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Iowa Legislative Report
Closing Achievement Gaps

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IOWA DIVERSITY TREND CONTINUES

Iowa communities are changing and becoming more diverse. Iowa school districts see this shift first hand and are enrolling a higher percentage of minority students, students from low-income families, and students who do not speak English as a first language. In the past 16 years, there has been a 134 percent increase in the number of minority students. In October 2015, 22.5 percent of Iowa students were racial or ethnic minorities. In comparison, approximately 10 percent of Iowa students were minorities in 2000.

Many of Iowa's school districts have seen significant changes in the types of students they educate, as well as the families they engage. Over the past several years, the increase in the minority student population has been just under 1 percent. The range is between .7 to .8 percent increase each year. With the increase in minority students, there is a subsequent decrease in the number of white students. At the same time, the overall number of students has increased. This suggests a larger proportion of minority students statewide over a decade and a half. All signs indicate that this trend will continue into the future.

Table 1: Statewide Enrollment				
	Minority	White	Total	Percent Minority
2015-16	108,345	371,717	480,062	22.6%
2013-14	104,052	373,370	477,422	21.8%
2000-01	46,250	430,677	476,927	9.7%

Figure 1: Enrollment Trends
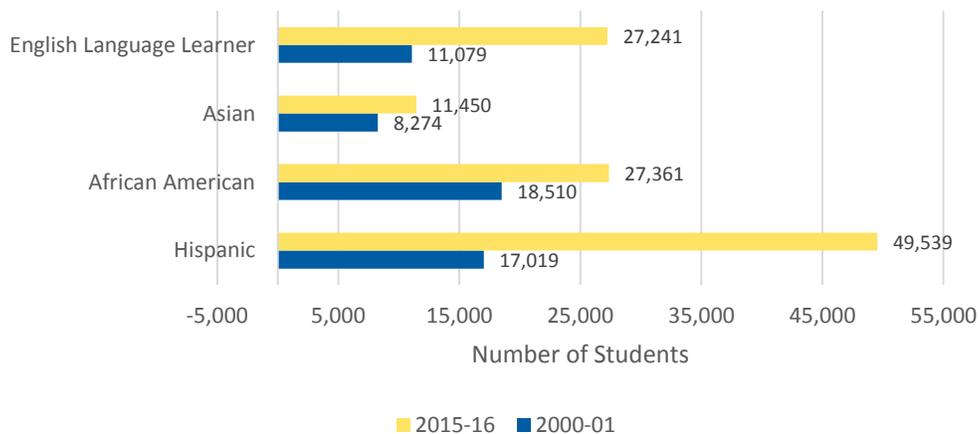
Free or reduced-priced lunch eligibility is the proximate measure for socio-economic diversity in Iowa's districts. After a one-year decline in the 2014-15 school year, the percent of students eligible for free or reduced-priced lunch increased in the 2015-16 school year. This increase highlights a long term upward trend in the percentage of low-income students. In the 2000-01 school year, 27 percent of students were eligible for free or reduced-priced lunch. Over the 16-year period from 2000-01 to 2015-16, there is a 56 percent increase in the number of students eligible.

Figure 2: Percent of Students Eligible for Free or Reduced-Priced Lunch 2000-01 to 2015-16
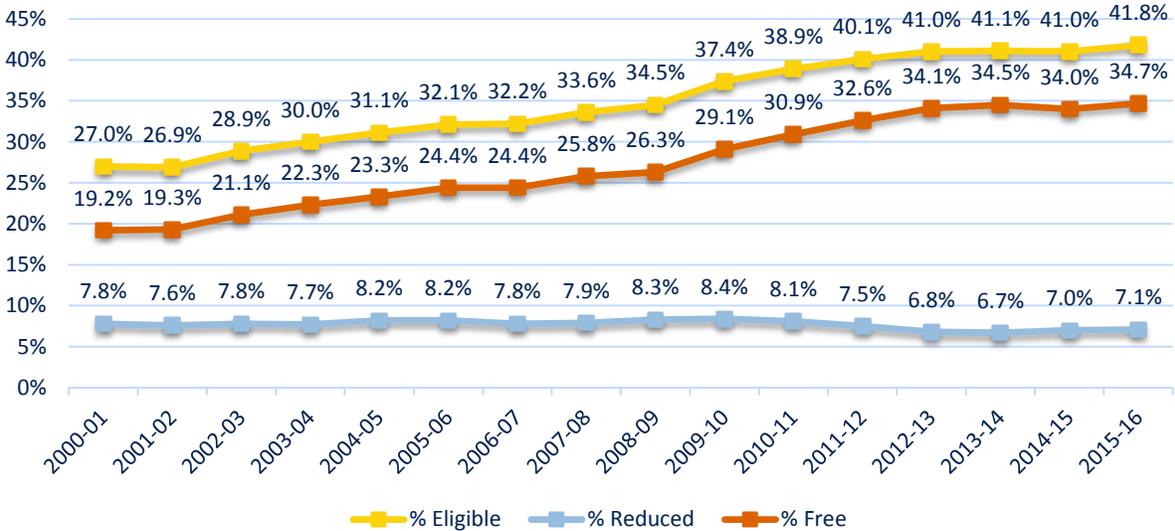
Starting in the 2014-15 school year, districts were eligible for the first time to participate in the Community Eligibility Provision (CEP) for the National School Lunch Program. CEP allows direct certification of free meal benefits and no longer requires a collection of free and reduced-price meal applications. This required schools to change how the data were collected for student socioeconomic status.

STATUS OF ACHIEVEMENT GAPS IN IOWA

For decades, schools and districts nationally have been working to close the achievement gap in student performance. The goal is to decrease inequity which exists between different groups of students while at the same time increasing student achievement for all.

Achievement gaps exist between students of different race/ethnic backgrounds, but also between students who are eligible for free or reduced-priced lunch, students with disabilities, English language learners, and those who do not have these challenges. Over the past decade, Iowa has seen the largest increases in the Hispanic and African American race/ethnic student groups. This analysis will focus on the gap in the percent of students proficient in both reading and mathematics over this same time period. The purpose is to highlight differences in performance between the largest growing student groups. This does not suggest that other groups do not also have significant differences in achievement.

It is important to look at the achievement gap to determine if progress has been made within groups or across groups. First, you can examine the trend line within a group to see if differences in the percent of proficient students has changed for the group as a whole. This tells you if the group has made progress over time and the proficiency rates of this group have increased or if the opposite has occurred and a decrease in performance can be found. Next, it is important to look at the proficiency rates between race/ethnic minority students and white

students to determine if equity exists. This provides information about the difference in performance and whether or not gaps have closed or if the achievement gaps between student groups is growing. For the purpose of these analyses, results are aggregated across grades 3 to 8 and 10 to 11.

The percent of white students proficient in reading increased 4.6 percentage points from 75.9 in 2000-01 to 80.5 in 2014-15. During this same period, Hispanic student proficiency rates have increased approximately 10 percent, from 50.9 in 2000-01 to 60.8 in 2014-15. African American students have seen a slight increase in proficiency rates, from 47.5 percent in 2000-01 to 49.0 percent in 2014-15. This suggests there has been a significant increase in proficiency levels for white and Hispanic students while increases for African American students have been moderate in reading.

FIGURE 3: READING PROFICIENCY TREND
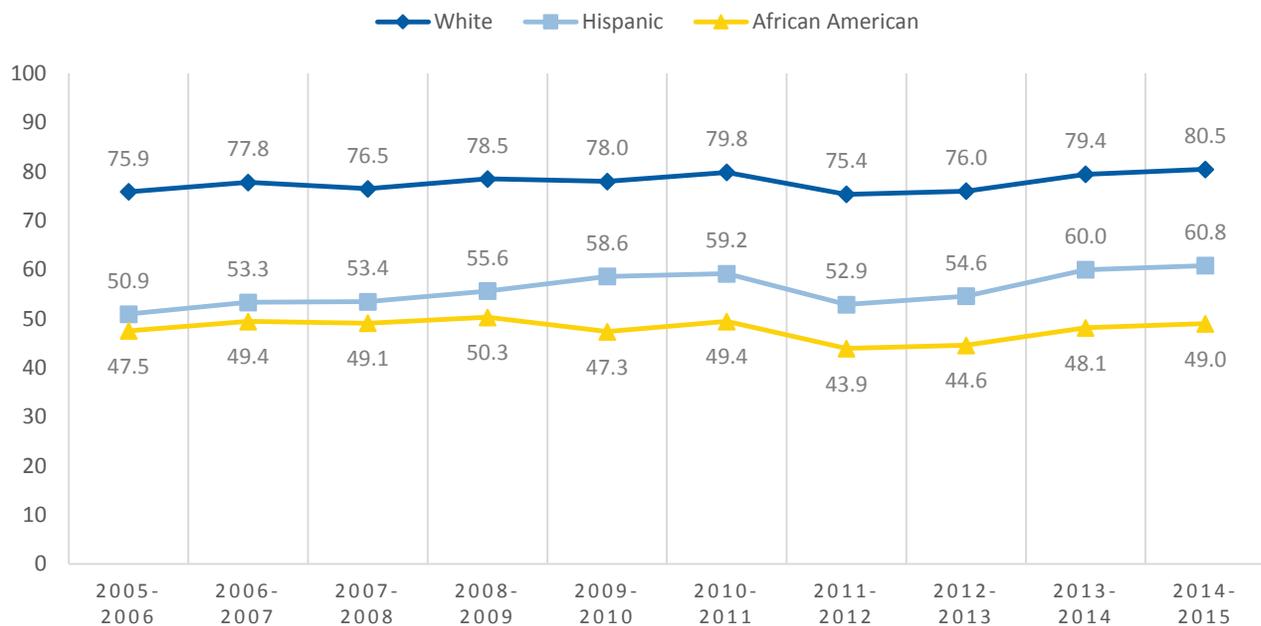
Mathematics results show a similar trend. Over the past decade, the proficiency rate of white students increased 4.3 percent from 79.2 in 2000-01 to 83.5 in 2014-15. Hispanic students had an increase of 8.7 percent during this same time period. The percent of Hispanic student proficiency is now 65.1 compared to 56.4 percent in 2000-01. Lastly, the proficiency rate for African American students increased from 46.8 percent in 2000-01 to 48.6 percent in 2014-15. Large proficiency rate gains can be seen for white students compared to moderate gains for Hispanic students and slight gains for African American students.

FIGURE 4: MATHEMATICS PROFICIENCY TREND

Legend: White — Hispanic — African American

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
White	79.2	80.6	80.1	80.6	80.8	81.6	80.1	80.3	83.1	83.5
Hispanic	56.4	58.2	58.2	59.0	61.0	61.5	60.7	62.2	64.5	65.1
African American	46.8	48.8	49.2	49.0	46.6	46.8	47.1	46.3	48.7	48.6
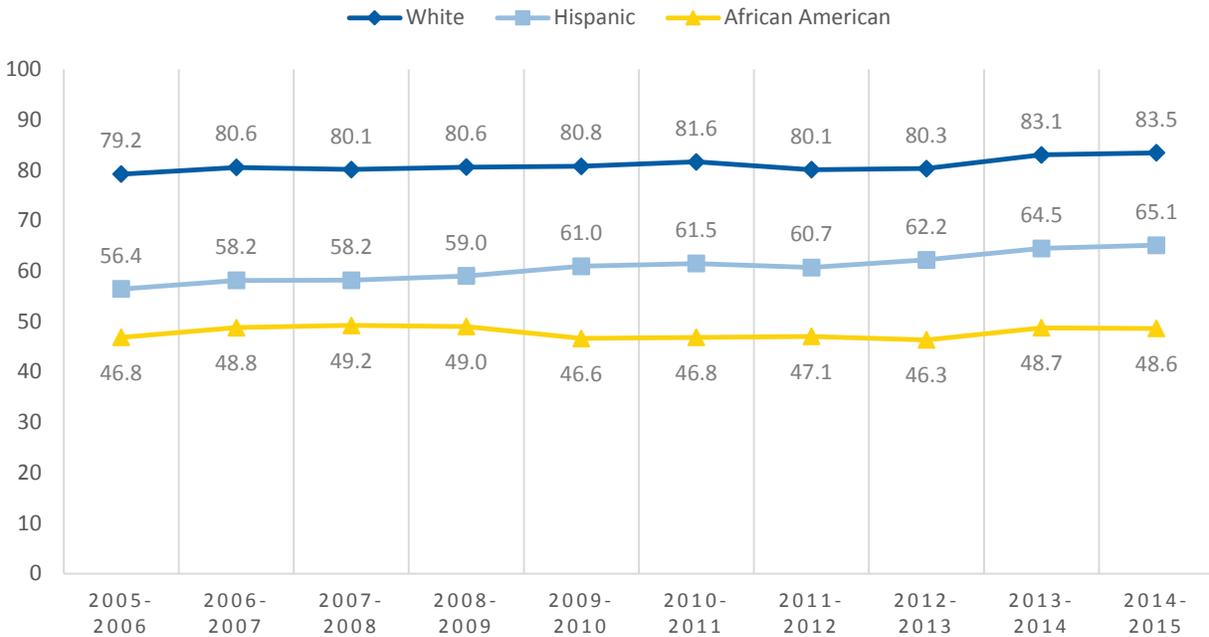
Cautions in interpretation: It is important to note during this time period, new forms of the Iowa Assessments were introduced. These changes have shown slight differences in proficiency levels for specific grade levels in reading and mathematics. It would be expected that the changes would most likely show gains or decreases overall that would be seen equally across groups. This does not appear to be the case which suggests any gain/loss would be due to student performance. Another important factor is these analyses combine proficiency across grade levels which would assist in mitigating variations between different forms.

In the 2009-10 school year, Iowa implemented changes in race/ethnicity identification which were adopted with the 2000 U.S. Census. This change expanded the race/ethnicity categories which were available for parents or students to choose. More specifically, the change allowed for a multi-racial category, designated Hispanic as an ethnicity and added Native Hawaiian and Pacific Islander as its own category.

WHY BACKGROUND MATTERS

While it is important to examine the difference between race/ethnicity on student achievement, one must also understand the impact of other factors, including poverty, having a disability, or having a native language other than English. These challenges impact race/ethnic groups differentially, as a larger portion of one group might have a higher representation than another.

Figure 5 provides a breakdown of the different race/ethnic groups in Iowa and the proportion of students that are part of the program group. The program group includes students who are eligible for free or reduced-priced lunch, have a disability, or are English language learners.

Across all students, 56 percent of students do not have one of these challenges. However, examining differences between race/ethnic groups, it is clear the vast majority of race/ethnic minority students are participating in one or more of these programs. It is startling to see that almost 85 percent of African American and 83 percent of Hispanic students are either low income, have a disability, or have a native language other than English. By comparison, only 36 percent of white students participate in one or more of these programs.

Figure 5: 2014-15 Percent of Race/Ethnicity in Program and Non-Program Groups
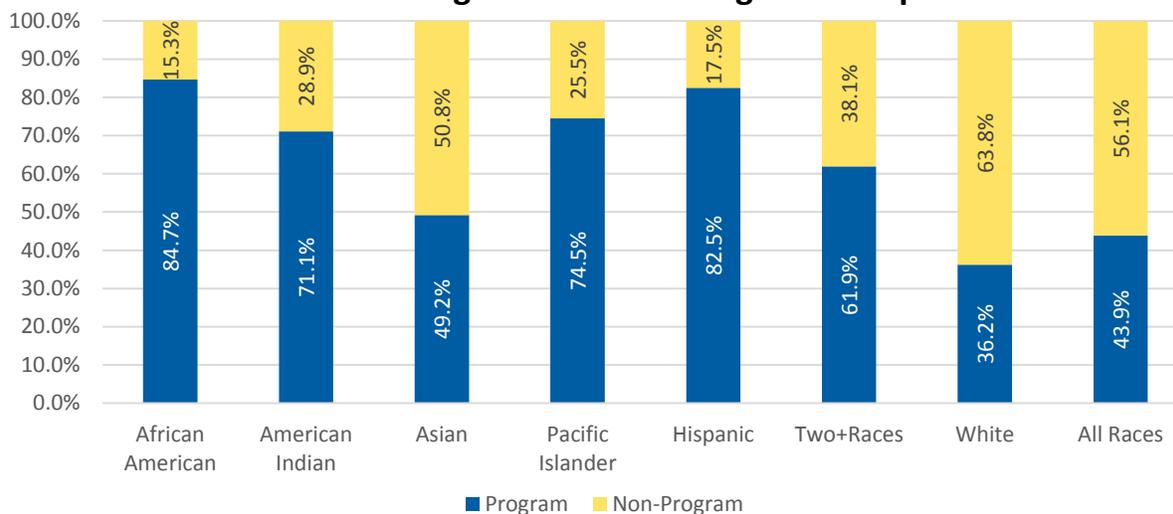

Next, it is important to examine how these different challenges impact proficiency rates by subgroup. Figure 6 provides a breakdown of proficiency by different race/ethnic groups as a whole, but also by program and non-program participants. The line in the chart depicts the proportion of students in each race/ethnic group who are in the program group. Again, the program group includes: 1) students eligible for free or reduced-priced lunch, 2) students with a disability, and 3) English language learners. Figure 6 overlays the distribution from Figure 5 on top of a proficiency chart.

The "proficient for all" group represents the percent proficient for all students within each race/ethnic group. The "proficient for non-program" shows the percent of students for each race/ethnicity who were proficient if they were not faced with one of these challenges. On the other hand, the "proficient for program" displays the percent of students who were proficient that participated in one or more of these programs. For example, the overall proficiency in reading and mathematics is 53.4 percent of African American students in 2014-15. The proficiency rate is only 48.5 percent for African American students who were eligible for free or reduced-priced lunch, had a disability, or is an English language learner.

Figure 6 shows the significant differences in performance that exist between race/ethnic groups and also highlights the impact that background/challenges have on performance. For all students, 91.6 percent in the non-challenged group were proficient compared to only 65.2 proficiency for the program group. The difference between these percentages is the gap in

proficiency. In the 2014-15 school year, the gap between the program and non-program group is 26.4 percent for all students.

Figure 6: 2014-15 Proficiency by Race/Ethnicity and Program and Non-Program Groups
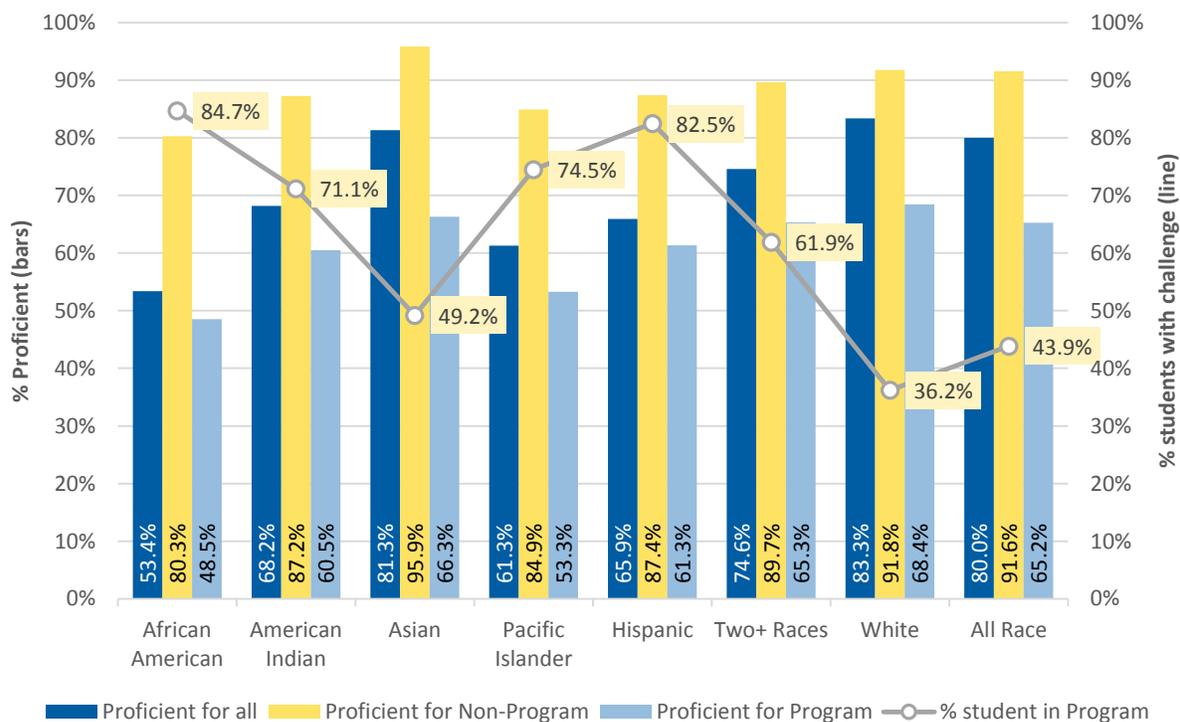
The percent proficient varies between the challenged and non-challenged group both within and between race/ethnic groups. The percent of African American students in the program group was 48.5 compared to 80.3 for the non-program group. The largest gaps for African American students exist between program and non-program participants (31.8 percent). At the same, the gap between all students was 26.4 percent, 26.1 percent for Hispanic students and 23.4 percent for white students. The gaps are similar for all students, white students, and Hispanic students, but appears to be larger for African American students.

Table 2: Program Participation Gap Within Group Comparisons

Group	Non-Program Proficiency	Program Proficiency	Gap
All Students	91.6	65.2	26.4
White	91.8	68.4	23.4
African American	80.3	48.5	31.8
Hispanic	87.4	61.3	26.1

Similar trends can be found when examining the gap between proficiency rates of the program and non-program and race/ethnic groups. Table 3 shows the Hispanic and White student proficiency rates for the program and non-program groups. The gap between Hispanic and white program participants is 7.1 percent, while the gap for non-program participants is much smaller at 4.4 percent. Overall, the gap between proficiency rates is larger for African American students. However, these data show smaller rates for the non-program group compared to the program group. While these trends do not confirm a causal relationship between challenges and closing the gaps, it does imply that challenges can impact overall proficiency rates and achievement gaps. Across race/ethnic groups, students with fewer challenges (non-program group) have a smaller gap than the challenged students (program group), as well as the gaps that exist for all students.

Table 3: Program Participation Gap Between Group Comparisons

| Group	White	Hispanic	Hispanic-White Gap	African American	African American - White Gap
Program Proficiency	68.4	61.3	7.1	48.5	19.9
Non-Program Proficiency	91.8	87.4	4.4	80.3	11.5

WHY RACE MATTERS

The above analysis demonstrates that the challenges a student faces influences overall achievement. It also suggests when controlling for these challenges the gap narrows between groups. However, the findings fall short in showing gaps disappearing between groups when looking at challenges alone.

To better understand the overall impact of race/ethnicity on achievement, we decided to drill in and examine the impact of poverty for the largest minority groups in Iowa (Hispanic and African American). Socio-economic status was chosen because of the continued upward trend in the number of students eligible for free or reduced-priced lunch over the past decade. Similar trends can also be found when looking at the achievement of other groups such as English language learners.

Figure 7 shows a breakdown of the reading scale scores across grades for white, Hispanic and black and African American students during the 2014-15 school year. Specifically, it highlights the difference in achievement gains for these major race/ethnic groups and students eligible for free or reduced-priced lunch.

Significant differences can be seen when examining the average growth curve for each of the groups. Most notably, the largest differences can be found between poor black students and non-poor white students. It is important to point out that this is not surprising given the large impact of poverty on achievement.

Figure 7: 2014-15 Reading Scale Scores by Grade and Race/Ethnicity
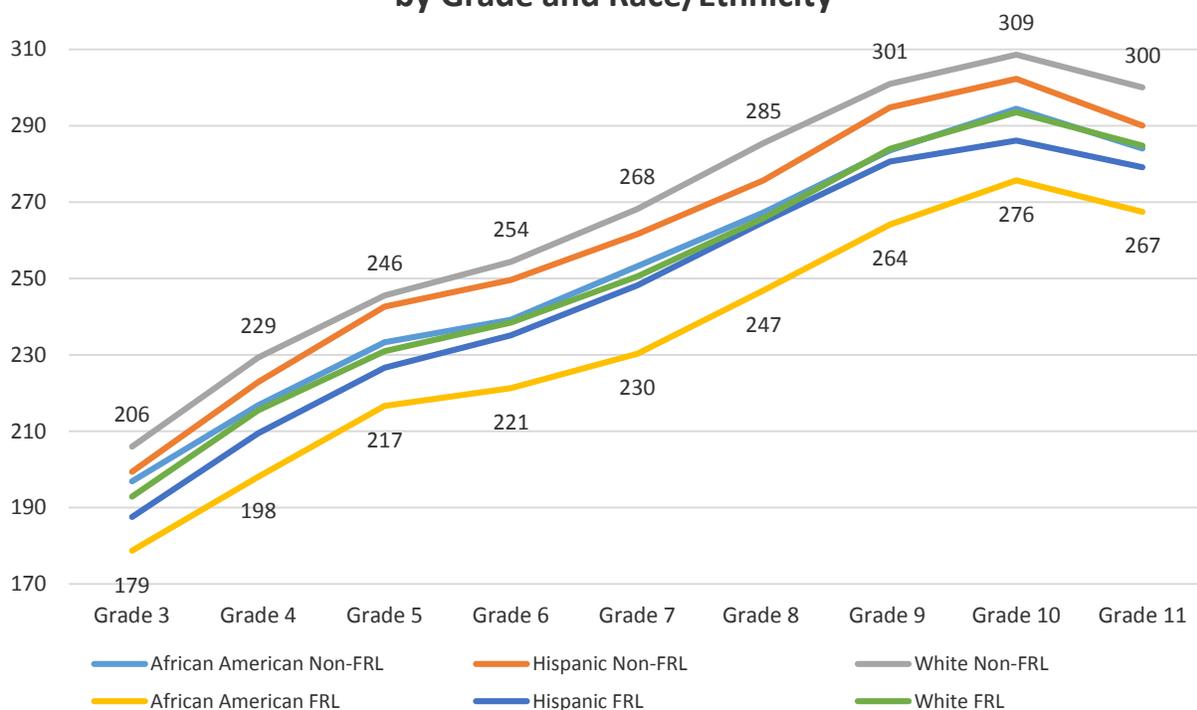
To better demonstrate the differences in performance, Tables 4 and 5 were created. Table 4 shows the detail of the scale score averages for each group. Table 5 shows the gaps in average scale score between the white students and free or reduced-priced lunch (FRL) group and those not eligible (Non-FRL) and Hispanic and African American students.

Table 4: Reading Scale Score Average by Race/Ethnicity and Socio-economic Status

2014-15 (Spring Conversion)

Grade	African American Non-FRL	Hispanic Non-FRL	White Non-FRL	African American FRL	Hispanic FRL	White FRL
Grade 3	197	199	206	179	188	193
Grade 4	217	223	229	198	210	215
Grade 5	233	243	246	217	227	231
Grade 6	239	250	254	221	235	238
Grade 7	253	262	268	230	248	251
Grade 8	267	276	285	247	265	266
Grade 9	283	295	301	264	281	284
Grade 10	294	302	309	276	286	294
Grade 11	284	290	300	267	279	285

The expected scale score gain varies across grade levels. For example, the average expected growth between grades 3 and 4 is 15 scale score points. In grade 11, the average expected growth is 7 scale score points. If you take the mid-point of this range as a rough guide, you can say that an expected gain of 11 points is about one grade-level difference. Using this rough estimate, you can begin to examine the difference in performance that exists between minority students and their white counterparts. For the most part, the gaps for the Non-FRL groups are smaller than the FRL group which is consistent with earlier findings. Most notably, the black-white student gap for Non-FRL students is smaller in the lower grades, but grows as students move up grade levels. The black-white gap for FRL students starts at 14 scale score points and increases to 20 in grades 7 and 9 with a decline to 18 in grade 11. The Hispanic-white gap is less than the black-white gap. For Hispanic FRL students, gaps tend to be smaller than for the Non-FRL group. Again, this is consistent with earlier findings.

These data demonstrate regardless of the poverty challenges, significant gaps in achievement exist between Hispanic and black students and their poor and non-poor white classmates. Using the rule of thumb, of approximately 11 scale score points, it shows that by grade 4 both poor and non-poor black students are close to or beyond a grade level behind. This trend continues across a student's education. The Hispanic-white gaps are not as large, but do suggest Hispanic students are also about half a grade level behind starting in the early grades and continuing across grade levels.

Table 5: Reading Scale Score Achievement Gap

	African American-White Non-FRL Gap	African American - White FRL Gap	Hispanic-White Non-FRL Gap	Hispanic-White FRL Gap
Grade 3	-9	-14	-7	-5
Grade 4	-12	-17	-6	-6
Grade 5	-12	-14	-3	-4
Grade 6	-15	-17	-5	-3
Grade 7	-15	-20	-7	-2
Grade 8	-18	-19	-10	-1
Grade 9	-17	-20	-6	-3
Grade 10	-14	-18	-6	-7
Grade 11	-16	-17	-10	-6

INITIATIVES TO CLOSE THE ACHIEVEMENT GAP

There are several statewide education reform efforts in place which will assist in closing the achievement gap and creating equity and excellence in education. The Iowa Department of Education, in conjunction with Iowa school districts, are in the middle of implementing these key initiatives. This multipronged approach includes a statewide teacher leadership system, multi-tiered system of support, and high expectations for all students.

Teacher Leadership

The Teacher Leadership and Compensation (TLC) System rewards effective teachers with leadership opportunities, attracts promising new teachers, provides support, and fosters greater collaboration for all teachers to learn from each other. The philosophy is to improve student learning requires enhanced instruction and support. There is no better way to do this than to empower Iowa's best educators to lead this effort. Through the TLC system, teacher leaders take on extra responsibilities, including helping colleagues analyze data and fine tune instructional strategies as well as coaching and co-teaching. Through better instruction and teacher support, there can be improved outcomes which will create equity and can assist in closing gaps.

Multi-tiered System of Support (MTSS)

Multi-Tiered System of Supports (MTSS) is an every-education decision-making framework of evidence-based practices in instruction and assessment that address student needs. MTSS allows educators to judge the overall health of their educational system by examining data, identifying students who need additional supports and targeted intervention. Supports are provided in both small group and individual settings, and measured to determine if interventions are making a difference to ensure learners demonstrate proficiency.

The Iowa MTSS framework is made up of five components:

- Evidence-Based Curriculum and Instruction shall be provided at the Universal level
- Universal Screening shall be used three times per year
- Evidence-based, instructional interventions at the Targeted and Intensive levels shall be provided to each student who needs them
- Progress Monitoring Data shall be collected and used to guide instruction
- Data-Based Decision Making
- It is important for districts and schools to implement the full range of practices associated with each of these components with fidelity.
- Many schools across Iowa have successfully implemented these core components of MTSS.

<u>Academic Standards</u>

A great education system must have a clear and rigorous set of expectations, or standards that educators help students reach. In Iowa, those academic standards are known as the Iowa Core. The Iowa Core standards describe what students should know and be able to do from kindergarten through 12th grade in math, science, English language arts, and social studies. The Iowa Core also sets learning goals for 21st century skills in areas such as financial and technological literacy. The Iowa Core is a set of common expectations for school districts across the state. It is not a curriculum, so decisions about how to help students meet learning goals remain in the hands of local schools and teachers.

The Iowa Core sets appropriate expectations for all students, regardless of where they live or what school district they attend, and reflects the real-world knowledge and skills students need to graduate from high school, prepare for college, or to enter the workforce. Over the past several years, Iowa's education system has worked to put these standards into practice.

CONCLUSION

Iowa's student population is changing. There has been a significant increase in the minority population particularly Hispanic and African American students. Over the past decade and a half, there is also a growing trend of socio-economic diversity and increases in the number of students who do not speak English as their first language.

Achievement gaps occur when one group of students such as, students grouped by race/ethnicity or by a socio-economic factor outperforms another group. Whether a gap narrows depends on the amount of change in the scores for the two student groups. For example, a gap can narrow if the average scores of both groups improve, but one group's scores improve more. If scores for both groups increase at the same rate, the score gap may not change.

This report highlights performance gaps in Iowa including gaps between black and white students, Hispanic and white students, and students who have additional challenges (free or reduced-priced lunch, English language learners and/or special education) and those who do not. These gaps remain large and unacceptable throughout the K-12 education system. The differences in performance between groups are a complex problem with no easy solution and

can be the outcome of multiple factors. It will take a sustained effort by all levels of the education system including the Department of Education, area education agencies and Iowa school districts to significantly impact and narrow achievement gaps between groups.

The Department of Education in partnership with area education agencies and Iowa school districts have implemented key statewide efforts which can assist in closing the achievement gaps between students. These include: 1) a set of high expectations; 2) a teacher leadership system, and 3) a multi-tiered system of support. This report is expected to be helpful to those interested in the improvement of the education of our children.