

Is the Achievement Gap in Indiana Narrowing?

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A recent research report by Derek Neal, a University of Chicago economist, indicates the progress toward closing the achievement gap between African American and white students in the United States was stagnant between 1990 and 2000. The report suggests that in light of the recent trends, student achievement gaps may persist for much of the 21st century (Neal, 2005).

In this Special Report, the Center for Evaluation and Education Policy at Indiana University examines the factors that contribute to student achievement gaps, defines the scope of the achievement gaps that exist in Indiana, evaluates whether these gaps are narrowing or will persist as Neal suggests, and offers strategies that have been identified as best practices in closing the gaps. Additionally, the perspectives of Dr. Suellen Reed, State Superintendent of Public Instruction, and three local school officials highlight effective practices and necessary strategies that will ensure sound educational opportunities for all students.

ACHIEVEMENT GAP RELEVANCE

Significant achievement gaps between different populations of students exist at all levels of education and appear to increase from lower to higher grades. By the end of Grade 4, low socioeconomic and minority students lag behind their peers by two years, and this gap widens to three years by Grade 8. By high school, the average African American and Hispanic senior is four years behind. The gap persists into higher education, where there is a great disparity when

comparing college attendance rates for African American and Hispanic high school graduates to those of white students (Haycock, Jerald, & Huang, 2001).

In response to the significant achievement gaps persistent everywhere in America, one of the most historic national educational reforms was implemented in early 2002. The *No Child Left Behind Act of 2001* (NCLB) was initiated by President George W. Bush with four primary goals in mind for closing the achievement gap, including: accountability for student performance, focusing on what works, empowerment for parents, and reducing bureaucracy and increasing flexibility.

No Child Left Behind presently calls for annual testing in all public schools in the areas of reading and mathematics for Grades 3 through 8 and once in high school. NCLB also requires annual performance report cards, the assurance that every child can read by Grade 3, the promise of highly qualified teachers in the classrooms of every public school, as well as school district accountability for student achievement results. Ultimately, NCLB requires all students to reach proficiency under state standards by 2013-2014 (U.S. Department of Education, 2005). If achieved, attainment of the 100% proficiency goal will signify not only tremendous academic gains for Hispanic, African American, low socioeconomic, disabled, and limited English proficient students, but likely a significant reduction in the achievement gaps that exist among these groups of students when compared with white and Asian students as well as their more economically advantaged peers.¹

The persistence of achievement gaps has both immediate and long-term consequences, not only for students and schools, but also for the economic and social well-being of a state. In the short term, NCLB requires states to provide assessment results disaggregated by economic level, race/ethnicity, disability, and limited English proficiency (LEP). Should schools within a state fail to close the gap and continue to have groups of students performing at levels below standard, the schools are at risk of failing. Federal funding is also tied to performance for Title I schools, and continued underperformance may result in re-routing of funds for school choice, supplemental tutoring services, and school restructuring. In the long term, a state's economic prosperity is contingent upon its students attending and finishing higher education.

CONTRIBUTING FACTORS

In the article, "Closing the Achievement Gap," Kati Haycock, Director of the Education Trust, cites compelling data to support what she believes are the factors that contribute to the nation's widening K-12 achievement gap. The problem, Haycock explains, is not only that low-achieving students are of low socioeconomic status (SES) or have one-parent families, but that these students attend high-poverty and high-minority schools which often have a high concentration of poorly qualified teachers, along with a low standard curriculum (Haycock, 2001).

Indeed, research on this topic supports Haycock's claims that numerous factors work together to contribute to the achievement gap rather than a single "cause" of the differences in achievement. Some of the most commonly identified contributing factors are:

- **Poverty:** The effects of poverty, such as poor healthcare and nutrition, and frequent relocation, can cause problems academically. In 2001, Hispanic and African American children were more than twice as likely to be living in poverty compared to white children (Proctor & Dalaker, 2002).
- **Early Childhood Education:** Early education programs that are offered to lower socioeconomic children begin too late to be considered effective (Kagan, 2004). Economically disadvantaged African

EXHIBIT 1: MODEL ELEMENTARY SCHOOL

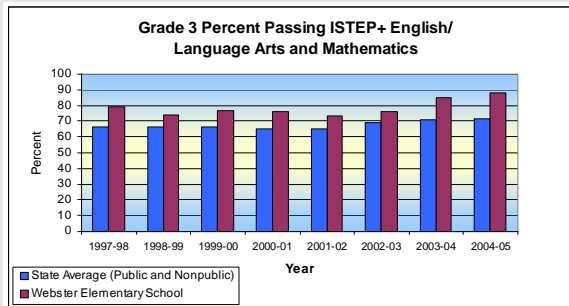
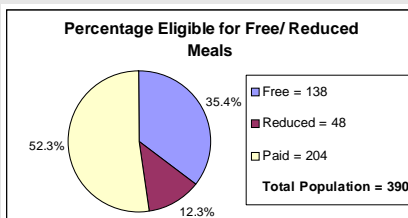
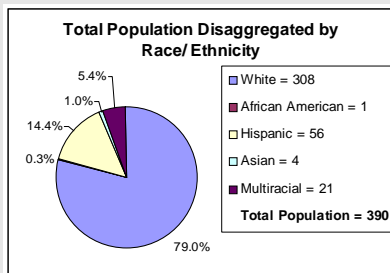
Webster Elementary School Plymouth Community School Corporation Plymouth, Indiana Summary Provided by Donna Burroughs, Principal

Webster Elementary School completed its first school improvement cycle through the North Central Association (a non-governmental, voluntary organization that accredits schools in 19 states) during the 2004-05 school year. We have demonstrated significant gains in student achievement in the areas of writing, reading comprehension, and problem solving through the strategies we established in our school improvement plan. These increases occurred in spite of a growing number of at-risk students. Our school went from 17% to 44% of students who qualify for free and reduced price meals. Our non-English speaking population grew from 5% to 15% during this improvement cycle. As a result of working together to develop the plan and researching best practices to determine the strategies we would use in each academic area, staff have fully supported our school improvement efforts. A yearly calendar was mapped out indicating when all school improvement activities should take place. Each staff member had a copy of the calendar and each teacher had a plan sheet on which they documented the completion of each task for their classroom. All school improvement data were charted in the main hall as they were gathered. Each grade level of teachers had a half-day collaboration session each grading period to review data, have discussions, and make continuous instructional changes in the goal areas. Teachers believe this was the greatest contributing factor to our success.

In the area of writing, teachers were trained in the writing process. Two teachers attended the Indiana Writing Initiative training and then trained the rest of the Webster staff in what they had learned. All students wrote every day in all curricular areas. Students came to enjoy writing and 90% of our students passed the writing area of the ISTEP+ test.

For reading comprehension, we incorporated the SQ3R (Survey, Question, Read, Recite, Review) method and emphasized nonfiction reading in the classroom. We also taught reading skills with our social studies and science textbooks. Another strategy that was implemented to improve our students' reading comprehension was the use of direct teaching of vocabulary within the context of each subject. Eighty-nine percent of our students passed the reading comprehension portion of the ISTEP+ test.

A four-step problem-solving process was taught to all students to increase critical thinking skills. Students were also taught 10 problem-solving strategies (e.g., draw a picture, work backwards, etc.). Daily problem solving was done in every classroom across curricular areas. Ninety-two percent of our students mastered this skill.



For more information about Webster Elementary School, go to: <http://www.plychamber.org/pages/schoolpages/pcscwebe.html>
Webster Elementary School was selected as a model elementary school in closing the achievement gap when considering its significant number of students (48%) who qualify for free or reduced price meals compared to the state average (34%), and the high performance of this student population on ISTEP+.

American and Hispanic children start kindergarten one year behind their middle-class peers in reading and vocabulary (Evans, 2005). By the time these African American and Hispanic students graduate from high school, they will have the same skill level in reading as a white student in Grade 8 (Haycock, 2001).

- *Teacher Quality:* High-poverty and high-minority schools tend to have a disproportionate number of non-certified and inexperienced teachers. The *Quality Counts 2003* report stated that the percentage of students in high-poverty schools taught by a teacher without at least a minor in the subject is nearly double that of students in low-poverty schools (Quality Counts, 2003).
- *Tracking:* High-minority schools tend to lack rigorous academic coursework, and African American and Hispanic students are generally underrepresented in high-level courses. Many argue that this is generally a result of minorities and students from lower socioeconomic backgrounds being tracked disproportionately in lower-level classes. "A highly proficient student from a low socioeconomic background has only a 50-50 chance of being placed in a high-track class" (Burriss & Welner, 2005).

In the Learning Point Associates report, "What Contributes to the Achievement Gap?" (2002), similar factors are cited to explain why the achievement gap persists in American schools and classrooms. The report separates the factors into two subcategories: (1) school factors and (2) community and home factors.

School Factors

- African American and Hispanic students tend to take less rigorous courses. The result is that these students are not challenged and consequently have lower test scores than their peers.
- Teachers set lower expectations for African American and Hispanic children than for white or Asian students, and this runs the risk of perpetuating the achievement gap.
- Low-minority schools tend to have more adequate funding and greater resources than high-minority schools, causing the achievement gap to increase in high-poverty areas.
- Low-income and minority students tend to be concentrated in certain schools, which can depress achievement for all the children in that school.
- Performance anxiety hampers minority students.

- Peer pressure may cause students to scorn academic success.
- Access to high-quality preschools is crucial, but minority children are more likely to come from single-parent households that are less likely to be able to afford high-quality preschools.
- Minority students are less likely than white students to attend schools with quality facilities and a well-controlled, disciplinary atmosphere.

Community and Home Factors

- Poverty-related factors such as health problems, poor nutrition, low birth weight, substandard housing, high rates of violence, and substance abuse affect the achievement gap.
- Harmful effects of discrimination negatively impact a child's educational opportunities.
- Home and community learning opportunities are critical, and minority children are less likely to have parents with high levels of education.
- Reduced levels of cultural capital are accessible among students of low SES.

THE ACHIEVEMENT GAP IN INDIANA

As is true in other states, when multiple performance measures are examined, it is clear that Indiana's public education system has also been confronted with many of the causal factors that contribute to significant achievement gaps between groups of students. With growing minority populations and an increasing percentage of students living in poverty, the threat of the achievement gap widening is very real. Of the 1,021,243 public school students in Indiana during the 2004-05 school year (IDOE, 2005i), 79% were white, 12% were African American, 5% were Hispanic (IDOE, 2005i), 3% were Multiracial, and 1% were Asian. Furthermore, 3% of students were considered LEP (IDOE, 2005g), 19% were students with a disability (IDOE, 2005o), and 34% of Indiana students qualified for free or reduced price (F/R) meals (IDOE, 2005c). Whether looking at race and ethnicity, family income, English proficiency, or disability, the achievement gaps between these groups of students in Indiana can be quantified by examining a number of performance measures.

ISTEP+

Perhaps the most meaningful information that illustrates the extent of the achievement gaps in Indiana is contained in the results of the Indiana Statewide Testing for Educational Progress-Plus (ISTEP+). There are different methods which can be used to analyze ISTEP+ performance data. This report examines the percentage of student groups passing both the English/language arts and mathematics sections of the test.

ISTEP+ Ethnicity

Grade 3 students of all races/ethnicities have increased their English/language arts and mathematics scores on ISTEP+ since 1998-99. However, achievement gaps between the different racial/ethnic groups have only marginally declined. Grade 3 Asian students had the highest percentage passing both English/language arts and mathematics, increasing from 75% in the 1998-99 school year to 81% in the 2004-05 school year. Grade 3 white students had a similar increase during this timeframe, with a seven percentage point improvement in passing both subjects (increasing from 62% to 69% passing). Furthermore, a three percentage point gain was seen for Hispanic students. The largest percentage increase was seen among African American students, whose passing rate increased 13 percentage points. Overall the Grade 3 gap between Asian and African American students declined from 44 to 37 percentage points and the white and African American student gap declined from 31 to 25 percentage points (Figure 1, page 6). The achievement gap in 2004-05 for Grade 3 Hispanic students is three percentage points smaller than that of African American students compared to Asian and white students.

Similar increases were evident among Grade 6 students from the 1998-99 school year to the 2004-05 school year. The gap during the 1998-99 school year between Asian and African American students passing both English/language arts and mathematics was 52 percentage points. By the 2004-05 school year, this gap decreased to 42 percentage points (Figure 2, page 6). The white/African American gap declined marginally from 36 percentage points to 34 percentage points during this same period. Furthermore, the Asian/Hispanic gap went from 37 to 31 percentage points and the

white/Hispanic gap increased from 21 to 23 percentage points from the 1998-99 school year to the 2004-05 school year.

Increases in the percent passing both sections of ISTEP+ have also been observed over the seven-year period among Grade 8 students, but the gaps have only slightly narrowed. Grade 8 African American students had the greatest increase in the percent passing both sections of the test—eight percentage points. Though Asian, white, and Hispanic students increased their percentage passing ISTEP+ by fewer points, the achievement gap remains quite large between these groups of students. The white/African American gap was 35 percentage points in 2004-05, and 45 percentage points between Asian and African American students. The achievement gap for Grade 8 Hispanic students is 11 percentage points smaller than that of African American students compared to Asian and white students (Figure 3, page 6).

The least amount of progress can be seen for the passing rates of all racial and ethnic groups on ISTEP+ at Grade 10, and the gaps remain quite alarming. The percent passing the Graduation Qualifying Examination (GQE), the official name of the Grade 10 ISTEP+, increased over this period by only a few points and even declined for Hispanic students by three percentage points. However, it should be noted that a new GQE was implemented for the 2004-05 school year that could account for some decline in percent passing from the 2003-04 to the 2004-05 school year (Figure 4, page 6).² The white/African American gap was 38 percentage points in 2004-05, and 44 percentage points between Asian and African American students. The achievement gap for Grade 10 Hispanic students is eight percentage points smaller than that of African American students compared to Asian and white students.

ISTEP+ Poverty Gap

Eligibility for F/R meals for 2004-05 is determined by federal guidelines based on yearly, monthly, or weekly income on a sliding scale, with family household size also considered. For example, a household of four is eligible for reduced-price meals if their yearly income is at or below \$34,873. The same household would be eligible for free meals if their income is at or below \$24,505 (IDOE, 2005a).

During the period between the 2001-02 (the first year such data are available from the Indiana Department of Education) and 2004-05 school years, ISTEP+ percentage passing both English/language arts and mathematics for F/R students and Paid students increased. Grade 3 F/R students increased their percent passing scores by nine percentage points from 41% to 50% over the four-year period. Paid students also experienced a nine percentage point gain, increasing from 65% to 74% passing over the period. The gap remained constant at 24 percentage points, when comparing the 2001-02 school year to the 2004-05 school year (Figure 5, page 7).

Greater gains were found among Grade 6 F/R and Paid students. F/R students experienced a 20-percentage point increase over the four-year period, moving from 26% to 46% passing ISTEP+. An 18 percentage point increase was demonstrated by Paid students who moved from 55% to 73% passing the test over this same period. The gap among these groups narrowed marginally by two points, moving from a 29 percentage point to a 27 percentage point difference. It should be noted that the greatest increase for both groups was found between the 2001-02 and 2002-03 school years when a new test was implemented (Figure 6, page 7).

Improvements have not been as large for Grade 8 F/R and Paid students. F/R students increased scores by five percentage points over the four-year period while Paid students increased their scores by four percentage points. The gap still continues to narrow, though only slightly, moving from a 30 percentage point discrepancy to a 29 point discrepancy (Figure 7, page 7).

The smallest gains were found among these two groups at Grade 10. F/R students increased their scores by two percentage points, moving from 33% passing to 35% passing over the four-year period. Paid students achieved a single point increase, moving from 64% to 65% passing over the same period. The gap narrowed by one percentage point from 31 percentage points to 30 percentage points during this timeframe. Both groups saw a slight decrease in scores between the 2003-04 and 2004-05 school years when a new test was implemented for Grade 10 students (Figure 8, page 7).

ISTEP+ Limited English Proficiency Gaps

During the 2004-05 school year, LEP students numbered 31,955 statewide. Spanish-speaking students made up 80.8% of the total LEP student population in the 2004-05 school year (IDOE, 2005g).

It should be noted as LEP ISTEP+ data are analyzed in this section, ISTEP+ testing procedures for LEP students changed after the 2002-03 school year, in accordance with NCLB. LEP students who have attended schools in the United States for three years or less may participate, at the school corporation's discretion, in an alternate assessment, known as the Indiana Standards Tool for Alternate Reporting (ISTAR). ISTAR measures content and achievement standards for the student's grade level through an online assessment administered by teachers, and provides a rating instrument based on evidence of student work samples. Prior to the implementation of ISTAR in the 2003-04 school year, a student's English proficiency level (level 1-5) was used to determine if the student would participate in ISTEP+. English proficiency levels of four and five required the student to participate in ISTEP+ testing while a proficiency level below four meant the student was excluded from testing.³

From the 2000-01 school year to the 2004-05 school year, a steady increase in percent passing both English/language arts and mathematics portions of the ISTEP+ examination was found among Grade 3 LEP students and non-LEP students. LEP students increased their performance by 13 percentage points, from 28% passing to 41% passing over the five-year period. Non-LEP students demonstrated a 10 percentage point increase during the same period, moving from 56% passing to 66% passing. The gap decreased from 28 percentage points to 25 percentage points over this time (Figure 9, page 8).

Similar gains were found during this period among Grade 6 LEP and non-LEP students. LEP students increased their performance by 20 percentage points, moving from 14% passing to 34% passing. Non-LEP students increased their performance by 17 percentage points, from 47% passing to 64% passing. The gap between these groups decreased from 33 percentage points to 30 percentage points, despite a sharp drop-off among LEP students

between the 2003-04 and 2004-05 school years. The largest gains were found for both groups between the 2001-02 and 2002-03 school years when a new test was implemented and new cutcores were established (Figure 10, page 8).

Large gains were experienced by Grade 8 LEP students, while performance for non-LEP students on ISTEP+ was somewhat stagnant from the 2000-01 to 2004-05 school years. LEP students increased their performance by 18 percentage points, going from 16% passing to 34% passing ISTEP+ over the five-year period. Non-LEP students increased their scores only slightly with a four percentage point gain over this period. The gap between these groups narrowed significantly, from 41 percentage points to 27 percentage points, with the most significant reduction in the gap occurring from the 2002-03 to 2003-04 school years (Figure 11, page 8).

LEP students continued to improve their ISTEP+ performance into Grade 10 while non-LEP students have recently experienced a slight decrease in percent passing. An increase of 12 percentage points occurred for LEP students during the five-year period of data examined. Meanwhile, non-LEP students had a decrease in percent passing of two percentage points. The result has been a narrowing of the gap—from 48 percentage points to 34 percentage points during this five-year period (Figure 12, page 8).

ISTEP+ Special Education

Finally, ISTEP+ data can be analyzed by comparing special education students with regular education students. ISTEP+ performance data between special education students and regular education students reveal that the gap widens at higher grade levels, and the percent of special education students passing ISTEP+ declines dramatically by Grade 10. However, improvements over a seven-year period, from the 1998-99 school year to the 2004-05 school year, are evident in both groups.⁴

During the period from the 1998-99 school year to the 2004-05 school year, a greater increase can be seen for the percent of Grade 3 special education students passing both English/language arts and mathematics on ISTEP+ compared to general education students. Special education students demonstrated an increase of 14 percentage

points during this timeframe, from 23% to 37% passing, an increase of four percentage points greater than that of general education students, who increased from 60% to 70% passing during this period. The gap has narrowed between Grade 3 special education and general education students—from 37 percentage points to 33 percentage points during this seven-year period (Figure 13, page 9).

Similarly, gains can be seen in both special education and general education students' performance at Grade 6. Special education students experienced a 13 percentage point increase in their percent passing over the seven-year period, while the percent of general education students increased by 18 percentage points. Despite the gains by Grade 6 special education students, the gap between these groups widened from 42 percentage points to 47 percentage points during this timeframe. It must be noted that some of the greatest gains can be found for both groups between the 2001-02 and 2002-03 school years when a new test was implemented and cutcores were changed (Figure 14, page 9).

Slight increases in the percent passing are evident in Grade 8 as well, but the passing rates are below those in Grades 3 and 6. Special education students brought their performance up five percentage points over the seven-year period while general education students experienced an eight percentage point increase during the same period. The gap among these groups widened by three percentage points, from 48 percentage points to 51 percentage points, during this timeframe (Figure 15, page 9).

The lowest levels of performance on ISTEP+ are found among Grade 10 special education and general education students. Special education students moved from 10% passing to 13% passing over the six-year period. General education students experienced a four percentage point increase, moving from 59% passing to 63% passing ISTEP+ during the same period. The gap increased one percentage point, from 49 percentage points to 50 percentage points over the seven-year period (Figure 16, page 9).

Summary of Key ISTEP+ Trends and Outcomes

Grade 3:

- 1) The percent of students passing both the English/language arts and mathematics sections of ISTEP+ has increased for all racial/ethnic groups during the period of examination (from the 1998-99 school year to the 2004-05 school year).
- 2) Though the achievement gaps for African American and Hispanic students compared to white and Asian students are closing, they remain quite large.
- 3) Perhaps the most significant finding when examining Grade 3 results by race/ethnicity is that the gap between African American and Asian students narrowed by seven percentage points (from a difference of 44 to 37 percentage points for the percent passing both ISTEP+ sections) and the African American/white gap closed by six percentage points (from 31 to 25 percentage points).
- 4) When examining the impact of family income or poverty on ISTEP+ scores, F/R students and Paid students both demonstrated an increase of nine percentage points in the percent passing both sections of ISTEP+. Thus, the gap remained constant from the 2001-02 school year to the 2004-05 school year at 24 percentage points.
- 5) The percent of LEP students passing ISTEP+ increased by 13 percentage points from the 2000-01 school year to the 2004-05 school year. The gap between LEP and non-LEP students decreased from 28 to 25 percentage points over this time.
- 6) The gap between special education students and general education students decreased from 37 to 33 percentage points (from the 1998-99 school year to the 2004-05 school year).

Grade 6:

- 1) The percent of students passing both the English/language arts and mathematics sections of ISTEP+ has increased for all racial/ethnic groups during the period of examination (from the 1998-99 school year to the 2004-05 school year).
- 2) The gaps between African American and both Asian and white students declined over the seven-year period, yet the gaps between these groups of students widened from Grade 3 to Grade 6.

(Summary of Trends and Outcomes continued on page 10)

ISTEP+ Percent Passing Both English/Language Arts and Mathematics Over Time by Ethnicity

Figure 1

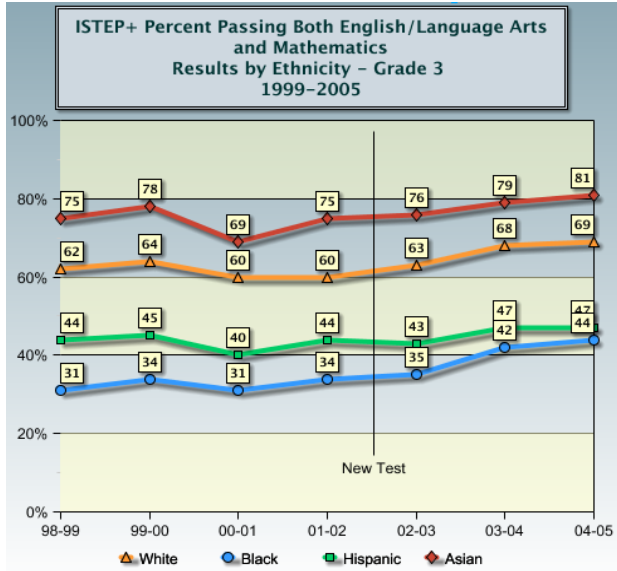


Figure 2

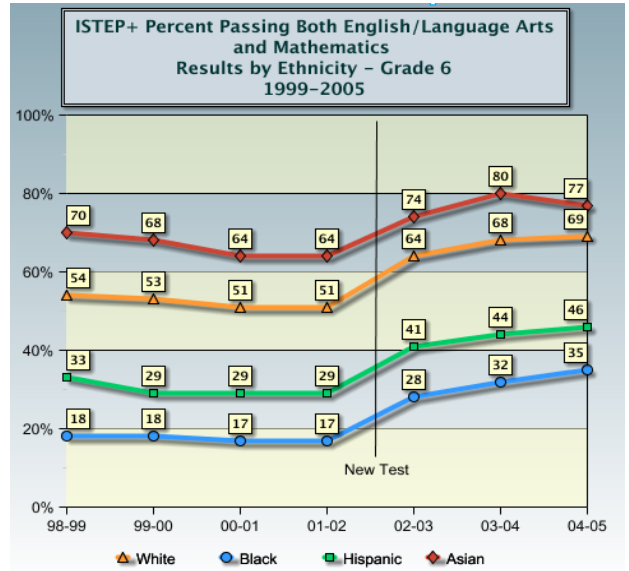


Figure 3

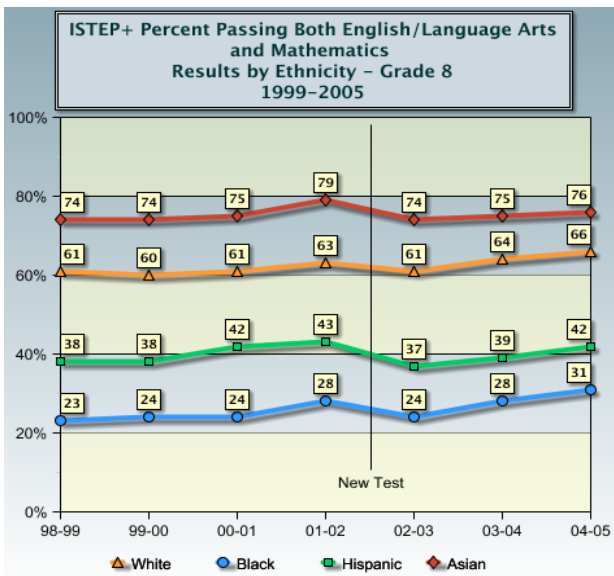
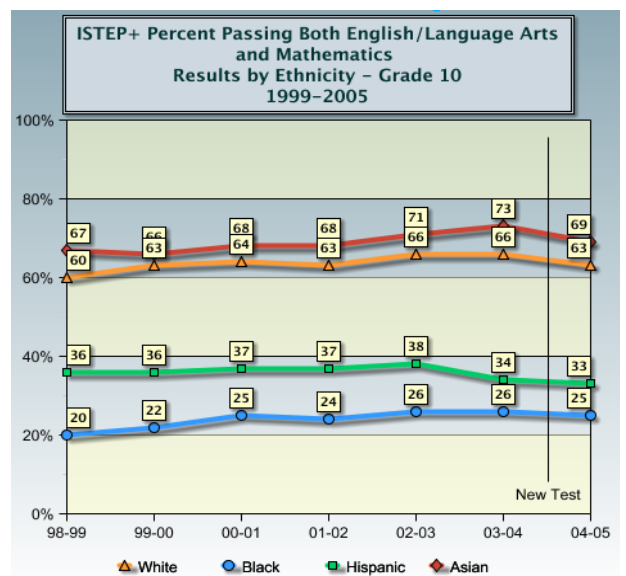


Figure 4



Source of data and graphs for Figures 1-16: Gary Wallyn, Director of Student Data Reporting, IDOE

ISTEP+ Percent Passing Both English/Language Arts and Mathematics Over Time by Socioeconomic Status

Figure 5

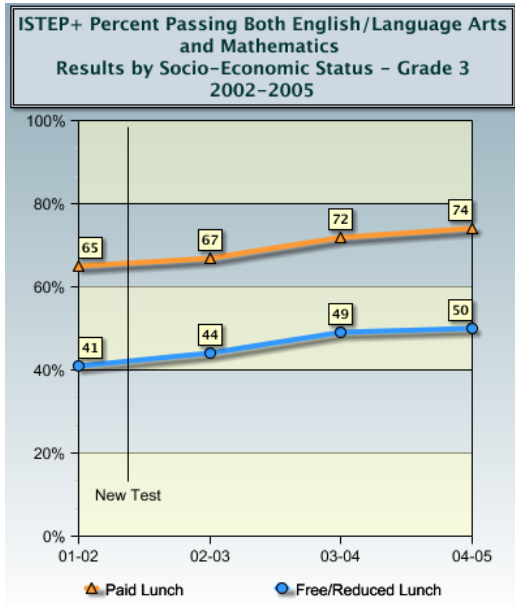


Figure 6

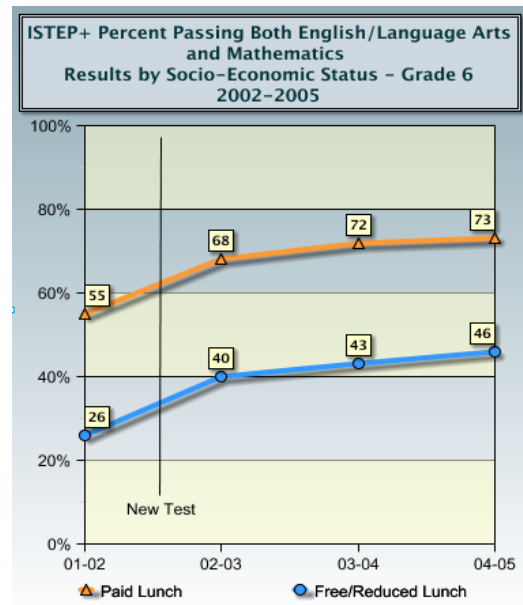


Figure 7

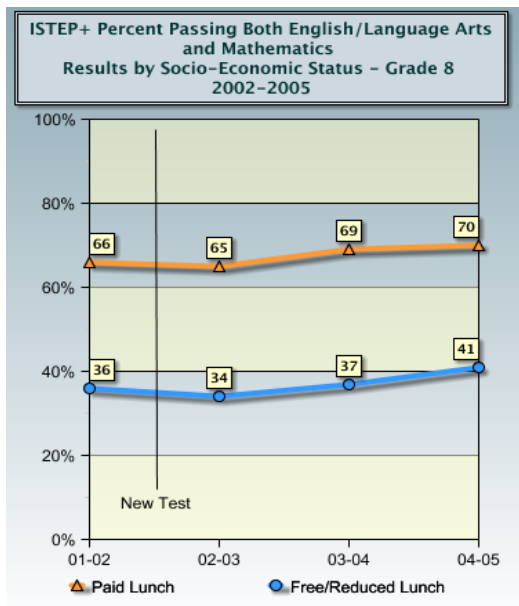
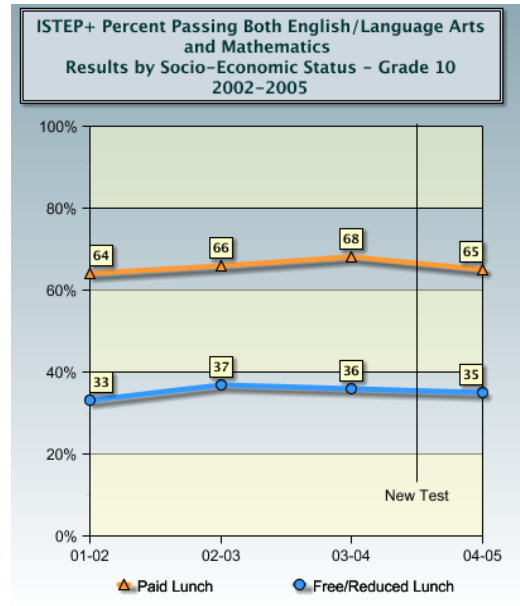


Figure 8



ISTEP+ Percent Passing Both English/Language Arts and Mathematics Over Time by Limited English Proficient (LEP) Students

Figure 9

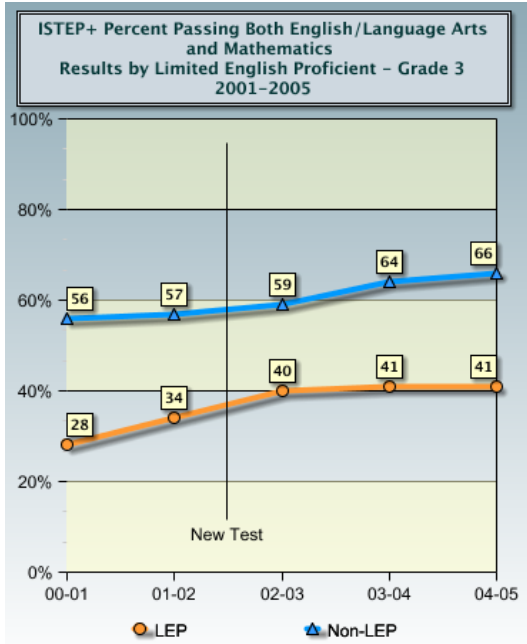


Figure 10

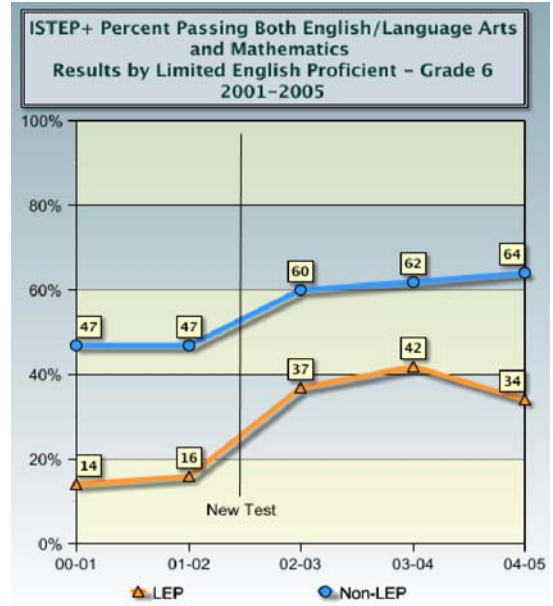


Figure 11

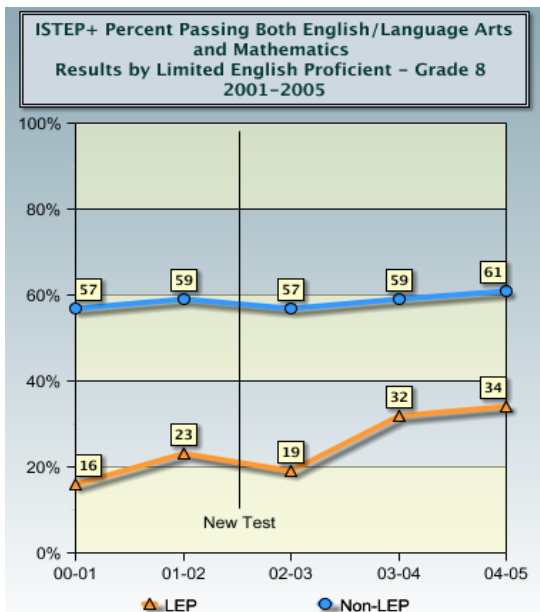
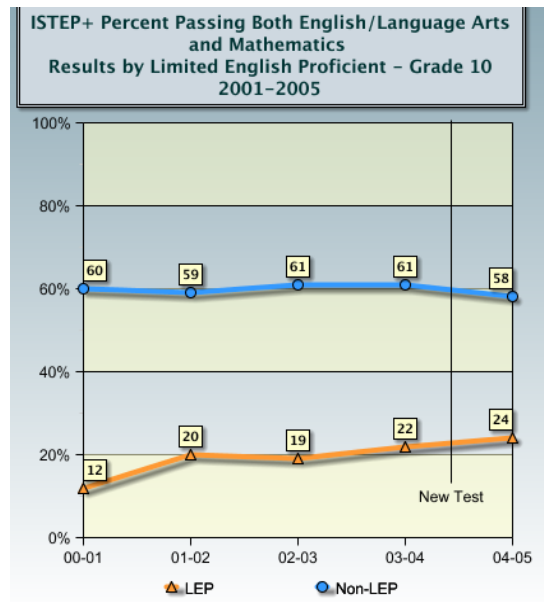


Figure 12



ISTEP+ Percent Passing Both English/Language Arts and Mathematics Over Time by Special Education Students

Figure 13

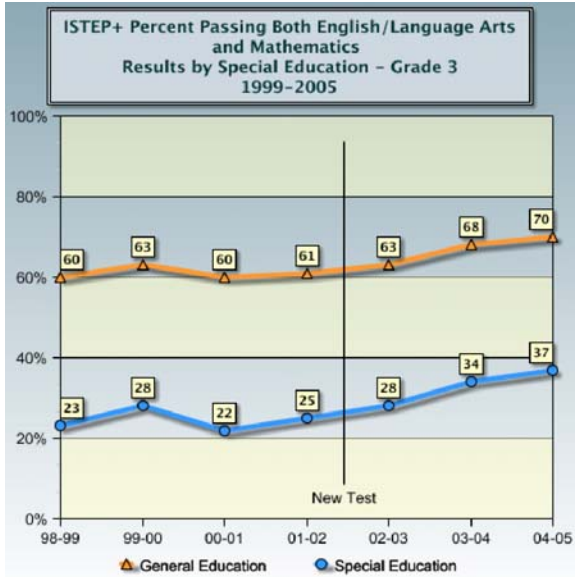


Figure 14

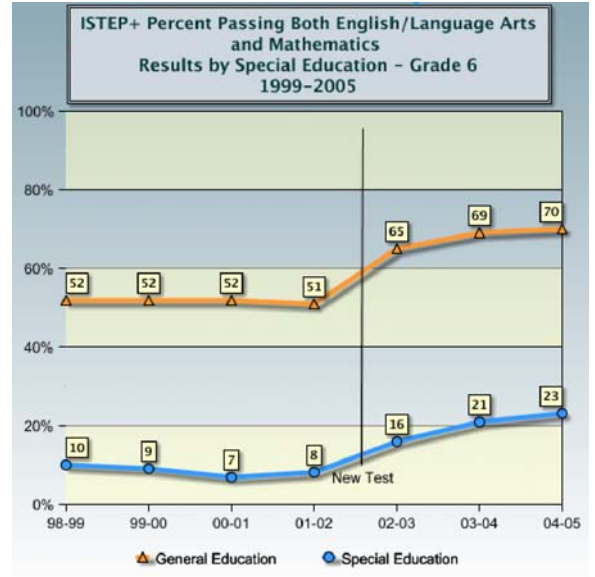


Figure 15

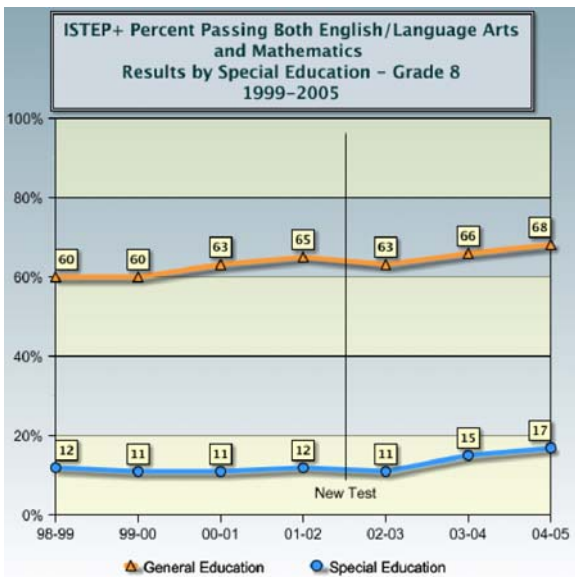
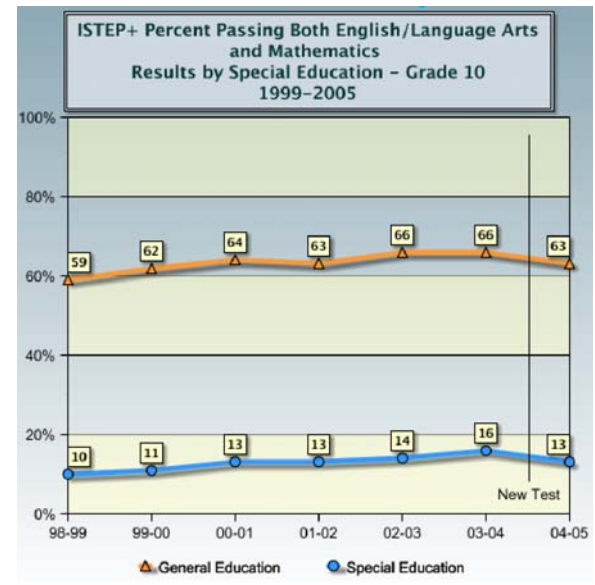


Figure 16



(Grade 6 findings continued)

- 3) Though the gap between Hispanic and Asian students declined by six percentage points, the gap between Hispanic and white students increased by two percentage points.
- 4) The gap between F/R students and Paid students declined by only two percentage points from the 2001-02 school year to the 2004-05 school year.
- 5) The gap between LEP and non-LEP students decreased by only three percentage points from the 2000-01 school year to the 2004-05 school year.
- 6) The gap between special education students and general education students increased by five percentage points over this period and is quite significant (47 percentage points).

Grade 8:

- 1) Though all racial/ethnic student groups demonstrated improvements in the percent passing both sections of ISTEP+ from the 1998-99 school year to the 2004-05 school year, the improvements were not as substantial as the improvements demonstrated at Grades 3 and 6.
- 2) The gaps between both Hispanic and African American students compared to white and Asian students, as well as the gap between F/R students and Paid students, are relatively constant from Grades 6 and 8.
- 3) Though the gap between LEP and non-LEP students was reduced significantly by 14 percentage points between the 2000-01 school year and the 2004-05 school year, it remains wide at 27 percentage points (from the 1998-99 school year to the 2004-05 school year).
- 4) The gap between special education and general education students increased to an alarming 51 percentage points.

Grade 10:

- 1) The gaps between racial/ethnic student groups are larger than those at any other grade levels (except for the African American/Asian gap, which is one percentage point larger at Grade 8).
- 2) The African American/white gap is 38 percentage points and the African American/Asian gap is 44 percentage points.
- 3) The Hispanic/white gap is 30 percentage points and the Hispanic/Asian gap is 36 percentage points.
- 4) The gap between F/R students and Paid students declined by only one percentage point from the 2001-02 school year to the 2004-05 school year, and is 30 percentage points.

- 5) The gap between LEP and non-LEP students decreased by 14 percentage points (from a 48 to a 34 percentage point gap).
- 6) Similar to results at Grade 8, the gap between Grade 10 special education students and general education students is a staggering 50 percentage points.
- 7) Only 13% of Grade 10 special education students passed the GQE in the fall of 2004.

NAEP Results

Background

Implemented in 1969, the National Assessment of Educational Progress (NAEP) is the only uniform, representative, and continuous assessment of American students. Also known as “The Nation’s Report Card,” NAEP currently collects data on samples of students in public and nonpublic schools in Grades 4, 8, and 12 in all 50 states and three U.S. territories. NAEP consists of assessments on a wide range of subjects including reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. Students in different schools often respond to different items and thus it is not possible to tabulate scores for individual students or schools (NCES, 2005). Participants are selected using multistage stratified random sampling. Representative samples of approximately 3,000 students from each grade within public and nonpublic schools in Indiana are randomly selected for testing. However, although NAEP collects data from students in private schools, state-level data are reported for public school students only. Thus, all state and national data reported here are only for students in public schools. Approximately 10% of the nation’s students in Grades 4 and 8 will participate once every two years in this national assessment. LEP students and students with disabilities are also considered in the NAEP sampling (IDOE, 2005m).

Interpretations of the NAEP results can be confusing because there are two different NAEP assessments: main NAEP and long-term trend NAEP. The long-term trend NAEP uses the exact same questions over time, allowing for the analysis of trends in results over a period of 20 or more years. The main NAEP changes some of the questions with each administration, as new frameworks are developed and imple-

mented to align with current instructional practices. Because the long-term trend results are not reported by state, all data come from the main NAEP. Moreover, the most complete NAEP data are for reading and mathematics in Grades 4 and 8. This report includes all available data on these subjects and grade levels since 1990 for mathematics, and since 1992 for reading, the first years that the NAEP reported data on a state-by-state basis.

It should also be noted that Indiana has not attempted to raise performance levels by dubious means, such as excluding from testing large numbers of LEP students or students with disabilities (Gallagher, 2005). Instead, Indiana requires all students in the sample who are physically able to take the test. This year Indiana only excluded approximately 1.5% to 2% of students from taking ISTEP+; about the same exclusion occurred on NAEP. Some states such as Texas, Delaware, and North Carolina excluded as much as 10% of their students from testing in recent years.

Indiana NAEP Results

How does the academic achievement of Indiana’s students compare with that of the nation and surrounding states?

Indiana’s Grade 4 students exceeded the national average in both mathematics and reading during the period of 1992-2003 (Figures 17 and 18, page 12). These results are consistent with findings in the 2003 international Trends in Mathematics and Science Study (TIMSS), where Indiana’s Grade 4 students placed well above their national and international peers in mathematics and science (www.doe.state.in.us/asap/timss03.htm). In addition, Indiana’s Grade 4 students outperformed students in surrounding states in mathematics and reading on NAEP, except in 2003, when Ohio students’ performance equaled that of Indiana students in mathematics and surpassed that of Indiana students in reading.

In Grade 8, Indiana students once again surpassed the national average scale scores in mathematics and reading. When compared to students in surrounding states in mathematics achievement, Indiana Grade 8 students scored near the top on each administration of the mathematics assessment (Figure 19, page 12).

EXHIBIT 2: MODEL MIDDLE SCHOOL

Memorial Park Middle School Fort Wayne Community Schools Fort Wayne, Indiana

Summary Provided by Brian Smith, Principal

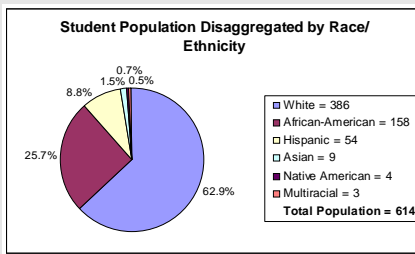
We do a number of things to achieve academic success for all students at Memorial Park Middle School. Our success is built on the belief that teaching is not the most important part of our school, rather, learning is.

Memorial Park Middle School is a Fine Arts Magnet School. Many years ago Memorial Park was able to hand select their student population. This is no longer the case. Students must apply to Memorial Park. We have one elementary school that feeds into Memorial Park. All other students are randomly drawn using a lottery system. Those not selected are placed on a waiting list. As principal, I have no control over who gets admitted. Students are not given preference based on grades or artistic ability.

Music and the arts offer students an opportunity to excel in many areas. I believe students who are active in the arts also do well academically. The Memorial Park scores support this argument.

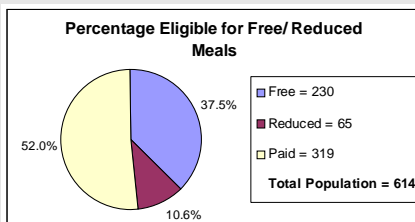
We do many things to push our students. Besides the arts, we have a rigorous academic curriculum. Many of our students take a mathematics course that is at least one level above their grade; for example, 60 of our 200 Grade 8 students successfully completed Grade 10 mathematics. Next year, those students will be able to take junior level mathematics as freshmen. If there is a question regarding which mathematics course our students should take, we always place those students in the higher-level mathematics class. Our expectations are very high. Most students rise to the occasion. Students who are not successful in the higher-level mathematics classes can opt to take their grade-appropriate mathematics class, although this almost never happens. Our students are capable of work that meets our expectations. We also offer foreign language courses in French and Spanish for high school credits.

All Grade 6 students take a block of language arts (84 minutes a day). Although this takes away one elective, the extra period for reading and writing is essential for their academic development.



All students take a mathematics and language arts assessment every quarter of the year. Here, the teachers find out which students need targeted remediation and which students successfully passed the tested standards. Teachers then re-teach students not passing their quarterly tests. All students also have their reading levels tested three times a year. This helps to monitor a student's reading growth. All teachers across the school are given their students' current reading levels. The Secondary Comprehensive Balanced Literacy Model is used across curricula. All teachers were trained in implementation of this literacy model.

All students at Memorial Park Middle School have a small homeroom of no more than 17 students, where they read 15 minutes every day. Teachers get to know their students well during this period and it helps develop the necessary positive "bonds" with adults that all students need.



At Memorial Park we have many interventions in place to help the struggling learner. There is a focus class targeting students who do not do well on the ISTEP+. Targeted remediation classes are also in place for the students that may have passed the ISTEP+, yet struggle with grades.

Teachers are put in department teams and collaborate four times a month. Some teams meet more often. They identify students that need additional assistance and discuss strategies to help these students. Special Education teachers and regular education teachers work together to team-teach students with disabilities. Here, modifications are made and extra support is given to the students.

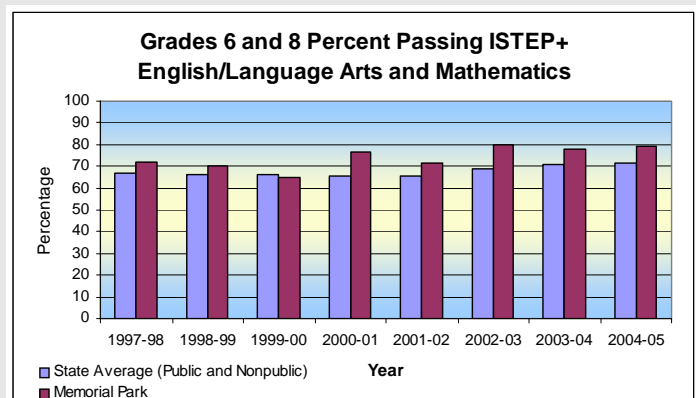
We have closely analyzed our data and collaborated on a school improvement plan that meets all our students' needs. The two areas we were deficient in were reading comprehension and problem solving.

All teachers, not just mathematics and language arts teachers, are working on reading comprehension and problem solving. The mentality that "it's the math and English teachers' problem" does not exist at Memorial Park. All teachers have taken on the challenge of collaborative teaching.

As principal I realize the most important thing I can do is to hire great staff members. I am the instructional leader in the building and I try to model this. I also have to give credit to the former principal, Rita Turflinger. She mentored me and put many of the programs previously mentioned in place. Memorial Park Middle School changes as our student population changes. We understand our deficiencies and work very hard to fix them. We also allow our students to be creative through their involvement in music and the fine arts.

For more information about Memorial Park Middle School, go to: https://www.edline.net/pages/Memorial_Park_Middle_School

Memorial Park Middle School was selected as a model middle school in closing the achievement gap when considering both its high minority student population (37%) and its significant number of students who qualify for free or reduced price meals (48%), and their ISTEP+ performance in comparison to the statewide averages for these subgroups of students.



On the TIMSS international assessment, Indiana Grade 8 students were a few points above the national and international averages. However, compared to the surrounding states in NAEP reading achievement in 2003, Indiana's Grade 8 students fell below the average scale scores of students in Illinois, Kentucky, and Ohio, and only remained above the average scale score of Michigan students (Figure 20).

Overall, Grade 4 and Grade 8 mathematics scores have increased substantially over time. Kloosterman et al. (2004) estimate that at the Grade 4 level, a gain of 12 scale score points in mathematics is equivalent to one grade level, and Kloosterman and Morge (2004) estimate that at the Grade 8 level, a gain of seven scale score points in mathematics is equivalent to a single grade level. Thus, the gains by Indiana students from 1992 to 2003 of 17 scale score points at Grade 4 and 11 scale score points at Grade 8 show that achievement in mathematics has improved dramatically in Indiana over this period. With fewer data

available on reading, no method for approximating the gain in reading scores over time has been developed, but the data suggest that, like the national averages in reading, there has been little change in Indiana reading scores over this period (Kloosterman & Morge, 2004).

NAEP Achievement Gaps

What are the trends in student race/ethnicity subgroup performance in Indiana?

Similar to the scale score increases, the percentage of Indiana Grade 4 students at or above the Basic proficiency level on the NAEP mathematics assessment has steadily increased from 1992 to 2003 (Figure 21, page 13). As shown in Figure 22 on page 13, the gap between the percentage of white Grade 4 students and African American Grade 4 students scoring at or above Basic dropped from 44 percentage points in 1992 to 33 percentage points in 2003. A similar decrease in the gap between white and Hispanic Grade 4 students exists in

mathematics achievement from 1992 to 2003, where the gap of students scoring at or above Basic dropped from 24 to 18 percentage points. Note that while these gaps appear to be closing, they remain substantial when considering scale score differences and the estimate that 12 scale score points is equivalent to a grade level at Grade 4 and 7 scale score points is equivalent to a grade level at Grade 8.

In reading, the percentage of white students at or above the Basic level dropped two percentage points from 1992 to 2003, while the percentage of African American students dropped three points and Hispanic students increased four points. None of these changes were statistically significant, meaning that they could have been due to random errors in testing just as easily as any real change in performance (Figure 23, page 13). Over the same period, the gap in achievement between white and African American students increased from 32 to 33 percentage points, while the gap between white and Hispanic students decreased

Figure 17

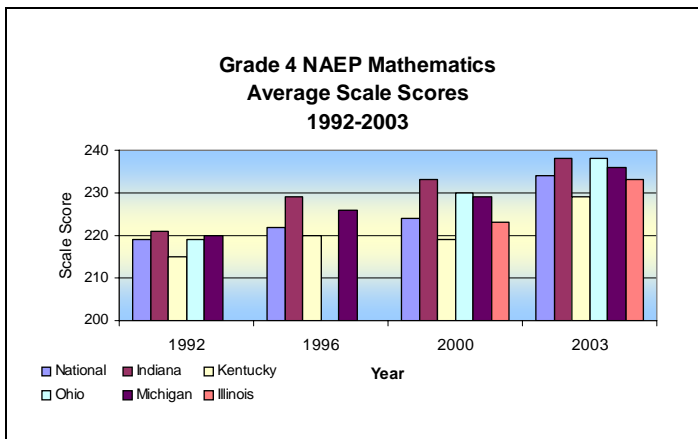


Figure 18

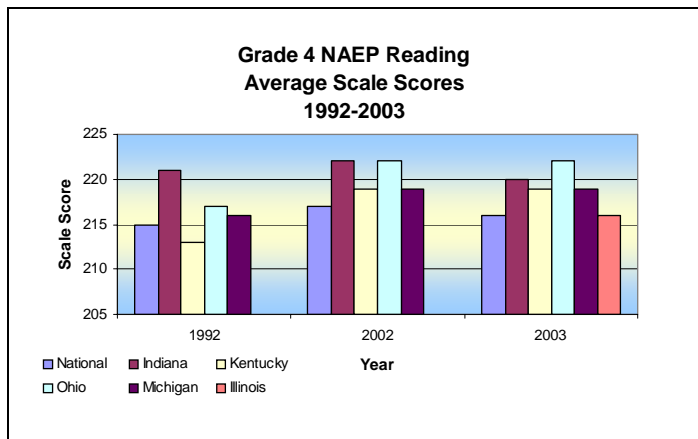


Figure 19

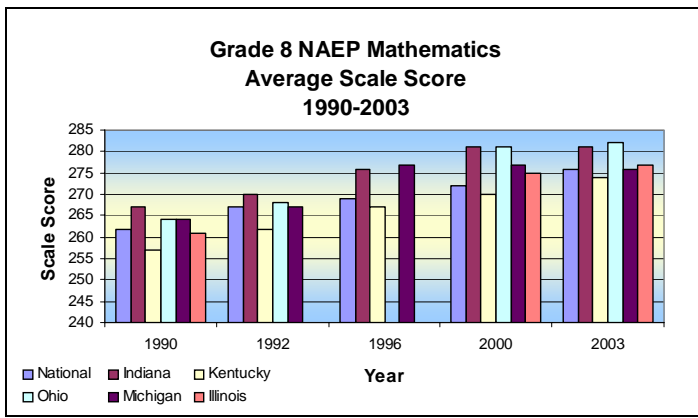
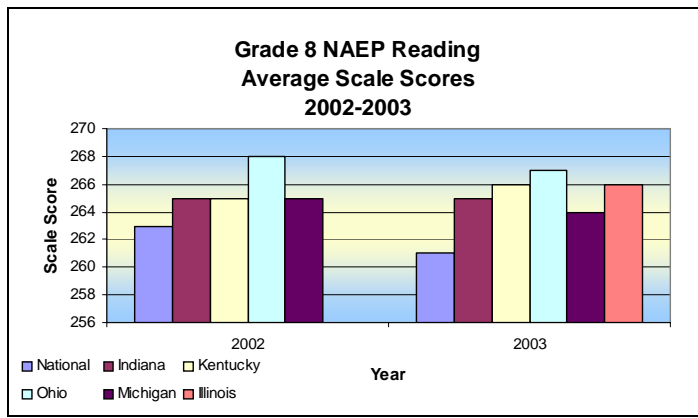


Figure 20



from 19 to 13 percentage points. As shown in Figure 24, the gaps have fluctuated, but given the relatively small change from 1992 to 2003 and the stable achievement of all racial/ethnic subgroups over this period, the most appropriate conclusion is that the gaps between the ethnic groups on Grade 4 reading are relatively stable. Also as significant is the Hispanic/white gap for the percent of students scoring at or above the Basic level, which was 20 percentage points lower than the African American/white gap in 2003.

From 1990 to 2003, the percentage of Grade 8 students achieving at or above the Basic proficiency level in mathematics increased significantly. African American Grade 8 students demonstrated the largest gain, a 25 percentage point gain to 48 percent at or above Basic in 2000, before dropping to 40% in 2003 (Figure 25, page 14). Achievement gaps between white and African American Grade 8 students dropped from a high of 43 percentage points in 1996 to a low of 30 percentage points in 2000, before returning to the 1990 and 1992 levels of around 39 percentage

points again in 2003 (Figure 26, page 14). Before the 2003 jump to 30 percentage points, the white and Hispanic achievement gap had declined from 34 points in 1990 to only 17 points in 2000 (Figure 26, page 14). The number of Hispanic students assessed in Indiana was quite small prior to 2003; therefore, part of the fluctuation in the Hispanic/white gap and performance rates of Hispanic students in general may be due to a sampling error.

Data for Indiana Grade 8 reading were reported only for 2002 and 2003. In those years, the gap in achievement between white and African American Grade 8 students increased from 23 to 27 percentage points and between white and Hispanic students from 22 to 24 percentage points. Given the small number of African American and Hispanic students tested in Indiana by NAEP and the short period of time between the assessments, these changes are also likely due to measurement error rather than the result of a significant increase in the gaps.

What are the trends in (SES) subgroup performance in Indiana?

When looking at academic performance by demographic subgroup, race/ethnicity findings are commonly related to student socioeconomic status (SES). The most appropriate single measure of SES in the NAEP is eligibility for free or reduced (F/R) price meals. In Indiana, the percentage of Grade 4 students scoring at or above the Basic level in mathematics who qualify for F/R meals increased from 49% in 1996 to 69% in 2003. The corresponding statistics for Paid students increased from 82% to 90%. At the Grade 8 level in mathematics, 42% of those eligible were at or above the Basic level in 1996 and that figure increased to 58% in 2003. The percentage of Paid students grew from 76% to 80% over this period. Thus, the gaps based on SES closed significantly from 1996 to 2003, although this may be due to a ceiling effect—a relatively high percentage of students who did not qualify for F/R meals were at or above the Basic level in mathematics in 1996 when the first meal eligibility questions were asked. Moreover, the

Figure 21

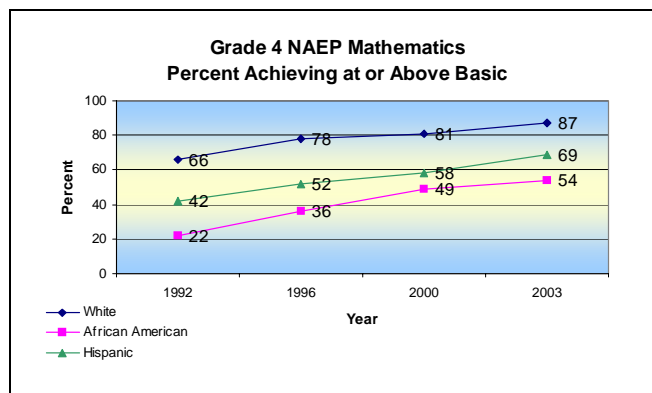


Figure 22

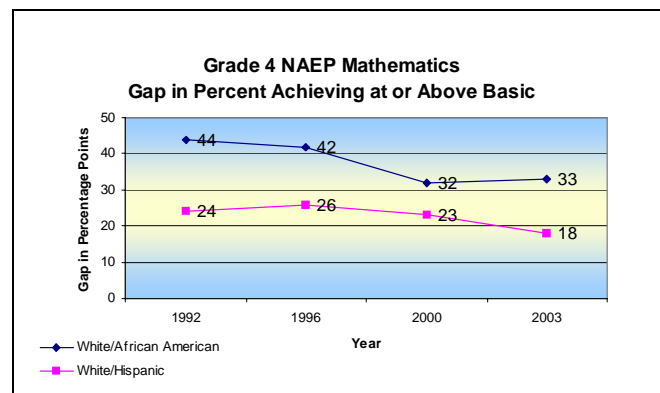


Figure 23

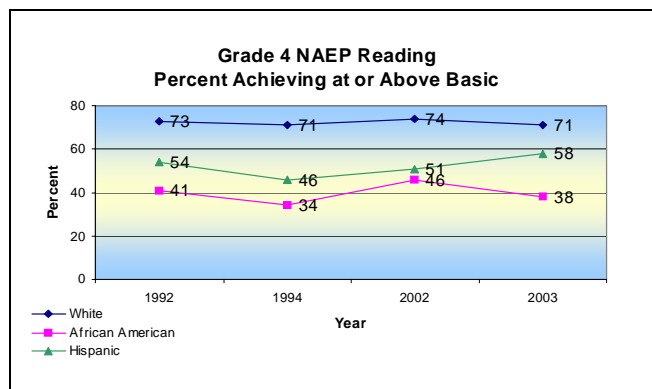
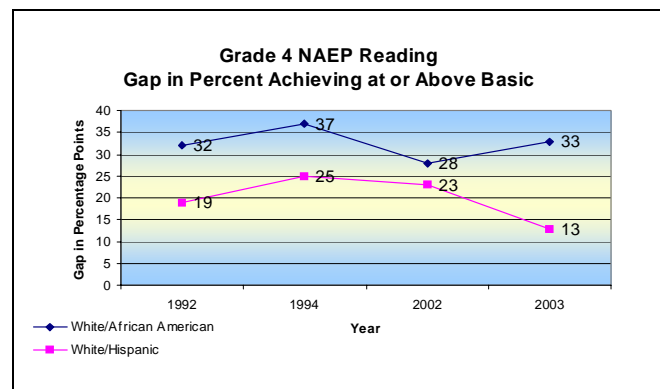


Figure 24



decline in the gap between F/R students and Paid students is in the same direction, but is stronger than, the decline in race/ethnicity gaps in mathematics at Grade 4 (Figure 22, page 13), yet different from the relatively stable gap at Grade 8 (Figure 26). That is, at Grade 4, SES appears to be less of an issue with respect to mathematics performance than it was in the past. This is not surprising given the positive correlation between race/ethnicity and SES and the fact that achievement gaps based on race/ethnicity are also low relative to the 1990s (Figure 22, page 13). At Grade 8, gaps were more stable for both race/ethnicity (Figure 26) and SES.

With respect to reading, data on eligibility for F/R students are available only for 2002 and 2003. From 2002 to 2003, the percentage of Indiana Grade 4 F/R students who reached at or above the Basic level for reading dropped from 50% to 49%. Corresponding figures for Paid students who were not eligible were 77% and 75%. At the Grade 8 level, the percentage of F/R students scoring at or above Basic on reading decreased from 65% in 2002 to 59% in 2003. The percentage of Paid students who reached at or above the Basic level for reading increased from 81% to 84%. None of the changes in the reading scores over the 2002 to 2003 period were statistically significant and thus led to the conclusion that gaps in reading performance based on SES, like gaps based on race/ethnicity, have been relatively stable over the last couple of years.

Other Performance Measures

Graduation Rates

Since 1988-89, Indiana has used a uniform measure for high school graduation rates based on a calculation that was recommended by the National Center on Education Statistics and adopted by many states (Reed, 2005). The graduate rate, based on a calculation known as the cohort survival rate, has been determined annually by high schools by figuring the percentage of students dropping out at each of the four grade levels during that same year. Each of the four dropout rates for Grades 9, 10, 11, and 12 is subtracted from 1.0, then the rates are multiplied by each other and by 100 to create that year's graduation rate (Reed, 2004).

Indiana now has a Student Test Number (STN) system to follow students as they progress through school that permits a much more precise graduation rate calculation. The new calculation begins by establishing a cohort of entering Grade 9 students, allowing the cohort to expand and contract over the next four years as students enter or leave, and determining the percentage of students in the adjusted cohort who earn a high school diploma at the end of four years. When used for the first time with the class of 2006, Indiana will be among the first states in the nation to have complete and accurate graduation rate data.

Using the cohort survival rate methodology, the Indiana Department of Education reported that the 2003-04 school year graduation rate for Hoosier students was 90% (Reed, 2005). The group with the highest percentage, by race/ethnicity, was Asian students, with a graduation rate of 96%.

Ninety-one percent of white students graduated, along with 86% of African American students and 85% of Hispanic students (Figure 27, page 15) (IDOE, 2005e).

Progress is visible when comparing graduation rates over a 10-year span, from the 1993-94 school year to the 2003-04 school year. The state average was at 83% in 1993-94, but had increased to the 90% rate in 2003-04. Asian students graduated in 2003-04 at a rate of 96%, which was virtually unchanged from 1993-94. Graduation rates were considerably lower in 1993-94 for the other racial/ethnicity groups. White students graduated at 84%, Hispanic students at 79%, and African American students at 75% that year. Overall, graduation rates during the 10-year span have increased by 1 percentage point for Asian students, 7 percentage points to 91% for white students, and 6 percentage points to 85% for Hispanic. The most significant increase is among African Americans with an 11 percentage point increase over the 10-year period, with the graduation rate increasing to 86% (IDOE, 2005d).

Core 40

First established in 1994, Core 40 is Indiana's recommended high school curriculum and will become the required minimum curriculum for all students beginning with the graduating class of 2011. It has been designed to prepare students for success in college and in the workforce. In addition to completing Core 40 requirements, end-of-course assessments in the form of final exams are used to measure knowledge as a way to maintain quality and consistency throughout the state. An extra incentive for students graduating with a Core 40 Diploma and a GPA of "C" or higher is that they become eligi-

Figure 25

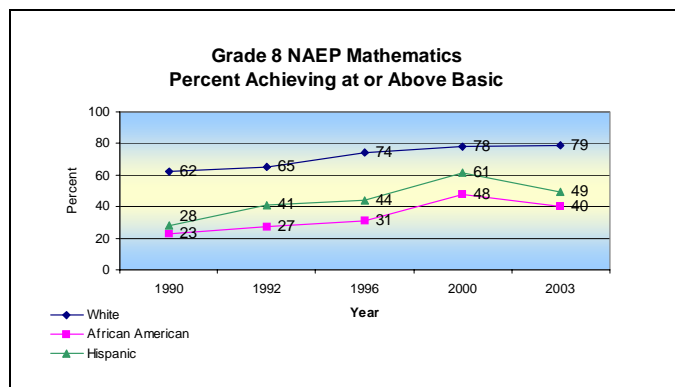
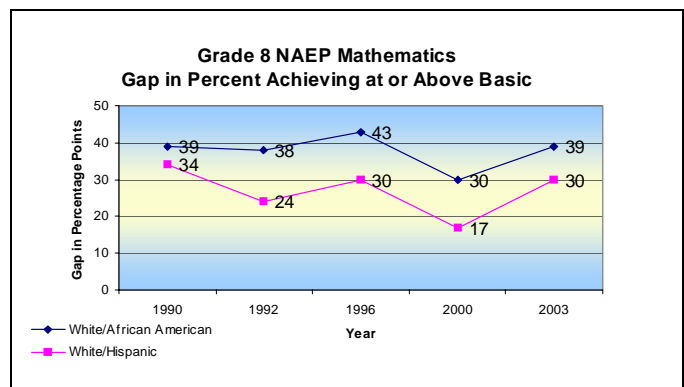


Figure 26



ble for college financial aid from the state through the Frank O'Bannon Grant Program (SSACI, 2005).

For the 1997-98 school year, Core 40 participation was low, with a state average of 43%. A total of 60% of Asian, 45% of white, 36% of Multiracial, 29% of Hispanic, and 23% of African American students graduated with a Core 40 Diploma (IDOE, 2005h) (Figure 28, page 15).

Over a six-year period, the number of Core 40 graduates greatly increased, moving the state average from 43% in the 1997-98 school year to 66% in the 2003-04 school year. A total of 79% of Asian, 66% of white, 64% of Multiracial, 50% of Hispanic, and 47% of African American students graduated with a Core 40 Diploma in the 2003-04 school year. Larger improvements were made among African American students, who sustained a 24% increase in the completion of Core 40 Diplomas. The largest increase was among Multiracial students, with an increase of 28 percentage points (IDOE, 2005i).

Academic Honors Diploma Completion

The Academic Honors Diploma (AHD) requires a more rigorous course load than the Core 40 Diploma, and includes seven additional credits to achieve this diploma. The additional credit requirements are in the areas of foreign languages, arts, and additional electives. Also, a total of eight credits are required in mathematics; whereas, with the Core 40 curriculum, students have the flexibility to take six to eight credits of mathematics. Of all the courses completed, only those receiving a grade of "C" or above may be used toward an AHD

(IDOE, 2005f). In addition, a cumulative GPA of "B" or above is required to receive the AHD (IDOE, 2005b).

In the 1998-99 school year, the state average for the AHD graduates was 21%. A total of 37% of Asian, 23% of white, 19% of Multiracial, 11% of Hispanic, and 7% of African American students graduated with an AHD (IDOE, 2005j) (Figure 29, page 16).

Over a five-year period, the number of students completing the AHD steadily grew. These improvements were evident when examining the data from the 2003-04 school year. The state average rose to 30%, an increase of nine percentage points from the 1998-99 school year. A total of 50% of Asian, 32% of white, 24% of Multiracial, 16% of Hispanic, and 12% of African American students graduated with an AHD. African American, Hispanic, and Multiracial students demonstrated the lowest increase over the five-year period with a five percentage point increase. Asian students demonstrated the greatest increase of 13 percentage points in the completion of an AHD (IDOE, 2005k). With only about one in eight African American students completing the AHD, a significant gap exists, considering that one in two Asian students and about one in three white students satisfy the requirements for this diploma (IDOE, 2005k).

Advanced Placement in Indiana

Since 1955, the College Board's Advanced Placement (AP) program has provided high school students the opportunity to enroll in college-level courses in a high school setting. This allows students to gain college-level skills while obtaining college

credit prior to completing high school. The AP program offers 35 courses in 20 subject areas, including subjects such as statistics, calculus, biology, chemistry, and U.S. history. Worldwide, there are currently more than 110,000 teachers leading AP courses in high schools. Nationally, nearly 60% of high schools participate in the AP program (CollegeBoard, 2005).

Indiana Code 20-10.1-22.2-5, established by Public Law 52 in 1990 and amended by Public Law 19 in 1992, requires school corporations within the state to provide mathematics and science AP courses for qualified high school students. English language and literature were later added to this list of courses. Additionally, Indiana Code 20-10.1-22.2-8 authorizes state funding to pay for AP examinations in the areas of mathematics and science. This section of the Indiana Code also allows for funding of AP in subject areas other than those listed above. Currently, the state of Indiana subsidizes AP exam costs for the subjects of mathematics, science, and English (Martha Wilson, Personal Communication, June 2005).

Indiana high school students' participation in the AP program has steadily increased during the past several years. Since 1997, the number of Advanced Placement exams attempted by Indiana high school students has nearly doubled. In 2004, Indiana students attempted 23,326 exams in 28 subject areas (Figure 30, page 16). Additionally, the number of Indiana students attempting AP exams has grown from 8,965 in 1997 to 14,839 in 2004 (CollegeBoard, 2005).

Despite the overall trend of increased participation in AP courses, the number of

Figure 27

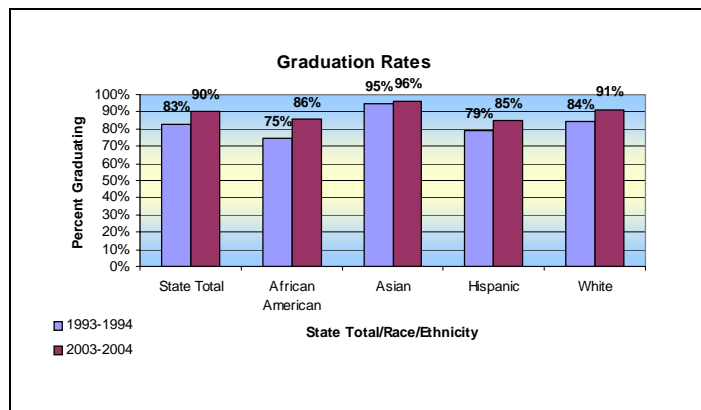
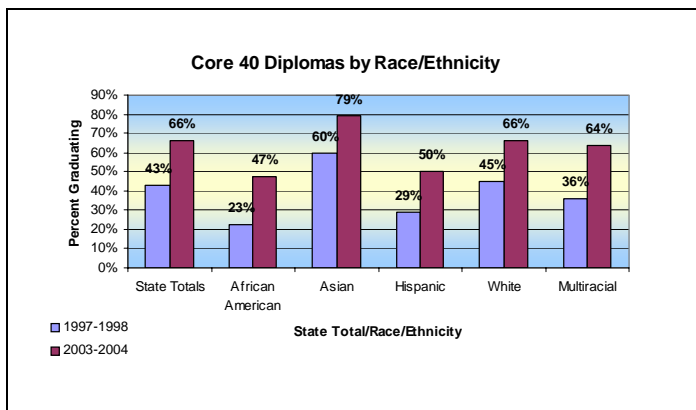


Figure 28



African American and Hispanic students participating in the AP program has not equaled that of white students in Indiana (Table 31). African American, Hispanic, Asian, and “Other” students’ participation in AP courses has steadily increased since 1997. However, only 695 Asian students, 539 African American students, 316 Hispanic students, and 313 “Other” Indiana students participated in the AP program during 2004. In contrast, 12,746 white students participated in the AP program during that same time (CollegeBoard, 2005).

Furthermore, differences in ethnicity were also revealed when AP test score data were examined (scores range from 1.0 to 5.0, with a passing score of 3.0 or better) (Figure 31). Again, a positive trend has occurred in terms of students’ achievement on AP tests. In 2004, the overall mean test score for participating Indiana students was 2.71, up from 2.48 in 1997. Similar to program participation, African American, Hispanic, and “Other” students have

shown improvement in overall mean test scores over the past several years, yet their level of improvement has not matched that of white or Asian students. In 1997, Indiana’s participating African American and Hispanic students’ mean test scores were 1.90 and 2.35, respectively. In 2004, overall mean test scores improved to 2.08 for African American students and 2.51 for Hispanic students. Comparatively, in 2004 Asian students averaged a score of 3.19, and 2.70 for white students. Indiana students identifying themselves as “Other” ranked second in mean test score in 2004 with a mean test score of 2.87 (CollegeBoard, 2005).

The percentage of Indiana students earning a passing grade on AP tests has also improved over time, but ethnic differences are present in this area as well (Figure 32, page 17). In 2004, 53.5% of white students earned a passing grade on AP exams, yet only 46.5% of Hispanic students and 32.2% of African American students in

Indiana earned passing grades (CollegeBoard, 2005). While the percentage of passing grades reflects an improvement for all three ethnic groups since 1997, the degree of improvement is smaller for African American and Hispanic students than for “Other”, white, and Asian students. Since 1997, the passing percentage for “Other” students has increased by 8.2 percentage points. The passing percentages for white and Asian students increased 7.7 and 5.1 percentage points, respectively. However, during that same time, passing percentages for African American and Hispanic students increased only 4.1 and 4.4 percentage points, respectively (CollegeBoard, 2005).

The overall trends in AP program participation, exam scores, and passing percentages are positive. However, closer examination of the data reveals a gap. The participation level and test performance of African American and Hispanic students are consistently lower than their white

Figure 29

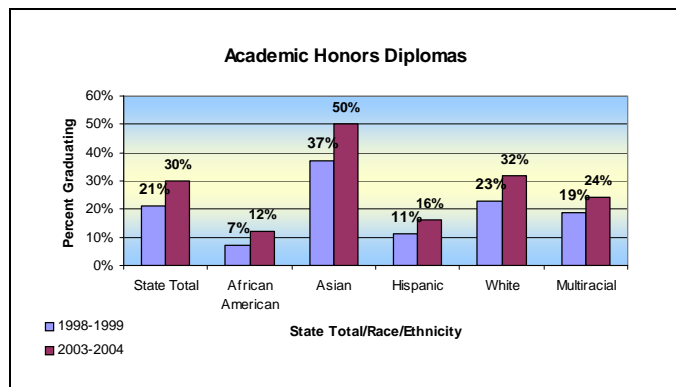


Figure 30

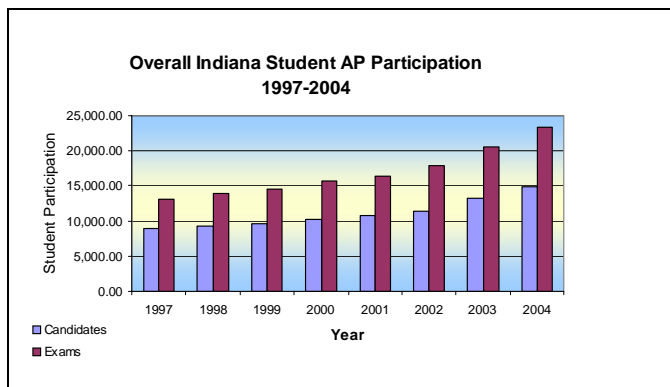
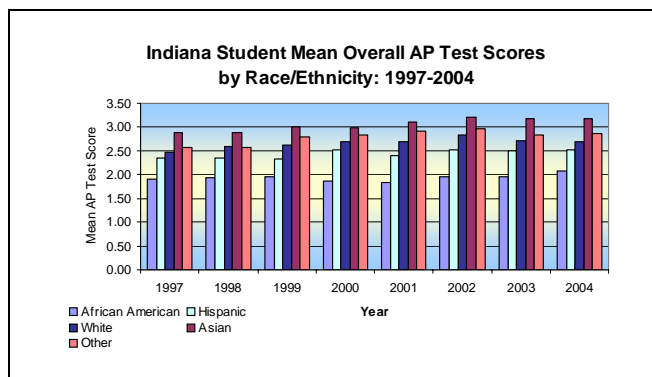


Table 1

Indiana Student AP Participation by Race/Ethnicity: 1997-2004								
	1997	1998	1999	2000	2001	2002	2003	2004
African American	206	266	299	365	367	370	457	539
Hispanic	185	203	182	215	257	233	274	316
White	7,631	7,767	8,205	8,886	9,238	9,883	11,399	12,746
Asian	330	339	371	429	475	489	608	695
Other	107	174	192	210	190	248	279	313

Figure 31



counterparts. In order to continue to increase student achievement and reduce the achievement gap, this discrepancy in AP program participation and test performance must be recognized and addressed.

SAT

The SAT is a test of developed language skills and mathematical reasoning abilities (formerly called SAT I) given on specified dates throughout the year at test centers in the United States and other countries. The SAT measures the kind of reasoning skills needed for college by assessing how students apply what they have learned in school. Colleges use the SAT as a common yardstick that complements a student's high school record in a consistent way. The SAT is required by many colleges and sponsors of financial aid programs.

Verbal

While trends in the SAT verbal scores have remained most consistent among white students since 1998, with a two-point jump from 503 to 505 (between the years 2002 and 2004) constituting the most significant change, the verbal scores of minority students (with the exception of Asian students) have shown considerable variation throughout the past seven years. Asian students, like white students, have shown little variation in scores since 1998, with only a five-point jump in 2004 to 508 from a previous average of 503 in 2002. Asian students have consistently scored higher on the SAT verbal section compared to any other ethnic group since 2000 and have shown the highest overall average verbal score (508 in 2004). Scoring just below white and Asian ethnic groups were students of other Hispanic background

(including Latin American, South American, Central American, Latino, or Other Hispanic students). After increasing average scale scores almost 30 points (from 466 in 1998 to 495 in 2000), averages of Other Hispanic students declined from 495 in 2000 to 486 in 2002. A slight improvement of two percentage points to 488 occurred in 2004 (Figure 33) (CollegeBoard, 2005).

Among African American students, average scale scores increased slightly from 426 in 1998 to 428 in 2000, but dropped noticeably down to 420 in 2002. Scores for African American students recovered slightly from the eight-point drop with an increase in the score up to 424 in 2004. Despite these slight gains in 2000 and 2004, African American students were consistently the lowest scoring ethnic group on average scale verbal scores over the period of examination of this report. Scoring approximately 30 points higher than African American students were students of Mexican ethnicity, the second-lowest achieving group.

Mathematics

While SAT math scores have varied since 1998, it is interesting to note that Asian students have consistently scored highest in this category, followed by white students, and that African American students have consistently held the lowest average verbal score. Asian students' averages have increased steadily over the past seven years (from an average scale score of 543 in 1998 to 559 in 2004), averages which have remained nearly 40 points higher than the next leading group's (white students) average scale scores. There has been the least amount of change among white students since 1998, with an overall two point

increase as of 2004 (Figure 34, page 18) (CollegeBoard, 2005).

Since 1998, students of Other Hispanic background have held average scale scores roughly 20 points lower than those of the next leading group (white students); however, this group has shown noticeably increasing scores throughout these years. From 1998 to 2004, scores have increased by 30 points, with 17, 4, and 9 point increases in 2000, 2002, and 2004, respectively.

Although African American students' scores have been the lowest of all ethnic groups, noticeable gains have been made since 1998, when this group's average scale score was 411. Between 1998 and 2000, African American students' average scale score increased five points (from 411 to 416), followed by a one-point drop between 2000 and 2002 (from 416 to 415), which was quickly recovered by another five-point increase from 2002 and 2004 (from 415 to 420). Although their scores have consistently ranked below those of white, Asian, and Other Hispanic students, Mexican students have steadily improved scores since 1998, with three-, nine-, and four-point gains from 449 to 452 to 461 to 465 in years 1998, 2000, 2002, and 2004, respectively (CollegeBoard, 2005).

Income

Family income may also have possible implications for performance on SAT testing. The College Board found that consistent gaps exist between families earning less than \$10,000 over a one-year period and families earning over \$100,000. The gap can be seen widening at each \$10,000 increment below \$100,000 in earnings

Figure 32

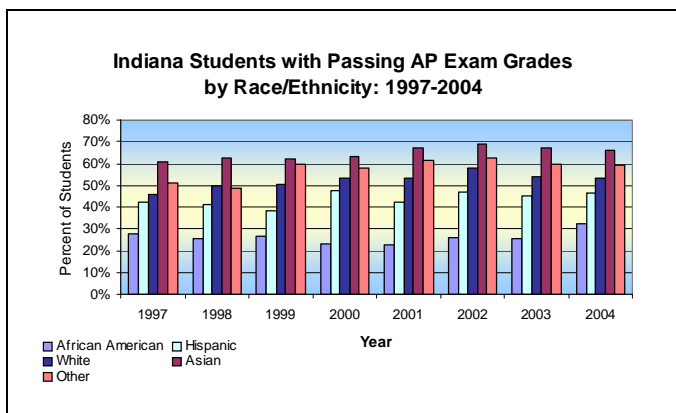
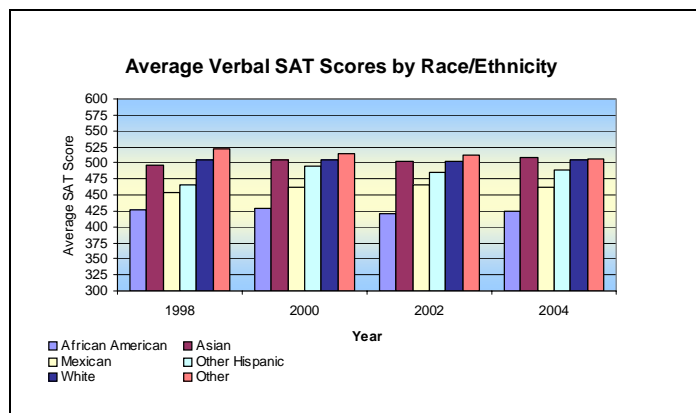


Figure 33



(Figure 35). The end result has been a gap of more than 200 points on combined verbal and math scores since 1998. In 1998, the gap between families earning less than \$10,000 and those earning more than \$100,000 was 208 points for combined verbal and math scores. Similar disparities existed in the years 2000, 2002, and 2004 with gaps of 205, 207, and 211 points, respectively, for combined verbal and math scores. Even as scores for seniors of families earning more than \$100,000 have dropped slightly over the six-year period, the scores for seniors of families earning less than \$10,000 have maintained the same dip. This indicates that while scoring trends on the SAT may vary over time, gaps due to income are still very real and consistent (CollegeBoard, 2005).

College Participation/Completion

Undergraduate enrollment at Indiana's public four-year universities has steadily increased since 1999. From 1999 until 2004, total undergraduate enrollment at these institutions increased by 45,772 students to 316,754 (Seabaugh, 2005). Yet,

despite the increase in enrollment during this timeframe, the demographic characteristics of students have remained relatively consistent. As a result, the gap in college participation among Indiana students of different SES and ethnicities remains.

Approximately 42% of all undergraduate students enrolled at Indiana's public four-year universities provided ethnicity and household income information between 1999 and 2004. From the students who reported their ethnicity and income information, the greatest percentage of students enrolled in public four-year universities comes from households with an annual income greater than \$40,000 (Figure 36). The percentage of students from households with income greater than \$40,000 has increased by approximately 8% since 1999. Conversely, the percentage of undergraduate students from households with incomes between \$20,001 and \$40,000 and less than \$20,000 has declined by 2% and 6%, respectively (Seabaugh, 2005).

In addition to differences in SES, differences in ethnicity of undergraduate stu-

dents at Indiana public four-year universities are also apparent.

Between 1999 and 2004, 66.2% to 83.1% of undergraduate students at Indiana public four-year universities were white (Figure 37). Comparatively, African American students comprised 6% to 11.4% of enrolled undergraduate students, Hispanic students accounted for 2% to 3% of enrolled undergraduate students, and Asian students made up only approximately 1% of all enrolled undergraduate students (Seabaugh, 2005).

While the overall number of undergraduate students enrolled at Indiana's public four-year universities has increased, the gap between undergraduate students of greater SES and undergraduate students of lesser SES has not narrowed, but instead has increased over time. Additionally, the gap between white, Hispanic, and African American students has not decreased, but has remained relatively constant since 1999.

Socioeconomic status differences among undergraduate students in Indiana can also be seen when examining college degree completion (Figure 38, page 20). Between

Figure 34

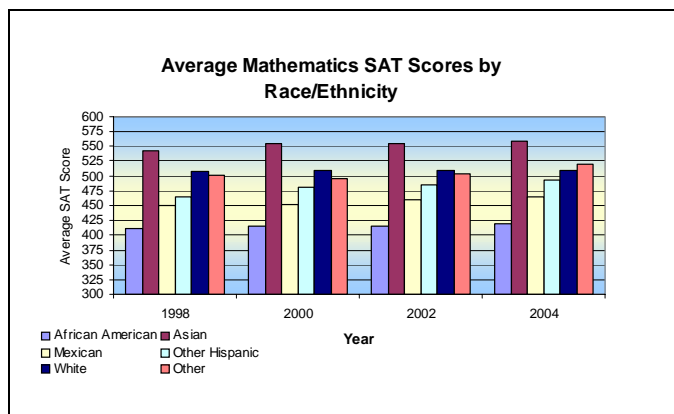


Figure 35

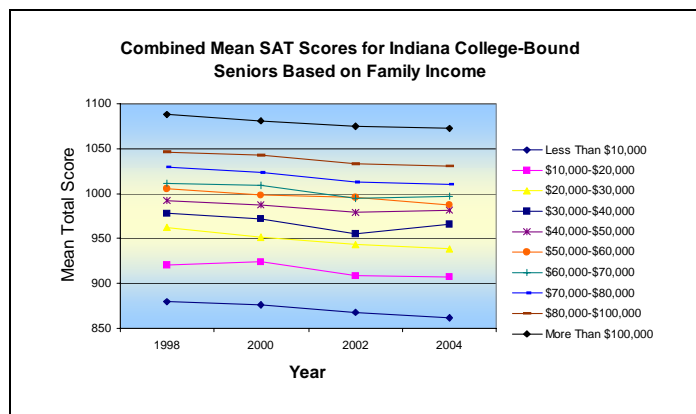


Figure 36

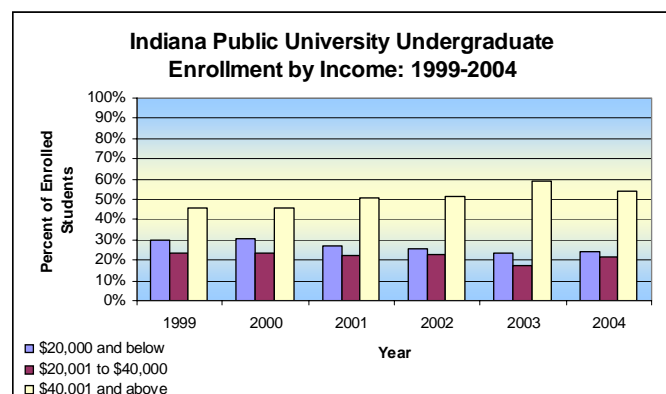


Figure 37

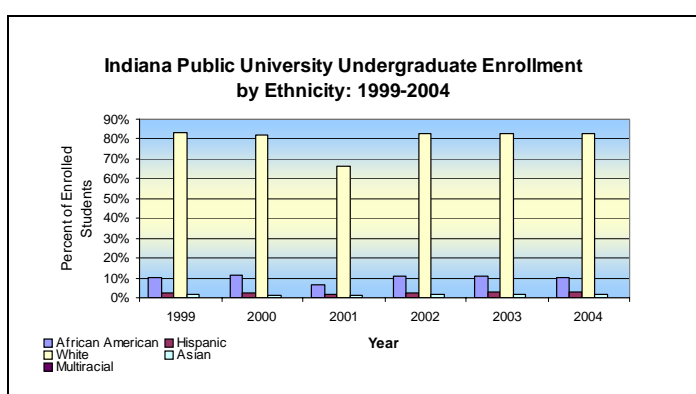


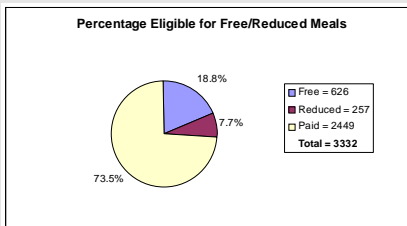
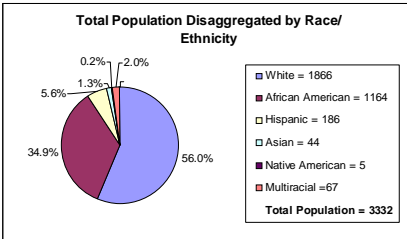
EXHIBIT 3: MODEL HIGH SCHOOL

**North Central High School
Metropolitan School District of Washington Township
Indianapolis, Indiana**

Summary Provided by C. E. Quandt, Principal

North Central High School (NCHS) enforces the highest standards to make academic success possible for all students. Implementing innovative and effective strategies designed to help struggling students excel is one of the main priorities of our school.

Located on the north side of Indianapolis, NCHS opened in 1956-1957. NCHS has been recognized nationally over time for its high level of student achievement. In 1982, NCHS was the first U.S. Department of Education Excellence in Education School in Indiana (1982). In 2002, Newsweek rated NCHS in the top 2.4% of all schools in the U.S, and in 2005 the ranking increased to the top 1.2%. Most notably, in 2004 the U.S Department of Education selected NCHS as one of four high schools in the United States for closing the achievement gap.



NCHS adheres to the concept of continually improving and strengthening the high school system. Our school emphasizes that goals for student achievement are clearly defined, agreed upon, understood, and implemented by administration, staff, and students. We find that support from the community with active Parent Teacher Organization (PTO) members, a strong Foundation, and a large number of volunteers to help in all areas of the school are essential. We have professional development opportunities such as in-service programs within the school as well as conferences on the local, state, and national levels for teachers and administrators. Our staff is empowered to develop creative solutions in order to increase student achievement. We have increased the vertical articulation between middle school and high school to enhance academic rigor. Foundation grants are available to support closing the achievement gap (i.e., Lilly, Weyerhaeuser, Lumina Foundation for Education, Washington Township Foundation, Tobias Fund, and PTO).

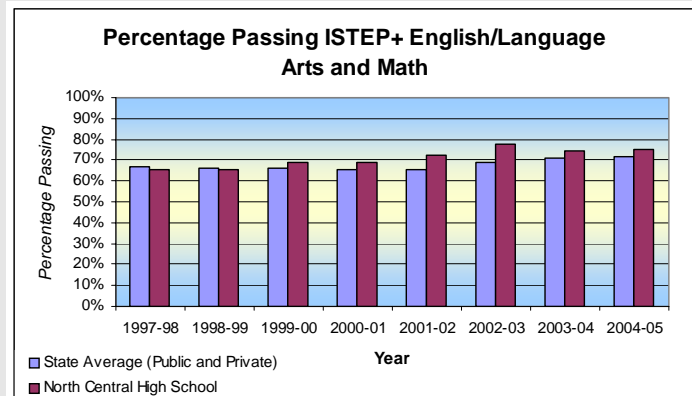
Another of NCHS's greatest strengths is our use of disaggregated data to evaluate progress toward reaching short- and long-term goals. We also stress the importance of a safe and orderly school environment, with security both inside and outside the school campus. Furthermore, we have a well-defined set of values established by the school board that is implemented in all school programs. Perhaps the qualities that distinguish us most from other high schools are the specific programs we put in place to close the achievement gap (i.e., Cohort, AVID, resource centers, parent/student support groups, and "Bridge" programs).

The Cohort program is an academic program designed by NCHS faculty to identify high-achieving, underrepresented students who have not previously enrolled in honors level courses and to encourage them to pursue a more rigorous high school curriculum. The program provides those students with additional opportunities for academic support. One of the primary goals of the Cohort program is to increase participation of underrepresented students in honors, AP, International Baccalaureate, and dual credit classes. Moreover, the Cohort program makes efforts to increase the opportunities for success on college entrance exams, college admission, and academic scholarships for students by increasing the number of credits students can earn prior to entering college by taking the college AP exams or by working toward an International Baccalaureate Diploma.

Grade 9 students identified as high-achieving are recommended by their Grade 8 teachers and counselors to participate in the Cohort program. Recommended students are then interviewed by the Cohort Coordinator and Cohort teachers. Accepted students must complete a partnership agreement form before admission into the program, and new Cohort students and parents must attend an informational meeting with the Cohort Coordinator. The Cohort program requires that the students, in addition to meeting other criteria, enroll in at least one of the following accelerated courses: English, world history, biology, geometry, or world languages. Students are also assigned to a Cohort homeroom, which is designed to provide academic support and expose students to additional opportunities to participate in programs sponsored by the high school, various college institutions, and the community. In essence, the main goals or expectations of the Cohort programs are that students must enroll in one eight-day session of Panther Prep and one half-day of PantherquestPlus during the summer and that they must make an appointment to meet with the Cohort Coordinator to discuss academic progress during the first nine weeks of school. Overall, the Cohort program promotes academic excellence and exposes students to enrichment opportunities.

For more information about North Central High School, go to: <http://www.msdt.k12.in.us/>

NCHS was selected as a model high school in closing the achievement gap for their efforts to implement strategic programs aimed at reducing the gaps and for the general upward trend of improvement demonstrated on ISTEP+ by all groups of students.



1999 and 2004, students from households earning more than \$40,000 earned between 44% and 60.4% of all associates and bachelors degrees granted by Indiana public universities. During that same timeframe, students from middle SES households (\$20,001 to \$40,000) earned between 15.2% and 23.0% of all associates and bachelors degrees. Lower SES (\$20,000 and below) students accounted for between 24.4% and 33% of all associates and bachelors degrees awarded at Indiana public universities. Furthermore, since 1999 the percentage of total associates and bachelors degrees earned by higher SES students has increased while the percentage for lower SES students has decreased.

Of all first-time, full-time freshmen enrolling in public four-year universities in Indiana in 1997, 49.6% completed a baccalaureate degree within six years. However, significant differences exist in the percentage of first-time, full-time freshmen completing baccalaureate degrees at Indiana public four-year universities when degree completion rates are examined by ethnicity (Figure 39). For example, overall six-year degree completion rates for African American and Hispanic students attending Indiana public four-year universities are 31.2% and 36.8%, respectively. Comparatively, 58.6% of Asian students and 50.6% of white students attending Indiana four-year public universities completed a baccalaureate degree within six years.

At individual four-year public universities in Indiana, the six-year degree completion rates for different ethnic groups vary as well (Figure 39). First-time, full-time white students boasted between 32.7% and 53.9% six-year degree completion rates. Similarly, first-time, full-time Asian students had between 30.0% and 60.5% six-

year degree completion rates. However, African American students beginning college at an Indiana public four-year university during that same time had six-year degree completion rates of between 15.9% and 42.5%. Additionally, first-time, full-time Hispanic students beginning college in 1997 had six-year degree completion rates between 21.4% and 44.4%.

From the data regarding college participation and completion, a clear gap exists between undergraduate students at Indiana public four-year universities based on ethnicity and SES. Furthermore, college participation data reveal that the gaps in college participation and completion have not narrowed since 1999. The gaps in college participation and completion are at least remaining constant, and at worst continuing to widen among undergraduate students of different ethnic and socioeconomic groups.

BEST PRACTICE, EFFECTIVE PROGRAMS, SUCCESSFUL STRATEGIES

“Best practice” has been used in many settings interchangeably with “what works” in a certain situation. Best practices are often research or scientifically based and are grounded in data that indicate success. Best practices can generate good ideas for school programs but it is important to remember that a best practice in one setting may not necessarily work in another (IDOE, 2005n). This section highlights a few best practice strategies and programs that have had success in closing the gaps in certain situations.

Roles of Teachers, Parents, and Students

There are many strategies at the local, state, and national levels being proposed by policymakers to help reduce the achievement gaps for students in poverty and of minority racial and ethnic backgrounds. A national study for the affirmative development of academic ability convened by Learning Point Associates discusses helpful classroom/school-based strategies and policy strategies in respect to local, state, and federal initiatives (Learning Point Associates, 2004).

On a national level, the study recommends requiring teachers to prepare courses that are aligned with principles and strategies focused on the critical application of knowledge gained by students, which is defined in the report as “intellective competence.” On a state level, teachers and school leaders should refocus on culturally relevant approaches and higher order instructions. This includes effective programs that provide students with supportive figures (i.e., guardians, role models, extended family, and friends) who believe that academic success and individual effort are important. Here, students must also have involved parents and a support network of peer groups and mentors (AERA, 2004). In terms of local strategies, special attention should be given to continuing professional development for teachers and administrators to better enable staff to meet the instructional requirements of an increasingly diverse student body (NCREL, 2004). The Learning Point Associates study recommends closing the achievement gap by first focusing schools on closing the “experience gap” through education policy, schooling, and larger social programs addressing the environment in which students learn.

Figure 38

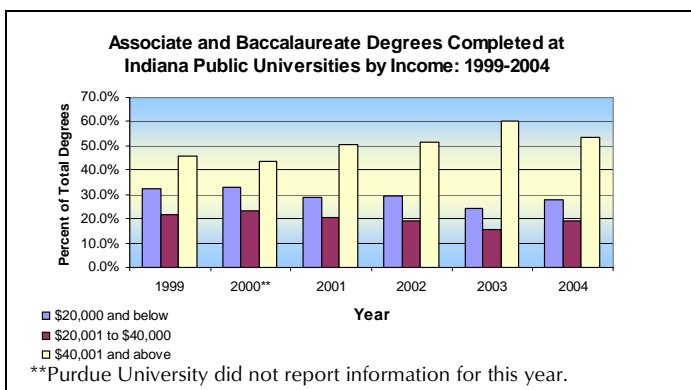
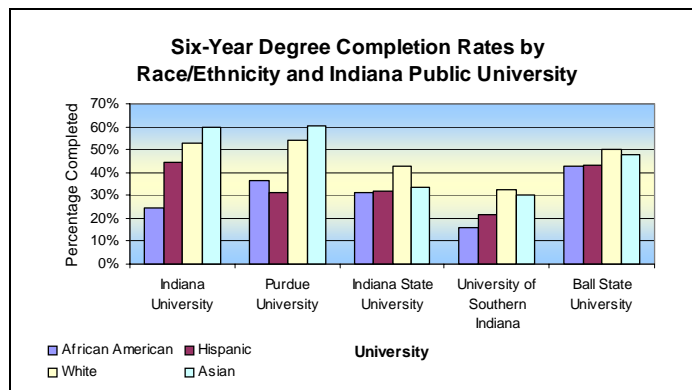


Figure 39



Social Influence and Effective Programs

According to the Education Commission of the States (ECS) report, “Closing the Gap: High Achievement for Students of Color,” family and community differences have a significant impact on student achievement. The ECS report indicates, as does other research cited in this report, that two of the main problems that contribute to the achievement gap for minority students are: (1) they are less likely to participate in a rigorous curriculum, and (2) they are also less likely to be taught by teachers with high levels of experience. ECS also addresses the influence of social expectations as a major contributing factor in student achievement. Many public schools have documented improvement through the implementation of programs such as the Calvert program, the Knowledge Is Power Program (KIPP), and the Advanced Via Individual Determination (AVID) program as effective strategies in closing the achievement gap (AERA, 2004; KIPP, 2004). These programs are similar in that they all require a demanding curriculum along with a strong social support system that values and promotes academic achievement.

The high expectations established in the Calvert program include weekly homework sheets, monthly report cards, and learning by paying attention to details (such as punctuation). One year after implementation of the Calvert program in an African American community in Baltimore, the average reading comprehension scores in three Grade 1 groups ranged from the 40th to the 49th percentile; the comparison group averaged at the 18th percentile. The successful results of this program illustrate that when an underrepresented group of students are exposed to a rigorous curriculum coupled with high expectations, their academic excellence is positively affected (AERA, 2004).

The KIPP model provides underprivileged students in Grades 5-9 with a challenging academic plan, which entails a social support system that calls for student commitment to school and peers and enforces a contract that is signed by parents and students. This contract helps by supporting extended school days, Saturday classes, and summer sessions. The KIPP model has proven very beneficial, with 93% of all

KIPP students from North Carolina passing the end-of-year reading exams in 2002, which was a 36% increase from the year before, when the students were at different schools (AERA, 2004).

KIPP employs a system of rewards and consequences for students to encourage and monitor successes. Rewards range from taking a walk through Central Park to a trip to Disney World. This aspect of the program rests on a system that complements an environment of student achievement with the infrastructure to accomplish it. The five pillars are as follows: high expectations, choice and commitment, more time, power to lead, and focus on results. The curriculum features an extended school day, principals who are given the ability to make financial decisions and faculty changes as necessary, and a central focus on standardized test results, which, for KIPP, includes maintaining large strides in attempting to eliminate the achievement gap (KIPP, 2004).

The AVID program has also proven successful in closing the achievement gap. Here, they focus on low-income students from families with no history of college attendance. The AVID model encompasses a rigorous curriculum, teacher professional development, and college students as tutors. An extra class focusing on writing skills and critical thinking is also included. The results from the AVID program demonstrate that the dropout rates in AVID’s California schools have declined 37% between 1985 and 1992. Currently, it is reported that 95% of all AVID graduates enroll in college and more than 80% of those graduates are still attending college after two years (AERA, 2004).

Enforcing Accountability through a Rigorous Academic Core

In “Closing the Achievement Gap,” Haycock stresses a need to focus on an academic core that includes: clear and high standards, assessments aligned with those standards, accountability systems that demand results for all students, intensive efforts to assist teachers in improving their practice, and extra instruction for students who need it (Haycock, 2001).

The following are issues that should be addressed in order to improve the stagnant progress in reducing the achievement gap:

- Clear, public standards for what students should learn at benchmark grade levels are a crucial part of solving the problem. They are a guide—for teachers, administrators, parents, and students themselves—to what knowledge and skills students must master.
- Standards will not make much of a difference if they are not accompanied by a rigorous curriculum. Yet, in too many schools some students are taught with a high-level curriculum, whereas other students continue to be taught with a low-level curriculum that is aligned with jobs that no longer exist.
- Ample evidence shows that almost all students can achieve at high levels if they are taught at high levels. However, it is also apparent that some students require more time on task and additional instruction. In other words, simply placing students into a high-level course, when they are achieving significantly below that academic level, will not be effective.
- Students held to high standards require teachers who master the subject matter and know how to teach it. Yet, large numbers of students, especially those who are poor or are members of minority groups, are taught by teachers who do not have strong backgrounds in the subjects they teach.

Council of the Great City Schools Case Study

A critical case study organized by the Council of the Great City Schools (CGCS) (a coalition of about 60 of the nation’s largest urban school systems, with a Board of Directors composed of the superintendents of schools and one school board member from each member city) provides information regarding the performance of inner-city schools on academic goals and standards set by the states for students. The data in the CGCS study measure the achievement gaps between cities and states, and the gaps visible when comparing African American and Hispanic students to white students. The study also focuses on new data regarding language proficiency, disability, income, and the documented progress of inner-city schools. Findings of this case study reveal that the urban school districts made significant progress in mathematics and reading scores on state assessments, thus providing new evidence that achievement gaps may be narrowing (CGCS, 2004).

Policy Perspectives

ELIMINATING THE ACHIEVEMENT GAPS

Dr. Suellen Reed



The Indiana Department of Education has worked hard to establish a good rapport and an excellent record of collaboration with its many constituencies. Indiana's Education Roundtable has been in existence since 1999 and has helped us steer a clear path established on a cooperative bipartisan basis. The path has at times been difficult, but ultimately higher expectations for our students were placed above all else.

Increasing levels of student achievement is the focus of our business, and it drives our work and decision-making. The gains we have made, even under these difficult financial times, are significant. Indiana has made great strides in standards, curriculum, instruction, assessment, and accountability. The successes were not credited to chance, but rather to hard work and the resolve of our people — educators, parents, students, business leaders, and community members.

Despite this progress, we have many challenges ahead and our journey can never be complete until each and every student can do his and her best.

Our greatest challenges include:

1. Eliminating the achievement gap that exists for minority students and students from low socioeconomic areas.
2. Fostering the will and discipline of all in the educational enterprise including educators, parents, and students in doing their very best each and every day.
3. Creating a statewide culture of education that maintains a higher connection between K-12 education and opportunities it provides for the future.

We must work harder to establish an environment throughout Indiana that values the important role education plays in each individual's life. That environment must be founded on the expectation that all students can and will reach high standards. To ensure success, we must test students regularly, follow up with help when they fall behind, and provide support when they become discouraged.

We must channel resources toward instruction. Research shows us that if we reach students at an earlier age, they will be more successful in reaching their full academic potential. We must not only keep them engaged and responsible for their learning, we must do a better job of clearly communicating the relevance of what they do in school to their adult lives.

We must:

1. Invest in pre-kindergarten programs and full-day kindergarten.
2. Identify students in need of help before they fail Indiana Statewide Testing for Educational Progress-Plus (ISTEP+) in Grade 3. If we truly believe that the Indiana's Academic Standards are what each student must be taught and must be proficient in, then we must do a better job of preparing students to pass rather than waiting for them to fail and then trying to help.
3. Work aggressively in local communities to ensure that dropping out of school is not an option, and find alternatives to expulsion and suspension; both are strategies that alienate and separate kids and parents from the instruction that we know is so vital.

In times of financial struggle it would be easy to be passive and wait for increased funding levels to start the hard work that lies ahead. However, these challenges are not new to us. We have increased the rigor of our standards, and our students have responded, as demonstrated by gains on state, national, and international assessments. We must continue that work not only in the State House, but also in every house in Indiana. Quite simply, we need everyone to share in the responsibility of increasing our students' achievement.

Will you be part of the solution? Can your family help us reach our goal? Can your community find ways to help you do so? Educators are working hard and will continue to do so, but they need your help to eliminate the gaps that divide our children not only in schools but also throughout their adult lives.

Dr. Suellen Reed is Superintendent of Public Instruction at the Indiana Department of Education, first elected in 1992.

Dr. Reed is the chairperson of the Indiana State Board of Education and co-chairs the Indiana Education Roundtable with Governor Mitch Daniels.

In order to assess achievement of schools in different states, the CGCS calculated the percentages of districts that had improved in reading and mathematics from the time the schools were first tested by the states through spring 2003. They analyzed aggregated data across grades, looked at racially identifiable gaps in student scores on state assessments, and considered whether the Great City Schools' performance was above or below statewide averages for each city. The following are the key findings of the study (CGCS, 2004):

- Mathematics achievement is improving in urban schools.
- Gaps in mathematics achievement in urban schools appear to be narrowing.
- Urban school districts showed mathematics gains between 2002 and 2003.
- Urban school achievement is below national averages for mathematics.
- Reading achievement is improving in urban schools.
- Gaps in reading achievement in urban schools may be narrowing.
- Urban school districts showed reading gains between 2002 and 2003.
- Urban school achievement is below national averages in reading.

The CGCS acknowledges that big-city school systems are different from other districts, as they serve a demographically different student body and are comparatively subjected to more intricate political and financial environments. Therefore, contextual differences in big-city schools should be addressed when conducting research on urban school achievement. CGCS results identify three factors that should be taken into consideration in order to meet the standards set by NCLB. First, the CGCS enrolls 30% of the nation's African American, Hispanic, LEP, and low-income students, and recommends that the nation pay crucial attention to students in urban schools to meet the broad goals of NCLB. Second, because students in urban schools are more likely to be minorities or come from low-income and non-English speaking homes, the council recommends that the nation place a greater emphasis on assisting students in urban schools in meeting the goals of NCLB. Third, since urban schools often lack financial resources, therefore causing the per pupil expenditure to be below statewide averages, the council recommends that the nation pay attention to these disparities in school resources so that students in urban schools can meet the goals set by NCLB (CGCS, 2004).

San Francisco Bay Area Schools Case Study

In 2003, the Bay Area School Reform Collaborative (now known as Springboard Schools, a nonprofit collaboration of schools and school districts), conducted a case study that was supported by multiple funding sources entitled, "How San Francisco Bay Area Schools are Closing the Achievement Gap." The study entailed a two-prong approach beginning with a survey of 32 schools, followed by a case study spotlighting three of these schools. Schools were selected based on data from California's Academic Performance Index (half of the 32 schools selected were considered "gap-closing" and the other half "non-gap-closing"), as well as demographics, ensuring that schools chosen were of similar racial composition. Main findings of the study concluded that "gap-closing" schools:

(1) Used data frequently

Fifty-five percent of "gap-closers" were found to assess their students weekly, while only 32% of "non-gap-closers" did so. Forty-six percent of "gap-closers" then used these data monthly to understand skill gaps of low-achieving students, while only 16% of "non-gap-closers" made this effort (NCREL, 2003).

(2) Recognized and discussed the role of race and ethnicity

Eighty-six percent of respondents from "gap-closing" schools strongly agreed that closing the racial/ethnic achievement gap was seen as a primary goal for school leaders, while only 58% of respondents at "non-gap-closing" schools agreed with this statement (NCREL, 2003). Forty-five percent of respondents at "gap-closing" schools strongly agreed that school leaders set measurable goals for closing the racial/ethnic achievement gap, while only 11% of respondents at "non-gap-closing" schools agreed with this statement.

The prioritization of reading was also seen as a common area of focus in "gap closing" schools. Among several of the conclusions drawn from this study were the need for schools to implement a focused agenda for change, recognition and discussion of racial and cultural issues, and the importance of allowing data and research to affect curriculum and instruction (NCREL, 2003).

CONCLUSIONS AND PERSPECTIVES ON INDIANA'S ACHIEVEMENT GAPS AND ITS K-12 PUBLIC EDUCATION SYSTEM

1. In the aggregate, Indiana's K-12 public education system has demonstrated significant progress across a number of measures over the last decade, and is a high performer in mathematics and science compared to other states and nations when examining Grade 4 and 8 NAEP and TIMSS results.
2. State education leaders and policymakers can cite a number of figures and statistics that clearly demonstrate that Indiana is in a state of education progress and that recent education reforms are working.
3. Particularly encouraging state trends are evident at the high school level when examining, in the aggregate, SAT improvement trends, AP participation and results, graduation rate improvements (though still too low by some measures), the percent of students completing Core 40 and Academic Honors Diplomas, and subsequent trends in enrollment in college. However, minority participation in these program areas remains unacceptably low and the aggregate progress of the state has not resulted in any significant reduction in the ISTEP+ achievement gap between all comparison groups at the high school level.
4. The statewide implementation of nationally recognized academic standards and the push toward raising expectations for all students should be commended. State and local leaders should not waiver from these efforts and should resist any temptation to lower assessment standards to ensure that fewer schools are placed in the "Improvement Status" category (signifying a school is not meeting performance objectives and is in need of improvement) under the federal Adequate Yearly Progress accountability system.
5. Despite the positive trends that are evident when examining aggregate results, data reveal that, like other states in the nation, Indiana has significant achievement gaps that exist whether examining results by race/eth-

nicity, income, English proficiency, or disability.

6. When examining ISTEP+ results for Grades 3, 6, 8, and 10, many subgroups (race/ethnicity, LEP, income) are showing improvement, and the gaps are narrowing slightly over time at each of these grade levels. Nevertheless, the gaps remain wide and merit ongoing analysis and examination by state and local leaders.
7. The ISTEP+ achievement gaps widen from the elementary to the secondary grade levels. Grade 10 gaps are most disconcerting across all comparison categories.
8. The state has invested considerable financial resources (in part through a school funding formula mechanism that accounts for certain at-risk factors) and implemented comprehensive education reform initiatives over a sustained period of time (commencing with the passage of the A+ education reform initiative in 1987). However, the achievement gaps have only narrowed marginally during this time.
9. Clearly, the achievement gap is not only a school and classroom issue, but a societal issue that must be addressed by a broad array of stakeholders that extends beyond educators, state officials, and policymakers.
10. Parents and the larger community must increase the value they place on public education and become more engaged in supporting student learning.
11. State and local leaders must acknowledge and address the impact that issues such as the high rates of mobility, increasing levels of poverty, poor nutrition, and limited access to quality healthcare have on student achievement. Effective economic development, fiscal management, and public health policies will contribute to a reduction of the K-12 academic achievement gaps.

RECOMMENDATIONS

1. **Emphasizing the Role of State Leadership.** State leaders, policymakers, and educators must build on the recent success and positive trends evident for Indiana's public education system. Education reform efforts are taking hold and the governor and policymakers should not disregard or abandon these efforts. However, the governor should work with the state superintendent, the Indiana State Board of Education, Indiana's Education Roundtable, and the Indiana General Assembly to formulate strategic and cohesive education policies to address Indiana's academic achievement gaps everywhere they exist.
2. **Fulfilling the Recommendations of the P-16 Plan.** Indiana's P-16 Plan for Improving Student Achievement, adopted by the Education Roundtable in the fall of 2003, included many insightful, research-based interventions and strategies to close the K-12 education achievement gaps. Though progress has been made on some of the 11 policy recommendations in the P-16 plan, further attention to, and work on, the recommendations are necessary. The Education Roundtable should review the P-16 Plan, itemize accomplishments, and make a renewed commitment to pursue and fulfill the remaining recommendations.
3. **Promoting Early Childhood Education.** Both the Education Roundtable's P-16 Plan and the Indiana Early Learning and School Readiness Commission's (IELSRC)⁵ December 2004 report to former Governor Joe Kernan offered several recommendations that appropriately emphasized the importance of high-quality early childhood educational opportunities in closing the achievement gaps. Because economically disadvantaged African American and Hispanic children usually start (by typically a year) behind white and Asian students as well as their more economically advantaged peers, support for effective early childhood education strategies is essential to the state's success in closing the gaps. In particular, the following recommendations by the IELSRC should

receive priority attention by the governor and policymakers immediately:

- a. Improve the quality and coordination of early childhood education and school readiness services including childcare, preschool, and family support services and programs.
 - b. Ensure that parents acquire the knowledge, skills, and resources needed to be successful as their child's first teacher.
 - c. Support full-day kindergarten.
4. **Supporting Full-Day Kindergarten for All At-Risk Children.** The positive outcomes associated with full-day kindergarten appear to be larger for disadvantaged students in both national and Indiana research. Full-day kindergarten appears to be effective in reducing achievement gaps. Considering the reality that funding for universal full-day kindergarten in the current economic climate of the state is not available, state leaders should find the means to fund full-day kindergarten programs in the schools with the widest achievement gaps for at-risk students.
 5. **Expanding Effective Reading Programs to All Elementary Classes.** State and local educators should ensure that all elementary school students are provided with reading and language arts instruction grounded in scientifically-based research. This research should be disseminated to all elementary school teachers and incorporated into school-based professional development activities. The state should also ensure through a standardized assessment that all students are on grade level for reading by the end of Grade 3. Those students who are not on grade level for reading must have access to, and participate in, intensive intervention and remediation programs or be considered for retention.
 6. **Examining Middle School Issues.** By the end of Grade 8, minority and low socioeconomic students lag behind their peers by three grade levels. While raising expectations, standards, and rigor of curriculum (i.e., Algebra in Grades 7 and 8) will benefit a vast majority of students, those students lagging substantially behind their peers

may only become more disengaged and fall further behind academically. Furthermore, student discipline issues become significant in the middle grades. Any strategic policies developed by the state of Indiana must ensure that low-achieving students are provided with additional support in order to succeed, such as greater support for alternative education and English language learner education, and more effective instructional alternatives to suspension and expulsion.

a. Further examination of suspensions and expulsions at the middle school level is needed.

Middle school students account for a significant percentage of all expulsions (37%), suspensions (45%), and drug/weapons suspensions/expulsions (39%) in Indiana schools. In addition, urban middle school students have the greatest number of total expulsions, suspensions, and drug/weapons suspensions/expulsions in comparison to suburban, town, and rural students. Further inquiry in this area is necessary to gain a better understanding of this phenomenon and identify strategies for reducing the suspension and expulsion rates of Indiana middle school students.

b. Assessment of middle school student engagement is necessary.

An examination of the suspension and expulsion data for middle school students illustrates that these students are becoming disengaged in the learning process. An assessment of the level of engagement of middle school students, similar to the High School Survey of Student Engagement (HSSSE), could provide meaningful information regarding the extent to which middle school students engage and respond to various educational practices that are connected to learning. HSSSE works to measure student engagement in educational practices which can then be used to guide student improvement activities. The collection of this information regarding Hoosier middle school students could be a useful

tool in improving teaching and learning at the middle school level.

7. Continuing the Push to Redesign High Schools.

Many policies and programs have been put into place already by the state, which are intended to better measure and improve educational outcomes at the high school level and engage a greater number of high school students in the learning process. The state can point to a new methodology to compute graduation rates which will be used beginning with the 2005-06 school year, requiring the Core 40 Diploma as the default curriculum for students graduating in 2011 or after, and tightening the conditions for a student between the ages of 16-18 to drop out of school. Likely these reforms will help to reduce the achievement gaps evident at the high school grade levels, however, much more work is necessary to totally eliminate these achievement gaps. The state of Indiana should create a high school improvement task force, whose mission would include serving as a clearinghouse for information on effective high school reforms. The task force, perhaps resulting from a consortium of government, education, and private groups with an interest and expertise in improving high schools, could also provide information on funding opportunities to support reform. Though the redesign of high schools has received great attention nationally, and many states are weighing reform approaches, Indiana is in position to be a national leader in the actual implementation of high school reform. This opportunity must be seized by state leaders to ensure that Indiana's future high school graduates are prepared for the workforce or to succeed in postsecondary education.

8. Revisiting School Improvement Plans.

Since 2001, schools have implemented and annually revised three-year school improvement plans that were required under Public Law (P.L.) 221, the state's accountability law established in 1999. If the areas of underperformance and need have been appropriately identified and targeted, and strategies and professional development programs have been implemented to address these needs, annual achievement progress should be evi-

dent. In the spring of 2006, the extent of academic achievement progress by students will be determined for the first time under the state accountability system with the placement of all public schools in categories of performance. However, placement of a school in a performance category will be based on the aggregate performance and improvement of its students, rather than on the progress of the different subgroups of students within the school like the federal accountability law requires. State education officials and policymakers should analyze the results and findings of both accountability systems to ensure that the school improvement process is working. Based on this determination, either a renewed emphasis on the school improvement plan process should be articulated by the Indiana Department of Education and local education officials, or the process should be revamped. Regardless, data-driven decision-making must continue to be valued and prioritized at the state and local level.

9. Emphasizing Teacher Quality.

The national literature and research on the achievement gaps persistent around the country consistently indicate that teacher quality is a contributor to the achievement gap problem. Simply put, high-minority, high-poverty, and low-achieving schools have the highest concentrations of teachers who are under-qualified (lack a major or license in subject area they are teaching) and have the least experience. To address this problem, NCLB specifies that all teachers must meet the definition of "highly qualified" in every subject they teach by the end of the 2005-06 school year. A limitation of this report is that it did not determine whether the data on Indiana's teachers' credentials are consistent with the national data. A comprehensive analysis should be conducted at the end of the 2005-06 school year to determine how successful school corporations have been in hiring and employing teachers who meet the "highly qualified" criteria. The study should also examine the impact of the confluence of teacher experience and licensing qualifications on student achievement in Indiana's low-achieving schools.

The study should offer concrete recommendations on teacher recruitment, retention, and reward programs and policies to ensure that low-achieving schools are staffed by highly qualified teachers.

10. **Raising Academic Expectations.** State officials, policymakers, and the staff of the Indiana Department of Education have been recognized nationally for their efforts from 1999 to 2001 to implement clear, concise, and jargon-free academic standards by subject and grade level. ISTEP+ tests have been aligned to these standards and teachers have, for the most part, aligned their curricula to the standards. Yet to be accomplished is the universal acceptance by educators that these standards apply to all students. Hoosier teachers must avoid tracking groups of students into lower-level courses and place high expectations on all students in every grade level.

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END NOTES

- 1 Though all students would meet proficiency standards on ISTEP+ under this scenario, achievement gaps may still exist when examining scale score differences. Achievement gaps may also persist, though significantly reduced, when considering the results of other performance measures such as NAEP, SAT, and AP, as well as high school graduation rates and college participation and completion rates.
- 2 The new GQE included substantially more algebra content on the mathematics portion of the test than prior versions of the GQE.
- 3 Lauren Harvey, Assistant Director of Language Minority and Migrant Programs at the Indiana Department of Education, explained that the current use of ISTAR as an alternate form of academic assessment to ISTEP+ for some LEP students is not significant enough to “artificially boost” scores for these minority groups. She went on to explain that 95% of each subgroup is required to participate in ISTEP+, and ISTAR is only used for a small number of LEP students. ISTAR only counts towards the 95% participation rate for the LEP subgroup and does not contribute to ISTEP+ scores. Therefore ISTAR testing does not significantly alter overall scoring when comparing LEP students to non-LEP students (Harvey, 2005).
- 4 The analysis of special education testing data in this report reflects only the performance information of special education students who participated in ISTEP+ testing, and excludes those participating in alternative testing.
- 5 In May 2004, Governor Joe Kernan established by Executive Order the Indiana Early Learning and School Readiness Commission (IELSRC). The purpose of the IELSRC was to fulfill the vision of a statewide, high-quality, accessible, and comprehensive early learning and school readiness system to benefit all young children whose parents choose to access the system. The document, "Initial Report of the Indiana Early Learning and School Readiness Commission," was submitted by the Commission to the governor on December 14, 2004, and identified a list of policy recommendations.

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RESOURCES

Beating the Odds IV: A City-By-City Analysis of Student Performance and Achievement Gap on State Assessment Results from 2002-2003 School Year

Education Commission of the States

Available at: <http://www.ecs.org/html/Document.asp?chouseid=5060>

Closing the Achievement Gap

Education Commission of the States

Available at: <http://www.ecs.org/html/issue.asp?issueID=194>

Closing the Achievement Gaps

North Central Regional Educational Laboratory, Learning Point Associates

Available at: <http://www.ncrel.org/gap/index.html>

Closing the Achievement Gap: Current Activities at The Education Trust

The Education Trust

Available at: <http://www2.edtrust.org/edtrust>

Indiana State Snapshot

Indiana Department of Education

Available at: <http://www.doe.state.in.us/asap/statesnap3.html>

Nation's Report Card (Overview)

National Center for Education Statistics

Available at: <http://nces.ed.gov/nationsreportcard/about/#state>

P-16 Plan for Improving Student Achievement

Indiana's Education Roundtable

<http://www.edroundtable.state.in.us/P-16plan.shtml>

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