

# Using Social Network Analysis to Explore Alumni Networks

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## Acknowledgments

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## Introduction

Social impact networks, defined as a group of individuals or organizations working together to solve societal issues and create positive change, can be powerful instruments for accelerating impact (Network Impact, 2020; Plastrik, Taylor & Cleveland, 2014). While there are numerous examples of social impact networks in the literature, Teach For America provides a unique opportunity to study a large and expansive social impact network of alumni who have shared a common cohort experience and engaged in professional development opportunities together.

Teach For America is a leadership development organization that recruits, trains, and places teachers in historically underserved classrooms across the United States. After completing their two-year commitment in the classroom, the vast majority of alumni go on to leadership positions in education or fields that serve people living in poverty. To date, there are over 61,000 Teach For America alumni in more than 50 regions across the United States. Each region has its own context and network of local alumni working toward change.

This paper describes the process and learnings from three studies that built on each other and used social network analysis to answer the following questions:

1. What did we learn about Teach For America alumni networks?
2. How do Teach For America alumni networks differ by region?
3. How might we leverage these networks for impact?

This paper is divided into four sections: (1) background and context of Teach For America and the utility of social network analysis; (2) rationale and methodology used for each of the three studies; (3) findings for each research question; and (4) discussion of the findings, limitations, and areas for additional exploration.

## Background and Context

### *Teach For America*

Alumni and their networks are essential for Teach For America to achieve its mission of educational equity. Teach For America's mission is focused on transforming education systems. That mission starts in the classroom by recruiting, training, and developing equity-focused leaders who teach in historically under-resourced schools for at least two years as "corps members" (Teach For America, 2023). After completing their two-year commitment, corps members become alumni, a majority of whom continue to work in partnership with others through networks and coalitions to create lasting change (Mo et al., 2022). The training and support for Teach For America's teaching corps is consistent across the country because it is managed centrally. This is not the case for alumni engagement, by contrast, which is the responsibility of regional offices. This results in different alumni engagement strategies and approaches and varying alumni experiences.

Teach For America alumni often serve as systems leaders, policy makers, and in other key roles that are needed to change education systems in communities. For example, a previous study of Teach For America alumni showed that Teach For America alumni were central in shaping a new local educational policy that shifted school oversight responsibility from the state back to the local school board in Orleans Parish Schools (Kalina & Clifford, 2019). The roles alumni play are not only important in and of themselves but also in how they connect and work with others. This is aligned with network impact theory, which states that a connected network of individuals is a prerequisite for achieving social change (Network Impact, 2020).

In 2020, Teach For America set an ambitious 2030 Goal: “By 2030, twice as many children in communities where Teach For America works will reach key educational milestones indicating they are on a path to economic mobility and co-creating a future filled with possibility” (Teach For America, 2023). This goal represents a significant shift in Teach For America’s strategy. Organizational success is now squarely focused on students’ academic performance, and, importantly, not just Teach For America’s teachers’ students. This goal encompasses all students in the communities Teach For America serves. To reach this goal, according to Teach For America’s Theory of Change, Teach For America will leverage their alumni network and work in coalition with local community groups to dismantle the systems that have held educational inequity in place. To emphasize the importance of alumni networks, the “Connectivity of the Local Alumni Network” was named as one of the organization’s new key performance indicators (KPIs) for the 2030 Goal.

*Overview of Social Network Analysis*



To understand the connectivity of Teach For America networks in the communities they serve, Teach For America worked with an outside organization, Common Good Labs, to conduct social network analyses in a handful of their regions. Social network analysis is a method for analyzing and visualizing the relationship and structures of a network. It examines the connections among different actors (i.e., people, organizations, or other entities) to understand patterns, and often to display these patterns using visual maps (Hassan, 2023). Over the years, social network analysis has been used in a variety of disciplines, including health and business (Hassan, 2023). Teach For America partnered with Common Good Labs not merely to evaluate its networks, but rather to explore the power of social network analysis to provide data, insights, and feedback that could spur organizational learning and decision-making. The nature of the collaboration described in this report was iterative and exploratory with each application of social network analysis building upon the previous one.

Social network analysis is a powerful tool to study relationships in complex systems (Hassan, 2023). It is also particularly helpful in identifying key actors within these systems and subnetworks and communities within larger networks. It is because of these uses that Teach For America decided to leverage social network analysis in studying its alumni networks. By engaging in social network analysis, Teach For America sought to determine key alumni players in their local networks and understand connections across role type and other demographics, all of which are vital pieces of information needed to set strategy and support alumni networks in creating change.

## Methodology

Teach For America partnered with external researchers at Common Good Labs to conduct three studies using social network analysis of Teach For America alumni between the fall of 2020 and the fall of 2022. The studies were driven by hypotheses developed through interviews with key informants at Teach For America and were exploratory in nature. For example, one of the initial hypotheses tested was that alumni in regions with better performing communities, as measured by community-level student academic outcome data, have similar beliefs and values to those promoted by Teach For America. Although each study built on the next, refining and adding hypotheses and questions, all of the studies focused on the following questions:

1. What are the characteristics of Teach For America alumni networks?
2. How do Teach For America networks differ by region?
3. How might we leverage these networks for impact?

The analyses were conducted in 13 cities across the United States in 10 Teach For America regions. The cities included in these analyses were both urban and rural, with varied alumni population density and varied duration of Teach For America presence in the community.

Table 1. Summary Data on Teach For America Regions

City, State	City Description	Year Established	Number of Alumni
Study 1			
Denver, CO	Urban & Rural <sup>1</sup>	2007	1200+
Detroit, MI	Urban	2010	5000+
Study 2			

<sup>1</sup> The region includes the city and outlying areas.

Baton Rouge, LA	Urban & Rural <sup>2</sup>	1990	300+
Cincinnati, OH	Urban	2012	300+
Cleveland, OH	Urban	2012	500+
Columbus, OH	Urban	2012	300+
Dayton, OH	Urban	2012	200+
Indianapolis, IN	Urban	2008	4000+
Study 3			
Austin, TX	Urban	2008	5000+
Dallas Fort-Worth, TX	Urban	2009	8000+
Houston, TX	Urban & Rural <sup>3</sup>	1991	11000+
Rio Grande Valley, TX	Rural	1991	1300+
San Antonio, TX	Urban	2010	2800+

The first study examined differences in similarly sized alumni networks between two cities with large, urban school districts, selected because of the differences in student academic outcomes. Both cities had a long-time Teach For America presence and a large number of alumni, but had different ecosystem performance, as measured by student academic outcomes data from SEDA.<sup>4</sup> One region had above-average performance, while the other region had below-average performance. The hypotheses tested in the study were generated from interviews with key Teach For America leaders and were centered on similarities and differences between formal and informal alumni networks and alumni

<sup>2</sup> The region includes the city and outlying areas.

<sup>3</sup> The region includes the city and outlying areas.

<sup>4</sup> Ecosystem performance data is from the SEDA 2009–2018 Opportunity Explorer <https://edopportunity.org/methods/>.

attributes, beliefs, and values<sup>5</sup> (see Table 2 below for more details on motivation for each study and Appendix A for a complete set of conditions tested in study 1).

The second study added six additional cities that were further ahead in customizing their 2030 goals<sup>6</sup> and goal-aligned strategies. These cities varied across years of Teach For America presence, alumni size, and ecosystem performance. The study continued to use social network analysis to look at some of the same elements as in the first study: (1) alumni attitudes, beliefs, and values across regions and roles; (2) key alumni roles; and (3) relationships between alumni roles, connectivity, and ecosystem performance. Study 2 also added in analyses that examined the propensity of alumni to connect with each other and alumni beliefs about important local issues necessary for systems change. Furthermore, at the end of this study, the researchers tested the degree to which what we learned about connectivity in this study was true for a wider group of cities. They asked the executive directors of approximately 20 Teach For America regions that were not part of the study to nominate key alumni leaders in their communities. Brief interviews were then conducted with those nominated leaders to better understand what enabled them to become effective leaders in their communities.

The third and final study focused on five regions all within a single state. The analyses in this study did not focus on alumni attitudes, beliefs, and values, as the findings of those analyses were consistent across the first and second studies. The study focused

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<sup>5</sup> Some examples of alumni beliefs and values were belief in all children's potential, trust in leadership and each other, a shared vision for action and transparent feedback.

<sup>6</sup> Regions were given the choice of up to four metrics to measure progress towards their 2030 goal: proficiency in third grade reading, fourth grade math, eighth grade math, or a measure of college/career readiness.

instead on alumni networks and connections both within each of the five regions and across them, within a single state.

Table 2. Summary of Rationale for Site Selection and Motivation for Studies

Rationale for City Selection	Motivation for Study
<b>Study 1: Denver, Detroit</b>	
Regions with similarly sized alumni networks in large, urban school districts with different community-level student outcomes to examine relationships between student outcomes and alumni networks	To inform hypotheses about differences between better performing communities where Teach For America is active and others with lower performance, including alumni beliefs and values, number of alumni who grew up in the local community, and connections of informal and formal Teach For America alumni networks.
<b>Study 2: Baton Rouge, Cincinnati, Cleveland, Columbus, Dayton, Indianapolis</b>	
Regions that were further ahead in setting 2030 goals and had strong executive director support in conducting these analyses to inform strategy in working with alumni to achieve their 2030 goals	To understand the degree to which alumni beliefs and values vary by role and/or district, the degree to which alumni networks vary across school systems (e.g., at systems versus classroom levels), the relationship between alumni connectivity and ecosystem performance, and propensity of alumni to connect with each other.  To inform Teach For America on Key Performance Indicator (KPI) development in the areas of Alumni Connectivity and Alumni in Key Roles.
<b>Study 3: Austin, Dallas-Fort Worth, Houston, Rio Grande Valley, San Antonio</b>	
Regions that were situated within the same state to examine alumni connections both within and across regions	To understand the degree to which alumni networks vary across school systems (e.g., at systems versus classroom levels), the relationship between alumni connectivity and ecosystem performance, the propensity of alumni to connect with each other, and differences in alumni connections within regions and across regions within the same state.

Each of the studies conducted included project team members from Common Good Labs, Teach For America national research staff, and local Teach For America staff members responsible for alumni relations. The structure of the project teams was strategically designed to ensure that subject matter experts in research were included, as well as individuals from regions who brought critical insights about local context. Local staff members engaged with the researchers and each set of findings to share their feedback and hypotheses about the findings themselves.

In all three studies, data were collected from alumni via online surveys.<sup>7</sup> Local Teach For America staff members sent an initial outreach to alumni describing the study. Researchers from Common Good Labs then followed up with survey links and three or four rounds of reminders to alumni. Some regions used social media, newsletters, and other platforms to promote the survey and encourage completion. Gift cards were given to early responders to incentivize survey completion. Response rates from the first two studies were between 22% and 53% and followed a similar pattern for the remaining study. While the exact survey items were modified between studies, all studies asked alumni to share background information about themselves and identify peer and mentor relationships, their volunteer efforts, and their perspectives on Teach For America. Finally, data from the surveys were linked to internal Teach For America demographic and employment information to create a comprehensive dataset used to conduct the analyses.

## Findings

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<sup>7</sup> Surveys were sent to alumni whose contact information was known by Teach For America and who did not list any contact restrictions from the organization.

The table below summarizes the key findings from each study:

Table 3. Summary of Key Findings by Study

Key Findings
<b>Study 1: Denver, Detroit</b>
<ol style="list-style-type: none"> <li>1. <b>Teach For America alumni who participated in the study in Denver and Detroit are similar.</b> In both cities, about one-third of responding alumni worked as teachers and about one-fifth of responding alumni worked at education non-profits or advocacy groups. Additionally, responding alumni in both cities were majority white (59% to 67%) and 90% grew up in middle or upper-income zip codes.</li>   <li>2. <b>The attitudes, beliefs, and values of alumni in Denver and Detroit vary significantly by role, but not geography.</b> For example, teachers in both cities rated beliefs and values questions, such as a shared belief in all children’s potential and local affinity for TFA and the education reform movement, almost exactly the same, in ways that consistently differed from non-profit employees. Non-profit employees in both cities also rated beliefs and values questions almost exactly the same, in ways that consistently differed from teachers.</li>   <li>3. <b>Denver’s alumni appear to be more organized around systems change, while Detroit’s are more organized around the classroom.</b> The overall level of connectivity in Denver’s alumni network is significantly greater than that found in Detroit’s, even when accounting for differences in sample size. The most influential and central actors in Denver are elected officials, advocacy and non-profit employees, and school district executives, while the most influential and central actors in Detroit are teachers. The most common volunteer connections in Denver come from political campaigns of alumni and education advocacy groups like Leadership for Educational Equity and Equity Network United for Metro Denver, while the most popular local volunteer non-profit organizations in Detroit are Girl Scouts of America and a running club for high school girls.</li> </ol>
<b>Study 2: Baton Rouge, Cincinnati, Cleveland, Columbus, Dayton, Indianapolis</b>
<ol style="list-style-type: none"> <li>1. <b>In higher-performing communities there was generally greater connectivity. However, connectivity alone is not sufficient for systems change.</b> The findings suggest that organizing to create system change seems to require a combination of alumni working in advocacy and alumni in formal positions of influence, like local public district executives and elected officials, who play bridging roles.</li> </ol>

2. **Alumni in the same or adjacent corps years, at the same workplaces, or in the same roles are generally more connected to each other.** Alumni who participate in Teach For America events or who volunteer with Leadership for Educational Equity (LEE)<sup>8</sup> are also more connected with each other.
3. **Consistently across cities, Teach For America alumni tend to believe educational equity requires addressing issues beyond the classroom, specifically related to poverty and racism, which is supported by external data.** The most commonly cited issues by alumni are alleviating family and community poverty and its effects (21.1%), recovering from the COVID-19 pandemic (16.9%), and increasing mental health support and/or SEL for students (13.7%).

### Study 3: Austin, Dallas–Fort Worth, Houston, Rio Grande Valley, San Antonio

1. **TFA alumni are more prevalent in roles that reflect not only local needs and career opportunities, but those that have intentionally been encouraged by regional alumni engagement strategies.** For example, Austin has fewer teachers and more state education executives, which is consistent with previous Teach For America local strategy. This suggests that it is possible to intentionally shape networks over time.
2. **Systems leaders in Texas tend to play bridging roles among alumni in Texas.** District and charter executives (e.g., central office leaders and middle managers) have large numbers of connections with advocates as well as principals and teachers—Teach For America has never placed corps members in Austin.
3. **Alumni who are interested in working on the same local issue are less likely to be connected to each other.** The two most common issues identified by alumni across the Texas regions were: (1) teacher and principal retention, recruitment, and training; and (2) community engagement and support for low-income families. This suggests that there are untapped connection opportunities that regional teams can target.
4. **Few Texas alumni have cross-regional connections, but all five regions have at least some alumni that connect cross-regionally.** Alumni in schools and alumni interested in working on the same issues often do not connect across regions. Teach For America staff are less active in cross-regional connections relative to

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<sup>8</sup> LEE is a social leadership development organization consisting of equity-minded leaders and partners working towards systems change, and Teach For America is one of their partner organizations (LEE, 2023).



their level of activity locally. Charter executives and TFA employees are frequent connectors in the cross-regional network. Additionally, participation in LEE, moving from one region to another, and serving in the Rio Grande Valley corps are associated with having more cross-regional connections.

*What did we learn about Teach For America alumni networks?*

The studies showed that there are a number of common characteristics of Teach For America alumni networks. The data indicate that Teach For America regions have active networks in which alumni are connecting with each other in their local communities both personally and professionally. Table 2 below shares the average number of connections with other alumni by city.<sup>9</sup> The average number of alumni connections per alumni ranged from 1.1 to 5.9.

Table 4. Average Number of Connections Per Alumni in the Local Teach For America Network

City, State	Average Number of Connections
Study 1	
Denver, CO	3.9
Detroit, MI	2.4
Study 2	
Baton Rouge, LA	5.9
Cincinnati, OH	3.5
Columbus, OH	1.1
Dayton, OH	1.6
Cleveland, OH	3.0

<sup>9</sup> The surveys asked respondents to list the names of peers and mentors who are Teach For America alumni and the names of leadership networks they participate in outside of the Teach For America network (see Appendix B for the survey items used to calculate the number of connections in Study 3).

Indianapolis, IN	3.5
Study 3	
Austin, TX	1.7
Dallas Fort-Worth, TX	1.8
Houston, TX	2.1
Rio Grande Valley, TX	2.1
San Antonio, TX	2.2

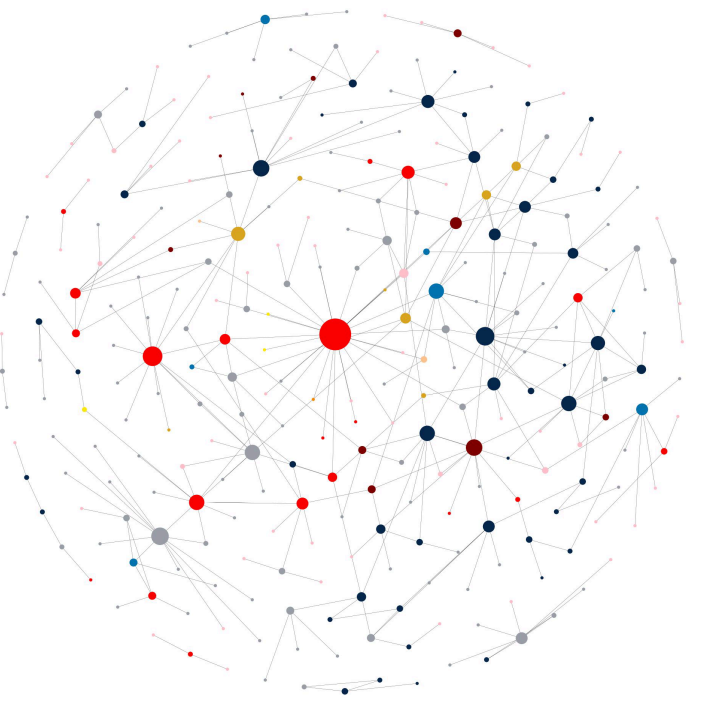
The studies also showed that after completing their corps commitment, Teach For America alumni hold a number of key roles across a variety of sectors. Examples of sectors that alumni work in are advocacy or non-profit, state education offices, local public schools, charter management organizations, and schools. In all 13 cities, alumni regularly connect across sectors, though the extent to which these connections occur varies by city.

The figure below illustrates the Denver and Detroit alumni networks by showing connections among Teach For America alumni as well as a few local organizations. Each bubble is an actor and represents either an alum or a local organization, and the lines between them are connections. The size of each bubble represents the influence of each actor, as measured by their number of connections. The position of each actor represents the sense of influence of the actors they are connected to; actors on the periphery are connected to peripheral actors and actors in the middle are connected to central actors. Each actor is color-coded according to the role they have, which is shared in the legend below.

Figure 1. Denver and Detroit Alumni Networks

Denver Alumni Network

Detroit Alumni Network



Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

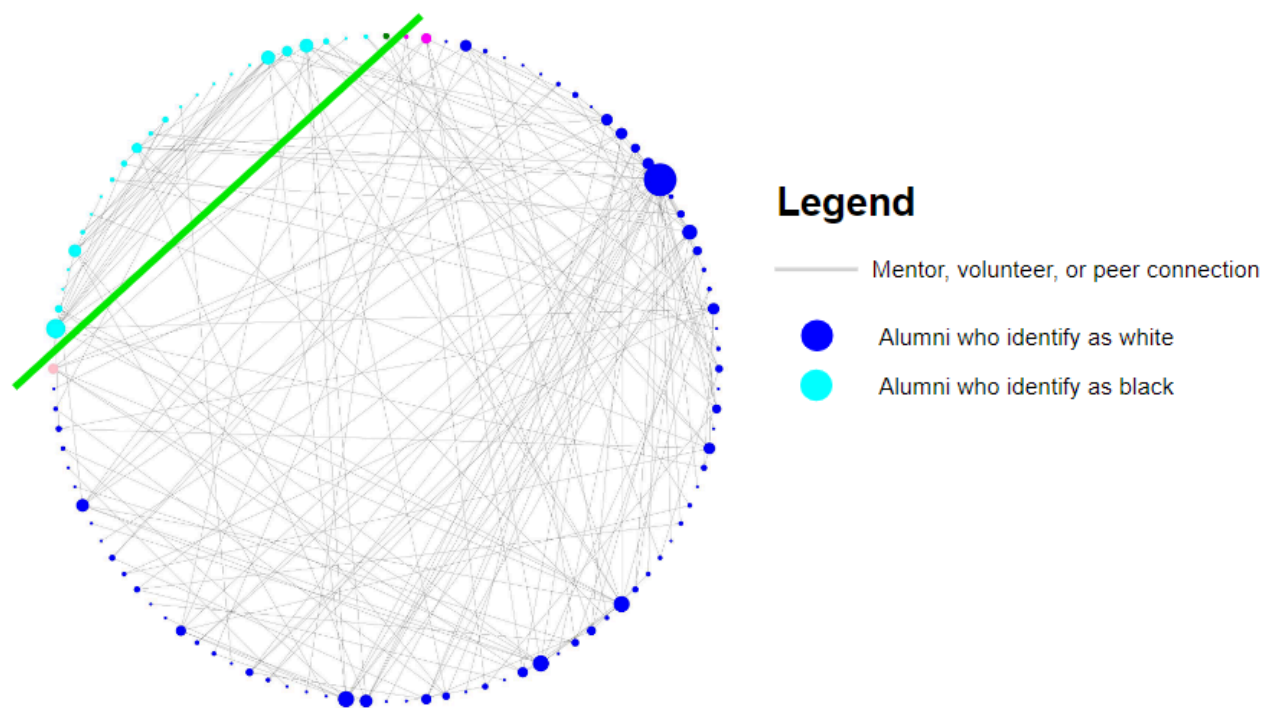
Figure 1 illustrates the data that led to the third finding listed from this first study: Denver's alumni appear to be more organized around systems change, while Detroit's are more organized around the classroom. Alumni in Denver are well connected to a rich network of leaders in advocacy and/or political organizations who are elected officials as well as state and district officials. On the other hand, alumni have fewer connections in Detroit and their connections are primarily at the building level—principals and teachers. This was interpreted as confirmatory, supporting Teach For America's theory of systems change, which emphasizes the importance of having alumni in key roles of influence over systems to enact systems change. This was also interpreted as supporting Teach For America's theory of change: recruit equity-minded leaders into education, these leaders move into positions that allow them to impact systems, systems change in ways that improve outcomes for all students in the system. It also reflected the strategy of Teach For America Detroit, which focuses on teacher and leader development.

The studies also found that there are a number of factors that predict the propensity of alumni to connect with each other. Aligned to network theory that suggests that "like attract like," alumni in the same or adjacent corps years, or who work in the same place, or who have similar roles are generally more connected to each other. Alumni who participate in Teach For America events, or who are LEE members, are also more likely to be connected to each other.

There are also some differences in propensity based on demographics. In one region in particular, alumni who identify as white were more likely to connect with other alumni who identify as white than with alumni who identify as Black. Figure 2 illustrates this finding

with gray lines showing abundant connections among white and among Black alumni with fewer connections across lines of race. This finding, however, is likely due to differences in corps composition and propensity to connect with alumni in the same or similar corps years, as recent cohorts of Teach For America corps members are more diverse than previous cohorts, in which a larger percentage of the corps identified as white.

Figure 2. Example Alumni Network Map of Connections by Race/Ethnicity



The studies also found that there are similarities across regions in terms of alumni attitudes and beliefs. When asked about issues, such as a shared belief in all children's potential, policy changes, and trust in leadership, alumni responses varied almost exclusively by role, not geography. For example, teachers tended to rate beliefs and values questions almost exactly the same regardless of city, and in ways that consistently differed

from non-profit employees. These beliefs and values included a shared belief in all children’s potential, trust in leadership and each other, shared vision for action and transparent feedback, local affinity for TFA and the education reform movement, and growth mindset among leadership. Additionally, alumni indicated that they believe that networks are essential to creating change. Almost every leader interviewed in the second study said that connections, relationships, and networks were the most important factor in enabling them to be effective leaders for creating change in their communities. For example, one leader said the following: “The most important thing I have is a network of like-minded peers and colleagues. I draw so much strength from that.” Another leader said: “Networks are the key. Knowing the right people and getting the right information.”

Furthermore, when asked about important local issues in the second and third studies, alumni indicated that they believe that educational equity in their communities requires addressing issues outside the classroom, including poverty, mental health, and systemic racism. One thing to note here is that while all alumni believe in the importance of addressing issues outside of the classroom, alumni who are interested in working on similar systemic issues are less likely to be connected to each other. Table 3 below shows the average number of connections alumni who want to work in the same area share in their local regions in Texas. In all cases the average connection by issue is less than the overall average among all respondents.

Table 3. Average Number of Connections Per Alumni Who Want to Work on Similar Issues

	<b>Austin</b>	<b>Dallas-Fort Worth</b>	<b>Houston</b>	<b>Rio Grande Valley</b>	<b>San Antonio</b>
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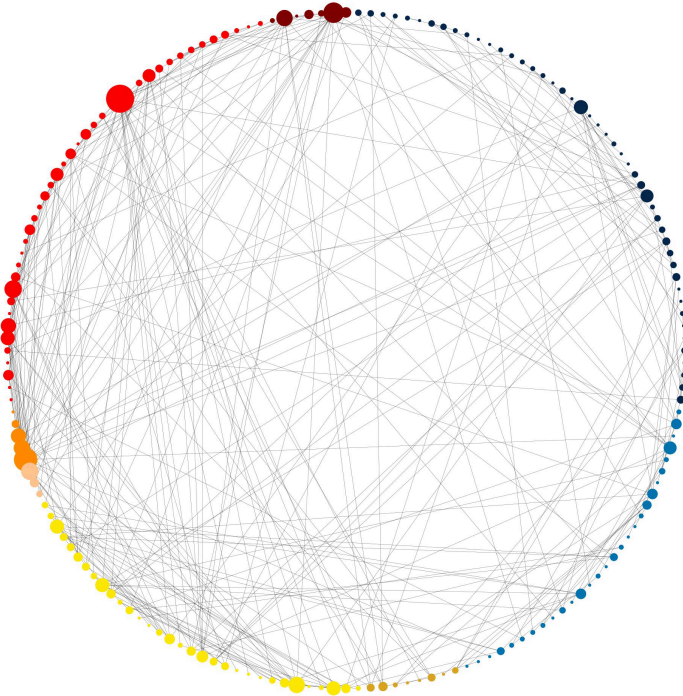
Overall average among all respondents	1.7	1.8	2.1	2.1	2.2
Teacher retention/recruitment	0.6	0.1	0.3	0.3	0.1
Community engagement	0.1	0.3	0.1	0.1	0.4
Curriculum development	0.0	0.0	0.2	0.2	0.2
Mental health	0.0	0.2	0.4	0.4	0.3

*How do Teach For America alumni networks differ by region?*

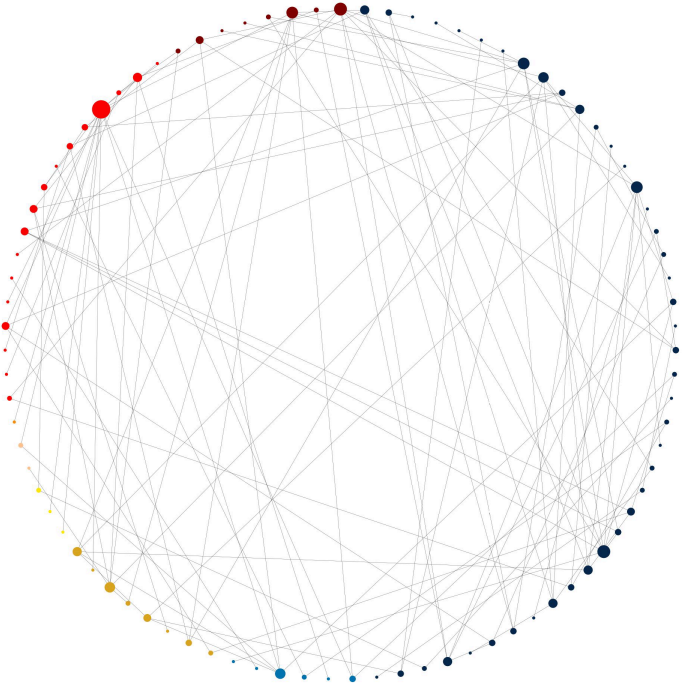
The number of alumni in different sectors varies across regions. Some regions, such as Detroit, have more alumni in school-based roles, while others, such as Denver, have more alumni in systems-level roles.

Figure 3. Alumni Roles in Denver and Detroit

**Denver Alumni Network**



**Detroit Alumni Network**



## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

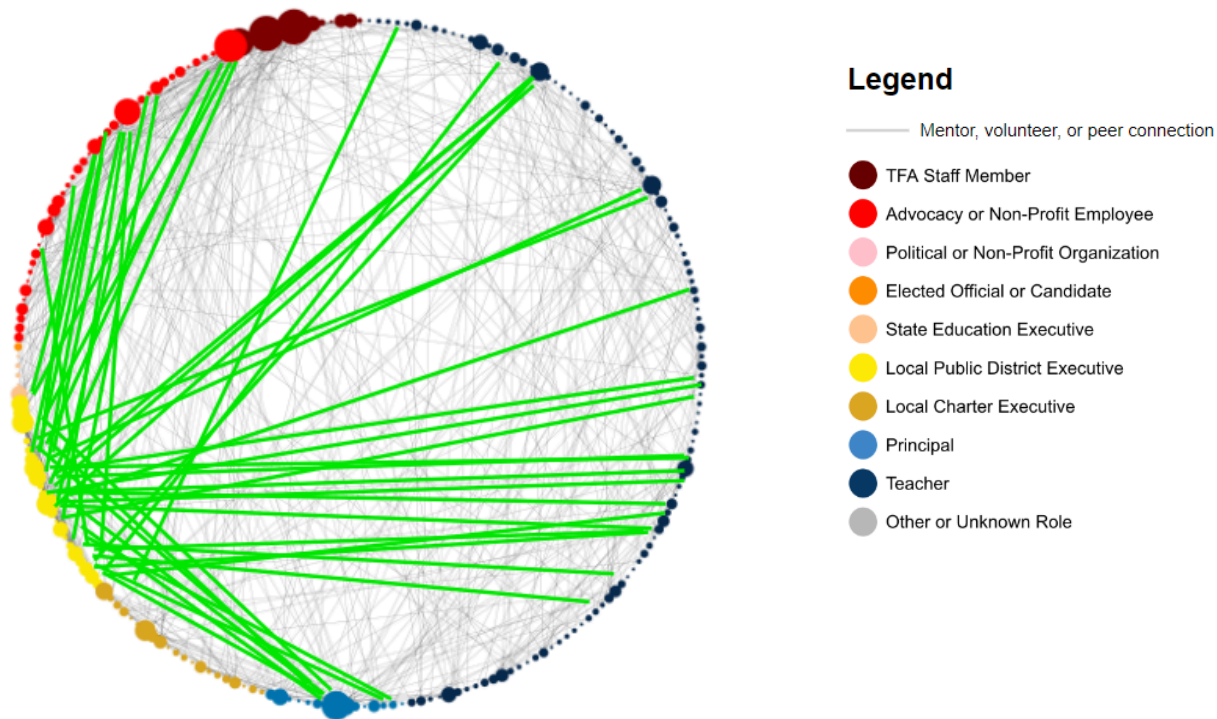
These differences in roles have implications for the extent to which alumni connect across sectors. The researchers found that a large number of cross-sector connections happen through systems leaders, who frequently play “bridging roles” between alumni in advocacy<sup>10</sup> and alumni in schools. Figure 4 below illustrates the “bridging role” that alumni in formal positions of influence play in the Indianapolis network. The green lines highlight connections between individuals in different roles. In Houston and Dallas-Fort Worth as well, district and charter executives, including central office leaders and middle managers, have extensive connections with advocates, principals, and teachers. Additionally, in a number of regions, Teach For America staff members also play “bridging roles” given their large number of connections to other alumni in various sectors. Bridging roles are important because they connect people across different groups who otherwise would not be connected to each other.

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<sup>10</sup> Advocacy or Non-Profit Employees are defined as alumni employed at 501(c) organizations, 527 groups, or political action committees that do not provide K-12 or tertiary education to students as a service, e.g., the state charter school association, after-school mentoring programs, and LEE.

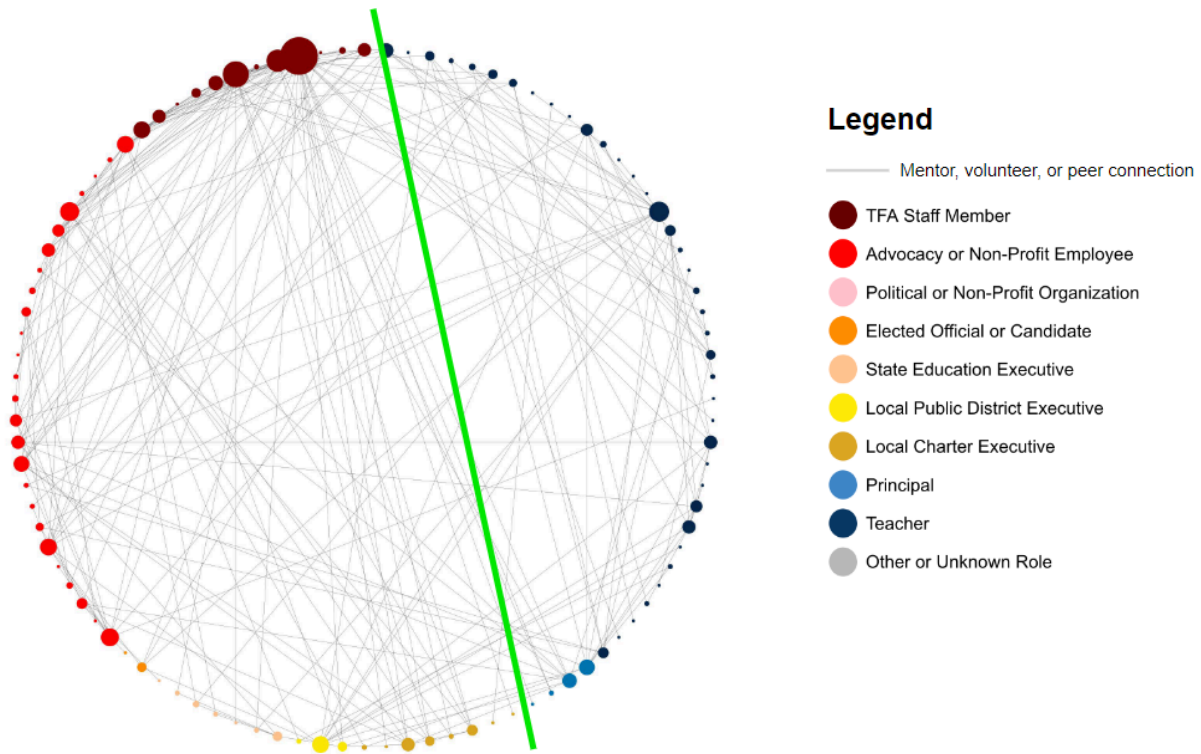


Figure 4. Bridging Roles in the Indianapolis Alumni Network



Other regions have fewer alumni in formal positions of influence. For example, in Baton Rouge, local public district executives and elected officials make up only about 5% of the network. The limited number of alumni in formal positions of influence—roles that typically act as bridgers—can lead to a bifurcated network. As shown in Figure 5, alumni in schools tend to predominately connect with other alumni in schools and not with alumni in local or central education offices or in non-profits or policy. This means that alumni in central roles may not have a strong line of sight into the implications of their work on schools and that their work may not be well informed by what is happening on the ground in schools.

Figure 5. Baton Rouge Alumni Network: Bifurcation



The roles that alumni play also appear to have implications for ecosystem performance. While low alumni connectivity in a local community is associated with lower ecosystem performance, more connections by themselves are likely not sufficient to significantly improve student outcomes across a community. As evidenced by high-performing regions like Indianapolis, which has a large number of alumni in formal positions of influence, and Denver, which has a large number of alumni who are advocates, organizing to create system change seems to require a combination of: (1) having alumni working in advocacy, and (2) alumni in formal positions of influence like local public district executives and elected officials. Regions that tend to have better community-level student

outcomes also have alumni networks with a higher concentration of alumni in advocacy and formal positions of influence. It's unclear though, due to the design of the study, whether alumni are contributing to these outcomes or whether causality runs in the other direction—higher performing regions attract and retain alumni in these kinds of roles.

## Discussion

### *Role of Social Network Analysis in Shaping Teach For America Strategy*

The studies described in this paper demonstrate the viability of social network analysis as an important source of data-driven feedback to inform organizational strategies over time. Firstly, at an organizational level, the findings from these analyses informed the definitions of two organization-wide KPIs: Alumni in Key Roles and the Connectivity of the Local Alumni Network. Findings from the study helped Teach For America define what is meant by “key roles” by creating tiers of roles based on how important they are for systems change. Additionally, the findings from these studies informed recommendations about how to approach measuring Teach For America’s connectivity KPI by engaging in the following: 1) First, have each region conduct a landscape analysis of their alumni networks to understand who is part of the alumni network, how alumni are connected, and the reach of the network so that they can effectively set strategy; and 2) track progress towards the KPI by defining alumni connectivity as the average number of connections per 100 alumni in a community for both alumni in key roles and alumni overall.

The studies also provided local staff members with valuable new insights into their alumni network structure, roles, and interests. In follow-up interviews conducted after the

completion of these studies, many local staff members mentioned that the analyses had improved their understanding of their alumni base. These staff members shared that the results helped them build greater knowledge of where there were stronger and weaker connections across different demographics, corps generations, and employment sectors, as well as which roles were most influential in driving impact.

The insights from these analyses then motivated many regions to be more intentional in connecting alumni and engaging with those who were highly connected within their local networks, all in pursuit of advancing their progress towards the 2030 Goal. Some regions found it particularly beneficial to identify the most influential connectors, viewing them as a valuable resource for gathering feedback on their strategic directions. For instance, local staff members in Baton Rouge used insights about the top influencers from the survey to engage and mobilize alumni in support of their 2030 Goal and problem solve around some of the key connectivity areas of opportunity that were highlighted in the study.

Through these studies, local Teach For America staff members also gained insights into interests of their alumni around systems change and what actions communities should take. In Texas, the studies highlighted variations in these interests across different regions within the state. As a result of these findings, many regions recognized the importance of better aligning their alumni networks with local objectives. This involves connecting alumni who share similar priorities, enhancing efficiency by facilitating collaboration among key influencers who may not already be working together, and focusing on bringing together

specific subsets of alumni, such as school-based teachers and principals. Reflecting on the results of their region's social network analysis, one local staff member said the following:

*I'm thinking about next year differently. Specifically, I'm thinking a lot about the point of people who care about particular issues tend not to be connected to other people who care about those same issues and how we can be specific about our connectivity as it relates to some of the systems testing that we want to do. – Teach For America Local Staff Member*

### *Implications for Network Development*

Networks are dynamic and minor adjustments can have a substantial impact on the way networks operate. The findings from these studies suggest that with their influence local Teach For America staff members have the ability to shape the connectivity of their alumni networks, thus increasing those networks' impact. In fact, there is evidence in the research that Teach For America networks have already been shaped by their surroundings and evolved in accordance with the local contexts and the goals set by local leadership. In virtually every region studied, the structure of the network reflected past regional strategies and initiatives.

Figure 6 below illustrates Austin's alumni network using two maps that highlight specific subsets of alumni by keeping those roles in color and graying out the rest of the roles in the region. Austin is a Teach For America alumni-only region that never had a corps of teachers. As a result, Austin has fewer alumni teachers overall, as shown by the small number of blue bubbles in the top map below. Given that Austin is a capital city and houses the Texas Education Agency, the region has a greater number of state, local, and charter

education executives, as shown by the large number of gold, yellow, and peach bubbles in the bottom map below.

Figure 6. Austin Alumni Network - Highlighting Teachers and State Education Executives

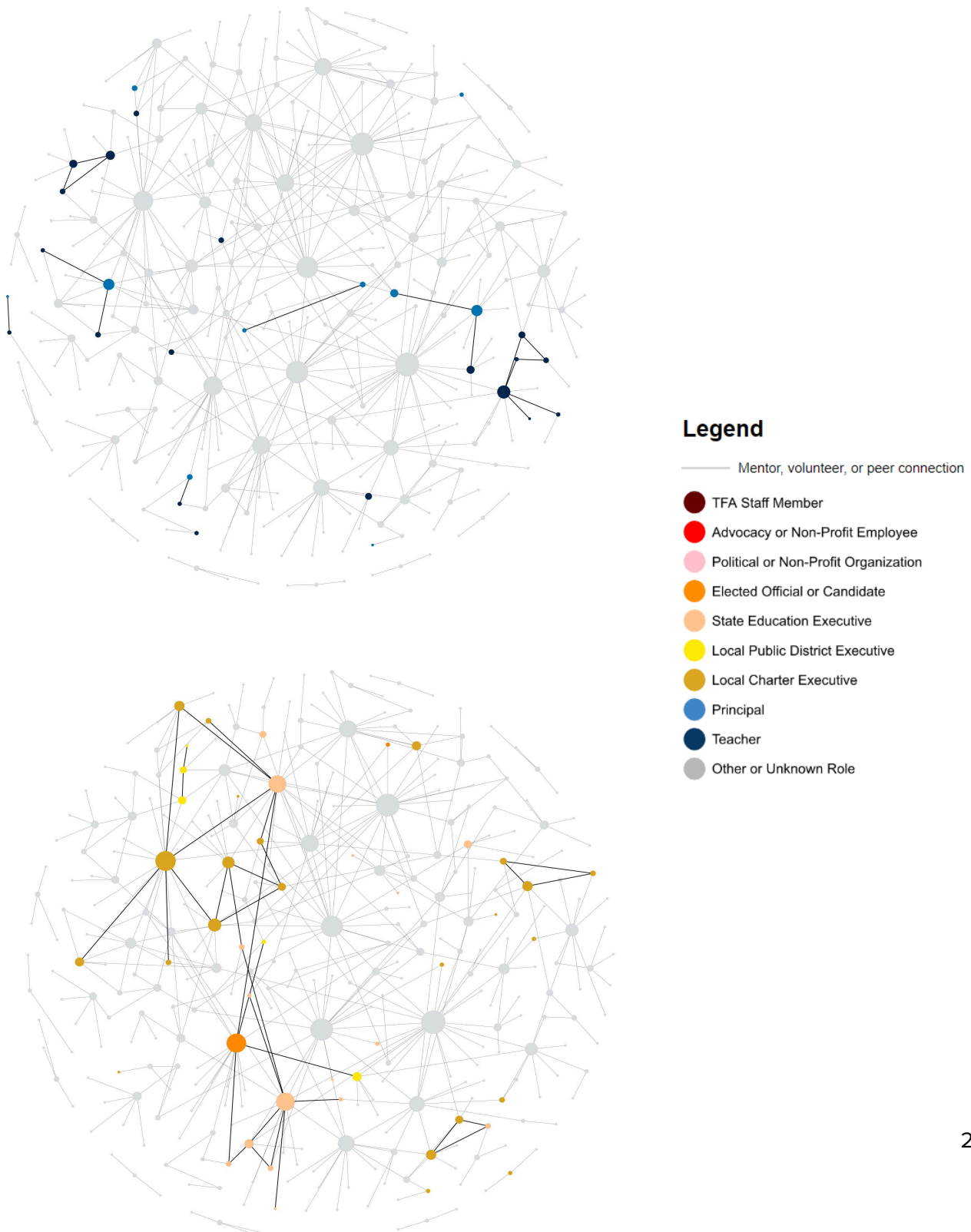
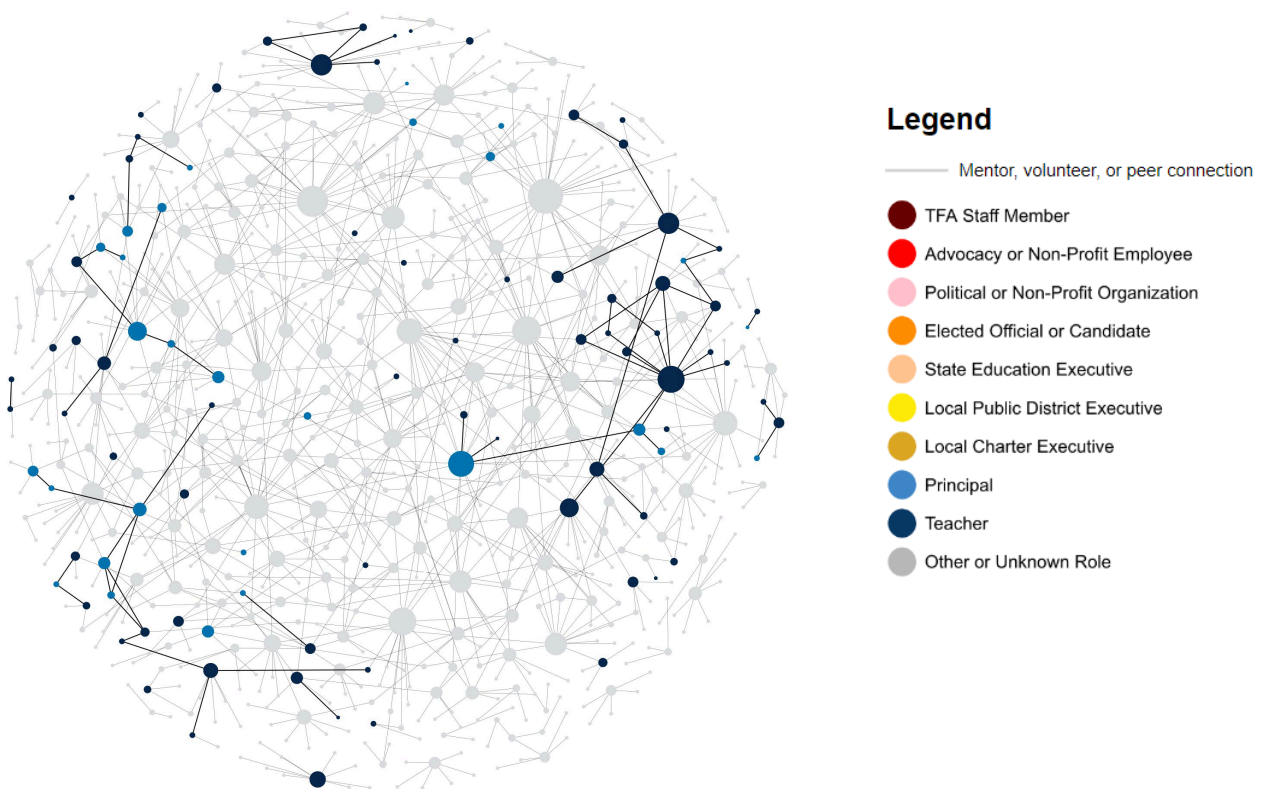


Figure 7 illustrates Houston’s alumni network. The Houston region focused their alumni strategy on their school-based alumni. As a result, they have a large number of connected principals and teachers in their network, as shown by the blue bubbles in the map below.

Figure 7. Houston Alumni Network – Highlighting Principals and Teachers

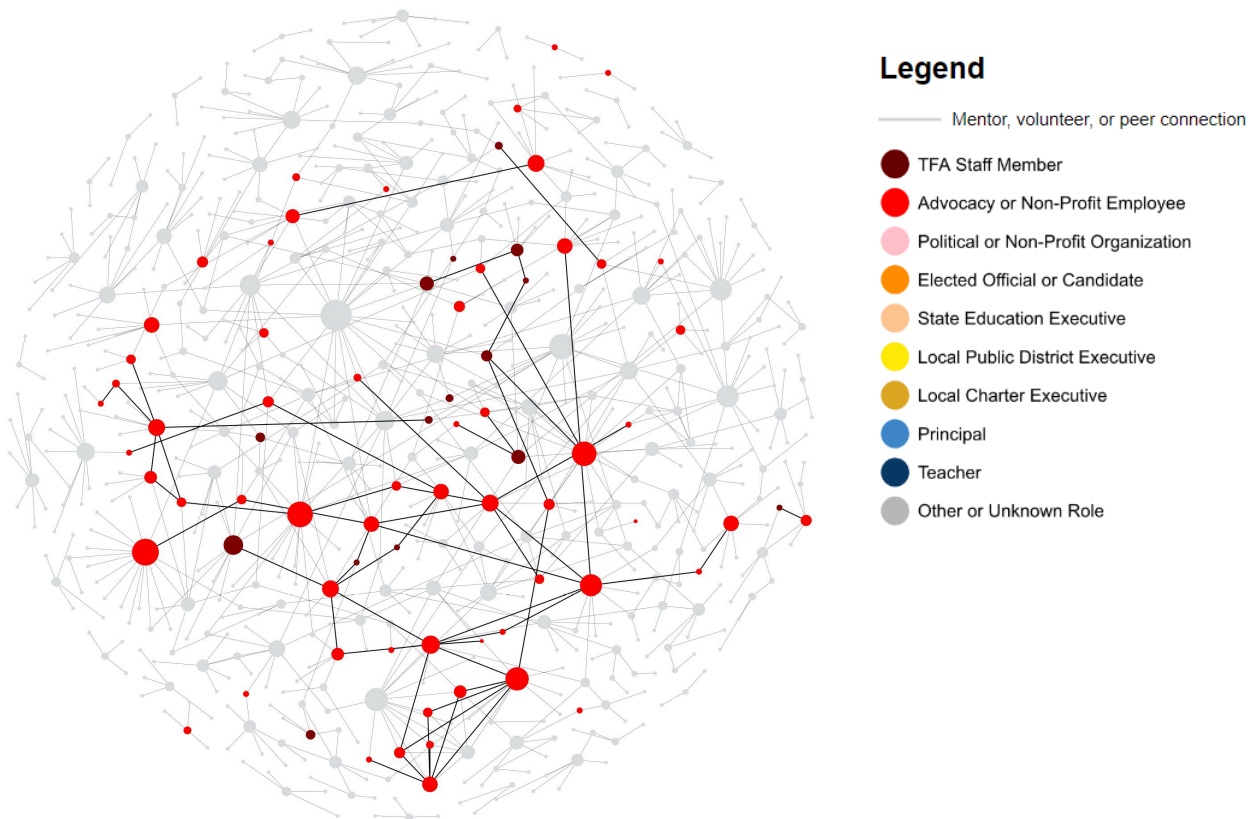


Finally, Figure 8 illustrates the Dallas–Fort Worth alumni network. Their regional alumni strategy was focused on social entrepreneurs. As a result, they have a large number



of connected alumni in advocacy and non-profit organizations, as shown by the red bubbles in the map below.

Figure 8. Dallas-Fort Worth Alumni Network - Highlighting Social Entrepreneurs



Given the importance of actively shaping networks, local Teach For America staff have a unique opportunity to build connections across alumni in their local communities. It is clear from survey results that alumni are interested in addressing systemic issues in their communities that expand beyond the classroom. It is also clear that alumni who want to focus on similar issues are not connecting. As such, Teach For America staff members can



play a pivotal role in intentionally making those connections and building strong subnetworks with the goal of accelerating the pace of change in their communities.

Teach For America staff members also have an opportunity to connect alumni across sectors. As they often play a bridging role and/or are connected to others who play bridging roles, alumni staff members may be in positions to facilitate the exchange of information within the larger network and across different groups of alumni. They can be well-equipped to ensure the flow of information between individuals in local or central education offices and advocates and alumni in school settings.

Additionally, similar to the findings from Master et al. (2023) on Enseña Perú, these studies suggest that a group of individuals who share a common cohort experience and engage in deep professional growth and development together are likely to form strong and enduring connections. Knowing the importance of this factor in building strong and connected networks, local Teach For America staff members can reflect on their strategy and programming to ensure that their professional development opportunities are truly building and sustaining connections.

## **Limitations**

While social network analyses can be beneficial, there are limitations to this methodology (Hoppe & Reinelt, 2010).

### *Low Survey Completion Rates*

The survey completion rates were relatively low overall. While social network analysis can still incorporate data from individuals who did not complete the survey (i.e., if someone was identified as a connection by others), this may suggest that a specific subset of people were more inclined to participate in the survey. It is possible that either more active members within the network or those with fewer connections (as listing a greater number of connections might have been seen as more burdensome) were more likely to respond. Consequently, the findings might not accurately represent the connections of the typical alumni (Master et al., 2023). To address this limitation in the future, potential strategies include further streamlining the survey items, increasing incentives, involving highly engaged alumni to encourage others to participate, and sharing the study results with the entire network so that all alumni are able to see the value in it.

### *Self-Reported Data Inaccuracies*

The data used in these studies were obtained from surveys that alumni filled out regarding themselves. As with any self-reported data, there is the potential for inaccuracies or bias, including social desirability or recall bias. Additionally, in most of these studies, respondents manually entered the names of their connections, and despite efforts in data cleaning, there remains the possibility of mismatches due to variations in spelling, name changes, or other factors. To address these limitations in the future, it would be beneficial to explore existing platforms for opportunities to automatically extract or gather data from other systems and to continue testing an auto-complete feature in the survey<sup>11</sup>.

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<sup>11</sup> One of the studies conducted used an auto-complete option when asking respondents to name peers and mentors. However, there was still a lot of matching and data cleaning needed.

### *Privacy Concerns*

Social network analysis involves asking survey participants to provide the names of specific individuals, which are then used to create a visual representation of the network. Although the maps themselves may or may not include individual names, it can be challenging to completely anonymize the findings because people may still be able to identify others based on their connections or related information. In these studies, the complete network map was shared with those who participated in the study and some alumni boards, but not with the entire alumni community. One strategy to overcome this limitation in the future so that everyone is able to see and access the findings is to ensure clarity regarding the intended audience and purpose of the work and subsequently include a question in the survey that seeks respondents' consent to include their names in the network map, as proposed by Hoppe & Reinelt (2010).

### *Incomplete Picture of Networks and Changemaking*

Although the survey yielded valuable insights into network members and their connections, it lacked in-depth context regarding these connections. Specifically, it didn't delve into the reasons behind alumni forming connections, the factors that facilitated these connections, or the mechanisms through which these connections may have led to change. Regional staff members expressed a need for this additional information to enhance their strategic planning.

Furthermore, Teach For America's alumni networks are built on the theory that a well connected network is a precondition for effecting change within communities. Although

these social network analyses assess network connectivity, they don't thoroughly explore the relationship between these networks and systems change. This could include addressing questions like "How does a corps member's journey lead to them becoming an influential alumni driving 'systems change?'" and "How do alumni leaders leverage networks to bring about concrete system changes that influence the structure and policies of education in their communities?"

### Areas for Further Exploration

Given that these studies were approached in an exploratory manner, there are a number of areas for further exploration. First, it would be helpful to expand these analyses to a larger number of sites and also follow up with the sites from the first three studies. This would allow us to see whether the results hold up in other contexts and whether we can see changes in connections over time. Next, in future studies, it would be useful to get more precise about the number of connections and/or number of alumni in positions of influence associated with higher ecosystem performance. Is there a point of diminishing returns at which more connections are no longer associated with higher ecosystem performance? Are there a certain number of alumni in positions of influence needed in order to make change within communities? Furthermore, it would be interesting to expand beyond Teach For America alumni to non-alumni who are working towards educational equity and survey a sample of alumni and non-alumni in different roles across a city. Additionally, these studies only point to associations between connections and ecosystem performance. It would be useful to explore whether we could test any of these assumptions in a causal way.

Finally, in the future, it would be helpful to conduct in-depth investigations or case studies to better understand the sources of connections and what is true about regions with more systems level leaders and greater numbers of connections. Specifically, understanding why and how alumni are connecting with each other would be an important input into being able to facilitate connections in the future. Furthermore, examining commonalities of regions with a large number of systems leaders and greater connections could help inform how to foster those conditions in other regions.

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## Appendix A Hypotheses from Study 1

### **Hypotheses: What separates better performing communities where Teach For America is active from others with lower performance?**

This question was asked to leaders within Teach For America with dozens of years of collective experience in education. Their answers fell into eight categories of hypotheses tested in this project:

- A shared belief in all children's potential
- Trust in leadership & each other
- Shared vision for action and transparent feedback
- Alumni & allies hold formal positions of influence
- Strong informal social and professional alumni networks
- Concrete policy changes
- Growth mindset among leadership
- Local affinity for Teach For America and the education reform movement



## Appendix B Survey Items from Study 3 (Houston)

Please tell us about how you interact with others in the Houston area.

### **Volunteering**

[List] Have you volunteered in an ongoing capacity outside of your job in advocacy or social entrepreneurship efforts related to education in the past five years in the Houston region? If so, please list the name of each campaign or organization and the year or years you were involved.

*Example: Board member, IDEA Charter School (2015–16); Volunteer, Jane Doe School Board Campaign (2017)*

### **Peer Relationships**

[List] Do you have any peers who are also Teach For America alumni that you exchange advice or share professional resources with (e.g., articles on best practices) in the Houston region? If so, please list all of their names in the space below.

### **Mentor Relationships**

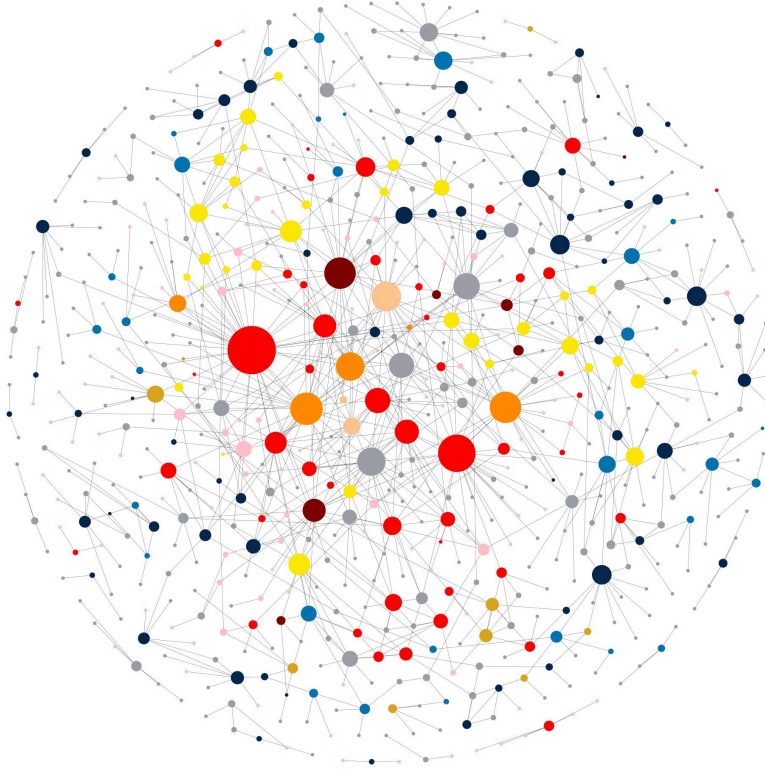
[List] Do you have local mentors who are also Teach For America alumni that help provide you with connections or give you advice based on experience that is greater than yours? If so, please list all of their names in the space below.

### **Additional Relationships**

[List] Do you participate in leadership networks outside of Teach for America, such as professional organizations, leadership development programs, or fellowships? If so, please list these programs in the space below.

## Appendix C Additional Social Network Maps

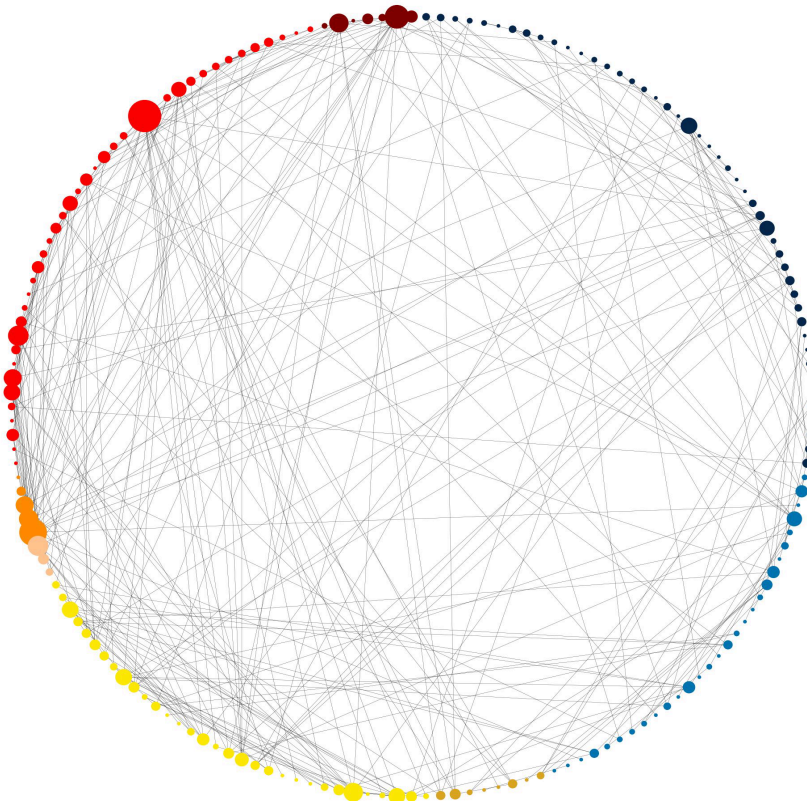
### Denver Alumni Network



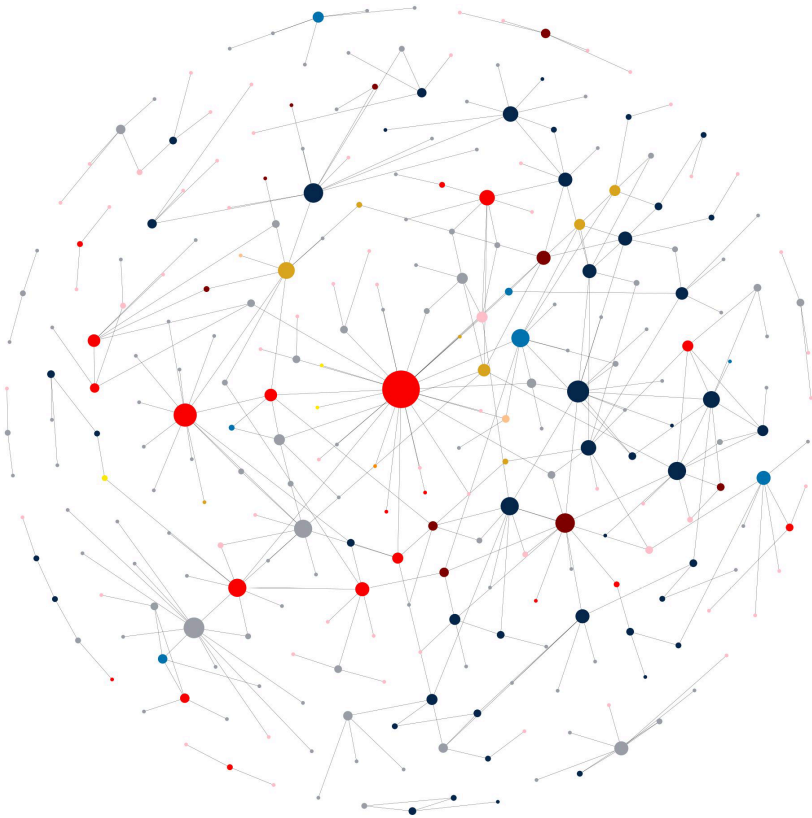
#### Legend

— Mentor, volunteer, or peer connection

- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

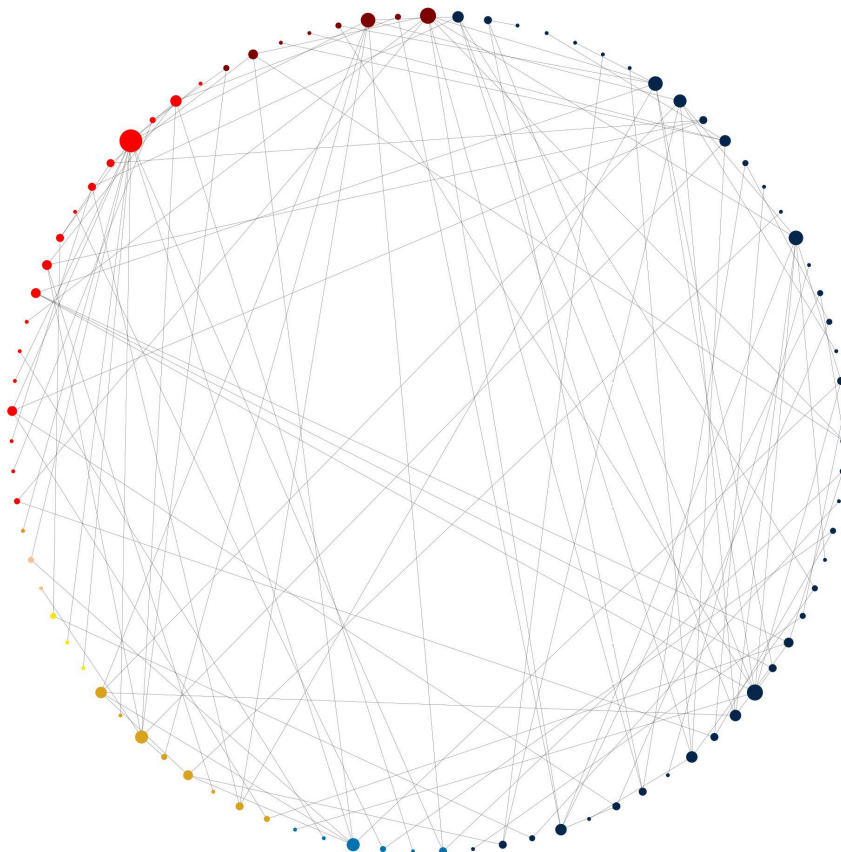


# Detroit Alumni Network

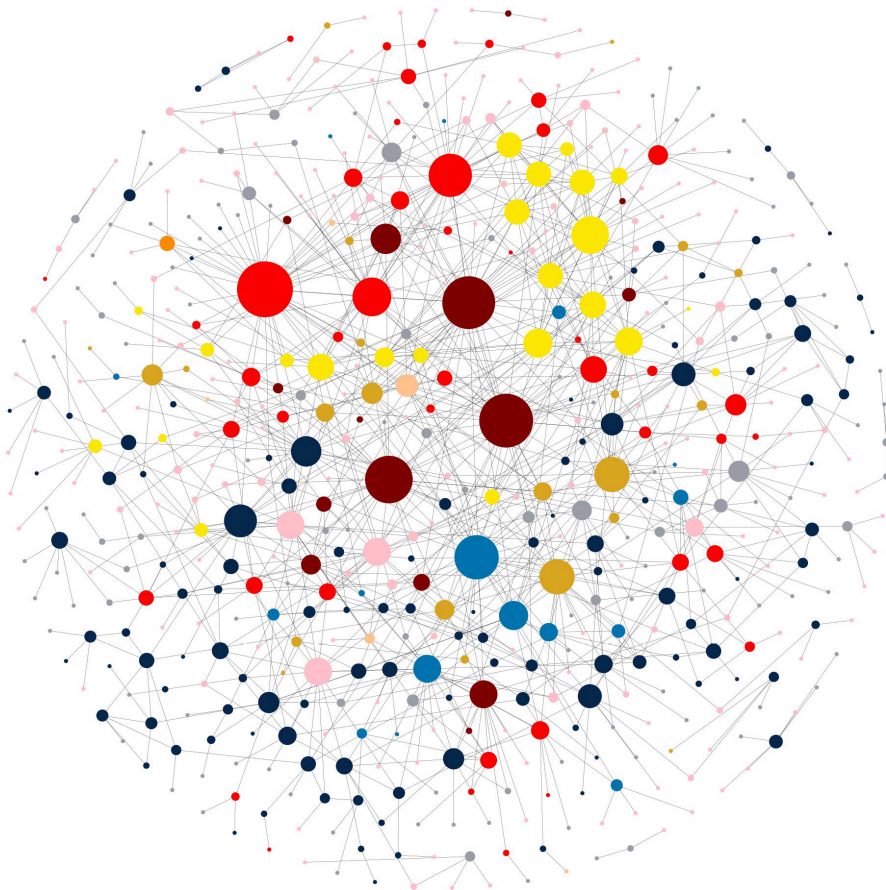


## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

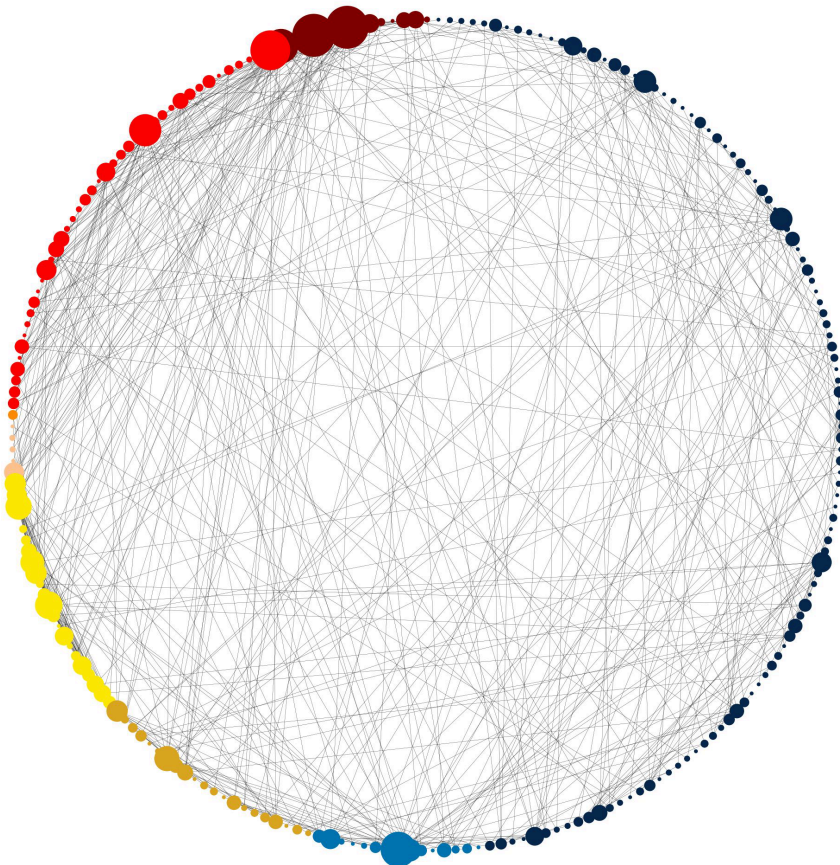


# Indianapolis Alumni Network



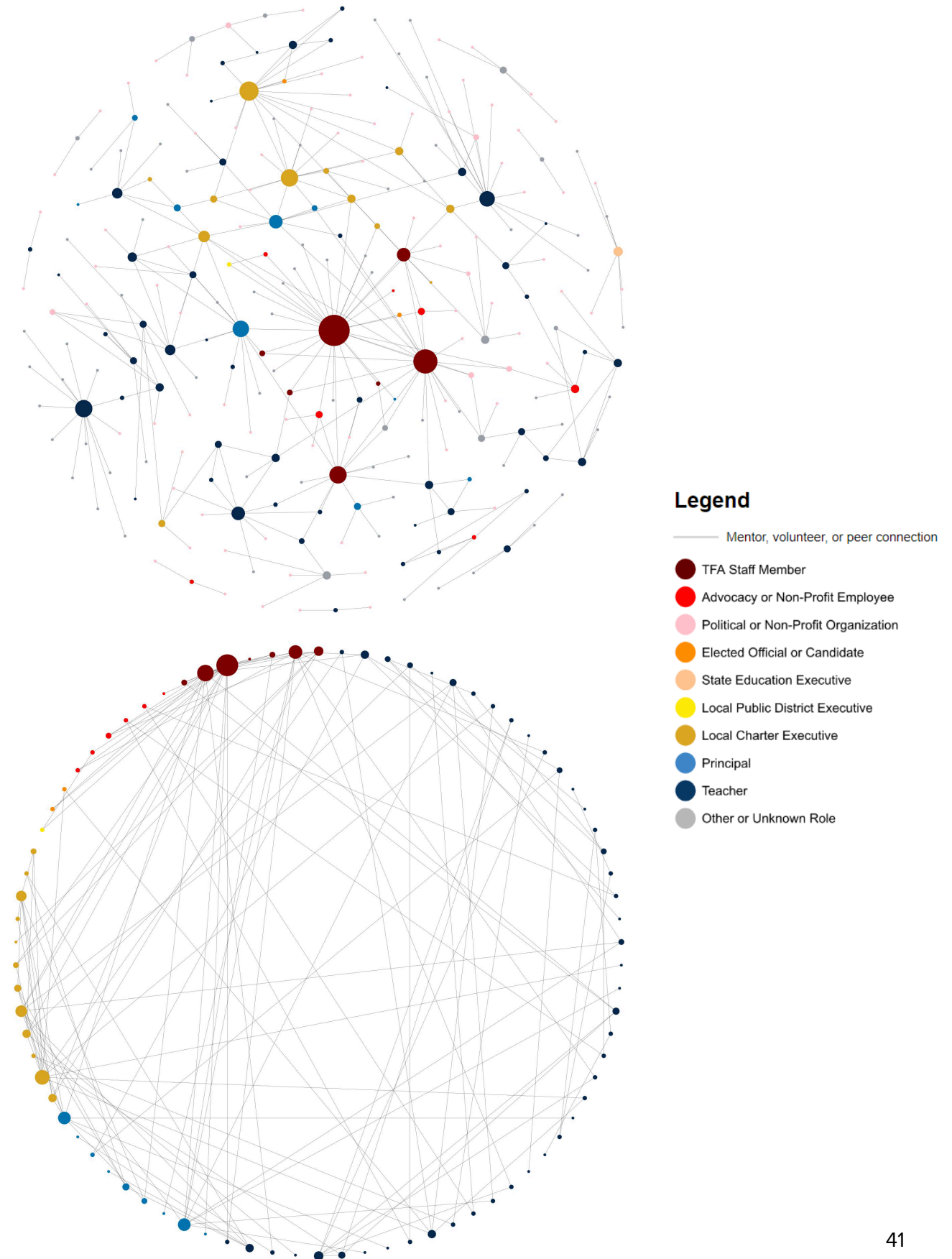
## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

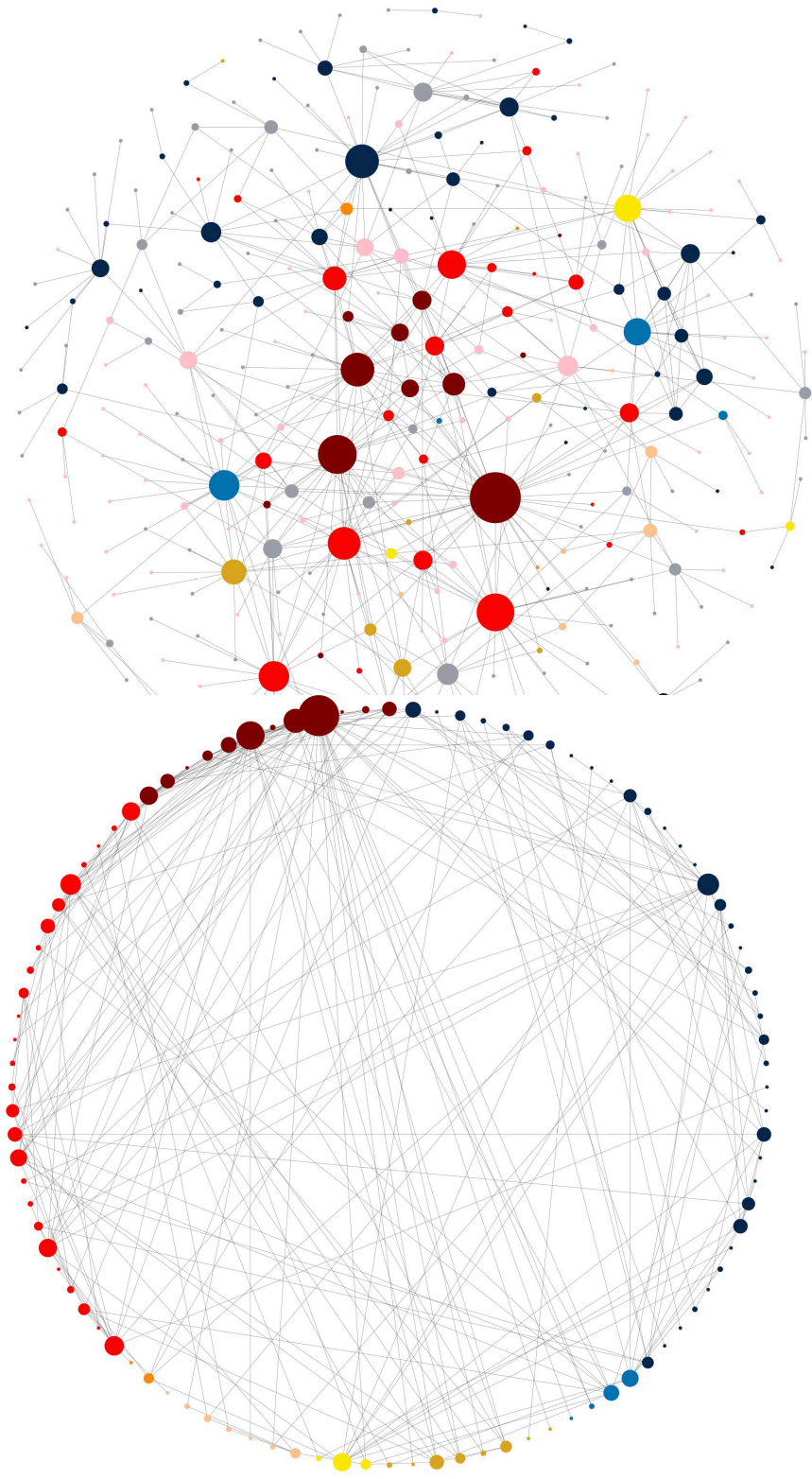




# Cleveland Alumni Network



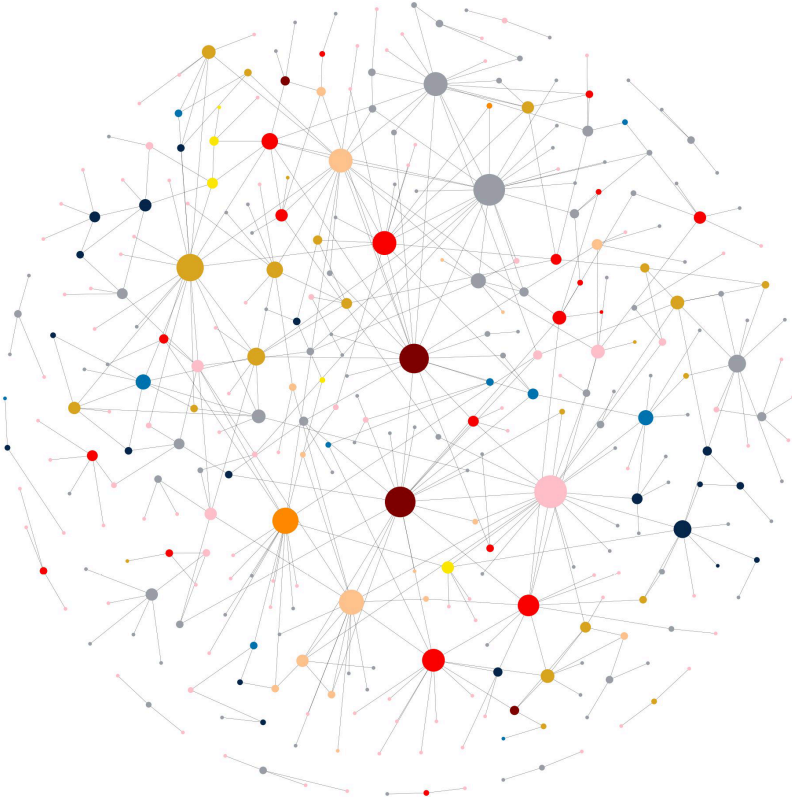
# Baton Rouge Alumni Network



## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

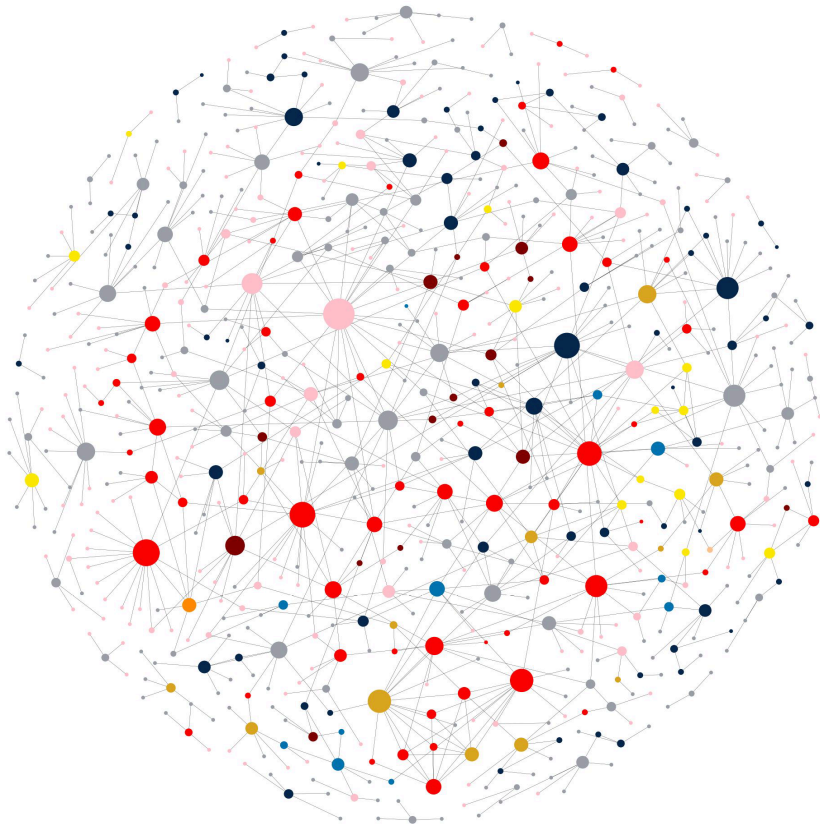
# Austin Alumni Network



## Legend

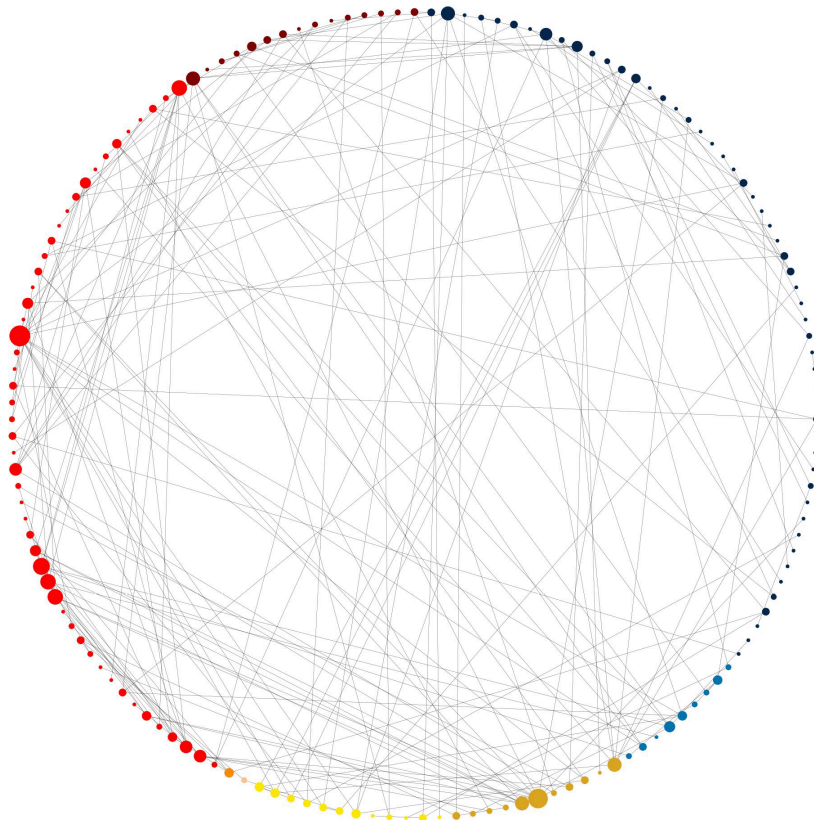
- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

# Dallas-Fort Worth Alumni Network



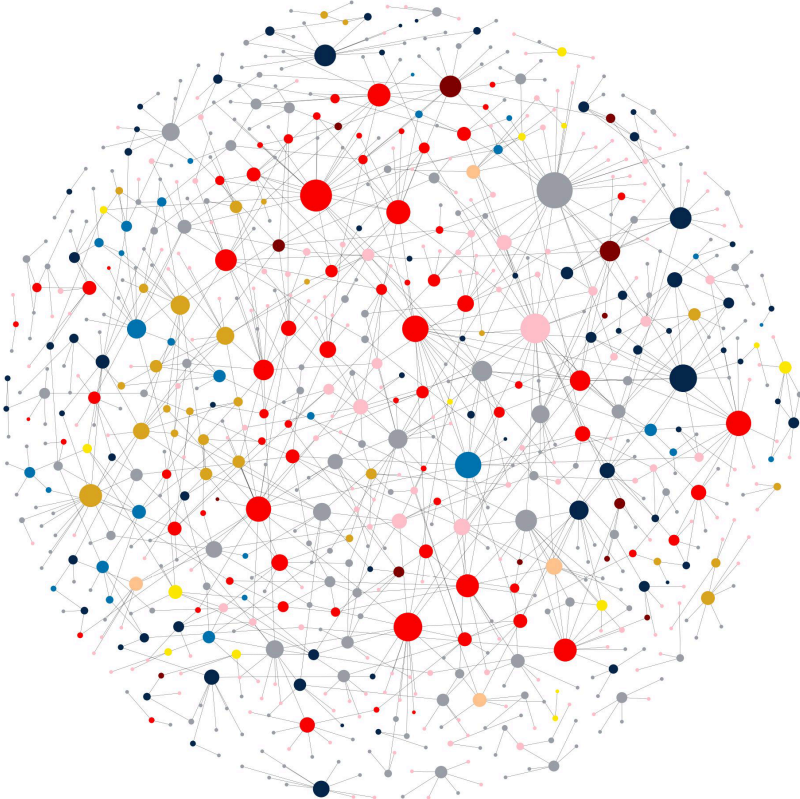
## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
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- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role



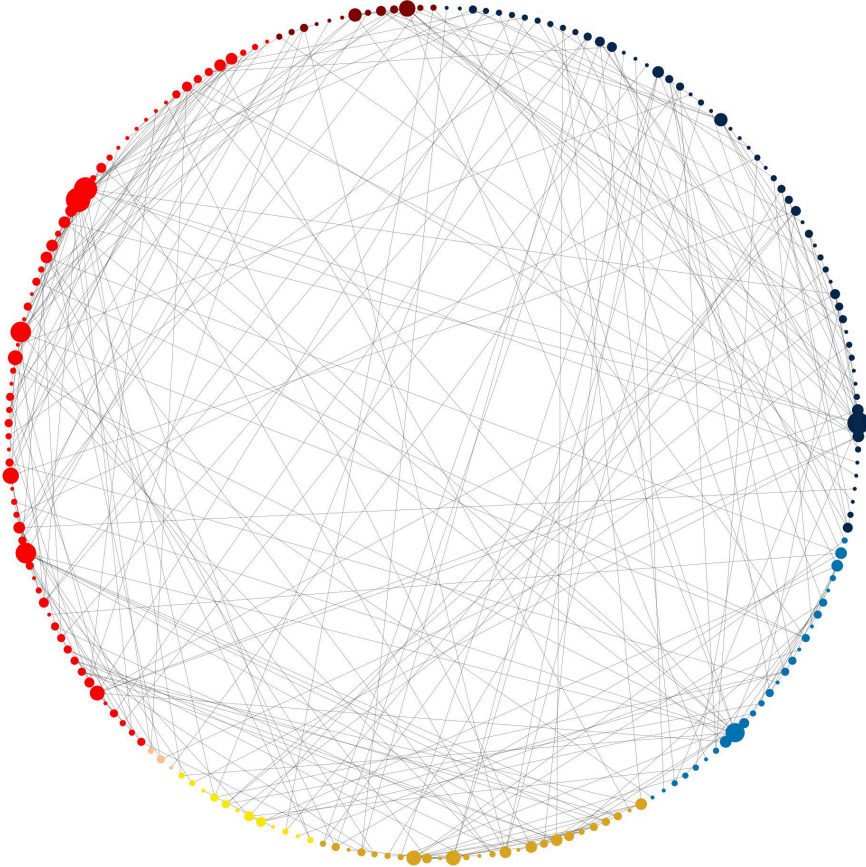


# Houston Alumni Network

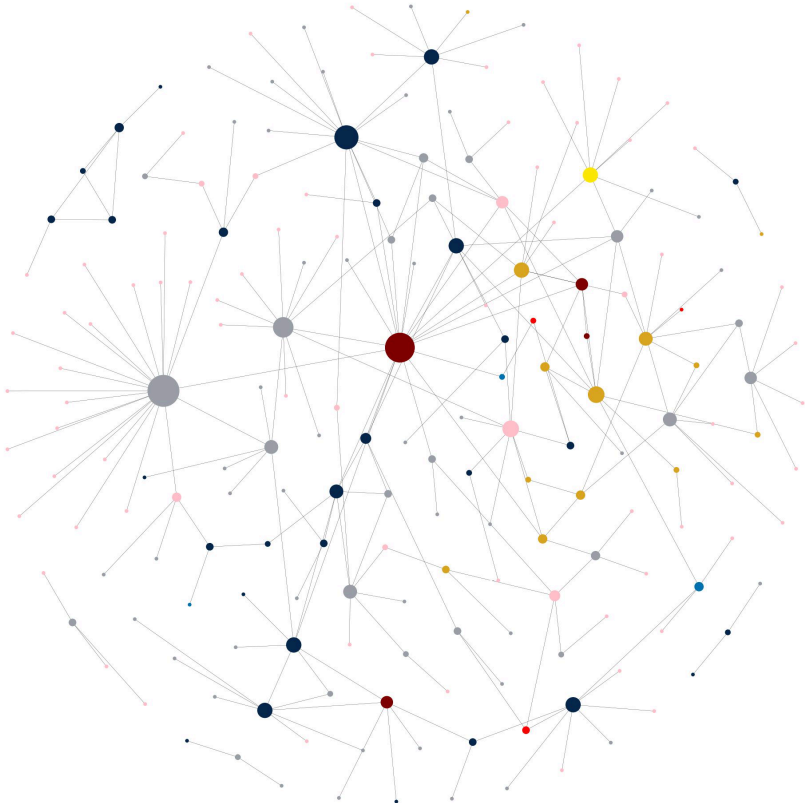


## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role



# Rio Grande Valley Alumni Network



## Legend

- Mentor, volunteer, or peer connection
- TFA Staff Member
- Advocacy or Non-Profit Employee
- Political or Non-Profit Organization
- Elected Official or Candidate
- State Education Executive
- Local Public District Executive
- Local Charter Executive
- Principal
- Teacher
- Other or Unknown Role

**San Antonio Alumni Network**

