Becoming a Learning Organization: Identifying Best Practices to Evaluate, Sustain, and Evolve Meaningful Engagement with Alumni

by

Cassandra Hayt

Bachelor of Arts, University at Buffalo, 2010

Master of Arts, James Madison University, 2012

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This dissertation was presented

by

Cassandra Hayt

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and approved by

Dr. Lina Dostilio, Vice Chancellor of Engagement and Community Affairs and Associate Professor of Practice, Department of Education Foundation, Organizations, and Policy Studies

Dr. Jennifer Lin Russell, Professor, Department of Leadership, Policy and Organizations, Vanderbilt Peabody College

Dissertation Director: Dr. Jill Perry, Associate Professor of Practice, Department of Education Foundation, Organizations, and Policy Studies

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Cassandra Hayt, EdD

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Mutually beneficially relationships with alumni are facilitated through engagement opportunities that are valued by alumni, inspire loyalty and philanthropic giving, and help to improve the reputation of the institution overall. The Pitt Alumni Association has not identified best practices to provide consistent, meaningful engagement opportunities for alumni and struggles to increase mutually beneficial relationships with alumni. I sought to understand what motivates alumni to engage, programmatic design elements that can influences sense of belonging, and how to evaluate engagement opportunities. By using improvement science, I completed two PDSA cycles and completed a quantitative analysis of event registration and participant survey responses to conclude that creating a salient experience for alumni and effectively communicating the value of giving back in mutually beneficial ways can increase alumni involvement. Standardized evaluative measures were also identified to ensure that the Pitt Alumni Association can adapt to provide consistent, meaningful engagement with Pitt graduates. The next steps identified for this project include the refinement of the evaluative tools and programmatic elements to scale across the alumni organization.

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Preface

A sincere thank you to my committee members who challenged me to improve, think critically, and produce a project I could be proud of. To my parents, whose support is immeasurable and knows no bounds. I would not have completed this work without the strength you provided me when I felt like I had none. And to my son. Helping you grow has been my greatest joy and most rewarding challenge. You've reminded me to stay curious, always explore, and that time truly is our greatest resource. May you surpass even the biggest dreams I have for you. I love you.

1.0 Naming and Framing the Problem of Practice

1.1 Broader Problem Area – Role of Alumni Engagement in Higher Education

Alumni of institutions of higher education play an integral role in supporting and sustaining the university's goals. Whether contributing to the financial stability of the institution through philanthropic donations, giving back their time through volunteerism to support academic and student success, or being a goodwill ambassador of the university, alumni can have a transformative impact. Engaging alumni for mutual benefit is the mission of institutional alumni associations. To foster mutually beneficial relations, alumni associations focus on providing meaningful engagement opportunities that can ensure sustained involvement between the individual and institution. Meaningful alumni engagement is defined as the continued interaction an alumnus has with their alma mater through activities that build mutually beneficial relationships and advance the institution's mission (Council for the Advancement and Support of Education, 2018; Drezner & Pizmony-Levey, 2021). This engagement should be valued by alumni, inspire loyalty and philanthropic giving, and help to improve the reputation of the institution overall (Council for the Advancement and Support of Education, 2018; Drezner & Pizmony-Levey, 2021). Successfully harnessing the giving potential of alumni requires an understanding of the interests and needs of alumni that can then be translated into meaningful engagement opportunities.

The Council for Advancement and Support of Education (CASE) defines four categories of meaningful alumni engagement, reflected in Figure 1.

Communication	Experiential	Volunteer	Philanthropic
"Interactive, meaningful and informative communication with alumni that supports the institution's mission, strategic goals and reputation." (Council for the Advance and Support of Education, 2018, p. 6).	"Meaningful experiences that inspire alumni, are valued by the institution, promote its mission, celebrate its achievements and strengthen its reputation." (Council for the Advance and Support of Education, 2018, p. 6).	"Formally defined and rewarding volunteer roles that are endorsed and valued by the institution and support its mission and strategic goals." (Council for the Advance and Support of Education, 2018, p. 6).	"Diverse opportunities for alumni to make philanthropic investments that are meaningful to the donor and support the institution's mission and strategic goals." (Council for the Advance and Support of Education, 2018, p. 6).

Figure 1 Categories of Alumni Engagement Defined by the Council for Advancement and Support of Education, 2018

The "volunteer" and "philanthropic" categories reflect the purest form of a mutually beneficial relationship as the alumnus and the institution both realize a tangible benefit. In both categories alumni can have a direct influence on their alma mater by giving back their time and/or their money. In return, the alumni receive a personal benefit such as gaining firsthand access to institutional information, having curated networking opportunities with other alumni, being formally recognized for their contributions, and gaining an overall altruistic feeling of giving back and making a difference in the lives of others.

The institutional benefit that can be realized from these mutually beneficial relationships, whether monetary or non-monetary, is substantial and can have significant impact on the institution. In fiscal year 2018, for example, alumni in the U.S. contributed $12.15 billion back to their alma maters, which accounted for 26% of contributions raised by U.S. colleges and universities that year (Council for Advancement and Support of Education, 2019). In an

economic environment where only 18 states currently fund higher education at a pre-recession level and tuition costs continue to rise for students, the stabilizing effect of alumni philanthropy is noteworthy (State Higher Education Executive Officers Association, 2020). Non-monetary giving of alumni can have a similar impact. For example, alumni can positively influence the current student experience by providing mentorship opportunities, encouraging the matriculation of students, influencing institutional rankings, and generating a robust network of career and professional development resources that support the professional success of alumni (Drezner & Pizmony-Levy, 2021; Gallo, 2012).

To achieve their mission of engaging alumni for mutual benefit, alumni associations must first have a clear understanding of the value their organizations can provide to their alumni. They must align alumni interests with university priorities and structure engagement opportunities that will sustain involvement of alumni and ultimately sustain alumni impact. In attempting to achieve these goals, alumni associations often encounter significant challenges. One such challenge is an alumni population that is broad and diverse, making it difficult to understand which areas of interest the organization can align with to generate the most alumni involvement while remaining true to the university's priorities. This challenge is compounded as each alumnus has a personalized and unique relationship with their institution, further challenging the association's ability to identify which areas of interest to try and impact.

Research shows that an alumnus' experience with and involvement in the campus community as a student (Fuentes et al., 2014; Koenig-Lewis et al., 2015; McAlexander et al., 2005; McAlexander & Koenig, 2010), their sense of belonging to the university community (Drezner & Pizmony-Levy, 2021; Strayhorn, 2008), and a belief that their contribution will make a difference (Briechle, 2003) are all drivers of an alumnus' willingness to stay connected to their

alma mater. Each of these factors is uniquely defined by individual experiences, beliefs, and perspectives. In sum, these challenges reflect that the alumni population is dynamic, requiring an intentional and strategic approach built upon a foundational understanding of the alumni population. Because of the nature of alumni populations, alumni associations are required to be dynamic organizations that are able to curate engagement opportunities that reflect institutional priorities while still meeting the needs of the alumni they serve.

1.2 Organizational System: Pitt Alumni Association

At the University of Pittsburgh, the Department of Philanthropic and Alumni Engagement (PAE) is the central unit focused on the cultivation of relationships with alumni. Within PAE is the Pitt Alumni Association (PAA), the university's central alumni association tasked with facilitating alumni engagement among Pitt alumni and cultivating mutually beneficial relationships. Through mutually beneficial relationships, the interests of the alumni are met, and university priorities are also supported. align. The PAA currently tracks alumni engagement within CASE's four categories, described above. Engagement of alumni in fiscal year 2022 is represented in Figure 2.
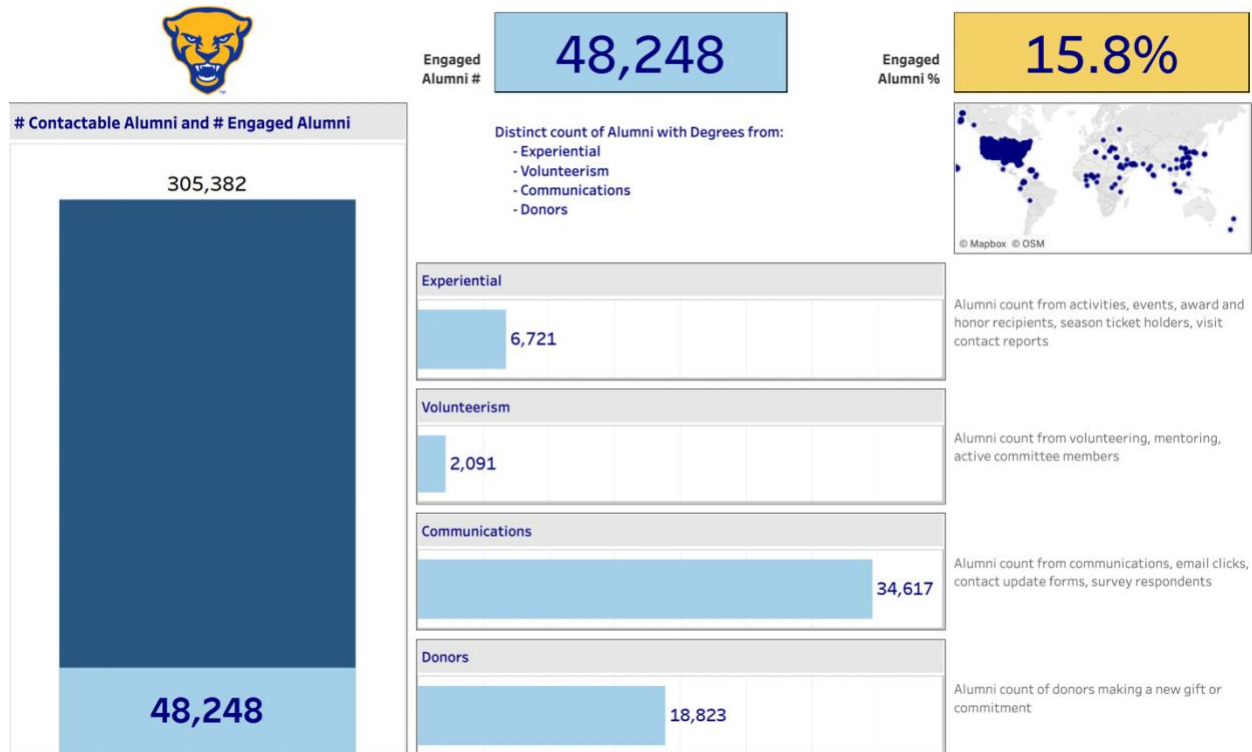
Figure 2 Snapshot of Alumni Engagement with the PAA in Fiscal Year 2022 as Measured by the CASE Categories of Engagement

Most alumni are interacting passively through communications channels by opening emails, following PAA on social media, or participating in the PAA's LinkedIn group. These communication channels, while helping to share important institutional updates and messages with the broader university community, do not result in a tangible benefit to the institution. The second highest form of engagement is in the philanthropic category. The 18,823 alumni who have given back financially is a positive reflection of the efforts of PAE to curate relationships and solicit individuals on a consistent basis. For context, within the PAE, there are around 200 university staff whose responsibility it is to build and maintain relationships with alumni donors. By comparison, the PAA has a staff of 17 who are responsible for the maintenance of the alumni population as a whole and to provide the experiential, volunteer, and communication-oriented

opportunities. With an alumni population of over 350,000, this proves as a daunting task with limited resources. With fewer staff and limited financial resources, it is extremely important to have tools to elicit feedback from the alumni population, determine which interests are most relevant, and evaluate engagement programming to be efficient in developing a mutually beneficial relationship.

Even with minimal staff, the PAA was able to host 78 experiential opportunities for alumni in fiscal year 2021-2022. These 78 opportunities spanned a range of interests including academic discussions, social gatherings, athletic-based events, and community service opportunities. Across these 78 experiential opportunities, a total of 6,721 alumni attended. The approach to planning engagement opportunities was based on an alumni attitude survey conducted in 2019 in which staff identified opportunities and ideas brought forth by alumni volunteers. Additionally, if university leadership requests the opportunity to interact with alumni, the PAA coordinates these requests. While this range of experiential activities was met with some enthusiasm across the Pitt alumni population, the sporadic nature of the implementation of these events puts a significant strain on the PAA staff.

In addition to the wide variety of topics offered, the structure of each opportunity was different, budgeted with limited consideration for cost per person or standardized metrics, and communicated as part of an individual plan rather than in the context of a larger communications strategy. On average, providing an engagement opportunity to alumni takes a minimum of six weeks to plan with some larger-scale opportunities taking closer to three months. Mitigating the sporadic and individual nature of planning engagement opportunities by, at a minimum, identifying the top priorities of alumni and institutional leaders will ensure that staff strain does not continue or is not exacerbated. A communications, budgetary, and calendar framework for

planning engagement opportunities would also support a more efficient delivery of programming for alumni while reducing staff strain and optimizing resources.

The PAA has a strategic plan outlining goals for serving alumni through experiential opportunities. This strategic plan was influenced by an alumni attitudes survey completed in 2019. However, since 2020 when the strategic plan was adopted, no standard approach to evaluating the impact of the engagement opportunities has been established. The PAA does not have a standing dataset to identify which alumni are consistently engaging, which alumni are showing interest in a specific type of experience, or which elements of programming are most effectively influencing the sustained involvement of alumni. Without these data, the organization cannot clearly articulate its impact to the university, to alumni, or to the measures of success detailed in the strategic plan. Without an explicit evaluation process, the PAA will continue to struggle to adapt to meet alumni needs or to respond to institution priorities in an effective way.

These organizational challenges impact PAA staff and alumni alike and can lead to a lower number of alumni who want to stay connected to the university. Unless the PAA can address these structural deficits, the PAA cannot consistently engage alumni, increase the number of mutually beneficial relationships that alumni form with the university, or achieve its mission and vision as an institutional entity.

1.3 Stakeholders – Pitt Alumni

One of the starkest contrasts within the Pitt alumni population is the difference in perspectives between generations of alumni. An Alumni Attitude Survey conducted in fall 2020 surveyed over 150,000 alumni and received a cross-section of responses from over 3,263 alumni.

The survey was intended to capture alumni opinions of the university, their experience as students, and the values they have now as graduates. When asked what impacts their opinion of the university, alumni who graduated from 2015-2019 responded that a diverse and inclusive environment ranked second only to the respect of the Pitt degree (Pitt Alumni Association, 2020). In comparison, alumni from all previous generations ranked other factors such as accomplishments of alumni and history/traditions higher than the on-campus environment. Additionally, when asked about the extent of an individual's affinity to specific experiences at Pitt, older generations of alumni ranked their major or degree program and university athletics as the highest whereas younger generations ranked their relationship with a faculty member or instructor and their association with a student organization/activity as the primary factor in their affinity to the university (Pitt Alumni Association, 2020).

The differences between generations of alumni seen across this survey confirms that a shift in how alumni had experienced being on campus has taken place. Younger generations of alumni are placing a more significant emphasis on their sense of belonging by prioritizing their interpersonal relationships either with one another or with Pitt faculty, whereas older alumni identify with institutional factors such as the university's athletic program. Sense of belonging and the feeling of "belongingness" is a basic human need that allows an individual to feel fully accepted and connected to a community (Maslow, 1968). In an educational setting, a sense of belonging can extend to feeling supported and serve as a psychological factor supporting academic success of students (Drezner & Pizmony-Levey, 2021; Goodenow, 1993; Maslow, 1968). Further, to understand how a sense of belonging impacts the student experience at Pitt, I follow Drezner and Pizmony-Levey's (2021) research to center the interpersonal relationships individuals have with one another instead of the relationship that an individual has with the

institution. These interpersonal relationships tend to be valued more by younger generations of alumni when asked about the aspects they associate with Pitt as well as when considering their affinity to the institution. In comparison, what older generations of alumni describe as their values, is aligned with organizational identity. Organizational identity reflects that an alumnus has a relationship with the institution itself, with factors such as prestige and perceived institutional distinctiveness ranking higher than any interpersonal interaction (Drezner & Pizmony-Levey, 2021). Achievements of individuals associated with the university, the success of the athletic program, and maintaining traditions all correlate with organizational identity. The opportunity to foster relationships with a more diverse group of individuals, develop stronger relationships with mentors, and build sub-communities through activities and shared experiences all contribute to a greater sense of belonging. This generational contrast is something that the PAA needs to be responsive to for increasing engagement among young alumni.

A Pitt alumna who graduated within the last decade and with whom I had a personal meeting emphasized the importance of sense of belonging and how feeling part of the Pitt community influenced her willingness to stay connected and to give back. She shared that she cared most about the opportunities to network and interact with other alumni, specifically in her professional field. While sharing this feedback she noted, however, that she was unclear as to the ways to become more involved with or volunteer with the PAA. This confusion directly influenced her sense of belonging within the Pitt alumni community. Though she was involved as a student, this alumna struggled to identify how to stay connected in the years after graduating.

Her sentiments were echoed by other alumni as reflected in the alumni attitudes survey. Results indicated that access to professional development and career-related resources are a

priority. When asked about what value the PAA could provide in their lives, young alumni answered that professional connections, mentorship, and networking were second in importance next to ensuring that their Pitt degree remains relevant and valuable (Pitt Alumni Association, 2019). In reference to the gap in services provided by the institution, young alumni shared that the university does not adequately prepare students for career-related tasks. While the academic environment, overall skills training, and relationships with other students and faculty are all achieved, the university has not supported the transition the transition from the on-campus experience into the "real" world (Pitt Alumni Association, 2019).

1.4 Stakeholders – University Leadership

In the broader context of the University of Pittsburgh, increasing alumni engagement is critical to supporting the goals set out in the *Plan for Pitt*, the university's strategic plan for the 2020-2025. This plan outlines the relevance of the alumni population in helping to shape a more inclusive campus community, to provide an avenue for new graduates to obtain jobs after graduation, and to facilitate a lifelong connection with the university. This type of relationship supports institutional goals, especially when alumni give back their time or money. Alumni who engage with the university and the PAA in a mutually beneficial way help to strengthen the whole alumni network by increasing the number of people who are active in the network.

1.5 Statement of the Problem of Practice

Based on the overview provided above, my problem of practice is that the Pitt Alumni Association does not consistently engage alumni in meaningful opportunities that build sustained and impactful alumni engagement. The PAA's approach to engagement opportunities is inconsistent and does not collect data to identify which alumni are consistently staying involved with the organization. Further, the PAA lacks the evaluative processes to identify which engagement opportunities are having the greatest impact as measured by alumni feedback and willingness to contribute in mutually beneficial ways. The Pitt alumni population is diverse and constantly evolving and without established processes that measure alumni engagement, the PAA will be unable to adapt as an organization to continually meet the needs of its alumni.

I identified female graduates from the years 2011-2021 as a subgroup of alumni to perform two tests of change to understand motivations for engagement, influence of specific design elements on these factor of motivation, and future propensity to engage. When calculating the rate of engagement with the PAA for fiscal year 2020-2021, female alumni across all ages participated at a higher rate than their male counterparts in three out of four of CASE's alumni engagement categories. In the volunteer, experiential, and philanthropic categories, these female alumni made up 71%, 66%, and 54% respectively out of all young alumni who engaged with the PAA. This level of participation indicates an opportunity for the PAA to capitalize on an engaged audience, tailor resources, and foster a deeper sense of belonging that will extend across the younger female population. By focusing on this subgroup, I can understand the interaction between a population of alumni that is reflective of the demographic diversity within the alumni audience and use the data from the tests of change to build standardized approaches for programming and program assessment that can be used across the alumni population.

Understanding how to develop mutually beneficial relationships with female alumni is a timely problem as the rate of female engagement is high, but the engagement is limited to primarily self-serving behavior and does not advance institutional goals. Identifying the factors that motivate young female alumni to engage and implementing strategies to form mutually beneficial relationships will allow the PAA to become a learning organization, adapting to meet the needs of alumni, while also leveraging the alumni population in support of the university.

As the Director of Constituent Relations, I oversee discrete alumni audiences that represent roughly one-third to one-half of the entire alumni population as well as the intercampus relationships with school, college, and regional campus partners and university units such as Pitt Athletics and the Office of Government Relations. The breadth of the alumni I work with allows me to see the intersectional identities that are present within the audience and understand the challenges in providing programming that can meet the needs of such a dynamic network of individuals. I have a unique view of how current efforts to engage across the alumni population are duplicated among staff or are ineffective based on the number of registrants, participants, or consistency in engagement. Further, I interact directly with current alumni volunteers which allows me to gain firsthand knowledge of the perspectives of alumni who are already involved in mutually beneficial ways. By overseeing staff that also serve discreet populations of alumni and students, I can identify which operational practices will have the greatest impact and be able to influence their implementation at an organizational level.

1.6 Review of Supporting Knowledge: Defining Meaningful Engagement

This literature review narrowed my focus on motivators of alumni engagement. By researching the theory of a social network, I contextualized why alumni have a general interest in interacting with their alma mater. Social network theory also provided a foundation to understand the benefit of structuring an alumni association as an organization where information is exchanged and interactions between alumni are fostered. Further research focused on understanding the factors that influence alumni's propensity to engage, and which factors are outside of or within the sphere of influence of alumni associations. I deepened my understanding of the strategies and tactics that alumni associations can take from a data perspective knowing that assessing passive versus active alumni engagement and building mutually beneficial relationships takes a strategic effort and utilize of resources.

1.6.1 Sense of Belonging to Foster Meaningful Engagement

A variety of sources were used throughout this literature review including peer-reviewed journals, reports from non-governmental organizations, and articles from professional organizations. These sources have been chosen for their relevance to the theory of social network analyses across a variety of contexts and social interactions, as well as their insight into how to support relationship development within these networks. Additionally, much of the research presented here speaks directly to the relationship between college students, higher education institutions, and how alumni associations can support and leverage this relationship. The data used in these articles provides an overview from scholars that explore topics from different points of view and utilize various methods, which provides insight into the relevant factors and

potential future methods for collecting data specific to the University of Pittsburgh Alumni Association.

Sense of belonging has been shown to increase meaningful alumni engagement. Drezner and Pizmony-Levy (2021) completed a study to understand the influence that sense of belonging had on alumni to become donors back to their alma mater. The findings concluded that across all socio-demographic categories surveyed, sense of belonging has a positive influence on the alumni's desire to give back either through volunteerism or philanthropically. The structure of the survey measures both sense of belonging as well as the causes an alumnus would be most willing to give back their time or money to. Overall, alumni rated their desire to help a student and giving back to a program or area of study as the two causes that would most influence their giving. According to Drezner and Pizmony-Levy (2021), a combination of sense of belonging and a cause related to the student experience influenced alumni who had not interacted at all with the institution to donate both time and money.

Hurtado and Carter (1997) described a sense of belonging as a psychological factor which, in the context of an educational environment, reflects a student's feeling of cohesion to their institution and campus community. This definition extends to alumni population because the feeling of cohesion to the institution remains a salient factor in the connection felt by the individual after graduation. Fostering a sense of belonging requires a centering on relationships between individuals within the community. Young alumni at Pitt have stated that sense of belonging, through their interpersonal relationships, is a contributing factor to the connection they feel to Pitt. Understanding the factors influencing sense of belonging provides important insight into how to cultivate meaningful relationships with young alumni.

Interactions with diverse groups of students positively influences sense of belonging. Terrell Strayhorn, referencing a study of undergraduates on a higher education campus, discussed the importance of interacting with others different from oneself. He cites:

> ...students who socialize with their peers and discuss racial/ethnic issues outside of class report higher levels of college satisfaction and academic self-concept than those who do not interact with their peers…. [S]ocializing with someone of another racial group is positively associated with self-concept, retention, and satisfaction with college. (2008, p. 506)

It is important to reflect on these interactions among diverse individuals that shape both the emotional attachment that a student has with the institution, their own personal identity, and overall sense of belonging. By fostering a similar environment for alumni to engage with one another in ways similar to when they were students could have a positive impact on the overall sense of belonging that individuals feel as alumni.

Since sense of belonging is about the interactions between individuals and their relationships with one another, it is important to understand how to foster meaningful connections between alumni during PAA programming. These meaningful connections will contribute to an alumnae sense of belonging and strengthen their desire to give back through mutually beneficial activities. By focusing on interpersonal interactions, the PAA can maximize the drivers that influence an alumnus' propensity to engage.

1.6.2 Factors that Impact Alumni Connection with the Institution

The relationship between a graduate of a higher education institution and their alumni association begins long before graduation day. From the moment a student sets foot on campus,

the experience they have begins to shape their long-term identity with the institution. Koenig-Lewis and colleagues (2015) completed a quantitative study to determine just how much of an influence an alumnus' recall of their student experience had on their propensity to engage either through volunteerism or philanthropic activities. Both academic and social experience influenced the loyalty that an alumnus has with their institution. As time from graduation passed, memories of the academic experience began to influence alumni engagement less, while social experience memories continued to influence post-graduation actions at a measurable rate.

Researchers have reviewed the impact of a student's relationship with faculty and with other students (Fuentes et al., 2014) and participation in social activities as just some of the factors that contribute to a positive student experience and their propensity to be engaged as an alumnus (Koenig-Lewis et al., 2015; McAlexander et al., 2005; McAlexander & Koenig, 2010). The formation of bonds through "peak experiences" proves to influence students long after their graduation and can be replicated within the alumni community. The sharing of personal experiences and opportunities for groups of alumni to come together to have a "peak experience" can have positive influence the relationship alumni have with one another and with the institution. Replicating "peak" experiences is an important strategy of alumni associations as it builds on the positive elements of the student experience and continues to foster an emotional connection back to the institution.

One factor that cannot be controlled by an alumni association, but that is important, is the life stage of the alumnus. Gallo (2013) offers a breakdown in four stages: affiliation, affinity, engagement, and support. The affiliation stage consists of pre-graduation and recent graduates. During the affinity stage, alumni have little involvement with the institution. There is a possibility that some alumni stay in this stage for life, choosing only to interact passively or not

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at all with the association. The engagement stage is an ideal stage for an alumni association to connect with alumni, as it is during this stage that alumni interact with the association and the network, either through programming or activities. While the relationship is more one-sided instead of reciprocal, with alumni taking advantage of organizational offerings without giving much back to the association, the engagement is important for moving alumni to the last stage: support. The relationships in this final stage mature because alumni are serving as volunteers or ambassadors for the institution and even contributing financially. Alumni in this stage are, by and large, established in their careers and/or personal life and ready to donate time and/or money, creating a reciprocal relationship with the institution.

Considering that alumni may never transition to being an "engaged alumni" – much less a support alumni – because of reasons as disparate as the student population (including a student life devoid of peak experiences, a general disinterest in utilizing weak ties within the alumni network, vague generational disinterest in engagement, or simply a confluence of identity-related disconnects from the institution), it is clear that simply aiming at having a percentage of the total population of alumni engaged with the association is unproductive. Instead, the association must focus its efforts on identifying those alumni who do value the opportunity to interact with the institution and move them through affiliation and affinity to engagement and support stages through events and programming. Only in this way will the association be able to increase engagement on a perpetual basis, helping to break the generation gaps and fostering a broader and more diverse community of active alumni.

1.6.3 Strategies and Tactics of Alumni Association

Alumni associations must be able to build relationships with potential alumni who can engage in mutually beneficials ways and sustain the relationships with those who already do. Alumni engaging in both the volunteer and philanthropic areas align with Gallo's (2013) "support" stage in which the engagement is mutually beneficial to the participant and to the institution. Data collection as a tactic is key to this relationship development. By tracking an alumnus from the time they begin as a student, capturing relevant experiential and academic information, and then building upon that experience once they graduate, alumni associations should be able to curate specific opportunities that provide value to the individual while supporting the organization.

Gallo (2013) and Coolman (2013) continue to build on the importance of data collection, adding that the ability to segment data to target within the alumni population and invest resources in potential leaders will result in more effective engagement. Being able to build relationships with and curate programs around potential leaders, the alumni association is strengthened as peer leaders help to create connections within the alumni network to support the growth and development of strong and weak ties. The interpersonal relationships grow to create meaningful engagement for those in leadership positions while simultaneously increasing the social capital of alumni who engage for only personal reasons.

Osborn, Alkezweeny, and Kecskes (2015) presented a programmatic example of curated engagement. They piloted a program that built upon the experiences alumni had as students involved in community and civic engagement. This program had goals of ensuring that alumni could continue their engagement with the university after graduation in a format that provided them self-gratification and still supported the institutional mission. The "Continuing Engagement

Program" brought students and alumni together by establishing theme-based communities of practice, designed the program around topics of educational equity and social justice, and involved faculty at the institution to help shape the curriculum and support continued learning. The program proved to be successful, offering alumni an opportunity to rediscover the type of learning and pathway to action that they had identified with students. This type of reciprocal program is an example of targeting a certain population of alumni, curating activities around their interests, and building affinity with the institution by strengthening their relationships as alumni.

Establishing an active alumni network is a strategic tactic of an alumni association. In the context of the PAA, the definition of "network" is all 324,000 alumni. Within the network, weak ties are based on loose connections with low emotional support but have the highest potential for new information to be exchanged and for this information to positively influence the economic and social mobility for the individual (Brown & Konrad, 2001; Granovetter, 1973). Strong ties, conversely, represent a strong emotional bond. Strong ties play a role in the healthy network and development of social capital as well, even though individuals may be exchanging the same or similar information (Granovetter, 1973). Strong ties, then, in the context of the Pitt alumni network help to create connections into the network that support an emotional tie to the alumni association or the university which directly influences engagement. In the context of the Pitt alumni network, strong ties can be seen in mentor-mentee relationships or even in sub-group structures wherein the alumni develop a bond with one another through shared interests and experiences.

Social network theory also provides the foundation from which the PAA can further refine its approach to fostering engagement across subgroups within the network and truly

catalyze activity to move young female alumni along the spectrum of engagement. Within a sub-community, the elements of a healthy network still apply, but there is an intentional focus on the quality of interaction between the users rather than the. the quantity of users. Strong ties can be fostered alongside weak ties, maximizing the potential engagement opportunities and development of social capital (Granovetter, 1973).

Alumni associations can lean on the knowledge that both strong and weak ties are relevant – and *how* they are relevant – to help build social capital within the network. Social network theory emphasizes the value in strong ties helping to form weak ties, which then create a broader community that can facilitate action, whether for an individual's personal benefit or for larger collective purpose.

1.7 Conclusion

The Pitt Alumni Association is responsible for building sustained alumni engagement that will lead to mutually beneficial relationships. To establish mutually beneficial relationships, there must be an alignment of alumni interests and institutional priorities. Existing data of alumni interests and values reflects a generational difference in values, affinity to the university, and expectations for engagement with the PAA that has not yet been addressed by the PAA. Further, the PAA does not currently have evaluative or implementation processes that allow the unit to become a learning organization able to adapt to the needs of alumni to maintain mutually beneficial relationship over time. Research shows that an individual's sense of belonging can motivate them to not only stay connected to their alma mater but also give back if the right opportunity is presented to them. Young alumni at Pitt have also articulated that sense of

belonging is a relevant factor in their decision to stay connected after graduation. The PAA should develop a more strategic focus on process that deepen understanding of young alumni needs and interest while implementing evaluative measure to provide more consistent engagement opportunities that are proven to sustain alumni engagement and increase mutually beneficial relationships.

2.0 Theory of Improvement and Implementation Plan

2.1 Theory of Improvement and the Change

2.1.1 Aim Statement

The mission of the PAA is to engage current and future alumni to enrich their lives and advance the mission of the University of Pittsburgh. This mission can only be achieved by continuously evaluating motivators for alumni engagement and providing engagement opportunities that are structured to align with alumni interests. My aim for this project is that by June 2025, the Pitt Alumni Association will increase the sense of belonging of 15% of currently active alumni. By standardizing evaluative measures, the PAA can become a learning organization which is prepared to adapt based on the needs and interests of the alumni population and incorporating effective design elements across programming opportunities to increase mutually beneficial relationships between alumni at the University of Pittsburgh.

2.1.2 Theory of Improvement

I identified three primary drivers and three secondary drivers within the larger organizational system of the Pitt Alumni Association and network of alumni that influence achievement of the aim (see Figure 3). The first primary driver is related to alumni sense of belonging, and specifically how their sense of belonging is influenced by participation in PAA programs. Research demonstrates that an individual's sense of belonging can influence their

propensity to engage, so much so that an alumnus who feels a sense of belonging but has never interacted with their alma mater can still be motivated to give back in mutually beneficial ways (Drezner & Pizmony-Levy, 2021). The programming provided by the PAA including in-person and virtual events provides an opportunity for alumni to engage with one other and interact with the organization in ways that are meaningful. A secondary driver that is related to cultivating meaningful engagement is ensuring that alumni can interact with alumni from diverse backgrounds. The Pitt alumni population represents a true intersection of identities and therefore, to increase overall sense of belonging for individuals, it is important that PAA programming reflect this diversity. Further, interacting with individuals who have had different experiences and opinions than your own has been shows to successfully improve a feeling of belongingness for individuals (Strayhorn, 2008).

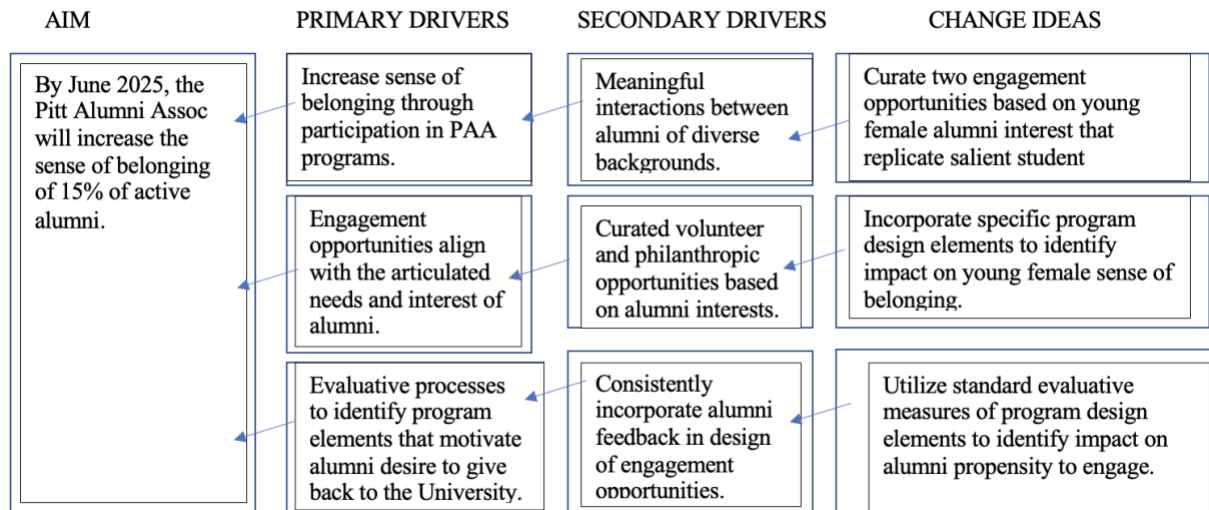| AIM	PRIMARY DRIVERS	SECONDARY DRIVERS	CHANGE IDEAS
By June 2025, the Pitt Alumni Assoc will increase the sense of belonging of 15% of active alumni.	Increase sense of belonging through participation in PAA programs.	Meaningful interactions between alumni of diverse backgrounds.	Curate two engagement opportunities based on young female alumni interest that replicate salient student
	Engagement opportunities align with the articulated needs and interest of alumni.	Curated volunteer and philanthropic opportunities based on alumni interests.	Incorporate specific program design elements to identify impact on young female sense of belonging.
	Evaluative processes to identify program elements that motivate alumni desire to give back to the University.	Consistently incorporate alumni feedback in design of engagement opportunities.	Utilize standard evaluative measures of program design elements to identify impact on alumni propensity to engage.

Figure 3 Driver Diagram

Ensuring that opportunities provided to alumni align with their needs is another primary driver. The PAA seeks to provide value to alumni, and in order to achieve this outcome, the organization should understand the needs and interests of alumni, at least on an aggregate level,

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and align programming with those interests. By offering engagement opportunities that serve a need or support an interest of alumni, the PAA can increase the overall number of alumni that are interacting with the university. These offerings can draw alumni back to the university even if that individual had not sought out a connection with Pitt and can serve a purpose in the lives of alumni. The related secondary driver speaks to the importance of mutually beneficial opportunities also being aligned with alumni interests. Alumni who give back want to do so in ways that are meaningful to them, regardless of whether through volunteer or philanthropic means. Curated volunteer and philanthropic opportunities help to foster mutually beneficial relationships while still helping to advance university initiatives.

The third primary driver I identified is the implementation of evaluative processes that will allow the PAA to measure the rate of engagement across the alumni population as a whole and complete a deeper analysis of the type of programming that is influencing the propensity of alumni to give back in mutually beneficial ways. By implementing evaluative processes, the PAA can continue to iterate programming and curate volunteer opportunities that build upon successful elements of engagement. More importantly, the evaluative processes need to include alumni feedback to ensure that as the population changes, the PAA can be adaptive to still meet the needs of alumni. Alumni engagement should be intentional, purposeful, and yield an increase of mutually beneficial relationships because ultimately the purpose of fostering interaction among alumni is to advance university initiatives.

2.1.3 PDSA Cycles

A primary driver supporting my aim is to increase the sense of belonging among young alumni. I contextualized this primary driver by reviewing what young alumni have identified as

factors that influence their propensity to engage or stay connected to the institution. Young alumni, or alumni who graduated between 2011-2021, have stated that their sense of belonging impacts their willingness to stay connected to the university after they graduate, and it is therefore critical for the PAA to understand what type of engagement opportunities will most effectively impact this motivating factor.

Research shows that belonginess can be impacted by exposure to individuals different than oneself, an interpersonal relationship that has a demonstrable effect on one's life, and by having a salient experience that shapes the individual's identity in a positive way. Therefore, my focus for this project was to curate opportunities that engaged females from different backgrounds and offered them the chance to connect with one another through different forms of conversation and participation. Part of my theory of improvement was that by highlighting female alumni as speakers and presenters, that would increase the sense of belonging of other female alumni by offering a visible way for alumnae to identify within the larger alumni network.

An alumni's sense of belonging is also influenced by the experience that they had as a student; therefore, I sought to replicate elements of the student experience that supported the connection to the Pitt community. While being part of a larger network can provide a value to the alumnus by offering multiple opportunities for meaningful interpersonal interactions, students felt a stronger connection to the campus community when they were part of an organized group that had an intended purpose or collective mission such as a student organization or activities that contributed to larger institutional goals. My theory of improvement sought to build upon this existing sentiment formed by alumni when they were students by tailoring programming that demonstrates young female alumni have a subcommunity of alumnae who can share similar

experiences and can provide meaningful support to one another. I believe by supporting connections between alumnae they will recall the feeling they had while on campus and want to build similar types of relationships as alumni.

Sense of belonging when coupled with engagement opportunities that align with alumni interests has been shown to increase the willingness of an alumnus to give back in mutually beneficial ways. My theory of improvement focused on providing engagement opportunities that align with the needs and interests of young alumni broadly, as the PAA has data available that reflect the needs and interests of this population. Young alumni at Pitt have stated that career and professional development resources are of value to them. This need exists because the transition from student to alumnus is challenging and alumni identified a gap in the resources offered by the university that help translate the classroom experience to post-graduate life. Young alumni also shared that these types of professional resources would help them navigate challenges in their careers and build stronger connections with other alumni for the purposes of networking to advance their careers.

Through the design of my PDSA cycles, I sought to foster a sense of belonging among subgroup of female alumni who graduated between 2011-2021. I focused on this group for two reasons. First, young female alumni demonstrate higher interest in engaging with the PAA. This focused group served as a population with whom I could test specific design elements and gain relevant feedback before applying these elements across programming for the entirety of the Pitt alumni population. Second, by narrowing my focus to a specific subgroup, I could more successfully test the type of alumni engagement that would successfully mimic the connection that students felt when they participated in an organized group with an articulated purpose or mission. For the change idea, I structured two engagement opportunities incorporating a set of

design features that were intended to influence the participant's sense of belonging and desire to engage. The design features that were incorporated into both change cycles were:

- Events provided career and professional development resources specifically for women.

- Strategic focus on young alumni while remaining open to all female alumni.

- Feature opportunities to maximize interaction among participants and panelists/speakers.

- Topics generated in partnership with female alumni volunteers and volunteers recognized during the event.

- Featured panelists/speakers represent a range of backgrounds and identities.

The first engagement opportunity was the half-day Women in Leadership conference. This conference offered three sessions of panelists speaking on specific topics impacting women in the workplace, spanned a half-day, and participants could choose either an in-person or virtual option. Throughout the day, participants had time to interact with one another and to ask more personal questions of the panelists in a more private space. The networking components were structured loosely, allowing for participants to choose how they wanted to connect with one another. Additionally, participants were allowed to ask questions of the presenters both during the panel and immediately after giving ample time for them to gain value in their interaction. The three panel topics featured a diverse representation of speakers, all Pitt alumnae, from different industries, backgrounds, and age groups. The panel topics were as follows:

1. Growing your net worth: a presentation offering tools and strategies for women to negotiate salary, job responsibilities, benefits, and ultimately their career goals.

2. Embracing imposter syndrome: a presentation on how to turn traits that are often dismissed as negative such as emotional intelligence into confidence building traits that support our own individually.

3. Identity and influence: a presentation discussing the concept of intersectionality and how individual identity can serve as strength in the workplace.

This engagement opportunity offered young female alumni the chance to participate in PAA programming that could add value to their personal and professional lives. The panel topics were designed with input and feedback from alumnae volunteers to ensure that the information remained relevant to female professionals from all backgrounds and industries. The representation of speakers demonstrated the diversity of individuals within the Pitt alumni network and the value of connecting with individuals from different backgrounds.

The second engagement opportunity, Roc Talks, was structured as a keynote speaker. This event was only offered in person and open to all young alumni, not just female alumni. This shift to all alumni was an intentional effort as I sought to test whether connections between female alumni were stronger when it was clear the engagement opportunity was curated for that audience only. Roc Talks featured Tre Tipton, an alumnus who has encountered personal challenges, including struggles with mental health, he had to fight to overcome. He also experienced injuries while playing football that prevented him from pursuing a professional football career. His keynote was structured as a more personal presentation of professional challenges and offered insight into approaches to address those challenges. The keynote highlighted the importance of having a network of support similar to the Pitt alumni network that individuals could lean on for advice. I prepared prompts for the networking portion of the event that were intended to facilitate conversation between the participants. The keynote speaker and networking prompts were both designed through collaboration with young alumnae volunteers to ensure relevance to the young alumni audience.

2.1.3.1 Test 1: Women in Leadership Conference Predictions

A design feature of the Women in Leadership conference I predicted would strengthen the sense of belonging among the participants is that the conference is advertised and designed around the needs of females. By providing this environment and curating content for this subgroup, I believed that alumnae would feel more confident in interacting with one another and sharing experiences that helped them see they had a network of other alumni who could support them. In this environment, I predicted that a shared experience would be formed among the participants in a similar way to when the alumnae were students and formed a bond when going sharing experiences.

A second prediction I made was that young female alumnae would be more willing to give back in mutually beneficial ways in any category other than philanthropically after participating in the Women in Leadership conference. Once the individuals participated in the conference and saw both the value that the conference provided to them as well as interacted with the diverse range of perspectives offered by panelists and participants alike, young alumnae would be motivated to engage in a meaningful way to cultivate a similar experience. Financial giving can be the most challenging category to impact because the purpose and value must be clearly demonstrated and communicated. Therefore, I predicted that the categories related to supporting students or planning similar events would see a larger increase than the categories related to philanthropic giving.

The hybrid nature of the Women in Leadership conference offered interesting insight into how virtual participants engaged with the material as compared to in-person participants. The time commitment of a half-day conference could be a barrier to participation. I predicted that

there would be a higher number of virtual registrants than in-person as the ability for individuals to watch from work creates more flexibility to engage.

The Women in Leadership conference offered a clear value to young female alumnae and would successfully motivate this audience to participate in PAA programming. The structure of this test would help to further understand whether certain design features could motivate the participants to not only attend the event, but also to engage in a way that helps to foster a more meaningful connection and stronger female alumni community.

2.1.3.2 Test 2: Roc Talks Predictions

I predicted that Roc Talks would increase the sense of belonging felt by participants because of the environment created by featuring a single keynote speaker and the approach of this speaker to connect with the audience. One keynote offering a personal experience and having a conversation with the participants would successfully allow young female alumni to feel connected to the PAA and to one another.

I predicted that the design element of being open to all alumni, versus a separate space for young female alumni, would increase the propensity of the young female alumni to give back. Social network theory articulates interactions between a wider range of individuals can provide access to information that the individual did not have previously. This setup, coupled with the personal nature of Roc Talks, had the potential to highlight a shared experience felt by all young alumni, regardless of their gender identity, when navigating career and life challenges. Having a shared experience would positively influence their connection to one another and create a salient experience driving their motivation to act in ways that are mutually beneficial to continue cultivating a community that they feel a part of.

In sum, I believe that the Women in Leadership conference would provide a utilitarian benefit to alumnae by making resources available that can be applied to the participant's professional lives. Participants could access these resources regardless of how they engage with other individuals or with the speakers. Just by showing up, individuals would be able to receive professional development. In contrast, ROC Talks demonstrates the value of being part of a network of individuals and the impact of a shared experience. I predicted that the environment of ROC Talks motivates participants to get involved in mutually beneficial ways. Across both engagement opportunities, the diverse representation of speakers highlighted that the Pitt alumni community upholds the values of belonging and creates the space for participants to interact with the content in whichever ways best suit their needs and own personal identities.

I predicted that both the Women in Leadership conference and ROC Talks would positively influence participants' sense of belonging because there is a clear alignment between the needs of the young female alumni and discussion topics presented. Providing value and acknowledging that young alumni are seeking resources to support their career goals demonstrates that the PAA is an organization that can meaningfully contribute to their lives. Both engagement opportunities created an opportunity for the alumnae to identify with the speakers in a way personal to them. The Women in Leadership conference highlighted alumnae of different background while ROC Talks highlighted a dynamic speaker who has had a variety of life experiences. I hypothesized that this design feature would strengthen the connection that alumnae feel to the PAA as they could relate to multiple aspects of the speaker's identities and therefore would allow for a stronger interpersonal relationship with the alumni network to be formed.

3.0 Methodology

3.1 Methods & Measures

3.1.1 Data Collection Method

In creating the two PDSA cycles I sought to understand how the design features influenced a sense of belonging and the propensity of alumnae to engage in mutually beneficial relationships with the PAA. The specific aspects of sense of belonging that I sought to understand were design elements from the student experience including: (a) creating shared, "peak" experiences among the alumnae, (b) interacting with diverse populations, and (c) fostering meaningful interactions between alumnae. By focusing on these elements, I sought to understand if the PAA can recreate a similar emotional connection that young female alumni had as students even years after they have graduated.

I utilized quantitative data gathering methods to determine the impact of each design element on both the sense of belonging and propensity to engage in participants of both change cycles. Prior to each event I administered a survey asking about registrants' sense of belonging and propensity to engage. The pre-event survey provided me with a baseline of the overall interest in philanthropic or volunteer opportunities and alumnae sense of belonging. A five-point Likert scale ranging from strongly disagree to strongly agree was used to determine the responses for each of the following questions in the pre-event survey:

- I feel part of the Pitt Alumni Association community.
- The Pitt Alumni Association provides me with meaningful connections to other alumni.

- I feel like I can be myself when participating in Pitt Alumni Association programming.

- Pitt Alumni Association programs allow me to interact with a diverse group of alumni.

These questions, while broad, allowed me to capture data relevant to the respondent's sense of belonging. Utilizing language such as "I feel part of," "meaningful connections," and "I can be myself" was intended to illicit a more personal response from each respondent, which increases the value of their response because it is more genuine.

Respondents were also asked to use a five-point scale ranging from unlikely to certain answer questions regarding their interest in giving back to the PAA in the following ways:

- Volunteer with the Pitt Alumni Association to support current Pitt students.

- Volunteer to present on a topic to the Pitt alumni population e.g., serve as a speaker, participate in a webinar.

- Volunteer to help plan future Pitt Alumni Association events and programs for female alumni.

- Donate to the university to support current Pitt students.

- Donate to another university priority I am passionate about.

This list of volunteer and philanthropic opportunities reflects the most commons ways that alumni can give back in a mutually beneficial way. By asking questions across this spectrum, I was able to compare the level of interest between each opportunity.

In order to measure sense of belonging and propensity to engage resulting from the event, I administered a survey to participants immediately following the conclusion of the event. Participants were asked to rate the relevance of the events topics to their professional development and ability to meaningfully connect with other participants on a four-point scale ranging from "not relevant" to "highly relevant." I also included a series of questions using a

five-point Likert scale ranging from strongly disagree to strongly agree to measure the overall impact of the event on participants sense of belonging and propensity to engage. These questions include:

- Participating in the Women in Leadership conference made me feel a stronger connection to the Pitt Alumni Association.

- The format of the panel discussion provided me access to meaningful information.

- I feel like the panelists represented a range of experiences, backgrounds, and identities that I could connect with.

- The conference provided me an opportunity to develop meaningful relationships with other alumni.

- After participating, I am more likely to volunteer with the Pitt Alumni Association to support students.

- After participating, I am more likely to serve as a speaker for Pitt Alumni Association programming.

- After participating, I am more likely to volunteer to support programming like the Women in Leadership conference/ROC Talks

- After participating, I am more likely to give back financially to the university to support students.

- After participating, I am more likely to give financially to another university priority I am passionate about.

In the pre-survey, I was seeking to measure participants willingness to engage in different mutually beneficial categories. This established a framework for understanding the interests of alumni who wanted to attend PAA events. In the post-event survey, I provided different response

choices to measure likelihood to try and capture the impact of participation on the alumni's propensity to engage in mutually beneficial activity. By applying a standard set of survey questions across both events, I was able to understand the experience of each set of participants and contextualize the impact of the design features within the broader context of the environment of the event and overall purpose of the programming.

3.1.2 Process Improvement Measures

Process measures were the results from the survey that showed an increased sense of belonging based on participation in PAA programming as well as an increased desire to engage in meaningful ways through volunteerism or philanthropy as measured from the post-event survey. Another process measure was the number of alumnae who indicated they are interested in becoming volunteers with the PAA.

3.2 PDSA Results

In this section, I provide a description of my two tests of change. The findings will be presented independently for each cycle in three sections: participation, sense of belonging, and propensity to engage. I then provide a summary of insights for each test, identify relevant comparisons between the two tests, and present a conclusion of how the information gathered relates to my problem of practice.

3.2.1 Test 1: Women in Leadership Conference

3.2.1.1 Design and Description

My first test of change was structured as a half-day conference titled the Women in Leadership conference. The foundation for the structure of this conference were the following design elements based on my theory of change including:

- Focused on career and professional development resources specifically for women.

- Curated for young alumni while remaining open to all alumni.

- Opportunities for interaction among participants and panelists / speakers.

- Featured panelists/speakers represent a range of backgrounds and identities.

The conference featured three panel discussions and I incorporated two breaks between panels to provide informal opportunities for participants to network with one another. The panels were designed in collaboration with female alumni volunteers to ensure the topics and representation of speakers were relevant to the audience. Specifically, the volunteers were graduates within the last decade and mid-career professionals, which helped align the conference topics with the younger female population.

The three panel topics were: (a) Negotiation and Net worth in the Workplace, (b) Personal Identity as a Professional Strength, and (c) Beyond Imposter Syndrome: Taking Control of the Workplace. Each panel featured speakers representing different generations, ethnicities, professional workplaces, and experiences. All presenters were female, and some presenters were also Pitt alumnae which was highlighted in the conference communication and as part of the panelist introduction. By highlighting members of the alumnae community, I was seeking to strengthen the connection that participants had with one another not only based on being Pitt alumni, but also based on their shared experiences as females.

The conference was offered as an in-person event in the Pittsburgh region and was also streamed for on-line participation. Both virtual and in-person participants were given the opportunity to ask questions of the panelists and to interact as part of the discussion simultaneously. The opportunity to interact with other conference participants and panelists was a significant component of the conference itself because of the potential impact these elements have on alumni's sense of belonging.

3.2.1.2 Data Collection Methods

I used three data collection methods, including a participation report, a record of questions participants asked during the panel, and an anonymous pre- post-survey. Utilizing the participation report, I analyzed the number of participants and whether alumnae engaged virtually or in-person. Demographic information including graduation decade and geographic location was also included as part these data, which allowed me to compare interest across ages of alumnae and to assess the extent to which young alumni participated in the conference.

The second data collection method was the record of questions participants asked during the panel presentations. This information offered insight into how participants were interacting with the content of conference. I separated the questions into two categories: professional and personal. Separating the questions this way allowed me to analyze how the design of the panel topic and presentation of speakers influenced the engagement of the alumnae.

The third data collection tool was an anonymous pre- and post-event survey I administered to measure the sense of belonging and propensity to engage felt by registrants prior to and immediately following their participation in the conference. These surveys provided insight into four factors that impact and individual's sense of belonging and allowed me to

evaluate the impact of the conference on the participant's connectivity to the alumni community. The four factors were:

- Connection to the PAA as an organization.

- Connection to other alumni.

- Interactions with diverse members of the alumni population.

- Ability to be oneself when participating in PAA programming.

These four factors were based on overarching aspects of belonging that I identified when reviewing literature related to sense of belonging and more specifically, how sense of belonging can impact engagement as an alumnus. Interpersonal relationships, such as the relationship between a student and faculty member or with other students (Fuentes et al., 2014), influenced likelihood for alumni to engage overall. Additionally, interaction with individuals different than oneself also created a positive association with a college experience and influenced sense of belonging (Strayhorn, 2008). Hurtado and Carter (1997) provided insight into the importance of centering relationships between individuals within the community to foster a sense of belonging. I structured the four factors of my data collection by taking this research and overlaying it with the data gathered by the PAA through surveys and evaluating existing participation data of young alumni generally as well as young female alumni. This ensured that the data I was collecting both contributed to the overarching research related to sense of belonging in alumni relations while providing specific insight into the young female alumni population at Pitt.

A five-point Likert scale was used to collect ordinal data on a scale from strongly disagree to strongly agree was used to measure the responses. The survey questions, while broad, allowed me to capture data relevant to the respondent's sense of belonging. The language of the questions such as "I feel part of," "meaningful connections," and "I can be myself" was

intentional to illicit a more personal response from each respondent. Measuring sense of belonging is challenging because a feeling of belongingness is an inherently individualized emotion. Therefore, I structured my questions around the environmental and experiential elements that research has shown (Fuentes et al., 2014; Hurtado and Carter, 1997; Strayhorn, 2008) can influence belongingness while phrasing them in a way that allowed respondents to answer from a personal perspective.

3.2.1.3 Findings

3.2.1.3.1 Participation

Three hundred and fifty-five alumni registered to participate in the Women in Leadership conference. Of the 355 that registered, 287 female alumni attended across both in-person and virtual options. The participation data did reveal that graduates of the last decade, or young female alumni, are highly interested in attending the Women in Leadership conference. Figure 4 represents the breakdown of female participants by graduation decade, demonstrating that 42% (n=287) of attendees graduated within the last decade. A relevant piece of data to further contextualize the interest of young female alumni is that only 5.3% of participants attended the conference in-person while 94.7% of participants engaged virtually. Most participants, regardless of graduation decade, chose to participate virtually which demonstrates the value in providing opportunities for alumnae to engage in this way. Figure 4 reflects the graduation decade of female alumnae attending the conference with the x-axis reflecting graduation decade and the y-axis reflecting the percentage of participants out of 100%.
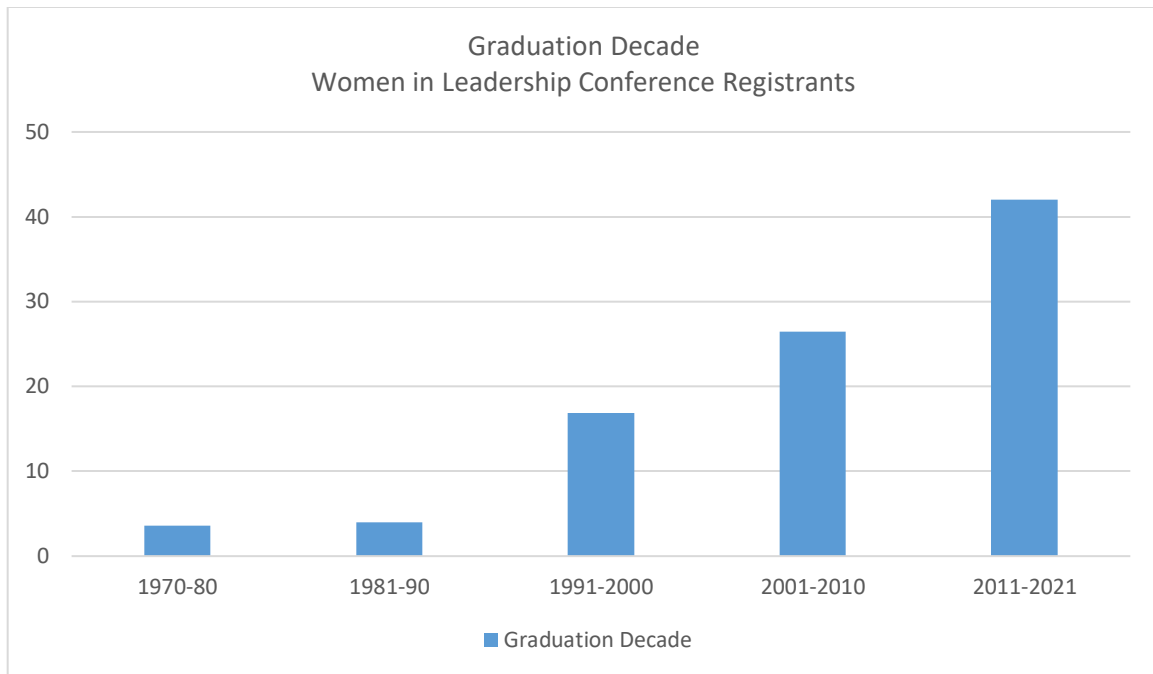
Figure 4 Graduation Decade of Alumnae who Registered for the Women in Leadership Conference

The importance of offering virtual opportunities is further emphasized by the fact almost half, or 49.78% (*n*=287), of participants were from the Western PA region, with only 20.5% of those participants residing outside the Western PA region, and 30.21% of participants residing outside of Pennsylvania. Even while potentially being able to commute to the physical location of the conference, most alumni within the Western PA region chose to participate virtually. Further, by offering a hybrid conference, the PAA was able to engage a broader population of alumnae and provide value to a larger number of individuals than if the conference was held as an in-person only event. Figure 5 represents this geographic breakdown of participants with the x-axis reflecting the location and the y-axis reflecting the percentage of participants out of 100%. I grouped the participants into three major geographic categories: (a) Pittsburgh, (b) outside of Pittsburgh but within Pennsylvania, and (c) all other locations outside of Pennsylvania. This categorization was the most relevant to my analysis of the participants as I was attempting to see

in the aggregate the rate of attendance locally in the Western Pennsylvania region in comparison to other areas of the country.
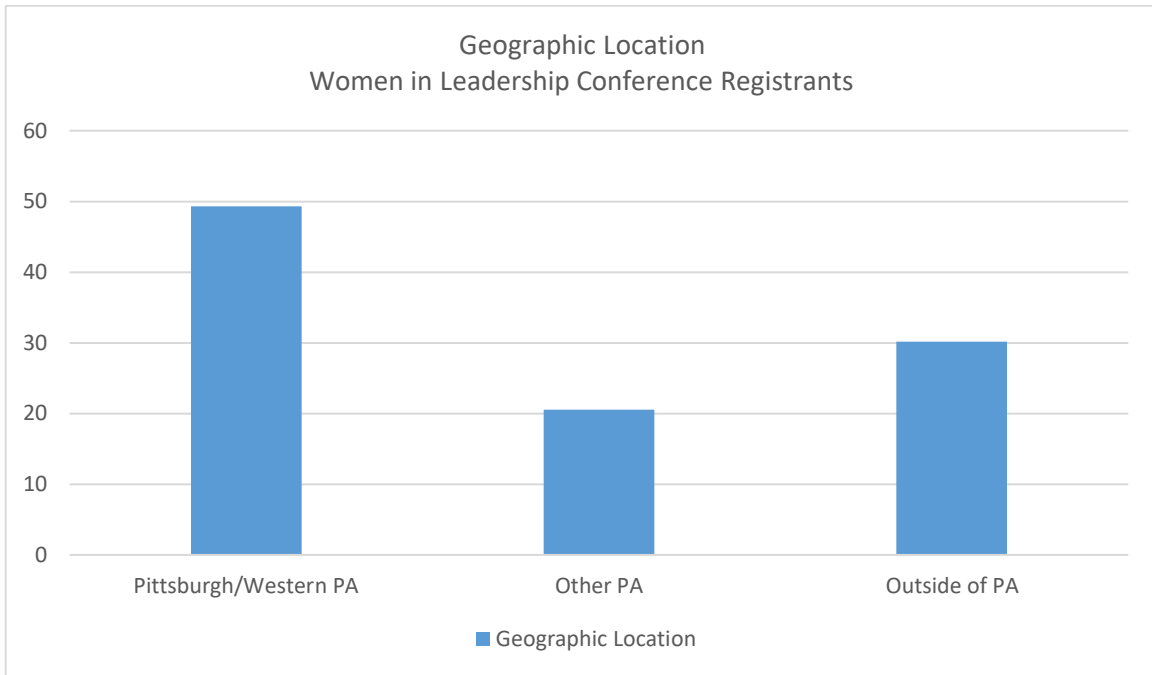

Figure 5 Geographic Breakdown of Alumnae who Registered for the Women in Leadership Conference

The topics, influenced and structured by the alumnae volunteers, proved successful and beneficial to participants. Results from the post-event survey demonstrated that the content was highly relevant to their professional development. Post-event survey respondents rated the first panel at 81.82% (*n*=17) highly relevant and no respondent indicated that the topics were irrelevant. While the post-survey data is not significant enough to draw definitive conclusions, I was able to overlay these responses with the engagement of participants during the conference which allowed me to analyze the information collectively to draw a conclusion that the topics were indeed relevant to the audience.

Many questions submitted by participants regarding the presenter's personal experience navigating a career and specific challenges. For the first panel titled "Negotiation and Net worth in the Workplace" all questions submitted by participants were professional in nature. For example, one question submitted was: "If you didn't counter with a better salary at the beginning of your career with the company, is there any way to fix your salary trajectory, or are you stuck?" Another question submitted read: "What are some techniques you can use to ensure that when you are negotiating, you are asking for competitive salaries and not under selling yourself?" These questions directly relate to the operational aspects of a job and support the professional skill development of participants seeking to negotiate. The lack of personal questions reflects that the topic of this panel reflects to participants being more focused on professional growth vs. personal connection. The questions of alumnae were related the interaction within their workplace and the focus was not on interpersonal connections or relationship development.

The second panel, "Personal Identity as a Professional Strength," was a discussion that demonstrated that topics of a more personal nature can still be related to the professional experiences of alumnae. Questions of the panelists were to understand the speaker's personal identities and how that personal identity relates to their professional practice. For example, one question was asked: "How do I advocate for myself and receive stretch assignments in my workplace," Panelists responses were framed by first sharing how they leveraged their own interests and related aspects of their personality, such as an interest in deeper conversation and engagement opportunities both personally and professionally, to interact with individuals in the workplace in a way they felt confident. By doing this, panelists described how their identity became a strength rather than something they were compromising on to fit within a specific

expectation within their workplace. In comparison to the first panel that was structured as a more professional presentation, the second panel showed a broader representation of how alumnae felt the topic related to their professional work. Sixteen percent (*n*=17) ranked the panel as somewhat relevant, 25% as quite relevant, and 58.33% as highly relevant. Again, while no formal conclusions can be drawn from a sample this small, the responses are reflective of how alumnae relate to topics that speak to the personal aspects that can influence an individual's professional development.

Overall, the design of the conference served to interest a wide range of alumnae and specifically young alumnae. The registration and participant data reflects that topics related to career and professional develop can drive engagement with the PAA. Providing virtually opportunities can continue to support involvement from across the alumnae population and foster connections within the network. Having volunteers design the development of the topics and selection of speakers or presenters contributes to ensuring that the topics remain timely and relevant to the needs of alumnae.

3.2.1.3.2 Pre-Conference Sense of Belonging

The data utilized in this section was derived from the pre-event survey completed by 65 alumnae. This was a quantitative survey that allowed me to measure the perception of alumnae in relation to the entire Pitt alumni community, the PAA as an organization, and with the conference itself. Additionally, this survey collected data related to the perception that individuals have of themselves as alumnae. Due to the response rates, I was unable to perform any statistical tests on the data. The number of responses for both the pre- and post-surveys limited my analysis of the direct influence of the conference on alumni sense of belonging, however, I was able to utilize the survey responses to identify improvements to the survey tool

and in which categories future data could be collected to better assess the design elements of the conference.

Sixty-five alumnae completed the pre-survey. I am providing frequency distributions for each question and to analyze the data in the pre-survey, I grouped the respondents who answered, "Strongly Agree" and "Somewhat Agree" as well as those that answered, "Strongly Disagree" and "Disagree." By aggregating the data this way, I was able to better understand the collective mindset of the alumnae who had shared their opinions.

I began by reviewing the questions related to the participants feeling of connectivity within the alumni community. The stacked bar graph in Figure 6 reflects the survey results from the pre-survey question of whether alumnae feel part of the Pitt alumni community. This question is relevant to understanding the sense of belonging because as a graduate of the University of Pittsburgh, every alumnus is considered a member of the Pitt Alumni Association. However, there is an important distinction between being automatically affiliated with and feeling part of a community. This question helped me to assess the degree to which alumnae identify with the alumni community beyond just having graduated from the university.
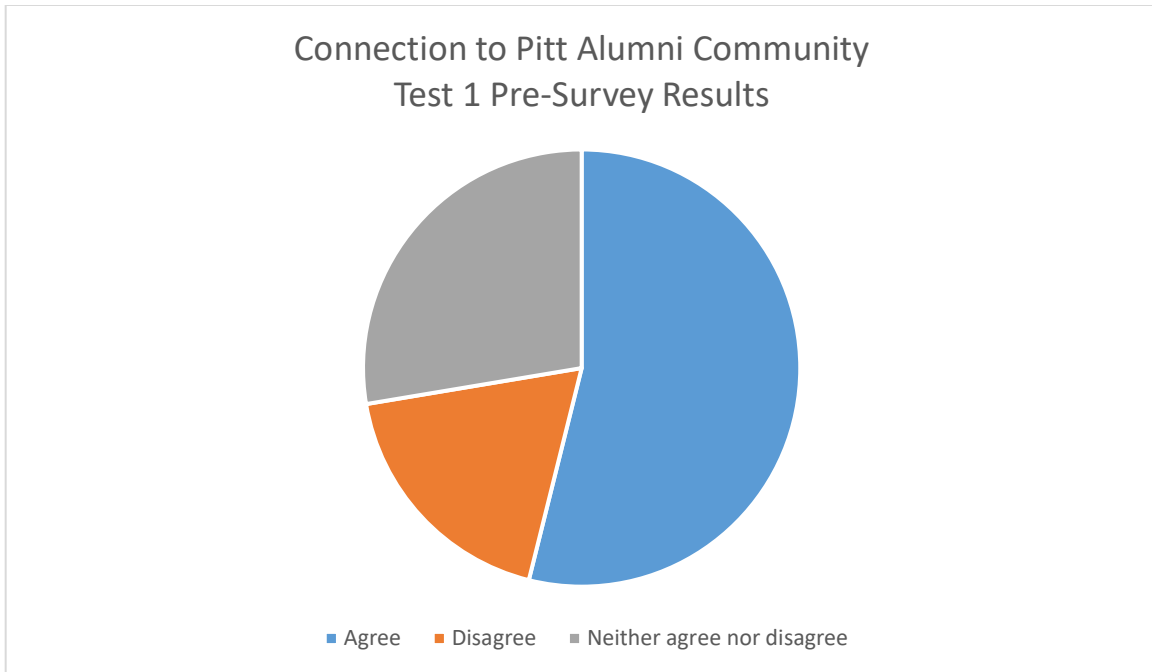
Connection to Pitt Alumni Community
Test 1 Pre-Survey Results

■ Agree ■ Disagree ■ Neither agree nor disagree

Figure 6 WLC Pre-survey Results: Connection to Pitt Alumni Community

Just over half of respondents (53%, *n*=65) felt part of the Pitt alumni community prior to

the event. In comparison, 18% disagreed while 27% had no opinion. While the respondents to

this survey represent only a small percentage of participants and an even smaller percentage of

the alumnae population as a whole, the data offers insight into the distribution of connectivity

that currently exists among female alumni. With 45% of respondents acknowledging that their

either do not feel connected to or have no opinion on their relationship with the Pitt alumni

community, this demonstrated a need to further understand the relationship that alumnae have

with the Pitt alumni community. The conference itself is being used a tool to measure whether

engagement opportunities can motivate alumnae to engage and whether that engagement

experience positively influences the connectivity those participants have with the Pitt

community. From this response, the conference successfully interested female alumni to at least

register and acknowledge the opportunity to participate, with further analysis needing to be

completed on the extent to which the conference changed the minds of any respondents to

answered that they disagreed or couldn't respond to the questions. These data reiterate not all

alumni automatically feel a connection to the PAA. While they may still stay involved or

participate in engagement opportunities, it will take an additional focus and effort to cultivate

sense of belonging among these individuals.

Interactions between individuals, and between individuals who are different than one

another, have an impact on the sense of belonging felt within a community. The pre-survey

asked two questions related to these factors and the stacked bar Figure in Figure 7 reflects the

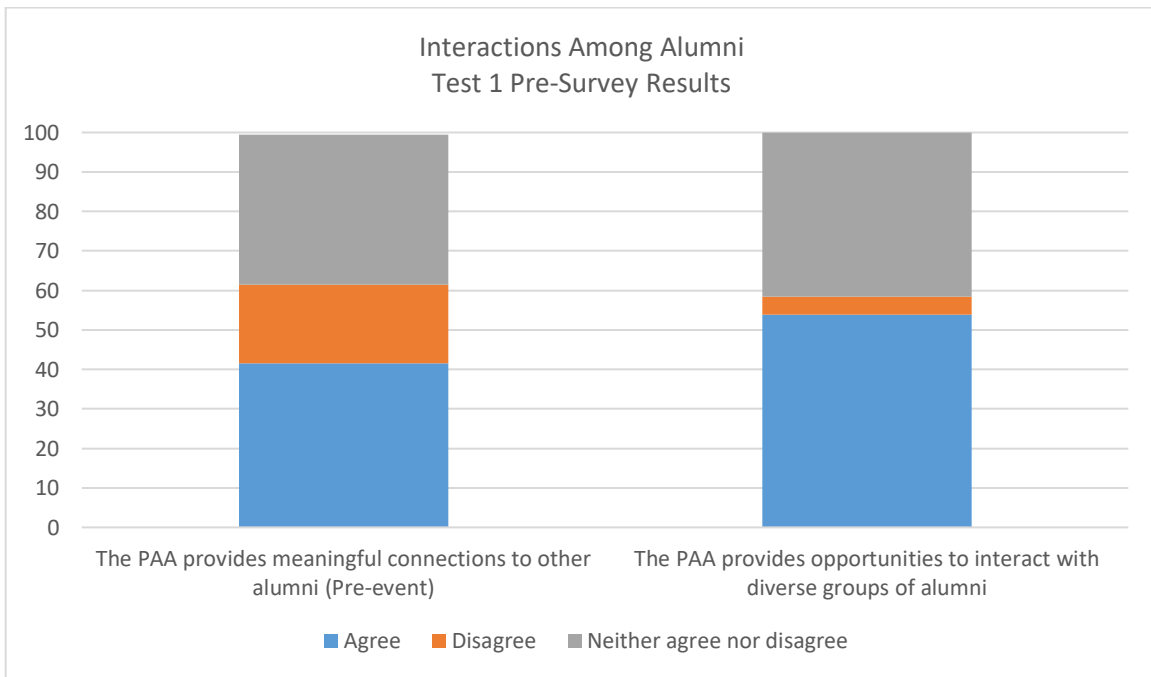responses below with the x-axis reflecting the questions and the y-axis being the percentage

scale.

Figure 7 WLC Pre-survey Results: Interactions Among Alumni

Alumnae were asked whether the PAA provides the opportunity to build meaningful connections with other alumni:

- 41.53% of respondents (*n*=65) agreed.

- 38.46% of respondents have no opinion.

- 20% of respondents disagreed.

In reviewing these responses, I concluded the PAA does currently offer some opportunities for alumni to connect with one another. However, more information is required to assess how these connections are being fostered as they could be occurring in digital or physical spaces. With 58% of respondents reporting that they either disagreed or had no opinion, this is clearly a design element that the PAA should further develop as part of its programming and engagement opportunities to more effectively cultivate a sense of belonging among alumni.

A related question regarding the opportunity to interact with diverse groups of alumni reflects that the PAA needs to not only curate connections between alumni, but also develop a deeper understanding of how to curate connections between diverse groups of alumni. Alumnae participants surveyed prior to the event were asked whether the PAA provides opportunities to interact with diverse groups of alumni:

- 53% of respondents (*n*=65) agreed.

- 41% respondents had no opinion.

- 4.61% of respondents disagreed.

What I found most interesting in comparing these two questions was the difference in response rates when asked the more open-ended question regarding the opportunity for meaningful connections vs. when asked a more specific question related to the individuals that alumnae may have the opportunity to connect with. Many could not have participated in PAA

programming previously, sought out or thought about interaction with individuals from diverse backgrounds, or simply not value this factor when engaging with the PAA. Responses to these two questions reflected the more nuanced challenge of the PAA attempting to increase sense of belonging through interaction and connection between alumni. As part of this test, I was able to assess some design elements that could foster connection and highlight diverse perspectives, but the extent to which these factors influence alumni sense of belonging need to be more fully explored.

In conclusion, the pre-survey results demonstrated the wide range of experiences and perceptions held by the alumnae that had registered and shown interest in the Women in Leadership conference. While some alumnae do feel some form of connection with the PAA, there is a portion of registrants that indicated they did not or could not answer whether they felt a connection to the Pitt alumni community. The pre-event data is an important tool to assess the degree to which the PAA can move alumni from more passive to active engagement. Attending an event is a more active form of engagement and the PAA can use this type of programming to help alumni who have may not connected previously to re-engage with the organization which is demonstrated in how individuals responded to this question.

The response rate for the subsequent questions of how the PAA fosters connections between individuals demonstrated that there is a range of experiences and perspectives that need further exploration to capture the relationship between these community elements and the sense of belonging alumni feel more fully. Fostering connections between alumni within the engagement opportunity will be critical to moving alumni to a mutually beneficial relationship as these is a factor of how alumni develop their sense of belonging.

3.2.1.3.3 Post-Conference Sense of Belonging

Seventeen alumnae participants completed the post-event survey. This small sample size limited my ability to fully assess the impact of the conference on participants sense of belonging. The responses did however provide some insight as to the success of the conference. Those who completed the post-event survey had attended the conference and were willing to provide feedback which helped to shape some analysis as to which design elements were successful.

When asked whether participating helped them feel a stronger connection to the PAA, 87% (n=17) of respondents agreed while 6% disagreed. The percentage of alumnae that disagreed is relevant to consider in future studies, as the intention behind all PAA programming is to increase the connection that alumni have with the university and with the PAA as an organization. Even though it is a small number that responded in disagreement, this reflects that programming needs to be properly curated and structured so that alumni have a positive experience. In an effort to become a learning organization, taking into account any feedback from alumni can support improvement in programming that prevents a negative experience from being replicated. Sense of belonging is a fluid feeling that can be negatively impacted depending on the circumstance. This response rate forced my realization that design elements of PAA programming need to not only improve individuals' sense of belonging, but also need to be implemented in a way that don't negatively impact the connection that alumni have. By which I mean that an improved awareness of the experiences that alumni are having within certain types of programming are necessary for addressing any potential unintended outcomes, such as an experience that weakens the connection alumni have with the university.

In reviewing how the conference facilitated connections between participants, I identified that the structure of the panel with two causal break-out opportunities didn't facilitate enough

interaction among the participants. Figure 8 reflects the response rate to the related survey question following the conference.
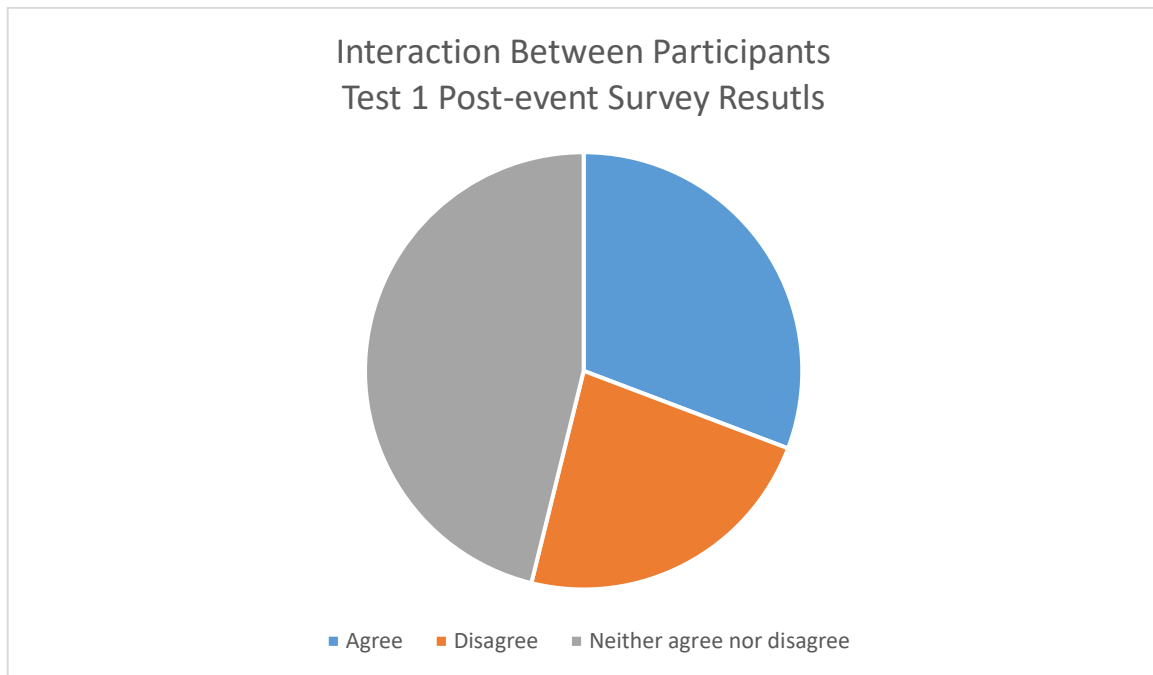
Interaction Between Participants
Test 1 Post-event Survey Resutls

■ Agree ■ Disagree ■ Neither agree nor disagree

Figure 8 WLC Post-event Survey Results: Interaction Between Participants

After participating in the conference, alumnae were asked if the conference provided the chance to connect meaningfully with other alumni:

- 25% of respondents (*n*=17) agreed.

- 18.75% of respondents disagreed.

- 37.5% of respondents had no opinion.

These responses indicate that there is room for the PAA to improve on how it fosters connections between alumni. The structure of the conference including only panel topics and two casual breakout sessions was not enough to influence these respondents to create meaningful connections with one another. This is a critical factor of the PAA seeing success as an

organization. The relationships and interpersonal connections are what not only make the network strong, but also ensure that when alumni participate, their sense of belonging can increase.

The last factor related to sense of belonging that I measured was the ability to interact with individuals from diverse backgrounds. Figure 9 reflects the post-survey responses.
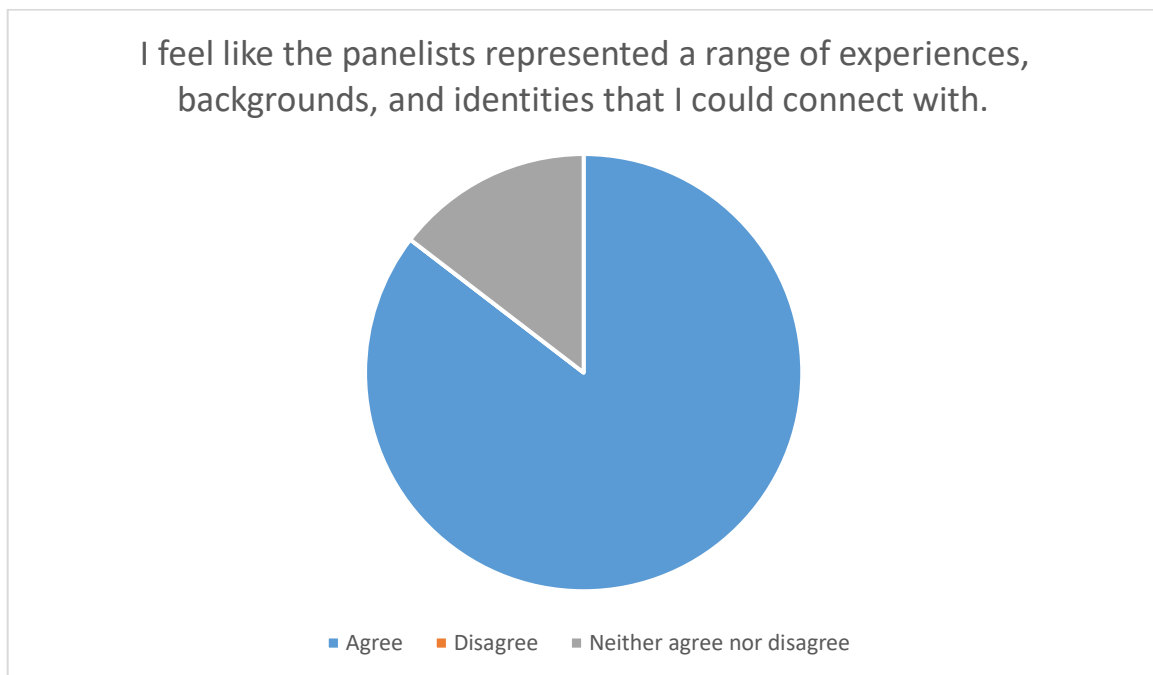

Figure 9 WLC Post-event Survey Results: Ability to Interact with Individuals from Diverse Backgrounds

After the event, alumnae were asked whether the representation of panelists offered an opportunity for participants to connect with a diverse range of experience, backgrounds, and identities:

- 93.3% of respondents (*n*=17) agreed

- 6.6% of respondents had no opinion.

My first takeaway from these data is the number of respondents that have no opinion as to whether the PAA offers opportunities to interact with individuals from diverse backgrounds. A question I have based on the response rate to the pre-survey is whether these participants had engaged with the PAA prior to the conference. Not enough data are available to determine why they had no opinion regarding experience interacting with other alumni. However, I did determine from the panel structure was a key design element that ensured the PAA represented a wide range of perspectives throughout the conference. Elevating voices from across the alumni population can help alumnae have a more meaningful experience when participating in programming. Ensuring that there is a broad representation of perspectives can serve to strengthen the connection that alumnae have with the PAA.

3.2.1.3.4 Propensity to Engage

Pre- and post-event surveys also measured the interest of alumnae to give back in mutually beneficial ways to the PAA and the university. Again, a five-point Likert scale was used to collect ordinal data on a scale from unlikely to certain was used to measure their interest in giving back to the PAA in categories of mutually beneficial activities that represent the current pathways for alumni to give back to the institution through the PAA. For the analysis of this section, I provide frequency distributions and report the mode. I created two distinct questions around financial giving because of my knowledge regarding the ways in which alumni typically ask about giving back. Alumni usually want to give back to directly to support students, but research also reflects that alumni can be motivated to give back if they know that the contribution will have an impact, which is reflected in the survey (Drezner & Pizmony-Levey, 2021). Therefore, these survey responses provide valuable data that can be utilized by the PAA to further shape and refine the pathways for alumni to become involved with the institution.

Figure 10 reflects the pre-survey results regarding participants propensity to engage. The x-axis reflects categories of mutually beneficial engagement, and the y-axis displays the percentage of response from 0-50% out of 100%.
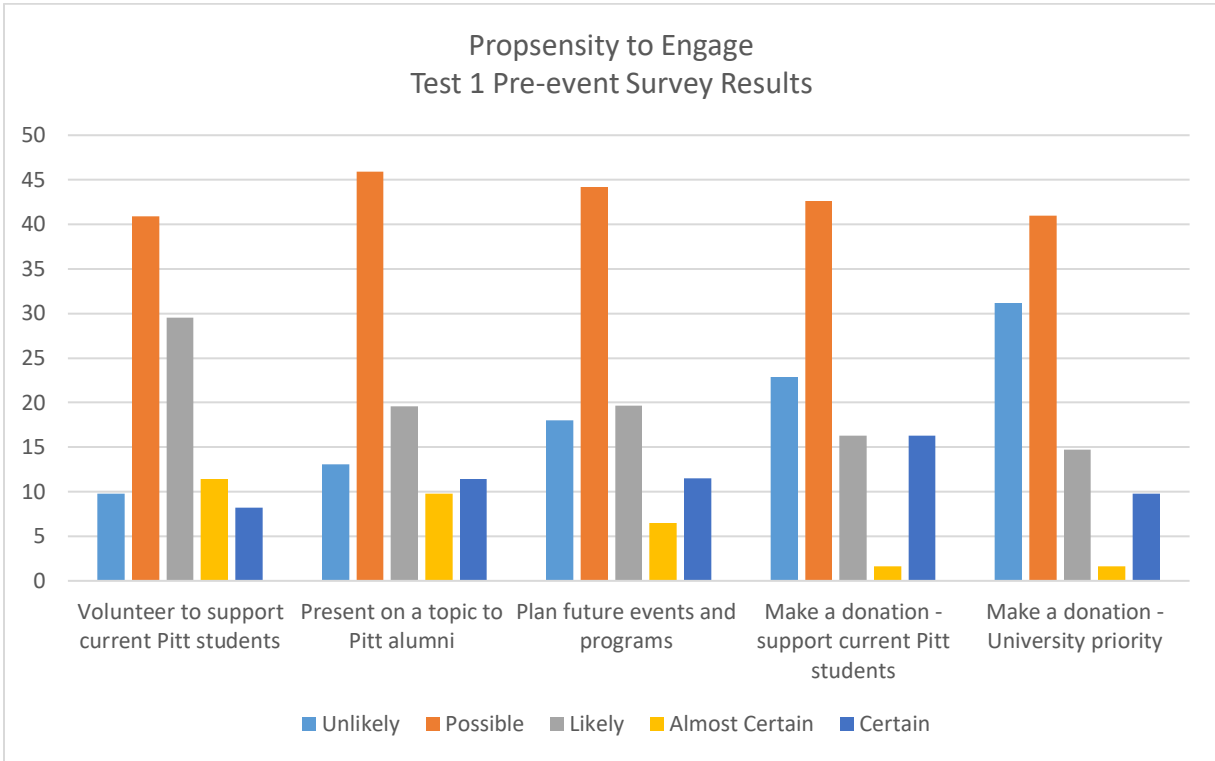

Figure 10 WLC Pre-event Survey Results: Propensity to Engage

Sixty-one alumnae completed the pre-event questions measuring their propensity to engage. The highest response rate for all categories was "possible" ranging between the 40-45% of respondents across the categories. This indicates that the alumni who are showing an interest in participating in the conference could also be motivated to give back in ways that are mutually beneficial. Analysis of these responses reflects that majority of respondents are least interested in giving back financially. When asked whether they would give back financially to support students 22.9% of respondents (*n*=61) stated it was unlikely. When asked whether they would give back financially to a cause they are passionate about, 31.15% of respondents stated it was

unlikely. Figure 11 reflects the post-survey responses regarding participants propensity to engage.
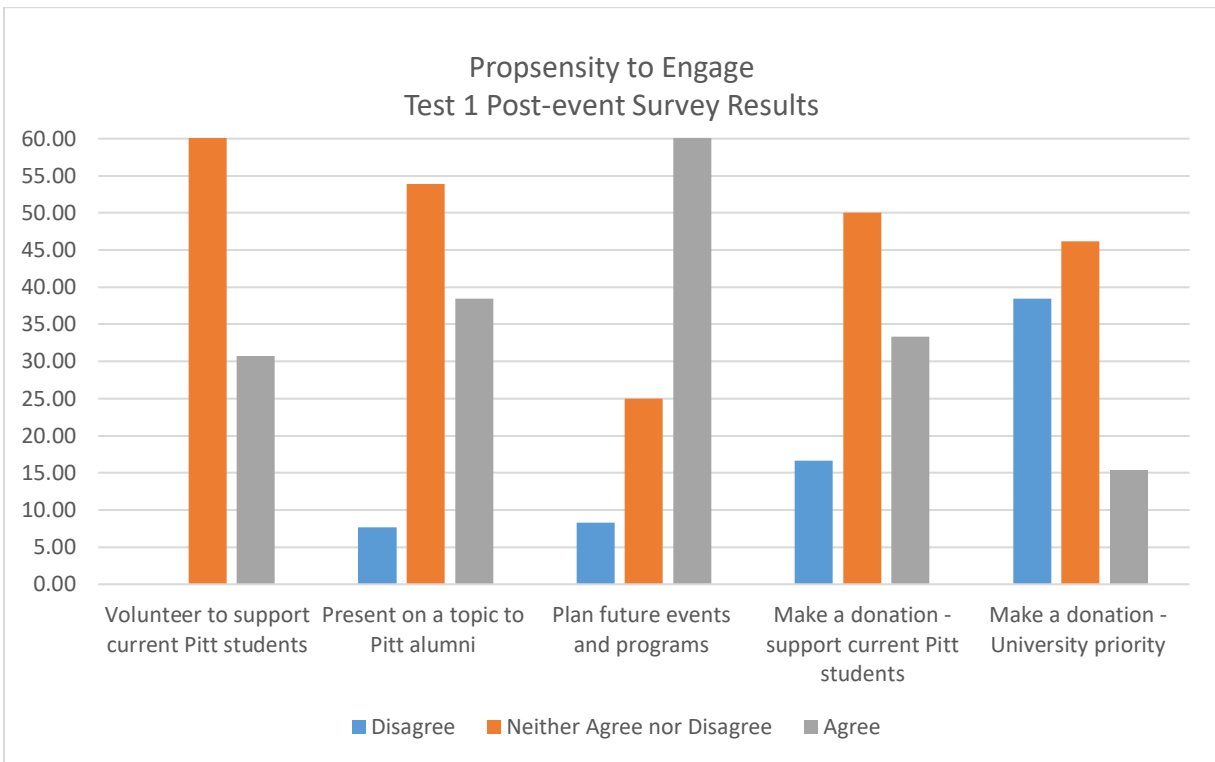

Figure 11 WLC Post-event Survey: Propensity to Engage

After the event, respondents were most influenced to give back by planning future events and programming.

- 66% (*n*=17) of respondents agreed whereas the certainty for this category was only 11.48% (*n*=61) prior to the event.

The conference itself demonstrated value of engagement through an event. Individuals who participated and then who responded to the post-event survey saw value in the conference and responded to the category that was most relevant to their experience. "Volunteering to give back to students" is an ambiguous phrase that could mean any number of things, including a higher-level commitment than planning a one-time event. Further, without interaction with

students at the event and alumnae did not have the opportunity to interact with students or understand how their investment in either time or money to give back to students could directly contribute. There was no discussion of philanthropic giving to influence participants to engage in that mutually beneficial activity. Therefore, the only design feature that would influence propensity to engage was the event itself.

In the pre-event survey, I measured willingness of alumni to give back in mutually beneficial ways. In the post-event survey, I measured the likelihood of the participants to give back. Across these two surveys, the variation in response categories made it challenging to provide a pre- and post-event comparison as the post-event survey did not directly ask which elements of the event influenced their likelihood to volunteer. To better measure desire to give back in the future, I would structure the survey to more accurately measure how specific design elements potentially motivated alumni to move from passive to active forms of engagement.

3.2.1.4 Women in Leadership Conference Summary

In summary, my test of change was a half-day conference for 287 participants. Based on participation data, analysis of questions asked during the conference, and analysis of the pre- and post-event surveys, I concluded the test of change was a beneficial format for delivering professional development resources and for offering a diverse range of perspectives and experiences for alumni to interact with. The relevance of the topics presented was positively reflected in the feedback received from alumni across multiple survey questions and in the rate of participation. The engagement with the panelists demonstrated that alumni could positively relate their own personal experiences with the content being discussed and apply the experience of participating to their own professional workplace.

The conference did bring individuals together and fostered 355 alumnae registrants and 287 participants. It is typical for any event to see a difference in the number of registrants and those who attended. The majority of the participants did attend virtually, which creates a challenge when implementing design elements that are intended to foster community and meaningful connections because being solely virtual can present a barrier for interpersonal relationships. Young female alumnae in particular demonstrated interest in the programming (42% of attendees were graduates of the last decade). It is critical that the PAA explore the virtual component of programming to both draw a broader range of participants while also contributing to other factors of sense of belonging and increasing propensity to engage.

The conference also demonstrated that just participating in PAA programming is not strong enough motivator to feel a sense of belonging or to give back in mutually beneficial ways. Specifically, the conference did not successfully communicate or demonstrate the value of giving back to the university. In future PAA programming, incorporating more specifics of how giving back would contribute to a bigger cause would give me more of a data set to work with when evaluating the impact of the programming on propensity to give.

Overall, the survey tools provided the most insight into how to gather feedback from alumni in order for the PAA to truly become a learning organization. While the programming itself is important to understand, the survey tools will allow for ongoing development and evolution of programming to consistently meet alumni interests and needs. Having alumni volunteers participate in the development of the programming is extremely important to ensure relevance to the community that is the focus of the engagement. The pre- and post-surveys need to be improved in order to collect a stronger baseline of factors related to sense of belonging and propensity to give. Specifically, being able to measure alumni responses as a comparison

between the pre- and post-survey rather than the survey being anonymous would allow for true benchmarking of how the programming impacted that alumni perspective.

3.2.2 Test 2: Roc Talks

3.2.2.1 Design and Participation

My second test of change was conducted during the University of Pittsburgh's homecoming celebration in October of 2022. Roc Talks featured a keynote speaker, Tre Tipton, and was marketed towards all young alumni regardless of gender identity. I once again incorporated similar design elements as the first test of change including:

- Curated for young alumni while remaining open to all alumni.

- Opportunities for interaction among participants and panelists/speakers.

- Featured panelists/speakers represent a range of backgrounds and identities.

Tre Tipton is a former Pitt athlete who had encountered both personal and professional challenges that lead him to have struggles with his mental health. He focuses now on providing resources for wellness, mental well-being, and overcoming challenges to continue pursuing goals. The design of this test allowed me to explore how an engagement opportunity open to all young alumni, while still developed in collaboration with young alumni volunteers, could positively or negatively impact the sense of belonging felt by the female alumni who participated. The PAA's Young Alumni Council, a group of alumni volunteers who graduated in the last decade, selected the speaker, and structured the event to ensure the relevance to the young alumni audience.

3.2.2.2 Data Collection Methods

The participation report was one data collection method I analyzed as part of this test of change. Using this report, I was able to assess the demographic information of individuals who registered including their graduate decade. For this test, I did not analyze the geographic location of participants as the event was only held in person during the university's homecoming where many alumni travel in from around the country to attend multiple events.

A second data collection method I utilized was the conversation that occurred between Tre Tipton and the audience. This allowed me to understand that level of interaction that participants had with the speaker considering the event was structured as a keynote presentation, which could allow for more engagement between the speaker and the alumni. In assessing this interaction, I again group the questions into two categories of professional and personal, which allowed me to understand the extent to the engagement related to career related topics vs. more personal discussions.

I again implemented an anonymous pre- and post-event survey to measure the sense of belonging and propensity to engage of registrants prior to and following their participation in the event. The survey provided insight into four factors ranked on a 5-point Likert scale to collect ordinal data on a scale from strongly disagree to strongly agree. The four factors measured include:

- Connection to the PAA as an organization.

- Connection to other alumni.

- Interactions with diverse members of the alumni population.

- Ability to be oneself when participating in PAA programming.

3.2.2.3 Findings

3.2.2.3.1 Participation

Since this event was marketed to all young alumni regardless of gender, I analyzed the registration data to see the level of interest for females compared to men. Sixty percent of registrants (*n*=81) identified as female and 37.31% identify as male. The design of this test allowed me to gauge the extent to which an engagement opportunity not specifically curated for women could still positively impact the interest of young female alumni to participate. The registration data does demonstrate that this keynote speaker and topic could generate enough interest among young female alumni to be replicated as an event in the future.

Figure 12 further reflects that young female alumni are an audience that could be motivated by an event like Roc Talks. Alumni of the last decade showed an overwhelming interest in the event with 47.01% of female registrants (*n*=81) were graduates from 2010-2020.
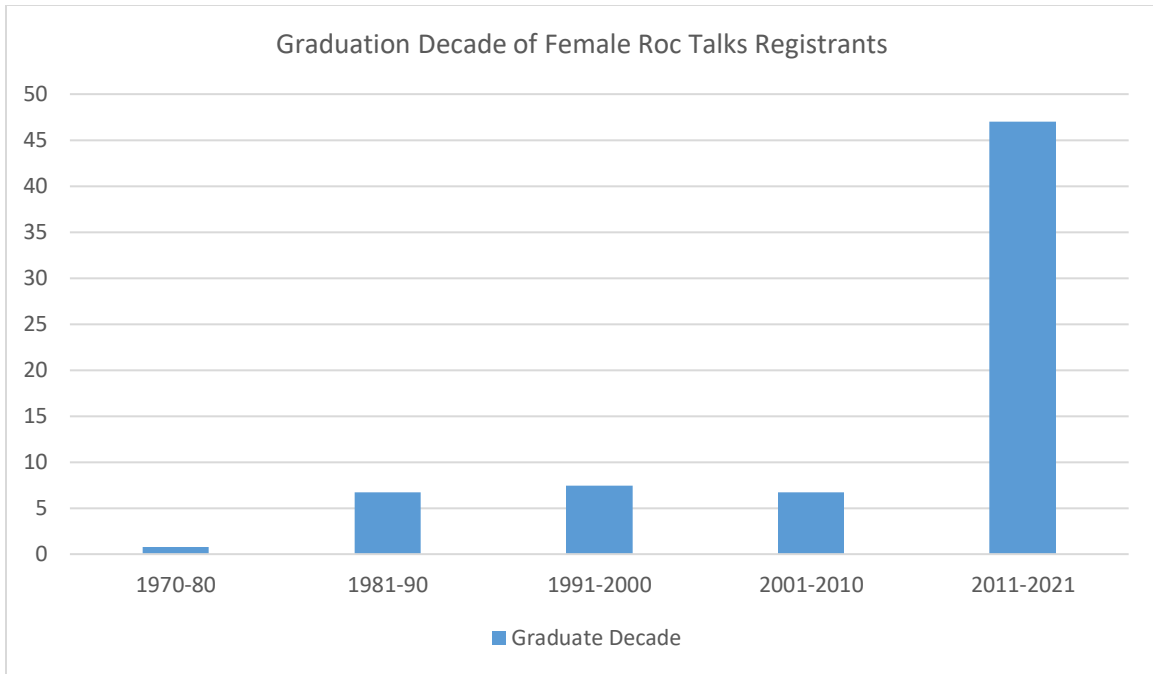
Figure 12 Graduation Decade of Alumnae who Registered for Roc Talks

However, even though there were 134 alumni registered, only 30 alumni attended the

event. While the turnout was low, the alumni audience that attends the university homecoming is

typically a diverse, but engaged, audience. In reviewing the data, I took into consideration those

who attended and responded they were likely more willing to move from passive involvement to

mutually beneficial engagement with the PAA. These responses can assist in guiding me towards

implementing strategic design elements in the next test of female alumni programming. One

consideration based on the turnout would the timing of when the event was hosted. A significant

number of events are open to all alumni during homecoming weekend. Across the full weekend

of events, the difference between registration and attendance of events on average was 60%.

Future consideration should be given as to when certain events are hosted to ensure maximum

opportunity for participation.

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Based on the post-event feedback I was able to capture, female respondents indicated that the content was highly relevant to their professional development. For these responses, I am providing frequency distributions to analyze the data by grouping the respondents who answered, "Highly Relevant" and "Quite Relevant" as well as those that answered, "Somewhat relevant" and "Not relevant".

- 89.47% of respondents (*n*=17) ranked the keynote as relevant.

- 10.52% of respondents ranked the keynote as irrelevant.

Roc Talks offered a different perspective on the topic of career advancement and overcoming professional challenges by discussing these facets in relation to personal challenges. This design element should be incorporated into future events and tested to properly validate the response rate provided in the post-even survey but indicates an opportunity for the PAA to expand on its career and professional development programming while still meaningfully engaging the young female alumni population.

3.2.2.3.2 Pre-Roc Talks Sense of Belonging

The data used in this section were derived from the pre-event survey. Ten individuals completed a quantitative survey measuring the same factors related to sense of belonging as prior to the first test of change: perception of alumnae in relation to (a) the entire Pitt alumni community, (b) the PAA as an organization, and (c) with the event itself. Response rates again limited my ability to perform statistical tests on the data. Since this event was open to all young alumni, I did ask individuals to indicate their preferred pronouns to help gather responses from only those who identified as female. I am presenting frequency distributions for each question by again grouping response categories in a similar fashion to the pre-event survey. The first

question related to alumnae's sense of belonging in relation to the Pitt alumni community. Figure 13 reflects the responses.
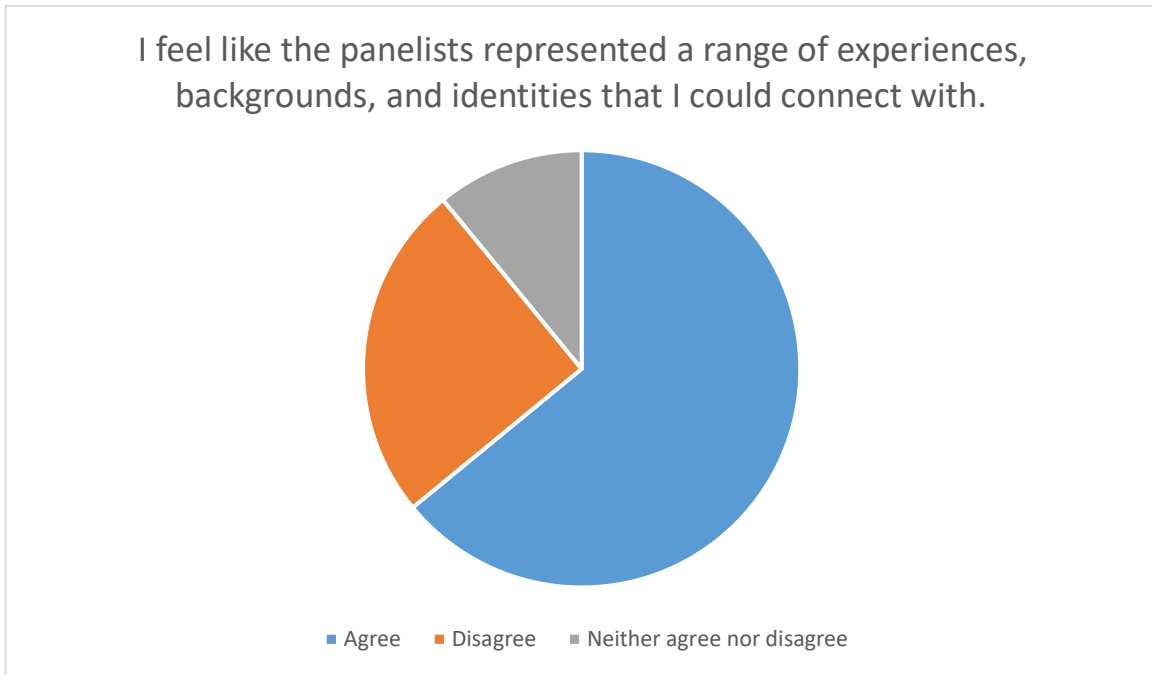

Figure 13 Roc Talks Pre-event Survey Results: Connection to Pitt Alumni Community

Prior to the event, 60% (*n*=17) of respondents felt part of the alumni community. Again, this response rate is not enough to perform a statistical analysis. However, what I found compelling about the data were respondents who disagreed even though they were attending an event as part of homecoming, a weekend full of events that welcomes alumni back to Pitt. To me, knowing that there are alumnae who are interested in and register for an event, demonstrating a desire to be part of an all-alumni weekend, and yet respond they do not feel part of the alumni community tells me the PAA needs to focus on instilling and improving the sense of belonging felt by the young female alumni population.

Across the remaining three questions related to sense of belonging in the pre-event survey, the response rate further confirms this analysis. Figure 14 compares the response rate of whether alumnae feel part of the alumni community between the additional three questions.
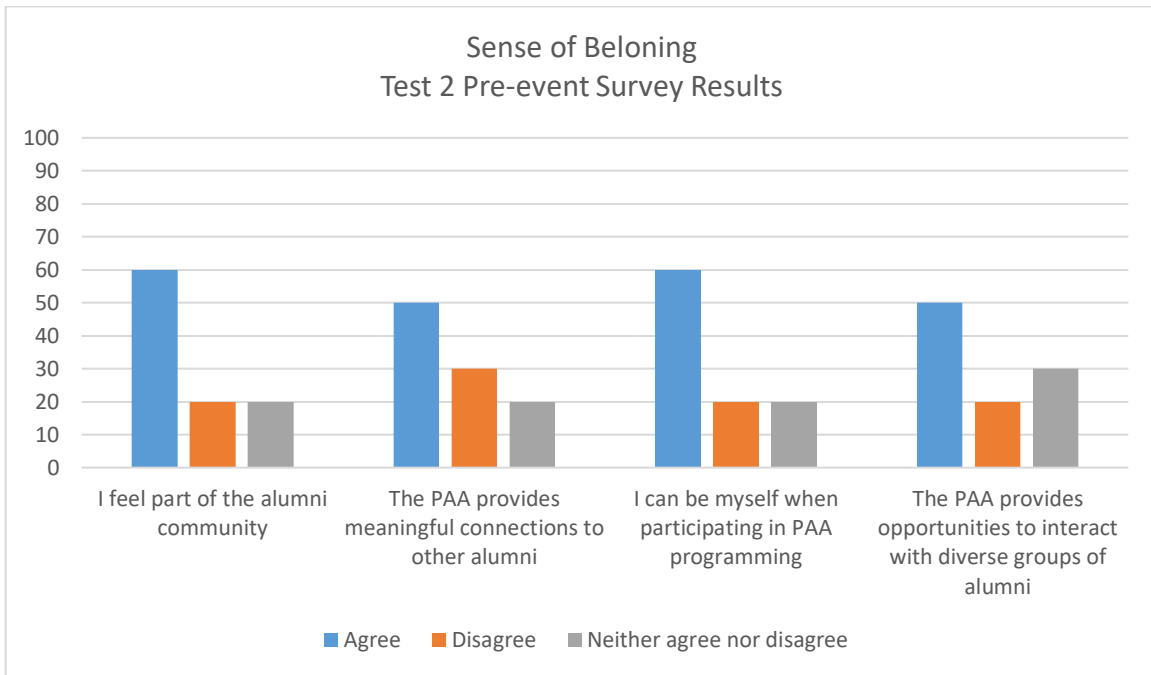

Figure 14 Roc Talks Pre-event Survey Results: Sense of Belonging

In each of the subsequent questions, almost half of the respondents either disagreed or were unable to respond to the questions posed. These data present a significant challenge for the PAA and indicate the PAA needs to focus on fostering a stronger sense of belonging within the community.

Measuring sense of belonging of the audience that registered for Roc Talks was challenging. This test highlighted the importance of promoting the survey tools and collecting enough data to truly understand the sentiment felt by the audience that registers and the audience that participates. The data collected did emphasize the importance of understand the young

alumnae audience, as those who responded shed light on where the PAA is lacking on providing meaningful opportunities.

3.2.2.3.3 Post-Roc Talks Sense of Belonging

The data used in this section were derived from the post-event survey. Seventeen individuals completed a quantitative survey responding to questions to the factors of sense of belonging measured in the pre-event survey. I present frequency distributions for each question by again grouping response categories in a similar fashion to the pre-event survey. Figure 14 depicts responses when participants were asked whether participating in the event gave them a stronger sense of belonging. Overwhelmingly, respondents replied in the affirmative:

- 82.35% (n=17) agreed.

- 11.76 disagreed.

The attendance rate for the event was extremely low, and the number of responses to the post-even survey provides only a minimal view into the true impact of the event. However, the number of participants who indicated that they felt a stronger connection to the PAA post-event does indicate that there are some design factors that should be re-tested in a more statically significant manner to validate the responses (see Figure 15). Roc Talks was not only compelling for those individuals that responded, but the conversation and engagement was enough to improve the relationship that they have with the PAA and increase their sense of belonging.
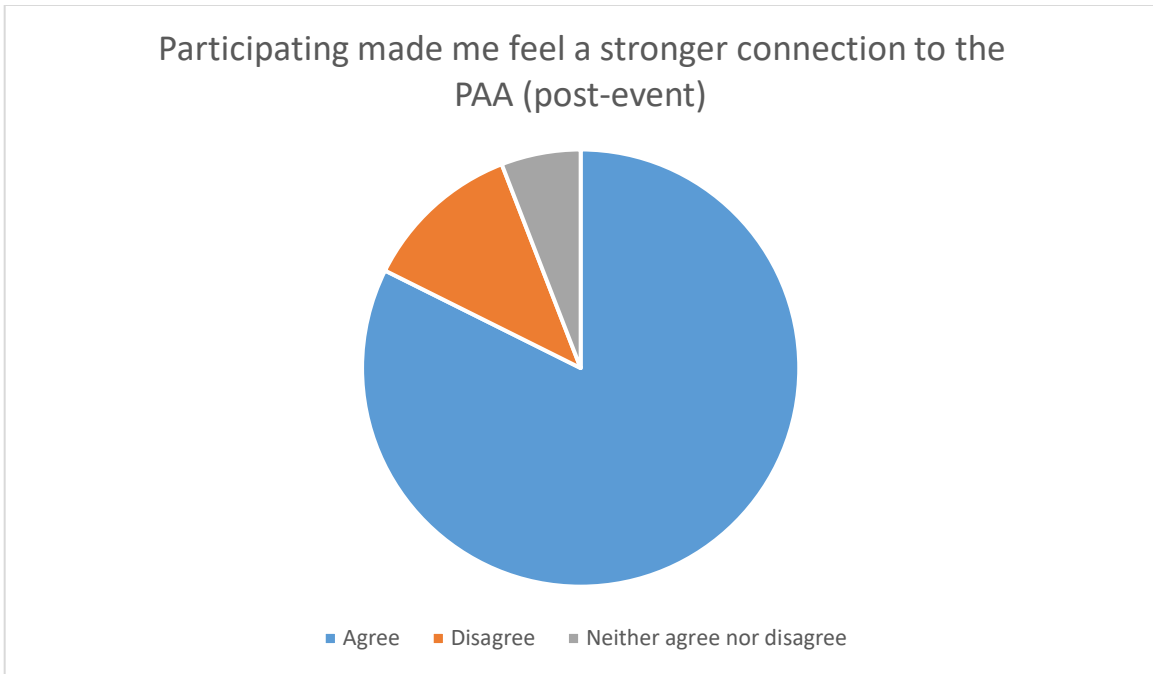
Figure 15 Roc Talks Post-event Survey Results: Strengthening Connection with PAA

Similarly, respondents indicated that the event allowed them to meaningfully connect with other alumni. Figure 16 reflects results when respondents were asked their experience participating and interacting with other alumni.
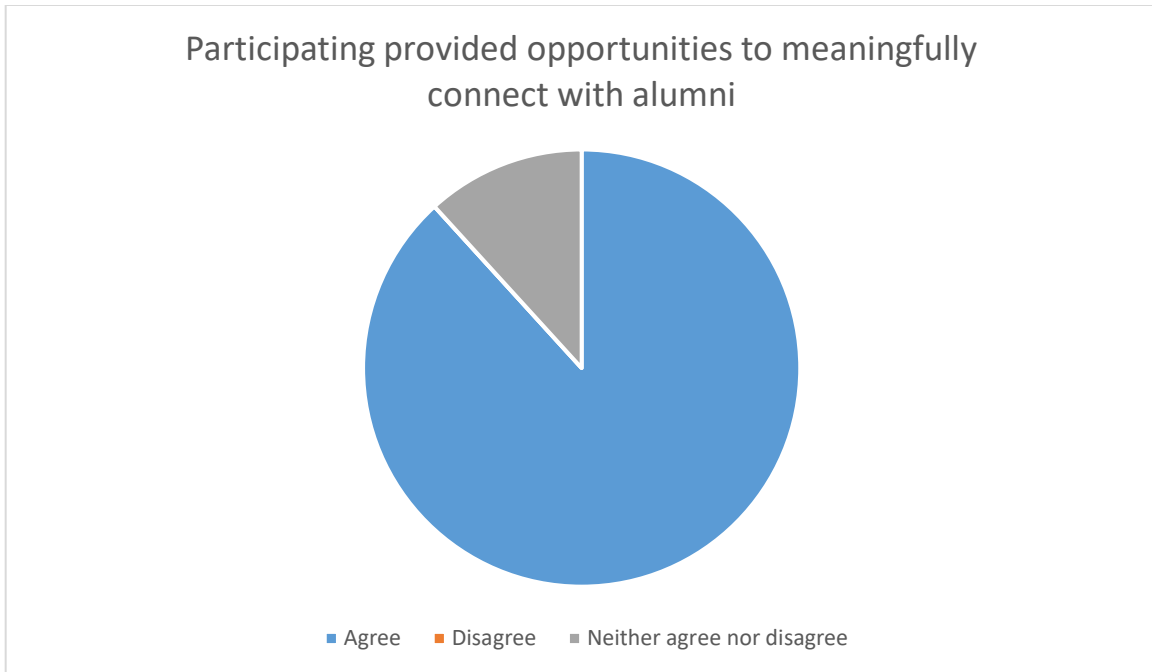
Figure 16 Roc Talks Post-event Survey Results: Opportunities to Connect with Alumni

- 88.24% stated they were able to make meaningful connections.

- 11.7% had no opinion.

Roc Talks offers insight into the potential impact that having a more structured, interpersonal conversation can positively effect alumnae connection with one another. Considering these responses in the context of the event being open to all alumni and where both female and male alumni were present, future tests should explore the impact of having an all-young alumni engagement opportunity compared to a female-only opportunity, as participants in this instance had a positive experience.

3.2.2.3.4 Propensity to Engage

The data utilized in this section was also derived from pre- and post-event surveys. These surveys measured the interest of alumnae to participate in mutually beneficial ways with the

PAA. I am providing frequency distributions and the mode for the responses to these questions as there was variation across the Likert scale that was valuable to incorporate into the analysis of the responses. The response rates for both pre- and post-event surveys was low, which limits the interpretation that can be completed for this data.

Figure 17 reflects the pre-event survey responses across the five categories of mutually beneficial engagement with the PAA.
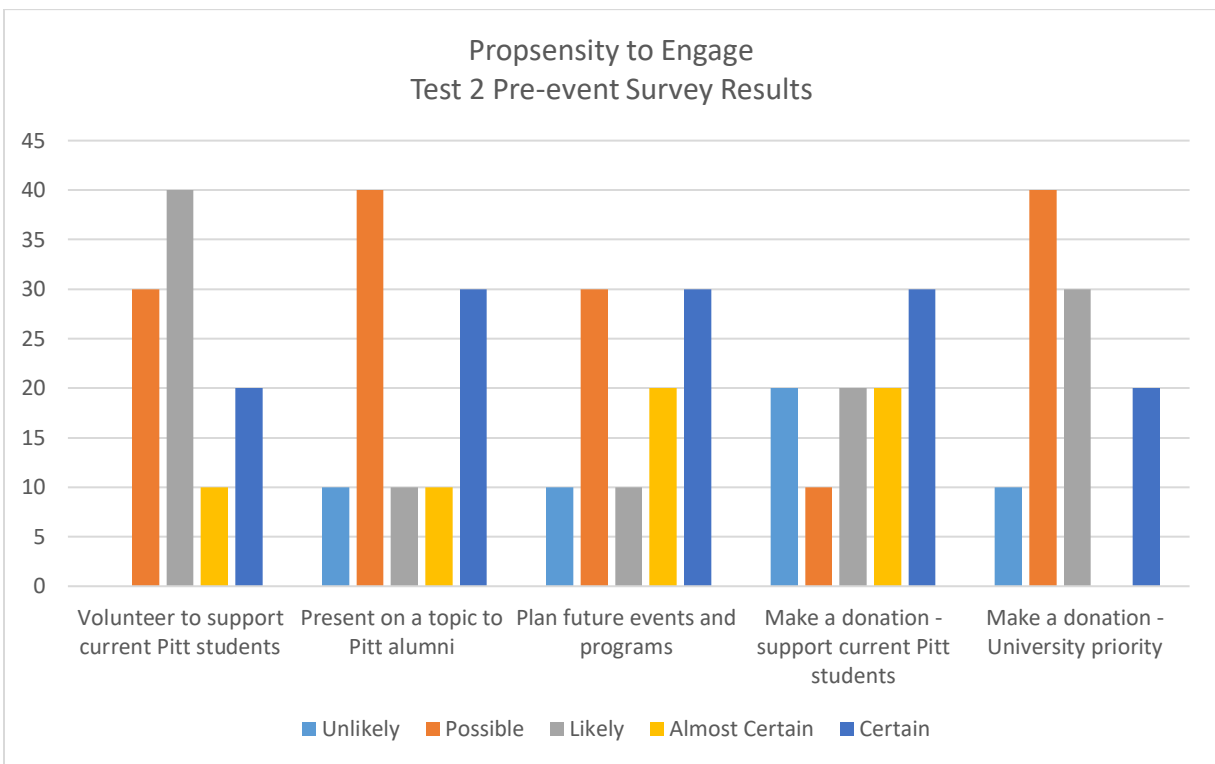

Figure 17 Roc Talks Pre-event Survey Results: Propensity to Engage

What is surprising about these responses was the lack of variation across the categories. Alumnae responded similarly across the five categories with the outlier being the question of whether they would donate to a university priority. This was the only category that had a 0%

(n=10) response rate for the "almost certain" ranking and had the largest response percentage in the "possible" category at 40%.

Looking across the responses, this group of alumnae are not significantly motivated by any single category. Part of my assessment from these responses is the PAA does not successfully communicate the opportunities for alumnae to engage in mutually beneficial ways with the university. The scattered responses across these five categories (see Figure 18) demonstrate that no one opportunity is jumping out or meaningful enough to the respondents for them to indicate certainty in a collective way. While each respondent is providing their own individual opinion, the aggregate results present the picture that overall, there is no significant category of mutually beneficial engagement that is driving this group of respondents.
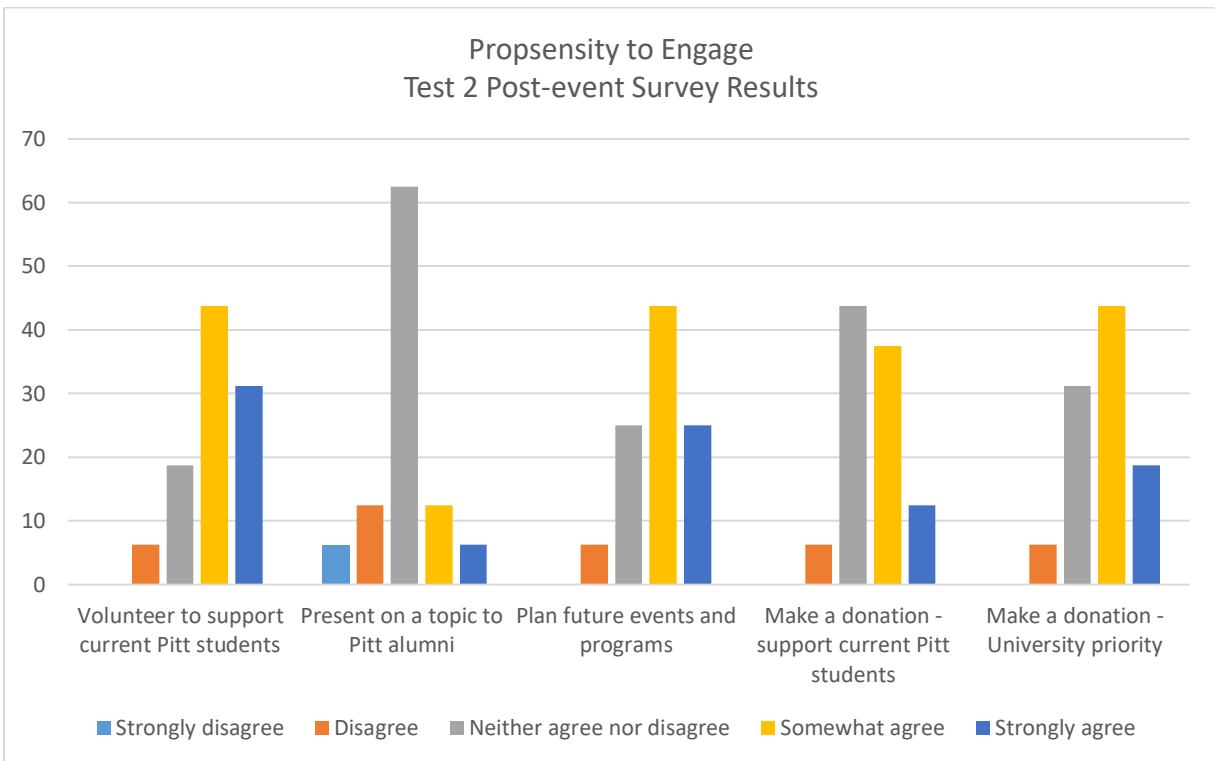
Propsensity to Engage
Test 2 Post-event Survey Results

Figure 18 Roc Talks Post-event Survey Results: Propensity to Engage

The most notable takeaway from the post-event responses is the shift in confidence from the respondents in their desire to give back in their desire to support current Pitt students, plan future events, and donate back to the university.

- 43.75% of respondents answered "somewhat agree" in each of the response categories.

While a pre- and post-event survey comparison is challenging due to the response rates of both, I noted the shift in responses of the category related to giving back to the university. When asked whether participating made the action of giving back financially more likely, 62.25% answered in agreement. As a test, Roc Talks created a unique environment for alumnae to see the value of giving back. Tre Tipton spoke about giving back both to one another and a community. Not only did he speak about it, but he also shared how he actively gives back. Combined with his motivational approach to overcoming challenges, the audience experienced an environment that was very persuasive to contributing in mutually beneficial ways. Future tests should replicate this design feature to further analyze the extent to which it can motivate alumnae to engage in more active ways.

3.2.2.4 Roc Talks Conference Summary

In summary, my test of change was a 90-minute event featuring a keynote speaker, Tre Tipton, for 30 attendees. The participation data lead me to conclude that this type of event can successfully interest alumnae and potentially compete with other areas of interest even at the university. Because the event was held during homecoming weekend, alumnae were forced to choose their attendance and most likely encountered more options for socialization and engagement than would be typical should this event have been held at any other time. However, the format of the event did still benefit participants in their career and professional development while also serving to provide an environment where alumnae could interact with one another.

The environment cultivated at the event was the most prominent takeaway when considering the design elements for future events. The keynote itself along with the general response from participants demonstrated that there is potential to host similar types of programming to potentially move alumnae from passive to active forms of involvement.

A significant environmental factor that needed further data to analyze was the participation of male alumni. This factor seemingly did not have a negative impact on the participation or outcomes of the young female alumni that participated, as the responses to the post-event survey demonstrated that, for those that responded, the event still provided a meaningful opportunity to engage and influenced their desire to be involved with the PAA. However, the data were not strong enough to support a statistical conclusion as response rates to the post-event survey were too low and the post-event survey didn't incorporate questions to directly assess this environmental factor. Another test should be administered to properly assess the extent to which the presence of males potentially impacts the experience of young female alumni.

This test also highlighted the importance of communicating what mutual forms of engagement could look like and the value that giving back can provide to the broader community. Post-event survey responses point to the potential success of incorporating this messaging into future programming opportunities for more accurately reflecting what giving back to the PAA and university entails.

4.0 Learning and Actions

The problem of practice associated with these tests of change is the Pitt Alumni Association does not consistently engage alumni in meaningful opportunities that build sustained and impactful alumni engagement. Alumni engagement is defined as the continued interaction an alumnus has with their alma mater through activities that build mutually beneficial relationships and advance the institution's mission (Council for the Advancement and Support of Education, 2018; Drezner & Pizmony-Levey, 2021). This engagement should be valued by alumni, inspire loyalty, philanthropic giving, and help to improve the reputation of the institution overall (Council for the Advancement and Support of Education, 2018; Drezner & Pizmony-Levey, 2021). Utilizing improvement science, I structured two distinct tests of change to understand the impact of certain elements on the participant's sense of belonging and motivation to develop a mutually beneficial relationship with the University of Pittsburgh. I incorporated standardized design features and evaluative tools to learn which evaluative processes should be used to improve factors related to sense of belonging and propensity to engage. I identified the following findings relevant to the improvement elements of my tests.

4.1 Finding #1: Engagement is not Belonging

My first key finding is that alumni interaction with their alma mater is not synonymous with their sense of belonging. Part of my assumption in developing the tests of change was alumni who show a desire to participate in PAA programming or events will have a general

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sentiment of belonging with the alumni community. However, in both tests of change the pre- and post- surveys highlighted that engagement does not automatically equate to belonging. In reviewing the findings for both tests, I evaluated the importance of a cohesive engagement strategy that successfully implemented design elements meant to influence sense of belonging by creating a meaningful experience for the participants. Forty-five percent of respondents (n=65) prior to the Women in Leadership Conference did not feel connected or had no opinion regarding their relationship with Pitt. Only 60% (n=17) of respondents prior to Roc Talks felt connected to the alumni community. This data reaffirms that engagement does not automatically equal belonging as alumni were interested in participating in PAA programming but did not necessarily feel connected to the organization or university.

Design elements meant to influence sense of belonging were based on research reflecting the correlation between sense of belonging and the willingness to give back in mutually beneficial ways (Drezner & Pizmony-Levy, 2021) as well as certain factors that can contribute to an individual's sense of belonging within a community such as meaningful connections between individuals and the importance of interacting with individuals different than oneself (Hurtado & Carter, 1997; Strayhorn, 2008). Implementing these design elements in a consistent fashion, while coupled with compelling content, is challenging.

In the first test, I tried to create an environment for interpersonal connections to be formed based on a traditional conference structure. I had predicted that the first test would strengthen sense of belonging among participants because the space was curated specifically for a female audience, which I hoped would allow the alumnae to have a more meaningful experience. However, while the test was interesting enough for many young female alumni to attend, the pre- and post-survey results both demonstrated that interest and even participation did

not automatically equate belonging. Just over half, or 53% of respondents (n=65), in the pre-event survey felt part of the Pitt alumni community prior to the event. In comparison, 18% disagreed while 27% had no opinion. In the post-event survey, when asked whether participating helped them feel a stronger connection to the PAA, 87% (n=17) of respondents agreed while 6% disagreed. Statistically, the response rate was not high enough to draw formal conclusions. However, when looking at the data collectively, I drew the conclusion that while this test did align with alumni interests, the structure of the conference itself needs to be refined to successfully incorporate the design element that can potentially influence sense of belonging because the response rate across the post-event survey demonstrated similar dissatisfaction with the elements related to sense of belonging.

Roc Talks confirmed the value in creating cohesive, salient experiences for alumni participants who engage with the PAA. By this, I mean, that the design elements of meaningful interpersonal interactions, interactions with members of diverse communities, and the presentation of compelling and relevant content collectively supported participants having a salient experience which subsequently increased their sense of belonging. While the number of survey respondents was small, respondents in the post-event survey shared that these three factors were positively influenced by their participation in Roc Talks.

These two tests helped narrow the scope of this systemic element I had identified related to the creation of evaluative processes that would be used to evaluate whether PAA programs were successful. Rather than focusing on the design elements individually and measuring their influence independent of each other, the evaluative process needs to be a tool that measures the collective impact of the design elements. Understanding whether alumni had a salient experience is a critical turning point to then motivating their willingness to participate in mutually beneficial

activities. Additionally, I believe that incorporating more of the research related to social network theory, the exchange of social capital, and the formation of strong and weak ties can help shape this evaluative tool. Social network theory offers insight into how to foster subgroup, which I initially approached by trying to identify the subgroup (young female alumni) and create a community. Instead, I will take social network theory and view each group of participants as a subgroup. By doing this, I hope to foster the intersectionality of alumni identities and build a more engaged Pitt alumni community who shares in their desire to give back.

4.2 Finding #2: Alumni Can be Motivated to Give Where They See Value

I structured my tests based on the research that individuals who participate in activities as students, and who experience "peak experiences" with one another, form stronger interpersonal bonds which influences their relationship with the broader university community (Koenig-Lewis et al., 2015; McAlexander et al., 2005; McAlexander & Koenig, 2010). My tests sought to replicate some of this research, specifically in how I approached the shaping of the engagement opportunity incorporating the factors related to sense of belonging. What these tests revealed was similar to identifying and influencing sense of belonging through specific design elements, alumni propensity to give back in mutually beneficial ways also needs to be shaped and influenced.

In my surveys, I asked alumni about their desire to volunteer to support Pitt students, present on a topic, help plan future events, or donate to support current students or a university priority which yielded some telling results. Alumni participants were most motivated to give back by planning future events after the first test, as 66% (n=17) of respondents responded with

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the highest level of commitment in the post-event survey. Similarly, the post-event survey for my second test showed a demonstrable change in the number of alumni willingness to give back financially, plan future events, and to support current Pitt students. Forty-three percent (*n*=10) answered as "somewhat agree" that they would take this action.

For the first test, the respondents were able to visualize the end result of how a contribution to plan future events would make an impact both for themselves as individuals as well as a contribution to the broader alumni community. Roc Talks was a keynote that spoke directly to the importance of networking and supporting one another. Additionally, the speaker shared how he was a product of this type of involvement with peers and mentors. These environmental and programmatic factors showcased the value of alumni giving their time and talent back to the university. While I did not intentionally incorporate these factors as part of the design of the tests, the analysis of the PDSA cycles revealed the importance of not only clearly communicating the value of mutually beneficial activity, but also demonstrating it in real time for alumni participants to experience and be further motivated by.

This finding directly influenced the approach I will take to evaluating the PAA's programming. While my pre- and post-event survey utilized here did track the response rate by category, in the future I would request that alumni identify themselves in both the pre- and post-event survey so I can more accurately assess the correlation between the propensity to give design elements how that motivates alumni to engagement in a mutually beneficial relationship. Gathering consistent feedback from alumni to aid in the design of engagement opportunities was a secondary driver related to evaluating successful program elements. This key finding emphasized the importance of gathering feedback from alumni both consistently and in multiple formats. That is, while a single evaluative tool will help standardize the PAA's approach to

programming, more opportunities for alumni to share their opinion will allow for the PAA to adapt and apply the design elements more quickly and in a more strategic fashion to motivate a higher number of alumni.

4.3 Summary of Findings

The key findings reaffirmed what the research has emphasized—data collection is a critical tactic for a successful alumni association (Coolman, 2013; Gallo, 2013). My data collection was limited, and the number of participants limited the amount of statistical analysis that I could perform. However, in the last five years this test represented only the second time the PAA has consistently asked alumni participants a standard set of questions, evaluated the responses, and utilized that data to shift the engagement approach. Each of these key findings revealed that alumni want to have an engagement experience that is worthwhile, motivating, and personalized to their interests. The only way for the PAA to achieve this in the aggregate is by gathering more feedback from alumni and constantly adapting to the needs to the alumni population.

The primary and secondary drivers that I detailed in my driver diagram homed in on increasing sense of belonging, curating volunteer, and philanthropic opportunities, and implement evaluative process. My tests did reveal that sense of belonging does influence the engagement relationship that an alumnus has with the institution, further highlighted that volunteer opportunity need to be a valuable and curated experience to motivate alumni, and that the only way to truly assess progress is through data collection.

My aim for this project is that by June 2025, the Pitt Alumni Association will increase the sense of belonging of 15% of active alumni. In order to meet this goal, the PAA will need to further refine the evaluative processes used to measure rate of engagement that address. The processes need to address the problems I encountered when attempting to collect data, most notably, the rate of response. To more formally assess rate of engagement and programmatic elements, the PAA needs to continuing tests some survey tools and feedback processes until the process is refined.

5.0 Reflections

As an alumni engagement practitioner, the process of improvement science helped to refine the approach I will take to improve the opportunities to engage alumni with the University of Pittsburgh. One of the largest challenges in my organization is that the alumni population is over 350,000 individuals who all have a personal relationship with their alma mater. The personal relationship directly influences the expectation alumni have when continuing to interact with the institution, specifically in their desire for a unique experience that matches their own connection. The process of building out a consistent approach to engage the alumni population felt daunting trying to balance financial resources, staff time, and organizational capacity while still attempting to offer that personalized engagement experience. Improvement science gave me the tools to take a systematic approach and identify themes of alumni engagement that can provide a framework for ensuring that the opportunities offered by the PAA can be meaningful while still balancing critical resources.

Improvement science also demonstrated the value in embracing change rather than being frustrated by it. Each new graduating class of alumni that join the Pitt alumni community bring with them a unique set of experiences influenced by both their time on campus and the societal environment of their time. Previously, this contributed to feeling as though the PAA was being reactive and constantly having to revamp entire systems almost on a generational timeframe. Improvement science gives me the tools to be proactive and incorporate evaluative techniques into my daily practice. Specifically, the concept of completing small tests of change to identify opportunities to scale at an organizational and systematic level allows me to be a more competent and prepared practitioner.

By applying improvement science and becoming a scholar practitioner, I can aggregate data to better understand the alumni population and begin articulating themes that stayed consistent even when the population itself was changing. Further, applying improvement science to my place of practice allowed me to see the benefit of making small, incremental changes and then focus on scaling. Too often, I would seek to tackle the biggest problem at an organizational level without first understanding all the contributing factors. Now, I am able to apply what I have learned to break down challenges into manageable changes that can lead to sustainable solutions.

The timeline of this project aligned with my own professional development as I became a team leader and began overseeing a larger portfolio of work. By completing this project, I gained confidence in my approach as a manager to help guide others through the process of tackling larger organizational challenges utilizing techniques of improvement science. Going through this process with co-workers has led to more productive conversation focused on asking question, identifying elements of the problem, and then ultimately implementing small changes that have helped shape our approach as an organization. As a leader, it has been beneficial having additional tools to approach professional challenges.

The lessons from the tests of change will be applied immediately to improve the engagement alumni. I now have knowledge of standard design elements that should be included across alumni programming to scale across discreet alumni groups. Ultimately, I hope to continue applying the tactics of improvement science to verify that the design elements have a similar impact across the alumni community and operationalize this learning so that it is embedded into the PAA as organizational practice.

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