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Exploring How Teach for All's Networks Connect Local Educational Organizations

A Case Study of Alumni Professional Connections in Peru



KEY FINDINGS

- Respondents to Enseña Perú's (EP's) annual alumni survey reported professional collaborations with peer alumni across a wide range of organizations in Peru, including schools, government ministries, nongovernmental organizations (NGOs), and the private sector.
- We find strong evidence that alumni's connections are influenced by their shared initial experiences with peers in their own EP program cohort. Region of residence, age, and gender are comparatively weaker predictors of connections.
- EP itself and the Ministry of Education (MoE) are the most central organizations observed in the network. Alumni with connections to EP are relatively more likely to work in or with peers at NGOs and private-sector organizations, while those connected to the MoE are more likely to work in or with peers at government ministries and schools.
- While few EP alumni respondents themselves work at local and regional education departments (4 percent), significantly more report professional collaboration with nonalumni at those institutions (25 percent).
- Alumni respondents currently working at EP itself appear well positioned to connect alumni and organizations that are not currently very well connected to each other.

The BHP Foundation is supporting Teach for All in its work to capture and share knowledge and insights across its global network of affiliated partners, with a goal of growing what Teach for All described as “collective leadership” to enhance learning in each setting. The BHP Foundation also supports Teach for All's ongoing efforts to assist its partners in continuing to grow and develop their local networks of alumni and current program participants. Teach for All views these individuals as the key practitioners who will ultimately both contribute to and utilize insights regarding collective leadership for educational system change and improvement. In a separate case study (still under development), the RAND Corporation team is exploring examples of how the Teach for All global organization is working to influence and enhance the strategies and capacity of its local partner organizations as well as to share knowledge across its global network.

In this case study, we take a different tack, examining the local alumni network at one of Teach for All's partner organizations, Enseña Perú (EP). We use data from EP's own annual alumni survey to examine a portion of the national network of professional collaboration that has emerged among EP

program alumni, and we consider how this network may be facilitating the organization's goals.

In theory, the reach of Teach for All's global learning network is not limited to direct interactions and knowledge-sharing between individual alumni and the network partner organizations, nor to interactions between alumni and the network partner organizations with which they are affiliated. Instead, Teach for All leaders hypothesize that evidence can best contribute to impact when “learners working at all levels of systems share, assess, and learn to face adaptive problems together” (Teach for All, 2022). As such, the extent to which alumni are not just graduates of a local program but are also engaged in ongoing professional collaboration with each other is foundational to the assumption that local knowledge-sharing and implementation of promising practices is occurring. To examine this assumption in greater depth, we used survey data collected by EP to conduct a descriptive analysis of the network of its program alumni in Peru, the organizations for which they work, and the connections across organizations engendered by professional collaborations among the alumni.

About Enseña Perú and Its Leadership Program

Like other Teach for All partner organizations globally, EP is a nonprofit organization that recruits individuals, typically young professionals, from various careers to work as teachers in public schools for two years. Participants must have completed a university or technical degree program to be eligible. EP also has a much smaller program (“Qué Maestro”) focused on recruitment of school leaders and experienced teachers to fill key roles in schools. The primary EP program is intended to be a “leadership program” in which participants are trained and mentored as teachers while also working with program peers and alumni to achieve collective action in education. The program experience typically consists of an initial intensive summer residence training, virtual courses, learning groups, talks and workshops, and guidance from a Leadership Coordinator. Teacher training includes a focus on improving student skills, particularly in the areas of reading comprehension, math problem solving, and socio-emotional learning (including growth mindsets, self-confidence, and the ability to collaborate with others).

After completing the program, alumni are invited to participate in a variety of national and international learning communities, professional development events, and a “Leadership Accelerator” meant to help facilitate collective leadership with various actors and peer alumni in the national education system. The organization explicitly seeks to build a “critical mass of transcendent leaders” in the educational system (Enseña Perú, undated). An EP leader we corresponded with described several common examples of alumni activities promoted by EP as being aligned with this vision. These include alumni working as trainers of future EP cohorts, alumni working as consultants on education policy issues around the country, alumni working as opinion leaders sharing views in newspapers and other media, and alumni participating in a virtual community (“punto nueve”) that offers courses, talks, interest groups, and professional mentorships.

Data Used in This Case Study

RAND collaborated with EP program staff to examine alumni networks in Peru. EP was selected as the focus of this case study because of its interest in piloting survey questions about individuals’ networks in its 2021 annual survey, and EP co-constructed these questions with the RAND team’s assistance to facilitate the network analysis. EP contacted an estimated 669 alumni in its 2021 survey. Of these alumni, 44 percent (295) participated in the 2021 alumni survey. Among other topics, the survey asked respondents to “name up to five fellow EP alumni that you have collaborated with professionally in the past year.” Another survey question asked respondents to “name up to three educational organizations whose staff you have worked with as part of your job over the past year,” regardless of whether their contacts at those organizations were EP alumni. Respondents to the survey were mostly alumni from the primary EP program (with participant cohorts from 2010–2011 through 2019–2020), which recruits novice teachers into the profession, though a small portion of the respondents were from a second EP program that focuses on recruiting more-experienced educators.¹

Across all survey respondents, 68 percent (202) named at least one alum they collaborated with as part of their work, with a total of 866 reported connections to 356 individual alumni. Additionally, 70 percent (206) named at least one organization that they had worked with in the past year, with alumni collectively naming 242 such organizations. Survey responses further identified the 151 organizations where individual survey respondents work. The survey data were supplemented by additional administrative records provided by EP about respondents, including which EP program and cohort they had originally been a part of, their age, gender, and the regions they reside in now as well as at the time they originally participated in the program.

Using these data, we mapped connections between organizations identified by survey respondents. In this case study, we explore both the network of organizations connected via alumni’s professional collaborations with each other (i.e., when one responding alum reported working with another responding alum), as well as reported collaborations

with an extended network of organizations outside those where alumni themselves worked but that were referenced in the survey as organizations that alumni interacted with as part of their job. We used public records to classify the sectors of all named organizations. We tabulated the sectoral characteristics of organizations in both the direct alumni network and the extended network of organizations that alumni interact with, and we also analyzed their structural positions in these networks. We further analyze reported connections among individual alumni with attention to the characteristics of the alumni involved, including their age, places of residence, and gender.

Finally, we also conducted informational interviews with EP staff both before and after developing and sharing our network visualizations to better understand their goals for the EP alumni network and their perceptions of what the resulting data reveal about the network.

Limitations of Our Data

Given the relatively low overall alumni survey response rate, we anticipate that our resulting analytic sample reflects a particularly engaged subset of EP alumni who may have more connections with fellow alumni than is typical of the entire EP alumni population. On the one hand, our data may reflect some of the most active professional collaborations occurring within the EP network. On the other hand, we do not know the extent to which they reflect connections typical of EP alumni. In other words, we are documenting a specific portion of the overall EP network, but we are not able to observe the entire EP alumni network.

We relied on survey data to link alumni to their organizations. Consequently, we do not know the organizations of alumni who were named as contacts but who did not themselves respond to the survey, and therefore these connections are not included in our network visualizations. This occurred for 34 percent (313 of 866) of reported alumni-to-alumni connections, because 172 of the individuals named did not themselves respond to the survey (some of these alumni were mentioned multiple times). In general, alumni in cohorts with higher response rates to the

survey were more likely to name individuals who also responded to the survey, while alumni in cohorts with lower response rates were more likely to name individuals who did not respond. This means that our presentation of the data likely understates the full extent of respondents' professional collaborations with peer alumni across Peru, particularly for groups (such as alumni from the EP program for experienced teachers) that had lower response rates.

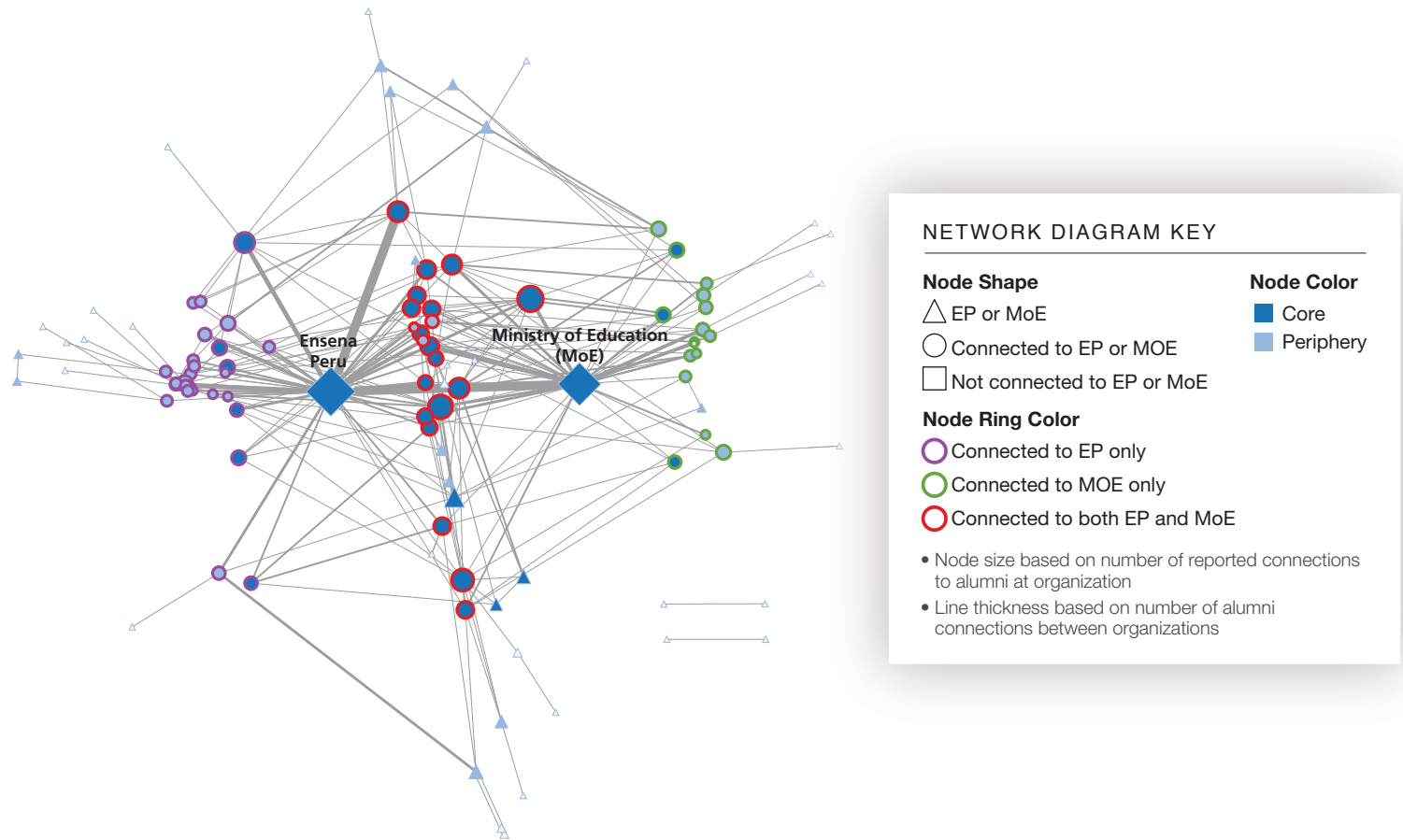
Finally, in the interest of limiting the burden on respondents, this brief set of survey questions did not inquire about the nature of their reported professional collaborations between peer alumni or between alumni and staff at other educational organizations. This means that our analyses cannot directly answer questions regarding what kinds of collective action EP alumni may be engaged in, or what kinds of knowledge or assistance they are providing to one another. Future surveys could delve deeper into these or other topics of interest to EP or the field.

Professional Connections Among EP Alumni

The data indicate that the portion of the EP alumni network that we can observe goes well beyond individual alumni working separately in siloed organizations across Peru. Rather, the network of alumni connections includes peers collaborating directly within and across organizations, many of whom are in education- and policy-related sectors. In total, we observed 126 organizations across Peru (of 151 total organizations where alumni who responded to the survey work) that are linked by alumni's reported collaboration with each other, spanning a range of sectors, including local, regional, and national government; education NGOs and multilaterals; and private organizations not directly involved in education.

When alumni reported collaborating with peers who work at different organizations than themselves, we refer to these as *cross-organization connections*. Figure 1 provides an overarching visualization of the organizational connections facilitated by alumni's professional collaborations with peer alumni over the past year. In this figure, lines illustrate reported con-

FIGURE 1
 Visualization of Organizational Network Facilitated by Alumni-to-Alumni Professional Collaborations



nections between nodes, and each node corresponds to an individual organization. The size of each node denotes the number of cross-organization connections (sending or receiving) reported on the survey by alumni working at that organization. The thickness of each link represents the number of times the particular organization-to-organization connection was reported across all alumni who responded to the survey. The average node has 4.2 alumni-mediated cross-organization professional connections to the organizations employing other alumni who completed the survey.

The portion of the EP alumni organizational network that we can observe is well connected and centralized around two key organizational nodes, with around 97 percent of nodes connected as part of one main interconnected network. Very few alumni respondents in our sample are completely isolated from this primary network or collaborating in separate silos. Additionally, most organizations are linked to the main network via multiple alumni connections; a single alum or organization leaving the network would typically not isolate other nodes. This is normally considered a sign of network resilience to shocks and changes, a useful quality for networks focused on making lasting changes over time (Bertoni, Saurin, and Fogliato, 2022). However, it is also worth keeping in mind that there may be other members of the EP alumni network who are less responsive to surveys and who may be less connected than those who responded to our survey.

The two most central organizations observed in this network are shown as diamond-shaped nodes in Figure 1 and have the most cross-organizational connections. These are EP itself, with 59 sending or receiving connections, and the national MoE, with 45 connections. These two organizations also have the largest number of alumni survey respondents (34 and 37, respectively). Around 63 percent of the nodes, shown here as circles, have a direct connection to an alum at EP itself and/or one who works at the MoE. Other nodes, represented as triangles, are at least one step removed from these two organizations. The large number of connections to EP itself are not surprising, given that EP-affiliated individuals may have been more likely to respond to the EP alumni survey. The network we analyze likely reflects alumni more

actively engaged with EP itself and may not fully capture professional networks of alumni who are relatively less engaged with EP.

Figure 1 also includes other visual indicators of the network's structure. Three noteworthy clusters of organizations are indicated via colored borders around individual nodes. Purple-bordered nodes are those with a direct alumni connection to EP but not to the MoE. Green-bordered nodes are those with a direct alumni connection to MoE but not to EP. Finally, red-bordered nodes are those with direct alumni connections to both EP and the MoE. Additionally, in Figure 1, blue-filled nodes represent the most connected "core" organizations in the network, a designation defined as those organizations that are the most connected, both to each other and with non-core periphery organizations (periphery organizations are also more connected to the core than to other periphery organizations), though the precise cutoff for inclusion in the core is arbitrary. To provide an illustration of the types of these organizations that are most central to the network, we include the full list of core organizations in Table 1. In this table, the number of connections refers to the number of times an alumni respondent at the organization was named by an alumni respondent who works at a different organization.

Sectoral Distributions of Organizations in the EP Alumni Network

We observe a collaboration network that spans a wide range of organizations and sectors across Peru, though some sectors tend to be more connected than others. In Table 2, we first present the distribution of sectors in which alumni respondents to the survey work, followed by information about the sectoral composition of the network of reported connections among responding alumni. We present information about the alumni network both overall and then separately for organizations in the network's core (i.e., the most interconnected organizations) as opposed to the periphery.

Because most survey respondents reported at least one alumni peer connection, the organiza-

TABLE 1

Core Organizations in the EP Alumni Network and the Number of Alumni Connections for Each

Core Organizations	Sector	Number of Connections
EP	NGO	59
MoE	Government ministry or agency	45
Centro Tecnológico Minero	University or institute	16
Virgo Education	PreK–12 school	14
Institución Educativa Privada—Claret	PreK–12 school	12
Asociación Trabajo Voluntario	NGO	10
CARE Peru	NGO	10
DHL	Other, not education-related	10
Mosaico Laboratorio Creativo	Other, not education-related	10
La Morada	NGO	9
Ministerio Público Fiscalía de la Nación del Perú	Government ministry or agency	8
United Nations Children’s Fund (UNICEF)	Multilateral	8
Alianza Francesa de Arequipa	Other, education-related	7
Colegio San Agustín	PreK–12 school	7
Hortifrut	Other, not education-related	7
ISE Academy	Other, education-related	7
Universidad Tecnológica del Perú	University or institute	7
Colegio ALEPH	PreK–12 school	6
Fundación Forge	NGO	6
Instituto Apoyo	NGO	6
CEDRO	NGO	5
Centro ABP Latinoamérica	Other, education-related	5
Colegio de Alto Rendimiento	PreK–12 school	5
Innova Schools	PreK–12 school	5
Minsur	Other, not education-related	5
Programa Contigo	Government ministry or agency	5
Provincia de Lima	Municipality	5
UNESCO	Multilateral	5
Colegio Santa Magdalena Sofía Barat	PreK–12 school	4
Ministerio de Cultura	Government ministry or agency	4
Ministerio de Inclusión Económica y Social	Government ministry or agency	4
Presidencia del Consejo de Ministros	Other, education-related	4

NOTE: CEDRO = Centro de Información y Educación para la Prevención del Abuso de Drogas; PreK = prekindergarten; UNESCO = United Nations Educational, Scientific and Cultural Organization.

TABLE 2

Organizational Sectors in Which EP Alumni Work in the EP Alumni Network, Overall and for Core and Periphery Nodes

Sector of Organizations	All Respondents' Organizations (%) (N = 151)	In the Alumni Network (%) (N = 126)	Core Organizations (%) (N = 32)	Periphery Organizations (%) (N = 94)
PreK–12 school	39	33	22	36
NGO or multilateral	15	17	28	14
Not education-related	17	17	13	19
Government ministry or agency	11	12	19	10
Regional education department (DRE)	1	2	0	2
Local education unit (UGEL)	1	2	0	3
University or institute	8	8	6	9
Other, education-related	8	9	13	7

tions in which all respondents work are very similar to those in which members of the alumni network work. However, alumni who reported connections to peers are less likely to work in schools relative to the population of respondents overall (33 percent versus 39 percent, respectively).

Within the network itself, the largest subgroups of connected alumni organizations (inclusive of alumni at EP and the MoE) are PreK–12 schools, which is not surprising given that the EP program recruits PreK–12 teachers who often continue in that role after completing the program. NGOs (including EP itself) and multilateral organizations are also well represented, as are private organizations not explicitly affiliated with the education sector. Those organizations that are in the core of the network are more likely to be government ministries or agencies, NGOs or multilaterals, or other education-related organizations. In contrast, PreK–12 schools are disproportionately less likely to be in the core of the network, with relatively fewer interconnections across organizations. Local and regional educational units or departments provide key administrative support to schools but are not represented in the core of the alumni network.

Overall, this suggests that many of the reported alumni-to-alumni connections are occurring outside the school system itself, which could be related to

either the types of alumni professions where cross-organizational connections tend to be maintained or to the types of individuals who are more likely to work in school settings versus nonschool settings. We hypothesize that individuals working in nonschool settings may find it more important to their jobs to collaborate across organizations, as well as to collaborate professionally with peer alumni in general. However, if the EP organization aims to share information with or coordinate collective efforts between alumni working in school settings, our data suggest that this may require more-targeted outreach than doing so across nonschool settings.

As illustrated previously in Figure 1, alumni at EP and at the MoE play a central role in connecting the alumni network that we have documented, but the types of organizations they are connected to differ. In Table 3, we summarize the sectoral composition across network subgroups defined by EP and the MoE, excluding these two organizations from the tabulations.

Nodes connected directly to only EP are relatively less likely to be PreK–12 schools and relatively more likely to be in sectors other than education, while nodes connected directly only to the MoE are more likely to be schools and more likely to be government ministries or agencies. This suggests that alumni in EP and the MoE have somewhat special-

TABLE 3

Organizational Sectors in the EP Alumni Network, Overall and as a Function of Direct Connections to Alumni at the EP or the MoE

Sector of Networked Organizations	Network (%) (N = 124)	Direct Connections to EP and/or the MoE			
		EP-Only Cluster (%) (N = 35)	MoE-Only Cluster (%) (N = 21)	EP and MoE Cluster (%) (N = 23)	Neither EP nor MoE (%) (N = 45)
PreK–12 school	33	23	48	35	33
NGO or multilateral	17	23	10	26	11
Not education-related	18	29	10	13	16
Government ministry or agency	11	14	19	4	9
DRE	2	3	0	4	0
UGEL	2	3	0	0	4
University or institute	8	6	5	9	11
Other, education-related	9	0	10	9	16

ized constituencies and thus have the potential to serve as brokers between distinct types of organizations in the network. However, the extent to which EP may be able to leverage these alumni brokers likely varies, since, while alumni at EP are staff of the organization, alumni at the MoE staff are only informally affiliated with EP because of their prior experiences in the EP program.

Correlates of Alumni Connections

The characteristics of individual alumni respondents provide additional insight into the patterns of professional connections that we observe, both for connections that span across organizations and for connections that occur within the organizations at which alumni work. A major predictor of alumni connections is whether they served in the same EP cohort. For example, as shown in Table 4, across all EP program cohorts from 2010–2011 through 2019–2020, we observe that 49 percent of reported cross-organizational connections are reported by a peer from the same EP cohort. In contrast, if cross-organizational connections were distributed proportionally without differential same-cohort connections, we would expect that only 13 percent of these connections would have been from peers in the same cohort. In a similar but less pronounced way,

we also observe that alumni are more likely to report connections within their own organization with same-cohort peers (30 percent versus an expected 13 percent if cohort didn't matter). These trends strongly suggest that the EP program experience engendered many of the professional collaborations that we observe, facilitating professional collaboration between and within organizations that might otherwise not have occurred.

A substantial difference in the propensity to be nominated across organizations by a same-cohort peer is apparent among both earlier and later cohorts, with, on average, a 29–percentage point gap for alumni from cohorts 2010–2011 through 2014–2015 (36 percent versus 7 percent) and a 40–percentage point gap between alumni from 2015–2016 through 2019–2020 (57 percent versus 17 percent). This suggests that the connections formed during the EP program endure for some time, particularly with respect to facilitating cross-organizational connections. For within-organization connections, there is more of a drop-off in same-cohort connections over time, which could be related to alumni's shared cohort experiences or perhaps to initial job placements in the same firms. Later cohorts also tend to have a higher share of cross-organization connections, as a percentage of all their connections, than earlier cohorts do.

TABLE 4

Percentage of Reported Connections from Same-Cohort Peers

Type of Connections	Samples (N)	Percentage Same-Cohort Connections	Percentage Same-Cohort Connections Expected
Cross-organization connections	All cohorts' connections (346)	49	13
	Cohorts 2010–2011 through 2014–2015 (123)	36	7
	Cohorts 2015–2016 through 2019–2020 (223)	57	17
Within-organization connections	All cohorts' connections (108)	30	13
	Cohorts 2010–2011 through 2014–2015 (56)	20	14
	Cohorts 2015–2016 through 2019–2020 (52)	40	13

NOTE: Reported connections correspond to individual alumni being nominated by their peer(s) as a professional connection. The sample includes only connections for which both the respondent and the nominee took the survey and for whom cohort and current organization are known. Expected connection share reflects the percentage of connections from the same cohort if connections to each cohort were distributed proportionally to connections to all cohorts.

We find that homophily with respect to alumni's gender, age, or the location in which they currently reside or where they served in the EP program are relatively weaker predictors of increased connections than being in the same EP cohort. For example, 78 percent of reported cross-organization connections to women are from other women, an effect just slightly larger than we would expect given the share of all cross-organization connections (to both men and women) that are from women (75 percent). With respect to age, we find that 40 percent of cross-organization connections are between alumni within two years of age of each other. However, Figure 2 suggests that these connections may be driven to a large extent by having been in the same cohort rather than age in and of itself. The blue line for same-cohort connections shows a clear spike at "no age gap," with half of same-cohort connections between alumni within two years of each other. This compares with 31 percent of connections between alumni in different cohorts; in fact, the green line (for cross-cohort connections) in Figure 2 peaks at four, equivalent to a four-year age gap between the alumni survey respondent and the (older) alum they named. This may reflect a tendency for alumni to connect more often with similar-age peers as well as, perhaps, "adjacent"

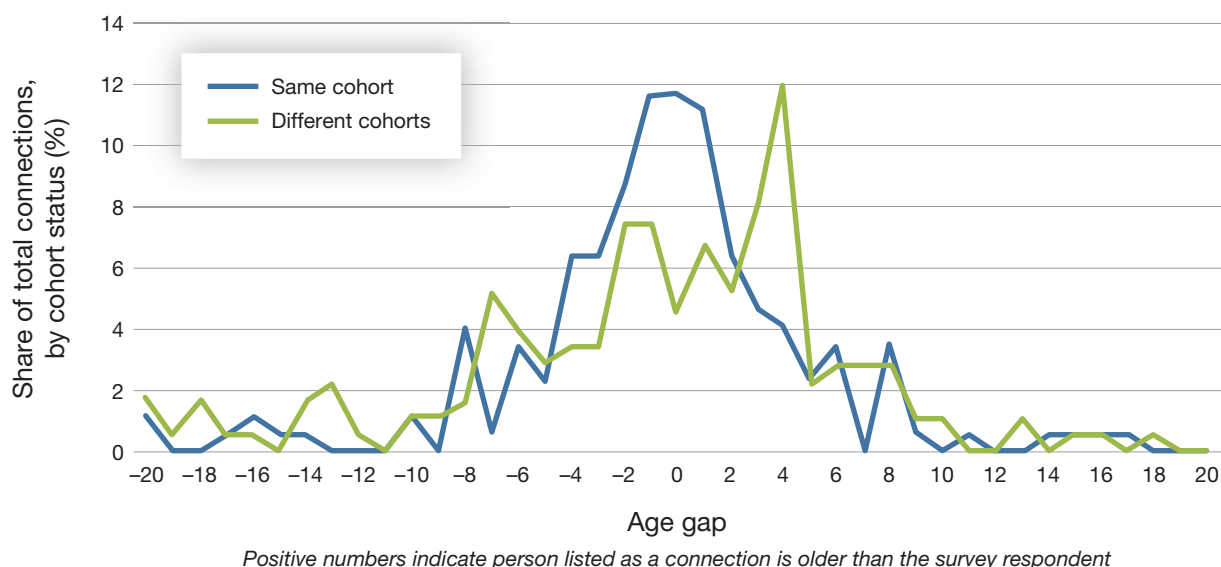
EP cohorts interacting more frequently because of their shared recent experiences in the program.

We also examined the extent to which alumni connections tend to cluster within geographic regions in Peru. Overall, as shown in Table 5, we found limited correlation between geography and alumni's cross-organizational connections. Across all cross-organizational connections reported in the network, 60 percent involved alumni currently living in different regions. Lima, where more than half of responding alumni reside, has more internal connections, with just 43 percent stemming from alumni living outside Lima. Even in this case, however, the lack of strong geographic ties is consistent with the theory that many of the alumni's professional connections to other alumni may have formed during their time in the EP program, rather than from subsequent interactions with those who were simply geographically close.

As further indication that cohort is more relevant than location, we observe that same-cohort connections account for a disproportionate portion of same-location connections among the sample of survey respondents in our analyses—both when considering where alumni currently live and the region where they served in the EP program (Table 6). Regardless of whether alumni currently live in the

FIGURE 2

Age Gap Between Connected Alumni, Same Cohort Versus Different Cohorts, Cross-Organization Connections



NOTE: Reported connections correspond to individual alumni being nominated by their peer(s) as a professional connection. The sample includes only connections for which both the respondent and the nominee took the survey and for whom age, cohort, and current organization are known. Age gap is calculated as the age of the individual named as an alumni connection minus the age of the survey respondent.

TABLE 5

Cross-Organization Alumni Connections Within Versus Across Regions in Peru

Region Where Alum Lives	Connections from Own Region (%)	Connections from Other Regions (%)	Connections from Lima (%)
Ancash (N = 18)	6	94	39
Arequipa (N = 27)	41	59	26
Cajamarca (N = 8)	0	100	13
Cusco (N = 12)	25	75	33
Junín (N = 10)	30	70	40
La Libertad (N = 8)	0	100	13
Lima (N = 176)	57	43	N/A
Piura (N = 23)	10	33	30
Other (N = 32)	4		
	96	46	
OVERALL (N = 314)	40	60	N/A

NOTE: Reported connections correspond to individual alumni being nominated by their peer(s) as a professional connection. The sample includes only connections for which both the respondent and the nominee took the survey and for whom current region and organization are known.

TABLE 6

Percentage of Reported Cross-Organization Alumni Connections from Peers from Same Cohort and Region, Region Currently Living Versus Region Served in Enseña Perú

Version	Percentage Same-Location, Same-Cohort Connections Expected	Percentage Same-Location, Same-Cohort Connections Actual	Percentage Same-Location, Other-Cohort Connections Expected	Percentage Same-Location, Other-Cohort Connections Actual
Region currently living (<i>N</i> = 308)	3	19	24	20
Region served in EP program (<i>N</i> = 294)	6	26	10	14

NOTE: Reported connections correspond to individual alumni being nominated by their peer(s) as a professional connection. The sample includes only connections for which both the respondent and the nominee took the survey and for whom cohort, current organization, and region (where currently living or where served in EP program) are known. Expected connection share reflects the percentage of connections from the group (e.g., from a given location-cohort) if connections to each group were distributed proportionally to connections to all groups.

same region or lived in the same region at the time of their EP program experience, far more connections are apparent among same-cohort peers (19 percent and 24 percent, respectively) than would be expected (3 percent and 6 percent, respectively). In contrast, the rate of connections among other-cohort peers who have a location in common are not very different from our expectations. This again suggests that formative experiences early in participants' careers (serving in the same EP cohort), rather than geographic proximity, may have contributed to their professional connections today.

Overall, our findings regarding predictors of alumni-to-alumni connections reinforce the impression that alumni are connected by their shared experiences with the EP program more than other factors that might naturally lead individuals in the sector to collaborate, such as geographical proximity, age, or gender. In light of these results, we hypothesize that EP may benefit in its alumni engagement activities from facilitating more ongoing communication between alumni who have a shared cohort experience. Reinforcing the relationships established as part of the program may be an effective lever for increasing activity in the alumni collaboration network.

Finally, we also explored the correlations between the sectors in which alumni work and how long ago they completed the EP program. These correlations are suggestive of the kinds of organizations more likely to be connected by alumni of different age groups and experience. Grouping alumni across early versus later cohorts, as shown in Table 7, we

find both similarities and differences. For example, we see no differences across early and later cohorts in the proportion of alumni respondents still working at schools (21 percent for each); while many EP participants leave their school-based jobs after the program ends, this typically happens immediately upon program completion. However, there are also several differences between early and later cohorts with respect to representation in other types of organizations. In particular, alumni from later cohorts are somewhat more likely to be working at EP itself (17 percent versus 11 percent) and three times as likely to be working in the private sector in organizations that are not related to education (19 percent versus 6 percent). In contrast, alumni from earlier cohorts are more likely to work in government ministries and in the Ministry of Education. These differences could reflect typical career trajectories of alumni over time—for instance, if roles in government ministries tend to be more available to experienced professionals. However, there may also be differences associated with economic conditions or the nature of the EP program itself across cohorts that influence where alumni respondents have chosen to work over time. Regardless of the reasons for these differences, the data suggest that, if EP is seeking to leverage alumni contacts in government ministries to influence policy, maintaining ties with and between older alumni from earlier cohorts may be particularly valuable.

TABLE 7
Distribution of Alumni Respondents' Organizations, by Cohort

Organization or Organization Type	Overall	Cohorts 2010–2011 Through 2014–2015	Cohorts 2015–2016 Through 2019–2020
MoE	15%	27%	9%
NGO	10%	9%	12%
Other government ministries	6%	11%	4%
Other, education-related	4%	4%	5%
Other, not education-related	13%	6%	19%
Schools	28%	21%	21%
EP	13%	11%	17%
University or institute	7%	9%	7%
Other	4%	3%	6%
<i>N</i>	255	94	161

Potential Uses of the EP Alumni Network for Evidence-to-Practice Work

The connections between individuals and organizations in the EP alumni network reflect self-reports of their professional activities. The data identified connections that exist but did not measure the extent of either knowledge-sharing or other activity that may be coordinated or facilitated by EP alumni or by the EP organization itself. However, in our conversations with EP staff, they explained that they leverage both their teams and their extended network of alumni connections to advance specific policy and practice goals. The characteristics of the network that we can observe in our data illustrate some of the ways in which they may have the potential to accomplish this.

First, those alumni who are staff at EP consider it part of their job role to serve strategically as brokers between other alumni working across a range of organizations involved in education in Peru. Figure 3 shows a close-up view of just the network of organizational connections bridged directly by EP alumni staff, with indicators (by color) of the varied sectors that these organizations are a part of. We see that roughly half of the diverse organizations with which EP alumni staff collaborate professionally do not include alumni who report separate professional connections with each other. Instead, the EP

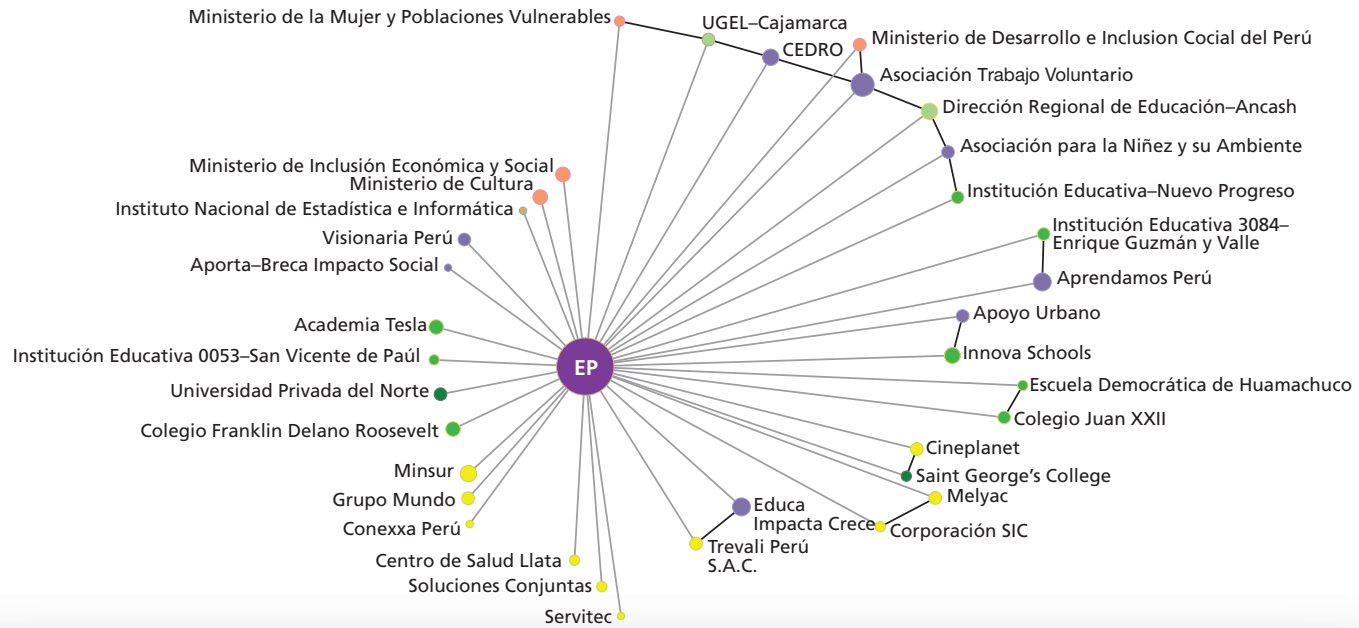
organization itself seems well positioned to facilitate knowledge-sharing or collaboration across alumni and organizations that might not otherwise occur in its absence.

In addition to potential efforts led by alumni at EP itself, EP staff described (prior to reviewing our network analyses) an intentional strategy that the organization has been pursuing since 2017, in which it encourages its extended network of alumni to engage more actively with DREs and, especially, UGELs. EP staff view these collaborations as a key pathway to influencing local educational practice. To that end, staff members described activating not only alumni who are staff at EP but also a broader group of more than 100 “alumni consultants” who are particularly active in their network.

While very few of the alumni survey respondents themselves work at DREs or UGELs, we see some evidence that such collaboration is occurring. In Figure 4, we illustrate a much larger network that includes both the organizations bridged by alumni-to-alumni connections from Figure 1 and 189 additional organizations reported by EP alumni as the educational organizations with which they collaborated the most over the past year but that do not necessarily have EP alumni staff. In this figure, the extended collaboration network of organizations connected to alumni but not via alumni-to-alumni connections is bordered in orange, and UGELs are

FIGURE 3

Visualization of Cross-Organizational Connections Between the EP Organization and Other Organizations at Which Alumni Respondents Work



NETWORK DIAGRAM KEY

Node Color

- EP
- University or institute
- PreK-12 school
- UGEL or DRE
- NGO
- Government ministry or agency
- Other, not education related

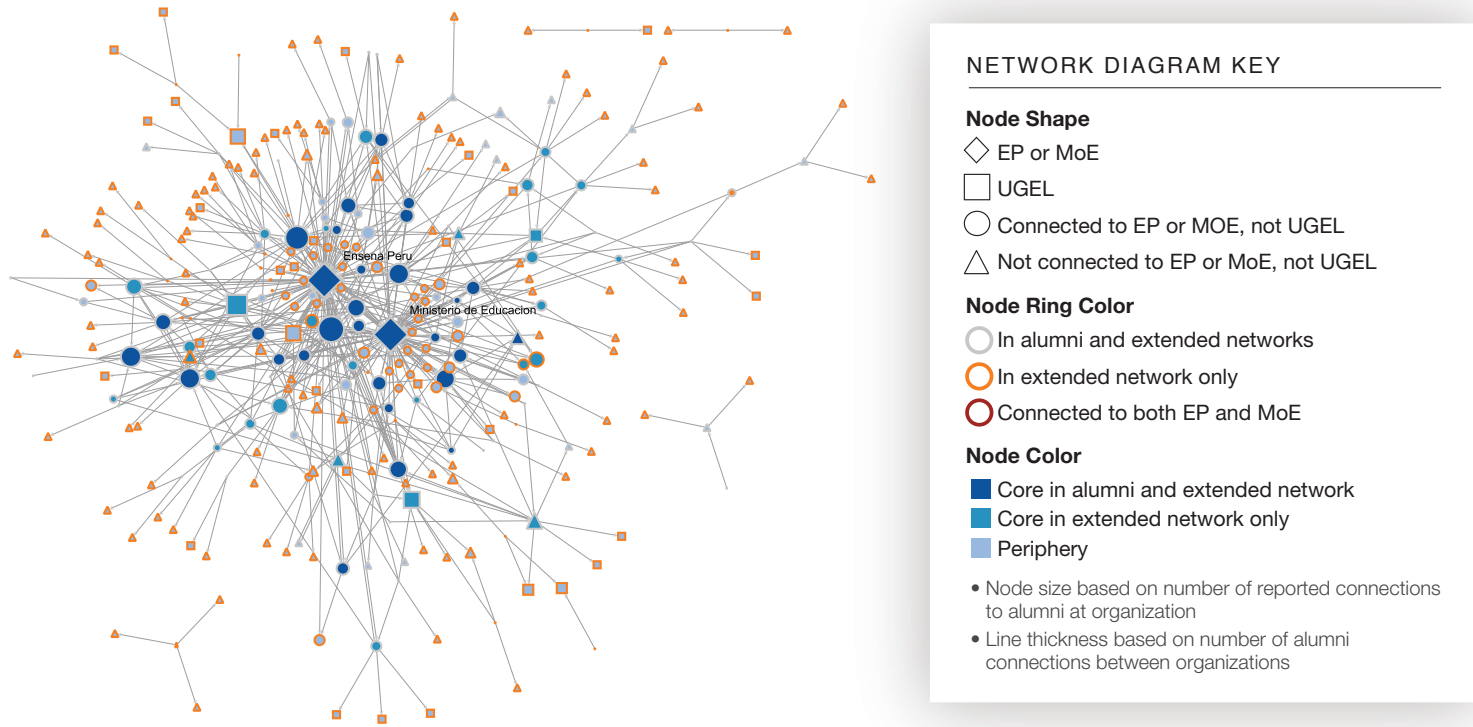
Connecting Line Color

- Connected to EP
- Connection to other organization

• Node size based on number of reported connections to alumni at organization

FIGURE 4

Visualization of the Extended Collaboration Network of EP Alumni Respondents



square-shaped nodes. Those additional organizations that are core organizations in this extended network are shaded in a lighter blue filling than the core organizations from the alumni network shown in Figure 1.

Overall, while UGELs and DREs make up just 4 percent of the alumni who reported connections in the alumni survey, they make up a total of 25 percent of the extended collaboration network, as summarized in Table 8. Alumni connected to UGELs disproportionately work in PreK–12 schools—in our analyses (not shown), we observe that 44 percent of alumni organizations with connections to UGELs are schools, whereas schools make up 29 percent of the extended collaboration network overall. Our analyses also indicated that, while about half of organizations with connections to UGELs also have connections to EP—suggesting that their connections with UGELs might have been spurred by the recent strategic efforts described by EP staff—the other half do not have documented connections to EP. Thus, it is less clear how EP would have encouraged those alumni to engage in coordinated activity with UGELs in their network. Overall, the increased representation of UGELs in the extended collaboration network is consistent with the recent strategic priorities described by EP staff, though we lack a reference point for determining how often alumni would have interacted

with UGELs absent EP’s encouragement. The data also suggest that efforts to leverage the alumni network to facilitate EP’s goals around engagement with key actors in the education sector need not be limited to alumni-to-alumni connections.

Other types of activities in which EP leaders described promoting alumni collaboration are difficult for us to examine given our available data but may be amenable to study in the future with more-targeted survey instruments. For example, EP leaders described alumni leaders working collaboratively to promote improved teacher and principal professional development systems and improved data systems in specific regions, in part by coordinating efforts across organizations and by advising regional governments. Future research could explore which alumni are engaged in these activities and the nature of the professional collaboration and connections between them and with the EP organization itself.

Relevance to the BHP Foundation Education Equity Program’s Theory of Change

In selecting its portfolio of program investments, the BHP Foundation identified “networks of purposeful collaboration” as a key theoretical driver of effec-

TABLE 8
Organizational Sectors in the Alumni Network and the Extended Collaboration Network

Sector	Alumni Network (%) (N = 126)	Additional Collaborating Organizations (%) (N = 189)
PreK–12 schools	33	27
Other, not education-related ^a	17	6
NGOs and multilaterals	17	14
Government ministries or agencies	12	9
DRE	2	8
UGEL	2	17
University or institute	8	10
Other, education-related	9	10

^a Alumni were specifically asked to report collaborations with education-related organizations, which likely reduced representation of noneducational organizations in the extended network. However, it is noteworthy that respondents may have viewed organizations without an explicit educational focus as still being relevant participants in the educational sector.

tive evidence-to-practice work. Such networks could include global-level actors and organizations engaged in championing educational improvement, as well as local-level actors engaged in knowledge-sharing and implementation of recommended practices. Through its focus on collective leadership for global change, Teach for All is one partner whose work invests heavily in both global and local networks for evidence dissemination and the improvement of educational practice.

This network case study provides an illustration of the kind of alumni networks that Teach for All network partners around the world are working to build and leverage to facilitate collective learning and leadership. Our findings complement prior studies of Teach for All alumni networks in the United States (Kretchmar, Sondel, and Ferrare, 2014; Singer and Brewer, 2021). We find not only that the EP network is positioning alumni in a wide range of organizational settings relevant to educational policy and practice but that many of these alumni actively collaborate with each other and, in doing so, create cross-organizational connections in national and local education sectors. We observe a network that is dense and relatively centralized, with two clear primary members and a fairly clear core and periphery structure. Prior research suggests that networks of this type enable efficient coordinated responses to changes in the sectoral environment and moderate the whole network's rate of evolution in ways that encourage longevity (Csermely et al., 2013). The integrating role of the core is important for the development and maintenance of heterogeneous systems working in complex contexts over time.

This case study provides evidence that the EP program activity has spurred creation of a distinct network of professional connections in Peru, though we do not directly compare the EP network to other professional networks in Peru to assess how unusual these connections are for professionals working in or around the education sector. We also do not have sufficient data to evaluate the extent to which peer-to-peer knowledge or sharing of best practices may be occurring across this network. Nevertheless, our results are at least consistent with and illustrative of a potential mechanism underlying Teach for All's theories regarding the promise of collective learning

The integrating role of the core is important for the development and maintenance of heterogeneous systems working in complex contexts over time.

and leadership across its networks of alumni. If such activities and effects are present, they are hypothesized to occur not only as a result of top-down dissemination of information by Teach for All across its global organization and network partners but also through bottom-up and peer-to-peer knowledge-sharing and learning, facilitated by local professional collaboration networks such as this one. Alumni survey data from other Teach for All partner networks would be needed to assess the extent to which the EP network is typical of other Teach for All chapters globally.

Considerations for Other Organizations Engaging in Network Development

While our descriptive analyses do not examine the impacts of the alumni network in Peru, there are nonetheless insights from our analysis that may be relevant to other organizations seeking to develop networks of professional collaboration in education. First, this network case study suggests that a selectively recruited group that is provided a shared professional development experience and a time-limited opportunity to work on shared challenges can forge connections that persist and continue to influence their future professional collaborations to a substantial degree. Teach for All is uncommon in the degree to which it focuses on this type of bottom-up

network development, but other organizations may consider looking for similar opportunities to help foster explicit and sustained connections among like-minded professionals working on shared challenges in the education sector.

Second, our survey-facilitated analysis demonstrates that it is not prohibitively difficult to gather data on the resulting connections among the most-engaged individuals within affiliation networks. Such efforts may enhance organizations' abilities to identify key role players or hubs of activity within their spheres of influence, enhancing their ability to promote shared goals. Network survey data of this type may be useful to EP and other organizations

seeking to target communications more strategically toward—or build relationships with—those individuals who have the most important connections within or across specific organizations or sectors that they are seeking to influence. Staff at EP, when provided this analysis of their data, shared that they believed it to be a powerful tool for monitoring and enhancing further network development efforts moving forward. Similar methods could also be used to conduct more in-depth network analyses—for example, asking respondents to characterize the primary ways in which they collaborated with their alumni connections.

APPENDIX

The BHP Foundation Education Equity Program Theory of Change (2018–February 2023)

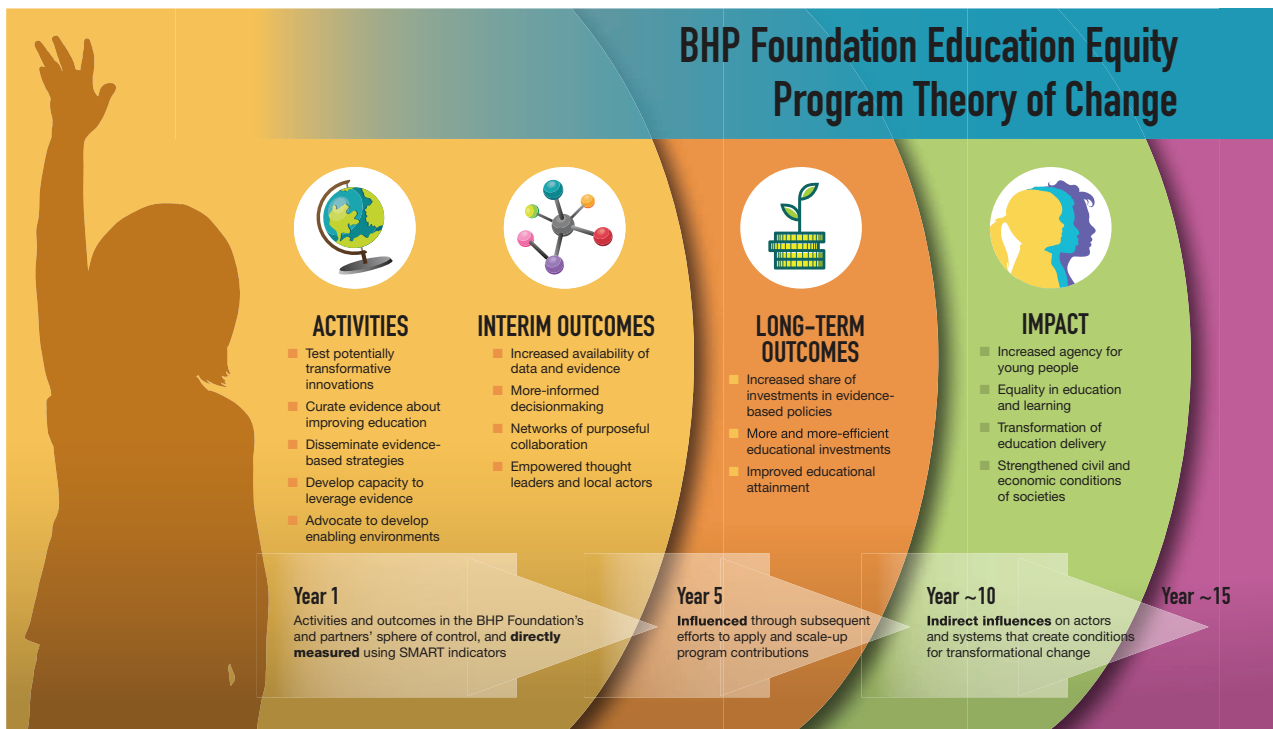
The BHP Foundation, through its Education Equity Program (hereafter referred to as *the program*), is investing in a range of global initiatives focused on leveraging evidence and testing transformative innovations to improve access and equity in systems of education globally. The program has prioritized initiatives “with the potential to spur transformative ‘step changes’ in educational practices at-scale, and to achieve these goals primarily by using evidence to enhance the quality of decisionmaking, investments, and educational practice” (Master et al., 2023). The initiatives are led by five partner organizations, one of which is Teach for All.

The program’s initial theory of change, developed in 2018 and current as of March 2023, is shown in Figure 5. As described in published reports of the RAND team’s independent evaluation of the program (Master et al., 2023), the figure “summarizes the core

investments made in the first phase of the Program, as well as the anticipated time frame for impacts. It describes how the funded partners are collectively engaged in varied activities to enhance educational equity through the use of evidence.” Such activities include generating evidence about new innovations, curating and disseminating effective strategies, building capacity to leverage evidence in decision-making, and advocating to ensure that societies and systems provide an enabling environment for more-informed investments in education and learning. Within the first five years of the funded activities, the program expects to see outcomes that are interim in nature. These include greater availability of evidence and data, empowered thought leaders engaged in more-informed decisionmaking, and the establishment of networks of purposeful collaboration. Long-term impacts will take more time.

Figure 5 and our case studies to date reflect the initial program theory of change. As of late 2022, the program has begun developing a more fine-grained articulation of its theory of change and pathways toward intended impacts.

FIGURE 5
Education Equity Program Theory of Change (2018–February 2023)



About the BHP Foundation Education Equity Program Evaluation Case Study Series

This case study is based on research funded by the BHP Foundation as part of an overall study of its Education Equity (EE) program investment. The findings and conclusions presented are those of the authors and do not necessarily reflect positions or policies of the BHP Foundation. Launched in 2017, the program has invested in a wide range of activities aimed at addressing the need to better leverage evidence and data to inform educational practice and to help facilitate transformative improvements in the quality of educational delivery. In its first funding window, the program has supported five partner organizations (*partners*) whose efforts span diverse country contexts and target learners both within and outside formal educational systems:

1. The Center for Universal Education at The Brookings Institution
2. The Education Endowment Foundation
3. The Global Business Coalition for Education
4. Teach for All
5. UN Women.

The RAND team is evaluating the BHP Foundation EE program investment during a five-year period, from 2019 to 2024. The purpose of the evaluation is to assess program impacts, share formative insights to inform the program's continuous improvement, and provide recommendations related to program strategy and the BHP Foundation's theory of change (see Appendix A for details). Our first evaluation report was published in 2021 (Master et al., 2021). An interim findings report is scheduled for spring 2023 (Master et al., 2023) and a final report for late 2024.

The case studies are one component of our evaluation. Each case study describes the arc and implementation of single partner initiatives that are illustrative of the BHP Foundation's theory of change (2018–February 2023). We believe that this series will be of interest not only to the BHP Foundation and its program partners but also to policymakers engaged in global education, organizations interested in implementing educational change efforts, and other foundations interested in investing in global educational change.

Through our cases, we seek to demonstrate the BHP Foundation's theorized pathway between one or more categories of program activities (e.g., curating evidence, disseminating evidence-based strategies, developing capacity) and one or more interim outcomes (e.g., increased availability of evidence, more-informed decisionmaking, networks, and empowered local actors) as articulated in the program theory of change to date.

To select the focus for each case study, we considered the activity or activities and pathway(s) that each BHP Foundation-funded partner could best or uniquely illustrate. We approached the partner with the case study idea(s) to elicit input. Studying implementation involves collecting data at the level at which activities are implemented; consequently, we asked the funded partner to identify and connect us with a local in-country partner performing the on-the-ground work that we would highlight. This process likely yields case narratives that are positive or successful examples of partners' work. Additional details on our methods are included in the body of each of our case studies.

Note

¹ Response rates varied across the EP cohorts. On average, more-recent cohorts had somewhat higher response rates, but this was not true in all cases. The highest cohort response rate of 79 percent was from the 2015–2016 cohort and the lowest, 32 percent, from the 2013–2014 cohort. Response rates were notably lower for teachers in the program designed for experienced teachers, who responded at just a 15-percent rate.

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About This Report

This case study focuses on Teach for All program alumni from Enseña Perú (EP), the Peru chapter of the global Teach for All network. EP is a nonprofit organization founded in 2009 with the mission of organizing a movement of collective leadership to catalyze educational transformations across Peru aimed at closing gaps in educational opportunity. Like other chapters of Teach for All globally, EP runs experiential leadership programs—typically lasting two years—for teachers, as well for some school principals and other local leaders from various backgrounds. EP also maintains close ties with program alumni, including collecting annual survey data about their ongoing professional experiences.

Using data from EP’s annual alumni survey, we evaluated alumni professional interactions with each other and the extent to which these collaborations span organizations, sectors, and geographic regions in Peru. Teach for All’s theory of change posits that participants in its global network will not only remain engaged in the education sector throughout their careers but also share knowledge and coordinate their efforts, thanks to the connections forged as part of their experiences in Teach for All’s affiliated programs. Teach for All anticipates that participants in its network will be more informed and more effective as a result of their connections to each other, which allow them to share insights and coordinate efforts to advocate for improved educational practices.

In this case study, we provide data validating Teach for All’s assumption that many of the individual alumni within the EP network collaborate extensively and form connections between the varied organizations and regions where they work. The pattern of contacts that we document strongly suggests that these connections grow from alumni experiences in their EP program cohort. We also identify the types of organizations that are most central to the resulting professional network, including schools, nongovernmental organizations, and private businesses. Overall, EP’s example provides evidence that an intensive shared program experience can influence individual and cross-organizational networks in education over an extended period. Our data do not, however, allow us to examine the extent of knowledge-sharing or the specific nature of the professional collaboration that is occurring among the alumni. There are also substantial portions of the EP professional network that are not fully reflected in our data.

RAND Education and Labor

This case study was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. The case study was sponsored by the BHP Foundation as part of an overall study of its Education Equity program investment. The findings and conclusions presented are those of the authors and do not necessarily reflect positions or policies of the BHP Foundation.

More information about RAND can be found at www.rand.org. Questions about this report should be directed to Benjamin Master (bmaster@rand.org), and questions about RAND Education and Labor should be directed to educationandlabor@rand.org.



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