Using Data to Drive Workforce Development, Student Success, Completion, Transfer, and Revenue Generation

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Dr. Vincent Castano, FTCC Dean of Institutional Effectiveness
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Why Use Business Models in Education?

- Data-informed decisions
- Aligning educational programs to regional economic needs
- Maximizing the utilization of limited resources
- Focused educational agenda
- Prioritization to meet community and economic needs
- Continuous improvement cycle
- Increased social and economic mobility

- 68% of jobs by 2030 require an associates degree, business recognized credential or higher
  LEAD 2018 Employer Needs Survey
- Only 47% of NC population meets those requirements Lumina Foundation, A Stronger Nation, NC Report (2017)
- Cumberland County’s educational attainment level is only 37% Lumina Foundation, A Stronger Nation, NC Report (2017)
- Persistent poverty
- Shrinking budgets
## What Data Tools Are Available?

### National/State
- US Department of Commerce
- Bureau of Labor Statistics
- National Center of Education Statistics
- National Student Clearinghouse
- NC Performance Measures for Student Success
- NC Higher Education Data Systems

### Regional/Local
- Regional Economic Data
- Economic Impact Studies
- Workforce Development Studies
- Career Assessments
- Predictive Analytics - Advising
- Advisory Committees
- Surveys – Graduate, Employer, and Job Placement
How Data Analysis Leads to Strategy?

Trend Analysis

• Declining Enrollments
• First to Second Year Persistence Challenges
• Transfer Timing → Success
• Completions Lagging – National Average
• High Demand/Low Tiered Funding

Strategy

• Career Coaches/Guided Pathways/External Stakeholders
• Structured Pathways – 2 + 2/3 + 1/
  Comprehensive Advising
• Faculty Talent Development, Success Coaches/Instructional Coaches
• Completion Goal – 25% by 2025
• Policy vs. Economic Alignment
Strategic Funnel of Success

- Gap Analysis
- Economic Data
- Institutional Data

Emerging Findings
### LBCC AWARDS FOR ALL STUDENTS

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>AA/AS</th>
<th>ADT</th>
<th>Certificates</th>
<th>Total (% increase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2016</td>
<td>619</td>
<td>609</td>
<td>428</td>
<td>1656</td>
</tr>
<tr>
<td>2016-2017</td>
<td>683</td>
<td>753</td>
<td>290</td>
<td>1726 (4%)</td>
</tr>
<tr>
<td>2017-2018</td>
<td>660</td>
<td>961</td>
<td>302</td>
<td>1923 (11%)</td>
</tr>
<tr>
<td>2018-2019</td>
<td>827</td>
<td>1244</td>
<td>1502</td>
<td>3573 (89%)</td>
</tr>
</tbody>
</table>

- **961** Associates Degrees for Transfer Awarded in 2017-2018
- **1244** Associates Degrees for Transfer Awarded in 2018-2019

29% INCREASE in ADTs Awarded
**EQUITY IN LBCC AWARDS**

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Ethnicity/Race</th>
<th>ADTs</th>
<th>Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-18</td>
<td>African American</td>
<td>81</td>
<td>38</td>
</tr>
<tr>
<td>18-19</td>
<td>African American</td>
<td>120</td>
<td>155</td>
</tr>
<tr>
<td>17-18</td>
<td>Asian</td>
<td>84</td>
<td>36</td>
</tr>
<tr>
<td>18-19</td>
<td>Asian</td>
<td>142</td>
<td>167</td>
</tr>
<tr>
<td>17-18</td>
<td>Hispanic</td>
<td>586</td>
<td>143</td>
</tr>
<tr>
<td>18-19</td>
<td>Hispanic</td>
<td>723</td>
<td>859</td>
</tr>
<tr>
<td>17-18</td>
<td>White</td>
<td>169</td>
<td>54</td>
</tr>
<tr>
<td>18-19</td>
<td>White</td>
<td>207</td>
<td>260</td>
</tr>
</tbody>
</table>

- **48% INCREASE** in ADTs for African American Students
- **307% INCREASE** in Certificates for African American Students
- **23% INCREASE** in ADTs for Hispanic Students
- **500% INCREASE** in Certificates for Hispanic Students
**INCREASES IN TRANSFERS FROM LBCC DESPITE IMPACTED UNIVERSITIES**

<table>
<thead>
<tr>
<th>Transfer Type</th>
<th>16-17</th>
<th>17-18</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Preparedness within 3 years</td>
<td>460</td>
<td>577</td>
<td>25%</td>
</tr>
<tr>
<td>Number of transfers with 60+ or Degree</td>
<td>1339</td>
<td>1368</td>
<td>9%</td>
</tr>
<tr>
<td>Number of transfers with 60+ or Degree with a documented educational goal of degree or transfer</td>
<td>1015</td>
<td>1148</td>
<td>13%</td>
</tr>
<tr>
<td>Number of transfers with 60+ or Degree to UCs</td>
<td>101</td>
<td>120</td>
<td>18%</td>
</tr>
</tbody>
</table>
Of students who have 45 credit units, only 26% complete within one year. By the end of 10 years, only 73% of the students have completed.
SOLUTIONS AT LBCC IN 17-18

- Counseling + Registration Event Days targeting students with 45+ Units
- Targeted Counseling Interventions for students of color with 45+ units
- Targeted Counseling Interventions for students of color with 60+ units
SO, WHAT DOES THIS ALL MEAN?

- **Modified or New Comprehensive Student Educational Plans** means students know their paths and are on track to graduate sooner (research shows that students with educational plans complete at higher rates).

- **FTES** means students have enrolled in more courses they need to accomplish their goals.

- **Awards** means 256 more students will earn an average 8% more in workplace.

- **$1,487,800** POTENTIAL REVENUE
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired 2 Completion Counselors to continue work</td>
<td></td>
</tr>
<tr>
<td>Targeted Counseling Interventions for economically disadvantaged students</td>
<td>economically disadvantaged students with 45+ units</td>
</tr>
<tr>
<td>Targeted Counseling Interventions for students of color and/or economically</td>
<td>economically disadvantaged with 60+ units</td>
</tr>
<tr>
<td>Counseling + Registration Event Days targeting students to enroll in</td>
<td>enroll in Spring</td>
</tr>
</tbody>
</table>
Students contacted by the Completion Counselors were more likely to persist to spring, more likely to attend full time, more likely to have an educational plan (CSEP), and were more likely to have had their plan updated (younger plan).
WE SERVE A DIVERSE COMMUNITY

Long Beach City College is a hub for underrepresented students in the region, the state, and the nation.

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Long Beach City College:
- Black/African-American: 15%
- Hispanic/Latino: 56%

LBCC Service Area:
- Black/African-American: 12%
- Hispanic/Latino: 41%

California:
- Black/African-American: 6%
- Hispanic/Latino: 37%

United States:
- Black/African-American: 12%
- Hispanic/Latino: 16%

*Student population Fall 2018
**American Community Survey Estimates 2017
Long Beach City College served 35,199 students in FY18

- 25,478 credit
- 1,905 non credit
- 7,816 CTE (credit)
ENROLLMENT DASHBOARD:
GOAL ➔ IMPROVE EQUITABLE PROGRAM ENROLLMENTS

We lose students each Spring
Persistence rates decline with unemployment rates.
Workflow Interventions:
1. On-site support at high schools
2. Relocated matriculation staff to Welcome Center to serve as first-line of contact and provide in-person support
3. Redesigned “get started” webpage
4. Revised “holds” process to minimize barriers for students
5. Streamlined assessment process with AB 705 implementation

15% INCREASE in Applications
**IMPROVING ENROLLMENT:**
**HIGH SCHOOL MATRICULANTS**

**Activities**

- Hired 6-Outreach & Recruitment Specialists
- Hosted a Regional High School Counselor Breakfast with more than 100 HS Counselors in attendance
- Hosted 3-LB Promise 2.0 Family Nights
- Implemented a 2-week Viking Summer Voyage in partnership with the Math Department, Counseling, and Student Life for over 600 students
- Hosted 5-Viking Welcome Days a half day extended orientation for 750 new students
Activities

• Implemented Student Educational Planning Workshops at local feeder high schools resulting in a 93% increase in students obtaining an SEP (2018= 1,551, 2019=3,000)

• Over 1,800 students utilized our Registration Support Labs

• Implemented Viking Express Days-one stop placement, orientation, SEP, & registration that served more than 700 students

• Hosted Counseling Plus Registration days
# Improving Enrollment: High School Matriculants

### Direct matriculate stage progression by high school graduation year

2018 values record values for Fall 2018 as of this week last year.

<table>
<thead>
<tr>
<th>Grad Year</th>
<th>Application</th>
<th>Orientation</th>
<th>SEP</th>
<th>Enrollment</th>
<th>Units enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>6,753</td>
<td>2,270</td>
<td>1,764</td>
<td>2,792</td>
<td>11.1</td>
</tr>
<tr>
<td>2019</td>
<td>6,297</td>
<td>3,521</td>
<td>3,149</td>
<td>3,429</td>
<td>12.6</td>
</tr>
</tbody>
</table>

### Percent increase from 2018

<table>
<thead>
<tr>
<th>Grad Year</th>
<th>Application</th>
<th>Orientation</th>
<th>SEP</th>
<th>Enrollment</th>
<th>Units enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>6%</td>
<td>55%</td>
<td>78%</td>
<td>23%</td>
<td>1.3</td>
</tr>
</tbody>
</table>

- **6%** INCREASE in Applications
- **78%** INCREASE in Student Education Plans
- **23%** INCREASE in Enrollments
- **13%** INCREASE in Units Enrolled
Enrollments update in real time during registration period

Break out by department identifies where interventions need to happen
Activities

- Implemented Campus Logic to allow students and parents to electronically submit financial aid documents. Over 12,000 students created accounts.
- Targeted communications effort regarding FAFSA, CA Dream Act, and FA Verification Process.
- Implemented Qless a virtual line system that eliminates waiting in long lines.
- Updated “Cost of Attendance” policy from 12 units to 16 units, increasing the number of students who qualify to receive aid.

INCREASE ACCESS TO FINANCIAL AID → INCREASE ACCESS TO EDUCATION
INCREASE ACCESS TO FINANCIAL AID
INCREASE ACCESS TO EDUCATION

29% INCREASE in Pell Recipients

8% INCREASE in CA Promise Grant Recipients
Legislation requiring all California Community Colleges to create curricula that enable students to achieve transfer level math and English within 1 year.

Using multiple measures to place students into English and Math.

Improving and updated Math and English Curricula.
THROUGHPUT RATES POST-AB705

<table>
<thead>
<tr>
<th></th>
<th>Pre-AB705</th>
<th>Post-AB705</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting 1 level below transfer level English</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>Starting 1 level below transfer level Math</td>
<td>18%</td>
<td>27%</td>
</tr>
</tbody>
</table>

When courses are developed with intentional support, students needing remediation succeed to transfer level at higher rates.
COURSE SUCCESS RATE DASHBOARD:

GOAL → INCREASE EQUITABLE COURSE SUCCESS

Higher bubbles = higher course success rates
Larger bubbles = larger enrollments

Only courses with over 10 students of the given sub-population for the past four years are shown.
Students who fail a course are much less likely to persist in college.

Math 130 has a course success rate of 48%, so 15,000 students enrolled x 48% passage rate = 7,800 students lost.

Over 4 years, 7,800 students failed Math 130

In financial terms
7,800 x $1,500 tuition* per course = $11.7M revenue loss.
*insert your average tuition here

And that is not including long term loss for students who do not continue in subsequent courses.
Culinary Department identified low success rates in CULAR20. This course serves as the entry level course to all culinary programs on campus and with its low success rate is preventing higher numbers of enrollments in the other courses.

Displaying courses needed for Culinary Department’s programs.
Culinary Department identified low success rates in CULAR20. This course serves as the entry level course to all culinary programs on campus and with its low success rate is preventing higher numbers of enrollments in the other courses.

“Faculty teaching this course are using innovative methodologies. We added an embedded tutor. We are also reviewing the curriculum.”
COURSE SUCCESS RATES: RACE/ETHNICITY

64% = LBCC average
53% = African-American average
63% = Hispanic average
70% = Asian average
73% = White average
Faculty have access to their individual course success data disaggregated by race/ethnicity.

This hypothetical Math faculty has a 20% difference in course success rates between their White and Black/African American students.
After seeing their course success data, a subset of faculty in the Social Science Dept implemented an equity-focused framework into redesigning their courses and teaching methods.

Success rates for Social Science faculty participating in the pilot have increased dramatically since 2016.

- 69% in 2016
- 78% in 2019

Net improvement in success since 2014: 9% increase.
These gains have been particularly pronounced for Black/African-American, Pacific Islander, and Latino students.

Equity gaps have also decreased.

Gap between the highest success rate and the lowest among all ethnic groups in 2019:

- **21%**
- **17%**

Net improvement for:
- **Latinos**
- **Black/African-American students**
- **Pacific Islander students**

- **7%**
- **14%**
- **32%**
EXPANDING THE PILOT

• Cultural Curriculum Audit Piloted in Summer 2019 in which a cohort of faculty engaged in open discourse, individual level data analysis, and pedagogical innovations focused on creating an inclusive and welcoming classroom

• Resources from the Cultural Curriculum Audit will be expanded to engage a broader range of faculty

• Continued access to course success data for faculty to engage in data informed decisions on their teaching practices
When examining multiple factors of our service area, we see high need for economic mobility and better service to our communities of color in North Long Beach and in the area around our Pacific Coast Campus.

The Adult Education Program will provide increased free education to support these communities with short-term CTE programs and ESL for work programs.
This dashboard, provided to faculty through program review, provides an interactive opportunity for understanding occupational demand and median hourly earnings by industry type.
For example, we can easily see that Information Security Analyst positions earn well with only a Bachelor’s degree, but there are relatively few annual openings (~150) in the area.

This dashboard helps inform program design and development.
Questions