



Plotting the Math Path

November 8, 2018



FLORIDA DEPARTMENT OF
EDUCATION
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How do results in grades 3-5 impact a students future math path?

Statewide FSA Results	2014-2015	2015-2016	2016-2017	2017-2018
Third Grade	58.3%	60.9%	61.5%	61.7%
Fourth Grade	59.1%	58.8%	63.6%	62.1%
Fifth Grade	54.5%	55.4%	57.1%	60.7%

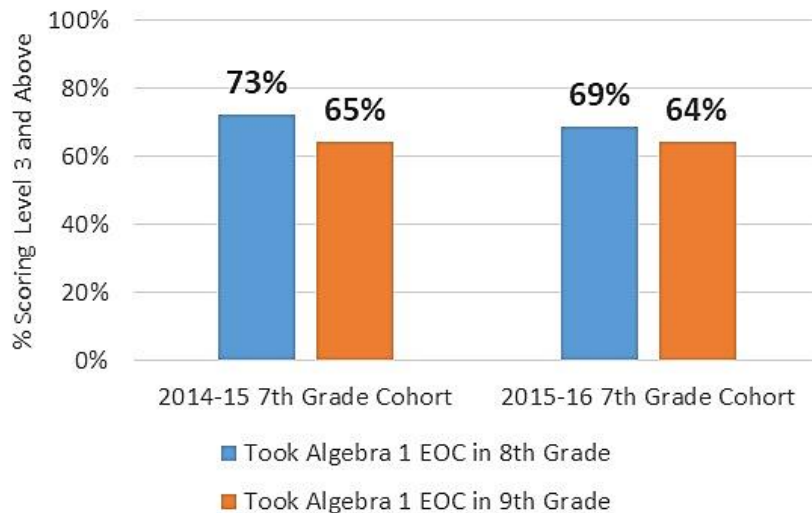
Percentages refer to students scoring a level 3 or above on the indicated FSA.

How is grade 6 and grade 7 course placement determined?

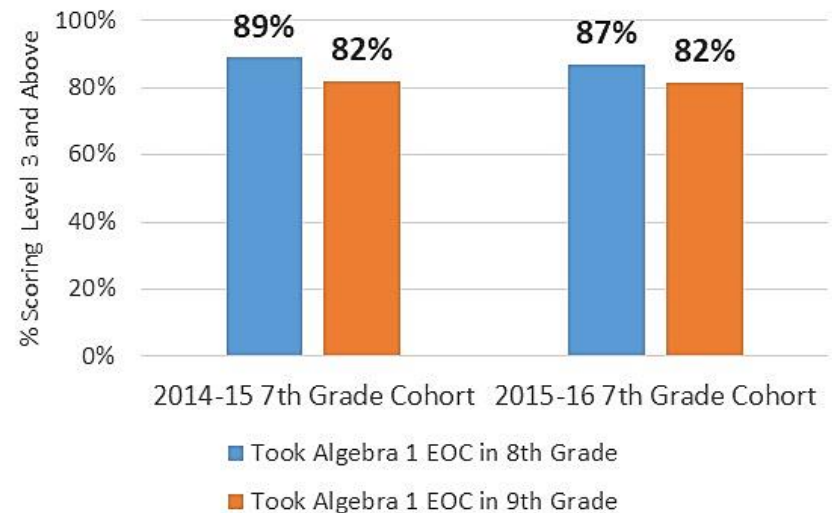
Grade 6		Grade 7		Grade 8	
MAFS.6.G.1.4	MAFS.6.RP.1.1	MAFS.7.RP.1.1	MAFS.7.EE.2.3	MAFS.8.EE.1.1	MAFS.8.G.1.2
MAFS.6.SP.1.1	MAFS.6.RP.1.2	MAFS.7.RP.1.2	MAFS.7.EE.2.4	MAFS.8.EE.1.2	MAFS.8.G.1.3
MAFS.6.SP.1.2	MAFS.6.RP.1.3	MAFS.7.RP.1.3	MAFS.7.G.1.1	MAFS.8.EE.1.3	MAFS.8.G.1.4
MAFS.6.SP.1.3	MAFS.6.EE.1.1	MAFS.7.EE.1.1	MAFS.7.G.1.2	MAFS.8.EE.1.4	MAFS.8.G.1.5
MAFS.6.SP.2.4	MAFS.6.EE.1.2	MAFS.7.EE.1.2	MAFS.7.G.1.3	MAFS.8.EE.2.5	MAFS.8.G.2.6
MAFS.6.SP.2.5	MAFS.6.EE.1.3	MAFS.7.NS.1.1	MAFS.7.G.2.4	MAFS.8.EE.2.6	MAFS.8.G.2.7
MAFS.6.NS.1.1	MAFS.6.EE.1.4	MAFS.7.NS.1.2	MAFS.7.G.2.5	MAFS.8.EE.3.7	MAFS.8.G.2.8
MAFS.6.NS.2.2	MAFS.6.EE.2.5	MAFS.7.NS.1.3	MAFS.7.G.2.6	MAFS.8.EE.3.8	MAFS.8.G.3.9
MAFS.6.NS.2.3	MAFS.6.EE.2.6		MAFS.7.SP.1.1	MAFS.8.F.1.1	MAFS.8.SP.1.1
MAFS.6.NS.2.4	MAFS.6.EE.2.7		MAFS.7.SP.1.2	MAFS.8.F.1.2	MAFS.8.SP.1.2
MAFS.6.NS.3.5	MAFS.6.EE.2.8		MAFS.7.SP.2.3	MAFS.8.F.1.3	MAFS.8.SP.1.3
MAFS.6.NS.3.6	MAFS.6.EE.3.9		MAFS.7.SP.2.4	MAFS.8.F.2.4	MAFS.8.SP.1.4
MAFS.6.NS.3.7	MAFS.6.G.1.1		MAFS.7.SP.3.5	MAFS.8.F.2.5	MAFS.8.NS.1.1
MAFS.6.NS.3.8	MAFS.6.G.1.2		MAFS.7.SP.3.6	MAFS.8.G.1.1	MAFS.8.NS.1.2
	MAFS.6.G.1.3		MAFS.7.SP.3.7		
			MAFS.7.SP.3.8		
Grade 6 Advanced		Grade 7 Advanced			

How does access to Algebra 1 in middle grades impact success for all students?

Students Who Scored a Low Level 3 on 7th Grade Math FSA

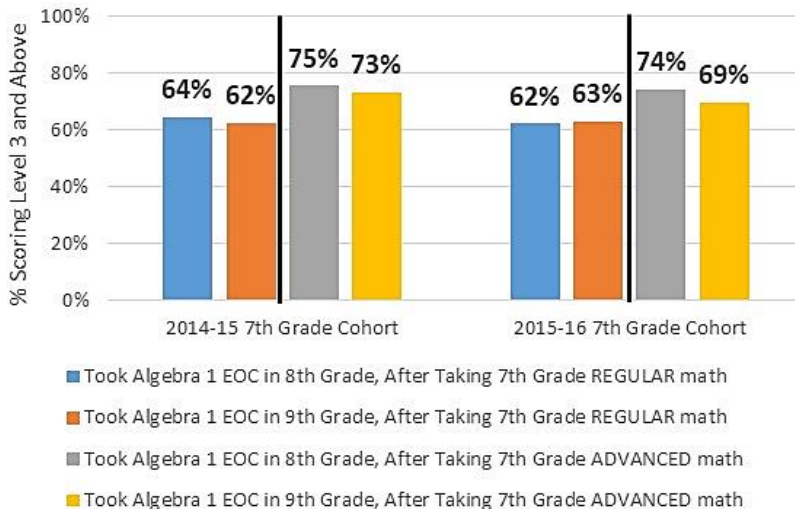


Students Who Scored a High Level 3 on 7th Grade Math FSA

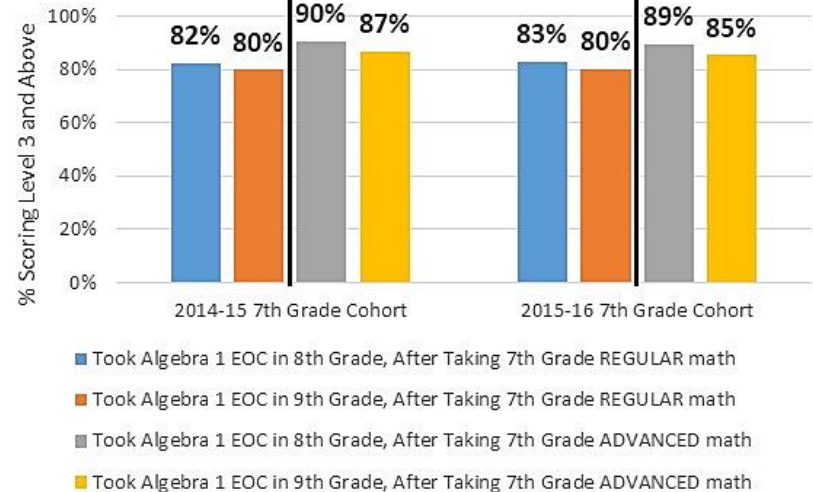


How does having access to an advanced middle grade math path effect success in Algebra 1?

Students Who Scored a Low Level 3 on 7th Grade Math FSA

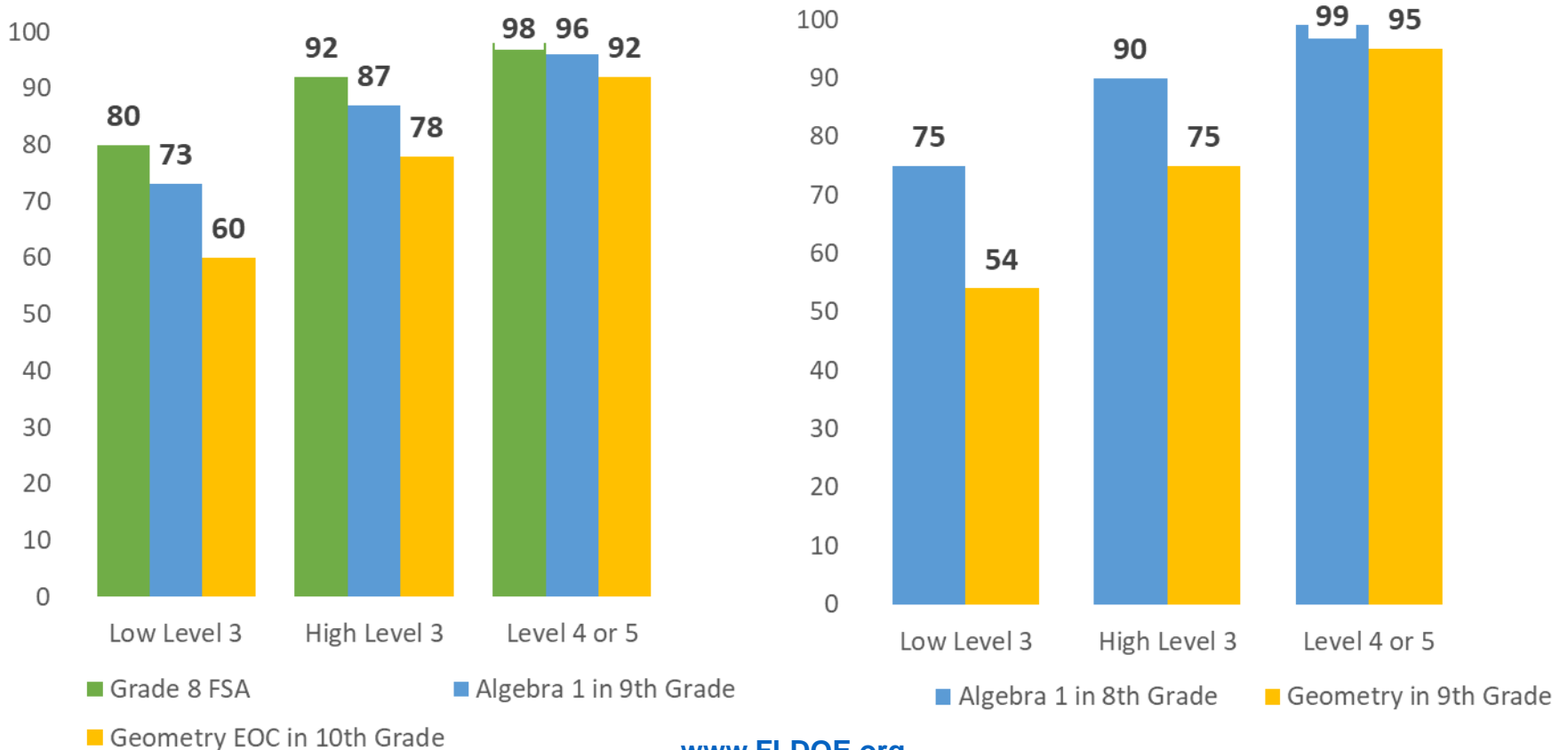


Students Who Scored a High Level 3 on 7th Grade Math FSA



How does middle grade acceleration impact student success in future math courses?

Comparison of Math Path for Students after Grade 7 Advanced in 14-15



How do high school math courses prepare students for postsecondary?

COLLEGE ALGEBRA PROFILE DESCRIPTION	1207310: LIBERAL ARTS MATHEMATICS 2	1200700: MATH FOR COLLEGE READINESS	1200330: ALGEBRA 2
FUNCTIONS & FUNCTION NOTATION		X	
DOMAINS & RANGES OF FUNCTIONS		X	X
GRAPHS OF FUNCTIONS AND RELATIONS	X	X	X
OPERATIONS ON FUNCTIONS		X	X
INVERSE FUNCTIONS			X
LINEAR, QUADRATIC, AND RATIONAL FUNCTIONS	X	X	X
ABSOLUTE VALUE AND RADICAL FUNCTIONS	X	X	X
EXPONENTIAL AND LOGARITHMIC PROPERTIES, FUNCTIONS, AND EQUATIONS	X	X	X
SYSTEMS OF EQUATIONS AND INEQUALITIES	X	X	X

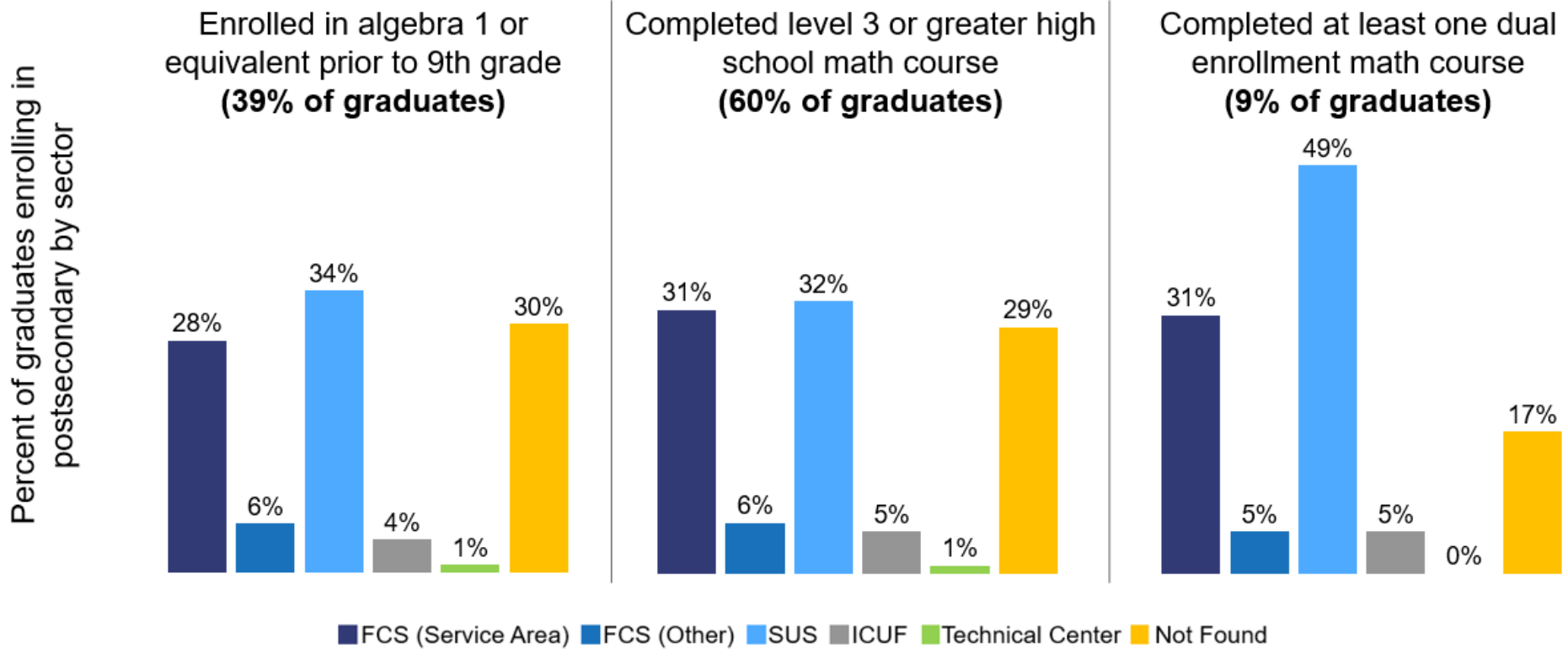
How do high school math courses prepare students for postsecondary?

COLLEGE STATISTICS PROFILE DESCRIPTION	1207310: LIBERAL ARTS MATHEMATICS 2	1210300: PROBABILITY AND STATISTICS WITH APPLICATIONS HONORS	1200330: ALGEBRA 2
RANDOM VARIABLES		X	
PROBABILITY	X	X	X
HYPOTHESE TESTING			
CONFIDENCE INTERVAL ESTIMATION			
SMALL SAMPLE METHODS			
CORRELATION		X	
SIMPLE LINEAR REGRESSION		X	
NONPARAMETRIC STATISTICS			

How can grade 12 course placement develop successful K-20 math paths?

GRADE 12 MATH COURSE GROUP	PERCENTAGE OF 12TH GRADERS IN 17-18	PASSED ALGEBRA 1	Did Not Pass Algebra 1 but Passed PERT	Did Not Pass Either Algebra 1 or PERT	Did Not Take an Algebra 1 EOC or Math PERT Placement
No Math Course	18%	66%	12%	9%	13%
Level 2 Math Course(s) Only – Excludes Algebra College Readiness	24%	43%	32%	23%	2%
Level 2 Algebra College Readiness Math Course	27%	46%	32%	21%	1%
Level 3 Math Course(s) or CTE or Dual Enrollment Math Course	31%	89%	6%	3%	2%
Had a mix of Level 2 & Level 3 (CTE, DE) Math Courses	1%	66%	22%	11%	1%
Total (198,021 students)	100%	62%	22%	14%	4%

How does a student's K-12 math path lead to enrollment in postsecondary institutions?



2016 Florida high school graduates with standard high school diploma (n=159,494)

Guiding Questions

- How are course placement decisions made in your district (*from elementary to middle, middle to high, and to postsecondary*)?
 - Who is involved in making those decisions? How can we hold them accountable from elementary to postsecondary?
- How do student data drive course placement decisions?
 - What is the impact of course placement on student success in middle grades, secondary, and postsecondary?
- How can we use the data presented to ensure our pathways maximize student potential *for all students*?
 - What data are essential to determining your district's math pathways?

Feedback



<http://bit.ly/2NSgkEV>

Date of Presentation: 11/8/2018

Time of Session: AM

Presenters: Courtney Starling and Cassie Palelis

Contact us!

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