, and, inversely, the student body, has detrimental effects on the council's perceived impact. In terms of institutional structure being a barrier, there is an argument presented that this existed before the political shifts, but has not been heightened by the general anxiety found amongst the educational space because of its dependency on federal funding. There also exists a minor subtheme around council members being unable to generate a proper definition of scope for their community initiatives, which serves as a detriment to their effectiveness and causes confusion around the council's larger goals.

Supporting Quotes:

- “The marketing team... did not want to promote the material, or there [were] some rules or something that they had to follow, so all of our initiatives were self-promoted. Which made it very difficult to reach the people that needed to be reached.”
- “Because the makeup of the council changes every year, especially when it comes to master's students who are really only here for a year or two, it can sometimes be hard to carry through the same plans throughout multiple years. A project might die out because there's no one who knows what happened in that project.”
- “Everybody at CMU is just so busy — you can have a lot of good ideas, but sometimes it's hard to implement. It just takes longer than what you would expect it to take, because people are balancing multiple... responsibilities.”

Motivation and Purpose

Description: This theme focuses on the “why” behind council members' participation. It reveals the personal meaning that the council has for them, how council participation has fostered newfound personal development, and how their identities and prior experiences pushed them to be involved. All members interviewed highlight the largest subtheme found under this umbrella, the desire to leave a mark on the community, from marginal improvements to major change, depending on the level of individual aspiration.

Supporting Quotes:

- “My primary motivation was to give back to the engineering community and be a voice for women, especially Muslim women, in the engineering community, because I don't think we have much of that presence in our departments.”

- "I was hoping that I could make CMU a less scary place for people who don't have so many connections. It's important to uplift the voices that we have and make sure that they feel included so that they can succeed and hopefully bring in those new voices. Especially if there isn't so much support for that within departments or research groups."
- "Being a facilitator actually gave me a sense of channeling all that... low morale that the [election] caused..."

Support Systems

Description: Support Systems described the pillars that provide support for the council's efforts. The central beam of support for the committee's members is the faculty found within the council's broader department that provides insight and guidance for their events, as well as mentorship for council members as they navigate personal decisions.

Supporting Quotes:

- "And as far as faculty and staff, I think everybody is very supportive. The number of times that we've been asked, do you need help? Or what is it that you need? Here are some resources. It's actually all very supportive and very helpful."
- "I know [Staff Member] would meet individually, one-on-one with different council members to get updates on their goals, what they wanted to do, all that stuff, so I do feel they made an effort to hear from every single person in the committee, and make sure that they're receiving proper support."

Discussion

Collating the frequency of codes across interviews led to the aforementioned eight themes. Community building was the most common code to emerge. While a sense of community can be formed in many ways, the main context we observed this in was building a space of support and understanding for like-minded individuals and people from similar marginalized backgrounds. This was the main avenue in which council members approached forming and supporting more inclusive environments, which became more prevalent for members who were on the council during the 2024 federal election (5.86 to 8.83 increase in average positive count, Figure 4).

Outreach and visibility remain as important aspects for council members to enact change. Council members exercised outreach and visibility by running events, volunteering, and disseminating information to increase knowledge/visibility of the student council. Advocacy is a way for council members to estimate their impact on the community, and is also essential to increase the influence that the student council has on the community itself. With the broad attacks on the mission of the council's work due to the 2024 federal election and initial actions of the 2024 federal administration, increased advocacy became a more prevalent way for council members to feel heard and support the university community in getting resources. This subtheme was reinforced by the average count of the *Advocacy and Representation* increasing four times for council members during the 2024 federal election (1.0 to 4.0 uptick, Figure 4).

Smooth internal workings and affairs of the council are key to the experience that council members have and their impact. *Internal Affairs* matters, such as improving inter-council relationships and supporting existing projects, were key codes highlighted by interviewees. The

theme *Barriers to the Council's Mission* dictates the limitations and roadblocks to council members' having an impact. Acknowledging and working to break or go around such barriers is key to successfully offering initiatives and completing projects related to community engagement. It also emphasizes when there is no opportunity to engage in certain projects, despite a council member's interest in doing so. Our analysis also demonstrates that it may take more than one year of council participation for members to appreciate the severity of such barriers, as the newest council members mentioned codes related to this theme less frequently (decrease from 3.11 to 1.0 in codes, Figure 5).

Purpose is a guiding factor for members of the council and often decides what projects and initiatives they engage with. Given the political disruptions from the 2025 federal administration change, new members were more likely to mention codes related to *Motivation and Purpose* for their participation in the council (4.22 to 6.00 in positive codes, Figure 5).

Finally, codes related to the theme *Support Systems* emphasize the importance of the shared equity leadership framework that underpins the work of the council. Unlike other themes extracted from our inductive analysis, all codes related to *Support Systems* had positive sentiment. This finding implies that by its very nature, student councils that serve as a bridge between students and institutional decision makers are positively perceived by engineering students at CMU. This finding is particularly noteworthy during times of political and cultural upheaval, as seen in the aftermath of the 2024 federal election, the average count of codes related to *Support Systems* rose for members during this time (2.0 to 4.17 in positive codes, Figure 4).

Our study provides valuable insight into the value of creating shared equity leadership groups within CMU's College of Engineering. In particular, we highlight a novel shared equity framework, which exists outside of well-regarded approaches such as task forces, staff and faculty-led groups, academic coursework, and mentorship. The unique nature of this council gives a select group of students, aligned with the principles of community engagement and belonging, direct access to decision makers in the College of Engineering. Given that the majority of codes had a positive sentiment (58.6%), this implies that such a leadership structure is a broadly positive inclusion, albeit with space for improvement, given the 22.9% of negative codes. These are largely related to the sharp political and cultural turns on community engagement and DEI initiatives on college campuses beginning in 2025, as well as institutional inertia and barriers that limit the speed and depth of actions that council members can take.

Given the predominantly positive response and the unique institutional access afforded to the student council, this shared equity leadership model represents a promising path forward for fostering a more inclusive and engaged College of Engineering community. Future work should focus on addressing the identified institutional barriers and adapting the council structure to ensure its resilience against external political and cultural pressures, thereby maximizing its potential for deep, sustainable impact on equity within the College.

The limitations of this study should be considered when interpreting the results. A primary challenge was the difficulty in isolating the impact of the 2024 federal election and subsequent 2024 federal administration changes, which may have introduced some bias into the negative

sentiments expressed by participants. Furthermore, the current analysis could be strengthened by incorporating additional sentiment analysis, particularly by examining differences in sentiment based on a participant's tenure on the council (e.g., serving for more than one year) and by including a dedicated analysis comparing responses from graduate and undergraduate students. Finally, the descriptive utility of the codes developed for qualitative analysis could have been improved. This limitation is largely attributed to the authors' lack of prior experience in conducting this specific type of research and coding qualitative data.

Conclusions

This study examined the role of a college-wide engineering student advisory council in shaping community engagement and inclusion within a shared equity leadership framework. The findings indicate that such councils can exert meaningful institutional influence when they are embedded within decision-making processes rather than positioned as purely consultative bodies. More broadly, council effectiveness is contingent on three conditions: formalized communication pathways that translate student input into action, stable structural support to sustain initiatives across turnover, and deliberate outreach to extend impact beyond already-engaged populations. Without these elements, councils remain limited in scope and influence. The results also highlight the student leaders' adaptive capacity as a critical feature. Student leaders recalibrated priorities and practices in response to shifting cultural and policy contexts, though this flexibility must be grounded in clear roles and organizational coherence to avoid diffusion of purpose. Taken together, student advisory councils represent a viable mechanism for operationalizing shared equity leadership in higher education, enabling institutions to more responsively and effectively engage their communities.

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