Carlos Piemonti, Database Analyst/Programmer, UCF

Carlos joined Institutional Research as Coordinator of Statistical Research to support the data needs of Student Development and Enrollment Services (SDES) in Spring 2011.

In Fall 2013, Institutional Knowledge Management (IKM) brought him onboard. Carlos uses SAS® in his daily responsibilities as developer. He has used SAS for over 7 years.
Student Development and Enrollment Services Dashboard at UCF

Carlos Piemonti, University of Central Florida
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

- UCF, SDES, IKM
- SAS® EBI Environment
- Pegasus Mine Portal
- SDES Dashboard and Reports
  - Maintenance
  - Challenges
  - Performance
- Conclusion
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

Student Development and Enrollment Services (SDES)

- Enrollment Services
- Learning Support
- Student Rights and Responsibilities
- Community Support
- Student Life
- Wellness
- Housing and Residence Life
- Support Services
- First Year Transition
Institutional Knowledge Management (IKM)

• Mission
  • IKM is the official source of UCF institutional data and provides accurate, insightful, and actionable information to the university and the public.

• Vision
  • Provide accessible and innovative information discovery.

• Core Competencies
  • Executive and Operational Decision Support
  • State and Federal Reporting
  • Analytics and Benchmarking
  • National Surveys

http://ikm.ucf.edu/about/about-ikm/
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

- Over 33 million observations related to student records
- Faculty and staff information
- Data marts and libraries
- Official UCF information repository
- Over 13 years in service
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

BI Platform Server

Client

- SAS® Data Integration Studio 4.9
- SAS® Enterprise Guide® 7.13
- SAS® Information Map Studio 4.4
- SAS® Management Console 9.4
  - Security, Stored Processes, Libraries
- SAS® OLAP Cube Studio 4.4
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
Welcome to Pegasus Mine Portal

NID:

Password:

SIGN ON
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
## Retention Reports User Guide

Last updated: 3/2/2017

### Retention & Progression Reports

#### First, Fourth, and Sixth Yr Undergrad Retention Summary.xlsx
First, Fourth, and Sixth Year Undergraduate Retention and Progression Summary

#### Undergraduate Retention Detail Recent Cohort Years
Generate Retention & Progression Report with detail for eight most recent cohort years. User is prompted for input and PDF report is generated. Adobe Reader is required.

#### Undergraduate Retention Detail Specific Cohort Year
Generate Retention & Progression Report with detail for a specific cohort year. User is prompted for input and PDF report is generated. Adobe Reader is required.

#### Student Group Undergraduate Retention
Generate Retention & Progression Report for a specific student group with detail for eight most recent cohort years. User is prompted for input and PDF report is generated. Adobe Reader is required.

#### Bright Futures Student Undergraduate Retention
Generate Retention & Progression Report for Bright Futures Students for eight most recent cohort years. Option available to filter for a student group. Adobe Reader is required.

#### First Generation Student Undergraduate Retention
Generate Retention & Progression Report for First Generation Students for eight most recent cohort years. Option available to filter for a student group. Adobe Reader is required.

#### First Generation Low Income Student Undergraduate Retention
Generate Retention & Progression Report for First Generation Low Income Students for eight most recent cohort years. Option available to filter for a student group. Adobe Reader is required.

#### SDES Dashboard Catalogs

- SDES Dashboard - Fall Enrollment.xlsx
  UCF level content - Fall Enrollment by Gender and Residency, by Ethnicity, and by College. Linked also with Undergrad, Graduate, and Medical level content reports

- SDES Dashboard - New Students.xlsx
  University level content - New Students by Admit Type, by Gender, by Ethnicity, and by Semester. Linked also with Undergrad, Graduate, and Medical level content reports

- SDES Dashboard - FTIC Retention, Graduation, Progression.xlsx
  First Time In College for 'Summer-Fall Full-Time', 'Summer-Fall All', and 'Fall Full-Time' cohorts. Retention, Graduation, and Progression reports, by Gender and by Ethnicity

- SDES Dashboard - FCS Transfer Reten1, Graduat1, Prgrssn.xlsx
  FCS Transfer for 'Summer-Fall Full-Time', 'Summer-Fall All', and 'Fall Full-Time' cohorts. Retention, Graduation, and Progression reports, by Gender and by Ethnicity

- SDES Dashboard - Other Transfer RGP.xlsx
  Other Transfer for 'Summer-Fall All' and 'Fall Full-Time' cohorts. Retention, Graduation, and Progression reports, by Gender and by Ethnicity
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
Student Development and Enrollment Services Dashboard at UCF

Fall 2016

Fall UCF Enrollment by Career

<table>
<thead>
<tr>
<th>Year</th>
<th>Academic Career</th>
<th>Undergraduate</th>
<th>Graduate</th>
<th>Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>50,982</td>
<td>277</td>
<td>351</td>
<td>477</td>
</tr>
<tr>
<td>2013</td>
<td>51,298</td>
<td>351</td>
<td>390</td>
<td>460</td>
</tr>
<tr>
<td>2014</td>
<td>52,536</td>
<td>420</td>
<td>460</td>
<td>477</td>
</tr>
<tr>
<td>2015</td>
<td>54,527</td>
<td>477</td>
<td>477</td>
<td>477</td>
</tr>
<tr>
<td>2016</td>
<td>55,783</td>
<td>477</td>
<td>477</td>
<td>477</td>
</tr>
</tbody>
</table>

Total: 259,785

Fall UCF Enrollment by Gender

<table>
<thead>
<tr>
<th>Year</th>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Female</td>
<td>32,895</td>
<td>26,887</td>
</tr>
<tr>
<td>2013</td>
<td>Female</td>
<td>32,827</td>
<td>29,943</td>
</tr>
<tr>
<td>2014</td>
<td>Female</td>
<td>33,509</td>
<td>27,321</td>
</tr>
<tr>
<td>2015</td>
<td>Female</td>
<td>34,708</td>
<td>28,308</td>
</tr>
<tr>
<td>2016</td>
<td>Female</td>
<td>35,297</td>
<td>29,938</td>
</tr>
</tbody>
</table>

Total: 130,785

Fall UCF Enrollment by Residency

<table>
<thead>
<tr>
<th>Year</th>
<th>Residency For Tuition</th>
<th>Florida</th>
<th>Non-Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Florida</td>
<td>56,777</td>
<td>3,658</td>
</tr>
<tr>
<td>2013</td>
<td>Florida</td>
<td>56,605</td>
<td>3,788</td>
</tr>
<tr>
<td>2014</td>
<td>Florida</td>
<td>57,233</td>
<td>4,208</td>
</tr>
<tr>
<td>2015</td>
<td>Florida</td>
<td>58,808</td>
<td>4,832</td>
</tr>
<tr>
<td>2016</td>
<td>Florida</td>
<td>59,503</td>
<td>4,924</td>
</tr>
</tbody>
</table>

Total: 261,805

Click on the buttons below to access other reports.
Maintenance sample: information map
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
Student Development and Enrollment Services Dashboard at UCF

Carlos Piemonti, University of Central Florida

Fall 2016

Headcount

Academic Group
- Arts & Humanities
- Business Admin
- Educ & Human Perf
- Engr & Comp Sci
- Health & Public Affairs
- Medicine
- Nursing
- Rosen Hospitality Mgmt
- Sciences
- Other

Fall UCF Enrollment by College

Academic Group
- Graduate Studies
- Undergraduate Studies
- Other

Headcount

<table>
<thead>
<tr>
<th>Academic Group</th>
<th>Year 2012</th>
<th>Year 2013</th>
<th>Year 2014</th>
<th>Year 2015</th>
<th>Year 2016</th>
<th>% 2012</th>
<th>% 2013</th>
<th>% 2014</th>
<th>% 2015</th>
<th>% 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts &amp; Humanities</td>
<td>5,114</td>
<td>5,668</td>
<td>5,263</td>
<td>5,488</td>
<td>5,750</td>
<td>8.55%</td>
<td>8.48%</td>
<td>8.65%</td>
<td>8.71%</td>
<td>8.94%</td>
</tr>
<tr>
<td>Business Admin</td>
<td>8,682</td>
<td>8,462</td>
<td>8,596</td>
<td>9,026</td>
<td>8,992</td>
<td>14.52%</td>
<td>14.16%</td>
<td>14.65%</td>
<td>14.32%</td>
<td>13.82%</td>
</tr>
<tr>
<td>Educ &amp; Human Perf</td>
<td>5,718</td>
<td>5,707</td>
<td>5,647</td>
<td>5,754</td>
<td>5,408</td>
<td>9.56%</td>
<td>9.53%</td>
<td>9.28%</td>
<td>9.13%</td>
<td>8.41%</td>
</tr>
<tr>
<td>Engr &amp; Comp Sci</td>
<td>7,885</td>
<td>8,143</td>
<td>8,717</td>
<td>9,414</td>
<td>10,268</td>
<td>13.19%</td>
<td>13.62%</td>
<td>14.33%</td>
<td>14.94%</td>
<td>15.94%</td>
</tr>
<tr>
<td>Graduate Studies</td>
<td>138</td>
<td>97</td>
<td>123</td>
<td>107</td>
<td>148</td>
<td>0.23%</td>
<td>0.16%</td>
<td>0.20%</td>
<td>0.17%</td>
<td>0.23%</td>
</tr>
<tr>
<td>Health &amp; Public Affairs</td>
<td>8,191</td>
<td>9,406</td>
<td>9,630</td>
<td>10,028</td>
<td>10,162</td>
<td>15.02%</td>
<td>15.74%</td>
<td>15.83%</td>
<td>15.91%</td>
<td>15.80%</td>
</tr>
<tr>
<td>Medicine</td>
<td>2,963</td>
<td>3,118</td>
<td>3,209</td>
<td>3,327</td>
<td>3,526</td>
<td>4.96%</td>
<td>5.22%</td>
<td>5.28%</td>
<td>5.28%</td>
<td>5.48%</td>
</tr>
<tr>
<td>Nursing</td>
<td>2,780</td>
<td>2,795</td>
<td>2,858</td>
<td>2,724</td>
<td>3,772</td>
<td>4.65%</td>
<td>4.68%</td>
<td>4.70%</td>
<td>4.32%</td>
<td>4.31%</td>
</tr>
<tr>
<td>Optics &amp; Photonics</td>
<td>123</td>
<td>137</td>
<td>165</td>
<td>208</td>
<td>223</td>
<td>0.21%</td>
<td>0.23%</td>
<td>0.27%</td>
<td>0.32%</td>
<td>0.35%</td>
</tr>
<tr>
<td>Rosen Hospitality Mgmt</td>
<td>2,991</td>
<td>2,942</td>
<td>2,928</td>
<td>2,984</td>
<td>3,059</td>
<td>5.01%</td>
<td>4.92%</td>
<td>4.81%</td>
<td>4.74%</td>
<td>4.75%</td>
</tr>
<tr>
<td>Sciences</td>
<td>11,553</td>
<td>11,060</td>
<td>10,917</td>
<td>11,085</td>
<td>11,530</td>
<td>19.32%</td>
<td>18.50%</td>
<td>17.95%</td>
<td>17.59%</td>
<td>17.92%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>1,025</td>
<td>941</td>
<td>963</td>
<td>1,096</td>
<td>991</td>
<td>1.71%</td>
<td>1.57%</td>
<td>1.58%</td>
<td>1.74%</td>
<td>1.54%</td>
</tr>
<tr>
<td>Undergraduate Studies</td>
<td>1,823</td>
<td>1,894</td>
<td>1,855</td>
<td>1,775</td>
<td>1,606</td>
<td>3.00%</td>
<td>3.17%</td>
<td>3.40%</td>
<td>2.82%</td>
<td>2.50%</td>
</tr>
</tbody>
</table>

Total                    | 59,785    | 59,770    | 60,821    | 63,016    | 64,335    | 100.00%| 100.00%| 100.00%| 100.00%| 100.00%|

Click on the buttons below to access other reports:
- UNDERGRAD
- GRADUATE
- MEDICAL

Source: Student Instruction File ($IF)

SAS® GLOBAL FORUM 2017
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
## Fall UCF New Enrollment by Gender

<table>
<thead>
<tr>
<th>Semester</th>
<th>Admit Type</th>
<th>Gender</th>
<th>Headcount</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>1,848</td>
<td>1,831</td>
<td>1,716</td>
<td>1,789</td>
<td>1,772</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1,780</td>
<td>1,695</td>
<td>1,919</td>
<td>1,927</td>
<td>1,764</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>3,628</td>
<td>3,526</td>
<td>3,635</td>
<td>3,716</td>
<td>3,536</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>1,776</td>
<td>1,774</td>
<td>1,870</td>
<td>1,878</td>
<td>1,894</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1,699</td>
<td>1,699</td>
<td>1,840</td>
<td>1,840</td>
<td>1,772</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>3,475</td>
<td>3,473</td>
<td>3,710</td>
<td>3,718</td>
<td>3,666</td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td>Male</td>
<td>1,944</td>
<td>1,977</td>
<td>2,135</td>
<td>2,197</td>
<td>2,337</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>2,448</td>
<td>2,537</td>
<td>2,441</td>
<td>2,435</td>
<td>2,437</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>5,392</td>
<td>5,474</td>
<td>4,576</td>
<td>4,632</td>
<td>4,774</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>454</td>
<td>459</td>
<td>501</td>
<td>458</td>
<td>501</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>450</td>
<td>468</td>
<td>495</td>
<td>510</td>
<td>495</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>904</td>
<td>927</td>
<td>996</td>
<td>968</td>
<td>996</td>
<td></td>
</tr>
</tbody>
</table>

### Source: Admissions File
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

Summer–Fall Full-Time FTIC, 1st Year Retention, 4th and 6th Year Graduation Rates

Summer–Fall All FTIC, 1st Year Retention, 4th and 6th Year Graduation Rates

Fall Full-Time FTIC, 1st Year Retention, 4th and 6th Year Graduation Rates

Source: Retention Fact. Summer–Fall Full-Time cohort used for the Performance Incentive Matrix. Summer–Fall All cohort used for the Annual Report, and Fall Full-Time cohort kept as historical record.
## Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

<table>
<thead>
<tr>
<th>CohortYear</th>
<th>RetainYr1</th>
<th>RetainYr2</th>
<th>GradYr4</th>
<th>GradYr5</th>
<th>GradYr6</th>
<th>GenEth</th>
<th>RetainAvgYr1</th>
<th>RetainAvgYr2</th>
<th>RetainAvgYr3</th>
<th>GradAvgYr4</th>
<th>GradAvgYr5</th>
<th>GradAvgYr6</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006-2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007-2008</td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008-2009</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2010</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010-2011</td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-2012</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-2013</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-2014</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014-2015</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016-2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017-2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018-2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Maintenance sample: external lookup table**
Summer-Fall Full-Time FTIC, 1st Year Retention Rates by Gender and Ethnicity

All Ethnic Groups

Asian

Black/African American

Hispanic/Latino

White
Design sample
PDF Reports

Semiannual SDES Dashboard Catalogs

Note: Catalog will open in a new browser window (PDF)

- 2016-2017
- 2015-2016
  - July 2016 - Catalog
  - July 2016 - Highlights
  - 03 2016 - Highlights
- 2014-2015
- 2013-2014
- 2012-2013
- 2011-2012
- 2010-2011
Design Challenges

• Maintenance-free
  • vast development: 11 reports, 67 sections, 406 indicators*, 3 info maps
  • Consider titles/footnotes
  • Rolling forward a year: lookup table vs. section filters

• Fit on one screen
  • Avoid scrolling: looking after users with tablets

Technical Challenges

• Web Report Studio and text boxes errors
  • By formatting text or adding text as ‘measure values’

*excludes text boxes
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

Performance
• Goal - sections loading in less than 30 seconds
  • Most intensive section loads in approx. 20 to 30 seconds
  • The rest of sections load in 5 seconds or less
• Well received
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

Conclusion

• Saved time and resources: from two months to a few hours
• Able to provide consistent and reliable information: UCF official data
• Committed partnership between SDES and IKM
• Other units, divisions, and departments across UCF’s campus also took advantage of a similar kind of partnership with IKM after this successful flag project.
Student Development and Enrollment Services Dashboard at UCF
Carlos Piemonti, University of Central Florida

Carlos Piemonti, MBA
*Database Analyst/Programmer*
E-mail: [Carlos.Piemonti@ucf.edu](mailto:Carlos.Piemonti@ucf.edu)
1. Go to the Agenda icon in the conference app.
2. Find this session title and select it.
3. On the sessions page, scroll down to Surveys and select the name of the survey.
4. Complete the survey and click Finish.