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# 2012 Summer Bridge Math Program

Basic Skills Workgroup

October 18, 2012

# Overview

- Two week summer program: July 9-19, 2012
- Emphasis on Math
  - Goal: provide a refresher course to help boost math placement
- Coupled with Counseling 50
- 73 students began program
- 66 completed program



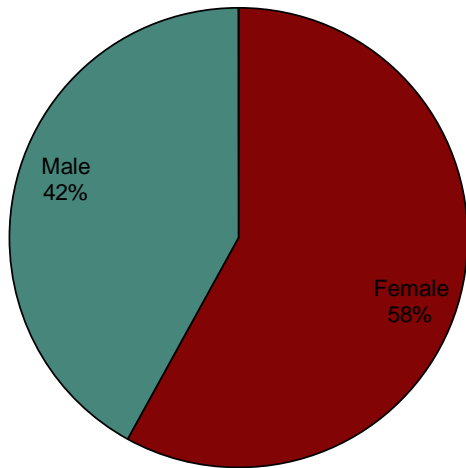
# Data Collection

- Intake survey
  - Student ID
  - Confidence level
  - Intention to enroll in Fall
- Exit survey
  - Student ID
  - Confidence level
- FHDA IR&P database
  - Demographics (gender, ethnicity)
  - Placement (level and scores)
  - Enrollment

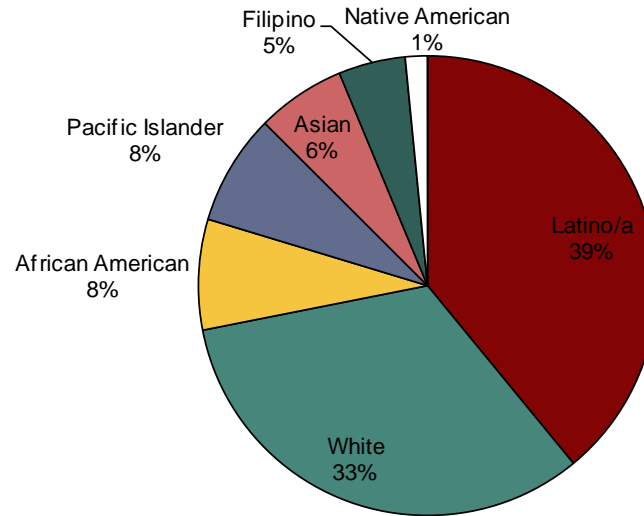
Who are the Summer Bridge students?

# Demographics

2012 Foothill College Summer Bridge Program  
Gender (N=65)



2012 Foothill College Summer Bridge Program  
Ethnicity (N=64)



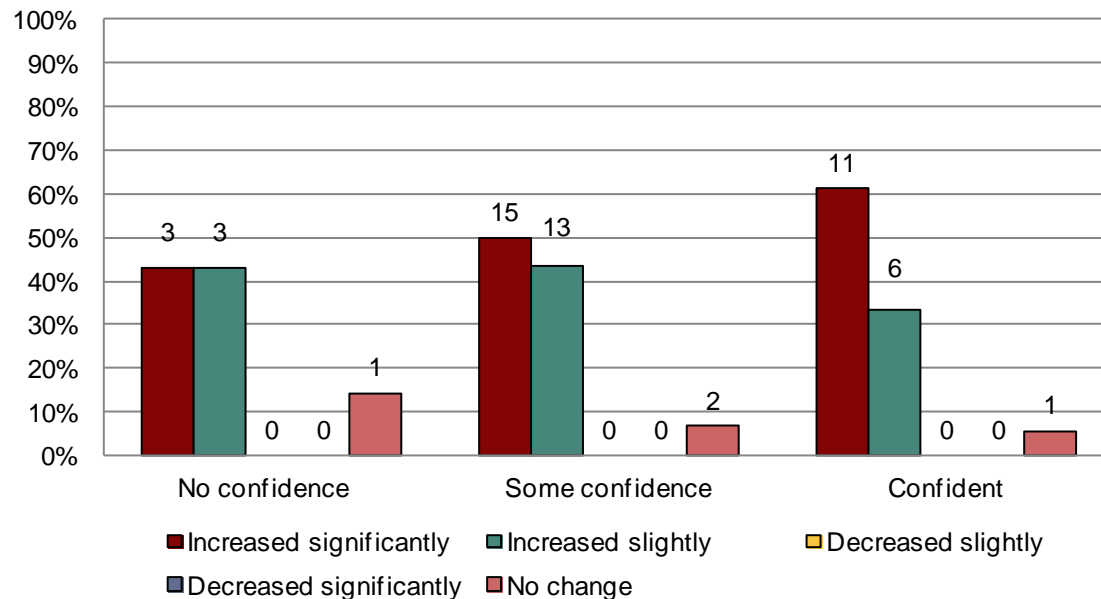
- More women than men participated in the Summer Bridge program (16 percentage point difference).
- Latino/a and White students composed the majority of Summer Bridge participants (72%).



How do students feel about math?

# Math Confidence

**2012 Foothill College Summer Bridge Program**  
**Change in student confidence level (N=55)**  
**with multiplying or dividing fractions without a calculator**

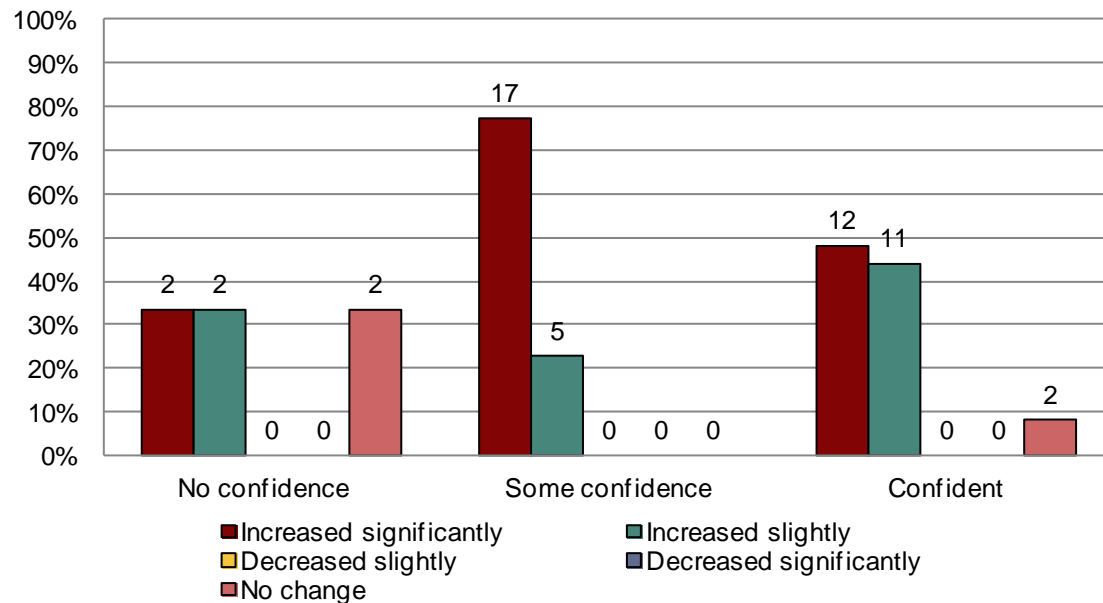


- Students who entered the program with some confidence in their ability with multiplying or dividing fractions without a calculator were more likely to report a significant increase in their confidence level after the program (75%), compared to those who entered with confidence or no confidence (61% and 43%).



# Math Confidence

**2012 Foothill College Summer Bridge Program**  
**Change in student confidence level (N=53)**  
**with adding or subtracting fractions without a calculator**

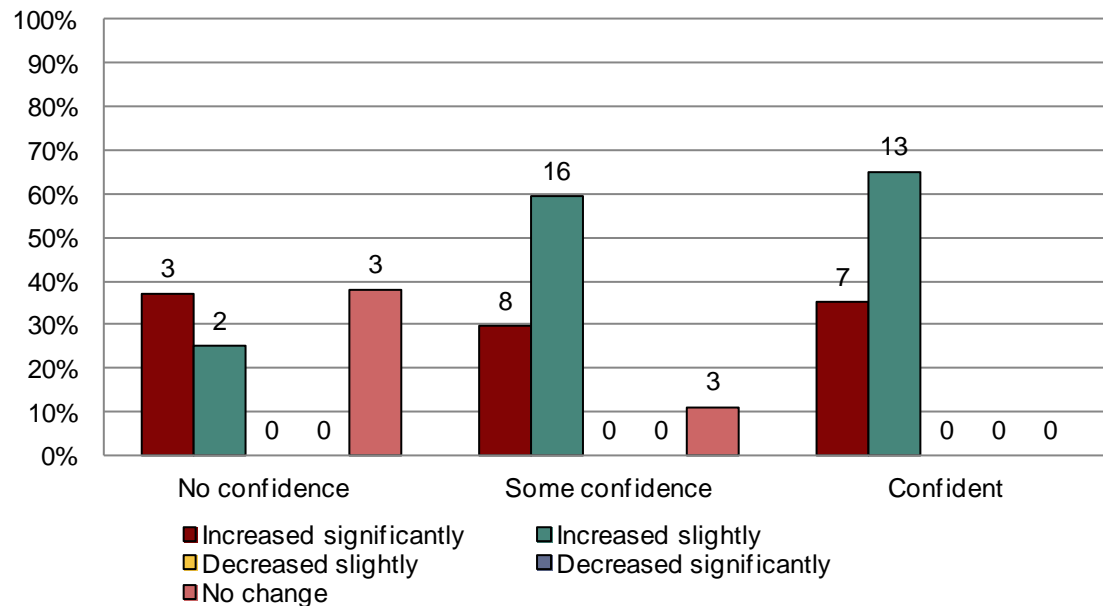


- Students who entered the program with some confidence in adding or subtracting fractions without a calculator were more likely to report a significant increase in confidence level after the program (77%), compared to those who entered with confidence or no confidence (48% and 33%).



# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=55)  
with operations (+,-,x,/) with decimals, without calculator



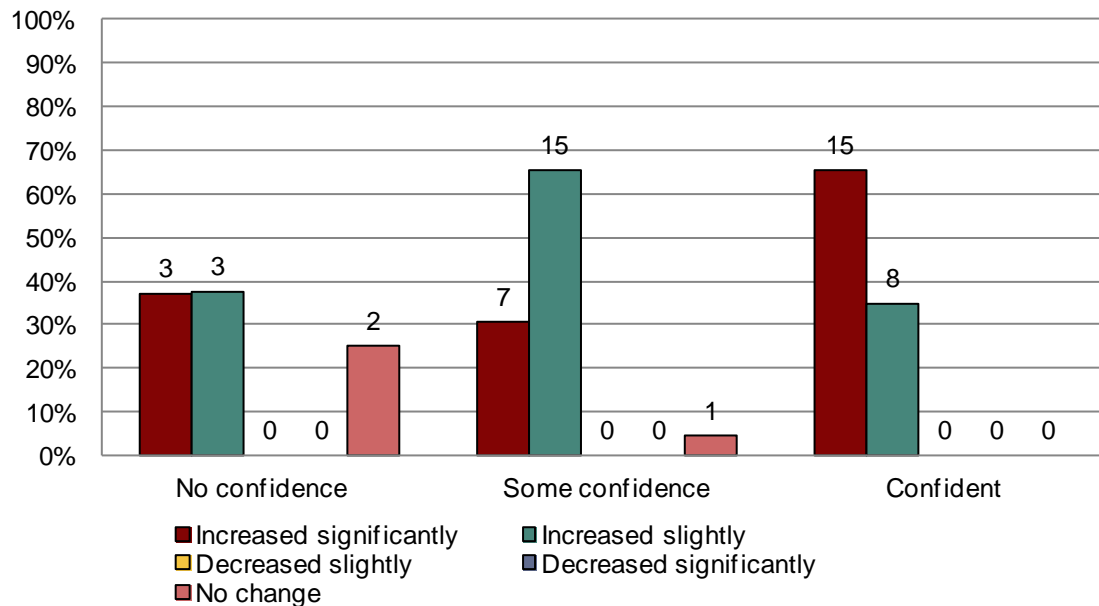
- Students who entered the program with no confidence regarding operations with decimals without using a calculator were more likely to report a significant increase in their confidence level after the program (38%), compared to those who entered with confidence or some confidence (35% and 30%).



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# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=54)  
w/operations (+,-,x,/) with negative numbers, w/o calculator



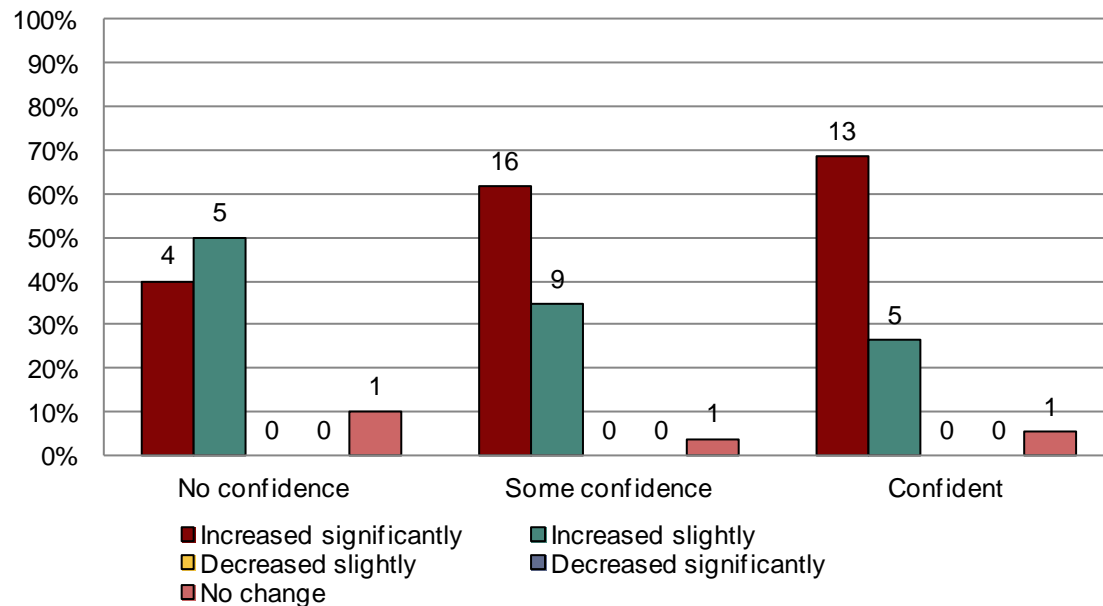
- Students who entered the program confident in their ability to work with operations with negative numbers without using a calculator were more likely to indicate a significant increase in confidence level after the program (15 out of 23 or 65%) compared to those who initially reported some or no confidence (30% and 38%).



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# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=55)  
with solving equations for x



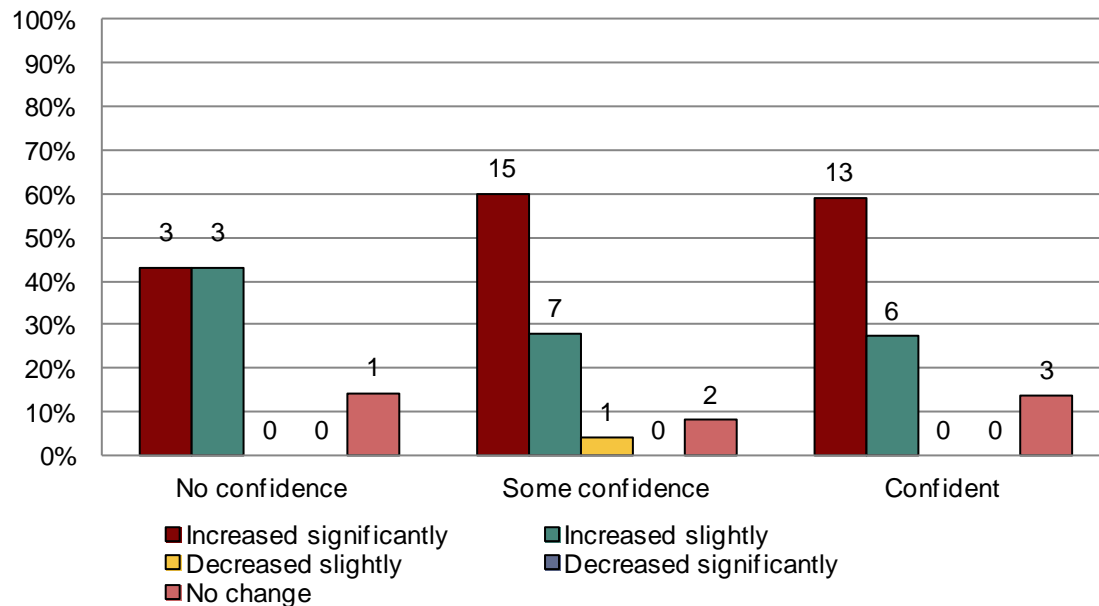
- Students who enter the program with confidence in their ability to solve equations for x are more likely to report a significant increase in their confidence level after the program (68%), compared to those who entered with some or no confidence (61% or 40%).



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# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=54)  
with plotting points on a graph [example: (-3,5)]

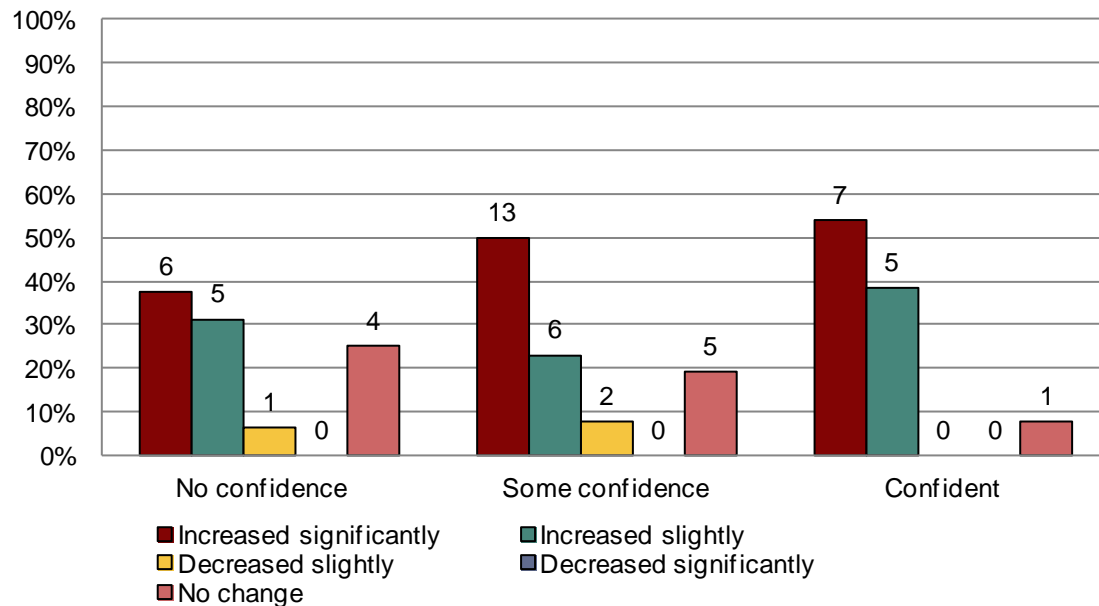


- Students who enter the program with some confidence in their ability with plotting points on a graph are more likely to report an significant increase in their confidence level after the program (60%), compared to those who entered with confidence or no confidence (59% or 43%).



# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=55)  
with finding the slope of a line

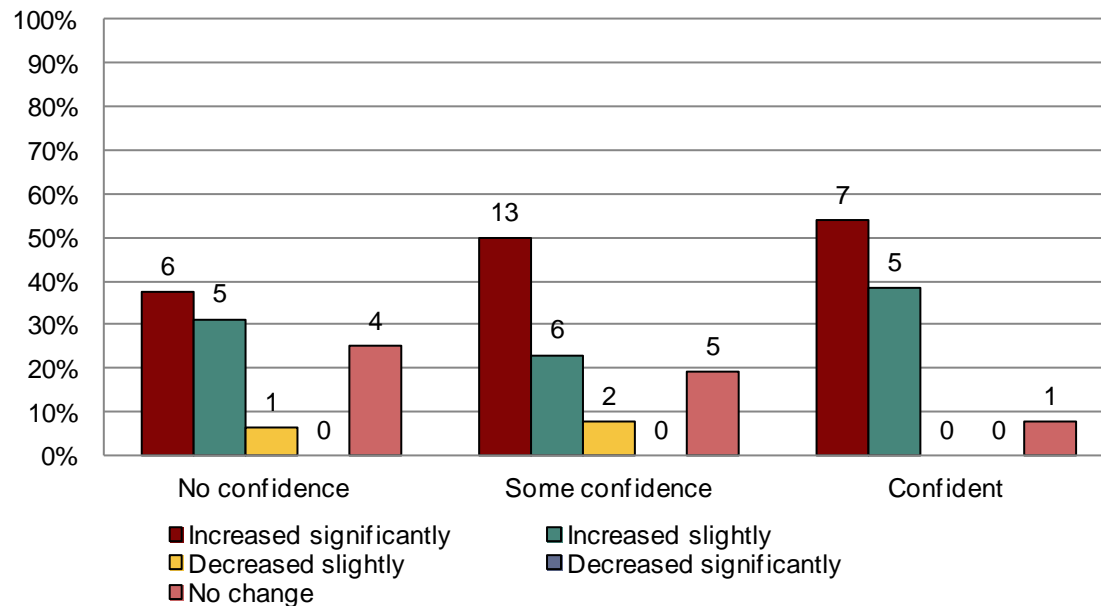


- Students who enter the program with confidence in their ability with finding the slope of a line are more likely to report an significant increase in their confidence level after the program (54%), compared to those who entered with some or no confidence (50% or 38%).



# Math Confidence

**2012 Foothill College Summer Bridge Program**  
**Change in student confidence level (N=55)**  
**with graphing a line from the equation of a line**

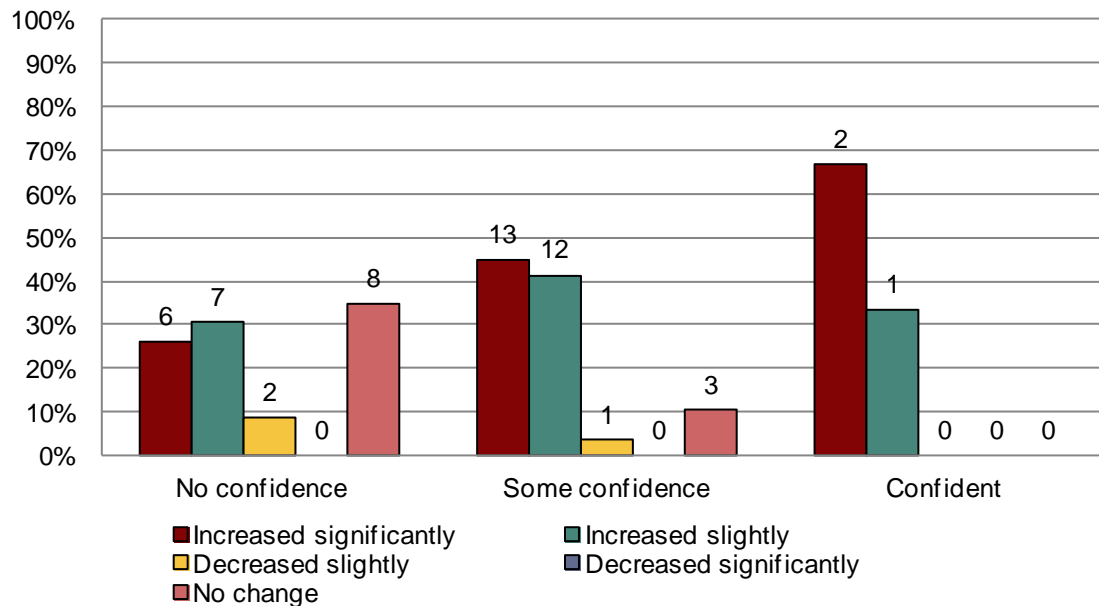


- Students who enter the program with confidence in their ability with graphing a line from the equation of a line are more likely to report an significant increase in their confidence level after the program (54%), compared to those who entered with confidence or no confidence (50% or 38%).



# Math Confidence

2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=55)  
w/finding the equation for a line if you are given the graph



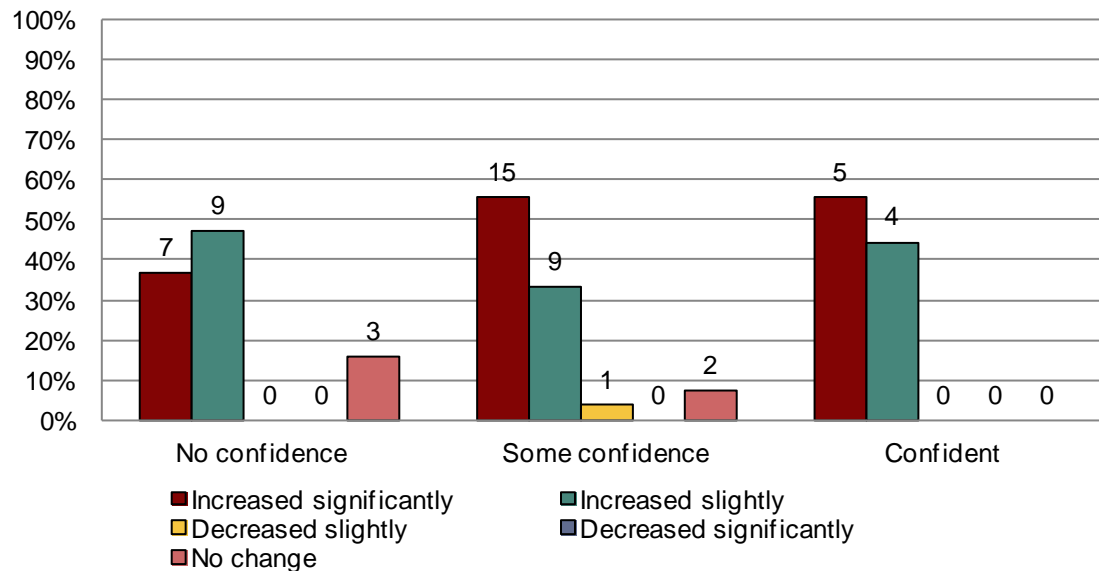
- Students who enter the program with confidence in their ability with finding the equation for a line if you are given the graph are more likely to report an significant increase in their confidence level after the program (67%; 2 out of 3), compared to those who entered with some confidence or no confidence (45% or 26%).



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# Math Confidence

**2012 Foothill College Summer Bridge Program  
Change in student confidence level (N=55)  
with working with rules of exponents**



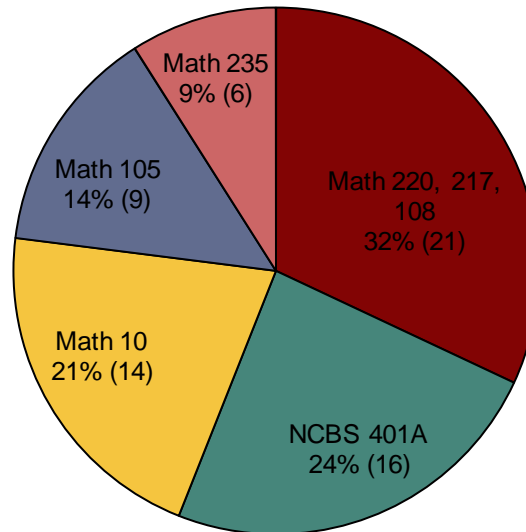
- Students who enter the program with confidence and some confidence in their ability with plotting points on a graph are more likely to report a significant increase in their confidence level after the program (56% and 56%), compared to those who entered with no confidence (37%).



Are there any shifts in  
math placement?

# Math Placement Testing

2012 Foothill College Summer Bridge Program  
Math Placement Results (7.19.2012) (N=66)



- Based on test results for 66 students.
- 56% of students placed into Elementary Algebra (32%) or Prep for Arithmetic (24%).



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# Math Placement Testing

## 2012 Foothill College Summer Bridge Program Change in Math Placement Results

Math Placement (between 4.12 and 7.12)	Math Placement (7.19.2012) (N=38)											
	Math 10		Math 105		Math 108, 217, 220		Math 235		NCBS 401A		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Math 10	1	100%		0%	0	0%	0	0%	0	0%	1	100%
Math 105	1			0%	0	0%	0	0%	0	0%	1	100%
Math 108, 217, 220	3		4		5	38%	0	0%	1	8%	13	100%
Math 235	4	40%	3		3	30%	0	0%	0	0%	10	100%
NCBS 401A	1	8%	2		1	8%	2	17%	6	50%	12	100%
Review and Retest	0	0%	0	0%	1	100%	0	0%	0	0%	1	100%

Note: Out of 66 students that completed the program only 38 students had Math placement test results prior to the program.

25 out of 38 students showed increase in math placement test results (66%).

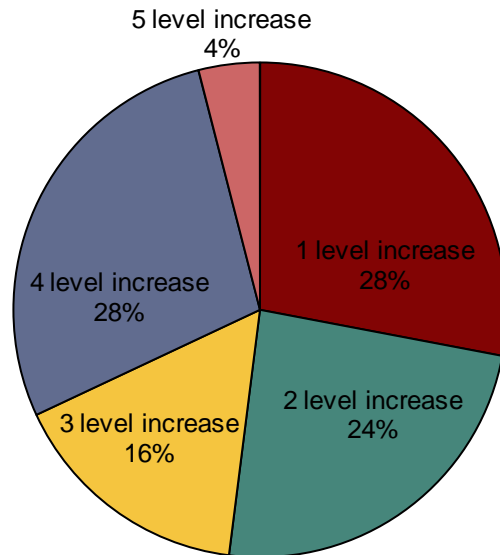
- 38 out of 66 took math placement test prior to Summer Bridge (58%).
- Slightly more than half of the students who initially placed at Elementary Algebra placed at a higher level (54%).
- All students who initially placed into Math My Way placed at a higher level.
- Half of students who initially placed at lowest level placed at a higher level.



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# Math Placement Testing

**2012 Foothill College Summer Bridge Program  
Increase In Math Placement Level among Students with  
Pre-and Post Tests (N=25)**



- Among those students who improved their math placement, 52% increased one to two levels.



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Where are the students now?

# Fall 2012 Enrollment

- 66 students enrolled in Fall 2012
- 61 out of 66 who completed summer bridge
- 5 out of 7 who did not complete summer bridge



# Fall 2012 Enrollment

**2012 Foothill College Summer Bridge Program  
Fall Enrollment per number of courses (intention/actual)**

# of Courses	<u>Planned</u>		<u>Enrolled</u>	
	N	%	N	%
0	0	0%	5	8%
1	3	5%	4	6%
2	6	10%	9	14%
3	20	34%	29	44%
4	15	26%	13	20%
5	8	14%	4	6%
6+	6	10%	2	3%
No Response	3	5%	0	0
Total	58	100%	66	100%

Planned:  
60%

Enrolled:  
64%

Total enrollment figure includes all SB students regardless if they finished the program.

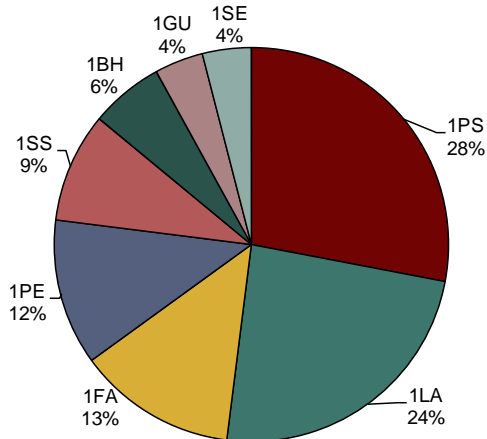
- Students' anticipated enrollment patterns are confirmed as of Fall 2012 census data.



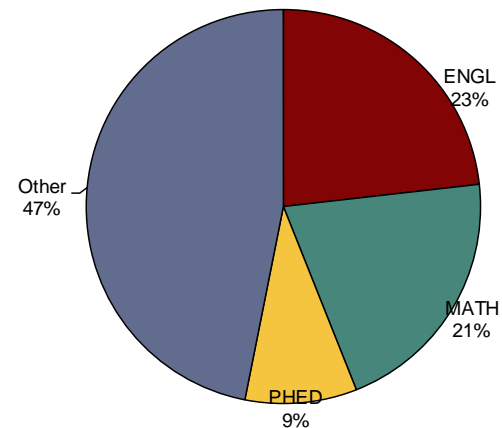
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# Fall 2012 Enrollment

2012 Foothill College Summer Bridge Program  
Fall 2012 Enrollment by Division



2012 Foothill College Summer Bridge Program  
Fall 2012 Enrollment by Department



Charts include all SB students regardless if they finished the program.

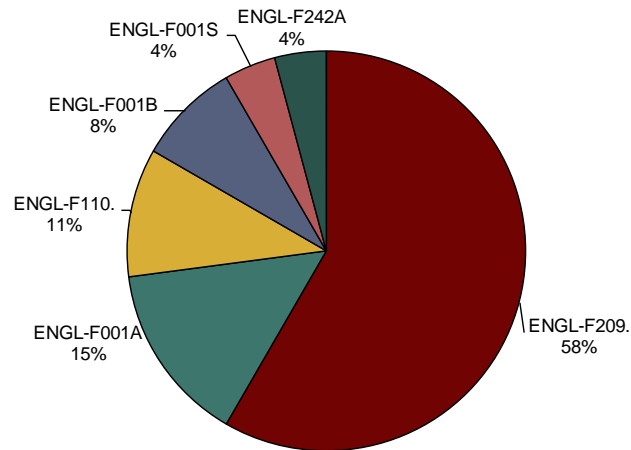
- Roughly half of student enrollment in PSME and LA divisions (52%).
- Top three departments with highest enrollments are English, Math and Physical Education (53%).



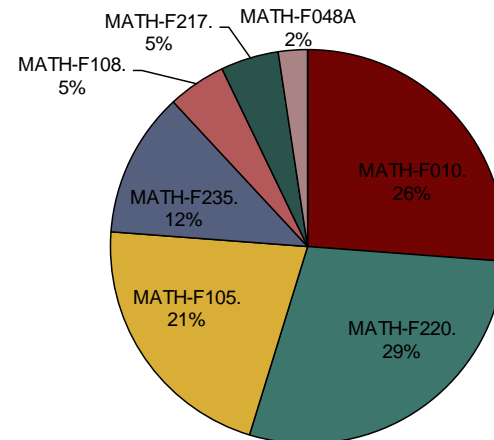
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# Fall 2012 Enrollment

2012 Foothill College Summer Bridge Program  
Fall 2012 Enrollment in English Department



2012 Foothill College Summer Bridge Program  
Fall 2012 Enrollment in Math Department



- 36 students enrolled in English and Math.
- 36 out of 61 students who finished the program and enrolled in fall, took English and Math (59%).



# Fall 2012 Enrollment

- 42 students enrolled in a math course (64%).
- 13 placed and 12 registered for college level Math (29%); 1 registered for Intermediate Algebra.
- 8 placed and registered for Inter-Algebra (19%).
- 16 placed and registered for Elem-Algebra (38%).
- 4 placed and registered for Math My Way (10%).
- 1 student placed in NCBS 401A but registered in Math My Way (2%).



# Fall 2012 Enrollment

<b>2012 Foothill College Summer Bridge Program</b>		
<b>No Enrollment in Math Courses in Fall 2012 (N=24)</b>		
<b>Math Placement 7.19</b>	<b>N</b>	<b>%</b>
Math 10	1	4%
Math 105	1	4%
Math 220, 217, 108	5	21%
Math 235	2	8%
NCBS 401A	15	63%
Total	24	100%

- About one-third of students who received a math placement level did not enroll in a math course in Fall 2012.
- Most of these students who did not enroll in a math courses were placed at the lowest math level (63%).



# Summary

- Students who entered the program with at least some confidence were more likely to experience a significant increase in confidence.
- Two-thirds of students increased their math placement level.
- About half of students are enrolled in Math and English course (55%).



# Next Steps

- Use of data
- Program improvement
- Other data
  
- Questions? Feedback?

