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Who You Know:
Relationships, networks, and social capital in boosting opportunity for young Americans

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ABSTRACT

Who you know can have a significant impact on one's accessibility to resources and opportunities for mobility. While it is difficult to determine the causal impact of social capital on educational outcomes, we do present some evidence that relationships with families, peers, teachers, and counselors play a role in college enrollment, especially those of marginalized identities. In this report we define social capital, contextualize the role of social capital in college-going, and center the narratives of students and programs who strengthen and maintain social networks as a means of boosting opportunity. Finally, we present recommendations for policymakers and practitioners in this space, mainly more high-quality evaluation of the efficacy of these programs to further bolster their impacts on students and their educational and economic prospects.

ACKNOWLEDGEMENTS

Introduction

Good relationships are a vitally important ingredient of a high quality of life. As Sawhill and Reeves write in the *New Contract With the Middle Class*:

> "Strong family relationships provide a foundation for individual development, especially for children. This is why parenting is so important. But even as adults we continue to learn from one another. Relationships also provide support of all kinds – emotional, practical, and financial. Without this social support, few of us can thrive. That's why social isolation kills – as much as smoking, obesity, or high blood pressure – and why strong families and good friends are so precious to us. Last but not least, relationships with a broader group of people, in our community or even our nation, cultivate a sense of belonging. Relationships across lines of difference – for example of race, class, or religion – promote and sustain pluralism."

Relationships are thus an important end in and of themselves. But they are often also valuable as a *means* to other ends, such as employment, housing, or education. The power of who you know goes a long way. Scholars often refer to these networks and relationships as social capital. As Camille Busette and her co-authors write in their Brookings report, "How We Rise: How social networks impact economic mobility":

> "Social networks, providing access to support, information, power, and resources, are a critical and often neglected element of opportunity structures. Social capital matters for mobility."

Busette et al. provide an in-depth analysis of social networks in four cities – Racine, WI, San Francisco, CA, Charlotte NC, and Washington, DC – and show stark differences by race, class, and gender in terms of access to supportive networks and/or access to opportunities in education, employment, and housing. More broadly, trust and relationships can facilitate the exchange of knowledge and resources, which allows for economies and institutions to flourish (Knack and Keefer 1997). Relationships are thus both intrinsically and instrumentally valuable.

Here we focus on the role of social capital in promoting educational opportunities and outcomes, especially during the transition from high school to postsecondary institutions. We draw in particular on a series of semi-structured interviews with practitioners in selected organizations, who are adopting a social capital-based approach to improving educational outcomes at this key life stage.

The main messages of the paper are as follows:

1. **Social capital = relationships that uplift**. Social capital is described, defined, and measured in a wide variety of different ways. But there is a broad agreement that it consists in the network of relationships that provide support and/or opportunities to individuals. It can extend from families, neighbors, classmates, teachers, mentors and so on. An important distinction is between "bonding" social capital (within existing groups or communities) and "bridging" social capital (across groups).

2. **Social capital can improve educational outcomes**. Social capital of various kinds – from family to mentors – matters for the transition from high school to postsecondary educational institutions. It is hard to tease out separate causal pathways here since social capital is correlated with many other factors that predict educational success. But a number of studies

have identified a social capital contribution. Social capital begets human capital. One study finds, for example, that the single best predictor of college enrollment among low-income urban minority students is whether their *friends* have college plans, even controlling for a wide range of variables likely to affect college going (Sokatch 2006).

3. **Programs are using social capital to boost opportunity**. Many initiatives with the goal of boosting college attendance are based on a social capital approach by building peer networks, mentoring, or advising relationships, and/or through family interventions. We describe four such programs here that we find using our own informal networks and personal knowledge: Matriculate, College Match LA, EMERGE Houston, and Thrive Scholars. One challenge here is a lack of high-quality evaluation of program interventions, and we urge non-profit organizations and scholars to work together on this front.

4. **Some of the key lessons of these programs** are that both bridging and bonding social capital have a role to play, with families acting as important accelerators (or brakes) on student opportunities and mentors from different backgrounds providing wider network opportunities; that peer networks within cohorts can provide support during college; and those relationships are most valuable when they start early and are sustained over time.

5. **Social capital is an overlooked factor in policy efforts to promote opportunity**. Most attention is paid by policymakers to resources in terms of improving access to postsecondary education. But relational factors often matter too, not least in terms of ensuring access to those resources, but also in terms of providing support, information, and confidence to young adults as they make what can be a difficult step from K-12 to postsecondary education. More investment in the "who you know" side of the opportunity equation may complement the more traditional focus on the "what you know" ingredients.

What *is* Social Capital?

Social capital is a "slippery term" according to the Social Capital Project at the Joint Economic Committee (p. 12). Different scholars and practitioners use it in different ways. The JEC, for example, uses the term to refer to what it calls "associational life," which includes a wide range of institutions and activities, from the family to voluntary organizations. In one of the seminal theories of social capital by James Coleman (1988), social capital is conceptualized by degrees of trust, networks, and norms. Robert Putnam, the scholar who brought the term into broad use with his book *Bowling Alone*, similarly defines it as the "social networks and the norms of reciprocity associated with them." (Note that for Putnam, as for many other scholars, social capital is about norms as well as networks). As a recent National Academy of Sciences report notes,

> "Because the terms "social capital," "civic engagement," and "social cohesion" refer to broad and malleably-defined concepts that take on different meanings depending on the context, they are not amenable to direct statistical measurement. However, dimensions of these broad constructs—the behaviors, attitudes, social ties, and experiences—can be more narrowly and tangibly defined and are thus more feasibly measured." (p. 34)

In this paper, our focus is on interpersonal relationships that can impact educational outcomes. But there are a series of distinctions that inform our approach and need to be clarified here. One is between "bonding" and "bridging" social capital:

Bonding social capital refers to ties that exist between family members and friends within an individual's immediate network.

Bridging social capital refers to ties that exist across community members (Burton & Welsh, 2015; Woolcock, 2001).

In other words, bonding social capital refers to relationships *within* an existing group of one kind or another while bridging social capital refers to relationships *between* these groups. There is an inescapable tension between the two. Societies with high bonding social capital and low bridging social capital will likely be very segregated along in-group/out-group lines of one kind or another. Those with high bridging and low bonding social capital may be more diverse and more mobile, but also face high risks of isolation. The key, as Bruno Manno writes in *National Affairs*, is to strike an appropriate balance between the two kinds – and not least when it comes to education.

Social capital can also be distinguished in terms of the *site* of its creation and cultivation. Many scholars distinguish, for example, between family social capital and community social capital. As Glenn D. Israel, Lionel J. Beaulieu, and Glen Hartless (2001) write:

"The term *family social capital* represents the norms, social networks, and relationships between adults and children that are valuable for children while they are growing up."

"*Community social capital* develops from residents' action to improve the local economy, provide human and social services, and express local cohesion and solidarity."

These are both useful distinctions we will be drawing on in this paper. But it is important to note a couple of points up front. First, there are many other ways to frame the different forms of social capital that may be useful in various contexts. There is nothing definitive about the ones we have adopted here. Second, the distinctions are often not clear cut in practice. The limits of a "community," for example, can be drawn in very different ways, which can influence whether a particular relationship counts as bonding or bridging social capital. If an affluent Black college student is mentoring a low-income Black middle schooler in the town where their selective college is located, is that an example of bridging (across lines of class and geography), or of bonding (on the grounds of race)?

In our view it is important to put these distinctions to work without getting hung up on precise definitions and differentiations and to be careful to state how various terms are being used in various contexts. There is one more term that is important to define here: intergenerational closure. This is a term used by James Coleman that appears frequently in the literature on social capital and outcomes for children, including in terms of education. As Megan Shoji writes:

"*Intergenerational closure* is a type of social structure believed to benefit children. Most commonly, it refers to a social network in which a child's parent knows the parents of the child's friends."

With these definitions and distinctions in hand, we turn next to the evidence that social capital impacts educational outcomes, especially in terms of college-going.

Social Capital and College-Going: The Evidence

Julia Freeland Fisher from the Clayton Christensen Institute describes what she calls an "opportunity equation," which includes not only cultivating *what* students know but also *who* they know. There is some evidence to support the second part of Fisher's equation. Social capital is associated with lower high school dropout rates, high school achievement, and greater college enrollment. It may also help to explain the college enrollment gender gap.

A. Social capital in families and education

The first source of social capital is the family. It develops through the quality of relationships between parents and children, the shared values and attitudes of family members, and the non-material types of investment that parents make in their children. Importantly, family social capital enables a child to access other resources that are available within and outside the family. Strong family capital reduces child delinquency and school dropout rates (Wright, Francis, and Jeremy 2019) and improves composite test scores (Israel, Beaulieu, and Hartless 2001). Parents and their adult children resemble each other in terms of participation in school activities, drug use, age of first sexual experience, crime and aggression, perceived control over one's life, self-esteem, depression, shyness, and many other traits that may affect economic mobility (Duncan, Kalil, Mayer, Tepper, and Payne, 2005).
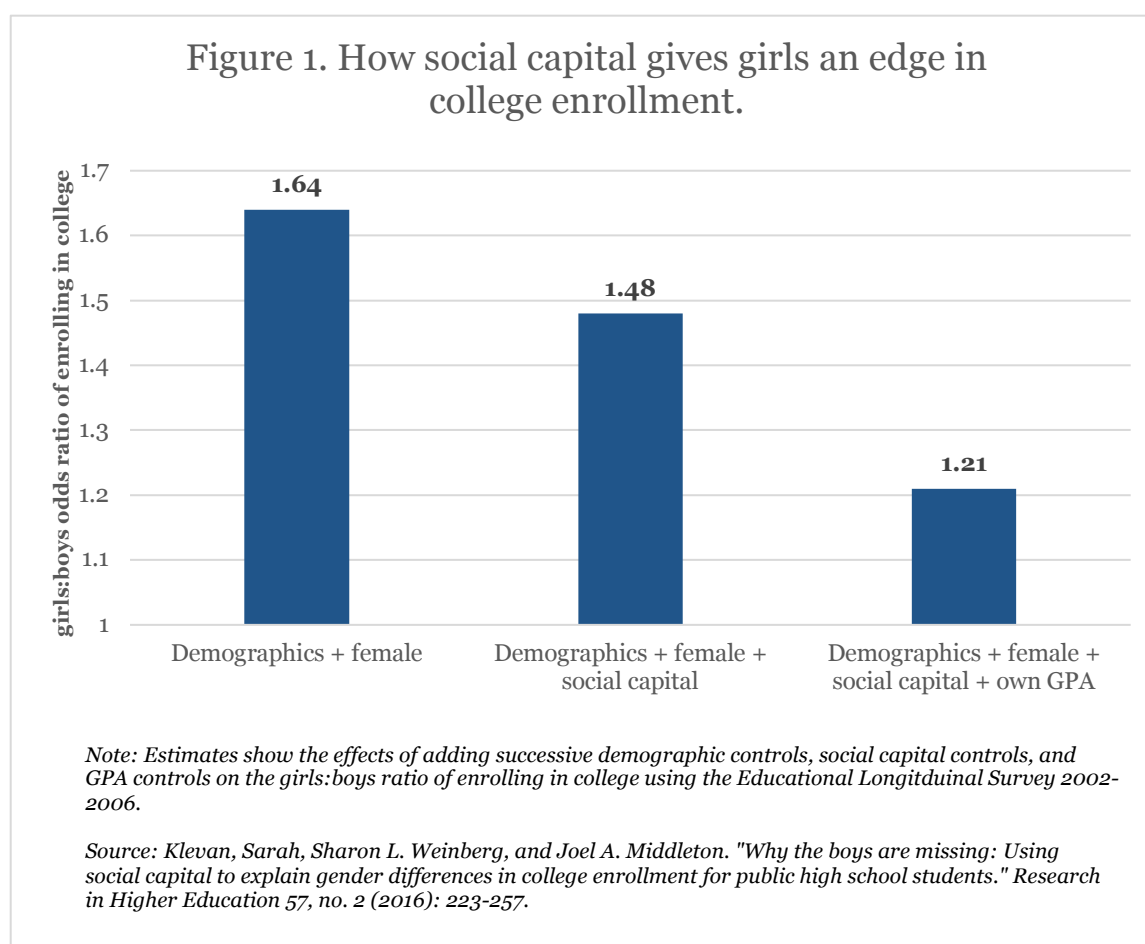
Relationships between parents and their children are likely to be an important influence on education outcomes in a wide variety of ways, both direct and indirect. Toddlers with parents who read, talk, or sing to them develop vocabulary and math skills more quickly, for example (Cabrera et. al, 2020). One proxy for family social capital for school-age children is when parents monitor and check their child's homework. Children with parents who check their homework have better education outcomes, especially if they are in a low-income home, or have less-educated parents (White and Kaufman 1997). However, it is not the homework checking itself that produces that outcome, but it may be correlated with unobserved parental factors that reflect greater family social capital. One randomized study did show that sending information via text message to parents about their children's missed assignments and grades results in greater contact between parents and schools (increasing by 83%) as well as an improvement in student's math scores and GPA. (Bergman 2015). This intervention could then be a substitute to the type of social capital that parents create when they normally get this information from the school.

As the quote above from the National Academies highlighted, studying social capital is difficult because many national datasets do not have variables that capture the key components of various definitions of the term. Researchers must often find proxies for social capital in other measurable factors. One of the more used national datasets is the Educational Longitudinal Study (ELS), since it contains a rich set of variables related to social capital, including parent-child interactions, parent involvement in school, peer relationships and aspirations, and so on.

Klevan, Weinberg, and Middleton (2016), for example, use the 2002 ELS to show how gender differences in social capital impact the college gender enrollment gap (for more on this see our Boys and Men Project). The factors most predictive of college enrollment include several familial relationship factors—including how often parents discuss academic matters or attend structured events with children. But Klevan and co-authors find that girls have stronger relationships with their parents. They are also more likely to have friends who are more academically oriented and aspirational. Compared to boys, they have fewer friends who drop out of high school and more

friends who plan to go to 4-year colleges, but this might largely be because friendship groups are strongly gendered.

Overall, the social capital measures for girls are around 15% greater than that for boys. Controlling for these differences, as Figure 1 shows, explains almost 10% of the gender enrollment gap, with the odds ratio of college enrollment dropping from 1.64 to 1.48. Controlling for the GPA of the individual students reduces the gender gap even further, to 1.21.

Figure 1. How social capital gives girls an edge in college enrollment.

Note: Estimates show the effects of adding successive demographic controls, social capital controls, and GPA controls on the girls:boys ratio of enrolling in college using the Educational Longitduinal Survey 2002-2006.

Source: Klevan, Sarah, Sharon L. Weinberg, and Joel A. Middleton. "Why the boys are missing: Using social capital to explain gender differences in college enrollment for public high school students." Research in Higher Education 57, no. 2 (2016): 223-257.

These findings, while again based on descriptive data, merit some attention. Most assessments of the gender gap in college focus on differences in academic achievement. Clearly this is the most important factor, as the chart above shows. But gaps in social capital seem to matter, too. This suggests that boys in particular may benefit from social capital-oriented programs, especially those that involve parents.

But family social capital can be something of a double-edged sword. In what some scholars label a "too much of a good thing effect," strong family social capital can result in a degree of insularity, and disconnection from broader networks that could lead to greater opportunity (Herrero and Hughes 2019). For instance, rural families tend to have stronger family networks and are more likely to provide support between one another compared to urban households (Hofferth and Iceland 1998). These strong connections may incentivize rural student to stay close to home with
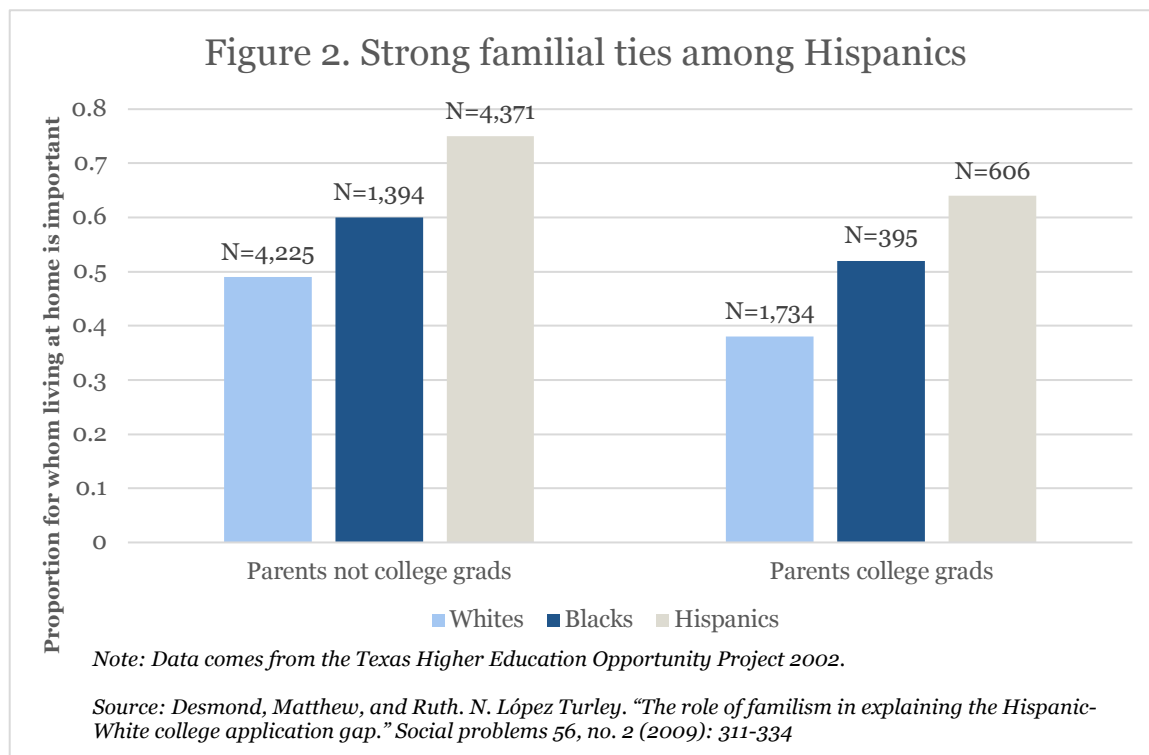
limited economic opportunities at the expense of pursuing higher education and socioeconomic advancement (Corbett 2007).

In another study drawing on the 1992 and 1994 years of National Educational Longitudinal Survey, Perna and Titus (2005) show that the odds of enrolling in a 4-year college generally increase with the frequency of parent-child discussions about education and with the frequency of parental contact with schools about academic issues. But there are some differences by race. Parent-child interactions about education do not have the same positive impact on college enrollment rates for Black students: the authors suggest that concerns about college costs might be a factor here. On the other hand, greater parent-school contact was associated with a bigger jump in the odds of college enrollment among Black students (25%, compared to 15% for other students).

Ryan and Ream (2016) examine family social capital specifically in Hispanic immigrant generations using data from ELS. They find that across generations, parents of Hispanic youth also have specific forms of social capital to support their child's college enrollment. Informal personal ties among parents were particularly useful for first-generation Hispanic students, while parents' relationships with schools were more important for third-plus generation youth. Also striking is the high proportion of Hispanic students who indicate that living at home is important to them: 81% of first-generation, 74% of second-generation, and 63% of third-plus generation students give this response. This might also be related to family's concerns about college costs.

Matthew Desmond and Ruth N. López Turley (2009) used Texas data to examine the role of familism in college-going rates about Hispanic and white students. They also find large differences by race in preferences for attending a college while living at home, even among students with college-educated parents as Figure 2 shows. In fact, Hispanic students with college-educated parents were more likely to say that living at home while studying was important than white and Black students whose parents did not have a college education.

Figure 2. Strong familial ties among Hispanics

Note: Data comes from the Texas Higher Education Opportunity Project 2002.

Source: Desmond, Matthew, and Ruth. N. López Turley. "The role of familism in explaining the Hispanic-White college application gap." Social problems 56, no. 2 (2009): 311-334

Desmond and López Turley find that the differences in preferences for living at home explains much of the difference in rates of college application between white and Hispanic students, controlling for educational attainment of the parents– and, statistically speaking, explained all of the Hispanic-white gap in application rates to selective colleges. They conclude that policies geared towards improving Hispanic educational outcomes should take into account "how one's loyalty to the family is emphasized, reinforced, and challenged in unique ways within Hispanic networks."

One implication of this research is the need to ensure that good quality postsecondary educational options are available across broader geographical areas, rather than concentrated in certain cities, often at a far distance from students who might otherwise attend them. Social capital from various sources seems to influence educational outcomes. But a number of studies suggest family social capital is even more important than school social capital in improving educational outcomes, though again it is necessarily difficult to isolate causal factors here (Israel, Beaulieu, and Hartless 2001, Dufur, Parcel and Troutman 2013).

B. Social capital in communities and schools: Peers

Outside of the family, social capital develops within the larger community and in other social circles such as schools, the workplace, and religious sites. High levels of community social capital are typically associated with more diverse, safer, and lower crime neighborhoods with strong degrees of trust and cooperation between community members (Stone 2003). Capital-rich communities may be able to invest in schools and work collectively to support children's academic and social wellbeing. Raj Chetty and his co-authors (2018) find that the level of social capital (measured by rates of census completion) at the neighborhood level are associated with higher rates of upward economic mobility. Federal policies can potentially improve community social capital by mobilizing local organizations and people to directly work with at-risk youth and help them academically or with the transition to work (Sharkey 2019).

For educational outcomes, school-based social capital is particularly important. This includes relationships between students and their peers, teachers, and school organizations. For example, school-wide levels of parent involvement in school activities, such as the PTA, fundraisers, and classroom volunteer work, are associated with higher math achievement even after accounting for a number of family, school, and other social capital factors, according to one study (Parcel and Dufur, 2001). Other research shows that the achievement levels of classmates affect how much children learn in school and that teacher quality affects child achievement (Hanushek, Kain, Markman, and Rivkin, 2003; Rockoff, 2004). Friends' plans to go to college are found to be the single best predictor of 4-year college enrollment for low-income urban minority students, even when controlling for variables traditionally assumed to affect college-going (Sokatch 2006).

At other times, peer interactions may reinforce negative behavior: another example of how bonding social capital can cut both ways. This may occur, for example, in what Roland G. Fryer (2006) calls "acting white," where minority students who are academically high-achieving might be ridiculed or perceived as acting white, which might then encourage deliberate underachievement. More broadly, Bruce Sacerdote (2001) shows that peers, especially in college, can have impacts on freshmen year GPA and decisions to join social organizations. The key point here is that the relationship between social capital of various kinds and educational outcomes is complex and highly dependent on context. Social capital can have positive or negative effects on educational outcomes.

There is also some evidence that intergenerational closure – the connections between parents of children at schools – can enhance educational outcomes, although this seems to be truer at private schools than public ones. In one study by Morgan and Todd (2009), for example, stronger relationships between parents – measured by how many parents knew the parents of their child's second-best friend – seemed to improve educational outcomes at Catholic schools, but not public schools. This is another potential example of how bonding social capital can also be a double-edged sword: strong bonds within a group that is already advantaged may accentuate those advantages. Having a strong network allows for parents to voice concerns, hear about how their student is doing from other contacts, and rely on each other for advice or information. Research shows that parents knowing parents of their child's friends may have an impact on educational achievement and college enrollment (Morgan and Todd 2009, Klevan, Weinber, and Middleton 2016).

C. Social capital in schools and communities: Teachers and counselors

Schools are not only generators of human capital, but important sites for the generation of social capital. The relationships between students and teachers and other professionals, as well as with each other, may matter above and beyond simply learning and teaching.

Croninger and Lee (2001) use the NELS, for example, to measure the importance of student-teacher relationships, using variable such as how often a student talks to their teachers about school or personal matters, and how students think their teachers perceive them. They find that these forms of social capital reduce the probability of dropping out of high school by nearly half, with particular benefits among students from disadvantaged backgrounds.

Using the High School Longitudinal Study of 2009 (HSLS:09), Fitzpatrick (2019) concludes that school counseling can improve college readiness. In particular, creating an education plan in 9th grade increases students' likelihood of reaching college eligibility in math and annual review of plans increases the odds of completing the FAFSA, with larger effects for underserved students. However, these benefits do not persist to increases in college enrollment. Other studies do find that counselors can lead to higher high school graduation and college enrollment rates, but this is largely dependent on the quality and effectiveness of the counselors rather than their caseloads (Mulhern 2020). Still, college counselors can impact students' thinking about postsecondary education, especially among less advantaged groups. Chelowa et. al (2015) find for example that Black students and first-generation students are twice as likely to name a school counselor as the most influential person in their college decision, compared to their white and non-first-generation peers.

Collectively, these results highlight the significance of parental, school, and peer relationships on a student's educational success, particularly college enrollment. Moreover, education policy that can foster these connections might in many cases be more cost-effective than financial resources (Salloum et. al 2018). Public school counselors are often burdened with heavy caseloads. Families may lack the necessary information within their own networks to provide the best opportunities for their children. College access programs are therefore uniquely positioned to fill these gaps and enhance the existing ties that students have. We turn now to an examination of four of these programs.

Using Social Capital to Increase College-Going: 4 Case Studies

There are hundreds of programs attempting to improve rates of college enrollment, college fit and college success using social capital interventions of one kind or another. Here we focus on four of these, whom we reached out to based on our own informal networks and knowledge. We draw on semi-structured interviews with Program leaders, who also provided second-hand stories from students and mentors, to identify common themes and potential key lessons (see Table 1). In his *National Affairs* piece, Manno emphasizes that in terms of educational outcomes, a robust social capital framework will feature (1) a balance between bonding and bridging social capital (2) a cultivation of new personal and professional relationships, and (3) the promotion of a future orientation to help set, commit, and achieve goals. In different ways, these organizations adopt elements of this framework.

	MATRICULATE	**COLLEGE MATCH**	**EMERGE**	**THRIVE SCHOLARS**
Panel A: Program Features				
Virtual	All virtual	Mostly in-person, virtual programming during Covid-19	Mostly in-person, virtual programming during Covid-19	Virtual coaching and mentoring, in-person Summer Academies, and on-campus events
Start Date	Junior spring	Junior spring	Sophomore spring	Junior year of HS, in May
End Date	End of HS	End of HS, optional through college	End of HS, optional through college	College graduation; optional alumni support provided post-graduation
Geographic Focus	National, with students primarily from rural and suburban regions and some from urban	Students from 31 partner high schools in the Los Angeles area	Students from 67 partner high schools in the greater Houston area	Serves students nationally, with a notable focus in Los Angeles, Boston, Chicago, Cleveland, and New York.
How many students it serves	Over 3,000 high school students of Class of 2022 and onboarding up to 3,500 high school students of Class of 2023	Currently, there are 158 juniors, 155 seniors, and 712 College Scholars	Currently, there are over 1,600 high school Fellows and over 1,300 college Scholars.	899 total Thrive Scholars
Engagement with Advising	Advising Fellows give five to six hours a week. They interact with their students one-on-one via video chats, phone calls, text messages, and/or emails.	Weekly mandatory test preparation during junior year. During senior year, counselors meet at least four hours a week, with	Course and extracurricular advising, 90-minute, bi-weekly after school sessions, SAT	Two six-week-long residential Summer Academy programs to receive academic training, 15-20+ hours of

	their cohort and provide additional individualized support. Mandatory workshops on a specific college application component fall around a major deadline. In college, students have the option to maintain 1:1 connection with their mentor	preparation, and support to enroll in a high impact summer opportunity. Every summer, sophomores and juniors participate in a week-long trip touring colleges in one of six regions across the country. In college, EMERGE Scholars have the option to use available networking opportunities	virtual coaching each year which includes college advising and social-emotional support, and career development opportunities. Participants may also receive additional curriculum and mentorship.
Advisor Information	Trained college undergrads	Volunteer mentors in the LA region	Full-time Program managers during HS; full-time Manager of College Success in college	Full-time, professional coaches; additional volunteer mentors
Student academic eligibility	Recommended thresholds are a GPA of 3.5 or higher and annual family income of less than $80,000.	Nominated by college counselors or peers, and evaluated by application, essay, interview, and income verification. Recommended thresholds are a GPA of 3.8 or higher and annual income of less than $75,000.	Students can apply with a minimum 3.0 GPA and less than $75,000 annual family income.	Competitive applicants typically meet the following criteria: GPA of 3.7 or higher or earning primarily A's in the most challenging courses available in their HS.

Applicants must also have an annual household income at or below $75,000 and identify as either a student of color or a |

				first-generation college student.
Panel B: Demographics of Sample				
% Parent with bachelor's degree	28	2	10	14
% White	10	1	3	1
% Hispanic	20	78	65	45
% Black	17	4	21	38
% Asian	39	15	10	15

Source: Obtained from conversations with various organizations.

A. Online mentorships for college access: Matriculate

Matriculate is a free virtual college advising program that deploys peer-to-peer networks. Matriculate tackles the challenge posed by Hoxby and Avery (2013): many low-income, high-achieving students "undermatch" in their college choices (i.e., apply to less selective schools than they could). These are students who are often geographically isolated from other achievers and within their high schools. Because of this, they often lack the knowledge and resources required to apply to more selective colleges.

To address this undermatching problem, Matriculate relies on the work of volunteers from among current college students—called Advising Fellows—each of whom maintains weekly online contact with a high school junior and helps them prepare for, apply to, and enroll in college. Matriculate's unique online programming allows it to target students from under-connected and rural regions, where programming is not as accessible as it is in urban school districts. When students begin their mentorship with Advising Fellows, the biggest challenge they typically face is in crafting a strategic and intentional list of schools to apply to, including a good mix of best-fit and safety schools.

Matriculate provides the formal training to its Advising Fellows to help them decide where to apply, as well as to provide practical help completing application for colleges and scholarships. The program appears to impact attendance at more selective colleges. Among a sample of high school students from 2018-2020, Matriculate led to a 9% increase in attendance at colleges with high graduation rates (i.e., above 70%) and a 24% increase in attendance at top 80 colleges, from a base rate of 50% and 20%, respectively.

These findings need to be treated with caution for several reasons. First, because the program primarily targets high-achieving students, the outcomes indicate that the intervention increases the quality or selectivity of the college attended, but not whether students actually enroll. It is also necessary to understand what the impacts of programming could be for "on-track" students—those who might be on the margin of four-year college attendance. In addition, several other studies of virtual or text-messaging based interventions find little or no effect on college enrollment or effects only for certain subgroups and outcomes. For example, an evaluation of a similar program in California by Meredith Phillips and Sarah Reber, making use of a randomized research design, found positive effects on application to four-year colleges, but no impact on enrollment (Phillips and Reber, forthcoming). They suggest that many disadvantaged students may need more intensive, in-person support, perhaps with more input from school counsellors – and that this support may need to be given earlier that in the junior year of high school.

The mixed evidence on the effectiveness of virtual support programs raises the question of which program features are important for success. Madeline Kerner, CEO and Co-Founder of Matriculate stresses the nature of the core relationship, not least in terms of overcoming an impression of exclusion from certain institutions:

> "It's the [student-student] relationship and less of the technical components of the relationship that ultimately matter the most. . . students' concern or fear about not *belonging* [on elite campuses] leads them to strongly consider schools that are actually more expensive to them and have a lower graduation rate."

The conversation that students have with their mentors during their senior spring when they compare their options "is one of the most important moments and ways to show up for the student", Kerner says. She shares a story of one mentee from a small town in Ohio, who now attends Columbia University and said the following:

> "I think what was special to me, among several others, but to list one would actually just be the fact that my advisor was from an Ivy. I come from a small town where people don't aspire to go far, and had never actually met an Ivy student, or if I had, not one who had graduated since I was born. What that did, though, was really show me that normal people get into those kinds of schools. He wasn't an alum's kid, he wasn't from some rich family, he was more akin to me, and I think that meant a lot more to me than I knew at the time. I felt like, even if it was the smallest, most fledgling thing ever, I had a chance, and it was worth pushing myself that hard to get there. And I did, and I have that to thank Matriculate for."

This student's experience suggests that the value of the program goes beyond practical help and advice. By connecting students with others from a similar background–in the student's striking phrase, those who are "akin to me"–the relationship itself becomes part of the intervention. Matriculate intentionally recruits Fellows from a diverse set of backgrounds, especially those with similar backgrounds to the disadvantaged high schoolers they are seeking to help. In one sense then the program is making use of bridging social capital, across geography and between students at different life stages in very different institutions. But the intentional connection of mentees and mentors with similar backgrounds may create an alignment of identities that mirrors some elements of bonding social capital, too.

There may also be ripple effect in the mentee's school or community, as their experience is shared with others through social networks. Kerner points to the example of Josiah, a Black student from Yucca Valley, California, who benefited from a Matriculate mentorship and now attends Princeton University. Through formal and informal opportunities to share his knowledge with peers, teachers, and college counselors, Josiah seemed to influence those in his direct circles to consider colleges outside of California. According to a friend of Josiah's in the year below him:

> "Josiah applying to, getting into Princeton...that was such a big deal because we all dream of getting out of our small town or going to really good schools, but for him to actually do it, be the first one to really break the shell, it was really cool. Because then I was able to feed off of that energy and then apply to a bunch of other schools."

Josiah's interactions with his college counselor and his posts on social media also had an implicit impact on other students, even those who never had direct contact with him. One of these students ended up using Matriculate's advising system and was able to match to Williams College using Josiah's same scholarship program. Josiah's story points to the way in which an individual experiences can cascade through social networks and potentially impact the outlook and outcomes of many others (Sunstein 1996). Again, a note of caution must be sounded here–there is a dearth of high quality empirical work in this field, again in part because of the intrinsic difficulty of conducting it. As Emily Parrott of Thrive Scholars says, "we have all these questions that we're eventually going to be able to answer [with data], but we have a hunch that if a student's friend's mentorship relationship is going very well, then other students might sign up for it."

B. Creating a cohort: Thrive Scholars

Thrive Scholars is an organization operating in four major cities in the United States that facilitates the growth of bonding social capital among its students. Its primary practice is through two separate residential month-long Summer Academy Programs for their scholars, one taking place the summer before their senior year of high school (at Amherst College) and another taking place the summer before the start of college (at the University of Chicago). The goal here is to create a cohort of students to support each other. When students have a peer network, this can help establish a sense of belonging on college campuses (Perna and Titus 2005).

It is striking how long the peer relationships formed at the Summer Academies last, and how students make use of their peer networks throughout the course of Thrive's six-year program. Emily Parrott, the Director of Research and Evaluation, observes that towards the end of their program, students are still drawing on these relationships for help and advice as they choose graduate or medical school.

Alongside the Summer Academies, Thrive provides a suite of college mentoring programs, including the Launch Mentorship, a goal-oriented program lasting between 6 to 12 weeks that allows students to focus on a specific skill or deep-dive into a particular industry. Parrott shares a story with us about a mentee in this program:

> "I learned how to work efficiently as a software engineering intern and prepared for landing a full-time software engineer role. [My mentor] helped me prepare for my interviews, provided tips on how to negotiate and prepare for technical/behavioral interviews, and gave me so much support throughout my process. . . [My mentor] provided a plethora of knowledge to me, and I feel that all his advice is something I can [now] share with others". - Graduating senior at University of California-Merced.

She also tells us about a mentor's own experience:

> "[My Scholar] and I decided that a great way for her to learn about "the business" would be to meet a variety of entertainment professionals. We started out by making a very long list of jobs in the entertainment business. Every other week, she goes through the list and we have a Zoom [video] call with someone who is actively working in one of those jobs. I love being a part of the Zoom meetings because I continually learn more about the Scholar and about whatever job we're learning about. Each professional tells us about their education, internships, the individual path that they took to end up in this career, the different jobs they've had, and they explain exactly what their current job entails."

Of the Thrive Scholars in the College Class of 2022, 52% of them have had at least one Thrive mentorship experience during college and 68% of them reported having at least two to three people in their network who could support their professional growth. Tyra Montina, Thrive's Chief Programming Officer, notes that while some Scholars are naturally more willing to be mentored, others are nervous about the idea of networking. Therefore, it should be a goal for college programs to help students establish trust and reciprocity in mentor relationships.

Thrive thus seeks to leverage both bonding social capital – through the creation of peer groups at the Summer Academies and subsequent events – and of bridging social capital – through mentoring relationships. Parrott explains this dual strategy for social capital:

"Students are very excited to do the bonding part. But the bridging capital is the one that is very important, but also sneakier. It's the one [students] might not think about, but it's where career and leadership outcomes flourish...In our interviews with the students, we see that a lot of them want to be a part of the program for the bonding social capital because initially they are really just thinking about their upcoming summer and where they are going to go to college next year, but it's the bridging capital that gets them the long-term career trajectories that they're also after and that Thrive is after for them."

A key question for social capital interventions is how much time is required for relationships to develop and to deliver greater opportunities. The organizations considered here each have their own models and program lengths. Matriculate's main time frame is one intensive year between students' junior and senior year of high school. College Match and EMERGE, discussed below, begin during a student's junior and sophomore year, respectively, but have optional programming that extends through college. Thrive Scholars is unusual in having a six-year program, beginning in 11th grade, and potentially supporting students into their early careers. But there was broad agreement from the leaders of the other programs that time was a crucial factor, as the quotes below illustrate:

"When we start in the 10th grade, we have a little bit more time to work with mindset. Because senior year is a lot more technical, so we need a year to really help them understand who they are as people and what they value... [and the] time to let that kind of marinate. It's also really important for us to get to know families during that time so that when we get into the really high-stakes, deadline-driven years, everyone is ready for what's about to happen." – Felicia Martin, Managing Director of College Success Program, EMERGE Houston

"We are going to pilot a program that starts in the 10th grade because what we've noticed is that even as we look through our applications for our high-achieving juniors, we're still noticing the number of people that we turn away. Especially when we look at Black men...we're thinking if we can also get to this certain demographic a year earlier and provide the coaching, they would be much more prepared to apply to a program like Thrive." – Tyra Montina, Thrive Scholars

"It is a minimum four-year [college] process, and frankly, I think it is [that long] for a lot of higher-income students too. I don't think we [equip] students well enough as society with the networking skills or the relationships with mentors particularly around jobs and possibly graduate school...It would be so powerful if every student had bridging social capital relationships as early as middle school and throughout high school, college, and after college ...and roll that into every facet of education as a pathway that students are on and offer... skills and training [at each step]"– Madeline Kerner, Matriculate

One advantage of a longer time frame is that it allows support to be provided to students who have disruptions to their academic progress. A good recent example is the Covid-19 pandemic which delayed or derailed academic life for many students. For instance, Felicia Martin from EMERGE Houston notes that only around 65% of their College Class of 2021 cohort graduated on time from their target schools, which normally stands around 80% of their students. The broader message here is that strong relationships can help provide support at different inflection points in a student's life.

C. Building family social capital: College Match LA

As discussed above, family social capital also matters for educational outcomes, including the transition from high school to college. This is one reason that College Match LA, a non-profit organization that partners with 31 high schools across Los Angeles, takes a whole-family approach. Erica Rosales, Executive Director of the program, notes that since most of their students are first-generation students, parents typically do not have knowledge or experience of the college selection and application processes, especially for out-of-state and/or more selective colleges. Once a student is accepted into the program, College Match will typically kick off with an event that involves parents. During the pandemic these interactions have waned, Rosales says she manages to still connect with some parents through video conferencing or calls:

> "It did take a lot of phone conversations. I spent almost all my month of April talking to families and really explaining to them 'why it is so important for my child to take this opportunity and a lot of the conversations are around building your network.'"

College Match contains some events where familial involvement is mandatory, including for example working through the financial aid process, as Rosales explains:

> "We do ask the students to compile all the information, but it is a requirement that parents show up to workshops and that the parents actually walks through the whole application with us so they can understand why those questions are so important."

Part of College Match's programming also includes an all-expenses-paid trip for students to colleges on the East Coast. While it is a good opportunity for students to expand their horizons and form new connections, Rosales notes that it is also a way to help "parents practice letting go. Part of that strength in family also kind of holds you back sometimes, but once...parents can see that the students came back with such great experiences, then they remember that."

This serves as another reminder that bonding social capital, while valuable in and of itself, may also result in the limiting of certain opportunities because of strong familial ties. This is a point that was echoed by other program leaders too. As Emily Parrot from Thrive told us:

> "Folks are afraid to leave [home] because of family achievement guilt...it's like if I get this degree, I'm feeling guilty for getting this privilege and access and leaving my family behind. And so talking with [families] about how the roles are going to change and feel different...happens a lot in our one-on-one coaching sessions."

This "family achievement guilt" is more common among first-generation and Latinx students and is associated with more depressive symptoms and lower self-esteem during college. This underscores the importance for guidance counselors and mentors to help students and their families identify the values important to them and the conflicts that might arise when a student attends college. This is a complex issue, however. For some young people, the experience of thick familial or community ties helps to prepare them for making use of broader networks. As one College Match participant said:

> "I have always believed in my social network even before entering "professional spaces", whether that be an internship, college, or even College Match. In my family, these social networks have enabled family members to find employment, find community, and build themselves up. Retrospectively, that has allowed me to capitalize on these "social networks" from an early start and find opportunities, whether that be finding a summer

job during my senior summer or obtaining a scholarship. Beyond learning on how to navigate these social networks, my family and my Mexican culture have taught me how to develop these relationships in ways that are reciprocal and dealt with kindness. Often times, that's what I find to be missing: People disregard the human aspect of networking." (Quote provided by the program).

The point is not that there is a right or wrong answer here, simply that there may be some real trade-offs for students, and that they should be empowered to make these decisions with as much information and support as possible.

Like the other programs discussed so far, College Match also contains a mentoring initiative. But in their case, the mentors are deliberately recruited from a very different demographic to the mentees. The majority of the volunteer mentors are in fact retirees from a variety of professions living in more affluent areas of Los Angeles. As Rosales summarizes:

"I would say that most of them identify as white women...and most of these volunteers stay with us for about 10 years and they keep on bringing their friends...so [mentors] have their own informal networks that's not College Match sponsored, but they work together to share stories and if a [student] needs a job, the volunteers talk to each other to support the students".

These then are relationships across considerable difference – of race, class, geography and perhaps gender. But for a program like College Match, these differences are a feature rather than a bug: the idea is to build bridging social capital. Rosales describes the need to overcome two forms of disadvantage – in terms of both educational attainment but also social connections: an echo of Fisher's "opportunity equation" consisting of in both what you know and who you know. Rosales says that social capital, or it lack, has to be seen as an intrinsic part of the opportunity structure in which students thrive or struggle:

"Our students don't have enough adults in their life to provide [college-going] information. Parents come to this country with the aspiration of their children going to college, but often times those parents have not gone to college themselves...and don't know the pathway or the steps, so then they depend on the public school system...[But] the adults who are supposed to know, they often do not. Especially here in California, we do have a great public postsecondary school system—we have the UCs, and the Cal States, so often times, our counselors... know the requirements to get into the [in-state colleges] and that's the extent of the college knowledge...And over 70% of [our public-school teachers in LAUSD] come from the Cal State system...so students who may have other aspirations are not going to get that knowledge from their teachers either... [Our goal is] to provide students everything that affluent students got from their parents and from their private or more affluent schools."

D. Partnering with parents and other adults: EMERGE Houston

Other organizations like EMERGE Houston also emphasize the value of bridging social capital. Felicia Martin, the Managing Director of EMERGE's College Success Program highlights a mentorship program that serves high school seniors by connecting them with an adult mentor in Houston that can expose them to opportunities outside of academic preparation:

"[Mentors] often take students to see museums or to see art or to experience the world in a different way that they may not be able to because of limited resources. Students who go

through that program talk about it having a tremendous impact on their ability to, once they get to college, understand how to talk to an adult, especially an adult that is not a parent. That cannot be underestimated because they really should be talking to professors and adults on their campuses."

The relationships with mentors can therefore provide students with skills and experiences that help prepare them for the college experience. At the same time, they may provide access to internships or job opportunities through the networks of the mentors.

But EMERGE Houston leaders also stress the importance of a strong, consistent, and personal relationship between Program Managers and family members, especially parents or guardians, as well as with students. Again, the goal is to balance and blend social capital in both bonding and bridging forms. But it is important to be intentional. The ties characterizing bridging social capital are, by definition, weaker than that of bonding social capital (at least initially), but this is not a bad thing. These connections are more voluntary and more fluid and can be broken without strong social sanctions (Claridge 2018). This means that young adults can learn which relationships do and do not work for them. But on the other hand, there is danger that broken connections can be damaging. As Martin says: "Well-intending adults can have detrimental impact on young people, and so we have to be thoughtful about how we do that type of [bridging]." She goes on:

"Students sometimes struggle with building those types of mentorship relationships. And showing up is hard and there's a lot of shame when they make mistakes, but we understand that these relationships are developmental in nature. Another misconception about high achieving students is that they're emotionally mature. They're still fifteen and sixteen! They may do really well in school, but they never really have deep reciprocated relationships with adults."

As Martin adds:

"We look at the work of [Anthony] Jack, in particular, who says that access is not inclusion and talks about the 'privileged poor' versus the 'doubly disadvantaged'. Most of our students are the doubly disadvantaged, meaning that they're coming from income-constrained communities and have [limited] access to social capital, whereas the privileged poor are students of color who maybe got a scholarship to a private school and have started to understand how to navigate systems of power. And so when they go to college they are able to navigate those systems a little better, whereas our students are not. So we really try to create some type of intervention to help them understand that they're about to go into an environment that is contingent upon their ability to navigate systems of privilege."

Martin says that the relationship between the Program Manager and family can become important even outside of traditional concerns about academic progress. When one mother was concerned for her child's safety during the "Unite the Right" rally in Charlottesville, Virginia, in 2018, for example, Martin reports that:

"The first person who came to [her] mind [was the Program Manager] …who could get to [her child] quickest and could help her traverse the language barrier… And I think that speaks to the role of the Program Manager, which is that sometimes, [they are] the closest person that [parents] have to their child and that makes a difference, so we really want the Program Manager to do as much as they can to reach the families and involve them."

Implications and Conclusion

What are the implications here for policymakers and practitioners? These will largely be suggestive, given the absence of empirical evidence in this area (in part because of lack of appropriate data, in part because of lack of well-designed evaluations). But a number of points stand out, each of which is worthy of further investigation.

- Social capital appears to be is an important factor in educational success, including the transition to postsecondary institutions.
- Both bridging and bonding social capital may matter for improving academic outcomes, and so an intentional balance must be struck between the two. A "blended" approach, combining elements of both bonding and bridging seems to be a promising direction.
- Connections with mentors from more advantaged backgrounds (bridging) can be valuable in terms of building skills and opening up opportunities through professional networks.
- Family involvement looks to be important, especially regarding the process of applying to and enrolling in college. Programs may therefore benefit from taking a "two-generation" approach to the building of social capital.
- Peer-to-peer networks can support students in terms of their success during and especially after their transition to college with benefits potentially lasting many years.
- The duration of programs, and of specific relationships, is likely to be an important factor in their efficacy; most of the practitioners we spoke to emphasize the need to start in the earlier high school years.
- In general, the field suffers from a lack of quality evaluation; improving the evidence base on social capital should be a priority for non-profit organizations, scholars, and philanthropy.

As well as these key lessons from the case studies, a few more points are worth making in conclusion. First, there is a dearth of high-quality evaluation of programs deploying social capital-based programs to improve college enrollment and success. But many of them show considerable promise and are worthy of further examination and possibly replication. Improving the quality of data available on social capital, for example by including more questions on repeated surveys would provide a stronger foundation of information upon which to build programs. In-depth network analyses of communities and institutions, along the lines of the city studies by Camille Busette and her co-authors, would provide additional data to inform policy. Investing in social capital-based policies or programs should not be seen as an alternative to other approaches, including direct educational investments in high schools or lowering the costs of college, but rather as complementary ones.

Second, providing students with more agency in the creation of social capital is an area of growing interest and activity, and one which shows some promise. For example, models such as Youth-Initiated Mentoring (YIM) train students in mentor-recruitment strategies and ask them to nominate as mentors non-parental adult figures who are already in their lives, such as extended family, coaches, family friends, and teachers. Schwartz et. al (2013) test the effectiveness of YIM on youths ages 16-18 who have either dropped out of school or been expelled. Young people who selected their own mentors were 1.3 times more likely to remain in contact compared to those whose mentors were selected with the help from parents or staff. Mentor-mentee partnerships that lasted at least 21 months also generated significant improvements in obtaining a GED/high school diploma and some college credit, according to the study. For those who kept in contact at 38 weeks, there were additional positive impacts on months employed and earnings. Same-race

mentor-mentee pairings were the most enduring. YIM models could then be a promising way to help students navigate adult relationships, advocate for themselves, and achieve attainable goals.

Third, creating in-person connections with students already at potential target colleges could also reap rewards. An example of this approach is "fly-in programs", sponsored by some colleges (Loveland 2020). In contrast to standard college tours, fly-in programs are more intensive visits that pair high school seniors with current college students and allow them to stay in college dorms, attend classes, interact with admissions counselors, and meet other high school students on the program. Especially for first-generation and low-income students, access to fly-in programs and the ability to see themselves on campus may help eliminate barriers to college application and enrollment. (Though as for so many initiatives in this area, more evaluation is required here).

Fourth, there may be some silver linings from the Covid-19 pandemic which could help to inform future programming. College Match reports for example that during the pandemic, more students applied out of state. As Felicia Martin says:

> "Covid brought all kinds of challenges for first-gen access, but it also expanded access in a lot of ways. Virtual tours and virtual outreach became a lot more accessible to our students and test-optional policies had a tremendous impact on our student's ability to access higher education. In fact, in the last two years, we've had the most number of EMERGE scholars be admitted to the most selective colleges because that barrier had been removed."

The shock of the pandemic to learning approaches, admissions policies, college visits and much more may create an opportunity to move beyond "business as usual" in terms of college-going opportunities for young adults from less advantaged backgrounds. If nothing else, the truth that relationships often matter as much as resources; that they are, in fact, a resource in themselves, is one that has been only dramatized by the events of recent years. Social capital has an important role to play in the lifting up of all young Americans, but especially those with the fewest advantages – and today, as much as ever.

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