

# IMPACT OF REGISTRATION TIMING ON STUDENT SUCCESS

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# AGENDA



- Background & Purpose of Study
- Study Variables
- Methods and Results
- Identified Strategies Based on Results
- Questions

# BACKGROUND & PURPOSE OF STUDY



# BACKGROUND



Central Carolina Community College: robust culture for using data  
identify areas for improvement  
support and refute suspected issues

Perception based on anecdotal information:  
First-Time students who wait to register  
until close to the start of classes  
tend to be less successful

Data Request from the Vice President for Onboarding and Advising:  
**evidence to support or refute this claim**

# GOAL/PURPOSE



**Goal:** determine if there is a data argument to revisit  
Central Carolina's application and enrollment processes.

If study suggests "later" students are significantly less successful

CCCC may need to consider a different Registration and/or Application Deadline.

# TIMEFRAME & STUDY POPULATION



- Analyzed 2,319 first-time students across four terms (2023-2024)
- Most students applied and registered more than 4 weeks before term start

# STUDY VARIABLES



# STUDY VARIABLES - TIMING



- Application and Registration
- More than 4 weeks before Start of Term
- 2-4 weeks prior
- 1-2 weeks prior
- within the week prior to Start

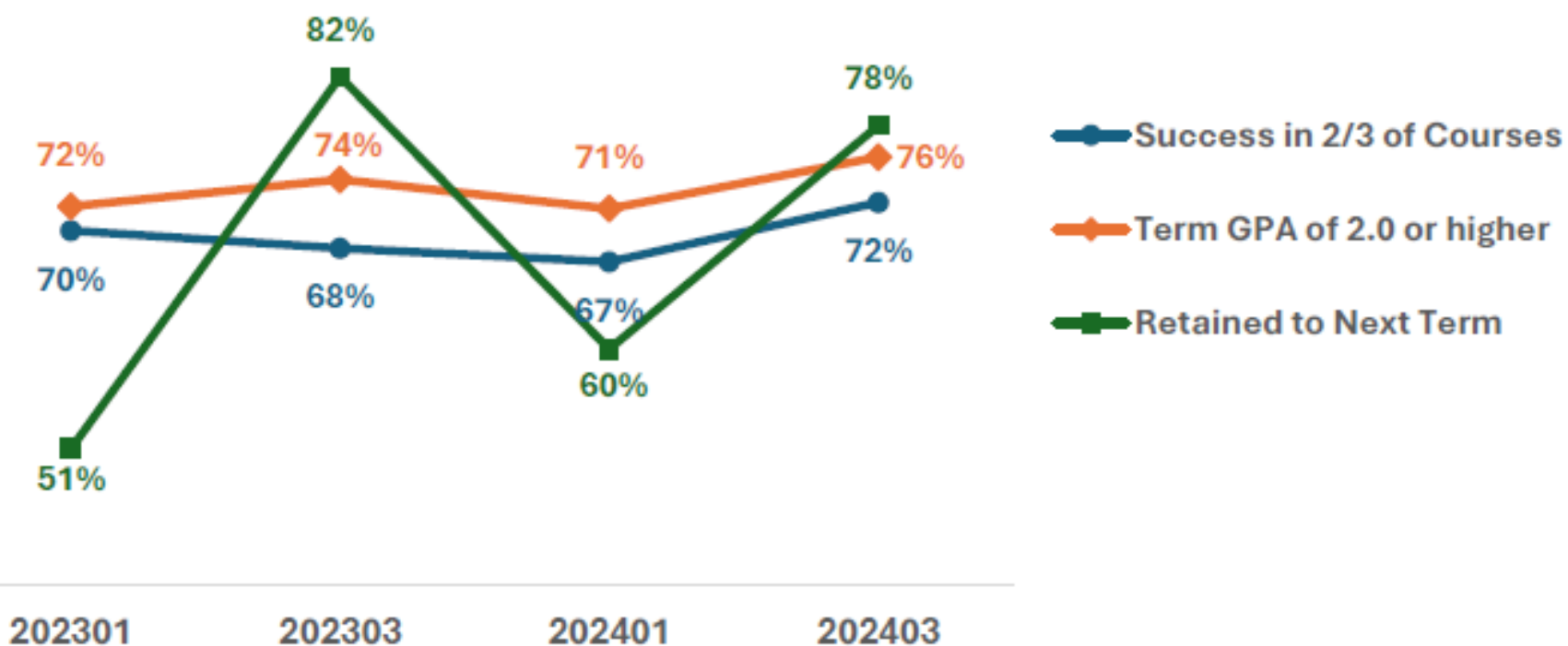
# STUDY VARIABLES – SUCCESS INDICATORS



- Course Completion: Successful Completion (A-C, P) of 2/3 of courses
- Term GPA: 2.0 or higher
- Retention to Next Term: Retained to next term (Enroll or graduated)  
*[Note: for Spring Enrollees, next term enrollment in Summer or Fall]*

## Overall Success Percentage by Indicator

Course Completion and **Term GPA** are more steady;  
**Retention** is variable based on Term - lower in SP and higher in FA



# OTHER VARIABLES

## – FAFSA APPLICATION TIMING



Compared to CC

- Application  
and
- Registration

- Prior to CC Application/Registration
- within 2 weeks of CC App/Registration
- within 2-4 weeks of CC App/Registration
- More that 4 weeks after CC App/Registration
- No FAFSA Application

# OTHER VARIABLES

## – COURSE INFORMATION



- Initial Registration Credits: 1-5, 6-11, 12-16, 17-20
- Courses Attended: 0, 1-2, 3-5, 6-8
- Non-Attendance & Non-Payment Courses (combined): at least 1, none

# OTHER VARIABLES

## – STUDENT DEMOGRAPHICS



- Gender: F, M (biological sex)

**57% Female**

- Race/Ethnicity: Black, Hispanic, White, Unknown/Foreign, Other

**48% White, 25% Hispanic, and 17% Black**

- Age Group - Start of First Term: Under 21, 21-24, 25-30, Over 30

**Most (69%) were under 21; Next largest group (13%) were Over 30**

# METHODS AND RESULTS



# DATA DETAILS: ENTRY TIMING

Registration Timing based on Application Timing		Application Category			
		> 4 wks prior to Start	2-4 wks prior to Start	1-2 wks prior to Start	w/in 1 wk prior to Start or during Drop/Add
Registration Category	> 4 wks prior to Start	57%			
	2-4 wks prior to Start	13%	2%		
	1-2 wks prior to Start	5%	1%	0%	
	w/in 1 wk prior to Start or during Drop/Add	10%	3%	3%	5%

### Chi-Squared Test of Independence/Association

conducted for each combination of  
Success Indicator variable with Entry Timing variable

#### Important Notes for Viewing Chi-Squared Results:

- 1) Chi-Square statistics are based on numbers across the 2 intersecting categories.
- 2) **Results: Only list influential cells.** Provided in descending order of influence.
- 3) **The reverse/opposite statement is NOT always true.** The few times the opposite statement is true, both are provided.
- 4) If the p-value is zero ( $p = 0$ ), it is next to impossible for this result to have happened by chance.

Cell Contribution to the Chi-Squared Statistic

Reg Cat	N	Y
> 4 wks prior	17.5066	6.19322
2-4 wks	0.009	0.00318
1-2 wks	0.06582	0.02328
w/in 1 wk	43.8604	15.5162

$\chi^2$ equals <b>83.1766</b>	p-value equals <b>0</b>
DF	3

# Non-Significant Findings between ENTRY TIMING & SUCCESS



## Application Timing with

- Course Completion Success
- Term GPA Success

**Not Significant**

## Registration Timing with

- Course Completion Success
- Term GPA Success

**Not Significant**

# SIGNIFICANT FINDINGS

## between ENTRY TIMING & RETENTION

		Course Completion Success (2/3 of courses)		Term GPA Success (2.0 or higher)		Retention Success (Retained to next term) <i>[retained to SU or FA for SP term]</i>	
		Signif.	Results	Signif.	Results	Signif.	Results
Entry Prior to Start of Term	Application Timing	<i>Not Signif.</i>		<i>Not Signif.</i>		$p < 0.001$	<ul style="list-style-type: none"> <li>• More applying within 1 wk of Start in group Not Retained than expected</li> </ul>
	Registration Timing	<i>Not Signif.</i>		<i>Not Signif.</i>		$p = 0$	<ul style="list-style-type: none"> <li>• More registering within 1 wk of Start in group Not Retained than expected</li> <li>• Fewer registering more than 4 wks prior to Start in group Not Retained than expected</li> </ul>

# MAIN STUDY FINDINGS

## RELATIONSHIP: ENTRY & SUCCESS



Study Question: Is there evidence to suggest that those who apply or register later are less successful?

- There is no evidence to suggest that those who apply or register later are less successful in terms of their Course Completion rate.
- There is no evidence to suggest that those who apply or register later are less successful in terms of their Term GPA.
- **There is evidence to suggest that those who apply or register later are less successful in terms of their Retention to a subsequent term:**

**There are more who apply or register in the week prior to the start of the term or during the Drop/Add period who are Not Retained than would be expected.**

# METHODOLOGY

## ENTRY TIMING WITH OTHER VARIABLES



### Chi-Squared Tests of Independence/Association

#### Entry Timing

- Application
- and
- Registration

#### Other Variables

- FAFSA Application Timing
- Initial Registration Credits
- Courses Attended
- Non-Attendance & Non-Payment (combined)
- Gender
- Race/Ethnicity
- Age Group

# METHODOLOGY AMONG OTHER VARIABLES



## Chi-Squared Tests of Independence/Association

FAFSA Application  
Timing

### Other Variables

- Initial Registration Credits
- Courses Attended
- Non-Attendance & Non-Payment (combined)
- Gender
- Race/Ethnicity
- Age Group

# OTHER STUDY FINDINGS



## Initial Registration Credits

- Those with extreme Initial Registration Credits weigh more heavily toward applying and registering later.

## Number of Courses Attended

- Those attending only 1-2 Courses weigh more heavily toward registering later.

## Non-Attendance (NA) and Non-Payment (NP) Courses

- Those with at least 1 NA or NP Course during the term weigh more heavily toward registering later and fewer are over 30 years old.

# OTHER STUDY FINDINGS



## Gender

- Males weigh more heavily toward applying and registering later.

## Race/Ethnicity

- Those who identify as Black weigh more heavily toward applying and registering later.

## Age

- Those who are over 30 years old weigh more heavily toward applying and registering later.

# OTHER STUDY FINDINGS



## FAFSA Application

- Those with No FAFSA application weigh more heavily toward
  - a) applying and registering later,
  - b) initial registration credits at the extremes,
  - c) attending fewer courses,
  - d) males,
  - e) identifying as Black, and
  - f) over 30 years old.

More Over 30 and fewer Under 21 apply close to start of term than expected.

# IDENTIFIED STRATEGIES BASED ON RESULTS

from Vice President for Onboarding and Advising



# KEY FINDINGS ON SUCCESS AND TIMING



- Course Completion and GPA were **NOT significantly** affected by registration timing
- Retention was **significantly lower** for students who registered within 1 week of term start
- Students with no FAFSA had lower retention **than expected, compared to students with delayed FAFSA submission who had higher retention than expected**
- More students **than expected** who registered late, registered for 17–20 credits but attended few courses

# EARLY IMPLEMENTED DECISION:



Although previously in discussion,

this study provided additional support and insight to  
revisit moving to a

**Single Registration Start Date**

In Place - going forward!

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



1. **Promote early registration ( $\geq 4$  weeks before term start)**
  - Modified some processes toward end of term registration - help students navigate more cleanly
  - Implemented an advance and regular registration period, with a deregistration after each
  - Incentivize earlier registration with marketing and a drawing for gift cards.
  - Eventually earlier deadline and promote required orientation – perhaps with move to 8-weeks
3. **Consider implementing an application deadline or priority window**
  - See above ... eventually implement application deadline - implemented with move to 8-weeks

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



## 2. Encourage early FAFSA completion and follow-up

- Run campaigns through CRM to encourage FAFSA completion:
  - Implement FAFSA completion campaign for all continuing first-time students without a FAFSA
  - Employ reminder campaign for yearly FAFSA completion to returning
- Continue to “make the case” to students without FAFSA on file - to file it
- **In sum, we are making FAFSA a great focus for initially enrolled and recently enrolled students.**
- **Literature support:** National College Attainment Network (NCAN); McKinney & Novak; Novak & McKinney; Bettinger et al.; Deneault; Castleman & Page

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



## 4. Provide just-in-time support to late registrants

- Determine any additional support for late registering students which makes a difference ...
  - These students miss early momentum, academic preparation, and focus
  - These students might be retained at a higher rate because of this intervention
- Further data investigation
  - disaggregated populations
  - determine most appropriate just-in-time supports - "population-specific basket" of supports
    - "48-hour momentum package" reach out to ensure students are prepared to start (tech access, etc.),
    - Quick summary sheets of key processes may also be developed and customized,
    - Micro-orientation available online and on-demand,
    - Attendance alerts for the first week, etc.

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



5. **Require mandatory advising early for all new students**
  - Implemented: all students get advising

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



6. Monitor and limit initial course loads >16 credits for first-time students
7. Identify and support students registered in only 1–2 courses
8. Proactively reach out to students with NA/NP course history

## Strategies 6-8:

- More data-diving to determine appropriate interventions and number of students to serve
- Determined by Student Onboarding and Success team

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



## 9. Design equity-focused support for Black, male, and adult learners

- Develop strategies with a universal design but disaggregated analysis
  - For example, flag students who
    - enroll part-time,
    - miss first assignments,
    - register late, and
    - have fewer than 12 hours earned after the first semester
  - Currently discussing what these supports could look like
- Direct late summer marketing and social media efforts more heavily toward males, black, and older students

# TOP 10 STRATEGIES FOR IMPROVING RETENTION



10. Use predictive analytics to identify and assist at-risk students early
  - Need to do more analysis:
    - much of predictive analytics has been based on demographic factors, rather than registration types
    - How predictive of success is a registration profile/type?

... studies like this probably are not done often enough at our institutions- we do not challenge our past practices with data and instead just assume they are working...

If a process is working great, then the data from a study like this should show it. If not, the data should reveal the process inadequacies and help us identify possible areas of improvement.

On a more fundamental level, institutional research should help us ensure that we are making the right student-focused and business process decisions to ensure success.



Scott Byington  
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# QUESTIONS

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**CENTRAL  
CAROLINA**  
COMMUNITY  
COLLEGE

**THANK  
YOU**

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