# **Comparing Student Course Progress For Alternative Advisement Policies**

C. Robert Stark, Jr. Professor of Agricultural Economics

Paul B. Francis
Professor of Plant & Soil Science

Rocky Lindsey.
Professor of Animal Science

**University of Arkansas at Monticello** 



**School of Agriculture** 

Presented at the 2017
North American College Teachers
of Agriculture Meeting
Purdue University
West Lafayette, Indiana

- ✓ Pre-2012: UAM students required a minimum of 124 hours to complete a Bachelor of Science degree.
- ✓ 2012: Act 747 of Arkansas

  Legislature reduced the minimum requirement to 120 hours.

**BACKGROUND** 



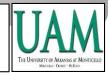
- √ "15-to-Finish" / "Complete America"
  - ✓ Accelerate student progress to graduation.
  - ✓ Reduce total student loan balances held at graduation.
  - ✓Increase productivity and efficiency of institutions.

**BACKGROUND** 



- ✓ Pre-2017: UAM students who required a developmental course were limited to a maximum of 14 hours per semester.
  - ✓ Requirement in practice was often ignored by advisors.
- ✓ 2017: All students required to take minimum of 15 hours.

**BACKGROUND** 

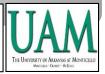


### **✓ Fallacy for Developmental Students:**

UAM students who require one or more developmental course cannot complete the 120 hours required for a degree within 4 years (8 semesters) when taking 15 hours per semester.

Might require a minimum of 132 hours!

BACKGROUND



Student success within a degree program and eventual probability of earning a degree is significantly affected by college entrance exam scores, associated developmental course requirements, and semester course load scheduled.

**HYPOTHESIS** 



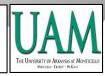
- 1. How extensive is the developmental issue for UAM agriculture students?
- 2. Do academic outcomes of developmental students differ versus non-developmental?
- 3. What are the critical time periods for developmental versus non-developmental?
- 4. What are the future implications for agribusiness student academic advising?

**KEY QUESTIONS** 



- Compile a data set for current and past agriculture students from UAM academic records including ACT test scores, initial year in the agriculture program, years completing agriculture core courses, cumulative GPA, total UAM hours earned to date, and last academic outcome.
- Analyze data for means and statistical significance by data item.
- Identify patterns/trends.

### **METHODOLOGY**



- University of Arkansas at Monticello student academic records for Course History and Grades.
- Period Examined 2002-2017.
- Students Identified from AGRI 1101 Agriculture
   Orientation class rolls during the period.
- Total Students Examined 535
- Developmental Students identified from ACT Test Scores submitted to UAM Admissions Office.

### **DATA SOURCES**



### UAM STUDENTS





### UAM AGRICULTURE DEGREE



### **University of Arkansas at Monticello**

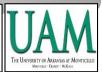
### **DEGREE OFFERED**:

- > BACHELOR OF SCIENCE
  - AGRICULTURE MAJOR.

### **DEGREE OPTIONS OFFERED**:

- Agribusiness
- Animal Science (includes Pre-Vet)
- Plant & Soil Science
- General Agriculture

### **UAM DEGREE PROGRAM**



### **University of Arkansas at Monticello**

### **AGRICULTURE CORE COURSES**:

- > AGRI 1101 AGRICULTURE ORIENTATION
- > AGEC 2273 AGRICULTURE ECONOMICS
- > ANSC 1003 PRINCIPLES OF ANIMAL SCIENCE
- > AGRO 1033 PRINCIPLES OF FIELD CROPS

### **UAM DEGREE PROGRAM**



### **Advising Procedures**





### **University of Arkansas at Monticello** 1st SEMESTER FRESHMAN STUDENT:

### > June or July Preregistration - School of

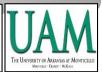
Agriculture Advisors help develop course schedule and share an 8-Semester Plan.

### **TRANSFERING or CHANGING MAJOR:**

Register with aid of School of Agriculture Advisor following 1st Semester Freshmen.

All students meet with their Advisor during first two weeks of Fall Semester.

### **ADVISING PROCESSES**



## **University of Arkansas at Monticello CONTINUING STUDENT**:

- Each Subsequent Semester Meet with Regular Advisor during November or April Preregistration to plan courses and enter schedule.
- 2nd Semester of Junior Year Student and Advisor jointly develop a "Closing Plan" with all remaining required courses and schedule of when to take them.

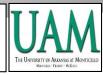
After grades are posted each semester, Advisor sends personal letters of "Congrats" and "Regrets" to his/her advisees.

### **ADVISING PROCESSES**



### **Results & Observations**





### **Student Academic Classification**

<u>Number</u>	<u>Number</u>	
Non-Developmental	262	
Mon-Developmental	263	
<b>Total Developmental</b>	270	
Basic English (* added Fall 2015)	17	
Fundamentals of English	163	
Introduction to Algebra	90	
Intermediate Algebra	113	

(2002-2017)



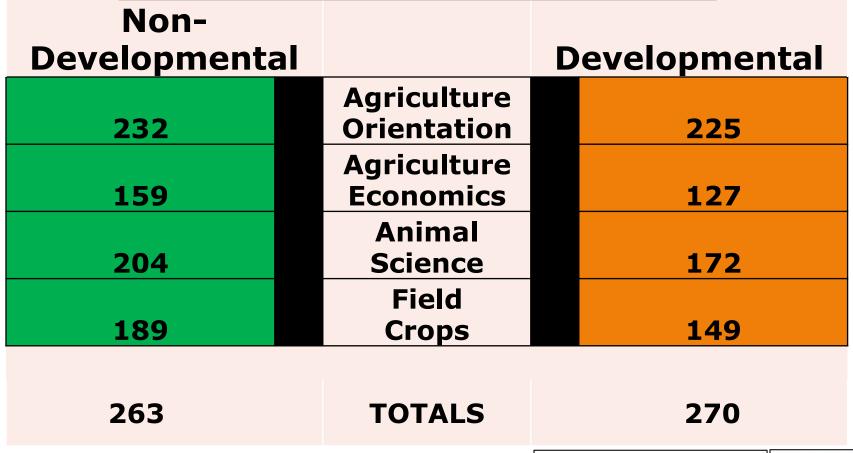
### **Developmental Student ACT Scores**

<u>Score</u>	<u>Composite</u>	<b>English</b>	<u>Math</u>	<u>Reading</u>
15 & Less	61	99	58	74
16-18	112	90	151	86
19 & More	96	81	61	110

(2002-2017; N=270 students)

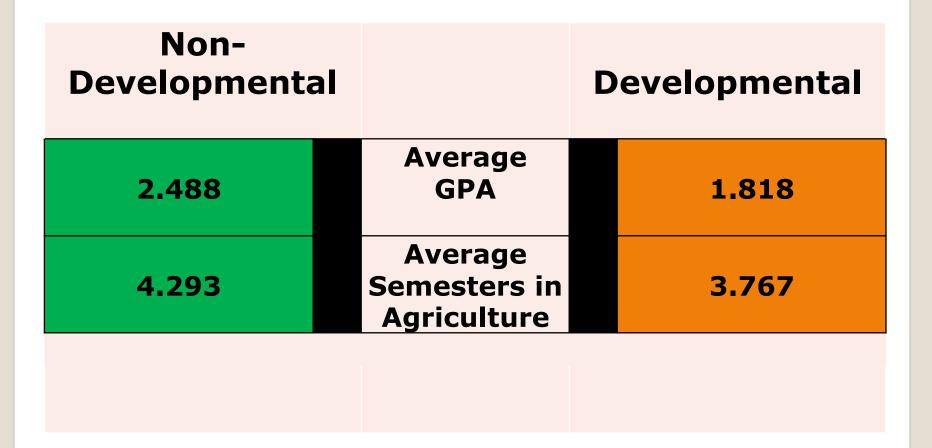


# Agriculture Core Course Completions



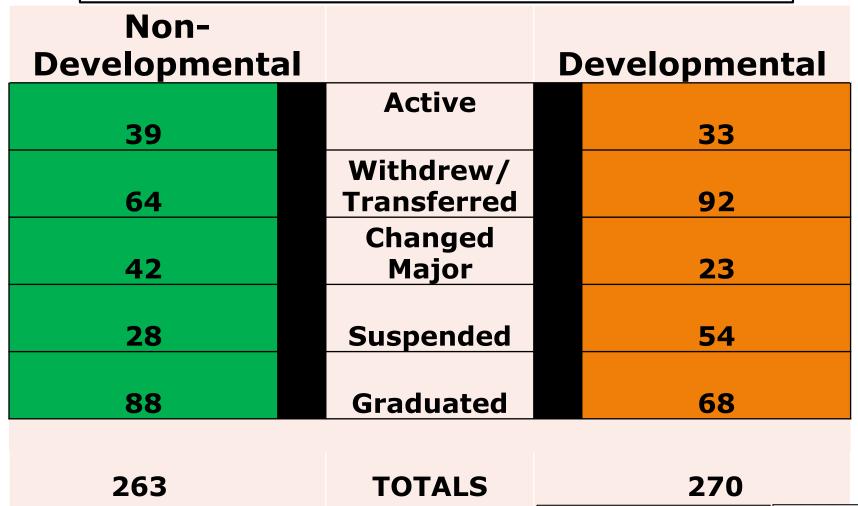


### **Student Academic Outcomes**





### **Student Academic Outcomes**





How extensive is the developmental issue for UAM agriculture students?

Over half of entering students are classified as requiring one or more developmental course based on their ACT test scores!

CONCLUSIONS

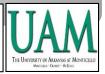


Do academic outcomes of developmental students differ versus non-developmental?

### **Developmental students:**

- ✓ Have about 0.67 lower GPAs.
- ✓ Withdraw at a 50% higher rate
- ✓ Are suspended twice as often, and
- ✓ Graduate at 10% higher rate than those of Non-Developmental students.

CONCLUSIONS



What are the critical time periods for developmental versus non-developmental?

Developmental students average about 0.5 semesters less in the agriculture program than non-developmental students.

This suggests that the window of opportunity is smaller to reach them!

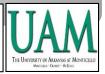
CONCLUSIONS



What are the future implications for agribusiness student academic advising?

- ✓ Early intervention by advisors is even more critical for developmental students.
- ✓ Agriculture economics courses may be more difficult for these students due to more extensive mathematical applications.

CONCLUSIONS



Dr. Dale Bower – Former UAM Associate
 Vice Chancellor for Academic Affairs

 Dr. Kelly Bryant – Dean UAM School of Agriculture & Director UA-SEREC

### **APPRECIATION**



### **QUESTIONS/COMMENTS?**

