Institutional Research and Advanced Analytics

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Data Management, Decision Support, Analytics

- Business Intelligence Lifecycle
- Regulatory and External Reporting
- Supporting University Initiatives

IRAA Website [http://www.uky.edu/iraa/](http://www.uky.edu/iraa/)

- Demonstration of interactive embedded dashboards

Tableau Resources

- Tableau Desktop vs Tableau Public
- Tableau Public Gallery
- Training Opportunities
- Lexington Tableau User Group
Business Intelligence Lifecycle

Data Flow Diagram:
- Data Sources
  - Operational System
  - ERP
  - CRM
  - SQL
  - Flat Files, Spreadsheets
- ETL: Extract, Transform, Load
  - Data Validation
  - Data Cleaning
  - Data Transforming
  - Data Aggregating
  - Data Loading
- Data Warehouse
- BI results
  - OLAP Analysis
  - Data Mining
  - Data Visualization
  - Reports
  - Dashboards
  - Alerts
Gartner Magic Quadrant
Business Intelligence and Analytics Platforms

Source: Gartner (February 2014)
Regulatory and External Reporting

- CPE (Council on Postsecondary Education)
- IPEDS (Integrated Postsecondary Education Data System)
- NSC (National Student Clearinghouse)
- Common Data Set
- US News & World Report
- AAUP (American Association of University Professors)
- Dozens more...

These are the “official” numbers that define how the outside world sees UK.
Regulatory and External Reporting

- IPEDS Academic Libraries survey
- US News Main Survey
- Peterson's Annual Survey of Undergraduate Institutions
- Southern University Group Library Salary Survey

School has a library on campus: Yes

School is a member of library consortiums: Yes

Number of other libraries on campus: 10
(Engineering Library merged with the Science Library in 2016 so there is one less than last year)

Number of titles: Physical: 1,927,216  Digital/Electronic: 1,711,368
Number of books: 1,927,216  1,711,368
Number of databases: 410
Number of serial titles: 56,138  172,838
Benchmarking

https://nces.ed.gov/ipeds/home/usethedata

IPEDS

Search IPEDS

Overview of IPEDS Data
Get a bird's eye view of IPEDS data. Learn what data are collected and how you can use the various tools on this page to access IPEDS data.

Data Trends
Use the Trend Generator to view trends in most frequently asked subject areas including: Enrollment, Graduation Rates, Employees and Staff, Institutional Revenues, and Financial Aid.

Look Up an Institution
Look up information for one institution at a time. Data can be viewed in two forms: institution profile (similar to College Navigator) and reported data (institution's response to each survey question).

Data Feedback Report
Download, print, or customize an institution's Data Feedback Report, a report that graphically summarizes collected institutional data and compares the data with peer institutions.

Statistical Tables
Create simple descriptive statistics (e.g., total, count, average, median, standard deviation, percentiles) on selected IPEDS institutions and variables.

Summary Tables
Customize a summary table for a select subgroup of institutions on the following popular topics: tuition and fees, room and board, student aid, admissions, test scores, student enrollment, degree/certificate awarded, and graduation rates.

Compare Institutions
Download IPEDS data files for more than 7,000 institutions and up to 200 variables. Data files are provided in comma separated value (*.csv) format.

Survey Data
Data are available starting with the 1995-96 collection year for the Complete data file and Custom data file functions, which zip the data into comma separated value (*.csv). Beginning with the 2010-11 collection year, data for each collection year are compiled into an Access database.

Select download option

Shortcuts
Use these shortcuts to expedite the research process if you are a frequent or returning data user.

Select your shortcut

Publications and Products
Review publications using IPEDS data including First Looks, Web Tables, methodology reports, and Digest Tables.

Resources
IPEDS Glossary
Archived Survey Forms
Delta Card Project
IPEDS Data Center User Manual
IPEDS Data Dissemination and Release Procedures
NCES Newsdesk
Strategic Plan Metric Development
http://www.uky.edu/sotu/2015-2020-strategic-plan

Strategic Objective One

UNDERGRADUATE STUDENT SUCCESS

Be the University of choice for aspiring undergraduate students within the Commonwealth and beyond, seeking a transformational education that promotes self-discovery, experiential learning, and life-long achievement.

We will make strategic investments in faculty recruitment, retention, and development, and in approaches that support innovative teaching and learning. In addition, we will advance student success through programs that provide high-quality curricular and co-curricular opportunities. UK will consistently produce outstanding graduates who complete their degrees in a timely manner, think creatively, communicate effectively, and are able to contribute.

Promises Shared Success

<table>
<thead>
<tr>
<th>Metric</th>
<th>Definition</th>
<th>Baseline</th>
<th>2015-16</th>
<th>2016-17</th>
<th>2020 Goal</th>
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<tbody>
<tr>
<td>Retention Rates</td>
<td>First-Year</td>
<td>82.2%</td>
<td>82.7%</td>
<td>81.7%</td>
<td>90.0%</td>
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<tr>
<td></td>
<td>Second-Year</td>
<td>74.9%</td>
<td>74.9%</td>
<td>74.8%</td>
<td>85.5%</td>
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<tr>
<td></td>
<td>Third-Year</td>
<td>69.7%</td>
<td>70.1%</td>
<td>70.0%</td>
<td>82.0%</td>
</tr>
<tr>
<td>Graduation Rates*</td>
<td>Four-Year Graduation Rate</td>
<td>38.5%</td>
<td>40.4%</td>
<td>44.1%</td>
<td>53.0%</td>
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<tr>
<td></td>
<td>Six-Year Graduation Rate</td>
<td>60.2%</td>
<td>61.3%</td>
<td>63.6%</td>
<td>70.0%</td>
</tr>
<tr>
<td>Six-Year Graduation Rate Gaps</td>
<td>Under-represented Minorities</td>
<td>16.7%</td>
<td>23.5%</td>
<td>13.0%</td>
<td>9.8%</td>
</tr>
<tr>
<td></td>
<td>First-Generation</td>
<td>7.8%</td>
<td>14.1%</td>
<td>16.6%</td>
<td>8.0%</td>
</tr>
<tr>
<td></td>
<td>Pell Recipients</td>
<td>15.1%</td>
<td>19.1%</td>
<td>16.1%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>
UK LEADS initiative


News & Updates

April 7, 2017 - UK LEADS Initiative Featured at Kentucky Student Success Summit

On April 4, Craig Rudick, Executive Director of Institutional Research and Lead Data Scientist, and Todd Brann, Director of Analytics, Assessment and Decision Support for the Office of Academic Excellence, gave a presentation to the Kentucky Student Success Summit outlining the new UK Leveraging Economic Affordability for Developing Success (LEADS) initiative.

Unmet Need is growing rapidly!

Distribution of unmet need is widening (more at high and low).
UK shift focus to need-based aid


Too many students can’t pay for college. So UK is making a major change to help

BY LINDA BLACKFORD
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The University of Kentucky is making a dramatic change in how it gives out financial aid by concentrating more on students who need help paying for college.

The move will change UK’s allocation from nearly 90 percent of financial aid that’s based solely on grades and test scores to about 65 percent of aid based on student need, said Provost Tim Tracy, who announced the change to the UK Board of Trustees Friday morning.

Tracy thinks the shift will help improve graduation and retention rates, which are still below many benchmark schools, because unmet financial need is a large reason why many students drop out.

“We have a larger proportion of our students who have unmet need,” Tracy said. “We want to be the University for Kentucky and we’re trying to develop a strategy to help our students most succeed.”
Demonstration

http://www.uky.edu/iraa/
Can I get Tableau for FREE?

- Did you know Tableau offers free Tableau Desktop licenses to students and instructors?

- To request your free license, visit the Academic Programs page today.  https://www.tableau.com/academic

- Tableau Desktop allows additional functionality not available in Tableau Public, such as connecting to a wider range of data sources and saving work locally.
Tableau Public vs Tableau Desktop
Tableau Public

https://public.tableau.com/

Explore with the App
Open data and explore it with Tableau Desktop Public Edition. Drag & Drop. Create stunning visualizations with ease. Download the app.

Save to Your Profile
Save and store your visualizations on your Tableau Public profile. We give you 10GB of space. Personalize your profile and connect with other authors. Create your profile.

Share with the World
Share your visualizations with the world via social media. Or embed them on a site or blog. Your published vizes are always live and interactive. View the gallery.

Viz of the Day

US National Parks
Pablo Gomaz created this viz about national parks, as part of a Live MakeOverMonday session at TG on Tour London yesterday.
June 6, 2017
Tableau Public Gallery

Tableau Public Gallery

https://public.tableau.com/profile/kim.auger#!/vizhome/FinalVisualization2_0/Dashboard1
Tableau Public Gallery

Training Opportunities

• **Free Training Videos** ([www.tableau.com/learn/training](http://www.tableau.com/learn/training))

• **Tableau eLearning** ([www.tableau.com/learn/training/elearning](http://www.tableau.com/learn/training/elearning))
  - $400 per user, per year for unlimited access to all courses
  - 2 courses to choose from:
    - Tableau Desktop I (Fundamentals) & II (Intermediate)

• **Classroom Training** ([www.tableau.com/learn/classroom](http://www.tableau.com/learn/classroom))
  - Available in-person, virtually, or onsite (i.e., Tableau comes to you)
  - Price depends on course and location ($1,400+)
  - 6 courses to choose from:
    - Tableau Desktop I (Fundamentals), II (Intermediate), III (Advanced)
    - Visual Analytics
    - Server Administration & Server Architecture
Tableau Resources

- **Free Live Online Training** ([www.tableau.com/learn/live-training](http://www.tableau.com/learn/live-training))
  - 1-hour instructor led training on various topics

- **Free Tableau Starter Kits** ([www.tableau.com/learn/starter-kits](http://www.tableau.com/learn/starter-kits))
  - Short, self-paced “modules” used to practice authoring, interacting with, and publishing visualizations.

- **Tableau Community** ([community.tableau.com/welcome](http://community.tableau.com/welcome))

- **Tableau Conference** ([tc17.tableau.com](http://tc17.tableau.com))
  - Incredible 3-day event with training for Tableau users at any level.
  - Receive a discount on registration by using this code: **EDUVEGASTC17**
Lexington Tableau User Group (TUG)

- Lexington Tableau User Group (TUG) ([community.tableau.com/groups/lexington](community.tableau.com/groups/lexington))
  - Quarterly meetups to discuss all things Tableau, network with data-obsessed people from other organizations in the region.
  - Sign up for the Lexington TUG newsletter: [bit.ly/lextug-index](bit.ly/lextug-index)
Questions?

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