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2012-13 Arkansas Test Results

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Summary Points

- Arkansas students declined on the Arkansas Benchmark exams with 79% scoring at the proficient or advanced level in literacy and 75% in math. These scores represent a two percentage point drop and three percentage point drop, respectively, from the previous year's administration.
- Lower grades (3-5), on average, have more students scoring at the proficient or advanced level as compared to the upper grades (6-8), particularly on the math and science Benchmark exams.
- Student performance on the norm-referenced Iowa Tests of Basic Skills (ITBS) was characterized by a small decline in national percentile rank compared with the prior year.
- Full databases with state- and district-level scores are available on the OEP Arkansas Data webpage:
www.officeforeducationpolicy.org/arkansas-schools-data/

2012-13 Arkansas Test Results

In early August, the Arkansas Department of Education (ADE) released the 2012-2013 test score results. The following brief will highlight the results of these tests, compare achievement scores over time, and provide a glimpse of regional achievement results for the following exams:

- Benchmark Exam (Grades 3-8)*
- End-of-Course Exam (Algebra I, Geometry, Biology, and Grade 11 Literacy)*
- Iowa Test of Basic Skills (Grades 1-9)*

Academic Snapshots

Benchmark Performance: Statewide

The Arkansas Benchmark exam is administered to students in grades 3-8 each spring in Arkansas. This criterion-referenced test (CRT) measures knowledge proficiency according to the Arkansas curricular standards.

This Brief

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Students in Arkansas showed a decline on the Benchmark exam compared with previous administrations. The results of this administration show that 79% of Arkansas 3rd-8th grade students scored at the proficient or advanced level (P/A) in literacy, and 75% scored similarly in math (see Figure 1 below). This drop comes after a steady incline in literacy performance on the last administration (a six-percentage point gain from 75% to 81% in 2011-12), with this year's test losing some of that progress that was made. Although Arkansas students have seen large gains over time in literacy and math, these gains have occurred over several years. The drop this year could be a product of the proximity to the score ceiling (100%), as higher scores are increasingly difficult to obtain. Perhaps a further inquiry into how future gains can be achieved is warranted, although the new testing system will change these metrics soon.

Figure 1: Percent Proficient And Advanced on the Benchmark Exam, Selected Years

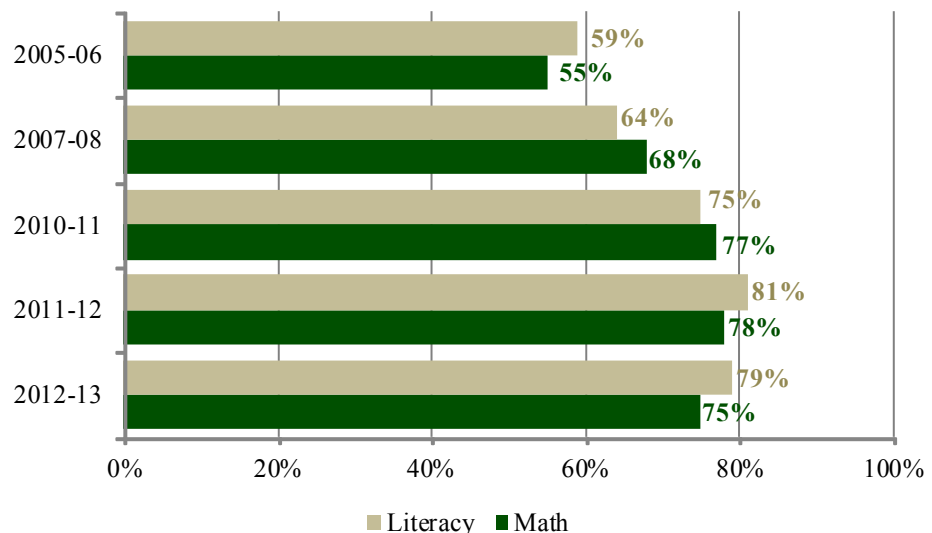


Table 1: Student Demographic Characteristics, 2012-2013 by Region

	Enrollment	% Minority	% FRL
Arkansas Overall	470,928	36%	61%
Region 1: Northwest	164,211	29%	58%
Region 2: Northeast	95,232	27%	65%
Region 3: Central	138,518	44%	57%
Region 4: Southwest	46,664	43%	68%
Region 5: Southeast	26,303	52%	75%

Figure 2: Literacy Benchmark Exam, Percent Proficient and Advanced, by Region 2011-12 & 2012-13

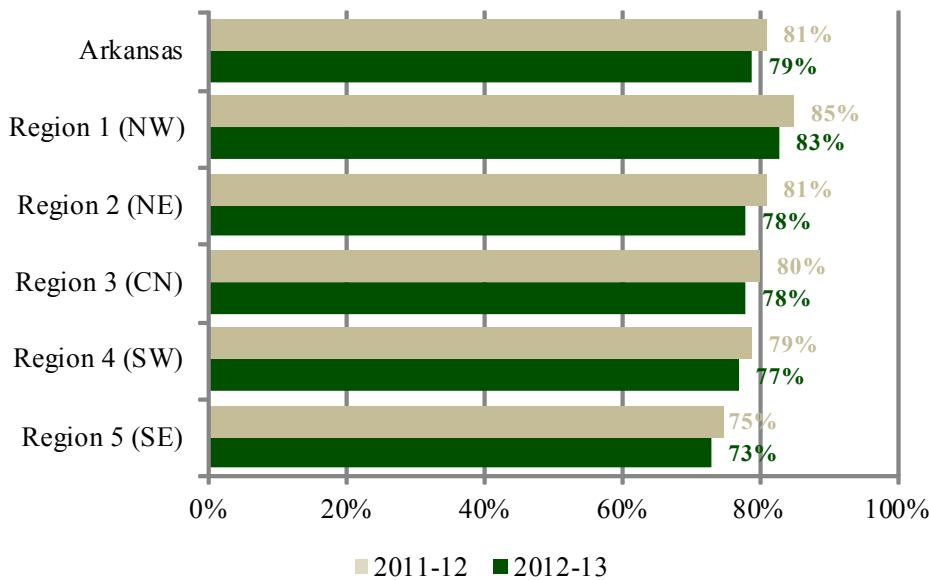
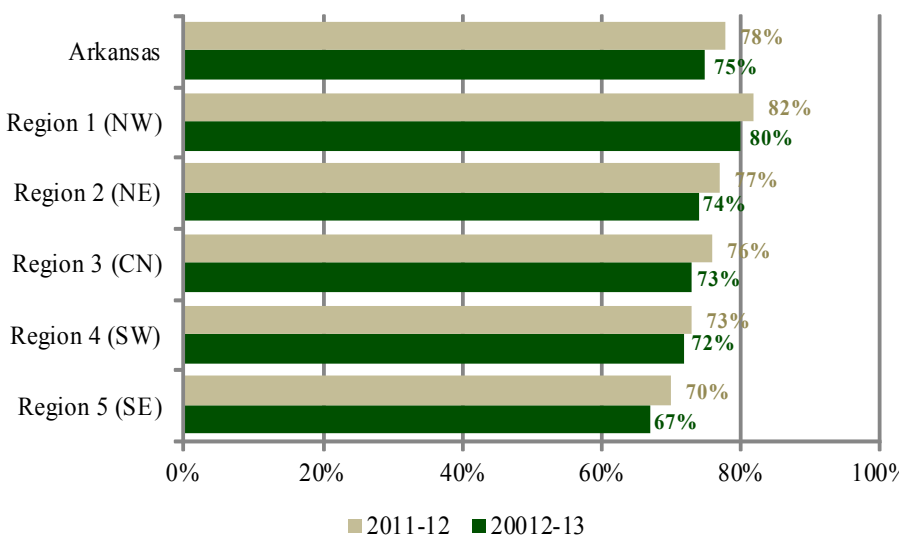


Figure 3: Math Benchmark Exam, Percent Proficient and Advanced, by Region 2011-12 & 2012-13



Benchmark Performance: Regional
 In this section, we examine student performance on the Benchmark exam by region. The ADE divides schools and districts into the following five regional categories:

- **Region 1:** Northwest (NW)
- **Region 2:** Northeast (NE)
- **Region 3:** Central (CN)
- **Region 4:** Southwest (SW)
- **Region 5:** Southeast (SE)

Demographic characteristics about each region can be found in Table 1. The highest concentration of students is found in the Northwest and Central regions. Further, we see the lowest levels of poverty among these two regions, as measured by the percentage of students receiving a free or reduce-priced lunch (FRL). Conversely, we see the smallest enrollment, and highest concentration of FRL students in the Southwest and Southeast regions.

Given the region's relative affluence, it is not surprising that Northwest Arkansas (Region 1) has the highest percent of students scoring proficient and advanced in literacy and math across the state. However, it is important to note that the Southeast has seen the largest gains in students scoring at the proficient or advanced levels on both the math and literacy Benchmark exams (gains of at least 25 percentage points in both subjects) over a seven year period from 2005-06 through the current year.

In fact, all regions have made substantial increases in the percent of students scoring proficient or advanced on the Benchmark exams in math and literacy (20 percentage points in each subject) since 2005-06.

But, as can be seen in Figures 2 and 3, this past year, all regions had negative returns. This indicates that Arkansas students have generally made great strides over the years, whereas this past year was an exception to the trend and perhaps a temporary ceiling for growth.



Benchmark Performance: By Grade

Grade level summaries of Benchmark exam performance are presented in Table 2 below. On average, students score at lower levels of proficiency or advanced levels in the upper grades (6-8). In addition, science scores are also included here. These results indicate that math proficiency rates went down from 86% in the third grade to 66% in the eighth grade.

Table 2: Summary of Grade-level Performance on the Arkansas Benchmark Exam, 2012-13

Grade	Math Total		Literacy Total		Science Total	
	# Tested	% Prof./Adv.	# Tested	% Prof./Adv.	# Tested	% Prof./Adv.
3	35,614	86%	35,614	80%		
4	35,390	82%	35,390	85%		
5	35,799	70%	35,799	84%	35,799	61%
6	35,868	76%	35,868	73%		
7	35,717	70%	35,717	77%	35,717	41%
8	35,581	66%	35,581	78%		

End of Course Exam Performance: Statewide

Students in Arkansas taking courses in Algebra, Geometry, Biology are also required to take an End-of-Course (EOC) exams at the close of the semester/year they take the course. In addition, all students are required to take a Literacy EOC exam in 11th grade. The following section highlights Arkansas performance on the EOC exams for 2012-13.

The greatest gains in EOC Exam performance were seen on the **Grade 11 Literacy EOC** (up two percentage points to 70% percent scoring P/A from the prior year) and student performance on the **Biology EOC** grew by 2 percentage points to 44% P/A over the prior year (see Figure 4).

On the **Geometry and Algebra EOC exams**, student performance leveled off from the previous year, where scores fell by 3 and 4 percentage points, respectively.

Figure 4: EOC Exams, Percent Scoring Proficient or Advanced, Selected Years

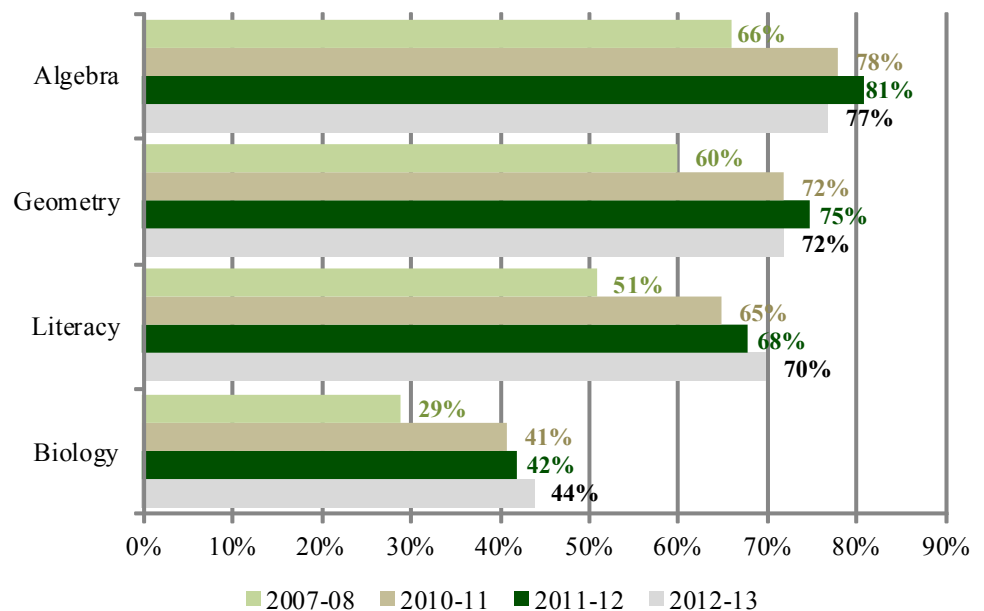


Table 3: EOC Exams, Percent Scoring Proficient or Advanced, by Region, 2012-13

	Algebra	Geometry	Grade 11 Literacy	Biology
Arkansas	77%	72%	70%	44%
Region 1 (NW)	81%	79%	75%	52%
Region 2 (NE)	76%	72%	68%	40%
Region 3 (CN)	77%	67%	70%	42%
Region 4 (SW)	69%	68%	64%	36%
Region 5 (SE)	65%	62%	59%	31%

These gains and losses should be considered in light of the progress that has been made over the past few years. It is difficult to make year after year gains when much of the growth and innovations that would lead to improvement have already been exploited. It is also important to note that the scores that leveled off were the already high test scores for Geometry and Algebra.

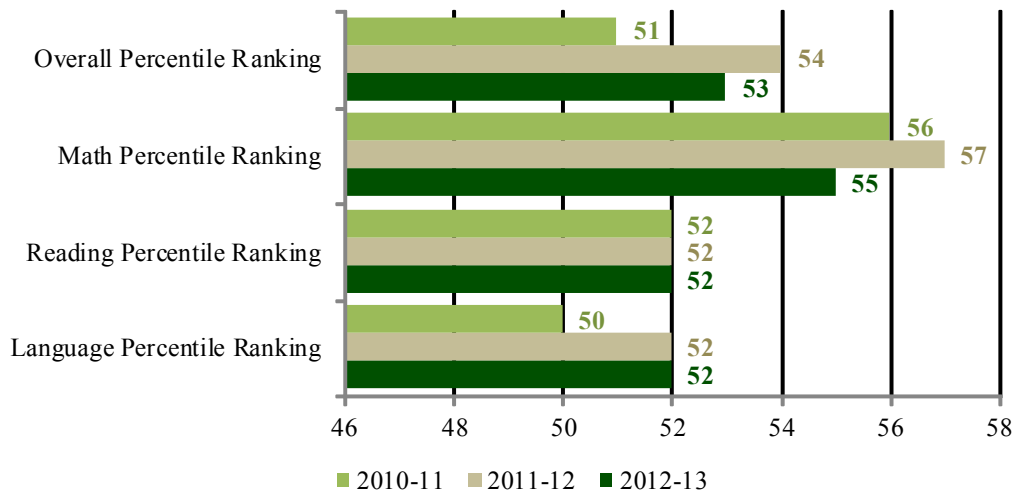
End of Course Exam Performance: Regional

Regional trends on the EOC Exams mirror those observed on the Benchmark exams with the highest percentage of students scoring at the proficient or advanced level concentrated in Northwest Arkansas (Region 1). We also see in ALL regions that the Algebra EOC exam had more students scoring at the P/A level followed by Geometry, then by Grade 11 Literacy and finally by Biology (see Table 3 above, with the exception of the Central region, where Literacy outperformed Geometry). This may be because the Biology EOC exam is the “newest” of the EOC exams, and teachers and students are still acclimating to the test.

Iowa Test of Basic Skills Performance: Statewide

The Iowa Test of Basic Skills (ITBS) is a nationally norm-referenced test (NRT) that is administered in tandem with the Arkansas Benchmark test as part of the “Augmented Benchmark exam.” In 2012-13, the ITBS was administered to students in grades 1-9 (though only scores from grades 3-8 are used in the Augmented Benchmark). This is the third consecutive year Arkansas has used the ITBS as a Norm Referenced Test (NRT). Since the ITBS is a nationally normed test, results are reported in National Percentile Ranks (NPR) in each subject area. This measures Arkansas’ student performance against that of other states that also administer the ITBS. As shown in Figure 5, 2012-13 scores in all areas did not change or decreased slightly from 2011-12. Overall, Arkansas students saw generally stable grades with the past two years included. Also, the science portion of the exam was not administered this year, which is the first year for this absence.

Figure 5: National Percentile Rank on the Iowa Test of Basic Skills, 2010-11 through 2012-13¹



Iowa Test of Basic Skills Performance: Regional

Not surprisingly, the trend of performance on statewide exams being the highest in Northwest Arkansas (Region 1) does not change with ITBS performance. In fact, Northwest Arkansas is the only region in the state with higher percentile ranks than the overall state.

Further, because we only have two years of “pre-data,” these NPR scores could be artificially inflated due to students’ increased familiarity with the exam. For example, prior to this test, Arkansas administered the Stanford Achievement Test, Tenth Edition (SAT-10), thus students would have not been familiar with the ITBS when they took it for the first time in 2010-11.

Compared to ITBS results from last year, the gap between the highest performing region and the lowest performing region have expanded, however slightly. Reducing these regional gaps is a continued concern for the Arkansas education system.

Table 3: National Percentile Rank on the Iowa Test of Basic Skills, 2012-13, by Region

	Overall District NPR	Mathematics NPR	Reading NPR	Language NPR
Arkansas	53	55	52	52
Region 1 (NW)	57	60	56	56
Region 2 (NE)	52	54	50	51
Region 3 (CN)	52	53	51	51
Region 4 (SW)	49	51	47	50
Region 5 (SE)	45	48	42	45

¹ the ADE-reported ITBS scores from 2010-11 included grades K-9; however, in 2011-13, only data for grades 1-9 were reported. Thus in the comparisons between the two years in Figure 5 only include grades 1-9.

Iowa Test of Basic Skills (ITBS)

- The ITBS has been administered for three consecutive years as the state’s Norm-Referenced Test (NRT).
- Students in Arkansas first took the ITBS during the 2004-05 academic year and then again during 2010-13.
- During the years the ITBS was not administered, Arkansas used the SAT-10 as the NRT portion of the Augmented Benchmark Exam.
- Across the Arkansas regions, the widest test score gap appears on the Reading test. The state as a whole did score above the national average, scoring above the 50th percentile on each test.

For More Information about this Policy Brief and other education issues in Arkansas contact us:

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Summary

This year's administration of standardized tests showed mixed results for Arkansas students, with falling scores on the Benchmark exam, gains on previously low-scoring EOC exams, and similar scores on the ITBS exam.

There are questions to be asked in the coming months concerning these scores. For example:

- What can be done to overcome the stagnation on Benchmark math performance?
- How do these test trends fair across different subgroups of students, such as TAGG and Free and Reduced Lunch students?
- Why do we not see similar performance among middle grades on the math and science Benchmark exam as we do in early grades?

It is also important to look at scores in the context of the regions and districts, thus we provided this information in this policy brief.

In an upcoming report, we will consider how the Common Core State Standards (CCSS) might be shaping the test scores across the state. In 2014-15, Arkansas will make the transition to the PARCC test. See our policy brief on the new testing system here:

<http://www.officeforeducationpolicy.org/common-core-state-standards-in-arkansas/>

The Common Core State Standards were implemented in K-2 during the 2011-2012 year and in the 3-8 during the 2012-13 year.

We hope you find the information presented in the brief useful. However, we understand that you may wish to compare a school or district near you. To do so, please visit our OEP Arkansas Data page at www.officeforeducationpolicy.org/arkansas-schools-data or see our "Note on Sources" at the end of this document for more information on all of our databases.

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A Note on Sources:

All of the Tables and Figures presented above were created using original source data provided by the Arkansas Department of Education Testing Website found here:

<http://www.arkansased.org/divisions/learning-services/student-assessment/test-scores/>

At the OEP, we have taken these raw grade-by-grade data and aggregated them into school- and district-level databases that allow the user to look at performance of the entire school, the entire district, by educational region, and statewide. Click on the following links to access these data by exam and aggregation level:

School- and District-level Benchmark Exam Databases:

www.officeforeducationpolicy.org/arkansas-schools-data

School- and District-level EOC Exam Databases:

www.officeforeducationpolicy.org/arkansas-schools-data

School- and District-level Norm-referenced (ITBS & SAT-10) Databases:

www.officeforeducationpolicy.org/arkansas-schools-data

Databases from the most recent administration (2012-13) were posted in conjunction with this policy brief; however, the websites above included databases spanning back to the 2004-05 academic year. We hope you will take advantage of these resources, and most importantly, contact our office at oep@uark.edu or (479) 575-3773 if you have any questions about these data.