A Lifecycle Approach

Collaborating with Institutional Research to Democratize Data
We help schools support students from enrollment to graduation and beyond

ROOTED IN RESEARCH

7,500+ Peer-tested best practices
500+ Enrollment innovations tested annually

ADVANTAGE OF SCALE

1,500+ Institutions served
4 M+ Students supported by our SSMS

WE DELIVER RESULTS

95% Of our partners continue with us year after year, reflecting the goals we achieve together

› Find and enroll your right-fit students
› Support and graduate more students
› Prepare your institution for the future
1. Evolving Data Roles in Higher Education
2. The Impact of the Expanding Tech Ecosystem
3. A Lifecycle Approach: Collaboration Across IT and IR
4. Building DSU’s Data Hub
Industry Forging New Data Value Pathways

Case in Point: Increased Data Capabilities Used for More Targeted Advertising

Segmentation

The New York Times
They’ve Got Your Number
March 30, 1997

Why a massage parlor, organic food store, and Starbucks sell in the same shopping complex

Personalization

The New York Times
How Companies Learn Your Secrets
February 16, 2012

How Target found out about a teenage pregnancy before the family was aware

Microtargeting

The New York Times
‘Weaponized Ad Technology’: Facebook’s Moneymaker Gets a Critical Eye
August 16, 2018

How personalized adverts are used to sway voter preferences in the digital age

“We’re collecting a great deal of data on our students, and the reality is that we can do so much to help them – we just have to be able to connect the dots.”

VP of Institutional Effectiveness
Public Research University

Source: New York Times; EAB interviews and analysis.
Campus Data Moves From Compliance to the Cabinet

Changing Roles Empowering Data and Analytics Efforts

College Data Uses Changing Over Time

1980s
IR

Data Wrangler
- Collect and prepare reports on students and university operations
- Oversee the flow of data on campus and to external stakeholders

2010s
IR

Campus Partner
*In addition to previous duties:
- Help campus data users integrate data into planning processes
- Provide guidance and technical training to the rest of the university

2020
IE

Strategic Leader
*In addition to previous duties:
- Conduct strategic analysis to close student success equity gaps
- Create a campus culture of data-informed decision-making

Cabinet-Level Data Roles on the Rise in Higher Education

1,065%
Increase in VPIEs in higher education from 1995 to 2015.

82%
Of VPIEs are the first at their institution to hold that title.

96%
Of VPIEs serve on the president’s cabinet.

High-Level Frustrations Demand Accountability

Lengthy Delays and Missed Opportunities Urge a New Approach at DSU

Poor Data Governance Means IR Can’t Deliver, Even to the President

Data on simple metrics like enrollment by major took **up to 13 months to access**

IR was **entirely focused on IPEDS reporting**, with no ability to conduct assessment

IR’s severe limitations meant the university president **presented incorrect data to the state legislature**

"The President was so frustrated he was willing to start over."

To become a **data-informed organization**, DSU needed an Institutional Effectiveness team that could provide data as an **iterative function with assessment**.
Quick Poll

PART I
What is the highest data title at your institution?

*Please write in the title*

PART II
Who does that person report to?

*Select one*

A  President
B  Provost
C  Chief Business Officer
D  Chief Information Officer
E  Other
1. Evolving Data Roles in Higher Education

2. The Impact of the Expanding Tech Ecosystem

3. A Lifecycle Approach: Collaboration Across IT and IR

4. Building DSU’s Data Hub
The Expanding Higher Ed Technology Ecosystem

As New Tech Addresses Specialized Needs, Campus Data Gets More Siloed

2009  Limited and Centralized

Today  Extensive and Siloed

- Student Information System
- Learning Management System
- Enterprise Resource Planning

- Student Information System
- Learning Management System
- Enrollment CRM
- Conduct Management
- Faculty Management
- Facilities Management
- Degree Audit

- Enterprise Resource Planning
- Application Hosting
- Financial Aid Management
- Student Success Management
- Classroom Management
- Hiring and Onboarding
- Student Engagement Applications

Source: EAB interviews and analysis.
Data Initiatives Hampered by Campus Tech Ecosystem

Source: EAB interviews and analysis.
Inundated With Ad Hoc Requests...

... At the Expense of Predictive, Prescriptive Analyses

Common Complaints at Dixie State Mirror Data Frustrations Across Higher Ed

Limited Data Access

“What is SFRSTCR?”

Limited Data Governance

“Those aren’t my numbers…”

Limited Resources

“It took a year to get that report!”

Higher Ed Data Teams’ Significant Money and Time Expenditures

$10,000 per ad hoc report request (fully loaded cost)

25-100% Estimated time spent on ad hoc requests

3,500 hours spent on ad hoc reporting over 12 months at one research university

Struggling to Be Strategic

“We continue to need to be reactive, to jump in and help to fix problems, which really is sucking away bandwidth to focus on strategic areas and otherwise contribute our expertise to campus.”

Director of Enterprise Data and Analytics, Large Public Research University

Source: EAB interviews and analysis
Quick Poll

What is the greatest obstacle to your institution’s strategic data initiatives?

Select one

A. **IT human resource constraints**: time and skillset shortfalls

B. **IT budget constraints**: hardware, software, and licensing costs

C. **Lack of campus buy-in**: poor leadership investment

D. Data governance quarrels and campus data hoarding

E. Vendor data retrieval complications
Questions and Discussion

What we’ve covered so far

Evolving Data Roles in Higher Education

The Impact of the Expanding Tech Ecosystem
1. Evolving Data Roles in Higher Education

2. The Impact of the Expanding Tech Ecosystem

3. A Lifecycle Approach: Collaboration Across IT and IR

4. Building DSU’s Data Hub
A History of Turf Wars Over Data

Emerging Efforts in Student Analytics and Business Intelligence

IT Teams

- Speed up technology projects
- Scale data access
- Strengthen data security

IR Teams

- Ensure data integrity for compliance and reporting
- Act as data stewards

Historical Data Duties and Perspectives

IT and IR now need to collaborate across the data lifecycle...

- Centralize data governance
- Streamline data movement
- Accelerate data value

...In service of institutional goals

- Equity
- Student success
- Affordability
- Institutional sustainability

"Analytics can save higher education."

Joint statement from AIR, EDUCAUSE, and NACUBO

A Lifecycle Approach to Campus Data

Data Creator Opportunities
- Systems are owned by diverse units who control configuration and business logic
- Data is entered by frontline staff, whose choices impact data quality for all

Data User Opportunities
- Gaps in data availability identified
- Data inconsistencies observed in analysis, and reported to stewards
- Analysis creates new enterprise data

Data Aggregator Opportunities
- Build Enterprise Frameworks
- Manage Master Data

Opportunity to Impact Data Quality
- High
- Low

Data Created
Data Aggregated
Data Used

Time

Pursue Iterative Progress

1. Setting Strategy
   Campus leaders determine areas of focus for data management work

2. Standardizing Data
   Data governance workflows identify and define enterprise data objects

3. Enabling User Access
   Enterprise data and metadata are made available to end users for decision making

4. Improving Quality
   Usage issues and emerging needs provide new areas of focus for data expansion

Source: EAB interviews and analysis.
Quick Poll

Which student touchpoint is your highest priority?

Select one

A  Prospect applications and outreach

B  Retention and re-enrollment interactions

C  Course registrations and major declarations

D  Student financial processes and engagements

E  Course and classroom scheduling arrangements
1. Evolving Data Roles in Higher Education
2. The Impact of the Expanding Tech Ecosystem
3. A Lifecycle Approach: Collaboration Across IT and IR
4. Building DSU’s Data Hub
Govern Across the Data Value Chain

DSU Strengthens Governance, Improving Collection, Integration, and Utilization

**Campus Data Sources**
- SIS
- CRM
- LMS
- ERPs
- Other

**360-View of Institutional Information**
Optimize centralized data for **analysis and reuse**, focusing on business-oriented data modelling

- Student
- Prospect
- Faculty
- Courses
- Departments
- Financials

**Data Analysis and Action**
- Campus data health and integrity analyses
- Direct connection to reporting and BI environments
- Share reliable data to new systems and technology

**Governance**

Source: EAB Education Data Hub; EAB interviews and analysis.
Organizing DSU Data with a Neutral Framework

An Extensible Model Built for Higher Ed Unifies Diverse Data Elements

<table>
<thead>
<tr>
<th>QUAD STUDENT ENTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>last_name</td>
</tr>
<tr>
<td>birth_date</td>
</tr>
<tr>
<td>campus_email</td>
</tr>
<tr>
<td>prospect_id</td>
</tr>
<tr>
<td>first_admit_type</td>
</tr>
<tr>
<td>latest_high_school_gpa</td>
</tr>
<tr>
<td>lms_student_id</td>
</tr>
<tr>
<td>current_term_registered_credits</td>
</tr>
<tr>
<td>is_honors</td>
</tr>
<tr>
<td>housing_building</td>
</tr>
<tr>
<td>transfer_student_id</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Information System</th>
</tr>
</thead>
<tbody>
<tr>
<td>sgbstdn_lst_nm</td>
</tr>
<tr>
<td>sgbstdn_leav_todate</td>
</tr>
<tr>
<td>sgbstdn_dept_code</td>
</tr>
<tr>
<td>sgbstdn_leav_frdate</td>
</tr>
<tr>
<td>sgbstdn_egol_code</td>
</tr>
<tr>
<td>sgbstdn_brhdte</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Relationship Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>pros_cycl20_frnm</td>
</tr>
<tr>
<td>pros_cycl19_adtp</td>
</tr>
<tr>
<td>pros_cycl20_id</td>
</tr>
<tr>
<td>pros_hssoph_ptnm</td>
</tr>
<tr>
<td>pros_cycl20_fnad</td>
</tr>
<tr>
<td>pros_hsjr_psat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td>cnvs_curstu_id</td>
</tr>
<tr>
<td>cnvs_crsecon_101</td>
</tr>
<tr>
<td>cnvs_trastu_id</td>
</tr>
<tr>
<td>cnvs_crntrm_regcrd</td>
</tr>
<tr>
<td>cnvs_gradstu_id</td>
</tr>
<tr>
<td>cnvs_crntrm_lvl</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialized Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>strrs_acyr19_bldg.</td>
</tr>
<tr>
<td>strrs_diet_res</td>
</tr>
<tr>
<td>strrs_acyr20_bldg</td>
</tr>
<tr>
<td>eab_trprtl_id</td>
</tr>
<tr>
<td>sttrs_acyr20_bldg</td>
</tr>
<tr>
<td>eab_trprtl_gpa</td>
</tr>
<tr>
<td>eab_trprtl_cred_art</td>
</tr>
</tbody>
</table>

The Quad Model’s Appeal for Dixie State University

- The ability to configure to our needs
- Works with tools we already have
- Accessible terminology

©2020 by EAB. All Rights Reserved. eab.com
Partnership Progress So Far

How EDH Organizes DSU Data

Source systems provide data

EDH’s Quad model organizes disparate data, while additional features facilitate access and validation

Consistent integrations actualize data governance across existing technologies

PROSPECT*
- Pre-Enrollment Information
- Application Process
- Application Review
- Advisors

STUDENT
- Demographics
- Course Registration
- Course Catalog

FACULTY*
- Course-work
- Instructor Assignments
- HR Benefits & Payroll

COURSES
- Scheduling
- Validation
- Logging and monitoring
- No-code data extract
- Automated data delivery
- User permissioning

*Still in progress/implementation at Dixie State
A single source of truth
- DSU Banner Student data is flowing into EDH
- IE team instituted data governance best practices to bring structure to campus
- Data lives in PostgreSQL and connects to DSU’s various data tools

More data, more connections
- Ingest HR, finance, admissions, and other data into EDH
- Conduct higher-order analyses across all lines of business to surface new opportunities for better efficiency

Powering a data-informed campus
- Provide validated data across campus
- Enable leaders able to make truly data-informed decisions, improving resource allocation and student progress
Questions and Discussion

Danielle Yardy  
*Director*

EAB  
DYardy@eab.com  
[LinkedIn](https://www.linkedin.com/in/danielle-yardy/)

Jason Browning  
*Executive Director of Institutional Effectiveness*

Dixie State University  
jason.browning@dixie.edu  
[LinkedIn](https://www.linkedin.com/in/jasonpbrowning/)

Learn More  
Visit [eab.com/EDH](http://eab.com/EDH)

Request a Demo or Consultation  
Email DYardy@eab.com

©2020 by EAB. All Rights Reserved. eab.com