

Goal 2. Elementary and Secondary Education:

Improve the elementary and secondary education system’s ability to consistently deliver excellent instruction aligned with rigorous academic standards while providing effective support services to close achievement and opportunity gaps, and ensure all students graduate high school college- and career-ready.

Goal Leader: Ann Whalen

Objective 2.1: Standards and Assessments. Support implementation of internationally benchmarked college- and career-ready standards, with aligned, valid, and reliable assessments. **Objective Leader: Ary Amerikaner**

Metric 2.1.A: Number of states/territories³³ that have adopted college- and career-ready standards³⁴

Metric 2.1.B: Number of states/territories³⁵ that are implementing next-generation reading and mathematics assessments, aligned with college- and career-ready standards

Objective 2.2: Effective Teachers and Strong Leaders. Improve the preparation, recruitment, retention, development, support, evaluation, recognition, and equitable distribution of effective teachers and leaders.³⁶ **Objective Leader: Ary Amerikaner**

Metric 2.2.A: Number of states that have fully implemented teacher and principal evaluation and support systems that consider multiple measures of effectiveness, with student growth as a significant factor

Objective 2.3: School Climate and Community. Increase the success, safety, and health of students, particularly in high-need schools, and deepen family and community engagement. **Objective Leader: Heather Rieman**

Metric 2.3.A: Disparity in the rates of out-of-school suspensions for SWDs and youth of color (youth of color metric)

Metric 2.3.B: Disparity in the rates of out-of-school suspensions for students with disabilities and youth of color, SWDs, *Individuals with Disabilities Education Act* (IDEA) only metric)

Objective 2.4: Turn Around Schools and Close Achievement Gaps. Accelerate achievement by supporting states and districts in turning around low-performing schools and closing achievement gaps, and developing models of next-generation high schools. **Objective Leader: Ary Amerikaner**

³³ Revising metric language to include “states/territories” to align with the 2014–15 APG statement.

³⁴ College- and career-ready standards included in this metric are in the fields of reading/language arts and math.

³⁵ Revising metric language to include “states/territories” to align with the 2014–15 APG statement.

³⁶ States with approved ESEA Flexibility requests were initially required to implement teacher and principal evaluation and support systems by 2014–15 or 2015–16, depending on the school year of initial approval. Through ESEA Flexibility renewal in fall 2014, the Department committed to working with states that need to make adjustments to implementation timelines or sequencing through the ESEA Flexibility renewal process.

Metric 2.4.A: Number of persistently low graduation rate high schools

Metric 2.4.B: Percentage of Cohort 1 priority schools that have met the state exit criteria and exited priority school status³⁷

Metric 2.4.C: Percentage of Cohort 1 focus schools that have met the state exit criteria and exited focus school status³⁸

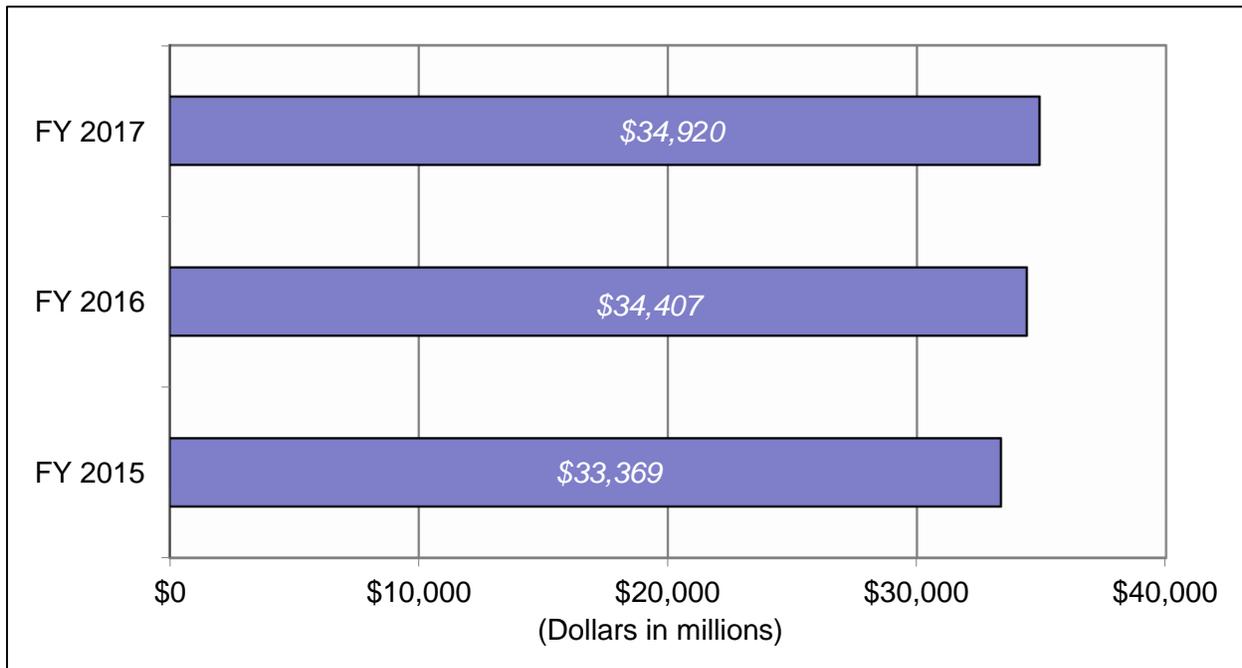
Objective 2.5: STEM Teaching and Learning. Increase the number and quality of STEM teachers and increase opportunities for students to access rich STEM learning experiences.

Objective Leader: Russ Shilling

Metric 2.5.A: Percentage of high school and middle school teachers who teach STEM as their main assignment who hold a corresponding undergraduate degree

Metric 2.5.B: Number of public high school graduates who have taken at least one STEM AP exam

Goal 2 Discretionary Resources



³⁷ Metric is being removed at the end of the FY 2015 reporting period. Please refer to appendix B for details pertaining to the removal and addition of metrics.

³⁸ Metric is being removed at the end of the FY 2015 reporting period. Please refer to appendix B for details pertaining to the removal and addition of metrics.

Major Discretionary Programs and Activities³⁹ Supporting Goal 2 Performance Metrics [Dollars in Millions]

POC	Account	Obj.	Program	FY 2015 Appropriation	FY 2016 Appropriation	FY 2017 President's Budget
OESE	ED	2.4	School improvement grants	506	450	0
OESE	ED	2.1, 2.2, 2.3, 2.4	Title I Grants to local education agencies	14,410	14,910	15,360
OESE	I&I	2.1	State assessments	378	378	403
OESE	I&I	2.2	Teacher and school leader incentive grants	230	230	250
OESE	SIP	NA	Student support and academic enrichment grants	0	0	500
OESE	SIP	2.2	Supporting effective instruction State grants	2,350	2,350	2,250
OESE	SSS	NA	21st century community learning centers	1,152	1,167	1,000
OII	I&I	2.2, 2.3, 2.4	Charter schools grants	253	333	350
OII	I&I	2.2, 2.3, 2.6	Magnet schools assistance	92	97	115
OII	I&I	2.1, 2.4, 2.5	Next generation high schools (proposed)	0	0	80
OII	I&I	2.2	Teach to lead (proposed)	0	0	10
OII	SIP	2.5	Mathematics and science partnerships	153	153	0
OII	SSS	2.1, 2.2, 2.3	Promise Neighborhoods	57	73	128
OPE	HE	2.2	Teacher and principal pathways (proposed)	0	0	125
OSERS	SE	2.1, 2.2, 2.3	Special Education grants to states	11,498	11,913	11,913
Subtotal				31,077	32,053	32,484
Other Discretionary Programs/Activities				2,292	2,354	2,437
TOTAL, GOAL 2				33,369	34,407	34,920

POC = Principal Office Component

NA = Not applicable.

NOTES: Many programs may have sub-activities that relate to other goals. Detail may not add to total due to rounding.

Public Benefit

The goal for America's elementary and secondary educational system is clear: every student should graduate from high school ready for college and a career. Every student should have meaningful opportunities from which to choose upon graduation from high school. Over the past several years, states, districts, and schools have initiated groundbreaking reforms and innovations to try to meet this goal. For the first time, almost every state is supporting higher standards that will demonstrate that students who meet those standards are truly college- and career-ready. Many states are implementing assessments that are not only aligned with these new standards, but also gauge essential skills such as critical thinking, problem solving, and the application of knowledge. At the same time, states, districts, and schools are working to meet the challenges of ensuring that every classroom has an excellent teacher and every school has a strong and effective leader; building local capacity to support successful school turnarounds; redesigning high school education by building stronger connections among secondary education, postsecondary education, and the workplace; and improving teacher preparation and classroom instruction in STEM education.

However, while many schools are increasing the quality of instruction and improving academic achievement, there is also broad agreement that the United States education system fails to

³⁹ All the programs listed are discretionary programs, as distinct from mandatory programs. These include both competitive and noncompetitive programs.

consistently provide all students with the excellent education necessary to achieve college- and career-readiness. The result is that too many of our students are failing to reach their full potential. Data from the 2015 National Assessment of Educational Progress (NAEP) show that low-income students scored 24 to 28 points below their more advantaged peers. The achievement gaps between black and white students were between 24 and 32 points and achievement gaps between Hispanic and white students were between 18 and 24 points.⁴⁰

Many children, particularly children from low-income families, students with disabilities (SWDs), ELs, and children of color, confront not only an achievement gap, but also an opportunity gap. Today, a student attending a high school with high minority enrollment is much less likely to be offered calculus and physics than a student in a high school with low minority enrollment. Closing the opportunity gap will require that school resources, talent, and spending be targeted toward kids who need help the most.

The Department's elementary and secondary education reforms focus on the building blocks needed for schools, school districts, and states to more consistently deliver excellent classroom instruction for all students. The foundation of these reforms is a system for improving learning and teaching that aligns with college- and career-ready standards, high-quality formative and summative assessments, and engaging and effective instructional content. Ensuring that U.S. students have the critical thinking skills and other tools they need to be effective in the 21st-century economy means improving teaching and learning in all content areas—from language arts and STEM to history, civics and government, geography, foreign languages, the arts, economics and financial literacy, environmental education, computer science, health education, and other subjects.

On December 10, 2015, the President signed a reauthorization of the ESEA, the ESSA. The law requires that all students in America be taught to high academic standards that will prepare them to succeed in college and careers and that vital information is provided to educators, families, students, and communities through annual statewide assessments that measure students' progress toward those high standards. It also continues the ESEA's focus on ensuring that states and school districts account for the progress of all students, take meaningful actions to improve the lowest-performing schools, and ensure equitable access to excellent educators. The Department is developing approaches to best support the implementation of the ESSA. The FY 2016 APR will provide additional detail on the impact of the ESSA for the Department's work.

⁴⁰ U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading and Mathematics Assessments, http://www.nationsreportcard.gov/reading_math_2015/#/

Goal 2: Details

U.S. Department of Education Indicators of Success	Baseline	Actuals			Current Year Target 2015	Current Year Results	Actual-to-Target 2015		Out-Year Targets		Trend Line (Actuals)
		2013	2014	2015			Missed	Exceeded	2016	2017	
2.1.A. Number of states/territories that have adopted college- and career-ready standards ⁴¹	SY: 2012–13 49, plus DC	49, plus DC	49, plus DC and Puerto Rico	SY: 2014–15 51 (49 plus DC and Puerto Rico)	50	MET		52	52		
2.1.B. Number of states/territories that are implementing next-generation reading and mathematics assessments, aligned with college- and career-ready standards ⁴²	SY: 2012–13 0	0	0	SY: 2014–15 49 (48 plus DC)	50	NOT MET		52	52		
2.2.A. Number of states that have fully implemented teacher and principal evaluation and support systems that consider multiple measures of effectiveness, with student growth as a significant factor ⁴³	SY: 2012–13 6	6	7	8	37	NOT MET		22 ⁴⁴	39 ⁴⁵		

⁴¹ Revising metric language to include “states/territories” to align with the 2014–15 APG statement. 2014 Metric reported as “Not Met.” However, metric was “Met” given the inclusion of territories to align with the APG statement.

⁴² Metric is aligned with an APG. Revising metric language to include “states/territories” to align with the 2014–15 APG statement.

⁴³ Metric is aligned with an APG.

⁴⁴ The out-year performance targets are revised to reflect updated information provided by states through ESEA Flexibility renewal requests regarding implementation timelines.

⁴⁵ The out-year performance targets are revised to reflect updated information provided by states through ESEA Flexibility renewal requests regarding implementation timelines.

U.S. Department of Education Indicators of Success	Baseline	Actuals			Current Year Target	Current Year Results	Actual-to-Target 2015		Out-Year Targets		Trend Line (Actuals)
		2013	2014	2015	2015		Missed	Exceeded	2016	2017	
2.3.A. Disparity in the rates of out-of-school suspensions for students with disabilities and youth of color (youth of color metric)	SY: 2011–12 10.7% point disparity	Not Collected	TBD SY 2013–14 data collected in 2015 and available in 2016	Not Collected	NA Biennial Metric				6.7% point disparity	NA Biennial Metric	
2.3.B. Disparity in the rates of out-of-school suspensions for students with disabilities and youth of color (SWDs, IDEA only metric)	SY: 2011–12 5.7% point disparity	Not Collected	TBD SY 2013–14 data collected in 2015 and available in 2016	Not Collected	NA Biennial Metric				2.7% point disparity	NA Biennial Metric	
2.4.A. Number of persistently low graduation rate high schools	SY: 2011–12 775	SY: 2011–12 775	SY: 2012–13 737	SY: 2013–14 680	699	MET		5% annual reduction	5% annual reduction ⁴⁶		
2.4.B. Percentage of Cohort 1 priority schools that have met the state exit criteria and exited priority school status ⁴⁷	SY: 2013–14 NA	NA	16.3% ⁴⁸	NA	15%	NA ⁴⁹			NA	NA	

⁴⁶ The baseline data for this performance metric were recalculated from what was reported in the FY 2013 APR and FY 2015 APP. The targets remain at a 5% reduction each year.

⁴⁷ Metric being removed at the end of the FY 2015 reporting period and being replaced with the metric identified as “New Metric” directly below it. If there is no corresponding “New Metric” identified, new metric TBD. Please refer to appendix B for details pertaining to the removal and addition of metrics. The proposed FY 2016 and 2017 targets for the metric being removed were 20.0% and 25.0%, respectively.

⁴⁸ Metric reported as TBD in the 2014 APR. 2014 actuals show the 2014 target was “Met.”

⁴⁹ The FY 2015 data for this metric are not available. Further, the Department has decided to remove this metric due to unforeseen challenges in using the data provided by states. These challenges are discussed in more detail in appendix B of this report.

U.S. Department of Education Indicators of Success	Baseline	Actuals			Current Year Target	Current Year Results	Actual-to-Target 2015		Out-Year Targets		Trend Line (Actuals)
		2013	2014	2015	2015		Missed	Exceeded	2016	2017	
New Metric: Percentage of SIG schools in Cohort 5 that are above the 25th percentile in mathematics, as measured by their state assessments	SY: 2013–14 19.7%	NA	NA	SY: 2013–14 19.7%	NA	NA	/		TBD	TBD	/
2.4.C. Percentage of Cohort 1 focus schools that have met the state exit criteria and exited focus school status ⁵⁰	SY: 2013–14 NA	NA	11.9% ⁵¹	NA	15%	NA ⁵²	/		NA	NA	/
New Metric: Percentage of SIG schools in Cohort 5 that are above the 25th percentile in reading/language arts, as measured by their state assessments	SY: 2013–14 20.1%	NA	NA	SY: 2013–14 20.1%	NA	NA	/		TBD	TBD	/
2.5.A. Percentage of high school and middle school teachers who teach STEM as their main assignment who hold a corresponding undergraduate degree	AY: 2011–12 62.2%	Not Collected	Not Collected	Not Collected	NA	NA	/		65.3%	65.3%	/
2.5.B. Number of public high school graduates who have taken at least one STEM AP exam	AY: 2011–12 497,922	AY: 2011–12 497,922	AY: 2012–13 527,001	AY: 2013–14 555,119	581,419	NOT MET			632,642	691,541	

NA = Not applicable.

TBD = To be determined.

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⁵¹ Metric reported as TBD in the 2014 APR. 2014 actuals show the 2014 target was “Met.”

⁵² The FY 2015 data for this metric are not available. Further, the Department has decided to remove this metric due to unforeseen challenges in using the data provided by states. These challenges are discussed in more detail in appendix B of this report.

Academic Year (AY) is a collegiate year spanning August–May; School Year (SY) spans August–July and is aligned with a P–12 school year; Fiscal Year (FY) corresponds to a federal fiscal year; Calendar Year (CY) spans January–December.

Data Sources and Frequency of Collection:

- 2.1.A. *Elementary and Secondary Education Act (ESEA) Flexibility Monitoring*; annually
- 2.1.B. *ESEA Flexibility Monitoring*; annually
- 2.2.A. *ESEA Flexibility Applications and Monitoring*; annually
- 2.3.A. *Civil Rights Data Collection (CRDC)*; biennially
- 2.3.B. *CRDC*; biennially
- 2.4.A. *EDFacts*; annually
- 2.4.B. *EDFacts*; annually
- 2.4.C. *EDFacts*; annually
- 2.5.A. *Schools and Staffing Survey (SASS), NCES*; quadrennially
- 2.5.B. *College Board/Advanced Placement (AP) administrative records*; annually

Note on performance metrics and targets: These metrics were established as a part of the *FY 2014–18 Strategic Plan*. Metrics may be updated or revised to reflect awareness of more accurate data or clarifications. Such updates or revisions are identified in footnotes.

Analysis and Next Steps by Objective

Objective 2.1: Standards and Assessments

Explanation and Analysis of Progress:

States have recognized the need to improve the rigor and quality of their standards and assessments. With standards in place, educators are designing instructional strategies to engage students and implementing support systems to strengthen college- and career-ready skills for all students, including those with disabilities and ELs.

Results for this metric are most influenced by actions taken by states and LEAs, but also are influenced by other factors. For example, the complexity of developing appropriate assessment instruments and approaches for students poses significant challenges, especially for children from low-income families, children who are ELs, and children with disabilities. Developing and administering college- and career-ready assessments and supporting teachers through training related to the new standards will require continuing support.

Challenges and Next Steps:

On December 10, 2015, the President signed a reauthorization of the ESEA, the ESSA. The law requires that all students in America be taught to high academic standards that will prepare them to succeed in college and careers and that vital information is provided to educators, families, students, and communities through annual statewide assessments that measure students' progress toward those high standards. The FY 2016 APR will provide additional detail on the impact of the ESSA.

While the Department evaluates how it will best implement the requirements of the new law, where applicable, it will continue to leverage federal investments, including Titles I, II, and III of the ESSA, as well as IDEA, and provide guidance and technical assistance to states to ensure that teachers and principals are well prepared and students have the resources and support needed to graduate from high school ready for college and careers.

A key challenge facing the Department over the next two years relates to the changes states may make to their currently adopted college- and career-ready standards due to decisions implemented by state leadership or state legislatures. Another key challenge is supporting states with the implementation of their college- and career-ready aligned assessments for all students, including ELs, SWDs, and economically disadvantaged and low-achieving students, to ensure that all students are prepared for postsecondary success.

The Department is taking steps to address these challenges by developing and targeting technical assistance activities that will, in part, increase state capacity to leverage limited resources and continue to identify promising practices across multiple states. First, the Department has released its [Title I assessment peer review guidance](#), which highlights the requirements for a high-quality assessment to help support state assessment development; in FY 2016, the Department will begin conducting peer review of state assessment systems. The Department will also build a library of resources (i.e., a central location for practitioners looking for best practices) to assist state educational agencies (SEAs) in transitioning to college- and career-ready standards, leveraging work that has occurred during RTT with other partner organizations such as Achieve, Student Achievement Partners, National Parent Teacher Association, and others. In addition, the Department is working internally to coordinate the provision of technical assistance across OESE, OSEP, and other related offices and programs.

The Department also funds a Center on Standards and Assessments Implementation (part of the Comprehensive Centers program) that helps build the capacity of state educational agencies to implement college- and career-ready standards. The Department will continue to work with states by taking such steps as providing technical assistance and guidance to states as they implement the next steps outlined in the President's Testing Action Plan announced in November 2015.

Objective 2.2: Effective Teachers and Strong Leaders

Explanation and Analysis of Progress:

Over the past several years, states and school districts have made educator effectiveness a key priority in their reform efforts. States and districts are working on the development and implementation of high-quality teacher and principal evaluation and support systems, as well as broader human capital management systems that use the results of evaluation systems to inform targeted educator development and support opportunities, placement, retention, promotion, compensation, and other personnel decisions. The Department has supported the work of states and districts in this area through key programs and initiatives such as [Title I](#), [Title II](#), [RTT](#), [Teacher Incentive Fund](#), [ESEA Flexibility](#), [Excellent Educators for All](#), and the Comprehensive Center on Great Teachers and Leaders (in addition to the other regional and content comprehensive centers), and using these programs and initiatives to provide resources and technical assistance to states and districts so that they can move forward with successful implementation. In 2015, more states and districts are implementing teacher and principal evaluation and support systems that are based on multiple measures, including evidence of student learning growth as a significant factor.

Similar to objective 2.1, the results of this metric are greatly influenced by state and district actions, as well as other factors not in the Department's control. As teacher and school leader evaluation and support systems are governed by state and local policies, without revisions in state policies and new partnerships with teacher and principal organizations, reforms of existing evaluation and support systems are unlikely to be successful.

Challenges and Next Steps:

Implementation of teacher and leader evaluation and support systems has proven to be very challenging work for states and districts, particularly during the time of transition to new standards and assessments, and has caused states to need to adjust timelines and sequencing of implementation steps. In order to mitigate these risks, the Department has provided flexibility to states regarding the use of student growth based on statewide assessments during the transition to new assessments, as well as other changes that are outside their original implementation timelines and plans under ESEA Flexibility. The Department is working to connect all states to experts who can provide technical assistance in this area. There are also challenges associated with teacher and principal support for the new systems. The Department is continuing to work with states to help them engage with educators and develop plans focused on continuous improvement so that they can make adjustments as needed.

Under ESSA, ESEA Flexibility waivers, including Principle 3—supporting effective instruction and leadership—expire on August 1, 2016. The FY 2016 APR will provide additional detail on the impact of the ESSA.

Objective 2.3: School Climate and Community

Explanation and Analysis of Progress:

Strengthening school and classroom climate in preschool through 12th-grade settings is an essential precondition to scalable improvements in the academic achievement, socioemotional wellbeing, and college and career readiness of American public school students. While states, districts, and schools across the country have made real strides reforming approaches to school discipline and climate in order to ensure effective environments for more students, significant challenges remain to guaranteeing safe and supportive schools in which to learn and grow for all students. More than one in five students report being bullied in school; national data continue to suggest that suspensions and expulsions disproportionately impact minority students and SWDs; and too few schools are employing school climate data and interventions as part of their continuous improvement strategies. Maximizing instructional time to prepare all students for the rigors and opportunities of meaningful postsecondary educations and careers requires that these issues are addressed at every level of the P–12 system.

During FY 2015, the Department has pursued a vigorous strategy to improve school climate and community and encourage the nationwide adoption of evidence-based practices to ensure safe and supportive learning environments for all students. In June 2015, the Department hosted a two-day convening for 19 high-needs school districts to support their local implementation of “early warning systems” to identify and support students at-risk of falling behind in school and/or dropping out. This convening served to highlight effective local practices to use data strategically to identify students in need of additional support. To shine a light on effective reforms in school discipline policy and practice, and in support of the administration’s My Brother’s Keeper initiative, the Department sponsored—in collaboration with the White House and DOJ—a major summit on school climate and discipline, entitled “[Rethink Discipline](#),” on July 22, 2015. This summit brought to the White House over 45 school districts and a coalition of public and private partners to elevate effective reforms of school discipline in schools, with the goal of highlighting best practices in eliminating disproportionalities and bias in the administration of school discipline. At the summit, the Department also released a new resource for school district superintendents and their leadership teams—“[Rethink Discipline: A Resource Guide for Superintendent Action](#)”—that provides suggested action steps and links to free resources to support communitywide efforts to reform and improve the efficacy of local school discipline and climate policy and practice. The Department also supported the development of new school climate survey resources that states, districts, and schools can use, free of charge, to systematically collect and act on school climate data from multiple stakeholders, including students, teachers, noninstructional school staff, and parents and families (to be released in FY 2016). The Department also laid significant groundwork for the launch of “[Every Student, Every Day: A National Initiative to Address and Eliminate Chronic Absenteeism](#),” which aims to raise nationwide awareness of and encourage action to combat the serious problem of chronic absenteeism affecting between five and seven and a half million students each year. In collaboration with HHS, the U.S. Department of Housing and Urban Development (HUD), DOJ, and a coalition of public and private partners, the Department released on October 7, 2015, a Dear Colleague letter and community toolkit for states, districts, and schools that includes actionable strategies to address and eliminate chronic absenteeism within communities.

Challenges and Next Steps:

Improving school discipline and climate policy and practice nationwide remains a significant challenge given the many differentiated contexts in which this work must unfold. There simply is no one right way to approach the challenge of ensuring safe and supportive learning

environments for all students, and a spirit of experimentation and innovation is critical to sustaining motivation for and persistence in tackling what are often extraordinary challenges at the state, district, and school levels. Challenges to improving school discipline and climate include a lack of funding for and focus on this work, which can often be treated as “extra” or “additional” work not necessarily related to the core functions of school systems. When practitioners and policymakers do not understand the relationship between conditions for learning and student achievement, it is difficult to enshrine effective school discipline and climate practice and policy. To meet this challenge, the Department continues to advance the Supportive School Discipline Initiative in partnership with DOJ, offering technical assistance to states and districts that are working to reduce bias and disproportionalities in the administration of school discipline. Moreover, the Department also continues to pursue a vigorous strategy to improve school discipline and climate that includes a major focus on the upcoming release of the 2013–14 CRDC, which will include updates to national school discipline data as well as the first-ever national data on chronic absenteeism. The Department will leverage the data on chronic absenteeism to promote effective cross-sector efforts to meet student needs in order to ensure that students are able and ready to attend and succeed in school every day.

Objective 2.4: Turn Around Schools and Close Achievement Gaps:

Explanation and Analysis of Progress:

Turning around the lowest-performing schools, closing achievement gaps, increasing high school graduation rates, and decreasing disparities in graduation rates are critical to achieving the President’s goal of once again having the highest proportion of college graduates in the world. States and districts have assumed the challenge of focusing on their lowest-performing schools, and directing significant resources and support in order to improve student outcomes dramatically. Since 2009, more than 1,700 schools have received up to \$2 million per year for three years through the School Improvement Grant (SIG) program to implement rigorous intervention models intended to turn these schools around. Nearly two-thirds of the schools in the first two cohorts and over half of schools in the third cohort have made progress in improving student achievement in reading, and a similar percentage have shown improvement in math. However, some participating schools have also shown decreases in performance, and more work is needed to ensure that the progress is sustained. To assist states in this challenging work, the Department strengthened the SIG program in FY 2015 by, among other things, including three new models, including an evidence-based, whole school reform model, and allowing additional time for planning and implementation. The Department also continued to partner with the Corporation for National and Community Service to support the School Turnaround AmeriCorps program grantees, and partnered with the President’s Council on Arts and Humanities to support the Turnaround Arts Initiative, including expanding that initiative to incorporate early learning as a turnaround strategy.

In addition, the nation has made significant progress in increasing overall graduation rates, but gaps between rates for different student groups continue to persist. See also the Explanation and Analysis of Progress for objective 4.1 for additional information on the Department’s efforts to improve the national high school graduation rate and to close gaps between groups of students.

Challenges and Next Steps:

Turning around the lowest-performing schools is extremely challenging work and takes several years to show progress and success. As a result, there are challenges in communicating that this is a long-term process, not a short-term fix, and managing expectations of what success

looks like along the way. Additionally, as major grant programs are ending, such as RTT and SIG, there may be fewer resources available in states and districts to support school turnaround. Sustaining successful school turnaround is a major challenge for states, districts, and schools.

In addition to financial resources, sustaining successful school turnaround requires effective technical assistance and support from the Department. In particular, there is a significant need for effective turnaround leaders for the lowest-performing schools, which the Department is attempting to address through its [Turnaround School Leaders program](#), a program focused on helping districts, in partnership with states, IHEs, and nonprofit or for-profit partners, develop leaders with the specialized skills needed to turn schools around.

The ESSA continues the ESEA's focus on ensuring that states and school districts account for the progress of all students, take meaningful actions to improve the lowest-performing schools, and ensure equitable access to excellent educators. However, the provisions and ultimate impact of the new law are still being evaluated, and plans for implementation have yet to be fully developed. The FY 2016 APR will provide additional detail on the impact of the ESSA.

Objective 2.5: STEM Teaching and Learning:

Explanation and Analysis of Progress:

The Department, in consultation with OMB, has highlighted this objective as a focus area for improvement. Efforts such as the expansion of 100Kin10, the nonprofit organization created in response to the call to recruit 100,000 STEM teachers from 2011 to 2021, and the recent awards made to support effective STEM teachers via the [Supporting Effective Educator Development Grant program](#) show continued attention and progress toward the Department's goal of increasing the number and quality of STEM teachers. Across the administration, there has been a significant emphasis on improving STEM instruction, most directly through the CoSTEM Education's interagency working groups. The Department leads this formally chartered group on P-12 STEM Instruction, which includes regular participation from the National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, Department of Energy, U.S. Department of Agriculture (USDA), National Institutes of Health, NSF, Department of Defense, and White House (Office of Science and Technology Policy and OMB). All participating agencies have committed to align efforts to support the preparation of high-quality STEM teachers and to support authentic STEM experiences⁵³ for P-12 educators. Not only do these agencies work together within the context of the CoSTEM Education, but the goals of the interagency working groups align to the CAP Goal for STEM Education across the administration. All activities that are being undertaken by the interagency working groups feed into the CAP process, and all milestones for that process align with the CoSTEM goals.

In addition, through the Teacher Incentive Fund national activities the STEM office is engaged in work around STEM Teacher Leadership and STEM Master Teachers that will continue into FY 2016. Six research action clusters will be convening every couple of months and developing resources to support STEM teacher leadership efforts.

2014 data from the College Board shows an overall increase in the number of graduating high school students taking Advanced Placement (AP) STEM exams: 555,119 compared to 527,001 in 2013 data. In all subgroups, the total number of participants increased, ranging from an

⁵³ Authentic STEM experiences means laboratory, research-based, or experiential learning opportunities in a STEM subject in informal or formal settings.

approximate 15 percent increase for Hispanic/Latino students to a 3 percent increase for Black/African American students. Females still outnumber males in terms of AP STEM exam participation (which has been the case since 2002).

Challenges and Next Steps:

While efforts continue to support P-12 STEM instruction, only two current federal programs are focused on preparing new STEM teachers—the Teacher Quality Partnerships program at the Department and the Noyce Scholarship program at NSF. Proposals for a dedicated program to prepare new STEM teachers have not yet been acted on by Congress, and the majority of teachers are prepared at colleges and universities that do not receive direct NSF or Department funding aimed specifically at STEM teacher preparation. The Mathematics and Science Partnership (MSP) program, which is no longer authorized under ESSA, does not have a national activities set-aside to provide technical assistance and, although each project within MSP must complete an evaluation for the state, these evaluations are not submitted to the Department. While the overall numbers of students taking STEM AP exams have increased—including through Department-supported programs such as the Investing in Innovation (i3) program—AP courses are only one way to provide students with rich STEM learning experiences. Additional support should be given to both formal and informal STEM opportunities for students within the entire P-12 spectrum.

In FY 2016 and beyond, continued collaboration within the Department to better coordinate awards made to support STEM educator development will be important. In addition, ESSA authorizes new activities for STEM educator preparation. For example, the new STEM Master Teacher Corps program provides an opportunity for states to utilize their STEM master educators in the development of new STEM educators. Further, ESSA authorizes states and districts to use funds to provide all students access to advanced STEM coursework through the Student Support and Academic Enrichment grants. There is opportunity to infuse STEM into other Department priorities, including for example a possible collaboration with the Office of Early Learning to support P-3 STEM educators, as well as continued collaboration across agencies like NSF to support educator development and support, especially in disciplines like engineering and computer science. Disparities in computer science are emblematic of the large gaps in student access and engagement in STEM courses overall; only half of high schools offer calculus, and only 63 percent offer physics. The 2017 Budget provides resources to empower states and districts to create high-quality computer science learning opportunities in grades P-8 and access to computer science courses in high school, dedicating \$100 million in discretionary funding at the Department of Education for Computer Science for All Development Grants to help school districts, alone or in consortia, execute ambitious computer science expansion efforts, particularly for traditionally underrepresented students. Lastly, absent direct funding streams to support the preparation of new STEM educators, continued work with nongovernment partners like 100Kin10 who are making progress against the goal of preparing 100,000 STEM educators will be essential.

Subpopulation Breakout for Metric 2.5.B: Number of Graduates Taking an AP STEM Exam during High School: U.S. Public Schools, 2012–14

	Race/Ethnicity							Gender		Socioeconomic Status		Total
	American Indian/ Alaska Native	Asian, Asian American, Pacific Islander	Black or African American	Hispanic or Latino	White	Other	No Response	Female	Male	Low Income	Not Low Income	
Number of Graduates, 2012	2,363	73,503	36,689	64,237	298,859	15,001	7,270	256,705	241,217	114,658	383,264	497,922
Number of Graduates, 2013	2,918	78,886	37,816	74,015	312,917	16,785	3,664	271,217	255,784	128,782	398,219	527,001
Number of Graduates, 2014	3,103	83,412	41,108	82,595	323,887	17,723	3,291	287,424	267,695	142,307	412,812	555,119

Data Source and Frequency of Collection: College Board/AP administrative records; annually

Selected Strategies to Achieve Goal 2

During FY 2015, the Department implemented a reorganization in OESE that incorporates a new (and aforementioned) [Office of State Support](#), which replaces and enhances services previously provided by the units formerly known as the Office of Student Achievement and School Accountability, Office of School Turnaround, and the Implementation and Support Unit (ISU). This reorganization integrates key state-administered programs in a new office that will provide improved state-centered support across programs. The Department is using this reorganization to rethink, redesign, and rebuild core grant administration functions in order to provide more transparent, higher quality, and better differentiated support to states. This new structure, which builds on the collaboration that has occurred between OESE, the ISU, and OSEP, will better support states in implementing the key reform programs and initiatives that support Goal 2, and in transitioning to and implementing the ESSA, and will improve the Department's ability to execute its core priorities. The Department will continue to provide technical assistance to states in the areas of college- and career-ready standards and assessments, teacher and principal evaluation and support systems, and turning around the lowest-performing schools. The Department will begin to implement a revised process for peer reviewing state assessments to ensure that they are high-quality and will work with states to implement their plans for ensuring equitable access to effective teachers and leaders for all students.

Finally, the Department will explore all opportunities for meaningful guidance and regulations under the ESSA that would help states implement the new law and promote the equity and excellence objectives that Goal 2 represents.