

Connecting Students to Basic Needs Hubs During the COVID-19 Pandemic:

An Evaluation of a Cross-Sectoral Partnership

Sara Goldrick-Rab, *Education Northwest*

Motunrayo Olaniyan

Pei Hu, *Florida State University*

August 2023

Executive Summary

Reducing basic needs insecurity among community college students is an equity imperative for improving college attainment, particularly given the challenges the pandemic introduced. One popular approach is co-locating campus support services to help students access support (beyond financial aid), including public benefits and emergency aid. Some institutions operate their own basic needs hubs, while others engage outside providers. This study evaluates a campus-based cross-sectoral approach at two community colleges in King County, Washington.

Together, the United Way of King County and area colleges and universities operate “Benefits Hubs” for students, offering support from peer navigators and helping them access financial resources and information. However, many students experiencing basic needs insecurity do not use hubs—a problem shared by many other student support services.

Is it possible to increase students’ use of hubs through low-cost outreach? Does that outreach also improve students’ academic outcomes? Evaluators examined these questions during the COVID-19 pandemic, a time when students’ needs for support were especially high, and staff were particularly constrained. The colleges collectively identified a group of approximately 3,000 low-income students who might be eligible for public benefits and thus find the Benefits Hubs’ support useful. Those students were divided at random into two groups. Beginning in fall 2020, staff sent the first group emails encouraging them to use hubs. The second group did not receive that outreach but still had access to hubs. A comparison of the two groups following that outreach revealed whether sending those emails—a strategy widely known as “nudging”—those students improved their use of hubs and/or their odds of academic success in terms of grades and retention.

The results are mixed and largely inconclusive. On the one hand, outreach modestly increased students’ use of Benefits Hubs. It also reached students in several target demographic groups—older students and those from marginalized communities who are at heightened risk of basic needs insecurity. This suggests that informational barriers contribute to basic needs insecurity and may be partially overcome with inexpensive outreach strategies. However, the benefits of outreach dissipated over time, potentially because the targeted students shared information with their peers who did not receive the emails, and then those students also used hubs. Even with the additional outreach efforts, most targeted students did not use hubs and academic improvements were not evidenced.

As community colleges continue to recover from the pandemic and support students to graduation, providing basic needs supports to help students afford college may help. There are several reasons why this evaluation might understate the benefits, including analytic limitations and how the pandemic affected the program. Recent legislation and philanthropy are funding many basic needs hubs, making it especially important to engage in ongoing assessment to develop strategies for strengthening their use and ensuring maximum equitable impact.

Introduction

There is mounting evidence of financial distress among students as the price of attending college continues to rise.¹ Challenges affording school, especially difficulties paying for living expenses, place financial pressure on students to delay enrollment or drop out of college. During the pandemic, retention and completion rates dropped as colleges transitioned to remote learning and offered limited in-person activities.² Declines in enrollment during the pandemic differ from trends in prior economic downturns in which college-going generally increased.³ Notably, the steepest declines in enrollment have occurred at community colleges, which tend to serve the greatest number of students facing the most substantial barriers to economic stability and educational attainment.

The greatest challenges have long been felt by students experiencing basic needs insecurity—measured in this study by food insecurity, housing insecurity, or homelessness. A 2021 study estimated that 61% of students attending community colleges were experiencing basic needs insecurity, and recent studies suggest that the trend is continuing.⁴ Access to food, housing, and other essential resources is likely necessary to promote academic success and persistence in college. An ecosystem of supports, both on and off campus, is required for students to meet their basic needs.

Basic Needs Hubs for College Completion

Supplementing financial aid with supports from public benefits programs, emergency aid, and other resources is a popular and potentially effective strategy for addressing basic needs insecurity and promoting college attainment.⁵ However, student financial services in higher education do not typically help students access public benefits and they often struggle to administer emergency aid to large numbers of students promptly.⁶ Moreover, few college students successfully navigate their way to accessing benefits off campus via community-based organizations. Administrative burdens abound when it comes to learning about the programs, establishing program eligibility, completing the application, and complying with program rules. As a result, only a small fraction of students who need and are eligible for public benefits receive them. For example, in 2019 the U.S. Government Accountability Office estimated that 57% of potentially eligible low-income students with food insecurity risk factors did not participate in SNAP.⁷ In 2021, researchers estimated that just 18% of students experiencing food and/or housing insecurity were receiving SNAP.⁸

Basic needs hubs are meant to address that problem by centralizing benefits access and other supports on campus, increasing the odds that students will access help. Co-location for convenience is intended to address the time constraints many students face. Hubs often offer additional supports to help make college affordable. For example,

many also distribute small-dollar grants, host a food pantry, and provide case management or other navigational services.⁹ Moreover, simply making hubs available has the potential to improve academic outcomes by making students feel cared for, seen, or otherwise part of their college.¹⁰

Basic needs hubs grew in popularity at community colleges over the last decade, spurred in part by two philanthropic initiatives (the Working Students' Success Network and Benefits Access for College Completion), advocates at the Center for Law and Social Policy, and Single Stop USA, a national nonprofit. Recently several states, including Washington, passed legislation to increase public benefits access on campus and support the growth of these hubs.¹¹

Current Evidence

Since basic needs hubs are a recent development there is limited information on their efficacy or how to improve use of their services. Moreover, because students who most need the service that hubs offer are often already at risk of not finishing college due to basic needs insecurity, program evaluations run the risk of mistakenly concluding that hubs themselves are ineffective.¹² To accurately identify their impact, an evaluation must identify how students fare when supported by hubs, and how they would have fared without that support. This is difficult because restricting student access to hubs, a common strategy required for rigorous randomized controlled trials, would be unethical.¹³

The current evidence comes from two types of studies. One type examines the correlation between students' use of hubs and their academic outcomes, controlling for as many pre-existing differences between users and non-users as possible.¹⁴ An example is a recent examination of the hubs in the present evaluation.¹⁵ Those studies find a positive relationship that suggests hubs improve student outcomes. For example, MDRC found that hub users were 25 percentage points more likely to persist and/or complete a credential than non-users. However, while noting that this evidence is promising, researchers wrote "participants can differ from non-participants in a number of ways, and this study did not include a randomized assignment to participation, [so] these results cannot speak to causality nor the impact of participation on academic outcomes."¹⁶

Another type of evaluation tries to address that problem by acknowledging that colleges and policymakers cannot mandate hub use, only offer it. Instead of evaluating the impact of hub usage, evaluators examine the impact of hub *offer* via an outreach campaign. Randomizing encouragement or outreach to discern the added value of anti-poverty programs like hubs is a globally used strategy recommended by the Abdul Latif Jameel Poverty Action Lab.¹⁷ When leveraged to assess an undersubscribed hub at Amarillo College, evaluators found that nudging students to visit the Advocacy and Resource Center increased that hub's utilization and substantially increased students'

developmental education pass rates.¹⁸ During the pandemic, researchers also used the same strategy to test whether nudging students to use a virtual hub at Dallas College, which offered emergency aid and navigational support for public benefits, supported students during the pandemic. Nudging induced greater use of the supports but did not improve graduation rates.¹⁹

Benefits Hubs in King County

Across Washington State, basic needs insecurity is widespread among community and technical college students. Before the pandemic, an estimated six in ten students experienced food and/or housing insecurity.²⁰ The problems persist since the pandemic, even as many adults enduring basic needs insecurity are no longer enrolled. For example, the Washington State Achievement Council (WSAC) estimated that half of enrolled community college students experienced food and/or housing insecurity in fall 2022. However, only about one in five students accessed campus resources.²¹

These challenges are acute in the Seattle region, which faces an intractable affordable housing crisis. In 2016 the United Way of King County (UWKC) created the Bridge to Finish program in partnership with colleges, community organizations, and AmeriCorps Washington to place Benefits Hubs on college and university campuses. This cross-sectoral partnership now supports students at nine community and technical colleges and one university. The partnership's goals are to address basic needs insecurity and improve academic outcomes and financial stability, especially for students of color, older students, parenting students, first-generation students, and low-income students. UWKC's role is to fund the model, coordinate services and provide technical assistance while the college's role is to provide staff, space, and students.

Program Model

The Benefits Hubs ("hubs") are based on a centralized and coordinated model that acts as a one-stop center by providing on-campus access to financial resources and information including public benefits, emergency aid, housing supports, access to food, and financial education (in many ways, these hubs are basic needs hubs, rather than purely benefits hubs, because they offer supports beyond public benefits access).²² Several of these supports were especially useful during the pandemic, as federal legislation expanded student eligibility for SNAP and dramatically increased available funding for emergency aid. Trained AmeriCorps members act as coaches to provide direct services to students and serve as trusted and reliable connectors to resources. Each hub has a site champion who primarily advocates for the program and a site coordinator who oversees model implementation and coordination of services on campus.

When this evaluation began, the program estimated its annual costs at about \$1 million per 5,000 students and had a staff of ten AmeriCorps members. The direct costs were covered by UWKC as part of its Bridge to Finish campaign, and the colleges covered the cost of the Site Champion's time and their match to the emergency aid fund. The

model also benefited from supportive state policies. In 2019, the Washington state legislature passed two bills (2SHB 1893 and 2SHB 5800) establishing the Student Emergency Assistance Grant program and allocating resources to Washington's State Board of Community and Technical Colleges to help colleges provide laundry and shower facilities; free or reduced-price meals; and short-term housing access. Those emergency resources—along with federal pandemic CARES Act funding for emergency grants to students—were especially important during the period of this evaluation.

Implementation Study

In 2020, and before the height of the pandemic in the U.S., DVP-Praxis and The Hope Center collaborated on an implementation study of the program to understand how the hubs operated on campuses across the area.²³ That study reached several conclusions supportive of a subsequent rigorous impact evaluation:

- (1) The hubs have an underlying approach that is holistic and a strong theory of change is being implemented.
- (2) The hubs offer a useful range of services that students welcome.
- (3) Strong administrative support from the college is needed for hubs to be effective.

Evaluators also offered several cautions, including a note that sustained funding for staffing and emergency aid would be important to the program's success.

Based on that evaluation, the teams selected Green River College and Highline College as sites for the impact evaluation (the present study) because they were furthest along in implementing the program model and had active leadership that ensured they were exceeding expectations in implementation.²⁴

Participating Colleges

Green River College is in Auburn, a King County suburb, and enrolls about 10,000 students a year. In collaboration with its foundation, the college initially created an emergency aid fund to meet students' needs back in 2009. In that year, Green River spent \$7,200 to support 23 students. In 2015 the program expanded, becoming the Gator Pledge. In 2017, the fund spent \$41,000 to support 228 students. Two years later, the college spent \$321,000 as the need continued to grow. In 2019, Green River fielded the #RealCollege Survey and found that 52% of students experienced basic needs insecurity—and then the pandemic hit. With the help of the UWKC Benefits Hub and several other partners, in 2020 Green River received more than 5,000 requests for support and distributed \$2.8M directly to students. The college is now working to create an endowment to support students' basic needs.²⁵

Highline College, founded in 1961, was the first community college built in King County. Located in Des Moines, it serves more than 15,000 students a year. The college is home to multiple types of basic needs initiatives, bringing resources to its students via several state initiatives focused on addressing homelessness and supporting former

foster youth, implementing a trauma-informed approach to services, offering staff professional development, putting basic needs resources directly into the learning management software, and more. Three in four students at Highline are from minoritized communities (compared to about 60% at Green River).

The pandemic deeply affected students at both Green River and Highline College. Enrollment declined as classes moved online, students had to educate their school-aged children at home, jobs were lost, and health suffered. College administrators, staff, and faculty, along with UWKC, did their best to secure and deploy resources to students learning remotely. Electronic communication of multiple forms was more intense and frequent than ever, and students were pressed for time and money. Use of hubs declined during this time.²⁶ It is in this extraordinary context that this evaluation took place.

Evaluation Design

A randomized encouragement design was selected for this evaluation (in mid-2019) based on existing evidence at the time and the sorts of constraints described. Specifically, hubs were substantially undersubscribed, encouragement had induced substantially higher hub utilization in one prior study (Amarillo College—the Dallas College study was just getting underway), and it seemed highly likely (if not entirely certain) that the outreach would only directly affect students' academic performance via hub use. Moreover, the projected sample size of 3,500 eligible students, with 2,500 students receiving outreach, appeared to offer sufficient statistical power to detect moderate-size impacts on both utilization and academic outcomes.²⁷ This is adequate for an exploratory randomized controlled trial, the first to examine a program that had not yet been evaluated (MDRC's evaluation began much later).

By the time the evaluation began, however, the COVID-19 pandemic was underway. This had the potential to affect hub utilization as well as students' needs for support, and enrollment declined, reducing sample size for the evaluation. Rather than change strategies, the design remained intact because even estimates from an underpowered randomized trial are often preferable to correlational estimates.

College administrators drew a sample of students who could benefit from hubs (more below) and staff sent personalized emails to nudge students to use hubs. That outreach took place throughout the 2020-2021 academic year, the first full academic year of the pandemic. Staff sent emails once a week for ten consecutive weeks in the fall and once a week for ten consecutive weeks throughout the winter and spring. In total, 20 emails went to students. For additional information on the outreach schedule and examples of the emails, see the web appendices.

Data and Analysis

Administrative records for each student, including those who received outreach and those who did not, were then matched to hub usage data, and four focal outcomes were assessed:

- (1) Utilization of the hub (overall and by type of service);
- (2) Grade Point Average (GPA) from term to term;
- (3) Rates of meeting Satisfactory Academic Progress (SAP) standards;²⁸ and
- (4) Continued enrollment from term to term.

The primary data analysis is confirmatory, examining hub utilization and academic outcomes based on whether students were nudged to use hubs (an intent-to-treat or ITT analysis). All targeted students are included in those analyses, even if they left college. A secondary exploratory analysis examines the association between hub use and academic outcomes. While only students in the outreach group were encouraged to use hubs, all students had access to their services. Hub users systematically differed from non-users, and those differences cannot be completely set aside with statistical analyses. Therefore, those analyses should not be interpreted as estimating program impacts.

Student Sample

Administrators identified students at Green River College and Highline College for nudging to use hubs based on indicators from their financial aid application that suggest a risk of basic needs insecurity. The presence of any of these challenges made students eligible for nudging: an Expected Family Contribution (EFC) within 150% of the eligibility cutoff for the Pell Grant; first-generation student (neither parent attended college); single parent; disabled; former foster youth; and/or experience with homelessness.²⁹

In total 3,072 students met the eligibility requirements: 902 attended Highline College and 2,170 attended Green River College. Using randomization, the two groups were then divided: 1,536 received outreach about the Hub while the other 1,536 did not. The two groups of students were very similar before nudging began (Table 1). Most were female (61%), first-generation (61%), and BIPOC (64%). Just under half the students had an EFC within 150% of the Pell cutoff. Eight percent of the students had a disability, 5% were former foster youth, and 2% had experienced homelessness previously, according to their FAFSA. On average, students were 27 years old at the beginning of fall 2020. At the start of the evaluation, students had an average cumulative GPA of 2.47 and completed an average of 57 credits.

TABLE 1 | BASELINE CHARACTERISTICS OF STUDENTS, BY GROUP

%	All Students	No Nudging	Nudging	Effect Size	p-value
Female	61	62	61	0.02	0.72
First-Generation	61	61	61	0.01	0.80
Former foster youth	5	5	5	0.01	0.93
Disabled	8	8	8	0.00	1.00
Experienced homelessness	2	1	3	0.59	0.07
Dependent status	26	26	26	0.01	0.84
EFC within 150% of the Pell cutoff	47	46	47	0.01	0.86
Race/Ethnicity					
White	36	37	36	0.04	0.35
African American or Black	18	17	19	0.07	0.24
Multiracial	14	14	13	0.07	0.56
Asian	11	10	11	0.04	0.60
Southeast Asian	6	5	6	0.08	0.43
Latine	5	5	5	0.00	1.00
Indigenous	4	4	4	0.03	0.77
Another Race	10	11	9	0.09	0.21
Unknown Race	7	7	8	0.07	0.44
Age					
All Students (mean)	27	27	27	0.02	0.66
18-20 Years (%)	32	32	32	0.02	0.64
21-25 Years (%)	25	26	24	0.06	0.26
26+ Years (%)	43	42	43	0.02	0.61
Pre-Intervention Academics (mean)					
Cumulative GPA	2.47	2.45	2.49	0.03	0.47
Cumulative Credits	57	56	57	0.03	0.35

Source | 2020 administrative records obtained from Highline College and Green River College.

Notes | Overall, N = 3,072; Outreach, n = 1,536; No Outreach, n = 1,536. The table displays the effect size (ES), which represents the size of the difference between the outreach and no outreach groups. Based on the What Works Clearinghouse (WWC) standards, baseline equivalence is achieved if the ES is 0.05 or lower. If the ES is between 0.05 and 0.25, baseline equivalence can be achieved through adjustment. Effect sizes were obtained using Hedges' g and Cox's Index. The p-value represents the statistical significance of the difference between the groups. Racial and ethnic categories are not mutually exclusive so percentages may not add up to 100. Asian students are those who self-identify as Southeast Asian, Pacific Islander, Native Hawaiian, Asian American and Other Asian. The group South Asian includes those who have origins in Southeast Asia or the Indian subcontinent. Indigenous students include those who identified as American Indian or Alaska Native. The homelessness indicator is available at Highline College only. Percentages are rounded.

Benefits Hub Usage

Over the 2020-2021 academic year, just under 18% of students in the sample used hubs at least once. Staff tried to increase hub usage among the students targeted for additional outreach and their efforts initially paid off. In the fall when outreach began, about 10% of targeted students used hubs, compared to under 8% of students who were not nudged (Table 2). That impact is statistically significant but much smaller than the impact in the Amarillo study, where nudging doubled hub utilization.³⁰

Moreover, the impact does not persist beyond fall because students who did not receive outreach substantially increased their use of hubs by winter, catching up to the nudged students. It is possible that this occurred because students who were nudged shared the emails with non-nudged students. Overall, only 10% of each group used hubs in the winter and spring terms, a small fraction of students with need on the target campuses.

TABLE 2 | IMPACT OF NUDGES ON BENEFITS HUB USE OVER TIME

	No Outreach (%)	Outreach (%)	Difference	Effect Size	p-value
Fall Use	7.84	10.19	2.35	0.18	0.02
Winter Use	10.70	10.20	-0.50	-0.03	0.64
Spring Use	10.38	9.09	-1.29	-0.09	0.23
Any Use	17.87	17.68	-0.19	0.01	0.89

Source | 2020-2021 utilization data obtained from the United Way of King County.

Notes | Overall, N = 3,072; Outreach, n = 1,536; No Outreach, n = 1,536. Both colleges are on the quarter system. Data was collected in three academic terms; fall 2020 through spring 2021. The model adjusted for pre-treatment covariates found to not be in balance at baseline according to WWC standards ($0.05 < ES < 0.25$). Covariates include age, race, and college. The fixed effects for each college were included in the model. The p-value represents the statistical significance of the difference in utilization of the Benefits Hubs between students in the outreach group and students who did not receive the outreach.

The hub services students used varied over time (Table 3). In fall 2020, students mainly used housing supports and benefits access. That winter, students were more likely to seek emergency grants. At that point, federal emergency aid was relatively plentiful, and hubs began using a new platform for distribution.³¹ In Spring 2021, students primarily got food. It is possible that state and local changes, along with the eviction moratorium, reduced students' needs for housing supports and increased their access to public benefits without navigational help. It is also possible that the variation is attributable to changes in who attended the colleges each term.

TABLE 3 | AVERAGE USE OF HUB SERVICES, BY ACADEMIC TERM

	Fall 2020		Winter 2021		Spring 2021		2020-2021 Total Usage	
	%	N	%	N	%	N	%	N
Any Service Used	9	277	10	321	10	299	18	546
Housing Support	7	211	3	91	1	43	8	258
Benefits Access	6	170	1	42	1	24	7	206
Emergency Grant	4	117	5	162	2	49	9	264
Food Access	2	74	5	158	8	244	10	316
Paying for School	1	41	1	16	0	8	2	55
Financial Coaching	1	27	0	13	0	9	1	46
Mental Health and Wellness	0	3	0	6	0	4	0	12
Legal and Tax Services	0	3	0	11	0	5	1	18

Source | 2020-2021 utilization data obtained from the United Way of King County.

Notes | N = 3,072. Both colleges are on the quarter system. 2020-2021 Total Usage displays the percentage of students who used the benefits hub at least once during the 2020-2021 academic year. Some students may have used multiple resources. Food access includes the usage of food pantries. Usage rates for legal services and free tax preparation were merged in the category Legal and Tax Services. For more details on the available resources at the UWKC Benefits Hubs, refer to the web appendices.

Hub users differed in several ways from non-users. Almost three-quarters of users were female-identified, nearly as many were non-White, and 60% were aged 26 or older, very different demographics than those of non-users (Table 4). Seven percent of users were

former foster youth, compared to 4% of non-users, and 13% of users were disabled (compared to 7% of non-users).

First-generation students were less likely to use hubs, despite greater risk of basic needs insecurity. In addition, students with fewer credits in hand and lower grades were more likely to use hubs. However, a student's EFC and/or prior experience with homelessness did not affect the likelihood that they used hubs.

TABLE 4 | CHARACTERISTICS OF STUDENTS, BY HUB USE

%	Did Not Use Hubs	Used Hubs	Difference	p-value
Female	59	74	15	0.00
First-Generation	62	58	-4	0.18
Former foster youth	4	7	3	0.01
Disabled	7	13	6	0.00
Experienced homelessness	2	1	-1	0.43
Dependent status	24	34	10	0.00
EFC within 150% of Pell cutoff	47	46	-1	0.93
Race/Ethnicity				
White	38	28	-10	0.00
African American or Black	16	25	9	0.00
Multiracial	15	10	5	0.16
Asian	11	10	1	0.60
Southeast Asian	10	11	1	0.21
Latine	5	4	-1	0.34
Indigenous	3	5	2	0.05
Age				
18-20 Years (%)	35	16	-19	0.00
21-25 Years (%)	25	24	-1	0.56
26+ Years (%)	39	60	21	0.00
Pre-Intervention Academics (mean)				
Cumulative GPA	2.44	2.61	0.15	0.01
Cumulative Credits	56	61	5	0.03

Source | 2020 administrative records obtained from Highline College and Green River College. 2020-2021 utilization data obtained from the United Way of King County.

Notes | N = 3,072; Did Not Use Hubs, n = 2,526; Used Hubs, n = 546. Students were grouped based on their utilization of the Benefits Hubs regardless of their randomization assignment. The p-value represents the statistical significance of the difference between the groups. Racial and ethnic categories are not mutually exclusive so percentages may not add up to 100. Asian students are those who self-identify as Southeast Asian, Pacific Islander, Native Hawaiian, Asian American and Other Asian. The group South Asian includes Southeast Asia or the Indian subcontinent. Indigenous students include those who identified as American Indian or Alaska Native. The homelessness indicator is available at Highline College only. Percentages are rounded.

Academic Outcomes

Telling students about a college's basic needs supports might improve their academic performance in several ways. It could help connect them to supports that make it more possible to afford college and/or allocate more time to college, allowing them to participate more fully and successfully. In addition, simply making students aware that help is available, and that their college has taken steps to provide it, may increase their sense of belonging at the institution. The sense of feeling seen and welcomed is also associated with higher grades and retention rates and may have benefits even if students do not use the services they are told about.³² By comparing the persistence rates and grades of students who were nudged to use hubs to those who were not, we can estimate potential impacts. While hub users and non-users may have different backgrounds and academic profiles, we can set aside those differences to get a clean look at the independent effect of the outreach itself.

It does not appear that nudging students to use hubs improved their academic outcomes, at least not in the short term. Of course, this would have been difficult to achieve given the low rate of hub usage and lack of increase in use due to nudging. Just over 60% of students persisted to the spring term; while the rate was one percentage point higher for students nudged to use hubs, the small difference could have been due to chance. About 76% of students enrolled in spring and met SAP, and about 56% had a cumulative GPA of 3.0 or higher (Table 5).

TABLE 5 | IMPACT OF NUDGES TO HUBS ON ACADEMIC OUTCOMES

	No Outreach (%)	Outreach (%)	Difference	Effect Size	p-value
Winter to Spring Persistence	61.58	62.70	1.12	0.03	0.52
Meeting SAP in Spring	76.82	76.70	-0.12	0.00	0.94
Cumulative GPA 3.0 or higher in Spring	56.16	56.93	2.86	0.02	0.66

Source | 2020-2021 utilization data obtained from the United Way of King County.

Notes | Overall, N = 3,072; Outreach, n = 1,536; No Outreach, n = 1,536. Both colleges are on the quarter system. Data was collected in spring 2021. The model adjusted for pre-treatment covariates found to not be in balance at baseline according to WWC standards ($0.05 < ES < 0.25$). Covariates include age, race, and college. The fixed effects for each college were included in the model. The p-value represents the statistical significance of the difference in academic outcomes between students in the outreach group and students who did not receive the outreach.

This does not mean that students who used hubs had similar academic outcomes to those who did not. The two groups of students differed in many ways, as Table 4 illustrates, and their academic outcomes in Spring 2021 did as well. Statistical models show that the sorts of differences captured by the data do not explain why hub users have much higher persistence rates than non-users—the difference is about 16 percentage points (Table 6). But as in the MDRC evaluation, those models cannot rule out the possibility that other non-observed differences, like differences in students’ social capital or self-efficacy, are contributing—positively or negatively.³³ Moreover, hub users and non-users did not differ in terms of their spring grades or rates of making SAP.

TABLE 6 | ASSOCIATION BETWEEN HUB USE AND ACADEMIC OUTCOMES

	Did not use Hub (%)	Used Hub (%)	Difference	Effect Size	p-value
Winter to Spring Persistence	59.25	75.44	17.28	0.47	0.00
Met SAP in Spring	76.58	77.69	1.12	0.04	0.56
Cumulative GPA 3.0 or higher in Spring	56.56	56.50	-0.05	0.00	0.98

Source | 2020 administrative records obtained from Highline College and Green River College. 2020-2021 utilization data obtained from the United Way of King County.

Notes | Overall, N = 3,072; Did Not Use Hub Services, n = 2,795; Used Hub Services, n = 277. Students were grouped based on their utilization of the Benefits Hubs regardless of their randomization assignment. The logistic models include pre-treatment covariates found to not be in balance at baseline (ES > 0.05). Covariates include age, race, foster status, disability status, dependent status and pre-intervention cumulated GPA and cumulated credits. The fixed effects for each college were included in the model. The p-value represents the statistical significance of the difference in academic outcomes between students who used and did not use the Benefits Hubs. Students with missing GPAs are imputed as zero.

DISCUSSION AND RECOMMENDATIONS

Addressing basic needs insecurity through campus-based hubs that connect students to supports is an increasingly prevalent institutional strategy. However, hubs remain underutilized. This evaluation considered a way to increase King County students' use of hubs and estimated how that affected their academics. It took place at two colleges where hubs were well-implemented, but it occurred during the COVID-19 pandemic, which affected both the program and the evaluation.

An email campaign to students about hubs initially boosted utilization by a modest amount, less of an increase than that seen in a prior study. This indicates that informational barriers may be contributing to basic needs insecurity and can be at least partially overcome with inexpensive strategies. However, that impact did not last throughout the remainder of the academic year. Overall, less than one in five students targeted for support used hubs.

Students received many kinds of support through hubs, from housing resources to emergency aid and food. Hub users were very different from non-users; they tended to be disproportionately female, BIPOC, and older, reflecting the program's mission. However, first-generation students were underrepresented among hub users, and thus the students served had more social capital. They also had stronger pre-existing academic profiles than non-users. This suggests that along some dimensions (i.e. race and age) hubs may be promoting equity but could do more to reach students with weaker social networks and less access to information.

The academic impacts of nudging students to hubs were not evident, which is unsurprising given that most students did not use hubs. While hub users were much more likely to persist in college, a finding echoed in another recent program evaluation, neither this study nor that one could confirm that this was caused by hub use.³⁴ Further research is needed with larger samples of students and colleges, and using designs that can identify the independent impact of hub usage.

Limitations

For several reasons, it is possible—even likely—that this evaluation understates the impacts of nudging students to hubs. The information about hubs was easily shared, and it is possible that targeted students shared the hub information with students who did not receive it.³⁵ This would be positive for students while also hampering this evaluation; specifically, it could have boosted hub use among students who did not receive the outreach, making it similar to usage among nudged students. Indeed, the gap in usage rates closed between fall and winter, which suggests that information sharing might have occurred and promoted hub usage among all students. As more basic needs hubs are developed, it will become possible to conduct future evaluations by comparing outreach campaigns across colleges rather than among students within colleges to mitigate this problem.

It is also possible that outreach would have been more effective in a different setting where outreach was less common. Green River College and Highline College had significant advertising strategies for the hubs in place when the evaluation began—though, again, utilization was still low.

The COVID-19 pandemic may also have muted the hubs' efficacy, particularly because it presented and exacerbated challenges to connecting students to services. Throughout the intervention, most of the students' courses were offered virtually at Green River College and Highline College following Washington State's Phase 2 guidelines for higher education institutions.³⁶ While the colleges continued to provide students with support services, services were provided remotely due to campus closures. Students who needed assistance could make an appointment to speak to a coach or enter a Zoom waiting room during scheduled drop-in hours during the day.³⁷ This was a very different scenario than what students experienced at hubs during non-pandemic times. The pandemic also reduced the sample size available for this evaluation, which could affect the results.

Finally, nudging students to use hubs might have important outcomes that were not explored in this evaluation. For example, it could have reduced their basic needs insecurity, improved their health, or otherwise affected their well-being. Those outcomes, which are increasingly being measured in basic needs research, ought to be considered in future evaluations of hubs.

Implications

As community colleges continue to recover from the pandemic and support students to graduation, providing basic needs hubs to help them access safety net supports may help. Prior research has established the need for basic needs supports, the importance of on-campus resources, and the imperative to attend to equity in access.³⁸ These are key drivers of basic needs hubs. Several other evaluations identified promising approaches for connecting students to supports, and some found academic impacts. Given its many limitations, however, this evaluation should not be the last to examine this program and others like it. Recent philanthropy and legislation now fund many hubs. Indeed, as this evaluation report was being written the Washington State Legislature funded the expansion of basic needs hubs, food voucher programs, and other key supports across the state's colleges and universities. This makes it especially important for programs to engage in ongoing assessment to develop strategies for strengthening utilization and ensuring maximum equitable impact.

Acknowledgments

The authors thank Arnold Ventures for supporting this research; the United Way of King County, Green River College, and Highline College for their participation and partnership in this project; and Sarah Deal, and Jessa Valentine, of DVP-PRAXIS LTD for their research contributions. Many current and former Hope Center at Temple University staff contributed research, analysis, and editing for this paper including Christine Leow, Jiayao Wu, Vanessa Coca, Christine E. Baker-Smith, Rjaa Ahmed, Lauren Bohn and Joshua Rudolph.

Funder Disclosure

The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the funders or participating colleges.

¹ Goldrick-Rab, S. (2016). *Paying the Price: College Costs, Financial Aid, and the Betrayal of the American Dream*. University of Chicago Press.; Olaniyan, M., Hu, P., & Coca, V. (2022, April). [College enrollment during the pandemic: Insights into enrollment decisions among Black Florida college applicants](#). The Hope Center for College, Community, and Justice; Terriquez, V. & Gurantz, O. (2015). [Financial challenges in emerging adulthood and students' decisions to stop out of college](#). *Emerging Adulthood*, 3(3), 204–214.

² Sommo, C., Lepe, M., & Ratledge, A. (2022, January). [Supporting college students during the pandemic: Early lessons from SUCCESS](#). MDRC.

³ Long, B. T. (2014). [The financial crisis and college enrollment: How have students and their families responded?](#). In *How the Financial Crisis and Great Recession Affected Higher Education* (pp. 209-233). University of Chicago Press.

⁴ The Hope Center for College, Community, and Justice. (2021). [#RealCollege 2021: Basic needs insecurity during the ongoing pandemic](#).; Center for Community College Student Engagement. (2022). [Mission critical: The role of community colleges in meeting students' basic needs](#).; Cornett, A. & Fletcher, C. (2022, March). [No food for thought: Insights on basic needs insecurities and mental health challenges from Trellis' Fall 2020 Student Financial Wellness Survey](#). Trellis Company.; Bryant, M. & Magisos, A. (2023, January). [Basic needs security among Washington College students: Washington student experience survey: Findings report](#). Washington Student Achievement Council.

⁵ Goldrick-Rab, S., Baker-Smith, C., Bettinger, E., Walton, G., Brady, S., Gill, J., & Looker, E. (2022, February). [Connecting community college students to non-tuition supports during the COVID-19 pandemic](#). The Hope Center for College, Community, and Justice.; Goldrick-Rab, S., Clark, K., Baker-Smith, C., & Witherspoon, C. (2021, October). [Supporting the whole community college student: The impact of nudging for basic needs security](#). The Hope Center for College, Community, and Justice.; Goldrick-Rab, S., Hernandez, D., Coca, V., Williams, T., & Richardson, B. (2020, January). *Houston food scholarship program report*. The Hope Center for College, Community, and Justice.; Umaña, P., Olaniyan, M., Magnelia, S., & Coca, V. (2022). [Connecting community college students to SNAP benefits: Lessons learned from a pilot outreach intervention in California](#). The Hope Center for College, Community, and Justice.

⁶ Goldrick-Rab, S., Hacker, N.L., Kienzl, G., Price, D.V., & Curtis, D. (2021, October). [When care isn't enough: Scaling emergency aid during the pandemic](#). The Hope Center for College, Community, and Justice.

⁷ United States Government Accountability Office. (2018, December). [Food insecurity: Better information could help eligible college students access federal food assistance benefits.](#)

⁸ The Hope Center for College, Community, and Justice. (2021, March). [#RealCollege 2021: Basic needs insecurity during the ongoing pandemic.](#)

⁹ Hodara, M., Brey, L., McLennan, D., & Riggs, S. (2023, January). [ECMC foundation basic needs initiative evaluation report 1: Sustaining basic needs services at postsecondary institutions.](#) Education Northwest.

¹⁰ Murphy, M.C., Gopalan, M., Carter, E.R., Emerson, K.T.U., Bottoms, B.L., & Walton, G.M. (2020, July). [A customized belonging intervention improves retention of socially disadvantaged students at a broad-access university.](#) *Science Advances*, (6)29.; Castleman, B. (2019). [Nudges, norms, and new solutions: Evidence-based strategies to get students to & through college.](#) Ideas42, Nudge4, & Heckscher Foundation for Children.

¹¹ Rosales, B.M. (2022, August). [California colleges now have centers to help students with basic needs like food and housing.](#) EdSource.; Powell, M. (2021, June). [Oregon bill funds 'benefits navigators' at public universities, colleges.](#) Oregon Public Broadcasting.; Hoffman, H. (2023, April). [Legislature passes several bills to support higher education.](#) Cascadia Daily News.

¹² This is due to a challenge known as selection bias, which can arise when program participation is not randomly assigned. Students facing basic needs insecurity who use Hubs might have lower rates of college completion relative to non-Hub users because of their already weaker prospects of degree completion, not because of the Hubs. This is called negative selection. Positive selection is also possible: if students with more information about campus services use Hubs, they might have higher rates of completion relative to non-Hub users because they have pre-existing informational advantages that maximize their odds of completion.

¹³ Randomizing colleges to offer hubs is an alternative approach but would require many colleges to participate. Advances in legislation and support for basic needs could integrate an evaluation plan that includes a cluster randomized trial to make this possible in the future.

¹⁴ National Center for Education Evaluation. (2020, November). [Single Stop USA's community college initiative.](#) Institute of Education Sciences.

¹⁵ Henderson, B., Holman, D., & Lacalli, E. (2023). [Bridge to finish outcome study.](#) MDRC & Washington Student Achievement Council.

¹⁶ Henderson, B., Holman, D., & Lacalli, E. (2023).

-
- ¹⁷ Heard, K., O'Toole, E., Naimpally, R., & Bressler, L. (2017, April). [*Real-world challenges to randomization and their solutions*](#). J-PAL North America.
- ¹⁸ Goldrick-Rab, S., Clark, K., Baker-Smith, C., & Witherspoon, C. (2021, October).
- ¹⁹ Goldrick-Rab, S., Baker-Smith, C., Bettinger, E., Walton, G., Brady, S., Gill, J., & Looker, E. (2022, February).
- ²⁰ The Hope Center for College, Community, and Justice. (2020). [*Washington State Community and Technical Colleges #RealCollege Survey*](#).
- ²¹ Bryant, M. & Magisos, A. (2023, January).
- ²² A full list of services provided by Benefits Hubs can be found on [*United Way of King County's resource page*](#).
- ²³ Deal, S. A., Valentine, J. L., Price, D., Goldrick-Rab, S., & Looker, E. (2020, November). [*Cross-sectoral benefits hubs: An innovative approach to supporting college students' basic needs*](#). The Hope Center for College, Community, and Justice.
- ²⁴ Deal, S. A., Valentine, J. L., Price, D., Goldrick-Rab, S., & Looker, E. (2020, November).
- ²⁵ Green River College Foundation. [*A case for Gator Pledge*](#).
- ²⁶ Henderson, B., Holman, D., & Lacalli, E. (2023).
- ²⁷ In the grant proposal evaluators described the power analysis: "We estimate we have 90% power to detect impacts of 5% or larger for the first equation and impacts of 11% or larger for the second equation."
- ²⁸ To meet the requirements for Satisfactory Academic Progress (SAP), students must maintain a minimum cumulative GPA of 2.0 each quarter, complete at least 67% of their attempted cumulative credits, and complete their degree or certificate of study within 125% of the program's length. For additional details on the individual colleges' requirements for SAP, visit the financial aid pages for [*Green River College*](#) and [*Highline College*](#).
- ²⁹ Baker-Smith, C., Coca, V., Goldrick-Rab, S., Looker, E., Richardson, B., & Williams, T. (2020, February). [*#RealCollege 2020: Five years of evidence on campus basic needs insecurity*](#). The Hope Center for College, Community, and Justice.; Conroy, E., Magnelia, S., Dahl, S., & Goldrick-Rab, S. (2021, October). [*The real price of college: Estimating and supporting students' financial needs*](#). The Hope Center for College, Community, and Justice; Goldrick-Rab, S., Baker-Smith, C., Coca, V., Looker, E., & Williams, T. (2019, April). [*College and university basic needs insecurity: A national #RealCollege Survey report*](#). The Hope Center for College, Community, and Justice;

The Hope Center for College, Community, and Justice. (2021). [#RealCollege 2021: Basic needs insecurity during the ongoing pandemic..](#)

³⁰ Merens, S., Herbez, M., Hahnel, U. J. J., & Brosch, T. (2021, December). [The effectiveness of nudging: A meta-analysis of choice architecture interventions across behavioral domains](#). Psychological and Cognitive Sciences; Sánchez-Meca, J., Marín-Martínez, F., & Chacón-Moscoso, S. (2003, December). [Effect-size indices for dichotomized outcomes in meta-analysis](#). American Psychological Association.

³¹ Henderson, B., Holman, D., & Lacalli, E. (2023).

³² NCEE Blog. (2022, January). [Is believing in yourself enough? Growth mindset and social belonging interventions for postsecondary students](#). Institute of Education Success.; If this hypothesis holds, however, it would mean that nudging could have a direct impact on outcomes independent of service utilization, which would violate a requirement for the randomized encouragement design according to JPAL.

³³ A different evaluation of the Hubs shows that users are more likely to receive Pell and have children; those measures were not available in the data for this evaluation. Henderson, B., Holman, D., & Lacalli, E. (2023). (There was a dependent variable but not Pell, we added to Table 1 and Table 4 and since Table 4 is significant, we adjusted Table 6).

³⁴ MDRC reports a raw 16-percentage-point difference in persistence between Hub users and non-users that widens to 25 percentage points with more extensive controls than those available in this study.; Henderson, B., Holman, D., & Lacalli, E. (2023).

³⁵ Umaña, P., Olaniyan, M., Magnelia, S., & Coca, V. (2022).

³⁶ Washington Governor. (2020, May). [Phase 2 higher education & workforce training COVID-19 requirements](#).

³⁷ [United Way of King County's resource page](#).

³⁸ Hodara, M., Brey, L., McLennan, D., & Riggs, S. (2023, January).