ACCOUNTING FOR DELAYED HIGH SCHOOL GRADUATES IN CALIFORNIA

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By

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Abstract

Much attention has been paid in recent years to raising high school graduation rates. The most common metric for measuring high school graduation rates is the public high school four-year adjusted cohort graduation rate (ACGR), which is a measure of the percentage of students who graduate with a regular diploma within four years of first entering the ninth grade. While the number of students who complete high school in four years is a telling indicator of school effectiveness, it is not necessarily the most comprehensive. This is because many students in California and across the nation take longer than four years to earn a high school diploma. The purpose of the current policy report is to re-examine the California high school graduation rate in light of the fact that, as evidence will show, a sizable number of students earn a high school diploma outside of the standard or traditional four-year window. When these students are factored in, the data suggest that the aggregate California high school graduation rate is likely higher than it is reported to be. Also, when delayed high school graduates are accounted for, high schools that disproportionally serve delayed, re-entry and adult students appear to be much more effective than the ACGR would suggest. These findings provide a number of implications for policy.

With increased calls for greater school accountability, a number of education policies seeking to improve school effectiveness have been implemented over the years such as the No Child Left Behind Act (NCLB) and most recently, the Every Student Succeeds Act (ESSA). Perhaps the most visible measure of school effectiveness is the rate at which students graduate. As a result, much attention has been paid in recent years to improving graduation rates. This focus has revealed at least two positive trends.

First, the U.S. national high school graduation rate has been increasing steadily over the last five years. The public high school four-year adjusted cohort graduation rate (ACGR)—a measure of the percentage of students who graduate with a regular diploma within four years of first entering the ninth grade—has increased from 79 percent in 2010-11 to 83.2 percent in 2014-15. The same is true in California, where the state cohort graduation rate has increased from 74.7 percent in 2009-10 to 82.3 percent in 2014-15.[1]

A second positive trend is that the national rate at which students drop out of high school before graduating has declined from 6.1 percent in 1972 to 3.4 percent in 2012 (Stark & Noel, 2015). In California, the dropout rate fell from nearly 17 percent in 2009-10 to under 11 percent in 2013-14.[2] This is welcome news given that dropping out of high school is linked to a number of negative economic and social outcomes (Rumberger, 2011). For instance, students who drop out of high school before graduation work earn less income (Rouse, 2007) and, as a consequence, contribute less to the national economy (Belfield & Levin, 2007). Students who drop out from high school also experience greater odds of incarceration (Sum, Khatiwada, & McLaughlin, 2009). Still, for all of the efforts given to reducing high school dropout rates, many students do not complete high school on time.

[1] Data retrieved from Dataquest on March 16, 2017: http://data1.cde.ca.gov/dataquest/
[2] Data retrieved from Dataquest on March 16, 2017: http://data1.cde.ca.gov/dataquest/

Researchers and school leaders have collaborated for years to find proactive strategies to identify at-risk students in order to reduce the number of students who drop out from school (Dynarski et al., 2008). The federal government defines dropout as a failure to reenroll in school by October of the following school year.[3] For the students who do eventually drop out of high school, the challenge is finding ways to reengage them and provide them with the resources they need in order to graduate once they re-enter. Student re-entry is characterized by a dropout followed by successful re-enrollment in the same or different high school, and despite the vast literature on high school dropout, there are important research gaps on re-entry. For instance, little is known about the characteristics of students who reenroll and the myriad challenges they experience along the way to high school completion (Berliner, Barrat, Fong & Shirk, 2008). Regardless, various programs (e.g., Bloom, Gardenhire-Crooks & Mandsager, 2009) have sought to "reclaim the lives" of students who drop out from high school. At issue, however, is that these re-entry students, some of whom go on to earn a high school diploma outside of the traditional four-year window, often do not get factored in when cohort graduation rates are assessed.

Focusing on the ACGR, by definition, means that other measures of school effectiveness, including other metrics for measuring graduation rates, are overlooked. And while the number of students who complete high school in four years is a telling indicator of school effectiveness, it is not necessarily the most comprehensive. In fact, we argue a sole focus on the ACGR is problematic if the goal is to provide an accurate portrait of school effectiveness in California. This is because many students in the state take longer than four years to earn a high school diploma. These "delayed high school graduates" simply require more than four years to graduate. Their need for more time could come as a consequence of entering high school with low math

[3] See Rumberger (2011) for a complete discussion of the complexities associated with identifying dropouts

and/or reading skills, experiencing a dropout event, or simply failing to earn sufficient credits in a four-year time frame. Regardless of the reason, some of these delayed graduates *do graduate.* Yet the four-year ACGR does not necessarily account for the success (i.e., diplomas) of many delayed students because they graduate outside of the four-year window. And because many of these students attend non-traditional or alternative high schools, these schools fair quite poorly on prevailing accountability measures in the state (Warren, 2016; Ruiz de Velasco & Gonzales, 2017). For these reasons, a number of states (e.g., Arizona, Colorado and Oregon) compute five and six-year graduation rates for high school students and use them for accountability purposes.

The purpose of the current policy report is to re-examine the California high school graduation rate in light of the fact that, as evidence will show, a sizable number of students earn a high school diploma outside of the standard or traditional four-year window. When these students are factored in, the data suggest that the aggregate California high school graduation rate is likely higher than it is reported to be. Also, when delayed high school graduates are accounted for, high schools that disproportionally serve delayed, re-entry and adult students appear to be much more effective than the ACGR would suggest. These findings provide a number of implications for policy.

This California Dropout Research Project (CDRP) policy report begins with a discussion of on-time graduation and, in the process, introduce readers to alternative measures of high school graduation. The report then reviews the literature pertaining to high school dropout, re-entry and the schools and systems that serve students who experience dropout events some time during high school. The next section presents statewide data gathered from the California Department of Education (CDE). These data are used to examine the California state ACGR and

compare it to additional metrics of school effectiveness in order to paint a more complete and nuanced portrait of high school diploma attainment in the state.

On-Time and Delayed High School Graduation

On-Time High School Graduation

One aspect of NCLB was a mandate that high school graduation rates, along with test-score performance, be used to assess schools' "adequate yearly progress" (AYP). In fact, under NCLB, schools were required to establish and subsequently meet all AYP criteria in order to meet federal accountability requirements. High school graduation rate was often just one of several areas in which schools were required to demonstrate AYP (participation and attendance rates were also used in California). The consequence of not meeting AYP benchmarks included, among other actions, the withholding of Title 1 funds.

Because the NCLB legislation provided states with substantial latitude to determine the manner in which their own AYP benchmarks, including graduation rates, were to be calculated, there was a lack of accuracy and consistency in the nation surrounding graduation rate data. As a result, the federal Department of Education in 2008 issued a new requirement that all states comply with a uniform, nation-wide cohort-based graduation rate metric with which to measure AYP. The "four-year adjusted cohort graduation rate" (ACGR) thus represents the measure of "the number of students who graduate in 4 years with a regular high school diploma divided by the number of students who form the adjusted cohort for that graduating class," with the "adjusted cohort" being "the students who enter grade 9 plus any students who transfer into the cohort in grades 9 through 12 minus any students who are removed from the cohort because they transferred out, moved out of the country, or were deceased" (Stetzer & Stillwell, 2014, p. 1).

Since the adoption of the ACGR, the rate at which high school students earn a diploma in four years has increased steadily, moving from 79 percent in school year 2010-11, to 80 percent, 81.4 percent, 82.3 percent, and 83.2 percent in 2011-12, 2012-13, 2013-14, and 2014-15, respectively (Kamenetz, 2015). What is less clear, however, is the number of students who may have succeeded in graduating from high school with a diploma outside of the traditional four-year time frame. The fact is that national figures on the number of students who take more than four years to earn a diploma are difficult to find. What we do know, however, is that more than 10 percent of high school students in the nation experience a dropout event at least once during high school.[4] This represents a significant number of the nation's high school students. For these students, who have been shown to accrue fewer course units than their on-time peers (Hampden-Thompson, Warkentien, & Daniel, 2009), it is reasonable to expect that more time would be needed to graduate if, in fact, they choose to reenroll. But what do we know from previous research about the number of delayed graduates in the nation?

According to Hampden-Thompson, Warkentien, & Daniel (2009), 82 percent of 10th graders in the spring of 2002 graduated high school on time by the summer of 2004. Of the remaining students (some of whom had dropped out completely, died, or graduated early), two percent were still enrolled in high school in 2006 (two years after their high school graduating class), one percent graduated at an unknown date, and eight percent "did not have a known exit status or graduation date" (p. 2). This suggests that among the 10th graders in the nation in 2002, roughly 10 percent were delayed (not "on-time") graduates, meaning they did not have a diploma by 2004 and yet had not officially dropped out. Our own analysis of data from the High School

[4] Based on data from the Educational Longitudinal Study, 13 percent of students from high school graduating class of 2004 had a dropout episode since the spring of the 10th grade (Rumberger & Rotermund, 2008). Our own analysis of data from the High School Longitudinal Study of 2009 show that 13 percent of students from high school graduating class of 2013 had a dropout episode since the fall of 9th grade.

Longitudinal Study of 2009 shows that almost 12 percent of 9th graders in the fall of 2009 were delayed graduates (completed or expected to complete after July 2013).

A study conducted by Joo and Kim (2014) supports the notion that a sizeable number of students require more than four years to graduate. Among other things, their study concluded that the national rate at which students graduated high school by the age of 18 decreased between the years of 1945 and 1984. For all students in their analytic sample (n = 50,679) roughly 68 percent graduated high school by the age of 18 in the 1945-49 high school cohort whereas 64 percent graduated by the age of 18 in the 1980-84 cohort. However, of the students within the 1980-84 cohort, nearly 80 percent had earned a high school diploma by the age of 24. This finding suggests that almost 16 percent of students received a diploma between the ages of 19 and 24. More importantly, and to the purposes of the current policy report, Joo and Kim's (2014) conclusions indicate that, "the on-time graduation assumption is likely to lead to a significant underestimate of the graduation rate" (p 11).

Additional evidence that the ACGR may underestimate the graduation rate comes from state data systems. For example, Massachusetts, Colorado, Oregon and Arizona are several states that, in addition to publishing on-time graduation rate figures (e.g., ACGR data), also publish four-year graduation rates.

In the 2011-12 school year, nearly two thirds of high school students in the Boston Public Schools system graduated on time, which is to say in four years. However, over 72 percent of the students in this cohort earned a high school diploma in five years, which is an increase of nine percent above the four-year graduation rate. Interestingly, the proportion of students in the Boston Public School system who earned a high school diploma in five years rather than four has grown from 65 percent in 2006 to 72 percent in 2012 (Boston Public Schools, 2016). This trend

supports the conclusions reported by Joo & Kim (2014), namely that a growing number of students are requiring more time to graduate.

Similar evidence can be found in other states such as Colorado, where in 2010 the overall on-time high school graduation rate was 72.4 percent and the five-year graduation rate was 77.1 percent. This is a difference of 4.7 percentage points, which translates into a 6.4 percent increase in the state's four-year graduation rate. Looking even farther out, the state of Colorado reported a six-year graduation rate of 78.5 percent in 2010, an 8.4 percent increase (Colorado Department of Education, 2013). The difference between the four and five-year graduation rates in Oregon for the cohort of students who entered in 2010 was less pronounced, but even still, the four-year graduation rate in the state of Oregon was reported to be just under 72 percent but the five-year rate was reported to be roughly 76 percent, a difference that works out to an increase of nearly five percent in Oregon's state graduation rate (Oregon Department of Education, 2015). A similar disparity can be found in the state of Arizona, which reported a four-year graduation rate of 75.6 percent and a five-year rate of just over 80 percent in the 2013-14 school year. Similar in magnitude to Oregon, this represents a 5.8 percent increase in the graduation rate (Arizona Department of Education, 2017).

Of additional interest is the fact that the disparities in the four and five-year graduation rates reported by states vary by student ethnicity and subgroups. For example, looking again at data reported by the state of Arizona, we see that while the difference between the four and five-year graduation rate for all students was 4.4 percentage points, the disparity among students registered as English Language Learners (ELLs) was much larger - over 13 percentage points. Sixty three percent of students with disabilities graduated from Arizona high schools in four years. However, 72.5 percent of disabled students graduated in five years. This represents a

difference of 9.4 percentage points. Furthermore, migrant, socioeconomically disadvantaged, Black and Hispanic students also had disparities in their four and five-year graduation rate that were greater than six percentage points (Arizona Department of Education, 2017).

The California Department of Education (CDE) recently released estimates of five-year and six-year graduation rates on its website. While such additional information on extended graduation rates is indeed valuable, there is as yet insufficient data to determine long-term trends with regard to the degree to which extended graduation rates in the state may or may not differ substantially from on-time rates. In addition, the data appear to be inaccurate. Based on conversations with the CDE staff, some students added to the four-year cohort were mistakenly added to the five-year and six-year cohorts as well. As a result, the five-year and six-year cohorts were larger than the original four-year cohorts, which is unlikely because it would mean that large numbers of students enrolled in high school after their normal graduation year. For example, the four-year cohort for the 2011-12 graduating class consisted of 500,974 students, while the five-year cohort consisted of 506,029 students and the six-year cohort consisted of 517,453 students (Table 1). Nonetheless, taken at face value, the most recent data for the four-year graduation rate for the class of 2012 was 78.9 percent, while the five-year rate was 82.4 percent, and the six-year rate was 82.9 percent. These extended rates compare favorably to the extended rates in Colorado, Oregon, and Arizona reported earlier.

Given the limitations of current data, it remains unclear just how the state's current high school graduation rate would change if students who required, for example, an additional year to earn their diplomas were factored into calculations. Current data suggest the graduation rate in California is underestimated by the ACGR. The cohort dropout rate in California for the 2013-14 high school graduating class was 11.5 percent. This figure represents 56,756 California high

school students and is the rate at which students from the cohort were dropouts (not enrolled and not having a diploma) at the end of the 2013-14 academic year. What this figure fails to capture, however, is the number of students who dropout from school for periods of time that are too short to disqualify them as "dropouts," but long enough to delay their high school completion. In either event – dropout or delay – once students re-enter school they often need more time to graduate. Evidence shows that many students who drop out from school will succeed in reenrolling at a later time (Rotermund, 2007; Rumberger & Rotermund, 2008). And students who experience a brief interruption in their enrollment often will recover and aim to get back "on track." Therefore, the main question guiding the current policy report is how the high school graduation rate in the state would change if these California high school students were factored in.

Dropout Recovery, Re-Entry and Credit Accumulation

While the goal may be to graduate high school "on time," the reality for thousands of students in the nation and in California is that, for any number of reasons, more than four years is required to fulfill the requirements for a high school diploma. As this report previously mentioned, students can be delayed on their route toward high school completion because of low reading and/or math skills, the need for recent immigrants to learn English, grade retention, or the decision to pursue an alternative credential. Other students simply drop out, and the road to a high school diploma can be particularly challenging for these students. Fortunately, in an effort to improve graduation rates, states are beginning to invest considerable resources into dropout prevention and recovery programs. However, as a National Governor's Association Center for Best Practices Report (2011) points out, far too little attention and resources have been directed at dropout recovery, and traditional, comprehensive schools are often not equipped to reengage

out-of-school youth. This is because comprehensive school systems lack clear information regarding which students have dropped out and how to find them. Comprehensive schools also face severe binding constraints, such as limited financial and human resources, which limit their ability to serve the students who succeed in reentering.

As a result, at-risk, delayed or disconnected students are often directed towards alternative schools. There is a range of alternative school programs in the nation and in the state. In California, there are six types of alternative (non-charter) schools authorized by the state's Alternative School Accountability Model (ASAM).[5] Continuation Schools, District Community Day Schools, County Community Schools, Opportunity Schools, Juvenile Court Schools, and California Youth Authority Schools. In addition, two other school types—independent charters and schools of choice—can also be considered alternative schools when 70 percent of more of their students are "disadvantaged."[6] Altogether, there were 974 alternative schools in California in 2013-14 enrolling more than 136,000 students (Warren, 2016, Table 1).

Students who enroll in these alternative schools are "vulnerable to academic or behavioral failure" and, as a result, these institutions and programs are designed with this student body in mind. In their synthesis, Lehr, Tab and Ysseldyke (2009) point out that alternative schools have been praised for boosting students' self-esteem and commitment to school but have been criticized for lack of rigor and commitment to long term results. One great difficulty in assessing the effectiveness of California's alternative school programs is the lack of available and useful data (Ruiz de Velasco & Gonzales, 2017; Warren, 2016). What is clear, however, is

[5] ASAM was originally created to provide an alternative accountability system for alternative schools that included a wider array of indicators than used to evaluate traditional schools. But the alternative accountability system was eliminated in 2009-10, although the designation of ASAM schools continues. See: http://www.cde.ca.gov/ta/ac/am/considerpart.asp

[6] The state defines seven subgroups of students who are considered disadvantaged, including recovered dropouts. See: http://www.cde.ca.gov/ta/ac/am/considerpart.asp

that because they serve vastly different student populations, comparing the graduation rates of alternative schools to comprehensive schools can be misleading. Alternative schools certainly face a number of challenges in boosting four-year graduation rates that comprehensive schools do not. The good news is that a number of programs and targeted interventions work in concert with alternative school programs to re-engage students who leave high school before earning a degree and to aid high school students who become delayed.

Estimates suggest that more than half of students who drop out from school eventually return and earn either a degree or state authorized equivalency, such as those based on the General Education Development (GED) exam (Center for Promise, 2014; Rumberger, 2010).[7] But as we have illustrated, these successes require substantial resources and intervention. A report by the Center for Promise (2014) succinctly lays out four main routes for students to reengage: school district-based programs, community-based organizations (CBOs), re-engagement centers, and postsecondary partnerships. School district-based programs are typically housed within traditional schools and may provide resources to reentry students such as night or weekend classes. Community-based organizations can exist autonomously or as partners to school districts and can provide students with the academic classes they need to earn their diploma as well as other resources that districts may be unable to provide, such as GED preparation and career planning. Youthbuild programs around the nation are an example of a CBO that partners with school districts to award diplomas. Re-engagement centers also assist in easing the transition back into high school for students who have left for periods of time. These centers, working with districts and partnering CBOs, help students with comprehensive needs

[7] Our own analysis of High School Longitudinal data reveal that 60 percent of 9th grade students who dropped out sometime during high school earned a diploma, GED, certificate of attendance, or other high equivalency by the June of 2014, one year beyond their normal graduation date of June 2013.

identify the courses and educational programs students need in order to graduate. Last, partnerships between school districts and local colleges—community colleges in particular—exist for students and can help with credit recovery and, ultimately, degree completion.

In addition to alternative schools and programs, California also has a number of adult education programs funded through the Adult Education and Family Literacy Act (AEFLA) that assist delayed or recovered dropouts with resources in order to earn a high school diploma. The AEFLA was enacted as Title II of the Workforce Investment Act (WIA) of 1998 and funds three main branches of adult education services: adult basic education (ABE), adult secondary education (ASE), and English literacy (EL). There were 2 million students enrolled in the ABE, ASE and EL adult education programs in the nation in the 2010-11 academic year (Rutschow & Crary-Cross, 2014), 161,549 of which received a high school credential (i.e., GED or diploma). In the same year, California education programs funded under Title II of the WIA enrolled 598,486 students (57% EL, 27% ASE, 16% ABE), 12,547 of whom earned a high school diploma (California Department of Education, 2012). As Table 2 illustrates, California adult education programs, for which data are made available, assist many students wanting to earn their high school diploma.

Of salience for the current report is that students who earn high school diplomas through adult education programs are often not factored in to the state's graduation rate. This is because only district-run adult education programs report completion data to the CDE. Non-district run adult education schools, while authorized to grant California high school diplomas, do not. As a consequence, the diplomas awarded to students attending non-district operated schools do not get counted in the state's ACGR.

Table 2 shows that in 2013-14, there were 7,859 diplomas awarded through adult education programs throughout the state (not counting GREs). But according to the CDE[8], many of these diplomas were not included in the state's graduation rate. Such a finding is not uncommon nationally. The state of Michigan considers students who earn a high school diploma outside of the four-year window, which often includes adult high school diploma earners, as "off-track continuing" students and thus factored in when computing the state ACGR (Center for Educational Performance and Information, 2009). Indiana exercises the same policy. On the Indiana Department of Education's website, they write,

> By law, Indiana's published graduation rate is a four-year rate. Therefore, if a student is retained or for some other reason does not graduate within four years, then the student will not be counted as a graduate of his or her cohort. Indiana law also states that a student must be counted for only one cohort. Students who are retained stay in the same cohort; they are just considered non-graduates.

Another reason why many of the high school diplomas awarded through California's various adult education programs are not reported to the CDE is that a number of them are awarded through the 12 California community colleges that offer continuing education/adult education programs. These community colleges partner with the state and provide the courses and programs for adult or returning students wanting to earn a diploma. It is difficult to ascertain the exact number of diplomas awarded through the 12 partnering community colleges in the state, but Mt. San Antonio College, which provides clear data on adult education, awarded 556 diplomas in 2012-13, 580 in 2013-14, and 491diplomas in 2014-15. Because these and all of the

[8] Personal communication: Donna Rothenbaum, February 2, 2016

diplomas awarded at the other partnering community colleges in the state are awarded though the respective community college, none of these diplomas are reported to the CDE.

Research Questions

In light of the preceding discussion which suggests that many high school students experience a delay along their path to completion and, as a result, the ACGR provides an inaccurate measure of a school or state's graduation rate, the current policy report addresses the following questions:

1. How many delayed graduates are there in California?
2. Which school types produce the most delayed or non-cohort graduates?
3. How effective are schools in helping delayed students to graduate?

Data and Methods

The data for the current policy report came from the California Department of Education (CDE) which provides publically accessible data files and an interactive data search tool, Dataquest, on its website. Because the CDE includes a school's unique 14-digit County-District-School (CDS) code on each of the data files it provides, we were able to merge data from a series of files to create a unique and comprehensive data set that included, among other notable characteristics, enrollment and graduation information for the California districts and schools in the 2010-11, 2012-13 and 2013-14 academic years, the three most recent years for which graduation rate data in California were available at the time this study was initiated.

The data files we accessed in order to complete the current report were as follows. First, to generate a listing of all California districts and schools, we accessed the "Public Schools Database" file. This file contained district and school names, school educational option code

(e.g., traditional, continuation), and school charter status and funding type. We used the "ASAM Schools 2013-14" file to identify which schools were classified in the Alternative Schools Accountability Model (ASAM) listing. We gathered total high school enrollment (i.e., grades 9-12 plus students enrolled in ungraded secondary classes) from the "School-Level Enrollment" file. Cumulative enrollment data were taken from the "Truancy Data File." The total number of students who graduated from a particular school was included in the "Graduates by Race & Gender" file. We identified the number of students within a school who were over 18 years of age by taking the difference of total enrollment and enrollment for students aged 5-17 for a given school. This information was available in the "Student Poverty FRPM Data" file. All cohort graduation rate data came from the "Cohort Outcome Data" file. In rare cases, the CDE does not provide downloadable files that contain district-wide enrollment and graduation data such as the number of total graduates, total enrollment in grades 9-12, cumulative grade 12 enrollment, and the number of students over 18 years of age. In these instances, we simply aggregated the school-level data within a district and then confirmed these totals with those available on Dataquest.

Importantly, while the CDE does make available the cohort graduation rate information for every given district in the state, it does not publish cohort graduation rate figures for certain individual schools. First, the CDE does not publish school-level cohort graduation rate information for ASAM schools that are not direct funded charters and not County Office of Education administered. Second, the CDE does not publish cohort figures for a number of alternative schools, including continuation schools, special education schools, opportunity schools, community day schools, county community schools and juvenile court schools. Third, the CDE does not publish cohort figures in instances where there are 10 or fewer students within a given cohort. As we will show in the results section, one of our goals was to illustrate

graduation rate information according to school type classifications, which we broke down into three categories: comprehensive schools, charter schools and alternative schools. A school was labeled comprehensive if it's educational option code was marked "traditional," it was not an ASAM school and it was not a charter school. A school was labeled charter if it had a registered charter number with the state and was either direct or locally funded. We labeled all remaining schools that were not traditional or charter as alternative. Because the CDE does not publish cohort information for alternative schools, we simply attributed any differences between the state cohort information and the sum of the comprehensive and charter cohort information to alternative schools. There were also a few charter schools for which cohort information was also not available.[9] In these instances, we added them to the "alternative" category totals.

Results

How Many Delayed Graduates Exist in California?

The first question the current policy report sought to answer was how many delayed graduates exist in California. We refer to "delayed graduates" as those students who earned a high school diploma in a given year outside of their graduating-year cohort and, as a result, were not factored in to the ACGR. Again, because the CDE does not yet publish accurate delayed graduation figures, we wanted to estimate the number of students who, on average, earned a diploma outside of the four-year window. To do this we accessed available data through the CDE beginning in 2009-10, the first year for which cohort outcome figures were made available.

[9] In 2011-12 there were 30 charter schools that did not report school-level cohort information; in 2012-13 there were 27 charter schools that did not report school-level cohort information; in 2013-14 there were 33 charter schools that did not report school-level cohort information

Looking at Table 1, we see that in the 2009-10 academic year there were 507,209 cohort students in the state, 378,976, or 74.7 percent, of whom earned a high school diploma on time. However, in that same year there were 39,881 students, nearly 8 percent of the cohort, who were still enrolled. In other words, roughly 8 percent of the 2009-10 cohort had not had not yet earned a diploma and had not dropped out. Almost 7.5 percent of the state high school cohort were still enrolled in 2010-11, 7.3 percent in 2011-12, 7.4 percent in 2012-13, 6.8 percent in 2013-14, and 6.8% in 2014-15. These figures indicate that, in a given year, there is a sizable number of possible delayed high school graduates in the state.

It remains unclear how many of the "cohort still enrolled" students succeeded in earning a diploma outside of their graduating cohort. For example, we see from Table 1 that in the first year for which data are available, 2009-10, there were 39,881 students still enrolled. Unfortunately, we don't know how many of these students earned a diploma the subsequent year, or the year after. Again, clear data are not available. However, based on the evidence from states like Arizona, Colorado, and Oregon, it seems highly plausible to assume that a number of them did.

We conceived of two methods for generating estimates of how the state's ACGR would change if the number of delayed graduates were factored in for a given year. The first is to take the number of non-cohort graduates and add them to the number of cohort graduates from the previous year. This approach assumes that a number of the students who earned a high school diploma outside of the cohort were delayed from the previous year. In other words, this approach assumes that all of these graduates were delayed and "rolled over" from the previous year's cohort.

The second method is to take a number of the still enrolled students and, based on the safe assumption that some of them will eventually earn a diploma, add them to the cohort graduates total for that given year. This latter approach is grounded in research which suggests up to two-thirds of recovered dropouts earn a high school diploma or equivalency (Center for Promise, 2014). To be conservative, we assume 50 percent of the still enrolled students for a given year will eventually succeed in earning a high school diploma at some point in time.

Using the first method to estimate the number of delayed high school graduates in the state, we see from the second panel in Table 1 that the cohort graduation rate was 74.7 percent in 2009-10, but after adding the subsequent year's non-cohort graduates (16,851), the 2009-10 cohort graduation rate adjusts to 78.0 percent, which is a difference of 3.3 percentage points. Continuing with this method, we see that there is a difference of 2.4, 3.2, 3.8, and 3.3 percentage points in the state's graduation rate in years 2010-11, 2011-12, 2012-13, and 2014-15, respectively. This averages out to an increase of 3.2 percentage points over the reported official state cohort graduation rate, which seems a reasonable and perhaps conservative estimate when looking at the disparities in the 4 and five-year graduation rates of Arizona, Colorado and Oregon.

We find similar results if we use the previously described second method of estimating the number of delayed high school graduates in the state. Looking at the third panel in Table 1, we see that if 50 percent of the still enrolled students are added to the number of cohort graduates for a given year, the state's graduation rate increases an average of 3.6 percentage points between the years of 2009-10 and 2013-14. In more detail, when using this method, the state graduation rate adjusts from 74.7 to 78.6 percent in 2009-10 (3.9 percentage points), from 77.7 to 80.9 percent in 2010-11 (3.2 percentage points), from 78.9 to 82.5 percent in 2011-12 (3.6

percentage points), from 80.4 to 84.1 percent in 2012-13 (3.7 percentage points), and from 80.9 to 84.3 percent in 2013-14 (3.4 percentage points). Trends in cohort graduation rates and adjusted cohort graduation rates based on the second method are displayed in Figure 1.

Based on the figures from either method of estimating the number of delayed high school graduates in California, it seems reasonable to infer at least one conclusion at this point in the study: the AGCR underestimates the success rate of California high school students. Of course, proponents of the ACGR will assert that the primary function of the ACGR is to gauge the number of on-time graduates rather than the total number of diplomas conferred. Proponents will assert that the effectiveness of schools should be measured not on the total number of students who earn a diploma, but how efficiently students graduate from them. These are valid points. However, many California students experience circumstances at home and in their communities that obstruct and delay their educational pathways (Rumberger, 2010). Furthermore, these students tend to concentrate in certain schools due to the demography and economic profiles of the areas in which they are located. And, as we previously discussed, some schools and school systems actively choose to serve a disproportionate number of these students. For delayed students who have dropped out or are at high risk of dropping out, the speed or efficiency in which a student earns a diploma is less important than the proportion of students who succeed. Additionally, the ACGR can especially mischaracterize the effectiveness of schools that serve greater numbers of recovered dropouts or at-risk students. This last point serves as a natural transition to the second research question guiding the current policy report, which is, what school types produce the most delayed or non-cohort graduates?

Which Schools Produce the Most Non-Cohort Graduates?

Based on the existing literature and available knowledge regarding the varying student populations who attend comprehensive, charter and alternative schools, we would expect to find that comprehensive schools produce fewer delayed high school students in the state. Charter schools and alternative schools, on the other hand, would be expected to serve greater numbers of these students.

To answer this question we extracted relevant data files from the CDE's website. Because the CDE does not report school-level cohort outcome data for alternative schools, select County Office of Education schools, and certain charter schools, the figures presented in Table 3 represent our best estimates of the number of cohort and non-cohort graduates for the comprehensive, charter and alternative schools in the state for school years 2011-12, 2012-13 and 2013-14. It is important to point out that some schools within the state are both charter and alternative schools. Also, a number of classified ASAM schools do operate as charters (according to CDE data) and while the tendency may be to characterize all ASAM designated schools as alternative schools, we chose to classify them as charter schools whenever school-level data were provided for them. If school-level info was not provided, however, we counted a particular school's totals towards the alternative category. We also discovered a few anomalies after reviewing the data. Most importantly, we noticed that some schools from all three categories reported cohort graduation figures that were greater than their reported total graduates from a given year. To address this problematic issue with the data, we proceeded with the analysis as planned and then, in a separate analysis, created flags in the data file for the problematic schools, eliminated them and conducted the analysis again. We found very little differences between the

two analyses and so the results listed in Table 3 are based on the data from the CDE website as it was reported.

The results listed in Table 3 reveal several trends. First, in a given year the majority of cohort students in California were enrolled in comprehensive schools. From 2011-12 to 2013-14, the number of cohort students attending alternative schools declined from just over 84,000 to 75,811 while the number of cohort students enrolled in charter schools increased from 43,191 to 46,508. There was a similar trend when looking at 12th grade enrollments (both census and cumulative counts[10]) among comprehensive, charter and alternative schools—the number of high school seniors attending alternative schools decreased in the past three years while the number of high school seniors attending charter schools increased.

Second and unsurprisingly the majority of high school diplomas were awarded to students attending comprehensive schools. In fact, graduates from comprehensive schools accounted for roughly 80 percent of the total graduates in the state between the years of 2011-12 and 2013-14. During this same period, alternative schools accounted for approximately 10 percent of graduates and charter schools accounted for 7 percent of graduates. Interestingly, the number of total graduates from alternative schools increased between 2011-12 and 2013-14 while the number of cohort graduates decreased. The opposite trend occurred in charter schools: between 2011-12 and 2013-14 the total number of charter school graduates decreased while the number of cohort graduates increased.

Another interesting finding captured in Table 3 is an inverse relationship between trends found in charter and alternative schools in the state. Between 2011-12 and 2013-14, the number

[10] Census enrollment refers to the number of students enrolled in a school as of the first Wednesday in October (census day). Cumulative enrollment refers to the total, or cumulative, unduplicated number of students ever enrolled within a school during a given academic year.

of cohort students, high school seniors, and cohort graduates decreased in California alternative schools while during this same period the number of total graduates increased. The opposite was true for charter schools: the number of cohort students, high school seniors and cohort graduates increased while the number of total graduates decreased. It is unclear at this point if the decrease in alternative enrollments is correlated with the increase in charter enrollments. It would be worthwhile to investigate the mechanisms behind or underlying this trend. When considering these trends, however, it is unsurprising to see that the number of non-cohort graduates coming from alternative schools has grown by over 350 percent. At the same time, the number of non-cohort, or delayed graduates, coming from comprehensive and charter schools has decreased.

Table 4 provides additional evidence that the greatest number of delayed high school graduates come from alternative schools. Using data provided by CDE, we were able to ascertain the number of students enrolled in California schools who were over 18 years of age. Based on the research of Joo & Kim (2014) we would expect to find the greatest number of adult high school students enrolled in alternative and charter schools and the fewest enrolled in traditional, comprehensive schools. Table 4 supports this expectation. Looking at the far-right column of the table, we see that from 2011-12 to 2013-14 alternative schools consistently enrolled the greatest proportion of students over the age of 18 (22.4 percent), followed by charters (15.9 percent). One can see that the number of adult students in alternative schools decreased between 2011-12 and 2013-14, but even in 2013-14 alternative schools enrolled over a fifth of the total number of adult high school students in the state. The disparity in the proportions of students over 18 enrolled in charter and alternative schools is quite stark compared with comprehensive schools which, unsurprisingly, enrolled the fewest number of adult students (just 6.2 percent).

So far we have answered the question of which schools produce the most delayed or non-cohort graduates by looking at the three main types of schools that operate in the state: comprehensive, charter and alternative. This method of investigating the research question reveals that alternative schools produce the greatest number of delayed graduates. However, a more specific listing of the schools which lead the state in graduating delayed students would provide us with more detail. Consequently, Table 5 presents the 10 schools in the state with the greatest number of delayed graduates in 2013-14.

Looking at Table 5, we see that every one of the 10 schools that produced the most non-cohort graduates in 2013-14 was a traditional (non-alternative) charter school. In addition, two of the top 10 schools were ASAM schools (SIATech and Charter School of San Diego). An important and noticeable characteristic that each of these schools share is that, compared to comprehensive schools which enrolled, on average, just 6.2 percent students over 18 years of age in 2013-14, the percentage of students in the schools which produce the greatest number of non-cohort (delayed) graduates who were over 18 years of age is quite high. For example, 90 percent of students enrolled in Muir Charter were over 18 in 2013-14. In fact, eight of the 10 schools listed in Table 5 had over 18 enrollments in 2013-14 that were greater than 3 times the state average. We find these particular schools to be quite exceptional in the broader array of California high schools. This is because while these schools are classified officially by the CDE as “traditional” schools, the publically available data we accessed clearly show that these schools do not serve the traditional California high school students. We argue this disjoint represents a key finding of the current report, one which we revisit further on.

How Effective are Schools at Getting Delayed Students to Graduate?

The last question the current policy report sought to answer was, given that alternative and charter schools serve proportionally more adult students, how effective are these schools in getting students to graduate. Table 6 offers some insight.

Table 6 provides two ways of measuring the rate at which students attending comprehensive, charter and alternative schools succeed in earning a high school diploma. Notice that, in addition, we include a separate category of schools which we will now call "adult serving schools." Adult serving schools are those in which at least 50 percent of the student body is over 18 years of age.

The first measure of graduation rate presented in Table 6 is the ACGR, which we have previously described as the rate at which students complete high school in a four-year window. The ACGR is the result of the cohort graduates divided by the size of the cohort. However, in addition to the ACGR, we include a second measure which is the quotient of the total graduates divided by the number of 12^{th} grade students. We refer to this measure as the "grade 12 graduation rate." This second measure of graduation rate is similar to the "one-year" graduation rate used in Oregon, which is the rate of graduating seniors enrolled or eligible be in the 12^{th} grade (Ruiz de Velasco & Gonzales, 2017).

Looking at Table 6, as one might expect, the rate at which students graduate with their cohort in a traditional four-year high school experience is highest in comprehensive schools, and lowest in alternative schools. This is an unsurprising conclusion considering the earlier findings presented in this report. However, the rates produced by the alternative measures of graduation rate are of considerable more interest. For example, if we look at the "grade 12 graduation rate," we see that, when compared to the cohort graduation rate, charter and alternative schools appear

to be more effective than their respective ACGRs would suggest. For example, while the ACGR for alternative schools was 41.9, 42.4 and 40.9 percent for the 2011-12, 2012-13 and 2013-14 academic years, the grade 12 graduation rate was 47.8, 54.2 and 59.6 percent during the same period. This averages out to a difference of 12 percentage points over three years. For charters, the average difference between the reported ACGR and the grade 12 graduation rate for 2011-12 through 2013-14 was just over 16 percentage points.

Why might the grade 12 graduation rate reflect more favorably on alternative and charter schools? We posit two reasons. First, charter and alternative schools have greater proportions of 12^{th} grade students. For example, in the 2011-12 school year 44 percent of all students enrolled in alternative high schools were in the 12^{th} grade, whereas 24 percent of students enrolled in charter high schools were seniors and 23 percent of students in comprehensive high schools were seniors. A second reason why the grade 12 graduation rate makes charter and alternative schools appear to be much more effective is that charter and alternative schools produce greater numbers of non-cohort graduates relative to cohort graduates. For these same reasons, there is very little difference in the cohort and grade 12 graduation rates for comprehensive schools in the state.

Thinking Beyond the ACGR

To review, the ACGR provides a measure of school effectiveness that is equal to the number of students who successfully graduate from a given high school within the traditional four-year time frame. The ACGR was seen as an improvement over ambiguous measures that cropped up following the passage of NCLB and while we do not deny that the ACGR provides an easily interpretable and intuitive measure of school effectiveness, we make the case that there are a number of important complexities that exist in the California education system that put into

question the usefulness of a cohort graduation rate as a monolithic or "one-size-fits-all" measure of school effectiveness. We argue this for the following reasons.

First, the ACGR does not factor in delayed high school completion. This would not be a problem if all students graduated on time, but this is clearly not the case. The fact is that some students leave school before graduating and they do so for various reasons (Rumberger, 2010). More important for the current study than the reasons why students drop out from school, however, is the fact that a number of them will eventually re-enroll and a non-inconsequential number of them will successfully earn a high school diploma. Yet, these delayed graduates are not counted towards a school's four-year cohort graduation rate, an exclusion that results in an artificially deflated effectiveness assessment. We know this from existing research as well as from public data made available by state education departments in Arizona and Oregon. As we illustrated, something as simple as extending the time frame in which students successfully complete high school by another one or two years makes a marked impact in the graduation rate.

Second the ACGR would be less problematic if we all agreed that graduating *on time* was more important than graduating *ever*. But this is hardly the case. For at-risk students, graduating from high school represents an important achievement, regardless of the time they require to do it. Even for the general student population this is true. The data are clear: high school completion is associated with a number of positive social and economic outcomes, while failing to graduate is a proven harbinger of a far bleaker future (Rumberger, 2010). At the same time, while dropouts who eventually complete high school have better postsecondary education and labor market outcomes than dropouts who never complete high school, their outcomes are still lower

than students who never drop out (Rotermund, 2007).[11] Therefore, it is absolutely the case that we should be incentivizing schools to graduate students sooner rather later. The sooner students are able to complete high school, the sooner they are able to enter the next stages in life, which may include postsecondary enrollment or labor market participation. However, we also need to be concerned that the ACGR and its priority towards on time completion may be providing an unintended incentive for schools to push delayed students into nearby alternative schools, which may or may not provide students with the help they need to graduate. For example, a recent study found that nearly two-thirds of the students enrolled in schools operated by one California county transferred into the schools since the 10th grade and only 45 percent of those students graduated one time (Rumberger & Losen, 2017). Similar patterns were observed statewide. For this reason, school accountability systems should be incentivized to successfully educate all incoming ninth graders. This could be accomplished by making schools responsible for the outcomes of its students even *after* transferring to an alternative school (Ruiz de Velasco & Gonzales, 2017; Warren, 2016). Indeed, we argue that graduation rates should not just be ascribed to the last school attended, but rather to all schools that students attend.

A third reason why the ACGR is problematic is that because the ACGR does not factor in delayed graduates, it unfairly penalizes schools and school systems in the state that serve a disproportionate number of adult students. As we have shown, charter and alternative schools serve far more adult students than traditional, comprehensive high schools. We identified 87 high schools in the state in which over 50 percent of their students were 18 years of age or older. We referred to these schools as adult-serving schools. For these schools, the ACGR is a particularly

[11] For example, Rotermund found that 85 percent of all high school graduates from the 2004 graduating class who never dropped out had some post-secondary education by 2000, compared to 60 percent of delayed graduates and 15 percent of dropouts who never completed.

punitive accountability measure because these schools do not serve traditional, on-time students. The ASAM framework in the California was designed to address this disparity, yet the Governor's budget essentially defunded the program in 2010. Schools can still apply for ASAM designation, but the CDE no longer requires data from ASAM schools and, consequently, the CDE no longer produces ASAM reports. We echo the call of others (e.g., Ruiz de Velasco & Gonzales, 2017; Warren, 2016) that much more accountability is needed for the state's alternative schools in the post-ASAM era. The ACGR may be appropriate if students enter high school fully prepared to engage in grade-level curriculum required for graduation. But students who enter high school with below-grade level skills in reading or math, or have faced past challenges such as failed classes or disciplinary actions, may need additional time to earn a diploma. Neither they nor their school should be penalized for that. Instead, the performance of students and the schools they attend should be based on students' characteristics when they walk in the door.

Looking further into the subset of adult-serving schools, we noticed a specific grouping of California high schools that fell within a peculiar classification. While the majority of adult-serving schools were alternative schools, 21 of these schools were classified as traditional (i.e., comprehensive) schools according to the California Department of Education. We call these schools "dropout recovery schools." Dropout recovery schools are a subset of schools focused primarily on serving and enrolling students over 18 years of age yet also retain a "traditional" school classification under the CDE (see Table 7). The problem, however, is that while officially these dropout recovery schools are recognized by the state of California as traditional, akin to typical or modal comprehensive schools – schools with equally distributed numbers of first, second, third and fourth year students, a majority of students who are under the age of 18 and the

majority of whom graduate on time – they are far from traditional in terms of the students they serve. And for these schools this poses a unique challenge of evaluation and assessment. In more detail, holding dropout recovery schools accountable with a metric like the ACGR leads to an artificially deflated sense of achievement. This is because such schools who enroll over 50 percent of their students as adults face qualitatively different challenges than traditional schools who serve non-adult students. And while dropout recovery schools may graduate fewer students within a four-year window, these schools, as evidenced by an alternative measure of graduation rate such as the rate of 12th graders who earn a diploma, are quite successful.

The policy implication here is that the simple yet profound act of classifying schools has a tremendous impact on the degree to which schools are considered to be successful or unsuccessful, especially when the most widely used metric of evaluation – the ACGR – seems to favor certain school classifications over others. We would argue that adult serving schools and, in particular, dropout recovery schools deserve greater scrutiny in terms of the metrics used to gauge their success. Again, we would argue that the performance of schools in California should be based on students' characteristics when they walk in the door.

Discussion

The purpose of the current report has been to reevaluate the meaningfulness of on-time graduation measures used to gauge school effectiveness such as the adjusted cohort graduation rate (ACGR) in light of the fact that many students earn high school diplomas outside of the traditional four-year window. The preceding analysis leads to a number of conclusions, each of which has implications for education policy in the state of California.

The first conclusion is that, like Colorado, Oregon and Arizona, the data suggest that California, too, has students who require more than four years to earn a diploma and, as a result, the ACGR, which has increased every year since 2009-10, actually underestimates the number of students in the state who earn high school diplomas. Evidence for this conclusion comes from published figures of the adult education programs funded in the state and from the CDE's publicly available data on cohort graduation rates. The implication of this finding is that the ACGR may serve as an accurate measure of efficiency, but it does not necessarily serve as an accurate measure of effectiveness. Policymakers should consider this finding as they continue to tie school funding with school effectiveness.

A second conclusion stemming from the current report is that like Arizona, Colorado and other states in the nation, California should consider making available five-year and six-year graduation rate figures routinely available in addition to four-year rates.[12] As this report has made clear, there are a large number of students who, in a given year, require more than four years to earn their diploma. Not reporting these students underestimates the effectiveness of the state's educational programs and services. If indeed more students are graduating high school later than previous generations (Joo & Kim, 2014), it is important that the state looks beyond the ACGR and reports on time as well as delayed high school graduation rate figures.

The third conclusion is that the various types of schools in the state serve varying degrees of delayed high school students. This is not a particularly novel finding; it has been known for quite some time that alternative schools serve different students from the states comprehensive schools. However, the current report, by way of estimation, offers more concrete insight into the size of the disparity in the enrollment of the delayed high school students in the state's

[12] In a recent conversation CDE staff said a new 5-year graduation rates would be released soon, but not six-year rates.

comprehensive, charter, and alternative schools. Alternative schools serve many more delayed students relative to comprehensive schools. Alternative schools also enroll many more adult students (i.e., students 18 years of age or older). An obvious implication here is that funding in the state must begin to account for the student characteristics of a given school. California Senate Bill 1458 was a great first step towards more informed and nuanced school funding. However, much more research needs to determine the unique factors that assist delayed or re-entry students earn high school diplomas. Increased funding is most welcome, but more information, research and targeted interventions are needed too. If we know that more of the state's delayed graduates are enrolling in alternative and charter schools, we need to invest the intellectual resources to inform these schools on how to best serve and assist these students.

The fourth conclusion is that the data available from the CDE make it clear that the ACGR favors comprehensive high schools in the state over schools with greater numbers of delayed high school students such as alternative schools. This is because comprehensive schools enroll the vast majority of on-time graduates in the state. Proportionally speaking, these schools also enroll the lowest number of adult students in the state. As a result, comprehensive schools have much higher four-year graduation rates relative to alternative and charter schools. And while alternative schools are not supposed to be compared to traditional, comprehensive schools, the prominence of the ACGR in so many of the consequential metrics used to evaluate schools in the state ensures that they are. It is important to recall that the ACGR is an arbitrary convention. In order to streamline and make uniform the evaluation of graduation rates in the states following the NCLB legislation, the Department of Education pushed for the adoption of a common metric, namely the ACGR. And while having a common metric is helpful (even essential) in many ways, there is nothing that precludes California from evaluating the effectiveness of our schools in

ways that more accurately reflects the students and schools in our state. What these measures may be remains undetermined; however, one goal of the present report was to illustrate two potential alternatives.

It is important to point out in closing that the current study was limited in at least one important way. The lack of clear data pertaining to cohort graduation rates among alternative and some charter schools meant that we had to estimate figures whenever possible and necessary. While we are confident that our numbers accurately capture the narrative and underlying situation in the state, as with any study that relies on inference and estimation, it is likely the case that there is a degree of error in our reporting. We hope that the present study inspires future research along this line of inquiry and improves upon the work we have laid out here.

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Table 1: Adjusted Cohort Graduation Rates

California State	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Cohort students	507,209	503,273	500,974	495,316	492,971	488,612
Cohort graduates	378,976	388,236	395,098	398,442	399,041	401,957
Non-cohort graduates	4,115	16,851	15,378	20,049	23,136	25,025
Cohort still enrolled	39,881	37,323	36,507	36,470	33,422	30,775
Percent of cohort still enrolled	7.9%	7.4%	7.3%	7.4%	6.8%	6.3%
Total graduates	405,087	410,476	418,598	422,177	421,636	426,982
Cohort graduation rate	74.7%	77.1%	78.9%	80.4%	81.0%	82.3%
Adjusted Cohort Graduation Rate based on Method 1						
Added graduates from subsequent year	16,851	15,378	20,049	23,136	25025	--
Adjusted cohort graduates	395,827	403,614	415,147	421,578	424,066	--
Adjusted cohort graduation rate	78.0%	80.2%	82.9%	85.1%	86.0%	--
Adjusted Cohort Graduation Rate based on Method 2						
Added "still enrolled" graduates (50%)	19,941	18,662	18,254	18,235	16,711	15,388
Adjusted cohort graduates	398,917	406,898	413,352	416,677	415,752	417,345
Adjusted cohort graduation rate	78.6%	80.9%	82.5%	84.1%	84.3%	85.4%
five-year cohort Graduation Rate						
Cohort students	--	504,277	506,029	506,661	--	--
Cohort graduates	--	405,028	416,735	424,058	--	--
Adjusted cohort graduation rate		80.3%	82.4%	83.7%	--	--
six-year cohort Graduation Rate						
Cohort students	--	508,779	517,453		--	--
Cohort graduates	--	414,260	428,715		--	--
Adjusted cohort graduation rate		81.4%	82.9%		--	--

Table 2: California Adult Education Graduates

Academic Year	Diplomas Awarded
2006-07	8,404
2007-08	10,950
2008-09	12,145
2009-10	12,563
2010-11	12,547
2011-12	9,049
2012-13	8,759
2013-14	7,859

Table 3: Enrollment and Graduates by State and School Type

California State	**2011-12**	**2012-13**	**2013-14**
Cohort students	500,974	495,316	492,971
Grade 12 enrollment	495,945	499,275	498,403
Grade 12 cumulative enrollment	599,903	622,715	639,995
Total graduates	410,476	418,491	422,177
Cohort graduates	395,098	398,442	399,041
Non-cohort graduates	15,378	20,049	23,136
Comprehensive	**2011-12**	**2012-13**	**2013-14**
Cohort students	373,735	372,974	370,652
Grade 12 enrollment	376,592	378,635	377,275
Grade 12 cumulative enrollment	393,629	413,011	426,355
Total graduates	342,070	344,260	343,529
Cohort graduates	334,873	338,768	338,983
Non-cohort graduates	7,197	5,492	4,546
Charter	**2011-12**	**2012-13**	**2013-14**
Cohort students	43,191	43,416	49,743
Grade 12 enrollment	37,095	39,400	44,218
Grade 12 cumulative enrollment	55,332	63,132	74,913
Total graduates	29,081	30,162	32,780
Cohort graduates	25,011	26,226	29,078
Non-cohort graduates	4,070	3,936	3,702
Alternative	**2011-12**	**2012-13**	**2013-14**
Cohort students	84,048	78,926	72,576
Grade 12 enrollment	82,258	81,240	76,910
Grade 12 cumulative enrollment	150,942	146,572	138,727
Total graduates	39,325	44,069	45,868
Cohort graduates	35,214	33,448	30,980
Non-cohort graduates	4,111	10,621	14,888

Table 4: Percentage of Adult Students by State and School Type

California State	2011-12	2012-13	2013-14
Enrollments in Grades 9-12	1,984,774	1,970,030	1,957,917
Percentage of State	100.0%	100.0%	100.0%
Students over 18	186,801	173,718	165,608
Percentage of Students over 18	9.4%	8.8%	8.5%
Comprehensive	**2011-12**	**2012-13**	**2013-14**
Enrollments in Grades 9-12	1,644,353	1,630,302	1,620,947
Percentage of State	82.8%	82.8%	82.8%
Students over 18	117,678	111,161	101,159
Percentage of Students over 18	7.2%	6.8%	6.2%
Charter	**2011-12**	**2012-13**	**2013-14**
Enrollments in Grades 9-12	152,980	162,031	168,816
Percentage of State	7.7%	8.2%	8.6%
Students over 18	19,865	21,174	26,815
Percentage of Students over 18	13.0%	13.1%	15.9%
Alternative	**2011-12**	**2012-13**	**2013-14**
Enrollments in Grades 9-12	187,441	177,697	168,154
Percentage of State	9.4%	9.0%	8.6%
Students over 18	49,258	41,383	37,634
Percentage of Students over 18	26.3%	23.3%	22.4%
Adult serving	**2011-12**	**2012-13**	**2013-14**
Enrollments in Grades 9-12	16,871	18,843	21,316
Percentage of State	0.9%	1.0%	1.1%
Students over 18	10,003	13,048	15,558
Percentage of Students over 18	59.3%	69.2%	73.0%

Table 5: Ten California Schools with the Highest Non-Cohort Graduation Rates, 2013-14

	Adult Serving	School sites	Grade 9-12 Enrollment	Cummulative Enrollment	Grade 12 Enrollment	Cumulative Grade 12 Enrollment	Over 18 Enrollment	Percentage of Students in Grade 12	Percentage of Students over 18	four-year cohort	five-year cohort	six-year cohort
California State	--	--	**1,957,917**	**2,309,890**	**498,403**	**596,370**	**165,608**	**25.5%**	**8.5%**	**492,971**	**506,661**	**517,453**
Comprehensive schools	--	--	**1,620,947**	**1,615,168**	**377,275**	**374,241**	**101,159**	**23.3%**	**6.2%**	**371,813**	**33,287**	**39,079**
Charter schools	--	--	**163,138**	**242,031**	**45,104**	**70,164**	**27,235**	**27.6%**	**16.7%**	**45,886**	**25,810**	**24,683**
Alternative schools	--	--	**173,832**	**452,691**	**76,024**	**151,965**	**37,214**	**43.7%**	**21.4%**	**75,272**	**447,564**	**453,691**
Recovery schools	--	--	**60,576**	**109,217**	**42,475**	**61,447**	**22,102**	**70.1%**	**36.2%**	--	--	--
Muir Charter	Yes	46	1786	4562	1624	3998	1609	90.9%	90.9%	956	1,774	2,329
Opportunities For Learning - Baldwin Park II	No	Single site	2739	9693	718	2844	914	26.2%	33.4%	1,357	1,025	664
SIATech	Yes	15	1429	2856	1381	2535	967	96.6%	67.7%	636	1,038	1,511
Options for Youth-Victorville Charter	No	Single site	2557	9186	604	3272	617	23.6%	24.1%	876	594	413
Options for Youth San Gabriel	No	Single site	960	2870	295	1042	263	30.7%	27.4%	413	302	189
Opportunities for Learning - Baldwin Park	No	Single site	1382	5071	333	1570	379	24.1%	27.4%	733	504	381
San Jose Conservation Corps Charter	Yes	Single site	391	1073	390	1054	293	99.7%	74.9%	320	503	488
Charter School of San Diego	No	Single site	1982	3896	925	1408	497	46.7%	25.1%	736	385	244
Desert Sands Charter	No	Single site	1392	6953	875	2414	880	62.9%	63.2%	662	821	728
Mojave River Academy	No	Single Site	1172	1430	614	657	296	52.4%	25.3%	344	349	237

Note: All schools listed are charter schools; All schools listed are categorized by the California Department of Education as "traditional" schools

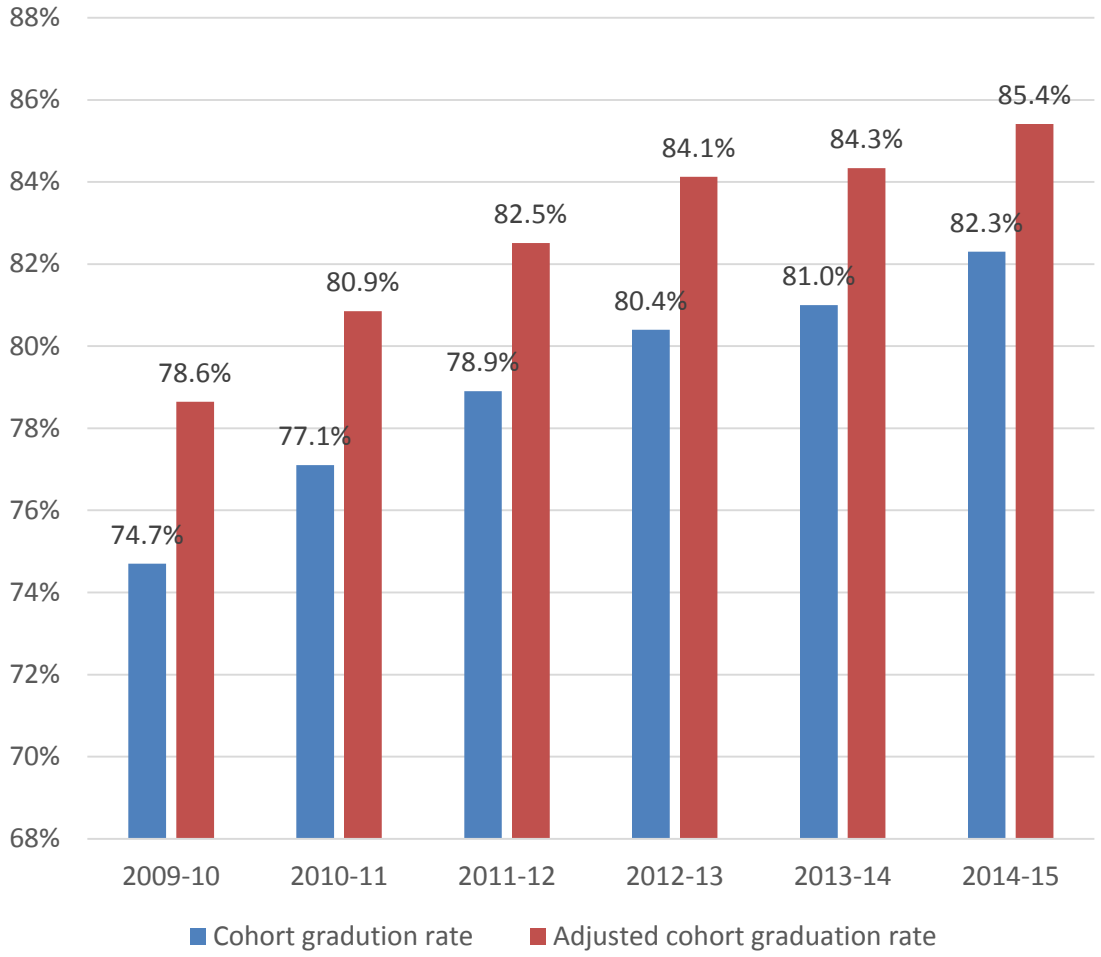
Table 6: Comparisons of Graduation Rates

California State	2011-12	2012-13	2013-14
Total graduates	418,598	422,177	422,177
Cohort graduation rate	78.9%	80.4%	80.9%
Grade 12 graduation rate	82.8%	83.8%	84.7%
Comprehensive	**2011-12**	**2012-13**	**2013-14**
Total graduates	342,070	344,260	343,529
Cohort graduation rate	89.6%	90.8%	91.5%
Grade 12 graduation rate	90.8%	90.9%	91.1%
Charter	**2011-12**	**2012-13**	**2013-14**
Total graduates	29,081	30,162	32,780
Cohort graduation rate	57.9%	60.4%	62.5%
Grade 12 graduation rate	78.4%	76.6%	74.1%
Alternative	**2011-12**	**2012-13**	**2013-14**
Total graduates	47,447	47,755	45,868
Cohort graduation rate	41.9%	42.4%	40.9%
Grade 12 graduation rate	47.8%	54.2%	59.6%
Adult-serving	**2011-12**	**2012-13**	**2013-14**
Total graduates	3,453	4,024	5,110
Grade 12 graduation rate	39.3%	42.3%	47.4%

Table 7: Dropout Recovery Schools in California

School Type	Charter		Total
	No	Yes	
Alternative School of Choice	7	0	7
County Community School	2	3	5
District Community Day School	1	0	1
Continuation School	25	0	25
Opportunity School	3	0	3
Special Education School	23	0	23
Traditional School	1	20	21
Youth Authority School	2	0	2
Total	64	23	87

Figure 1: Cohort and Adjusted Cohort California High School Graduation Rates, 2009-10 thru 2014-15



NOTE: Adjusted rate based on adding half of the "still enrolled" students for a given year to the reported cohort graduates total for that same year.