

**Blueprint:
Ensuring Quality Teaching and Leadership
in Wyoming**

A Report to the Wyoming Legislature

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EXECUTIVE SUMMARY

In March 2001, the Wyoming Legislature funded the Teacher and Leader Quality Initiative, charging the Wyoming Department of Education to provide systematic research on issues related to the recruitment, retention, and quality of teachers and education leaders. With increased national and state attention on standards, assessment and accountability, interest in the factors that improve student learning has intensified both here in Wyoming and nationally. A body of research has begun to demonstrate that the quality of teaching and leadership are two of the most important factors in affecting student learning. The recent reauthorization of the Elementary and Secondary Education Act (ESEA) also recognizes the importance of teaching and leadership quality. The new ESEA is expected to provide Wyoming an estimated \$13.6 million to train and retain quality educators (<http://www.ed.gov/offices/OESE/esea/wyoming.html>). Devising an action plan for enhancing the quality of teaching and leadership is at the center of ensuring that all Wyoming students achieve standards and become productive citizens. This Blueprint is the first step. It will provide a guide for subsequent action planning among partners statewide.

Current Wyoming student achievement data suggest that teaching and leadership effectiveness must be improved before 100 percent of our students will be able to demonstrate proficiency for graduation. The success of our current reform efforts relies on teachers to instruct, guide, and inspire students to learn. It also depends on leaders to model and support effective teaching and learning for students, teachers, and leaders.

Discussion about teacher quality in Wyoming has revolved largely around the issue of teacher salaries. Reichardt (2001a) as well as Wolkoff and Podgursky (2001) found that compensation for experienced teachers remains competitive with adjoining states and with non-teaching occupations in Wyoming. Compared to adjoining states, Wyoming gave larger percentage pay increases to experienced teachers as compared to beginning teachers from 1997 to 2000. Until 2001-2002, earnings of experienced teachers in Wyoming grew faster than the national or Wyoming rate of inflation and Wyoming manufacturing earnings. For this same period, earnings for beginning teachers grew slower than the rate of inflation and Wyoming manufacturing earnings (see Wolkoff & Podgursky, 2001). However, beginning teachers did not appear to be making career decisions based on the prospect of increased salary. In fact, beginning teachers earned less one year after transferring from one Wyoming district to another (Reichardt, 2001a) and after leaving Wyoming for a teaching position in either Colorado, South Dakota, or Utah (Wolkoff & Podgursky, 2001).

The 2001 Wyoming Legislature's external cost adjustment of 9.44 percent to state education funding produced the largest teacher salary increase for the 2001-2002 school year since 1997 in Wyoming and in adjoining states. This single year increase exceeded Wyoming's cumulative three-year increases (1997-2000) of 6.9-12.2 percent. The 2001-2002 salary increase was higher for beginning teachers than for experienced teachers and administrators (Wolkoff & Podgursky, 2001).

Considering the current status of teaching and leadership quality in Wyoming, two additional trends are evident. The first is that rural and small schools as well as school districts in western regions of the state face the largest challenges in attracting and retaining quality educators, especially beginning teachers. The second is the need for improved recruitment, retention, and professional development strategies aimed at increasing teaching and leadership effectiveness. It is clear that to improve student achievement, Wyoming's current approach to teaching and leadership quality needs refinement and better coordination.

This Blueprint is the final report of the Teacher and Leader Quality Initiative submitted to the 2002 Legislature. It serves as an in-depth discussion of the state of teaching and leadership quality and makes a series of recommendations for enhancing both. These recommendations are directed at ensuring that all public school students in Wyoming have access to high-quality schools. New ESEA requirements for teacher quality are likely to support the following recommendations for recruiting, attracting, retaining, and increasing the effectiveness of Wyoming educators.

RECOMMENDATIONS

RECRUITMENT STRATEGIES

1. Implement a State-Supported Scholarship/Loan Forgiveness Program.

In order to attract high-quality teachers and leaders to study and work in Wyoming, the state needs to develop a scholarship/loan forgiveness program for teachers and leaders who attend the University of Wyoming or a community college in pursuit of teacher certification or advanced training. Scholarships and loan forgiveness for pre-service and in-service educators who choose to take positions in high-need subjects, schools, or districts in Wyoming would help attract future educators to the profession and support those who are committed to working in-state.

2. Improve District Recruitment Efforts.

To address current difficulties in attracting high-quality candidates, districts need to improve recruitment practices. With increased demand for teachers regionally and nationally, Wyoming districts need to update their recruitment efforts and consider the kinds of incentives that out-of-state districts and other professions use to enhance a job offer (e.g. signing bonuses, moving expenses, housing assistance).

ATTRACT AND RETAIN

1. Ensure Regionally Competitive Compensation for All Educators.

State and district policymakers should strive to maintain all educators' salaries at a level that is competitive with other regional states to continue to attract and retain high-quality teachers and leaders. On February 23, 2001, the Wyoming Supreme Court ruled in *Campbell County School District vs. State of Wyoming* that teacher, leader, and classified staff salaries must be adequately adjusted for inflation using an index that accounts for regional housing and medical costs within Wyoming. This will make it harder for small, rural districts to offer competitive salaries due to lower costs of living in these areas. To remain competitive in attracting and retaining teachers statewide, salaries will need to be maintained at a level competitive in all areas of Wyoming and with surrounding states. Additional financial incentives (e.g. signing bonuses, differential salary schedules for high-need areas) also may be required to retain teachers and leaders, especially in rural schools and high-need subject areas.

2. Develop Career Advancement and Compensation Systems that Reward Increases in Knowledge and Skill.

To improve teaching, leadership and student achievement, districts should build career-advancement and knowledge- and skills-based compensation systems that support novice, career and accomplished teachers and leaders by rewarding increases in expertise. This should be tied to re-certification processes and include increased incentives for teachers awarded National Professional Teaching Standards Board certification.

3. Develop High-Quality Induction and Mentoring Programs.

Additional district incentives beyond compensation, such as induction and mentoring programs for new educators, are needed to attract and retain high quality educators. Effective teaching and leadership require initial support, career advancement opportunities, and ongoing professional learning beginning with the teachers' and leaders' first year in the profession. Induction with ongoing mentoring supports both new and career teachers and leaders in improving instruction and learning in standards-based schools.

PROFESSIONAL DEVELOPMENT

1. *Restructure of Schools to Promote the Learning of Both Students and Adults.*

Providing adequate time and resources for professional growth requires districts to restructure time and staffing so that teachers and leaders have the opportunity to work regularly with each other and with groups of students to improve instruction and learning. Districts need incentives and support to restructure the scheduling of time and distribution of resources to support the professional development of all staff and to achieve high levels of student learning. This may include state and district requirements to lengthen teacher non-contact contract days to address professional development needs.

2. *Develop a Coordinated Pre-service through Advanced Certification Professional Learning System.*

Based on the status of pre-service education, certification, advanced education and professional development in Wyoming, Wyoming needs to build upon its current initiatives to develop a collaborative statewide system of professional preparation and development for K-16 educators. Establishing a coordinated learning system for pre-service through in-service education professionals will require a comprehensive action plan that supports the extensive collaboration required among all partners: state agencies, the University, community colleges, school districts, and the business community.

3. *Expand the Professional Development Schools to Create Five Regional Professional Learning Centers.*

To address the need to strengthen and support quality pre-service through in-service professional preparation and development statewide, support to sustain and expand regional Professional Development Schools (PDS) will provide access to high-quality professional learning opportunities for education professionals at all levels. Sustaining the three existing PDS sites and establishing two additional regional sites would create a structure within which a statewide system of “grow-your-own” pre-service through in-service professional learning centers could be built. These centers would provide professional preparation, development, mentoring, and induction assistance statewide for pre-service and in-service teachers and leaders.

INTRODUCTION

In March 2001, the Wyoming Legislature charged the Wyoming Department of Education (WDE) to provide systematic research on issues related to the recruitment, retention, and quality of teachers and education leaders. The Teacher and Leader Quality Initiative has studied the status of existing teacher and leader quality research as well as conducted studies of current policies, programs and practices in relation to recruitment, retention, certification, preparation, and professional development. This Blueprint for Enhancing Teaching and Leadership Quality is designed to guide the implementation and coordination of state initiatives aimed at ensuring that all Wyoming students benefit from having high-quality teachers and leaders.

Wyoming presents a unique situation in which to study teacher and leader quality. It is the most rural state in the contiguous United States. It has only one four-year university, a large number of small and rural schools, declining student populations, growing numbers of retiring teachers and leaders, rigorous student standards, vast distances and harsh winters. Devising a long-term action plan for enhancing the quality of teaching and leadership is at the center of ensuring that all Wyoming students achieve standards and become productive citizens.

A recent report by the Education Commission of the States (ECS), *In Pursuit of Quality Teaching: Five Key Strategies for Policymakers*, highlighted the importance of improving teacher quality. In the introduction, the Chairman of ECS, Governor Jim Geringer, stated, "If all of America's youth are going to attain the high levels of performance they need to be successful in their lives and which we as a nation need to remain competitive, our schools must improve...Above all, we need to have effective teachers" (ECS, 2000, p. 2).

With increased state and national attention on standards, assessment and accountability, interest in factors that improve student learning has intensified. A body of research has begun to demonstrate that the quality of teaching and leadership are two of the most important factors in affecting student learning. Studies have shown that the level of a teacher's expertise is the single most important school factor in enhancing student learning (Ferguson, 1991; Greenwald, Hedges, & Laine, 1996; Sanders & Rivers, 1996; Wenglinsky, 2000) and that effective leaders are the "lynchpins of school improvement" (National Association of State Boards of Education, 1999, p. 5).

Other factors that tend to influence student achievement with smaller yet positive effects are small schools and small class sizes, especially in the early grades. Research shows that lower student-to-teacher ratios may contribute to improved student achievement for special needs populations, limited English proficient (LEP), and minority students, but has shown little impact on the achievement of white, middle income students within the normal bounds of class sizes. The Tennessee STAR project found that when class sizes were reduced from the mid-twenties to eighteen or fewer students, long-term achievement effects were observed.

In Wyoming, class sizes are generally 18 students and lower. The majority of Wyoming schools are small. The average student-to-teacher ratio is approximately 13 students for each

certified staff member (Reichardt, 2001a; Smith, 2001).¹ The student-to-teacher ratio in Wyoming declined by between 17 and 19 percent, largely due to decreasing enrollments. It is consistently lower in rural districts, decreasing from 11.9 in 1993 to 10.3 in 2000 (Reichardt, 2001a). As student enrollments continue to drop, the number of teachers has remained relatively consistent (see Context).

Student-to-teacher ratio is a statistic that most states use to characterize teachers' working conditions. It provides an indicator of teachers' student load that is comparable across states. Wyoming's student-to-teacher ratio is lower than surrounding states and is considerably lower than the U.S. average. In 2000 Nebraska's ratio was the closest (13.9) to Wyoming's, followed by South Dakota (14.0), Montana (15.2), the U. S. average (16.1), Colorado (17.4), Idaho (18.0), and Utah (22.0). It is important to bear in mind that Wolkoff and Podgursky (2001) estimated that if Wyoming districts maintained a student-to-teacher ratio similar to surrounding states, it would be possible to raise teacher pay by approximately 26 percent (Reichardt, 2001a).

Generally, Wyoming teachers and leaders have the opportunity to know their students well—a critical element of successful learning. Yet, despite the lower student-to-teacher ratio in Wyoming, student achievement remains a concern. The three-year average of Wyoming Comprehensive Assessment System (WyCAS) scores reveals that in all but two of the three content areas tested (reading, writing, and mathematics at three grade levels) the majority of Wyoming's 4th, 8th, and 11th grade student's score "partially proficient" or "novice." The only two areas for which more than half of the students performed at the proficient level or above were 8th and 11th grade writing, with 51 percent of 8th graders and 56 percent of 11th graders scoring at or above the proficient level. When comparing Wyoming student achievement on the National Assessment of Educational Progress (NAEP) to the scores of regional states (see Smith, 2001), small student-to-teacher ratios in Wyoming schools do not appear to put Wyoming students at an advantage. Student achievement data suggest that issues of teaching and leadership capacity must be addressed to improve student learning.

The success of our current reform effort depends on teachers to instruct, guide, and inspire students to learn and on leaders to model and support teaching and learning for both students and teachers. If our students are going to have the opportunity to demonstrate proficiency on standards, Wyoming policymakers need to take measures to enhance teaching and leadership effectiveness. As the ECS report pointed out, our focus must be on teaching and leadership rather than on individual teachers and leaders.

Effective teaching and leadership are generally defined as having an adequate supply of qualified candidates, strong initial preparation and support, continuous professional development, and work environments that promote student and adult learning. Recognizing the need for a longitudinal view of teaching and leadership in Wyoming, the Teacher and Leader Quality Initiative commissioned Mid-Continent Research for Education and Learning (McREL) to conduct an independent study of WDE and Wyoming Department of Employment databases on teachers and leaders from 1993-2000. This study investigated issues of supply and demand, certification, compensation, education, experience, and student-to-teacher ratios.

¹ It should be noted that student-to-teacher ratios account for all certified staff, including special subject teachers, special educators, and principals. Actual class sizes in larger districts are often higher than this ratio. Also, this figure does not take into account the multiple-subject preparations that teachers in small schools are likely to have.

In conjunction with this study, the Initiative focused on Wyoming's approach to enhancing teaching and leadership effectiveness in terms of policies and practices aimed at increasing levels of knowledge, skill and actual practice to improve student achievement. This included a series of research studies and the formation of the Leader Quality Task Force, which conducted focus groups on these issues with educators from across the state. These studies ground recommendations for enhancing teaching and leadership effectiveness described in this Blueprint. These additional research efforts produced:

- *2001 Fall Staffing Survey*, an examination of districts' hiring, professional development, and induction policies and practices;
- *District Professional Development Expenditures from School Years 1997-2000* (Holloway, 2001), a quantitative study of district investments in professional development;
- *Wyoming Teacher and Leader Quality Initiatives 2001*, an annotated inventory of professional development programs in the state (see Appendix B); and
- *Leadership Focus Groups*, an exploration of leadership issues conducted by the Leader Quality Task Force with administrators representing 45 school districts.

This Blueprint is the final report of the Teacher and Leader Quality Initiative submitted to the 2002 Wyoming Legislature. Throughout this report, five regions of the state are defined as Central, Northeast, Northwest, Southeast, and Southwest. These regions are county-based and are used by the Wyoming Department of Employment (see <http://lmi.state.wy.us/>). Three kinds of locale are defined as cities/large towns, small towns, and rural. The U.S. Department of Education in the Common Core of Data provides a school locale code for all public schools based on population density. The relevant classifications for Wyoming school districts are:

- Mid-size city—population less than 25,000 people (2),
- Large town—population at least 25,000 people and located outside of a large or mid-size city (1),
- Small town—population between 2,500 and 24,999 (27), and
- Rural—population less than 2,500 (17).

Each Wyoming district was considered to be located in one of these categories based on the locale in which the majority of the district teachers work. Appendix A shows the region and locale designations for school districts.

This Blueprint serves as an in-depth discussion of teaching and leadership quality and outlines eight recommendations. This report begins with a brief section defining the context of education in Wyoming. The proceeding three sections are organized according to the following strategy areas: Recruitment, Attracting and Retaining, and Professional Development. Each section presents data to support specific recommendations for addressing these critical action areas. These recommendations are intended to ensure that all public school students in Wyoming have access to high-quality schools.

CONTEXT

Wyoming is the least-populated state in the nation with approximately 493,782 people, only 8 percent of whom are minorities (U.S. Census Bureau, 2000). Wyoming is 97,914 square miles with 4.9 people per square mile. Between 1995 and 1998, population growth averaged less than 0.2 percent, and in 1999, it fell by 0.1 percent (Wyoming Department of Employment, Research & Planning, 2000). In 2000, the population remained essentially flat, increasing by only 0.02 percent. Also since 1995, the state experienced net out-migration. The number of people expected to leave Wyoming exceeded the number who moved into the state. This trend is forecasted to continue through 2008 (Manley, 2000).

The K-12 education system includes 48 school districts, employing approximately 6,753 full-time certified teachers, 48 superintendents, and 260 principals in 2000-2001. Overall, 80 percent of Wyoming schools are located in areas designated as rural or small town, and these schools are responsible for educating 69 percent of the students. Forty-five percent of Wyoming teachers work in small town schools, followed by 29 percent in cities/large town and 26 percent in rural schools. Forty percent of principals work in small towns, 34 percent are in rural schools, and 27 percent are in cities/large towns. Of the 48 superintendents, over half work in rural districts, 38 percent are in small town districts, and only 6 percent are in cities/large towns (Reichardt, 2001a, 2001b).

Public school enrollment in Wyoming is less than 88,000 students in grades kindergarten through twelve. Most states currently experiencing teacher and leader shortages have school-age populations that are on a steep incline, with large and growing numbers of poor, minority, and limited English proficient (LEP) students. Wyoming, conversely, is experiencing a declining student population that is predicted to persist through 2008. In comparison to other states in the region, Wyoming has relatively low percentages of minority, LEP, and free-and-reduced-lunch eligible students (see Smith, 2001).

Figure 1 presents Wyoming student enrollment by grade group from 1993 to 2000. Since 1993, elementary school enrollment has dropped by over 17 percent and junior high school enrollment decreased about 10 percent. High school enrollment has had a slight increase of about three percent (Reichardt, 2001a) but is predicted to drop as current high school students move out of the system.

The Wyoming Department of Administration and Information, Division of Economic Analysis prepared a county-level population forecast for 2000 to 2008 in early 1999². This forecast is shown in Figure 2. It predicts continued declines in student populations, with only a slight increase in the number of students five-to nine-years old. Between 2000 and 2008, student populations are expected to drop by 21 percent for 15- to 19-year-old students and by 16 percent for student's age 10 to 14 years. Only, elementary student populations may increase slightly by two percent between 2004 and 2008. These trends in school-age populations force Wyoming to face unique challenges compared to those of other states.

² This forecast did not use information from the 2000 Census.

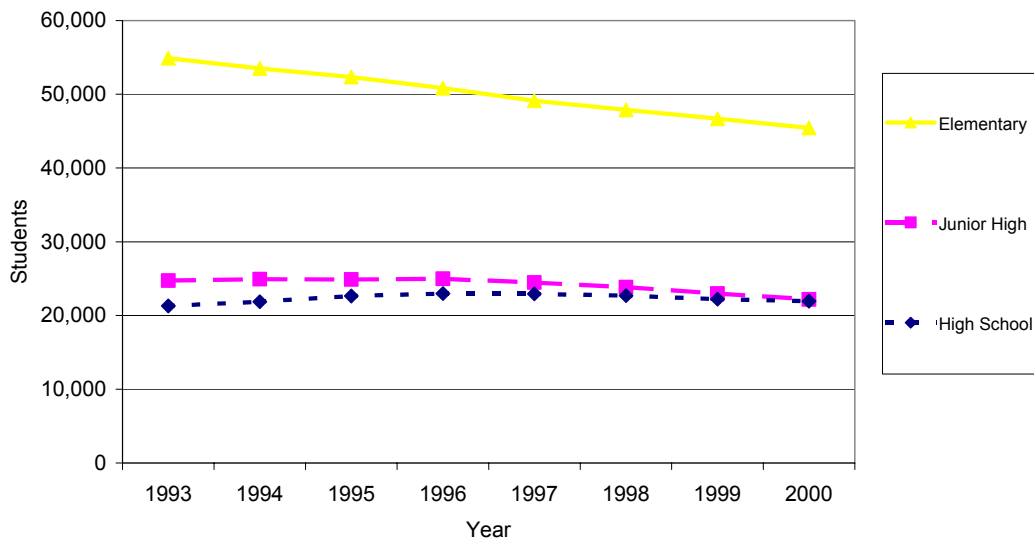


Figure 1: Wyoming Enrollment by Grade Group 1993 to 2000

Source: Reichardt (2001a); WDE Enrollment Data File

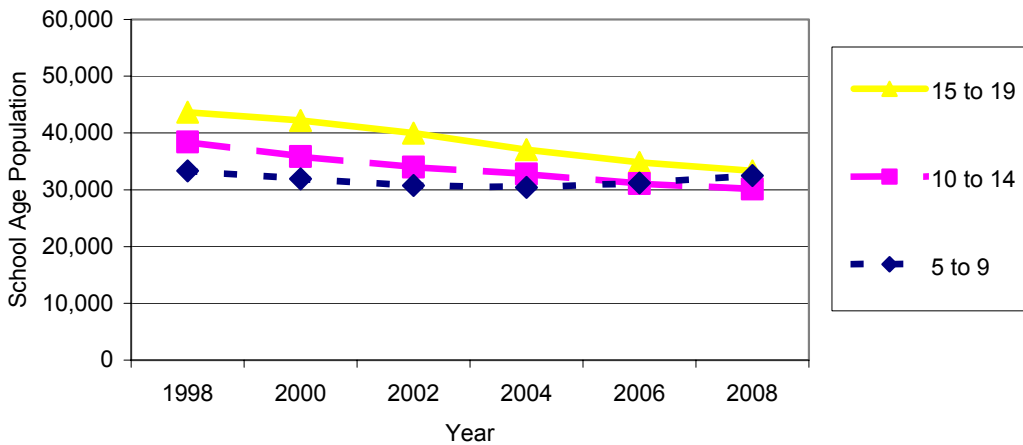


Figure 2: School-Age Population Projections 1998-2008

Source: Reichardt (2001a); Wyoming Department of Administration and Information: Division of Economic Analysis

In spite of declining student populations, there have been only small shifts in the distribution of full-time teachers and leaders since 1993 (Reichardt, 2001a). As student enrollments decreased, the number of full-time teachers in elementary and middle level grades has remained relatively steady, and the number of high school teachers has climbed. Similarly, the number of superintendents has remained relatively steady while the number of principals has fluctuated slightly from 264 in 1993 to 260 in 2000, with highs of 271 in both 1995 and 1998.

As student enrollments continue to decline, districts will be faced with difficult staffing decisions.

RECRUITMENT STRATEGIES

At one time Wyoming had a state-sponsored scholarship/loan forgiveness program, but it was discontinued because students could not find jobs in Wyoming schools, a provision of loan forgiveness. Teacher and leader supply data indicate that districts' hiring difficulties may persist unless education policymakers at the state and district levels take steps to improve recruitment strategies. In order to maintain a strong supply of high-quality teachers and leaders, the Teacher and Leader Quality Initiative provides the following recommendations.

1. **Implement a state-supported scholarship/loan forgiveness program.**
2. **Improve district recruitment efforts.**

1. Implement a State-Supported Scholarship/Loan Forgiveness Program.

In order to attract high-quality teachers and leaders to study and work in Wyoming, the state needs to develop a scholarship/loan forgiveness program for teachers and leaders who attend the University of Wyoming or a community college in pursuit of teacher certification or advanced training. Scholarships and loan forgiveness for pre-service and in-service educators who choose to take positions in high-need subjects, schools, or districts in Wyoming would help attract future educators to the profession and support those who are committed to working in-state.

Wyoming school districts hired 767.6 teachers and student service personnel for the 2001-2002 school year. Figure 3 shows that in 2000 the Wyoming Professional Teaching Standards Board (PTSB) certified 736 new teachers. The number of newly certified teachers since 1996 has fluctuated slightly, but the number of newly certified principals has almost tripled (see Figure 4).

During the 1999-2000 school year, there were an average 4.8 applications per open teaching position, according to the Wyoming School Boards Association (2000). Reported shortages were particular to the number of qualified applicants for special education (general and more specialized areas, such as speech pathology), foreign language, bilingual, math, science, vocational, music, gifted and talented, psychology, and counseling (Manley, 2000). For the 2001-2002 school year, Management Analysis & Planning (MAP) reported that districts received an average of 4.1 applications per position (Smith, 2001)³.

³ This is compared to 5.45 applications per position in six surrounding states—Colorado, Idaho, Montana, Nebraska, South Dakota, and Utah; however, this does not represent a statistical difference (Smith, 2001).

Figure 3: Newly Certified Teachers 1996-2000

Source: Professional Teaching Standards Board.

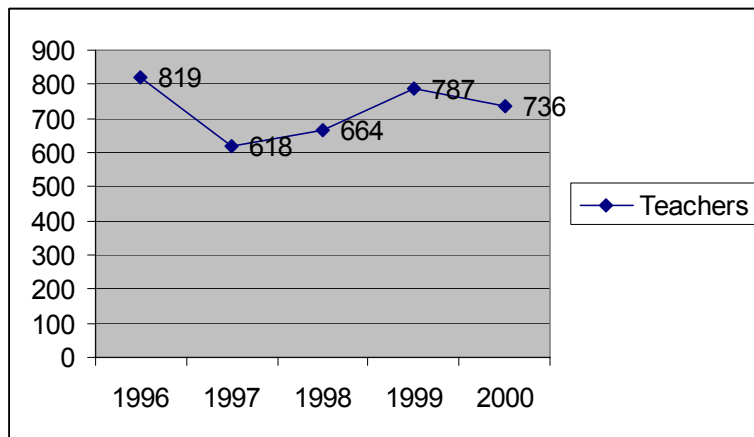
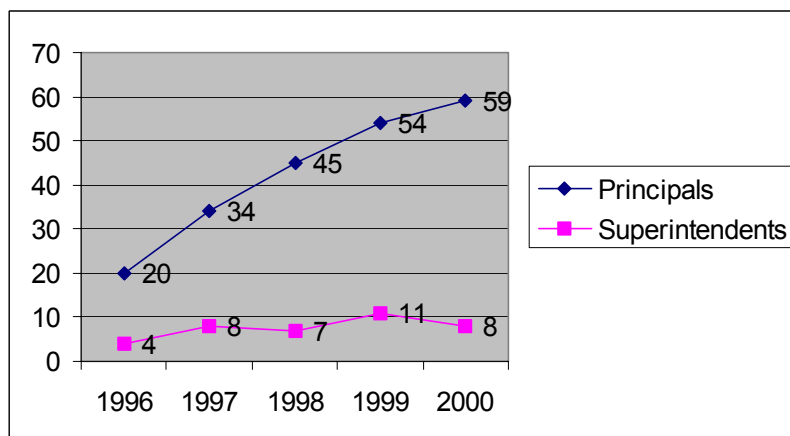


Figure 4: Newly Certified Principals and Superintendents 1996-2000

Source: Professional Teaching Standards Board



In 2000, the PTSB conducted its first annual *Fall Staffing Survey* of all Wyoming school districts. It revealed that 49 unfilled teaching positions existed in schools at the beginning of the 2000-2001 school year. This number represented 0.7 percent of all teachers. However, the number of teaching positions unfilled in rural districts was almost one percent, with the highest percentages in the Northwest and Southwest (Reichardt, 2001a). Table 1 presents the geographic distribution of vacancies in Fall 2000 in terms of locale and region. Four percent of all speech pathology positions, three percent of counseling, and three percent of foreign language positions were unfilled in Fall 2000.

Table 1: Geographic Distribution of 2000 Vacancies

Source: Reichardt (2001a); WDE Professional Staff List Report; *2000 Fall Staffing Survey* (PTSB)

	Percent of Teachers
Rural	0.9%
Small Town	0.5%
City/Large Town	0.2%
Northwest	0.7%
Southwest	0.7%
Northeast	0.4%
Central	0.4%
Southeast	0.3%

In March 2001 U.S. Department of Education designated nine subject areas as having shortages in Wyoming. The U.S. Department of Education determines a shortage in a particular subject area based on the combined number of provisionally certified teachers and the number of unfilled positions in each subject area. Table 2 shows the nine subject areas, and the number of provisional certifications, the number of unfilled positions, the U.S. Department of Education total shortage, the number of full-time teachers (FTE), and the percentage of FTE represented by the total shortage in each area.

Table 2. U.S. Department of Education Designated Shortage Areas

Source: Professional Teaching Standards Board (2001).

SUBJECT	Total Provisional Certifications*	Total Unfilled Positions	Total Shortage	FTE/ Subject	Shortage/ FTE
Principal	50	0	50	260	19%
Speech Pathologist	18	5	23	136	17%
Foreign Language	11	5	16	149	11%
Special Education	40	9	49	766	6%
Music/Art	27	5	32	505	6%
Math	21	2	23	366	6%
Superintendent**	3	0	3	48	6%
Counseling	13	10	23	369	6%
Science	19	1	20	346	6%
Social Studies	16	0	16	331	5%
Language Arts	19	0	19	471	4%

*Includes certified teachers teaching outside of the area in which they are certified.

**Superintendents are no longer required to maintain current certification.

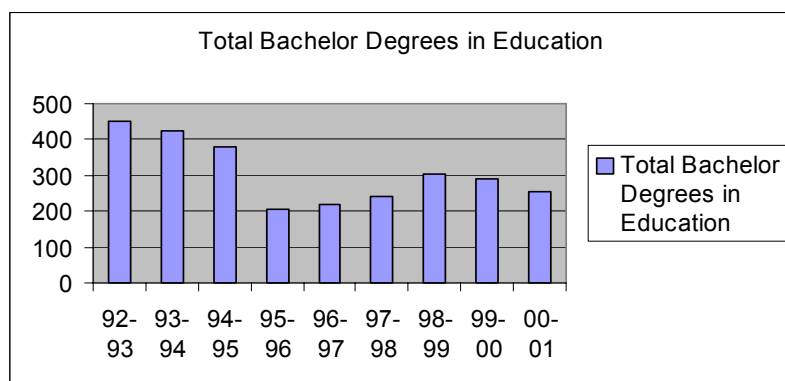
The total number of provisional certifications has increased by 146 percent since 1996. Preliminary data from the *2001 Fall Staffing Survey* indicate that at the beginning of the 2001-2002 school year 47 positions were unfilled. The number of unfilled positions in 2001 persisted in speech pathology (seven), special education (seven), and music (four)⁴. Thirty-eight (38) percent of the unfilled positions were in special education, speech pathology, and counseling/social work combined. At the same time, twenty (20) positions had been filled with full-time substitute teachers, four in special education and four in music. Based on these trends, it is likely that Wyoming will continue to receive federal shortage designations in 2001-2002.

The federal shortage designations allow teachers teaching in a designated subject area with Stafford Loans to defer payment for one year and those with Perkins loans to receive loan forgiveness over the course of five years. However, the benefits of this federal program are limited. They are only available to teachers who received loans between 1987 and 1993. In addition, this program does not address the need to support teachers and prospective leaders as they pursue advanced training.

These indicators suggest that demand for qualified teachers and leaders is growing. However, over the past nine years, the supply of Wyoming educators produced by the University of Wyoming (UW) College of Education has clearly declined (see Figure 5). Of greatest concern is the small number of graduates in student services and special education fields, especially speech pathology and counseling (see Figure 6). Figure 7 shows the decreasing number of degrees granted in education leadership.⁵

Figure 5: Total UW Bachelor Degrees in Education

Source: University of Wyoming (2001, <http://uwyo.edu/instana/degrees.htm>)



⁴ These figures do not include data on eight unfilled positions reported by one district that did not indicate in which subject areas the open positions were.

⁵ These figures do not include students in the newly implemented UW Principal Endorsement Program.

Figure 6: UW Degrees in Special Education and Student Services

Source: University of Wyoming (2001, <http://uwyo.edu/instana/degrees.htm>)

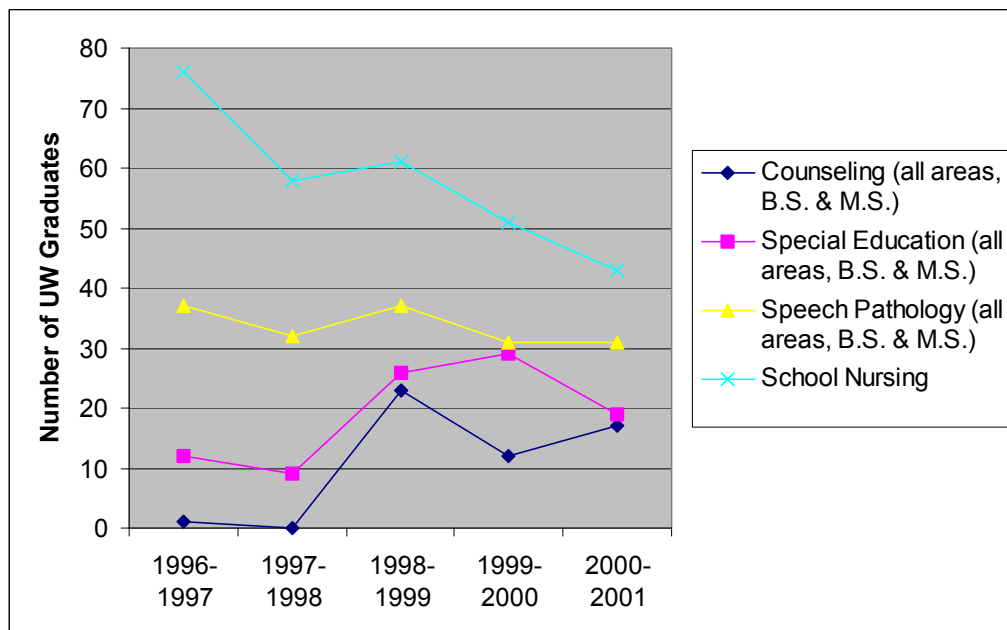
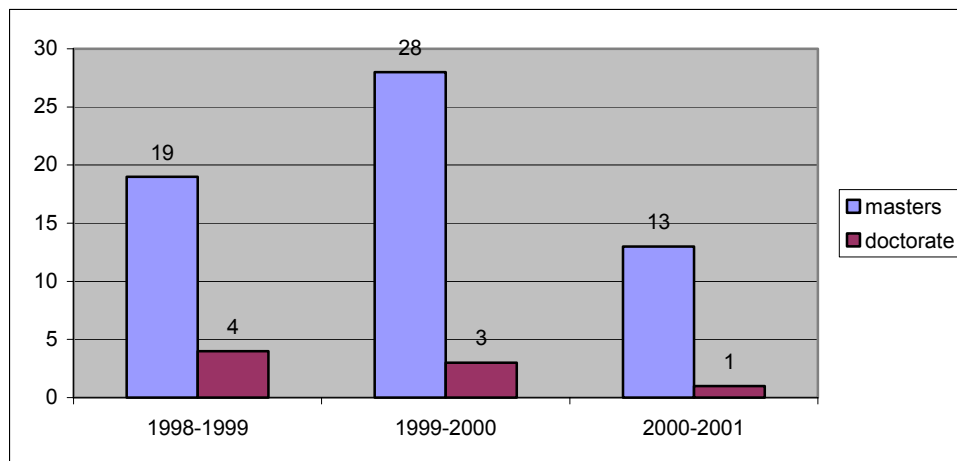


Figure 7: UW Degrees in Educational Leadership

Source: University of Wyoming (2001, <http://uwyo.edu/instana/degrees.htm>)



Wolkoff and Podgursky (2001) reported that 1997 UW graduates with education majors who worked in Wyoming schools and whose residency was in Wyoming prior to attending college were more likely to work in Wyoming (70 percent) than were those graduates who were from out-of-state. UW education graduates working in Wyoming schools were also more likely to remain working in Wyoming than non-education majors. However, only 27 percent of Wyoming teachers have master's degrees (Reichardt, 2001a), compared to 45 percent nationally (National Center for Education Statistics, 2001).

A scholarship/loan forgiveness program for pre-service and in-service educators would help increase the supply of teachers and leaders trained in Wyoming. It would continue to encourage Wyoming-trained educators to remain in Wyoming schools and to seek advanced education. Other states have adapted a similar approach to enhance the attractiveness of attending in-state teacher and leader education programs and remaining in-state following graduation. Many link loan forgiveness to working in positions in high-need areas for three to five years.

2. Improve District Recruitment Efforts.

To address current difficulties in attracting high-quality candidates, districts need to improve recruitment practices. With increased demand for teachers regionally and nationally, Wyoming districts need to update their recruitment efforts and consider the kinds of incentives that out-of-state districts and other professions use to enhance a job offer (e.g. signing bonuses, moving expenses, housing assistance).

With decreasing numbers of teachers and leaders generated in state, recruitment of teachers and leaders has become more challenging for Wyoming districts. For the 2001-2002 school year, Wyoming districts hired 767.6 teachers, 41 principals and 5 superintendents. In the spring of 2001, 21 Wyoming districts attended the UW Teacher Fair. Twelve (12) of these districts had attended the UW fair in 2000.

The UW fair has attracted an increasing number of out-of-state districts experiencing severe teacher shortages, especially those in large urban areas and with high proportions of minority, LEP, and poor students. The number of Wyoming districts attending the fair since 1998 has remained relatively steady, but their proportion in relation to the number of out-of-state districts attending has decreased from 56 percent in 1998 to 18 percent in 2001, according to UW Career Services.

The majority of the out-of-state school districts at the 2001 UW fair provided prospective hires with 2001-2002 salary information and a list of open positions. They distributed packets of materials about their districts, schools, teacher and student populations as well as community information. Representatives from these districts also set up professional quality displays with eye-catching information and images of students and teachers in classrooms.

In contrast, a limited number of the Wyoming districts distributed recruiting materials, such as district information (five), lists of openings (three) and application materials (one). Four districts presented visual displays to attract potential candidates. Three districts did not have a representative at their assigned tables. Few districts could say what their salaries would be for the 2001-2002 school year on the date of the fair, April 2, 2001, or which positions would be available.

In November 2001, UW Career Services surveyed the 117 districts that attended the 2001 UW fair. Thirty-nine (39) districts, 33 percent, responded to the survey that asked them to report whether they had hired candidates from the UW fair, in what positions, and at what salary. Table 3 presents the results of this survey for Arizona, Texas, Nevada, Colorado, and Wyoming. Half of the Arizona districts that attended the fair (six) hired a total of 15 fair participants with an average salary of \$28,753.07. Of the 12 districts from Texas that attended, four reported hiring six participants at the highest average salary, \$32,425.00, among comparison states. Two participants were hired by the Clark County School District in Las Vegas, Nevada at \$26,847.00, \$345.00 less than they would have earned on average in Wyoming. Surprisingly, 10 Wyoming districts reported hiring 38 participants with an average salary that was only \$56.00 less than the average salary of new Colorado hires from the fair.

Table 3. UW Career Fair Hires

Source: University of Wyoming Career Services

Districts In:	Number of Positions	Average Salary	Net Difference From WY
Arizona	15	\$28,753.00	\$1,561.00
Texas	6	\$32,425.00	\$5,233.00
Nevada	2	\$26,847.00	(\$345.00)
Colorado	31	\$27,248.00	\$56.00
Wyoming	38	\$27,192.00	

Figure 8 shows the other recruiting fairs that Wyoming districts attended in 2001. Nineteen (19) districts reported not attending a single recruiting fair in 2000-2001. The number of recruiting fairs any single district attended ranged from six fairs (three districts) to one (12 districts). The districts that attended at least one fair (29 districts) went to an average of less than three fairs. These data indicate that Wyoming districts tend to recruit personnel from surrounding states and that they do so on a limited basis.

Many larger and more urban districts attending fairs tend to offer additional incentives to attract teacher and leader candidates. Half of Wyoming districts make these kinds of offers. Table 4 shows the three most popular incentives that Wyoming districts offer and the number of districts that offer them.

A survey of all district superintendents in Wyoming conducted during the summer of 2001 by MAP revealed that superintendents in rural and small town districts “strongly agreed” with the statement, “We now find it more *difficult* to hire teachers than we did five years ago” (Wolkoff & Podgursky, 2001). Although Wyoming has established a state job bank including education vacancies and a common web-based application for all districts, Wyoming districts must take a more active role in recruiting teachers and leaders.

Districts need to update their recruitment practices by attending fairs with attractive displays, informative materials, and defined salaries and positions to attract potential teacher and leader candidates. They may need to consider additional incentives, such as signing bonuses, moving expenses, or housing assistance. Districts also should consider forming a consortium of

human resource and business managers to develop shared marketing strategies. In order to be competitive in today's educator market, Wyoming districts need to develop effective recruitment strategies.

Figure 8: Recruiting Fairs Attended by Wyoming Districts

Source: 2001 Fall Staffing Survey (PTSB, 2001).

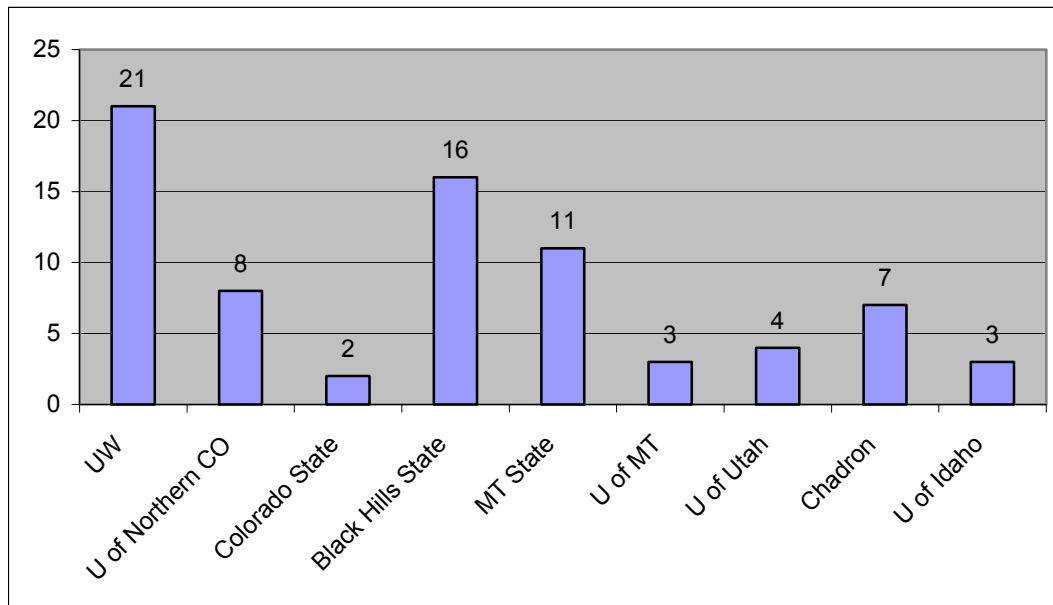


Table 4: District Incentives

Source: 2001 Fall Staffing Survey (PTSB, 2001)

Type of Incentive	Districts Provide for Teachers	Districts Provide for Leaders
Moving Expenses	7	10
Bonus/Improved Salary	12	4
Insurance/ Retirement Benefits	4	4

ATTRACTING AND RETAINING STRATEGIES

“The Status of Rural Education in Wyoming: An Overview” (Manley, 2000) presents a detailed description of enrollments, staffing, academics, resource access and utilization for rural school districts in Wyoming. This study suggests that rural schools, as compared to non-rural schools, are “quite competitive” in terms of academics: high graduation rates, small class sizes, and comparable assessment scores. However, it also states that attracting and retaining quality educators in rural schools is “likely to worsen over time unless policies and programs are implemented and promoted on a statewide basis” (p. 25). This conclusion is echoed by the recommendations in this Blueprint.

This section addresses the issues and strategies related to attracting and retaining high-quality teachers and leaders. On the 2000 and 2001 *Fall Staffing Survey* (PTSB), Wyoming school district personnel reported the two most common problems in hiring new teachers as “non-competitive salaries” and “lack of qualified candidates.” The following recommendations address these concerns.

1. **Ensure regionally competitive compensation for all educators.**
2. **Develop high-quality induction and mentoring programs.**
3. **Develop career advancement and compensation systems that reward increases in knowledge and skill.**

1. Ensure Regionally Competitive Compensation For All Educators.

State and district policymakers should strive to maintain all educators’ salaries at a level that is competitive with other regional states to continue to attract and retain high-quality teachers and leaders. On February 23, 2001, the Wyoming Supreme Court ruled in *Campbell County School District vs. State of Wyoming* that teacher, leader, and classified staff salaries must be adequately adjusted for inflation using an index that accounts for regional housing and medical costs within Wyoming. This will make it harder for small, rural districts to offer competitive salaries due to lower costs of living in these areas. To remain competitive in attracting and retaining teachers statewide, salaries will need to be maintained at a level competitive in all areas of Wyoming and with surrounding states. Additional financial incentives (e.g. signing bonuses, differential salary schedules for high-need areas) also may be required to retain teachers and leaders, especially in rural schools and high-need subject areas.

Compensation is an increasingly important indicator of positive working conditions that attract teachers and leaders. Education has commonly been saddled with the reputation of

attracting workers who are not “in it for the money,” so to speak. Often the public responds negatively to calls for higher teachers salaries by pointing to other benefits such as medical and retirement coverage and nine-month contracts. Recently, national teacher and leader shortages have placed additional pressure on educator compensation policies. As other states face hiring and certification crises, their districts have increased salaries and financial incentives to attract teachers and leaders in high-need areas. National studies of compensation (American Federation of Teachers, 2001) have documented the decline of Wyoming’s average teacher salary rankings in comparison with other states, many of which are in the midst of prolonged teacher and leader shortages.

Yet, basing salary decisions on state averages obscures the role of salary in teacher career moves. Hanushek, Kain, and Rifkin (2001) studied the career moves of 375,000 primary school teachers in Texas from 1993 to 1996. They found that teachers, for the most part, moved to classroom jobs which paid only slightly more than they were already earning but were in schools with higher test scores, fewer minority students, and smaller percentages of poor students.

Teacher Salaries

On February 23, 2001, the Wyoming Supreme Court ruled in *Campbell County School District vs. State of Wyoming* that teacher salaries were “reasonable and supported by the record,” but that teacher, leader, and classified staff salaries must be adequately adjusted for inflation using an index that accounts for regional differences in housing and medical costs within Wyoming. As a result, small and rural districts that have lower housing costs will be at a disadvantage in setting their base salary levels for teachers and administrators and increases for years of experience and education that are competitive with more urban areas of the state.

For the 2000-2001 school year, Wyoming’s average total salary for a full-time teacher was \$35,979⁶, not including other benefits. Table 5 presents average teacher salaries for all teachers, teachers with no experience in Wyoming without a master’s degree, and teachers with 18 years of in-state experience with a master’s degree. The average salary for beginning teachers was \$25,439⁷. In 2000-2001, beginning teachers were, on average, highest paid in rural areas and in the Southeast. These areas also had the highest proportion of novice teachers (16 percent). Cities/large towns and the central region of the state paid beginning teachers the least and experienced teachers (18 years with a master’s degree) the most.

When ranking salaries according to subject areas (see Table 6), computer teachers are on average the highest paid, with special education second and physical education third. Computer

⁶ Total salaries include compensation for all duties assigned. Teachers and administrators commonly take on additional duties that augment their primary contracted duties and receive additional compensation. All salary data are based on full-time teacher and leader total compensation.

⁷ Salary information in this report is higher than salaries calculated by MAP (Wolkoff & Podgursky, 2001). Based on Reichardt (2001a, 2001b), this report examines total salaries earned by teachers and leaders as reported by districts on the WDE Staff List Report. Salary information reported by MAP is based on district salary schedules rather than actual earnings.

and special education teachers are more likely to have master's degrees. Additional coaching duties also may contribute to the relatively high salaries of physical education teachers.

Table 5: Average Salaries in 2000

Source: Reichardt (2001a); WDE Professional Staff List Report

	All Teachers	No State Experience, No Master's	18 Years State Experience With Master's
Average	\$ 35,979	\$ 25,439	\$ 44,355
City/Large Town	\$ 36,979	\$ 24,569	\$ 45,668
Small Town	\$ 36,383	\$ 25,591	\$ 44,151
Rural	\$ 34,101	\$ 25,964	\$ 42,264
Northwest	\$ 34,346	\$ 25,554	\$ 42,606
Northeast	\$ 35,987	\$ 25,682	\$ 44,350
Southwest	\$ 36,960	\$ 25,818	\$ 45,012
Southeast	\$ 36,119	\$ 25,923	\$ 42,761
Central	\$ 36,340	\$ 23,787	\$ 46,282

Table 6: Average Teacher Salaries by Subject

Source: Reichardt (2001a); WDE Professional Staff List Report port

SUBJECT AREA	All Teachers	Rank All Teachers	No State Experience, No Master's	Rank, No State Experience, No Master's
Language Arts	\$ 36,665	4	\$ 26,292	4
Math & Science	\$ 36,414	6	\$ 25,613	7
Social Science	\$ 36,618	5	\$ 25,912	6
PE	\$ 38,964	2	\$ 26,851	3
Humanities	\$ 35,706	8	\$ 24,349	9
Vocational & Driver's Education	\$ 37,316	3	\$ 25,981	5
Foreign Language	\$ 35,490	9	\$ 23,065	12
Computers	\$ 40,520	1	\$ 37,135	1
Special Education	\$ 34,988	11	\$ 26,929	2
Remediation	\$ 34,640	12	\$ 23,952	11
General Education	\$ 35,408	10	\$ 24,256	10
Total	\$ 35,979	7	\$ 25,439	8

Reichardt (2001a) as well as Wolkoff and Podgursky (2001) found that compensation for experienced teachers remains competitive with adjoining states and with non-teaching

occupations in Wyoming. Compared to adjoining states, Wyoming gave larger percentage pay increases to experienced teachers as compared to beginning teachers from 1997 to 2000. Until 2001-2002, earnings of experienced teachers in Wyoming grew faster than the national or Wyoming rate of inflation and Wyoming manufacturing earnings. For this same period, earnings for beginning teachers grew slower than these rates of inflation and Wyoming manufacturing earnings (see Wolkoff & Podgursky, 2001).

The legislatively enacted 2001 external cost adjustment of 9.44 percent produced the largest teacher salary increase since 1997 in Wyoming or in adjoining states. This single-year increase exceeded Wyoming's cumulative three-year increases (1997-2000) of 6.9 to 12.2 percent. The 2001-2002 salary increase was higher for beginning teachers' than for experienced teachers and administrators (Wolkoff & Podgursky, 2001).

Wolkoff and Podgursky (2001) analyzed the basic academic records for the 1997 graduating class from the University of Wyoming and linked them to Unemployment and Insurance wage record files for those graduates working in Wyoming, Colorado, Utah, or South Dakota (50 percent of graduates). Seventy percent of the education majors and six percent of non-education majors had predominant earnings as teachers. Although 1997 graduates earned less as teachers in Wyoming than in Colorado, they earned more than teachers in South Dakota and Utah. UW graduates who taught in Wyoming were shown to earn 98 percent of non-teaching annual earnings in 1999, with primarily nine-month contracts. On the other hand, UW graduates who took teaching positions in one of the other three states earned 77 percent of non-teaching annual earnings in 1999.

District recruitment data (see Recruitment Strategies) indicate that districts seek to hire teachers from within Wyoming and regionally. Teacher salary data suggest that Wyoming teacher salaries are competitive with those in adjoining states. It will be important that teacher salaries remain competitive both within Wyoming and in comparison to surrounding states.

Leader Salaries

National studies have found that the number and degree of responsibilities of school and district leaders is the most limiting factor in attracting prospective leaders to the profession (National Association of State Boards of Education, 1999). In the fall of 1997, the Educational Research Service conducted a study for the National Association of Elementary Principals and the National Association of Secondary School Principals that asked superintendents to identify factors they felt discouraged people from applying for the principalship. The most common response (60 percent) described compensation as insufficient compared to the responsibilities of principals (Educational Research Service, 1998). Studies in Montana and Maine also found that compensation was an issue in attracting quality candidates to principal vacancies (Educational Research Service, 2000).

In focus groups with Wyoming education leaders, the majority reported that they took administrative positions, in part, due to increased salaries. However, many pointed out that principal salaries have not kept pace with teacher salaries especially when total salaries for both

teachers and leaders are compared to the number of contracted days. While teachers are generally contracted for 178 days, principals reported working 200-215 contract days and superintendents reported 260 contracted days. On a scale from 1-10, with 10 representing “extremely fair compensation for the level of responsibilities of the job,” on average the focus group participants rated their salaries a six. Focus group participants indicated that the two most critical reasons why veteran teachers were not crossing over into administrative positions are: 1) a lack of significant pay differential between teaching and administration and 2) the loss of pay while pursuing advanced credentials, especially during required internships.

The average principal salary in 2000 was \$57,437.00. This average represents an increase of \$8,096 since 1993. The percent of female principals has almost doubled since 1993, from 16 to 31 percent in 2000. Cities/large towns have seen the largest growth in female principals from 11 to 46 percent. Table 7 shows the average principal salaries, age, and percent female in relation to region and locale. In 2000-2001, salaries were highest for principals in the central (\$60,038) and southeastern (\$58,853) regions of the state and for principals in cities/large towns (\$61,351). Average principal salaries are lowest for those in the northwest (\$54,575) and in rural areas (\$53,770) (see Reichardt, 2001b). Average national principal salaries range from \$61,553 for elementary principals to \$69,477 for senior high school principals (Educational Research Services, 2001).

Table 7: Principal Average Salaries, Age, and Percent Female By Region and Locale in 2000

Source: Reichardt (2001b); WDE Professional Staff List Report

	Number	Age	Salary	% Female
NW	52	48	\$54,575	29%
NE	44	46	\$56,329	25%
SW	56	48	\$57,155	23%
SE	57	50	\$58,853	37%
Central	51	48	\$60,038	41%
City/Large Town	69	50	\$61,351	43%
Small Town	103	47	\$57,949	32%
Rural	88	48	\$53,770	20%

Table 8 presents average superintendent salaries by locale and region. For superintendents, average salary was \$74,514, an increase of \$10,336 since 1993. The percentage of female superintendents has increased from zero percent in 1993 to eight percent in 2000. In correspondence with principal salaries, the average superintendent salary was highest for those in central (\$78,677) and southeastern (\$78,427) regions and in cities/large towns (\$93,367). Leaders in larger schools and districts generally have higher salaries. It should be noted that there are only three superintendents serving districts located in cities/large towns. Nationally,

average superintendent salaries range from \$75,768.00 for assistant superintendents to \$118, 496 for superintendents (Educational Research Service, 2001).

Table 8: Superintendent Average Salaries and Age By Region and Locale in 2000

Source: Reichardt (2001a); WDE Professional Staff List Report

	Number	Age	Salary
NW	18	52	\$69,517
NE	8	53	\$77,807
SW	10	53	\$76,052
SE	7	54	\$78,427
Central	5	46	\$78,677
City/Large Town	3	53	\$93,367
Small Town	18	51	\$79,822
Rural	27	53	\$68,880

Information on principals' daily rates and the change in daily rates for people who moved into principal positions is presented in Table 9. Median daily rates were used since the number of people moving into principal jobs is small, making averages less likely to reflect the experience of most people in the sample. Daily rates represent the amount of money people earn for working one day.⁸

The first column of Table 9 shows the median daily rate for principals which, like average salary, had its largest increase between 1997 and 1998. The second column shows the daily rate for first-year principals with prior jobs in Wyoming public schools. The daily rate of new principals is generally increasing, except between 1999 and 2000. The third column shows the median daily rate for jobs held before moving into principal positions. The fourth column shows the median gain in daily rate experienced by people moving into principal positions. The gain in daily rate appears to be decreasing. In other words, the increase in the rate of pay received as people move into principal positions is declining. While daily rate increased at the median level, not all new principals experienced a gain in daily rate. The fifth column shows the proportion of people whose daily rates decreased when they became a principal (Reichardt, 2001b).

Between 1996 and 2000 about five percent of new principals received lower overall salaries and about 20 percent took cuts in their daily rate. This suggests that other factors such as the prestige of the position and locations where people work may be as equally important as pay to some principals. However, compensation over a person's career is not accounted for in this analysis. Though principal transitions may represent temporary reductions in compensation, Reichardt (2001b) adds, "they may also have the potential for higher compensation over the remainder of a career" (p. 23).

⁸ The daily rate is equal to total salary divided by the total number of contracted days.

Table 9: Median Daily Rate for Principals and Daily Rate Change for People Moving into Principal Positions

Source: Reichardt (2001b); WDE Staff List Report

	Median Daily Rate	Median Daily Rate of First- year Principal s	Number of First-year Principals	Median Daily Rate of Job before Principal job	Median Gain In daily Rate for those moving into principal job	Proportion whose daily rate decreased as they moved into principal positions
1996	\$244	\$228	23	\$210	\$25	12%
1997	\$249	\$241	25	\$214	\$24	10%
1998	\$261	\$245	28	\$229	\$22	28%
1999	\$268	\$249	36	\$229	\$11	32%
2000	\$275	\$246	30			

The change in median daily rate as people move into superintendent positions is shown in Table 10, just as it is shown for principals in Table 9. The median daily pay rate increased at a fairly steady pace between 1996 and 2000. It is about \$20 higher than principals' median daily rate. The median daily rate of first-year superintendents and of jobs prior to becoming superintendents fluctuates year by year. As with transitions to principal positions, not all new superintendents received an increase in daily rates. About a third earned lower daily rates. Trends in the amount of the decrease and the number with lower daily rates are difficult to identify due to the small number of new superintendents (13) in this sample.

Table 10: Median Daily Pay Rate for Superintendents and Daily Rate Gain for People Moving into Superintendent Positions

Source: Reichardt (2001b), WDE Professional Staff List Report

	Median Daily Rate	Median Daily Rate of First-year Supt.	Number of First- year Supt.	Median Daily Rate of Job before Supt. job	Median Gain In daily Rate for those moving into Supt. jobs job	Proportion whose daily rate decreased as they moved into Supt. positions
1996	\$ 261		4	\$ 226	\$16	50%
1997	\$ 273	\$ 280	3	\$ 239	\$28	0%
1998	\$ 280	\$ 250	2	\$ 295	-\$17	50%
1999	\$ 288	\$ 291	4	\$ 287	\$15	25%
2000	\$ 299	\$ 265	13			
1996- 2000	\$ 278	\$ 264	4	256	\$17	31%

The February 23, 2001, Wyoming Supreme Court decision in *Campbell County School District vs. State of Wyoming* puts rural districts at a disadvantage. Rather than being able to tout lower housing costs as a competitive advantage, adjusting salaries for inflation required by the Court will make it even harder for small, rural districts to offer competitive salaries due to lower housing costs in these areas. This suggests the need for state policymakers to maintain regionally competitive salaries for all educators within Wyoming. Salary comparisons with adjoining states reveal that Wyoming salaries are currently regionally competitive, but increases in demand for teachers and leaders in Wyoming and in surrounding states indicates that policymakers also need to maintain salaries that are competitive regionally. Additional financial incentives, such as signing bonuses and differential salary schedules for high-need areas, may be required to retain teachers and leaders, especially in rural schools and high-need subject areas.

2. Develop Career Advancement and Compensation Systems That Reward Increases in Knowledge And Skill.

To improve teaching, leadership and student achievement, it is recommended that districts should build career-advancement and knowledge- and skills-based compensation systems that support novice, career and accomplished teachers and leaders by rewarding increases in expertise. This should be tied to re-certification processes and include increased incentives for teachers awarded National Professional Teaching Standards Board certification.

Currently, the profession of teaching offers few avenues for promotion that allow our best teachers to remain in the classroom. Teachers who seek multiple career opportunities and advancement must leave the classroom for administrative positions. In the 1980s merit pay and career-ladder systems were commonly implemented to address this issue. Typically for merit pay systems, principals conducted evaluations based on arbitrary and poorly defined measures of performance (Odden, Kelley, Heneman & Milanowski, 2001). Merit pay systems promoted competition among teachers and provided no incentive for the best teachers to work collaboratively with others (Hatry, Greiner, & Ashford, 1994). The purpose of the career ladder was to provide teachers opportunities to take on responsibilities outside of classroom teaching. Often the result was a proliferation of administrative roles that pulled teachers out of the classroom (Odden, et al., 2001).

Based on research that supports the link between teacher and leader expertise and student performance, the National Commission on Teaching and America's Future recommended that states and districts consider better ways of linking pay to the development of teacher knowledge and skills (National Commission on Teaching and America's Future, 1997). Exploring better ways of using pay to enhance teacher and leader expertise is also supported, to varying degrees, by education unions and associations nationally.

Teachers and leaders are knowledge workers whose knowledge and skill sets are complex and changing. Wyoming's standards-based education reforms require teachers to have high competency levels in their subject matter, content-related pedagogy, cognitive sciences, and decision-making. They require leaders to possess strong competency levels in the principles and processes of standards-based education, organizational change, and the creation of strong learning cultures in schools (Conley & Odden, 1995; Fullan, 2001; Kelley, 1997; Mohrman, Mohrman, & Odden, 1996).

Pay for Knowledge and Skills

In the 1990s some states and districts implemented innovative compensation systems that rewarded educators for knowledge, skills, and professional contribution to the improvement of student achievement. When these approaches were combined with sufficient standards-based professional learning opportunities—such as mentoring, study groups, and content and pedagogical training—such career advancement programs have been shown to shift the culture of schools to focus on the teaching and learning of students and adults (Odden et al., 2001).

Knowledge- and skill-based pay in education has been adapted from the business sector where it was developed to encourage workers to acquire new, more complex, and employer-specific skills. It is also intended to reinforce an organizational culture that values employee growth (Lawler, 2000) and to create a clear career path linked with increasing professional expertise (Heneman & Ledford, 1998; Heneman, Ledford, & Gersham, 2000).

Knowledge- and skills-based compensation systems have emerged as a potentially promising way to leverage investments in increased pay to improve expertise, teaching, leadership, and learning. Such systems provide clear directions to teachers and leaders about how they should focus their professional energies and reward educators with base pay increases or bonuses for acquiring demonstrated knowledge and skills needed to meet education goals. Odden et al. (2001) conducted a study of seven pioneering knowledge- and skills-based compensation programs. Designs and implementation of these programs varied, but most retained some type of salary progression based on experience and still rewarded at least the acquisition of a master's degree. Most were also voluntary.

Odden et al. (2001) reported that a common way to supplement the traditional salary schedule is to provide a bonus or base-pay increase for certification by the National Board for Professional Teaching Standards (NBPTS). In Wyoming 10 districts reward teachers for achieving NBPTS certification. Four offer bonus pay of \$2,000 to \$3,000, and six award increases on the salary schedule, such as doctorate level (*2001 Fall Staffing Survey*).

Another approach is to reward teachers and leaders for completing a skill block of courses that directly relate to improving student achievement in relation to district/school goals. A few Wyoming districts have attempted to implement this kind of program. Often completion of such skill blocks is considered part of induction as well as ongoing professional development. For a complete review of the various national programs see Odden and Kelly (2001).

The “heart of a knowledge- and skills-based pay system,” according to Odden et al. (2001), “is the method for assessing the degree to which teachers demonstrate their knowledge and skills in the classroom.” Most often the mode of assessment is performance-based and consists of observations and preparation of a portfolio. These assessments and their evaluation should be based upon an accepted set of teaching standards, most commonly a set of externally developed standards—such as Interstate New Teacher Assessment and Support Consortium standards (1992), NBPTS standards (NBPTS, 1999), or Danielson’s Framework for Teaching (1996)—that are adapted to the local context. Those who do the evaluation, whether they are supervisors or peers, must receive training. For Wyoming districts to create such a system, incentives and additional resources would be needed for implementation. These resources would be needed to support initial system development as well as provide ongoing training for educators as they pursue knowledge- and skills-based pay requirements.

3. Develop High-Quality Induction and Mentoring Programs.

Additional district incentives beyond compensation, such as induction and mentoring programs for new educators, are needed to attract and retain high quality educators. Effective teaching and leadership require initial support, career advancement opportunities, and ongoing professional learning beginning with teachers’ and leaders’ first year in the profession. Induction with ongoing mentoring supports both new and career teachers and leaders in improving instruction and learning in standards-based schools.

Concern about the growing number of novice teachers and leaders and their attrition rates has led to an increased interest in providing on-site support and assistance to novices during their first year (Little, 1990). Over 30 states have mandated some form of mentored induction for beginning teachers. Florida has established a statewide mentor program aimed at supporting its growing number of new teachers and reducing their rate of attrition. The Florida Mentor Teacher School Pilot Program is a model designed “to reform and improve the current structure of the teaching profession” (<http://www.leg.state.fl.us.Statutes/>).

Research on mentoring has shown that protégé benefits include faster assimilation into the school environment, establishment of professional competence, and introduction to teaching as a continually developing career (Evenson, 1982). Mentors gain the experience of reflecting their accumulated professional practice to exchange knowledge and skills with a protégé (California State Board of Education, 1983; Krupp, 1984). This section begins with a description of teacher and leader levels of experience since induction and mentoring are strategies aimed at attracting and retaining beginning educators. It proceeds to present teacher and leader attrition and transfer rates as indicators of the need for district induction and mentoring programs.

Teacher Experience

Prior to 1999, the proportion of novice teachers in Wyoming schools was about 10 percent, less than a 1993 national estimate of 12 percent (Henke, Choy, Chen, Geis, & Alt, 1997). In 1999 and 2000, the proportion of novice teachers in Wyoming jumped to 14 percent. The distribution of novice teachers by geographic region and locale shows few clear patterns. In general, there were more novice teachers in the southeast than other regions and higher concentrations in rural schools than other locales. Between the 1992-1993 and 1999-2000 school years, 131 teachers left teaching positions in adjoining states and came to teach in Wyoming (Wolcoff & Podgursky, 2001).

Leader Experience

Between 1994 and 2000, there were 256 first-year principals and 60 new superintendents. Few obvious trends emerged from data on leader experience in relation to region or locale, yet one interesting pattern exists when looking at the proportion of principals in terms of locale. Rural and small town districts have more novice principals than city/large town districts. This parallels the teacher experience data.

Between 1994 and 2000, about 25 percent of new principals and 15 percent of new assistant principals came from outside the Wyoming public education system. Presumably these people come from other states, private schools, or left the system before 1993. While there were little differences between principals from inside and outside Wyoming, there were some differences between superintendents.

As with principals, a significant source of superintendent supply in Wyoming is from outside the Wyoming public education system. About 40 percent of new superintendents came from outside the Wyoming system between 1994 and 2000. Those superintendents from outside Wyoming were a little older, received higher median salaries and worked in larger districts. Generally, those from outside Wyoming were slightly more likely to work in cities and large towns with no differences by region.

Of the 192 principals hired from within Wyoming between 1998 and 2000, 46 percent worked as assistant principals, curriculum directors, or superintendents. Twenty-nine (29) percent were teachers in Wyoming. Teachers from general elementary, special education, and language arts were most likely to become principals. Thirty-five (35) of the 60 new superintendents hired between 1994 and 2000 were from Wyoming schools. Twenty-one (21) had been principals, nine were district directors, and five were assistant superintendents or curriculum coordinators (Reichardt, 2001b). For both the principalship and superintendency, females fared better in becoming superintendents if they first served in an assistant position. However, the flow between principal and assistant principal is not one-way; about a quarter of new assistant principals moved from principal positions (Reichardt, 2001b). The main source of in-state supply for superintendents was principals.

Teacher Attrition

Prior to the 2001 cost adjustment, a complicated relationship between salaries, experience and rates of turnover existed. Data on turnover is broken down into two main categories: general attrition, which includes educators who left a full-time position they held the year before, and transfers, which includes teachers and leaders who left a full-time position in one district and took a full-time position in another district the following year. Attrition and transfer data have important implications for supply and districts' strategies to retain educators.

Since 1996, the average number of years until retirement for teachers has decreased from 14.4 to 13.5 years⁹. Foreign language, language arts, computer, and elementary teachers are closest to retirement (13 years) while teachers in rural areas and those teaching in special education, math and science are younger and furthest away from retirement (15 years). Future increases in teacher retirements will likely raise attrition rates and the number of novice teachers hired.

Overall teacher attrition from Wyoming schools has increased from seven percent during the 1994-1995 school year to almost 11 percent in 1999-2000. Attrition for beginning teachers is about 23 percent, an encouraging statistic compared to the estimated 30-50 percent nationally. Table 11 demonstrates that for teachers, attrition is highest for those nearing retirement age and for new teachers under 25 years of age. However, the attrition rate has increased in every age group.

Table 11: 1996-1999 Average District and State Teacher Attrition Rates by Age Group
Source: Reichardt (2001a); WDE Professional Staff List Report

Age Group	1994	1995	1996	1997	1998	1999	96-99 average
Under 25	15%	21%	22%	26%	22%	23%	23.5%
26 to 30	13%	13%	16%	15%	18%	17%	16.5%
31 to 35	8%	8%	11%	11%	11%	12%	11.1%
36 to 40	6%	6%	6%	6%	7%	8%	6.8%
41 to 45	4%	6%	5%	5%	5%	7%	5.7%
46 to 50	4%	5%	5%	5%	6%	6%	5.4%
51 to 55	5%	9%	8%	7%	8%	10%	8.5%
56 to 60	16%	16%	17%	19%	17%	20%	18.2%
61 to 65	34%	42%	38%	42%	38%	38%	39.3%
66 to 70	50%	63%	20%	14%	25%	20%	19.8%
Total	7.1%	8.3%	8.9%	8.7%	9.5%	10.8%	9.5%

Table 12 shows that attrition rates are generally higher for special educators than any other teaching area. Special education and elementary education teachers are most likely to

⁹ Educators are eligible for retirement at age 60 or by meeting the Rule of 85—when age plus years of experience equals 85.

pursue administrative positions (Reichardt, 2001b). It also should be noted that the percentage of math and science teachers leaving their positions increased from 12 percent in 1998 to 14 percent in 1999, while P.E. teachers had the lowest rates of attrition.

Figure 9 reveals that teacher attrition was generally higher in rural areas, but both rural and more urban schools experienced increases in teacher attrition between 1994 and 1999. Small town districts experienced the largest proportional increase in attrition, followed by city/large town and rural districts. Figure 10 shows that teacher attrition is highest in western areas and lowest in the Northeast.

Table 12: Teacher Attrition Rates by Position

Source: Reichardt (2001a); WDE Professional Staff List Report

	1993	1994	1995	1996	1997	1998	1999
Language Arts	8%	8%	10%	9%	9%	12%	12%
Math & Science	10%	7%	10%	10%	9%	12%	14%
Soc. Sciences	9%	9%	6%	9%	10%	9%	15%
PE	10%	6%	6%	7%	7%	8%	8%
Humanities	8%	10%	12%	11%	10%	9%	11%
Vocational & Driver's Ed.	10%	8%	9%	8%	9%	12%	12%
Foreign Lang.	9%	11%	11%	8%	11%	11%	12%
Computers	13%	9%	11%	9%	10%	15%	12%
Special Ed.	12%	12%	10%	12%	12%	11%	9%
Elementary Ed.	6%	6%	7%	8%	7%	8%	10%
Total	8%	8%	8%	9%	9%	10%	11%

Figure 9: Teacher Attrition Rates by Locale

Source: Reichardt (2001a); WDE Professional Staff List Report

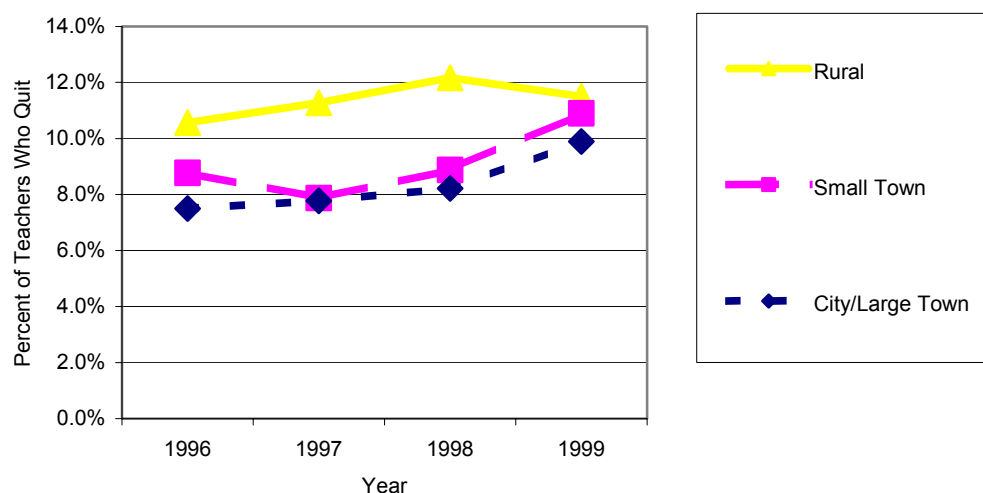
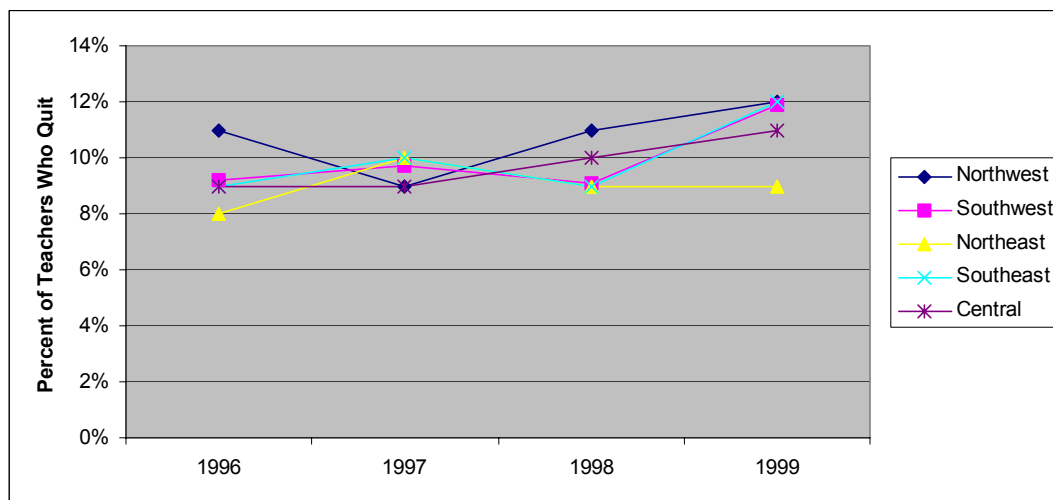


Figure 10: Teacher Attrition by Region

Source: Reichardt (2001a); WDE Professional Staff List Report



Even when salaries increased significantly between 1997 and 1998, overall teacher attrition continued its upward climb. When comparing like groups of teachers (e.g., beginning teachers with no experience), salaries increased by 5.9 percent, while attrition rates remained 20 percent. Higher salaries are usually advocated to attract teachers and reduce attrition. These data demonstrate that there may be limitations to using small salary increases to reduce attrition, especially in rural areas where beginning teacher salaries are highest.

Due to the recent expansion of local and national economies, Wyoming's unemployment rate declined from 5.1 percent to 4.8 percent (Wyoming Department of Employment, 2001, <http://lmi.state.wy.us/laus/toc.htm>), and average wages increased by 3.5 percent in 2001 (Bureau of Economic Analysis, 2001, <http://www.bea.doc.gov/bea/regional/reis/>). These factors also may have limited the effectiveness of salary increases in reducing teacher attrition (Reichardt, 2001a). However, as the nation and Wyoming absorbs the current economic slow down, voluntary attrition in all occupations, including teaching, is expected to decline.

Wolkoff and Podgursky (2001) reported that between the 1992-1993 and 1999-2000 school years, 139 teachers age 59 or younger left teaching in Wyoming to take a teaching position in Colorado, South Dakota, or Utah. The 131 teachers who left teaching positions in these other states and came to Wyoming to teach offset this outflow of teachers. From year to year, the number of teachers leaving Wyoming to teach in one of these states was small, ranging from a low of seven in 1994 and a high of 37 in 1997. For these teachers, their earnings were lower than their earnings had been the previous year in Wyoming.

Leader Attrition

Leader attrition rates follow fewer general patterns than teacher attrition. In terms of retirements, the percentage of principals reaching retirement has increased steadily from 15 to 24

percent between 1997 and 2000. The proportion of superintendents eligible to retire in the next five years appears to be stable at about 40 percent. This suggests that new principal demand is increasing while new superintendent demand remains relatively consistent as a result of retirements (Reichardt, 2001b).

However, generally the principal attrition rate is increasing from between six and 10 percent in 1993-1994 to between 13 and 16 percent in 1998-1999. Superintendent attrition appears to be fairly stable at a rate just under 20 percent. The demand for superintendents due to attrition is higher than for principals, but not growing, while principal demand is growing along with principal retirements.

Smaller schools have much higher principal attrition rates (25 percent), double than that of the largest schools (12 percent). The smaller schools also have more principals eligible to retire within five years, which is clearly a factor in the higher attrition rates. These data indicate demand is higher for principals in smaller schools (Reichardt, 2001b).

Table 13 presents principal and superintendent attrition rates by locale and region from 1993-1999. Principal attrition is highest from city/large town schools. When considering attrition for superintendents, it is important to note that the number of city/large town superintendents is three.

Table 13: Principal and Superintendent Attrition Rates 1993-1999
Source: Reichardt (2001a); WDE Professional Staff List Report

	Principals	Superintendents
City/Large Town	26%	9%
Small Town	17%	12%
Rural	19%	11%
Northwest	13%	22%
Northeast	9%	14%
Southwest	11%	20%
Southeast	11%	12%
Central	10%	22%
Total	19%	11%

Teacher Transfer

When an educator transfers out of one district to another district, it is considered a “quit” in the district that lost the educator. Thus, transfers are a form of attrition. Examining transfers identifies areas that have higher demand for educators. Conversely, districts that hire many transfers from other districts may have fewer supply issues due to their ability to attract educators from other districts as a source of supply.

The number of teachers who transfer from one district to another within the state in any single year is relatively low, between 57 and 101 teachers. However, transfers occur most often among younger teachers. This is also found in other studies (Murnane, Singer, & Willitt, 1989). When looking at only the youngest teachers, the rate of transfer ranges from three to seven percent per year. Generally the flow of teachers due to transfer is to the Southeast, with the largest numbers coming from the Southwest (Reichardt, 2001a).

Table 14 demonstrates that teachers also are transferring from rural schools and into schools located in cities/large towns. Each cell shows the net flow from a locale (i.e., transfers in minus transfers out). A negative number indicates that more teachers moved out of a particular locale than into it. For example, between 1996 and 1997, six more teachers transferred out of rural districts than into rural districts. This flow represents a movement of skills and experience out of rural schools. Similar calculations are shown for regional transfer in Table 15. This clearly shows that teachers are transferring from schools in western districts and are transferring into schools located in central and eastern districts.

Table 14: Flow of Teachers Between Locale

Source: Reichardt (2001a); WDE Professional Staff List Report

	City/ Large Town	Small Town	Rural
1996 to 1997	4	2	-6
1997 to 1998	17	4	-21
1998 to 1999	9	0	-10
1999 to 2000	18	0	-18
Net transfers in and out between 1996 and 2000	48	6	-55

Note: Table does not sum to zero due to missing data on school locale.

Table 15: Regional Flow of Teachers

Source: Reichardt (2001a); WDE Professional Staff List Report

	Northwest	Northeast	Southwest	Southeast	Central
1996 to 1997	-7	5	-3	2	3
1997 to 1998	-3	-2	-7	7	5
1998 to 1999	-5	7	-10	5	3
1999 to 2000	6	-3	-15	8	4
Net transfers in and out between 1996 and 2000	-9	7	-35	22	15

Between the 1998-1999 and 1999-2000 school years, average total salaries increased \$1,710 for teachers with less than five years experience who stayed in the same district as compared to the \$218 increase for similar teachers who transferred (Reichardt, 2001a). This indicates that beginning teachers who transferred did not necessarily do so for increased salaries. Also, the higher level of salaries for beginning teachers in rural areas, alone, may not have been sufficient to retain them.

Leader Transfer

Seventy-five (75) principals transferred between districts from 1994 to 2000. Table 16 shows that leader transfers follow similar patterns as teacher transfer data. Leader transfers have resulted in a net loss for rural districts and districts in the northeast and southwest regions. Superintendent transfer also has resulted in a net loss to rural areas (-3) and to districts in the Northwest. These data demonstrate that leaders move to rural and small town areas to become leaders then transfer to larger districts after they have gained some experience.

Table 16: Leader Transfers 1994-2000

Source: Reichardt (2001a); WDE Professional Staff List Report

	# of Principals	# of Superintendents
City/Large Town	7	1
Small Town	6	2
Rural	-13	-3
Northwest	5	-5
Northeast	-7	1
Southwest	-4	3
Southeast	7	0
Central	-1	1

With an increasing number of both teachers and leaders reaching retirement age in Wyoming, the proportion of novice teachers and leaders (those with less than three years experience) is growing dramatically. At the same time, attrition and transfer rates are higher in rural areas and small schools, especially for novice teachers. To address these trends, Wyoming districts are urged to continue to develop induction and mentoring programs for new educators.

Induction and Mentoring

Characteristics of effective mentoring programs include training for mentors and release time for both mentors and protégés to meet and observe each other's classrooms. Induction programs commonly incorporate orientation workshops to help novices assimilate into the school environment and ongoing mentoring. Mentoring programs that pair novice educators with

outstanding experienced educators who explain school policies and practices, share methods and materials, and help solve problems improve the quality of teaching and leading. Mentors guide the professional growth of new teachers and leaders by promoting reflection and fostering the norms of collaboration and shared inquiry (Feiman-Nemser & Parker, 1993). Mentoring relationships provide experienced educators with the opportunity to pass on their expertise and help create an environment conducive to lifelong professional careers. Reviews of studies on successful induction programs indicate the following features are essential:

- Experienced, well-trained teachers as mentors
- Based on well-defined program standards
- Adequate funding
- Good evaluation process of teachers
- Part of a larger effort that includes reduced teacher loads, appropriate class placements, regular opportunity for observation of other teachers, and targeted professional development. (Education Commission of the States, 2000, <http://www.ecs.org/clearinghouse/22/38/2238.htm>.)

For example, Florida's Mentor Teacher School Pilot Program provides grants to a select number of schools to develop multiple career paths for teachers: paraprofessionals, associate teachers, teachers, lead teachers, and mentor teachers. Mentor teachers have reduced teaching schedules that permit lesson demonstration, coaching, curriculum development, and professional development for other teachers at the school.

The *2001 Fall Staffing Survey* revealed that 35 of 48 Wyoming school districts (76 percent) report having an induction program for new teachers, 28 (58 percent) of these include mentors. When Wyoming districts reported the components included in their induction/mentor programs, just over half offer mentor stipends (15). Forty-two (42) percent incorporate mentor training (12), 32 percent provide release time for protégés, and only a quarter grant mentor release time to work with protégés (seven). Although half of Wyoming districts have developed a structured teacher mentoring program, the Leader Quality Focus Groups revealed that mentoring for education leaders tends to be informal, haphazard, and initiated by new leaders on an as needed basis.

This spring the Teacher and Leader Quality Initiative will be selecting a sample of Wyoming districts that have implemented research-based mentoring programs to study their program development and effectiveness so that other districts can learn from their successes. For both teachers and leaders, especially in rural areas, additional support to increase rates of retention and effectiveness are necessary. Induction and mentoring programs as well as "grow-your-own" teacher and leader development programs (see Professional Development Strategies) serve to attract candidates for vacant positions in high-need districts, ensure their effectiveness, and help keep them there.

PROFESSIONAL DEVELOPMENT STRATEGIES

Assuming that the current student-to-teacher ratio remains constant and population forecasts are correct, the total demand for teachers is estimated to remain at current levels (Reichardt, 2001a). Although demand for teachers may remain steady, demand for principals is predicted to increase. Leader demand may be buffered in the future by teachers moving into administrator positions, but districts must find ways to support the development of current and future teachers and leaders faced with the challenges of reform.

Teacher and leader access to high-quality professional development is the foremost condition that schools can control to improve educator quality and student learning. Ferguson (1991) demonstrates that the quality of teachers' knowledge and skills is the single greatest school influence on student achievement. Studies have shown that the impact of teachers' expertise on student achievement is only surpassed by student home and family factors (Ferguson, 1991; Greenwald, Hedges, & Laine, 1996). In a national study of math teachers and student achievement, students whose teachers received learning opportunities in working with special populations outperformed their peers by more than a full grade level. Similarly, students whose math teachers received professional development in teaching higher-order thinking skills outperformed their peers by 40 percent of a grade level (Wenglinsky, 2000).

To increase teacher and leader expertise to affect student learning, we need to aim at improving the core tasks of teaching and leadership, or "standard practice." In an international study of teaching and learning, Stigler and Hiebert (1999) argued, "If we hope to improve the practice of the profession, it is the standard, common practice that must improve" (p. 175). Professional learning systems can help Wyoming reach this target.

- 1. Restructure schools to promote the learning of both students and adults.**
- 2. Develop a coordinated pre-service through advanced certification professional learning system.**
- 3. Expand the Professional Development Schools to create five regional professional learning centers.**

1. Restructure Schools To Promote The Learning Of Both Students And Adults.

Providing adequate time and resources for professional growth requires districts to restructure time and staffing so that teachers and leaders have the opportunity to work regularly with each other and with groups of students to improve instruction and learning. Districts need incentives and support to restructure their scheduling of time and distribution of resources to support the professional development of all staff and to achieve high levels of student learning. This may include state and district requirements to lengthen teacher non-contact contract days for all educators to address professional development needs.

If predictions play out, Wyoming's future teacher and leader quality issues are less likely to focus on filling widespread vacancies than on staffing classrooms and schools with well-qualified teachers and leaders who effectively educate diverse populations to high standards, especially in rural areas and small schools. The new ESEA requires all teachers to be "highly-qualified" in their teaching field by 2005-2006 and recognizes the importance of ongoing professional development for educators.

Current reforms have been shown to increase the expectations for what teachers need to know and be able to do in terms of both quantity and complexity. The National Governors' Association noted in 1995 that systematic reforms placed many demands on teachers to improve subject-matter knowledge and pedagogical skills; understand cultural and psychological factors that affect student learning; and assume greater responsibilities for curriculum, assessment, outreach, governance, and interagency collaboration (Corcoran, 1995). According to the National Commission on Time and Learning (1994), most school schedules do not normally incorporate the amount of time needed to understand and implement reform efforts.

District Professional Development Opportunities

The *1999 Staff Development Needs Assessment Survey* (Sachse & Manley, 1999) revealed that standards-based reforms have placed increasing expectations not only on students but also on teachers and leaders in Wyoming. The third most frequently cited professional development issue for teachers was their concern about workload. Wyoming administrators identified the most overwhelming barrier to quality professional development as the lack of time. Close to 30 percent of teachers cited no specific time provided for professional development in their schools. The following statement from one teacher is representative of the concerns faced by the majority of Wyoming's teachers:

Another problem is the new standards and the assessment of the standards. We have all these new standards to teach. How is a person with five different preps supposed to develop lessons to teach the specific standards and develop assessments for each? We need time and staff development. (p. 99)

Generally, teachers are not complaining about the goals of the reform or about trying to implement standards-based practices, but their frustration stems from a lack of time and resources to bring about change.

In terms of providing reimbursement for professional development opportunities, districts are most likely to reimburse teachers and leaders for conference attendance (63 percent for teachers and 54 percent for leaders) and for summer work (54 percent for teachers and 46 percent for leaders) (see Table 18). However, quality professional development has not been shown to consist of conference attendance or independent summer work.

Table 18: District Reimbursement for Professional Learning

Source: 2001 Fall Staffing Survey (PTSB)

	Grad Courses	% of Total Districts	Univ Courses	% of Total Districts	CEC Credit /PTSB	% of Total Districts	Confe r	% of Total Districts	Summer Work	% of Total Districts
Teachers	21	44%	15	31%	14	29%	30	63%	26	54%
Leaders	17	35%	14	29%	12	25%	26	54%	22	46%

Current standards for professional development published by the National Staff Development Council (2001) indicate that effective professional development is focused on learning in collaboration with colleagues in professional work settings. It aims to not only increase the knowledge, skills and dispositions of individual teachers and leaders, but it also must focus on creating school-wide *professional learning communities*,” (Fullan, 2001, p.64). Schools must change as organizations as the individuals in those schools change. According to Fullan (2001), this requires program coherence, resources, and quality leadership.

The degree to which districts invest in professional development is a critical indicator of their commitment to providing both the time and the resources necessary to improve teaching and leadership quality as well as student achievement. The National Staff Development Council recommends that school districts dedicate 10 percent of their operating budgets to high quality professional development. A WDE study *District Professional Development Expenditures From School Years 1997-2000* (Holloway, 2001) demonstrated that between 1997 and 2000, on average less than one quarter of Wyoming’s school districts devoted 1.5¹⁰ percent of their state-funded budgets to professional development activities for teachers. All Wyoming school districts receive some federal dollars, some of which must be used for professional development. When districts’ state-funded budgets were combined with their federal funds, districts spent an average of 1.6 percent of their budgets on professional development.

Investing in high quality professional development is a commitment to both adult and student learning. It requires school- and district-level programs built upon accepted standards for teaching and leading as well as sufficient time and resources. For Wyoming’s small schools and districts, multiple school and district programs should be considered. This will require incentives for districts to restructure school organization of time and resources to support the professional development of all staff and students.

¹⁰ Holloway (2001) compares district expenditures for professional development from districts’ general (state and local) and federal budgets with the estimated cost for professional development of the prototypical school, 1.5 percent (MAP, 1997).

2. Develop A Coordinated Pre-Service Through Advanced-Certification Professional Learning System.

Based on the status of pre-service education, certification, advanced education and professional development in Wyoming, Wyoming needs to build upon its current initiatives to develop a collaborative statewide system of professional preparation and development for K-16 educators. Establishing a coordinated learning system for pre-service through in-service, education professionals will require a comprehensive action plan that supports the extensive collaboration required among all partners: state agencies, the University, community colleges, school districts, and the business community.

To ensure high quality teaching and leadership for Wyoming students, teachers and leaders must receive high-quality pre-service preparation and in-service professional development, or “professional learning” (National Staff Development Council, 2001). Professional learning must become a major focus of Wyoming’s school reform agenda if teacher and leader capacity to effect student learning is to improve. This cannot be done by focusing on individuals but must be accomplished by developing an efficient system based on current research on learning. This section discusses the roles of pre-service preparation, certification, advanced education and professional development in Wyoming. It argues that the institutions and agencies involved in these roles coordinate their efforts to create a carefully articulated system of professional learning.

Pre-service Education

The University of Wyoming’s (UW) College of Education redesigned its teacher pre-service education programs in the late 1980s as outcomes-based and increased clinical field experiences to 850 hours. Articulation agreements and meetings between the University and the community colleges facilitate the considerable number of students who transfer yearly into the teacher preparation program at the University. Wolkoff and Podgursky (2001) reported that 1997 UW graduates with education majors who worked in Wyoming schools had higher undergraduate grade point averages than UW graduates who taught in Colorado, South Dakota, and Utah.

However, from a survey study of special education staffing in Wyoming, Manley (1998) found that the pre-service and continuing education offerings were not fully preparing and meeting the needs of Wyoming educators in relation to special education. This finding was in accord with the results of an evaluation study conducted by the College of Education with its 1996 through 1998 teacher education graduates who were teaching full time in 2000. Paradis (2000) found that a randomly selected sample of 20 UW education graduates from the classes of 1996, 1997, and 1998 (60 total) and their principals felt they were well prepared to teach, but that they needed more extensive preparation in special education, standards-based education, and in actual classrooms.

In 1993, Wyoming joined the National Council for Accreditation of Teacher Education (NCATE) to monitor the quality of pre-service teacher and leader education at the University. The PTSB coordinates NCATE review of the College of Education programs in relation to NCATE standards as well as conducts its own evaluation of these programs in relation to PTSB certification standards.

Recently, the College of Education established a teacher education task force to address current standards-based reforms and continue to evaluate the quality of teacher education graduates in relation to standards with funding from the Title I: Teaching Quality Enhancement Project (see below). The College is also developing a number of new endorsement programs for teachers and leaders in response to current needs. These include an endorsement program in English as a second language, the principalship, and middle school mathematics.

Certification

The number of teachers and leaders in positions for which they are not fully certified or endorsed is considered an important measured of teaching and leadership quality. Yet, the link between certification and teacher quality is highly debated (Darling-Hammond L., 2000). Certification for both teachers and leaders in Wyoming is based on meeting certification standards described in the PTSB Rules. The current standards were written prior to standards-based reform in Wyoming and do not reflect these reforms explicitly. However, with funding from the Title I: Teacher Quality Enhancement Project (see below), the PTSB has worked with committees of K-12 teachers and UW faculty to revise the current standards so they align with the Wyoming Content and Performance Standards. Drafts of revised standards for English, social studies, math, science, elementary, foreign language, physical education and health can be found on the PTSB web site (<http://www.k12.wy.us/ptsb/regulations.html>).

The vast majority of Wyoming teachers (96 percent) and leaders (94-98 percent) hold certification in the fields in which they are working (Reichardt, 2001a; 2001b; Smith, 2001). The PTSB offers a number of alternative certification routes for those who do not have the credentials to meet certification standards. These alternative certification routes include portfolio and provisional certifications:

- Portfolio certification—allows individuals to substitute coursework and work experiences to meet standards without enrolling in a traditional teacher education program.
- Waivers—allow individuals to waive permanently particular certification standards upon PTSB approval.
- Temporary permit—allows individuals with bachelor's degrees in their teaching field to teach while working to meet standards for certification.
- Collaboration—allows certified teachers to teach outside of the subject area(s) for which they are endorsed with the supervision of a mentor.

- Transitional—allows certified teachers to teach outside of their subject area(s) for which they have endorsement.

Portfolio certification allows individuals to submit a portfolio of evidence that demonstrates their competencies in the appropriate certification or endorsement standards. It has become an increasingly popular route to certification with 36 approved portfolios from 1997 through 2001 and 21 approved portfolios in 2001 alone.

Provisional certifications (waiver, temporary, collaboration, transitional) are available for teachers and leaders who are working in positions for which they do not meet certification standards and are not fully certified. The 2000-2001 total provisional certifications (404) represented six percent of the full-time teacher and administrator workforce, a 146 percent increase in number since 1996. Thirteen (13) percent of speech pathologists, seven percent of foreign language teachers, six percent of special educators, and four percent of counselors held provisional certifications during the 2000-2001 school year. Figure 11 shows the number of teachers teaching out-of-field from 1996 to 2000.

Figure 11: Out-of-Field Teaching

Source: PTSB School Year Reports

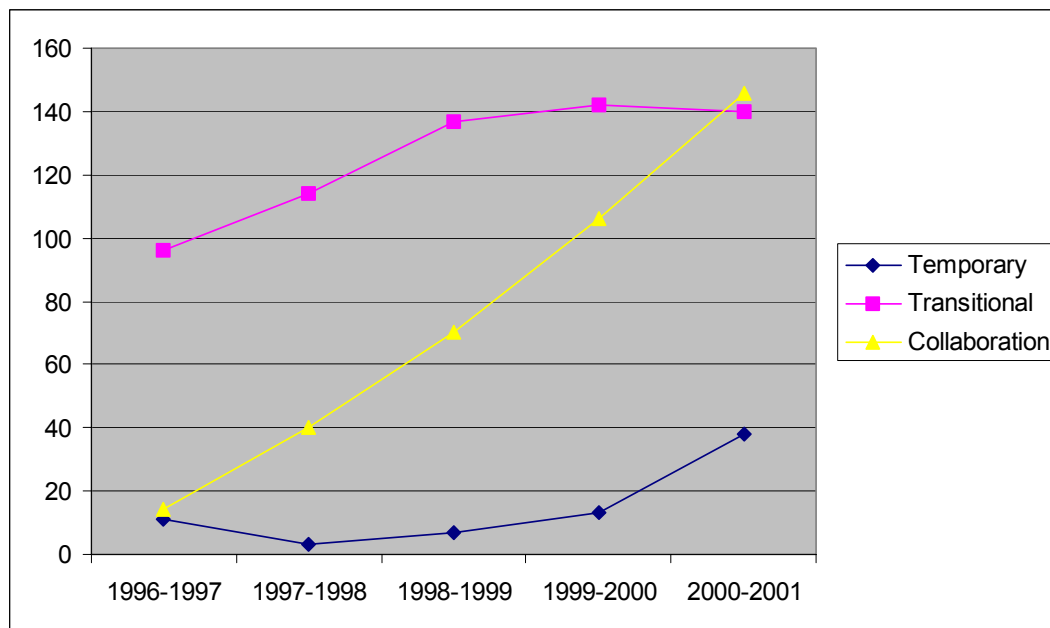


Table 19 demonstrates that, like the proportion of unfilled positions, teachers with provisional certifications were most prevalent in western regions of the state and in districts serving rural areas (Reichardt, 2001a). Provisional certifications were more than twice as high in rural districts than in non-rural districts. Table 20 shows data on principals and superintendents who are not fully certified. The percentage of leaders who are not fully certified remains relatively low, except for the jump in the number of provisionally certified principals, from six in 1999 to 50 in 2000. This increase coincides with the UW College of Education development of a Principal Endorsement Program, which requires an internship and accounts for the majority of provisional certifications in 2000-2001.

Table 19: Proportion Provisionally Certified Teachers by Region

Source: Reichardt (2001a), PTSB School Year Reports & WDE Professional Staff List Report

	1996	2000
Rural	2%	8%
Small Town	2%	6%
City/Large Towns	2%	4%
Northwest	2%	8%
Northeast	2%	4%
Southwest	2%	8%
Southeast	1%	3%
Central	2%	6%

Table 20: Number of Not Fully Certified Wyoming Education Leaders

Source: Reichardt (2001b), Wyoming PTSB & WDE Professional Staff List Report

	Principals		Superintendents	
	Number	Percent	Number	Percent
1996	6	2%	2	4%
1997	9	3%	3	6%
1998	8	3%	2	4%
1999	6	2%	1	2%
2000	50	19%	3	6%

During their fall 2001 meeting, the PTSB decided that it was time to respond to this increase in out-of-field teaching by passing a provision that temporary permitted teachers, those with only a bachelor's degree, must submit a plan for meeting certification standards within three years. The Board also took similar action under advisement for teachers with transitional or collaboration permits.

Superintendents are no longer required to have Wyoming superintendent certification, but the majority (45) has it. Many local boards of education are still requiring it. The number of not-fully-certified superintendents has not yet increased over the 2000-2001 level. However, a number of principals (50), 13 percent of all principals, were working in schools on provisional certificates, many of them serving the required internship of a new UW Principal Endorsement Program.

To reduce out-of-field teaching and leadership, teacher and leader certification standards must be regularly reviewed to ensure they represent the kinds of knowledge, skills, and competencies necessary to be effective teachers and leaders. Although a number of teacher standards have been recently revised, leader standards are in need of critical attention. The demands of education leaders today are far different than those 10 years ago.

Advanced Education

Although the PTSB maintains rigorous standards for initial certification through traditional and alternative routes, re-certification requires individuals to submit a plan for acquiring five continuing education credits every five years, which is the equivalent of two days of professional development per year. Additionally, districts have the option of submitting a district level professional development plan. For participants in district activities, the district plan substitutes for individual plans. Criteria for PTBS re-certification credits are liberal and do not require work in the applicant's field or at the graduate level.

As part of the state accreditation process for districts, a district must submit a district professional development plan that aligns with the criteria for professional development in WDE Rules (Chapter #6) every five years. However, the WDE plan and the PTSB plan have different requirements and evaluation procedures.

Local and regional geography in Wyoming are important factors in relation to the advanced education levels of teachers. About 27 percent of Wyoming teachers had a master's degree in 2000-2001, well below the national average of 45 percent (National Center for Education Statistics, 2001). Rural schools are least likely to have teachers with master's degrees, while schools in cities/large towns are most likely to have them. Not surprisingly, the southeastern region of the state, with the only four-year university, has the highest concentration of teachers with master's degrees and the southwest has the lowest concentration (see Table 21). School size is also related to the proportion of teachers with master's degrees. Small schools have fewer teachers with master's degrees (17 percent) than larger schools (31 percent).

Table 21: Distribution of Teachers with Master's Degrees by Locale and Region

Source: Reichardt (2001a); WDE Professional Staff List Report

Locale/Region	Has a Master's Degree
City/Large Town	36%
Small Town	26%
Rural	18%
Northwest	27%
Northeast	26%
Southwest	19%
Southeast	35%
Central	30%

Table 22 presents the top five subject areas with teachers who have a master's degree. The subject areas rank in the following order: 1.) foreign language (36 percent), 2.) special education (35 percent), 3.) computers (34 percent), 4.) language arts (32 percent), and 5.) math and science (30 percent).

As has been found in other states, there is an inverse relationship between the proportion of poor students and teachers with master's degrees. Schools with more poor students have fewer teachers with master's degrees (Lewis, Parsad, Carey, Bartfai, Farris, Smerdon, 1999). Table 23 shows that Wyoming schools with the most free-and reduced-lunch eligible students have the smallest proportion of teachers with master's degrees (25 percent) while schools with the fewest free-and reduced-lunch students have the largest proportion of teachers with master's degrees (30 percent).

Table 22: Proportion of 2000 Teachers with a Master's Degree by Subject

Source: Reichardt (2001a); WDE Professional Staff List Report

	Proportion of Teachers w/Master's Degree
Foreign Language	36%
Special Education	35%
Computers	34%
Language Arts	32%
Math/Science	30%
Remediation	28%
Social Science	27%
Vocational & Driver's Education	27%
Humanities	25%
PE	25%
General Education	24%
Total	27%

Table 23: Proportion of Teachers with Master's Degrees by School Poverty

Source: Reichardt (2001a); WDE Professional Staff List Report & School Enrollment Report

	Proportion with Master's Degrees
Less than 25th percentile free & reduced	29.9%
Between 25th and 50th percentile free & reduced	26.0%
Between 50th and 75th percentile free & reduced	27.1%
Above 75th percentile free & reduced	25.0%
Total	27.3%

In addition to teachers with advanced degrees, Wyoming has 25 teachers with the highly regarded National Board for Professional Teaching Standards (NBPTS) certification for excellence in teaching. The highest concentrations of NBPTS certification are in the Southeast and the Northeast (NBPTS, <http://www.nbpts.org/public/search.cfm>).

There is no comparable national certification program for education leaders. However, there are widely accepted standards for education leaders that emphasize instructional leadership

in standards-based environments (Interstate School Leaders Licensure Consortium, 1996). Until PTSB certification standards are revised, programming for leaders' advanced education opportunities should reflect these standards.

Wyoming teachers and leaders need opportunities and incentives to pursue professional growth opportunities. Institutions and agencies offering professional development services need to tailor offerings to professional standards. They also need to coordinate their efforts to increase teacher and leader access to professional development. A promising avenue to consider is to increase technology-assisted modes of delivery and interaction via the Internet and the Wyoming Equality Network (WEN).

Professional Development

The *1999 Staff Development Needs Assessment Survey* (Sachse & Manley, 1999) reported that just under 50 percent of Wyoming teachers received three hours or less of professional development per month. Professional development was most often lecture-style, included no follow-up, and occurred infrequently. Considerable support for teacher and leader professional development exists among state agencies and institutions in Wyoming. WDE, Teacher Quality Enhancement Project (TQE), Wyoming School-University Partnership (WSUP), and UW offer a number of professional development programs (see Appendix B). Yet, each of these organizations generally works independently. Although project-by-project collaboration is achieved, a statewide systematic action plan generated by key stakeholders is missing. Professional development for the majority of Wyoming teachers is most often provided on in-service days and limited to one to four sessions per year (Sachse & Manley, 1999).

Figure 12 presents the number of districts that report participating in WDE, TQE, WSUP, and UW programs described in Appendix B. These programs range from standards-based classroom instruction and assessment (PDI), technology integration (Wyo.BEST), developing district professional development plans (SDA) and encouraging inquiry and instructional leadership (WTPI, WLAP). All but three of Wyoming districts have participated in at least one of the programs listed in Table 12 below. The number of districts that have participated in each individual program has been limited, except in the case of Wyo.BEST, which has a 98% district participation rate. Sixty-two percent of the districts participated in three or more of these programs.

Research on effective professional development indicates that professional development for improving student achievement must be responsive to school goals as well as individual teacher and leader needs; imbedded in the context of the daily work of teachers and leaders; and an ongoing and reflective effort. Programs, such as Wyo.BEST, attempt to enact these features by combining 10 days of on-site standards and technology-integration training with 10 days of follow-up coaching. By the end of the summer of 2002, all but one district will have participated in Wyo.BEST. Yet, effective large-scale professional learning is expensive. Wyo.BEST was legislatively funded as a part of the WDE supplemental budget in 2001 for \$4.2 million.

For the 2002-2003 school year, WDE is planning to integrate Wyo.BEST with other programs: PDI and two newly funded projects, the School Improvement Grant (SIG) program that trains all teachers in working with special needs populations and the Wyoming Education Leadership Academy, funded by a grant from the Bill and Melinda Gates Foundation. This strategy builds upon the successes of both PDI and Wyo.BEST and expands the curriculum to all teachers and leaders.

Figure 12: Participation in Statewide Professional Learning Programs

Source: 2001 Fall Staffing Survey

PDI—Professional Development Institute (WDE)

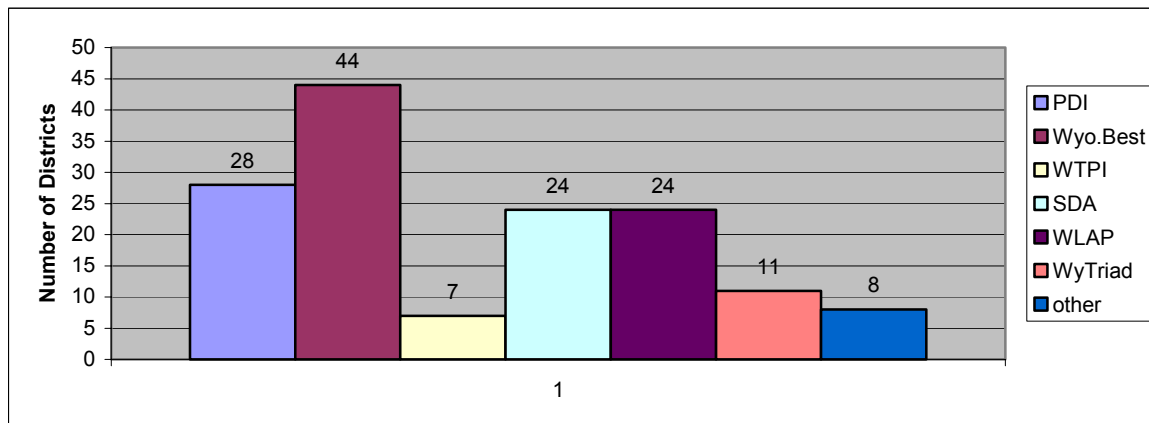
Wyo.BEST—Better Education through Standards and Technology (WDE)

WTPI—Wyoming Teacher Policy Institute (WDE & TQE)

SDA—Staff Development Academy (WSUP & TQE)

WLAP—Wyoming Leadership Associates Program (WSUP & TQE)

WyTriad—(WyTriad)



According to a study by Newmann, King, and Young (2000), for schools to become especially effective, school capacity is the key. This capacity consists of five components: (1) teachers' knowledge, skills, and dispositions; (2) professional community; (3) program coherence; (4) technical resources; and (5) principal leadership. To build capacity in Wyoming schools, an integrated system of professional learning needs to be coordinated among WDE, PTSB, WSUP, UW, community colleges, and school districts to ensure that all teachers and leaders receive the professional support they need to be effective. This system also needs to be aligned to a common set of teaching and leadership preparation and professional development standards (see National Council for the Accreditation of Teacher Education, 1997; National Staff Development Council, 2001) as well as PTSB certification standards.

3. Expand The Professional Development Schools To Create Five Regional Professional Learning Centers.

To address the need to strengthen and support quality pre-service through in-service professional preparation and development statewide, support to sustain and expand regional Professional Development Schools (PDS) will provide access to high-quality professional learning opportunities for education professionals at all levels. Sustaining the three existing PDS sites and establishing two additional regional sites would create a structure within which a statewide system of “grow-your-own” pre-service through in-service professional learning centers could be built. These centers would provide professional preparation, development, mentoring, and induction assistance statewide for pre-service and in-service teachers and leaders.

The UW College of Education, PTSB, WDE, and the WUSP collaborated on a Title I: Teacher Quality Enhancement Grant from the U.S. Department of Education. Awarded in 1999, Wyoming’s Teacher Quality Enhancement Project (TQE), the *Wyoming State Plan: A Model for Improving Teacher Quality in Rural America*, has spearheaded a number of projects to address critical professional learning system requirements. The Teacher Quality Enhancement Project also has established three Professional Development Schools (PDS) in Cheyenne, Rawlins, and Fremont County. Continued support of the existing PDS and their expansion will establish a strong “grow-your-own” teacher and leader development system in Wyoming.

Teacher Quality Enhancement (TQE)

TQE has worked to strengthen PTSB teacher certification and program standards. Existing standards for teaching elementary, English, foreign language, health, mathematics, physical education, science, and social studies have been aligned with Wyoming Content and Performance Standards. The Professional Educator standards that all teachers must meet for certification also have been revised to recognize the importance of strong knowledge and skills in relation to content, standards-based instruction, learning, and assessment. In addition, TQE has focused on improving the PTBS alternative portfolio certification process, which has become an increasingly popular route to certification and endorsement. PTSB has reviewed and refined policies, preparation processes, and portfolio evaluation practices.

From the University’s perspective, TQE has undertaken a number of activities to strengthen the College of Education’s approach to preparing pre-service teachers for standards-based schools. In addition to establishing a task force to review and revise programs in relation to the revised PTSB program standards and WDE school improvement policies, the College of Education faculty have participated on standards alignment committees, conducted research on program effectiveness, and assigned faculty to teach in and serve as program coordinators of three Professional Development Schools (PDS).

To address pre-service and in-service professional learning needs, TQE established three PDS sites as models for pre-service and in-service professional learning. The development of the PDS pilot sites brought together:

- WSUP—to help coordinate and offer professional learning programs;
- UW—to provide faculty coordinators and upper-division courses;
- Three community colleges (LCCC, WWC, CWC)—to provide faculty and lower-division courses;
- PTSB—to provide an alternative certification process and standards; and
- WDE—to offer guidance, support and professional development programs.

These pilot sites are located in high-need areas of Cheyenne, Rawlins and Fremont County on the Wind River Indian Reservation. They are designed to prepare site-bound, college-through-post-graduate students to teach within local K-12 schools. A PDS also provides professional development opportunities for in-service teachers, including mentor support. A PDS is an actual school setting where both university and school faculty plan and deliver pre-service preparation courses and ongoing professional development.

In addition to providing content and pedagogy courses, PDS sites provide long-term clinical experiences including internships, mentorship for pre-service and novice teachers, professional development for K-16 teachers, and research opportunities to advance knowledge of teaching and learning in standards-based schools. Currently, 150 pre-service teachers are working on their teaching credentials, 50 at each PDS site. Eighty (80) percent of these students are on scholarship, over half of these are minorities. Candidates with college degrees typically complete alternative portfolio certification through the PDS program within one year.

Preliminary evaluation data (see Appendix C) suggest that the current PDS sites have developed innovative programs with the potential to serve as model regional professional learning centers. Support to sustain and expand regional PDS offers a promising avenue for providing access to high-quality professional preparation and development for all educators. Expanding the PDS sites would provide the mechanism to help districts, especially in high-need areas, address critical personnel issues by “growing their own” and supporting existing teachers and leaders across the state. Such a system will require strong collaborative relationships among higher education, districts, PTSB, and WDE as well as effective use of interactive technologies to facilitate both adult and student learning statewide. The state videoconference system, WEN, is located in every high school, community college and the university, and WDE. Access facilitated by the WEN and other interactive technologies will help forge the physical distances between PDS sites, other schools, higher education, PTSB and WDE.

The development of a PDS initiative would be aided by the collaboration established within the Wyoming Education Planning and Coordinating Council (WEPC). WEPC is a policy coordinating council including the Governor and representatives from the WDE, UW, community colleges, Workforce Development Council, and Legislature. WEPC’s first accomplishments have been to facilitate articulation agreements between the University and community colleges as well as establish the necessary agreements to build the WEN.

CONCLUSION

Considering what we know and have done in relation to improving teaching and leadership quality in Wyoming, two significant trends are evident. The first is that rural and small schools as well as school districts in western regions of the state are facing the largest challenges in attracting and retaining quality educators, especially beginning teachers. The second is the need for recruitment, retention, and professional development strategies aimed at improving instruction, leadership and learning in all our schools. It is certainly clear that to improve student achievement on multiple measures of performance, Wyoming's current approach to improving teaching and leadership needs refinement and better coordination.

The systematic school reform effort in Wyoming has placed increased demand on the capacity of teachers and school leaders to retool their teaching and leadership practices. Even though UW and the state have instituted a number of teacher quality initiatives, as Manley (2000) points out, "thus far, they have been relatively underutilized . . . and have been confined to just a few settings" (Manley, 2000, p.25). Manley's reference is to portfolio certification and the PDS sites, but the same could be said for other statewide professional development programs.

Keeping in mind that in the past three years we have not seen any noteworthy gains in student achievement on WyCAS or over the last decade on NAEP, addressing recruitment, retention, and capacity issues is essential. A system of pre-service through in-service professional learning that incorporates the recommendations outlined in this Blueprint would help Wyoming ensure that all students benefit from having highly effective teachers and leaders in their schools. Such a system will require many changes to current policies and practices.

A Professional Learning System Initiative for Wyoming educators also would enable the state to meet the requirements of the recent reauthorization of the Elementary and Secondary Education Act (ESEA). The new ESEA recognizes the importance of teaching and leadership quality and makes it a priority. It institutes new accountability measures for teacher quality. The state will be required to submit a plan to ensure that all teachers teaching in Wyoming are highly qualified by the end of the 2005-2006 school year.

The new ESEA also creates a new Teacher Quality Program that consolidates the former Eisenhower Professional Development program and the Class Size Reduction program and allows for greater local control. The Teacher Quality Program will enable local school districts to use federal funds for professional development, recruitment, and hiring of teachers based on individual needs. The new ESEA is expected to provide Wyoming an estimated \$13.6 million to train and retain quality educators (<http://www.ed.gov/offices/OESE/esea/wyoming.html>). These funds are likely to help support the recommendations for recruiting, attracting, retaining, and increasing the effectiveness of Wyoming educators contained in this Blueprint.

To ensure that districts have access to effective research-based teacher and leader quality strategies and that they have an adequate supply of high-capacity teachers and leaders, partner organizations must come together to devise and implement a joint action plan for enhancing the quality of teaching and leadership in Wyoming. This Blueprint is the first step. It provides a guide for subsequent action planning among partners statewide.

The three recommendation areas in this Blueprint reflect the important issues that need to be addressed to improve teaching and leadership quality. Recommendations for *recruitment strategies* include implementing a state-supported scholarship/loan forgiveness program and improved district approaches to recruitment. Strategies for *attracting and retaining* high-quality educators include ensuring regionally competitive compensation; developing compensation systems linked to career advancement, knowledge, and skills; and high-quality induction and mentoring programs. Finally, district and state policy makers need to find ways to improve *professional development strategies* for educators. Districts need to devote time and resources to professional development while the state should develop a coordinated system of pre-service through in-service professional learning by supporting a Professional Development School Initiative to sustain and expand existing PDS sites. These recommendations should be addressed and implemented systematically so that Wyoming can maximize educator quality and student learning.

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APPENDIX A:

Regions and Locales

	Proportion of Teachers in each Locale			
	City Large Town	Small Town	Rural	Region
Albany Co School Dist 01	91%	1%	8%	Southeast
Big Horn Co School Dist 01	0%	0%	100%	Northwest
Big Horn Co School Dist 02	0%	0%	100%	Northwest
Big Horn Co School Dist 03	0%	0%	100%	Northwest
Big Horn Co School Dist 04	0%	0%	100%	Northwest
Campbell Co School Dist 01	0%	87%	13%	Northeast
Carbon Co School Dist 01	0%	87%	13%	Central
Carbon Co School Dist 02	0%	0%	100%	Central
Converse Co School Dist 01	0%	99%	1%	Central
Converse Co School Dist 02	0%	0%	100%	Central
Crook Co School Dist 01	0%	0%	100%	Northeast
Fremont Co School Dist 01	0%	99%	1%	Northwest
Fremont Co School Dist 02	0%	0%	100%	Northwest
Fremont Co School Dist 06	0%	0%	100%	Northwest
Fremont Co School Dist 14	0%	0%	100%	Northwest
Fremont Co School Dist 21	0%	0%	100%	Northwest
Fremont Co School Dist 24	0%	0%	100%	Northwest
Fremont Co School Dist 25	0%	100%	0%	Northwest
Fremont Co School Dist 38	0%	0%	100%	Northwest
Goshen Co School Dist 01	0%	65%	35%	Southeast
Hot Springs Co Sch Dist 01	0%	100%	0%	Northwest
Johnson Co School Dist 01	0%	81%	19%	Northeast
Laramie Co School Dist 01	100%	0%	0%	Southeast
Laramie Co School Dist 02	0%	0%	100%	Southeast
Lincoln Co School Dist 01	0%	59%	41%	Southwest
Lincoln Co School Dist 02	0%	0%	100%	Southwest
Natrona Co School Dist 01	97%	0%	3%	Central
Niobrara Co School Dist 01	0%	0%	100%	Southeast
Park Co School District 01	0%	100%	0%	Northwest
Park Co School District 06	0%	97%	3%	Northwest
Park Co School District 16	0%	0%	100%	Northwest
Platte Co School Dist 01	0%	78%	22%	Southeast
Platte Co School Dist 02	0%	0%	100%	Southeast
Sheridan Co School Dist 01	0%	0%	100%	Northeast
Sheridan Co School Dist 02	0%	99%	1%	Northeast
Sheridan Co School Dist 03	0%	0%	100%	Northeast
Sublette Co School Dist 01	0%	0%	100%	Southwest
Sublette Co School Dist 09	0%	0%	100%	Southwest
Sweetwater Co Sch Dist 01	0%	92%	8%	Southwest
Sweetwater Co Sch Dist 02	0%	98%	2%	Southwest
Teton Co School Dist 01	0%	83%	17%	Southwest
Uinta Co School Dist 01	0%	100%	0%	Southwest

Uinta Co School Dist 04	0%	0%	100%	Southwest
Uinta Co School Dist 06	0%	0%	100%	Southwest
Washakie Co School Dist 01	0%	100%	0%	Northwest
Washakie Co School Dist 02	0%	0%	100%	Northwest
Weston Co School Dist 01	0%	95%	5%	Northeast
Weston Co School Dist 07	0%	0%	100%	Northeast

APPENDIX B:

WYOMING TEACHER AND LEADER QUALITY INITIATIVES

Wyoming Department of Education (WDE)

Assessment and Accountability

Professional Development Institutes (PDI)—Provides teams of teachers and administrators (250 total) with intensive standards-based instruction and assessment workshops, including curriculum alignment with standards, lesson planning, assessment development, scoring, and adjusting instruction based on student achievement data. A 4 1/2-day summer session and two 2-day follow-up sessions.

Assessment Activities Consortium for Body of Evidence—Involves over half of Wyoming's school districts in 2001 to contract with the National Center of Educational Assessment to collaboratively develop classroom-based integrated assessment tasks and scoring rubrics that assess student achievement of graduation standards. Professional development will be provided to member districts in the use and scoring of consortium activities for classroom and district assessment systems.

Content and Bias Review Committees for the Wyoming Comprehensive Assessment System (WyCAS)—Committees of grade-level teachers of mathematics, reading and writing that develop and review assessment items for WyCAS.

Data Analysis Assistance—All districts have received a copy of SPSS statistical software and many schools will soon receive a copy of NCA-developed software for data analysis. In cooperation with Professor Alan Moore from UW's College of Education, statistics and data analysis training has been provided to dozens of educational leaders around the state.

Assessment Consultation—A full-time assessment consultant works with school district personnel to improve district and classroom assessment capabilities. These services range from one to multiple days.

Data and Technology

Project Wyo.BEST—Better Education through Standards and Technology is a \$4.2 million professional development program offering 600 teachers and 100 administrators hands-on opportunities to learn about integrating standards and technology into classroom practice to improve student learning. Program has been developed in cooperation with IBM Global Services and includes evaluation conducted by the Northwest Regional Education Laboratory.

Wyoming Education Leadership Academy (WELA)—A three-year project aimed at school and district leaders and funded by a grant from the Bill and Melinda Gates Foundation to strengthen education leadership in Wyoming. WELA will work with 695 education leaders across the state to develop the knowledge, skills and competencies to lead technologically enriched, standards-based educational environments focused on the improvement of achievement for all students. WELA will provide leaders with a variety of professional development opportunities based current need, best practices in adult education, and national standards for school and district leaders.

Wyoming Equality Network (WEN)—A statewide, high-speed data and video network that connects all Wyoming public schools and colleges. Professional development programming is under development for teachers and leaders to access via the WEN.

School Improvement Programs

Title I School Improvement—Provides a consultant who works with Title I schools needing improvement and with building and district leaders on using data to improve instructional programs and professional development.

Requisites of a Leader—Grants to districts to offer a videoconference instructional leadership-training program for school and district administrators and teachers.

Special Programs

Wyoming State Improvement Grant (WySIG)—Project focused on building a systematic reform approach to ensure that all students, including students with special needs, actively participate in the regular classroom as Wyoming moves to a rigorous, standards-based educational system. This reform approach involves four components: 1.) improving the pre-service and in-service professional development for all Wyoming educators in assisting all students, especially those with special needs, to meet standards; 2.) recruit and retain an adequate number of qualified personnel to meet the needs of at risk students, especially those with special needs; 3.) increase the capacity of parents to effectively participate in and influence school reform and their child's educational program; and 4.) create a partnership to effectively administer, evaluate, and continuously improve the project`.

Standards and North Central Association of Schools and Colleges (NCA)

NCA/WDE School Improvement Conferences—A two-day conference held in the fall and spring of each year for teachers, administrators, school board members, and parents to attend professional development sessions provided by 25 presenters on the most current issues facing Wyoming educators, such as standards-based grading and reporting and developing district assessment systems. Participation has increased 300% since 1998

and now serves over 700 educators, representing 10% of Wyoming's public school teachers.

Wyoming Education Gateway (WedGate)—Web-based resource of standards-based lessons and assessments that are aligned with Wyoming Content and Performance Standards developed by national Internet curriculum projects as well as Wyoming teachers. Includes one to two days of on-site training for every school district and five additional days of on-site training for all Title I schools.

K-2 Foreign Language Initiative—Provides assistance to elementary schools to design high-quality foreign language programs to comply with legislative mandates for K-2 foreign language instruction. Funded by a grant from the U.S. Department of Education's Foreign Language Assistance Program, a consortium made up of Natrona County School District #1, Laramie County School District #1, and Sheridan County School District #2 will develop, implement, and evaluate model elementary-school foreign language (FLES) programs and materials for the state. Over a three-year period, the project will: 1.) train K-2 teachers and support personnel in high quality foreign language instruction for their students; 2.) pilot four types of FLES programs in demonstration sites open for observation to other educators, parents, and the public; 3.) develop, pilot, and disseminate teacher support materials for FLES programs; 4.) evaluate student learning in the four types of FLES programs; and 5.) publicize program evaluations to help schools decide which types of programs best meet their needs.

Wyoming Content and Performance Standards Writing Committees—Grade-level and content specific committees of public school teachers and university faculty wrote state content and performance standards for students in grades 4, 8, and 11 in fine and performing arts, foreign language, health, language arts, mathematics, physical education, science, social studies, and vocational education and compared these standards with national standards and those of other states to ensure rigor.

NCA Regional Training—Two-day yearly trainings offered to school district personnel in seven regions across the state on the NCA school improvement process.

Teacher and Leader Initiative 2001-2002

Leader Quality Task Force—Statewide task force of school, and district leaders who are working to identify the pre-service and professional development needs of leaders and to develop an action plan that will address the knowledge, skills and dispositions necessary for strong education leadership from the classroom to the boardroom into the 21st century.

Teacher and Leader Supply and Demand from 1993-2000—Large-scale qualitative research study conducted in corporation with the Mid-continent Research for Education and Learning to provide information about the current state of the teacher and leader

workforce in Wyoming and to identify the factors associated with changes in teacher and leader employment patterns in terms of supply and demand.

District Expenditures For Professional Development 1997-2000—Quantitative analysis of district expenditures for professional development from state and federal funds as a measure of districts' commitment to improving teacher quality and the context of teaching.

District Promising Induction Practices—In-depth qualitative study of 21 district induction programs to provide feedback to districts offering programs and to make recommendations to districts not currently offering induction programs.

Fall District Staffing Survey—A study of district recruitment, retention, and support issues conducted in collaboration with the Professional Teaching Standards Board.

Teacher Quality Enhancement (TQE)

Pre-Service Activities

Professional Development Schools—Three field-based teacher preparation and professional sites serving five hard-to-staff school districts. An instructional team including a university faculty member and two school teachers advise pre-service education students completing lower-division coursework at the local community college. They also work with students in methods, practicum, and internship courses and who are post-baccalaureate and pursuing portfolio certification. PDS pre-service teachers are involved in extensive classroom experiences. Fifty pre-service teachers are enrolled at each site. Eighty-nine have received scholarships, 36 are minority students.

Future Teachers of America Programs—Mini-grants to six school districts and one higher education organization fund teaching organizations in secondary schools that provide activities promoting the profession of teaching and of a higher education as well as a statewide annual conference for participants. Activities at East High School in Cheyenne include a literacy service-learning project with Johnson Junior High School students.

Alignment of Standards for Teacher Certification—Committees revising standards for teacher certification so that they are aligned with WY Content and Performance Standards for students and standards-based approaches to education. Committees are comprised of University of Wyoming faculty in Education and Arts and Sciences as well as Wyoming public school teachers who have subject or grade-level specific expertise in the areas of elementary education, foreign language, health, language arts, mathematics, physical education, science, and social studies.

Portfolio Review Training—Portfolio review handbook and training have been developed and offered to all educators who review alternative certification portfolios for the Professional Teaching Standards Board.

In-Service Activities

Professional Development Schools (PDS)—Involve over 125 in-service teachers in site-based professional development activities addressing school improvement goals. Examples of these activities include two study groups formed to study the impact of poverty on student achievement, mentor training, mentoring, the development of a model induction program, substitute teacher training, content and pedagogy seminars and workshops. These activities also incorporated on-going inquiry projects by in-service teachers.

Wyoming Leadership Associates Program (WyLAP)—Yearly cohort groups of 15-20 WY public school teachers and University of Wyoming Arts and Sciences and College of Education faculty exploring simultaneous school-university renewal through common readings and inquiry projects. Two three-day sessions per year.

Wyoming Leadership Academy for Professional Development—Formerly the Staff Development Academy, involving 15 school district teams of three to five teachers, administrators, and school board members for three years in the development and evaluation of district staff development plans. Four two-day sessions per year.

Wyoming Teacher Policy Institute (WTPI)—An affiliate of the Teachers Network's National Teacher Policy Institute involving 15-20 teachers from five school districts and university faculty in the study of education policymaking and in research on their own practice as a basis for dialog with local and state education policymakers. Four two-day sessions and monthly local meetings per year.

APPENDIX C:

Current Impact of Three Professional Development Schools in Wyoming

Purposes of Professional Development Schools	Present Impact
Exemplary education for K-16 students.	<ul style="list-style-type: none"> • Increased adult-to-student ratios. • Better-trained substitute pools. • Decrease in losses of student instructional time due to teacher absences. • Pre-service teachers involved in mentor teacher movement toward standards-based teaching and learning.
Teacher Education	<ul style="list-style-type: none"> • 22 new sections of University courses offered at three sites in 2000-2001. • 150 pre-service educators enrolled, 50 at each site. • 100% increase in WWC Education Department enrollment. • 10% increase in LCCC Education Department enrollment. • Increase in pre-service teachers' level of involvement in practicum setting and contact with mentor teachers. • Five pre-service teachers with bachelor degrees completed program in one year and three completed alternative certification through Portfolio with institutional recommendation from UW. • 120 scholarships for a total of \$150,000 awarded in 2000-2001 and \$125,000 awarded in 2001-2002.
Professional Development	<ul style="list-style-type: none"> • 41 in-service teachers participate in mentor training and program in Rawlins. • On-site workshops and study groups offered on poverty, learning styles, storytelling. • 20 Arapahoe and Shoshone Culture/Language teachers participate in bi-monthly pedagogy seminars. • 24 completed substitute teacher training in Rawlins.
Research	<ul style="list-style-type: none"> • 29 in-service teachers involved in on-going research based on school improvement needs. • Five portfolio candidates engage in research related to standards-based education. • Six in-service teachers chosen as Fellows in the Wyoming Teacher Policy Institute to conduct action research in their classrooms and communicate findings to policymakers.