

**Report on the Elko County School District  
Class Size Reduction 22:1 Demonstration Project**

**Assembly Bill No. 671—Committee on Ways & Means  
2001 Legislative Session**

**Prepared for the 72<sup>nd</sup> Nevada Legislature**

**February 2003**

**EVALUATION CONDUCTED BY THE GREAT BASIN COLLEGE  
OFFICE OF INSTITUTIONAL RESEARCH & ASSESSMENT**

EXHIBIT L Education

Document consists of 72 pages.

- Entire document provided.
- Due to size limitations, pages 1-48 provided. A copy of the complete document is available through the Research Library (775/684-6827) or e-mail [library@lcb.state.nv.us](mailto:library@lcb.state.nv.us).

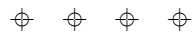
Meeting Date 4/23/04

**Elko County School District**

**Board of Trustees**

John Smales, President  
Georgeanna Smith, Clerk  
Lou Basanez, Member  
Gary Dennis, Member  
Ann Gustin, Member  
Dale Lotspeich, Member  
Stan Popeck, Member

Dr. Allen R. Brown, Superintendent



Report Prepared by

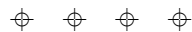
Great Basin College  
Office of Institutional Research & Assessment

Danny A. Gonzales, Director of Institutional Research & Assessment  
Bobbi Claytor, Research Assistant

For the

Elko County School District

Report on the Elko County School District  
Class Size Reduction 22:1 Demonstration Project



For additional information or to request copies of the Report on the *Elko County School District Class-size Reduction 22:1 Demonstration Project*, contact:

Office of Institutional Research & Assessment  
Great Basin College  
1500 College Parkway  
Elko, Nevada 89801  
Office: (775) 753-2114  
Facsimile: (775) 753-2186

February 2003



**MEMORANDUM**

**TO:** Elko County School District Board of Trustees  
John Smales, President  
Georgeanna Smith, Clerk  
Lou Basanez, Member  
Gary Dennis, Member  
Ann Gustin, Member  
Dale Lotspeich, Member  
Stan Popeck, Member  
Dr. Allen R. Brown, Superintendent

**FROM:** Danny A. Gonzales  
GBC Director of Institutional Research & Assessment

**SUBJECT:** Report on the Elko County School District Class Size Reduction 22:1  
Demonstration Project

**DATE:** January 28, 2003

---

---

On behalf of the Office of Institutional Research and Assessment at Great Basin College, enclosed is the *Report on the Elko County School District Class-Size Reduction 22:1 Demonstration Project*. The report is an evaluation of the demonstration project in accordance with the 71<sup>st</sup> Nevada Legislature Assembly Bill No. 671. This report is the second evaluation that has occurred since the demonstration project was implemented in the 1999-2000 school year to measure the effects of pilot class sizes of 22:1 in the Elko County School District. I believe it is important to note the significant contributions by the evaluation team's research assistant and GBC elementary education student, Bobbi Claytor.

It is anticipated that the findings outlined in this evaluation will continue to establish a foundation for the ongoing analysis by the school district and state to assess the effect(s) associated with the implementation of reduced class sizes in grades 1-6 in the Elko County School District. From a public policy and accountability perspective, it is essential to consider short- and long-term importance of the ongoing collection of empirical data and qualitative information to assess both the trends and factors associated with reduced pupil-to-teacher ratios in the Elko County School District and Nevada's public schools.

If you have any questions or require additional information regarding this evaluation, please contact me at (775) 753-2114 or e-mail at [dannyg@gbcnv.edu](mailto:dannyg@gbcnv.edu).

cc: Kevin Melcher, ECSD Director of Human Resources

## TABLE OF CONTENTS

---

	Page
I. EXECUTIVE SUMMARY OF FINDINGS	5
II. PURPOSE & SCOPE OF EVALUATION	8
III. TENTATIVE TIMELINE OF EVALUATION ACTIVITIES	10
IV. ELKO COUNTY SCHOOL DISTRICT PROFILE	11
V. PILOT PROJECT FISCAL NOTE	13
VI. CLASSROOM OBSERVATIONS	14
VII. STUDENT TERRANOVA SCORES	19
VIII. PARENT-GUARDIAN SURVEYS	22
IX. TEACHER INTERVIEWS	25
X. PRINCIPAL INTERVIEWS	29
XI. TEACHER SURVEYS	32
XII. PRINCIPAL SURVEYS	41
XIII. TEACHER JOURNALS	46

### APPENDICES

Appendix A: Assembly Bill No. 671

Appendix B: Elko County School District Class Size Reduction  
Alternative Program Plan (2002-2003) School Year

Appendix C: 2001-2002 School Year Summary of Requests for Variance  
from Class Size Reduction Requirements, NRS 388.700 (15:1)

## **I. EXECUTIVE SUMMARY OF FINDINGS**

---

### **Classroom Observations**

**Finding 1:** There was an overall improvement by grade level of classroom behavior in the major categories of individualization, engagement, and management.

**Finding 2:** The individualization category remains the area that has had the most positive observations.

**Finding 3:** The engagement category showed the area of improvement with the most positive effect.

**Finding 4:** The management category accounted for the greatest variation with the subcategories.

### **Student TerraNova Scores**

**Finding 1:** In Table 1, mathematics stayed the most consistent with the smallest decrease in student TerraNova test scores.

**Finding 2:** Table 2 reflected an increase in the upper grades in the areas of science and reading and all grades (2 through 6) in language, and mixed gains mathematics in comparing of the October 1999 to the October 2001 test dates.

**Finding 3:** Table 3 shows schools with traditionally smaller class sizes from 1999 to 2001. In grades 2, 3, 4, most science and mathematics scores showed strong gains, while reading and language arts showed decline in most areas. In mathematics, every grade (2 through 6) showed significant increases in test scores. Student test scores in science reflected strong gains in grades 2, 3, and 4.

### **Parent-Guardian Surveys**

**Finding 1:** Parent-guardian responses indicated that in 2001-2002, there was great improvement to some improvement (53%) of how much their child likes and gets involved in school.

**Finding 2:** The majority of survey responses from 1999-2000 to 2001-2002 showed a positive affect of 22:1 class sizes.

**Finding 3:** Parent-guardian responses did not reflect a significant decline (some decline to great decline) from 1999-2000 to 2001-2002.

**Finding 4:** The evaluation study gained 11% in parent-guardian survey responses.

## **Teacher Interviews**

**Finding 1:** The majority of interviewed teachers in grades one and two did not notice as many negative effects of increased class size as 3 through 6 grade teachers noted positive effects of decreased class sizes.

**Finding 2:** In most areas, teachers interviewed in grades 1 and 2 were more likely to see positive or no effects rather than negative effects. In only one area, individualization of instruction, are the negative effects as high as the positive effects.

**Finding 3:** The vast majority of interviewed 3 through 6 teachers saw positive effects in every area. Based on the responses of 9 out of the 14 areas, over 75% responded positively.

## **Principal Interviews**

**Finding 1:** Based on the principal interviews in 2001-2002, the majority of responses reflect a positive effect associated with reduced class sizes.

## **Teacher Surveys**

**Finding 1:** The majority of teacher responses in the lower elementary grades noted great improvement and some improvement in reduced class sizes with the exception of cooperative activities among teachers, your interaction with other teachers, and teacher-administration interaction.

**Finding 2:** The majority of teacher responses in the upper elementary grades noted great improvement and some improvement in reduced class sizes with exception to teacher-administration interaction.

**Finding 3:** The greatest increases (all at 72%) noted by the teachers in grades 1 and 2 of great improvement to some improvement were in the areas of: academically related student-teacher interaction, monitoring student progress and providing feedback to students, student learning, small group instruction, physical space, and social/personal interaction between you and your students.

**Finding 4:** The greatest increases noted by the teachers in grades 3 through 6 of great improvement to some improvement were in social/personal interaction between teachers and their students (92%) and one-on-one instruction (92%).

## **Principal Surveys**

**Finding 1:** The majority of principal and vice principal responses noted great improvement and some improvement in reduced class sizes with exception to your interaction with other teachers and teacher-administration interaction from 1999-2000 to 2001-2002.

**Finding 2:** The areas that reflected gains (100%) in the improvement and some improvement of reduced class sizes in 2001-2002 included:

- Monitoring student progress & providing feedback to students
- Student time-on-task
- Teacher morale
- Time on instruction

## **Teacher Journals**

**Finding 1:** Overall, teacher responses in the journals indicate that there is a positive effect associated with reduced class-sizes from 1999-2000 to 2001-2002.

**Finding 2:** The most significant areas of a positive effect associated with reduced class size is time on instruction (86%) and time on task (84%).

**Finding 3:** The areas observed by teachers to have a negative effect included content covered (12%) and classroom space (10%). However, the positive effect associated with both of these areas was still greater.

## II. PURPOSE & SCOPE OF EVALUATION

---

The *Report on the Elko County School District Class Size Reduction 22:1 Demonstration Project* was prepared on behalf of the Elko County School District Board of Trustees for the 72<sup>nd</sup> Nevada Legislature. The report is the second evaluation that assesses the effectiveness of the Elko County School District Class Size Reduction 22:1 Demonstration Project that was initially implemented in 1999-2000. The Elko County School District initiated the pilot program in the 1999-2000 school year to implement student-teacher ratios of 22:1 at seven (7) elementary schools in the school district. The schools that transitioned to the 22:1 student-to-teacher ratio in the 1999-2000 school year were:

- Carlin Elementary
- Jackpot Elementary (already at 22:1)
- Mountain View Elementary
- Owyhee Elementary (already at 22:1)
- Sage Elementary
- Southside Elementary
- West Wendover Elementary

Schools that transitioned to 22:1 student-to-teacher ratios in the 2000-2001 school year included:

- Elko Grammar #2
- Northside Elementary
- Spring Creek Elementary
- Wells Elementary

As of 2000-2001, all elementary schools in Elko County had transitioned to student-teacher ratios of 22:1.

The statewide class size reduction program was established by the Class Size Reduction Act of 1989 to reduce student-teacher ratios in the public schools, particularly in the primary grades and in the classes where the core curriculum is taught. Assembly Bill No. 700 (1999 State Legislature) authorized the Elko County School District to use the class-size reduction funding to implement a demonstration project in which student-teacher ratios of 22:1 are established in kindergarten and grades 1-5 in fiscal years 1999-2000 and 2000-2001 in order to eliminate team teaching. Based upon the request by the Elko County School District, the authorization was adjusted to allow the school district to use the same funding to conduct a demonstration project in grades 1-6, instead of grades K-5 as stated in Assembly Bill No. 700. The Elko County School District Board of Trustees already established a kindergarten ratio of 20:1 in previous years.

Assembly Bill No. 671 (2001 State Legislature) authorized the Elko County School District to continue the demonstration project in the 2001-2002 and 2002-2003 school years. Assembly Bill No. 671 also requires that an evaluation be undertaken to assess the effectiveness of the

demonstration project as it relates to the improvement of student achievement. A final report is to be submitted to the State Legislature on or before February 1, 2003.

In July 1999, the Elko County School District requested that Great Basin College assist in the evaluation of the demonstration project. The first evaluation was completed and presented to the Elko County School District Board of Trustees and the State Legislature in spring 2001. The methodology for the evaluation was modeled after the Student Achievement Guarantee in Education (SAGE) Program evaluation conducted in December 1998 by the University of Wisconsin, Milwaukee. The first evaluation was essential, for the report provided baseline information that could be used to begin a longitudinal study to further examine the effect(s) of the demonstration project.

The following Appendices (A through C) are reference materials for the report:

Appendix A: Assembly Bill No. 671

Appendix B: Elko County School District Class Size Reduction Alternative Program Plan (2002-2003) School Year

Appendix C: 2001-2002 School Year Summary of Requests for Variance from Class Size Reduction Requirements, NRS 388.700 (15:1)

### III. TENTATIVE TIMELINE OF EVALUATION ACTIVITIES

---

The following table describes the proposed timeline for the CSR evaluation activities from spring 2003 to spring 2004. The proposed timeline is contingent on the continuation of the Elko County School District Class Size Reduction 22:1 Demonstration Project by the Nevada Legislature.

<b>Evaluation Component</b>	<b>Date Last Completed</b>	<b>Rotation</b>	<b>Proposed Evaluation</b>
Focus Group	Fall 2000	3 Years	Fall 2003
Classroom Observations	Fall 2001	2 Years	Fall 2003
TerraNova Scores*	Fall 2001	Annually	Fall 2002
Parent-Guardian Surveys	Spring 2002	2 Years	Spring 2004
Teacher Interviews	Fall 2001	2 Years	Fall 2003
Principal Interviews	Fall 2001	2 Years	Fall 2003
Teacher Surveys	Spring 2002	Annually	Spring 2003
Principal & Vice Principal Surveys	Spring 2002	Annually	Spring 2003
Teacher Journals	Spring 2002	2 Years	Spring 2004

\* Student TerraNova Score data not available until subsequent spring.

#### IV. ELKO COUNTY SCHOOL DISTRICT PROFILE

The Elko County School District located in the northeastern corner of Nevada encompasses 17,146 square miles; presently enroll 9,692 students pre-k thru adult; employs 1,084 teachers, administrators and support staff; operates 21 schools in seven major communities and six (6) rural areas.

<b>Elko County School District Summary Enrollment</b>				
<b>SCHOOL YEAR</b>	<b>1999-00</b>	<b>2000-01</b>	<b>20001-02</b>	<b>2002-03</b>
Early Childhood	43	38	39	38
Southside	650	658	640	605
Grammar No. 2	512	497	469	451
Northside	637	656	616	570
Mountain View	745	747	723	719
Sage	517	613	574	528
Spring Creek Elementary	880	723	677	642
<b>TOTAL ELEMENTARY</b>	<b>3,984</b>	<b>3,932</b>	<b>3,738</b>	<b>3,553</b>
Carlin	546	516	466	459
Elko Junior High	725	698	673	707
Elko High School	1,271	1,284	1254	1,232
Spring Creek Middle	683	708	759	732
Spring Creek	786	817	807	819
Owyhee	313	289	273	281
Wells	419	419	405	408
Jackpot	281	272	286	269
Wendover Elementary	650	675	713	722
Wendover Jr. Sr. High	437	425	411	450
Rural	66	65	62	60
<b>DISTRICT TOTAL</b>	<b>10,161</b>	<b>10,100</b>	<b>9,847</b>	<b>9,692</b>

**Owyhee Combined School** serves grades K-12 and is located on the Duck Valley Indian Reservation, which lies on the Nevada-Idaho border 140 miles south of Boise, Idaho.

**Jackpot Combined School** houses students in grades K-12 and is located in Jackpot, which lies on the Idaho border 47 miles south of Twin Falls, Idaho.

**Wells Combined School**, located 50 miles east of Elko, has an elementary school and a secondary school to serve its K-12 population.

**Wendover Combined School** is located in West Wendover, Nevada that lies on the Nevada-Utah border 120 miles west of Salt Lake City, Utah.

**Carlin Combined School**, located in Carlin, 23 miles west of Elko, has students in grades K-12.

**Spring Creek Area:** Sage Elementary School is a K through 5 school that is located seven (7) miles southeast of Elko. The Spring Creek Elementary School is located 14 miles southeast of Elko and serves K through 5 students from several residential developments and rural communities. The Spring Creek Middle School is seven (7) miles southeast of Elko and serves students in grades 6 through 8. The Spring Creek High School is located seven (7) miles southeast of Elko and provides instruction to grades 9 through 12.

**Elko** is the largest community in Elko County with an estimated population of nearly 30,000 in the City of Elko and Spring Creek. Within Elko we have the following schools; Elko High School, grades 9 through 12, Elko Jr. High, grades 7 and 8, and Southside Elementary School, Northside Elementary School, Elko Grammar School #2, and Mountain View Elementary School which house grades K through 6.

**Rural schools** in the Elko County School District include Independence Valley, Mound Valley, Petan Ranch, Ruby Valley and Montello. These schools maintain instruction in grades K through 8.

## V. PILOT PROJECT FISCAL NOTES

---

Costs related to the implementation of the Elko County School District Class Size Reduction 22:1 Demonstration Project for the 2001-2002 school year is outlined below:

- ✓ In FY 2000, additional classroom space was required. Eight additional modulars were leased for class size reduction at a cost of approximately \$860 per month. Of these eight modulars, two additional pads were constructed at a cost of \$92,488 for a combined FY 00 cost of \$183,592. In FY 01, eight additional leased modulars were leased and five additional pads were constructed at a combined cost of \$471,656. For FY 03, ECSD returned 5 modular trailers due to changing enrollments in the county. As a result, the school district saved approximately \$51,600 in modular classroom lease costs for the current fiscal year.
- ✓ The total amount expended for class-size reduction personnel to conduct the evaluation was \$2,137 (including salary and benefits)
- ✓ The combined costs of supplies (envelopes and stationary), postage, and copies was approximately \$4,200.
- ✓ Travel costs (flight, motel, per diem) for representatives from the Nevada Department of Education and Legislative Counsel Bureau to assist with the classroom observation in December 2001 was approximately \$1,200.
- ✓ Great Basin College has committed the following resources as an in-kind contribution to conduct the evaluation of the demonstration project:
  - Director of Institutional Research and Assessment
  - Office space, computer, supplies, and internet access for research assistants on the evaluation team

## VI. CLASSROOM OBSERVATIONS

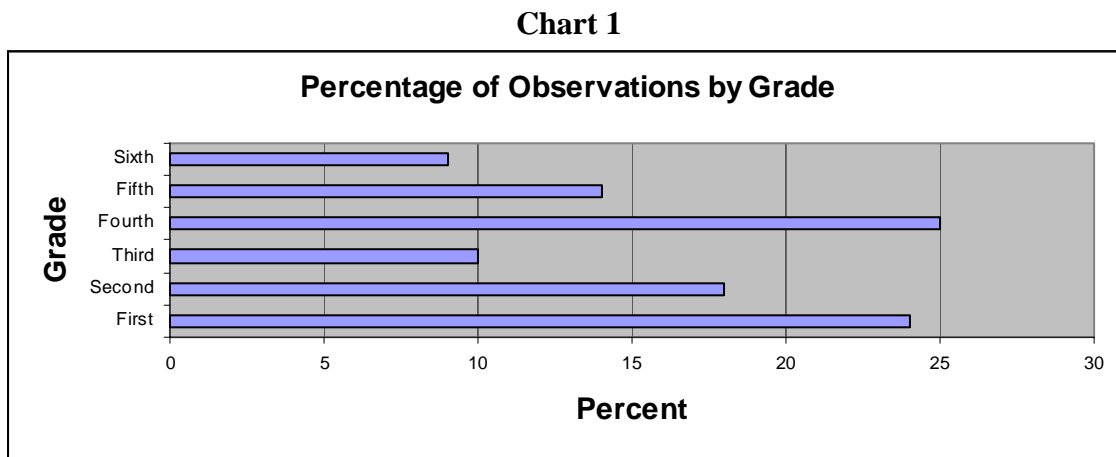
---

The evaluation of the Elko Class Size Reduction Demonstration Project included classroom observations. These were conducted in December of 2001 over a period of six days.

### A. Classroom Observations Methodology & Research Protocol

Teams of two (2) observers each observed forty-nine (49) classrooms in seven (7) schools. The classrooms were chosen to represent different grade levels, first through sixth.

The percentage of observations by grade is as follows (see Chart 1):



By the beginning of school year 2000-01, Elko County School District fully implemented the pilot 22:1 class size in all classrooms, grades 1 through 6. Therefore, the December observations included only observations of 22:1 classrooms.

As done previously for the study, the observers utilized a Classroom Observation Guide to collect data. The Guide was designed after the one utilized by the University of Wisconsin, Milwaukee in the Student Achievement Guarantee in Education (SAGE) Evaluation. The main categories for observation, each of which has subcategories, were Individualization, Engagement, and Management. The following provides a description of the subcategories by main category (see Table 1):

**Table 1**

Categories	Description
<p><b>INDIVIDUALIZATION</b></p> <ul style="list-style-type: none"> <li>➤ Monitoring</li> <li>➤ Grouping</li> <li>➤ Choice</li> <li>➤ Help</li> <li>➤ Whole Class</li> <li>➤ All Children</li> </ul>	<ul style="list-style-type: none"> <li>➤ Teacher moves about room to check on students' work.</li> <li>➤ Teacher divides class into subgroups.</li> <li>➤ Teacher permits students to create own learning activities.</li> <li>➤ Teacher offers feedback, critique, assistance, etc.</li> <li>➤ Teacher provides whole class instruction.</li> <li>➤ Teacher enables <u>all</u> children to participate in an activity.</li> </ul>
<p><b>ENGAGEMENT</b></p> <ul style="list-style-type: none"> <li>➤ Listening</li> <li>➤ Practicing</li> <li>➤ Responding</li> <li>➤ Gaming</li> <li>➤ Manipulating</li> <li>➤ Creating</li> <li>➤ Dialoguing</li> <li>➤ Problem-Solving</li> <li>➤ Reporting</li> <li>➤ Reflecting</li> <li>➤ Initiating</li> <li>➤ On-Task</li> </ul>	<ul style="list-style-type: none"> <li>➤ Students listen to teacher direction, lectures, explanations, etc.</li> <li>➤ Students work at their seats to complete exercises, worksheets, etc.</li> <li>➤ Students respond orally to teacher questions, follow directions, etc.</li> <li>➤ Students play educational games, role-play, sing, etc.</li> <li>➤ Students manipulate blocks, markers, objects, etc.</li> <li>➤ Students draw, paint, work on projects, etc.</li> <li>➤ Students engage in discussion with other students and/or teacher.</li> <li>➤ Students engage in investigation, inquiry, drawing conclusions, etc.</li> <li>➤ Students share, present, report on accomplishments, ideas, etc.</li> <li>➤ Students evaluate their knowledge and skill based on teacher critique.</li> <li>➤ Students volunteer own ideas, perceptions, understanding, etc.</li> <li>➤ Students on-task with classroom assignment.</li> </ul>
<p><b>MANAGEMENT</b></p> <ul style="list-style-type: none"> <li>➤ Movement</li> <li>➤ Praise</li> <li>➤ Disruptions</li> <li>➤ Reproof</li> <li>➤ Remind</li> <li>➤ Warmups</li> <li>➤ Cools</li> <li>➤ Peer</li> <li>➤ Permits</li> </ul>	<ul style="list-style-type: none"> <li>➤ Teacher moves about and interacts with students.</li> <li>➤ Teacher gives oral praise, stickers, etc. for academic achievement.</li> <li>➤ Teacher addresses disruptions.</li> <li>➤ Teacher gives oral reproof, isolates a student, etc. for behavior.</li> <li>➤ Teacher reminds students of class rules, procedures, etc.</li> <li>➤ Teacher personalizes learning by sharing own experiences, jokes, etc.</li> <li>➤ Teacher turns students off to learning by ignoring students, sarcasm.</li> <li>➤ Teacher allows students to develop socialization skills in problem-solving.</li> <li>➤ Teacher permits students to make choices re: behavior (water, bathroom, etc.)</li> </ul>

Each observer rated each subcategory on a scale of 1 to 5, with the following coding: 1 = Never Observed, 2 = Seldom Observed, 3 = Sometimes Observed, 4 = Often Observed, and 5 = Constantly Observed. Following each classroom observation, each team of two met to discuss ratings and make a final decision on the ratings of the subcategories. The ratings of the categories were calculated as the average of its subcategories.

A team of ten observers completed the study; these included:

- ✓ Department of Education      3 Observers
- ✓ Legislative Counsel Bureau    2 Observers
- ✓ Great Basin College            3 Observers
- ✓ Retired Teachers                2 Observers

In order to increase inter-rater reliability, the observers met for a training session in December 2001, prior to the actual observations. They reviewed the Classroom Observation Guide together, visited and filled out the Guide in at least two classrooms in Carlin, and met afterward to discuss their experiences and to refine the instrument.

## B. Presentation of Data

### Classroom Behavior Observed in Different Grade Levels—Results of December 2001 Observations in Comparison to March 2000 Observations

Table 2 reports the observed classroom behavior for first and second grade classrooms versus third, fourth, fifth, and sixth grade classrooms.

**Table 2. Classroom Behavior by Grade Levels**

	Grades 1-2		Grades 3-6		All Grades 1-6	
	Mar. 2000	2001-2002	Mar. 2000	2001-2002	Mar. 2000	2001-2002
	N = 34	N = 21	N = 21	N = 28	N = 55	N = 49
<b><i>Individualization</i></b>	<b>3.84</b>	<b>3.96</b>	<b>3.95</b>	<b>3.96</b>	<b>3.90</b>	<b>3.96</b>
Monitoring	4.07	4.05	4.24	3.96	4.16	4.01
Grouping	3.42	3.39	2.67	3.41 *	3.05	3.40
Choice	2.31	2.79	3.36	2.89	2.84	2.84
Help	4.21	4.62	4.29	3.96	4.25	4.29
Whole Class	4.30	4.16	4.50	4.04	4.40	4.10
All Children	4.70	4.76	4.65	4.50	4.68	4.63
<b><i>Engagement</i></b>	<b>3.42</b>	<b>3.81</b>	<b>3.56</b>	<b>3.67</b>	<b>3.49</b>	<b>3.74</b>
Listening	4.00	4.35	4.10	4.21	4.05	4.28
Practicing	3.67	3.90	4.29	4.25	3.98	4.08
Responding	4.44	4.48	4.10	3.82	4.27	4.15
Gaming	2.83	2.83	2.33	3.70 *	2.58	3.27*
Manipulating	3.17	3.42	2.80	3.43 *	2.99	3.43
Creating	3.13	3.36	3.08	3.18	3.11	3.27
Dialoguing	3.45	3.95 *	3.88	3.36 *	3.67	3.66
Problem Solving	3.35	3.94 *	3.38	3.24	3.37	3.59
Reporting	2.80	3.67 *	3.14	4.36 *	2.97	4.02
Reflecting	3.20	3.90 *	4.06	3.14 *	3.63	3.52
Initiating	2.95	3.50 *	3.50	2.96 *	3.23	3.23
On-task	4.00	4.43	4.10	4.39	4.54	4.41
<b><i>Management</i></b>	<b>2.80</b>	<b>3.02</b>	<b>2.67</b>	<b>2.79</b>	<b>2.74</b>	<b>2.91</b>
Praise	3.79	3.81	3.19	3.96 *	3.49	3.89
Reproof	2.64	4.38 *	1.55	3.50 *	2.10	3.94*
Remind	2.91	2.79	2.60	2.55	2.76	2.67
Warmms	2.81	1.62	2.74	1.63 *	2.78	1.63*
Cools	1.12	3.05 *	1.14	2.64 *	1.13	2.85*
Peer	2.42	3.79 *	3.28	3.04	2.85	3.42*
Permits	3.06	1.10 *	3.95	1.25 *	3.51	1.18*
Disruption	2.62	3.44 *	1.53	3.05 *	2.08	3.25*
Movement	3.90	3.21 *	4.05	3.50 *	3.98	3.36*

\* (Differences in means of .50 higher or lower are indicated by asterisks.)

March 2000 scores include observations of both pilot and non-pilot classrooms.

March 2000 category scores were recalculated as averages of the subcategory scores in order to compare with the 2001-2002 averages.

### **C. Section Summary & Findings**

These findings generally reflect what is known about human growth and development. Smaller children are more dependent on adults for guidance in learning and appropriate behavior. Older children are becoming more independent; they are learning to manage themselves and to direct their own learning. According to class size reduction theory, a smaller number of students per teacher should make possible greater individualization of instruction and greater engagement in learning on the part of students. It should also make classroom management easier and discipline more positive. The following summarizes the findings from the classroom observations:

- ✓ There was an overall improvement by grade level of classroom behavior in the major categories of individualization, engagement, and management.
- ✓ The individualization category remains the area that has had the most positive observations.
- ✓ The engagement category showed the area of improvement with the most positive effect.
- ✓ The management category accounted for the greatest variation with the subcategories.

## VII. STUDENT TERRANOVA SCORES

### A. TerraNova Score Methodology & Research Protocol

In October of each school year, Elko elementary students prior to 2002 were tested by the TerraNova norm-referenced examination. The four major areas of examination are (1) science, (2) reading, (3) language arts, and (4) mathematics.

### B. Presentation of Data

The results of this examination over the last three years are provided in three tables. The first table summarizes the results for all schools that transitioned to 22:1 class size in school year 1999-2000. The second table summarizes the results for all schools that transitioned to 22:1 class size in school year 2000-2001. The third table summarizes the results for two combined schools that have had traditionally smaller class sizes over the three years. The tables provide the number of students tested and a mean normal curve equivalent (NCE) score in each area. **Readers can consider the mean NCE as useful, since it allows for comparisons across groups and testing areas.**

<b>TERRANOVA NORM-REFERENCED TESTING RESULTS</b>
--

*Table 1. Elko Elementary Schools Transitioning to 22:1 Class Sizes in School Year 1999-2000*

Testing Date	SCIENCE		READING		LANGUAGE		MATHEMATICS	
	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE
<b>Grade 2</b>								
Oct. '01	339	43	338	47	340	53	331	50
Oct. '00	340	45	333	50	338	52	337	50
Oct. '99	318	42	318	45	309	49	298	41
<b>Grade 3</b>								
Oct. '01	367	46	363	50	362	52	362	47
Oct. '00	363	45	366	44	365	45	363	43
Oct. '99	363	51	365	50	360	53	360	47
<b>Grade 4</b>								
Oct. '01	400	44	398	41	398	42	398	43
Oct. '00	437	52	435	51	437	53	435	49
Oct. '99	405	46	403	45	403	51	402	43
<b>Grade 5</b>								
Oct. '01	421	48	421	44	421	48	421	44
Oct. '00	403	50	403	49	403	51	402	46
Oct. '99	363	52	362	49	361	50	360	44
<b>Grade 6</b>								
Oct. '01	333	46	328	43	329	50	329	48
Oct. '00	251	54	248	50	265	55	255	55
Oct. '99	260	52	259	51	258	55	258	50

*Table 2. Elko Elementary Schools Transitioned to 22:1 Class Sizes in School Year 2000-2001*

Testing Date	SCIENCE		READING		LANGUAGE		MATHEMATICS	
	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE
<b>Grade 2</b>								
Oct. '01	251	49	253	55	256	65	252	53
Oct. '00	289	51	285	52	289	57	290	51
Oct. '99	243	52	238	55	241	58	239	52
<b>Grade 3</b>								
Oct. '01	266	50	267	59	268	60	269	48
Oct. '00	267	53	271	54	270	54	269	49
Oct. '99	335	55	335	64	335	57	334	46
<b>Grade 4</b>								
Oct. '01	250	57	249	55	249	59	248	51
Oct. '00	313	54	312	54	312	56	311	51
Oct. '99	330	56	326	57	331	59	329	49
<b>Grade 5</b>								
Oct. '01	295	59	297	57	297	61	294	46
Oct. '00	309	54	309	55	308	57	304	48
Oct. '99	304	53	304	55	304	57	303	45
<b>Grade 6</b>								
Oct. '01	167	60	168	59	167	65	167	59
Oct. '00	176	51	175	50	174	53	172	51
Oct. '99	171	50	171	49	172	53	169	51

*Table 3. Elko Elementary Schools With Traditionally Smaller Class Sizes*

Testing Date	SCIENCE		READING		LANGUAGE		MATHEMATICS	
	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE	Students	Mean NCE
<b>Grade 2</b>								
Oct. '01	48	26	45	30	47	31	46	30
Oct. '00	33	23	32	45.5	33	56	28	43
Oct. '99	36	18	35	49	35	45	34	26
<b>Grade 3</b>								
Oct. '01	47	38	46	39	46	40	45	53
Oct. '00	30	30	30	32	30	34	30	57
Oct. '99	32	35	32	43.5	32	42	32	37
<b>Grade 4</b>								
Oct. '01	45	30	46	29	46	27	41	40
Oct. '00	43	34	43	34	43	32	43	38
Oct. '99	32	26	32	32	32	32	32	31
<b>Grade 5</b>								
Oct. '01	46	30	44	31	44	31	45	33
Oct. '00	47	32	47	29	47	40	47	43
Oct. '99	30	34	30	35	30	44	29	31
<b>Grade 6</b>								
Oct. '01	38	21	38	21	38	35	40	49
Oct. '00	33	30	33	39	33	49	33	60
Oct. '99	36	31	36	26	36	34	36	31

### **C. Section Summary & Findings**

The following summarizes the findings from the TerraNova scores:

- ✓ In Table 1, mathematics stayed the most consistent with the smallest decrease in student TerraNova test scores.
- ✓ Table 2 reflected an increase in the upper grades in the areas of science and reading and all grades (2-6) in language, and mixed gains mathematics in comparing of the October 1999 to the October 2001 test dates.
- ✓ Table 3 shows schools with traditionally smaller class sizes from 1999 to 2001. In grades 2, 3, and 4, most science and mathematics scores showed strong gains, while reading and language arts showed decline in most areas. In mathematics, every grade (2 through 6) showed significant increases in test scores. Student test scores in science reflected strong gains in grades 2, 3, and 4.

## VIII. PARENT-GUARDIAN SURVEYS

---

### A. Parent-Guardian Survey Questionnaire Methodology & Research Protocol

In May 2002, a total number of 5,143 surveys were disseminated to the parents-guardians that had children attending one of the eleven schools (Carlin, Jackpot, Mountain View, Owyhee, Sage, Southside, Northside, Grammar #2, Spring Creek, Wells, and West Wendover) involved in the 22:1 class-size ratio.

The survey requested that the parent/guardian comment on aspects to illicit perceptions of teaching and learning experiences at the school their child attends. The parent was presented with a series of statements on the 22:1 classroom setting and asked to indicate the extent and level of agreement of related changes (if any) that occurred. The parent/guardian survey questionnaire also asked questions about the grade of their child, awareness of the Elko County School District Class Size Reduction 22:1 Demonstration Project, potential benefits of the program, attendance of previous children in grades 1 through 6 which were in classes either smaller or larger than 22:1

### B. Presentation of Data

Of the 5,143 surveys that were disseminated, 1,555 parents/guardians returned the survey for a 30% return rate that included responses in Spanish. Of the 400 surveys that were disseminated in June 2000, 76 parents/guardians returned the survey for a 19% return rate, including the responses in Spanish. The reason for the greater parental response rate is believed to be the result of two deviations in the research methodology. First, instead of selecting 400 parents at random, surveys were disseminated to every household. Second, instead of having the surveys returned through the mail, parents were able to return the surveys to their child's teacher, as school was still in session. The responses to the parent/guardian survey questionnaire were aggregated and percentages calculated. The results are presented in the following tables. In some instances, the total percentages do not equal 100% due to rounding.

The following tables represent the summary responses in total numbers and calculated percentages of background questions from the parent/guardian surveys in the 2001-2002 school year.

#### Parent Summary of Responses to Student Background Information

In which grades do you currently have children? (Duplicated Count)

1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade	5 <sup>th</sup> Grade	6 <sup>th</sup> Grade
352	326	394	356	473	298

Were you aware of the Elko County School District Class-size Reduction (CSR) 22:1 Program before you received this survey?

Yes		No		No Response	
810	51%	738	47%	30	2%

Do you believe the potential benefits of this class-size reduction program are great enough to warrant additional costs?

Yes		No				No Response	
1174	74%	262	17%		142	9%	

Have you had previous children attend classes in grades one through six which were larger/or smaller than 22:1?

Yes		No				No Response	
923	58%	583	37%		72	5%	

The following tables represent the summary responses of the primary questions from the parent/guardian surveys in the 2001-2002 school year as compared to responses of the primary questions from the parent-guardian surveys administered in the 1999-2000 school year.

### Parent/Guardian Responses to Survey Questions

How do you feel the 22:1 class size has affected:

Your child's learning to read?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
	2001-2002	426	27%	377	24%	253	16%	77	5%	34	2%	411
1999-2000	20	26%	15	20%	7	9%	8	11%	3	4%	13	17%

Your child's learning mathematics?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
	2001-2002	423	27%	401	25%	244	15%	84	5%	35	2%	390
1999-2000	19	25%	15	20%	11	14%	6	8%	4	0%	12	16%

Your child's learning to talk and express him/herself?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
	2001-2002	465	29%	355	22%	287	18%	57	4%	31	2%	384
1999-2000	18	24%	16	21%	15	20%	6	8%	3	4%	10	13%

Your child's learning to write?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
	2001-2002	441	28%	378	24%	271	17%	74	5%	25	2%	388
1999-2000	19	25%	17	22%	14	18%	4	5%	2	3%	11	14%

Your child's grades in school?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	374	24%	410	26%	300	19%	64	4%	27	2%	404	26%
1999-2000	23	30%	11	14%	14	18%	5	7%	2	3%	11	14%

How much your child likes and gets involved in school?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	470	30%	358	23%	282	18%	56	4%	22	1%	390	25%
1999-2000	19	25%	17	22%	11	14%	6	8%	3	4%	11	14%

How well your child gets along with playmates?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	400	25%	346	22%	372	24%	47	3%	20	1%	393	25%
1999-2000	21	28%	18	24%	13	17%	0	0%	4	5%	11	14%

Your child's interest in reading and other school work?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	424	27%	385	24%	283	18%	73	5%	26	2%	387	25%
1999-2000	21	28%	15	20%	19	25%	3	4%	0	0%	9	12%

Your involvement with the school?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	242	15%	290	18%	497	31%	79	5%	21	1%	449	28%
1999-2000	12	16%	16	21%	20	26%	3	4%	1	1%	14	18%

The contacts you've had with the teachers?

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/Don't Know	
2001-2002	401	25%	285	18%	394	25%	67	4%	24	2%	407	26%
1999-2000	21	28%	15	20%	18	24%	2	3%	0	0%	9	12%

### C. Section Summary & Findings

The following summarizes the findings from the parent/guardian surveys:

- ✓ Parent/guardian responses indicated that in 2001-2002, there was great improvement to some improvement (53%) on how much their child likes and gets involved in school.
- ✓ The majority of survey responses from 1999-2000 to 2001-2002 showed a positive affect of 22:1 class sizes.
- ✓ Parent/guardian responses did not reflect a significant decline (some decline to great decline) from 1999-2000 to 2001-2002.
- ✓ The evaluation study gained 11% in parent/guardian survey responses.

## IX. TEACHER INTERVIEWS

---

### A. Teacher Interview Methodology & Research Protocol

In December 2001, in conjunction with the 22:1 classroom observations, the evaluation team from Great Basin College, Nevada Department of Education, and the Legislative Bureau of Educational Accountability and Program Evaluation conducted individual teacher and principal interviews at the seven class size reduction schools. The teacher interviews were not limited to the teachers observed in the classroom observations. The interviews were approximately 15-20 minutes in length and took place during teacher preparation times, lunch breaks, before school, and after school. A total number of 60 interviews with teachers in the 22:1 classroom setting were conducted.

### B. Presentation of Data

The following table represents the responses from the teacher interviews in grades 1-2 for the 2001-2002 school year in comparison to the 2000-2001 and 1999-2000 school years.

#### Grades 1-2

2001-2002 Responses = 25

2000-2001 Responses = 26

1999-2000 Responses = 19

Date	Positive Effect	No Effect	Negative Effect	Not Addressed
<b>Time on instruction?</b>				
2001-2002	12 48%	6 24%	5 20%	2 8%
2000-2001	16 62%	3 12%	7 27%	0 0%
1999-2000	8 42%	3 16%	8 42%	0 0%
<b>Discipline required?</b>				
2001-2002	16 64%	5 20%	4 16%	0 0%
2000-2001	12 46%	10 38%	4 15%	0 0%
1999-2000	11 58%	5 26%	3 16%	0 0%
<b>Individualization of instruction?</b>				
2001-2002	12 48%	2 8%	10 40%	1 4%
2000-2001	12 47%	10 38%	4 15%	0 0%
1999-2000	8 42%	1 5%	10 52%	0 0%
<b>Use of student-centered activities?</b>				
2001-2002	18 72%	5 20%	1 4%	1 4%
2000-2001	13 50%	10 38%	3 12%	0 0%
1999-2000	6 32%	8 42%	3 16%	2 11%
<b>Number of learning activities used?</b>				
2001-2002	13 52%	5 20%	4 16%	3 12%
2000-2001	10 38%	11 42%	5 19%	0 0%
1999-2000	7 37%	7 37%	2 11%	2 11%

Date	Positive Effect	No Effect	Negative Effect	Not Addressed
<b>Opportunity for students to problem solve, create, etc.?</b>				
2001-2002	17	68%	4	16%
2000-2001	14	54%	7	27%
1999-2000	9	47%	2	11%
<b>Content (subject matter and skills) covered?</b>				
2001-2002	10	40%	11	44%
2000-2001	16	61%	8	31%
1999-2000	11	58%	4	21%
<b>Content covered in-depth?</b>				
2001-2002	14	56%	7	28%
2000-2001	14	54%	7	27%
1999-2000	12	63%	1	5%
<b>Knowledge of students' abilities, needs, personalities, etc.?</b>				
2001-2002	17	68%	3	12%
2000-2001	16	61%	6	23%
1999-2000	16	84%	1	5%
<b>Students attentive and engaged?</b>				
2001-2002	13	52%	6	24%
2000-2001	11	42%	9	35%
1999-2000	12	63%	2	11%
<b>Students participate in discussions, volunteer comments, etc.?</b>				
2001-2002	15	60%	7	28%
2000-2001	11	42%	11	42%
1999-2000	10	52%	3	16%
<b>Enthusiasm for and enjoyment of teaching?</b>				
2001-2002	14	56%	7	28%
2000-2001	16	61%	4	9%
1999-2000	12	63%	4	21%
<b>Effort devoted to planning and teaching?</b>				
2001-2002	9	36%	12	48%
2000-2001	6	23%	8	31%
1999-2000	8	42%	3	16%
<b>What do you believe the effect of this change has had on your students?</b>				
2001-2002	15	60%	1	4%
2000-2001	13	50%	4	15%
1999-2000	13	68%	3	16%

Total percentages may not equal 100% due to rounding.

The following table represents the responses from the teacher interviews in grades 3 through 6 for the 2001-2002 school year in comparison to the 2000-2001 and 1999-2000 school years.

### Grades 3-6

2001-2002 Responses = 35

2000-2001 Responses = 49

1999-2000 Responses = 46

Date	Positive Effect		No Effect		Negative Effect		Not Addressed	
<b>Time on instruction?</b>								
2001-2002	22	63%	9	26%	0	0%	4	11%
2000-2001	37	76%	7	14%	5	10%	2	4%
1999-2000	37	80%	6	13%	0	0%	3	7%
<b>Discipline required?</b>								
2001-2002	31	89%	2	6%	1	3%	1	3%
2000-2001	35	71%	5	10%	7	14%	2	4%
1999-2000	32	70%	8	17%	1	2%	5	11%
<b>Individualization of instruction?</b>								
2001-2002	33	94%	1	3%	0	0%	1	3%
2000-2001	39	80%	7	14%	3	6%	0	0%
1999-2000	40	87%	4	9%	0	0%	2	4%
<b>Use of student-centered activities?</b>								
2001-2002	29	83%	1	3%	1	3%	4	11%
2000-2001	36	50%	4	38%	9	12%	0	0%
1999-2000	36	78%	4	9%	0	0%	6	13%
<b>Number of learning activities used?</b>								
2001-2002	25	71%	2	6%	1	3%	7	20%
2000-2001	39	73%	5	10%	4	8%	1	2%
1999-2000	32	70%	7	15%	1	2%	6	13%
<b>Opportunity for students to problem solve, create, etc.?</b>								
2001-2002	31	89%	1	3%	0	0%	3	9%
2000-2001	35	71%	3	6%	10	15%	1	2%
1999-2000	36	78%	2	4%	3	7%	5	11%
<b>Content (subject matter and skills) covered?</b>								
2001-2002	18	51%	10	29%	0	0%	7	20%
2000-2001	33	67%	6	12%	8	16%	2	4%
1999-2000	28	61%	8	17%	8	17%	2	4%
<b>Content covered in-depth?</b>								
2001-2002	25	71%	4	11%	0	0%	6	17%
2000-2001	35	71%	6	12%	4	8%	4	8%
1999-2000	36	78%	5	11%	2	4%	3	7%

Date	Positive Effect		No Effect		Negative Effect		Not Addressed	
<b>Knowledge of students' abilities, needs, personalities, etc.?</b>								
2001-2002	32	91%	1	3%	0	0%	2	6%
2000-2001	33	67%	7	14%	8	16%	1	2%
1999-2000	42	91%	2	4%	2	4%	0	0%
<b>Students attentive and engaged?</b>								
2001-2002	29	83%	4	11%	0	0%	2	6%
2000-2001	38	78%	8	16%	3	6%	0	0%
1999-2000	38	83%	4	9%	1	2%	3	7%
<b>Students participate in discussions, volunteer comments, etc.?</b>								
2001-2002	29	83%	4	11%	0	0%	2	6%
2000-2001	36	73%	7	14%	3	8%	3	6%
1999-2000	29	63%	6	13%	3	7%	8	17%
<b>Enthusiasm for and enjoyment of teaching?</b>								
2001-2002	28	80%	5	14%	0	0%	2	6%
2000-2001	33	67%	4	8%	10	15%	2	4%
1999-2000	38	83%	2	4%	4	9%	2	4%
<b>Effort devoted to planning and teaching?</b>								
2001-2002	20	57%	6	17%	5	14%	4	11%
2000-2001	32	65%	4	8%	7	14%	4	8%
1999-2000	27	59%	14	30%	2	4%	3	7%
<b>What do you believe the effect of this change has had on your students?</b>								
2001-2002	32	91%	0	0%	0	0%	3	9%
2000-2001	36	73%	5	10%	1	2%	6	12%
1999-2000	36	78%	7	15%	1	2%	2	4%

Total percentages may not equal 100% due to rounding.

### C. Section Summary & Findings

The following summarizes the findings from the teacher interviews:

- ✓ The majority of interviewed teachers in grades one and two did not notice as many negative effects of increased class size as 3 through 6 teachers noted positive effects of decreased class sizes.
- ✓ In most areas, teachers interviewed in grades 1 and 2 were more likely to see positive or no effects rather than negative effects. In only one area, individualization of instruction, are the negative effects as high as the positive effects.
- ✓ The vast majority of interviewed 3 through 6 teachers saw positive effects in every area. Based on the responses of 9 out of the 14 areas, over 75% responded positively.

## X. PRINCIPAL INTERVIEWS

---

### A. Principal Interview Methodology & Research Protocol

In December 2001, in conjunction with the classroom observations, the evaluation team from Great Basin College, Nevada Department of Education, and Nevada Legislative Counsel Bureau conducted individual principal interviews at the seven schools where classroom observations and teacher interviews occurred. The interviews were approximately 15-20 minutes in length and took place during a time convenient for the principal. During this time period, a total number of four (4) principal interviews and two (2) vice principal interviews took place.

### B. Presentation of Data

The following table represents the principal interview responses from the 2001-2002 school year in comparison to the principal interview responses from the 2000-2001 and 1999-2000 school years.

#### Principal Interviews

2001-2002 Responses = 6

2000-2001 Responses = 6

1999-2000 Responses = 4

Date	Positive Effect	No Effect	Negative Effect	Not Addressed
<b>Time on instruction?</b>				
2001-2002	5 83%	0 0%	0 0%	1 17%
2000-2001	6 100%	0 0%	0 0%	0 0%
1999-2000	4 100%	0 0%	0 0%	0 0%
<b>Discipline required?</b>				
2001-2002	5 83%	1 17%	0 0%	0 0%
2000-2001	6 100%	0 0%	0 0%	0 0%
1999-2000	3 75%	1 25%	0 0%	0 0%
<b>Individualization of instruction?</b>				
2001-2002	6 100%	0 0%	0 0%	0 0%
2000-2001	6 100%	0 0%	0 0%	0 0%
1999-2000	4 100%	0 0%	0 0%	0 0%
<b>Use of student-centered activities?</b>				
2001-2002	4 67%	1 17%	0 0%	1 17%
2000-2001	6 100%	0 0%	0 0%	0 0%
1999-2000	4 100%	0 0%	0 0%	0 0%

Date	Positive Effect		No Effect		Negative Effect		Not Addressed	
<b>Number of learning activities used?</b>								
2001-2002	5	83%	1	17%	0	0%	0	0%
2000-2001	3	50%	3	50%	0	0%	0	0%
1999-2000	4	100%	0	0%	0	0%	0	0%
<b>Opportunity for students to problem-solve, create, etc.?</b>								
2001-2002	4	67%	0	0%	0	0%	2	33%
2000-2001	5	83%	1	17%	0	0%	0	0%
1999-2000	3	75%	1	25%	0	0%	0	0%
<b>Content (subject matter and skills) covered?</b>								
2001-2002	3	50%	2	33%	0	0%	1	17%
2000-2001	4	67%	2	33%	0	0%	0	0%
1999-2000	2	50%	0	0%	0	0%	2	50%
<b>Content covered in-depth?</b>								
2001-2002	4	67%	0	0%	0	0%	2	33%
2000-2001	6	100%	0	0%	0	0%	0	0%
1999-2000	3	75%	1	25%	0	0%	0	0%
<b>Knowledge of student's abilities, needs, personalities, etc.?</b>								
2001-2002	6	100%	0	0%	0	0%	0	0%
2000-2001	6	100%	0	0%	0	0%	0	0%
1999-2000	3	75%	1	25%	0	0%	0	0%
<b>Students attentive and engaged?</b>								
2001-2002	5	83%	0	0%	0	0%	1	17%
2000-2001	4	67%	0	0%	0	0%	2	33%
1999-2000	4	100%	0	0%	0	0%	0	0%
<b>Students participate in discussions, volunteer comments, etc.?</b>								
2001-2002	3	60%	1	20%	0	0%	1	20%
2000-2001	1	17%	0	0%	2	33%	3	50%
1999-2000	3	75%	1	25%	0	0%	0	0%
<b>Enthusiasm for and enjoyment of teaching?</b>								
2001-2002	6	100%	0	0%	0	0%	0	0%
2000-2001	6	100%	0	0%	0	0%	0	0%
1999-2000	3	75%	1	25%	0	0%	0	0%

Date	Positive Effect		No Effect		Negative Effect		Not Addressed	
<b>Effort devoted to planning and teaching?</b>								
2001-2002	4	67%	1	17%	0	0%	1	17%
2000-2001	0	0%	3	50%	0	0%	3	50%
1999-2000	4	100%	0	0%	0	0%	0	0%

### C. Section Summary & Findings

The following summarizes the findings from the principal interviews:

- ✓ Based on the principal interviews in 2001-2002, the majority of responses reflect a positive effect associated with reduced class sizes.

## XI. TEACHER SURVEYS

---

### A. Teacher Survey Questionnaire Methodology & Research Protocol

In August 2002, a total number of 221 surveys were disseminated to 1<sup>st</sup> through 6<sup>th</sup> grade regular classroom teachers in the eleven (11) Elko County School District schools: Carlin, Jackpot, Mountain View, Owyhee, Sage, Southside, Northside, Spring Creek, Wells, Grammar #2, and West Wendover.

The survey instrument requested that the teacher comment on aspects to illicit perceptions of teaching and learning at their school. The teacher was presented with a series of statements on their teaching situation with the 22:1 classroom setting and asked to indicate the extent and level of agreement of related changes (if any) that occurred. The teacher survey questionnaire also asked questions about the number of years of teaching experience, number years of teaching prior to 1999-2000, and average class size taught.

### B. Presentation of Data

Of the 221 surveys that were disseminated, 82 teachers returned the survey for a 37% return rate. The teacher responses to the survey questionnaire were aggregated and are presented in the following tables.

The following table represents the responses from the teacher survey in grades 1 and 2 for the 2001-2002 school year in comparison with the responses from the 2000-2001 and 1999-2000 school years.

### Teacher Surveys Summary

#### Grades 1-2

**2001 - 2002 Responses N = 29**

**2000 - 2001 Responses N = 52**

**1999 - 2000 Responses N = 33**

#### 1. Academically related student-teacher interaction

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<b>2001 - 2002</b>	12	41%	9	31%	2	7%	4	14%	1	3%	1	3%	0	0%
<b>2000 - 2001</b>	18	35%	16	31%	7	13%	5	10%	5	10%	1	2%	0	0%
<b>1999 - 2000</b>	8	24%	10	30%	4	12%	4	12%	5	15%	1	3%	1	3%

#### 2. Monitoring student progress & providing feedback to students

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<b>2001 - 2002</b>	14	48%	7	24%	2	7%	5	17%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	21	40%	10	19%	7	13%	10	19%	3	6%	1	2%	0	0%
<b>1999 - 2000</b>	7	21%	8	24%	5	15%	8	24%	4	12%	0	0%	1	3%

**3. The amount of paperwork & record keeping**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	24%	9	31%	7	24%	3	10%	1	3%	1	3%	1	3%
<b>2000 - 2001</b>	16	31%	8	15%	10	19%	11	21%	6	12%	1	2%	0	0%
<b>1999 - 2000</b>	7	21%	5	15%	7	21%	8	24%	5	15%	0	0%	1	3%

**4. The number of discipline problems**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	6	21%	9	31%	6	21%	4	14%	3	10%	1	3%	0	0%
<b>2000 - 2001</b>	13	25%	16	31%	15	29%	6	12%	1	2%	1	2%	0	0%
<b>1999 - 2000</b>	4	12%	12	36%	9	27%	5	15%	2	6%	0	0%	1	3%

**5. The pace of instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	24%	11	38%	5	17%	5	17%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	14	27%	22	43%	10	20%	2	4%	2	4%	1	2%	0	0%
<b>1999 - 2000</b>	5	15%	10	30%	7	21%	8	24%	1	3%	1	3%	1	3%

**6. The amount of time allocated to instructionally relevant activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	6	21%	11	38%	8	28%	3	10%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	15	29%	16	31%	10	19%	7	13%	3	6%	1	2%	0	0%
<b>1999 - 2000</b>	1	3%	0	0%	3	9%	5	15%	9	27%	10	30%	5	15%

**7. Student time on task**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	5	17%	15	52%	3	10%	5	17%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	14	27%	18	35%	11	21%	7	13%	1	2%	1	2%	0	0%
<b>1999 - 2000</b>	5	14%	11	31%	10	28%	7	19%	2	6%	0	0%	1	3%

**8. Student learning**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	9	31%	12	41%	3	10%	4	14%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	15	29%	18	35%	10	19%	6	12%	0	0%	3	6%	0	0%
<b>1999 - 2000</b>	7	21%	10	30%	9	27%	3	9%	3	9%	0	0%	1	3%

**9. Opportunities for you to explore & use new/different teaching strategies**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	9	31%	10	34%	3	10%	4	14%	1	3%	2	7%	0	0%
<b>2000 - 2001</b>	19	37%	12	23%	6	12%	8	15%	6	12%	1	2%	0	0%
<b>1999 - 2000</b>	5	15%	10	30%	7	21%	8	24%	1	3%	1	3%	1	3%

**10. Cooperative activities among teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	4	14%	9	31%	9	31%	3	10%	2	7%	2	7%	0	0%
<b>2000 - 2001</b>	9	17%	7	13%	23	44%	6	12%	5	10%	2	4%	0	0%
<b>1999 - 2000</b>	2	9%	8	35%	1	4%	6	26%	4	17%	1	4%	1	4%

**11. Your interaction with other teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	7%	10	34%	10	34%	3	10%	2	7%	2	7%	0	0%
<b>2000 - 2001</b>	10	19%	9	17%	21	40%	9	17%	1	2%	2	4%	0	0%
<b>1999 - 2000</b>	1	3%	6	19%	15	47%	5	16%	4	13%	0	0%	1	3%

**12. Teacher-administration interaction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	7%	3	10%	19	66%	1	3%	2	7%	2	7%	0	0%
<b>2000 - 2001</b>	2	4%	9	17%	36	69%	1	2%	1	2%	3	6%	0	0%
<b>1999 - 2000</b>	2	6%	7	21%	19	58%	2	6%	2	6%	0	0%	1	3%

**13. Student morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	10	34%	7	24%	8	28%	2	7%	0	0%	2	7%	0	0%
<b>2000 - 2001</b>	11	21%	16	31%	20	38%	3	6%	0	0%	2	4%	0	0%
<b>1999 - 2000</b>	4	12%	8	24%	11	33%	0	0%	7	21%	1	3%	2	6%

**14. Teacher morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	12	41%	6	21%	6	21%	3	10%	0	0%	2	7%	0	0%
<b>2000 - 2001</b>	19	37%	14	27%	9	17%	4	8%	5	10%	1	2%	0	0%
<b>1999 - 2000</b>	8	24%	4	12%	10	30%	6	18%	3	9%	1	3%	1	3%

**15. Small group instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	11	38%	10	34%	0	0%	5	17%	2	7%	1	3%	0	0%
<b>2000 - 2001</b>	17	31%	11	20%	8	15%	10	18%	7	13%	2	4%	0	0%
<b>1999 - 2000</b>	5	13%	6	15%	7	18%	11	28%	9	23%	0	0%	1	3%

**16. Physical space**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	16	55%	5	17%	2	7%	5	17%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	25	48%	12	23%	4	8%	4	8%	6	12%	1	2%	0	0%
<b>1999 - 2000</b>	9	31%	5	17%	2	7%	9	31%	3	10%	0	0%	1	3%

**17. Use of hands-on activities & manipulative materials**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	11	38%	8	28%	6	21%	3	10%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	22	42%	9	17%	14	27%	4	8%	2	4%	1	2%	0	0%
<b>1999 - 2000</b>	11	38%	8	28%	2	7%	4	14%	3	10%	0	0%	1	3%

**18. Teacher planning & preparation**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	8	28%	9	31%	7	24%	4	14%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	13	25%	12	23%	17	33%	7	13%	2	4%	1	2%	0	0%
<b>1999 - 2000</b>	3	9%	7	21%	15	45%	5	15%	2	6%	0	0%	1	3%

**19. Social interaction among your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	8	28%	11	38%	6	21%	3	10%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	13	25%	16	31%	18	35%	1	2%	2	4%	2	4%		0%
<b>1999 - 2000</b>	9	27%	11	33%	5	15%	3	9%	4	12%	0	0%	1	3%

**20. Social/personal interaction between you and your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	10	34%	11	38%	3	10%	4	14%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	16	31%	17	33%	11	21%	3	6%	3	6%	2	4%	0	0%
<b>1999 - 2000</b>	5	15%	8	24%	11	33%	3	9%	2	6%	3	9%	1	3%

**21. Use & effectiveness of enrichment activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	24%	13	45%	4	14%	4	14%	0	0%	1	3%	0	0%
<b>2000 - 2001</b>	14	27%	13	25%	12	23%	6	12%	5	10%	2	4%	0	0%
<b>1999 - 2000</b>	10	30%	9	27%	8	24%	2	6%	3	9%	0	0%	1	3%

**22. Parent-teacher contacts**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	24%	7	24%	8	28%	3	10%	1	3%	3	10%	0	0%
<b>2000 - 2001</b>	9	17%	19	37%	17	33%	2	4%	3	6%	2	4%	0	0%
<b>1999 - 2000</b>	5	15%	9	27%	13	39%	3	9%	2	6%	0	0%	1	3%

**23. One-on-one instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	10	34%	10	34%	2	7%	4	14%	2	7%	1	3%	0	0%
<b>2000 - 2001</b>	15	29%	12	23%	6	12%	12	23%	6	12%	1	2%	0	0%
<b>1999 - 2000</b>	6	18%	9	27%	5	15%	4	12%	8	24%	0	0%	1	3%

Total percentages may not equal 100% due to rounding.

The following table represents the responses from the teacher survey in grades 3-6 for the 2001-2002 school year in comparison with the responses from the teacher surveys for the 2000-2001 and 1999-2000 school years.

**Grades 3-6**

**2001 - 2002 Responses N = 53**

**2000 - 2001 Responses N = 87**

**1999 - 2000 Responses N = 75**

**1. Academically related student-teacher interaction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	38	72%	12	23%	0	0%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	54	62%	24	28%	5	6%	2	2%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	43	57%	22	29%	2	3%	1	1%	4	5%	2	3%	1	1%

**2. Monitoring student progress & providing feedback to students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	43	81%	6	11%	1	2%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	56	64%	22	25%	3	3%	3	3%	1	1%	2	2%	0	0%
<b>1999 - 2000</b>	46	61%	17	23%	1	1%	5	7%	4	5%	1	1%	1	1%

**3. The amount of paperwork & record keeping**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	29	55%	10	19%	6	11%	4	8%	2	4%	2	4%	0	0%
<b>2000 - 2001</b>	38	44%	22	25%	11	13%	5	6%	8	9%	3	3%	0	0%
<b>1999 - 2000</b>	28	37%	19	25%	7	9%	2	3%	12	16%	5	7%	2	3%

**4. The number of discipline problems**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	21	40%	18	34%	7	13%	3	6%	2	4%	2	4%	0	0%
<b>2000 - 2001</b>	31	36%	26	30%	15	17%	5	6%	6	7%	4	5%	0	0%
<b>1999 - 2000</b>	24	32%	21	28%	9	12%	6	8%	9	12%	5	7%	1	1%

**5. The pace of instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	18	34%	24	45%	7	13%	1	2%	0	0%	2	4%	1	2%
<b>2000 - 2001</b>	30	34%	40	46%	14	16%	1	1%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	25	33%	27	36%	14	19%	2	3%	1	1%	4	5%	2	3%

**6. The amount of time allocated to instructionally relevant activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	29	55%	16	30%	6	11%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	37	43%	32	37%	14	16%	3	3%	0	0%	1	1%	0	0%
<b>1999 - 2000</b>	24	32%	30	40%	7	9%	3	4%	4	5%	6	8%	1	1%

**7. Student time on task**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	21	40%	24	45%	6	11%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	36	41%	40	46%	7	8%	2	2%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	28	37%	31	41%	8	11%	1	1%	2	3%	4	5%	1	1%

**8. Student learning**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	26	49%	22	42%	2	4%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	43	49%	37	43%	3	3%	2	2%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	31	39%	32	41%	8	10%	3	4%	1	1%	3	4%	1	1%

**9. Opportunities for you to explore & use new/different teaching strategies**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	31	60%	15	29%	3	6%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	42	48%	36	41%	5	6%	2	2%	1	1%	1	1%	0	0%
<b>1999 - 2000</b>	33	44%	25	33%	7	9%	3	4%	3	4%	3	4%	1	1%

**10. Cooperative activities among teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	16	30%	19	36%	14	26%	1	2%	0	0%	3	6%	0	0%
<b>2000 - 2001</b>	21	24%	29	33%	27	31%	3	3%	1	1%	6	7%	0	0%
<b>1999 - 2000</b>	17	23%	19	25%	21	28%	3	4%	6	8%	7	9%	2	3%

**11. Your interaction with other teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	14	26%	15	28%	22	42%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	11	13%	36	41%	35	40%	1	1%	0	0%	4	5%	0	0%
<b>1999 - 2000</b>	14	19%	23	31%	17	23%	7	9%	8	11%	4	5%	2	3%

**12. Teacher-administration interaction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	6	11%	20	38%	25	47%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	9	10%	21	24%	45	52%	5	6%	2	2%	5	6%	0	0%
<b>1999 - 2000</b>	4	5%	13	17%	34	45%	8	11%	4	5%	9	12%	3	4%

**13. Student morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	23	43%	18	34%	9	17%	0	0%	0	0%	3	6%	0	0%
<b>2000 - 2001</b>	34	39%	38	44%	12	14%	1	1%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	23	31%	25	33%	19	25%	2	3%	0	0%	4	5%	2	3%

**14. Teacher morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	32	60%	13	25%	5	9%	0	0%	0	0%	3	6%	0	0%
<b>2000 - 2001</b>	45	52%	27	31%	9	10%	2	2%	2	2%	2	2%	0	0%
<b>1999 - 2000</b>	31	41%	22	29%	11	15%	3	4%	3	4%	3	4%	2	3%

**15. Small group instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	35	66%	14	26%	1	2%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	46	53%	30	34%	7	8%	2	2%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	32	43%	20	27%	11	15%	4	5%	4	5%	2	3%	2	3%

**16. Physical space**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	34	64%	12	23%	6	11%	0	0%	0	0%	1	2%	0	0%
<b>2000 - 2001</b>	56	64%	19	22%	5	6%	4	5%	2	2%	1	1%	0	0%
<b>1999 - 2000</b>	61	81%	5	7%	1	1%	1	1%	4	5%	2	3%	1	1%

**17. Use of hands-on activities & manipulative materials**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	26	49%	19	36%	6	11%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	46	53%	25	29%	15	17%	1	1%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	35	48%	28	38%	2	3%	1	1%	5	7%	1	1%	1	1%

**18. Teacher planning & preparation**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	25	47%	12	23%	14	26%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	33	38%	27	31%	21	24%	4	5%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	17	23%	22	30%	18	25%	4	5%	10	14%	1	1%	1	1%

**19. Social interaction among your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	25	47%	20	38%	6	11%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	30	34%	39	45%	15	17%	1	1%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	22	31%	29	41%	15	21%	1	1%	1	1%	2	3%	1	1%

**20. Social/personal interaction between you and your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	32	60%	17	32%	2	4%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	43	49%	31	36%	9	10%	3	3%	0	0%	1	1%	0	0%
<b>1999 - 2000</b>	41	55%	22	30%	5	7%	2	3%	2	3%	1	1%	1	1%

**21. Use & effectiveness of enrichment activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	25	47%	21	40%	4	8%	0	0%	0	0%	2	4%	1	2%
<b>2000 - 2001</b>	32	37%	39	45%	12	14%	1	1%	1	1%	2	2%	0	0%
<b>1999 - 2000</b>	23	32%	32	44%	10	14%	3	4%	3	4%	1	1%	1	1%

**22. Parent-teacher contacts**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	15	28%	21	40%	15	28%	0	0%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	30	34%	33	38%	22	25%	0	0%	0	0%	2	2%	0	0%
<b>1999 - 2000</b>	33	46%	27	38%	3	4%	4	6%	2	3%	1	1%	1	1%

**23. One-on-one instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	31	58%	18	34%	1	2%	1	2%	0	0%	2	4%	0	0%
<b>2000 - 2001</b>	41	47%	32	37%	9	10%	0	0%	3	3%	2	2%	0	0%
<b>1999 - 2000</b>	31	42%	28	38%	1	1%	5	7%	7	9%	1	1%	1	1%

Total percentages may not equal 100% due to rounding.

**C. Section Summary & Findings**

The following summarizes the findings from the teacher survey responses:

- ✓ The majority of teacher responses in the lower elementary grades noted great improvement and some improvement in reduced class sizes with the exception of cooperative activities among teachers, your interaction with other teachers, and teacher-administration interaction.
- ✓ The majority of teacher responses in the upper elementary grades noted great improvement and some improvement in reduced class sizes with exception to teacher-administration interaction.
- ✓ The greatest increases (all at 72%) noted by the teachers in grades 1 and 2 of great improvement to some improvement were in the areas of: academically related student-teacher interaction, monitoring student progress and providing feedback to students, student learning, small group instruction, physical space, and social/personal interaction between you and your students.
- ✓ The greatest increases noted by the teachers in grades 3 through 6 of great improvement to some improvement were in social/personal interaction between you and your students (92%) and one-on-one instruction (92%).

## **XII. PRINCIPAL SURVEYS**

---

### **A. Principal Survey Questionnaire Methodology & Research Protocol**

In August 2002, a total number of 17 surveys were distributed to the school principals at Carlin, Jackpot, Mountain View, Owyhee, Sage, Southside, Northside, Spring Creek, Grammar #2, Wells, and West Wendover.

The questionnaire requested that the school principal comment on aspects to illicit perceptions of teaching and learning at their school. The school principal was presented with a series of statements on their teaching situation with the 22:1 classroom setting and asked to indicate the extent and level of agreement of related changes (if any) that occurred. The school principal survey also asked questions about the number of years serving as a principal prior to 2001-2002 and average class sizes for grades 1 through 6. Data for the principal surveys are represented in the tables for the pilot schools.

### **B. Presentation of Data**

Of the 17 surveys that were disseminated, 10 principals returned the survey for a 58% return rate. A summary of the grades collected and maintained by the principals indicated that 5 of the principals had experience with K-6, 2 of the principals had experience with K-5, and 3 of the principals had experience with K-12.

The principal responses to the survey questionnaire were aggregated and are presented in this section. The following table represents the responses from the principal surveys for the 2001-2002 school year in comparison with the 2000-2001 and 1999-2000 school years:

#### **Principal Surveys Summary**

**2001 - 2002 Responses N = 10**

**2000 - 2001 Responses N = 7**

**1999 - 2000 Responses N = 6**

#### **1. Academically related student-teacher interaction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	70%	1	10%	2	20%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	29%	4	57%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	2	33%	2	33%	1	17%	1	17%	0	0%	0	0%	0	0%

#### **2. Monitoring student progress & providing feedback to students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	7	70%	3	30%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	6	86%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	3	50%	2	33%	1	17%	0	0%	0	0%	0	0%	0	0%

**3. The amount of paperwork & record keeping**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	5	50%	0	0%	2	20%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	29%	1	14%	1	14%	2	29%	1	14%	0	0%	0	0%
<b>1999 - 2000</b>	3	50%	1	17%	0	0%	1	17%	1	17%	0	0%	0	0%

**4. The number of discipline problems**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	6	60%	0	0%	1	10%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	0	0%	2	29%	2	29%	2	29%	1	14%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	4	67%	1	17%	1	17%	0	0%	0	0%	0	0%

**5. The pace of instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	4	40%	1	10%	2	20%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	0	0%	6	86%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	2	33%	4	67%	0	0%	0	0%	0	0%	0	0%

**6. The amount of time allocated to instructionally relevant activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	5	50%	3	30%	2	20%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	4	57%	1	14%	1	14%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	2	33%	3	50%	1	17%	0	0%	0	0%	0	0%	0	0%

**7. Student time on task**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	7	70%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	29%	4	57%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	1	17%	4	67%	1	17%	0	0%	0	0%	0	0%	0	0%

**8. Student learning**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	6	60%	1	10%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	5	71%	0	0%	0	0%	0	0%	0	0%	1	14%
<b>1999 - 2000</b>	2	33%	3	50%	1	17%	0	0%	0	0%	0	0%	0	0%

**9. Opportunities for you to explore & use new/different teaching strategies**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	6	60%	3	30%	1	10%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	3	43%	1	14%	1	14%	0	0%	0	0%	2	29%	0	0%
<b>1999 - 2000</b>	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	6	100%

**10. Cooperative activities among teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	3	30%	4	40%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	5	71%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	1	17%	1	17%	4	67%	0	0%	0	0%	0	0%	0	0%

**11. Your interaction with other teachers**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	0	0%	5	50%	4	40%	0	0%	0	0%	0	0%	1	10%
<b>2000 - 2001</b>	0	0%	4	57%	1	14%	0	0%	0	0%	2	29%	0	0%
<b>1999 - 2000</b>	1	17%	3	50%	2	33%	0	0%	0	0%	0	0%	0	0%

**12. Teacher-administration interaction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	1	10%	4	40%	4	40%	0	0%	1	10%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	2	29%	4	57%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	2	33%	3	50%	0	0%	0	0%	1	17%	0	0%

**13. Student morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	20%	6	60%	2	20%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	4	57%	2	29%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	2	33%	4	67%	0	0%	0	0%	0	0%	0	0%

**14. Teacher morale**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	5	50%	5	50%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	3	43%	3	43%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	3	50%	3	50%	0	0%	0	0%	0	0%	0	0%

**15. Small group instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	7	70%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	3	43%	4	57%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	2	33%	3	50%	1	17%	0	0%	0	0%	0	0%	0	0%

**16. Physical space**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	8	80%	1	10%	1	10%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	4	57%	3	43%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	1	17%	4	67%	1	17%	0	0%	0	0%	0	0%	0	0%

**17. Use of hands-on activities & manipulative materials**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	4	40%	3	30%	3	30%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	5	71%	1	14%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	4	67%	1	17%	1	17%	0	0%	0	0%	0	0%	0	0%

**18. Teacher planning & preparation**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	20%	5	50%	3	30%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	0	0%	4	57%	3	43%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	3	50%	1	17%	2	33%	0	0%	0	0%	0	0%	0	0%

**19. Social interaction among your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	5	50%	2	20%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	0	0%	4	57%	3	43%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	1	17%	2	33%	3	50%	0	0%	0	0%	0	0%	0	0%

**20. Social/personal interaction between you and your students**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	3	30%	3	30%	4	40%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	33%	2	33%	1	17%	0	0%	0	0%	1	17%	0	0%
<b>1999 - 2000</b>	1	17%	2	33%	2	33%	0	0%	0	0%	0	0%	1	17%

**21. Use & effectiveness of enrichment activities**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	20%	5	50%	3	30%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	29%	5	71%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	4	67%	2	33%	0	0%	0	0%	0	0%	0	0%

**22. Parent-teacher contacts**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	2	20%	6	60%	2	20%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	1	14%	4	57%	2	29%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	3	50%	3	50%	0	0%	0	0%	0	0%	0	0%

**23. One-on-one instruction**

	Great Improvement		Some Improvement		No Change		Some Decline		Great Decline		No Opinion/ Don't Know		Not Addressed	
<b>2001 - 2002</b>	4	40%	5	50%	1	10%	0	0%	0	0%	0	0%	0	0%
<b>2000 - 2001</b>	2	29%	5	71%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>1999 - 2000</b>	0	0%	3	50%	1	17%	0	0%	0	0%	0	0%	2	33%

Total percentages may not equal 100% due to rounding.

**C. Section Summary & Findings**

The following summarizes the findings from the principal surveys:

- ✓ The majority of principal and vice principal responses noted great improvement and some improvement in reduced class sizes with exception to your interaction with other teachers and teacher-administration interaction from 1999-2000 to 2001-2002.
- ✓ The areas that reflected gains (100%) in the improvement and some improvement of reduced class sizes in 2001-2002 included:
  - Monitoring student progress & providing feedback to students
  - Student time-on-task
  - Teacher morale
  - Time on instruction

### **XIII. TEACHER JOURNALS**

---

#### **A. Teacher Journal Methodology & Research Protocol**

In the 2001-2002 school year, teachers were asked by the Elko County School District to maintain journal entries and record their experiences, observations, attitudes, and opinions as related to the following key concepts:

- ✓ Time on instruction
- ✓ Discipline required
- ✓ One-on-one instruction
- ✓ Content covered
- ✓ Time-on task
- ✓ Knowledge of students
- ✓ Interaction among students
- ✓ Paperwork and record keeping
- ✓ Small group activities
- ✓ Classroom space

In June 2002, the evaluation team at GBC was provided access to the journals from the Elko County School District. In order to guarantee confidentiality, the journals were not labeled and were grouped as a whole. The journal entries were then reviewed and coded by the ten key concepts. The key concepts were identified and coded as positive, negative, no difference, and not addressed.

#### **B. Presentation of Data**

A total number of 222 teacher journals were collected from teachers working at the eleven schools (Carlin, Jackpot, Mountain View, Owyhee, Sage, Southside, Northside, Grammar #2, Spring Creek, Wells, and West Wendover). Teacher journals could not be separated by grade level due to teachers being assured no identifying information would be reported. The key concepts identified by the teachers were aggregated and percentages calculated. The results are presented in the following table.

#### **Summary Responses from Teacher Journal Key Concepts**

2001-2002 Responses = 222

2000-2001 Responses = 114

1999-2000 Responses = 106 (Pilot Schools)

#### **One-on-one Instruction**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	173	78%	22	10%	17	8%	10	5%
2000 - 2001	65	57%	1	1%	18	16%	30	26%
1999 - 2000	64	60%	0	0%	9	8%	33	31%

**Discipline Required**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	183	82%	19	9%	13	6%	7	3%
2000 - 2001	61	54%	1	1%	11	10%	41	36%
1999 - 2000	61	58%	5	5%	9	8%	31	29%

**Content Covered**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	185	83%	6	3%	27	12%	4	2%
2000 - 2001	31	27%	7	6%	5	4%	71	62%
1999 - 2000	51	48%	5	5%	2	2%	48	45%

**Knowledge of Students**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	159	72%	33	15%	15	7%	15	7%
2000 - 2001	51	45%	0	0%	3	3%	60	53%
1999 - 2000	51	48%	6	6%	2	2%	47	44%

**Paperwork & Record Keeping**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	167	75%	16	7%	15	7%	24	11%
2000 - 2001	47	41%	4	4%	16	14%	47	41%
1999 - 2000	43	41%	0	0%	12	11%	51	48%

**Small Group Activities**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	185	83%	16	7%	10	5%	11	5%
2000 - 2001	58	51%	0	0%	7	6%	49	43%
1999 - 2000	38	36%	9	8%	7	7%	52	49%

**Time-on Task**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	186	84%	14	6%	10	5%	12	5%
2000 - 2001	18	16%	1	1%	7	6%	88	77%
1999 - 2000	37	35%	1	1%	10	9%	58	55%

**Classroom Space**

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	174	78%	20	9%	22	10%	6	3%
2000 - 2001	55	48%	0	0%	11	10%	48	42%
1999 - 2000	37	35%	4	4%	5	5%	60	57%

### Time On Instruction

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	190	86%	12	5%	10	5%	10	5%
2000 - 2001	24	21%	6	5%	8	7%	76	67%
1999 - 2000	34	32%	3	3%	4	4%	65	61%

### Interaction Among Students

	Positive Effect		No Difference		Negative Effect		Not Addressed	
2001 - 2002	181	82%	13	6%	14	6%	14	6%
2000 - 2001	34	30%	0	0%	2	2%	78	68%
1999 - 2000	30	28%	1	1%	5	5%	70	66%

### C. Section Summary & Findings

The following summarizes the findings from the teacher journal entries:

- ✓ Overall, teacher responses in the journals indicate that there is a positive effect associated with reduced class-sizes from 1999-2000 to 2001-2002.
- ✓ The most significant areas of a positive effect associated with reduced class size is time on instruction (86%) and time on task (84%).
- ✓ The areas observed by teachers to have a negative effect included content covered (12%) and classroom space (10%). However, the positive effect associated with both of these areas was still greater.