



theRPgroup

Research • Planning • Professional Development  
for California Community Colleges

# On Path and In Control:

Early Results on How Bakersfield  
College Students Experience Program  
Mapper

Kelley Karandjeff, EdM

Mina Dadgar, PhD

Michelle White, MBA

October 2020

[www.rpgroup.org](http://www.rpgroup.org)

# Table of Contents

- Introduction ..... 3
- Program Mapper Purpose..... 4
- Program Mapper’s Potential for Impacting Student Outcomes ..... 6
- Student Perspectives on Program Mapper ..... 8
- Conclusion and Recommendations..... 18
- Appendix A: Focus Group Methodology ..... 22
- Appendix B: Student Focus Group Protocol..... 24
- Appendix C: Welcome Center Student Worker Focus Group Protocol ..... 30
- References ..... 34

# Introduction

In January 2019, Bakersfield College (BC) launched [Program Pathways Mapper](https://www.bakersfieldcollege.edu/academics/program-mapper),<sup>1</sup> a web-based tool for students to visualize the courses required for programs within each of the college's nine [Learning and Career Pathways](https://www.bakersfieldcollege.edu/academics/pathways).<sup>2</sup> As part of the college's broader Guided Pathways effort to help students make informed decisions about program selection and speed their progress toward completion, the Program Pathways Mapper (Program Mapper or PM) displays both the academic requirements and occupational and career information associated with each program. Just over one year into its implementation, BC and the Research and Planning Group for California Community Colleges (RP Group) partnered in spring 2020 to answer some key questions:

- How is Program Mapper improving the student experience?
- How is this resource helping students enter and stay efficiently on the path toward achieving their goals?
- In what ways can BC grow students' use of this tool?
- What can be learned from early implementation to inform adoption at other colleges?

Together, BC and the RP Group took a look at early indicators for Program Mapper's potential to improve students' time to completion. We also spoke directly with students—both those who have used the tool and those who were new to it—about how it supports their college and career planning, what they appreciate, and what suggestions they have for continuing to amplify its use and grow its effectiveness. Notably, we conducted this research at the onset of the COVID-19 pandemic and the commensurate move to distance education, and in turn, additionally explored students' needs and the ways Program Mapper might support their educational journey. Taken together, these early findings paint a positive picture, indicating that **Program Mapper is helping students get on the path and gain control of their own progress—offering considerable potential at both BC and beyond for supporting students' completion.**

## In this Report



**Program Mapper's purpose**, including an overview of how it fits into BC's broader Guided Pathways strategy based on interviews with lead developers and implementers.



**Early indicators of impact**, specifically data on how Program Mapper is helping students stay on the path toward their educational goals.



**Student perspectives on its benefits and opportunities for further development**, including findings from five student focus groups about their experiences with the tool

---

<sup>1</sup> <https://www.bakersfieldcollege.edu/academics/program-mapper>

<sup>2</sup> <https://www.bakersfieldcollege.edu/academics/pathways>

and ways to continue strengthening students' use of this resource, including in the context of the COVID-19 pandemic.<sup>3</sup>



**RP Group recommendations** for growing Program Mapper's impact as well as possible considerations for strengthening BC's overall career and college planning approach.



## Program Mapper Purpose

BC was an early adopter of the Guided Pathways movement, joining the American Association for Community College's Pathways Project in 2015 and then helping to establish the California Guided Pathways Project in fall 2017. Since that time, the college has pioneered student-centered approaches to actualize the four pillars of Guided Pathways, shown in Figure 1. Program Mapper represents one such effort, which equips college personnel *and* students with critical information about what path to

Figure 1. Guided Pathways Pillars



choose and how on stay on path once a goal is selected. **A review of public documentation and interviews with three Program Mapper initiative leaders reveals three essential functions of the tool.**

### 1. Support Students from the Start with the End in Mind

Community college students often struggle to select a major, reporting inadequate opportunities to explore their careers of interest and insufficient guidance on programs of study that can lead to those careers (Dadgar et al, 2017). While the Program Mapper's career information is helpful and engaging, it is not as comprehensive as other dedicated career exploration options. Even so, it does assist with career exploration and linking majors and careers. Students can **clarify the broad areas of study (i.e., Learning and Career Pathways) available at BC, visualizing the different programs of study and the courses each require.** Additionally, it provides **introductory information on possible career opportunities** for each program of study, as well as current labor market information about the range of salaries and relative growth of occupations connected with a given program.

---

<sup>3</sup> See detailed student focus group methodology in Appendix A.

## 2. Help Students Understand Requirements for Transfer to California State University (CSU)

Helping students know how to transfer to CSU is critical to their education planning process. Nearly 70% of students state a transfer goal on their application, and of those who transfer from BC, the vast majority (71%) attend a CSU. California community college students often report that uncovering and navigating the specific steps required to make the transition to a baccalaureate-level institution are challenging, and research finds that students often lose credits once they make it to university, particularly students of color (Cooper et al, 2020; ; Giani, 2019; Simone, 2014; United States Government Accountability Office, 2017).

All transfer programs in Program Mapper include at least a CSU and a generic University of California (UC) map. Where available, the Program Mapper tool specifically visualizes the transfer requirements for associate degrees for transfer (ADTs), allowing students to learn which courses would enable them to transition to a number of CSU destinations with junior-level standing. In some cases, it offers transfer maps specifically for CSU-Bakersfield (CSUB), where 56% currently transfer.<sup>4</sup>

Sharing these requirements through Program Mapper aims to increase student access to education planning and empower outreach staff, peer mentors, counselors, advisors, and students themselves with the information they need to work toward a transfer milestone. Notably, BC Outreach Coordinator Ashlea Wagner reports that outreach staff, peer mentors, and even high school counselors are now leveraging Program Mapper to help secondary students get a jumpstart on college planning, stating:

*Program Mapper helps me as an outreach staff stay up to date about program requirements and visually share the information with students, . . . and now our high school partners have started using it with their students who are interested in attending BC.*

## 3. Clarify Program Requirements and Aid Internal Communication among Faculty, Staff, and Administrators

The visualization of courses into a program map, one that has been developed and vetted by program and counseling faculty, also helps clarify the path for faculty—**shifting from a focus on students' completion of individual courses to students' journey across an entire program of study**. It enables faculty to see the potential confusion that students face in selecting courses

---

<sup>4</sup> The majority of ADT programs also have CSUB-specific program maps as a result of the collegial faculty partnerships that were developed via the BC-CSUB Finish in Four initiative. The result of that year-long project was a set of valid and vetted maps that faculty at both institutions endorsed as functional and effective pathways for transfer students.

and helps galvanize the need for change. Lead Program Mapper developer and BC Office of Institutional Effectiveness (OIE) Dean Craig Hayward states:

*It's a shift into a Guided Pathways mindset. Because [faculty] have to create these maps, they can . . . develop empathy for the student experience of navigating the course requirements. It helps create a shift to a program focus rather than focusing on courses and helps contextualize the courses within a career.*



## Program Mapper's Potential for Impacting Student Outcomes

As a precursor to the RP Group's student focus groups, BC looked at early data to understand how student use of the platform is impacting their progress. BC intentionally designed Program Mapper without a unique log-in and password to reduce any barriers to entry for all potential users, including current and prospective students, parents, high school counselors, employers, and other community members. Accordingly, BC does not currently have a mechanism to systematically track and report individual student access to the tool. As a result, it is challenging to use administrative data to link students' use of Program Mapper to specific outcomes.

Nonetheless, survey data show suggestive evidence of the tool's promise in helping students take courses that contribute to their goals. Prior to the RP Group conducting student focus groups, OIE conducted a survey of 1,000 randomly selected students along with an additional 281 students who had indicated in a previous survey that they would be open to participating in an interview about their BC experience—reaching a total of 1,281 students in spring 2020. This survey aimed to help better understand student usage of Program Mapper. The college secured an 11% response rate, finding that **just a year after its launch, nearly half of students surveyed (48%) had used Program Mapper.**<sup>5</sup>

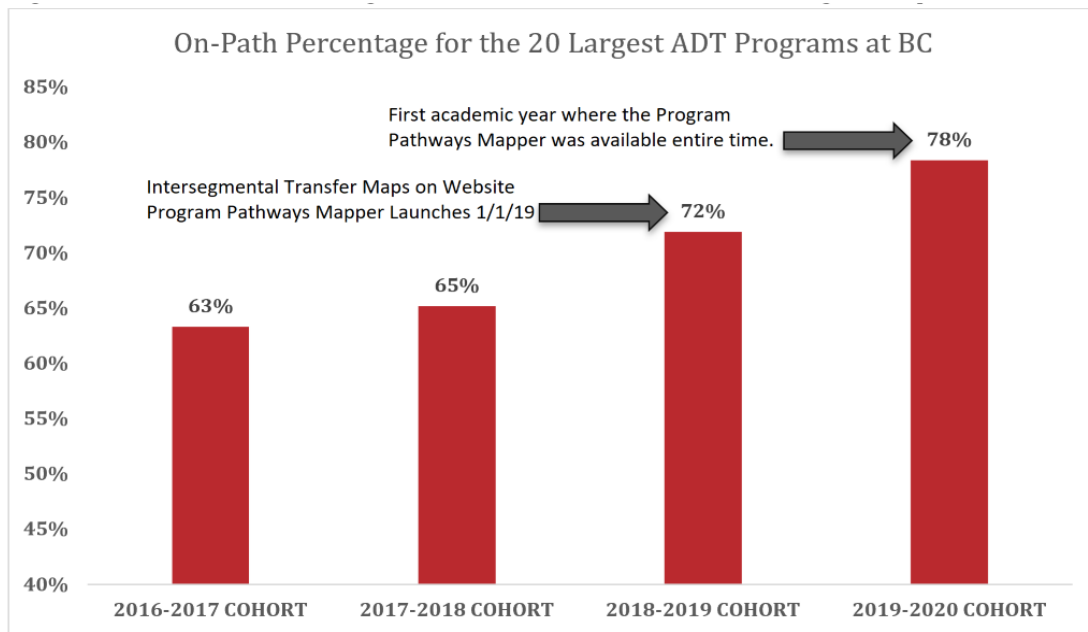
While at this point there has not been an independent evaluation of the impact of Program Mapper, growing evidence suggests that **students' use of Program Mapper is contributing to progress in their programs of study.** Data show that the launch and student use of this tool is associated with a consistent increase in the percentage of courses that were taken by a given cohort of first-time students who were considered “on path,” as demonstrated by the on-path percentage (OPP) shown in Figure 2. Furthermore, course-taking among the student focus group participants who indicated that they had *not* used Program Mapper was just 60%, while the average on-path percentage was 73% among the focus group participants who *were* Program Mapper (see additional details in Appendix A).

---

<sup>5</sup> It is possible that a higher percentage of students had accessed Program Mapper, but were not able to make the connection while responding to the survey.

OPP measures the percentage of total class enrollments at a given point in time (e.g., first year) that conform to classes on the program map for that student's current program of study. Figure 2 shows the OPP for the first year of coursework for four cohorts of first-time students. This analysis comprised BC's top 20 programs, which are all ADTs and which represent 80% of students at BC. Since they are ADTs, the programs' coursework requirements were consistent over the four years studied. As Figure 2 illustrates, the increased OPP corresponds to the timeline in which BC made program maps available online, and presumably to the usage of Program Mapper over time.

Figure 2. Percentage of Course Work Related to a Student's Program of Study (by Student Cohort)



Source: Bakersfield College Office of Institutional Effectiveness


These correlational results are encouraging because one of the main objectives of Program Mapper is to empower students with the knowledge of which courses count towards a program of study, thus reducing the number of courses students take that do *not* fulfill their program requirements.<sup>6</sup>

<sup>6</sup> One note of caution is that the quantitative successes associated with the use of Program Mapper may be in part due to BC's multifaceted Guided Pathways efforts to redesign and improve outreach and onboarding and help students choose a program of study and select courses. Thus, any successes that may result from students having greater clarity about course-taking cannot be divorced from these broader holistic outreach, onboarding, and counseling strategies.

## Student Perspectives on Program Mapper

The student focus groups with BC students conducted by the RP Group in spring 2020 offer complementary information to the limited early indicators of Program Mapper’s impact on student outcomes that BC can immediately use to gauge students’ experience with the tool. Participants in these discussions included regular Program Mapper users, those who were new to the tool, and student workers at BC’s Welcome Center who engage their peers with it (see sidebar, *Student Focus Group Quick Facts*). These conversations shed light on what students appreciate about Program Mapper, how they use the tool, and what they suggest the college and other institutions interested in adopting it might do to strengthen utilization (see full student focus group protocol in Appendices B and C).

### Student Appreciation for Program Mapper

 Students universally expressed that **Program Mapper can help all students make informed decisions about both their educational and career options and know what steps to take to reach their goals**—regardless of their stage of community college journey or level of clarity about their academic and employment aspirations. As one Welcome Center student worker shared:

*[Program Mapper] has value no matter where you are in your journey. . . . [Whether students are] just starting out or if they're continuing, whether they have no idea or some more specific direction, it has value.*

Students appreciated Program Mapper’s **user-friendly visual representations of program options via accessible and clean maps**. Students described being able to quickly and easily understand their educational options and compare programs, including determining which ones might make the most sense to pursue given previously completed coursework. They indicated that the format allows them a quick way to get a broad overview of a program’s requirements, offering a “checklist” for each term. Some students indicated that the layout had the effect of **making programs appear more approachable and doable**, as stated by one participant:

*[Program Mapper] puts you at ease as a college student, like, okay, this is what I need to do. This is what has to happen next. . . . [I like] just how simple it is and how organized it is. I think that's my favorite part.*

#### Student Focus Group Quick Facts

##### 5 Student Focus Groups:

- 3 x Program Mapper Users
- 1 x Program Mapper Non-Users
- 1 x Welcome Center Student Workers

##### 90-minute Zoom Sessions

##### 32 Total Participants:

- Primarily continuing/returning students
- Directed learners, with majority having selected majors that cross an array of Learning and Career Pathways
- Mixed awareness of BC’s Learning and Career Pathways

*Find more information on participants’ demographics and programs of study in Appendix A.*



Students emphasized that Program Mapper **empowers students to independently get direction on how to complete program requirements in a timely way**, particularly once they have a goal in mind. Several students recognized that if they followed the path prescribed by the tool, they can complete more efficiently, as one student explained:

*If you follow Program Mapper or the pathways, you probably could have gotten everything out of the way and then been done on time. . . . So it helps you with efficiency and being clear about how to get out as quickly as possible.*

Participants also valued that the tool allows them to **do “self-service” educational planning, without needing to see a counselor, especially during “crunch” times** at the beginning of an enrollment period or semester. Many reported using it not only for their own purposes, but also to help others navigate their way into and through the college using this touchpoint. As one student described:

*The counseling department . . . [has] become very busy and high volume with a lot of students. So I think that because of that, the Program Mapper is very helpful . . . because [students] don't have to worry about waiting for a counselor to show them what to do. And some students want to be hands-on and be independent and do [education planning] on their own. So, it kind of gives them the ability to map out exactly what they want to do and how they want to do it. And if they want to change it, they don't have to worry about asking a counselor what classes that they need to take for their new route.*

Students further indicated that Program Mapper **allows for self-advocacy and direction when navigating student services and meeting with counselors**. Participants explained that they value having the “correct” program requirements and the ability to counter dated or incorrect information they might receive from college personnel—an experience several participants reported. One explained:

*I met with the counselor before this semester and he . . . had me taking, I don't know, like eight extra classes that I didn't need. And so it wasn't a great experience. So I eventually went . . . on [Program Mapper] myself, and I started looking at what I needed. And then I went back . . . and checked with a different counselor, and she said, no, I didn't need all of that stuff that [the first counselor] had me in.*

Participants additionally described using **Program Mapper in tandem with other education and career planning tools adopted by BC**, primarily identifying it as a companion/competitor to Starfish. In some cases, students appreciated that Program Mapper offered less manipulation and more clarity about program requirements than Starfish. One student explained:

*It's like a more in-depth Starfish. When you find your program, you can see . . . a class description, which you can't really get [in Starfish] unless you . . . start registering for classes, and they have a very brief description, but [Program Mapper], it'll tell you . . . this is what you can do. These are . . . the learning outcomes, which is really nice. . . . It's really cool to see where you can go with [a program], and that you can't really find on Starfish. Starfish is just like, “Here's your classes. Here's what the counselors recommend.” But then at the top, it'll have warnings, like you're missing a class. [With*

*Program Mapper] you don't know what you're missing, but [it] will provide what you need to take.*

## Student Use of Program Mapper



**Students regularly use Program Mapper for program and course selection, and to a lesser degree, for career exploration and planning.**

When polled about their frequency of use during focus groups, the majority of participants reported **using Program Mapper at least one time per semester**, with some engaging with the tool more frequently.<sup>7</sup> Welcome Center student workers estimated using in it in roughly 25% of student interactions.

Students' description of the tool and their explanation of how they engage with it indicate that students **primarily focus on the program maps themselves—exploring which courses to take and when, comparing the requirements between programs, identifying which courses they have completed, and making registration decisions accordingly.** One student explained:

*When I was still debating on what to major in, [the Program Mapper] gave me an understanding of what courses I would be taking. So that was helpful in helping me make my decision. . . . And when I was told to double major, I could go [to the maps] and check . . . comparisons of [the] overlap between my current major. . . . I was still able to go back and forth. So that was helpful.*

Students pointed to several Program Mapper **features as particularly supportive** of this process:

- **Arrows indicating the relationship between courses and prerequisites** help students know in what order they need to take courses and how a course relates to and/or prepares them for other courses in the program sequence.
- **Color coding to differentiate types of courses on a program map** allows students to distinguish which courses are core to their major, count toward general education requirements, and fulfill electives.
- **Accordion-style functionality** allows students to get expanded information, such as understanding all options related to a particular course requirement.
- **Customization of pathway/transfer destination** compares requirements between different receiving institutions and/or direct entry into employment.

Two students described:

---

<sup>7</sup> Of the 17 Program Mapper users who participated in focus groups, 16 answered a poll about their frequency of use; four reported using it one time per academic year, five reported using it one time per semester, five reported using it two to three times per semester, one reported using it one time only, and one reported "other."

*It's nice how it's broken down into two different colors so that you know the importance of the classes. So to decide on, especially on registration day, to know that any calculus class I need, to register for that class before an English class or something. So that you know the way [these classes are] mapped out is that they're linked together, and it shows you that they're linked together. So, if you don't get this done, you will not be able to move on to the next class.*

*It's really useful to figure out which [classes] can transfer in your certain area to the certain [transfer destination] because you don't want to take a class that's not going to mean anything.*

**Secondarily, students described taking advantage of the information provided at the Learning and Career Pathways level**, particularly examining the introductory “snapshots” to quickly understand which certificates and degrees fit within a given pathway and explore associated careers. They also talked about using this information to compare different educational and career paths and distinguish between similar-sounding programs (e.g., child development vs. early childhood education).

**To a lesser extent, students specifically referenced use of the career explorer; salary, growth, and careers information; and brief videos** describing occupations associated with a program. Students who talked about using these features found them helpful, as one student described:

*The salary growth and career section helped me to get a stepping-stone into researching more specifics about what I wanted to start a career in.*

At the same time, students appear to be leveraging the career-oriented features in a more limited way (as compared to their use of the educational information), with a small group indicating that they were simply unaware of the career exploration information.

## Student Suggestions for Improving Program Mapper



Students shared numerous suggestions for improving Program Mapper. Their recommendations underscore that they have enough facility with and appreciation for the tool that they can articulate a number of ways to continue expanding and deepening students’ use. **Students offered key insights into how to raise the visibility, increase the functionality, and improve their own and their peers’ engagement with the tool throughout their BC journey (see also sidebar, Welcome Center Student Worker Recommendations).**

### Welcome Center Student Worker Recommendations

Welcome Center student workers offered recommendations based on their unique vantage point providing peer-to-peer support with the Program Mapper tool.

Their specific recommendations are **distinguished with an asterisk (\*)** in the pull-out boxes throughout the following sections.

## RAISE VISIBILITY

**Participants shared essential and universal feedback about the need to help students more easily access Program Mapper.** Many students reported coming across it unwittingly on the website or wishing they had known about it earlier in their BC experience, as one student stated:

*I just accidentally stumbled upon it. I don't even remember how I got to it. I was just surfing the website trying to figure out what I needed to do to finish my degree. And that's how I found it.*

Welcome Center student workers seconded this experience, with one summarizing:

*Visibility [is needed] because it's kind of buried at the bottom of the main page. I've never encountered a student who knew about the [Program] Mapper before I told them about it. It's almost always I'm showing them where it is.*

Students articulated several ways (presented on the next page) to proactively raise Program Mapper's visibility through a variety of modes and interactions. Two students suggested:

*[Email] the . . . [Program Mapper] to students because . . . I don't even remember seeing this at orientation. I don't even remember really seeing a counselor until maybe my second semester. So maybe if this was more of a public thing for new students or returning students, I think this could have been something that's more front-facing for people because like everyone else, I just came across it by accident, and it's really useful. So it could be something for new students that could help them in the long run.*

*If a counselor meets with a person who's just being introduced to Bakersfield College, I feel it's kind of their job to let that person know about this feature. Because as everybody here mentioned, we all just found it by accident or were looking for something to help us. And so either a counselor mentioned get to like newcomers or just sending email outs, even in the orientation.*

The following textbox summarizes the key themes among student suggestions for raising Program Mapper's visibility.

### STUDENT SUGGESTIONS FOR RAISING PROGRAM MAPPER'S VISIBILITY

- Increase its presence on the website
- Embed it in the orientation process\*
- Promote it through faculty (e.g., in class or embedded in a syllabus under support services)
- Proactively “push” out a link to it to students
- Include it in counseling sessions
- Integrate it into the Starfish landing page
- Integrate it into the A&R tab\*
- Create a student-centered public information campaign; Welcome Center student worker ideas for this campaign included:\*

  - Be your own counselor
  - Create the pathway to your future
  - Don't know what you're doing yet? Look at PM to know your options!
  - Explore your future today

*\*Welcome Center worker suggestions*

## ENSURE FUNCTIONALITY IS STUDENT-CENTERED

**Students expressed that they would like the college to continue improving Program Mapper's functionality based on what students indicate they need from their community college experience.** Again, students are positive about its value and want to see it evolve. They also want Program Mapper to reflect their actual experience rather than what the college expects of them. Many students described **school/life balance challenges and indicated they wanted the tool to reflect these demands**, as one student explained:

*Not everybody wants to finish [their education] in two years. I'm a dad, and for me, I would like to have more freedom.*

Students pointed to specific related functionality issues, such as the inclusion of two-year program maps designed for full-time students versus **maps for students attending part-time**, as

well as the loading of multiple intensive courses into one term, rather than a **complement of coursework that spreads challenging courses over several semesters**.

Another theme centered on the **multiple platforms students must navigate for educational planning, progress monitoring, and actual coursework**, including Starfish, MyDegreePlanner, Canvas, and Program Mapper. One student explained:

*I use Program Mapper as an “at-a-glance,” just to see the map, but then I [have] to go into Starfish and map out the ed plan in Starfish.*

Students suggested that **linking these different technologies** may make them more useful to students understanding the interplay between which courses they need to take, which requirements they have left to fulfill, and which courses are actually offered in a given semester so they can plan accordingly.

Having led their peers through its use, Welcome Center student workers offered multiple ideas for making Program Mapper’s features more responsive to the types of questions students hope to answer when using the tool and to students’ level of understanding about the college’s systems and structures. For example, one student worker explained the desire for greater ease in **comparing careers to one another**, stating:

*I think a comparison feature would be really nice, . . . being able to compare between two different careers to show . . . salaries on one column and then salary of another job in another column. And then, how long each takes career growth and all that. I wish we could compare more than one career path to the other.*

Student workers also noted that students often sought more transfer information through Program Mapper and had recommendations for further **expanding transfer-oriented features**. They were encouraged by BC’s forthcoming plan to map out the junior and senior year coursework for programs post-transfer at CSU-Bakersfield.

The following textbox summarizes key themes among student suggestions for continuing to ensure Program Mapper’s functionality is student-centered.

## **STUDENT SUGGESTIONS FOR ENSURING PROGRAM MAPPER FUNCTIONALITY IS STUDENT-CENTERED**

- Clarify how different platforms interact and/or link them; for example, when a student completes a course, mark it off the map and display what is left to take when registering, and add it to the student's transcript.
- Offer more options for customization/personalization in terms of timeline for completion, unit load (part-time versus full-time), and inclusion of summer terms.
- Ensure course load is balanced to help students avoid taking too many rigorous courses in the same term; identify level of difficulty for course based on course number or instructional hours.
- Add a search function to give students the ability to search by major or career interest; currently, students have to know which Learning and Career Pathway their program falls under, and some majors are difficult to categorize (e.g., child development, psychology).
- List all programs on the landing page in alphabetical order because not all students know their Learning and Career Pathway.\*
- Increase ease of comparison between career paths and programs.
- Identify whether courses on the map are offered during a given semester.
- Update coloring on job growth/salary infographics; the current shade of red is associated with negative growth/demand, but graphics often show the opposite.
- Clarify whether job growth/salary information is regional, state, or national.
- Allow program exploration by career areas spotlighted under "Career Explorer," linking specific programs that relate to a given career.\*
- Show different transfer paths and/or backwards-map from transfer destination majors to see which program option(s) best correlate at BC.\*
- Allow students to see which classes count towards transfer requirements at which universities.\*
- Amplify the general education courses to help users better understand that for some required courses, users need to click on that selection to learn more about course choices.\*

*\*Welcome Center worker suggestions*

## IMPROVE STUDENT ENGAGEMENT WITH THE TOOL THROUGHOUT THEIR EXPERIENCE

**Finally, students indicated they would like more direction on how to use Program Mapper to ensure they can get the most out of the tool at different stages along their journey.** Students noted that they never received instruction on what information and functionality Program Mapper includes or how to use it. Rather, they taught themselves how to navigate the platform. Welcome Center student workers echoed this experience with students, indicating that few individuals they served knew how to find or maximize the tool, as summarized by one student:

*I think like a tutorial video showing how to navigate it would be great if we had something maybe like on our YouTube page, [that] showed you like, “Hey, this is how you use it. This is how it's split. And then this is how you can find your classes.” I think that'd be really neat. And then . . . that would . . . make our jobs [as student workers] a lot easier because students will already know the general way to do it. And then from there we could just answer specific questions.*

Most focus group participants were returning or continuing students, and many wished they had been able to use Program Mapper in their first semester, rather than discovering it after having completed several terms at BC.<sup>8</sup> They believed the college could do more to create an **intentional strategy that articulates how and when to use Program Mapper at different stages** of their experience and when approaching certain milestones.

**Welcome Center student workers similarly suggested providing more instruction on how to use the tool** so they can ensure they can best help current and prospective students, parents, and other community member they encounter. They reported receiving no training on its use, rather just a short preview of it during a broader student worker onboarding session.

The following textbox summarizes key themes among student suggestions for engaging students with the tool throughout their experience.

---

<sup>8</sup> Note: most participants started at BC prior to the initial release of Program Mapper in January 2019.



## STUDENT SUGGESTIONS FOR ENGAGING STUDENTS WITH THE TOOL THROUGHOUT THEIR EXPERIENCE

- Provide Welcome Center student worker training at a monthly meeting about overall functionality and Learning and Career Pathways.\*
- Offer students instruction on how to use the tool's features to help students optimize its functionality, including during orientation.
- Develop tutorial videos showing how to navigate the tool on YouTube.\*
- Introduce Program Mapper to students early in the advising process.

*\*Welcome Center worker suggestions*

### SPECIAL ADDITION: PROGRAM MAPPER AND COVID-19 CONCERNS

The RP Group conducted the student focus groups roughly one month into BC's move to distance education due to health and safety considerations resulting from COVID-19. Although not part of the original research plan, the focus groups provided the opportunity to take the pulse of students on how were doing in those early days of the pandemic. We asked students about what issues were developing for them related to remote learning, with an eye to the role Program Mapper might be able to play in their experience.

A few key themes emerged for BC to consider in light of the ongoing need to virtually engage and support students. Students specifically **referenced feeling an absence of connection and communication from the college**, were sourcing information from peers and their professors, and desired more proactive outreach from the institution. Additionally, they pointed to **slow turnaround times from educators and student services**, recognizing and understanding that the college's capacity might not be aligned to student need and demand due to the sudden shift to online. They also had **questions about how to make decisions about their education moving forward**, including which courses to take, as well as when and how courses would be delivered.

No doubt, students' perspectives and experiences were heavily influenced by the fact that we asked these questions mere weeks into the pandemic and the move to distance learning and support—the early days of the COVID crisis, when the whole college community was experiencing significant displacement, confusion, grief, and fear. We are aware that simultaneously, BC was engaged in a concerted effort to develop a strong outreach, communication, and support plan to alleviate these more global issues. That said, the recommendations below address ways that BC might be able to leverage Program Mapper now to address relevant student concerns in 2020-2021 and beyond.



## Conclusion and Recommendations

The emerging data on Program Mapper’s uptake among BC students, mounting evidence of its impact on their on-path progress, and students’ experiences with the tool all indicate that **Program Mapper is contributing to BC’s goal of improving students’ program selection and efficient progress toward completion—helping them get on path and in control of their education, their careers, and their lives.** These early findings indicate that BC has a solid foundation from which to continue refining this useful resource, expanding students’ engagement, and encouraging replication at other California Community Colleges.

**Building on these initial student experiences and suggestions, the RP Group offers two types of high-level recommendations to keep this positive momentum going.** The first set addresses improving Program Mapper and expanding students’ use of the tool. Our goal is not to restate all student recommendations; rather, we offer considerations that cross and/or summarize themes that emerged in their perspectives. The second set of recommendations focuses on advancing BC’s Guided Pathways goal of helping students get and stay on path toward completion, based on broader career and college planning issues that surfaced in our conversations with students.

These recommendations can offer BC a compass for where to go next with both Program Mapper specifically and the college’s Guided Pathways priorities more broadly.

### Improving Program Mapper and Increasing Students’ Use

#### 1. DEVELOP A CLEAR AND STRATEGIC COMMUNICATIONS CAMPAIGN

- **Amplify the presence of Program Mapper to all user types, including students *and* instructional faculty, counseling faculty, and student-facing classified professionals.** Students were positive about the tool’s utility, while at the same time, they shared feedback that it was difficult to locate and/or that they wished they had learned about it earlier. In turn, we suggest increasing users’ understanding of Program Mapper’s value based on their role and function at the college (i.e., student, instructional faculty, counseling faculty, staff). Develop a student-centered communications campaign and “placement” of the tool in high-visibility areas.
- **Specifically reach out to students who are *not* in special programs and increase their awareness of the tool.** Notably, several students referenced EOPS as an effective support system, and to a lesser degree, program/Learning and Career Pathway advising (Science, Technology, Engineering, and Math; Health Sciences; and Education pathways specifically). This and other research suggests students in these types of programs are receiving high-touch support, while other students may need additional outreach and direction

## 2. CONTINUE ENHANCING FUNCTIONALITY IN LINE WITH STUDENT NEEDS

- **Develop and/or expand Program Mapper’s functionality.** Student suggestions above offer a myriad of possibilities to inform BC’s continued updates to the tool. Specifically consider more options for customization and personalization, ways to link multiple platforms and tools, a search feature, enhanced transfer information, and opportunities for comparing the requirements of different programs, and determining when courses on a map are offered. Pursue those enhancements that are easy wins in the near-term, and publicly acknowledge these updates to assure students that the college is responding to students’ input. Consider articulating a development plan that explains which features BC will pursue over time, and which ones are not possible and for what reasons.

## 3. FACILITATE STUDENTS’ EFFECTIVE USE OF PROGRAM MAPPER THROUGHOUT THEIR BC EXPERIENCE

- **Introduce Program Mapper during the Bridge to BC program.** This bridge experience offers an excellent venue for introducing Program Mapper as students enter the college. As the former external evaluator on the grant funding the program, the RP Group is aware that participating students receive a preview of the types of web-based tools they will use at the college. If the college has not already begun incorporating Program Mapper into this preview, consider integrating it now and begin developing students’ facility with the tool.
- **Enhance efforts to develop students’ understanding of how to optimize Program Mapper at different stages of their experience, including once enrolled and after their first term.** We know that students often need just-in-time reminders and information past their initial orientation. BC students will benefit from ongoing reminders about Program Mapper, its value, and its functionality across their entire community college experience. In turn, create self-service tutorials such as peer-to-peer support offerings through peer-led services and programs and/or YouTube videos. Embed its use in student success offerings and introductory learning and career pathway courses. Engaging college personnel in professional learning on how to use it with students.

## Advancing BC’s Broader College and Career Planning Approach

## 4. MAP THE STUDENT JOURNEY FOR COLLEGE AND CAREER PLANNING

- **Take the perspectives of different student groups to better understand how all BC students are in actuality experiencing college and career planning at the institution,** particularly “nontraditional” students (e.g., returning, undecided, part-time students, career changers). Nontraditional students, such as returning, older first-time students, reported minimal to no onboarding. At the same time, they expressed appreciation for the ability to do “self-serve” education planning with Program Mapper. BC may have an opportunity to further support these students both with the tool and through focused

outreach that acknowledges their unique circumstances, raises their awareness of additional resources, and increases their understanding of critical steps and milestones for reaching their goals. While outside the scope of this research, this expressed inconsistency in the onboarding experience may signal a need for a broader strategy for onboarding that meets the needs of all student types

## 5. EXAMINE HOW TO INCREASE STUDENTS' FINANCIAL LITERACY AS IT RELATES TO THEIR EDUCATION

- **Explore how to better inform students about the total cost of college and resources for funding their education, including financial aid and beyond.** The vast majority of students indicated they did not know how much it would cost them to complete their program, whether it be their certificate, degree, and/or transfer to university and completion of their bachelor's degree; nor did they have a nuanced understanding of what completion would lead to in terms of educational and economic mobility. Most expressed general awareness that the more education they completed, the more likely they were to improve their employability. Consider leveraging Program Mapper to improve this awareness, including embedding information the total cost associated with and benefits of program completion.

## 6. ESTABLISH AN OVERARCHING STRATEGY FOR DIFFERENT COLLEGE AND CAREER PLANNING TOOLS

- **Take a student-centered look at how different technologies and platforms adopted by BC for educational and career planning fit together, determining overlaps, gaps, and opportunities for integration or linkages.** Students' concerns and confusion regarding which tools to use when, as well as frustrations with the absence of clear connections and/or integration between these resources, may indicate that the college can do more to take a big-picture look at the entire college and career planning process and streamline these systems and processes.

## 7. EXPAND EVALUATION OF HOW STUDENTS EXPERIENCE COLLEGE AND CAREER PLANNING, INCLUDING THE IMPACT OF PROGRAM MAPPER

- BC's effort to qualitatively understand students' experience of Program Mapper and its quantitative impact on their outcomes is an excellent start. We strongly encourage the college to continuously solicit student feedback on Program Mapper specifically to zero in on which areas of improvement are of highest priority from a student perspective and tracking their on-path percentage over time. Consider also disaggregating student usage by a variety of groups, collecting student satisfaction with the tool, and gathering suggestions for ongoing improvement. At the same time, the broader issues that surfaced regarding how different student groups may currently experience college and career planning signal an opportunity to expand this evaluation beyond students' use of the tool. Include their overall perceptions of academic and career planning at BC and

monitor measures that indicate students take part in supported, engaging, and effective planning processes that lead to improved equitable outcomes.

## Appendix A: Focus Group Methodology

The main focus of this study is to understand the utility of the Program Mapper from the student's perspective. We also highlight and describe some of the analysis by BC's Office of Institutional Effectiveness (OIE) to communicate a sense of the tool's reach among BC students and its potential. To ensure accessibility, students can use Program Mapper without a log-in process. As a result, it is not possible to use administrative data to link program usage to individual student's outcomes. However, we showcase and describe administrative data from BC that shows that in the aggregate, there is a positive correlation between the number of courses taken that are on path, as the college has worked to improve access to Program Mapper. We believe that at this stage, the focus group results provide the most helpful information about the tool's utility because future impact studies would need to address important threats to validity. The biggest threats to validity of an impact evaluation for the Program Mapper include (1) divorcing any potential impacts of the Program Mapper on student outcomes from the impact of broader guided pathways and AB705 reforms, and (2) creating a statistically comparable comparison group to students who have chosen to access the tool.

The RP Group worked with BC's OIE to identify and recruit student participants, taking a high-touch approach to outreach. We drew the pool of potential participants from respondents to a survey conducted by OIE in March 2020 to assess students' adaptation to changes caused by COVID-19. Survey respondents were then pushed an additional "mini-survey" prepared by the RP Group and disseminated by OIE via Qualtrics confirming their interest in a follow-up focus group about their BC experience, with the offer of a \$30 Amazon gift card for their participation in a 90-minute virtual session. We also asked them to indicate if they had utilized Program Mapper in the past. From that mini-survey, interested respondents could click directly on a schedule of focus group times, with three options for Program Mapper users, and one option for non-users.

We used SignUpGenius (SUG) to set up focus group slots, which included Zoom virtual meeting platform links that allowed us to record and later transcribe each of the focus groups. Once a student responded affirmatively in SUG, the student received a confirmation email. We then sent a reminder email to students 24 hours before the scheduled focus group, and a reminder text 30 minutes before the start of the session. Ultimately, 44 students registered and 26 participated as a result of the survey-based recruitment.

Additionally, we partnered with OIE to work directly with BC's Welcome Center staff to invite six Welcome Center workers to participate in a session exploring their direct experience with the tool and their work guiding their peers in its use. All six attended, also receiving a \$30 Amazon gift card for their time.

See detail on the number of registrants versus participants by date and focus group type on the next page in Table 1 as well as focus group participant characteristics and areas of study.

Table 1. Student Focus Group Registrants vs. Participants

Focus Group Type / Date	Registered	Participated
Welcome Center Student Workers (Mon, 4/20/20)	6	6
Program Mapper Users (Tues, 4/28/20)	11	5
Program Mapper Users (Sat, 5/2/20)	10	6
Program Mapper Non-Users (Mon, 5/4/20)	12	9
Program Mapper Users (Wed, 5/6/20)	11	6
<b>Total</b>	<b>50</b>	<b>32</b>

Table 2. Student Focus Group Participant Characteristics

Focus Group Types	Count	On-Path Percentage	Female	Latinx	White	African American	Multiethnic	Years at BC	GPA
PM Non-Users	9	58%	67%	78%	22%	0%	0%	3.5	3.64
PM User	17	75%	75%	63%	25%	6%	6%	2.5	3.33
Welcome Center Worker	6	63%	33%	50%	17%	17%	0%	5.0	2.69
<b>Total/Average</b>	<b>32</b>	<b>68%</b>	<b>66%</b>	<b>66%</b>	<b>22%</b>	<b>9%</b>	<b>3%</b>	<b>3.5</b>	<b>3.30</b>

Table 3. Student Focus Group Participant Areas of Study, by Focus Group Type

Focus Group Types	PM Non-User	PM User	Welcome Center Worker
<b>Total Count</b>	9	17	6
<b>Social and Behavioral Sciences</b>	1	6	2
<b>Health Sciences</b>	3	3	1
<b>STEM</b>	3	2	1
<b>Business</b>	0	2	1
<b>Education</b>	0	2	0
<b>Personal and Career Exploration</b>	2	0	0
<b>Arts, Communication, and Humanities</b>	0	0	1
<b>Industrial Technology and Transportation</b>	0	1	0
<b>Agriculture, Nutrition, and Culinary Arts</b>	0	1	0

# Appendix B: Student Focus Group Protocol

## Session Start-Up

- Be sure Zoom is recording
- Introduce yourself, co-facilitator, and the RP Group
- Obtain verbal consent and notify participants that the focus group will be recorded
- Review guidelines and features in Zoom (see Guidelines document)

## Zoom Start-Up for Participants

- Please be sure to mute yourself when not talking
- If you haven't already, let's have everyone input their names in their video window; click on 3 dots in right upper corner of your video window, click on [change name], and write your name
- Feel free to use the chat function to input a comment; one of us will monitor the chat
- You can also use the "raise your hand" function to let us know you want to talk

## Introduction

We are so grateful that you took the time to join us today. We know that you likely have tremendous demands on your time. And in the COVID context, so much is up in the air for so many people, and it can take an extra effort to participate in a focus group. So thank you!

We are a group of researchers with the Research and Planning Group for California Community Colleges and have been asked by Bakersfield to get students' input about their experience choosing a program of study and selecting courses. In particular, your college is using a web-based tool called Program Mapper to help students decide on a program or major, select courses, and create an ed plan.

For PM Users:

We are interested in if and how you selected a program or major, how you choose your courses, how you explore careers, and if and how you have utilized Program Mapper and other supports in the process.

For Non-PM Users:

We are interested in if and how you selected a program or major, how you choose your courses, and how you learn about careers. We are also interested in what resources and supports you have utilized in the process.



BC is very eager to help students select education and career goals and a related program with good information, know what specific courses they need to take each semester in order to reach their goals, and achieve their goals in a timely way with as little debt as possible. So, the college is interested in learning from YOU about what is working well and what it can improve.

Once we complete this research, we will share the findings back with college leaders so they know what is working well and what they can do better to help students reach their goals.

## Overview

We have about 12 questions and we will conclude by [insert time].

Show of hands, has anyone participated in a focus group before?

If yes, tell us what type of focus group?

*Let's talk about how THIS focus group will go.*

- Let's have one person speak at a time.
- There are no "wrong" answers to any of these questions. We are interested in hearing your perspectives as students.
- We value confidentiality. We will not associate any feedback that comes out of this focus group with a particular individual.
- Everyone will have a chance to speak. If you have not had an opportunity to provide your perspective, I may call on you.
- We recognize that you might be at home with family or roommates and that you might need to walk away; it's ok! Come back when you can. And, if for some reason you need to leave, we can email you the questions so you can still contribute your responses.

Any questions before we start? Otherwise, please hold your questions until the end. Thank you!

## Consent to participate and record

If on video, input name and email in chat to consent

If on phone, we will just call on you to say yes or no

If you do not want to participate and be recorded, that's ok; you can leave now or at any time

## Program Mapper User Focus Group Questions

### 1. Introductions:

Let's go around and introduce ourselves: for this, I will go around and call on people to make sure we are speaking one by one

- a. Name, how long you have been at Bakersfield- and what do you think you would like to do once you are done with college?

## PROGRAM SELECTION:

2. Let's start with a quick poll about program / major selection. Which one of the following options describes you best?
  - a. I have selected a program / major, and feel confident about my choice.
  - b. I selected a program / major but think I might change to a different area of study.
  - c. I selected a program / major when I first enrolled, then changed to a different program / major after being at the college for some time.
  - d. I am still undecided.
3. For those of you who know your program / major, what Learning and Career Path are you on? Type it into the chat if you are online. Otherwise we will call on you.
4. Whether or not you selected a program / major, what factors or issues do you consider when making this kind of a decision? (probe on length of time, jobs available, cost of education, availability of financial aid, etc.)
5. What kind of information and support is available at Bakersfield to help you learn about careers and the types of related programs the college offers?
  - a. What college and career exploration process, if any, does Bakersfield take you through when you first apply and enroll?
  - b. Who have you specifically talked to about your career and educational options? About selecting a program?
  - c. How, if at all, have you used Program Mapper to learn about your program options and related careers?
6. How, if at all, does BC help you understand the total cost of your program? Both in terms of tuition and the amount of time it will take?
7. How, if at all, does BC help you understand the benefits of completing your program and getting a job that relates to your field of study?
  - a. For example, do you know what kind of job you will be able to get? What type of salary or income you might be able to earn?
8. How is the move to distance learning changing how you are dealing with course selection for the upcoming term?

## PROGRAM MAPPER:

We want to dive further into your experience with Program Mapper. [Show Program Mapper on the screen, click through different levels/functions]

9. How did you first learn about the Program Mapper tool?

- a. Did someone show it to you or did you find it on your own?
  - b. When did you discover it (e.g. high school, college orientation, after enrolling at Bakersfield)?
  - c. How often do you use it?
  - d. Did you receive any training or demonstrations on how Program Mapper works? If so, when did the training take place and with whom?
10. If you were to describe Program Mapper to a friend who has never used it, what would you tell them?
- a. What does it do?
  - b. How do you access it?
  - c. What information can be found?
11. What is the most helpful aspect of Program Mapper?
- a. How do you use the information in Program Mapper?
    - i. Did Program Mapper help you decide your major or education goal?
    - ii. Did anyone change their major or education goal based on information they found in Program Mapper?
    - iii. Do you use Program Mapper to figure out what classes to take for the semester?
  - b. What features do you like best?
  - c. What other features would be helpful to add?
12. What advice would you give BC to make Program Mapper more user-friendly and useful?
- a. Is there anything confusing about Program Mapper or that you wish was different?
  - b. Are their functions or information you wish it included?
13. What, if any, additional support could Bakersfield provide to help you in choosing a program of study and selecting courses every semester? What help specifically is coming up for you given the move to distance learning?

Are there any thoughts or experiences you'd like to share that we didn't discuss today?

## Non-User Focus Group Questions

### 1. Introductions:

Let's go around and introduce ourselves: for this, I will go around and call on people to make sure we are speaking one by one

- a. Name, how long you have been at Bakersfield- and what do you think you would like to do once you are done with college?

## PROGRAM SELECTION

### 2. Let's start with a quick poll about program / major selection. Which one of the following options describes you best?

- a. I have selected a program / major, and feel confident about my choice.
- b. I selected a program / major but think I might change to a different area of study.
- c. I selected a program / major when I first enrolled, then changed to a different program / major after being at the college for some time.
- d. I am still undecided.

### 3. For those of you who know your program / major, what Learning and Career Path are you on? Type it into the chat if you are online. Otherwise we will call on you.

### 4. Whether or not you selected a program / major, what factors or issues do you consider when making this kind of a decision? (probe on length of time, jobs available, cost of education, availability of financial aid, etc.)

### 5. What are your go-to resources and supports for educational planning and career exploration at Bakersfield? Why do you particularly use these resources?

- a. What college and career exploration process, if any, does Bakersfield take you through when you first apply and enroll?
- b. Who have you specifically talked to about your career and educational options? About selecting a program?
- c. How, if at all, does BC help you understand the total cost of your program? Both in terms of tuition and the amount of time it will take?

### 6. How, if at all, does BC help you understand the benefits of completing your program and getting a job that relates to your field of study?

- a. For example, do you know what kind of job you will be able to get? What type of salary or income you might be able to earn?

### 7. How is the move to distance learning changing how you are dealing with ed planning and course selection for the upcoming term?

## PROGRAM MAPPER:

Bakersfield has a tool to support program and course selection as well as career exploration called Program Mapper. [Show Program Mapper on the screen, click through different levels/functions]

8. Who has used this tool? Type into chat.
9. If you have used PM...
  - a. How would you describe it to the others in the focus group who have NOT used it?
    - i. What does it do?
    - ii. How do you access it?
    - iii. What information can be found?
  - b. How did you learn about it?
  - c. How often do you use it?
  - d. What is the most helpful aspect of Program Mapper? What features do you like most?
  - e. What other features would be helpful to add?
10. If you have not used PM...
  - a. What would encourage you to use it?
  - b. What information, features, or support would you be looking for?
11. What advice would you give to Bakersfield to help more students learn about PM?
12. What, if any, additional support could Bakersfield provide to help you in choosing a program of study and selecting courses every semester? What help specifically is coming up for you given the move to distance learning?
13. Are there any thoughts or experiences you'd like to share that we didn't discuss today?

# Appendix C: Welcome Center Student Worker Focus Group Protocol

## Session Start-Up

- Be sure Zoom is recording
- Introduce yourself, co-facilitator, and the RP Group
- Obtain verbal consent and notify participants that the focus group will be recorded
- Review guidelines and features in Zoom (see Guidelines document)

## Introduction (10 min)

We are so grateful that you took the time to join us today. We know that you likely have tremendous demands on your time. And in the COVID context, so much is up in the air for so many people, and it can take an extra effort to participate in a focus group. So thank you!

We are a group of researchers with the Research and Planning Group for California Community Colleges and have been asked by Bakersfield to learn more about how students are choosing programs and selecting courses generally, and how Program Mapper specifically supports these processes. BC is very eager to help students select education and career goals and a related program with good information. They also want to make sure students know what specific courses they need to take each semester in order to reach their goals, and achieve their goals in a timely way with as little debt as possible.

You are in a unique position as both BC students and Welcome Center staff to provide us insight into both the usability and utility of Program Mapper, and we look forward to hearing more from you today about how you use Program Mapper, what is particularly valuable about this tool, and what can be done to improve it in the future.

We are also interviewing faculty and counselors, and conducting focus groups with other students (non-Welcome Center staff). Once we complete this research, we will share the findings back with college leaders so they know what is working well and what they can do better to help more students reach their goals.

## Overview

We have about 17 questions and we will conclude by [insert time].

Show of hands, has anyone participated in a focus group before?  
If yes, tell us what type of focus group?

*Let's talk about how THIS focus group will go.*

- Let's have one person speak at a time.
- There are no "wrong" answers to any of these questions. We are interested in hearing your perspectives as students.
- We value confidentiality. We will not associate any feedback that comes out of this focus group with a particular individual.
- Everyone will have a chance to speak. If you have not had an opportunity to provide your perspective, I may call on you.
- We recognize that you might be at home with family or roommates and that you might need to walk away; it's ok! Come back when you can. And, if for some reason you need to leave, we can email you the questions so you can still contribute your responses.

Any questions before we start? Otherwise, please hold your questions until the end. Thank you!

## Consent to participate and record

If on video, input name and email in chat to consent

If on phone, we will just call on you to say yes or no

If you do not want to participate and be recorded, that's ok; you can leave now or at any time

Any questions before we start? Otherwise, please hold your questions until the end. Thank you!

## Focus Group Questions

### INTRODUCTIONS (10 MIN)

1. Let's go around and introduce ourselves: for this intro, I will go around and call on people to make sure we are speaking one by one
  - a. Name, how long you have been at Bakersfield, how long have you worked at the Welcome Center, and what do you think you would like to do once you are done with college?
  - b. REAL-TIME: determine if ice breaker

### WELCOME CENTER ROLE (15-20 MIN)

2. Would 1-2 of you describe your role at the Welcome Center. If you were to write a job description, what would you say are your top responsibilities?
  - making sure student leave w/ help - starting ap, doing orientation, going to see counselor, know programs
  - info hub thru getting classes

3. Who do you typically serve in the Welcome Center? Are you primarily working with new students? Specific majors?
4. How do you work with students in the Welcome Center?
  - a. How do they learn about the Welcome Center?
  - b. What help are they typically looking for?
  - c. What are they usually “worrying” about?
  - d. What resources use?
5. How, if at all, is your role and work changing given COVID and the move to all online learning?

#### PROGRAM MAPPER USE (25 MIN)

6. If you were to describe Program Mapper to a new student who is coming into the Welcome Center for the first time, what would you tell them?
  - a. What does it do?
  - b. How do you access it?
  - c. What information can be found?
7. What, if any, training or demos did you receive on how Program Mapper works? If so, when did the training take place and with whom?
8. What experience do you have using Program Mapper yourself as a student to select a program and/or choose courses each semester? How have you used it for your own educational and career planning?
9. How do you currently use Program Mapper in your work with students in the Welcome Center?
  - a. For what reason do you use it?
  - b. What features do you use?
  - c. How often do you use it?
10. How do you use the information in Program Mapper to help students...
  - a. Select a program
  - b. Select specific courses
  - c. Learn about related careers and jobs



## PROGRAM MAPPER FEEDBACK (25 MIN)

11. What are the most helpful aspects of Program Mapper? (ask to type into chat first)
  - a. What features do you use the most?
    - i. Meta-majors page
    - ii. Video? most dont know
    - iii. LMI
    - iv. Program outcomes?
    - v. Map itself
  - b. What makes it user-friendly?
  - c. What aspects of the tool do students seem to appreciate the most?
12. What about Program Mapper needs improvement?
  - a. What existing features are difficult to use/navigate?
  - b. What features are missing?
  - c. What information do you think the college should add, given your experience w/ students?
  - d. Where do students seem to struggle the most using it?
13. In July, PM will have new feature to show junior and senior-level courses at CSU-B. How useful will that feature be in your work w/ students (if at all)?
14. What advice would you give BC to make Program Mapper more user-friendly and useful?
  - a. For you as a Welcome Center staff
  - b. For students who are using it independently
15. What specifically might you suggest about how to help students learn about and use Program Mapper in a virtual context?
16. What, if any, additional support could Bakersfield provide to help students choose a program of study and selecting courses every semester, particularly in a virtual context?
17. Are there any thoughts or experiences you'd like to share that we didn't discuss today?

## References

- Cooper, D., Nguyen, A., Karandjeff, K., Brohawn, K., Purnell, R., Kretz, A., Rodriguez-Kiino, D., Chaplot, P., & Nguyen, K. (2020). *Students speak their truth about transfer: What they say they need to get through the gate*. San Rafael, CA: The Research and Planning Group for California Community Colleges.
- Dadgar, M., Smith-Arillaga, E., Buck, D., Sinclair, B., Fischerhall, C., & Brown, K. (2017). *Bringing student voice to guided pathways inquiry and design*. Oakland, CA: Career Ladders Project.
- Giani, M.S. (2019). The correlates of credit loss: How demographics, pre-transfer academics, and institutions relate to the loss of credits for vertical transfer students. *Research in Higher Education*, 60, 1113–1141. <https://link.springer.com/article/10.1007/s11162-019-09548-w>
- Simone, S.E. (2014). Transferability of postsecondary credit following student transfer or coenrollment: Statistical analysis report (NCES 2014-163). US Department of Education. Washington, DC: National Center for Education Statistics. <https://nces.ed.gov/pubs2014/2014163.pdf>
- US Government Accountability Office. (2017, August). *Students need more information to help reduce challenges in transferring college credits* (Publication No. GAO-17-574). <https://www.gao.gov/assets/690/686530.pdf>

# The Research and Planning Group for California Community Colleges

The RP Group strengthens the ability of California community colleges to discover and undertake high-quality research, planning, and assessments that improve evidence-based decision-making, institutional effectiveness, and success for all students.

## Project Team

Mina Dadgar, PhD, Project Director

Kelley Karandjeff, EdM

Michelle White, MBA

[www.rpgroup.org](http://www.rpgroup.org)