

Institutional Research

MONITORING EFFECTIVENESS AT LCCC



What does “Effectiveness” Mean?

- The degree to which we are successful,
- Defined by the context,
- Generally, to measure effectiveness we look at things like:
 - Completion,
 - Course Success,
 - Persistence.
- Effectiveness is also defined by the goals/purposes of a program, division, or other entity.

Two ways to approach effectiveness (of the many)

- Provide broad or “global” tools that folks can use to drill-down into the context of their own programs or divisions.
 - This may include tools such as Tableau
 - Enrollment reports
- Conduct specialized studies to address the goals and objectives of specific programs or divisions.
 - Narrow down the study to include students and employees directly involved
 - This requires customized ad-hoc reports using specialized analyses

What I will Show You

- Tableau dashboards
 - Program Analysis Dashboard
 - Institutional Rubric Dashboard
 - Pathways Dashboard
- Example Projects
 - Persistence and Retention Study
 - Placement Protocol Study
 - A list of other projects



Program Analysis Dashboard

Consists of a collection of measures that are used to evaluate program groups within the college.

Scoring Category	Measure
Value	A1- Annual FTE A2- Annual Headcount A3- Annual Declared Majors
Effectiveness	B1- Success Rate B2- Credentials B3- Graduation Rate B4 & B5- Transfers
Efficiency	C1- Percent Taught by FT Faculty C2- Student to Faculty Ratio D1- Credits to Completion D2- Time to Completion D3- Section Fill Rate D4- Cost per FTE

Find it at our Website under "Academic Programs":
<https://lcccwy.sharepoint.com/Offices/InstitutionalResearch/SitePages/Home.aspx>



Institutional Rubric Dashboard

Consists of 10 common measures and some combinations:

- 1) Collaboration
- 2) Interpersonal Communication
- 3) Written Communication
- 4) Verbal Communication
- 5) Aesthetic Analysis
- 6) Cultural Awareness
- 7) Information Literacy
- 8) Problem Solving
- 9) Quantitative Reasoning
- 10) Scientific Reasoning
- 11) Some combinations of 9 and 10

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Pathways KPIs Dashboard

We replicated 9 metrics from the report we receive from pathways in these categories:

- 1) First Term Credits
- 2) First Year Credits
- 3) First Year College English/Math Success (A,B,C, or D)
- 4) Fall to Spring Retention
- 5) We are waiting on the benchmark data from the other VFA institutions.
- 6) Sample includes “first time ever” fall students.

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Persistence Study

- **Research Question:** What factors predict degree-seeking student fall-to-fall persistence?
- Study done between 15/FA and 16/FA.
- **Retention** is defined as “Returning between fall terms”.
- **Persistence** is defined as “retained, graduated, or transferred to another institution”.
- Analyzed every imaginable demographic variable and student service, but left out the kitchen sink.



Persistence Study- Results

- A bunch of nerdy statistics were used to analyze predictors of persistence.
- The predictive model: **high high-school GPA, taking college level English, and attending full-time predicted persistence showed the most parsimony.**

Example Predictive Profiles (there are several profiles in the report):

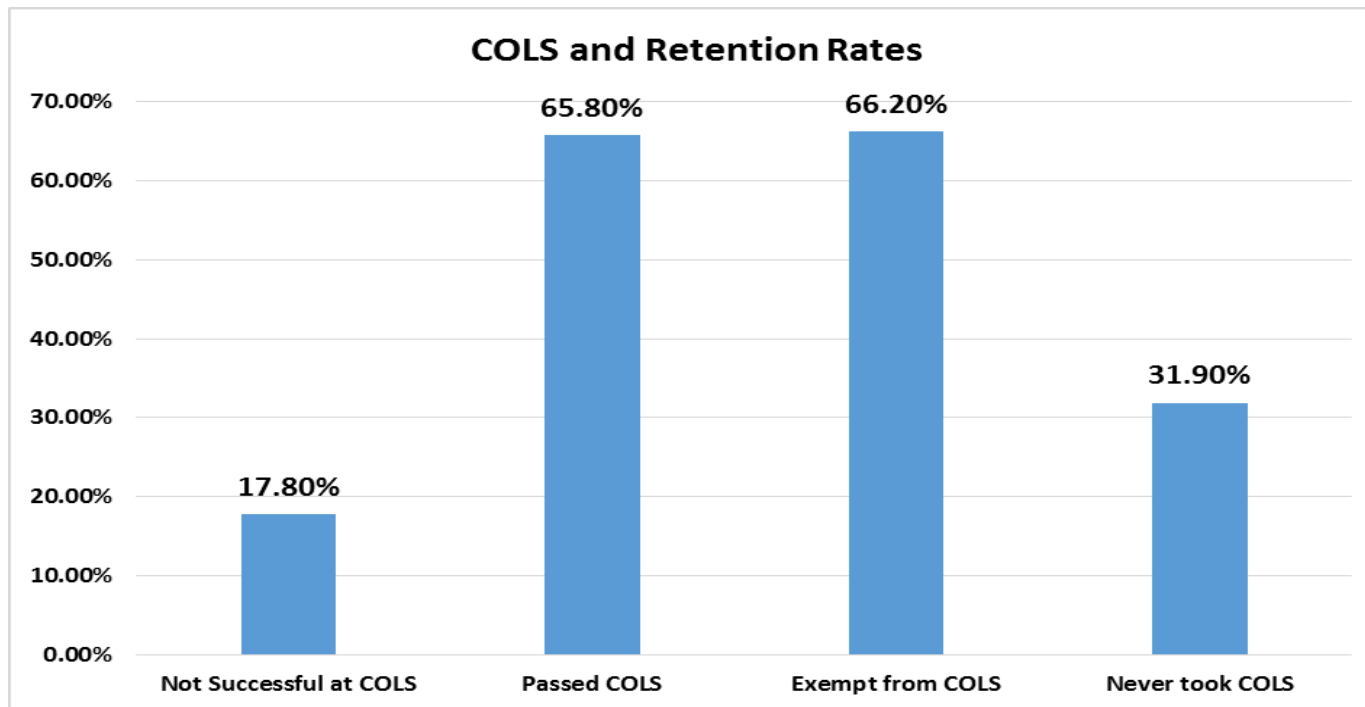
Profile	Percent Chance of Persistence*
Part-time HS GPA of 2.0 Pass Developmental English	45.97%
Full-time HS GPA of 2.0 Placed in College English	63.37%

**There is also standard of error.*



Persistence Results Continued)

- When it comes to factors on which we have more control
- **Students involved in student services, or are otherwise involved with campus culture, tend to persist better than students who are not as involved.**



Higher retention/persistence also found for other student services such as:

- Leadership Center
- The learning commons
- Students in residence halls
- Student athletes.



Summary of Persistence Study

1) Being full-time, doing better in high school, and being placed in college-level courses increase the chances for persistence.

- Of Course!
- This what they call “presage variables” . . .

2) Also, students involved with campus resources also have a higher chance of persistence.

- Tinto’s work verifies our findings.
- These are things that we can directly address at LCCC!

Placement Protocol Study

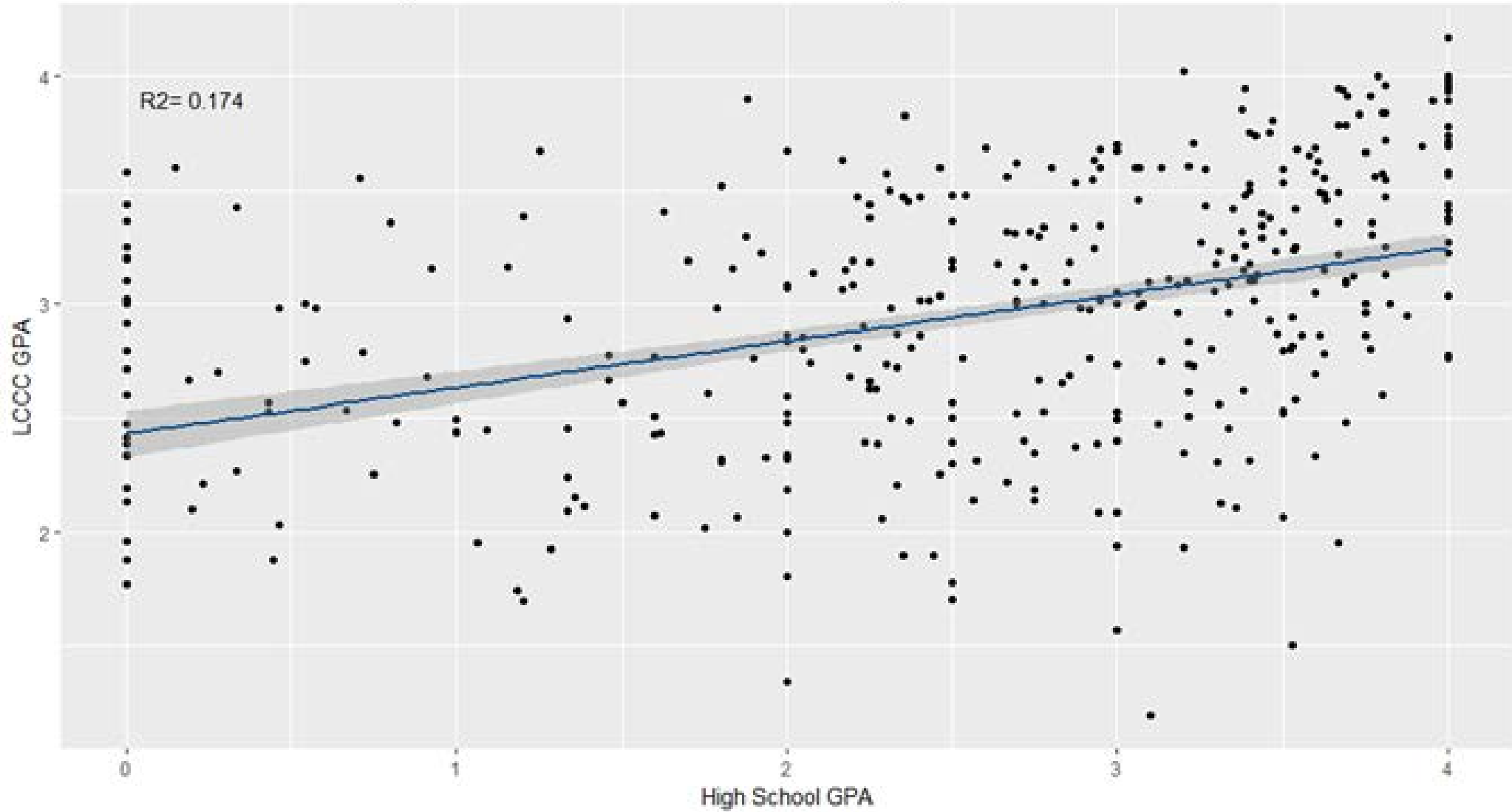
- **Research Question:** How well are we doing at placing students in college-level math and English?
- Study done 17/SP and 18/SP.
- Examined the efficacy of high school grade point average (HSGPA), ACT, ALEKS, and McCann as placement tests for developmental and college level math and English.
- Tested the effects of measures on college/developmental math and English pass rates.
- Tested the effects of measures on overall LCCC GPA.
- Tested the effects of age on LCCC performance.

Placement Protocol Study- Results

- 1) HS GPA is the best predictor of LCCC GPA and college/developmental pass rates.
- 2) ACT English, followed by McCann best predict English performance.
- 3) ALEKS and ACT math predict math outcomes.
- 4) Older students are more likely to pass college-level courses.

Nevertheless, these measures are not perfect. There is a lot of variability in scores. For example . . .

The Correlation Between High School and LCCC Grade Point Average



Other Projects (incomplete list):

Athletic reports

COLS

Counseling

Developmental English & Upper Level English

Disability Support Services

Enrollment and Enrollment Monitoring

Enrollment by Student Type

Education Study

Fine Arts Building Analysis

Funnell Report

General Education Study

Housing Study

Faculty Advising Survey

Learning Commons Analysis

Multi/Mass Media

SEEK and CAMP

Tuition Cap Study

Program retention (working on a state-level report)

Non-continuing students



Common Takeaways from Our Work

- 1) Demographics don't always matter as much as we think they do, but when they matter, the impact is significant.
- 2) Most studies on student outcomes confirm a long tradition of literature (e.g. Tinto's work on persistence and college culture).
- 3) Even things that "matter" are VERY messy (e.g. the correlation between HS and LCCC GPAs).
- 4) Students who can structure themselves and push through adversity are more likely to succeed (HS GPA is a measure of this).
- 5) Students who are more involved on campus are more likely to outperform their counterparts on every measure of success.
- 6) Enrollment trends and other trends seem to align with national trends and population data!



Future Drives for IR

- Use Pathways and VFA data to inform decision making.
 - Pathways dashboard.
 - Conversations with VFA about ways to collaborate and drill down.
- Consolidate research ideas and questions from several campus entities into singular projects.
 - To increase efficiency.
 - To encourage campus-wide collaboration on research and data questions.
- Collaborate with other Wyoming colleges to generate reports and tools that give broader results and that utilize more talent across the state.
 - Statewide Program and Enrollment Persistence Report off State Server.
 - Tapping into the talents of our IR network.
- Utilize the latest and most cutting-edge tools to deliver research results and other reports
 - Tableau
 - Rmarkdown
 - Shiny



Thank You!

Questions?

