EAB

Analytics and Business Intelligence Functions

Registrar Forum

Becca Debus
Senior Research Associate

Caleb Hausman
Senior Research Manager

Table of Contents

1) Executive Summary

Key Observations

Combine a centralized business intelligence (BI) team with decentralized content specialists for an ideal analytics and BI structure. To effectively coordinate BI efforts, develop advanced analytics capabilities, and use data to drive institution-wide decision-making, all profiled institutions use what contacts at Institution B term a "federated" BI structure. This structure includes a centralized BI team as well as decentralized unit-level BI staff; centralized units hold responsibility for coordinating BI efforts, while decentralized staff maintain responsibility for unit-level BI functions. Contacts at Institution D explain that unit-level staff have the content-area expertise necessary to drive effective data use for their specific unit within the broader institution.

Gather informal feedback from decentralized BI staff and other data users to improve BI efforts. Contacts at all profiled institutions note that BI improvement efforts benefit from regular informal feedback from stakeholders. Contacts at Institution C note that informal feedback channels provide more candid information than formal feedback forms or surveys (since these formal mechanisms take more resources to both submit and analyze). BI leaders at Institution C recommend that centralized BI staff regularly visit various functional units in person to offer unit-level staff an opportunity to ask questions or communicate concerns face-to-face. Similarly, the Chief Data Officer at Institution D regularly attends cabinet and committee meetings to hear in-person feedback.

Obtain buy-in for BI improvement efforts by highlighting the value of data use and by developing personal connections with unit-level staff. Contacts at all profiled institutions note the importance of obtaining buy-in from stakeholders throughout the institution for BI improvements, as the end goal of BI improvement is to ensure that all stakeholders across the institution use data to drive their decisions. Contacts at Institution A and Institution D note that providing concrete examples of the benefits of data-driven decision-making can help obtain buy-in for BI improvement efforts. Contacts at Institution B note that to obtain the buy-in of unit-level BI staff for larger process improvement efforts, centralized staff should focus on developing strong personal relationships with decentralized staff. These strong personal relationships help ensure goodwill for centralized BI efforts, and help decentralized staff feel heard and included during periods of transition.

Provide data trainings, customized reports, and technical assistance to general staff members to promote a data-driven culture across the institution. Staff at Institution B and Institution C leverage their BI functions to promote data literacy and data-driven decision-making across the institution. Centralized BI staff increase the accessibility of data through institution-wide databases and customized data reports. These efforts make it easier for stakeholders across the institution to effectively analyze data and use it to inform their decisions. Additionally, BI leaders at Institution B provide data literacy trainings to any interested staff members, and the BI team at Institution C is hiring a data literacy coach to assist with institution-wide data literacy. These outreach efforts help foster a more data-driven culture by giving stakeholders additional resources to improve their analytical skills and understanding of data.

2) Structure of Analytics and BI Functions

Background

Profiled Institutions Seek to Expand Analytics and Business Intelligence Capabilities to Improve Decision-Making Processes

In recent years, many institutions have begun to improve and expand their analytics and business intelligence (BI) functions.[1] This expansion is driven by the need to make informed decisions about institutional strategy, and by the proliferation of available data.

Contacts at all profiled institutions note that the impetus for the improvement of BI functions came from a drive to increase data-driven decision-making at their institutions. At Institution D, contacts note that a new provost drove BI expansion efforts as he sought to improve university-wide decision-making processes, while contacts at Institution A cite a pervasive dissatisfaction with the shortcomings of the decentralized IT function as a catalyst for improving the BI structure.

With these new structures, administrators at profiled institutions sought to increase the accessibility of data, coordinate university-wide BI efforts, and increase the utilization of data by general staff. To accomplish these goals, BI leaders at profiled institutions created centralized databases and coordinating teams, empowered decentralized data users through access to analytical and technical expertise, and improved communications between BI staff and the rest of the university.

Function Centralization

Structure BI Functions in a Federated Model to Improve Data-Driven Decision-Making

Prior to implementing their current BI structures, contacts at all profiled institutions noted that the largest stumbling blocks to improving data-driven decision-making were:

- Unorganized, inaccessible data that required a great deal of time and effort to analyze

- Major unit-level differences in data use processes that made coordination between units challenging

To ameliorate these concerns, all profiled institutions now structure their BI functions in what contacts at Institution B term a "federated model." This model includes both centralized and decentralized BI staff.

Rather than fully centralizing BI functions in one office, a federated model allows administrators to coordinate institution-wide BI efforts through a central team, while still allowing unit-level staff to conduct unit-specific projects.

---

1) "The Data-Driven Enterprise, Part I," *EAB* (blog), September 11, 2014, https://eab.com/insights/blogs/it/the-data-driven-enterprise-part-i/.

eab.com

Levels of Centralization for Analytics and BI Functions at Profiled Institutions

Under a completely centralized model, all analytics and BI functions would be housed within a single, central unit.

Under a completely decentralized model, all individual units would oversee their own analytics with no centralized support.

Centralized   Federated Model   Decentralized

Under a federated model, analytics and BI responsibilities are shared between a centralized BI team and decentralized data users located within functional units. The central unit coordinates BI efforts across the institution, while decentralized users provide the subject matter expertise to drive decision-making within their specific unit.

Contacts at Institution A note that a federated structure can still result in difficulty coordinating the efforts of many individual units. However, contacts at Institution A state that a federated structure is far more coordinated than a fully decentralized structure, while maintaining all the benefits of specialized expertise which entirely centralized units lack.

Central BI Team Responsibilities

For example, the centralized BI team at Institution A compiles a breakdown of department level data which units can use for academic planning.

Use Central Teams to Ensure Effective Data Use Across the Institution

Centralized BI units or teams hold consistent responsibilities across all profiled institutions. At all profiled institutions, these centralized teams conduct institution-level analyses and support the data use of decentralized unit-level staff. This institution-level work includes running reports on large-scale concerns, such as institutional enrollments or budgets, and creating university-wide dashboards. To support individual units, centralized teams may conduct unit-level analyses if unit-level staff lack the technical expertise to conduct these on their own.

Central BI Unit Responsibilities at Profiled Institutions

Create Centralized Data Warehouses or Databases

- Centralized BI units at Institution B, Institution C and Institution A began their BI improvement efforts by creating centralized databases or data warehouses. The central unit holds responsibility for maintaining these warehouses, cleaning the data, and ensuring standard data definitions and good data hygiene.
- This allows decentralized BI staff and other constituents to easily access reliable data from across the institution and conduct meaningful analyses.

Provide Analytical Expertise, Tools, and Training

- Staff in central BI units can assist decentralized BI staff with creating reports or data visualizations. At Institution A, central BI staff also share and promote new analytics tools to institutional data users, and staff at Institution B provide regular analytics trainings for other staff.
- This allows decentralized BI staff to concentrate on using the data most effectively, rather than on technological troubleshooting.

Promote a Data-Driven Culture Across the Institution

- Centralized BI units coordinate BI efforts among various functional units and create a data-driven culture. For example, staff at Institution C work to regularly push useful data out to constituents who may otherwise not consider using it during their decision-making process.
- Without a centralized team, decentralized BI staff have no clear way to coordinate efforts. This coordination allows for broader adoption of data-driven efforts and promotes a more data-driven culture across the institution.

Most importantly, centralized BI units serve as a "single point of truth." Contacts at Institution B note that without a centralized coordinating unit, unit-level teams develop their own analyses, data definitions, and processes. This lack of coordination can lead to the development of different "truths"- where two units may define data terms differently, leading to different conclusions when working with the same initial dataset. This, in turn, makes it difficult to compare data-driven conclusions across units.

For example, without centralized data definitions, even looking up something that seems as simple as average first-year GPA can be difficult as units may have different definitions of "first-year" (e.g., students enrolled at the institution for less than three semesters, students with under 30 credit hours) and may have access to different GPA data (i.e., one unit may have access to current GPA, while another unit may only have final GPA from the previous semester). A centralized BI unit prevents confusion by standardizing common definitions and processes. This allows all functional units across the institution to ensure they are speaking the same language when asking questions of the data.

Despite the importance of a centralized team, contacts at all profiled institutions stressed the fact that their BI efforts remain mostly decentralized. Contacts at Institution B emphasize that an entirely centralized BI function would be ineffective, as centralized BI staff would never be able to develop the unit-specific content knowledge of decentralized unit-level BI staff.

Without that content knowledge to inform the analytics and BI functions, completely centralized functions would be unable to discern which analyses would be beneficial to specific units. While the existence of these decentralized units makes coordination efforts more complicated, clear communication and transparency from centralized staff can effectively mitigate these difficulties.

Prepare Data for Analytics Efforts with Well-Maintained Data Warehouses

Contacts at all profiled institutions noted that unorganized, inaccessible data was a major stumbling block to improving analytics efforts. Therefore, administrators at all profiled institutions began their BI improvement efforts with the development of centralized databases or data warehouses.

These centralized repositories of data ensure that all datasets are accessible across the institution, and standardized according to common definitions, developed by the central BI team.

To ensure the cleanliness of the data and promote good data hygiene, centralized BI staff at Institution D perform daily quality control checks on the data, while Institution B maintains a specific team dedicated to cleaning the data and maintaining the databases.

For more information on how to provide clean data in preparation for analytics efforts, please see **Section 2: Data Quality Accountability Measures** of EAB's **Delivering Quality Data to Campus** playbook.

Locate Centralized BI Staff in Offices with Existing BI Expertise

At all profiled institutions, core BI staff exist within the Institutional Research (IR) office. This staffing structure capitalizes upon the existing analytics expertise of IR staff.

At Institution C and Institution B, the head of IR oversees a centralized BI team located within that office.

However, at Institution A the IR and IT departments both house centralized BI staff. The heads of those departments jointly oversee central BI efforts, with more technical responsibilities falling to IT and more analytical responsibilities falling to IR. As Institution A is still in the early phases of creating their data warehouses, their BI efforts require more of the technical capabilities of the IT staff. In units with more mature BI teams, the analytical skills and coordination abilities of IR staff may play a greater role.

To provide expert oversight of BI work, the centralized BI team at Institution D reports up to the Chief Data Officer (CDO) within the IR office. This centralized BI team provides support for both institution-wide and unit-level BI efforts, creates reports, and assists with data visualizations.

However, to make the greatest use of their decentralized content specialists, the coordination of unit-level BI efforts at Institution D is overseen by a team made up of high-level staff in various data-heavy functional units (e.g., finance, HR, IT) as well as by the CDO. This broad oversight of decentralized BI efforts allows for more informed leadership of BI efforts across the institution, and increases buy-in for BI efforts among these functional units.

While specific staffing levels and roles vary, the Office of Analytics at Institution B provides one possible model. The Office of Analytics is divided into three teams, University Analytics, Data Reporting, and Policy Analysis, all under the auspices of the Associate Vice President and Director of Analytics. The Associate Vice President

oversees the Policy Analysis team directly, while the other two teams report up through Assistant Vice Presidents.

Centralized BI Team Members at Institution B

Executive-Level Staff	Non-Executive Staff
• Associate Vice President and Director of Analytics • Assistant Vice President for Data Reporting • Assistant Vice President for Data Analytics	• Senior Programmer and Analyst (2) • Research Analyst (4) • Data Analyst • Data Visualization Associate • Staff Assistant (2)

Prioritize Analytics Expertise and Data Artistry When Staffing Central BI Units

Contacts at Institution B and Institution C stress that centralized BI staff should demonstrate expertise with analytics and "data artistry" (i.e., the ability to manipulate and showcase data in creative and unique ways). Since centralized staff often need to provide general support to decentralized unit-level staff, contacts at Institution B prioritize unit-agnostic data literacy skills ahead of unit-specific expertise among central staff.

To emphasize the importance of general data literacy expertise within the central BI team, contacts at Institution C added a new role to the central team dedicated specifically to improving data literacy across the institution. This position will train staff throughout the university on data analytics and create educational content to promote better use of data in university decision-making.

Adapted Excerpt of the Data Literacy Coach Job Description from the
Institution C

> **Position Summary**:
>
> The Data Literacy Coach position is located in the business intelligence unit. **This position will lead data literacy education and training and will provide additional resources to help stakeholders better understand university data, how to properly use that data, and how to maintain data quality**. An ideal applicant will be well versed in how institutional data is created and used by internal and external stakeholders. Applicants should be detail-oriented, have excellent communication skills, and be able to create a data-literacy curriculum to educate data users throughout campus. The successful applicant will collaborate with staff throughout the Institutional Research Office and other units to create and maintain data-literacy trainings and drive the use of data in institutional decision-making.

Protect Time for Strategic Use of Data by Through Clear Role Divisions

Contacts at Institution C note that BI staff often struggle to preserve time for strategic analytics efforts. These contacts note that BI staff spend too much time addressing technical issues, as opposed to focusing on higher level strategic priorities. Tasks such as maintaining databases and creating reports can easily consume BI staff members' time, leaving none for more strategic thinking about ways data can be analyzed to benefit the institution.

To ensure that BI structures do not over-focus on technical support, contacts at Institution B suggest clearly delineating responsibilities between staff members focused on technical support and staff members focused on optimizing analytics capabilities. At Institution B, the Office of Analytics has individual teams dedicated to maintaining data warehouses, cleaning data, and creating reports and data visualizations. By assigning these roles so clearly, administrators at Institution B protect the time of higher-level centralized BI staff and all decentralized BI staff, enabling these staff members to concentrate on designing strategic ways to deploy data-driven decision-making across the institution.

Role of Decentralized BI Personnel

Emphasize the Unit-Specific Subject Matter Expertise of Decentralized BI Staff

At all profiled institutions, decentralized BI staff include the data analysts located within each functional unit (e.g., HR, finance, student success). These teams may also include department heads or deans with an interest in leveraging data to drive their own decisions.

Contacts at Institution B and Institution D note the importance of these decentralized BI personnel in developing a data-driven institutional culture, because these staff members have the subject matter expertise necessary to understand how data can provide value to their specific units.

While centralized units can provide support on analytics and data use more generally, centralized staff do not have the in-depth subject matter expertise to ask the best unit-specific questions of available data. Unit-level staff better understand the needs

of their units and what analyses and information will be most helpful in making decisions within their functional area.

Decentralized staff also leverage their subject matter expertise to create BI-related deliverables aligned with unit-specific needs. For instance, the data analyst working in the finance department has the best idea of which regular reports might be helpful to the CFO.

Decentralized staff play a critical role in broader BI functions at all profiled institutions. However, contacts at Institution A note that an entirely decentralized BI function, as existed at their university previously, does not effectively promote a data-driven culture as staff find it difficult to coordinate or standardize their BI efforts. The most beneficial aspect of a federated model is that it allows for both the specialization of decentralized BI work and coordination from a centralized BI unit.

Concerns with Fully Decentralized BI Structures

Lack of Standardization

Fully decentralized BI functions result in different data definitions and analytical processes across campus. This may lead to confusion as results of analyses will vary across units.

Lack of Access to Data

In fully decentralized BI functions, data exists within individual functional units. This siloed structure makes it difficult for analysts from different units to access all the data that they need.

Lack of Coordination

Fully decentralized BI functions increase the difficulty of cross-unit collaboration on BI efforts. This structure may result in duplication of effort as multiple units might simultaneously undertake similar, or even identical, projects.

3) Operations of Analytics and BI Functions

Communication

Create Tailored Reports and Data Visualizations to Effectively Communicate Data Insights to Different Audiences

Both centralized and decentralized BI staff at all profiled institutions use tailored reports, memos, and data visualizations to help communicate data effectively to stakeholders throughout the rest of the institution.

At Institution A, centralized BI staff tailor their reports to specific constituents to ensure staff fully absorb key insights. While lower-level staff receive full reports with all relevant data, centralized BI staff create shorter, more easily digestible memos to communicate data insights to higher-level administrators, who may not have time to explore the data as thoroughly.

At Institution B, dedicated centralized BI staff members focus on creating detailed data visualizations to help make the results of analyses more digestible for less data-literate staff members. Going beyond graphs, centralized BI staff members look to make the data more interactive, displaying information in dashboards that users can easily manipulate to highlight specific results. This transformation of the data makes it far more accessible to general staff members and promotes data-driven decision-making. For example, the BI team created an Enrollment Modeling Tool, which allows users to see how changing certain variables impact enrollment levels. Users can manipulate metrics to see their impact on enrollments over time.

Types of Variable Metrics Available in Enrollment Modeling Tool at Institution B

Metrics Related to Student Population and Distribution

- First-year class size and distribution throughout the institution
- Transfer population size and distribution throughout the institution
- Rate of major migration
- Number of students residing on campus and their distribution throughout the institution

Metrics Related to Tuition and Revenue

- Major tuition revenue generated by school
- Revenue from non-majors generated by school
- Total tuition revenue per semester generated by school
- Percentage changes in base tuition rates

Centralized staff at all profiled institutions also support decentralized unit-level staff in creating their own reports and data visualizations by providing training and technical expertise in data reporting. By pairing centralized data reporting support with their own unit-level content expertise, decentralized BI staff can create effective data visualizations or unique reports for their functional area.

External Data Tools Used by BI Teams at Profiled Institutions

Tableau
Used by Institution B, Institution C, and Institution A

An interactive data visualization software

IMB Cognos
Used by Institution D

A business intelligence suite with reporting, analytics, and metric-monitoring capabilities

Oracle Business Intelligence Enterprise Edition
Used by Institution B

A business intelligence software that includes advanced analytics, machine learning, and artificial intelligence

SPSS
Used by Institution D

Statistical software platform with advanced analysis capabilities, machine learning, and text analysis capabilities

Gather Informal Feedback on BI Efforts to Guide Further Development

While contacts at all profiled institutions note that they do have ways for institutional stakeholders to submit formal feedback online about BI efforts, they primarily gather feedback on their BI efforts through informal conversations.

Although contacts at Institution B note that formal feedback mechanisms, such as surveys, can provide useful information, they believe that informal conversations provide more candid, timely feedback for central BI staff. In particular, central BI staff at Institution C, Institution B, and Institution D all take the time to gather informal feedback from other stakeholders across the institution.

> Contacts at Institution D also receive feedback on BI improvement through the utilization rates of data throughout the university. These contacts believe that if stakeholders are regularly using the data, then the BI unit must be operating effectively.

To provide space for these informal conversations, BI leaders at both Institution C and Institution D regularly attends meetings of various administrative committees (e.g., the enrollment committee, the president's cabinet). Contacts at Institution C note that by attending meetings in person, the CDO can not only answer BI-related questions in the moment, but can also obtain detailed feedback on struggles that committee members have with current BI processes. Contacts at Institution C note that informal feedback encourages candidness—stakeholders may be more likely to expand upon their concerns or difficulties during a meeting than when filling out a survey or feedback form.

Contacts at Institution B note that, unlike decentralized BI staff (who have regular contact with general unit-level staff), centralized BI staff have fewer opportunities to interact with other stakeholders throughout the institution. At Institution B, administrators encourage centralized BI staff to regularly visit other offices on campus in person. These visits provide a clear avenue for unit-level stakeholders to provide feedback on BI processes. By increasing opportunities for informal feedback, BI administrators at Institution B can consistently evaluate and improve their BI functions.

Address Pushback from Decentralized BI Staff by Developing Personal Connections with These Stakeholders

As unit-level BI staff manage many of the frontline BI and analytics efforts, their cooperation is crucial to the implementation of effective federated BI functions. Contacts at Institution A and Institution C noted that during the transition to a federated BI structure, unit-level BI staff often expressed frustration about ceding authority over some aspects of BI work to a centralized BI team or complained about seemingly unnecessary new tasks.

BI and analytics-focused administrators at all profiled institutions stress that building strong collaborative relationships with decentralized BI staff throughout the institution can help mitigate this type of pushback.

Contacts at Institution D note the value in building personal relationships between central administrators and lower-level decentralized BI staff, rather than just concentrating on executive-level buy-in for BI efforts. By engaging with these lower-level staff directly, BI leaders help these employees feel heard and supported, and also gain a better understanding of unit-level needs. Contacts at Institution B echo this sentiment, noting that one of the best ways to obtain buy-in for data-driven decision-making is for BI or analytics-focused administrators to have lunch with unit-level BI staff members throughout the institution. These personal relationships help unit-level staff understand and embrace new BI structures.

The commitment to strong interpersonal and inter-unit networks suggested by contacts at Institution B fosters the type of collaborative relationships federated BI and analytics functions need to be successful. Without these collaborative relationships between centralized and decentralized users, even the best structures will not result in improved use of data and data-driven decision-making across the university.

Transparency and Clear Communication Ease Transition into New Roles for Decentralized BI Staff

EAB research, such as insights profiled in **The Change Leader's Toolkit**, consistently demonstrates the importance of transparency and clear communication when implementing transitions. As administrators develop new centralized BI units, they should include regular face-to-face meetings with decentralized BI staff to explain how the changes in BI structure affect their roles and give staff an opportunity to provide feedback early in the process. This type of transparency and responsiveness to staff concerns can help mitigate pushback and starts personal working relationships off on the right note.

Highlight the Value of Data-Driven Decision-Making with Concrete Results to Obtain Broad Stakeholder Buy-In for BI Efforts

Improving BI functions and promoting data-driven decision-making can also result in pushback from stakeholders outside of the decentralized BI teams. Some general staff members across the institution may be deeply entrenched in their current

decision-making processes and resistant to change, while others may be skeptical about the value of data or concerned about the impersonal nature of analytics.

While contacts at Institution C note that some stakeholders will always resist more active use of data no matter what efforts administrators undertake, contacts at Institution B and Institution D indicate that administrators can convert initially skeptical stakeholders by showing the concrete unit-specific benefits of improved BI efforts.

To highlight the value of BI efforts, staff at Institution D and Institution A both provided demonstrations of effective analyses to individual units. For example, at Institution D, BI staff met with the admissions team to demonstrate the financial value of using to comprehensive and organized data to make decisions. By cleaning up historical data, the BI team could provide the admissions office with analyses that improved their yield rates and lowered costs. After this demonstration from the BI team, contacts at Institution D report that the admissions team had no further pushback to the new BI processes.

To best address general staff member pushback, centralized and decentralized BI staff should work together to identify and implement analyses that demonstrate the value of BI efforts. Decentralized staff members are best positioned to identify useful analyses for individual units or departments, while higher-level centralized staff have the authority necessary to communicate with especially recalcitrant administrative leaders.

Train General Staff Members on Data Use to Build a More Data-Driven Institutional Culture

BI and analytics teams provide valuable foundational support for data-driven efforts across an institution. However, to truly incorporate data use into everyday decision-making among all institutional stakeholders and develop a strong data-driven decision-making culture, contacts at all profiled institutions offer support services to general institutional staff members. These support systems include both formal training sessions and informal opportunities for staff members to ask BI-related questions.

To promote this cultural shift at Institution B, Office of Analytics staff offer trainings on data analysis and visualization techniques. These training sessions help drive data use and data-driven decision-making throughout the institution. Office of Analytics staff offer training sessions every few months on topics that reflect institutional goals or on topics suggested by unit-level staff.

These training sessions allow administrative and instructional staff at all levels of the institution, from the president to unit-level instructors, to improve their data analytics skills. These trainings also serve as informal opportunities for Office of Analytics staff to receive valuable feedback from stakeholders on how their office can best support data-driven decision-making throughout the institution.

While BI functions at Institution C, Institution A, and Institution D do not offer formal trainings, both centralized and unit-level BI staff do make themselves readily available to answer questions from data users from across the institution and show them how to perform requested analyses.

5) Research Methodology

Project Challenge

Leadership at a partner institution approached the Forum with the following questions:

- How did administrators at contact institutions establish their current analytics/business intelligence structure?

- How did administrators at contact institutions communicate new roles and responsibilities to stakeholders?

- How did administrators at contact institutions navigate around pushback from stakeholders related to these new structures or processes?

- How did administrators at contact institutions ensure readiness of data for use in analytics processes?

- How do administrators at contact institutions encourage stakeholders to use data to drive decision-making?

- What training or professional development opportunities do administrators at contact institutions offer stakeholders to help them use data effectively?

- How do administrators at contact institutions structure their analytics/business intelligence functions?

- At contact institutions, what factors influenced administrators' decisions about the degree of centralization selected for their analytics/business intelligence functions?

- What do administrators at contact institutions see as the benefits and disadvantages associated with their selected organizational structure?

- How do administrators at contact institutions navigate through the disadvantages associated with their selected structure?

- How many staff members serve in these functions at contact institutions and, if not in a centralized office, where are they located organizationally within the institution?

- What are the specific roles of these staff members at contact institutions?

- Where do analytics/business intelligence staff report up to at contact institutions?

- At contact institutions, what types of data collection processes and analyses do analytics/business intelligence functions manage?

- What tools (e.g., software, dashboards) do analytics/business intelligence staff use to derive maximum value from their data?

- What processes do analytics/business intelligence staff have in place to communicate with other units and each other about effective data use?

- How do analytics staff at contact institutions ensure good ongoing data hygiene?

- What methods of assessment or feedback do administrators at contact institutions employ to ensure that their analytics/business intelligence functions work effectively?

Project Sources

The Forum consulted the following sources for this report:

- EAB's internal and online research libraries (eab.com)

- National Center for Education Statistics (NCES) (http://nces.ed.gov/)

- Institutional websites
- "Business Intelligence (BI) | Oracle." Accessed April 8, 2020. https://www.oracle.com/business-analytics/business-intelligence/.
- Cognos Analytics - Overview | IBM https://www.ibm.com/products/cognos-analytics (accessed Apr 27, 2020).
- EAB. "Delivering Quality Data to Campus." Accessed April 8, 2020. https://eab.com/research/it/resource/delivering-quality-data-to-campus/.
- "SPSS Software," March 13, 2020. https://www.ibm.com/analytics/spss-statistics-software.
- Tableau Software. "Tableau: Business Intelligence and Analytics Software." Accessed April 8, 2020. https://www.tableau.com/.
- EAB. "The Change Leader's Toolkit." Accessed April 10, 2020. https://eab.com/research/district-leadership/toolkit/the-change-leaders-toolkit-2/.
- EAB. "The Data-Driven Enterprise, Part I," September 11, 2014. https://eab.com/insights/blogs/it/the-data-driven-enterprise-part-i/.

Research Parameters

The Forum interviewed directors of institutional research or business intelligence at public universities with robust business intelligence capabilities.

A Guide to Districts Profiled in this Brief

Institution	Location	Approximate Enrollment
Institution A	Western Canada	35,000
Institution B	Northeastern USA	31,500
Institution C	Southern USA	38,500
Institution D	Midwestern USA	16,000