This report, in a booklet format, presents seven recommendations for increasing the numbers of highly qualified teachers for the middle grades. The recommendations focus on content mastery and professional support for both preservice and inservice teachers. The report also addresses the following topics: (1) what it means to be a highly qualified teacher in the middle grades; (2) whether highly qualified teachers improve student achievement in the middle grades; (3) the status of teachers in 16 Southern states participating in the Southern Regional Educational Board State Middle Grades Consortium; (4) what states and districts can do to get more highly qualified teachers in the middle grades; and (5) a comprehensive improvement framework for making middle grades work. The text is supplemented by tables, graphs, and sidebar material. (WFA)
A Highly Qualified Teacher in Every Middle Grades Classroom:

What States, Districts and Schools Can Do
Acknowledgments

This publication was prepared by Sondra Cooney, special consultant to Making Middle Grades Work, and Gene Bottoms, senior vice president of the Southern Regional Education Board.

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Introduction

These headlines call attention to the two most critical issues facing the middle grades today — the performance of all students and the quality of all teachers. Four questions need to be answered to address these issues:

- What is a highly qualified teacher?
- Do highly qualified teachers improve student achievement in the middle grades?
- What are the qualifications of teachers currently in the middle grades?
- What can states, districts and schools do to get a highly qualified teacher in every middle grades classroom?

Careful review of these questions leads SREB to recommend the following actions for increasing the numbers of highly qualified middle grades teachers:

- Require new teachers in the middle grades to demonstrate content mastery through a major or minor in a content area.
- Establish middle grades certificates that are subject-specific, and eliminate teaching certificates that overlap grade levels.
- Strongly encourage pre-teaching experiences that begin early and that lead to at least 18 weeks of supervised teaching with middle grades students.
- Support teachers with fewer than three years experience by requiring mentoring programs.
- Increase the supply of highly qualified teachers in the middle grades by offering incentives to teachers.
- Require ongoing professional development in subject areas for current teachers.
- Evaluate professional development by its effect on student achievement.
What are SREB's goals for the middle grades?

In June 2002, the Southern Regional Education Board adopted 12 goals for education. Goal three addresses middle grades performance: “Achievement in the middle grades for all groups of students exceeds national averages and performance gaps are closed.” Goal 10 addresses teacher quality: “Every student is taught by qualified teachers.” Goals for Education: Challenge to Lead offers indicators to measure progress toward the goals.

Performance indicators include:

- increases in the percentages of all groups of students who successfully complete Algebra I by the end of eighth grade and
- an increasing percentage of eighth-grade students who meet the proficient level of achievement on the National Assessment of Educational Progress in reading, mathematics and science.

Quality indicators include:

- systematic review of the performance measures and standards for teacher preparation programs;
- licensure and certification based on content knowledge and teaching skills proven to raise student achievement; and
- state, district and school policies on attracting, hiring and assigning teachers that lead to a qualified teacher in every classroom.

Recent federal legislation requires states, districts and schools that receive federal funding to ensure that all students in grades three through eight perform at the proficient level by 2014. Proficiency is determined by state tests aligned with state content and performance standards and benchmarked to a selected national measure. To help ensure that all students are proficient in the core subject areas, states, districts and schools are required to inform parents of teachers’ professional qualifications. States must report the percentage of teachers with provisional credentials, the percentage of classes not taught by highly qualified teachers, and a comparison of these percentages between high- and low-performing schools. Parents must be notified if their children are placed in a class not taught by a highly qualified teacher.

Both SREB’s goals and the new legislation determine performance and quality progress through an effective accountability system. An accountability system provides data and support for finding and correcting shortcomings in the teaching and learning process. An effective accountability system eliminates excuses and focuses on opportunities to improve student achievement.

The SREB-State Middle Grades Consortium is committed to taking full advantage of improvement opportunities so that all middle grades students will be ready for success in college-preparatory high school courses. To make readiness for college-preparatory work a reality, all schools will need more highly qualified teachers who can teach complex academic content to young adolescents.

"Goals for Education: Challenge to Lead is available on the SREB Web site at www.sreb.org."
What does it mean to be a highly qualified teacher in the middle grades?

The No Child Left Behind Act of 2001 defines highly qualified teachers as middle grades or secondary school teachers who:

- have a bachelor's degree; and
- have passed a rigorous state test in each of the academic subjects they teach; or
- have completed an academic major or graduate coursework equivalent to an academic major in each of the academic subjects they teach; or
- have advanced certification and credentials.

Teachers who are not new to the profession must meet the same qualifications as new teachers. They are required to demonstrate competence in a “high, objective, uniform state standard of evaluation” that:

- is established by the state for grade-appropriate academic subject matter and pedagogical skills;
- is aligned with state academic content and student achievement standards;
- provides objective, coherent information about the teachers' attainment of core content knowledge in the academic subjects they teach;
- is applied uniformly to all teachers in the same academic subject and grade level throughout the state;
- takes into consideration, but is not based primarily on, the time the teacher has been teaching the subject;
- is made available to the public upon request; and
- may involve multiple, objective measures of teacher competency.

The law also recommends goals for improving teacher quality through sustained professional development. These goals include ensuring that teachers have subject matter knowledge; are able to use state content standards, achievement standards and assessments; and are able to become mentors and coaches for new teachers.

States are to set measurable objectives with annual percentage increases for each school to ensure that all teachers in core academic subjects are highly qualified by the end of the 2005-2006 school year. Professional development will be provided for teachers who need assistance to become highly qualified.

SREB goals encourage states to compile and analyze data about the supply, demand and quality of teachers and to periodically examine performance measures and standards used to assess teachers and their preparation programs. States need to ensure that licensure and certification focus on performance and lead to teachers with both strong content knowledge and teaching skills that improve student achievement. States are advised to regularly assess how professional development improves teacher quality and student achievement. Most importantly, states should review policies on attracting, hiring and assigning teachers to ensure that qualified teachers are in every classroom and remain there from year to year — especially in low-performing schools. As part of the drive toward higher teacher quality, states are urged to review salaries, benefits and incentives to make sure that they are competitive in the marketplace and that they are aimed at recognizing expertise, student performance and improvement, and state needs.

The public has its own definition of what it means to be a highly qualified teacher. In a poll conducted by Louis Harris Associates in 2001, the following characteristics were identified by more than 75 percent of those who responded as “very important” for an excellent teacher:

- knowing how to manage a classroom (91%);
- being thoroughly educated in the subjects they teach (90%);
- understanding how children learn (89%);
- being well-trained and knowledgeable about how to teach effectively (88%);
- knowing how to monitor and assess real student progress in learning (82%);
- basic sensitivity to each child as an individual (80%);
- ability to communicate well with parents (80%); and
- commitment to staying current with developments in education and their teaching fields (78%).

Eighty percent of poll participants agree that parents should receive specific information about the qualifications of their children's teachers at the beginning of each school year.
In 2000 the Public Agenda studied who teaches and why. Public school teachers, superintendents and principals identified these absolutely essential characteristics of effective teachers. Table 1 illustrates the results of the poll.

While the public and educators agree on the importance of classroom management and knowledge of effective teaching practices, there are some interesting differences in their perceptions of quality teaching. The public much more than teachers emphasizes thorough knowledge of subject matter and the ability to communicate and work with parents — two of the characteristics that schools will need to address to conform to new federal goals and requirements. Educators give these key characteristics lower ratings.

If middle grades schools are to improve, change must begin in the classroom. Strong leaders in high-performing middle grades schools recruit teachers who know their subjects well and who know how to teach them to young adolescents. Then they make sure those teachers are assigned to teach what they know best.

**Table 1 — Ratings of Essential Characteristics of Effective Teachers by Public School Personnel**

<table>
<thead>
<tr>
<th>Absolutely Essential Characteristics</th>
<th>Public School Teachers</th>
<th>Superintendents and Principals</th>
</tr>
</thead>
<tbody>
<tr>
<td>An ability to maintain discipline and order in the classroom</td>
<td>91%</td>
<td>88%</td>
</tr>
<tr>
<td>A love of kids</td>
<td>91%</td>
<td>86%</td>
</tr>
<tr>
<td>Effective teaching techniques</td>
<td>83%</td>
<td>84%</td>
</tr>
<tr>
<td>High standards and expectations for all students</td>
<td>82%</td>
<td>87%</td>
</tr>
<tr>
<td>A talent for really motivating kids to do their best</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>An ability to work well with students whose backgrounds are very different from their own</td>
<td>79%</td>
<td>75%</td>
</tr>
<tr>
<td>An ability to establish strong working relationships with parents</td>
<td>67%</td>
<td>71%</td>
</tr>
<tr>
<td>In-depth knowledge of their subjects</td>
<td>67%</td>
<td>60%</td>
</tr>
<tr>
<td>Being well-versed in theories of child development and learning</td>
<td>38%</td>
<td>45%</td>
</tr>
<tr>
<td>Knowledge of the history and philosophy of education</td>
<td>15%</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Source: A Sense of Calling: Who Teaches and Why, a report from the Public Agenda, 2000*
Do highly qualified teachers improve student achievement in the middle grades?

Teachers matter enormously in what students learn and are able to do. Teachers’ content knowledge is definitively linked to student performance. Table 2 shows the percentages of teachers with academic and subject education majors compared to those with elementary education majors.

Table 2 — Percentage of Middle Grades Teachers with a Subject Area Major in SREB-State Middle Grades Consortium Schools*

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Teachers</strong></td>
<td></td>
</tr>
<tr>
<td>English or Literature Major</td>
<td>26%</td>
</tr>
<tr>
<td>English Language Arts Education Major</td>
<td>20%</td>
</tr>
<tr>
<td>Elementary Education Major</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Mathematics Teachers</strong></td>
<td></td>
</tr>
<tr>
<td>Mathematics Major</td>
<td>14%</td>
</tr>
<tr>
<td>Mathematics Education Major</td>
<td>21%</td>
</tr>
<tr>
<td>Elementary Education Major</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Science Teachers</strong></td>
<td></td>
</tr>
<tr>
<td>Biology, Physics or Chemistry Major</td>
<td>22%</td>
</tr>
<tr>
<td>Science Education Major</td>
<td>22%</td>
</tr>
<tr>
<td>Elementary Education Major</td>
<td>39%</td>
</tr>
</tbody>
</table>

*Percentages represent teachers who selected one of the three categories and do not equal 100 percent since teachers could select more than one category.

If middle grades schools are to improve, change must begin in the classroom. Strong leaders in high-performing middle grades schools recruit teachers who know their subjects well and who know how to teach them to young adolescents. Then they make sure those teachers are assigned to teach what they know best.

Research studies have found that teachers with greater subject matter knowledge tend to ask higher level questions, engage students in more challenging learning and use more student-centered activities. Teachers who have an academic major are more likely than teachers with an elementary major to ask students to write explanations about their learning, to use essay tests more frequently, and to require research investigations and an interpretation of findings. However, all teachers need more help using teaching practices that raise student achievement in the middle grades.
A teacher's content knowledge is a critical factor in student achievement, but content knowledge alone is not sufficient. **Teaching experience also makes a difference in teaching effectiveness and student achievement.** Some studies indicate that different levels of teaching experience can result in up to a 30 percent difference in student achievement and that teachers with more than three years of experience are more effective than those with fewer than three years of experience. In the SREB-State Middle Grades Consortium schools, about one in four teachers in high-performing schools have five or fewer years of teaching experience, while about one in three teachers in low-performing schools have five or fewer years of experience. (See Figure 1.)

![Figure 1 — Teachers' Experience in High- and Low-performing Schools in the SREB-State Middle Grades Consortium](image-url)

Teachers' attitudes about their teaching and about teaching as a profession have a strong influence on their effectiveness. **Effective teachers view themselves as responsible for the success of their students and are committed to personal learning and professional growth.** Factors associated with feelings of effectiveness include collaborating with colleagues and being willing to take risks to improve student achievement. Committed teachers invest in their own learning by taking classes, participating in professional development activities and discussing their own learning experiences with their students. Teacher effectiveness may plateau as they master their subjects and their teaching skills, but ultimately, teacher success is based on lifelong learning. Table 3 shows what teachers believe about their effectiveness.
Table 3 — Teachers’ Beliefs about their Effectiveness in SREB-State Middle Grades Consortium Schools

<table>
<thead>
<tr>
<th>Teacher Beliefs and Professional Activities</th>
<th>High-performing Schools</th>
<th>Low-performing Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ success or failure in school is due largely to factors beyond my control.</td>
<td>57%</td>
<td>68%</td>
</tr>
<tr>
<td>Teachers in this school maintain a demanding yet supportive environment that pushes students to do their best.</td>
<td>48%</td>
<td>38%</td>
</tr>
<tr>
<td>Teachers think 20 percent or more of their students need extra help in the subject they teach.</td>
<td>47%</td>
<td>72%</td>
</tr>
<tr>
<td>Teachers have a core group of students they advise.</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>Teachers assist parents and their children in developing a plan for high school study at least once a year.</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Teachers believe that more than 60 percent of students will enter ninth grade ready to do college-preparatory work.</td>
<td>24%</td>
<td>10%</td>
</tr>
<tr>
<td>Teachers strongly agree teachers in their school are always learning and seeking new ideas on how to improve student achievement.</td>
<td>53%</td>
<td>48%</td>
</tr>
<tr>
<td>Staff development experiences have resulted in holding students to national standards.</td>
<td>31%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Teachers in high-performing schools in the SREB-State Middle Grades Consortium are more likely to view themselves as responsible for student learning. This is a critical perception since 65 percent of all middle grades teachers in the network report that the success or failure of students lies beyond their control. As teachers gain seniority in many systems, they are able to select the schools in which they wish to teach. They tend to select high-performing schools and schools in which their colleagues share their attitudes. Teachers in high-performing schools are more likely to help students and families prepare for high school and to be more positive about their students’ preparation for college-preparatory work in high school.
What is the status of teachers currently in the SREB-State Middle Grades Consortium Schools?

Guaranteeing content knowledge

When compared to the definition of “highly qualified” in the No Child Left Behind Act of 2001, the middle grades picture emerging from the SREB-State Middle Grades Consortium schools is mixed. All 16 states require a bachelor’s degree as a minimum for initial certification. Fifteen of the 16 states use the Praxis I test to guarantee basic verbal and mathematical skills for initial certification.

In a study by the Education Trust, the effectiveness of the Praxis I series at screening basic knowledge was described as “content ... most typically found in high school curricula.” Only Virginia set a passing rate closest to the national average of 179, the 50th percentile in reading on the Praxis I. Scores required by Arkansas, Florida, Louisiana, Mississippi and Texas were below the 20th percentile nationally. The story is much the same in mathematics and writing. In mathematics, Virginia set its required score at the national average — 178. Maryland’s score of 177 was close, but all of the other SREB states set required scores between the 20th and 40th percentiles. In writing, Virginia set its required score at the 50th percentile nationally. Florida and Louisiana require scores below the 20th percentile, and all other SREB states require scores between the 20th and 40th percentiles.

Standards for new teachers are too low in many states and do not help ensure solid verbal ability or basic mathematical knowledge. As might be expected from these low scoring requirements, most candidates who take the tests pass them. Virginia had the highest standards and the lowest passing rate—80 percent. West Virginia was one of six states nationally that had low standards and a 100 percent passing rate. What message do these figures send? Standards for solid verbal ability and basic mathematical knowledge are too low. How can we expect students to score at or above the national averages when their teachers do not?

The Praxis II series of tests offers content knowledge tests by subject area. Twelve of the 16 SREB states use either the middle grades or secondary content knowledge tests for certification. Four states use a middle grades assessment to test the depth of content knowledge, and another eight administer secondary subject-area exams.

An analysis of the Praxis II series by the Education Trust concludes that a score of 147 requires the test-taker to answer only about 65 percent of the items on the Mathematics: Content Knowledge test correctly. Of the SREB states that use that test, only Virginia requires a score of at least 147. To receive a score of 124, only about 46 percent of test items need to be answered correctly — a percentage that almost always guarantees a failing grade for students. Yet two states require a score below 124.

States may use the completion of an academic major in the subject area or graduate coursework equivalent to an academic major to determine who is highly qualified. A recent report from the National Center for Education Statistics (NCES) looked at the number of teachers in the middle grades who are certified but who did not major in the subjects they teach. In the middle grades, 69 percent of mathematics teachers, 58 percent of English teachers and 57 percent of science teachers were certified but did not major in the subject they were teaching.

Data collected in 2002 from more than 3,000 teachers in SREB's middle grades network paint a similar picture. Sixty-five percent of mathematics teachers lacked a mathematics or mathematics education major. In English/language arts, 54 percent of teachers lacked a major in English, literature or English/literature education. Science teachers indicated that 56 percent lacked a major in biology, physics, chemistry or science education. Sixteen percent of middle grades teachers reported teaching in one or more areas outside their undergraduate or graduate majors.
There are actions states can take to improve the supply of new middle grades teachers who have a content focus. First, require at least a content minor for middle grades teaching by a specified date. One district in South Carolina provided content professional development on-site over a two-year period and required all teachers in the middle grades to earn at least a content minor. This district provided the equivalent of 18 hours of content study in cooperation with higher education institutions and using their own district expertise — all at no expense to the teachers. Science was the most difficult area and needed extra time because of the required laboratory work. During this period, new teachers (about 10% a year) were required to have at least a content minor. At the end of three years, all middle grades teachers had at least a content minor and many had content majors.

Next, states can work with higher education institutions to develop university programs that focus on the middle grades. There are differing beliefs on how best to prepare teachers for the middle grades. On one end of the continuum are those who believe a generalist who provides student-centered activities as represented by elementary preparation programs is best prepared for middle grades teaching. Others believe that teachers in the middle grades need a content focus and special preparation on how to teach that content to young adolescents. We believe that middle grades teachers must have a content focus and that university programs should offer specific middle grades preparation that combines a content focus with instructional strategies proven to increase young adolescents’ achievement.

Finally, states should close the loopholes that allow out-of-field teaching. District and school administrators want and have a great deal of flexibility in assigning middle grades teachers. A person with a K-8 certificate who is allowed to teach in the middle grades can be assigned to any content area. This search for flexibility is so flawed that even a person in the middle grades with a content focus may, in fact, be assigned to teach out-of-field. Coming to grips with the certification and preparation of middle grades teachers means abandoning flexibility in favor of assigning teachers to teach the content they know.

SREB states are moving toward requiring a subject area major for teachers in the middle grades — a policy that supports deep content knowledge. A streamlined certification system that includes basic knowledge testing with required scores at or above the 50th percentile, coupled with subject area tests to determine depth of content knowledge, will ensure that middle grades teachers are highly qualified.

One district in South Carolina provided content professional development on-site over a two-year period and required all teachers in the middle grades to earn at least a content minor. This district provided the equivalent of 18 hours of content study in cooperation with higher education institutions and using their own district expertise — all at no expense to the teachers. Science was the most difficult area and needed extra time because of the required laboratory work. During this period, new teachers (about 10% a year) were required to have at least a content minor. At the end of three years, all middle grades teachers had at least a content minor and many had content majors.
Ensuring knowledge of teaching and learning

Teachers’ knowledge about the principles of teaching and learning are equally important to parents, educators and legislators. Teachers must have strong knowledge of classroom practices that are research-based and effective in raising student achievement.

Forty-three states and the District of Columbia have a specialized teaching credential for middle grades teaching, but only 21 require middle grades teachers to have the credential. Eleven SREB states require credentials specifically for teaching in the middle grades. Some states add an endorsement for middle grades teaching to the primary certificate, which is either elementary or secondary. The requirements for that endorsement vary widely in the number of content hours required in the subject area. Certification systems across SREB states are confusing at best and can produce the opposite effect intended in the middle grades.

**SREB states tend to follow one of four patterns in certification systems for the middle grades:**

- those committed to middle grades certification and preparation programs;
- those that have extended the secondary certificate and added a middle grades focus;
- those that maintain the traditional elementary and secondary certificates; and
- those that have added a content focus to middle grades certification but maintain certificates that overlap in the middle grades.

Delaware, Georgia, Kentucky, North Carolina and Texas have middle grades certification without significant overlapping of grade levels. Alabama, Florida, Virginia and West Virginia have multiple certificates that overlap grade levels, but these states have extended the secondary certificate down into the middle grades to get more teachers with a content focus. Secondary certificates require a content major, and Florida’s certificates are content specific.

Louisiana, Mississippi, Oklahoma and Tennessee have kept the traditional elementary and secondary certificates. This traditional pattern is one in which certificates cover large grade spans and overlap in the middle grades. Louisiana and Mississippi have no middle-level credential. Tennessee and Oklahoma add endorsements to the elementary and secondary certificates for middle-level certification. These endorsements require pedagogy courses specific to the middle grades, and in the case of elementary certificates, credit hours in a subject area.

Arkansas and South Carolina added a new middle grades certificate with more stringent content requirements but kept certificates that overlap in the middle grades. Maryland also has a middle school certificate but maintains certificates that overlap in the traditional pattern.

When states have overlapping certificates — such as K-8 or 7-12 — preparation programs rarely focus on the middle grades. When states offer a K-8 or 7-12 license as well as a 5-8 license, most prospective teachers will select the certificate that covers the greatest number of grade levels so they have ample employment opportunities.

Teachers with these broader range certificates typically lack the expertise they need to work with young adolescents. They do not feel qualified to teach middle grades students, and they look for opportunities to transfer to other schools and grade levels.

Teachers do not assign themselves to grades or to subjects; to maximize effectiveness, leaders must match teachers’ expertise to grade levels and subjects where they have experience. New teachers need clinical or student teaching experiences in the grades to which they are assigned. Clinical experiences required by education programs in SREB states range from a high of 30 weeks in Maryland to a low of six weeks in Louisiana. **Strong leaders select new teachers who have experience with young adolescents as well as subject matter expertise and assign them to teach the subjects they know best.** When states offer certificates that overlap grade levels, it is less likely that the pool of teacher candidates will have both content knowledge and experience with young adolescents.
Retaining highly qualified teachers

Retaining new teachers is equally as important as preparing them. A recent study by the state of Alabama for the Governor’s Commission on Teacher Quality reported on teaching performance and turnover among novice teachers hired in 1999. Novice teachers hired in the middle grades were more likely to leave after their first year of teaching than teachers in other grades. Fifteen percent left after the first year of teaching as compared to five percent of early childhood teachers, seven percent of elementary teachers and nine percent of secondary teachers. Another eight percent left after their second year of teaching for a total of 23 percent of middle grades teachers hired in 1999 who did not return for a third year of teaching in 2001 — a rate higher than at any other grade level. Classroom observations identified two competencies directly related to high teacher turnover — classroom management and assessing student performance. The report urges preparation programs to emphasize classroom experience before the initial year of teaching and school leaders to stress on-the-job professional development on assessing student performance.

Twenty-seven percent of middle grades teachers in the SREB network have five or fewer years of teaching experience overall, and 40 percent have five or fewer years of teaching experience in the middle grades. More than half (52%) have been at their present school for five or fewer years. Teacher turnover is highest in middle grades schools because teachers’ initial training and certification are not at the middle grades level.

Teacher turnover in the middle grades is very expensive. It takes a great deal of time for new teachers to become knowledgeable and effective in the curriculum and routines of the school. Teacher turnover also costs the learning time lost to inefficiency and ineffectiveness. When the costs of higher education and on-site training for aspiring teachers are considered, losing teachers becomes an even more expensive dilemma.

The Alabama report and other research (like SREB’s report Reduce Your Losses: Help New Teachers Become Veteran Teachers) underscore the fact that salaries are important, but working conditions may be even more important. Richard Ingersoll found that 42 percent of all teachers who leave the profession leave because of job dissatisfaction. Those who reported job dissatisfaction cited low salaries, lack of support from school administrators, lack of student motivation, student discipline problems and lack of teacher influence over decision-making as factors in their decision.

Six of the SREB states — South Carolina, Arkansas, Oklahoma, Kentucky, West Virginia and Louisiana — require and fund an induction program for beginning teachers, provide time for professional development, and fund specific activities. Teachers interviewed by The Project on the Next Generation of Teachers reported receiving little guidance or encouragement from their new schools. One teacher in Kentucky summed it up this way: “I loved teaching and I loved the kids. I hated the job. It took me two years to figure out how to make assignments so that I was not buried in papers and how to have the kids develop a portfolio so that we could see progress. A veteran teacher could have shown me how to do that the first year if they had been willing to reach out to me.”

Studies by SREB and others suggest that supportive working conditions help new teachers make the transition into teaching. Strong and supportive leadership by the principal, good physical working conditions, time to develop collegial relationships and focus on teaching and learning, and input into decisions that affect their teaching are practices that support more effective teachers. Twenty-nine percent of teachers in the SREB-State Middle Grades Consortium schools in 2002 reported that their principal consulted them before making decisions that affected them — only a one percent increase from 2000. However, 76 percent reported meeting as a team at least monthly to plan joint instructional activities, and more than half (54%) strongly agreed that teachers in their school seek new ideas on how to improve student achievement. Georgia is the only SREB state that provides planning time each day for middle grades teachers to work together on instruction and to learn from each other.

Ensuring that teachers maintain their competence

While it is important to focus on better preparing and retaining new teachers, they are only a small percentage of all teachers. To improve student achievement, states, districts and schools must pay attention to the continuing professional development and growth of teachers already in the profession. This attention is especially critical in the middle grades, where there are higher turnover rates and teaching assignments outside teachers' knowledge and expertise. A "one size fits all" approach simply does not work in the middle grades; the needs of new teachers with subject area majors are different from the needs of experienced teachers who need to update their content knowledge. Professional development plans should include:

- support for new teachers through a well-designed induction and mentoring process;
- ways to upgrade content knowledge for those who are teaching outside their subject area and those who need to update their subject knowledge; and
- opportunities for all teachers to hone their teaching skills by emphasizing practices that improve student achievement.

The National Center for Education Statistics conducted a teacher survey on professional development and training in 2000. More than half of the teachers surveyed reported spending one to eight hours on a specific topic or content area during the previous 12 months. The topic most frequently cited as a focus of professional development was state or district curriculum and performance standards (80%). Teachers who spent more than eight hours in professional development were more likely to say that the professional development improved their teaching. The results from this survey were not significantly different from a comparable survey in 1998.

SREB analyzed data from the 1996 National Assessment of Educational Progress Mathematics and Science tests before implementing its comprehensive school improvement framework for the middle grades. For student achievement to increase, teachers need 16 or more hours of professional development annually in a content area. To determine how many teachers reach the 16-hour standard, the SREB middle grades teacher survey asks a series of questions about professional development needs and experiences. Table 4 displays the differences in teachers' perceptions of their professional development needs between the 2000 and 2002 surveys.

### Table 4 — Teachers’ Perceptions of Professional Development Needs in SREB-State Middle Grades Consortium Schools

<table>
<thead>
<tr>
<th>Professional Development Experiences</th>
<th>Percentage of Teachers 2000</th>
<th>Percentage of Teachers 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need additional study and greater depth in content areas.</td>
<td>67%</td>
<td>64%</td>
</tr>
<tr>
<td>Need help in adapting teaching methods to the learning styles of different students.</td>
<td>78%</td>
<td>73%</td>
</tr>
<tr>
<td>Need help in establishing a classroom environment that actively involves students in learning.</td>
<td>73%</td>
<td>67%</td>
</tr>
<tr>
<td>Need help in teaching content through real-world applications.</td>
<td>76%</td>
<td>74%</td>
</tr>
<tr>
<td>Need help in using reading and writing for learning in the content areas and across the curriculum.</td>
<td>69%</td>
<td>62%</td>
</tr>
<tr>
<td>Need help in raising expectations for student achievement.</td>
<td>72%</td>
<td>64%</td>
</tr>
<tr>
<td>Need help in getting at-risk students to master complex content.</td>
<td>78%</td>
<td>74%</td>
</tr>
</tbody>
</table>
Slightly fewer teachers reported needing help with content and teaching skills in 2002, but significant percentages still cite the need for professional development in motivating and working with at-risk students, engaging students in the learning process, and additional study in content areas. Even though the percentage needing help with reading and writing across the curriculum dropped, three out of five middle grades teachers still need help with basic learning tools. **Overall, teachers in SREB’s middle grades network feel positive about their professional development experiences and report more individual growth activities such as colleague observations and collaboration with expert teachers.**

To reach the standard of 16 annual hours of professional development that are needed to positively affect student achievement, teachers need more than 40 hours over a three-year period. Schools in the Making Middle Grades Work network are beginning to focus these professional development experiences on content areas and learning across the curriculum. However, the percentages of teachers who receive targeted, ongoing professional development remain very small. Table 5 displays teachers’ responses to questions about the amount of professional development they have received over the last three years.

### Table 5 — Total Hours of Professional Development Reported by Teachers by Topic for the Last Three Years

<table>
<thead>
<tr>
<th>Topic</th>
<th>No Hours</th>
<th>1-40 Hours</th>
<th>41 Hours or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional study and greater depth in content areas</td>
<td>23%</td>
<td>18%</td>
<td>64%</td>
</tr>
<tr>
<td>Adapting teaching methods to the learning styles of different students</td>
<td>18%</td>
<td>17%</td>
<td>76%</td>
</tr>
<tr>
<td>Establishing a classroom environment that actively involves students</td>
<td>23%</td>
<td>20%</td>
<td>71%</td>
</tr>
<tr>
<td>in the learning process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching content through real-world applications</td>
<td>35%</td>
<td>35%</td>
<td>60%</td>
</tr>
<tr>
<td>Using reading and writing for learning in the content areas and across</td>
<td>26%</td>
<td>12%</td>
<td>66%</td>
</tr>
<tr>
<td>the curriculum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raising expectations for student achievement</td>
<td>32%</td>
<td>26%</td>
<td>62%</td>
</tr>
<tr>
<td>Getting at-risk students to master complex content</td>
<td>47%</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Category changed from “Not Applicable” in 2000 to “No Hours” in 2002.
Time is not the only measure of effective professional development. Standards developed by the National Staff Development Council for high-quality professional development suggest that schools and districts should limit one-time workshops while developing ongoing programs with follow-up. Such programs must provide time for teachers to collaborate and work together to improve their teaching. Such sustained, collaborative professional development will lead to significant and lasting student achievement gains. Table 6 shows the types of professional development reported by middle grades teachers in 2000 and 2002.

Table 6 — Types of Professional Development Experiences in SREB-State Middle Grades Consortium Schools

<table>
<thead>
<tr>
<th>Format of Professional Development</th>
<th>Percentage of Teachers 2000</th>
<th>Percentage of Teachers 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conferences</td>
<td>78%</td>
<td>76%</td>
</tr>
<tr>
<td>Workshops*</td>
<td>95%*</td>
<td></td>
</tr>
<tr>
<td>Workshops with regular follow-up*</td>
<td></td>
<td>75%*</td>
</tr>
<tr>
<td>Being observed and receiving feedback</td>
<td>57%</td>
<td>67%</td>
</tr>
<tr>
<td>Working with other teachers who are successful in having students master high-level content</td>
<td>50%</td>
<td>55%</td>
</tr>
<tr>
<td>Observing outstanding practices in another classroom or school</td>
<td>46%</td>
<td>52%</td>
</tr>
</tbody>
</table>

*Wording of the item changed in the surveys between 2000 and 2002.

All states support at least one of these activities, however there are few well-designed evaluations documenting the effectiveness of professional development plans. To ensure high-quality professional development that results in lasting and significant improvements in teaching and learning, a plan with clearly established goals and the collection of evidence tied to those goals is necessary. The lack of financial information compounds the lack of evaluation. It is nearly impossible to determine how much is being spent on professional development activities as the costs are often allocated among different programs and funding.
What can states and districts do to get more highly qualified teachers in the middle grades?

By 2005-2006, any state, district and school accepting federal funding must staff each classroom in the middle grades with a highly qualified teacher. A two-pronged effort will meet this requirement. First, states can continue to upgrade teacher preparation and certification. Second, states and districts can immediately begin upgrading the content knowledge of current middle grades teachers.

In 2000, SREB published a set of indicators for states' and districts' commitment to having a well-qualified teacher in every middle grades classroom. A recent survey based on those indicators shows progress. The indicators provide realistic actions for getting highly qualified teachers into middle grades classrooms.

**Require new teachers in the middle grades to demonstrate content mastery through a major or minor in a content area.**

South Carolina revised requirements for middle grades teachers so that all will have a content focus by July 1, 2006, and Arkansas instituted this requirement for certification in 2001. Several states have formed task forces to review middle grades certification requirements and recommend changes. Other states need to set a date by which all certified middle grades teachers will have a content area major or minor.

**Establish middle grades certificates that are subject-specific and eliminate teaching certificates that overlap grade levels.**

When prospective teachers choose a preparation program, they are most likely to choose the one that provides the broadest range of employment opportunities. Thus, when a state certifies teachers for grades kindergarten through eight, grades five through nine, or grades seven through 12, fewer prospective teachers will choose the more limiting certificate for grades five through nine. Some researchers attribute high teacher turnover to the fact that many middle grades teachers are assigned to these grades but were prepared for elementary or high school teaching.

**Strongly encourage pre-teaching experiences that begin early and that lead to at least 18 weeks of supervised teaching with middle grades students.**

Classroom management problems are often the reasons given by teachers who leave the middle grades. All new teachers need support in managing their classrooms, but those who pre-teach in the middle grades seem to need less support because they already have experience working with young adolescents.
Support teachers with fewer than three years of experience by requiring mentoring programs.

Many states and districts continue to assume that a certificate or a degree is enough training for those charged with shaping young minds. Lack of support in the classroom is a primary reason teachers leave the profession. All teachers need support to reach their peak effectiveness and become highly qualified.

Increase the supply of highly qualified teachers in the middle grades by offering incentives to teachers.

Teachers who have content majors and who agree to work in low-performing schools should receive incentive pay, and low-performing schools should be required to pursue teachers with content expertise. A well-designed promotional campaign that focuses on the rewards of middle grades teaching and early recruitment programs in high school and college may help states recruit and retain more highly qualified teachers.

Require ongoing professional development in subject areas for current teachers.

In addition to recruiting more teachers who want to teach in the middle grades and who have content expertise, teachers already in the classroom need support to become more effective. By providing professional development that expands and updates content knowledge, middle grades schools can meet both teachers' and students' needs. Professional development should be easily accessible for teachers through distance learning opportunities or through collaborative partnerships with local and regional universities.

Evaluate professional development by its effect on student achievement.

Professional development is necessary and desirable, but it must result in improved student achievement. Resources should be allocated to those opportunities that will make the greatest difference. Schools should provide at least 16 annual hours of professional development in a content area, follow it up with monthly activities and analyze whether it makes a difference in student achievement over a two-year period.

States and districts have worked hard to define content standards for the middle grades, but without quality teachers, standards alone will make little improvement in student achievement. Making sure that every middle grades classroom has a highly qualified teacher is the one strategy that will make the greatest difference in raising student achievement.
Making Middle Grades Work

The SREB-State Middle Grades Consortium has a network of more than 100 Making Middle Grades Work sites. These schools are committed to getting more and more students ready for challenging high school studies and to using a comprehensive school-improvement framework to increase student achievement.

Goal

- Increase the percentages of eighth-graders who perform at the basic and proficient levels in academic subjects.

Comprehensive Improvement Framework

- **An academic core that is aligned to what students must know, understand and be able to do to succeed in college-preparatory English, mathematics and science** — All students in the middle grades need an academic core curriculum that accelerates their learning, challenges them and appeals to their interests.
  - In mathematics, all students satisfactorily complete Algebra I or pass a pre-algebra test of proficiency and use algebra concepts to reason and solve problems.
  - In science, all students use laboratory and technology experiences to learn scientific concepts in physical, life and earth/space sciences.
  - Reading instruction is incorporated into all content areas in the academic core curriculum through grade eight.
  - The language arts curriculum requires students — before they leave eighth grade — to use language correctly and effectively to find, organize and communicate information.
  - The social studies curriculum requires students — before they leave eighth grade — to describe their heritage, their government, their world and economic principles through key issues of the past, present and future.

- **A belief that all students matter** — Each student needs to have a personal relationship with an adult who takes an interest in his or her successful learning, goal-setting, educational planning and personal growth.

- **High expectations and a system of extra help and time** — Students learn in different ways and at different rates. Middle grades students need enough time and help to meet more rigorous, consistent standards for all eighth-graders. The middle grades curriculum should accelerate achievement for all students.

- **Classroom practices that engage students in their learning** — Young adolescents need varied learning activities linked to challenging academic content and opportunities to use new skills and concepts in real-world applications.

- **Teachers working together** — All teachers need time to plan together, to develop and coordinate learning activities, and to share student work that meets proficiency standards.

- **Support from parents** — Parents must understand clearly and must support the higher standards for performance in the middle grades.

- **Qualified teachers** — Middle grades teachers must know academic content and how to teach young adolescents.

- **Use of data** — States, districts and schools continuously must use data on student, school and teacher performance to review and revise school and classroom practices as needed.

- **Use of technology for learning** — Middle grades students and teachers must have opportunities to explore and use technology to improve knowledge and skills in English/language arts, reading, mathematics, science and social studies.

- **Strong leadership** — Middle grades schools need strong, effective principals who encourage teachers and participate with them in planning and implementing research-based improvements.
Southern Regional Education Board
Goals for Education

1. All children are ready for the first grade.

2. Achievement in the early grades for all groups of students exceeds national averages and performance gaps are closed.

3. Achievement in the middle grades for all groups of students exceeds national averages and performance gaps are closed.

4. All young adults have a high school diploma — or, if not, pass the GED tests.

5. All recent high school graduates have solid academic preparation and are ready for postsecondary education and a career.

6. Adults who are not high school graduates participate in literacy and job-skills training and further education.

7. The percentage of adults who earn postsecondary degrees or technical certificates exceeds national averages.

8. Every school has higher student performance and meets state academic standards for all students each year.

9. Every school has leadership that results in improved student performance — and leadership begins with an effective school principal.

10. Every student is taught by qualified teachers.

11. The quality of colleges and universities is regularly assessed and funding is targeted to quality, efficiency and state needs.

12. The state places a high priority on an education system of schools, colleges and universities that is accountable.
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