

OEAS KNOWLEDGEBASE

A Dynamic Web Portal to House
Survey Results and Statistical Reports
on a Shoe-String Budget

2015 FAIR Conference

March 19-20, 2015



University of Central Florida

Office of Operational Excellence and Assessment Support

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AGENDA FOR THIS DISCUSSION

- Background and history of OEAS survey administration, processing and reporting
- Tutorial of OEAS Knowledgebase
- Current OEAS processes and technologies employed to achieve successful survey administration
 - Qualtrics
 - Oracle PeopleSoft
 - Microsoft .NET
 - SAS
- Costs and resources
- Benefits and Challenges

HISTORY OF SURVEY PROCESSING AT OEAS

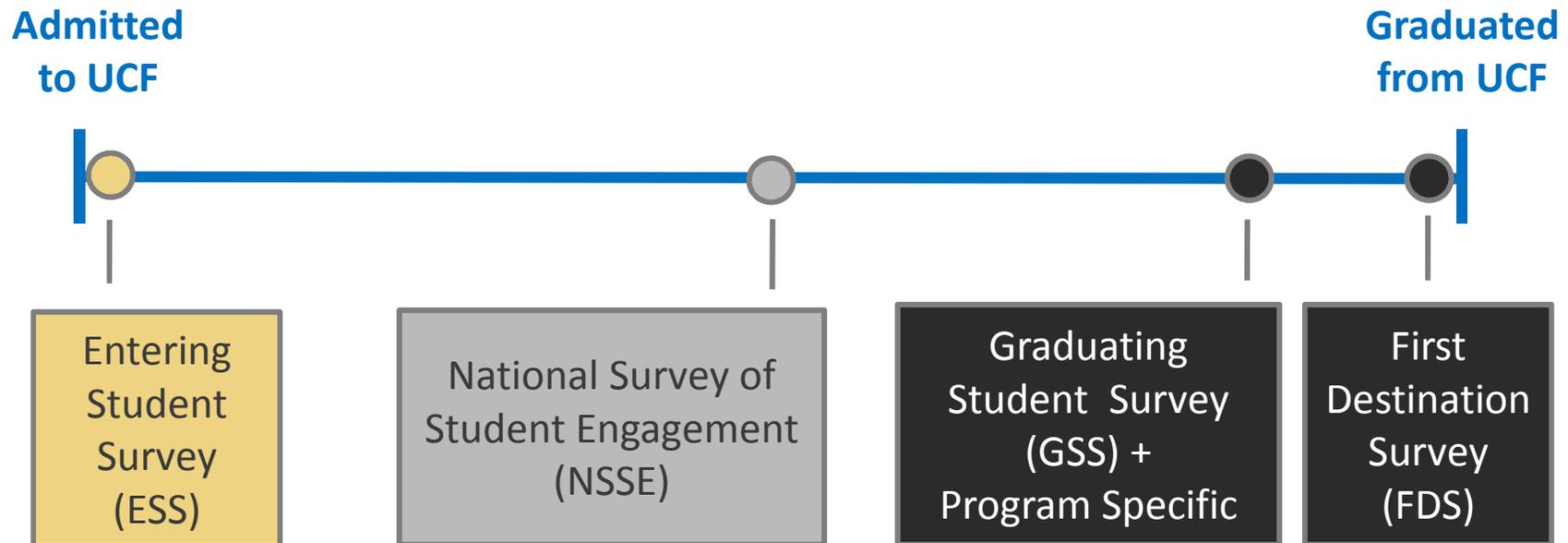
- Before 2007
 - All surveys were paper-based
 - No student identifiers collected - could not link to official student records
 - Survey results deployed through a public website using SAS/IntrNet
- 2007 - 2012
 - FormManger.ucf.edu used for online surveys
 - First surveys integrated into UCF student portal (PeopleSoft) was Graduating Student Surveys (first instance of passing student identifier)
 - OEAS Knowledgebase officially released in Fall 2011 – included results for Graduating Student Surveys and Entering Student Surveys
- 2013 - present
 - First Destination Survey first administered in Fall 2013
 - Converted all enterprise-level surveys to Qualtrics

SURVEYS ADMINISTERED, PROCESSED AND REPORTED BY OEAS

- 4 enterprise-level surveys
 - 3 internal: Entering Student, Graduating Student and First Destination Surveys
 - 1 external: National Survey of Student Engagement (NSSE)
- 79 program specific surveys
 - Administered to students prior to graduation
 - 60% (126/210) of academic programs elect to administer
- Several miscellaneous surveys (typically 5)
 - Surveys for partnering UCF offices
 - Grant evaluation surveys

STUDENT SURVEY CYCLE AT UCF

- Administered **once a year** to all incoming **undergraduates**
- Administered **every 3 years** to all **undergraduate first-year and seniors**
- Administered **every semester** to all graduating **undergraduates and graduates**
- Continuous collection of official student records



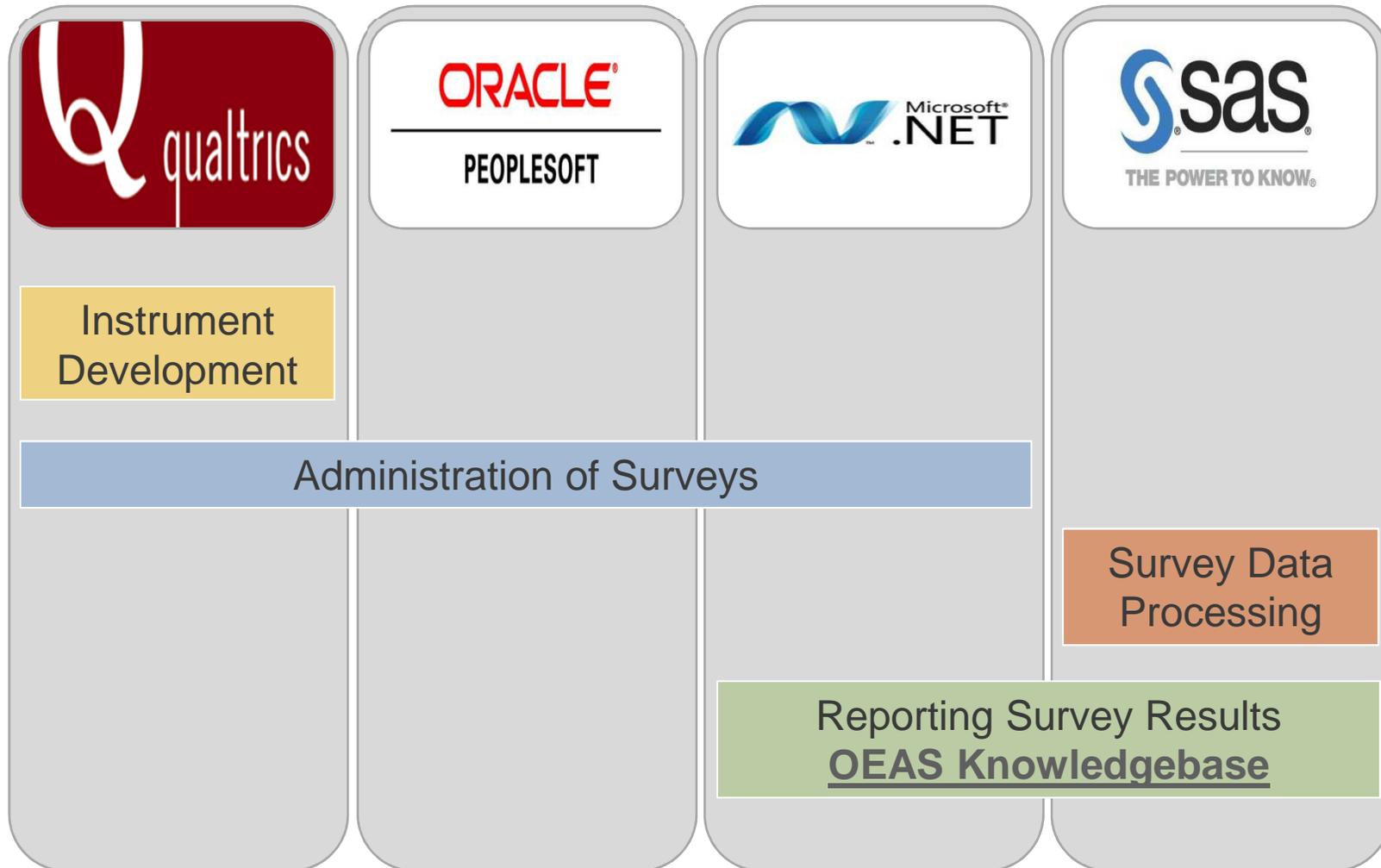
TYPICAL VOLUME OF ENTERPRISE-LEVEL SURVEY PROCESSING IN ONE YEAR

Instrument	# Respondents	# Variables
2 Entering Student Surveys	8,612	441
2 Graduating Student Surveys	13,947	435
79 Program Specific Surveys	10,263	58
1 First Destination Survey	13,359	249
Total	46,181	1,183

2nd largest public university
+ 84 enterprise-level surveys

A LOT OF DATA

TECHNOLOGIES FOR SURVEY ADMINISTRATION AND PROCESSING



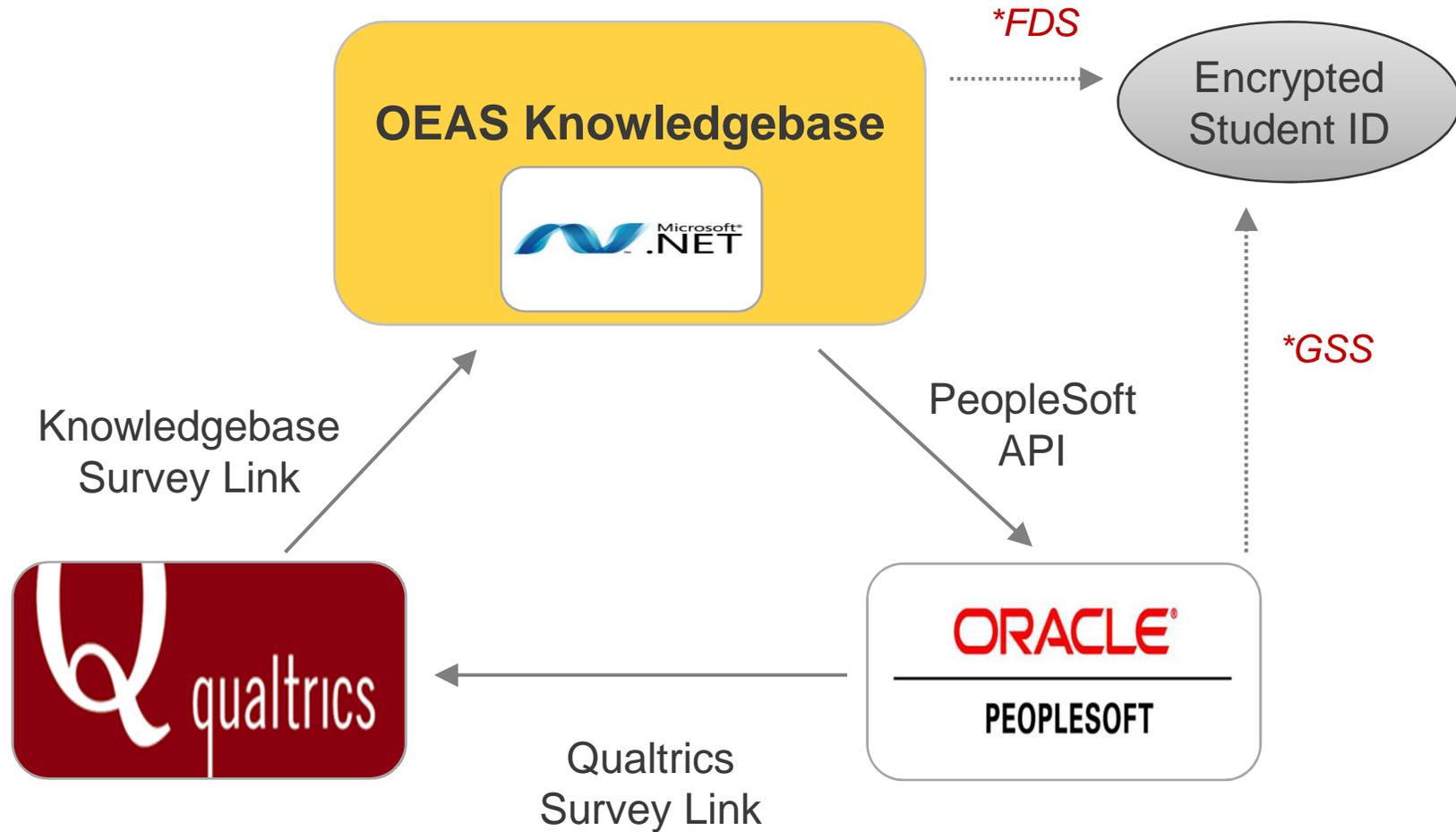
INSTRUMENT DEVELOPMENT



- Qualtrics is an online survey management system
 - Easy to manage survey libraries
 - Creation of survey panels for email distribution
 - Captures 'embedded data' from UCF Portal through a SSL URL
 - Passes 'embedded data' to OEAS Knowledgebase through a SSL URL
 - Download survey data as .csv
- UCF license allows login using employee portal credentials

★	Active	Name	Responses	Mo
★	✓	GSS-PS: ACCTG-BSBA;BUSAD-BABA;ECON-BSBA;ECONCBA-BA;FIN-BSBA;GENBUS-BS;MGT-BSBA;MKTG-BS;RLEST-BSBA Modified on: Jun 14, 2014	1,478	Ju 2
★	✓	GSS-PS: ADV/PR-BA Modified on: Jun 3, 2014	88	Jun
★	✓	GSS-PS: AEROENG-BS Modified on: Feb 27, 2015	0	Fe
★	✓	GSS-PS: ART-BA Modified on: Jun 3, 2014	57	Jun
★	✓	GSS-PS: ART-BFA Modified on: Jun 3, 2014	95	Jun
★	✓	GSS-PS: ARTED-BS; ELEMED-BS; ENGLD-BS; MATHED-BS; SCIED-BS; SOCSED-BS; WLE-BS Modified on: Jun 3, 2014	438	Jun
★	✓	GSS-PS: BIO-BS Modified on: Jun 3, 2014	222	Jun

ADMINISTRATION OF SURVEYS PROCESS



** First Destination Survey (FDS) and (Graduating Student Surveys) GSS processes differ regarding the generation of the encrypted student ID*

ADMINISTRATION OF SURVEYS CONT.



- Oracle's PeopleSoft software is a multi-management platform (CRM, FMS, etc.)
- Provides single sign-on (SSO), one-stop shop for all users (Students, Staff, Faculty)
- Use existing data to generate a new process or one that ties in to existing process
- Application Program Interface (API) allows communication from external entities
- Passes 'embedded data' to Qualtrics through a SSL URL

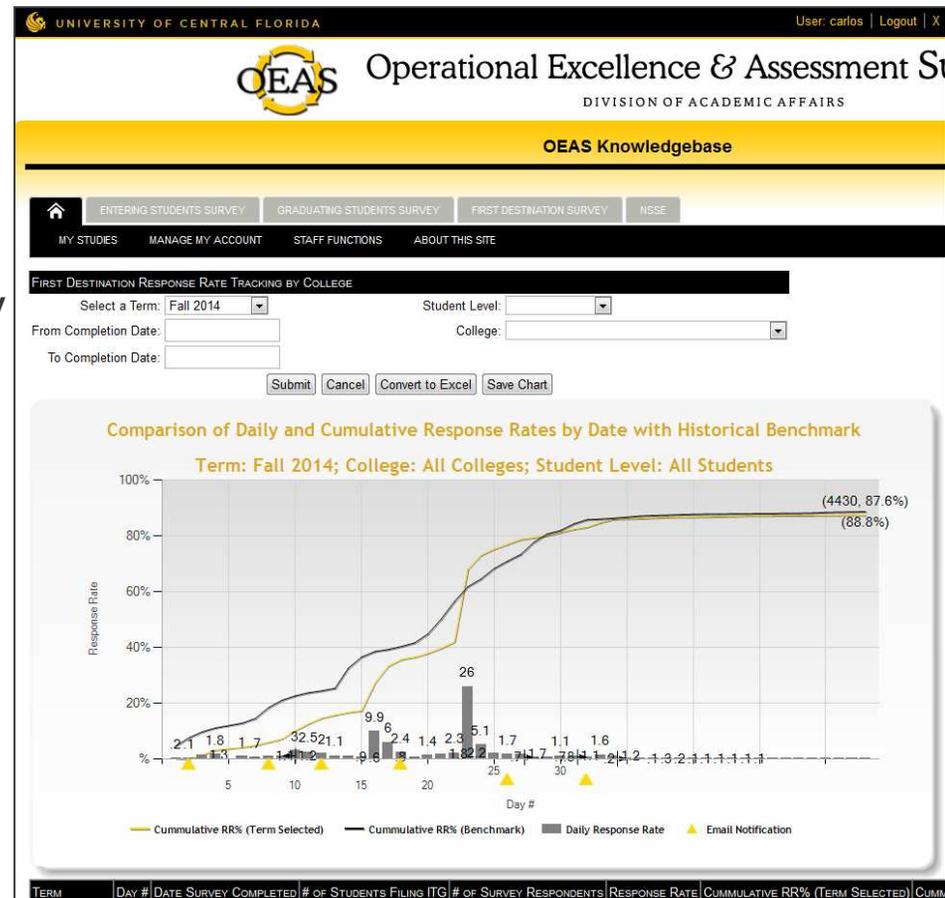
The screenshot displays the myUCF website interface with the following sections:

- myUCF Login:** Includes a 'Sign On' button and a link to 'myUCF Need Help?' for assistance.
- myUCF Mobile:** Provides information on mobile access and lists links for viewing grades, class schedules, financial aid, housing agreements, holds, and accounts.
- myUCF Quick Links:** Offers shortcuts for Class Search, Knights Email, Browse Course Catalog, and Webcourses@UCF.
- myUCF Visitor:** Lists resources for visiting UCF, including campus maps, directories, parking, and the technology product center.
- Important Announcements:** A calendar-style list of key dates for Spring Term 2015, such as class starts, drop/swap deadlines, and exam periods.
- myUCF Need Help?:** A central hub for user support, including browser issues, service desk chat, online support, and password resets.
- myUCF Additional Resources:** A vertical list of links to various campus services like the academic calendar, admissions, exam schedule, financial aid, housing, human resources, information security, library, orientation, qualtrics, and student account services.

ADMINISTRATION OF SURVEYS *CONT.*



- OEAS Knowledgebase is an internally developed application that provides a secure, one-stop shop for all survey results administered by OEAS
- Application Program Interface (API) allows communication to/from external entities
- Passes 'embedded data' to PeopleSoft utilizing a secure API
- Displays real time survey response rate in tabular and graphical format



SURVEY DATA PROCESSING



- After administration, survey data is downloaded and files are converted into a SAS dataset
- SAS macros are used to make data processing efficient and timely
- Final SAS dataset is placed on a server with SAS/IntrNet – a software solution with the capability to generate ad-hoc reports and dynamic applications via the Web

```
%macro STEP_3;

  %let year = 2013-2014; /*Academic Year*/
  %let num_mainfiles = 15; /*Total # of Main files from Formmanager*/

  PROC Delete data = online.mo_import; run; /*Clear library before recreat
  PROC Delete data = online.mo_prep; run; /*Clear library before recreatin

  proc datasets library=work kill;
  run;
  quit;

  %do i = 1 %to &num_mainfiles;

  %import_gss; /*imports each of the .csv files (must be saved as UCFmain_

  data ucfmain_&i;
  set UCFmain_&i;
    flag_main = &i; /*ID for each processes .CSV file*/
  run;

  /*stack all main files into one SAS data set*/
  %if i = 1 %then %do;
    data online.mo_import;
      set ucfmain_1;
    run;
  %end;
  %else %do;
    proc append base=online.mo_import data=ucfmain_&i ;
    run;
  %end;

  %end;

  %prep_gss(online.mo_import,online.mo_prep); /*dataset in, dataset out*/

%mend;

%STEP_3;
```

SURVEY DATA PROCESSING

AN EXAMPLE - GRADUATING SENIOR SURVEY



- 45 survey files: 1 UCF survey and 44 program specific surveys
- 6 SAS program files are used to convert the 45 .csv files into one SAS dataset and prepare the data for online reporting
 - 1 main SAS program which references the other 5 SAS program files that define various SAS macros and data steps
 - %INCLUDE statement
 - OEAS defined macros - %IMPORT_GSS, %PREP_GSS
 - SAS community macros - %ARRAY, %DO_OVER, %DROPMISS
- Although efficiently organized, survey processing is still a laborious task especially with changes from one year to the next
 - Institutional - academic programs or colleges
 - Survey instruments – adding, deleting, editing questions

SURVEY DATA PROCESSING

AN EXAMPLE - GRADUATING SENIOR SURVEY



UCF Survey – 208 variables

Student ID	Program	Term	...	Overall	Advising	...
<data>	<data>	<data>	<data>	<data>	<data>	<data>

encrypted student ID

Program Specific Surveys – 58 variables

Student ID	Program	...	Q1	Q2	Q3	...	Q58
<data>	<data>	<data>	<data>	<data>	<data>	<data>	<data>



REPORTING SURVEY RESULTS

OEAS Knowledgebase

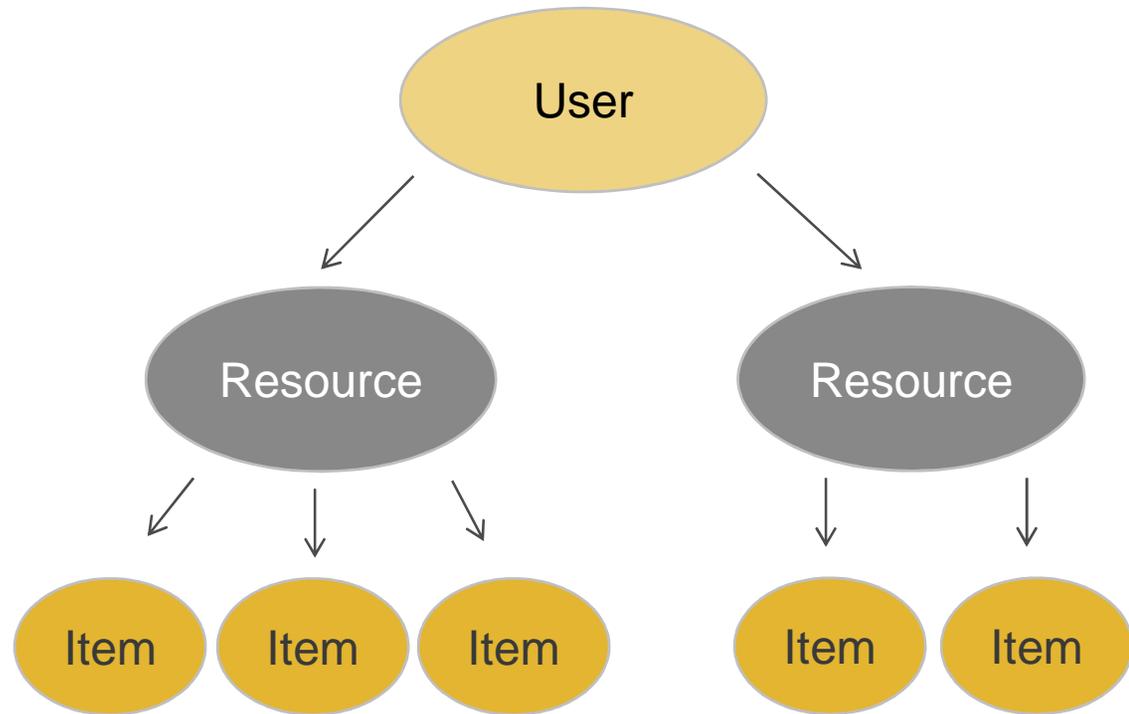


- Microsoft .NET is used for security and credential validation - it acts as a secure shell that houses the SAS programs
- JavaScript functions are used so that the two platforms can communicate for security purposes
 - User is redirected if login credentials not found
- SAS program files are used to create the survey table output as well as some of the HTML to navigate within the application

REPORTING SURVEY RESULTS IN OEAS KNOWLEDGEBASE

.NET FUNCTIONS

- 'My Studies' provides customized report access based on role
- Staff functions allow management of:
 - users
 - resources
 - items



Resource: University, Divisions/College, Department

Item: Survey results/Reports

REPORTING SURVEY RESULTS IN OEAS KNOWLEDGEBASE *SAS FUNCTIONS*

- HTML home page is used to collect user parameters
- Numerous SAS program files referenced to display output
 - HTML and JavaScript code generated using SAS 'put' statements
 - SAS Output Delivery System (ODS) and SAS procedures (tabulate, freq and means) used to display tables
- Application is organized by grouping survey questions into categories

OEAS Knowledgebase

ENTERING STUDENTS SURVEY GRADUATING STUDENTS SURVEY FIRST DESTINATION SURVEY NSSE

DYNAMIC WEB REPORTS METHODOLOGY SURVEY INSTRUMENTS RESPONSE RATES

Graduating Graduate Student Survey Results

Please select the term of interest and the level of analysis to access the graduating graduate student survey results.

-- Choose a term or academic year --

-- Choose a level of analysis --

Submit

[Response Rates](#) [Survey Instruments](#)

UCF Survey





Operational Excellence & Assessment Support

DIVISION OF ACADEMIC AFFAIRS

OEAS Knowledgebase

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[DYNAMIC WEB REPORTS](#) | [POP REPORTS](#) | [METHODOLOGY](#) | [SURVEY INSTRUMENTS](#) | [RESPONSE RATES](#)

First Destination Survey Results

Level of analysis : **University and all Colleges** -- Select a term -- -- Select a degree level --
 Term : **2013 - 2014 Academic Year**
 Degree Level : **Undergraduate**
 Category : **Primary plan upon graduation**

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Select a Survey Category

- [Primary plan upon graduation](#)
- [Employment status at graduation](#)
- [Employment: Annual salary](#)
- [Employment: Location](#)
- [Employment: Industry/Field](#)
- [Education status at graduation](#)
- [Education: Degrees considered](#)
- [Education: Field of study](#)
- [UCF's contribution to student's knowledge and skills](#)
- [Resources or strategies used for job search](#)
- [Student engagement at UCF](#)

Any calculated percents in the table(s) below are row percents (percents summed across rows add up to 100%).

PLEASE NOTE: All students who completed the First Destination Survey are included in the table below:

Colleges	Respondents	Please select the statement which MOST CLOSELY describes your PRIMARY plan IMMEDIATELY after graduation					
		Seeking full-time or part-time employment	Attending graduate or professional school	Military Service	Volunteering	Starting or raising a family	Taking time off
Arts and Humanities	724	75.6%	14.5%	1.2%	1.6%	1.7%	4.9%
Business Administration	1,380	82.4%	10.0%	0.7%	0.2%	1.6%	4.8%
Education and Human Performance	877	83.1%	12.2%	1.1%	0.6%	1.0%	1.8%
Engineering and Computer Science	817	85.4%	7.0%	3.3%	0.1%	0.1%	3.9%
Health and Public Affairs	1,308	51.9%	40.2%	2.5%	0.3%	0.7%	4.1%
Hospitality Management	574	92.8%	3.6%		0.1%	1.0%	2.2%
Medicine	286	36.3%	55.0%	1.0%	1.7%		4.8%
Nursing	391	78.7%	12.2%	1.7%		2.5%	4.6%
Sciences	1,850	57.3%	32.2%	1.8%	1.4%	0.8%	6.4%
Undergraduate Studies	419	69.9%	16.4%	1.8%	3.1%	2.8%	5.9%
UCF Total	8,628	70.6%	21.2%	1.5%	0.8%	1.1%	4.5%

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 This site was last modified on October 17, 2014.
 v9/2014.1.1


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COSTS AND RESOURCES

- License agreements
 - SAS and SAS/IntrNet
 - Microsoft .NET and Microsoft SQL Server
- Resource hours

	.NET	SAS	PeopleSoft	Total
Initial Design	80	40	20	140
Initial Development	160	640	80	880
Initial Testing	60	160	20	240
Maintenance*	40	320	20	380

**Estimated for a given year*

CHALLENGES (OPPORTUNITIES?)

- Strong need for the data driven by enterprise-level initiatives – institutional effectiveness, accreditation etc.
- Developing partnerships with key stakeholders and offices
- Commitment to integrate student surveys into existing business processes
- Expertise in various programming languages within the survey team
 - .NET, SAS, JavaScript etc.
- Resource needed
 - Time, \$
- Evolving Technologies
 - FormManager, SAS

SUMMARY

- OEAS annually administers several university-wide online surveys using a variety of technologies
 - Qualtrics
 - Oracle PeopleSoft
 - Microsoft .NET
 - SAS
- Survey process has evolved over time, of which OEAS Knowledgebase has had large impact
 - One-stop shop for several surveys
 - Quick turn around for results reporting
 - Efficient use of staff time
 - Cost effective