

# USING DATA AND EVIDENCE TO LEAD HOLISTIC ADVISING REDESIGN:

A Guidebook for Campus Leaders for Promoting Consistent, Coherent,  
and Collaborative Data Use in Advising

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## VOLUME ONE

Improving the Use of Systems  
Designed to Gather and Interpret Evidence  
on Academic Advising

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# ABOUT THE ADVISING SUCCESS NETWORK

Formed in 2018, the Advising Success Network (ASN) is a dynamic network of five organizations partnering to engage institutions in holistic advising redesign to advance success for Black, Latinx, Indigenous, Asian, and Pacific Islander students and students from low-income backgrounds. The network develops services and resources to guide institutions in implementing evidence-based advising practices to advance a more equitable student experience to achieve our vision of a higher education landscape that has eliminated race and income as predictors of student success. The ASN is coordinated by NASPA—Student Affairs Administrators in Higher Education, and includes Achieving the Dream, the American Association of State Colleges and Universities, EDUCAUSE, NACADA: The Global Community for Academic Advising, and the National Resource Center for The First-Year Experience and Students in Transition.

# ABOUT THE PUBLISHER

The National Resource Center for The First-Year Experience and Students in Transition was born out of the success of the University of South Carolina's much-honored University 101 course and a series of annual conferences focused on the first-year experience. The momentum created by the educators attending these early conferences paved the way for the development of the National Resource Center, which was established at the University of South Carolina in 1986. As the National Resource Center broadened its focus to include other significant student transitions in higher education, it underwent several name changes, adopting the National Resource Center for The First-Year Experience and Students in Transition in 1998.

Today, the Center collaborates with its institutional partner, University 101 Programs, in pursuit of its mission to advance and support efforts to improve student learning and transitions into and through higher education. We achieve this mission by providing opportunities for the exchange of practical and scholarly information as well as the discussion of trends and issues in our field through convening conferences and other professional development events such as institutes, workshops, and online learning opportunities; publishing scholarly practice books, research reports, a peer-reviewed journal, electronic newsletters, and guides; generating, supporting, and disseminating research and scholarship; hosting visiting scholars; and maintaining several online channels for resource sharing and communication, including a dynamic website, email list, and social media outlets.

The National Resource Center serves as the trusted expert, internationally recognized leader, and clearinghouse for scholarship, policy, and best practice for all postsecondary student transitions.

# INTRODUCTION

The Advising Success Network and its five core partners have focused on creating and distributing thought leadership and assets to promote holistic advising redesign in higher education. This guidebook was created to serve as a resource for data use by campus leaders, including mid- to senior-level administrators responsible for institutional advising initiatives. The National Resource Center for The First-Year Experience and Students in Transition – working on behalf of the Advising Success Network – aimed to identify strategies and data-use practices for data-driven decision making in advising services and collaboration of data use among campus stakeholders, meaning anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage.

## About the Guidebook

This guidebook draws upon in-depth interviews with administrators who have oversight of academic advising at 18 institutions to provide strategies and examples of what campus leaders have been doing to promote consistent, coherent, and collaborative data use in advising.

## Objective of the Guidebook

Our goal is to promote data use among campus leaders to improve advising and bolster student success through equity-minded approaches. This guidebook synthesizes and identifies best practices for improving collaboration and communication of data use among campus leaders and stakeholders in advising. Moreover, it presents strategies and practices used by institutions that can inform campus leaders seeking solutions for building a data culture toward developing holistic advising, with the goal of achieving greater and more equitable student learning and success in higher education.

Throughout the guidebook, we also provide recommendations for campus leaders to improve their equity and inclusion mindedness when developing coherent data-use strategies and culture. Most interviewees acknowledged that they prioritized equitable outcomes when examining data and identifying gaps in academic advising. For example, many mentioned they always disaggregated data by demographic information, such as socioeconomic status, race, ethnicity, and financial aid. The disaggregation of data is one step in the process to achieve equitable student outcomes. To promote equity, institutional data users and decision makers (e.g., mid- to senior-level administrators, advising directors, frontline advisors) must use the disaggregated data to inform their decisions and actions related to student success. Therefore, an equity-minded practice requires institutions to take responsibility and action for student success.

We begin this guidebook by emphasizing that an equity-oriented framework should be used as a guiding lens for advising redesign efforts. We contend that institutions should invest greater effort to address equity gaps

through advising initiatives. We also recognize that many institutions strive to create an empowering culture and implement inclusive and culturally relevant practices in academic advising. For example, positions may emphasize equity and inclusion initiatives, or the diversity of service staff may increase through the hiring of advisors who come from culturally and linguistically diverse groups. However, institutions must move beyond merely focusing on diversity and inclusion efforts toward cultivating an equity-oriented data-use culture. This attention requires institutional staff to identify and develop clear advising objectives designed to reduce inequitable outcomes for racially and socioeconomically minoritized student populations (including Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students) and to determine the role of advising in supporting retention and graduation among students.

## Organization of the Guidebook

This guidebook begins by exploring some **common challenges affecting strategic data use**, which can be organized in three primary areas:

1. **Systems:** The variety of data and information systems poses a challenge to optimizing data infrastructures.
2. **Culture:** Different attitudes or perspectives in academic advising and data use among institution stakeholders may cause inconsistency and incoherence of data use.
3. **Resources:** Shortages of professional personnel, professional development and training, and data analytic solutions result in limited capacity for data use.

This series of guidebooks addresses the challenges faced by institutions in using data strategically with academic advising and presents real-world approaches and strategies campus leaders can use to cultivate a collaborative and coherent approach to data use in advising:

1. Improving the use of **systems** designed to gather and interpret evidence on academic advising
  - Develop campus-wide assessment for academic advising
  - Develop and enhance data capacity
2. Creating a **culture** of data use around academic advising in your institution
  - Establish clear objectives to understand how data can inform the use of advising
  - Define the role of academic advising in institutional initiatives
3. Improving the human **resources** needed to use data more strategically
  - Identify stakeholders of advising
  - Improve collaboration and communication among advising stakeholders for better data use
  - Provide advising- and data-related professional development regularly to advising stakeholders

This volume of *Using Data and Evidence to Lead Holistic Advising Redesign* focuses on the first challenge, **Systems**, and provides evidence-based strategies focused on *improving the use of systems designed to gather and interpret evidence on academic advising*.

## Using This Guidebook

This guidebook, along with the others in the series, was created with the following questions in mind:

- What should campus leaders and stakeholders in advising consider when using data and evidence to lead advising redesign?
- How can advising redesign promote equity at their respective institutions?

As a core partner of the Advising Success Network, The National Resource Center for The First-Year Experience and Students in Transition has identified strategies for institution leaders regarding better use of data to improve collaboration and consistency in advising practices across colleges, divisions, departments, and other institution units, such as institutional research, information technology, enrollment management, and student affairs.

This guidebook (a) describes the challenges campus leaders face when using data-driven and evidence-based approaches in decision making and (b) provides recommendations for using data and evidence strategically in an effort to create holistic advising redesign that promotes equitable student outcomes.

We drew upon interviews with administrators from 18 different campuses; each administrator had responsibility for advising at their institution.<sup>1</sup> The interviews gathered different opinions and approaches from a wide range of institutions with diverse structures, processes, and initiatives surrounding advising and thus explored major topics relevant to data- and evidence-based approaches in decision making. Emphasis is on how campus leaders use:

- Data in decision making and case making
- Evidence to collaborate across silos within organizations
- Data in their leadership (e.g., to collaborate with other units on campus, to foster a culture of using data)
- Assessment and evaluation strategies

This guidebook provides leaders with recommendations for using data and evidence strategically to improve student success. In addition to administrators and professionals in academic advising, we encourage campus leaders from academic affairs, student affairs, enrollment management, deans and associate deans from academic colleges, data analytics departments, information technology, and institutional research and effectiveness to use this guidebook to support holistic, equitable advising-related work on your campus.

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<sup>1</sup> See Appendix for a more complete description of our research methods.

# IMPROVING THE USE OF SYSTEMS DESIGNED TO GATHER AND INTERPRET EVIDENCE ON ACADEMIC ADVISING

There is a strong upside for using evidence in strategic decision making, as the presence and strength of data- and evidence-based approaches within institutions affect data use and inform leadership decisions (Wayman et al., 2006). With clear, detailed, and orderly data on academic advising processes and learning outcomes, institutions can provide focused, high-quality academic advising that improves student success, resistance, and persistence toward college completion (Nutt, 2017). As a result, an administrator who is data driven and intentionally strategic can have a substantial influence on student outcomes, institution growth, and advising success.

Systems continue to be developed to support the gathering, storage, and interpretation of evidence. Advising technology, big data, and data analytics fundamentally shape the delivery and the expectations for holistic advising and can help facilitate meaningful collaborative conversations around data use in academic advising. Steele (2018) called institution leaders' attention to the fact that "institutional and learning analytics should be embraced to intentionally synthesize the use of big data to assess current practices and propose new ways to improve student success" (p. 67). Big-data analytics includes "the discovery and communication of meaningful patterns in data, using various techniques and tools to quantify performance and ultimately to describe, predict, and improve it" (Pelletier, 2015, para. 5). Additionally, technology is important, as it enables institutions to collect and analyze detailed information about student performance and behaviors, creating a rich stream of data for institutions to conduct data mining to support student success (Pelletier, 2015).

# CHALLENGES WITH DATA AND EVIDENCE SYSTEMS

With the proliferation and development of new data technologies to support advising and campus decision making comes complexity. The campus leaders we interviewed demonstrated their hope to build comprehensive data systems that could encompass all types of data relevant to academic advising work. Institutions often reported using various types of systems to track students' usage of advising programs, students' academic performance, advisors' advising actions, and other information.

Campus leaders also stated a desire to improve case management systems to enable stakeholders to extract data from different systems easily and to provide more customizable and intentional functions for advising work. Stakeholders can include anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage. Some institutions were in the process of optimizing their data infrastructures to improve the capacity of data use and improve the connection between different data platforms, dashboards, and displays:



**Our systems don't tend to talk to each other. There are many different types of systems. We're pulling from different areas to get the data. For efficiency purposes, I would say that's a challenge.**



– Director of Advising, Mesa Community College



# OBJECTIVES FOR IMPROVING DATA AND EVIDENCE SYSTEMS

In the following sections of this guidebook, we present recommendations for improving the use of systems designed to gather and interpret evidence on academic advising. Based on our interviews with campus leaders coupled with perspectives from previous research, we pinpointed two objectives for campus leaders to consider when working to improve the use of data systems to support institutional change efforts around advising:

1. Develop campus-wide assessment for academic advising
2. Develop and enhance data capacity

## Objective 1: Develop Campus-Wide Assessment for Academic Advising

Conducting assessment can help institutions understand students' experiences with advising. The results of assessment can inform the effectiveness and areas of needed improvement of advising practices and processes (Cox et al., 2017; Jonson et al., 2014). Assessment results can also guide directions for professional development in the advising community. Additionally, assessment can be used as evidence to apply for more funding for developing advising-related work (e.g., hiring or purchasing technology).

The methods of assessment can combine quantitative and qualitative inquiry, use direct and indirect measurements, and represent formative and summative methods (Robbins, 2011). Meanwhile, assessment does not have to be limited to student respondents; it should also consider advisors' behaviors, practices, and outcomes from their perspectives.

Developing campus-wide assessment is associated with a shared understanding of academic advising and institutional objectives of academic advising.



I definitely had my key performance metrics, not only for advising, but for student success to make sure we were aligning up to the institution. One of the critical pieces that I saw was that advisors were operationally doing a lot of things that we measured, but no one ever sat down to teach them what the measurements were for. So, what we did was, we have some series that we call advising forums where all advisors are brought together.



– Associate Vice Provost for Student Success, University of Texas at San Antonio



All of our units have been asked to come up with an advising strategic plan specific to their own colleges. Although we might have some consistent goals across the institution for advising, different people are performing differently in their colleges or departments. Figuring out [the various] ways of the assessment process gives us specific and intentional ways to examine the data. We'll set the metrics and examine the data. Once we have that information, success or lack of success, we feed that back into the information loop to make revisions and hopefully improve, always with the first priority "How do we make this? How do we help students be successful to the institution?"



– Associate Vice Provost for Student Success, Virginia Tech

Some colleges and universities might be slow to implement campus-wide assessment because of to the advising model present on campus. For example, institutions that heavily rely on a decentralized advising model might not have a standardized protocol to measure students' expectations or experiences in academic advising. Or, some institutions may encounter resistance to develop student evaluations for faculty advising. From our interviews, we identified two measurement approaches that serve as alternatives for campuses that need faster solutions associated with assessment:

- *Participation in national surveys that include measurement and assessment of academic advising.* Some institutions participated in the National Survey of Student Engagement (NSSE) and its associated Academic Advising Topical Module. Those institutions used NSSE results to better understand their overall student experiences and satisfaction toward academic advising and to compare their institutional data in a national context. A comparable tool that community college leaders may use is the Community College Survey of Student Engagement (CCSSE).
- *Collaboration with campus partners on program evaluation.* Campus partners might include academic advising as one component in their campus-wide surveys. Some campus leaders in our interviews shared that their partner offices included questions related to advising activities in their student surveys.

## Assessment Audit

Review and respond to the following questions to reflect on how campus-wide assessment can be developed to enact change around advising.

What assessment efforts are currently in place at your institution?

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Identify a campus-wide objective related to advising. In what ways do your advising objectives support and center Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students?

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What campus-wide assessment activities are related to your identified advising objective? How do your assessment efforts support and center Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students?

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How do you collaborate with campus partners in these assessment efforts?

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What other information about your advising work at your institution would you like to know that you do not already know? How would you collect that information in your assessment efforts?

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Are there assessment efforts related to advising that you would like to implement at your institution? If so, what are these?

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What are some advising-related assessment efforts you anticipate will take place at your institution?

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## Objective 2: Develop and Enhance Data Capacity

Another important component of enhancing a culture of data use is investing in data infrastructures and data and information-technology (IT) personnel to enhance capacity, which can be affected by institutional data leadership, infrastructure, accessibility, and literacy (Gerzon & Guckenburg, 2015). Institutional data leadership involves the roles and responsibilities of campus leaders and stakeholders as well as the objectives for data use (see EDUCAUSE's [2022] guide *Understanding and Developing a Data-Informed Culture* for additional information; Monaghan, 2017; Starobin & Upah, 2014; Wayman et al., 2006). It also includes forming a shared understanding of how data use improves academic advising. Without data infrastructure to provide data collection, storage, management, and access, no stakeholder will be able to achieve meaningful data use. National survey data have indicated that the majority of institutions have contracted with commercial vendors who provide advising technologies and data solutions to assist in data collection, management, and analytics (Shaw et al., 2021). Meanwhile, institutions also have their own data and IT experts to maintain data systems and to develop in-house platforms for data use.

Data infrastructure involves everything the institution needs to collect, manage, and analyze data and includes on-premise or cloud data storage systems. It consists of hardware, software, managed services, servers, storage, and network input/output along with people, processes, policies, and various technology tools. In our interviews, some common advising technology vendors used by institutions were Blackboard Learn with Ultra, EAB Student Success Collaborative, Hobson's Starfish, CIVITAS, Ellucian Banner, PeopleSoft Campus Solutions, and Canvas. Data accessibility requires institutions to identify solutions for connecting data and information in multiple data systems and for providing easy access to stakeholders. Integrating data from different systems poses a challenge to many institutions, as no one system can include all data and evidence institutions might need. Advising-related units on campuses invest in and implement the technologies that best meet their needs. However, data about students may be located in separate systems, presenting challenges to obtaining a comprehensive picture of students' progress. To better pull relevant data together, the Assistant Vice Provost for Advising & Academic Services at the University of Cincinnati suggested that greater efforts are needed to enable stakeholders to find relevant data easily:



**Our data is not integrated enough. We have to pull data from many different places and manually piece it together. That poses a lot of additional challenges ... There's data that lives in Canvas, the learning management system, and there's data that lives in PeopleSoft, the student information system, and the new data that lives in the student success management system. Little of that data interfaces with the data that's on the personnel system about who's supporting all of this. That's a big piece we've got to accomplish.**



Partnerships and collaborations with institutional data and technology experts are important for developing tools to gather multiple data sources in one place. For example, an academic advising administrator at Arizona State University mentioned that he worked with technology staff to create analytics sites where the advising group can get more reports and student data, enabling frontline advisors to access the data and use the data easily rather than depending on advising administrators or Dean's Office.

Moreover, it is important for leaders to take account of stakeholders' voices when selecting, developing, and implementing data and technology systems. Frontline advisors are gatekeepers who collect data related to academic advising activities. Their user experiences with technology and data management systems can help identify areas that need to be improved, thus potentially enhancing the quality of academic advising. For example, a campus leader from California State University, Chico shared that their student service support staff used three different systems to record the advising notes, which meant staff used different systems that did not interface with each other to provide relevant knowledge and information about students they served. Therefore, leaders asked IT staff to map stakeholder needs, align these needs with available resources, and enable all advising notes to be recorded in one system, allowing for productivity and effective collaboration. Within one data system, advisors were better able to support students by fetching data and conducting analytics more easily and efficiently.

Additionally, for some institutions, investing in data and IT personnel for data management and use may be necessary to better aggregate multiple data in one place. Previous research suggested recruiting more professional IT and data analytic personnel can be useful for campus leaders seeking to establish and maintain a culture of data

and evidence use (Webber & Zheng, 2019). Several campus leaders we interviewed had at least one designated person who assisted with data management and analytics in either their division or their central advising office. Some campus leaders also stated their urgency to hire more data and IT personnel to assist in data management and use. As the Assistant Vice Provost for Advising & Academic Services at the University of Cincinnati shared, “The team that supports our advising tools and technologies have assessment and data capacity. But we have not provided them with enough personnel support and time to be able to spend a lot of time on that yet.”

When expanding the accessibility of different data, it is important to ensure that different departments or divisions agree on the use of data systems. Data security and confidentiality should be not overlooked when developing campus-wide data systems. As the Assistant Vice President for University Advisement at California State University, Chico shared:



We have memorandums of understanding and project charters that establish our relationship with IRES/Information Technology, specifically, those who work with PeopleSoft (student information system), Salesforce (customer relationship management), and Blackboard (learning management system). So, every advisor can have some aspects of data accessible to them, which have been previously approved from a data governance standpoint.



# EQUITY AND THE USE OF SYSTEMS

It is necessary for institutional leaders (e.g., mid- to senior-level administrators, advising directors, frontline advisors) to take responsibility and action for student success. Such commitment requires the use of equity-minded approaches, including disaggregating data by student subgroups (e.g., race/ethnicity, socioeconomic status, and gender, among others), using culturally sensitive and inclusively worded surveys, and using student personas to amplify the voices of historically marginalized populations.

Additionally, an equity-oriented approach requires data users to challenge deficit thinking and assumptions based on student characteristics, affinities, and identities (e.g., race and ethnicity, socioeconomic status, intellectual differences, cultures, among others). This approach is unlike deficit thinking, which often points to students' identities and characteristics as reasons for disparities in educational outcomes rather than calling out the impacts of social and institutional systemic shortcomings on those students (Park, 2018).

**TABLE 1**  
**REFRAMING DEFICIT THINKING FOR EQUITY MINDEDNESS**

	Deficit-oriented approaches	Equity-minded approaches	Reflection questions
<b>Impact</b>	Maintain and uphold stereotypes about class, race, and gender	Avoid preexisting assumptions to guide decisions or actions	1. What assumptions and biases do you hold that may affect how you analyze and interpret data?
<b>Data</b>	Do not take account students' perceptions and experiences	Use data triangulation and seek multiple data sources	2. What information are you drawing upon to understand students' experiences and advising? 3. Relatedly, what data and evidence are you using to justify decisions or actions related to advising redesign?

### Pause and Reflect

Consider and reflect on the following questions related to data and technology use at your institution. Then, complete the checklist activity, using an X or checkmark to indicate whether your institution engages in collaborative data and technology use.

What advising technologies and data systems does your institution use?

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How do the various technology and data systems at your institution interface and interact with one another?

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How do the various technology and data systems at your institution facilitate or impede collaboration with individuals across organizational lines?

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## CHECKLIST FOR DATA AND TECHNOLOGY USE

- My institution uses a suite of advising and data tools from a commercial vendor.
- My institution uses and develops in-house platforms.
- My institution has a mix of commercially available and in-house platforms.
- My institution has designated full-time personnel who assist with data management and use.
- My institution includes IT and data professionals in meetings about initiatives associated with the development, monitoring, and management of holistic advising redesign.
- My institution has accessible IT and data personnel to provide timely service.

If your institution is missing items from this checklist, what actions can you take and what relationships and/or networks can you leverage to create or strengthen the creation and delivery of these initiatives?

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# SUMMING IT UP: PRINCIPLES IN PRACTICE

Data systems can be powerful tools for working across complex organizational realities on campuses. This guidebook works to help institutional leaders consider key concepts to improve the use of systems to support evidence-informed change in advising. The objectives shared can help campus professionals with leadership responsibilities for advising see the use of data systems as a form of organizational learning leading to improvement rather than simply to meet external demands for compliance or accountability.

It is important to gather data and evidence and to engage in assessment and evaluation efforts because these behaviors will lead to continuous improvement. For instance, we learned through our interviews that at the University of Texas, San Antonio (UTSA), sharing data created a broader understanding of its importance in advising; according to one administrator, “[data] gets other campus stakeholders invested in what you’re doing. And you can set up other types of collaboration.” The UTSA advising team was able to form new relationships and cultivate a strong collaborative bond with their IT department, and when IT received grant funding, they brought in academic advising as a part of the grant. The creation of these strong collaborative networks not only has the potential to create greater buy-in among stakeholders, but, as administrators at Mesa Community College found, it can help stakeholders center students throughout the advising redesign process. Simply put, collaboration and assessment bring about innovation. When universities build and increase data capacity and regularly work to make sure all stakeholders involved understand and have access to data and evidence, a culture of data use is sustained.

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# APPENDIX

# RESEARCH METHODS

## Review of Literature

We reviewed current educational reports, literature, and research on leadership in data use, data-driven and data-informed decision making in educational settings, and cultures of data use. We also reviewed articles posted on the website of NACADA: The Global Community for Academic Advising. We used the information we learned through reviews to develop an interview protocol and to provide justification for the major themes we identified.

## Interviews

We recruited campus leaders to participate in interviews through convenience and purposive sampling. We purposefully sampled to get perspectives from a range of institutions. Three approaches were used to invite campus leaders. First, we sent out calls to the National Advisory Board of the National Resource Center for The First-Year Experience and Students in Transition to ask them to nominate campus leaders they thought would be suitable to discuss our topic. Second, we identified active members in NACADA and sent out recruitment emails to campus leaders. Third, we sent a call to the Advising Success Network HBCU Professional Learning Community.

Between December 2020 and February 2021, we conducted semistructured interviews with 21 campus leaders who had responsibility for academic advising at 18 institutions. We gathered different opinions on using data from individuals at institutions that differed by structure of academic advising, types of institutions, and enrollment size. The summary of characteristics of the institutions is presented in Table A.1. Our interviews explored major topics relevant to data-driven and evidence-based approach in decision making, such as how campus leaders use data in decision making and case making, how campus leaders use evidence to manage up and down in organizational chart, how campus leaders use data in their leadership (e.g., collaborate with other units on campus, foster a culture of using data), and how campus leaders use assessment and evaluation.

All participation in our interviews was voluntary. In this report, we do not identify the campus leaders' names in illustrative cases or direct quotations. Some direct quotations have been edited for grammar and clarity.

## Analysis

We audio recorded and transcribed all the interviews. Then, we conducted content analysis to identify major themes to understand how campus leaders use data and evidence strategically. The themes presented in this guidebook are related to strategies used to build a consistent and coherent culture of academic advising and a culture of data use. We also identified examples to illustrate practices and strategies used in specific institutions.

## Limitations

Our approach had several limitations. First, we interviewed a select number of campus leaders. Their perceptions and experiences do not necessarily reflect those of other institutional leaders and are not designed to be generalizable across multiple institutional types. Second, the leaders we interviewed engaged in different efforts and inputs associated with improving academic advising, which does not mean those institutions are most successful or have best practices in academic advising. The purpose of our interviews was to explore the practices and strategies used by campus leaders and to synthesize suggestions and strategies that other campus leaders can adapt to meet their institutions' needs.

**TABLE A.1**

### SUMMARY OF CHARACTERISTICS OF INTERVIEWED INSTITUTIONS

Category	Number of institutions
Four-year institutions	14
Community colleges	4
Historically Black colleges and universities	3
Hispanic serving institutions	9
Private institutions	2
Institutions participating in the Integrated Planning and Advising for Student Success (iPASS) project	1
Institutions participating in Guided Pathways initiatives	1

*Note.* Several institutions fall into more than one category.

# USING DATA AND EVIDENCE TO LEAD HOLISTIC ADVISING REDESIGN:

A Guidebook for Campus Leaders for Promoting Consistent, Coherent,  
and Collaborative Data Use in Advising

Wen Zeng, Dallin George Young, Catherine Hartman, and Isaac Portillo

## VOLUME TWO

Creating a Culture of Data Use  
Around Academic Advising in  
Your Institution

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# ABOUT THE ADVISING SUCCESS NETWORK

Formed in 2018, the Advising Success Network (ASN) is a dynamic network of five organizations partnering to engage institutions in holistic advising redesign to advance success for Black, Latinx, Indigenous, Asian, and Pacific Islander students and students from low-income backgrounds. The network develops services and resources to guide institutions in implementing evidence-based advising practices to advance a more equitable student experience to achieve our vision of a higher education landscape that has eliminated race and income as predictors of student success. The ASN is coordinated by NASPA—Student Affairs Administrators in Higher Education, and includes Achieving the Dream, the American Association of State Colleges and Universities, EDUCAUSE, NACADA: The Global Community for Academic Advising, and the National Resource Center for The First-Year Experience and Students in Transition.

# ABOUT THE PUBLISHER

The National Resource Center for The First-Year Experience and Students in Transition was born out of the success of the University of South Carolina's much-honored University 101 course and a series of annual conferences focused on the first-year experience. The momentum created by the educators attending these early conferences paved the way for the development of the National Resource Center, which was established at the University of South Carolina in 1986. As the National Resource Center broadened its focus to include other significant student transitions in higher education, it underwent several name changes, adopting the National Resource Center for The First-Year Experience and Students in Transition in 1998.

Today, the Center collaborates with its institutional partner, University 101 Programs, in pursuit of its mission to advance and support efforts to improve student learning and transitions into and through higher education. We achieve this mission by providing opportunities for the exchange of practical and scholarly information as well as the discussion of trends and issues in our field through convening conferences and other professional development events such as institutes, workshops, and online learning opportunities; publishing scholarly practice books, research reports, a peer-reviewed journal, electronic newsletters, and guides; generating, supporting, and disseminating research and scholarship; hosting visiting scholars; and maintaining several online channels for resource sharing and communication, including a dynamic website, email list, and social media outlets.

The National Resource Center serves as the trusted expert, internationally recognized leader, and clearinghouse for scholarship, policy, and best practice for all postsecondary student transitions.

# INTRODUCTION

The Advising Success Network and its five core partners have focused on creating and distributing thought leadership and assets to promote holistic advising redesign in higher education. This guidebook was created to serve as a resource for data use by campus leaders, including mid- to senior-level administrators responsible for institutional advising initiatives. The National Resource Center for The First-Year Experience and Students in Transition – working on behalf of the Advising Success Network – aimed to identify strategies and data-use practices for data-driven decision making in advising services and collaboration of data use among campus stakeholders, meaning anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage.

## About the Guidebook

This guidebook draws upon in-depth interviews with administrators who have oversight of academic advising at 18 institutions to provide strategies and examples of what campus leaders have been doing to promote consistent, coherent, and collaborative data use in advising.

## Objective of the Guidebook

Our goal is to promote data use among campus leaders to improve advising and bolster student success through equity-minded approaches. This guidebook synthesizes and identifies best practices for improving collaboration and communication of data use among campus leaders and stakeholders in advising. Moreover, it presents strategies and practices used by institutions that can inform campus leaders seeking solutions for building a data culture toward developing holistic advising, with the goal of achieving greater and more equitable student learning and success in higher education.

Throughout the guidebook, we also provide recommendations for campus leaders to improve their equity and inclusion mindedness when developing coherent data-use strategies and culture. Most interviewees acknowledged that they prioritized equitable outcomes when examining data and identifying gaps in academic advising. For example, many mentioned they always disaggregated data by demographic information, such as socioeconomic status, race, ethnicity, and financial aid. The disaggregation of data is one step in the process to achieve equitable student outcomes. To promote equity, institutional data users and decision makers (e.g., mid- to senior-level administrators, advising directors, frontline advisors) must use the disaggregated data to inform their decisions and actions related to student success. Therefore, an equity-minded practice requires institutions to take responsibility and action for student success.

We begin this guidebook by emphasizing that an equity-oriented framework should be used as a guiding lens for advising redesign efforts. We contend that institutions should invest greater effort to address equity gaps

through advising initiatives. We also recognize that many institutions strive to create an empowering culture and implement inclusive and culturally relevant practices in academic advising. For example, positions may emphasize equity and inclusion initiatives, or the diversity of service staff may increase through the hiring of advisors who come from culturally and linguistically diverse groups. However, institutions must move beyond merely focusing on diversity and inclusion efforts toward cultivating an equity-oriented data-use culture. This attention requires institutional staff to identify and develop clear advising objectives designed to reduce inequitable outcomes for racially and socioeconomically minoritized student populations (including Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students) and to determine the role of advising in supporting retention and graduation among students.

## Organization of the Guidebook

This guidebook begins by exploring some **common challenges affecting strategic data use**, which can be organized in three primary areas:

1. **Systems:** The variety of data and information systems poses a challenge to optimizing data infrastructures.
2. **Culture:** Different attitudes or perspectives in academic advising and data use among institution stakeholders may cause inconsistency and incoherence of data use.
3. **Resources:** Shortages of professional personnel, professional development and training, and data analytic solutions result in limited capacity for data use.

This series of guidebooks addresses the challenges faced by institutions in using data strategically with academic advising and presents real-world approaches and strategies campus leaders can use to cultivate a collaborative and coherent approach to data use in advising:

1. Improving the use of **systems** designed to gather and interpret evidence on academic advising
  - Develop campus-wide assessment for academic advising
  - Develop and enhance data capacity
2. Creating a **culture** of data use around academic advising in your institution
  - Establish clear objectives to understand how data can inform the use of advising
  - Define the role of academic advising in institutional initiatives
3. Improving the human **resources** needed to use data more strategically
  - Identify stakeholders of advising
  - Improve collaboration and communication among advising stakeholders for better data use
  - Provide advising- and data-related professional development regularly to advising stakeholders

This volume of *Using Data and Evidence to Lead Holistic Advising Redesign* focuses on the second challenge, **Culture**, and provides evidence-based strategies focused on *creating a culture of data use around academic advising in your institution*.

## Using This Guidebook

This guidebook, along with the others in the series, was created with the following questions in mind:

- What should campus leaders and stakeholders in advising consider when using data and evidence to lead advising redesign?
- How can advising redesign promote equity at their respective institutions?

As a core partner of the Advising Success Network, The National Resource Center for The First-Year Experience and Students in Transition has identified strategies for institution leaders regarding better use of data to improve collaboration and consistency in advising practices across colleges, divisions, departments, and other institution units, such as institutional research, information technology, enrollment management, and student affairs.

This guidebook (a) describes the challenges campus leaders face when using data-driven and evidence-based approaches in decision making and (b) provides recommendations for using data and evidence strategically in an effort to create holistic advising redesign that promotes equitable student outcomes.

We drew upon interviews with administrators from 18 different campuses; each administrator had responsibility for advising at their institution.<sup>1</sup> The interviews gathered different opinions and approaches from a wide range of institutions with diverse structures, processes, and initiatives surrounding advising and thus explored major topics relevant to data- and evidence-based approaches in decision making. Emphasis is on how campus leaders use:

- Data in decision making and case making
- Evidence to collaborate across silos within organizations
- Data in their leadership (e.g., to collaborate with other units on campus, to foster a culture of using data)
- Assessment and evaluation strategies

This guidebook provides leaders with recommendations for using data and evidence strategically to improve student success. In addition to administrators and professionals in academic advising, we encourage campus leaders from academic affairs, student affairs, enrollment management, deans and associate deans from academic colleges, data analytics departments, information technology, and institutional research and effectiveness to use this guidebook to support holistic, equitable advising-related work on your campus.

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<sup>1</sup> See Appendix for a more complete description of our research methods.

# CREATING A CULTURE OF DATA USE AROUND ACADEMIC ADVISING IN YOUR INSTITUTION

A consistent and coherent culture of data use is necessary for implementing and sustaining data-driven and evidence-based approaches to holistic advising redesign. A culture of data use is facilitated by the development of explicit protocols, language, and expectations associated with data and its use in strategic decision-making processes (Datnow & Park, 2014; Gerzon, 2015; Mandinach & Jackson, 2012). Thus, a shared understanding around effective data-use practices should be collaboratively decided and adopted by campus leaders and stakeholders, including anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage. A congruent culture can help leaders allocate sufficient time, resources, and supports to help staff use data as part of their decision making and daily work.

Campus leaders also play a critical role in influencing the use of data, and their data-use practices can serve as models for employees and other stakeholders. Additionally, leadership around data use further develops norms and routines among peers on leadership teams (Datnow & Park, 2014). Therefore, fostering a culture of data use can create not only an environment for campus leaders to use evidence strategically but an environment in which data is used with both consistency and coherence (see EDUCAUSE's [2022] guide *Understanding and Developing a Data-Informed Culture* for additional information).

# CHALLENGES WITH CREATING A CULTURE OF DATA USE

Many advisors and campus leaders may feel that they have lack confidence to use and interpret data, particularly through an equity-minded lens. Through our interviews, campus leaders relayed that professional advisors, faculty advisors, and advising stakeholders across different departments, colleges, or divisions do not always use common language when using data and do not always have a mutual understanding of academic advising and its objectives. Without a common language and shared agreement of advising practices, these groups might interpret data in different ways, which may lead them to differences in understanding the effectiveness or progress of advising initiatives. Maximizing the capacity of data use to achieve institutional goals and equitable outcomes among students across different advising units can be especially difficult in a decentralized structure. These differences in language and interpretation create challenges for campus leaders who are creating and leading operating environments (e.g., access to data, collaboration space, routines of data use) and are using data and evidence strategically when making institution-level decisions.



We don't have a common set of learning outcomes or a common set of expectations or even common position descriptions for advisors across the different colleges. What that means for us is that when we're trying to share data, there isn't always accountability for what colleges are going to do with the data.



— Associate Vice Provost for Student Success, University of Toledo

Administrators also relayed that it is difficult to find ways to be open and transparent about data and outcomes associated with decentralized advising units. From senior academic advising administrators to professional advisors and faculty advisors, reporting lines are often not direct. For instance, senior administrators located in central advising offices might not know what challenges or successful practices the decentralized advising units had because of the disconnected nature of the units and the lack of cross-functional communication.

# OBJECTIVES FOR CREATING A CULTURE OF DATA USE

In the next section of the guidebook, we present recommendations for establishing a culture of data use. Based on our interviews with campus leaders and research on data cultures, we pinpointed two objectives for campus leaders to consider when working to promote a common culture of data use around academic advising:

1. Establish clear objectives to understand how data can inform the use of advising
2. Define the role of academic advising in institutional initiatives

## Objective 1: Determine Clear Outcomes Associated With Advising for Data Use

Creating consistent and coherent objectives surrounding the use of data and evidence for advising is a precondition for using data strategically and purposefully. When campus leaders develop and communicate a consistent understanding of advising outcomes, they are better positioned to navigate the examination of data and to implement strategies for data-driven or evidence-based decision-making processes. Developing a common understanding of institutional advising objectives can help minimize misunderstandings and unspecified assumptions about advising among stakeholders and campus leaders (Starobin & Upah, 2014). This step also provides the advisors “the language needed to describe both the practice of academic advising and its scholarly identity independent of other fields and professions” (Schulenberg & Lindhorst, 2008, p. 44). Therefore, cultivating clear advising outcomes lays the groundwork for using data strategically and purposefully. Without specific, measurable outcomes, institutions will not be able to collect useful data and measure their progress in a meaningful way.

“

Some years ago, we developed this advising mission, which begins with a definition, our philosophy statement. We believe that advising involves many stakeholders. We wanted to identify the responsibilities of everyone who took part in there. We have a statement of university responsibility. We have not developed [a] full [list of] learning outcomes, but we are in the process of it. We're currently in the process of developing a strategic plan for academic advising at our institution right now, one of those pieces being to re-examine our mission philosophy statement but to also develop the learning outcomes.

”

— Associate Vice Provost for Student Success, Virginia Tech

## Pause and Reflect

We offer the following guided questions and activities to aid in the establishment of the mission, overall goals, and desired outcomes of advising (Wells & Glass, 2019):

Areas	Activities
<p><b>Mission: How does advising lead to student success?</b></p>	<p>The <b>mission</b> of advising on campus is to _____</p> <p><b>(primary purpose)</b></p> <p>by providing _____</p> <p><b>(primary function #1)</b></p> <p>_____</p> <p><b>(primary function #2)</b></p> <p>_____</p> <p><b>(primary function #3)</b></p> <p>_____</p> <p><b>(primary function #4)</b></p> <p>Thoughts, statements, additions:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>Goals: What specific outcomes and benchmarks for advising are there in institutional initiatives and goals?</b></p>	<p>The institutional goals associated with advising are</p> <p>1) _____</p> <p><b>(highlight one short-term goal)</b></p> <p>2) _____</p> <p><b>(highlight one long-term institutional goal)</b></p> <p>3) _____</p> <p><b>(highlight one other goal)</b></p> <p>Do advising initiatives at your institution have SMART (specific, measurable, achievable, relevant, and timely) goals and measurable outcomes?</p> <p>_____</p> <p>_____</p> <p>_____</p>

*table continues on page 11*



table continued from page 10

Areas	Activities
<p><b>Goals: What specific outcomes and benchmarks for advising are there in institutional initiatives and goals?</b></p>	<p>How do advising initiatives at your institution center equity and Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income student success? What, if any, goals and measurable outcomes are associated with these initiatives?</p> <hr/> <hr/> <p>How does advising support institutional initiatives?</p> <hr/> <hr/> <p>What campus-wide processes are available at your institution that can serve as momentum points for advising redesign? Examples may include strategic plans, development campaigns, self-study processes, reaccreditation efforts, leadership transitions, and more.</p> <hr/> <hr/> <p>How do the campus-wide processes you previously identified prioritize equity and student success among Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students? In what ways do these momentum points provide opportunities to incorporate equity-centered initiatives within advising redesign?</p> <hr/> <hr/>
<p><b>Learning Outcomes: What data will be needed to evaluate outcomes and benchmarks?</b></p>	<p>Write two learning outcomes following the ABCD method, in which A is your audience, B is the behavior, C is the condition, and D is the degree to which the condition is met.</p> <p>When describing student learning, <i>students</i> are almost always the <b>audience</b>. However, there are many times when the audience refers to specific groups of students, such as transfer students, students on academic probation, first-year students, or students participating in an extended orientation.</p> <p>The <b>behavior</b> refers to the type of learning that the educational initiative was designed to support. We have provided some examples of terms to describe the type of learning in the word box below that you might use as needed.</p> <p><b>Condition</b> is the educational initiative, environment, or activity designed to achieve the learning outcome. In the examples that follow, the condition is students' participation in advising.</p>

table continues on page 12

table continued from page 11

Areas	Activities																										
<p><b>Learning Outcomes: What data will be needed to evaluate outcomes and benchmarks?</b></p>	<p>The signal that a student has learned what the initiative was designed for is referred to as the <b>degree</b>, which might include students' ability to perform a task they did not before, to define a new concept, or to apply knowledge. Degree can be demonstrated in quantitative ways by identifying a numerical measure or in qualitative ways by identifying how students may describe their experiences.</p> <p>1) As a result of advising, the _____  <b>(Condition) (Audience)</b>  will _____  <b>(Behavior)</b></p> <hr/> <p><b>(Degree)</b></p> <p>2) As a result of advising, the _____  <b>(Condition) (Audience)</b>  will _____  <b>(Behavior)</b></p> <hr/> <p><b>(Degree)</b></p>																										
	<table border="1" data-bbox="472 1161 917 1677"> <thead> <tr> <th colspan="2" data-bbox="472 1161 917 1209">Behaviors word box</th> </tr> </thead> <tbody> <tr> <td data-bbox="472 1209 695 1251">Define</td> <td data-bbox="695 1209 917 1251">Assess</td> </tr> <tr> <td data-bbox="472 1251 695 1293">Identify</td> <td data-bbox="695 1251 917 1293">Solve</td> </tr> <tr> <td data-bbox="472 1293 695 1335">Describe</td> <td data-bbox="695 1293 917 1335">Compare</td> </tr> <tr> <td data-bbox="472 1335 695 1377">Demonstrate</td> <td data-bbox="695 1335 917 1377">Measure</td> </tr> <tr> <td data-bbox="472 1377 695 1419">Practice</td> <td data-bbox="695 1377 917 1419">Revise</td> </tr> <tr> <td data-bbox="472 1419 695 1461">Apply</td> <td data-bbox="695 1419 917 1461">Test</td> </tr> <tr> <td data-bbox="472 1461 695 1503">Utilize</td> <td data-bbox="695 1461 917 1503">Collect</td> </tr> <tr> <td data-bbox="472 1503 695 1545">Analyze</td> <td data-bbox="695 1503 917 1545">Compose</td> </tr> <tr> <td data-bbox="472 1545 695 1587">Determine</td> <td data-bbox="695 1545 917 1587">Design</td> </tr> <tr> <td data-bbox="472 1587 695 1629">Evaluate</td> <td data-bbox="695 1587 917 1629">Formulate</td> </tr> <tr> <td data-bbox="472 1629 695 1671">Relate</td> <td data-bbox="695 1629 917 1671">Plan</td> </tr> <tr> <td data-bbox="472 1671 695 1713">Synthesize</td> <td data-bbox="695 1671 917 1713">Propose</td> </tr> </tbody> </table> <p>Following Bloom's Taxonomy (1956) as well as Anderson and Krathwohl's revisions (2001), you want to use actionable, clear, and measurable verbs, such as those found in the word box, when writing learning outcomes.</p>	Behaviors word box		Define	Assess	Identify	Solve	Describe	Compare	Demonstrate	Measure	Practice	Revise	Apply	Test	Utilize	Collect	Analyze	Compose	Determine	Design	Evaluate	Formulate	Relate	Plan	Synthesize	Propose
Behaviors word box																											
Define	Assess																										
Identify	Solve																										
Describe	Compare																										
Demonstrate	Measure																										
Practice	Revise																										
Apply	Test																										
Utilize	Collect																										
Analyze	Compose																										
Determine	Design																										
Evaluate	Formulate																										
Relate	Plan																										
Synthesize	Propose																										

## Audit of Advising Initiatives and Outcomes

After establishing an understanding of the mission of and outcomes associated with advising, draw upon your responses to the previous activity to complete the questions that follow. In this audit of advising initiatives and outcomes activity, we ask that you list all advising-related initiatives in the column “Advising-related initiative” and their associated outcomes in the column labeled as such.

Advising-related initiative	Associated outcome(s)
Example: Career advising	Example: Students will become familiar with potential career paths related to their desired field of study.

## Objective 2: Develop and Enhance Data Capacity

Advising is often collaboratively partnered with other institutional initiatives to promote student success outcomes, such as improved retention and graduation rates (Fountain, 2021). As such, campus leaders must intentionally identify and describe connections among desired outcomes, advising practices in supporting institution-level initiatives, and strategic plans focused on student success. Institutions can and should focus on building common goals and developing resources to tailor advising cross-functionally (i.e., across various offices, such as an advising central office, colleges and departments, and first-year advising). Campus leaders should also consider how to use data and evidence as tools to identify *momentum markers* to engage in the change process toward improving advising.

We offer a case study from Claflin University as an example of connections between advising and institutional initiatives.

### Case Study: How Claflin University Aligns Advising to Institutional Initiatives

Located in Orangeburg, South Carolina, Claflin University is a private historically Black university with an undergraduate student enrollment of 2,070 in 2019–2020. Ninety percent of students enrolled identified as Black, 2% as White, 2% as Asian, and 0.5% as Latinx; 4% identified as part-time. A major advising initiative that Claflin implemented was guided career pathways, which aimed to reduce the number of undecided first-time first-year students, increase the number of students who enroll with a well-defined career goal, increase the percentage of

students who graduate on time, and increase the percentage of graduates who secure employment in their fields within one year of graduation.

Through the guided career pathways initiative, first-year advisors help students develop educational goals and explore majors and careers related to their interests and strengths. Additionally, faculty advisors help students plan experiential learning activities for their career goals, finalize guided career pathway plans, select additional cocurricular activities based on career goals, and monitor student progress for goal achievement. Part of this initiative is a concerted effort to use data and evidence to monitor students' progress and develop their academic pathways. An administrator explained:



We have become intentional about our data collection and use of data in advising. We track our students and their number of major changes. Through advising conversations and the use of Focus2Career [an online career assessment], the academic advisor helps students narrow their career choices, develop career-related goals, and choose a major that is good fit for their career choice. Once career choices are selected, students are referred to the Career Development Center for career exploration and career counseling. If students decide to change their majors within this process, we track those major changes as part of our data collection. The advisors use this information to intervene when necessary and to make sure students are exploring career options.



Data collection efforts associated with the guided career pathways initiative have enabled administrators, staff, and faculty to respond accordingly to students' needs to facilitate greater learning and success:



Faculty advisors know the career goals of their advisees and their advisees' cocurricular activities (or experiential learning activities). Some data we have been using is the number of students who have participated in experiential learning and graduating students who have received [employment or advanced degree] opportunity offers. Advisors, department chairs, and deans share these data with the Coordinator of Experiential Learning. Also, we have incorporated a few career readiness topics into the seminar courses for each major. These career readiness topics help us to ensure that students are highly qualified for experiential learning opportunities as well as for the workforce.



Additional examples of advising initiatives (including academic, career, and financial advising) across different institutional types can be found in case study collections from the National Resource Center, including *Career Advising as a Tool for Student Success and Educational Equity* (Fountain & Portillo, 2021) and *Academic Advising as a Tool for Student Success and Educational Equity* (Fountain, 2021). The American Association of State Colleges and Universities also developed a practical toolkit for leaders seeking to integrate career advising in at their institution, *Integrating Career Advising for Equitable Student Success: A Higher Education Toolkit* (Ahmed et al., 2021).

## Pause and Reflect

Self-guided questions to consider regarding the ways that academic advising can best contribute to institutional initiatives through data and evidence include

- How can advising add significant value to institutional initiatives?
- How do organizational structures support institutional initiatives?
- How can advising best drive student success through data and evidence?
- How does data and evidence use:
  - Help position advising within institutional initiatives?
  - Help advising staff track and report student outcomes and determine how they meet institutional goals?

## Mapping Advising Initiatives and Outcomes to Institutional Goals/ Objectives

In the following table, draw upon the previous activities to inventory advising initiatives and their associated objectives. After completing this step, describe how advising initiatives and objectives connect to institution-wide goals/ objectives and answer the questions to consider that follow.

We have memorandums of understanding and project charters that establish our relationship with IRES/ Information Technology, specifically, those who work with PeopleSoft (student information system), Salesforce (customer relationship management), and Blackboard (learning management system). So, every advisor can have some aspects of data accessible to them, which have been previously approved from a data governance standpoint.

Advising Initiative	Associated outcome(s)	Connection to institutional goals/objectives

# THE ROLE OF ADVISING REDESIGN IN PROMOTING EQUITY

Advising stakeholders must recognize their responsibility in facilitating student success as well as a culturally sensitive culture of data use. Creating and sustaining this equity-driven culture requires administrators, professional and faculty advisors, and campus stakeholders to engage with data without engaging in deficit thinking. Disaggregation of data can provide more student context, and decisions made from the data should not be driven by existing ideas or presumptions but from an equity-minded approach. Therefore, whether a culture of data use leads to more equitable outcomes is largely influenced by the extent to which the data users engage in deficit thinking. In an effort to reframe deficit thinking, we encourage stakeholders to consider how they can use asset-based thinking when developing a culture of data use at their institution.

**TABLE 1**  
**REFRAMING DEFICIT THINKING FOR EQUITY MINDEDNESS**

	Deficit-oriented approaches	Equity-minded approaches	Reflection questions
<b>Focus</b>	Student deficiencies and weaknesses	Centering students' strengths and assets	1. What strengths do students bring with them to your institution?  2. In what ways do advising initiatives support students' assets? In what ways do they not capture students' strengths?

## Questions to Consider

1. In what ways do you see alignment occurring among advising initiatives, outcomes, and institutional goals/objectives? Specifically, in what ways do you see vertical and horizontal alignment occurring?

*Horizontal alignment:* the connection of objectives to assessment and program design and implementation

*Vertical alignment:* the idea that each stage of the undergraduate career leads to the next and that programs are designed to support each step accordingly and sequentially

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2. Where do you see misalignment between advising initiatives, outcomes, and institutional goals/objectives?

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3. How is equity incorporated into advising initiatives, outcomes, and institutional goals/objectives?

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4. What data can you use to determine connections among initiatives, outcomes, and institutional goals/objectives?

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5. What types of data would you like to collect to better create and facilitate alignment?

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# SUMMING IT UP: PRINCIPLES IN PRACTICE

It can be easy to get lost in the numbers, levels, and complexities of using data to improve campus advising. This guidebook can be used to begin the conversation around using data strategically by establishing the importance of a shared understanding of which data are most important and the ways that data and evidence can inform and improve advising practices. To establish these expectations, some level of assessment, reflection, and data collection must be done.

It is important to convey information cross-functionally and with stakeholders, as this will allow them to see the inherent value in using institutional data to drive advising change on campus. It could be particularly impactful to share quick, meaningful stories with leaders. A university president may ask to see advising data, but they do not have time to see all advising data in the data stores. They want to see a dashboard that shows the high-level report that tracks advising on a macro level, allowing them to connect and engage with the data. Improving academic advising requires a shared understanding of the inherent value in using institutional data on campus. By defining how advising aligns with an institution's plans and initiatives, identifying stakeholders and key campus partners, and having clear objectives for data use and academic advising, institutions, regardless of type, can establish a clear understanding of who, what, when, where, and how the data will be used in advising spaces on campus. Additionally, with meaningful data, leaders can create a cohesive narrative about students' needs, experiences, and strengths and make a strong case for the allocation of institutional resources when needed.



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# APPENDIX

# RESEARCH METHODS

## Review of Literature

We reviewed current educational reports, literature, and research on leadership in data use, data-driven and data-informed decision making in educational settings, and cultures of data use. We also reviewed articles posted on the website of NACADA: The Global Community for Academic Advising. We used the information we learned through reviews to develop an interview protocol and to provide justification for the major themes we identified.

## Interviews

We recruited campus leaders to participate in interviews through convenience and purposive sampling. We purposefully sampled to get perspectives from a range of institutions. Three approaches were used to invite campus leaders. First, we sent out calls to the National Advisory Board of the National Resource Center for The First-Year Experience and Students in Transition to ask them to nominate campus leaders they thought would be suitable to discuss our topic. Second, we identified active members in NACADA and sent out recruitment emails to campus leaders. Third, we sent a call to the Advising Success Network HBCU Professional Learning Community.

Between December 2020 and February 2021, we conducted semistructured interviews with 21 campus leaders who had responsibility for academic advising at 18 institutions. We gathered different opinions on using data from individuals at institutions that differed by structure of academic advising, types of institutions, and enrollment size. The summary of characteristics of the institutions is presented in Table A.1. Our interviews explored major topics relevant to data-driven and evidence-based approach in decision making, such as how campus leaders use data in decision making and case making, how campus leaders use evidence to manage up and down in organizational chart, how campus leaders use data in their leadership (e.g., collaborate with other units on campus, foster a culture of using data), and how campus leaders use assessment and evaluation.

All participation in our interviews was voluntary. In this report, we do not identify the campus leaders' names in illustrative cases or direct quotations. Some direct quotations have been edited for grammar and clarity.

## Analysis

We audio recorded and transcribed all the interviews. Then, we conducted content analysis to identify major themes to understand how campus leaders use data and evidence strategically. The themes presented in this guidebook are related to strategies used to build a consistent and coherent culture of academic advising and a culture of data use. We also identified examples to illustrate practices and strategies used in specific institutions.

## Limitations

Our approach had several limitations. First, we interviewed a select number of campus leaders. Their perceptions and experiences do not necessarily reflect those of other institutional leaders and are not designed to be generalizable across multiple institutional types. Second, the leaders we interviewed engaged in different efforts and inputs associated with improving academic advising, which does not mean those institutions are most successful or have best practices in academic advising. The purpose of our interviews was to explore the practices and strategies used by campus leaders and to synthesize suggestions and strategies that other campus leaders can adapt to meet their institutions' needs.

**TABLE A.1**

### SUMMARY OF CHARACTERISTICS OF INTERVIEWED INSTITUTIONS

Category	Number of institutions
Four-year institutions	14
Community colleges	4
Historically Black colleges and universities	3
Hispanic serving institutions	9
Private institutions	2
Institutions participating in the Integrated Planning and Advising for Student Success (iPASS) project	1
Institutions participating in Guided Pathways initiatives	1

*Note.* Several institutions fall into more than one category.

# USING DATA AND EVIDENCE TO LEAD HOLISTIC ADVISING REDESIGN:

A Guidebook for Campus Leaders for Promoting Consistent, Coherent,  
and Collaborative Data Use in Advising

Wen Zeng, Dallin George Young, Catherine Hartman, and Isaac Portillo

## VOLUME THREE

Improving the Human Resources  
Needed to Use Data More Strategically

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# ABOUT THE ADVISING SUCCESS NETWORK

Formed in 2018, the Advising Success Network (ASN) is a dynamic network of five organizations partnering to engage institutions in holistic advising redesign to advance success for Black, Latinx, Indigenous, Asian, and Pacific Islander students and students from low-income backgrounds. The network develops services and resources to guide institutions in implementing evidence-based advising practices to advance a more equitable student experience to achieve our vision of a higher education landscape that has eliminated race and income as predictors of student success. The ASN is coordinated by NASPA—Student Affairs Administrators in Higher Education, and includes Achieving the Dream, the American Association of State Colleges and Universities, EDUCAUSE, NACADA: The Global Community for Academic Advising, and the National Resource Center for The First-Year Experience and Students in Transition.

# ABOUT THE PUBLISHER

The National Resource Center for The First-Year Experience and Students in Transition was born out of the success of the University of South Carolina's much-honored University 101 course and a series of annual conferences focused on the first-year experience. The momentum created by the educators attending these early conferences paved the way for the development of the National Resource Center, which was established at the University of South Carolina in 1986. As the National Resource Center broadened its focus to include other significant student transitions in higher education, it underwent several name changes, adopting the National Resource Center for The First-Year Experience and Students in Transition in 1998.

Today, the Center collaborates with its institutional partner, University 101 Programs, in pursuit of its mission to advance and support efforts to improve student learning and transitions into and through higher education. We achieve this mission by providing opportunities for the exchange of practical and scholarly information as well as the discussion of trends and issues in our field through convening conferences and other professional development events such as institutes, workshops, and online learning opportunities; publishing scholarly practice books, research reports, a peer-reviewed journal, electronic newsletters, and guides; generating, supporting, and disseminating research and scholarship; hosting visiting scholars; and maintaining several online channels for resource sharing and communication, including a dynamic website, email list, and social media outlets.

The National Resource Center serves as the trusted expert, internationally recognized leader, and clearinghouse for scholarship, policy, and best practice for all postsecondary student transitions.

# INTRODUCTION

The Advising Success Network and its five core partners have focused on creating and distributing thought leadership and assets to promote holistic advising redesign in higher education. This guidebook was created to serve as a resource for data use by campus leaders, including mid- to senior-level administrators responsible for institutional advising initiatives. The National Resource Center for The First-Year Experience and Students in Transition – working on behalf of the Advising Success Network – aimed to identify strategies and data-use practices for data-driven decision making in advising services and collaboration of data use among campus stakeholders, meaning anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage.

## About the Guidebook

This guidebook draws upon in-depth interviews with administrators who have oversight of academic advising at 18 institutions to provide strategies and examples of what campus leaders have been doing to promote consistent, coherent, and collaborative data use in advising.

## Objective of the Guidebook

Our goal is to promote data use among campus leaders to improve advising and bolster student success through equity-minded approaches. This guidebook synthesizes and identifies best practices for improving collaboration and communication of data use among campus leaders and stakeholders in advising. Moreover, it presents strategies and practices used by institutions that can inform campus leaders seeking solutions for building a data culture toward developing holistic advising, with the goal of achieving greater and more equitable student learning and success in higher education.

Throughout the guidebook, we also provide recommendations for campus leaders to improve their equity and inclusion mindedness when developing coherent data-use strategies and culture. Most interviewees acknowledged that they prioritized equitable outcomes when examining data and identifying gaps in academic advising. For example, many mentioned they always disaggregated data by demographic information, such as socioeconomic status, race, ethnicity, and financial aid. The disaggregation of data is one step in the process to achieve equitable student outcomes. To promote equity, institutional data users and decision makers (e.g., mid- to senior-level administrators, advising directors, frontline advisors) must use the disaggregated data to inform their decisions and actions related to student success. Therefore, an equity-minded practice requires institutions to take responsibility and action for student success.

We begin this guidebook by emphasizing that an equity-oriented framework should be used as a guiding lens for advising redesign efforts. We contend that institutions should invest greater effort to address equity gaps

through advising initiatives. We also recognize that many institutions strive to create an empowering culture and implement inclusive and culturally relevant practices in academic advising. For example, positions may emphasize equity and inclusion initiatives, or the diversity of service staff may increase through the hiring of advisors who come from culturally and linguistically diverse groups. However, institutions must move beyond merely focusing on diversity and inclusion efforts toward cultivating an equity-oriented data-use culture. This attention requires institutional staff to identify and develop clear advising objectives designed to reduce inequitable outcomes for racially and socioeconomically minoritized student populations (including Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students) and to determine the role of advising in supporting retention and graduation among students.

## Organization of the Guidebook

This guidebook begins by exploring some **common challenges affecting strategic data use**, which can be organized in three primary areas:

1. **Systems:** The variety of data and information systems poses a challenge to optimizing data infrastructures.
2. **Culture:** Different attitudes or perspectives in academic advising and data use among institution stakeholders may cause inconsistency and incoherence of data use.
3. **Resources:** Shortages of professional personnel, professional development and training, and data analytic solutions result in limited capacity for data use.

This series of guidebooks addresses the challenges faced by institutions in using data strategically with academic advising and presents real-world approaches and strategies campus leaders can use to cultivate a collaborative and coherent approach to data use in advising:

1. Improving the use of **systems** designed to gather and interpret evidence on academic advising
  - Develop campus-wide assessment for academic advising
  - Develop and enhance data capacity
2. Creating a **culture** of data use around academic advising in your institution
  - Establish clear objectives to understand how data can inform the use of advising
  - Define the role of academic advising in institutional initiatives
3. Improving the human **resources** needed to use data more strategically
  - Identify stakeholders of advising
  - Improve collaboration and communication among advising stakeholders for better data use
  - Provide advising- and data-related professional development regularly to advising stakeholders

This volume of *Using Data and Evidence to Lead Holistic Advising Redesign* focuses on the third challenge, **Resources**, and provides evidence-based strategies focused on *improving the human resources needed to use data more strategically*.



## Using This Guidebook

This guidebook, along with the others in the series, was created with the following questions in mind:

- What should campus leaders and stakeholders in advising consider when using data and evidence to lead advising redesign?
- How can advising redesign promote equity at their respective institutions?

As a core partner of the Advising Success Network, The National Resource Center for The First-Year Experience and Students in Transition has identified strategies for institution leaders regarding better use of data to improve collaboration and consistency in advising practices across colleges, divisions, departments, and other institution units, such as institutional research, information technology, enrollment management, and student affairs.

This guidebook (a) describes the challenges campus leaders face when using data-driven and evidence-based approaches in decision making and (b) provides recommendations for using data and evidence strategically in an effort to create holistic advising redesign that promotes equitable student outcomes.

We drew upon interviews with administrators from 18 different campuses; each administrator had responsibility for advising at their institution.<sup>1</sup> The interviews gathered different opinions and approaches from a wide range of institutions with diverse structures, processes, and initiatives surrounding advising and thus explored major topics relevant to data- and evidence-based approaches in decision making. Emphasis is on how campus leaders use:

- Data in decision making and case making
- Evidence to collaborate across silos within organizations
- Data in their leadership (e.g., to collaborate with other units on campus, to foster a culture of using data)
- Assessment and evaluation strategies

This guidebook provides leaders with recommendations for using data and evidence strategically to improve student success. In addition to administrators and professionals in academic advising, we encourage campus leaders from academic affairs, student affairs, enrollment management, deans and associate deans from academic colleges, data analytics departments, information technology, and institutional research and effectiveness to use this guidebook to support holistic, equitable advising-related work on your campus.

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<sup>1</sup> See Appendix for a more complete description of our research methods.

# IMPROVING THE HUMAN RESOURCES NEEDED TO USE DATA MORE STRATEGICALLY

Institutional leaders are increasingly tasked with facilitating organizational change to improve conditions for student success. In particular, academic advising is a critical component of student success, as it is associated with and holds promise for improving equitable student outcomes, particularly among racially and socioeconomically marginalized students (Fountain, 2021). A holistic approach to advising redesign can help institutions identify, implement, and/or refine equitable, high-quality, and effective institutional practices. By addressing people, processes, and technologies as equal parts of holistic advising redesign, institutions can offer students advising experiences that are sustained, strategic, integrated, proactive, and personalized.

To facilitate successful holistic advising redesign, campus administrators must understand how to use data strategically in evidence-informed leadership. Data and evidence are important components of strategically building and/or redesigning organizations and informing decision making among higher education administrators (Mandinach & Gummer, 2013). Doing so requires the centering of student voices and collaboration across multiple advising partners, including information technology, institutional research, and other student-support offices. It also requires collaboration up and down institutional organization charts to create a culture around data-informed advising decisions.

As such, campus leaders should provide staff with adequate tools, technology, and human and financial resources to access and engage with campus data systems. Moreover, to avoid resistance and unwillingness to use data, initial training and continuous professional development related to using technology and data management and analysis systems should be provided among different levels of stakeholders, meaning anyone whose role and/or actions shape and affect the planning for, delivery of, and decision making around advising at any stage. These individuals may include frontline academic advisors, faculty advisors, and advising directors located in centralized advising units as well as in academic colleges and departments.

# CHALLENGES ASSOCIATED WITH USING HUMAN RESOURCES FOR STRATEGIC DATA USE

Throughout our interviews, many campus leaders expressed concerns about how to obtain data in a timely manner. They also shared their hopes to expedite data-processing time to address advising issues in a timeframe that would not extend beyond the usefulness of the information. Additionally, while many mentioned that their institutional research or institutional effectiveness offices provided data support, a few shared they rely on other units – particularly enrollment management and the registrar – to carry out data-analytics tasks. However, because these efforts require collaboration among offices, campus leaders might not receive necessary advising information immediately.



I don't have specific data people in advising, so I have to pull off resources elsewhere. [We have] Institutional Research, Institutional Effectiveness. We also have another team that supports our registrar's office, getting data. All of them are extremely helpful. The challenge with all of those is I have to wait and put my project in the queue and hope it becomes a priority on their to do list..



– Associate Vice Provost for Student Success, Virginia Tech

Some campus leaders who were trained to use quantitative methods were occasionally able to analyze institution-level data by themselves, but because they had limited time and other responsibilities, they often needed specialized professionals to provide data analytics support to them and their offices. Moreover, some institutions had designated data-analytics specialists in their advising central office or division, and those specialists expanded the institution's ability to use data and supported campus leaders in identifying data, interpreting findings, and implementing change. At institutions that lacked sufficient data-analytics and technology personnel, campus leaders

discussed their need to request funding to create a specialized position on data management and analytics in their central advising office or their departments.

# OBJECTIVES FOR IMPROVING DATA AND EVIDENCE SYSTEMS

In the following section of the guidebook, we present recommendations on how to improve the human resources needed for strategic data use. Based on our interviews with campus leaders coupled with previous research, we pinpointed three objectives for campus leaders to consider when working to improve the human resources needed to use data strategically with academic advising:

1. Identify stakeholders of advising
2. Improve collaboration and communication among advising stakeholders for better data use
3. Provide advising- and data-related professional development regularly to advising stakeholders

## Objective 1: Identify Stakeholders of Advising

Advising is not a unit in higher education institutions that stands alone or disconnected from other student-success efforts. It is often interrelated and integrated with student-support services and housed in different academic departments. A provost of academic affairs at a public four-year HBCU in our sample stressed, “figure out who your partners are in enrollment, find out who your partners in institutional research, because you’re going to always be working closely with them.” Once institutional advising objectives aimed at providing holistic advisory support are established, campus leaders may find it easier to gain support and buy-in from stakeholders.

Campus leaders, through collaborative efforts, can establish cross-departmental and cross-campus teams to design and clarify the institution’s objectives and values associated with advising. Teams can facilitate discussions and opportunities to address issues of equity and support that often arise regarding the purposes and delivery of advising (including divergent values). Collaborations should include various representatives from stakeholder groups who are involved in advising and supporting students, such as

- Senior administrators, including provosts, vice provosts, and vice presidents
- Mid- to senior-level administrators from academic affairs and student affairs
- Frontline academic advisors, such as professional academic advisors and faculty advisors

- College representatives, such as deans, associate deans, department chairs, and directors of advising units
- Administrators or staff members who work at institutional research, evaluation, or assessment
- Representatives from other student-support programs, such as TRIO, the registrar's office, admission office, transfer, and career advising
- Representatives from information technology and data management departments
- Students, especially those with marginalized and/or post-traditional identities (including LGBTQIA+ students, racially/ethnically marginalized students, students over the age of 25, transfer students, first-generation students, veterans, student parents, and more; see Achieving the Dream's [2021] *Knowing Our Students: Understanding & Designing for Success* for additional guidance and information about students' experiences)
- Multicultural and/or diversity, equity, and inclusion offices that are focused on providing programmatic and holistic support for students
- Offices that serve as important referral agents for advising and serve as "triage" agents for students' advising needs, such as orientation, residential life, and campus activities (see also Young & Keup, 2019)

The engagement of stakeholders provides ongoing collaboration focused on how academic advising supports student success and transparent dialogue on data use. Following are some recommendations for engaging stakeholders (Gerzon & Guckenbug, 2015; Hamilton et al., 2009):

- All stakeholders must develop a common understanding about values and visions for academic advising and its learning outcomes.
- Collaboration activities must be aligned with academic advising and institutional objectives.
- Roles for each stakeholder in collaboration must be clearly articulated.
- Campus leaders should provide stakeholders data and information they need to be collaborators around holistic advising and student success.
- Data and information must be shared in a transparent and open way.
- All collaboration must be goal oriented and data driven and must include a plan for assessing and evaluating the collaborative efforts.

## Connecting Advising Initiatives With Stakeholders

Understanding the advising initiatives that exist at your institution and their associated stakeholders is important for cultivating a collaborative and sustainable approach to advising redesign. In the following activity, we ask that you use the advising-related initiatives listed in the audit of advising initiatives activity in Volume 2 of this guidebook. In the column labeled “Stakeholders involved,” list all individuals and/or offices that work to deliver each specific initiative.

Advising-related initiative	Stakeholders involved
<b>Example: Career advising</b>	Example: Career center, academic advising central office, peer mentors, students, students’ families and external communities, employers

## Pause and Reflect

After inventorying advising-related initiatives and their associated stakeholders, review the checklist that follows to explore these relationships further. In the left column, indicate whether or not each feature in the right column exists at your institution by using a checkmark (to indicate yes) or an X (to indicate no).

Checklist	
<input type="checkbox"/>	A cross-campus group of professionals, leaders, and stakeholders in advising exists or is in the process of being formed.
<input type="checkbox"/>	Clear understandings of goals, initiatives challenges, and approaches to advising are shared by the group.
<input type="checkbox"/>	Clear understanding of equity goals for Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students are shared.
<input type="checkbox"/>	Roles for each member have been clearly articulated.
<input type="checkbox"/>	Stakeholders within the group have the necessary data and information needed to contribute to holistic advising redesign and student success.
<input type="checkbox"/>	Data and information are shared in a transparent and open way.

*table continues on page 12*

table continued from page 11

### Checklist

- Collaboration is goal oriented and data driven and includes a plan for assessment and evaluation.

If your institution is missing items from this checklist, what actions can you take and what relationships and/or networks can you leverage to create or strengthen the creation and delivery of these initiatives?

## Objective 2: Develop and Enhance Data Capacity

We emphasize that effective data and evidence use results from strong relational ties with stakeholders across the institution. Collaboration and effective communication can enhance the information flow between different levels within institutional departments (see EDUCAUSE's [2022] guide *Understanding and Developing a Data-Informed Culture* for additional information). Additionally, expanding channels of communication can prevent stakeholders from working in silos. For example, campus leaders can facilitate group conversations in which they create a space or structured time for stakeholders to share data and results and listen to each other. In our interviews, one campus leader underscored the importance of collaborating and initiating conversations to increase the relevance of data to multiple stakeholder groups: "When we do surveys, there'll be conversations about the items on the survey. But without further conversation, those data cannot be put into action or make any changes."

Moreover, because of the various organizational structures and advising models institutions may have, campus leaders can explore different ways to work collaboratively. One example may include building leadership teams to address emergent issues, share data and interpretation through conversations, and provide data infrastructures and data-analytics support. We identified several examples from our interviews that demonstrate how leaders can engage with stakeholders about conversations around strategic data use.

### Strategies for Engaging in Data Conversations

**Make Results Meaningful and Relevant to Your Audiences.** When campus leaders prepare to present or share data and evidence with their stakeholders, they should first seek to understand which stakeholders are in the audience so that they can make a relevant case among partners. For instance, when campus leaders share data and results with stakeholders occupying upper levels within an organization, they must be prepared with a compelling case that can be delivered quickly with meaningful information. Upper-level leaders might have limited time to attend meetings, and presenters should plan to draw audience members' attention with data and cases. As the Vice President for Student Success & Engagement at Dominican University shared,



You better have the elevator pitch for all of the data that you spent weeks and weeks writing about and looking at; you got two minutes to tell it. After you catch them [e.g., institutional president or provost] with the hook, then you can tell [the data or results] again through a longer narrative, but you got to have the hook.



When leaders present data to stakeholders who deliver services, they should engage these partners in a thoughtful and collaborative approach. Service providers (e.g., frontline advisors and/or student-support staff) interact with students directly and have extensive knowledge about advising practices and students. Data should be used to empower the stakeholders but not intimidate them, as leaders and service providers are equal partners and active team members in the data-driven decision-making process. In our interviews, several campus leaders reported that they regularly shared data related to academic advising appointments, student engagements, and service outreach among stakeholders to credit advisors and acknowledge their work.

**Communicate the “Why.”** After leaders identify successful practices, they need to gain stakeholders’ attention and communicate why data are important and why they should care about it. Instances of mismatch between the priorities of leaders and other stakeholders may exist, though; for example, problems or goals that leaders identify might not be priorities in specific academic departments and colleges. Leaders must seize opportunities to lobby stakeholders about the importance of the data and its results. For example, campus leaders can disaggregate data by colleges and departments, topics (e.g., retention rates, enrollment, financial aid), and student populations (e.g., Black, Latinx, first-generation, low-income) before presenting to stakeholders and interpreting findings. As the Associate Vice Provost for Student Success at Virginia Tech shared,



When I distributed our first university-wide advising students survey, I disaggregated the data by colleges and sent it to every dean and associate dean, and offered, “My services are coming and helping them talk through how they might want to improve advising.” I had zero response. Then, I figured I need to get this data out somewhere. Then, I shared the data campus-wide. Still, no response. The next time I had to distribute the survey, I did the same thing, some of the data to the college individually. I also did a really big presentation. The most powerful slide I used compared overall student satisfaction by colleges in a bar graph. No one likes to be last. Before I could even finish the meeting, every dean went to meet with me, because they were concerned that they were not first or in the first few. They asked me to come in and talk to them about their specific college, and how they can position themselves a little bit differently. The data, the way I originally presented, it is just [that] they didn’t care, but to see themselves in relation to other colleges was a definite motivator to get folks talking about what they were going to do specifically to change and improve advising.



**Make Recommendations Within Various Contexts.** When presenting data and results, leaders must make recommendations that are contextualized within various components of the institution, including divisions, colleges, and advising units; in addition, these suggestions should consider stakeholders’ interests, time, and resources. One way that leaders can facilitate conversations and spark change is by providing simple actions that stakeholders can



take in response to the data. For example, one campus leader who oversaw the advising central office shared that when she met with department chairs, she not only presented data results but also offered “step one, two, three, and four” for department chairs to consider.

The implementation of “targeted advising campaigns” is another example of using data to make specific recommendations. An administrator who leads academic advising programs and initiatives for undergraduate academic affairs at Virginia Tech shared,



Once you drill down in the data and understand exactly who it is and who are the most vulnerable in your particular advising office, then you create a plan on how to engage those students differently and more intentionally, more proactively than you would for the other students.



The administrator examined the data to find out if there were any particular areas that staff should focus on in a given year. Data showed that the probation issues were very different in each college. For instance, one college might have more first-year students who were on probation than another college did. To address probation issues, this administrator asked colleges to establish a college-specific plan for addressing students on probation through a collaborative workshop in which key stakeholders in that college met.

**Build Buy-In.** A high degree of stakeholder buy-in for data use can add credibility to decisions leaders make. Some institutions may face resistance from various stakeholders when they communicate a new campaign or lobby for resources, funding, and changes. To remove and navigate resistance, campus leaders should work to cultivate trust with stakeholders, in part by identifying the evidence and resonant examples they need to provide to their stakeholders to persuade them to buy into decisions. To facilitate buy-in, leaders should base their decisions on data rather than intuition. In our interviews, LaGuardia Community College leaders described how they used data and evidence to obtain buy-in:



You have to know who your audience is because you have to get buy-in in various places. Even if they're not immediate stakeholders, you still have to get buy-in because people who are not directly involved will voice concerns if they feel alienated from a particular process. The rollout of our new model had heavy faculty involvement from the very beginning for the first wave. We asked them to help make the case to their colleagues in the second wave and the third wave to move that forward. We also had data to back up what we're trying to do. We anticipated some pushback in some areas where this would feel like a very different practice. So, we had data from the beginning. We're tracking things that are important to certain constituencies [but] that may not be important to what we're trying to do but are important to the concerns that they had.

We present three steps leaders may use to build buy-in by using data:

- **Present the problems.** Let stakeholders see the gaps by providing information or a snapshot of national or regional picture. Additionally, leaders can offer opportunities for stakeholders to engage in discussions about finding solutions to identified problems.
- **Build trust.** Present evidence to help stakeholders know that their opinions and actions are heard and respected. Including stakeholders as key players in the change management processes, while taking their feedback to improve initiatives, will help create trust and buy-in.
- **Communicate progress.** Keep stakeholders updated about the progress and impacts they make on student success.



## Questions to Consider

1. What strategies do you use to analyze and translate data and evidence associated with advising?

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2. In what ways do you consider Black, Latinx, Indigenous, Asian and Pacific Islander, first-generation, and low-income students when translating, analyzing, and interpreting data?

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3. What elements do you consider when sharing and communicating data and evidence related to advising with various stakeholders?

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4. What challenges do you face with sharing and communicating data? How do you resolve these?

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### Case Study: How Mesa Community College Builds Buy-In

A campus leader from Mesa Community College described what she had done to build buy-in among different stakeholders in her institution. Mesa Community College uses both decentralized and centralized academic advising models. The decentralized academic advising is delivered by several departments that are under either academic affairs or student affairs. The majority of advising occurs in an advising department located in student affairs, which reports directly to her. One of her responsibilities is to connect all academic advising services together and create consistency.

At the time of our interview, Mesa Community College was starting the process of implementing a Guided Pathways advising model, which included newly created pathway maps that aligned with redesigned curricula and assigned students to an advisor who works with students in similar programs (or meta majors). Following are examples of ways in which this campus leader built buy-in when her office promoted the Guided Pathways framework on their campus:

**Forming a committee:** The leader formed a committee of leaders and stakeholders to examine their own institutional data, comparing outcomes among students who had experienced academic advising initiatives and who had not. They also identified other institutions across the United States that had implemented similar initiatives, seeking to understand how other institutions were able to significantly influence outcomes through the changes and initiatives. The committee presented their findings to district leadership to create buy-in at all 10 colleges in the district:



**It was used to create buy-in. Because it required funding, it required significant change culturally. In order to create that buy-in of leadership, we use the data there to gain new advising positions to support Guided Pathways efforts.**



**Cross-functional alignment:** The campus leader did a self-described “roadshow” in different departments that support advising. The academic departments used different ways to track and examine student performance and used different management systems. The campus leader met with the decentralized advising departments to learn what they were doing in academic advising, what system they were using, and what challenges they had, and the leader gave them an opportunity to learn why the Advisement Department implemented Guided Pathways framework:



The goal is not just to change the departments to do what the Advisement Department is doing. It is more about using a team collaborative approach to determine what is best for students. It helps to create that buy-in and to help all stakeholders understand why it is important for a student to have similar advising experiences from department to department. This also helps us as an institution to track consistent data so we are looking at the same things. This helps us to paint the student story.



**Managing down:** The Advisement Department created monthly reports that examined the overall impacts of academic advising on students. The campus leader used the data to show advisors how much impact they made on students and where there might be gaps in the focus placed on centering student voices and experiences:



Not only do academic advisors understand their impacts, [but] they also understand the good work they're doing. They understand when there is an ask to make a change to what they typically do or a new initiative that they understand the why. Using data helps create that greater understanding.



Additional examples of advising initiatives (including academic, career, and financial advising) across different institutional types can be found in the case study collections from the National Resource Center, including *Career Advising as a Tool for Student Success and Educational Equity* (Fountain & Portillo, 2021) and *Academic Advising as a Tool for Student Success and Educational Equity* (Fountain, 2021).

### Pause and Reflect

Review the following checklist to reflect on the ways in which your institution works collaboratively to provide advising-related resources. In the left column, indicate whether or not each feature in the right column exists at your institution by using a checkmark (to indicate yes) or an X (to indicate no).

#### CHECKLIST FOR WORKING COLLABORATIVELY

- Does your institution regularly schedule meetings to bring faculty and professional advisors together?
- Does your institution organize specialized committees to address emergent issues?
- Does your institution organize specialized committees to discuss diversity, equity, and inclusion? Do these conversations connect with advising initiatives, priorities, and goals?
- Does your institution facilitate collaboration between Student Affairs and Academic Affairs?
- Do you regularly message and update stakeholders?

If your institution is missing items from this checklist, what actions can you take and what relationships and/or networks can you leverage to create or strengthen the creation and delivery of these initiatives?

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## Question to Consider

What strategies for working collaboratively would you like to improve or implement at your institution?

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## Objective 3: Provide Regular Professional Development Around Data Use

Campus leaders and stakeholders have different levels of knowledge, skills, and comfort related to technology and data systems. To increase overall efficiency and capacity for data use, campus leaders and all relevant stakeholders should choose to engage in ongoing professional development on data literacy and technology use. With professional development, more consistent data use practices (e.g., common language in data conversations, data-analytics approaches, data interpretation) can occur among stakeholders (Schmit, 2017). Meanwhile, improved data literacy can enhance stakeholders' buy-in and confidence with using data, which may improve collaboration in data use as a tool to promote institution growth and student success. For example, the California State University system offers a certificate program in student success analytics for faculty, staff, and administrators to learn evidence-based strategies for supporting students to graduation and data tools with a focus on closing equity gaps. Topics related to data use range from data management to data analytics to data leadership. Training for data use often is associated with technology training. To achieve shared understandings of data use, data systems, and data culture, we identify some potential topics for professional development based on the What Works Clearinghouse Practice Guide: *Using Student Achievement Data to Support Instructional Decision Making* (Hamilton et al., 2009):

- Interpret data correctly and avoid misinterpretation
- Navigate data systems and identify data
- Extract data and display reports
- Use analytics technologies
- Create transparency of data use
- Build and maintain a culture of data use
- Achieve continuous improvement by using data
- Use data to modify leadership and advising practices
- Engage equity and inclusion in data use and conversation
- Develop leadership for data and evidence-based decision making

Campus leaders must understand the diverse learning needs of stakeholders and must be transparent about institutional data-driven decision-making processes. Thus, delivering professional development in multiple ways should

be considered. One example includes posting training modules online so that stakeholders can access modules at their own pace. Along with professional development, campus leaders should provide updated data and technology resource guides and supplemental support services (e.g., access to IT and data personnel) that are used in decision-making processes. The following support resources can be provided:

- A toolbox of data management and analytics resources on the academic advising website
- Tutorial videos of how to use data systems: extracting data, creating data reports, conducting basic data analytics
- A data catalog resulting from a data audit that serves as an inventory for data search

Additionally, while the majority of institutions have onboarding training and continuous professional development of academic advising staff and administrators, faculty advisors often do not often receive professional development related to advising technology and data systems. In our interviews, some campus leaders shared that they encountered resistance from faculty advisors in terms of implementing program assessments, as the primary responsibility for faculty is often teaching and research scholarship. Academic advising was considered part of their service loads but might not help them to achieve tenure and promotion. Without evidence of the effectiveness of faculty advising, institutions might not be able to know what works and what does not work, and that information ultimately affects students' satisfaction and learning outcomes. Therefore, professional development on advising practices, data use, and the value of program assessment and evaluations should be provided to faculty advisors.

## Questions to Consider

We offer the following strategies for you to consider as you work toward increasing the consistency of data use in advising between professional advisors and faculty:

1. How will you work toward communicating implications associated with advising assessment and technologies?

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2. What strategies will you use to build a close liaison between academic department (e.g., deans, associate deans), faculty advisors, and the institutional-level central advising office?

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3. How can your institution create resources and a reward system for participating in professional development and using advising assessments and technologies (e.g., assessment of quality of faculty advising in the tenure process)?

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4. In what ways can your institution provide professional development opportunities associated with incorporating diversity, equity, and inclusion in data use?

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### Centering Equity in Advising Resources

To move away from deficit-oriented approaches, educators should use asset-based thinking to achieve equitable outcomes (Dodman et al., 2021; Lasater et al., 2020; Park, 2018). Asset-based thinking focuses on students’ strengths, skills, and values (Park, 2018). Through this approach, campus leaders should identify data that highlight students’ strengths and ways in which assessment methods may or may not capture them. For example, in conversations about student-level data, campus leaders and stakeholders can discuss what they know about students, including the wealth of knowledge that they bring with them into educational spaces, and ways in which institutional services can be restructured or sustained to best fit students’ needs. These conversations also allow for administrators to locate and address barriers to promoting equitable student outcomes (Park, 2018). It is important to constantly and consistently use asset-based approaches to guide decisions and actions because a failure to do so perpetuates inequities and can derail reform efforts and/or lead to superficial implementation (Park, 2018; Rubin, 2008). As such, campus leaders should conduct critical discussions regarding data use to generate alternative views or challenge their preexisting knowledge and experiences with students.

**TABLE 1**  
**REFRAMING DEFICIT THINKING FOR EQUITY MINDEDNESS**

	Deficit-oriented approaches	Equity-minded approaches	Reflection questions
<b>Context</b>	Lack of consideration of academic and nonacademic contexts (e.g., culture)	Data viewed as representative of students' experience, not just numbers on a page	<ol style="list-style-type: none"> <li>1. What do you know about minoritized students at your institution?</li> <li>2. What inclusive and culturally relevant advising practices exist at your institution?</li> <li>3. How frequently do students use advising services? What are the barriers to student use and access of these initiatives?</li> </ol>

# SUMMING IT UP: PRINCIPLES IN PRACTICE

Promoting buy-in with institutional holistic advising redesign and garnering support among stakeholders requires data use. This guidebook presents the concepts of collaboration across institutional silos, development of assessment tools, enhancing advising data capacity, and constant engagement through professional development as key structures and bridges that build a culture of strategic data use. One example of these principles in practice from our interviews is the University of South Carolina, where collaboration among stakeholders to create quality advising contained many pieces, including experiential learning opportunities, career exploration, and an understanding of campus resources available to the student. By positioning stakeholders (e.g., faculty and academic advisors) where their strengths lie, technologies, campus resources, and administrators were able to improve academic advising on campus and increase buy-in from the participating parties.

Leveraging a data culture and using it to your advantage is an important part of garnering support and stakeholders when presenting new ideas or potential changes to advising. A clear understanding of data must be in place to allow collaboration across student affairs and academic affairs, drive people to reach beyond their silos, and create clear objectives and attainable initiatives related to academic advising. Such a culture can be created and maintained through the development of assessment tools and data capacity while providing opportunity for professional development and improving strategies, collaboration, communication, and conversations about data use.



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# APPENDIX

# RESEARCH METHODS

## Review of Literature

We reviewed current educational reports, literature, and research on leadership in data use, data-driven and data-informed decision making in educational settings, and cultures of data use. We also reviewed articles posted on the website of NACADA: The Global Community for Academic Advising. We used the information we learned through reviews to develop an interview protocol and to provide justification for the major themes we identified.

## Interviews

We recruited campus leaders to participate in interviews through convenience and purposive sampling. We purposefully sampled to get perspectives from a range of institutions. Three approaches were used to invite campus leaders. First, we sent out calls to the National Advisory Board of the National Resource Center for The First-Year Experience and Students in Transition to ask them to nominate campus leaders they thought would be suitable to discuss our topic. Second, we identified active members in NACADA and sent out recruitment emails to campus leaders. Third, we sent a call to the Advising Success Network HBCU Professional Learning Community.

Between December 2020 and February 2021, we conducted semistructured interviews with 21 campus leaders who had responsibility for academic advising at 18 institutions. We gathered different opinions on using data from individuals at institutions that differed by structure of academic advising, types of institutions, and enrollment size. The summary of characteristics of the institutions is presented in Table A.1. Our interviews explored major topics relevant to data-driven and evidence-based approach in decision making, such as how campus leaders use data in decision making and case making, how campus leaders use evidence to manage up and down in organizational chart, how campus leaders use data in their leadership (e.g., collaborate with other units on campus, foster a culture of using data), and how campus leaders use assessment and evaluation.

All participation in our interviews was voluntary. In this report, we do not identify the campus leaders' names in illustrative cases or direct quotations. Some direct quotations have been edited for grammar and clarity.

## Analysis

We audio recorded and transcribed all the interviews. Then, we conducted content analysis to identify major themes to understand how campus leaders use data and evidence strategically. The themes presented in this guidebook are related to strategies used to build a consistent and coherent culture of academic advising and a culture of data use. We also identified examples to illustrate practices and strategies used in specific institutions.

## Limitations

Our approach had several limitations. First, we interviewed a select number of campus leaders. Their perceptions and experiences do not necessarily reflect those of other institutional leaders and are not designed to be generalizable across multiple institutional types. Second, the leaders we interviewed engaged in different efforts and inputs associated with improving academic advising, which does not mean those institutions are most successful or have best practices in academic advising. The purpose of our interviews was to explore the practices and strategies used by campus leaders and to synthesize suggestions and strategies that other campus leaders can adapt to meet their institutions' needs.

**TABLE A.1**  
**SUMMARY OF CHARACTERISTICS OF INTERVIEWED INSTITUTIONS**

Category	Number of institutions
Four-year institutions	14
Community colleges	4
Historically Black colleges and universities	3
Hispanic serving institutions	9
Private institutions	2
Institutions participating in the Integrated Planning and Advising for Student Success (iPASS) project	1
Institutions participating in Guided Pathways initiatives	1

*Note.* Several institutions fall into more than one category.