

# STATE OF SOUTH CAROLINA DEPARTMENT OF EDUCATION

Summary Report of the Implementation of Physical Education and Physical Activity Minutes for Students in Grades Kindergarten through Five as Required by the Students Health and Fitness Act of 2005

School Year 2012–13

**Issued by the South Carolina Department of Education** 

Mick Zais, PhD State Superintendent of Education

Prepared by Dr. Christine Beyer Office of Teacher Effectiveness December 1, 2013

## **Statutory Requirement for the Report**

Section 59-10-10 (C) reads:

During each year of implementation of the reduced student to physical education teacher ratio, each district shall report to the State Department of Education by June fifteenth, the number of minutes of physical education instruction and the minutes of additional physical activity students receive daily with a total for the week. The State Department of Education shall provide a summary of this information to the General Assembly by December first of each year of implementation.

#### Students Health and Fitness Act of 2005 (SHFA) Requirements

- 150 minutes of combined physical education (PE) and physical activity (PA)
  - o 60 minutes of designated physical education time
  - o 90 minutes of designated physical activity time
- An individual student's fitness status must be reported to his parent or guardian during a student's fifth grade, eighth grade, and high school physical education courses. Only elementary schools were surveyed for purposes of this report.

### **Survey Administration**

The South Carolina Department of Education (SCDE) notified all schools with grades kindergarten through grade five of the need to complete two online school level surveys in early May, 2013. One survey was to be completed by the school administrator and the other was to be completed by classroom teachers (see Appendix A). The survey was requested to be submitted online by June 1, 2013.

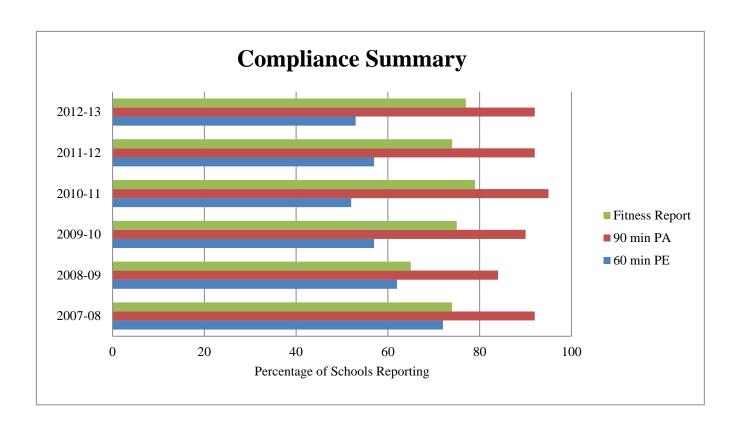
#### School participation in the surveys

In 2012-13, teacher participation increased by 14 percent from the previous year, with nearly 8,600 responses compared to 7,300 last year, representing a gain of 1,269 teachers completing the 2013 survey. The increase in reporting might be attributed to the consistency of survey reporting methods over the last three years. Teachers are familiar with using the online survey tool. With the added numbers of teachers reporting, the strength and accuracy of the survey findings also increased.

One hundred and nine schools representing 38 school districts did not complete either the administrator or classroom teacher surveys. School districts with at least five or more non-reporting schools were: Laurens 55 (5); Horry (6); SC Charter (7); Aiken (9); Rock Hill (9); and Charleston (14) (see Appendix B). A total of 17 schools have never submitted either a teacher or administrator survey in the last three years. Those schools are: Apple, Buist, Dunston, Orange Grove, and Sullivan's Island in Charleston County; Bells in Colleton County; Bridgewater and Ocean Bay in Horry County; Lower Lee in Lee County; Brookland Cayce in Lexington Two; St. James Gaillard and Vance-Providence in Orangeburg Three; McKissick in Pickens County; Hollywood in Saluda County; and Finley Park, Richmond Drive and The Children's at Sylva Circle in Rock Hill School District.

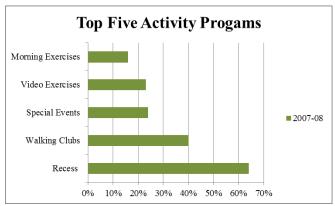
#### Physical Education (PE) and Physical Activity (PA) Minutes

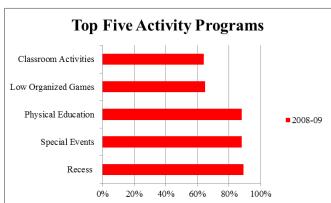
The following 'Compliance Summary' chart showed that meeting the time requirement of 60 minutes a week for physical education instruction has continued to be a challenge for schools. There has been consistently less difficulty for teachers to implement the weekly 90 minutes of physical activity requirement. There was no difference in teacher and administrator reporting of physical activity and physical education minutes offered weekly by the schools. The number of schools that offer more than 60 minutes of physical education each week dropped slightly from 35 percent in 2012 to 33 percent in 2013. Since the law was implemented, roughly three quarters of all schools have consistently sent fitness reports home to parents.

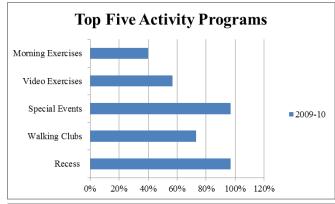


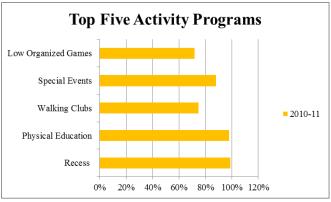
# **Types of Physical Activity Provided by Schools**

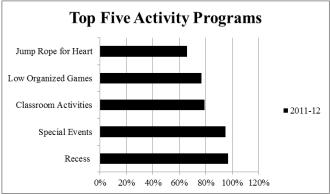
The methods of delivery of physical activity minutes used by schools have shown signs of becoming more institutionalized. The following 'Top Five' chart shows that there has been no change in the ranking and types of programs offered for the last two years. Recess, special events, teacher-led activities, and Jump Rope for Heart have continued to be major ways that schools meet the physical activity (PA) requirement for students. Family school physical activity program offerings in schools increased slightly from 64 percent in 2012 to 66 percent in 2013. The five year trend for schools offering diverse physical activity programing has increased since SHFA was implemented. Since 2009-10 more than 50 percent of reporting classroom teachers stated that they implemented all of the top five ranked physical activity programs.

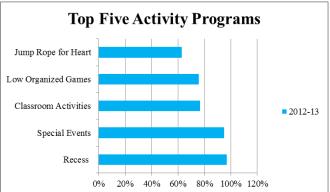








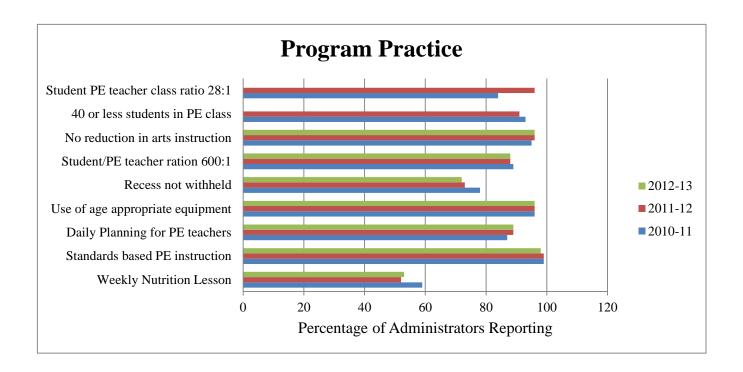




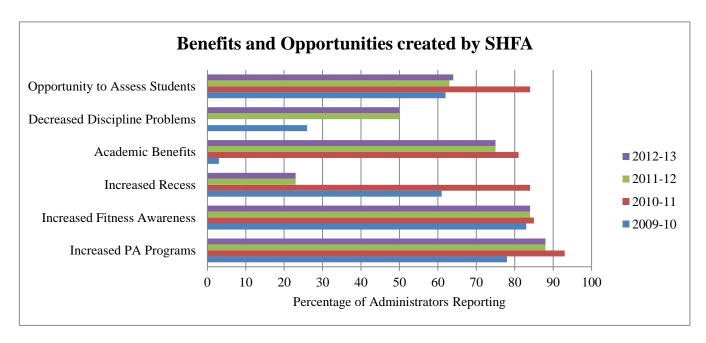
## **Program Practice: School Level Administrator Report**

The following 'Program Practice' chart provides a comparison of school level program practices reported by school level administrators for the past three years. School administrator survey participation dropped back to 2010-11 levels with a 36 percent reduction in the number of administrators participating in the survey. It is unknown why the number of administrators reporting dropped this year. In spite of this, the consistency of program practice in implementing the SHFA has remained the same, especially over the past two years. This might best be explained by the fact that funding levels to increase student to physical education teacher ratios have remained the same and with no increases above 2008-09 funding levels.

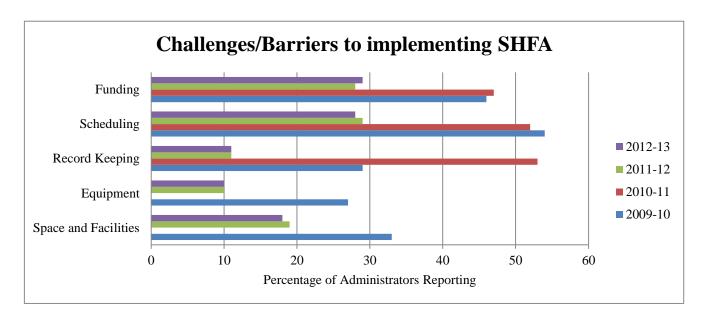
It is unfortunate that withholding recess as a punishment continued to be a common practice in more than a quarter of all schools. The social and emotional benefit of recess and unstructured free play has been shown in research findings to be important for children and should not be withheld. It is also disappointing that the number of schools implementing at least 20 minutes of nutrition education to their students had not increased over the past three years and remained at about 50 percent of reporting schools. Because nutrition education is a component of Comprehensive Health Education instruction and is clearly outlined in the 2009 South Carolina Academic Standards for Health and Safety Education, compliance with this segment of the law should not be an issue. Professional development could be warranted in helping school administrators and teachers understand the importance of the social function of recess and the benefits of nutritional education to the K-5 school-aged child.



The value of physical education and physical activity programs to students, parents, teachers, and administrators has been apparent in school administrator reporting as is shown on the following 'Opportunities and Benefits' chart. Many research studies have shown a strong positive relationship between physical activity and cognitive performance. Three-quarters of administrators agree that the SHFA has provided academic benefits to students. It is also encouraging that three quarters of school administrators believe that the SHFA has resulted in having healthier and more physically fit K-5 students in South Carolina schools.



Some program practices that impede the implementation of the SHFA can be corrected at the administrative level. As is shown on the 'Challenges and Barriers' chart, 28 percent of school administrators reported scheduling issues as a barrier to implementing SHFA. Adequate facilities and space was another problem for 18 percent of reporting schools. One-quarter of reporting school administrators stated that lack of funding and time constraints in the curriculum had impeded implementing the law. Recordkeeping and equipment did not appear to be areas of concern for implementing SHFA.



#### **Conclusions**

Since the implementation of the SHFA, there has been growing evidence of the institutionalization of the law into everyday school programs and practice. The variety of physical activity program offerings and availability of physical activity in the schools has increased. Physical education program assessment data could provide further evidence of the positive long term effects of the SHFA. Physical education program assessment is an important component of SHFA. Statewide physical education assessment and data collection has not occurred since 2008. Once reinstated, it could provide valuable comparative data and a broader authentic reflection of the impact of SHFA on students in South Carolina.

# Appendix A: 2012-13 Students' Health and Fitness Act Survey Questions

# **K-5-Classroom Teacher Survey**

District	
School	
School Level Physical Education Director	
Name of the teacher completing this survey	
Select the grade level that you teach (K-5)	
E-mail address of person completing the survey	

# Please answer YES or NO to each of the following questions concerning the implementation of the Students' Health and Fitness Act in your school during the 2012-13 school year.

- 1. Did your students receive at least 60 minutes of physical education (PE) instruction per week provided by a certified physical education instructor?
- 2. If the answer to the previous question 1 is NO, please explain.
- 3. Did your students receive more than 60 minutes of physical education (PE) per week provided by a certified physical education instructor?
- 4. Did your students receive at least 90 minutes of physical activity (PA) opportunities per week?
- 5. If the answer to question 4 is NO, please explain.
- 6. How much time did your students receive for physical activity (PA) opportunities per week?

Were the following physical activity opportunities offered to your students during the 2012-13 school year?

- 7. Recess
- 8. Structured walking programs, walking track or walking clubs
- 9. National or local walking events (Walk to School, or Walk Across America)
- 10. Special school events such as May Day or Field Day
- 11. Aerobic video programs such as jazzercise, deskercise and FitKids
- 12. Morning exercise programs such as morning stretch or CORE exercise
- 13. Classroom activities led by the classroom teacher
- 14. Jump Rope for Heart
- 15. Low organized games such as kickball
- 16. Before or after school programs
- 17. Family events
- 18. Structured programs such as Geo Mat or CATCH
- 19. Dance
- 20. Other Please list.

Which of the following did your students benefit from during the 2012-13 school year, as a result of your school's implementation of the Students' Health and Fitness Act? Please choose yes for all of the applicable benefits.

- 21. Programs were offered that were devoted to increase student physical activity levels
- 22. Increase in student health and nutrition awareness
- 23. Increase in recess time
- 24. Increased support and advocacy for equipment and space
- 25. Increased support from parents
- 26. Integration of physical activity into the classroom
- 27. More physical education teachers added or hired
- 28. Increased assessment of students in physical education
- 29. Increased student skill development in physical education
- 30. Healthier, more physically fit students
- 31. Decrease in discipline problems
- 32. Increase in student alertness and attention in class
- 33. Increase in student attendance
- 34. Academic benefits
- 35. Other Please list

Which of the following challenges did you experience during the 2012-13 school year as a result of your school's implementation of the Students' Health and Fitness Act? Please choose yes for all of the applicable challenges.

- 36. Scheduling problems, such as time
- 37. Space or facilities limitations
- 38. Class size (too many students in a class to adequately instruct)
- 39. Time taken away from other academic subject instruction
- 40. Equipment
- 41. Funding
- 42. Low student motivation or cooperation
- 43. Administration of the Fitnessgram assessment
- 44. Fitnessgram software problems
- 45. Nutrition issues such as party food and unhealthy snacks
- 46. Removal of recess as a discipline measure and the need to find alternative discipline methods
- 47. Added classroom and record keeping responsibilities
- 48. Lack of support from parents
- 49. Other Please list.

# Physical Education-School Level Administator or Physical Activity Director

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School

Name of the person completing this survey

Title of the person completing this survey

Email address of the person completing this survey

# Please answer each question related to your school's implementation of the Students' Health and Fitness Act during the 2012-13 school year.

- 1. Was your student to teacher ratio in physical education classes equal to or lower than 28:1 (28 students to 1 teacher)?
- 2. If the answer to question 1 is NO, please indicate your school's student to teacher ratio.
- 3. At any time, did the number of students in physical education classes exceed 40 students?
- 4. If the answer to question 3 is YES, please explain.
- 5. Did your school reduce or replace time dedicated to visual or performing arts instruction as a result of the Students' Health and Fitness Act?
- 6. Was the student-to-certified physical education teacher ratio in your school equal to or less than 600:1 (600 students to 1 PE teacher)?
- 7. If the answer to question 6 is NO, please indicate your school's ratio.
- 8. Did your school report fitness status to parents or guardians of 5th grade students?
- 9. Does your school withhold recess as punishment?
- 10. Does your school provide students time for physical activity each week?
- 11. Does your school employ a certified dance education specialist?
- 12. Does your school have adequate, age-appropriate equipment for the effective implementation of the physical education standards?
- 13. Does your physical education teacher receive a planning period every day that is equivalent to other classroom teacher planning time?
- 14. Did your school have more than three special needs students in any physical education class?
  - 15. If the answer to question 14 is YES, please explain.
  - 16. Is physical education instruction in your school based on the South Carolina Academic Standards for Physical Education 2008?
  - 17. Did your school provide all K-5 students with a weekly nutrition lesson?
  - 18. Were physical education classes canceled at any time due to school functions, such as picture day or school assemblies?
  - 19. If the answer to the previous question is **YES**, please explain.

Please indicate which of the challenges listed below occurred during the 2012-13 school year as a result of your school's implementation of the Students' Health and Fitness Act? Please choose YES for all of the applicable challenges.

- 20. Scheduling problems, such as time
- 21. Space or facilities limitations
- 22. Class size (too many students in a class to adequately instruct)
- 23. Time taken away from other academic subject instruction
- 24. Equipment
- 25. Coordination/cooperation with classroom teachers

- 26. Funding
- 27. Low student motivation or cooperation
- 28. Administration of the Fitnessgram assessment
- 29. Fitnessgram software problems
- 30. Nutrition issues, such as party food and unhealthy snacks
- 31. Removal of recess as a discipline measure and the need to find alternative discipline methods
- 32. Added classroom teacher responsibilities
- 33. Record keeping
- 34. Lack of support from parents
- 35. Other Please list.

Which of the following did your students benefit from during the 2012-13 school year, as a result of your school's implementation of the Students' Health and Fitness Act? Please choose YES for all of the applicable benefits.

- 36. Programs were offered that were devoted to increase student physical activity levels
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- 41. Integration of physical activity into the classroom
- 42. More physical education teachers added or hired
- 43. Increased assessment of students in physical education
- 44. Increased student skill development in physical education
- 45. Healthier, more physically fit students
- 46. Healthier, more physically fit faculty
- 47. Decrease in discipline problems
- 48. Increase in student alertness and attention in class
- 49. Increase in attendance
- 50. Academic benefits
- 51. Other Please list.

# **Appendix B: Non-Reporting Schools by Districts**

T=Classroom Teacher Survey

A=School Administrator Survey
\*=Schools not submitting reports for last two years

DISTRICT	SCHOOL	T	A
Abbeville	John C. Calhoun Elementary	X*	
	Westwood		X
Aiken	Aiken Elementary	X*	X
	Belvedere Elementary	X*	X
	Busbee Corbett Elementary Middle		X
	Byrd Elementary	X*	X
	Chukker Creek Elementary		X
	Clearwater Elementary	X*	X*
	East Aiken School of the Arts		X
	Gloverville		X
	Greendale Elementary	X*	X
	Hammond Hill Elementary	X*	X
	Jefferson Elementary	X	X
	J.D. Lever Elementary		X
	Milbrook Elementary		X
	Mossy Creek Elementary		X*
	Lloyd-Kennedy Charter	X	
	North Aiken Elementary/Pinecrest Annex	X*	X*
	North Augusta Elementary		X
	Oakwood-Windsor Elementary	X*	X
	Redcliffe Elementary		X
	Ridge Spring Monetta Elementary/Middle	X	X*
	Warrenville Elementary		X
Allendale	Allendale Elementary		X
	Palmetto Elementary		X
	Fairfax Elementary	X	
Anderson 1	Hunt Meadows Elementary	X	
	Powdersville Elementary	X*	**
	West Pelzer Elementary		X
	Wren Elementary		X
Anderson 2	Honos Doth Flomentowy		v
Anderson 2	Honea Path Elementary		XX
	Wright Elementary		^
Anderson 3	Flat Rock Elementary		X
	Starr Elementary	X	
		11	
Anderson 4	Townville Elementary		X
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Anderson 5	Calhoun Academy of the Arts	X	

	Centerville Academy of 21st Century Learning Midway Elementary School of Science & Engineering Nevitt Forest Community School of Innovation New Prospect STEM Academy North Pointe Elementary School of Choice Southwood Academy for the Arts Varennes Academy of Communication & Technology Whitehall Elementary	X* X* X* X X	X* X X X
Bamberg 1	Richard Carroll Elementary	X*	X
Barnwell 19	Macedonia Elementary		X
Barnwell 29	Kelly Edwards Elementary	X	
Barnwell 45	Barnwell Elementary		X
Beaufort	Hilton Head Island Elementary Okatie Elementary Coosa Elementary Joseph S. Shanklin Elementary Port Royal Elementary Red Cedar Elementary Riverview Charter School Whale Branch Elementary	X X X X X	X X X
Berkeley	Daniel Island Devon Forest Elementary Hanahan Elementary Henry E. Bonner Elementary Marrington Elementary Westview Elementary Whitesville Elementary	X	X X X X X X
Calhoun	Sandy Run School St. Mathews		X X
Charleston	A. C. Corcoran Elementary Apple Charter School Ashley River Creative Arts Belle Hall Elementary Buist Academy Charles Pinckney Elementary Charleston Charter School for Math and Science Charleston Development Academy Charleston Progressive Charleston School of the Arts Chicora Elementary Drayton Hall Elementary E. R. Ellington	X* X* X* X X* X X X X X X X X X X X X	X* X* X* X*
	E.B. Ellington East Cooper Montessori Charter	X	X* X

	Edith L. Frierson Elementary	X*	
	· · · · · · · · · · · · · · · · · · ·	X	X
	Edmund A. Burns Elementary		
	Hunley Park Elementary	X*	X*
	James B. Edwards Elementary		X*
	James Island Elementary		X*
	James Simons Elementary	X*	
	Jennie Moore Elementary	X*	X*
	Mamie Whitesides		X*
	Ladson Elementary	X	
	Lambs Elementary	X	
	Malcolm C. Hursey Elementary	X	
	Mary Ford Elementary	X	
	Matilda Dunston Elementary	X*	X*
	Mitchell Elementary	X	
	Mt. Pleasant Academy	X	
	Mt. Zion Elementary	X*	X*
	Murray Lasaine Elementary	X	**
	North Charleston Elementary	X	X*
		Λ	
	Oakland Elementary	V.	X*
	Orange Grove Elementary Charter	X*	X*
	Pinehurst Elementary	X	
	Sanders-Clyde Elementary	X*	X*
	Springfield Elementary	X*	
	Stiles Point Elementary		X*
	St. James Santee Elementary	X*	
	Stono Park Elementary	X*	
	Sullivan's Island Elementary	X*	X*
	W. B. Goodwin Elementary		X
Cherokee	Alma Elementary	X	
	B. D. Lee Elementary	X	
	Blacksburg Elementary	X	
	Cherokee Technology Center	X	
	Draytonville Elementary	X	
	· · · · · · · · · · · · · · · · · · ·	X	
	Green Bond Flomenton		
	Grassy Pond Elementary	X	
	Limestone-Central Elementary	X	v
	Luther L. Vaughan Elementary	X	X
	Mary Bramlett Elementary	X	
Chester	Academy for Teaching and Learning	X	
	Chester County Career Center	X	
	Chester Park Elementary of Inquiry	X	
	Chester Park Elementary School for the Arts	X	
	Chester Park Elementary Literacy & Technology	X	X
Clarendon 1	St. Paul Elementary	X	
Clarendon 2	Manning Elementary	X	
Clarendon 3	Walker-Gamble Elementary		X

Colleton	Bells Elementary	X*	X*
	Cottageville Elementary	X*	X
	Edisto Beach Elementary	X*	X
	Forest Hills Elementary		X
	Hendersonville Elementary		X
	Northside Elementary		X
	·		
Darlington	Cain Elementary		X
	Choices Charter	X	
	North Hartsville Elementary	X	
	Pate Elementary	X	
	Spaulding Elementary		X
	St. Johns Elementary		X*
	Thornwell School of the Arts		X*
	Washington Street Elementary		
	West Hartsville Elementary	X	X
Dillon 4	East Elementary		X*
	Gordon Elementary		X*
	Lake View Elementary		X*
	South Elementary		X*
	Steward Heights Elementary		X*
DJJ	Birchwood School	X	X
DJJ	Willow Lane School	X	X
	Willow Edition		11
Dorchester 2	Beech Hill Elementary	X	
	Joseph R. Pye Elementary	X	
	Knightsville Elementary	X	
	Newington Elementary	X	
	Oakbrook Elementary	X	
	James Spann Elementary		X
	William M. Reeves Elementary		X*
	Winchester Hills Arts Infused Elementary		X
Dorchester 4	Clay Hill Elementary		X
Dorchester 4	Harleyville Elementary	X	Λ
	William Memorial Elementary	X	
	William Memorial Elementary	A	
Edgefield	Douglas Elementary	X	X
	Johnston Elementary	X	X
	Merriwether Elementary	X	X
	W. E. Parker Elementary	X	X
Fairfield	Kelly Miller Elementary	X	
rannou	McCrorey-Liston School of Technology	X	
	Meetotey Liston School of Technology	11	
Florence 1	Delmae Elementary		X*
	Lucy T. Davis Elementary		X
	Moore Intermediate		X

	Palmetto Youth Academy Charter Theodore Lester Elementary Wallace Gregg Elementary	X*	X X X
Florence 2	Hannah-Pamplico Elementary and Middle	X	
Florence 3	Lake City Elementary Main Street Elementary	X X	X
Florence 4	Brockington Elementary	X*	
Georgetown	Andrews Elementary Brown's Ferry Elementary Coastal Montessori Charter Plantersville Elementary Maryville Elementary Waccamaw Elementary Waccamaw Intermediate	X* X X* X*	X X X X
Greenville	Alexander Elementary Cherrydale Elementary East North Elementary Enoree Career Center Lake Forest Elementary LEAD Academy Charter Legacy Charter Mitchell Road Elementary Monarch Elementary Sterling School Stone Academy Thomas E. Kerns Elementary Tigerville Elementary Welcome Elementary Westcliffe Elementary Woodland Elementary	X X X X	X X X X X X X X X X X X X
Greenwood 50	Eleanor S. Rice Elementary Hodges Elementary Woodfields Elementary		X X X
Greenwood 51	Ware Sholes Elementary		X
Greenwood 52	Ninety-Six Elementary		X
Hampton 1	Brunson Elementary Varnville Elementary	X*	X
Horry	Academy of Hope Charter Aynor Elementary Bridgewater Academy Charter Carolina Forest Elementary	X X* X	X* X*

	Doigy Flamentowy		v
	Daisy Elementary		X X
	Kingston Elementary	v	X
	Lakewood Elementary	X	
	Ocean Bay Elementary	X*	X*
	Palmetto Academy of Learning and Success Charter	X*	X
	Pee Dee Elementary	X	X
	River Oaks Elementary		X
	Socastee Elementary	X*	
	South Conway		X*
	Waccamaw Elementary	X	
Jasper	Hardeeville Elementary		X*
<b>F</b>	Ridgeland Elementary	X*	
	Tangorana Ziomoniani	1	
Kershaw	Baron Dekalb Elementary		X
	Bethune Elementary		X
	Jackson Elementary	X	
	Lugoff Elementary	11	X
	Mt. Pisgah Elementary		X
	Wateree Elementary		X
	wateree Elementary		A
Lancaster	Buford Elementary	X	
	Discovery Carter of Lancaster		X
Laurens 55	E. B. Morse Elementary	X	X
Laurens 55	Ford Elementary	X	X
Laurens 55	Gray Court Owings Elementary	X*	X*
Laurens 55	Hickory Tavern Elementary	X*	
Laurens 55	Laurens Elementary	X	X
Laurens 55		X	X
Laurens 33	Waterloo Elementary	Λ	Λ
Lee	Lower Lee Elementary	X*	X*
	West Lee Elementary	1	X
	West Dee Diementary		
Lexington 1	New Providence Elementary		X
	White Knoll Elementary		X
	Pineview Elementary		X
	1 1110 (10 () 220110111112 y		
Lexington 2	Brookland Cayce Grammar School No. 1	X*	X*
Lexington 2	Saluda River Academy for the Arts	X*	71
	Saluda River Academy for the Arts	Λ.	
Lexington 4	Frances F. Mack Intermediate		X
Lexington 5	Ballentine Elementary		X
	Chapin Elementary	X	
	Lake Murray Elementary		X
	Nursery Road Elementary		X
	River Springs Elementary		X
	14.01 Springs Diementary		11
Marion 10	Britton's Neck Elementary	X	
Marion 10	Marion Intermediate	X	
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Marion 10	McCormick Elementary	X X
Marlboro	Bennettsville Intermediate Blenheim Elementary/Middle Cleo Elementary/Middle Marlboro School of Discovery McColl Elementary/Middle Wallace Elementary/Middle	X X* X X X X X X X X X X X X X X X X X
McCormick	McCormick Elementary	X
Newberry	Little Mountain Elementary	X
Oconee	Walhalla Elementary Westminster Elementary	$\begin{bmatrix} X & X \\ X^* & X^* \end{bmatrix}$
Orangeburg 3	Elloree Elementary Holly Hill Elementary St. James-Gaillard Elementary Vance-Providence Elementary	$egin{array}{c c} X & X^* \ X^* & X^* \ X^* & X^* \end{array}$
Orangeburg 5	Brookdale Elementary Dover Elementary Marshall Elementary Mellichamp Elementary Rivelon Elementary Sheridan Elementary Whittaker Elementary	X* X* X* X* X* X* X*
Pickens	Central Elementary Clemson Elementary Dacusville Elementary East End Elementary Forest Acres Elementary Hagood Elementary McKissick Elementary Pickens Elementary West End Elementary	X X X X X X X X X X X X X X X X X X X
Richland 1	A.J. Lewis Elementary Bradley Elementary Brockman Elementary Carolina School for Inquiry Caughman Road Elementary Gadsden Elementary H. B. Rhame Elementary Hall Institute Horrell Hill Elementary Hyatt Park Elementary Mill Creek Elementary J. P. Thomas Elementary	X X X* X X X X X X X X X

Watkins-Nance Elementary Webber School  Saluda  Hollywood Elementary Saluda Elementary SC Cahoun Falls Charter School Cape Romain Environmental Education Charter School Rast Point Academy Imagine Columbia Leadership Academy Charter Royal Live Oak Academy Arts and Sciences Charter SC Connections Academy SC Virtual Charter School South Carolina Calvert Academy SC Virtual Charter School South Carolina Calvert Academy Spartanburg Charter School York Preparatory Academy X  Spartanburg 1 Inman Elementary Inman Intermediate Spartanburg 2 Carlisle-Foster's Grove Elementary James H. Hendrix Oakland Elementary X  Spartanburg 4 Woodruff Spartanburg 5 Abner Creek Academy Beech Springs Intermediate Duncan Elementary Wellford Academy of Science & Technology X  Spartanburg 6 Jesse S. Bobo Elementary West View Elementary Woodland Heights Elementary The Cleveland Academy of Leadership W. Herbert Chapman Elementary X X  Sumter Cherryvale Elementary Wille Elementary Weeneth Gardner Elementary Kenneth		Satchel Ford Elementary	X*	X
Saluda Hollywood Elementary Saluda Elementary Saluda Elementary Saluda Elementary Saluda Elementary Saluda Elementary SC Charter District Calhoun Falls Charter School Cape Romain Environmental Education Charter School East Point Academy Imagine Columbia Leadership Academy Charter Royal Live Oak Academy Arts and Sciences Charter SC Connections Academy SC Virtual Charter School South Carolina Calvert Academy Spartanburg Charter School York Preparatory Academy Spartanburg Charter School York Preparatory Academy X X X Spartanburg 1 Inman Elementary Inman Intermediate Spartanburg 2 Carlisle-Foster's Grove Elementary James H. Hendrix Oakland Elementary X X Spartanburg 5 Abner Creek Academy Beech Springs Intermediate Duncan Elementary Wellford Academy of Science & Technology  Spartanburg 6 Jesse S. Bobo Elementary West View Elementary West View Elementary West View Elementary The Cleveland Academy of Leadership W. Herbert Chapman Elementary The Cleveland Academy of Leadership W. Herbert Chapman Elementary Wilder Elementary Wilder Elementary Wilder Elementary Wilder Elementary Wilder Elementary Wilder Elementary Wildow Drive Elementary Wildow Drive Elementary Wildow Drive Elementary Williamsburg D. P. Cooper Elementary Helmingway Elementary H				
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Greeleyville Elementary Hemingway Elementary  X X* X	Williamsburg	D. P. Cooper Elementary	$ _{\mathbf{X}}$	$ _{\mathbf{X}}$
Hemingway Elementary X* X				**
				X
Tellion Caraner Element		Kenneth Gardner Elementary	X*	X

	W''' 1 C · M · C 1 1		37
	Williamsburg County Magnet School		X
	Youth Academy Charter	X*	X
York 1 (York)	Cotton Belt Elementary	X	
Tork T (Tork)	· ·	2.1	X
	Hunter Street Elementary		Λ
	Floyd D. Johnson Technology Center	X	
	Hickory Grove-Sharon Elementary	X	
	York Intermediate		X
	1 on momona		1.1
W 1.2 (CI	D (1 F1 )		37
York 2 (Clover)	Bethany Elementary		X
	Bethel Elementary	X*	X
York 3 (Rock Hill)	Belleview Elementary	X	
Tork 5 (Rock Tim)	Ebenezer Avenue Elementary	11	X*
	· ·		
	Ebinport Elementary		X*
	Finley Road Elementary	X*	X*
	Independence Elementary		X
	India Hook Elementary		X
	· ·		
	Lesslie Elementary		X*
	Mount Gallant Elementary	X*	X
	Mount Holly Elementary		X
	Northside Elementary	X*	X*
	Oakdale Elementary	X*	X*
	Old Pointe Elementary	X*	X
	Richmond Drive Elementary	X*	X*
	Rosewood Elementary	X*	X*
	· · · · · · · · · · · · · · · · · · ·	Λ	
	Sunset Park Elementary		X*
	The Children's School at Sylvia Circle	X*	X*
	York Road Elementary		X*
York 4 (Fort Mills)	Fort Mill Elementary		X*
	Gold Hill Elementary	X*	X*
	J.C. Lynch Elementary		X
	Orchard Park Elementary	X*	X*
	· · · · · · · · · · · · · · · · · · ·	71	X
	Pleasant Knoll Elementary		
	Riverview Elementary	X	X
	Sugar Creek Elementary	X*	X

# Citations:

<sup>1</sup>Ramstetter, C., Murray, R., Garner, A. (2010) The Crucial Role of Recess. *Journal of School Health*, 80 (11), 517-526

<sup>2</sup>Fedewa, A., Soyeon, A. (2011). The Effects of Physical Activity and Physical Fitness on Children's Achievement and Cognitive Outcomes. *Research Quarterly for Exercise and Sport*, 82 (3), 521-535