

OZARKS TECHNICAL COMMUNITY COLLEGE

Bridge to Success: Evaluating OTC's Efforts to Improve Developmental Education

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Demand for Developmental Education

- Majority of incoming students require developmental work in at least one subject area.
- Students who require developmental education are:
 - Significantly less likely to complete a college-level course in that subject.
 - Significantly less likely to graduate.

Bridge to Success

- First implemented in the Fall 2011 term.
- All first-time students who place into two or more developmental subjects participate in the program.
- These students are:
 - Restricted from taking developmental courses online.
 - Required to obtain a release from their advisor to register
 - Required to choose from a list of approved courses until developmental requirements are met.

Bridge to Success

- It is strongly recommended to these students that they:
 - Register for Keys to College Success (CAC 120).
 - Register for Math Study Strategies (TLC 023).
 - Limit course load to 12 credit hours or less.
 - Avoid online courses until developmental requirements are met.
- Resources have also been committed to provide additional support to students in developmental courses.

Evaluation of Early Results

Control Group: First-time students from Fall 2010 who placed into two or more developmental subject areas (would have qualified for Bridge had it been in place).

Success in Developmental Courses:
Evaluate whether these students completed their developmental courses with a C or better in Fall 2010.

Enrollment in Gateway Course:
Evaluate whether those students who completed a developmental course enrolled in and successfully completed the subsequent gateway (first college-level) course in their first academic year (2010-2011).

Treatment Group: First-time students from Fall 2011 who placed into two or more developmental subject areas (first cohort to qualify for Bridge participation).

Success in Developmental Courses:
Evaluate whether these students completed their developmental courses with a C or better in Fall 2011.

Enrollment in Gateway Course:
Evaluate whether those students who completed a developmental course enrolled in and successfully completed the subsequent gateway (first college-level) course in their first academic year (2011-2012).

Evaluation Model Design

- Logistic Regression
- Binary Outcome:
 - Success/Failure in First College Level (Gateway) Course
- Key Variable:
 - Bridge Participation
- Additional Variables:
 - Support Courses: CAC 120 and TLC 023
 - Gender (Female)
 - Ethnicity (White)
 - Developmental Course Level

Math: Logistic Regression Results

Significantly Positive Factor

- **Bridge Participation – Two Percent More Likely**
- Gender (Female)
- Ethnicity (White)

Significantly Negative Factor

- CAC 120 Enrollment

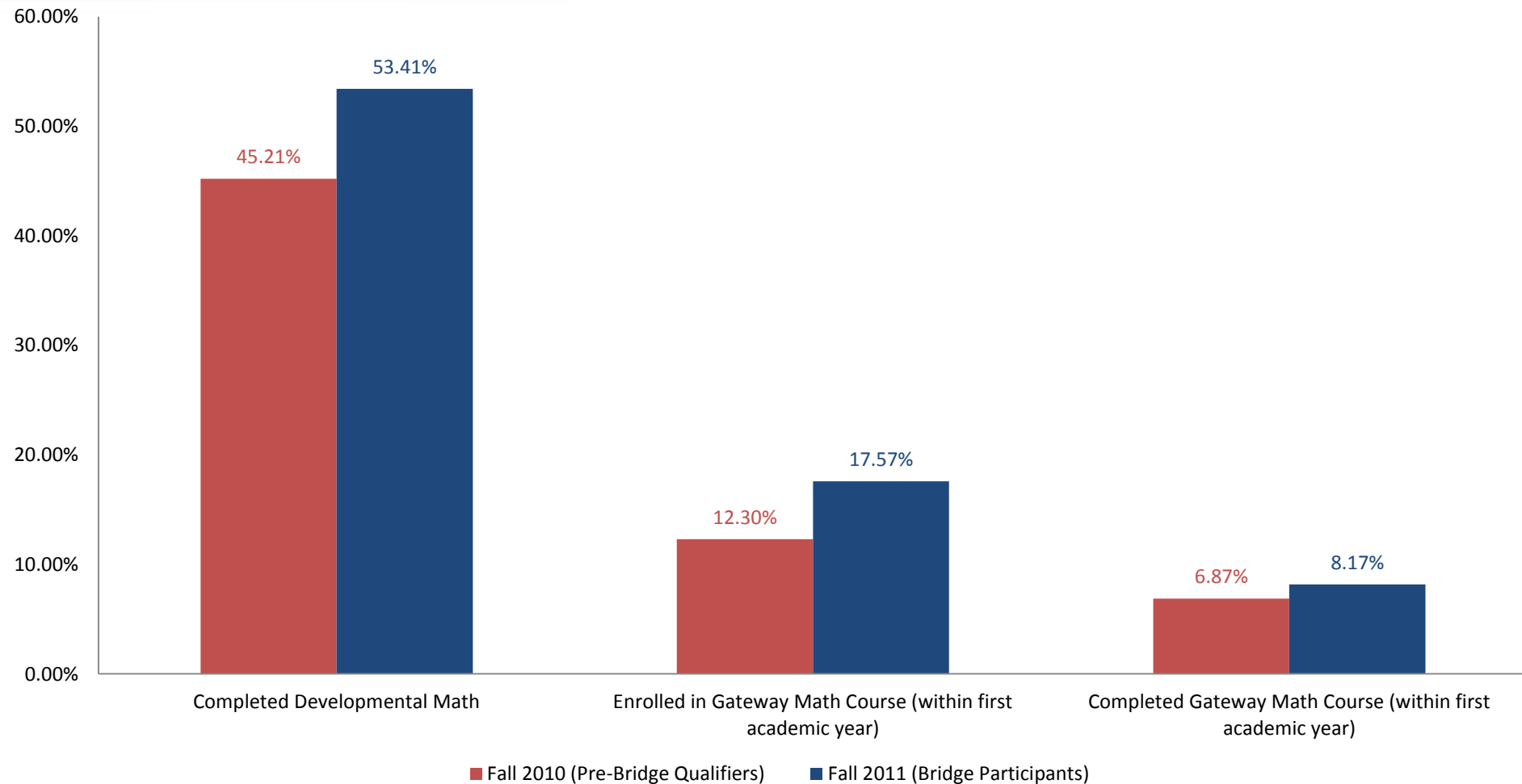
Not a Significant Factor

- TLC 023 Enrollment

Significance measured at $p < 0.10$

OTC

Math Follow-Up Performance



English: Logistic Regression Results

Significantly Positive Factor

- Gender - Female

Significantly Negative Factor

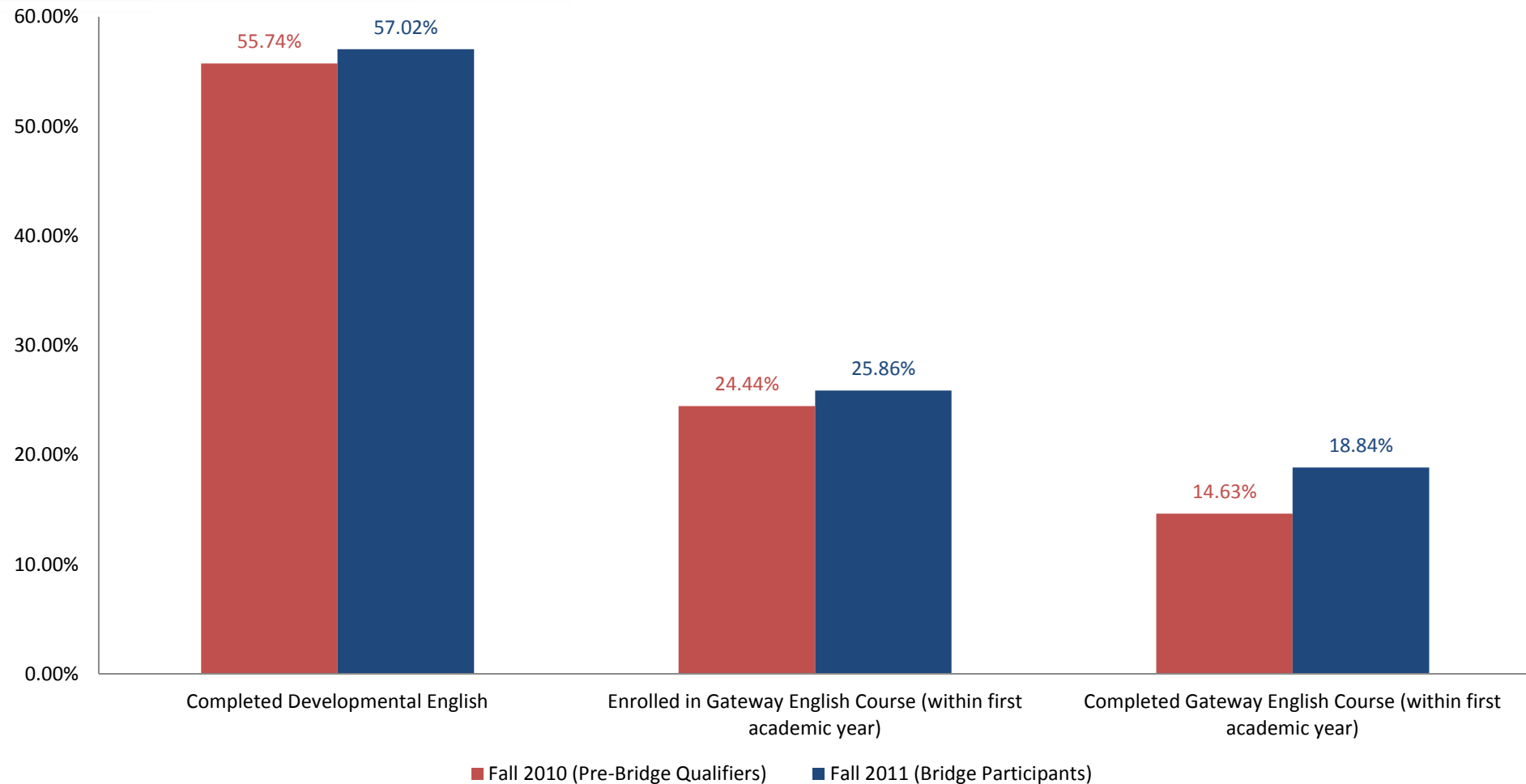
Not a Significant Factor

- **Bridge Participation**
- CAC 120 Enrollment
- Race - White

Significance measured at $p < 0.10$

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English Follow-Up Performance



Findings

- Positive Effect at Developmental Level.
- Encouraging Initial Effect at Gateway Level.
- Possible Opportunities for Improvement:
 - Additional assistance to those who progress to college level Math.
 - Encourage developmental English completers to enroll in a Gateway course.

Continued Evaluation

- Track students through complete cycle.
- Closer Evaluation of CAC 120 Students.
- Explore Development of TLC 023 type course for college level Math.
- Link Quantitative Results to Qualitative Analysis.
 - Interviews with students and faculties.

Contact Information

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Math Model Results

Bridge to Success Developmental Level Evaluation Model

Variable	Coefficient	Standard Error
Bridge to Success Program	0.4286024**	0.2145861
Student: Female	0.3149764*	0.1791311
Student: Enrolled in CAC-120	-0.4745633*	0.2458288
Student: Enrolled in TLC-023	0.1058809	0.4028368
Student: White	0.5212975**	0.2140362
MTH-040	-1.926543***	0.2012215
Constant	-2.230864***	0.203256
Number of Observations:	1883	
LR Chi-Squared	131.19***	
% Correctly Classified	91.87%	
Two-tailed t-test	* p<0.1, ** p<0.05, ***p<0.01	
Logistic regression model calculated using STATA		

English Model Results

Bridge to Success Developmental Level Evaluation Model

Variable	Coefficient	Standard Error
Bridge to Success Program	0.1993334	0.1747147
Student: Female	0.6192256***	0.1384064
Student: Enrolled in CAC-120	-0.2455479	0.1852926
Student: White	-0.0009435	0.15837382
ENG-040	-1.865038***	0.1793474
Constant	-1.394195***	0.1583782
Number of Observations:	1689	
LR Chi-Squared	171.69***	
% Correctly Classified	82.47%	
Two-tailed t-test	* p<0.1, ** p<0.05, ***p<0.01	

Logistic regression model calculated using STATA