

GRADUATE EDUCATION TRENDS AND FORECASTS

December 7, 2016



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of Electrical and Computer Engineering

www.purdue.edu/grad

THE GRADUATE SCHOOL AT A GLANCE

Purdue's main campus in West Lafayette

40,451 students and 2,602 acres (+15,325 research acres).

Four campuses have combined enrollment of 68,818 students,
10,919 are graduate students.

Main Campus Graduate Admissions

Applicants: ~20,000

Fall 2016 Admitted: 5,222

Fall Total Enrolled: 9,461

Fall New Students: 2,496

Continuing Students: 6,965

www.purdue.edu/grad

THE GRADUATE SCHOOL AT A GLANCE

Faculty & Students

Master's: 4,357

Doctoral: 4,649

Graduate Faculty: 2,161

Demographics

Average Age: 29

States/Territories: 53

Countries Represented: 123

Funding Overall Full-Time Students Receiving Funding: 75%

Students on Assistantships: 59.4%

TOPICS

- Using a Comprehensive CRM System (Slate) for Best Practice and Supporting a Multi-Campus Institution
- CRM Effects on Graduate Student Recruitment
- Online Education
- Using Research and Advisory Firms to Identify New Markets and Optimize Enrollment Growth

Comprehensive CRM

Manage:
communications
applications
test scores
relationships
materials

The screenshot shows the Slate CRM interface for a student named Dan Jin. The interface includes a navigation menu with tabs for Dashboard, Timeline, 2017 Application, Awaiting Submission, 2015 Application, Profile, Materials, Inquiry, Admin, and Fee Waived. The main content area is divided into several sections:

- Dashboard:** Created Date: 2015-06-27T17:51:04, Inquiry Program of Interest, Inquiry Degree Objective, Inquiry Entry Term/Year.
- Biographic:** Female, Born 04/27/1992, age 24, Foreign National, China.
- 2017 Graduate Application:** Awaiting Submission, Started 08/22/2016.
- Application Progress Table:**

Pre-Review	Graduate Program Review	Graduate School Review	Decided
Awaiting Submission	Bin 1	Processing at GS	Admit
Awaiting Payment	Bin 2	Domestic	Release
Awaiting Materials	Interview	International	Deny
Application Complete	Funding	Questions	
Returned from GS	Waitlist	Awaiting Approval	
	To Be Denied	Pending Denial	
	Recommend for Admission		
	Signature Authority		
- Location:** Lafayette, IN, IN-05 West Central Indiana. Includes a map of Indiana and address: 905 N 7th St Apt 9N, Lafayette, IN 47904-1879.
- Contact:** Email rebeccadj0817@gmail.com, Phone +1 765-775-3123, Mobile +1 765-775-3123.
- Tags:** Migrated, Opt Out, Test Record.
- Status History:** 06/27/2015 Applicant.
- Test Scores:**
 - GMAT: 540 Total, 24 Verbal, 41 Quantitative, 5 AWA, 2 Integrated Reasoning.
 - TOEFL - Internet-based Test (iBT): 92 Total Score, 23 Listening.
- Activity History:** (Section header visible at the bottom).

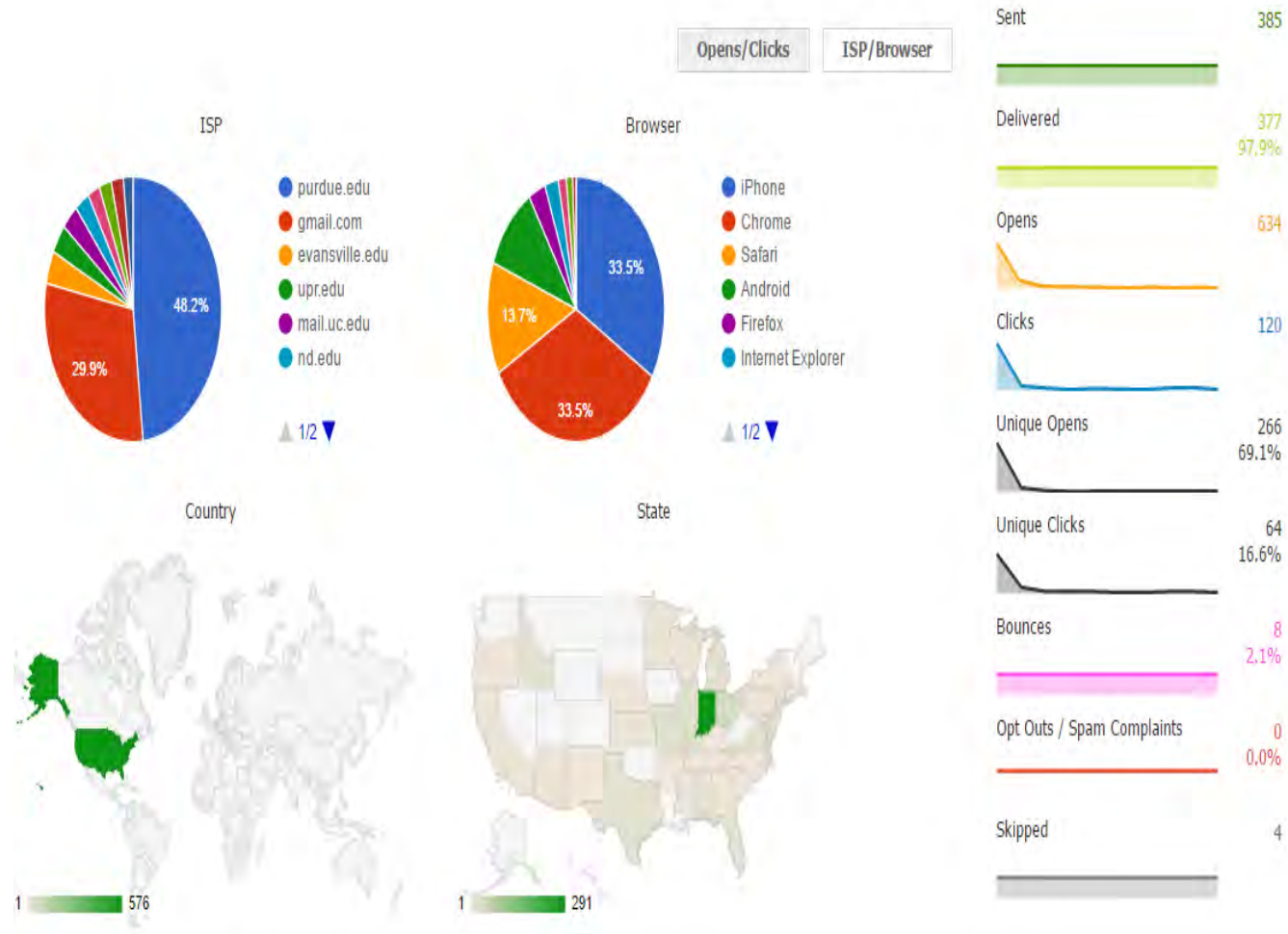
Comprehensive CRM

Emailing and Text Messaging

750+ million email messages through Slate each year.

Conditional logic.
Responsive email templates.

SMS texts to target mobile users.



Comprehensive CRM

Forms

Build forms using the drag-and-drop form builder, and add user-configurable conditional logic, automated communications, embedded forms, and direct integration with the student record.

Edit Form

Thank you for your interest in graduate studies at Purdue University.

Please complete the form below to receive important information about graduate programs, funding, research opportunities, and student life at Purdue. We will not sell your information to any third parties.

Please note this form is not an application for admission. To apply for graduate admission to Purdue University, please complete the [online application](#). Visit the [Graduate Program Requirements](#) page to review specific deadlines, requirements, and instructions for your program of interest.

*Indicates required fields

Personal Information & Mailing Address

Legal First Name *

Legal Last Name *

Country of Citizenship

Gender

Birthdate *

Purdue University requests this information for record keeping purposes only.

Are you Hispanic/Latino?

- Yes
 No



- Edit Properties
- Edit Conditions
- Edit Rules
- Show Form Logic
- Edit Scripts
- Embed Form
- Copy Form
- Sharing Permissions

- Heading 1
- Heading 2
- Header Row
- Instructions
- Text Box
- Paragraph
- Check Boxes
- Selectable
- Option Buttons
- Rating Scale
- Select List
- Multi-select
- Street Address
- Location
- Location (no p...
- Birthdate
- Date
- Calendar
- Section Break
- Related Eve
- Material Uploa...
- Interaction

Comprehensive CRM

Everything Online

View applications.

Secure env.

All platforms

Students see checklist

Security alert

feature

Dashboard	Timeline	2017 Application Awaiting Submission	2015 Application	Profile	Materials	Inquiry
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2015 Graduate Application

Decision Released: Admitted
 Submitted November 13, 2014: Status: Confirmed
 Last updated October 20, 2016

Slate Applicant ID: 025441734
 PUID: 0028126203
 Term/Year: Fall 2015
 Campus: West Lafayette (Main Campus)
 Major: Hospitality and Tourism Management
 Research Area:
 Degree Objective: Master of Science (MS)
 Course Delivery: On-Campus

Checklist

[Insert Requirement](#)

✓	01/06/2016	English Proficiency Scores	Received
✓	01/06/2016	GRE or GMAT Official Scores	Received
✓	09/22/2016	Transcript (Purdue Univ West Lafayette-IN)	Received Copy
✓	09/22/2016	Transcript (Xi'an Intl Studies Univ-China)	Received Copy

Materials

Date ▲	Description	Record
New Material		
09/22/2016	School Specific Transcript (Unofficial - for Document Export only) Xi'an Intl Studies Univ-China	Folio
09/22/2016	School Specific Transcript (Unofficial - for Document Export only) Purdue Univ West Lafayette-IN	Folio

Comprehensive CRM

Slate Reader

PDF interface allows faculty to review application materials electronically.


transcripts,
statement of purpose,
diversity essay,
writing samples,
recommendation letters,
other supporting documents

slate

927605381 Testing (Test), Test M.

1 / 2, Application PDF (Dashboard)

Purdue University Graduate School Application for Admission



PURDUE
THE GRADUATE SCHOOL
ADVANCE TO A HIGHER DEGREE

Applicant ID: 927675292
 Applicant Name: Test M. Testing (Test)
 Campus: West Lafayette (Main Campus)
 Major: Anthropology
 Degree Objective: Doctor of Philosophy (PhD)

PUID: 0123456789
 Submitted Date: 07/08/2016
 Application Fee:
 Application Fee Date Received:

Personal Background

Address:
155 S Grant St
Lafayette IN 47907-2114
United States of Ame
Other Name: Test

Telephone:
47907-2114

Email: test@purdue.edu

Citizenship Status: U.S. Citizen
 Hispanic/Latino:
 Date of Birth: 05/15/1951

Citizenship Country:
 Race:
 Domestic Residency: Adams County IN

Alien Reg. Number:
 Gender: F
 Native Language:

U.S. Veteran or Service Member: United States Veteran
 Active Duty or Reserve Component:

Campus and Program

Campus: West Lafayette (Main Campus) Major: Anthropology
 Area of Interest:
 Purdue Status: Applying as Dual Degree Grad

Degree Objective: Doctor of Philosophy (PhD)
 Term/Year:
 Current Graduate Student: Yes
 Course Delivery: On-Campus

Specified Faculty: test
 Recruitment Program:

Education Background

Name of Institution: Purdue Univ West Lafayette-IN
 Attendance Dates: 08/1994 - 05/1998
 Degree Received or Expected: Bachelor of Science
 Language of Instruction (if not English):

College Code: 001631
 Degree Level: Undergraduate
 GPA: 4
 Major: Anthropology

Name of Institution:
 Attendance Dates:
 Degree Received or Expected:
 Language of Instruction (if not English):

College Code:
 Degree Level:
 GPA:
 Major:

Name of Institution:
 Attendance Dates:
 Degree Received or Expected:
 Language of Instruction (if not English):

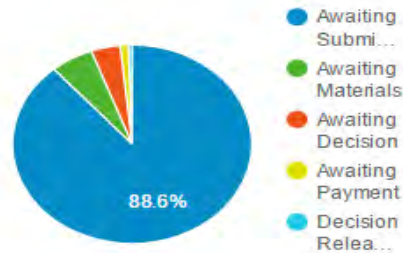
College Code:
 Degree Level:
 GPA:
 Major:

Comprehensive CRM

*Dynamic Reporting
Examine applicant pool*

*Applicant status
Appl by research area
Appl by citizenship
status
Appl by URM status*

Fall 2017 Applications by Status



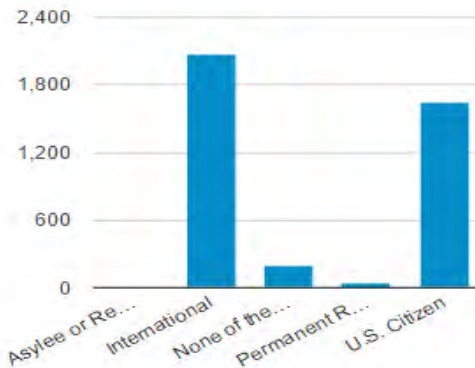
Data as of 10/27/2016 at 10:10:02 PM ET [Refresh](#) [Show SQL](#)

Fall 2017 Applications by Research Area

PWL Applicant Research Area ▲	count
Accounting	13
Accounting (Spring or F...	29
Acoustics and Noise Co...	4
Activism/Resistance/an...	1
Adult Gerontology Prim...	5
Advanced Methods of A...	1
Aerodynamics	41
Aeronautics and Astron...	1
Aeronautics and Astron...	3
Aerospace Systems	17
Agricultural and Extensi	1

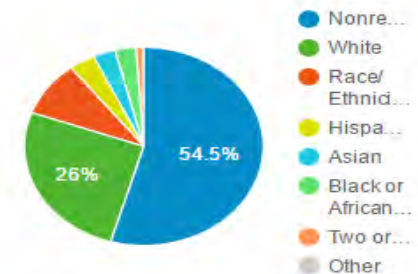
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Fall 2017 Applicants by Citizenship Status



Data as of 10/27/2016 at 10:10:05 PM ET [Refresh](#) [Show SQL](#)

Fall 2017 Underrepresented Applicants



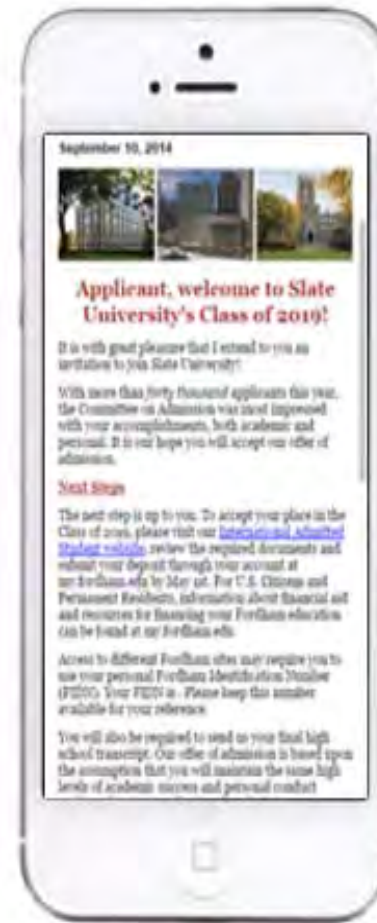
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Comprehensive CRM

Provides students with secure portals.

Review requirements, submit additional documents and review decisions of admission.

Personalized content.
25% using mobile.



Comprehensive CRM

Support of a Multi-Campus Environment

Integrates well with Banner-auto transfers

Can load GMAT, GRE, IELTS, TOEFL—all campuses

Security profiles by Program Area
e.g. ECE only sees ECE

Easy import and export functions-
e.g. can export to banner extender.



Conditional admissions
functionality for customized
admission letters

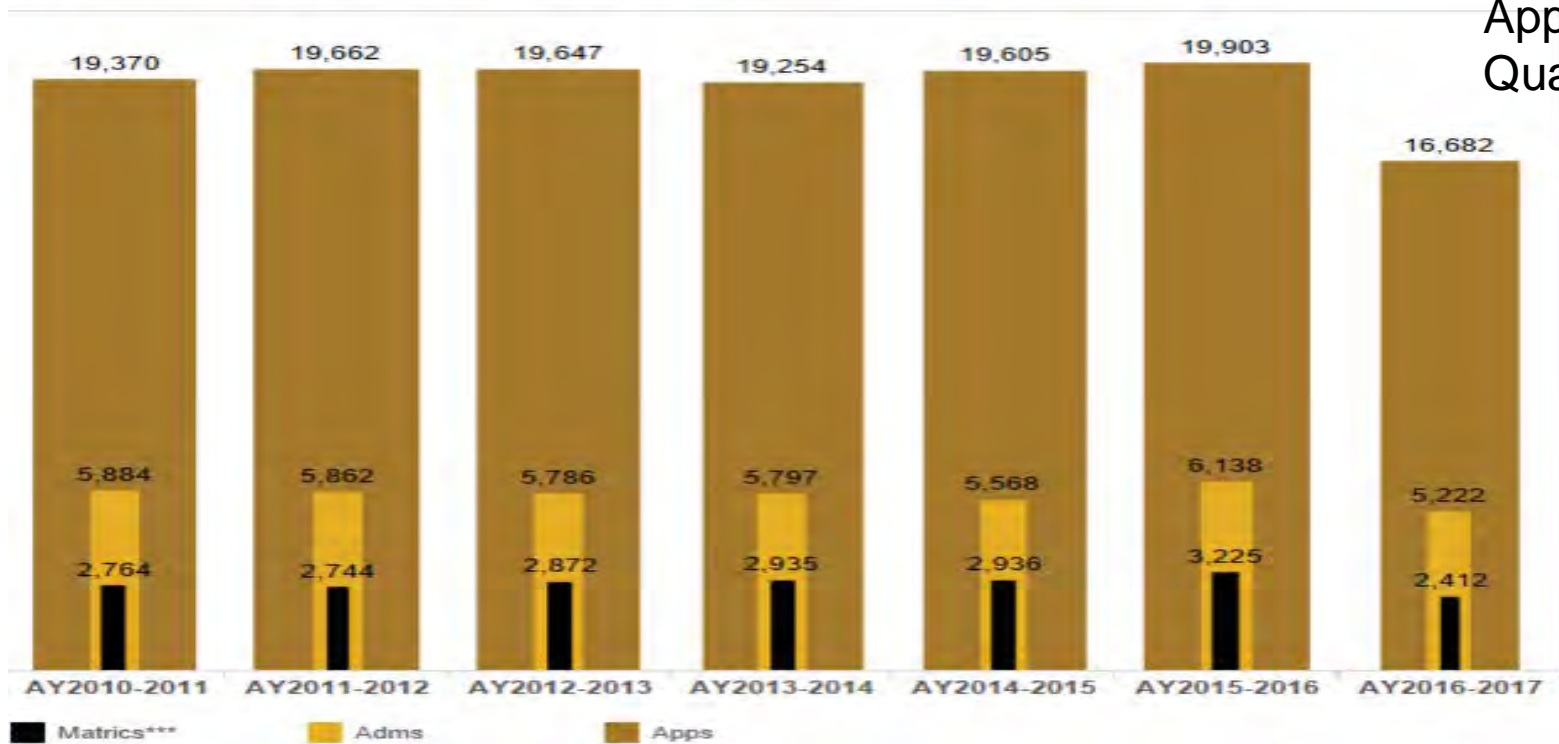
Single Sign-on (use PUID)

RECRUITMENT AND ADMISSIONS

Purdue University Graduate School 5-year Graduate Program Review

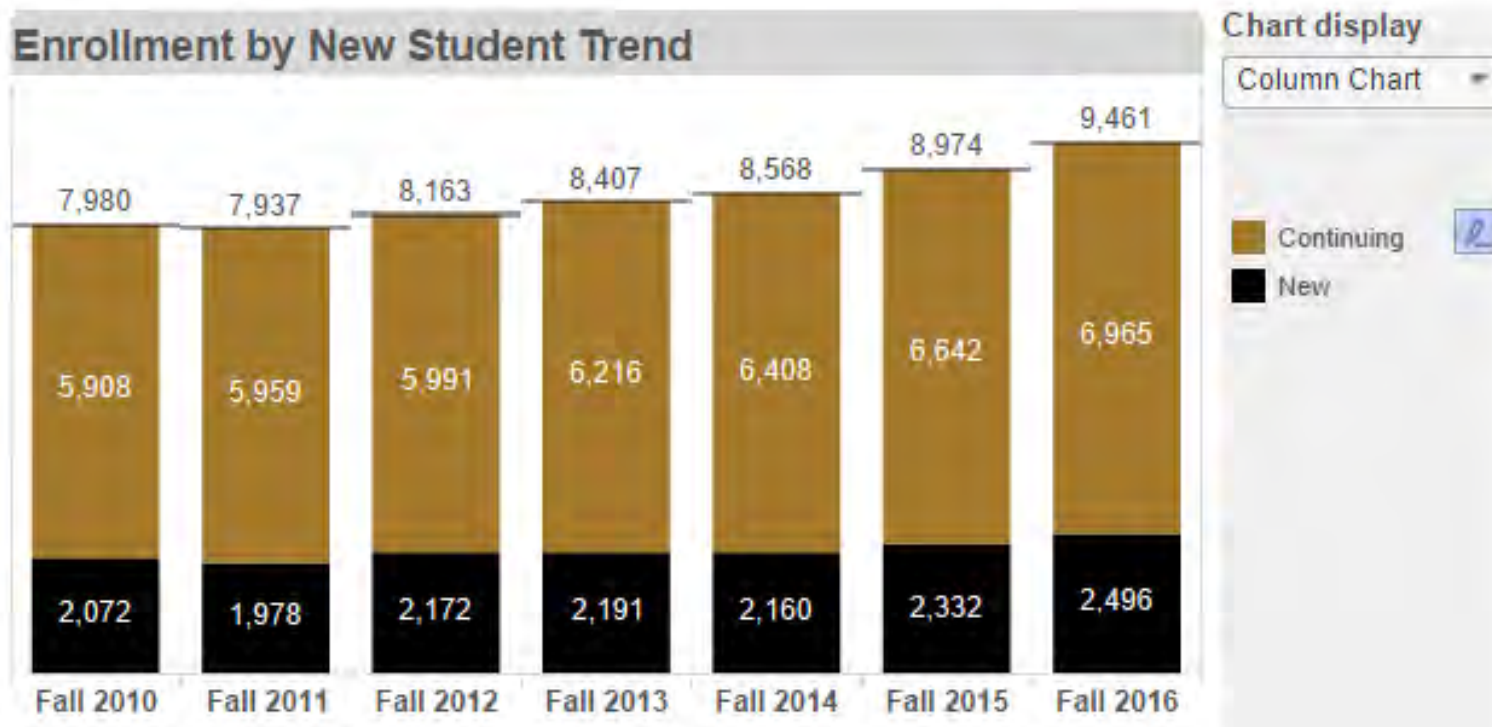
Forecast: 18,500
5,900,
2,800

Application, Admission, and Matriculation Chart



Apps down
Quality up

RECRUITMENT AND ADMISSIONS



RECRUITMENT AND ADMISSIONS

Strategies to improve recruiting and admissions

Weekly application and admission scorecard

Drip Marketing – automated email campaigns and segmented marketing

Heat map for geographic recruitment

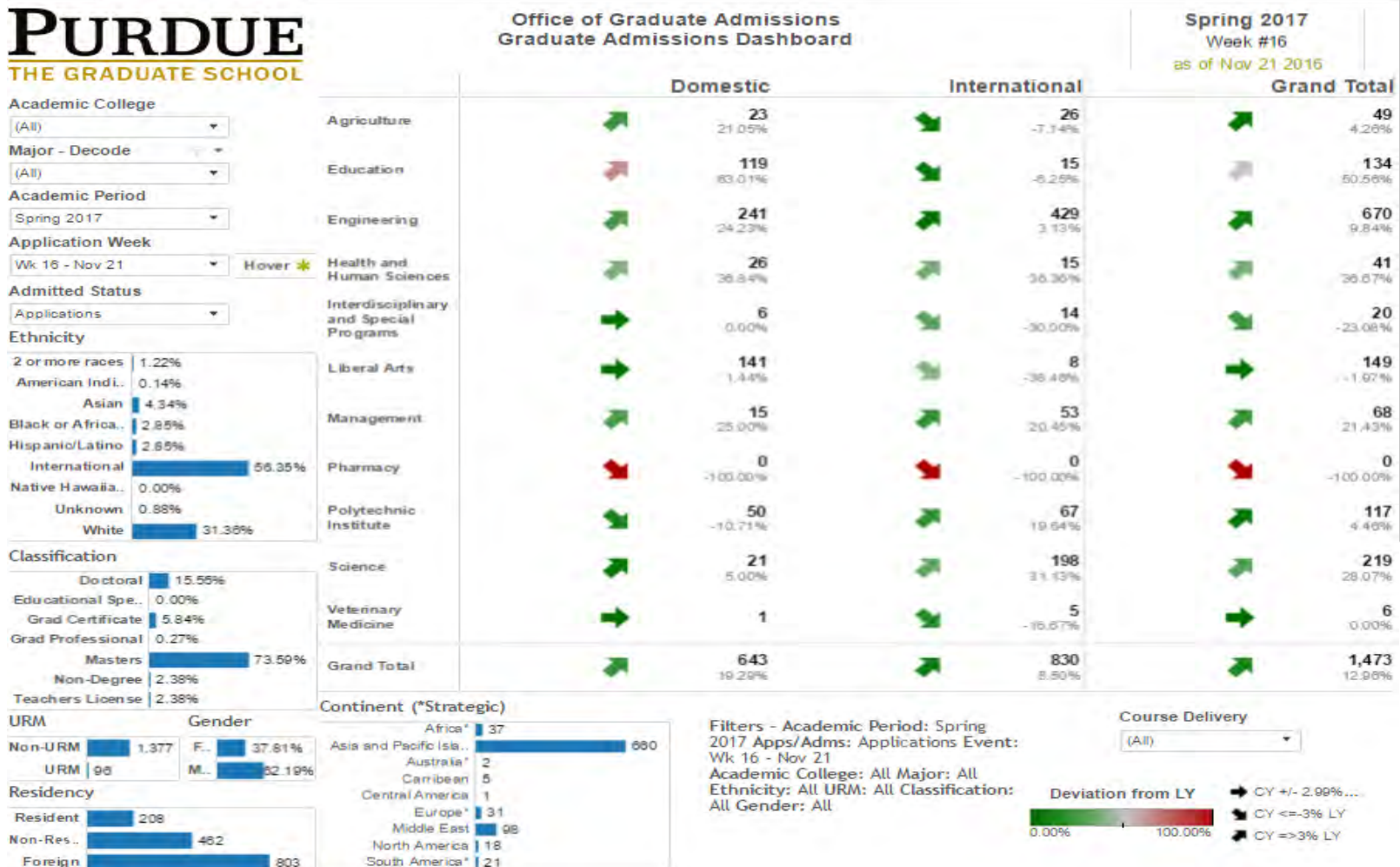
Competition analysis

New admit survey analysis

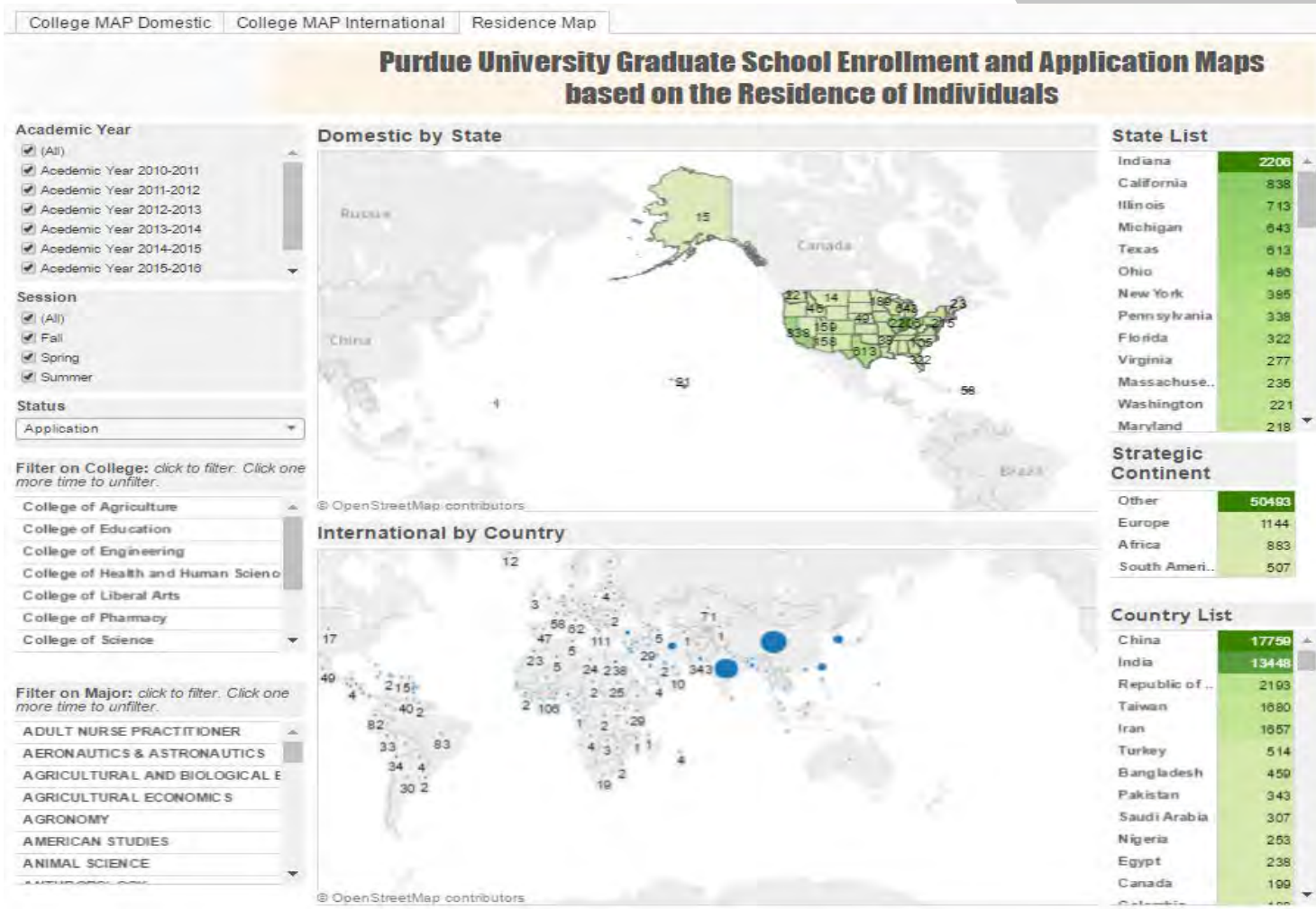
RECRUITMENT AND ADMISSIONS

Weekly application and admission scorecard

e.g. admit status comparison with last yr same time.



RECRUITMENT AND ADMISSIONS



Heat map

College map=
Where BS was
earned vs
Residence Map

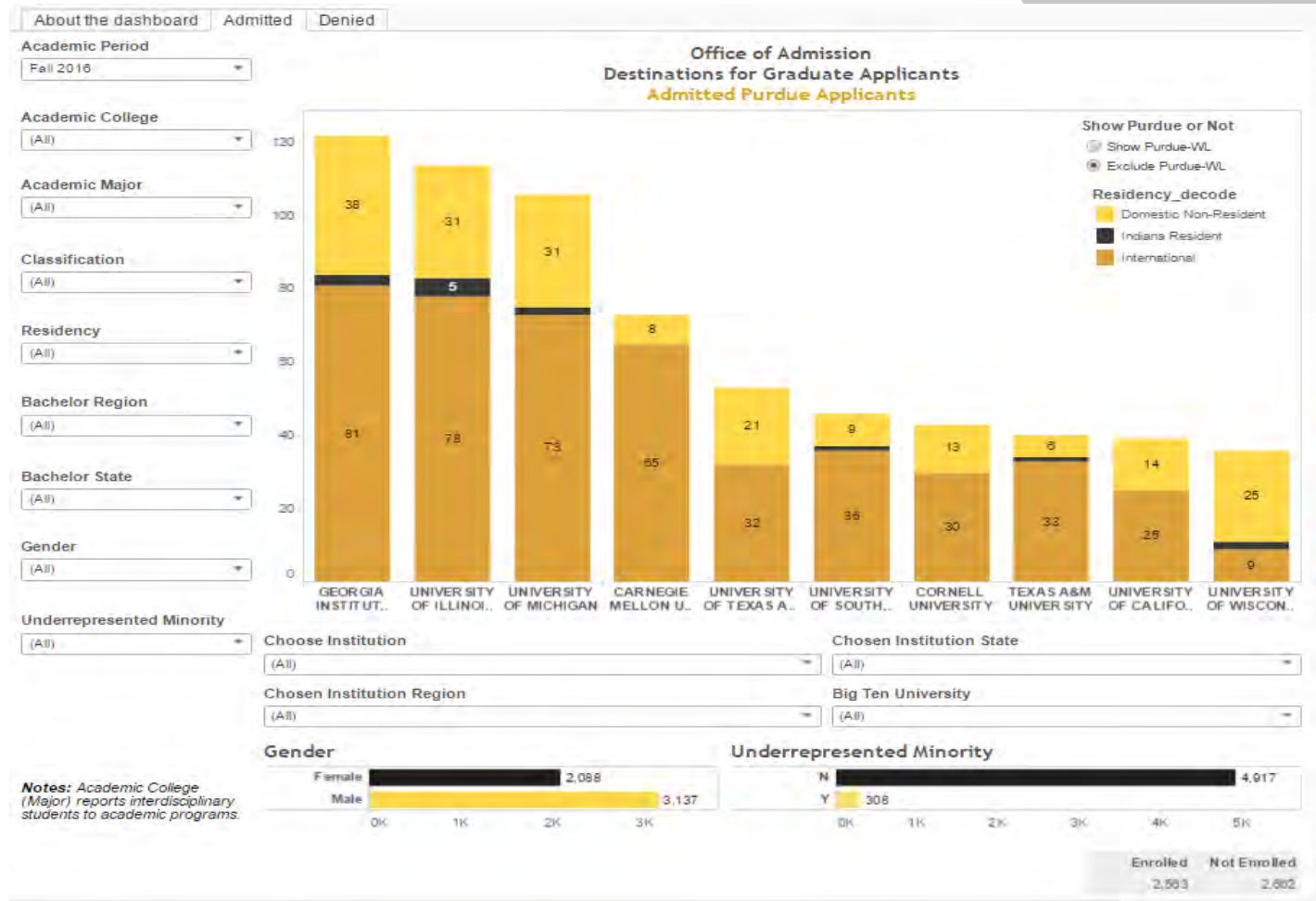
Applicants
Admits
Enrollees

RECRUITMENT AND ADMISSIONS

Competition Analysis

Uses student clearinghouse

Can facilitate targeted marketing

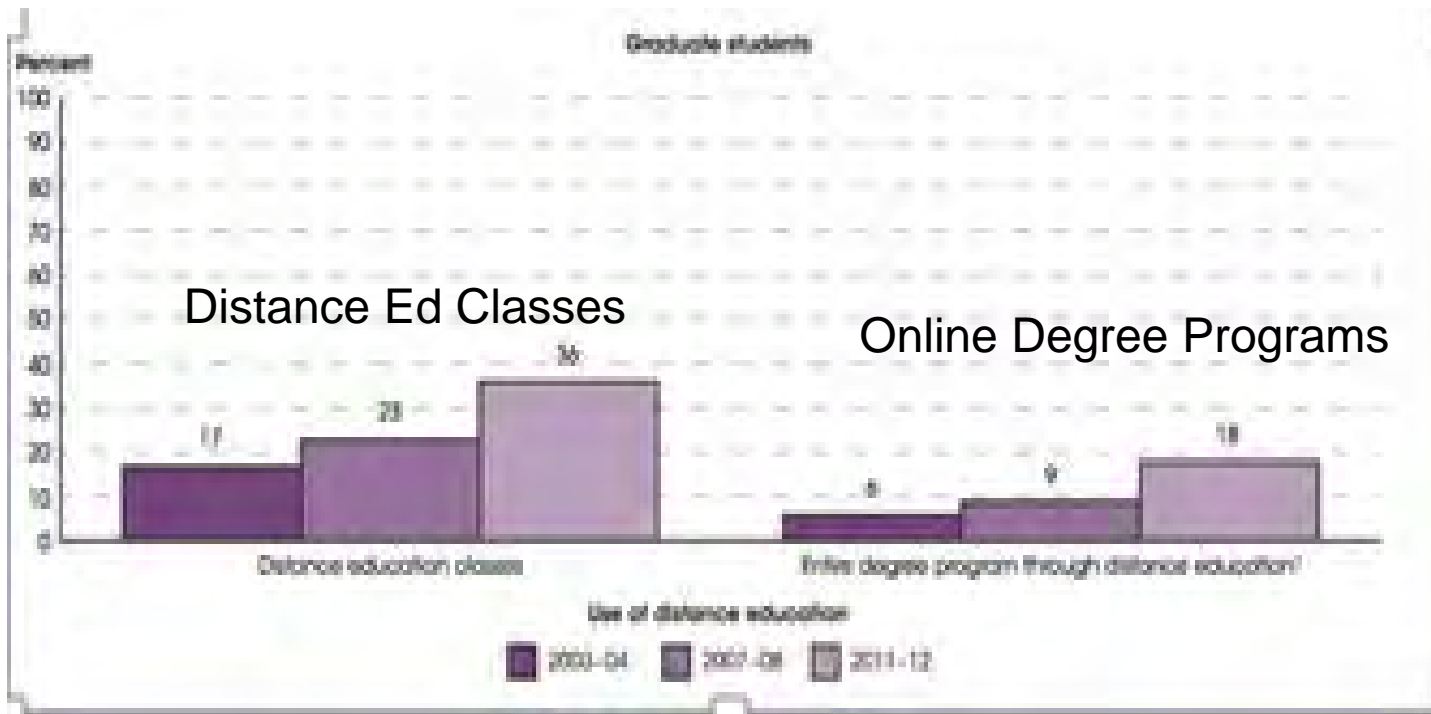


ONLINE MASTER'S PROGRAMS

Growing in popularity, both nationally and at Purdue.

72.7% of undergrad online distance education students are at public institutions, 38.7% for grad students.

ONLINE GRADUATE STUDIES NATIONALLY




SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04, 2007–08, and 2011–12 National Postsecondary Student Aid Study (NPSAS:04, NPSAS:08, and NPSAS:12). See Digest of Education Statistics 2014, tables 311.22 and 311.32.

ONLINE GRADUATE STUDIES NATIONALLY

25% of grad enrollment was exclusively Distance Ed in 2014**

Postbaccalaureate Enrollment

	Fall 2013	Fall 2014	
Total enrollment	2.90 million	2.91 million	▲
Full-time enrollment	1.66 million	1.67 million	▲
Part-time enrollment	1.24 million	1.24 million	▲ ²
Percentage enrolled in any distance education course	31%	33%	▲
Percentage enrolled exclusively in distance education	23%	25%	▲



*WCET Distance Education Enrollment Report, 2016, Using U.S. Department of Education Data

**The Condition of Education, IES, NCIS, <http://nces.ed.gov/programs/coe/>

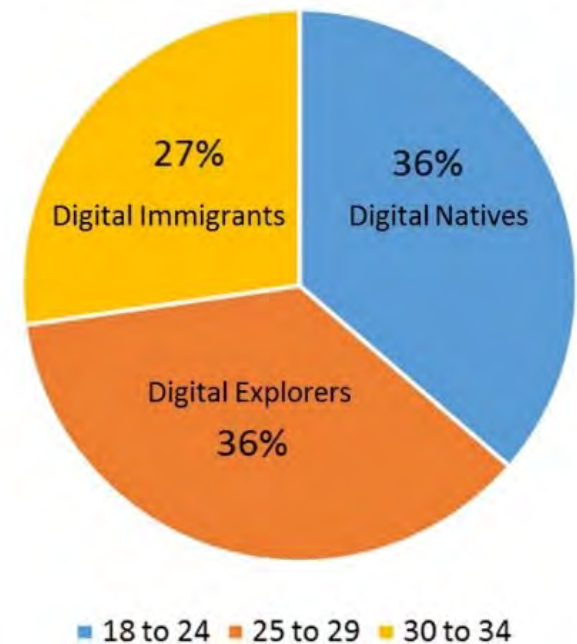
ONLINE GRADUATE STUDENTS HAVE DIFFERENT NEEDS

Adult learners are different from traditional college students. Many adult learners have responsibilities (e.g., families and jobs) and situations (e.g., transportation, childcare, domestic violence and the need to earn an income) that can interfere with the learning process. Most adults enter educational programs voluntarily and manage their classes around work and family responsibilities. Additionally, most adult learners are highly motivated and task-oriented (Merriam & Caffarella, 1999).

ONLINE GRADUATE STUDENTS HAVE DIFFERENT NEEDS

- **Digital immigrants** (aged 30-34) are those who grew up before technology saturated the world, and learned to use technology as a tool. They remember Windows 95, eBay and dial-up Internet.
- **Digital explorers** followed and are aged 25-29. They began to see the true power of technology as part of everyday life. Controversially, as the Internet was the Wild West for them, they illegally downloaded music through Napster while watching adults use the only true smartphone at the time, the Blackberry.
- **Digital natives** (aged 18-24), are those who have grown up with technology as a crucial part of their lives and with less digital uncertainty. They connect with their friends on Facebook, check Twitter often and network professionally on LinkedIn, all from their iPhones

UPCEA Millennial Survey, Oct. 2015



EDUCATING ONLINE STUDENTS

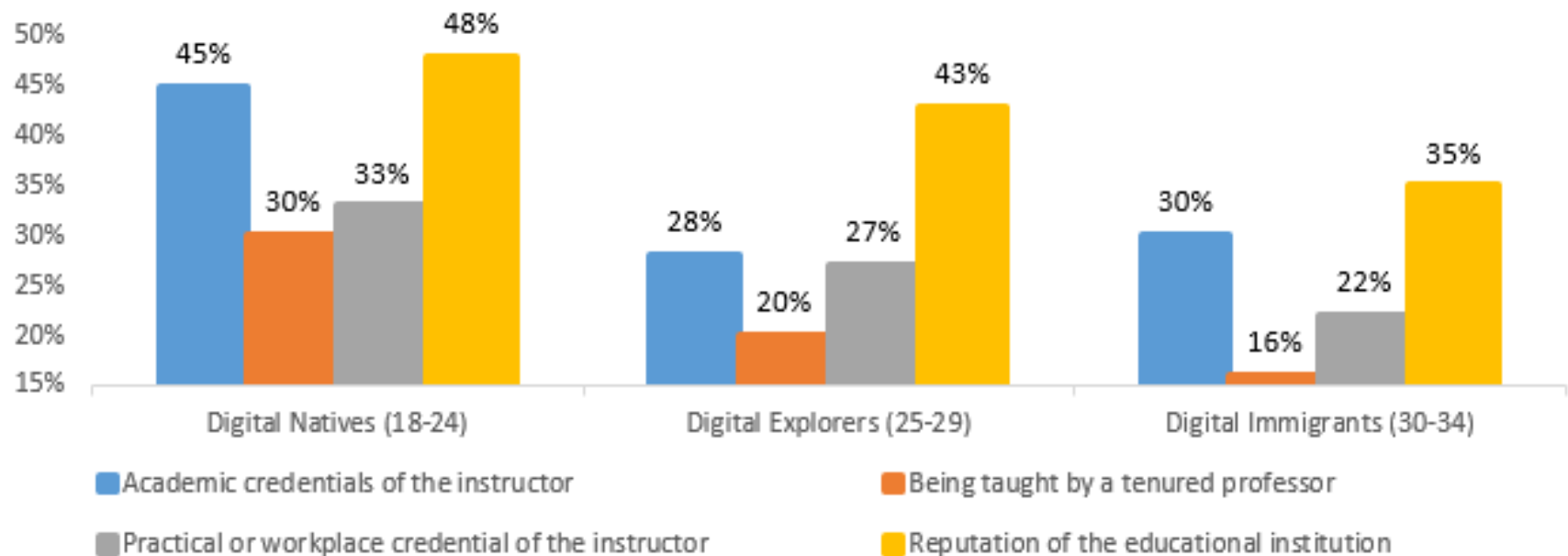
Students Who Know Only Digital

“They’ve grown up researching and buying products online, browsing social media and have evolved to innately filter information and advertising that [doesn’t]... interest them... They’ve been brand managers their entire lives, putting their own brand on social media for everyone to see.

ONLINE GRADUATE STUDENTS MAKE DECISIONS DIFFERENTLY

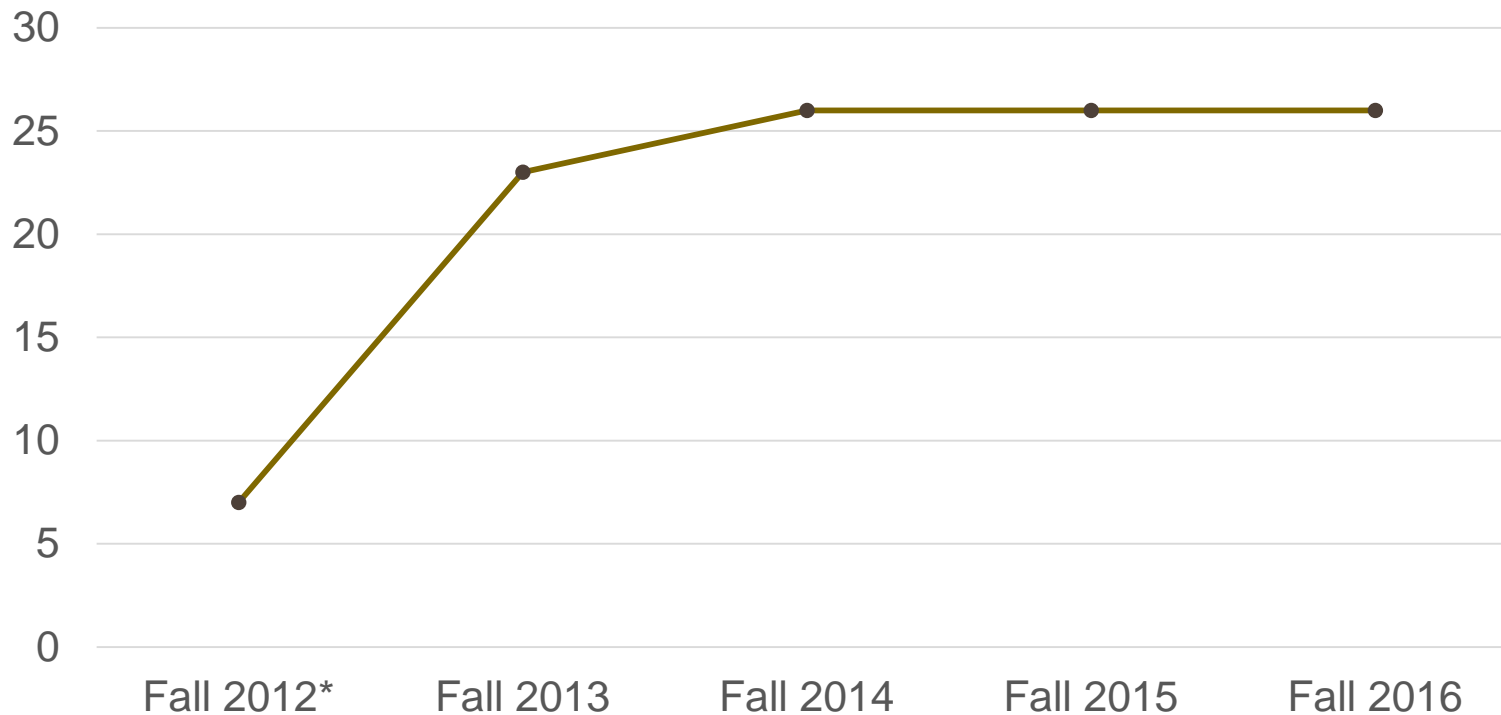
Be Ready for Digital Natives – Brand May Not Be Enough

Importance of Course Factors by Millennial Segment (% Very Important)



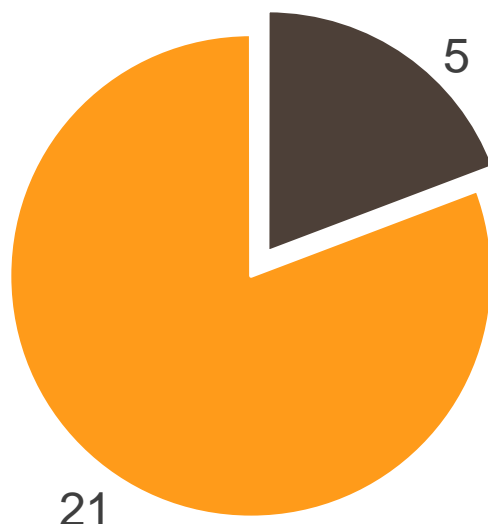
PURDUE ONLINE MASTER'S DEGREE & CERTIFICATE PROGRAMS

Distance Education Programs



ONLINE MASTER'S DEGREE PROGRAMS

Provider of Online Programs



■ Vended Partner ■ Colleges

AY 2016-2017

ONLINE PROGRAM PARTNERSHIP WITH WILEY

Wiley (Deltak)

Deltak is an Online Program Management (OPM) firm owned by John Wiley and Sons, Inc.

In 2010, Purdue explored using a vendor.

Procurement negotiated a seven-year exclusive contract with Deltak, and the Purdue/Deltak relationship has been managed through Purdue Digital Education..

ONLINE PROGRAM PARTNERSHIP WITH WILEY

Wiley (Deltak)

16 week -> 8 week course conversion

Focus on learning outcomes (often project based)

Mostly asynchronous

Work with professor.

Technologist designs the course

Mix of text, audio, video, interactions(blog and chat).

ONLINE PROGRAM PARTNERSHIP WITH WILEY

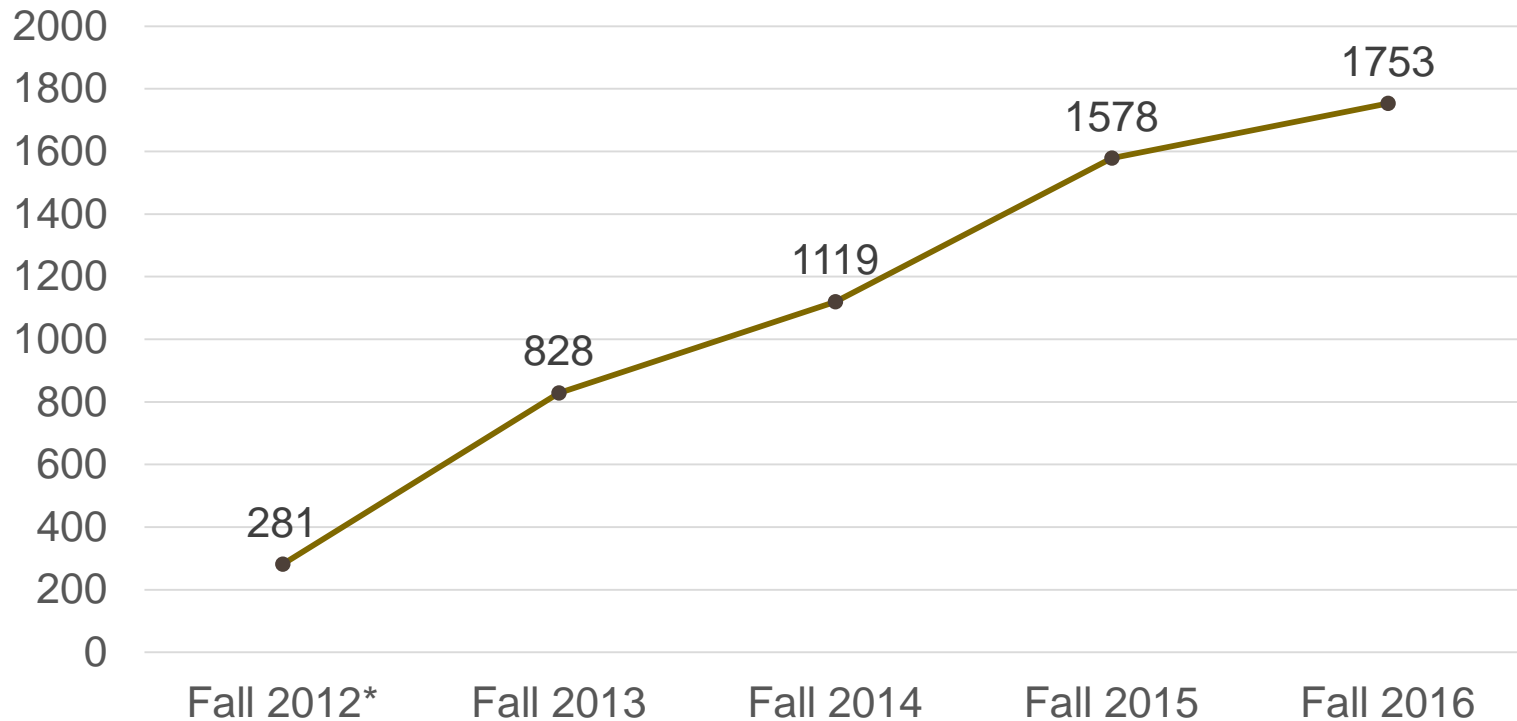
- Services include market analysis, online course development (in cooperation with faculty) marketing, recruitment, and retention activities.
- Provides hosting services, 24/7 web support, and learning analytics
- Launched three successful online masters degrees
- Since 2011, has generated \$6 million in tuition

ONLINE MASTER'S DEGREE PROGRAMS³²

Major	Area of Interest	Degree Objective	Administering Office
Aeronautics & Astronautics		MS in Aeronautics & Astronautics	ProEd
Agricultural Economics	Food & Agribusiness Management	Master of Science	Krannert
Aviation Technology	Aviation Management (Distance Only)	MS in Aviation & Aerospace Management	ProSTAR
Building Construction Management	Building Construction Management	MS in Building Construction Management	ProSTAR
Building Construction Management	Sustainability (Online)	MS in Building Construction Management	ProSTAR
Communications		Master of Science	Wiley
Communications		Strategic Communication Management Graduate Certificate	Wiley
Computer and Information Technology	IT Business Analysis (Online)	Master of Science	ProSTAR
Computer and Information Technology	IT Project Management (Online)	Master of Science	ProSTAR
Computer Science		Master of Science	ProEd
Continuing Education		Non Degree	Digital Education
Curriculum and Instruction	Learning Design & Technology	Master of Science in Education	Wiley
Economics		Master of Science	Krannert
Educational Studies	Special Education	Master of Science in Education	Wiley
Electrical and Computer Engineering		MS in Electrical & Computer Engineering	ProEd
Hospitality & Tourism Management		Master of Science	Wiley
Industrial Engineering		MS in Industrial Engineering	ProEd
Interdisciplinary Engineering		Master of Science	ProEd
Interdisciplinary Engineering		Applied Heat Transfer Graduate Certificate	ProEd
Interdisciplinary Engineering		Non Degree	ProEd
Interdisciplinary Engineering		Noise Control Engineering Graduate Certificate	ProEd
Management (Executive MBA)		Master of Business Administration	Krannert
Mechanical Engineering		MS in Mechanical Engineering	ProEd
Nursing		Collaborative Doctor of Nursing Practice	Nursing
Technology Leadership and Innovation	Biotechnology Innovation and Regulatory Science	Master of Science	ProSTAR
Technology Leadership and Innovation	Industrial Distribution	Master of Science	ProSTAR
Technology Leadership and Innovation	Leadership (Weekend)	Master of Science	ProSTAR
Technology Leadership and Innovation	Industrial Engineering Technology	Master of Science	ProSTAR
Technology Leadership and Innovation	Technology Management (Rolls Royce Employee)	Master of Science	ProSTAR
Technology Leadership and Innovation		Biotechnology Quality and Regulatory Compliance Graduate Certificate	ProSTAR

PURDUE ONLINE MASTER'S DEGREE & CERTIFICATE PROGRAMS

Distance Education Enrollment



ONLINE MASTER'S DEGREE PROGRAMS

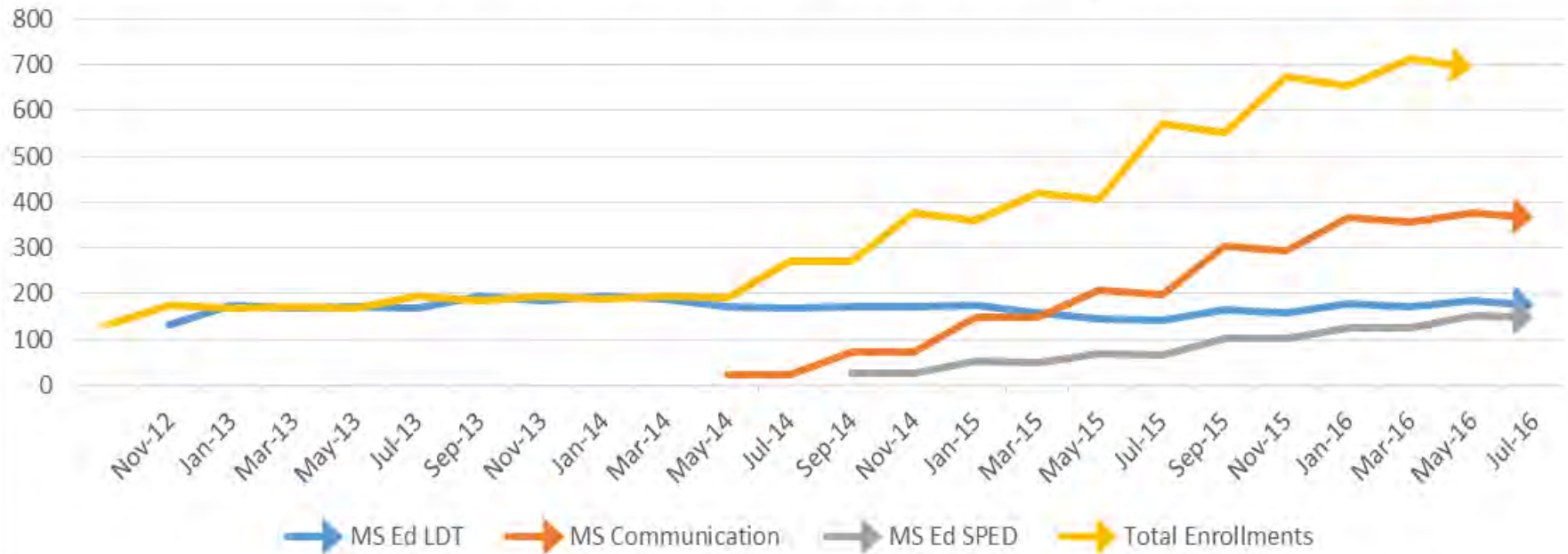
Total Fall 2016 Enrollment: 9,461

	<u>Number</u>	<u>% of Total</u>
Distance	1,755	18.5%
Campus	<u>7,706</u>	<u>81.5%</u>
<i>Total Enrolled</i>	9,461	100.0%

PURDUE ONLINE MASTER'S DEGREE & CERTIFICATE PROGRAMS

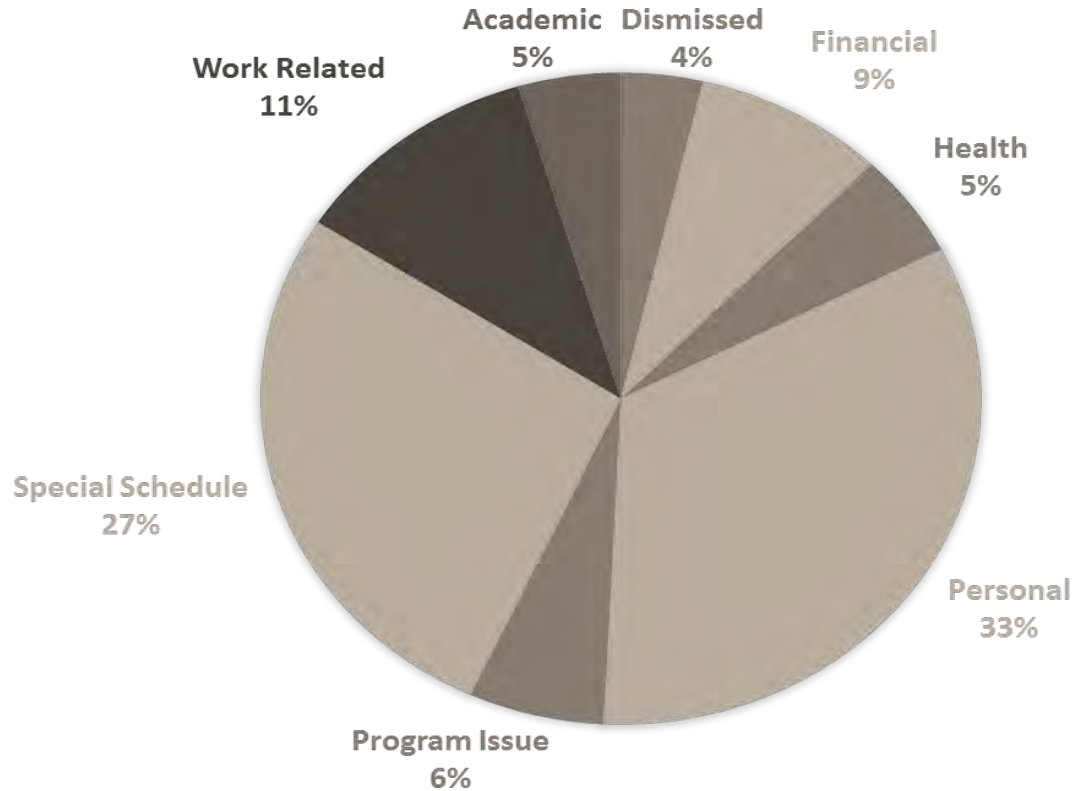
3 Programs Partnered with Wiley

Enrollments Over Time, Three Current Programs



ONLINE MASTER'S DEGREE & CERTIFICATE PROGRAMS

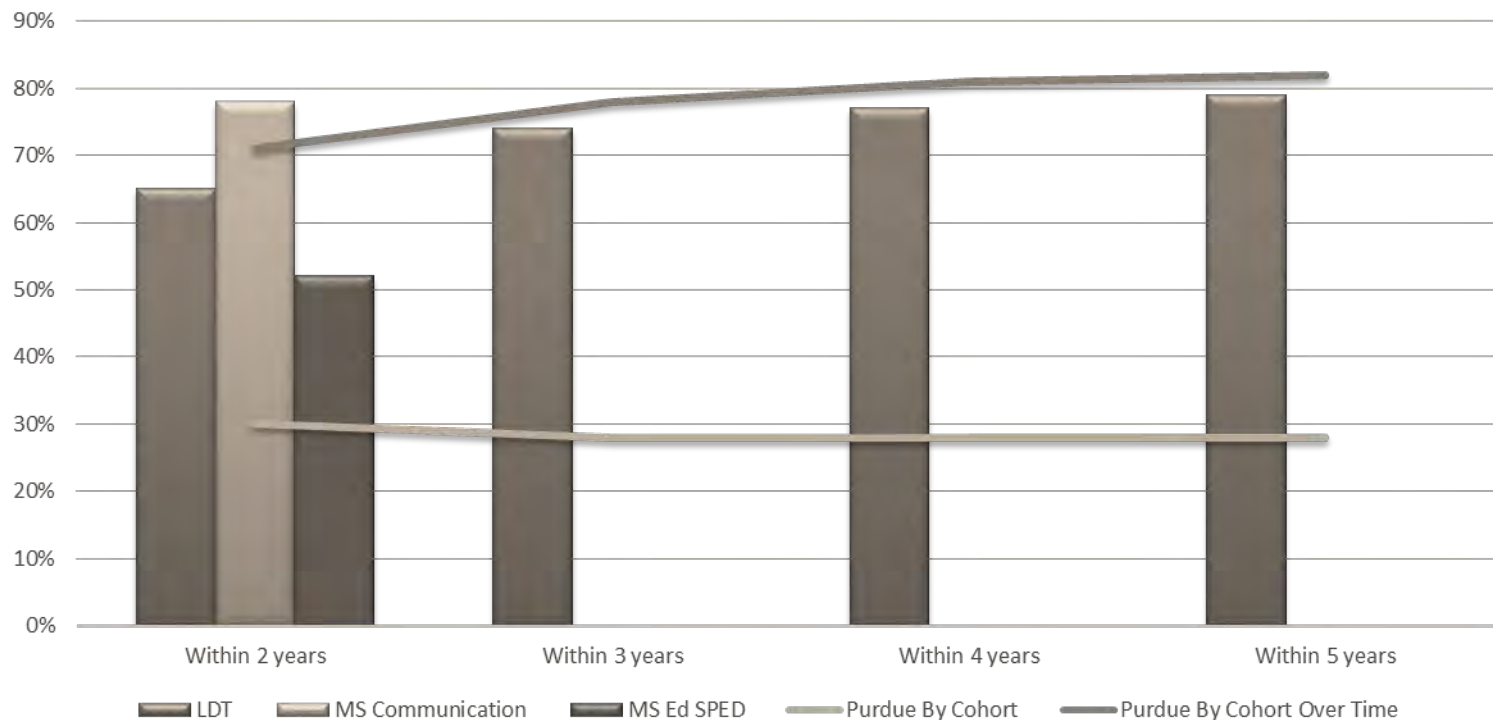
Why Online Students in Partnered Programs Stopped



ONLINE MASTER'S DEGREE & CERTIFICATE PROGRAMS

Purdue Online Partnered Program Persistence Rates
Closely Match Purdue Overall Cohort Grad Rates

Average Across Cohorts of % of Students Graduating



RESEARCH AND ADVISORY FIRMS

Eduventures provides primary research, analysis, and advisory services to support decision-making throughout the student lifecycle. Higher education leaders engage with Eduventures to make informed decisions about setting strategy, ensuring the financial sustainability of their institutions, boosting student success, and selecting and implementing technology.

HOW PURDUE IS USING EDUVENTURES

Market Analysis for New Professional Masters Programs

- Campus or Online Programs
- Demand for degree
- Pricing

SUCCESS STORY AT PURDUE

The Outcome: Guidelines adopted by the Board of Trustees

The Results: All units proposing a professional masters program will have access to market analysis service of Eduventures and [Education Advisory Board](#)

RESEARCH AND ADVISORY FIRMS – ANOTHER PARTNER

Education Advisory Board – Providing research answering education's most pressing issues.

Purdue is using EAB in similar ways as Eduventures to Perform Market Analysis for New Professional Masters Programs

- Campus or Online Programs
- Demand and Forecasts
- Pricing

THANK YOU!

Questions and Comments