Case Study of Leadership Practices and School-Community Interrelationships in High-Performing, High-Poverty, Rural California High Schools

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Many rural California high schools are impacted by the disadvantages of poverty, non-English speaking students, limited resources, changing demographics, and challenges of the rural context. Focusing on contemporary leadership theories and school-community interrelationships, this qualitative study examines the practices of educational leaders in three high-performing, high-poverty, rural California high schools. The authors employed case study methodology using a variety of data sources including document analysis, interviews, and observations. Cross-case findings revealed that the local educational leadership had effectively employed multiple instructional, distributed, and transformational practices to improve student outcomes, and had established multiple formal and informal linkages with institutional entities outside of the school to accomplish their missions. Contributors to school-wide success in each case included: focus on instruction, standards, and expectations; strengths of teachers, and; development of multiple support systems for students with varying needs. Educational leaders in the schools studied with the highest poverty rates and highest percentages of English Language Learners made significant improvements in student achievement through active involvement of parents and the mobilization of other external and community resources.

Introduction

California's large rural population has unique attributes, with high proportions of minority students and English Language Learners, and a growing percentage of economically disadvantaged children (California Department of Education, 2005). Unlike the declining agrarian and rural regions in other parts of the nation, many of California's rural areas are experiencing population growth.

Between 1970 and 2000, the child population in the San Joaquin Valley, a predominantly rural region of California, grew faster than the state average, increasing by 20% (Goodban, Hedderson, Ortiz, & Branton, 2004). During the same period, the percentage of White children in the San Joaquin Valley decreased from 75% to 43% and the percentage of Latino/a children more than doubled, growing from 17% to 39% (Goodban, et al., 2004, p. 6). Approximately 25% of San Joaquin Valley students are classified as English Language Learners (Jepsen & deAlth, 2005).

In a 2003 national state-by-state comparative analysis, Rural School and Community Trust reported that classes in California's rural schools were big, enrollment was fluctuating, and relatively little money was funneled into classrooms and school-level administration (Beeson & Strange, 2003). Rural teachers were found to be paid less when compared to other California teachers. Beeson and Strange contended that the status of rural schools in California was critical, particularly as one of the states "where rural communities' educational needs may be unjustly lost in the political shuffle of state politics. No child deserves to be lost in the shuffle" (p. 13).

Within the context of California's rural areas, the challenges faced by students are immense as they navigate the educational system while seeking their dreams of quality of life, successful careers and postsecondary education. Perhaps the notion of being *rural* is too vague, inconsistent, and out-dated for this urban-centric and populous state. Perhaps rural/small town students are square pegs trying to fit the round holes of the public (urban-based) school and university systems. Perhaps the challenges of poverty and large numbers of multiethnic and English Language Learner (ELL) students are more complex than rural educational leaders are prepared to manage.

America received a wake-up call in 1983 from the National Commission on Excellence in Education's *A Nation at Risk* report, which argued that American students were too poorly educated to effectively compete in the global marketplace (Goldberg & Harvey, 1983). The report spawned an avalanche of school reform efforts including conferences such as the President Bush's *Governor's Conference on Education* in 1989, numerous studies and reports including the Effective Schools Research of the 1980s and 90s (Levine & Lezotte, 1995), and the 1987 report *Leaders for America's Schools* (Griffiths, Stout, Forsyth, & National Commission on Excellence in Education, 1988). The Effective Schools Research, as reported by Levine and Lezotte (1995) identified several key characteristics of effective schools including outstanding leadership, effective instructional and organizational arrangements, monitoring of student progress, and high operational expectations and requirements for all students. Educational reform efforts spurred by *A Nation at Risk* created a sense of urgency culminating at the national level by implementation of the No Child Left Behind Act in 2001 (Coeyman, 2003).

In tandem with an emphasis on educational reform, increasingly complex social conditions continue to compound the challenges faced by educators across the nation, including those in rural communities. Practices resulting in disparities between socioeconomic and ethnic subgroups of students as measured by standardized tests of academic achievement were central foundations for the No Child Left Behind Act (NCLB) (U.S. Department of Education, 2001). NCLB represents our nation's collective movement towards school reform, to increase overall achievement of *all* students while minimizing, and ideally eliminating, achievement gaps between subsets of students. The current reform movement requires all educators, including rural educators, to identify and acknowledge inappropriate practices that hinder academic achievement, replacing those practices with evidence-based instructional practices (Alston, 2004).

Many of California's rural educational leaders are faced with changing demographics, economic uncertainty, and pressures of governmental school reform initiatives due to poor academic performance, unacceptable graduation rates and/or low college matriculation rates. The dire circumstances stipulate changes in school procedures and instructional practices, requiring major and concerted efforts for innovation, improvement, or redesign which are the primary tasks of educational leaders.

Using case study methodology, this qualitative study attempts to identify dominant leadership practices with specific attention given to instructional, distributed, and transformational leadership and leader-initiated school-community interrelationships for the purpose of improving student achievement and school success. The research sought to determine how educational leaders were perceived to have influenced the success of the school through their practices.

This study focused on two primary research questions. First, what contemporary leadership practices, specifically transformational, distributive and instructional leadership, are employed by educational leaders of successful high-poverty rural California high schools? Second, in what ways do educational leaders of successful high-poverty rural California high schools interface with the community to overcome challenges of poverty, educational reform and rural circumstances to enhance student outcomes?

School Leaders in Rural Schools

Leaders are vital to successful organizations, communities, and rural schools. Leaders come in many forms, serve many functions, exhibit many styles and are seen in many venues. Accordingly, management and organizational literature is rich with descriptions of leadership types: formal, informal, assumed, assigned, autocratic, democratic, team, dispersed, shared, collaborative, servant, primal, and contrarian leadership to name a few (Bolman & Deal, 1997; Chrispeels, 2004; J. Collins, 2001; Fowler, 2004; H. Gardner, 1995; J. W. Gardner, 1990; Goleman, Boyatzis, & McKee, 2002; Sample, 2002; Wheatley, 1992). In the rural school setting, educational leaders range from teacher leaders, principals, superintendents, and school board members to student leaders, parent leaders and community leaders involved with the school. Regardless of the leadership label, there are universal characteristics that commonly surface when considering qualities of effective leaders: sense of vision, ability to set goals and plan, personal charisma, strong communication skills (particularly verbal and negotiation abilities), strong sense of self and personal convictions, relationship and empathy skills, and the ability to motivate and influence others. It is this last virtue, the ability to activate others to follow, which actually defines leadership itself.

Many of the essential characteristics of effective school leaders have been identified in the Interstate School Leaders Licensure Consortium's (ISLLC) Standards for School Leaders. ISLLC includes standards such as "A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources" (Murphy & Shipman, 1999, p. 218). Those ISLLC standards were found to have been incorporated into the licensure and preparation requirements for administrators in California (Murphy, Yff, & Shipman, 2000). Kaplan, Owings, and

Nummery (2005) found that principals who were at school sites for at least five years and had high ratings on ISLLC school leadership standards had higher achieving schools compared to *those* led by lower-rated principals.

Recent educational literature has turned its focus on contemporary theories of leadership surrounding the notions of change, collaboration, and performance improvement. The following definitions were used for this study:

Transformational leadership theory describes leadership practices necessary to facilitate change. Critical factors characterizing effective transformational leadership are individual consideration, intellectual stimulation, inspirational motivation, and idealized influence (Marzano, Waters, & McNulty, 2005). Fullan (2003) acknowledged that change forces exist at three levels: the school and community, the district, and the state, thus requiring leaders to fully understand and engage in the change process at multiple levels.

Distributed or collaborative leadership theory emphasizes the need for leaders at the top to share or distribute leadership functions amongst individuals across and between organizations (Chrispeels, 2004). Models of distributive leadership range from collaboration of teachers while planning instruction to formal partnerships between multiple organizations to implement college preparation programs.

Instructional leadership theory focuses on the leader's influence on student achievement: how he/she positively affects teachers, the outcomes of teaching, and raises student performance (Leithwood, Louis, Anderson, & Wahlstrom, 2004; Waters, Marzano, & McNulty, 2003). Current research on instructional leadership stresses the role of the site-based leader in setting directions, developing people, and making the organization work (Leithwood et al., 2004). The principal may share the responsibility of instructional leadership with other educational leaders through provision of resources and guidance for teachers, communicating vision and expectations, creating a positive organizational culture and professional learning communities, and exhibiting a visible presence in the school (Leithwood, 2005; Waters et al., 2003).

Because of constant challenging dynamics and few layers of administrative staff to turn to, rural educational leaders are dependent on others to help accomplish their shared goals (Chalker, 1999). Central to the discussion of instructional leadership for rural schools, Bauch (2000) argued that there are six unique attributes of rural schools in terms of community context which may be identified as assets: social capital, sense of place, parent involvement, strong church ties, school-community-business partnership, and community as curriculum. While physical, geographic and ideological circumstances may tempt rural leaders to function independently, sharing leadership functions with others within the school, within the community, and outside the local entity is fundamental to garnering support and resources for the school (see, e.g., Hadden, 2000).

School-university partnerships, for example, constitute one such collaborative leadership model of value to rural schools, particularly high schools (Bauch, 2000). Several examples of school-university partnerships specific to California include university outreach efforts, parent education, professional development opportunities, development of place-based curriculum and instruction programs, career development, and educational research (Arnold, 2004; California Academic Partnership Program, 1998; Castro, 2004; Strategic Review Panel on UC Educational Outreach, 2003).

Challenges faced by a rural school district due to changes in the community were documented in a case study of a Midwestern district that had experienced a major influx of population resulting in suburbanization of the rural community (Howley et al., 2005). Three major unforeseen challenges emerged: first was the development of an *identity crisis* throughout the educational organization; second, *goal ambiguity* resulted from emerging culture clashes between old and new, rural and suburban constituencies; and third, because of historically conservative fiscal practices of frugality and balance juxtaposed with new state reform requirements, *ambiguities in resource allocation* evolved. Out-moded operational practices within the new context resulted in inadequate allocation of resources and lack of capacity to access needed resources to meet organizational needs. The lessons of Howley et al.'s research are equally valuable to leaders of schools in rural California communities similarly experiencing growth and suburbanization or challenged by other changes in demographics. Rural educational leaders need to be courageous and willing to go against the grain to proactively address community dynamics and the diverse needs of rural students (Chalker, 1999).

In sum, current research describes a myriad of socio-cultural challenges that rural schools and communities face, often centered around the impact of poverty and diversity. Research also suggests that the roles of educational leaders are significant to teachers, instruction, and outcomes of student learning and achievement. Finally, the dynamics of change call for leadership strategies that are flexible and responsive to contextual circumstances, despite the countervailing forces that may exist in the school and broader environment. This study documents prevalent practices of educational leaders in three successful high-poverty rural California high schools.

Methodology

Consistent with common characteristics of case study research, an interpretive, multiple case study approach was utilized for this study (Marshall & Rossman, 1999; Merriam, 1998; Strauss, 1987). Following the model proposed by Strauss (1987), the cross-case study basic design process relied on interviews as a primary data source, supported by document review, content analysis, and observation. The research initially focused on constructing a descriptive picture of characteristics and practices evident in each rural school, then moved to analysis of each case individually based on thematic development, and finally general conclusions were drawn from cross-site analysis identifying major themes and patterns common to the three cases.

One of the initial issues central to the research design dealt with the complexities surrounding selection of definitions for *rural.* To be consistent with studies using National Center for Educational Statistics (NCES) data, this study utilized two locale codes (seven and eight) based on the metro-centric 2000 US Census data in place at the time of the study (National Center for Educational Statistics, 2005b). Locale code seven (7) indicates a rural school or district in any incorporated place, Census designated place, or non-place territory within a Core Based Statistical Area (CBSA). Locale code eight (8) indicates a rural school or district that is physically located inside any incorporated place, Census designated place, or non-place territory not within a CBSA or Consolidated Statistical Area (CSA) and defined as *rural* by the Census Bureau. The two locale codes were the most conservative and objective measures of rural schools available at the time of this study and identified California high schools that were indisputably rural.

Sample/Participants

A nonprobability sample selection process began with the total population of 163 public high schools in California that were classified as rural (as described above).[1] The sample of schools was further refined by identifying California rural high schools that were *high-poverty* if they had 35% or more students participating in the free/reduced price lunch program (Education Data Partnership, 2005b) or were eligible for federal Title 1 funding as reported by the NCES CCD website (National Center for Educational Statistics, 2005a).

Sample selection continued to be narrowed by two levels of criteria to determine *high-performance* indicators of school success as reported on the California Department of Education (CDE) Ed-Data website (Education Data Partnership, 2005a). The first performance criterion was

meeting federal Annual Yearly Progress (AYP) accountability standards for all subgroups in the school for both 2004 and 2005. Next, state level comparative criteria were considered to narrow the selection of schools. Selected schools had to meet three or more of the following criteria for high schools: 2005 Academic Performance Index (API) scores above the state median, 2005 above average proficiency rates for English Language Arts (ELA), 2005 above average proficiency rates for Math, graduation rates above the state average for five most recent years 1999-2004, lower than average four-year drop out rates for 2004, and above average 2004 A-G completion rates (course requirements for University of California admission).

Consistency in leadership was the final factor used for sample stratification. Due to high turnover of principals in successful rural California high schools (we found that only two principals of the top ten schools had been in their positions for five years and five principals were new in the schools), qualifying schools had to have current principals in leadership roles at the school site for more than one year and have had impact on the previous year's student achievement rates. From the remaining stratified pool of five schools suitable for this study, a purposive sample of three high schools were selected based on diversity of ethnic make up and proportions of English Learners.

Of the group of schools meeting all specified factors, contacts were made to the high school principals by telephone to introduce the study, and assess willingness to participate. None of the qualifying schools contacted declined to participate.

Potential interviewees at each high school included at least ten individuals, including but not limited to the following: superintendent, principal, other site-based administrative leaders (counselors and/or assistant principals), teachers and teacher leaders including department chairs in core subject areas (math, English, science, social studies), middle/feeder school principals, parents, and other community members. Community members sought for participation in the study included representatives from county offices of education, consultants who had worked with the school, university partners, business partners, civic leaders, and volunteers involved with the school. The composition of respondents for each school varied based on the recommendations of the principal, defined positions within the local education agency, and the availability, accessibility, and willingness of subjects to participate.

Data Collection

This study engaged a three-stage approach to data collection, an introductory phase beginning with the initial assessment and telephone contact, a preliminary phase, and a focused phase. The preliminary phase of data collection

[1] With more recent changes in local codes, the schools in this study nonetheless remained rural.

Table 1

Interview Respondents across Study Sites

Respondents	Rural High Schools		
	Marvin	Rosland	Thomasville
School Personnel			
Superintendents	2	1	0
Principals	1	1	2
Teachers	3	3	3
Counselors	1	0	1
Advisors	0	1	0
Community Members			
Parents	4	3	2
Business Leaders	1	1	2
Total	12	10	10

began after approval was gained from the three selected schools. A descriptive profile of school and district data was compiled from state and local sources to inform the research process. Through discussions with the primary contact at each site, lists were developed of potential interviewees, meetings, activities appropriate for observations, and dates for site visits. Secondary sources of information such as accreditation self studies/reports, School Accountability Report Cards, student handbooks, curriculum handbooks, and master schedules were reviewed. Descriptive data were extracted from secondary sources prior to and during the focused phase describing community demographics (e.g., basis of local economy, population changes, poverty rates, property values, distance from closest metropolitan area and other pertinent community factors), district demographics (e.g., total student population, geographic service area, number and names of feeder schools and districts, organizational structure, current district mission/vision statement(s), school board member roster, district funding data), and school demographics (e.g., total enrollment, state-designated subgroups, percentages of students receiving free/reduced school meals, ethnic breakdown of students, graduating class size, faculty size, ethnic breakdown of faculty, job descriptions, specified high school goal statements, and instructional plans).

Site visits were scheduled during February and March, 2006 with educational leaders and other interviewees as recommended and coordinated through the school contact person. Focused data collection during site visits ranged from four to seven days, spanning two to six weeks from first to last visit at each site. Site visits included campus tours, formal and informal observations and interviews.

Observations were made of educational leaders in action during formal events such as staff meetings, board meetings, site council and advisory meetings as well as observations of interactions with students and others in their daily activities.

Between 10 and 12 interviews were conducted at each site with a range of school personnel and community members (see Table 1). Each interview followed a predetermined interview schedule allowing in-depth probing as appropriate. Interviews lasted between 45 minutes and 2 hours. All interviews were conducted individually with the exception of one small group interview with three parents at Rosland.[2] Interviews with parents and community leaders were useful for triangulation of data obtained from school sources and helped to increase validity. All interviews began with an explanation of voluntary participation, an overview of the general purpose of the study, and an introduction of the researcher.

Interviews were digitally recorded and transcribed. The researcher took notes during all interviews, and recorded field notes and journal entries throughout the data collection process. Follow-up site visits (two in Rosland, three in Thomasville), follow-up interviews (two in Thomasville), and follow-up telephone interviews (three in Marvin) were conducted to clarify and complete data collection. Data collection continued until sufficient material was obtained for saturation of relevant ideas. Data were carefully sorted, coded, structured, and restructured to draw thematic conclusions through analysis.

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[2] Pseudonyms have been used in place of the actual names of schools and communities involved to protect the identities of individuals participating in or influenced by the study.

Topics of interest examined in the study included: vertical articulation with feeder schools and colleges, horizontal interaction/collaboration within school (teaming, collaboration within and across departments), outside of school (principals networks, intra district interaction with continuation schools and other programs), outside of district (formal business or university partners, county offices of education, consultants), influences of community context, impacts of change, and leadership practices.

Data Analysis

Primary methods of data analysis used were consistent with qualitative case study methodologies as recommended by Alasuutari (1995), Strauss (1987), Merriam (1998) and Marshall and Rossman (1999). Over 45 hours of interviews, field notes and observations made in each school district of meetings, group functions and conversations, and content of multiple documents per site led to individual case analysis and complex cross-case comparative analysis. The researcher thoroughly, systematically, and intensively analyzed data through constant comparison and organization to produce meaning from complex information. Triangulation methodology was actively utilized to enhance the validity and reliability of data. Three peer researchers analyzed several interviews and extracted thematic findings to ensure interrater reliability.

Case Background

All three schools in the study were four-year public high schools with high poverty rates in rural California locations. A description of each study site follows.

Case #1, Marvin High School, is in the small, unincorporated town of Marvin surrounded by massive agricultural flatlands in northern California. It is in the smallest of the four school districts in the county, approximately 45 miles from the closest city of over 50,000 and the closest State University, and about 75 miles from a city over 200,000. Approaching town, drivers pass open fields, a hunting preserve, trucking operations, grain elevators and a country market. There is one flashing red light near the railroad tracks approaching the center of town and no other signal lights.

Marvin High School had an enrollment of 132 at the time this study was undertaken. The 2004-5 student enrollment was 62% White, 36% Hispanic, 6% English Learners, and 59% free and reduced priced meal program participants. The school had a student-teacher ratio of 14.2 to 1, and student to computer ratio of 2.4 to 1. The school achieved an average California Academic Performance Index (API) score of 798 and ranked 9 out of 10 deciles compared to all

other high schools in the state.[3] Due to Marvin's small size, no API similar school ranking was reported.

Despite high proportions of students in poverty, Marvin High School had never been in Program Improvement status, nor had it received special funding for school underperformance. Marvin received federal Title I funding based on proportions of students in poverty, as well as approximately $1,100,000 per year in supplemental funding from the State as a Necessary Small High School (NSHS) to maintain a teaching staff of 11 fully credentialed teachers suitable for the size of the school.

Though small, materials describing the school such as handbooks, Western Association of Schools and Colleges (WASC) accreditation reports, and master schedules indicated that the school offers a range of coursework suitable to enable graduates access to colleges and universities of their choice and fulfilling the needs of students who are academically at-risk and English Language Learners (ELL). Academic courses and supports are supplemented by a set of intra- and extra-curricular activities that enhance college preparation opportunities as well as development and reinforcement of vocational and life skills. Interviews of staff, parents, and the community business person, as well as examination of school materials such as newsletters, letters, and student and faculty handbooks, provided evidence of great pride in the school's focus on student-centered development and the importance of a joint effort between home and school.

Case #2, Rosland High School, is in a small, unincorporated town surrounded by dairies, alfalfa fields, cotton, almond groves, and other agricultural establishments in central California. While designated rural, with a population of over 2,400, Rosland is nonetheless located within a metropolitan county, approximately 25 miles south of an urban center of close to 500,000. Connected to Rosland

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[3] The Academic Performance Index (API) measures the performance of a specific school site (CDE, 2008). Several tests are used to establish a school's API score, which results in a score of between 200 and 1,000. The statewide performance target for all schools is a score of 800. Each year the school's base score is generated from the test scores achieved during that academic year, and a target score based on a calculation of approximately a 5% increase (for those schools whose API scores were between 200 and 690) over the previous year is given for the next year. In addition to the API score, two separate rankings based on deciles are assigned to each school. The first decile ranking is the statewide ranking where the API score from every school in the state is compared statewide to all other API scores for each school of the same type (elementary, middle, or high school). The second decile ranking is called the Similar Schools Ranking where the API scores are compared to 100 most similar schools given their geographic and demographic composition. The Similar Schools Ranking is the approach taken to compare schools that face similar challenges and have similar opportunities (CDE, 2008).

by a new freeway, the nearby metropolitan area is home to one state university and several private colleges. There are also four community colleges within 40 miles.

A huge sign which announces "Rosland High School: A school of choice" is posted by the school on the main road approaching the school. The school mission statement, handbook, and curricular documents describe Rosland as a comprehensive, four-year high school with a well-rounded educational program and diverse course offerings ranging from core academic classes, career/technical education, Advanced Placement, and various intervention and student support classes. According to school and district informants, Rosland's priority is to provide a rigorous and challenging curriculum for all students. Operating on a traditional calendar, the educational programs are designed to provide the skills and tools necessary for students to explore their creativity while developing a strong educational base.

Rosland High School enrolled 539 students in 2004-5 with a student population that was 21% White, 77% Hispanic, 21% English Learners, and 71% free and reduced price meal program participants. The school had a student-teacher ratio of 19.2 to 1, and student to computer ratio of 3.2 to 1. The school achieved an average API score of 726 and ranked 7 (out of 10) compared to all other high schools in the state and 10 (out of 10) similar school ranking. The 2005 scores represented an increase of 165 points since 2002, and an increase in statewide ranking from 2 to 7.

Rosland High School was in Program Improvement (PI) status for two years at the turn of the millennium and received special funding from the State for school-wide improvement for underperforming schools. Even though funds were available at the time, the district did not hire outside consultants or coaches for school improvement purposes. According to the Superintendent, PI status was a catalyst for critical change. "We were really pressed to look deep and make fundamental changes. Now we have standards, we have benchmarks and we analyze data. All those things we never did before. It's really the accountability piece that's really forced our hand," explained the Superintendent.

Rosland has a student body that reflects a wide array of student needs and demographics. Academically there are English Learners and Special Education students, mid-range students and high achieving students. Most students have family ties to agriculture. "Some students are from a high socioeconomic class, and then there are also those whose parents work on those farms," noted one school employee. "It's very important that our teachers understand where our kids are coming from. A lot of kids also work on the ranches and help support their families. Some of them are children of the land owners, some of the workers employed by the land owners." A teacher spoke of Rosland's students, "There's a lot that you have to take into consideration. … Family issues,

health issues that come with poverty and some of them are migrants." Many students are children of immigrants from Mexico, some who are non-citizens. Others are second, third or fourth generation Mexican American, the majority of whom are Spanish-speaking.

Case #3, Thomasville High, is nestled in the center of a small, unincorporated town of .6 square miles that is surrounded by vast flat fields of cotton, sugar beets, alfalfa, field and row crops, and agricultural establishments on the western side of the San Joaquin Valley. Thomasville is a small farming community flanked by huge farms which produce agricultural goods for national and international consumption. With a population of slightly over 800 consisting of approximately 40% foreign born residents, Thomasville is home to an elementary school and a high school. It is approximately 45 miles from an urban center of over 500,000 with one state university and several private universities. There are two community colleges within 45 miles, the closest 32 miles away. The community is accessible by country roads and highways with no signal lights, no freeways, and spotty cell phone reception.

School materials, including mission statement, handbooks, WASC reports and curriculum resources describe Thomasville High School as a comprehensive, four-year high school with course offerings focused on literacy and core academics suitable for meeting California college entrance requirements, and a few career/technical education and elective opportunities including Advancement Via Individual Determination (AVID), computer applications, automotive, and home economics. An Ivy League College program was available and Honors and Advanced Placement courses provide opportunities for high achieving students as were intervention and support classes for ELL and lower-performing students. Like the other two schools, Thomasville offered major sports for boys and girls and a range of extracurricular activities including band, Future Farmers of America (FFA), Future Business Leaders of America (FBLA), and other clubs.

Thomasville High School enrolled 461 students in 2004-5 with a student population that represented 3% White, 95% Hispanic, 41% English Learners, and 94% free and reduced priced meal program participants. Approximately 120 students were enrolled in the Migrant Education Program. The school had a student-teacher ratio of 16.8 to 1, and student to computer ratio of 2.0 to 1. In 2005 the school achieved an average API score of 656 and ranked 4 (out of 10) compared to all other high schools in the State and 9 (out of 10) in Similar School Ranking. The 2005 API scores represent an increase of 202 points since 2002, an increase in statewide ranking from 1 to 4 and an increase in Similar Schools Ranking from 2 to 9. In 2002 under the previous leadership of a Latina principal, Thomasville High School launched a major effort to improve student achievement and

Table 2

Profiles of Three California Rural High Schools Studied, 2004-5 Academic Year

	Case Study Schools		
	Marvin	Rosland	Thomasville
School Characteristics			
Enrollment	135	539	461
2003-04 district revenue per student[4]	7,856	6,993	9,271
Total teaching staff	11	30	30
Teachers, White	9	22	18
Teachers, Hispanic	0	6	8
Fully-credentialed teachers	11	30	29
Students per teacher	14.2	19.2	16.8
Student-to-computer ratio[5]	2.4	3.2	2.0
School Demographics			
% students, eligible free/reduced lunch	63	71	94
% students, White	63	21	3
% students, Hispanic	36	77	95
% students, ELL	6	21	41
Academic Achievement			
2005 school API score[6]	798	726	656
% students proficient or above in ELA, 2005[7]	69	39	44
% students proficient or above in mathematics assessment, 2005[8]	56	44	66
2004 graduates, total	33	108	100
4-year dropout rate[9]	0	.8	.8
% 2004 graduates meeting state A-G requirements[10]	85	22	19

[4] 2003-04 statewide average revenue per student was 7251.
[5] Statewide average student-to-computer ratio was 4.2.
[6] Statewide median API score, 2005, was 696.
[7] Statewide average ELA proficiency rate, 2005, was 42%.
[8] Statewide average mathematics proficiency rate, 2005, was 45%.
[9] Statewide average 4-year dropout rate, 2001-05, was 13.3%.
[10] Statewide percentage of graduates meeting state A-G requirements, 2005, was 33.7%.

turn around school-wide performance with the assistance of special funding for under-performing schools and an external consultant specializing in curriculum.

The three schools were selected for the study based on various state level achievement factors: Marvin High School met all possible state level criteria; Rosland High School surpassed the median State API score, had graduation rates above State averages for the most recent five consecutive years, and had low dropout rates; and Thomasville High School had above average proficiency rates in both English Language Arts and in Math, high graduation rates, and low dropout rates. Table 2 profiles the three schools based on school characteristics, demographics, and achievement factors.

Findings

Marvin High School Findings

All interviewees in Marvin described extremely high academic standards, encouraged and enforced school wide. The academic program was enhanced by multiple

student support systems, low student to teacher ratios, substantial one-on-one guidance, and a high volume of school to home communications regarding individual student progress substantiated by observations and review of school communications and state reports. A new and growing population of ELL students was found to challenge instructional practices across the school. Substantiated by WASC review documents and school schedules, parents and staff identified multiple student support and intervention mechanisms initiated within recent years emphasizing instruction and learning. Academic support for students included mid-day and after-school tutorials, weekly progress reporting, and individual student monitoring.

According to school staff and parents, administrative and teacher leaders shared numerous leadership responsibilities and distributed leadership across the small staff. Serious emphasis was given to instruction, including monitoring of teachers, collaborative planning, and curriculum modification resulting in new instructional programs and practices. A unique feature of Marvin's program was a 40 minute tutorial structured into the master schedule for all students. Close supervision of teachers and regular formal evaluations have led to involuntary teacher turnover in recent years.

Because the school was seen as the focal point of the small community, there were multiple examples of interdependence between school and community. Multiple formal and informal mechanisms were established between the school and businesses in the community for FFA, FBLA and sports, as well as with entities outside of the community for college access opportunities.

The school benefited from community support to meet concrete needs such as improvements for athletics, scholarships, and career opportunities. In most cases identified, school staff members were responsible for initiating help from individuals and organizations in the region. Though formal organizational resources in this rural county were limited, multiple linkages with individuals, organizations, and colleges outside of the community fulfilled a variety of student needs.

School Site Council and Board communications were the primary formal mechanisms for receiving input from parents and community members. Multiple written communications were sent to parents in both English and Spanish. However, few school mechanisms were identified that were designed to enhance engagement of Latino and non-English speaking parents and community members as a means of improving student achievement outcomes. Most respondents were critical of the insufficient engagement with the Latino community in particular. Some parents expressed concerns that the principal was "too strict," yet they acknowledged what they perceived as the positive academic outcomes of that strictness. On campus, numerous

direct and specific mechanisms were in place for struggling students connecting the high school and the continuation school, and multiple activities and services were available to support the majority of students with goals for college or careers in business or agriculture. Two community issues were looming in the future for the district and school: impending development and population growth, and increasing numbers of ELL students. These issues were expressed by school and community informants in interviews as well as at the observed school board meeting.

Rosland High School Findings

The leadership structure at the district level had been relatively stable under the guidance of the current superintendent who had been with the district over 11 years, five as high school principal, and 6 years in the district office. During this time, major efforts were initiated to change school operations, improve instruction, increase student achievement, and expand programmatic opportunities. In the last 6 years Rosland had three principals: one moved into an assistant superintendent role in the district after four years, the next returned to the classroom after one year of administration and remains as a key teacher leader, and the new principal was promoted from an assistant principal position. Two new assistant principal/counselors were also identified as formal members of the leadership team along with key program directors/teacher leaders, the office manager, and operations managers. Department chairs and co-chairs also actively engaged in leadership functions around assessment, curriculum, and instructional issues.

Identified as an underperforming and a PI school five years earlier, Rosland demonstrated steady improvement in student achievement based on federal AYP targets and State accountability measures, raising API scores by more than 215 points in five years. All sources indicated "we're not done yet" in terms of progress and improvements yet to be accomplished. Instructional factors contributing to Rosland's success were found to be based on clear standards and high expectations, emphasis on effective teaching, support systems responsive to needs of students, and building connections between students and school. Instructional, distributed, and transformational leadership practices at school and district levels were important elements contributing to changes in classroom instruction and increased student achievement. Multiple indicators identified consistency amongst leaders vertically and horizontally in the organization with credit shared between the Superintendent and other educational leaders.

Numerous formal and informal linkages were found to contribute to various avenues of school success and student achievement. The school and district capitalized on partnerships with other districts in a Joint Powers Agreement,

and with businesses and colleges to optimize financial and human resources, academic support, and college-career preparation. School-community interrelationships were found to be mutually supportive. Students were required to conduct community service projects each year with teacher guidance. A general level of comfort and trust existed between community and school, due to the stability of district leadership, tenure of the superintendent, and feeling that things "seemed to be working" from the community perspective. Both the superintendent and principal expressed concerns that the community was not particularly critical, and perhaps complacent towards the school district. The superintendent further explained that students came to Rosland High School from feeder schools in multiple communities and school districts with different standards and expectations. This represented an additional complex and important challenge for administrators and board members. These identified challenges were contrasted by parents who indicated a high level of trust in the school board and administrators to support high standards and "do the right things." While the school made multiple efforts to communicate with parents in their primary languages and several Latino staff members informally served as liaisons to the Spanish-speaking community, most respondents (administrators, teachers, parents) felt that additional efforts were needed to improve relationships and engagement of the community to improve student outcomes.

Thomasville High School Findings

Formal leaders of Thomasville High School included a new superintendent who was appointed during the course of this study, the third in four years; a new principal who had been a teacher/counselor and curriculum coordinator at the school for three years, the sixth principal in eight years; a new vice principal/curriculum coordinator who had been a teacher in the district for several years; and two counselors, one new and one eight years at the school. The high school also had a few teacher leaders who filled key leadership roles and other informal leaders such as bilingual office staff. All interviewees in Thomasville expressed frustration about the tumultuous board-level politics and "revolving door" of district and site level leadership over recent years.

Because the high school was previously designated as an under-performing school, multiple outside consultants had been involved with school improvement and systemic redesign three to four years prior to this study. Since that time, substantial changes in instructional practices and new intervention and support systems were established. The school made significant improvements raising API scores over 200 points and the average math and language arts proficiency rates to levels significantly above State averages. The turnaround had been momentous.

Having been an instrumental instructional leader throughout the school's turnaround efforts, the principal was identified as the key person responsible for facilitating change at Thomasville High. Instructional, distributed, and transformational leadership practices were evident in this school. According to parents, teachers, and school leaders, the current and the previous principal had both been successful in leading instructional change despite turnover and lack of stability at the district, and passive resistance of several veteran teachers. Numerous new technological resources and information systems had been implemented to enhance instruction and communications. As instructional leaders, the principal and vice principal were actively and collaboratively involved with curriculum improvement, teacher development, data-driven decision making and engaging teachers in open conversations about teaching practices. Leadership functions were shared by the principal with others including the vice principal, counselors, designated teacher leaders, and office manager.

School and community interrelationships were numerous, formal and informal, collaborative and engaging. Leaders at this school made conscious and significant efforts to nurture healthy relationships and two-way communications to actively engage people from the communities served to focus on priorities of the school including their turnaround efforts. The principal explained:

> We went out and talked to everyone we could out in the communities. I went to the feeder schools and held meetings with parents and students. They were all in English and in Spanish. We had several parent events where we just talked about the tests and scores. Mom and dad had to go over their student's test scores before they could register. Sharing information with parents was big.

Partnerships with parents, business professionals, and organizations were established to address college, career, and technical needs of students and families. Extensive efforts were made to actively involve Latino and non-English speaking people in support of students. Resources were strategically utilized to overcome drawbacks of poverty, rural circumstances, and non-English speaking communities. Though the benefits of change were acknowledged, parents and community members complained about the reduction in elective course offerings due to the emphasis on remedial and core academic courses in the transition to raise achievement school-wide.

Cross-case Findings

Three primary findings were discovered in this study based on similarities across all three cases, including:

1. *Prevalence of strong contemporary leadership practices* of distributive leadership, instructional leadership, and transformative leadership were found at all three sites;

2. *Multiple formal and informal mechanisms of school-community linkages* were established to accomplish each school's mission and enhance student outcomes.

3. *Common contributors to school success* were found at all three sites including clear and direct focus on instruction, standards, and expectations; strength of teachers, and; multiple support systems for students with various needs.

The following discussion will focus on each of the three major findings.

Prevalence of Strong Contemporary Leadership Practices

Formal and informal educational leaders in all three schools effectively utilized multiple instructional, distributive, and transformational leadership practices to enhance outcomes for students. Leaders made efforts to ensure student needs were addressed regardless of the existing challenges of poverty and rural location.

Leaders in the three schools applied contemporary instructional leadership practices such as developing professional learning communities involving collaboration amongst teachers for curriculum and lesson improvements, use of multiple assessments, and data-centered decision making. Such practices were found to be vital for classroom and school-wide improvements and greater achievement of students. For example, Rosland's superintendent reflected:

We need time for professional development. We need training. We need to talk. We need to redesign the entire calendar and budget. … I don't think we're done in terms of success, but I think we are moving. We are creating a professional learning community in this high school that isn't easy to do. (We) bring teachers and even classified people on board together in terms of everybody taking accountability for learning, setting a high standard, and expecting kids to get it.… We're moving out of it being a student issue to it being an adult

issue.… Our focus is on instructional leadership and student achievement.… We understand where the priorities are. The community understands the priorities are in the classroom and that's their expectation of us.

These findings were consistent with instructional leadership practices described by Leithwood, et al. (2004), Marzano (2003), Waters, et al. (2003), and others. Because of strong instructional leadership with a focus on standards and high expectations, leaders and teachers in all three high schools described the departure of some former teachers as "a good thing," and felt that teacher turnover was not necessarily negative as frequently implied by researchers (Certo & Fox, 2002; Ingersoll, 2003; Patterson, Roehrig, & Luft, 2003). This study found that over recent years, teachers in the three high schools who did not embrace the culture of high expectations and whose impact on learning did not meet defined standards either voluntarily left the schools, were terminated, or were counseled and transitioned to positions more suitable to their strengths. For example, Marvin's principal explained, "I'm not afraid to make changes if I need to, if we get a teacher who's not willing to put forth the effort.… I do a lot of walk-throughs. I do two formal observations (per teacher) a year." Consistent with other research, some of the schools reported that they had lost some teachers because of distances from urban residences (Harris, 2001; Little & Miller, 2003).

Distributive leadership practices involving sharing, collaboration, co-leadership, partnerships and other models as described by Castro (2004), Chrispeels (2004), Griffith (2004), Hadden (2000) and others were found consistently in all three schools. Teacher leaders were identified in all three cases, and collaborative leadership practices involving teachers, counselors, and administrators were found in management teams, cabinet groups, and learning communities. As an example, Marvin's teacher leaders, counselor, and principal shared responsibility for many functions and activities across the school, from preparing for student rewards and examining curriculum for improvements, to planning and implementing testing across the school.

In all three cases evidence was found of multiple changes in structure and practices due to transformational leadership. Many new programs, systems, and procedures were established that were lead by former and current site leaders, some with the help of external leaders and consultants. Specific examples were observed of changes that had been implemented to minimize achievement gaps and signs of inequity on each campus. From many accounts, the reason Thomasville raised API scores and met AYP targets was due to changes that were focused on improving instruction, setting standards, and raising

expectations. Beginning with rewriting the curriculum to focus on state standards with the help of a consultant, moving to more systemic changes of organization-wide realignment of the curriculum, and targeting exit exam standards, then establishing instructional supports based on higher expectations, all indicators emphasized that focusing on improvement was one explanation for success. Transformational practices in the three cases supported the contemporary notions described by multiple researchers (Barnett, McCormick, & Conners, 2001; Bate, Khan, & Pye, 2000; Calabrese, 2002; Fullan, 2003; Griffith, 2004; Normore, 2004; Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000; Silins & Mulford, 2002; Zimmerman, 2005).

Leadership challenges identified in each of the three cases involved access to and development of resources, including financial and human resources, and school board leadership. Regarding fiscal issues, major differences between the three districts studied were found. Of the three schools in the study, Rosland, the district with the lowest revenue per student, had done the most in terms of actively managing its resources. Creative and collaborative solutions were indicative of leadership strengths at the district level as suggested by Fowler (2004) and are consistent with studies identifying diverse resource needs of rural districts (Huang, 1999; Kollars, 2003).

Multiple Formal and Informal School-Community Linkages

Findings also identified that educational leaders in all three schools had established multiple formal and informal linkages with sources outside of the school and community to accomplish their mission and enhance student outcomes. Each school had established formal linkages with individuals and community entities to provide valued and needed services to students. All three schools enjoyed strong community support of their sports programs. However, athletics were not a major focal point for the schools.

Examples of formal school-community linkages included interagency collaboration providing college access resources and information to students and families such as Upward Bound and Talent Search administered by colleges in the region, tutors, and after school enrichment staff and volunteers. Because the rural communities served by the three schools had few resources of their own, most of the formal linkages identified were dependent on colleges and organizations in outlying cities.

Formal relationships that were documented at Thomasville included a business partnership group to initiate an expansion of vocational education opportunities established by counselors and the Regional Occupational Program (ROP) teacher, and an arrangement for special

education students to develop work skills with city hall in a nearby city. Similar to the other two schools, Thomasville had formal partnerships with university programs like University of California (UC) Scholars, California Student Opportunity and Access Program (Cal SOAP), Upward Bound, and interagency partnerships with the AVID Program, ROP, the County Office of Education and an Ivy League program coordinated by another school district. These examples of interagency collaboration indicate an established track record of mutually beneficial interrelationships developed to enhance student outcomes and overcome drawbacks of poverty and rural circumstances.

Other formal interagency linkages were found in each community connected to financial resources. While extending financial resources was seen to be an ongoing challenge across schools, in all three cases the educational leaders had developed alliances with outside agencies to maximize resources through partnerships and multi-agency grants. The five-district Joint Powers Authority (JPA) of which Rosland was a partner was an example of the power of joining resources and collaborative leadership. Through the JPA, Rosland was able to provide transportation to students following after school activities and maintain state of the art technology and support. These findings emphasize the importance of interagency and intercommunity collaboration (see, e.g., Sarason & Lorentz, 1998).

Formal and informal community supports were also evident in all three schools for career education and extra curricular programs including FFA, FBLA, band, athletics, and other activities enhancing student skills and abilities in multiple arenas. Local businesses served as formal ROP training sites, and local professionals served as resource people for classes and program competitions through less formal arrangements. Examples of other informal linkages included business people who donated services or goods to the schools. Indicative of close interrelationships between high school and community, each community attended and supported school sports events, concerts, fundraisers, and other activities. School leaders proudly reported about numerous individuals and organizations in all three communities who supported students by providing scholarships for graduates. The community linkages described in the study benefited the students and were consistent with multiple sources in the educational literature (Bauch, 2000; Jackson, 2000; Johnson & Malhoit, 2004; Rural School and Community Trust, 2004).

Support provided to communities by students in each school was another type of formal school-community link identified. The schools expected and/or required students to participate in community service functions, including beautification projects, providing labor for community functions, and donations for holiday baskets and other similar efforts. All three high schools hosted a major community

event such as a rodeo, parade, or festival each year as a means of civic engagement. In all cases, the community's use of school facilities for recreation and other activities was another way the school supported community needs.

Community interrelationships would not be possible without adequate communication mechanisms. The three schools were found to utilize a variety of formal and informal communication strategies with parents and the community at large. For example, Rosland communicated with parents through telephone calls, letters, contracts, newsletters, and handbooks. The school used an automated telephone system to leave messages for parents about school events in English and Spanish. The principal proudly reported personal calls and automated calls could be made to every home, "They are told in their own language that they are welcome to school." Parent communication also occurred through invitations to student recognition events where interpreters and audio-transmitting equipment were regularly available and used to ensure non-English speaking parents could fully participate. Formal communication mechanisms that engaged parents with the school to gain input for planning and decision making included School Site Councils, English Language Advisory Committees, and boosters' organizations. Leaders in the three schools who practiced two-way communication with constituencies, facilitated active interrelationships, developed mutual learning contexts, and collaborated on solutions, were successful at improving student outcomes and community problem-solving.

Differences between the three campuses were observed based on the amount of two-way communication with parents and the broader community for the purposes of improving academics and student outcomes and minimizing achievement gaps. Leaders in all three schools emphasized establishing better relationships with Latino and non-English speaking parents and community as a priority. They also all worried about community growth and the influx of a more diverse and/or challenging student population. The variation between the three schools appeared to be related to the immediacy of impending changes. Thomasville, the school with the highest percentage of Hispanics and English Learners, had the strongest two-way relationships with the community and was developing educational opportunities on their campus for adults in the community. These findings were found to be consistent with multiple studies regarding factors related to success of Latina/o students (Goldenberg, Gallimore, Reese, & Garnier, 2001; Zambrana & Zoppi, 2002). Two of the three schools had Latino and bilingual office personnel who were seen to be vital to school-parent and school-community interrelationships.

In summary, there were multiple formal and informal linkages established between the schools and community, and schools and entities outside of the community to meet goals. Some linkages were initiated by the school, while others were initiated by the partner entity. These linkages were found to be extremely important to the educational leaders in the three schools. Effective educational leadership practices suggest that all stakeholders and constituencies be engaged with organizational change efforts for the best student outcomes (Clarke & Wildly, 2004; Dinham, 2005; Fullan, 2003; Rural School and Community Trust, 2004; Senge et al., 2000; Waters et al., 2003).

Common Contributors to School Success

Three common and fundamental contributors to school-wide success surfaced through data analysis of the three schools studied including: clear and direct focus on instruction, standards, and expectations; strong teachers, and; multiple support systems for students with various needs. While other elements were found to contribute to school success in each of the three cases, such as small size and close relationships in Marvin, these three factors appeared to be essential ingredients leading to the acquired levels of success across all three schools. This finding provided context for the other findings dealing with leadership and school-community interrelationships.

Leithwood et al. (2004) and Waters et al. (2003) emphasize the importance of setting direction and focus on instruction in their meta-analyses on critical instructional leadership functions. Emphasis on standards and expectations that were monitored through multiple measures were key components of instructional focus. In all three cases, directed focus on instruction, standards, and expectations across the school was found to begin with leaders who set the tone for direction and shared it with others across the organization, from students to parents, teachers, and support personnel. One Thomasville teacher reported, "The greatest impact in the last five years has been our youngest administrators and the new teachers. … (They) had the guts and backbone to set things in motion."

Effective teachers, the second element identified as critical to the success of the three schools studied, were broadly recognized as one of the most direct influences on student learning (Marzano, 2003; National Research Council, 1999). At Rosland, a community member spoke of the teachers:

> We have some strong teachers. We have very few long-time teachers; a lot of our staff is new. If it doesn't work, they aren't here any more. One or two years, if they haven't got it, they're out. Our teachers are committed to teaching.

Rosland's principal added:

> We expect the best behind every door, teachers understand that. They know we expect the best teachers every day. We don't have time not to do that. We're completely honest about that, and expectations of teachers will never be compromised.

Many teacher leaders were also identified in the schools studied, further reinforcing their value and impact. One English teacher, who had been at Marvin for over 30 years, was mentioned by every person interviewed as a primary reason for student and school success. She was identified as one of the most respected and most demanding teachers in the region. "She doesn't excuse things. The kids know she's tough and fair. She is part of the institution itself." Another teacher explained, "A lot of my success is from her help. She helps with the structure of the curriculum. She sees the bottom line is teaching students. She knows that is what's most important."

The challenge of teacher recruitment and retention was substantiated by educational leaders in the three schools. This finding is important as principals have the ability to directly impact the quality of teachers and the types of teachers employed at the school through their responsibilities for teacher recruitment and selection, professional development, supervision and evaluation (Arnold, Newman, Gaddy, & Dean, 2005; Collins, 1999; Smith & Ingersoll, 2004). It was clear from all cases that having the right teachers in the right classrooms was not a coincidence, but a result of good leaders setting clear standards and expectations, and providing direct guidance through frequent class observations and feedback.

The third contributor to school success identified in the three schools was the presence of multiple types of supports for students with varied needs. Student support systems for struggling students in all three schools included, but were not limited to, regular assessments, individualized tutorials and frequent school-parent communications regarding student progress. The value of one-on-one, small group and focused tutorial opportunities is well established in the literature as effective instructional practice (E. M. Lopez, 2001; Marzano, 2003; National Research Council, 1999). The parent communication function is also well documented as an important element to student achievement, especially in high schools and with Latino students (Epstein, 1995; Goodwin, 2000; Hickman, Greenwood, & Miller, 1995; Lam, 1997; G. R. Lopez, 2001; Simon, 2001). The level of expectations at Marvin resulted in highly intense focus on student progress and timely communications between teachers, students, parents, and the school. One parent reported:

> There is no leeway for students to fall behind and slip between the cracks. Parents are called when their kids have a C-. We get progress reports, and also get deficiency notices. The principal brings them in and asks what's going on with the student. He can tell if it's laziness or if the student is struggling; they have study periods and after-school tutoring to help them catch up.

Across all sites, support systems for college bound and high-performing students were also available in the forms of personalized academic planning, college application and financial aid advising and assistance, college and career guidance, and field trips to colleges and other non rural locations.

Educational leaders and teachers also believed that extra curricular programs, specifically FFA and FBLA, were critical supports to student achievement and goal attainment in many forms. Student support systems in all three schools served as a means of overcoming disadvantages of poverty, lack of English language proficiency, and rural circumstances as identified in the literature (Bottoms & Carpenter, 2004; Chenoweth & Galliher, 2004; Keren Zuniga, 2005; Lapan, Tucker, Kim, & Kosciulek, 2003). Many of the student support systems found on all three campuses resulted from collaboration with external entities and extensive school-community interrelationships.

While state and district-reported dropout rates for each of the schools studied were well above state averages, interviewees at all three schools, including the three principals and teacher leaders, expressed concerns about the difficulty of tracking students from school to school. There was uniform concern about students who may "fall between the cracks" and end up dropping out of the system. This notion appeared to be a motivator for the educational leaders to do the best they could to provide support for all students.

Discussion

The authors found much evidence to support a direct relationship between effective leadership and student achievement in the three high-performing, high-poverty rural high schools. A few surprises surfaced that were not directly related to the primary findings of this study but warrant discussion.

In all three cases very few high school faculty members or administrators lived in or near the school community. A few of the teachers at each high school were reported to have grown up in the community, but very few actually lived there. The vast majority of teachers in the three schools were reported to be commuters. Thus, opportunities for informal exchanges were limited to a few classified staff

members who resided in the community. Staff residing in the community were seen as significant assets to school-community interrelationships and proved to be valuable resources for two-way exchange, particularly if they were bilingual.

In all three cases the high school was identified as the center of community. Close and intermingled relationships between the rural high schools and the communities fulfilled unexpressed needs and mutually affected students and communities. Since the schools were highly visible in the community, school leaders were vulnerable and open to intense scrutiny and criticism by community members.

Even though the schools and districts had established track records of formal and informal linkages with entities in the community as well as outside agencies, the practice was not always applied to all areas of need such as enhancing supports for ELL students or accessing additional financial resources. Establishing effective parent and community participation of Spanish-speaking individuals in the day-to-day activities of the schools was not found to be consistent across the three sites, even when leaders in all three sites expressed this as a need. Multiple references were made about local individuals and companies with substantial financial resources and interests in each of the school systems. However, there was no evidence in any of the three districts of local educational foundations, established funds, or other efforts to access local sources of extra revenue for purposes beyond scholarships.

Having successfully implemented changes within their schools, leaders in each of the schools were found to be experienced change agents. While those same leaders were aware of the issues and had established mechanisms of communications with the community to solve school challenges, they had not fully applied those same skills to addressing community-based challenges such as population growth.

Conclusions

Based on the discoveries and findings of the three case studies and an understanding of the complexities faced by rural educational leaders in high-poverty rural California high schools, the following major conclusions are made.

First, effective leadership was found to be an important factor for student achievement and school performance. Formal leaders who positively impact student achievement, share leadership responsibilities with others, facilitate change and focus on instructional improvements for all students.

Second, leaders in successful rural high schools maintain a school-wide focus on instruction and high expectations, develop multiple support systems for students with varying needs, and capitalize on strengths of teachers

to enhance student outcomes. They discover ways to utilize and stretch resources to help students, regardless of location or lack of funding.

Third, despite the many constraints and challenges of high poverty and rural contexts, effective rural educational leaders utilize a variety of leadership practices to develop formal and informal linkages with multiple community sources to help accomplish their mission. Valuable school-community linkages are based on collaboration and active engagement of parents and constituencies from throughout the school and the community. School-community linkages extend beyond the local community to agencies and organizations with mutual interests, including colleges and universities that may be a significant distance from the high school.

In view of remarkable accomplishments of the rural California schools studied, new challenges were identified in each case related to increasingly diverse student needs, changing population dynamics, and limited resources. With over 324,000 students comprising California's rural student population, there is need for further research efforts focusing on rural education issues in the state. Further investigation in rural high schools would be suitable regarding principal turnover, ELL students and the interface between schools and non-English speaking communities, district level leadership and school board issues, and school-community interdependencies in areas of governance, finances, growth and development.

This study offers practical implications for policy makers, educational leaders, universities and other organizations providing support to rural educators and school systems in California. Rural high school leaders need to be nurtured and supported to develop skills and practices necessary to serve the diversity of student needs, to support and enhance performance of teachers, and to engage multiple sectors of the community in the mission of achieving optimal outcomes for all students. Rural educational leaders capable of engaging others to address goals and student needs create synergistic solutions that extend resources often resulting in outcomes that surpass expectations.

References

Alasuutari, P. (1995). *Research culture: Qualitative method and cultural studies*. Thousand Oaks, CA: SAGE Publications.

Alston, J. A. (2004). Informed commentary: The many faces of American schooling: Effective schools research and border-crossing in the 21st century. *American Secondary Education, 32*(2), 79.

Arnold, M. (2004). *Guiding rural schools and districts: A research agenda*: Mid-Continental Regional Educational Laboratory (MCREL).

Arnold, M., Newman, J. H., Gaddy, B. B., & Dean, C. B. (2005). A look at the condition of rural education research: Setting a direction for future research. *Journal of Research in Rural Education, 20*(6), 1-25, http://www.jrre.psu.edu/articles/20-6.pdf.

Barnett, K., McCormick, J., & Conners, R. (2001). Transformational leadership in schools—panacea, placebo or problem? *Journal of Educational Administration, 39*(1), 24.

Bate, P., Khan, R., & Pye, A. (2000). Towards a culturally sensitive approach to organization structuring: Where organization design meets organization development. *Organization Science, 11*(2), 197-211.

Bauch, P. (2000). School-community partnerships in rural schools: Leadership, renewal and sense of place, *Annual Meeting of the American Educational Research Association*. New Orleans, LA: ERIC.

Beeson, E., & Strange, M. (2003). *Why rural matters: The continuing need for every state to take action on rural education.* Arlington, VA: Rural School and Community Trust.

Bolman, L. G., & Deal, T. E. (1997). *Reframing organizations: Artistry, choice, and leadership* (2nd ed.). San Francisco: Jossey-Bass.

Bottoms, G., & Carpenter, K. (2004). *Factors affecting mathematics achievement for students in rural schools [research brief]* (No. 03V04). Atlanta, GA: Southern Regional Education Board.

Calabrese, R. L. (2002). The school leader's imperative: Leading change. *International Journal of Educational Management, 17*(7), 325-332.

California Academic Partnership Program. (1998). A primer on educational partnerships: Ingredients for success: California Academic Partnership Program.

California Department of Education. (2005). Fact book 2005: Handbook of education information: California Department of Education.

Castro, J. I. (2004). Promoting leadership development and collaboration in rural schools. In J. H. Chrispeels (Ed.), *Learning to lead together,* (pp. 327-341). Thousand Oaks, CA: Sage Publications.

Certo, J., & Fox, J. (2002). Retaining quality teachers. *The High School Journal, 86*, 57-75.

Chalker, D. M. (Ed.). (1999). *Leadership for rural schools: Lessons for all educators*. Lancaster, PA: Technomic Publishing.

Chenoweth, E., & Galliher, R. V. (2004). Factors influencing college aspirations of rural West Virginia high school students. *Journal of Research in Rural Education, 19*(2). Retrieved August 11, 2005 from http://www.umaine.edu/jrre/19-2.htm.

Chrispeels, J. H. (Ed.). (2004). *Learning to lead together: The promise and challenge of sharing leadership.* Thousand Oaks, CA: SAGE Publications.

Clarke, S., & Wildly, H. (2004). Context counts: Viewing small school leadership from the inside out. *Journal of Educational Administration, 42*(4/5), 555.

Coeyman, M. (2003, April 22). Twenty years after 'a nation at risk.' *The Christian Science Monitor*.

Collins, J. (2001). *Good to great: Why some companies make the leap. And others don't*. New York: HarperCollins Publishers Inc.

Collins, T. (1999). Attracting and retaining teachers in rural areas. Retrieved January 16, 2005, from http://www.ael.org/page.htm?&id=396&pd=99.

Dinham, S. (2005). Principal leadership for outstanding educational outcomes. *Journal of Educational Administration, 43*(4/5), 338.

Education Data Partnership. (2005a). Ed-data: Fiscal, demographic and performance data on California's K-2 schools: Education Data Partnership.

Education Data Partnership. (2005b). Fiscal, demographic and performance data on California's K-12 schools: Glossary of terms: Education Data Partnership.

Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan, 76,* 701-712.

Fowler, F. C. (2004). *Policy studies for educational leaders: An introduction* (2nd ed.). Upper Saddle River, NJ: Pearson Education.

Fullan, M. (2003). *Change forces with a vengeance*. New York: RutledgeFalmer.

Gardner, H. (1995). *Leading minds: An anatomy of leadership*. New York: Basic Book.

Gardner, J. W. (1990). *On leadership*. New York: The Free Press.

Goldberg, M., & Harvey, J. (1983). A nation at risk: The report of the national commission on excellence in education. *Phi Delta Kappan, 65*(1), 14.

Goldenberg, C., Gallimore, R., Reese, L., & Garnier, H. (2001). Cause or effect? Longitudinal study of immigrant Latino parents' aspirations and expectations, and their children's school performance. *American Educational Research Journal, 38*(3), 547.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: Harvard Business School Press.

Goodban, N., Hedderson, J., Ortiz, M., & Branton, L. (2004). *The state of the great central valley of California: Assessing the region via indicators*. Modesto, CA: The Great Valley Center.

Goodwin, B. (2000). *Raising the achievement of low-performing students [policy brief]* (Policy brief offering research-based suggestions for improving the achievement of marginalized students). Aurora, CO: Mid-continent Research for Education and Learning.

Griffith, J. (2004). Relation of principal transformational leadership to school staff job satisfaction, staff turnover, and school performance. *Journal of Educational Administration, 42*(3), 333.

Griffiths, D. E., Stout, R. T., Forsyth, P. B., & National Commission on Excellence in Educational. (1988). *Leaders for America's schools the report and papers of the national commission on excellence in educational administration*. Berkeley, CA: McCutchan Pub. Co.

Hadden, P. D. (2000). When the school is the community: A case study of Fourche Valley School, Briggsville, Arkansas. In C. B. Howley & H. L. Hobart (Eds.), *Small high schools that flourish: Rural context, case studies and resources* (113-137). Austin, TX: Southwest Educational Development Lab.

Hammer, P. C. (2001). Joining rural development theory and rural education practice. Retrieved May 30, 2005, from http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED467305.

Harris, M. (2001). Lessons from prairie teachers. *Action in Teacher Education, 23*, 19-26.

Hickman, C., Greenwood, G. & Miller, M.D. (1995). High school parent involvement: Relationships with achievement, grade level, SES and gender. *Journal of Research and Development in Education, 28*, 125-134.

Howley, A., Carnes, M., Eldridge, A., Huber, D., Lado, L., Kotler, R., et al. (2005). The poor little rich district: The effects of suburbanization on a rural school and community. *Journal of Research in Rural Education, 20*(9), 1-14.

Huang, G. G. (1999). Sociodemographic changes: Promises and problems for rural education. Retrieved August 6, 2005, from http://library.educationworld.net/a8/a8-114.html.

Ingersoll, R. (2003). *Is there really a teacher shortage?* Seattle, WA: Universityof Washington, Center for the Study of Teaching Policy.

Jackson, C. W. (2000). Flourishing in the face of adverse conditions: A case study of thrasher school, Booneville, Mississippi. In *Small high schools that flourish: Rural context, case studies, and resources* (pp. 103-112). Charleston, WV: Southeastern Regional Vision for Education and AEL, Inc.

Jepsen, C., & deAlth, S. (2005). *English Learners in California schools* (research report). San Francisco: Public Policy Institute of California.

Johnson, J., & Malhoit, G. (2004). *Best fiscal management practices for rural schools*. Arlington, VA: Rural School and Community Trust.

Kaplan, L. S., Owings, W. A., & Nunnery, J. (2005). Principal quality: A Virginia study connecting interstate school leaders licensure consortium standards with student achievement. *NASSP Bulletin, 89*(643), 28.

Keren Zuniga, J. K. O. M. W. (2005). Science education for rural Latino/a students: Course placement and success in science. *Journal of Research in Science Teaching, 42*(4), 376-402.

Kollars, D. (2003, December 14). Paying for schools: Dollars and nonsense. *Fresno Bee,* pp. A1, A13-A15.

Lam, S. F. (1997). *How the family influences children's academic achievement.* New York: Garland Publishing.

Lapan, R. T., Tucker, B., Kim, S.-K., & Kosciulek, J. F. (2003). Preparing rural adolescents for post high school transitions. *Journal of Counseling and Development: JCD, 81*(3), 329-342.

Leithwood, K. (2005). Understanding successful principal leadership: Progress on a broken front. *Journal of Educational Administration, 43*(6), 619-629.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. Minneapolis, MN: Center for Applied Research and Educational Improvement (CAREI).

Levine, D. U., & Lezotte, L. W. (1995). *Effective schools research*.

Little, P., & Miller, S. (2003). S*chool district personnel selection practices: Exploring the effects of demographic factors on rural values within a person-organization fit model*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Lopez, E. M. (2001). Guidance of Latino high school students in mathematics and career identity development. *Hispanic Journal of Behavioral Sciences, 23*, 189-207.

Lopez, G. R. (2001). Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal, 38*(2), 253.

Marshall, C., & Rossman, G. B. (1999). *Designing qualitative research* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*.

Aurora, CO: Mid-Continent Research for Education and Learning.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.

Murphy, J., Yff, J., & Shipman, N. (2000). Implementation of the interstate school leaders licensure consortium standards. *International Journal of Leadership in Education, 3*(1), 17.

Murphy, J. & Shipman, N. (1999). The interstate school leaders licensure consortium: A standards-based approach to strengthening educational leadership. *Journal of Personnel Evaluation in Education, 13*(3), 1-19.

National Center for Educational Statistics. (2005a). Common core of data: Build a table: National Center for Educational Statistics.

National Center for Educational Statistics. (2005b). Navigating resources for rural schools: What's rural? *Rural/urban classification*, 2005, from http://nces.ed.gov/surveys/ruraled/Definitions.asp#Metro.

National Research Council. (1999). *How people learn: Bridging research and practice*. Washington, DC: National Academy Press.

Normore, A. H. (2004). The edge of chaos: School administrators and accountability. *Journal of Educational Administration, 42*(1), 55.

Patterson, N., Roehrig, G., & Luft, J. (2003). Running the treadmill: Explorations of beginning high school science teacher turnover in Arizona. *The High School Journal, 86*, 14-22.

Rural School and Community Trust. (2004). *Beating the odds: High performing, small high schools in the rural south*. Arlington, VA: Rural School and Community Trust.

Sample, S. B. (2002). *The contrarian's guide to leadership*. San Francisco: Jossey-Bass.

Sarason, S. B., & Lorentz, E. M. (1998). *Crossing boundaries: Collaboration, coordination, and the redefinition of resources*. San Francisco: Jossey-Bass Publishers.

Senge, P., Cambron-McCabe, Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. New York: Doubleday.

Silins, H., & Mulford, B. (2002). Schools as learning organisations: The case for system, teacher and student learning. *Journal of Educational Administration, 40*(4/5), 425.

Simon, B. S. (2001). Family involvement in high school: Predictors and effects. *National Association of Secondary School Principals Bulletin, 85*, 8-19.

Smith, T. M., & Ingersoll, R. M. (2004). What are the effects of induction and mentoring on beginning teacher turnover? *American Educational Research Journal, 41*(3), 681.

Strategic Review Panel on UC Educational Outreach. (2003). *Forging California's future through educational partnerships: Redefining educational outreach*. Los Angeles: University of California.

Strauss, A. L. (1987). *Qualitative analysis for social scientists*. Oakleigh, Melbourne, Australia: Cambridge University Press.

U.S. Department of Education. (2001). *No child left behind act of 2001: Executive summary*. Retrieved October 11, 2002, from http://www.ed.gov/offices/OESE/esea/exec-summ.html.

Waters, T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: Mid-continent Research for Education and Learning.

Wheatley, M. J. (1992). *Leadership and the new science: Learning about organization from an orderly universe*. San Francisco: Berrett-Koehler Publishers.

Zambrana, R. E., & Zoppi, I. M. (2002). Latina students: Translating cultural wealth into social capital to improve academic success. In D. d'Anda (Ed.), *Social work with multicultural youth* (pp. 33-53): The Haworth Press.

Zimmerman, J. A. (2005). Making change at a junior high school: One principal's sense of it. *American Secondary Education, 33*(2), 29-38.