ANNUAL INDIANA ADVANCED PLACEMENT PERFORMANCE REPORT 2016

Indiana Department of Education

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OVERVIEW OF AP IN INDIANA, 2016

Participation and Success

Advanced Placement (AP) is a research-backed method to facilitate student participation and success through delivery of college-level courses and corresponding exams in the high school setting to qualified high school students. Students who demonstrate success in AP courses are predicted to outperform their peers who do not take or have not had success in these courses. The current research suggests passing/qualifying on an exam (scoring a 3, 4, or 5 on a scale of 1-5) is predictive of greater college success.[1] The Indiana Department of Education (IDOE) has committed to expanding **participation and success** on AP exams in order to have the highest percent of college-educated citizens in the United States.

The College Board collects individual student-level AP performance data throughout each student's secondary school experience. Using that data, the College Board publishes an annual "AP Report to the Nation" that provides individual state performance levels which may serve as comparative data. Associated with the research, the most important data presented is the number of graduates for the published year that passed an AP exam at some point during their high school career; the IDOE refers to this as the College Board Metric (CBM).

The formula for improving outcomes in Indiana on AP coursework must include an increase in both **participation and success** – more students, in all demographics, participating in AP coursework and the corresponding exam, and a greater percentage of those students passing the AP exam.

The IDOE goal in 2016 was to have 25% of Hoosier graduates earn college credit through AP, IB or dual credit at some point in their high school career; achieving this metric would place Indiana among the top performing states in the nation. The AP Annual Performance Report includes an action plan to reach this goal.

[1] [1] *College Outcomes Comparisons by AP and Non-AP High School Experiences*. Hargrove, L., Godin, D., &Dodd, B. (2008) New York: The College Board

AP: Participation and Performance Overview

All		Indiana - All Schools				Total Group - All Schools			
		# of Exam-Takers	% of Total	# of Exams Taken	# of Scores 3-5	# of Exam-Takers	% of Total	# of Exams Taken	# of Scores 3-5
	Total	48,803	100.0%	81,952	41,311	2,611,172	100.0%	4,704,980	2,729,043
	Change from last year	+5.0%		+6.3%	+5.5%	+5.1%		+5.0%	+5.1%
	Female	27,500	56.3%	44,995	21,233	1,468,967	56.3%	2,582,597	1,434,235
	Change from last year	+5.7%		+7.2%	+7.2%	+5.8%		+5.9%	+6.0%
	Male	21,303	43.7%	36,957	20,078	1,142,205	43.7%	2,122,383	1,294,808
	Change from last year	+4.1%		+5.2%	+3.8%	+4.3%		+4.0%	+4.2%
	American Indian	134	0.3%	204	85	8,457	0.3%	13,186	4,864
	Change from last year	-		-	-	-		-	-
	Asian	2,517	5.2%	5,710	3,967	335,228	12.8%	737,699	517,483
	Change from last year	-		-	-	-		-	-
	Black	2,686	5.5%	4,094	983	188,039	7.2%	295,745	87,569
	Change from last year	-		-	-	-		-	-
	Hispanic or Latino	3,940	8.1%	6,334	2,369	575,432	22.0%	978,513	419,234
	Change from last year	-		-	-	-		-	-
	Pacific Islander	25	0.1%	43	23	4,785	0.2%	7,830	3,275
	Change from last year	-		-	-	-		-	-
	White	37,052	75.9%	61,536	31,991	1,347,688	51.6%	2,410,243	1,546,500
	Change from last year	-		-	-	-		-	-
	Two or More Races	1,781	3.6%	2,994	1,454	108,282	4.1%	192,731	112,891
	Change from last year	-		-	-	-		-	-
	Other	38	0.1%	79	34	2,203	0.1%	5,423	3,759
	Change from last year	-		-	-	-		-	-
	No Response	630	1.3%	958	405	41,058	1.6%	63,610	33,468
	Change from last year	-		-	-	-		-	-

AP: Exam Participation and Performance (Part 1 of 3)

	'14-'15							'15-'16						
	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5
Total # of Exams	77,086	100%	18,087	19,848	19,119	12,558	7,474	81,952	100%	18,796	21,845	19,497	13,302	8,512
Art History	333	0%	137	63	77	38	18	317	0%	56	87	93	56	25
% of Total			41%	19%	23%	11%	5%			18%	27%	29%	18%	8%
Art: Studio 2D-Design	456	1%	20	93	148	116	79	465	1%	7	110	150	128	70
% of Total			4%	20%	32%	25%	17%			2%	24%	32%	28%	15%
Art: Studio 3D-Design	110	0%	4	13	40	32	21	129	0%	2	29	45	39	14
% of Total			4%	12%	36%	29%	19%			2%	22%	35%	30%	11%
Art: Studio Drawing	285	0%	20	56	110	60	39	267	0%	4	50	89	69	55
% of Total			7%	20%	39%	21%	14%			1%	19%	33%	26%	21%
Biology	4,534	6%	466	1,528	1,488	833	219	4,930	6%	710	1,576	1,628	793	223
% of Total			10%	34%	33%	18%	5%			14%	32%	33%	16%	5%
Chemistry	3,718	5%	1,138	1,060	929	383	208	3,529	4%	1,005	1,026	883	405	210
% of Total			31%	29%	25%	10%	6%			28%	29%	25%	11%	6%
Chinese Language and Culture	29	0%	4	4	6	2	13	41	0%	9	3	13	4	12
% of Total			14%	14%	21%	7%	45%			22%	7%	32%	10%	29%
Computer Science A	691	1%	260	57	102	136	136	782	1%	248	133	158	133	110
% of Total			38%	8%	15%	20%	20%			32%	17%	20%	17%	14%
Economics: Macroeconomics	1,401	2%	446	246	241	300	168	1,496	2%	428	292	232	317	227
% of Total			32%	18%	17%	21%	12%			29%	20%	16%	21%	15%
Economics: Microeconomics	1,518	2%	427	239	319	336	197	1,839	2%	546	306	412	384	191
% of Total			28%	16%	21%	22%	13%			30%	17%	22%	21%	10%
English Language & Composition	9,432	12%	1,409	3,065	2,559	1,590	809	10,587	13%	1,645	3,891	2,652	1,540	859
% of Total			15%	32%	27%	17%	9%			16%	37%	25%	15%	8%
English Literature & Composition	7,811	10%	741	3,039	2,432	1,204	395	8,807	11%	987	3,655	2,544	1,211	410
% of Total			9%	39%	31%	15%	5%			11%	42%	29%	14%	5%
Environmental Science	3,007	4%	924	889	445	594	155	3,389	4%	1,119	920	539	652	159
% of Total			31%	30%	15%	20%	5%			33%	27%	16%	19%	5%
French Language	263	0%	25	58	69	64	47	271	0%	13	39	85	81	53
% of Total			10%	22%	26%	24%	18%			5%	14%	31%	30%	20%

AP: Exam Participation and Performance (Part 2 of 3)

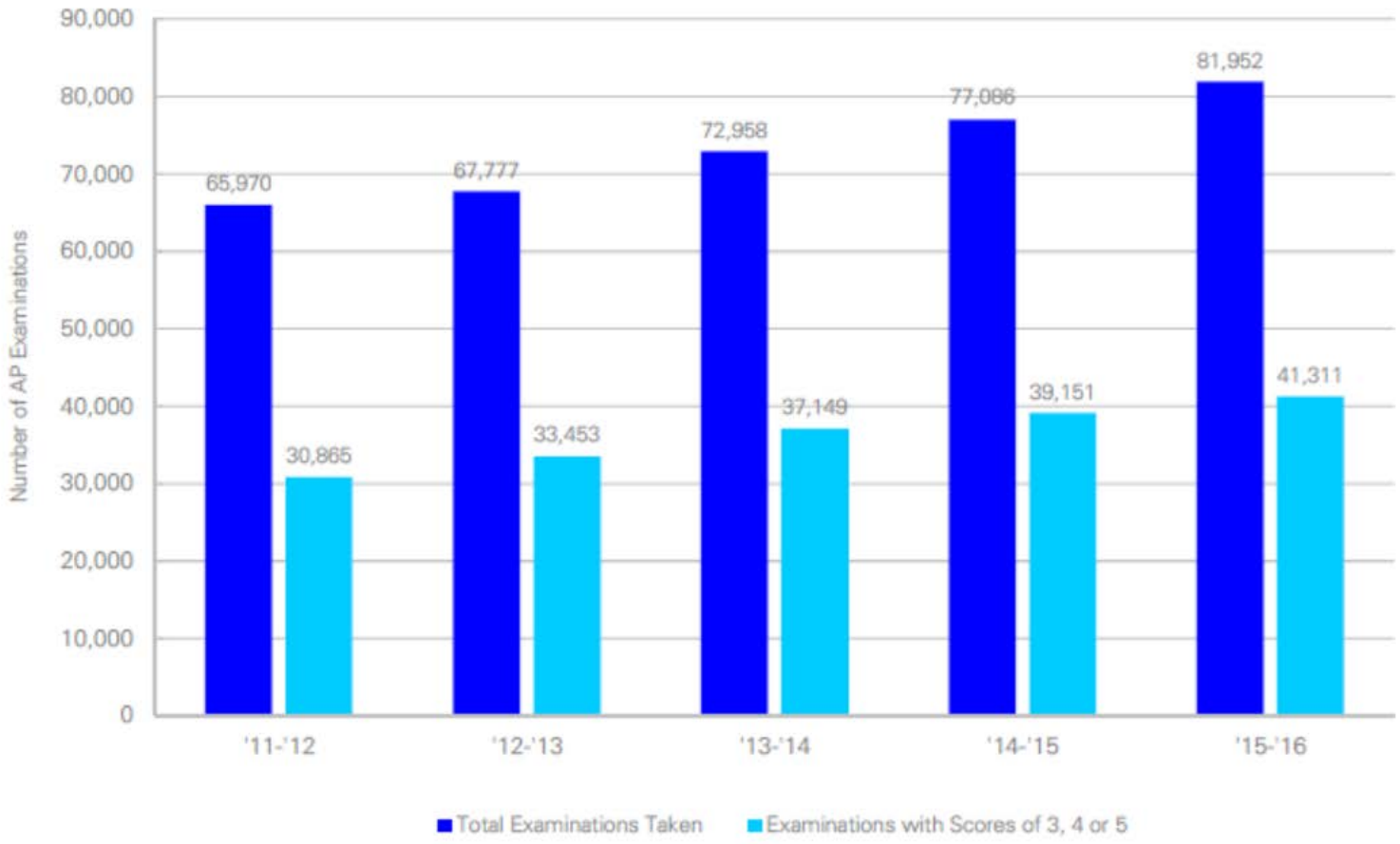
	'14-'15							'15-'16						
	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5
German Language	134	0%	2	21	46	45	20	128	0%	14	17	35	39	23
% of Total			1%	16%	34%	34%	15%			11%	13%	27%	30%	18%
Government & Politics: Comparative	36	0%	4	4	9	10	9	73	0%	12	14	13	17	17
% of Total			11%	11%	25%	28%	25%			16%	19%	18%	23%	23%
Government & Politics: United States	3,715	5%	1,063	1,002	907	483	260	3,708	5%	1,028	937	894	463	386
% of Total			29%	27%	24%	13%	7%			28%	25%	24%	12%	10%
History: European	1,409	2%	372	162	487	244	144	1,516	2%	192	512	436	225	151
% of Total			26%	11%	35%	17%	10%			13%	34%	29%	15%	10%
History: United States	7,868	10%	2,507	2,254	1,638	1,038	431	8,547	10%	2,530	2,276	1,816	1,217	708
% of Total			32%	29%	21%	13%	5%			30%	27%	21%	14%	8%
History: World	4,458	6%	690	1,502	1,440	564	262	4,180	5%	788	1,343	1,238	579	232
% of Total			15%	34%	32%	13%	6%			19%	32%	30%	14%	6%
Human Geography	1,920	2%	501	348	424	421	226	2,145	3%	549	420	450	472	254
% of Total			26%	18%	22%	22%	12%			26%	20%	21%	22%	12%
Italian	2	0%	–	–	–	–	–	3	0%	–	–	–	–	–
% of Total			–	–	–	–	–			–	–	–	–	–
Japanese Language and Culture	45	0%	25	5	3	2	10	18	0%	7	0	5	1	5
% of Total			56%	11%	7%	4%	22%			39%	0%	28%	6%	28%
Latin	102	0%	7	26	32	27	10	79	0%	2	23	35	16	3
% of Total			7%	25%	31%	26%	10%			3%	29%	44%	20%	4%
Mathematics: Calculus AB	7,483	10%	3,051	868	1,361	1,071	1,132	7,477	9%	3,038	821	1,227	1,110	1,281
% of Total			41%	12%	18%	14%	15%			41%	11%	16%	15%	17%
Mathematics: Calculus BC	1,432	2%	186	80	283	222	661	1,536	2%	191	106	263	216	760
% of Total			13%	6%	20%	16%	46%			12%	7%	17%	14%	49%
Music: Theory	404	1%	58	117	98	72	59	415	1%	60	130	110	59	56
% of Total			14%	29%	24%	18%	15%			14%	31%	27%	14%	13%
Physics 1	3,276	4%	1,223	1,029	580	326	118	3,274	4%	1,204	969	632	356	113
% of Total			37%	31%	18%	10%	4%			37%	30%	19%	11%	3%
Physics 2	383	0%	51	168	111	36	17	508	1%	66	202	154	51	35
% of Total			13%	44%	29%	9%	4%			13%	40%	30%	10%	7%

Note: Scores are reported when there are five or more exams.

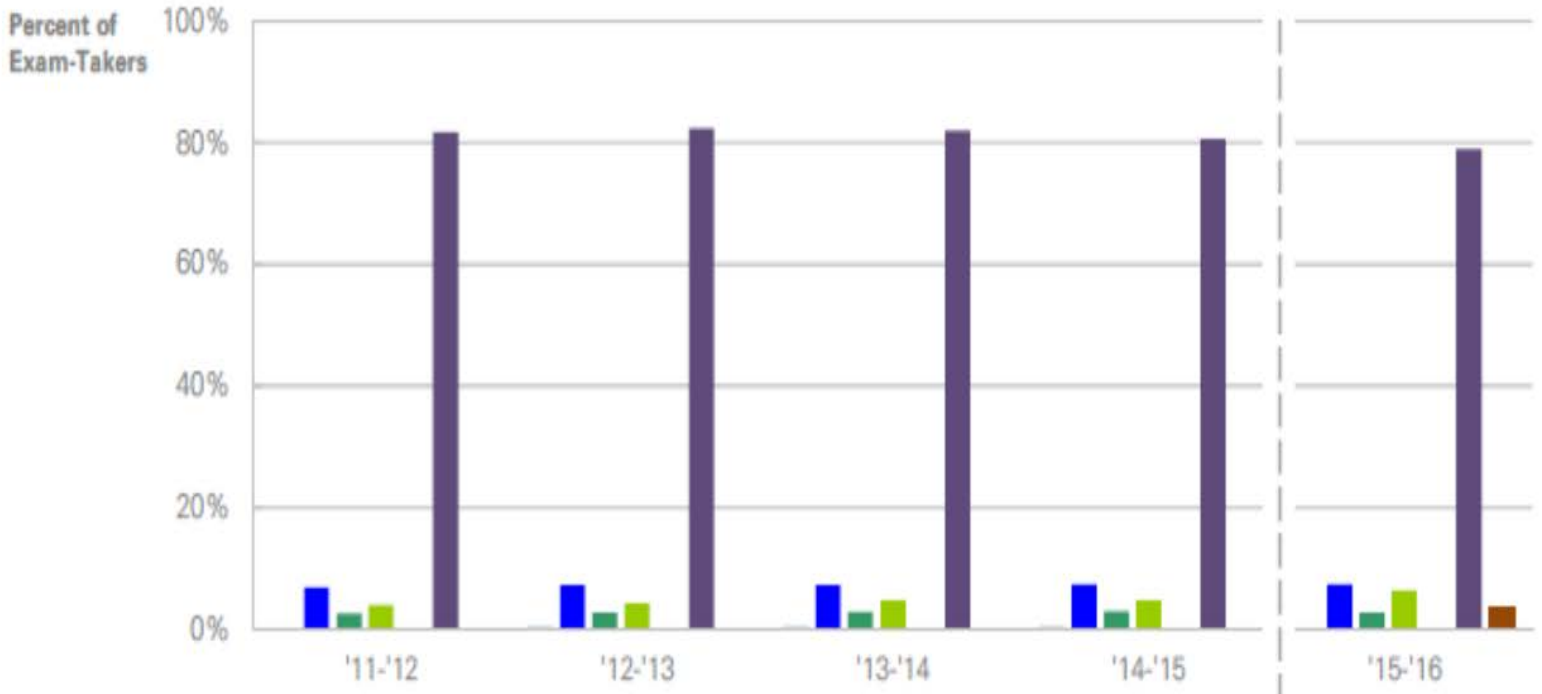
AP: Exam Participation and Performance (Part 3 of 3)

	'14-'15							'15-'16						
	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5	# of Exams	% of Total	Score of 1	Score of 2	Score of 3	Score of 4	Score of 5
Physics C: Electricity & Magnetism	308	0%	52	64	38	78	76	370	0%	61	99	55	77	78
% of Total			17%	21%	12%	25%	25%			16%	27%	15%	21%	21%
Physics C: Mechanics	939	1%	129	141	223	225	221	849	1%	105	136	159	223	226
% of Total			14%	15%	24%	24%	24%			12%	16%	19%	26%	27%
Psychology	4,630	6%	1,189	705	1,018	1,065	653	4,833	6%	1,168	820	979	1,121	745
% of Total			26%	15%	22%	23%	14%			24%	17%	20%	23%	15%
Spanish Language	1,252	2%	53	231	436	312	220	1,120	1%	49	202	338	322	209
% of Total			4%	18%	35%	25%	18%			4%	18%	30%	29%	19%
Spanish Literature and Culture	42	0%	2	14	20	6	0	65	0%	8	18	23	12	4
% of Total			5%	33%	48%	14%	0%			12%	28%	35%	18%	6%
Statistics	3,348	4%	892	656	822	564	414	3,657	4%	942	591	838	778	508
% of Total			27%	20%	25%	17%	12%			26%	16%	23%	21%	14%
AP Capstone: Seminar	312	0%	9	41	178	59	25	373	0%	3	35	182	83	70
% of Total			3%	13%	57%	19%	8%			1%	9%	49%	22%	19%
AP Capstone: Research*	0	–	0	0	0	0	0	229	0%	0	57	92	53	27
% of Total			–	–	–	–	–			0%	25%	40%	23%	12%

AP: Number of Examinations and Number of Examinations with Scores of 3, 4 or 5



AP: Participation by Race/Ethnicity - Students with Scores of 3, 4 or 5



Number of Students With Scores 3, 4 or 5 on an AP Exam:	'11-'12	'12-'13	'13-'14	'14-'15	'15-'16
American Indian	37	64	72	60	49
Asian	1,336	1,511	1,634	1,756	1,810
Black	505	554	629	698	669
Hispanic or Latino	782	885	1,069	1,136	1,579
Pacific Islander	-	-	-	-	14
White	16,041	17,166	18,535	19,164	19,555
Two or more races	-	-	-	-	841
Other	453	568	588	592	15
No Response	461	107	98	387	257
Total	**19,615**	**20,855**	**22,625**	**23,793**	**24,789**

Note: Beginning with the 2015-16 school year, the collection and reporting of race/ethnicity was updated to reflect U.S. Department of Education guidelines. We encourage you to use caution when making comparisons between the 2015-16 school year and race/ethnicity subgroup data from prior years. American Indian includes Alaska Native, Black includes African American and Pacific Islander includes Native Hawaiian. Students reported as "Two or more races" are non-Hispanic. Please refer to the data notes section for additional information about the changes.

DATA EVIDENCE AND IMPLICATIONS:

The Data Shows:

- Increases in the number of all demographics of students for those earning a score of 3,4, or 5
- Exams taken have increased and exams scores of 3,4, or 5 have increased every year over the past 5 years
- From 2014 to 2015, there was a 5.7% increase in the number of female students taking an exam and a 4.1% increase in male students.
- Popular subjects (more than 3000 tests) with the highest percentage of qualifying tests:
    (1) Psychology (57%)
    (2) English Language & Composition (53%)
    (3) Biology (55%)
    (4) Statistics (53%)

Policy Implications:

Indiana is improving the number of students participating in AP exams and is also striving to keep pace with the qualification rate. If Indiana wishes to become one of the top performing AP states in the nation, measured by the number of graduates qualifying on an exam at some point during their high school career, then Indiana must:

(1) Provide on-going training for current AP math, English, and science teachers.

(2) Recruit and train more quality AP math, English, and science teachers.

(3) Provide more rigorous math, English, and science classes to students before they enter AP courses; and align curriculum for optimal AP course preparation.

(4) Encourage schools to align early high ability programs to AP course prerequisites.

ADVANCED PLACEMENT FUNDING AND TEACHER TRAINING

CURRENT STATE FUNDING

ADVANCED PLACEMENT PROGRAM FUNDING

For Fiscal Year 2016, the state appropriation was $3,950,000. Fiscal Year 2017 increased to $4,200,000. This appropriation is to provide funding for students of accredited public and nonpublic schools to take the College Board's Advanced Placement math, English, and science exams and to supplement and federal funds awarded for non-math, science, and English exams for students qualifying for the free and reduced lunch program. Any available funds are prioritized for teacher training and professional development.

PSAT PROGRAM FUNDING

For Fiscal Years 2016 and 2017, the state appropriation was $1,800,000. The appropriation is to provide funding for students of accredited public and nonpublic schools in grade 10 and 11 to take the PSAT/NMSQT exam.

FEDERAL FUNDING

ADVANCED PLACEMENT TEST FEE PROGRAM FUNDING

Provides supplemental AP and IB exam fee funding for qualified Free and Reduced Lunch students

The 2016 AP Test Fee Grant Award totaled $260,000. This amount covered $37 per non-math or science AP exam and $90 for IB exams taken by low income students. It did not cover the entire costs of these exams, nor did it cover IB registration costs as it had previously done.
*Under the new Every Student Succeeds Act, the AP Fee Reduction grant has been included in the Title IV Part A Block grants. It will be up to either the state or local education agencies to use this money for AP test reduction.

TEACHER TRAINING
In 2016, in addition to the professional development provided to AP TIP-IN educators:

AP One-Day Workshops – Butler University

- 605 teachers attended
- Workshop offered for 24 AP courses

Given the launch of the new SAT Suite of Assessments and all of the changes to our reporting system, College Board focused on ensuring corporations/schools were able access and use the new system in 15-16. How to locate AP Potential was part of these workshops, but these weren't designed to engage in data analysis and instructional planning like the old SOAS workshops.

PSAT Online Score Report Trainings (AP Potential)

- 333 educators attended
- 20 workshops at locations across the state

AP Mentoring is a teacher-to-teacher support program for teachers of all experience levels offered by the College Board. The College Board's AP Mentoring is the only program of its kind in the nation that specifically recruits, selects and trains mentor teachers who are active AP teachers in their AP subject area to mentor other AP teachers. AP Mentoring is available for teachers of AP English Literature and Composition and AP U.S. History. Mentee teachers meet monthly via video conferencing over a twelve month period to discuss instructional needs in their AP classrooms. Mentee teachers with 0 to 2 years of AP teaching experience are grouped together in order to provide focused support as they build knowledge of the AP Program; likewise, more experienced teachers will be grouped together to share strategies and best practices. Mentees also have exclusive access to sample exemplary lesson plans and instructional activities specifically designed for use in the AP classroom. In addition, mentees receive exclusive access to classroom resources developed by their mentor teachers to support them throughout their mentoring experience.

This will be extended for next year. Funding provides for 56 teachers to participate so we will be able to fund an additional 36 next year.

AP-TIP
Advanced Placement
Teacher Investment Program
UNIVERSITY OF NOTRE DAME

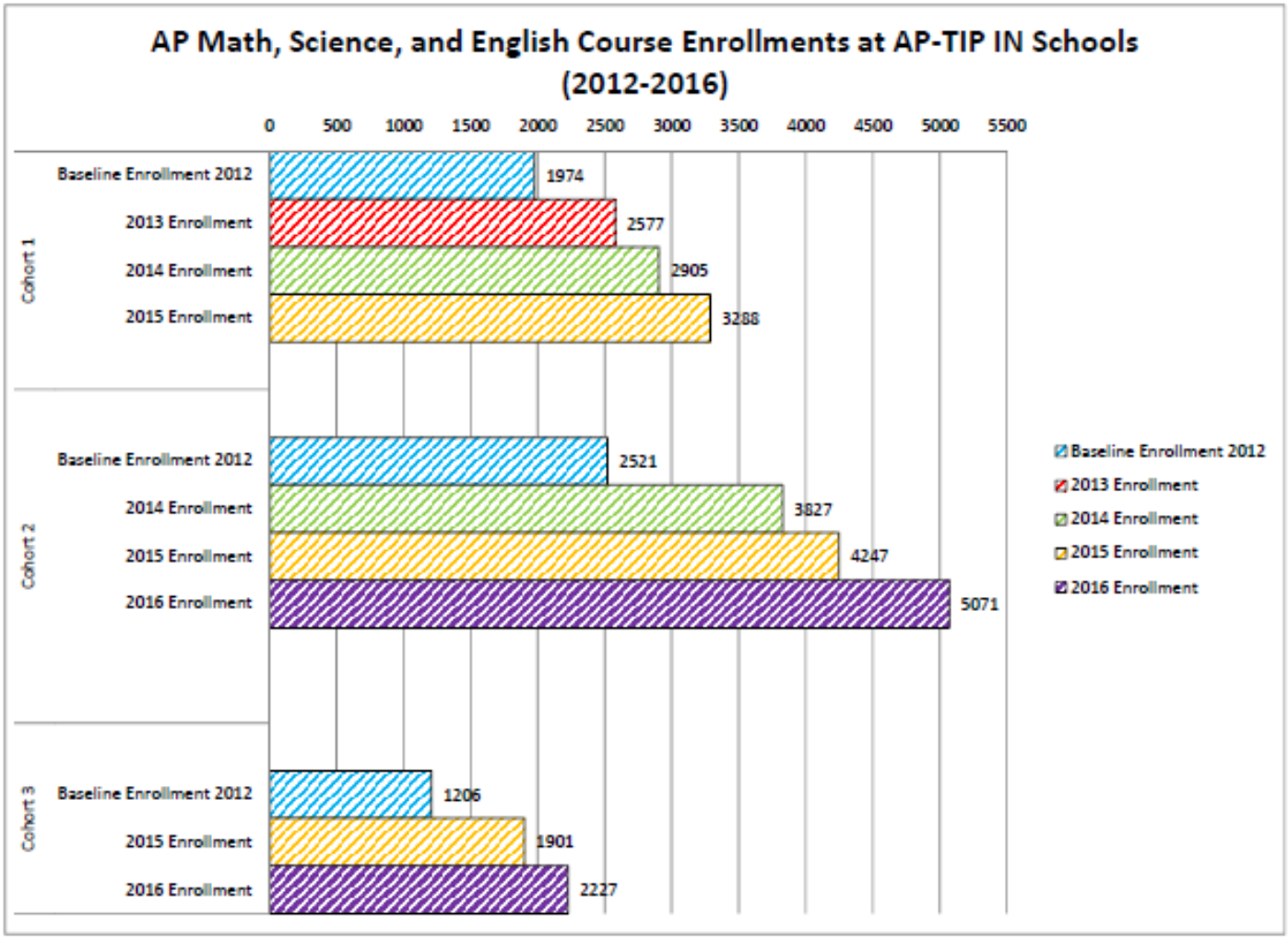
AP-TIP IN Program Update

Karen M. Morris
AP-TIP IN Program Director
November 8, 2016

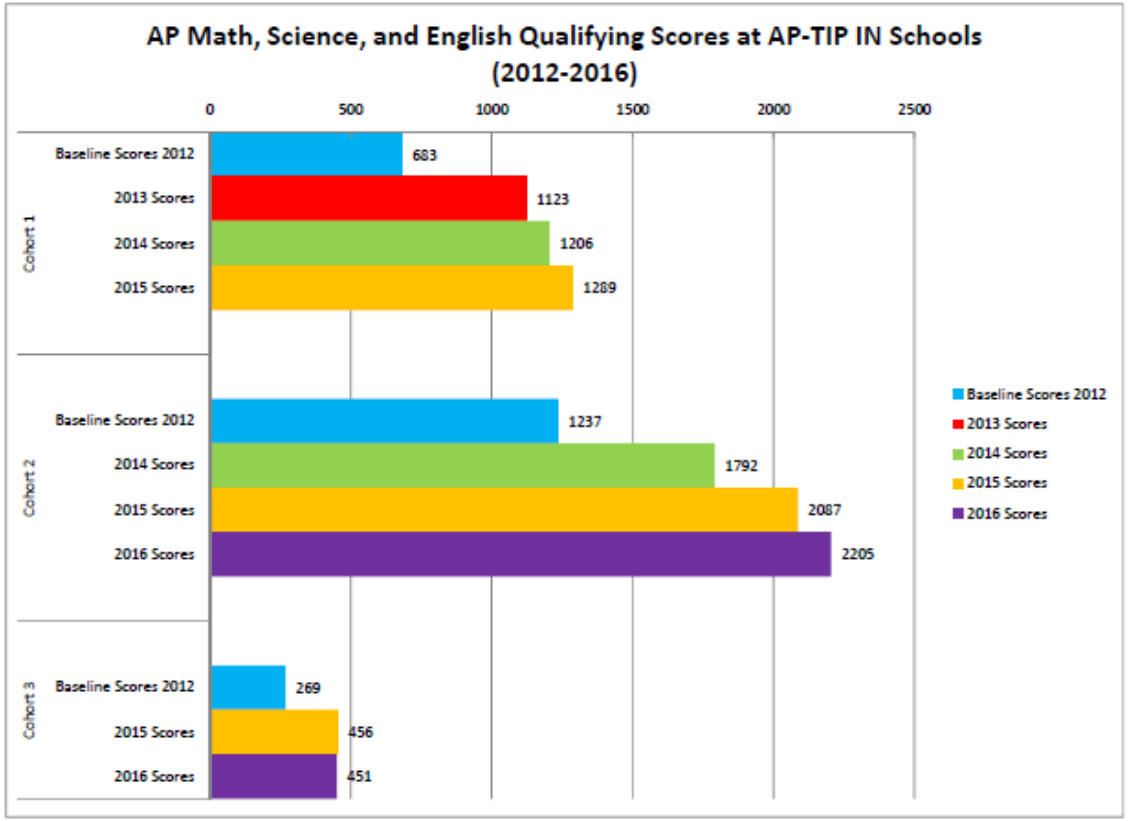
Since its inception in 2012, the AP-TIP IN program has significantly impacted students and teachers in 30 Indiana public high schools. After the completion of the fourth program year, the results remain outstanding for the 21 Cohort 2 and 3 schools listed here:

Cohort 2 Schools		Cohort 3 Schools	
Ben Davis	Lawrence Central	Arsenal Tech	Edgewood
Crawford County	Lawrence North	Broad Ripple	Lebanon
D.E. Gavit	Richmond	G.R. Clark	Morton
Hammond	Westfield	Crispus Attucks	New Prairie
Kokomo	Whiteland	Eastern Greene	Whitko
Lake Central			

- For the 2015-16 school year, enrollment increases in AP math, science and English (MSE) courses at the Cohort 2 and 3 schools continued to increase: nearly 96% increase compared to the baseline enrollments in 2012 and nearly 19% compared to the 2014-15 enrollments. Enrollment increases from last year outpaced the state by 11.5%. Cohort 2 and 3 students represented 16.5% of all Indiana AP MSE participation in the 2015-16 school year, although these schools represented only 6% of all Indiana public high schools that offer AP MSE courses.


AP Math, Science, and English Course Enrollments at AP-TIP IN Schools (2012-2016)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
Cohort 1
Baseline Enrollment 2012
1974
2013 Enrollment
2577
2014 Enrollment
2905
2015 Enrollment
3288
Cohort 2
Baseline Enrollment 2012
2521
2014 Enrollment
3827
2015 Enrollment
4247
2016 Enrollment
5071
Cohort 3
Baseline Enrollment 2012
1206
2015 Enrollment
1901
2016 Enrollment
2227
Baseline Enrollment 2012
2013 Enrollment
2014 Enrollment
2015 Enrollment
2016 Enrollment

- Compared to the 2012 baseline, success in AP MSE courses continues to soar. In the 2015-16 school year, the 21 AP-TIP IN Cohort 2 and 3 schools increased qualifying scores by 76%. Additionally, the number of qualifying scores received by students at AP-TIP IN schools represented nearly 13% of all of the AP MSE scores earned by Indiana students at public schools in 2016.



- At the end of Year 4, AP-TIP IN has worked with more than 280 AP MSE teachers and 17,000 students at the 30 AP-TIP IN high schools. These students have taken nearly 25,400 AP math, science, and English courses and earned 10,620 qualifying scores (a 42% success rate!). This translates to approximately $8,000,000* in college tuition saved for Hoosier families and by the state as students who earn qualifying scores are more likely to have a lower remediation rate and graduate on-time (*based on the average tuition cost for one-year of college at an Indiana public institute of higher education if a student enrolls in 30 credits; maintaining on-time graduation)!

While the results clearly demonstrate the efficacy of the AP-TIP IN program, the changing climate of education funding in Indiana has created obstacles to continue supporting current schools and expanding to new ones. The Investing in Innovation (i3) fund grant that AP-TIP IN used to begin this work with the National Math and Science Initiative (NMSI) in 2012 ends December 2016. In order to sustain and expand the program, grant proposals to the Indiana Commission for Higher Education (ICHE) were submitted in October 2015 and funded for the final year of professional development and support for the 10 Cohort 3 schools (2016-17) and inaugurated the AP-TIP IN program at nine Cohort 4 schools with teacher professional development ONLY.

AP-TIP IN has applied for a new one-year grant from ICHE in order to continue the AP-TIP IN Program at Cohort 4 schools for a second year and add a new Cohort 5 group of eight schools. These funds, however, do not fully support all aspects of the AP-TIP IN program; only teacher professional development and support. Unless significant funding is provided or granted to keep this outstanding program with great impact and results operating, AP-TIP IN will shutter its program after the 2016-17 school year.