



**INDEPENDENT ANALYSIS UNIT REPORT BRIEF:**

**THE EFFECT OF SCHOOL TYPE  
ON ADEQUATE YEARLY PROGRESS  
IN THE LOS ANGELES UNIFIED SCHOOL DISTRICT**

**Rima Zobayan, Program Analyst  
Independent Analysis Unit**

**December 2008**

## **Executive Summary**

In 2007, slightly more than half (54%) of LAUSD's traditional schools made Adequate Yearly Progress (AYP), as compared to about two-thirds (65%) of LAUSD's charter schools. Board member Julie Korenstein asked the Independent Analysis Unit to examine whether charter schools are more likely to make AYP because they have fewer AYP criteria to meet than traditional schools.

Our examination of 2007 AYP data found that charters, on average, have six fewer AYP criteria to meet than traditional schools. Additionally, these charter schools generally have fewer students included in AYP testing than traditional schools. But having fewer criteria does not appear to give charter schools an advantage over traditional schools in making AYP. Rather, the 2007 AYP results for charter and traditional schools present a paradox. An overall higher percentage of charter schools make AYP, but when the number of AYP criteria is held constant, a higher or equivalent percentage of traditional schools meet all of their AYP targets. Among schools with fewer than 13 AYP criteria and those with 13-14 criteria, 16% more traditional schools make AYP than charter schools. At the 17-18 criteria level, this difference is 11% higher for traditional schools. The percentages of schools with 21-22 criteria that made AYP are equivalent.

A comparison by the number of students tested also shows mixed results. Traditional schools outperform charters among schools with fewer than 334 students included in AYP testing, with 83% of traditional schools making AYP as compared to 65% of charters. However, charters outperform traditional schools among schools with 334 to 666 students and schools with more than 666 students included in AYP testing.

Due to these incongruous results, we are unable to make a definitive statement on the effect of school type on AYP performance. While smaller numbers of AYP criteria and students tested would appear to give charter schools an advantage in making AYP, traditional schools often outperform or perform just as well as charters when the number of AYP criteria or students tested are taken into account.

## **Introduction**

Due to the passage of the No Child Left Behind Act, schools and school districts that receive Title I funds are required to meet annual targets called Adequate Yearly Progress (AYP) set by their state. In 2007, a higher percentage of charter schools (65%) than traditional schools (54%) within LAUSD made AYP. Board member Julie Korenstein asked the Independent Analysis Unit to examine whether charter schools are more successful at making AYP due to a smaller number of criteria to be met.

To pursue an answer, we divided this question into three parts:

- Do charter schools in LAUSD have fewer AYP criteria to meet?
- If so, why do charters have fewer AYP criteria?
- Do charter schools outperform traditional schools?

Our study uses 2007 AYP data for 593 traditional schools (including magnet and span schools) and 99 charter schools in LAUSD. The breakdown of schools by level is found in Table 1.

**Table 1: Number of LAUSD Schools Included in this Study by School Type and Level**

	<b>Traditional Schools</b>	<b>Charter Schools</b>	<b>Total</b>
<b>Elementary</b>	441	45	486
<b>Middle</b>	74	21	95
<b>High</b>	63	33	96
<b>Span</b>	15	0	15
<b>All Schools</b>	593	99	692

## **Background: What is Adequate Yearly Progress?**

Adequate Yearly Progress (AYP) is a state's measure of progress toward the *No Child Left Behind* (NCLB) goal of 100 percent of students achieving proficiency in state academic standards in reading/language arts and mathematics. AYP indicates the minimum level of achievement that the state, its school districts, and its schools must meet each year on annual tests and related academic indicators.<sup>1</sup> (Given the purpose of this report, we focus only on the requirements for schools.)

The No Child Left Behind law stipulates certain criteria that schools must meet in order to make AYP:

1. Schools must test at least 95 percent of their students.
2. The percent of students who score proficient or above on the state assessments noted above must meet an annual objective set by the state. The state's annual objectives must target reaching 100% proficiency by the year 2013-14.
3. The percent of high school seniors who graduate must meet an annual objective set by the state.
4. One additional criterion must be set by the state and approved by the U.S. Department of Education. In California, the Academic Performance Index (API) is used as the additional indicator. Please note that the API requirements for making AYP differ from the API *growth* targets set for each school.

In 2007, California schools used the following assessments to measure AYP participation and proficiency requirements:

- California Standards Tests (CST) for English Language Arts and Mathematics in grades 2 through 8;
- California Alternate Performance Assessment (CAPA) in English Language Arts and Mathematics in grades 2 through 8 and grade 10;
- California High School Exit Examination (CAHSEE) administered in February and March 2007 in grade 10.<sup>2</sup>

<sup>1</sup> Source: U.S. Department of Education Adequate Yearly Progress F.A.Q.: <http://www.ed.gov/nclb/accountability/ayp/edpicks.jhtml?src=az>

<sup>2</sup> Source: California Department of Education, *2007 Adequate Yearly Progress Report Information Guide*, August 2007.

Unlike the state’s Standardized Testing and Reporting (STAR) program, which includes students in grades 2 through 11, California’s AYP testing includes students in grades 2 through 8 and grade 10 only.

Table 2 below shows the numerical targets for California’s AYP requirements.

**Table 2: Summary of 2007 AYP Criteria for California Schools<sup>3</sup>**

<b>Requirement 1: Participation Rates on Assessments</b>	<b>Requirement 2: Percent Proficient on Assessments</b>	<b>Requirement 3: API Score/ Growth</b>	<b>Requirement 4: Graduation Rate (High schools only)</b>
Language Arts: 95% Mathematics: 95%	<u>Elementary and Middle Schools:</u> Language Arts: 24.4% Mathematics: 26.5%  <u>High Schools:</u> Language Arts: 22.3% Mathematics: 20.9%	At least 590 API or 1- point growth	At least one of the following: <ul style="list-style-type: none"> <li>• 82.9% graduation rate</li> <li>• +0.1% one-year change</li> <li>• +0.2% two-year change</li> </ul>

NCLB stipulates that Requirements 1 and 2 apply schoolwide and to certain subgroups of students, provided there are enough students to provide statistically reliable information for that group.<sup>4</sup> In California, a total of 10 subgroups are used in AYP: African American, American Indian/Alaska Native, Asian, Filipino, Hispanic/Latino, Pacific Islander, White, Socio-economically Disadvantaged, English Learners, and Students with Disabilities. To be counted toward a school’s AYP criteria, a subgroup must have 100 or more students *or* 50 or more students who make up at least 15% of the total student population.<sup>5</sup> This is called “numerical significance.” For more details, please see the Technical Appendix.

The maximum possible number of AYP criteria in California is 45 for elementary and middle schools and 46 for high schools (Table 3). In 2007, the highest number of AYP criteria in any LAUSD school was 37.

**Table 3: Maximum Possible Number of AYP Criteria in California Schools**

	<b>Requirement 1: Participation Rates on Assessments</b>		<b>Requirement 2: Percent Proficient on Assessments</b>		<b>Requirement 3: API Score/ Growth</b>	<b>Requirement 4: Graduation Rate (High schools only)</b>	<b>Subtotal</b>
	Language Arts	Math	Language Arts	Math			
Overall School	1	1	1	1	1	1	6
Subgroups within the School	10	10	10	10	N/A	N/A	40
<b>Total</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>46</b>

<sup>3</sup> Source: California Department of Education, *2007 Adequate Yearly Progress Report Information Guide*, August 2007.

<sup>4</sup> Source: U.S. Department of Education, *No Child Left Behind: A Desktop Reference*, 2002.

<sup>5</sup> Source: California Department of Education, *2007 Adequate Yearly Progress Report Information Guide*, August 2007.

## Do LAUSD charter schools have fewer AYP criteria than traditional schools?

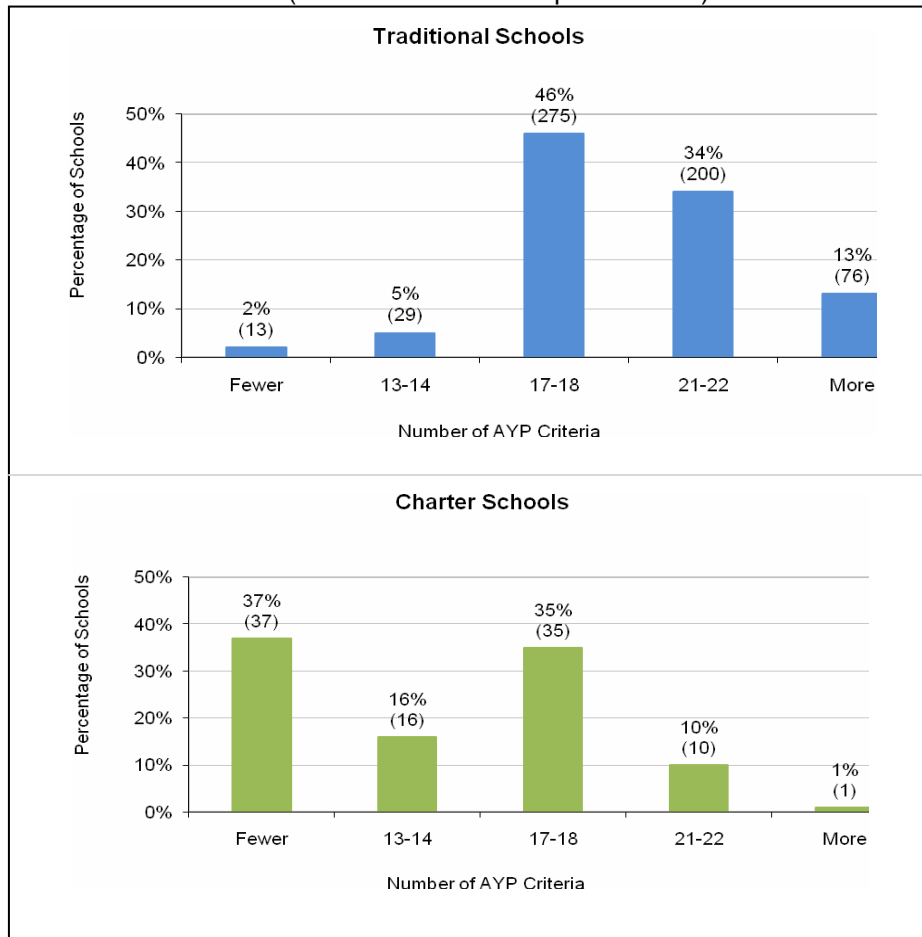
A review of 2007 AYP data for LAUSD schools shows that the District's charter schools do indeed have fewer AYP criteria than traditional schools. On average, traditional schools count about 6 more AYP criteria than charter schools (Table 4). Examining this difference by school level, we find that traditional schools have a higher number of AYP criteria at each level. Elementary schools have the smallest difference (5.4 more for traditional schools) and middle schools the largest (10.1).

**Table 4: Average Number of AYP Criteria in LAUSD Schools by School Type and Level**

	<b>Traditional Schools</b>	<b>Charter Schools</b>	<b>Difference Between Traditional and Charter Schools</b>
<b>Elementary</b>	18.0	12.6	5.4
<b>Middle</b>	25.5	15.4	10.1
<b>High</b>	19.6	12.2	7.4
<b>All Schools</b>	19.2	13.1	6.1

A review of the distribution of the schools across the possible numbers of AYP criteria helps explain why this difference between the two types of schools exists. The number of AYP criteria for LAUSD elementary, middle, and high schools ranges from 5 to 37. The highest percentage of both traditional and charter schools falls near the middle with 17 or 18 AYP criteria (Figure 1). However, almost all of the traditional schools have 17-18 *or more* AYP criteria, with about one-third of schools at the 21-22 criteria level. In contrast, most charter schools have 17-18 *or fewer* criteria, with more than one-quarter of charters in the group with the fewest AYP criteria.

**Figure 1: Frequency Distribution of AYP Criteria for LAUSD Schools by School Type**  
(Number of schools in parentheses)



## Why do charter schools have fewer AYP criteria than traditional schools?

To determine why, on average, the number of AYP criteria differs for charter and traditional schools, we examined two factors: school size and school demographics.

### School Size

One might assume that schools with a smaller number of AYP criteria would have fewer students enrolled. An examination of the number of students included in AYP testing<sup>6</sup> – our proxy measure for the number of students enrolled – that compares schools with similar numbers of AYP criteria shows that this is true (Table 5). The average number of students included in AYP testing increases as the number of AYP criteria that applies to the school increases. A comparison by school type shows that in each case traditional schools have more students than

<sup>6</sup> These figures are based on the number of students who took the English Language Arts and/or Mathematics CST in grade 2 through 8, and grade 10, the English Language Arts and/or Mathematics CAPA in grades 2 through 8 and grade 10, and CAHSEE in grade 10.

charter schools, except at the “More than 22” criteria level. However, only one charter school exists at this level, as compared to 26 traditional schools.

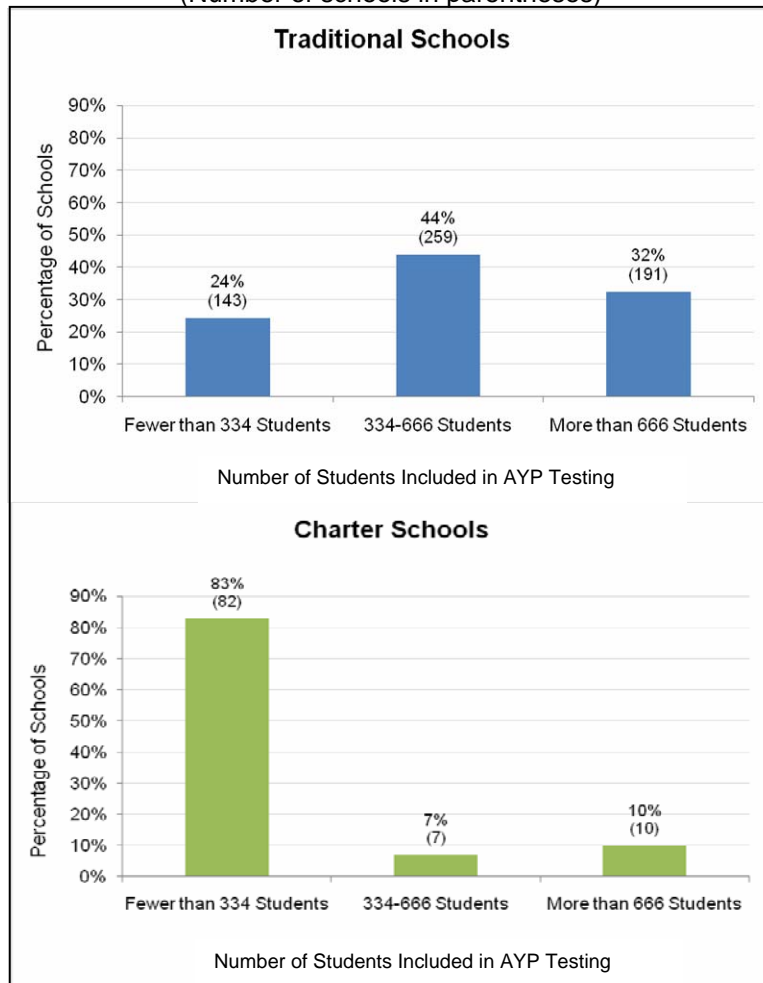
**Table 5: Average Number of Students Included in AYP Testing in LAUSD Schools, by Number of AYP Criteria and School Type**  
(Number of schools in parentheses)

<b>Number of AYP Criteria</b>	<b>All Schools</b>	<b>Traditional Schools</b>	<b>Charter Schools</b>	<b>Difference Between Traditional and Charter Schools</b>
<b>Fewer than 13</b>	132 (50)	237 (13)	95 (37)	142
<b>13-14</b>	254 (45)	277 (29)	211 (16)	66
<b>17-18</b>	473 (310)	492 (275)	324 (35)	168
<b>21-22</b>	709 (210)	722 (200)	456 (10)	266
<b>More than 22</b>	1,503 (77)	1,495 (76)	2,078 (1)	-583
<b>All Schools</b>	620 (692)	682 (593)	251 (99)	431

Noting these large differences in the number of students included in AYP testing, we reviewed the distribution of traditional and charter schools by school size. We used three categories of students included in AYP testing for school size: fewer than 334 students, 334 to 666 students, and more than 666 students. These three size categories were chosen because we found that these levels correspond to the minimum number of students needed for a subgroup to be considered “numerically significant” and counted toward AYP (please see the Technical Appendix for further explanation).

A substantial percentage of traditional schools were found in all three size categories. The highest percentage (44%) included between 334 and 666 students in AYP testing; moreover, about one-third included more than 666 students, and about one-quarter included fewer than 333 students (Figure 2). In contrast, more than three-quarters of the charter schools included fewer than 334 students. In other words, while there is a high number of traditional schools at all three size categories, almost all of the charter schools are at the smallest level of students included in AYP testing.

**Figure 2: Distribution of the Average Number of Students Included in AYP Testing in LAUSD Schools by School Type**  
(Number of schools in parentheses)



When we compared the number of AYP criteria of traditional schools and charter schools for each of these three size categories, we found that in each case traditional schools have a higher average number of AYP criteria than charter schools, with the largest difference (5.2 criteria) among the smallest schools (Table 6).

**Table 6: Average Number of AYP Criteria in LAUSD Schools, by Number of Students Included in AYP Testing and School Type**  
(Number of schools in parentheses)

School Type	All Schools	Traditional Schools	Charter Schools	Difference Between Traditional and Charter Schools
Fewer than 334 Students	15.2 (225)	17.1 (143)	11.9 (82)	5.2
334-666 Students	18.3 (266)	18.4 (259)	16.9 (7)	1.5
More than 666 Students	21.9 (201)	22.0 (191)	20.1 (10)	1.9
<b>All Schools</b>	<b>18.3 (692)</b>	<b>19.2 (593)</b>	<b>13.1 (99)</b>	<b>6.1</b>



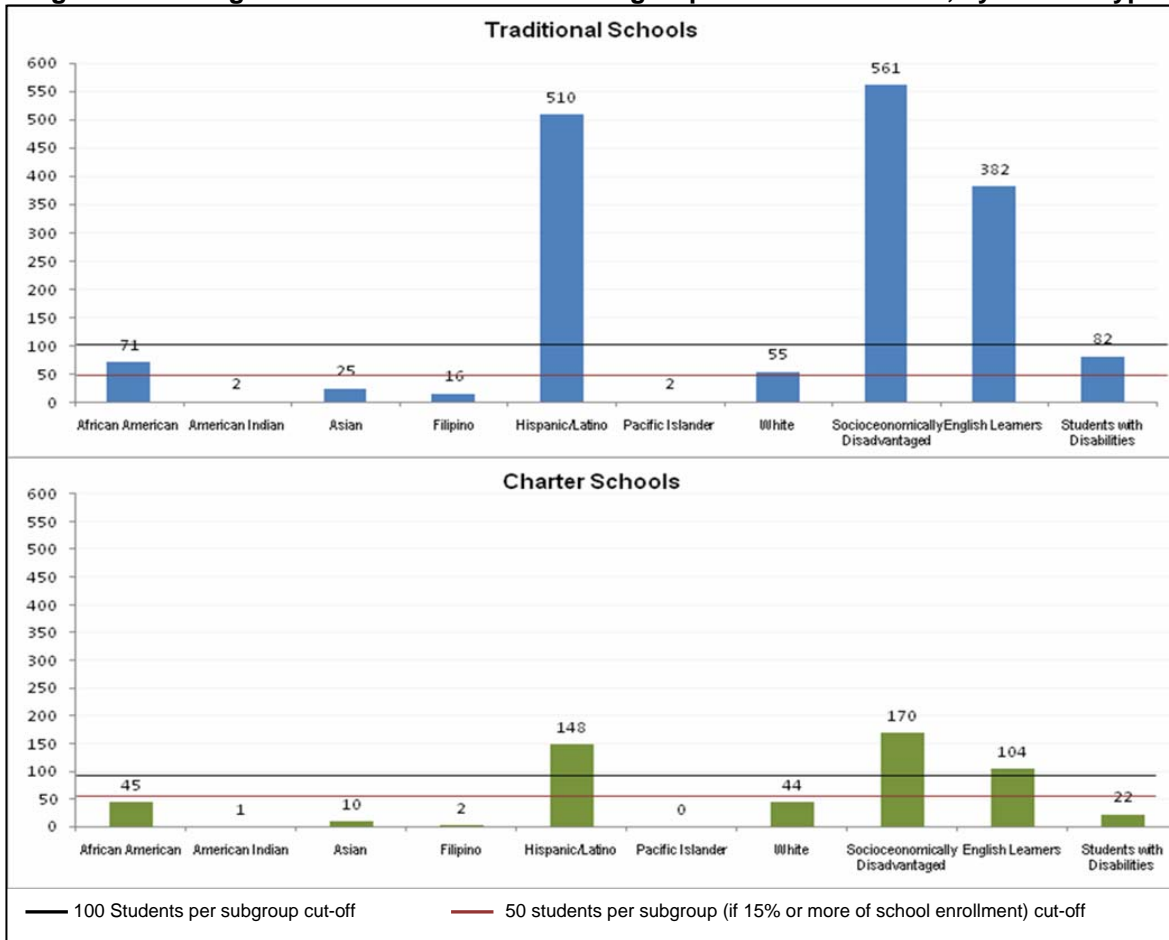
In sum, a smaller number of AYP criteria does appear to be linked to a smaller number of students included in AYP testing. Therefore, charter schools, which on average have fewer students than traditional schools, generally have smaller numbers of AYP criteria. However, size is not the only factor that affects the number of AYP criteria.

### **School Demographics**

The number of numerically significant subgroups at a school is the largest determinant of the number of that school's AYP criteria. This is because one additional numerically significant subgroup can add four more criteria – (1) student participation in the language arts assessments, (2) student participation in the mathematics assessments, (3) student proficiency on the language arts assessments, and (4) student proficiency on the mathematics assessments – to the school's AYP criteria count.

As mentioned above, a subgroup would need to have 100 or more students *or* 50 or more students who make up at least 15% of the total student population in order to be counted towards the school's AYP criteria. Figure 3 below shows the average number of students in each subgroup at traditional and charter schools in 2007. Given that traditional schools are generally larger than charter schools, it is not surprising that traditional schools also have on average a higher number of students in each subgroup. Both types of schools have an average of more than 100 students in three groups: Hispanic/Latino students, socioeconomically disadvantaged students, and English learners. However, traditional schools have an average of more than 50 students in three additional subgroups – African American students, white students, and students with disabilities – whereas charter schools do not have any additional subgroups that have an average of more than 50 students. Thus, traditional schools appear to be more likely to have a higher number of numerically significant subgroups because more groups fall in the range of 50 to 99 students and could be counted toward AYP if they account for 15% or more of a school's student population.

**Figure 3: Average Number of Students Per Subgroup in LAUSD Schools, by School Type**



Consistent with the larger number of students at each subgroup in traditional schools, a higher percentage of traditional schools counts each subgroup toward AYP, with the exceptions that no traditional or charter schools count American Indians or Pacific Islanders toward AYP (Table 7). The differences are particularly striking for the percentages of schools that count English learners (45% difference), Hispanic/Latino students (36%), socioeconomically disadvantaged students (36%), and students with disabilities (21%).

**Table 7: Percentage of LAUSD Schools that Count Each Subgroup toward AYP, by School Type**  
(Number of schools in parentheses)

<b>Subgroup</b>	<b>Traditional Schools</b>	<b>Charter Schools</b>	<b>Difference Between Traditional and Charter Schools</b>
African American	25% (146)	18% (18)	7%
American Indian	0% (0)	0% (0)	0%
Asian	8% (47)	4% (4)	4%
Filipino	4% (86)	0% (0)	4%
Hispanic/Latino	95% (563)	59% (58)	36%
Pacific Islander	0% (1)	0% (0)	0%
White	24% (140)	17% (17)	7%
Socioeconomically Disadvantaged	97% (574)	61% (60)	36%
English Learners	81% (482)	36% (36)	45%
Students with Disabilities	23% (139)	2% (2)	21%

Ultimately, it is the interaction of a school’s demographics with the number of students included in AYP testing that determines the number of AYP criteria for the school. Based on the average size of LAUSD’s schools in terms of the number of students tested and the proportions of students in each subgroup, traditional schools tend to count more subgroups toward AYP than charters, giving traditional schools a higher number of AYP criteria.

### **Do charter schools outperform traditional schools due to the lower number of AYP criteria?**

When comparing the percentages of all traditional schools and all charter schools that made AYP (i.e., met all of their AYP criteria), charter schools outperform traditional schools. About two-thirds of the charters (65%) made AYP in 2007 as compared to slightly more than half of the traditional schools (54%).

To better understand the relationship between the number of criteria and school performance, we compared the results of both school types at different levels of AYP criteria and were presented with a paradox: contrary to expectations, a higher or equivalent percentage of traditional schools than charter schools met AYP at all levels (Table 8).

**Table 8: Percentage of LAUSD Schools that Made AYP, by Number of AYP Criteria and School Type**  
(Number of schools in parentheses)

<b>Number of AYP Criteria</b>	<b>All Schools</b>	<b>Traditional Schools</b>	<b>Charter Schools</b>	<b>Difference between Traditional and Charter Schools</b>
<b>Fewer than 13</b>	88% (44 of 50)	100% (13 of 13)	84% (31 of 37)	16%
<b>13-14</b>	91% (41 of 45)	97% (28 of 29)	81% (13 of 16)	16%
<b>17-18</b>	62% (191 of 310)	64% (176 of 275)	43% (15 of 35)	11%
<b>21-22</b>	49% (102 of 210)	49% (97 of 200)	50% (5 of 10)	-1%
<b>More than 22</b>	12% (9 of 77)	12% (9 of 76)	0% (0 of 1)	12%
<b>All Schools</b>	56% (387 of 692)	54% (323 of 593)	65% (64 of 99)	-11%

This paradox can be explained by another pattern shown in Table 8: the percentage of schools, regardless of type, that make AYP decreases as the number of AYP criteria increases. Thus, schools with smaller numbers of AYP criteria do indeed appear to be more likely to make AYP. As seen in Figure 1, a large proportion of charter schools have smaller numbers of AYP criteria, whereas most traditional schools have higher numbers of AYP criteria. Hence, a higher percentage of charter schools overall make AYP.

It must be noted that some of the traditional schools that made AYP are not necessarily representative of LAUSD's traditional schools at large. For example, of the group of schools with fewer than 13 criteria, more than half count white students as a subgroup, but only two schools count Hispanic/Latino students and socioeconomically disadvantaged students. These proportions are quite different from the percentages of traditional schools that count these subgroups as shown in Table 7. Six of the nine elementary schools in this group have 2007 API scores above 900, far higher than the average API for LAUSD elementary schools. All four high schools in this group are atypical in that they are small schools. Some charter schools that made AYP are also atypical. For example, among the group of charters with fewer than 13 AYP criteria that made AYP, schools that count white students as a subgroup (5) outnumber schools that count Hispanic/Latino students (3) or socioeconomically disadvantaged students (1).

Due to the finding that schools with fewer AYP criteria – which tend to have smaller numbers of students included in AYP testing – are more likely to make AYP, we also compared the performance of schools based on the number of students tested. Among traditional schools, the percent of schools that made AYP decreased substantially as the size of the school increased (Table 9). The percent of charter schools that made AYP did not vary as much between the three size categories.

Among traditional and charter schools with fewer than 333 students included in AYP testing, a higher percentage of traditional schools made AYP (Table 9). The results for schools at the 334-666 student level show that charter schools performed slightly better. However, in the category for the largest schools (more than 666 students), a substantially higher percentage of charters schools than traditional schools made AYP. (Please note that there were too few charter schools in the categories of 334 to 666 students and More than 666 Students to compare results using school type, school size, and the number of AYP criteria.)

**Table 9: Percentage of LAUSD Schools that Made AYP, by Number of Students  
Included in AYP Testing and School Type**  
(Number of schools in parentheses)

School Size	All Schools	Traditional Schools	Charter Schools	Difference between Traditional and Charter Schools
<b>Fewer than 334 Students</b>	76% (171 of 225)	83% (118 of 143)	65% (53 of 82)	18%
<b>334 to 666 Students</b>	65% (172 of 266)	64% (167 of 259)	71% (5 of 7)	-7%
<b>More than 666 Students</b>	22% (44 of 201)	20% (38 of 191)	60% (6 of 10)	-40%
<b>All Schools</b>	56% (387 of 692)	54% (323 of 593)	65% (64 of 99)	-11%

In sum, a comparison of traditional and charter school 2007 AYP show the results to be paradoxical. Whereas a higher percentage of all charter schools made AYP, when the number of AYP criteria is held constant, traditional schools performed equally well or better than charter schools. Traditional schools with fewer than 334 students outperformed charters, but did not fare as well among schools with more students. Hence, we cannot conclude definitively whether school type has an effect on AYP performance. However, it appears that regardless of school type, schools with smaller numbers of students – and thus fewer AYP criteria – generally outperform larger schools.

### **Concluding Remarks**

Our review of the 2007 AYP results of traditional and charter schools within LAUSD did not result in a clear-cut answer as to whether one school type outperforms the other. Rather, this report’s findings leave open the question of the relative effectiveness of charters and traditional schools.

It is important to note that these Adequate Yearly Progress results present a snapshot of school performance for only the year being measured – in this case, the 2006-07 school year. California’s AYP targets for 2008 and each subsequent year will increase greatly until they reach 100% in 2013-14, making it ever more difficult for any school, regardless of size or type, to meet all of its AYP criteria in the coming years. In order to make AYP, more schools may need to rely on the *No Child Left Behind* law’s “Safe Harbor” provision, an alternate means of meeting the proficiency requirement (Requirement 2) if the percentage of students scoring below proficient on the language arts and/or mathematics assessment decreases by at least 10% over the previous year.<sup>7</sup>

Moreover, the future of AYP as a progress indicator is uncertain as the *No Child Left Behind* law is long overdue for reauthorization by Congress. With a recent presidential election that has focused mostly on issues other than education, it is unclear what action President-elect Barack Obama and his administration will take regarding the law’s reauthorization and its many provisions. Thus, the future role and importance of Adequate Yearly Progress remains to be seen.

<sup>7</sup> Source: California Department of Education, *2007 Adequate Yearly Progress Report Information Guide*, August 2007.

## Technical Appendix: Numerical Significance of Student Subgroups

As noted above, specific rules are used to determine when a subgroup has a “numerically significant” number of students and is counted toward the school’s AYP criteria for participation and/or proficiency on the language arts and mathematics assessments. Two key thresholds – 50 and 100 – help determine whether a subgroup is counted toward AYP:

- If fewer than 50 students are in the subgroup, then that subgroup does not count toward AYP.
- If at least 100 students are in the subgroup, then that subgroup is counted toward AYP.<sup>8</sup>

For subgroups numbering between 50 and 99 students, the “15% rule” comes into play: the number of students in the subgroup must be at least 15% of the school’s enrollment in order for the subgroup to be counted as part of the AYP criteria. Figure 4 below shows the decision process for determining whether a school must include a subgroup toward its AYP criteria.

**Figure 4: Flow Chart of Subgroup Inclusion in AYP Participation or Proficiency Criteria**

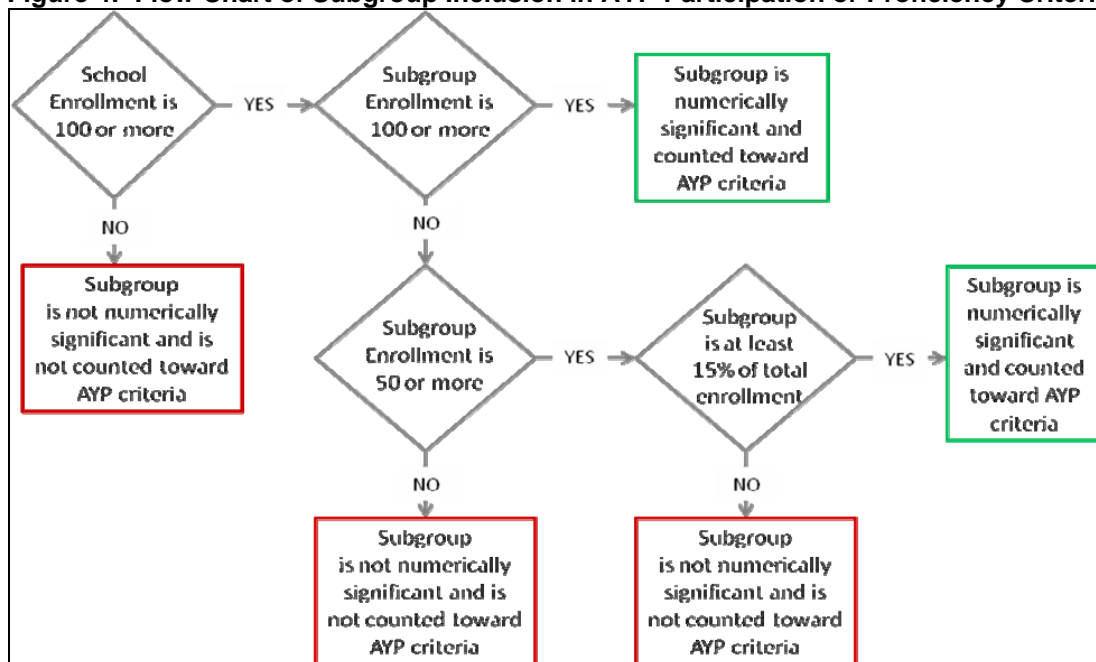
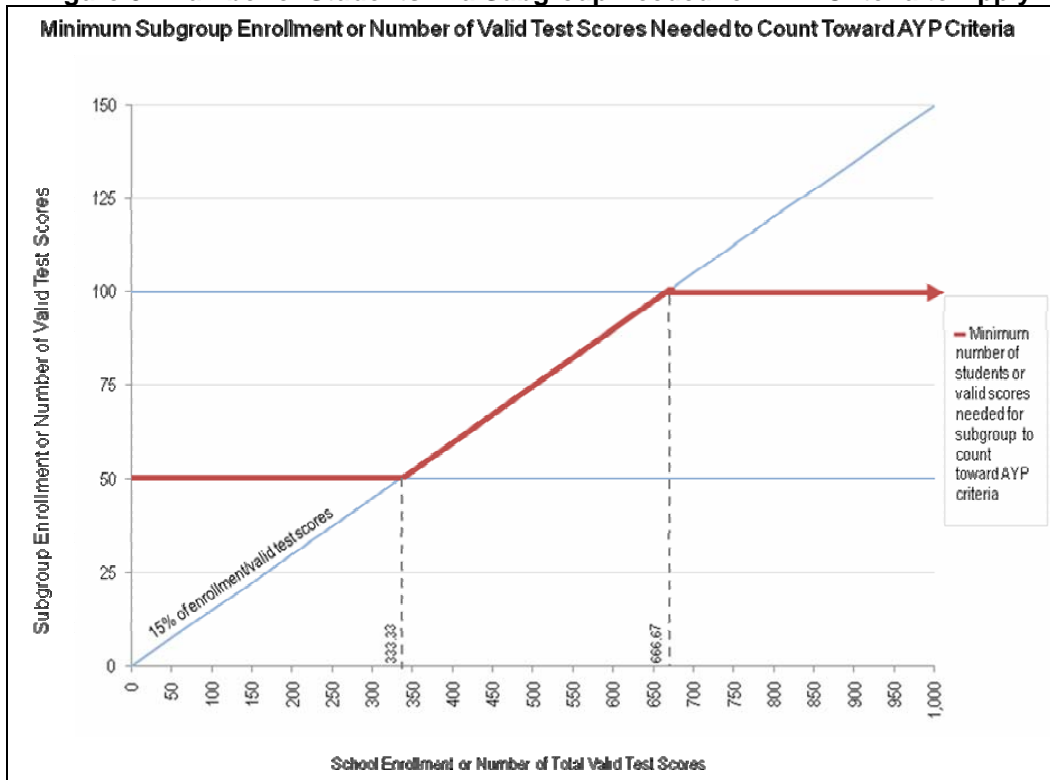


Figure 5 below shows the minimum number of enrolled students or valid scores within a subgroup needed for that group to be considered numerically significant. For example, a school with 500 students would need at least 75 students in a subgroup in order for that subgroup to be counted towards AYP. We can glean some additional key thresholds from Figure 5: schools with an enrollment of 333 students or fewer must have at least 50 students in a subgroup for it to be counted; schools with 667 or more students need at least 100 students in a subgroup for it to be counted; and schools with an enrollment of 334 to 666 students must apply the 15% rule to determine whether a subgroup is to be counted toward AYP.

<sup>8</sup> Source: California Department of Education, *2007 Adequate Yearly Progress Report Information Guide*, August 2007.

**Figure 5: Number of Students in a Subgroup Needed for AYP Criteria to Apply**



The criteria for AYP participation (Requirement 1) differ from AYP proficiency criteria (Requirement 2) in one main respect: the *number of students enrolled* is taken into account for participation, whereas the *number of valid test scores* (i.e., the number of students who took the language arts or mathematics test) is taken into account for the proficiency requirement. This is an important distinction because it can result in schools having an atypical number of AYP criteria. In most cases, a subgroup that meets the prerequisites for being included in the AYP participation requirement will also meet the prerequisites for being included in the proficiency criteria. However, a subgroup with a number of students that is on the cusp of the required minimum may meet the participation requirement but not the proficiency requirement.

For example, consider a case where a school has 1,000 total students of which 980 take the assessments, thus exceeding the overall participation criteria of 95%. If this school has 100 African American students enrolled on the first day of testing, the school would have the African American subgroup counted as one of its participation criteria because a subgroup of 100 students is large enough to be considered numerically significant. If 96 of those African American students take the test, the school meets its participation criteria for that subgroup. However, the African American subgroup would *not* be counted toward AYP’s proficiency criteria because the number of tested students would be fewer than 100 and less than 15% of the total students tested at that school.