

Extending a Community-Based Participatory Research (CBPR) Approach to Understanding and Addressing Postsecondary Awareness and Access

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Abstract

Postsecondary education enrollment is declining across the United States. The U.S. Department of Education's Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) initiative focuses on increasing the college-going rate of students living in low-income neighborhoods through targeted university-community partnerships (UCPs). Here, we reflect on our program's use of a community-based participatory research (CBPR) approach to explore family postsecondary perspectives during the pandemic with the goal of developing community-level interventions. We outline the implementation of this approach in defining community, sharing planning power with partners, and responsive sampling. Reflection on the relevance, inclusion, and value of CBPR in education research is included.

Keywords: university-community partnerships, higher education, postsecondary decline, postsecondary enrollment, community-based participatory research



Over the last several decades, the United States has observed tremendous growth in postsecondary participation and attainment; however, in the last decade the total college enrollment has declined from a national peak of approximately 21.02 million students in 2010 to an estimated 16.2 million in spring 2022 (Hanson, 2023). Educational disparities persist, with fewer Black, Latino, and low-income students continuing their education at a postsecondary institution (NCES, 2022). Although many promising practices and programs exist at the federal, state, secondary, and community levels, more collaborative efforts are needed throughout the educational pipeline in building college-going dispositions to close equity gaps (Gándara, 2002). Engberg and Wolniak (2010) elevated the need to incorporate diverse stakeholders at all policy levels to collectively design and implement promising educational practices to assess postsecondary enrollment patterns and educational aspirations of students. However, to address this national decline in postsecondary education attainment,

investigative efforts continue to employ more researcher-centered practices, where institutional faculty dominate decision-making in the research process rather than distributing power across the community partners they are seeking to collaborate with and understand.

Indiana has implemented programs at the state level to increase the college-going rate of students of color and students from low-income backgrounds, yet enrollment remains disproportionate across the state. In 2020, 53% of high school graduates enrolled in postsecondary education compared to 63% in 2015. While all demographic groups experienced a decline in enrollment, Black, Latino, and low-income students experienced a greater decline than other groups (Indiana Commission for Higher Education, 2022). Indiana's 21st Century Scholars Program, for example, is a state-level strategy to alleviate gaps in postsecondary enrollment. The Scholars Program provides students from low-income communities 4 years of tuition at in-state universities if students satisfy income eligibility require-

ments, maintain a certain grade-point average (GPA), and complete required activities such as filing the Free Application for Federal Student Aid (FAFSA) and completing a career interest inventory. Despite the push for improving equity in educational outcomes, most 21st Century Scholars identify as White or Asian despite students of color being more likely to come from low-income households identifying as Black or Latino (Indiana Commission for Higher Education, 2021). To continue improvement in college-going rates, multiple stakeholders are needed at the table to ensure that students across Indiana, regardless of race or family income status, have access to postsecondary education opportunities.

The U.S. Department of Education's Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) initiative, designed to increase the number of low-income students prepared to enter and succeed in postsecondary education, is positioned to facilitate such collaborative efforts among federal, state, and local contexts. GEAR UP grants 6- or 7-year competitive awards at state and local levels to provide postsecondary preparatory supports and services in partnership with high-poverty middle and high schools. Through local connections with K-12 schools, institutions of higher education, state agencies, and community organizations, GEAR UP programs serve entire cohorts of students beginning no later than seventh grade through the students' first year beyond high school graduation.

During this study, the Indiana GEAR UP state grant was led by Purdue University and the Indiana Commission for Higher Education in cooperation with nine school corporations across the state in what is considered a university-community partnership (UCP). Indiana GEAR UP's organizational structure facilitates such UCPs because it spans the entire state and links stakeholders across multiple scales. The leadership team, housed at Purdue University, oversees programming and ensures progress toward key grant objectives. Other key personnel, like the family and community engagement specialist, work across the state and act as boundary spanners between the leadership team at Purdue and individual communities. More locally, school-based educators are employed by Purdue University, but work and live within one to two specific school communities. With GEAR UP staff more easily

embedded within schools and communities, the postsecondary planning process enables staff to connect with key stakeholders, such as school counselors, students, and family members, as peers, allies, and professionals. By strategically identifying and positioning staff members, Indiana GEAR UP has the unique opportunity to engage a wide audience around postsecondary planning obstacles and available resources. In a concerted effort with local stakeholders and key GEAR UP staff, we sought to build understanding of Indiana's college enrollment trends and perspectives while also developing focused, culturally responsive educational programs that jointly respond to and build within existing local contexts.

Postsecondary education enrollment data collected since the pandemic points to continued enrollment decline and a growing need to understand how awareness and access to resources further impact equity gaps. Indiana is just one example of declining enrollment postpandemic and provides a unique opportunity to explore postsecondary planning behavior. As more is learned about the impacts of the pandemic and how it has affected all demographics in postsecondary education enrollment, UCPs have the potential to better understand and respond to community priorities surrounding postsecondary education enrollment and obtainment. Given the UCPs that Indiana GEAR UP has developed across the state, this program is exceptionally positioned to explore and promote reconciliation of these priorities and equity issues. In collaboration with community partners, we developed a family-focused survey with the goal of gathering, creating, and disseminating information and tools to strengthen each community's engagement with and obtainment of postsecondary education. By using UCPs, more contextualized data can be collected and more concrete action steps proposed to open postsecondary education opportunities across all student groups.

Families were the target of this survey, given the influence they have on a student's postsecondary decision-making. Building on work by Coleman et al. (1966), Engberg and Wolniak (2010) underscored the significant role family and student access to resources play in a student's postsecondary planning. They found that factors such as socioeconomic status, college-going expectations of parents and peers, and a student's ability to develop college-linking networks were

more influential in a student's decision to enroll in postsecondary education than more distant school-based characteristics such as a school's regional association (suburban, rural, and urban), the percentage of minority students enrolled, or the student-guidance counselor ratio (Engberg & Wolniak, 2010, p. 145). The importance of family engagement at the high school level has also been documented to improve a student's academics and engagement (Yull et al., 2014) as well as postsecondary planning (Bosworth et al., 2014). To best engage families in their student's postsecondary planning process, increased attention must be given to what resources families know of and have access to for supporting their student's postsecondary planning.

Goals and Purpose of Study

The purpose of the current study is to outline the development and dissemination of a family postsecondary survey leveraging the voices and power of UCPs. Methodology is described with a focus on tenets of community-based participatory research (CBPR). We conclude by discussing lessons learned alongside implications for future education-related CBPR projects.

CBPR Approach

As federal and state governments alongside higher education institutions continue to grapple with persistent equity gaps in postsecondary enrollment, research approaches centering researchers as experts on the communities they serve continue to dominate. This approach to research limits the amount of community voice included along all stages of the research process by assuming the researcher as sole expert of a community's unique characteristics and the challenges they face. Often with limited inclusion of community voice, findings from these researcher-centered projects fail to clear the way toward sustainable and concrete community-level action steps. However, in recent years, scholars and practitioners have tried to employ a CBPR approach to understand persistent concerns in education such as newcomer integration (Rodriguez & McDaniel, 2019), school-family communication with families of color (Yull et al., 2014), and best practices in early childhood development (Walsh et al., 2021). CBPR, with roots in public health, seeks to empower communities, especially those marginalized by research approaches that

limit expertise and knowledge generation to researchers, through UCPs (Rodriguez & McDaniel, 2019). A CBPR approach differs from more researcher-centered approaches in that power is shared between researchers and community partners (Chen et al., 2020; Israel et al., 2005; Ross et al., 2010; Wallerstein & Duran, 2008), community partners are involved in all stages of the research process (Israel et al., 2005; Jacquez et al., 2013; Ross et al., 2010; Tinkler et al., 2014), and the outcome of the research is some type of action developed with the community (Hall, 1975; Israel et al., 2005; Ross et al., 2010; Tinkler et al., 2014; Wallerstein & Duran, 2008). Key differences between more researcher-centered and CBPR approaches are highlighted in Table 1.

Application of CBPR Principles in Our Research Methodology

Define the Community

A central tenet of CBPR is inviting community partners alongside researchers to identify and define the issue to be addressed. In doing so, more relevant concerns are surfaced and planned to solve (Rai, 2003). The Indiana GEAR UP team, in partnership with other Purdue University offices, the Indiana Commission for Higher Education, nine school corporations, and families across the state, set out to listen to and define concerns around the decline in postsecondary education enrollment. Each community partner is bound by a desire and commitment to improve postsecondary education enrollment for all students in their communities. For example, Indiana GEAR UP school-based educators are embedded within partner schools and have the power to elevate strengths as well as advocate for concerns unique to each community. By working alongside school counselors, classroom teachers, students, and families, GEAR UP school-based educators are uniquely aware of the resources already present within communities and schools that families could activate during the postsecondary planning process. During GEAR UP staff meetings, school-based educators convene to discuss effective strategies for building college-going dispositions and environments conducive to postsecondary enrollment within their respective communities with a focus on both tapped and untapped sources of support. On the other hand, regional outreach coordinators at the Indiana Commission for Higher Education work across the state in schools within

Table 1. Characteristics of Research Stages Showing How a CBPR Approach Differs From Traditional Approaches

Characteristics	Researcher-centered approach	Community-based participatory research (CBPR) approach
Problem Identification	Problem identified and defined by researchers based on experience and prior literature.	Problem coidentified and defined between community partners and researchers based on expertise of each partner.
Research and instrument design/planning	Research instruments and overall design developed by researchers. Plan and instruments are disseminated to participants.	Research instruments and design cocreated with community partners. Partners have an active role in design of each.
Research process	Research is driven by researcher through participant recruitment and data collection.	Research is done alongside community partners. Power is shared between researcher and partners to recruit participants and collect data.
Data analysis and reporting	Researchers analyze the data and disseminate findings via journals and conferences.	Researchers and community partners analyze data together. Results are disseminated in conventional methods as well as methods determined by community partners.
Creating sustainable action	Researchers may create action from results.	Results guide researchers and community partners to cocreate an action plan for the future.

their defined regions, often covering several counties. Their reach allows them to synthesize and elevate concerns found within and across communities in ways that individual school counselors or classroom teachers may not be able to do. Figure 1 illustrates how power was equally distributed across these key community partners and how we elicited their expertise around key concerns in their community context, accessibility of language used in the survey, and responsive sampling.

Shared Survey Planning Efforts

In using a CBPR approach, we allowed ourselves to be guided by authentic inquiry with community partners to define our areas of focus for the survey rather than relying solely on literature and researcher prior experience. This authentic inquiry required a willingness to move at the pace of our community partners while also continuing to push the project forward. Figure 2 depicts a timeline for this project ranging from defining community partners in summer 2021 to the survey closing in fall 2022. Prior to developing the survey, researchers obtained IRB approval to conduct

the study. Once IRB approval was secured, researchers initiated several conversations and meetings between the Indiana GEAR UP team (which included a student and parent specialist representing families), school corporation representatives, and the Indiana Commission for Higher Education, where concerns from community partners were elevated and discussed. Since Indiana Commission for Higher Education regional outreach coordinators are tasked with supporting all public school corporations across the state in developing environments and dispositions needed for successful matriculation into postsecondary education, voices from all communities were heard and incorporated into our planning efforts. Major themes from these conversations emerged, such as parent frustration and distrust with the FAFSA process, importance of school-to-family communication, and the influence of available community resources on postsecondary decision-making.

Weaving Voice Into Instrument Development

Given themes identified in conversations with community partners, a literature

Figure 1. Depiction of Shared Decision-Making Power Across Key Partners in Indiana GEAR UP Family Survey Development and Dissemination

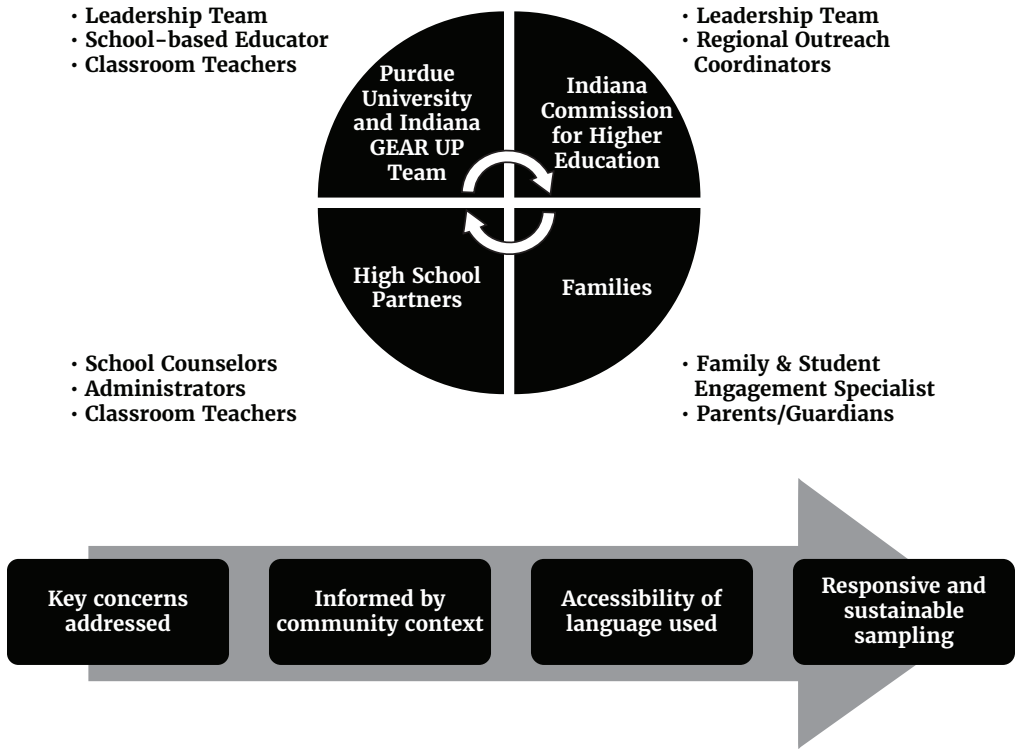
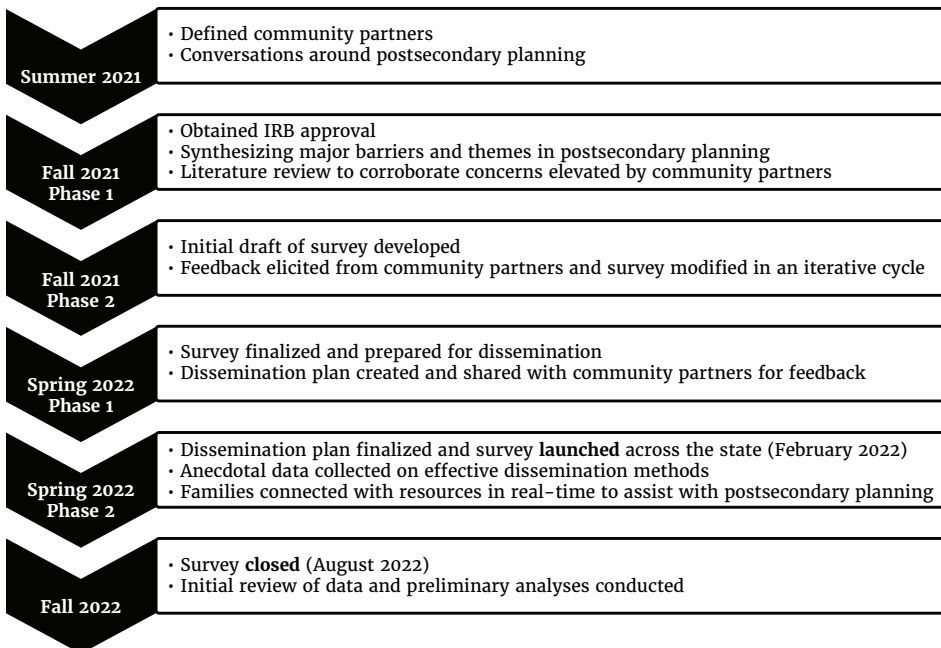


Figure 2. Timeline of Key Events in Survey Development and Dissemination



review was conducted on postsecondary awareness and access. Major sections of the initial survey were developed based on priorities identified in survey planning with community partners and then fleshed out with questions gleaned from the literature review on factors influencing postsecondary education enrollment, such as race and ethnicity (Qian & Blair, 1999), family education level (Finnie et al., 2015; Perna, 2006), cost of postsecondary education (Berbery & O'Brien, 2018), struggles with FAFSA (McKinney & Novak, 2012), and family activities to support postsecondary planning (Cuevas, 2023; Turner et al., 2003). Alongside community partner voices, our initial survey drew on studies conducted in a range of communities to ensure we were moving toward a survey representative of a variety of cultures and backgrounds. Drawing from the literature review and established scales, we chose to include a range of question types on the survey, including multiple choice, Likert scale, "select all that apply," and open-ended questions.

Upon completion of the initial survey, we began eliciting feedback from a variety of community partners. We assumed our partners were experts about their communities, and therefore it was important that they had a chance to critique our initial survey, with a focus on inclusion of identified priorities and language used. By bringing our partners alongside us in developing this survey, we aimed to share decision-making power with them, involve them in all stages of the research process, and elevate their voices for change within their communities.

A variety of methods were used to elicit feedback from community partners. We relied heavily on virtual forms of feedback, such as Zoom, Google Docs, Google Forms, and Google Slides, given time and location constraints associated with the COVID-19 pandemic; however, we did include some in-person feedback sessions. In each iteration of the feedback cycle, information shared by community partners was recorded electronically or in hard copy to review later. Changes to the survey were discussed with community partners to share decision-making power and ensure we were operating from a place of cultural humility with all communities. Incorporating multiple methods for partners to provide feedback ensured many voices were heard in developing this survey.

Several changes were made to the survey

throughout the feedback cycle. For example, the initial survey included a question asking families to identify their student's school as urban, suburban, or rural. GEAR UP staff and school counselors shared that many families may not be familiar with that language or know what their student's school is classified as. As a potential barrier, this question was reworded so families would select their student's school from a list and the onus to classify the school was placed on us as the researchers. Also, in early stages of the survey, the term "postsecondary plan" was used throughout. In accord with feedback from the student parent specialist and families, the language was changed to "plan after high school" to ensure the language used was accessible to all families. All changes made during the feedback cycle were to ensure the survey was as inclusive as possible to diverse communities.

Procedures for Sampling

Responsive and flexible sampling is crucial for the success of a CBPR approach and differs from more researcher-centered approaches (Tremblay et al., 2018). Since GEAR UP partners with nine school corporations across the state, our sampling plan had to be responsive to each community's unique context. Community partners shared their ideas at in-person meetings and via Google Forms regarding how to capture as many voices in their communities as possible. Feedback from school-based educators, the family and student engagement specialist, and the leadership team at the Indiana Commission for Higher Education indicated internet access was a major barrier for survey completion. One strategy to address this concern was developing a flexible data collection timeline: The survey would be open for approximately nine months to give our team time to distribute the survey as widely as possible via online and offline methods.

To address access challenges and remain flexible, modes for sharing the survey in communities with and without internet were developed. For communities where internet access was available, approaches such as sharing the survey link via social media (Facebook and Twitter), schools sharing the survey via text message and voice call, and students texting the link to their parents were employed. GEAR UP staff, like school-based educators who are embedded in schools, were instrumental in working with partner schools to encour-

age sharing this survey with families. In communities where internet may not be as accessible, paper copies of the survey were mailed out with prepaid return envelopes, or teachers provided paper copies of the survey to students to be returned to school. As the project continued, notes about survey distribution and return rate were analyzed to inform next steps. Preliminary data analysis and anecdotal notes indicated that most families heard about the survey through their student's school, which could include word-of-mouth from classroom teachers and school-based educators, or social media, so we continued to push those methods of survey distribution. Using this data to drive decision-making contributed to the sustainability of sampling throughout the duration of the project. The variety of methods employed was beneficial for all members in the UCP by creating multiple avenues for families to engage with the survey.

Incentives were used to create a sustainable sampling plan. Given community partner feedback about how to best compensate families, we included a random raffle for a \$20 restaurant gift card. This raffle was conducted every time we received 20 survey responses to continue to build momentum and awareness around the survey. Upon winning, families had the opportunity to select their desired restaurant card from a few options. To encourage community partners to continue to share the survey, data is being shared on an ongoing basis with individual schools and the Indiana Commission for Higher Education. As community partners can see the data that is being collected, they are able to make more informed decisions about postsecondary planning in their individual contexts.

Dissemination of Findings

Crucial to CBPR approaches is pairing knowledge generation with concrete action steps for communities involved that builds sustainability over time. Since data collection has concluded but final analysis has not yet been completed, we are able to reflect on our responsiveness to student and family needs throughout the data collection process as well as ongoing efforts to share preliminary data with community partners. During the sampling process, families used paper copies of the survey to voice concerns about access to postsecondary planning resources for their students. These concerns were communicated to members of the GEAR UP team, and families were immediately con-

nected with resources in real time to close information gaps.

In addition to concrete action taken during data collection to support students and families in the postsecondary planning process, we have developed key data points that will be shared with individual community partners. Data relevant to individual schools, such as family perceptions of school-to-family communication and parent activities to support postsecondary planning, will be shared with schools to inform communication plans and filling in planning gaps for all students. Information surrounding perceptions of FAFSA and cost of postsecondary education will be shared with the Indiana Commission for Higher Education to connect communities with resources to demystify cost of postsecondary education and the FAFSA process. Disseminating these results from the survey to all community partners enables improved program development across the UCP and tailored intervention in communities where resources may not be equitably distributed. Connecting communities with resources like FAFSA and financial aid workshops creates potential for more evenly distributed access and utilization of postsecondary planning resources for all families. As these interventions are developed based on data collected in our postsecondary survey, we can begin to move from knowledge generation to action steps that can sustain themselves over time alongside community partners.

Measuring Impact and Moving Forward

Now that data collection has concluded, the GEAR UP team will move into data analysis and dissemination of findings. In an initial effort to measure the impact of our project, the number of completed surveys served as a key indicator. Preliminary results show that our team was able to collect 529 survey responses, for an approximately 7% response rate. These 529 responses represent a range of demographic markers such as student high school, race, and family highest education level. Although not a perfect representation of our program, Table 2 highlights the racial demographics of the Indiana GEAR UP student population compared to the percentage of responses on the family postsecondary survey. We believe that our efforts to engage community partners in every stage of the research process on this project contributed to our

ability to collect responses from such a wide range of families across the state. Although some groups were underrepresented in our family survey responses, such as Black and Latino families, other races were well represented. Preliminary analysis of these results demonstrates our success in reaching some families even as a continued need to reach others remains. Findings such as these will inform future iterations of the family postsecondary survey and sampling efforts as we continue eliciting feedback from community partners about dissemination strategies.

Proposed analyses will look to build on prior literature to explore how awareness, access, and use of postsecondary planning resources vary by these demographic markers in our unique UCP. As we seek to understand what postsecondary planning resources each community has access to and uses, we can move forward in collaborating with our community partners to develop community- and program-level strategies to fill in existing gaps. At the program level, Indiana GEAR UP serves as a liaison between a range of communities and institutions, like the Indiana Commission for Higher Education, that has the power to implement programming, via their regional outreach coordinators, to address misconceptions and concerns around paying for postsecondary

education.

Additionally, another strategy planned to increase relevance of GEAR UP-level programming is the planned creation of a family and community engagement and empowerment specialist alongside parent, student, and community action groups. This position will work alongside key partners to elevate family and community voices across the state. Through these new positions, Indiana GEAR UP seeks to connect families not only with one another, but also with organizations and resources they can access in pursuit of postsecondary planning for their students. The goal is to empower families to advocate for and utilize resources that have previously been untapped within their communities. These resources have the potential to help form college-linking networks among students, families, and communities that might have otherwise lacked access to accurate information. By connecting students, families, and community members with resources and information, the Indiana GEAR UP team engages in a reciprocal relationship with these key stakeholders that aims not only to empower community members but also inform GEAR UP's ongoing work within communities. As we connect communities with resources, families, students, and school-based educa-

Table 2. Indiana GEAR UP Student Population and Survey Respondents by Race and Ethnicity

	Indiana GEAR UP	Indiana GEAR UP respondents on family survey
Race		
American Indian	<1%	3%
Asian	2%	1%
Black	31%	16%
Multiracial	4%	7%
Pacific Islander	<1%	<1%
White	44%	72%
Ethnicity		
Hispanic or Latino	19%	14%
Not Hispanic or Latino	81%	86%

Note. Race and ethnicity were separate questions on the survey and are thus separated for clarity here. Families could also select “prefer not to share” for both race and ethnicity, giving different sample sizes for race ($n = 508$) and ethnicity ($n = 498$) calculations.

tors can provide feedback about the usefulness of the programming and connections, which can continue to inform the type of programming Indiana GEAR UP provides. The creation of new roles within the Indiana GEAR UP organizational framework, such as parent, student, and community action groups, is a direct result of feedback from partners and demonstrates Indiana GEAR UP's commitment to empowering the communities we partner with.

Research and Action

In order to address inequities in postsecondary education enrollment and obtainment, we advocate for more equitable research approaches that balance knowledge generation with action that is beneficial to and reflective of the communities involved. While not perfect, a CBPR approach seeks to strike that balance between research and practice. This balance falls on a continuum with varying levels of success from project to project (Israel et al., 2018). Throughout this article, we have sought to provide an example of how a CBPR approach, commonly used to address health disparities, can be extended to understand and propose solutions to educational inequities as well. Indiana, as the site of this research study, currently has state- and community-level programs and policies in place, like the 21st Century Scholars Program, that aim to increase equity in postsecondary education enrollment. Ongoing evaluation of this program highlights that even though policies are in place to increase the college-going rates of Black, Latino, and low-income students, other barriers exist to activating the benefits of the program. GEAR UP has the advantage of serving nine school corporations across the state and has developed robust UCPs that can help uncover mechanisms within communities that might be preventing access and utilization of resources like the 21st Century Scholars Program.

In using CBPR principles, we sought to explore what postsecondary planning resources families are aware of and use across the state as well as to what extent the pandemic has shifted this awareness and access.

Our instrument development and sampling process was a cyclical and iterative process alongside community partners to identify and address issues of concern in each community. By continually revisiting our purpose and methods with community partners, we sought to include all partners' voices in the project. Although we engaged a range of partners in developing and disseminating the survey, there were missed opportunities to promote colearning and capacity building within the community. Explicit training in how to give critical feedback, through sustained capacity building and workshops, could benefit partners in the UCP and their ability to advocate for their communities. Further, given the lingering impacts of the pandemic, our methods of eliciting feedback from families remained mainly virtual. To increase the reach of feedback from partners, diverse methods such as virtual and in-person focus groups alongside virtual forms could be better incorporated.

Although room for improvement remains in our application of a CBPR approach, our work underscores the fluid and dynamic nature of this research approach to fit the needs of the university and community partners. As universities and communities alike continue to grapple with how to increase postsecondary education enrollment for all demographic groups in a postpandemic United States, those universities that choose to adopt a CBPR approach have the potential to uncover more contextualized and relevant gaps in awareness and access of postsecondary planning resources. Bringing communities alongside researchers in this process not only increases capacity for the community in engaging in the scientific process but increases the researcher's awareness of each community's strengths and needs. Adding the CBPR approach to a researcher's toolkit can help generate a more accurate picture of what communities know and have access to regarding postsecondary education planning resources that can fuel the push forward to close equity gaps in postsecondary education enrollment and obtainment.



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