A look into credit hour accumulation & DFW rates

Office of Institutional Effectiveness Data Dialogue - November 2019
Overview

• Why dive into credit hour completion and DFW rates?
  • Implications to strategic goals
  • Revenue drivers
  • Our values and success expectations

• A variety of ways to investigate:
  • By student – by course – by discipline.

• The equity gap conversation: differences in rates by race/ethnicity, first generation and low-income status

• Now what? Implications and strategies
Equity Analysis Framework Domains

- Persistence and Completion
- Academic Pathways & Achievement
- Engagement Factors
- Satisfaction with the DU experience
- Program and University Impact
Why investigate DFW rates?

- Slows time to completion and motivation – particularly in 1st year
- Raise the challenging questions of readiness, rigor and success expectations
- Gateways: barriers to intended or hoped-for major pathways
- Equity gap understanding – differences in experience
- Prompts us to identify strategies that can minimize DFW rates without sacrificing rigor
- HLC cares > emphasis on student success and progression analysis
Potential factors contributing to DFW rates

Student preparation
• Are placements or diagnostics contributing
• Pre-requisites
• Course leveling

Course structure and design
• Class length
• Pedagogical methods
• Delivery methods
• Supplemental instruction and resources

• Advising practices
• Time in career
• Awareness of course combinations and predictive analytics

• Support structures
• Expertise and tailored support
Considering the potential impacts of DFWs on on-time progression

Credit hour accumulation by current class standings by cohort as of Fall 2019
Portion of each entering cohort earning the credit hour target for their class level
Considering the potential impacts of DFWs on cohort retention rates over time

Year to year retention of the entering freshmen cohorts

- **2016 cohort**:
  - FR to SO year: 80.8%
  - SO to JR year: 69.9%
  - JR to SR year: 62.6%

- **2017 cohort**:
  - FR to SO year: 83.2%
  - SO to JR year: 74.8%

- **2018 cohort**:
  - FR to SO year: 77.2%
Considering the potential impacts of DFWs on on-time completion

Trend comparison of % of cohort on track to graduate in 4 years
Comparing 4, 5 and 6-year graduation rates over time

Graduation Rate

- 6-Yr Grad Rate
  - 2009: 59.3%
  - 2010: 61.8%
  - 2011: 62.1%
  - 2012: 61.5%
  - 2013: 63.6%
  - 2014: 61.6%
  - 2015: 60.3%

- 5-Yr Grad Rate
  - 2009: 57.3%
  - 2010: 60.4%
  - 2011: 60.6%
  - 2012: 58.0%
  - 2013: 61.6%
  - 2014: 60.3%

- 4-Yr Grad Rate
  - 2009: 47.7%
  - 2010: 51.3%
  - 2011: 46.6%
  - 2012: 49.4%
  - 2013: 50.7%
  - 2014: 52.6%
  - 2015: 43.5%
Freshman to Sophomore Year Retention Rates by Pell or First Gen Status

### Pell-eligibility

<table>
<thead>
<tr>
<th>Year</th>
<th>Pell-eligible</th>
<th>Not Pell-eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>80.8%</td>
<td>79.1%</td>
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<tr>
<td>2013</td>
<td>84.8%</td>
<td>79.3%</td>
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<tr>
<td>2014</td>
<td>83.3%</td>
<td>79.0%</td>
</tr>
<tr>
<td>2015</td>
<td>85.0%</td>
<td>74.3%</td>
</tr>
<tr>
<td>2016</td>
<td>86.4%</td>
<td>81.0%</td>
</tr>
<tr>
<td>2017</td>
<td>79.1%</td>
<td>75.7%</td>
</tr>
<tr>
<td>2018</td>
<td>78.7%</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

### First-Generation Status

<table>
<thead>
<tr>
<th>Year</th>
<th>First Generation</th>
<th>Not First-Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>78.7%</td>
<td>81.0%</td>
</tr>
<tr>
<td>2013</td>
<td>83.5%</td>
<td>81.3%</td>
</tr>
<tr>
<td>2014</td>
<td>82.1%</td>
<td>79.7%</td>
</tr>
<tr>
<td>2015</td>
<td>81.4%</td>
<td>76.8%</td>
</tr>
<tr>
<td>2016</td>
<td>73.0%</td>
<td>69.0%</td>
</tr>
<tr>
<td>2017</td>
<td>75.2%</td>
<td>74.5%</td>
</tr>
<tr>
<td>2018</td>
<td>78.4%</td>
<td>76.1%</td>
</tr>
</tbody>
</table>
Freshman to Sophomore Year Retention Rates by Pell AND First Gen Status

Freshman to Sophomore Year Retention Rates by
First-Generation AND Low-Income Status

<table>
<thead>
<tr>
<th>Year</th>
<th>First Generation AND Low-Income</th>
<th>Neither First Generation NOR Low-Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 Cohort</td>
<td>73.6%</td>
<td>70.0%</td>
</tr>
<tr>
<td>2016 Cohort</td>
<td>77.7%</td>
<td>77.7%</td>
</tr>
<tr>
<td>2017 Cohort</td>
<td>80.7%</td>
<td>80.7%</td>
</tr>
<tr>
<td>2018 Cohort</td>
<td>78.8%</td>
<td>76.6%</td>
</tr>
</tbody>
</table>
Understanding our population characteristics – and why these rates by 1\textsuperscript{st} generation, low-income and race matter

Non-duplicated need characteristics of the whole undergraduate population - demonstrating SSS-eligibility by headcount

<table>
<thead>
<tr>
<th>Total UG headcount by academic year</th>
<th>Low-income but not 1st Generation</th>
<th>1st Generation but not Low-Income</th>
<th>Low-income AND 1st Generation</th>
<th>Neither low-income OR 1st Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total UG headcount by academic year</td>
<td>N</td>
<td>% of all UGs</td>
<td>% AA or HI</td>
<td>N</td>
</tr>
<tr>
<td>2017</td>
<td>2171</td>
<td>338</td>
<td>15.6%</td>
<td>58.6%</td>
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<tr>
<td>2018</td>
<td>2106</td>
<td>326</td>
<td>15.5%</td>
<td>58.6%</td>
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<tr>
<td>2019</td>
<td>2151</td>
<td>288</td>
<td>13.4%</td>
<td>60.1%</td>
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<tr>
<td>3-year average</td>
<td>2143</td>
<td>317</td>
<td>14.8%</td>
<td>59.1%</td>
</tr>
</tbody>
</table>

\textit{Source: Dominican University Office of Institutional Effectiveness October 2019}
Freshman to Sophomore Year Retention Rates by Race/Ethnicity

4-year Graduation Rates by Race/Ethnicity 2009 - 2015 cohorts

- All students
- Hispanic students
- Black students
- White students
DFW rates by students and cohorts
Impact of DFWs in the first year as a critical role in completion

Fall 2013 Cohort: Number of DFWs in the first year

- No DFWs, 51.9%
- 1 DFW, 18.7%
- 2 - 3 DFWs, 16.5%
- 4 or more DFWs, 12.9%
DFW rates in the first year remaining steady

DFW rates in the first year: 2013 to 2018 cohorts
DFWs in the first year: impact on 4, 5, and 6 year graduation rates

- 4-year graduation rate
- 5-year graduation rate
- 6-year graduation rate

2013 Cohort

No DFWs: 73.1% 74.2% 63.6%
1 DFW: 55.9% 61.6% 61.6%
2-3 DFWs: 22.0% 31.7% 35.4%
4 or more DFWs: 2% 6.3% 6.3%
DFW rates by race/ethnicity over 3 years in courses with at least 10 students enrolled in the course

All students | Black students | Hispanic students | White students | All other students

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FA16: 12.6% | 10.3% | 9.4% | 5.4% | 6.6%
SP17: 7.0% | 7.1% | 6.9% | 4.4% | 5.1%
FA17: 12.0% | 10.9% | 8.0% | 5.1% | 6.3%
SP18: 11.1% | 11.0% | 7.8% | 4.1% | 6.3%
FA18: 18.7% | 11.4% | 8.9% | 5.4% | 7.2%
SP19: 13.2% | 10.9% | 8.3% | 5.4% | 7.2%
DFW rates in a term by First Generation and Low-Income Status

Portion with at least 1 DFW in the term

- Fall 2016: 29.7%
- Fall 2017: 26.7%
- Fall 2018: 28.1%

1st Gen AND Low-Income: 19.7%, 20.9%, 24.5%
Not 1st Gen OR Low-Income: 10.0%, 5.0%, 3.5%
DFW rates disaggregated by Income, First Generation Status and Race/ethnicity

- LI/FG African-American
- LI/FG Hispanic
- All LI/FG
- All Non LI/FG

<table>
<thead>
<tr>
<th></th>
<th>Fall term 2016</th>
<th>Fall term 2017</th>
<th>Fall term 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portion with 1 or more DFWs in a term</td>
<td>40.3%</td>
<td>36.6%</td>
<td>45.2%</td>
</tr>
<tr>
<td>LI/FG African-American</td>
<td>31.1%</td>
<td>28.7%</td>
<td>28.1%</td>
</tr>
<tr>
<td>LI/FG Hispanic</td>
<td>29.7%</td>
<td>26.7%</td>
<td>27.0%</td>
</tr>
<tr>
<td>All LI/FG</td>
<td>19.7%</td>
<td>20.9%</td>
<td>24.5%</td>
</tr>
<tr>
<td>All Non LI/FG</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DFW rates by discipline
### DFW Rates by Discipline by Race/Ethnicity - Sorted by Highest Enrollment

**Total enrollment 2016 - 2019**

(updated 11.25)

<table>
<thead>
<tr>
<th>Discipline name</th>
<th>All students</th>
<th>Black students</th>
<th>Hispanic students</th>
<th>White students</th>
<th>All Other students</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Total enrolled</td>
<td>Total enrolled</td>
<td>Total enrolled</td>
<td>Total enrolled</td>
<td>Total enrolled</td>
</tr>
<tr>
<td></td>
<td>% DFWs</td>
<td>% DFWs</td>
<td>% DFWs</td>
<td>% DFWs</td>
<td>% DFWs</td>
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<tr>
<td>Math</td>
<td>3613</td>
<td>21.0%</td>
<td>256</td>
<td>30.5%</td>
<td>2159</td>
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<tr>
<td>Computer Science</td>
<td>1226</td>
<td>17.3%</td>
<td>37</td>
<td>37.8%</td>
<td>670</td>
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<tr>
<td>Library Seminars</td>
<td>1751</td>
<td>16.4%</td>
<td>101</td>
<td>18.8%</td>
<td>961</td>
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<tr>
<td>Accounting</td>
<td>1256</td>
<td>15.3%</td>
<td>35</td>
<td>37.8%</td>
<td>691</td>
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<tr>
<td>Physics</td>
<td>862</td>
<td>14.0%</td>
<td>34</td>
<td>47.1%</td>
<td>442</td>
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<tr>
<td>Chemistry</td>
<td>2986</td>
<td>11.2%</td>
<td>168</td>
<td>14.9%</td>
<td>1450</td>
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<tr>
<td>Philosophy</td>
<td>1571</td>
<td>10.7%</td>
<td>104</td>
<td>15.4%</td>
<td>905</td>
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<tr>
<td>History</td>
<td>1427</td>
<td>10.4%</td>
<td>76</td>
<td>18.4%</td>
<td>781</td>
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<tr>
<td>English</td>
<td>4507</td>
<td>9.5%</td>
<td>383</td>
<td>11.2%</td>
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<tr>
<td>Economics</td>
<td>1422</td>
<td>8.9%</td>
<td>51</td>
<td>19.6%</td>
<td>725</td>
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<tr>
<td>Psychology</td>
<td>3283</td>
<td>8.9%</td>
<td>213</td>
<td>13.6%</td>
<td>1937</td>
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<tr>
<td>Political Science</td>
<td>1099</td>
<td>8.7%</td>
<td>86</td>
<td>8.1%</td>
<td>519</td>
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<tr>
<td>Theology</td>
<td>1879</td>
<td>8.5%</td>
<td>110</td>
<td>11.8%</td>
<td>1046</td>
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<tr>
<td>Computer Applications</td>
<td>1535</td>
<td>8.5%</td>
<td>96</td>
<td>11.5%</td>
<td>834</td>
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<tr>
<td>Biology</td>
<td>4410</td>
<td>8.2%</td>
<td>292</td>
<td>12.0%</td>
<td>2190</td>
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<tr>
<td>Spanish</td>
<td>1699</td>
<td>7.3%</td>
<td>112</td>
<td>21.4%</td>
<td>1100</td>
</tr>
<tr>
<td>Nutrition</td>
<td>2787</td>
<td>6.9%</td>
<td>159</td>
<td>9.4%</td>
<td>967</td>
</tr>
<tr>
<td>Art</td>
<td>1392</td>
<td>6.8%</td>
<td>78</td>
<td>5.1%</td>
<td>666</td>
</tr>
<tr>
<td>LAS Seminars</td>
<td>4951</td>
<td>6.8%</td>
<td>317</td>
<td>11.0%</td>
<td>2818</td>
</tr>
<tr>
<td>Education</td>
<td>1098</td>
<td>6.6%</td>
<td>31</td>
<td>12.9%</td>
<td>635</td>
</tr>
<tr>
<td>Sociology</td>
<td>2092</td>
<td>6.5%</td>
<td>112</td>
<td>10.7%</td>
<td>1372</td>
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<tr>
<td>Nursing</td>
<td>2686</td>
<td>5.8%</td>
<td>114</td>
<td>17.5%</td>
<td>1449</td>
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<tr>
<td>Business Administration</td>
<td>1391</td>
<td>5.3%</td>
<td>33</td>
<td>12.1%</td>
<td>686</td>
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<tr>
<td>Communication</td>
<td>1697</td>
<td>5.3%</td>
<td>129</td>
<td>8.5%</td>
<td>760</td>
</tr>
<tr>
<td>Management</td>
<td>1038</td>
<td>3.5%</td>
<td>44</td>
<td>6.8%</td>
<td>532</td>
</tr>
</tbody>
</table>
DFW Rate by Meta-Discipline: Equity gaps emerge

DFW rates by Meta-Discipline and Race/Ethnicity
2016-2019

- All students
- Black students
- Hispanic students
- White students
- All Other students

Disciplines:
- STEM
- Arts and Humanities
- Social Sciences
- Business
- Health Sciences
- LAS Seminars
- Library Seminars
- Other
- Education
- Honors Seminars
- Interdisciplinary
Actions – Ideas to address DFW rates

- Raise DFW rates as factor in program review and department analysis
- Develop departmental action plans to enhance success in high DFW courses
- Address placement methods
- Address support methods:
  - Supplemental instruction (both required and opt-in)
  - Supplemental materials and resources
- Consider curriculum re-design, i.e. “Parachute courses”
- Advising implications: consider time in career and course combination investigation in data analysis
- Address feedback and assessment timing and methodology to provide student awareness of progress
Your thoughts?

Analyzing DFW rates
i.e. what’s the right unit of measure?

- Student
- Course
- Course level
- Discipline
- College/School

Ideas for putting this data into conversation and good use