RAC Mid Continent
For Educational Needs Assessment

A Report to the
U.S. Department of Education
On Educational Challenges and Technical Assistance Needs
For the Mid-Continent Region

Prepared by the
Mid-Continent Regional Advisory Committee
Ms. Sandy Aguirre Mayer, Chair

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Preface

This report of the Mid-Continent Regional Advisory Committee for Educational Needs Assessment was commissioned by the U.S. Department of Education under contract number ED04CO0043/0001 awarded to The CNA Corporation (CNAC). Members of the committee, their professional affiliations, states and stakeholder groups are listed below[1].

Ms. Sandy Aguirre Mayer, Chair	Hispanic Council of Reform & Educational Options, MO	Parent
Dr. Trent Blankenship	Wyoming Department of Education, WY	SEA
Mr. Marc Bluestone	Edwin Loe Elementary School, New Town Public Schools, ND	Practicing Educator
Ms. Andrea Boden	Gering School District, NE	LEA
Ms. Irene Devin	Parent, WY	Parent
Ms. Polly Feis	Nebraska Department of Education, NE	SEA
Ms. Kim Gillespie	Pioneer Trail Junior High School, Olathe District Schools KS	Practicing Educator
Dr. D. Kent King	Missouri Department of Elementary and Secondary Education, MO	SEA
Ms. Cheryl Kulas	North Dakota Dept. of Education, ND	SEA
Dr. John Lawrence	Troy School District, MO	LEA
Ms. Karen Lukens	Sioux Falls Hawthorne Elem. School, SD	Practicing Educator
Dr. Rick Melmer	South Dakota Department of Education, SD	SEA
Ms. Jo O'Brien	Colorado Department of Education, CO	SEA

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[1] SEA is a Secondary Education Agency, LEA is a Local Education Agency

Dr. Keith Owen	Pueblo School District 60, CO	LEA
Dr. Alexa Posny	Kansas Department of Education, KS	SEA
Ms. Vonnie Sanders	Agassiz Middle School, Fargo Public Schools, ND	Practicing Educator
Mr. W.L. Sawyer	Topeka Public Schools, KS	LEA
Dr. Debora Scheffel	University of Northern Colorado, CO	Higher Ed/ Researcher
Mr. Rick Woodford	Lincoln County School District, WY	LEA

Executive summary

The Mid-Continent Regional Advisory Committee (RAC), which includes the following states: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming provides an assessment of the technical assistance needs of educators in the region in response to a directive from the Secretary of the U.S. Department of Education. This committee identified the major challenges facing the region in improving student achievement and implementing the provisions of the No Child Left Behind (NCLB) Act and recommended the types of technical assistance that might enable educators in the region to overcome these challenges.

The committee's approach to public outreach and data collection included both a national and regional component. The goal of the outreach efforts was to generate public interest and input in the RAC's deliberations. Outreach was conducted from December through February through a variety of methods, including, but not limited to, e-mail messages to Listserv groups, presentations and discussions at meetings, and focus groups. The RAC Web site (www.rac-ed.org) provided the central point for giving the public access to the RAC and served as the information center for the RAC. Web-site enrollment for the region totaled 266 participants.

With the exception of Colorado and Missouri, which are the two largest systems, schools in the Mid-Continent region are often in rural settings. Colorado is the most diverse school system in the region, with minorities representing more than one-third of the public school population. Hispanics represent 10 percent of students in Kansas, whereas Blacks constitute 9 percent of the school population. The largest concentration of Blacks is in Missouri, accounting for 18 percent of enrollment. American Indians are the largest ethnic minority group in South Dakota and North Dakota, representing 11 percent and 8 percent of students, respectively. However, in both of these

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states, as well as in Wyoming, White students account for 85 percent or more of the school population. Poverty rates, as indicated by free- and reduced-price lunch eligibility, are fairly consistent across the states in this region, and are at or below the national average (36 percent).

The number of public school teachers in the Mid-Continent states is consistent with public school enrollment; Wyoming hired the smallest number and Missouri the largest. Teacher salaries, one indicator of a state's ability to recruit and retain teachers, show that Mid-Continent school districts may face challenges on this issue. All states lagged behind the national average salary for the 2001-02 school year.

In terms of meeting the requirements of NCLB, five of the seven states in this region have created standards in science, reading, and mathematics. Many Mid-Continent states fared well in the number of teachers highly qualified. Students in all states in the region scored slightly above the national average in both reading and mathematics on the National Assessment of Educational Progress (NAEP).

The Mid-Continent RAC identified six major educational challenges (listed by priority to the region) that were impediments to implementing NCLB and to improving the academic achievement of all children. After reaching consensus on the major challenges in the region, the RAC determined technical assistance strategies that would help states and school districts address those challenges.

1. Challenge: Identifying, evaluating, and using scientifically based research
   a. Technical Assistance: Regular review of scientifically based research and suggested guidelines for implementing proven programs and practices with fidelity
   b. Technical Assistance: Promote the implementation of scientifically research based programs
   c. Technical Assistance: Provide a database that regularly reviews research journals for educational research that is relevant to practice

     d. Technical Assistance: Match expertise with those districts and schools that need it; provide onsite, ongoing, and high quality professional development

2. Challenge: Teacher effectiveness

     a. Technical Assistance: Work with teacher preparation programs

     b. Technical Assistance: Professional development to enhance the effectiveness of current teachers

     c. Technical Assistance: Help and support with recruitment and retention of effective teachers

3. Challenge: School leadership

     a. Technical Assistance: For leadership development must include setting priorities, building focus, reaching consensus, establishing goals, and evaluating progress

     b. Technical Assistance: Development and implementation of effective professional development models

     c. Technical Assistance: Provide assistance with systemic leadership reform that encompasses school board member training

4. Challenge: Maintaining quality in rural education

     a. Technical Assistance: Assistance and support to identify and link districts and schools in autonomous rural areas through more effective use of technology and professional development activities

     b. Technical Assistance: Research needs to be focused on the needs of rural schools and the results of this research translated into professional development

5. Challenge: Improving the academic achievement of urban children and youth

     a. Technical Assistance: Addressing systemic reform by helping districts reconfigure and redefine the structure of urban schools

b. Technical Assistance: Provide research, offer examples of successful models, and support effective restructuring of urban schools

c. Technical Assistance: Development of urban leaders and establishment of a system for ongoing communication among them; development and establishment of networks to identify and share effective practices and programs

6. Challenge: Addressing social and cultural issues that impede student achievement

a. Technical Assistance: Help states, districts, schools and communities address both academic and non-academic factors which impact student achievement

b. Technical Assistance: Access to research-based programs that enhance community, parent, and student engagement

c. Technical Assistance: Outreach and information efforts on effective practices to facilitate services, improve technology, and foster partnerships with educational and social programs

d. Technical Assistance: Support to involve parents and communities to ensure student success

e. Technical Assistance: Creation of a common source of shared, available student information for use by schools, districts, and states.

States in the Mid-Continent region will benefit most from federally funded technical assistance centers that are directly responsive to the needs of the region. Identification of these needs should be accomplished through continual review of the data and in consultation with regional stakeholders. The center should develop a plan of activities to address these priorities. Activities should be research-based and translated into effective practices and should include:

- Building the capacity of the state to provide for school quality and improvement and/or restructuring to improve the effectiveness of the education system for the 21st century

- Providing quality professional development or the ability to recommend and evaluate professional development practices to raise student achievement aligned to the goals and the priorities of the region

- Establishing a clearinghouse (information resource center).

Additionally, the Mid-Continent RAC recommends that: the technical assistance center has a governing board that includes representatives of each of the states within the region; the organization awarded the grant should demonstrate significant success in providing effective technical assistance; and the technical assistance centers should be required to report and undergo an independent evaluation on their work and ability to address the regional challenges.

Finally, the Mid-Continent RAC strongly recommends that individual technical assistance centers be established to address on a national basis each specific need that was identified within the region and which has national implications:

- A national center for rural education

- A national center for urban education

- A national center for the teaching of reading and writing

- A national center for teaching of science and mathematics

- A national center for leadership

- A national center for school reform

- A national center for multi-lingual/ELL/ESL

- A national center for social, economic, and cultural issues (community schools).

Introduction

The Mid-Continent Regional Advisory Committee (RAC) provides an assessment of the technical assistance needs of educators in our region in response to a directive from the Secretary of the U.S. Department of Education. This RAC is one of ten such committees appointed by the Secretary to conduct the assessment over the period of December 2004 through March 2005. This committee first identified the major challenges facing the region in improving student achievement and implementing the provisions of the No Child Left Behind (NCLB) Act. It then assessed the types of technical assistance that might enable educators in the region to overcome these challenges.

Legislative background

Section 203 of Title II of the Education-Sciences Reform Act of 2002 (P.L. 107-279) directs the Secretary of the U.S. Department of Education to establish 20 comprehensive centers to provide technical assistance to state educational agencies, local educational agencies, regional educational agencies, and schools in implementing the goals and programs of NCLB Act and in the use of scientifically valid teaching methods and assessment tools for use by teachers and administrators in:

- Core academic subjects of mathematics, science, and reading or language arts
- English language acquisition
- Education technology
- Facilitating communication between education experts, school officials, teachers, parents, and librarians
- Disseminating information that is usable for improving academic achievement, closing achievement gaps, and encouraging and sustaining school improvement to schools, educators, parents, and policymakers within the region in which the center is located

- Developing teacher and school leader in-service and pre-service training models that illustrate best practices in the use of technology in different content areas.

In addition, these comprehensive centers are expected to coordinate and collaborate with the regional education laboratories, the National Center for Education Evaluation and Regional Assistance, the Office of the Secretary of Education, state service agencies, and other technical assistance providers in the region.

In advance of the establishment of these comprehensive centers, the law directs the Secretary to appoint advisory committees for each of the 10 education regions, corresponding to the boundaries of the Regional Education Laboratories, across the country. Each advisory committee consists of members from the following stakeholder groups: state education agencies, local education agencies, practitioners, both education and non-education researchers, parents, and the business community. According to the legislation, individual RAC members were not regarded as a spokesperson for a particular stakeholder group, but rather as a lead person in soliciting the views of members of those stakeholder groups.

Outreach efforts and data collection procedures

The approach to public outreach and data collection included both a national and regional component. At the national level, the RAC support team at CNAC produced a variety of media and documents to inform the public about the RAC process. CNAC and its partners distributed this information to national organizations with stakeholder interests. These organizations were asked to pass this information onto its constituent members across the country.

At the regional level, during the first meeting in December, Mid-Continent RAC members organized into state teams and developed strategies for reaching out to stakeholder groups within their respective states. Outreach was conducted from December through February through a variety

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of methods, including, but not limited to, e-mail messages to Listserv groups, presentations and discussions at meetings, and focus groups. Individuals and groups that were reached through these efforts included state department of education staff, national education officials, elected officials, local school and district staff, including superintendents, principals, and teachers, as well as parents, and business and community leaders. Stakeholders were encouraged by the RAC members to register and submit their comments in the public forum on the RAC Web site. Web site comments were reviewed by RAC members and summarized and discussed at public meetings. (This information is included in table 1.)

Public interest and input

The goal of the outreach efforts was to generate public interest and input in the RAC's deliberations. The RAC Web site (www.rac-ed.org) provided the central point for giving the public access to the RAC and served as the information center for the RAC. Table 1 provides a summary of these interactions. The first line in the table shows the number of enrollees on the RAC Web site from the Mid-Continent region. The public was encouraged to provide comments both of a general nature and on specific RAC ideas in a variety of ways. The next section of the table shows the amount of input the Mid-Continent RAC received through online comments and through the RAC Support Office either through e-mail or surface mail. The general discussion section included comments on topics relevant to RAC deliberations and of general interest. Another indicator of public interest is attendance at RAC meetings. Each RAC scheduled four public meetings. During the meetings held in Washington, DC, and Houston, Texas, the public was invited to observe the proceedings in person. The other two meetings were online teleconferences that included a live audio stream of the RAC conference call and access to an online presentation. For both the face-to-face meetings and the online teleconferences, the public was invited to observe via a link through

the RAC Web site. The next section of the table shows the number of public attendees at RAC

meetings either in person or through the Web site.

Table 1: Public inputs for the Mid-Continent RAC

Type of Input	Numbers
Enrollment on RAC Web site	**284**
Business Stakeholder Role	3
Institute of Higher Education Stakeholder Role	12
Local Education Agency Stakeholder Role	55
Parent Stakeholder Role	10
Principal Stakeholder Role	32
Researcher Stakeholder Role	2
School Board Member Stakeholder Role	6
State Education Agency Stakeholder Role	69
Teacher Stakeholder Role	51
Other Stakeholder Role	44
Comments	**47**
On Web site Forums	44
Number of Topics	**30**
Through e-mail to the RAC Support Office	3
Through surface mail to the RAC Support Office	0
Views on the RAC Web site	
Regional Forums	1476
Attendance at RAC Public Meetings	**25**
Orientation Meeting	4
Public Meeting #1 (29 registrants)	16
Public Meeting #2 (18 registrants)	6
Public Input by Outreach Efforts conducted by RAC Members	**Numbers**
Regional Focus Groups	
Charter School Principals, Staff and Board Members (Kansas City, MO)	25
Business/Civic Leaders (Kansas City, MO)	30
Kansas City Coalition of Hispanic Organizations, Education Committee Leaders (Kansas City, MO)	25
Greater Kansas City Superintendent's Forum (Kansas City, MO)	40
Urban League of Greater Kansas City (Kansas City, MO)	15
Colorado Department of Education, State Staff (CO)	100
Statewide Representatives (CASE, CASE, CASB, CEA, PTA, Leg.) (CO)	20
Council of Superintendents (KS)	55
Curriculum Leaders Meeting (KS)	125

Table 1: Public inputs for the Mid-Continent RAC

Type of Input	Numbers
Presentations at Meetings in the Region	
Faculty Meetings (ND)	500
State Superintendent & Selected Staff Meeting (ND)	6
Board Members Meeting (NE)	8
Teachers/Administrators Meeting (NE)	40
Parents/Teachers/Business and Community Leaders Meeting (NE)	35
Kansas State Department of Education Program Staff Meeting (KS)	75
Curriculum Directors Meeting (NE)	8
Aspiring Administrators (KS)	50
Other Sources of Outreach	
Local District Administrative Staff (KS)	150
Educational Leadership E-mail (ND)	600+
E-mail/Listserv to Key Education Groups (PTA, SEA,ESPB, etc.) (ND)	1000+
Nebraska Administrators Listserv (NE)	100+
Superintendents/Principals/Curriculum Leaders, Title I Coordinators Listserv (KS)	2212
Education Organizations – School Board Association/PTA/Kansas NEA/United School Administrators Meeting (KS)	65,972
Wyoming Department of Education posting (Supt., Principals, Dist. Leaders, School Board Members, Wyoming Education Agency) (WY)	550
Website Posting of Missouri DESE (MO)	
Principal Listserv (CO)	1700
AFT Kansas City, MO Listserv (MO)	625
AFT Kansas City, MO Newsletter (MO)	2500

(as of February 28, 2005)

Regional background

This section discusses some background information for the Mid-Continent region that helps provide a context for the remainder of the report.

School and student demographics

The Mid-Continent Region includes the following states: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, and Wyoming. Most of these states have small-to-medium-sized school systems, with Missouri as the largest with 2,286 public schools. Three states have small school systems: South Dakota (738 schools), North Dakota (528 schools), and Wyoming (389

schools). Missouri also has the most students with 924,455. Wyoming has by far the smallest

number of students, with only 88,116 (see table 2).

Table 2: Number of schools and students

State	Public schools SY2002-2003	Public school students SY2002-2003
Colorado	1,662	751,862
Kansas	1,431	470,957
Missouri	2,286	924,455
Nebraska	1,250	285,402
North Dakota	528	104,225
South Dakota	738	128,039
Wyoming	389	88,116

Sources: Common Core of Data 2002-2003; Education Week's Quality Counts 2005.

With the exception of Colorado and Missouri, which are the two largest systems, schools in

the Mid-Continent region are often in rural settings. In Wyoming and South Dakota, rural schools

represent 70 percent and 62 percent of all schools, respectively. Rural schools also account for a

majority of the schools in North Dakota (58 percent) and more than 40 percent of schools in

Nebraska and Kansas. Colorado's system is primarily suburban (53 percent), whereas Nebraska has

the largest concentration of urban schools in the region (36 percent). In Wyoming, suburban areas

have just 1 percent of the state's public schools.

Diversity

Colorado is the most diverse school system in the region, with minorities representing more

than one-third of the public school population. Hispanics are the largest minority group in the state,

accounting for 24 percent of total enrollment. Blacks make up 6 percent of the Colorado school

population, whereas Asians and American Indians account for 3 percent and 1 percent, respectively.

Hispanics represent 10 percent of students in Kansas, whereas Blacks constitute 9 percent of the

school population. The largest concentration of Blacks is in Missouri, accounting for 18 percent of

enrollment.

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American Indians are the largest ethnic minority group in South Dakota and North Dakota, representing 11 percent and 8 percent of students, respectively. However, in both of these states, as well as in Wyoming, White students account for 85 percent or more of the school population.

Poverty

Poverty rates, as indicated by free- and reduced-price lunch eligibility, are fairly consistent across the states in this region, and are at or below the national average (36 percent). Kansas has the largest concentration of poor students, reaching the national average of 36 percent, while Colorado has the smallest at 29 percent.

Curriculum

Establishing state curriculum standards. In terms of meeting the requirements of NCLB, five of the seven states in this region have created standards in science, reading, and mathematics. The only exceptions are Missouri and Nebraska.[2] Both of these states have partially met their math standards, and Nebraska has yet to meet the requirement in reading.

Test Alignment with State Standards. In "Quality Counts 2005," *Education Week* analyzed whether states have aligned their assessments with standards across the grade spans and in four core subjects (i.e., math, science, English, and social studies/history). South Dakota is one of only 12 states nationwide to align assessments with standards across all grades and in all major subjects. Kansas has completed alignment in all areas except social studies/history at the elementary level. Four other states—Colorado, Missouri, North Dakota, and Wyoming—have aligned math and English assessments through all grades but have yet to do so in science or social studies. *Education Week's* data indicates that Nebraska has only completed alignment in English.[3]

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[2] According to an official in the Nebraska State Education Agency, Nebraska has aligned its benchmark standards in reading and mathematics in grades 4, 8, and 11 and has developed grade-level expectations in reading and mathematics for grades 3, 5, 6, and 7.

[3] According to an official in the Nebraska State Education Agency, Nebraska has completed the standards alignment in reading and mathematics and has established science standards to be reported for NCLB.

Teacher demographics and qualifications

The number of public school teachers in the Mid-Continent states is consistent with public school enrollment, with Wyoming hiring the smallest number and Missouri the largest (see table 3). The smallest school systems had the lowest student/teacher ratios, such as North Dakota and Wyoming, each of which had ratios of only 13:1. Missouri, Kansas, Nebraska, and South Dakota all had 14:1 ratios, whereas Colorado had the largest ratio at 17:1.[4]

NCLB also requires each classroom to have a highly qualified teacher in core academic subjects by the end of the 2005-06 school year. Many Mid-Continent states fared well in the number of teachers highly qualified, including Missouri (95 percent), North Dakota (91 percent), and Nebraska (90 percent). All other states scored in the 80 to 90 percent range, with Kansas posting the lowest share of highly qualified teachers (80 percent).[5]

Teacher salaries, one indicator of a state's ability to recruit and retain teachers, show that Mid-Continent school districts may face challenges on this issue. All states lagged behind the national average salary of $44,604 for the 2001-02 school year. Colorado was the only state in the region with an average annual salary above $40,000. North Dakota and South Dakota had the lowest average salaries at $31,709 and $31,295, respectively.

Table 3: Number of teachers and student/teacher ratios

State	No. of teachers at public schools	Student/teacher ratio	Percent of classes taught by high-quality teachers
Colorado	45,401	17:1	86
Kansas	32,643	14:1	80
Missouri	66,717	14:1	95
Nebraska	21,043	14:1	90
North Dakota	8,078	13:1	96
South Dakota	9,257	14:1	86
Wyoming	6,795	13:1	95

Sources: *Quality Counts* 2005, *Education Week*; Center on Education Policy Year 2 of NCLB Report (2002-2003)

[4] Numbers are calculated using teachers as well as instructional support staff, and are a state average without differentiation between urban, suburban, and rural districts.

[5] Final data from the 2003-2004 school year in Kansas reports that the percentage of core academic classes taught by highly qualified teachers was 94.5 percent.

Student achievement

The National Assessment of Educational Progress (NAEP), also known as "the Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. All states in the Mid-Continent region participated in NAEP in 2003, and in all seven states, the average scores were slightly above the national average in both mathematics and reading. See table 4 below for a breakdown of average scores and achievement levels.

Table 4: NAEP performance in 2003

| State | Subject | Grade | Scale score | | Achievement level percent at or above | | |
			National Avg.	State Avg.	Basic	Proficient	Advanced
Colorado	Mathematics	4	234	235	77	34	4
		8	276	283	74	34	8
	Reading	4	216	224	69	37	9
		8	261	268	78	36	4
Kansas	Mathematics	4	234	242	85	41	6
		8	276	284	76	34	6
	Reading	4	216	220	66	33	7
		8	261	266	77	35	3
Missouri	Mathematics	4	234	235	79	30	3
		8	276	279	71	28	4
	Reading	4	216	222	68	34	8
		8	261	267	79	34	3
Nebraska	Mathematics	4	234	236	80	34	3
		8	276	282	74	32	5
	Reading	4	216	221	66	32	8
		8	261	266	77	35	3
North Dakota	Mathematics	4	234	238	83	34	2
		8	276	287	81	36	5
	Reading	4	216	222	69	32	6
		8	261	270	81	38	3
South Dakota	Mathematics	4	234	237	82	34	3
		8	276	285	78	35	5
	Reading	4	216	222	69	33	7
		8	261	270	82	39	3
Wyoming	Mathematics	4	234	241	87	39	4
		8	276	284	77	32	4
	Reading	4	216	222	69	34	7
		8	261	267	79	34	2

Source: National Center for Education Statistics, http://nces.ed.gov/nationsreportcard/states/profile.asp

Educational challenges within the region

After much deliberation, the Mid-Continent RAC identified six major educational challenges that were impediments to implementing NCLB and to improving the academic achievement of all children. Public feedback confirmed that the RAC was on target with these priority challenges, listed in order of importance for the region. After reaching consensus on the major challenges in the region, the RAC identified some technical assistance strategies that would help states and school districts address those challenges.

Challenge #1: Identifying, evaluating, and using scientifically based research

Committee members believe that incorporating scientifically based research into classroom instruction is an essential element in helping *all* children reach higher achievement levels. They also believe that the ability to evaluate and implement research-based instructional practices is a major challenge for many teachers and school leaders.

The RAC defined scientifically based research as quantitative research that meets federal requirements, has been through a rigorous peer review process for publication in reputable journals, and has empirical data to back up its theoretical application and effectiveness. Such research should include examples of proven results (increased achievement) with students of diverse cultures and socioeconomic backgrounds as well as implementation guides for schools to be able to adapt the principles to practice.

Technical assistance

Technical assistance centers need to regularly review scientifically based research and suggest guidelines for implementing proven programs and practices with fidelity. Technical assistance

centers need to be the leaders in promoting the implementation of scientifically research-based programs. More direct guidance is needed from the technical assistance centers to help states, districts, and schools use the scientifically based research that is available.

Technical assistance centers need to provide a database that regularly reviews research journals for educational research that is relevant to practice. The database should summarize the research, link to the full text article, give specific characteristics of the article (i.e., number of subjects, type of design, statistical analysis), and include a rating of the extent of confidence (i.e., statistical significance) one can have in the research and its ability to be generalized.

Technical assistance centers should be able to match expertise with those districts and schools that need it, provide onsite, ongoing, and high quality professional development to build capacity and provide a reliable place to get programs and knowledge of the best professional development, not just what is the most readily available, cheapest, or easiest. Technical assistance centers need to reach out to each state, groups of states, and collaborate regionally with stakeholders to provide customized onsite professional development activities supported by sound scientifically based research. Technical assistance centers need to be responsive to professional development needs that are aligned with the student achievement needs of the states.

Challenge #2: Teacher effectiveness

The Mid-Continent RAC recognizes that improving the ability of all teachers to reach all students is key to raising student achievement. Teacher preparation, professional development, and the recruitment and retention of high quality, effective teachers were cited as major challenges in this region. Teachers entering the field frequently lack basic and specific skills needed to effectively teach all students. Higher education institutions need to respond to the current skill needs of teachers entering into the workforce. Additionally, professional development opportunities for teachers need

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to be based on scientific research. The current professional development activities often include one-time sessions that are entertainment, fragmented, or vendor based. This type of professional development needs to be replaced with high quality and ongoing professional development plans that are aligned to district programs and goals. Finally, schools in this region have difficulty recruiting and retaining teachers, diminishing the capacity of the schools to engage in continuous reform and sustain the increase in student achievement. Specifically, the characteristics of the Mid-Continent's primarily rural nature with some urban centers and low salaries are contributing factors to teacher loss. Rural areas have a lack of social, cultural, and educational opportunities that also impact retention of teachers.

Technical assistance

Technical assistance is needed in three primary areas to ensure teacher effectiveness. These areas are: working with teacher preparation programs, professional development to enhance the effectiveness of current teachers and support with recruitment and retention of effective teachers.

Teacher preparation programs need to be guided by scientifically based research focused on specific instructional delivery skills to effectively improve student achievement. Technical assistance should provide the structure to establish continuous coaching and mentoring relationships between teacher preparation programs and their graduates. In addition, a structure to provide feedback between these entities needs to be established. Finally, centers should assist teacher preparation programs to ensure that alternate certification programs are producing effective teachers.

The technical assistance provided should create a structure for teachers to evaluate the effectiveness of their instruction. Support is needed for states and districts to establish a system to evaluate teacher performance based on the longitudinal progress of student achievement. Technical assistance centers will need to support states, districts, and schools as they create a vision and a plan that will result in increased student achievement. The center should also provide focused, research

based professional development tailored to meet the needs of teachers in advancing student achievement. Additionally, centers should support and advise states, districts and schools as they implement and develop their own results-based staff development. Specifically, the technical assistance center must evaluate regional needs, provide professional development to meet those needs, and increase the awareness of its services.

Finally, technical assistance should be provided to states and school districts on the recruitment and retention of high quality teachers. The center should assist the states in facilitating, exploring, and developing alternative pathways to teacher licensing programs such as "teacher-in-residence" programs. It must review best practices that support the retention of high-quality teachers, such as mentoring and induction opportunities. The center should also facilitate teacher recruitment by regions, area, need, or by state that are based on research of what works and what new teachers are looking for in an employer.

Challenge #3: School leadership

In light of the NCLB Act and the increased focus on student achievement, shifting from a management orientation to an instructional leadership model was seen by the RAC as a critical area of need. Leaders need to be able to clarify their roles and responsibilities to enhance the achievement of students. This shift in focus has been a difficult transition for many school principals, district superintendents, and teacher leaders. Finally, the overall quantity and quality of leadership is not at the level essential to serve every child in the region.

Today's school leaders need to be focused on the following key points:

- Creating and ensuring a culture of learning in the schools and the community
- Developing and implementing effective research-based instruction

- Making decisions focused on student achievement and instruction (such as curriculum selection and professional development)

- Creatively and strategically using resources to produce results for students.

Technical assistance

The most essential work of leadership is to define the critical focus around which leaders will or must direct their efforts. Technical assistance in leadership development must include setting priorities, building focus, reaching consensus, establishing goals, and evaluating progress.

This requires the development and implementation of effective professional development models. For example, states need assistance with mentoring and coaching their instructional leaders. The state leadership should also have the skills to assist each level of management and leadership including a sound understanding of research and effective teaching practices. Additionally, states need assistance in ensuring assessment practices and procedures, informing instruction and guiding policy-making decisions. Finally, states need assistance in leading systemic reform, such as possible structures for rewarding leaders for performance. While these technical assistance strategies will build strong leadership at the state level, they must be transmitted and disseminated into the district, school, and ultimately classroom and student levels. Leadership development could be provided through a lab or professional development center. Systemic leadership should also be built through board member training such as policy, role clarification, and strategic vision.

Challenge #4: Maintaining quality in rural education

The rural nature of the region creates some unique challenges for schools and districts. Remote schools in sparsely populated areas are often not able to provide a range of curricular offerings, programs, and activities such as those offered in suburban and urban settings. A lack of resources and personnel also makes it difficult for these schools to attract and retain quality teachers

and administrators. Rural teachers often need to teach more than one subject area and, as a consequence, reaching the goal of ensuring highly qualified staff in several content areas is difficult.

The cultural and economic differences among diverse student and family populations in rural areas in the region are challenges for school communities. Some teachers and administrators do not have the knowledge and skills to understand and connect with students who are impacted by different cultural values and/or poverty. Developing teachers and leaders with a greater understanding and skill sets surrounding these issues is important in order for them to improve student achievement.

Technical assistance

States need assistance and support to identify and link districts and schools in autonomous rural areas. The assistance should include the use of technology to acquire and provide onsite professional development across districts, regions, and states to decrease the problems of isolation. States should link schools and districts across regions by knowing which ones are addressing similar challenges and, therefore, could be pulled together and connected for help with instructional leadership training and professional development. For example, rural schools need assistance in recruiting, training, and retaining more highly qualified teachers who possess high standards. The states need assistance to set up an infrastructure that connects rural schools to their district, other districts, and to or with the state. Additionally, teachers and staff need to learn how to use linked resources for support.

Research should be focused on the needs of rural schools and the results of this research translated into professional development. Areas to research may include: the best type of teacher for a rural area, the qualities to look for in a teacher, possible causes behind teacher turnover, and effective retention strategies. Additionally, differentiated pre-service education at the college and

university level needs to be researched. Finally, technical assistance should provide research focused on effective curriculum, ensuring variety and adequate quality.

Challenge #5: Improving the academic achievement of urban children and youth

Although the Mid-Continent is primarily rural, there are some large urban school districts that face special challenges. A primary concern is the concentration of students living in poverty and attending urban schools. Research has shown that children from impoverished backgrounds start school behind their peers from middle- and upper middle-class households, and they are unlikely to catch up without appropriate interventions. Many urban schools lack the resources essential to provide those interventions.

Another issue of concern for urban schools is the perception that teachers hold of urban youth. The educational community often has low expectations for students, contributing to low student achievement. It is especially difficult for urban schools to attract and retain quality teachers and administrators. The educational community in urban schools needs staff development based on effective research targeted to teaching urban students and for learning about students who are from backgrounds different from their own. Finally, creating safe environments in urban schools for students who frequently reside in violent settings is another challenge for the educational community.

Technical assistance

States need assistance in addressing systemic reform by helping districts reconfigure and redefine the structure of urban schools. The committee envisions schools that would provide a holistic approach to educating urban youth, moving away from a content-focused approach and into a student-focused approach. Student support teams, wrap-around services, pay for performance,

accountability, and autonomy from unnecessary bureaucratic procedures in order to gain academic performance are examples of characteristics of a redesigned system.

The technical assistance center will provide research, offer examples of successful models, and support effective restructuring of urban schools. Additional technical assistance is essential in the development of urban leaders and the establishment of a system for ongoing communication among them, and of networks to identify and share effective practices and programs.

Challenge #6: Addressing social and cultural issues that impede student achievement

Schools in the region serve a diverse student population, and many students live in a family and community setting that does not value achievement. Additionally, the family and community may lack the resources or understanding required to ensure academic and social success for their children. Often the social and cultural environment of children is an impediment to learning.

Children's readiness for learning at all grade levels (K-12) can be enhanced by partnering with parents and community social service providers. The partnerships should address issues of child health, cultural attitudes toward achievement, special needs, and racial, ethnic, and socioeconomic diversity in order to overcome the challenges posed by the social and cultural conditions.

Technical assistance

Technical assistance should be provided to help states, districts, communities, and schools address both academic and non-academic factors that impact student achievement. Outreach and information efforts on effective practices are essential. Additionally, assistance is needed to facilitate services, improve technology, and foster partnerships with educational and social programs (e.g.,

information systems and involvement). Finally, there should be access to research-based programs that enhance community, parent, and student engagement.

Technical assistance should be provided to ensure student success by effectively involving parents and communities in the educational process. The assistance for educational communities should include wrap-around services, technology, and building partnerships. Technical assistance should provide help to create a common source of shared, available student information (e.g., services, credit for graduation) for use by schools, districts, and states.

Conclusions and recommendations

States in the Mid-Continent region will benefit most from federally funded technical assistance centers that are responsive to the needs of the region. A primary responsibility of the regional center is to meet the needs and priorities within the region that will lead to improved student achievement. Identification of these needs should be accomplished through continual review of the data and through consultation with regional stakeholders. Centers should develop a plan of activities to address these priorities. Activities should be research based, translated into effective practices, and should include:

- Building the capacity of the state to provide for school quality and improvement
- Restructuring to improve the effectiveness of the education system for the 21st century
- Providing quality professional development
- Recommending and evaluating professional development practices to raise student achievement aligned to the goals and the priorities of the region
- Establishing a clearinghouse (information resource center).

In addition, the Mid-Continent RAC recommends:

- The technical assistance center has a governing board that includes representatives of each of the states within the region to ensure that technical assistance is responsive to the changing needs of every state in the region
- The organization awarded the grant should demonstrate significant success in providing effective technical assistance.
- The technical assistance centers should be required to report and undergo an independent evaluation on their work and ability to address the regional challenges.

Finally, the Mid-Continent RAC strongly recommends that individual technical assistance centers be established to address on a national basis each specific need listed below:[6]

- A national center for rural education

- A national center for urban education

- A national center for the teaching of reading and writing

- A national center for teaching of science and mathematics

- A national center for leadership

- A national center for school reform

- A national center for multi-lingual/ESL

- A national center for social, economic, and cultural issues (community schools).

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[6] The list is not prioritized by need.

Appendix: Biographical information about members of the Mid-Continent Regional Advisory Committee

Ms. Sandy Aguirre Mayer has been active in urban education for many years. As a parent, she was appointed to the Desegregation Monitoring Committee and then served as a board member for the Kansas City, Missouri, School District. She currently volunteers on education issues locally affecting Latino students. Ms. Mayer has an M.B.A. and works as the Assistant Director of Purchasing for the Jackson County, Missouri Courthouse.

Dr. Trent Blankenship was elected to his first term as Wyoming's Superintendent of Public Instruction in November 2002. He earned his bachelor, master's, and doctorate degrees at the University of Wyoming. Dr. Blankenship has taught at the University of Wyoming, served as a school principal, served as district superintendent in two Wyoming districts, and served as a teacher and coach for the Department of Defense Schools.

Mr. Marc Bluestone is the assistant principal at the Edwin Loe Elementary School in New Town, North Dakota. He is an enrolled member of the Three Affiliated Tribes—Mandan, Hidatsa, and Arikara. He is married with six children. Mr. Bluestone has a master's degree and is a doctoral candidate in Educational Leadership.

Ms. Andrea Boden, Ed.S., NCSP is a Nationally Certified School Psychologist and was named Nebraska's School Psychologist of the year in 2004, and has worked for Gering Public Schools in Nebraska, for seven years. Ms. Boden's role at Gering has been a very nontraditional for a school psychologist as she has worked a great deal with district-wide assessment and curriculum issues. She wrote the district's Reading First grant and serves as the District Coordinator for the Reading First

(Direct Instruction) program. Her current role includes assisting the district in making decisions based on Scientific Research in an effort to increase achievement for all students.

Ms. Irene Devin is the parent of three children and a Wyoming State Senator. Senator Devin chaired the Senate Education Committee and the Select Committee on School Facilities. Senator Devin also co-chaired the committee to develop the first state-wide assessment in reading, writing, and mathematics.

Ms. Polly Feis has been the Deputy Commissioner for the Nebraska Department of Education since January of 1995. She obtained her juris doctorate, bachelors, and master's degrees from the University of Nebraska. She has had a long time commitment to and passion for quality education for all children in Nebraska.

Ms. Kim Gillespie has been an educator for 29 years, most recently as Principal of Pioneer Trail Junior High School in Olathe, Kansas. Additionally, she has served as a member of the Department of Education's Teacher Assistance Corps.

Dr. D. Kent King, appointed Missouri Commissioner of Education in 2000, came to the position after serving as a Missouri superintendent for 25 years, a middle-level principal, and an English teacher. He also served as the director of Missouri's school accreditation, which focused on student achievement and improved test scores; therefore, the emphasis on improving student performance has been a long time goal.

Ms. Cheryl Kulas is the Executive Director of the North Dakota Indian Affairs Commission and a member of the Midwest Regional Task Force for Drug Free Schools—Native American Initiative for the North Central Regional Education Laboratory. Previously, she was the Director of

Native Education for the North Dakota Department of Public Instruction. Ms. Kulas has her master's degree in American Indian Studies from the University of Arizona and has graduate credits from the University of North Dakota, North Dakota State University, and Western Washington University.

Dr. John Lawrence has been a superintendent since he was 23 years old and is in his twenty-first year as Superintendent of the Troy Missouri Public schools. He was also the president of the 14,000-member American Association of School Administrators (AASA) for the 2002-04 term.

Ms. Karen Lukens is a 22-year veteran of education, and has been teaching at Hawthorne Elementary School in Sioux Falls since 1997. Ms. Lukens is a member of the Sioux Falls School District Language Arts Committee and the South Dakota Language Arts Standard Writing committee and is the of the Milken Educator Award. She has also been the building's literacy trainer and has provided many in-services on reading recipient.

Dr. Rick Melmer is the Secretary of Education for the State of South Dakota. He has served in that capacity for the past 18 months. Dr. Melmer was recently elected to the Executive Board of the Council of Chief State School Officers (CCSSO). Previous to his work with the state of South Dakota, he served as a school superintendent in South Dakota for eight years.

Ms. Jo O'Brien is Assistant to the Commissioner for Learning and Results, at the Colorado Department of Education. Previously, Ms. O'Brien worked for the Chicago Tribune, the Public Broadcasting Service (PBS) and was a director for the Kentucky Department of Education. She was on faculty at Michigan State University and has worked extensively with low-income schools to guide higher student achievement performance.

Dr. Keith Owen is currently the Director of Reading/Lindamood-Bell programs for Pueblo School District No. 60 in Colorado. He was the principal at Beulah Heights Elementary, a National Distinguished Title I school that was recognized by President Bush and the U.S. Department of Education for closing the achievement gap and high achievement in reading. Dr. Owen was also the 2003 Colorado Elementary Principal of the Year.

Dr. Alexa Posny was appointed Kansas Assistant Commissioner of Education in June 2001. She previously served as the state director of special education, as the director of special education with the Shawnee Mission School District and in cooperative educational service agencies in both Wisconsin and Illinois, and taught special education at the elementary, middle school and high school levels. For nine years, Dr. Posny worked as a researcher, consultant and technical assistance provider under multiple U.S. Department of Education Title I contracts.

Ms. Vonnie Sanders teaches English as a Second Language to middle school refugee students. She has a bachelor's degree in Elementary Education and ESL, a middle level licensure, and a master's degree in Reading. Ms. Sanders mentors teachers working toward their middle level licensure, serves on the North Dakota state assessment and after-school activities committees, and is a mother and grandmother.

Mr. W.L. Sawyer was appointed Superintendent of Topeka Public Schools in July of 2003. His focus on instructional improvement and professional development has resulted in remarkable student achievement gains in TPS. He is a career educator spending his years prior to Topeka in the New York City public schools as a teacher, principal, and superintendent. Mr. Sawyer has dedicated his life to ensuring that children are prepared academically and emotionally with the skills that are required for success in the world of tomorrow.

Dr. Debora Scheffel has worked in the field of education for 15 years and is Director of University Assessment and Professor at the University of Northern Colorado, School of Special Education, Greeley, Colorado. She also works with the Colorado Department of Education on Colorado Reading First and charter school issues, and participated recently in the Teacher Assistance Corps Initiative, Department of Education, toward putting a highly qualified teacher in every classroom.

Mr. Rick Woodford is the Director of Special Education in Lincoln County School District #2, in Afton, Wyoming. Throughout his career in special education, he has worked to develop effective systems to facilitate the inclusion of students with disabilities into the general curriculum and classroom. In addition to his responsibilities as a special education director, Mr. Woodford is the principal of a small alternative school that serves many rural communities in Star Valley.

Glossary

AYP—Adequate Yearly Progress, defined in the NCLB Act as a way to measure the academic achievement of elementary and secondary school students in relation individual state student academic achievement standards.

CHARTER SCHOOLS—Public schools that are largely free to innovate, and often provide more effective programs and choice to underserved groups of students. Charter schools subject to the "adequate yearly progress" (AYP) and other accountability requirements of the NCLB Act.

COMPREHENSIVE TECHNICAL ASSISTANCE CENTERS—Centers authorized by Section 203 of the Education Sciences Reform Act of 2002 (P.L. 107-279). Appropriations for the centers in FY05 would enable the U.S. Department of Education to support 20 centers, 10 of which must be in current regions.

COMMON CORE OF DATA—The National Center for Education Statistics' comprehensive, annual, national statistical database of information concerning all public elementary and secondary schools and local education agencies.

CONSOLIDATED STATE PLAN FOR NCLB—Plan from each state that demonstrates it has adopted challenging academic content standards and challenging student academic achievement standards that will be used by the state, its local educational agencies, and its schools.

CORE SUBJECTS—Means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography [Section 9101(11)]. Although the federal statute includes the arts in the core academic subjects, it does not specify which of the arts are core academic subjects; therefore, the states must make this determination.

DFO—Designated Federal Official. A DFO acts as a liaison between a federal advisory committee and federal agency and must be present at all committee meetings.

ELL—English Language Learners

ESL–English as a Second Language

FACA—Federal Advisory Committee Act was created in 1972 (Public Law 92-463) by the U.S. Congress to formally recognize the merits of seeking the advice and assistance of our nation's citizens. Congress sought to assure that advisory committees: provide advice that is relevant, objective, and open to the public; act promptly to complete their work; and comply with reasonable cost controls and recordkeeping requirements.

HIGHLY QUALIFIED TEACHERS—States must define a "highly qualified" teacher. The requirement that teachers be highly qualified applies to all public elementary or secondary school teachers employed by a local educational agency who teach a core academic subject. "Highly qualified" means that the teacher: has obtained full state certification as a teacher or passed the state teacher licensing examination and holds a license to teach in the state, and does not have certification or licensure requirements waived on an emergency, temporary, or provisional basis; holds a minimum of a bachelor's degree; and has demonstrated subject matter competency in each

of the academic subjects in which the teacher teaches, in a manner determined by the state and in compliance with Section 9101(23) of ESEA.

IDEA—Individuals with Disabilities Education Act

IEP—Individualized educational plan required by Individuals with Disabilities Education Act

IES—Institute of Education Sciences, the research arm of the U.S. Department of Education that was established by the Education Sciences Reform Act of 2002

LEA— Local Education Agency

NCLB—The No Child Left Behind Act of 2001

OESE—Office of Elementary and Secondary Education in the U.S. Department of Education

RACs— Regional Advisory Committees that are authorized by Education Sciences Reform Act of 2002 (P.L. 107-279)

RAC QUORUM—Is a majority of appointed members. A RAC must have a quorum to meet or hold an official meeting.

REGIONAL EDUCATIONAL LABORATORIES—Federally-supported regional institutions that have operated since 1966 and reauthorized by Section 174 of the Education Sciences Reform Act of 2002

SCIENTIFICALLY BASED RESEARCH—Section 9101(37) of ESEA, as amended by NCLB, defines scientifically based research as "research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs." (P.L. 107-279)

SEA—State Education Agency

STATE—References to "states" include the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the freely associated states, and the outlying areas

SUPPLEMENTAL EDUCATIONAL SERVICES—Additional academic instruction designed to increase the academic achievement of students in schools that have not met state targets for increasing student achievement (AYP) for three or more years. Services may include tutoring and after-school services by public or private providers approved by the state.

TECHNICAL ASSISTANCE—Assistance in identifying, selecting, or designing solutions based on research, including professional development and high-quality training to implement solutions leading to improved educational and other practices and classroom instruction based on scientifically valid research; and improved planning, design, and administration of programs; assistance in interpreting, analyzing, and utilizing statistics and evaluations; and other assistance necessary to encourage the improvement of teaching and learning through the applications of techniques supported by scientifically valid research (P.L. 107-279)

WHAT WORKS CLEARINGHOUSE (WWC)—Clearinghouse established in 2002 by the U.S. Department of Education's Institute of Education Sciences to provide educators,

policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education.

List of tables