

# Leading with Data:

**How Senior Institution and System Leaders Use  
Postsecondary Data to Promote Student Success**

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## Introduction

Institution and system leaders play a critical role—perhaps the most critical—in promoting student success in higher education. At most institutions, change begins at the top, with the president and other senior leaders, as they set and implement the strategic direction for their institutions. In recent years, the role that data play in developing impactful institutional policies and practices has become increasingly clear. Colleges and universities that have improved student success do so through a focus on data.<sup>1</sup>

Though we know that data use drives student success and helps close equity gaps, it is important to understand *how* institutions are using data for daily and long-term decision making. This knowledge will help tailor data improvement recommendations to align policies with institutional needs. Institutional leaders across the country are developing and championing innovative uses for data and building data-driven cultures within their institutions. These leaders understand that, more often than not, sticking to the status quo will not improve student outcomes. Other institutional leaders can learn from these best practices and leverage them to increase student success on their campuses as well.

In fall 2015, IHEP launched the Senior Institutional Leadership Council (SILC). The SILC is comprised of chancellors, presidents, and provosts, representing a broad range of institutional levels, sectors, and missions, as well as a variety of states. The overarching goals of our engagement with the SILC are to learn more about what these institutional champions are doing and to identify and share broadly key lessons about how data can be used on campus and how policy should promote better data use. Over the past six months, IHEP and New America have recruited leaders from more than a dozen institutions and systems to the council, and through individual interviews we learned a great deal about how senior leaders view the role of data in shaping institutional policies and practices. This brief lifts up the important voices of institutions and their chancellors, presidents, provosts, and other senior leaders. Leveraging lessons from people working on the ground, the brief explores how these senior leaders use data to inform their daily and long-term decision making and highlights student success-focused, action-oriented examples of data use at the institution level.

Our initial engagement with SILC participants produced four clear recommendations that other institutional leaders can leverage to use data in more impactful ways on their campuses.

**“I use data every single day.”**

<sup>1</sup> Yeado, J., Haycock, K., Johnstone, R., and Chaplot, P. (2014). Learning from high-performing and fast-gaining institutions: Top 10 analyses to provoke discussion and action on college completion. Washington, DC: The Education Trust. Retrieved from <http://edtrust.org/wp-content/uploads/2013/10/PracticeGuide1.pdf>

- 1. Lead by example to set a culture of data use for institutional improvement.** Using data to drive institutional improvement benefits from strong leadership and from a vision that includes data from the beginning of any change effort. These institutional leaders are committed to *using data on a daily basis*, and they ground data analysis in *practice-relevant questions*, encouraging others to do the same.
- 2. Distribute data responsibilities widely.** Everybody on campus can and should use data. Leaders rely heavily on *institutional researchers and other campus administrators* to collect and analyze data. Data should not be confined to the institutional research (IR) office.
- 3. Reach beyond campus boundaries to find and use data.** Leaders see *opportunities to leverage federal and state data*, but tend to focus on institutional data. Leaders can learn more about the ways in which federal/national and state data can be put to work to help drive institutional improvement, without diminishing emphasis on the quality of data they collect at their own institutions.
- 4. Save a seat at the data policy table.** National policy conversations about data are somewhat disconnected from institutional discussions about data. However, *most leaders support the design of a federal student-level data system* when asked about it. We need to continue to engage institutions in these discussions and related advocacy efforts, and learn from institutional voices.

The following sections provide detailed examples of how this group of institutional champions embodies these recommendations and demonstrates leadership, not only at their respective institutions, but in the broader field of higher education.

### **Recommendation 1: Lead by example to set a culture of data use for institutional improvement.**

*Institutional leaders are committed to using data on a daily basis.*

Every leader spoke about the value of data and asserted that they use data on a daily basis to drive both short- and long-term decision making. However, the degree of sophistication with which leaders use these data varies greatly. More than one of the college presidents in the group require their department heads to bring data to regular meetings and will not discuss student outcomes, finance decisions, or any institutional improvement initiatives without sound data to guide the conversation. Other leaders explicitly connected decisions, action plans, interventions, and initiatives to the data that they collect on their campuses and provided specific examples of using data to inform decision-making. **Sidebox 1** provides an anecdote from an institutional leader who uses data in student-centric ways.

### Sidebox 1

At California State University, Fullerton (CSUF), Provost José L. Cruz has championed the use of data with a sharp focus on student success. CSUF has established a digital data warehouse that pulls student information from various data systems across campus. The data warehouse is updated nightly and linked to a user-friendly dashboard. Advisors use this dashboard to identify students who may be off-track to timely graduation and would benefit from available support services.

As just one example of the tool's effectiveness, the dashboard flagged a student who dropped a course during her last scheduled term at Fullerton. Because she would no longer be earning the credits for this dropped course, she was in danger of not graduating on time. Her advisor reached out to the student and identified a five-week course that would enable the student to fulfill the requirements for graduation. She graduated at the end of the term. This one instance shows how a data infrastructure like CSUF's allows leaders to proactively address student issues and put data to work to affect students' lives directly.

On the other hand, not all SILC participants demonstrate a nuanced understanding of how data are used on their campuses. A few members of the group enthusiastically labeled themselves as “data-minded.” However, when pressed for concrete examples of data use, they either recalled their institutional data *collection* processes or simply were not able to directly answer the question. This signals that leaders are accustomed to using pro-data rhetoric, even if they have yet to develop effective strategies to prioritize the role of data in the institutional change process.

#### *Leaders ground data analysis in practice-relevant questions.*

Institutional and system leaders use data for a variety of purposes, but for most SILC members—and consistent with other voices in the field—using data starts with specific questions. One participant noted a concerted effort to not ask for specific pieces of data (e.g., grade point averages for all freshmen), but to instead articulate what she wants to know (e.g., Are freshmen on track to persist to the second year? Is the likelihood of progression different by race/ethnicity or among income groups?). This leader said that starting with questions allowed for a collaborative problem-solving environment, where institutional researchers and other leaders could help think through the questions and then identify all of the data points that could be helpful for answering questions. Though not all SILC participants stated that they follow this process of starting with questions, it was certainly not unique to this one institution.

**“It all starts with questions.”**

The questions institutions are asking address a wide swath of issues, including enrollment, developmental education, credits to completion, transfer rates, graduation rates, institutional finance, and instructional design, but a few general questions emerged across many institutions. For example, almost all of the SILC participants discussed using data to monitor progression and completion, as these outcomes are widely assessed by federal and state governments, accreditors, and the public. Similar to the example in **Sidebox 1**, though in less targeted ways, institutional leaders regularly reviewed retention and graduation data to better understand how their students are faring. Academic preparation was another core issue across multiple institutions. **Sidebox 2** provides a deeper examination of how a four-year institutional leader used data to drive down remediation rates on his campus.

Finally, many of the SILC participants—particularly those representing community colleges and for-profit institutions—discussed using wage and employment data to align their program offerings with local industry needs. These leaders have a strong desire to make meaningful connections between education and the workforce, and are eager to learn how their graduates fare on the job market. However, multiple campus leaders found collecting data on post-college outcomes—workforce data—to be a major obstacle, as they rely on conducting expensive alumni surveys that yield low response rates and results of varying quality. SILC participants embraced the opportunity to use state wage data, but most did not have strategies in place for accessing these data.

### Sidebox 2

F. King Alexander, now president of Louisiana State University, was president of California State University, Long Beach (CSULB) from 2005-2013. While at Long Beach, Alexander wanted to be more proactive about assessing his future students' academic readiness, so he worked closely with then-CSU system Chancellor Charles Reed to test all California high school students at the end of their junior year in English and mathematics.

By the end of Alexander's tenure at CSULB, 97 percent of high school juniors in Long Beach and 75 percent of the juniors statewide were taking the CSU system's Early Assessment Program (EAP), and CSU was using the data to provide feedback to the students, parents, and high schools about how college ready its juniors were. As a result of this feedback loop, high schools were able to increase rigor and better tailor 12th grade curricula to address gaps in collegiate academic preparation in those two important disciplines. According to President Alexander, the share of students requiring developmental coursework at his institution dropped and the percentage of students enrolling in college from the Long Beach City Unified School District increased from 66 percent to 74 percent. Alexander is planning to enact a similar data-driven practice in Louisiana.

## Recommendation 2: Distribute data responsibilities widely.

*Leaders rely heavily on institutional researchers and other campus administrators to collect and analyze data.*

When many policymakers and practitioners think about post-secondary data collection, the institutional (IR) research office immediately comes to mind. However, some SILC participants noted that responsibility for collecting and analyzing data was shared across many additional offices on campus, including the registrar, financial aid, academic advising, student affairs, and business services. This perspective is consistent with recent research calling for the higher education community to take a more holistic view of institutional data collection and use.<sup>2</sup> Notwithstanding, senior institutional leaders universally agreed that their institutional researchers play a pivotal role in providing the data to drive institutional improvement.

**“They’re right across the hall—I made sure [institutional researchers] are close to me.”**

Institutional research capacity varied across the institutions. Some had only a single full-time equivalent (FTE) employee dedicated to institutional research, whereas other campuses had staffs of four or more, and system-level offices had much larger IR shops. Institutions with fewer FTE IR staff generally had less flexibility to use data beyond required state, system, federal, and accreditor reporting. More specifically, many noted that they spend substantially more time on system- and state-level requests than on IPEDS reporting. In fact, one institution receives ad hoc requests from its state higher education agency so frequently that it has assigned a full-time IR staff member to focus exclusively on these tasks. Because of the staff time devoted to compliance, some of the SILC participants noted that they are only able to request additional data or research sparingly. One even cited a “wish list” of analyses he wanted done when time became available. However, some institutions have been able to do more with less. **Sidebox 3** takes a closer look at one institution’s all-hands-on-deck approach to institutional research and how this approach has resulted in greater institutional research productivity.

Institutional research capacity plays an important—but not imperative—role in senior leaders’ ability to use data to answer their institutional improvement questions. More important than IR capacity is the collaborative relationship between IR and institutional leadership. One SILC participant demonstrated his clear commitment to maintaining a data-driven culture on campus even before he arrived. One of his stipulations for

### Sidebox 3

At a small, selective private not-for-profit liberal arts college, the president and senior staff are committed to using data across campus to inform decision making, a commitment that leverages the expertise of many people. The college’s institutional research office only has two FTE employees, one of whom is a programmer analyst. Half of this person’s time is consumed by federal and state reporting, and the president cited additional external demands on IR capacity. With relatively limited remaining time, some may not expect much in the way of innovative data use at this institution. However, the college regularly undertakes ambitious, data-driven projects, such as evaluating the effectiveness of different instructional delivery models in core academic disciplines, assessing the impact of the institution’s no-loan financial-aid initiative, and analyzing borrowing behaviors of students who choose to borrow regardless.

This institution is able to engage in these efforts (and many more) because the IR office collaborates with others on campus. Faculty members with data expertise participate, and other staff pitch in to provide support for large predictive analytics projects. The senior administrator who oversees the IR staff provides strategic leadership for these data-related efforts, and also engages other offices on campus as needed. The institutional culture emphasizes the use of data for every decision—from daily activities to broad scale policy change—and its president has made data a campus-wide priority.

accepting the job was to move the institutional research office across the hall from his office. Other leaders echoed the importance of maintaining open communication with institutional researchers, understanding their bandwidth, and finding ways to manage it. Additionally, SILC leaders try to involve IR staff as much as possible in refining their questions, as opposed to just asking for data. Very few participants had negative experi-



<sup>2</sup> Swing, R.L., & Ross, L.E. (2016). Statement of aspirational practice for institutional research. Tallahassee, FL: Association for Institutional Research. Retrieved from <http://www.airweb.org/Resources/ImprovingAndTransformingPostsecondaryEducation/Documents/Statement%20of%20Aspirational%20Practice%20for%20IR%20Report.pdf>

ences with their institutional researchers, and in these rare instances, the problems were related to IR staff being reluctant to embrace change or adapt their data collection and analysis practices to answer new questions.

### **Recommendation 3: Reach beyond campus boundaries to find and use data.**

*Leaders see opportunities to leverage federal and state data, but tend to focus on institutional data.*

Most leaders acknowledged that they use federal data in some capacity, often for benchmarking purposes, with some pulling peer institution data from IPEDS, for example. Furthermore, many leaders wish that they had access to additional data that could come from federal or state sources, such as K-12 transcript data and the aforementioned post-college outcomes data. Understanding student success—before, during, and after college—is a universal priority to the SILC membership, and participants expressed a strong desire for data on academic preparation, learning outcomes, continuing education, employment, and earnings.

Most SILC participants, however, did not discuss federal or state data sources until probed about them. Instead, it became clear

**“Are we using—  
or fighting—  
against—federal  
and national  
data?”**

#### **Sidebox 4**

Chancellor Cheryl L. Hyman of City Colleges of Chicago (CCC) is a leader who uses data perpetually and powerfully to enact change within her system. Upon arriving at CCC in 2010, she launched a system reinvention initiative to improve student success. As part of this plan, Chancellor Hyman used local workforce data to better align CCC program offerings with high-growth fields in Chicago and forged partnerships with over 150 local companies. Since 2010, CCC has more than doubled its graduation rate and has placed more than 3,000 students into jobs at partner companies.

While Chancellor Hyman sees herself as a strong data advocate, she is very passionate about putting all data to use. She feels that data are only important if they are used to inform decisions. However, she worries that most federal data are not used in this fashion because no one is held accountable for the results those data demonstrate. She suggests that without accountability measures in place, institutions will gladly report data but never use it to drive improvement.

Grounded in this philosophy, Hyman asserts that she will not approve any new initiative or program at City Colleges unless the data can prove the program’s relevance and necessity. She also holds people accountable for the data results, having tied faculty contracts to performance metrics in CCC’s five-year comprehensive plan. She believes in clearly defining outcomes, using data to measure these outcomes, and ensuring that every faculty and staff member has the proper motivation to remain committed to student success.



that they tend to place institution or system-level data at the center of their institutional improvement efforts. Institutional data are more fine-grained and easily customized than federal data, allowing leaders to ask and answer campus-specific questions on an ongoing basis, so they are more front and center in leaders’ minds when talking about data use. Also, a few leaders expressed concern about specific federal metrics or doubt in the federal government’s effective use of the data it collects. Many SILC participants cited the limitations of the IPEDS first-time, full-time graduation rate measure, which does not represent the outcomes of all college students. Other leaders felt the recent College Scorecard release mischaracterized their institutions by reporting numbers without explanation. One SILC participant argued vehemently that the federal government should make better use of data to hold institutions accountable for student outcomes. **Sidebox 4** shares her pointed views on what the federal and state government roles in collecting and using postsecondary data should entail.

**Recommendation 4: Save a seat at the data policy table.**  
*Most leaders support the design of a federal student-level data system—when asked about it—but many are not engaged in federal policy conversations.*

As conversations with SILC members broached the topic of using federal data, it became clear that not all institutional leaders actively participate in federal policy conversations. For some, this was due to a lack of time or bandwidth to look beyond their own day-to-day institutional needs. Others seemed primed to engage in data advocacy efforts, but just had not been brought into the dialogue yet.

**“We need a national data set that can tell a college how it’s really doing.”**

Not all leaders were up-to-date on all of the current developments related to postsecondary data, including the 2008 federal ban on creating a student-level data system. However, those who were aware of the ban and the various related proposals to overturn it agreed that the benefits of a federal student-level data collection justify addressing the political barriers that are preventing it. Some SILC participants expressed interest in advocating more strongly for national data infrastructure improvements, including a student-level data system, while others feared speaking publicly about it because they were hesitant to side against their national associations.

Regardless of the specific system or entity that houses external data, institution and system leaders are most interested in the utility of these data, and will only support data enhancements that help them achieve their institutional goals and drive student success. The example in **Sidebox 4** illuminates a perspective that many SILC participants share, namely opposition to the idea of “collecting data for data’s sake.” They are not necessarily opposed to more data collection, despite capacity constraints. Conversely, leaders are willing to accept new data collection if it produces data that could be used for fair and equitable accountability, institutional improvement, and/or to help students make good decisions. What SILC leaders do not want to see are mandated federal data additions that require more time and effort to complete but do not add value.



### **Conclusion**

Senior institutional leaders understand the value of quality postsecondary data, as evidenced by the innovative and meaningful ways in which data drive their daily and long-term decisions. The Senior Institutional Leadership Council participants may not be fully representative of all college presidents, provosts, and senior administrators, but these individuals truly are leaders among their peers. Other institutions can certainly learn from their experiences and perspectives.

**Leaders are willing to accept new data collection if it produces data that could be used for fair and equitable accountability, institutional improvement, and/or to help students make good decisions.**

This brief is only the first phase of IHEP’s engagement with the Senior Institutional Leadership Council. In the coming months, we look forward to broadening the group’s membership and further highlighting the voices of institutional leaders as we collectively strive to improve the national postsecondary data infrastructure in ways that guide institutional improvement and ultimately increase student success.



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