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Reaching for Educational Equity: An Evaluation of Utah's Rural Schools

Complete Study

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Abstract: The purpose of this evaluation is to investigate the differences in inputs and outputs between rural and non-rural public education in Utah. In an effort to determine educational equity, Utah Foundation performed three surveys and utilized numerous secondary sources to analyze a wide range of metrics. In some measures of basic proficiency, including core subject test scores and graduation rates, rural schools are outperforming non-rural schools. However, by nature of their small size and the resulting financial constraints, rural schools have difficulty providing the course offerings and facilities of non-rural schools, which in turn may be holding back rural students from attaining higher levels of education.

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Introduction

In 2012, the Utah Rural Schools Association (URSA) contracted with Utah Foundation to update a rural schools evaluation performed for URSA by the Western Institute for Research and Evaluation (WIRE) in 1998. The Utah Foundation evaluation expanded upon the original evaluation to include surveys/ questionnaires, a state demographic overview, a description of school finance, the concepts of effort and equity, and a review of educational inputs and outputs. The evaluation provides comparisons between rural, town, suburban, and city schools and districts utilizing survey responses as well as data from state and national informational sources. It also considers differences between schools which receive Necessarily Existent Small School (NESS) funding and those which do not.

Utah's rural schools face significant educational challenges. They have greater difficulties than non-rural schools in hiring teachers, finding teachers with needed specialties, and finding teachers who teach multiple subjects. Rural schools also come up short in offering the wide array of courses that non-rural schools offer.

Yet when we look at rural educational outcomes, we see paradoxes. In the core subjects that the state tests on an annual basis, rural students tend to perform better than non-rural students. Rural students also graduate at a higher rate, though in the past several years this difference has been diminishing. On the other hand, rural students have lower college entrance exam scores and are less likely to enter college.

Rural school principals and superintendents tend to believe that smaller school and classroom environments provide more personal student attention, thus bolstering graduation and core-subject learning. Some of the data that Utah Foundation analyzed in this evaluation justifies these opinions. While rural students are thriving in the basics and are not dropping out of school, they are not being offered the educational breadth or the depth of advanced courses that non-rural students are, which may be suppressing college enrollment rates.

The process of providing additional funds to rural schools and districts to compensate for their small scale seems to be providing a level of funding that is sufficient and equitable in meeting the basic education of rural students. However, rural principals and superintendents believe that these sources of funding are at risk. Further, they feel that financial constraints are preventing rural students from reaching excellence. By nature of their small size and the resultant financial constraints, rural schools have difficulty providing the course offerings and facilities that rural principals want – that non-rural principals have – which in turn may be holding students back from attaining higher levels of education.

Purpose of this Evaluation

Utah Foundation is providing this evaluation for use by URSA, the Utah State Office of Education (USOE), and other stakeholders. The contents herein provide a portrait of rural education in the state. In doing so, this evaluation puts data to the common perceptions of rural education, such as rural schools' advantages of smaller class sizes and lower drop-out rates, and their disadvantages of course offerings and transportation costs. In addition, this evaluation provides significant details on other facets of rural education such as funding trends, test scores, educator experience, and post-secondary enrollment.

Study Objectives

Utah Code details that "the Legislature acknowledges that education is perhaps the most important function of state and local governments, recognizing that the future success of our state and nation depend[s] in large part upon the existence of a responsible and educated citizenry."¹ This evaluation explores whether the state is providing the same quality of education in rural counties such as Sevier or Sanpete as in non-rural counties such as Washington or Weber. It also examines whether rural children are going to be able to play as large of a part in the future success of our state and nation as non-rural children. When answering these questions, Utah Foundation examines education from kindergarten all the way into the early years of post-secondary education and training. However, the evaluation's primary focus is on high school since that is where rural and non-rural differences tend to be most definable in terms of data from students and the USOE.

Limitations of this Evaluation

If education is a Gordian Knot (which legend has that Alexander the Great cut when he could not untie it), this evaluation does not attempt to completely disentangle or slice through the knot. Instead it attempts to unravel the major strands that are related to rural education. Utah Foundation has been guided through this process by many of the state's educational experts, but does not purport to have illuminated every angle on every topic.

Furthermore, as this evaluation is a portrait of rural education, it is not prescriptive in providing a detail of what actions rural and non-rural schools and districts "should" take. Instead, it examines policies currently in place in an attempt to be informative as to whether and how these policies are affecting rural students differently than non-rural students.

Data and Methodology

This evaluation utilized the most recent data available at the time of the study. Most of the data are from the 2010-2011 school year as provided by USOE and other sources. Just prior to the time of the release of this evaluation, USOE was beginning to release data from the 2011-2012 school year. However, so as not to delay the release of this evaluation, Utah Foundation determined to remain as consistent as possible by using the uniformly available 2010-2011 information.

Utah Foundation performed three surveys as part of its research: a high school senior survey, a principal survey and a superintendent survey. Of the 39,717 high school seniors in Utah, 1,434 participated in the survey, for a 3.6% participation rate. Of the 116 high schools and 13 K-12 schools in Utah, 53 principals responded to the principal survey, for a 38.8% response rate. The superintendent survey had 33 responses out of 41 total districts, or 80.5% of the state's districts. Survey methodology is included in the introduction to each of the three surveys performed by Utah Foundation as utilized in this evaluation.

Organization of the Evaluation

Utah Foundation begins this evaluation with an overview of public schools in Utah and then explores the definitions of "rural" as used throughout the document. This leads to a look at rural and non-rural demographics and demographic changes. The next step is into a broad overview of school finance and the

¹ Utah Code 53A-6-102 (1) (a).

sections of it that have the greatest impact on rural education, including federal and local funding issues. This leads to the funding "effort" of rural districts as compared to non-rural ones. Utah Foundation then takes a look at the equity of education. This analysis includes funding issues but also sets the stage for the remainder of the evaluation. Equity is both indirectly and directly addressed through the in-depth analysis of the three surveys. The surveys are primarily, intentionally self-contained units. They home in on issues of finance and many of the topics raised the final sections: educational inputs and educational outputs. The inputs describe students' environment at school, from classrooms to courses and teachers to transportation. The outputs describe students' test scores and post-secondary education.

Utah Schools and Districts Overview

During the 2010-11 school year there were over 585,000 students enrolled in Utah's public school system (with over 540,000 in districts and nearly 45,000 in charter schools) and over 20,000 students enrolled in private schools.^{2,3} These students were educated in 1,216 elementary and secondary schools. The Utah public school system comprised nearly 90% of the schools, including 1,002 district schools (82.4%) and 82 charter schools (6.7%).⁴ Utah's district schools ranged in size from under 10 students (Callao School in Juab County) to schools with more than 2,500 students (Alta and West high schools in Salt Lake County). Just over 10% of the elementary and secondary schools in the state were private, although private school students are less than 4% of the total student population.^{5,6}

| Figure 1: Elementary and Secondary Utah (2011) | Schools in |
|---|------------|
| | Number |
| District Schools | |
| Elementary | 530 |
| Middle/Junior High | 146 |
| High Schools | 116 |
| K-12 Schools | 13 |
| Special Education | 81 |
| Vocational Education | 71 |
| Alternate Education | 43 |
| Youth in Custody | 2 |
| Total | 1,002 |
| Charter Schools | |
| Elementary | 26 |
| Middle/Junior High | 24 |
| High Schools | 19 |
| K-12 Schools | 11 |
| Special Education | I |
| Alternate Education | I |
| Total | 82 |
| Utah Schools for the Deaf and the Blind | 6 |
| Utah Electronic High School | I |
| District School Total | 1,094 |
| Private School Total | 125 |
| Note: There were also three district Pre-K sch Source: USOE. | ools. |

Utah's public schools are located in 41 school districts and 29 counties. There is one district in each of 23 counties and between two and five districts in each of six counties. Each of the 41 districts house between three regular public schools (in Daggett, Grand County, North Summit, and Piute districts) and 89 schools (in Granite district). The districts range in size from under 200 students (in Daggett district) to over 70,000 students (in Alpine, Davis and Granite districts).

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² Utah State Office of Education.

³ Education Bug. http://utah.educationbug.org/private-schools/

⁴ Utah State Office of Education.

⁵ Education Bug. http://utah.educationbug.org/private-schools/

⁶ USOE, 2011-2012 Utah State Educational Directory.

This evaluation excludes charter schools except where noted in certain areas of school finance. There are 80 charter schools in Utah, and charter school enrollment accounts for nearly 7% of the state's public school enrollment. Most of the charter schools are along the Wasatch Front, with several in Washington County and Iron County districts, and one in each of Box Elder, Tooele County, Park City, Uintah, Wasatch, and Carbon districts.⁷ Utah Foundation excluded charter schools primarily because only one is located in a district that this evaluation designated as rural (the 62 student, K-6 Moab charter school in Grand County School District).⁸ Furthermore, Utah Foundation has determined that an evaluation of the intricacies of charter schools warrants its own study.

This evaluation also excludes private schools. The more than 125 parochial and secular private schools in the state educate nearly 20,000 students.⁹ Only six of these are within district boundaries that this evaluation designated as rural (Grand County, Millard, San Juan, Sanpete, Sevier and Wayne districts). Most of the others are along the Wasatch Front, with the remaining in Washington (8), Park City (7), Cache/Logan (3), Tooele (1) and Uintah (1) counties.¹⁰ The inputs and outputs studied in this report are particularly difficult to gather from private schools as they are not reported to the USOE or the U.S. Department of Education like district and charter schools.

⁷ USOE. http://www.schools.utah.gov/charterschools/School-Directory.aspx

⁸ Moab Charter School. https://moabcharterschool.org/School_Demographics.html

⁹ Education Bug. http://utah.educationbug.org/private-schools/

¹⁰ Private School Review. http://www.privateschoolreview.com/state_private_schools/stateid/UT

Rural Utah

In October 2011, Utah Governor Gary Herbert went on a rural jobs tour around the state. Education was a highlight of the tour, which he kicked-off at Grouse Creek School, one of the smallest schools in the state.¹¹ Though the school is small, it is located in Box Elder County, which has about 50,000 residents, most of whom live in the eastern part of the county along the Wasatch Front – which itself is home to most of the state's population.

Is Grouse Creek rural? It certainly is to anyone who has ever traveled down the dirt road to visit it. But is Box Elder County rural? Likely not, since Box Elder is part of the Brigham City Micropolitan Statistical Area, in addition to being part of the Salt Lake City-Ogden-Clearfield Combined Statistical Area (as such are defined by the U.S. Office of Management and Budget (OMB) based on social and economic ties measured by commuting patterns).

What is rural? Is it farmland peppered with dairy cows on rolling green hills, or high desert ranch land with dust from the hooves of horses and cattle swirling with the wind? Is it oil and gas communities in the Uintah Basin, or the land that exemplifies the state's natural beauty, from Flaming Gorge to Zion National Park?

"Rural" itself is easy to define: of or relating to the country, country people or life, or agriculture.¹² Applying this term to a school, a district, or a county can be more challenging.

USOE has employed several definitions for "rural", depending upon the use. The one it most often utilizes is the National Center for Education Statistics (NCES) locale codes for comparing and contrasting metrics at the school level. NCES has provided the current school locale designations since 2006. The 2009-2010 codes seem fairly accurate in describing schools as "rural," "town," "suburb," or "city" (these categories are then further broken into three subcategories each). This so-called "Urban-Centric Locale Assignment System" provides an "indication of [a] school's location relative to a populous area."¹³ This report employs this designation when analyzing school data, as appropriate, though occasionally sample sizes warranted grouping town, suburb and city schools together as "non-rural". However, much educational data is available only at the district level. The same NCES locale titles are assigned to districts (based on the locales of schools, weighted by school size), though without as much success. Accordingly, Utah Foundation determined to find a more accurate designation for districts.

In order to determine such designations, Utah Foundation used a statistical regression method which included basic metrics such as the number of students in the districts, the size of districts, their distances from urban centers, and their proportions of Necessarily Existent Small Schools. From this analysis Utah Foundation found a rural/non-rural divide which closely aligned with the OMB's Core-Based Statistical Area (CBSA) designations for counties. Ultimately, since any such statistical regression would be somewhat subjective, Utah Foundation determined that it would utilize the CBSA breakdown for "rural" and "non-rural" counties, which had to be adjusted to the district level. While Juab and Summit counties are considered

¹¹ Utah Governor press release, October 11, 2011. http://www.utah.gov/governor/news_media/article.html?article=5725

¹² Merriam-Webster online dictionary.

¹³ National Center for Education Statistics. http://nces.ed.gov/ccd/rural_locales.asp

non-rural under the CBSA, Utah Foundation designated Tintic and North and South Summit districts in these counties as rural, since these are the more remote, less populated areas of those respective counties.¹⁴

This evaluation's definition of rural is more restrictive than the WIRE evaluation in 1998. A map of the differences is shown in Figure 2. For this evaluation there are 18 rural districts in Utah and 23 non-rural districts, compared to 26 and 14, respectively, in 1998. A side-by-side comparison is attached as Appendix A.



¹⁴ Note: Tintic School District has extremely remote schools and has only 10% of Juab County's population. North and South Summit School Districts have approximately 15% and 20% of Summit County's population and, while their main towns of Kamas and Coalville, respectively, are located less than one hour from Salt Lake City, about half of their schools are NESS.

Demographics

In 2011 there were over 542,853 students in Utah's district schools. A majority of these students (53%) attended schools in just five districts: Alpine, Canyons, Davis, Granite and Jordan. Within the 18 rural districts in the state, there were 31,989 students, or 5.9% of the state's students. To put this in further perspective, each of the five largest districts had more students than the 18 rural districts combined.

NCES designated 24.1% of Utah's district schools as rural. When using the NCES school designation, Utah's rural student population is



84,602 students, over 15.4% of the state's student population.¹⁵ However, even when using this measure, Utah is not particularly "rural." Utah nationally ranks 39th for the percentage of rural schools and 45th for the percentage of rural students.¹⁶



Student enrollment in Utah's public schools has grown significantly over the last two decades. In1992, just over 460,000 students were enrolled, growing to over 585,000 students in 2011, or about 27%. A third of this growth has been in charter schools. These schools first emerged in the early 2000s, and their enrollment surpassed that of rural schools in 2009. Enrollment in rural school districts has remained relatively stable,

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¹⁵ Note: While rural student population increases using NCES locale codes, analysis of these codes by school location and population reveals that such locale assignments are not always a perfect fit. The easiest to refute NCES codes are by looking at the large, "rural" schools are located in distinctly non-rural districts. For example, 17 are in Alpine School District (with schools located in Lehi, Highland, Saratoga Springs, and Eagle Mountain), eight are in Jordan School District (mostly Herriman and Daybreak schools) six are in Davis School District (including schools in Kaysville and Farmington), three in the Park City School District (all near I-80), and two are in Provo School District (including Lakeview Elementary just west of I-15). Of the 233 rural schools, 14 of those listed had more than 1,000 students, with three over 1,700 students (Westlake High and Willowcreek Middle located in the Alpine School District, and Herriman High located in the Jordan School District).

¹⁶ Rural School and Community Trust Policy Program, Why Rural Matters 2011-12, The Condition of Rural Education in the 50 States, January 2012.

staying between 30,000 and 35,000 throughout the last two decades, though in 1992 and 1998 the percentage of students in rural districts was 7.5% and 7.2%, respectively, compared to 5.9% today.



Not only have rural and non-rural total student populations changed since the 1998 WIRE study, but the makeup of the population itself has changed. Research suggests that some of the most important metrics which affect student outcomes are those related to racial/ethnic groups, socioeconomic status, academic

attainment of parents, and mobility (not to mention English language learner (ELL) population and the population with disabilities), as well as school conditions that are tied to such metrics.^{17,18,19,20,21} A glimpse at these demographic metrics is provided below.

| Figure 7: District Student Population | | | | | | |
|---------------------------------------|---------|---------|---------|---------------------|--|--|
| | 1992 | 1998* | 2011 | Change 1992-2011 | | |
| Rural | 34,661 | 34,470 | 31,989 | -7.7% | | |
| Non-Rural | 426,598 | 442,591 | 510,864 | 19.8% | | |
| Total | 461,259 | 477,061 | 542,853 | 17.7% | | |
| *Date of WIRE study. Source: USOE. | | | | | | |

Race and Ethnicity

Since 1998, Utah's population of American Indians, Asian and Pacific Islanders, African American or Black, and Hispanic or Latino students has increased. During this same time period, the White population has slightly decreased. This holds true for non-rural areas as a whole. The rural population is similar but has seen

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¹⁷ Aikens, N. L., & Barbarin, O. (2008). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. Journal of Educational Psychology, #100, 235-251.

¹⁸ Coley, R. J. (2002). An uneven start: Indicators of inequality in school readiness. Princeton, NJ: Educational Testing Service.

¹⁹ Pamela E. Davis-Kean The Influence of Parent Education and Family Income on Child Achievement: The Indirect Role of Parental Expectations and the Home Environment Journal of Family Psychology 2005, Vol. 19, No. 2, 294–304.

²⁰ National Center for Education Statistics. (2008). Percentage of high school dropouts among persons 16 through 24 years old (status dropout rate), by income level, and percentage distribution of status dropouts, by labor force status and educational attainment: 1970 through 2007. http://nces.ed.gov/programs/digest/d08/tables/dt08_110.asp

²¹ Palardy, G. J. (2008). Differential school effects among low, middle, and high social class composition schools: A multiple group, multilevel latent growth curve analysis. School Effectiveness and School Improvement, #19, 21-49.



a decrease in the American Indian population (nearly 25%) and a larger decrease in the White population than the non-rural areas (14.7% to 0.2%).²²

Only four rural districts saw an increase in total public school student population between 1998 and 2011: Beaver, Duchesne, South Sanpete and South Summit. The greatest increase was in South Summit at 15%, primarily from a 1,179% increase in the Hispanic or Latino population. This was also the greatest increase in any one rural or ethnic group, followed by the increase in the Hispanic or Latino students of 687% in nonrural Wasatch District. The greatest rural student population decrease occurred in Tintic, which lost about 40% of its student population, mostly due to losing 37% of its White students.

²² Note: In this analysis of racial and ethnic changes, Asian and Pacific Islander students are grouped together because they were combined into one group in the available 1998 data. Further, the 2011 student race identification form included an option to choose multiple races and ethnicities. This option is listed herein as "multiple races." In 2011, only 279 rural students and 6,611 non-rural students identified themselves as multiple races. In rural districts the number of multiple race students ranged from 0% of the district population (in Daggett, Piute, Sevier and Tintic districts) to 2.1% (in Duchesne district). In non-rural districts the percentage of multiple race students ranged from 0.3% of the district population (in Carbon district) to 2.8% (in Jordan district).

Tooele County district saw the greatest non-rural total public school student increase (70%), primarily due to increase in its Hispanic or Latino populations and its White population. Only five non-rural districts saw decreases in total student population between 1998 and 2011: Carbon topped the list at 28.3%, followed by Granite, Salt Lake City, Murray and Ogden City districts.

| | | | Percent Cha | nge by Race/E | thnicity from | 1998-2011 | | |
|-------------------|-------------------------------|--------------------|---------------------------------|---------------------------------|-----------------------|-----------|--------------------------------|--|
| District | Student Population 2011 | American Indian | Asian or Pacific Islander | African American or Black | Hispanic or Latino | White | Total Increase/ Decrease | Racial Ethnic "Minority" 2011 |
| Beaver | 1,540 | -63.0% | * | * | 227.8% | -4.7% | 3.6% | 13.9% |
| Daggett | 169 | * | * | * | * | -12.4% | -9.6% | 4.1% |
| Duchesne | 4,574 | -41.5% | 90.9% | * | 117.3% | 0.1% | 2.4% | 13.8% |
| Emery | 2.313 | -14.3% | -37.5% | * | 75.7% | -32.8% | -28.3% | 10.6% |
| Garfield | 927 | -56.3% | * | * | 87.5% | -22.7% | -21.4% | 8.6% |
| Grand County | 1.467 | 25.4% | * | * | 164.6% | -23.5% | -9.4% | 23.7% |
| Kane | 1,175 | -55.0% | * | * | 7.7% | -21.9% | -21.4% | 6.6% |
| Millard | 2.815 | -43.5% | -26.3% | * | 126.2% | -34.1% | -24.8% | 19.3% |
| North Sanpete | 2.420 | -13.3% | -12.5% | * | 90.2% | -13.0% | -5.4% | 14.8% |
| North Summit | 983 | * | * | * | 268.8% | -11.9% | -1.0% | 14.7% |
| Piute | 317 | * | * | * | 220.0% | -31.4% | -24.2% | 12.6% |
| Rich | 491 | * | * | * | 30.0% | -4.8% | -3.3% | 3 5% |
| San Juan | 2 922 | -18.9% | * | * | 7 7% | -14.9% | -15.6% | 55 3% |
| Sevier | 4 546 | -48.9% | 80.0% | 84.6% | 157.8% | -8.2% | -5.9% | 7.6% |
| South Sannete | 3 1 2 4 | -50.0% | -3.1% | * | 88.8% | -2.7% | 4.0% | 14.6% |
| South Summit | 1 457 | -50.078 | -5.176 | * | 1178.6% | 0.1% | 1.0% | 14.4% |
| Tintic | 210 | * | * | * | * | -37.0% | _39.5% | 19% |
| Wayne | 539 | * | * | * | * | -5.9% | -3.9% | 5.6% |
| Rural | 31 989 | -74 8% | 13.3% | 97.2% | 121.0% | -14 7% | -9.5% | 16.8% |
| Nara | 51,707 | -2-1.0/0 | 13.370 | 77.2/0 | 121.0/0 | -1-1.770 | -7.370 | 10.0/0 |
| Alpine | 68,233 | 15.1% | 112.5% | 154.5% | 262.5% | 42.1% | 52.7% | 12.9% |
| Box Elder | 11,273 | -21.9% | -4.2% | 491.7% | 65.7% | -5.0% | 0.2% | 12.4% |
| Cache | I 5,605 | 90.9% | 87.8% | 291.3% | 197.0% | 10.4% | 19.2% | 11.4% |
| Canyons** | 33,490 | 87.9% | 124.2% | 226.1% | 253.1% | -1.4% | 14.9% | 20.4% |
| Carbon | 3,423 | -25.5% | -31.3% | * | 12.2% | -32.2% | -28.3% | 14.2% |
| Davis | 67,736 | 22.4% | 85.7% | 77.8% | 197.6% | 4.5% | 14.4% | 14.5% |
| Granite | 67,736 | 40.7% | 26.8% | 161.4% | 207.2% | -39.0% | -9.6% | 43.8% |
| Iron County | 8,508 | 11.8% | 26.2% | 69.6% | 207.4% | 14.1% | 23.8% | 15.3% |
| Jordan** | 50,581 | 87.9% | 124.2% | 226.1% | 253.1% | -1.4% | 14.9% | 19.1% |
| Juab | 2,297 | * | * | * | 554.5% | 21.5% | 27.1% | 6.0% |
| Logan | 6,120 | -7.7% | 24.7% | 230.8% | 248.4% | -22.8% | 0.5% | 33.2% |
| Morgan | 2,421 | 0.0% | 0.0% | 0.0% | 31.8% | 15.9% | 17.6% | 4.3% |
| Murray | 6,417 | -21.0% | 35.7% | 154.1% | 122.6% | -19.4% | -7.5% | 21.1% |
| Nebo | 29,724 | 150.0% | 191.4% | 318.2% | 365.5% | 37.5% | 51.8% | 13.5% |
| Ogden City | 12,652 | -25.8% | -24.6% | -50.9% | 71.9% | -32.2% | -3.2% | 53.2% |
| Park City | 4,400 | * | 245.8% | 13.3% | 317.6% | 0.0% | 22.1% | 23.6% |
| Provo | 13,779 | -33.8% | 15.4% | 90.4% | 145.3% | -20.8% | 0.4% | 34.8% |
| Salt Lake City | 23,919 | -37.1% | -7.9% | 29.4% | 51.4% | -33.2% | -8.2% | 54.2% |
| Tooele County | 13,675 | 23.4% | 263.6% | 371.9% | 94.9% | 63.3% | 70.5% | 16.5% |
| Uintah | 6,993 | -16.7% | 200.0% | 220.0% | 209.0% | 3.9% | 8.5% | 16.1% |
| Wasatch | 5,253 | -27.8% | 209.1% | 21.4% | 686.9% | 31.1% | 50.4% | 16.4% |
| Washington County | 26,206 | 39.1% | 304.4% | 247.1% | 395.7% | 25.6% | 42.4% | 17.5% |
| Weber | 30,423 | 32.1% | 24.0% | * | 185.4% | -3.1% | 8.2% | 17.0% |
| Non-Rural | 510,864 | 11.6% | 47.2% | 94.6 % | 164.5% | -0.2% | I 4.7% | 22.9% |
| | | | | | | | | |

Superintendent's Annual Report.

In 2011, 22.5% of students in Utah were racial or ethnic "minorities" (characterized herein as Asian, African American or Black, American Indian, Pacific Islander, or Hispanic/Latino). In rural Utah, 16.8% of the students were minorities and in non-rural Utah it was 22.9%. There were only two rural districts above Utah's statewide percentage, those being Grand County and San Juan. There are six non-rural districts above the statewide percentage: Granite, Logan, Ogden City, Park City, Provo, and Salt Lake City. Tintic district has the lowest percentage of minorities at 1.9% of its population, followed by Rich, Daggett and Morgan. San

Juan had the highest percentage of minorities at 55.7% of its population, just above Salt Lake City and Ogden City districts.

Socioeconomic Status

A common measure of socioeconomic status is whether a student receives free or reduced price school lunch. This is typically the measure by which Utah schools may be deemed eligible for federal Title I funds to meet the needs of economically disadvantaged students. Free and reduced lunch recipients range from 20.1% of all students in Morgan district and 21.5% in Park City district, to 69.6% in Piute district and 74.2% in Ogden City district. The lowest percentage is in South Summit district (24.2%) and the highest is in Piute district, as noted above. The average percentage of free and reduced lunch recipients (weighted by district population) for rural and non-rural districts was 48.2% and 37.7%, respectively (just under three quarters of free and reduced lunch recipients receive free lunches).

A Title I designation allows for federal funding to be provided directly to certain schools based on socioeconomic considerations. All schools at or above 75% poverty rates are automatically in the Title I Schoolwide Program. Schools are eligible to become Title I when their poverty levels are at or above 40%. Districts determine whether they will focus Title I funds on elementary, middle, or high schools (typically focusing on Pre-K through 6th grade), and the highest poverty schools (between 40% and 75%) in the chosen groups are considered Title I. Smaller districts, even with much higher poverty rates, tend to receive less funding than larger ones, though when Utah Foundation analyzed the data it was unable to show that this phenomenon holds true across Utah's districts.²³ Utah received \$78M in 2010, which is relatively small compared to other states because the formula is partially determined by per-pupil education funding, and Utah ranks last nationally in funding.

Figure 10: Free and Reduced Lunch Percentage, by District, 2011

| District | Percentage |
|-------------------|---------------------|
| District | Tercentage |
| Beaver | 48.6% |
| | 27.2% |
| Duchesne | 33.6% |
| Emery | 46.6% |
| Carfield | 45.3% |
| Grand County | 47.8% |
| Kano | 49.4% |
| Millard | 57 4% |
| North Sappoto | 54.0% |
| North Summit | 41.7% |
| Piuto | |
| Pich | 54.9% |
| San luan | 67.0% |
| Sall Juan | 67.2% |
| Seviel | 40.3% |
| South Summit | 33.1% |
| | 24.2% |
| | 46.8% |
| vvayne D | 53.7% |
| Rural Average | 48.2% |
| | 20.0% |
| Alpine | 28.9% |
| Box Elder | 41.6% |
| Cacne | 32.8% |
| Canyons | 29.1% |
| Carbon | 42.4% |
| Davis | 25.8% |
| Granite | 49.7% |
| Iron County | 47.4% |
| Jordan | 26.4% |
| Juab | 43.7% |
| Logan | 56.1% |
| Morgan | 20.1% |
| Murray | 34.9% |
| Nebo | 37.4% |
| Ogden City | 74.2% |
| Park City | 21.5% |
| Provo | 47.1% |
| Salt Lake City | 60.0% |
| Tooele County | 38.5% |
| Uintah | 39.3% |
| Wasatch | 36.5% |
| Washington County | 47.4% |
| Weber | 36.7% |
| Non-Rural Average | 37.7% |
| | dation calculations |

²³ The Rural School and Community Trust, A Rural Guide to Title I Formulas. http://www.ruraledu.org/articles.php?id=2409

Educational Attainment of Parents

Educational attainment of parents has a great effect on the academic success of their children. Though Utah saw large increases in college enrollment in 2009 and 2010, it has been slipping from its high status in national rankings for college enrollment and educational attainment.²⁴

As shown in Figure 11, the percentage of adults 25 years and older with a high school degree is slightly higher in non-rural districts (90.8%) than in rural districts (87.7%).²⁵ The difference between non-rural and rural districts is much greater in terms of bachelor's degree rates (31.1% and 18.5%) and graduate degree rates (9.8% and 5.7%).

| | Percent high school graduate or higher | Percent bachelor's degree or higher | Graduate or professional degree |
|---------------------|---|--|------------------------------------|
| Rural districts | 87.7% | 18.5% | 5.7% |
| Non-rural districts | 90.8% | 30.1% | 9.8% |

Mobility

Mobility is defined as moving from one school to another. There are several types of mobility that have an effect upon academic achievement. These can range from moving into a new apartment down the street, moving to a different district, moving to a different state, or simply switching schools with school choice. The type of mobility with the greatest effect is when a student is switching from one school to another because of a change of home address.²⁶ Rate of mobility in rural districts tends to be equal to non-rural districts.²⁷

²⁷ Penn State College of Education, Poverty, Housing Insecurity and Student Transiency in Rural Areas. http://www.ed.psu.edu/educ/crec/research/poverty

²⁴ Utah Foundation, Educational Attainment: Utah Falling Behind National Trends, October 29, 2009. http://www.utahfoundation.org/reports/?page_id=532

²⁵ Note: A range of ages between 25 to 44 or 25 to 64 would have been more reflective of the ages of school parents, but the margin of error was too large on the small subsets to be of much use.

²⁶ Paik, Sandra and Phillips, Rebecca, Student Mobility in Rural Communities: What are the Implications for Student Achievement? 2002.

School Finance

This evaluation includes a brief overview of school finance to provide context for comparing rural and nonrural school funding. Below is a review of public education revenue (including transportation and ruralspecific state and federal funds) followed by an evaluation of district expenses.

Revenue

Nearly \$5 billion was directed toward Utah's public education-related activities in fiscal year 2011. About 33.7% was funded at the local level, 46.5% by the state, 11.6% by the federal government, and the remaining 8.1% was from other financing sources. In total, about 40% of Utah's state revenue sources went to public education.

School revenues flow through eight different funds. The lion's share of funding is in the districts' general funds (65.3%), which are used for K-12 operations and maintenance. The second largest amount is use for capital projects (10.7%), such as new school buildings. These are followed by charter school funding (7.9%) and debt service (7.2%), the latter of which is typically used for school building loans or bonds.

| | | | | Total Revenues | Other | Total Revenues |
|----------------------------|---------------|-----------------|---------------|-----------------|--------------|-----------------|
| E | | C to to | E. J | (Local, State, | Financing | and Other |
| Funds | Local | State | Federal | and Federal) | Revenues | Financing |
| District Revenue | | | | | | |
| General | \$832,944,187 | \$2,016,145,863 | \$392,623,740 | \$3,241,713,790 | \$10,079,278 | \$3,251,793,068 |
| Student Activities | 108,574,680 | 837,454 | - | 109,412,134 | 1,778,160 | 111,190,294 |
| Non K-12 | 46,982,134 | 36,834,393 | 23,098,198 | 106,914,725 | (258,177) | 106,656,548 |
| Debt Service | 332,331,859 | 920,764 | - | 333,252,623 | 23,759,092 | 357,011,715 |
| Capital Projects | 270,167,371 | 13,588,535 | 22,947,453 | 306,703,359 | 225,674,799 | 532,378,158 |
| Building Preservation | 77,600 | - | - | 77,600 | 4,500,000 | 4,577,600 |
| Food Service | 63,118,194 | 27,561,876 | 115,588,895 | 206,268,965 | 216,524 | 206,485,489 |
| Other Gov't and Enterprise | 15,831,740 | 1,622,480 | 58,338 | 17,512,558 | 2,979,320 | 20,491,878 |
| District Total | 1,670,027,765 | 2,097,511,365 | 554,316,624 | 4,321,855,754 | 268,728,996 | 4,590,584,750 |
| Charter Total | 11,353,683 | 220,381,610 | 23,497,766 | 255,233,059 | 136,947,337 | 392,180,396 |
| Grand Total | 1,681,381,448 | 2,317,892,975 | 577,814,390 | 4,577,088,813 | 405,676,333 | 4,982,765,146 |

| Funds | Local | State | Federal | Total Revenue (Local, State, and Federal) | Other Financing Revenues | Total Revenues and Other Financing |
|----------------------------|-------|-------|---------|---|--------------------------------|--|
| | | | | | | |
| General | 16.7% | 40.5% | 7.9% | 65.1% | 0.2% | 65.3% |
| Student Activities | 2.2% | <0.1% | - | 2.2% | <0.1% | 2.2% |
| Non K-12 | 0.9% | 0.7% | 0.5% | 2.1% | <0.1% | 2.1% |
| Debt Service | 6.7% | <0.1% | - | 6.7% | 0.5% | 7.2% |
| Capital Projects | 5.4% | 0.3% | 0.5% | 6.2% | 4.5% | 10.7% |
| Building Preservation | <0.1% | - | - | <0.1% | 0.1% | 0.1% |
| Food Service | 1.3% | 0.6% | 2.3% | 4.1% | <0.1% | 4.1% |
| Other Gov't and Enterprise | 0.3% | <0.1% | <0.1% | 0.4% | 0.1% | 0.4% |
| District Total | 33.5% | 42.1% | 11.1% | 86.7% | 5.4% | 92.1% |
| Charter Total | 0.2% | 4.4% | 0.5% | 5.1% | 2.7% | 7.9% |
| Grand Total | 33.7% | 46.5% | 11.6% | 91.9% | 8.1% | 100.0% |

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The primary funding source for public education is the districts' general funds through the Minimum School Program (MSP) using a distribution formula based on the Weighted Pupil Unit (WPU). In 1974, the WPU and MSP updated the equalization of Utah's school funding.²⁸

The WPU equalizes funding by the number of children in a district. Weights are given to students based upon certain characteristics. First through twelfth grade students are given the weight of a 1.00, except students with disabilities (in self-contained classes) who are given a 1.53. Kindergarteners are weighted as 0.55. There are also adjustments to each districts' WPU tally, such as administrative needs, teachers (by experience and education level), and additional needs for small schools. The respective weights are multiplied by an amount determined each year by the Legislature, which in FY2011 was \$2,577 per "pupil unit".

The Minimum School Program Act provides for a minimum amount of funding for Utah's schools recognizing that "all children of the state are entitled to reasonably equal educational opportunities regardless of their place of residence in the state and of the economic situation of their respective school districts or other agencies."²⁹ The MSP is divided into three main categories to provide these opportunities: Basic School Program, Related to Basic School Programs, and Board and Voted Leeway Programs. The Basic School Program accounts for 67.2% of the MSP.

The main components of the MSP described in this section are found in the Basic School Program and the Related to Basic School Program. The latter comprises numerous funding items including to and from school transportation, educator salary adjustments, and special population funding (which is broken down into youth-at-risk, accelerated learning,

| Program | Funding |
|---------------------------------|-----------------|
| Basic School Program | \$1,927,922,700 |
| Related to Basic School Program | 573,239,073 |
| Board and Voted Leeway Programs | 368,392,062 |
| Total Minimum School Program | 2,869,553,835 |

Source: USOE, State-Supported Minimum School Program for Utah Public Schools, 2010-2011.

English language learners funding, and charter schools special funding to name a few). It also includes transportation funding, which is of particular concern to rural districts because of the distance students in remote areas need to travel to school. It is also a concern because buses typically need to travel these longer distances with few students per bus, requiring additional buses and causing additional bus wear-and-tear per pupil.

Transportation Funding

Transportation costs are important to all districts, but are of special importance to rural areas. Funds are allocated from the state to districts for pupil trips to and from school. Amounts are based upon miles and hours in approved bus routes, and minimum administrative amounts for each school district.³⁰ Other trips, such as for athletic events, are financed by the districts themselves. On average, rural students travel much greater distances to compete with other schools in their competitive regions.

²⁸ Substitute Senate Bill 72, 1973, pages 12-14, School Finance Program.

http://images.archives.utah.gov/cdm/compoundobject/collection/428/id/65930/rec/19

²⁹ Utah Code 53A-17a-102. http://le.utah.gov/~code/TITLE53A/htm/53A17a010200.htm

³⁰ Utah Code 53A-17a-127. http://le.utah.gov/~code/TITLE53A/htm/53A17a012700.htm

According to Utah Code, "the state shall contribute 85% of approved transportation costs, subject to budget constraints."³¹ However, the state has not contributed 85% since that rule was put into place in 2008.³² The challenge of funding the amounts not provided by the state can affect rural districts more than non-rural ones due to transportation funding shortfalls. As seen in to Figure 15, rural districts have a larger transportation funding shortfall than non-rural districts (51.4% compared to 45.5%). The greatest shortfall is in Wasatch School District (66.1%), followed by Grand County (65.4%) and Park City (63.5%) districts. The smallest shortfalls are in Washington County (31.0%), Provo (31.1%), and Box Elder (37.6%) districts.

| | State pupil transportation revenues | Pupil transportation expenses* | Revenue as a percentage of expenses | Transportation funding shortfall |
|-------------------|---|--------------------------------------|---|----------------------------------|
| Beaver | \$160,272 | \$372,927 | 43.0% | 57.0% |
| Daggett | 98,791 | 220,545 | 44.8% | 55.2% |
| Duchesne | 879,913 | 2,114,990 | 41.6% | 58.4% |
| Emery | 454,851 | 1,090,782 | 41.7% | 58.3% |
| Garfield | I 78,797 | 395,293 | 45.2% | 54.8% |
| Grand County | 220,947 | 637,886 | 34.6% | 65.4% |
| Kane | 276,272 | 657,897 | 42.0% | 58.0% |
| Millard | 576,601 | 1,381,157 | 41.7% | 58.3% |
| No. Sanpete | 529,217 | 946,298 | 55.9% | 44.1% |
| No. Summit | 304,674 | 589,676 | 51.7% | 48.3% |
| Piute | 170,629 | 314,889 | 54.2% | 45.8% |
| Rich | 188,391 | 383,024 | 49.2% | 50.8% |
| San Juan | 1,494,334 | 2,538,546 | 58.9% | 41.1% |
| Sevier | 765,025 | 1,368,967 | 55.9% | 44.1% |
| So. Sanpete | 412,284 | 792,114 | 52.0% | 48.0% |
| So. Summit | 265,866 | 618,245 | 43.0% | 57.0% |
| Tintic | 65,667 | 145,446 | 45.1% | 54.9% |
| Wayne | 171,079 | 277,596 | 61.6% | 38.4% |
| Rural, total | 7,213,610 | 14,846,278 | 48.6% | 51.4% |
| Alpine | 7,160,521 | 12,126,393 | 59.0% | 41.0% |
| Box Elder | 2,654,595 | 4,252,905 | 62.4% | 37.6% |
| Cache | 3,386,499 | 6,181,991 | 54.8% | 45.2% |
| Canyons | 3,462,193 | 6,175,797 | 56.1% | 43.9% |
| Carbon | 661,977 | 1,265,198 | 52.3% | 47.7% |
| Davis | 6,014,831 | 10,739,777 | 56.0% | 44.0% |
| Granite | 4,279,192 | 8,326,967 | 51.4% | 48.6% |
| Iron County | 1,354,359 | 2,250,660 | 60.2% | 39.8% |
| Jordan | 5,179,971 | 9,374,220 | 55.3% | 44.7% |
| Juab | 272,463 | 456,649 | 59.7% | 40.3% |
| Logan | 646,296 | 1,161,493 | 55.6% | 44.4% |
| Morgan | 432,706 | 925,206 | 46.8% | 53.2% |
| Murray | 380,455 | 801,743 | 47.5% | 52.5% |
| Nebo | 3,449,747 | 7,203,605 | 47.9% | 52.1% |
| Ogden City | 793,258 | 2,023,935 | 39.2% | 60.8% |
| Park City | 779,264 | 2,134,873 | 36.5% | 63.5% |
| Provo | 1,311,156 | 1,901,723 | 68.9% | 31.1% |
| Salt Lake City | 2,600,599 | 5,228,649 | 49.7% | 50.3% |
| Tooele County | 1,752,819 | 3,081,771 | 56.9% | 43.1% |
| , Uintah | 1,513,383 | 3,103,287 | 48.8% | 51.2% |
| Wasatch | 620,213 | 1,831,570 | 33.9% | 66.1% |
| Washington County | 3,518,110 | 5,097,896 | 69.0% | 31.0% |
| Weber | 3,624,248 | 6,828,610 | 53.1% | 46.9% |
| Non-rural, total | 55,848,855 | 102,474,918 | 54.5% | 45.5% |

³¹ Utah Code 53A-17a-126.

³² S.B. 118, 2008 General Session. http://le.utah.gov/~2008/bills/sbillint/sb0118.htm

Eight rural districts make up some of this lost ground in transportation funding from a \$500,000 transportation levy fund provided by the state from the Related to Basic School Programs fund (see Figure 16). However, these are not necessarily districts with the greatest transportation revenue shortfalls, though it is the case with the three of them: Daggett, Duchesne and Garfield districts.

| Figure 16: Transportat by district | ion Levy Amounts, |
|---|-----------------------------------|
| Daggett | \$22,888 |
| Duchesne | 57,624 |
| Garfield | 39,134 |
| No. Sanpete | 3,470 |
| Piute | 30,170 |
| San Juan | 310,264 |
| Sevier | 15,468 |
| South Sanpete | 20,982 |
| Total | 500,000 |
| Source: USOE, State Supported for Utah Public Schools, FY 2010 | Minimum School Program D-2011. |

Basic School Program: Rural-Specific Funding

The Basic School Program has five categories of funding: Kindergarten, Grades 1-12, Necessarily Existent Small Schools, Professional Staff, and Administrative Costs. The state's smaller, rural districts partially make up for the higher per-pupil costs related to smaller classes, schools and districts is through the receipt of funding above the standard WPU from Necessarily Existent Small Schools funding and Administrative Costs. In all, however, these funds make up a very small portion of the Basic School Program (1.0% and 0.2%, respectively).

| Figure 17: Detail of Basic School Program | ו | |
|---|---------------|------------------------|
| Program | Funding | Percentage of Basic |
| Necessary Existent Small Schools | \$19,711,473 | 1.0% |
| Administrative Costs (small schools) | 3,994,350 | 0.2% |
| Other Basic School Program | 1,904,216,877 | 98.8% |
| Total Basic School Program | 1,927,922,700 | 100.0% |

Necessarily Existent Small Schools funding has provided small schools with additional operating funds since 1974 as part of the MSP and WPU funding law.³³ This law permitted extra WPUs to be given to schools "which because of their isolation must be regarded as necessarily existent," as determined by the state office after "consultation with local school districts."³⁴ It was the intent of the Legislature that those small schools which are not necessarily existent would not be funded above their regular WPU amounts.

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³³ Substitute Senate Bill 72, 1973, pages 12-14, School Finance Program.

http://images.archives.utah.gov/cdm/compoundobject/collection/428/id/65930/rec/19

³⁴ Ibid.

The USOE has been given the objective to regulate the state's schools so that their locations are governed with "efficiency and economy."³⁵ Accordingly, they are supposed to consolidate schools where appropriate and resist from building secondary schools unnecessarily. There have been consolidations in the past and one rural principal stated that there has been a "big push to create one high school" out of his school and the nearest school but that the USOE's NESS committee determines NESS funding has been backing off of the push recently.³⁶

The USOE is also charged with adopting the formula to provide additional WPUs to necessarily existent schools.³⁷ In 2011 there were a total of 92 NESS schools, the smallest being the four-student Callao School (K-12) in Utah's West Desert. The average NESS size was 159 students.

| Figure 18: NESS Schools - | - 2011 | | |
|---|--------------------------------|------------------------|--|
| Type of School | Number of Schools | Average School Size | Smallest NESS School per Type |
| Elementary | 34 | 65 | Four students, Callao Elementary |
| One or two-year secondary* | 4 | 110 | Five students, Garrison Middle School |
| Three-year secondary** | 12 | 242 | 101 students, Rich Middle School |
| Four-year secondary school*** | 19 | 268 | Seven students, Grouse Creek Middle School |
| Six-year secondary school**** | 23 | 172 | Nine students, West Desert High School |
| Total | 92 | 159 | |
| 7th and 8th grade middle schoo 6th-8th, 7th-9th, and 10th-12th gra 5th-8th and 9th-12th *** 7th-12th high schools or portio Source: USOE. | ls ides n of K-12 school | | |

NESS schools can be found in 25 of Utah's school districts, and in all 18 rural districts. Of the 92 schools receiving NESS funding in Utah, 90% are considered rural schools (by NCES locale designation) and 93% are located in rural districts.

The rationale behind NESS funding is that all schools have a minimum set of costs that they simply cannot avoid. A rural high school principal summed it up by stating that "you need x amount of teachers to teach x amount of subjects," and that the regular WPU does not take into account "rural schools versus urban schools... they are just two different things." The NESS WPU therefore provides funding so that necessarily existent schools are able to operate.

³⁵ Utah Code 53A-17a-109. http://le.utah.gov/~code/TITLE53A/htm/53A17a010900.htm

³⁶ The principal prefers to remain anonymous.

³⁷ Utah Code 53A-17a-109. http://le.utah.gov/~code/TITLE53A/htm/53A17a010900.htm



Since NESS schools were first created, the formula to distribute funding has been updated so as not to allow funding to "fall off of a cliff" when the school reaches a certain threshold. Instead, more WPUs are awarded to

Figure 20: NESS Program Recipient Formula (2012)

the smaller of the NESS schools, with the highest WPUs per student awarded to those NESS schools within the smallest third of each category. Schools with fewer than 10 students receive a WPU NESS amount equal to schools with 10 students, or 30 WPUs. The maximum WPUs for NESS schools are 150, for six-year secondary schools.

| 5 5 | | , |
|--|--|----------------------------|
| Type of School | Maximum School Size | Maximum Additional WPUs |
| Elementary | 160 | 55 |
| One or two-year secondary* | 300 | 119 |
| Three-year secondary** | 450 | 134 |
| Four-year secondary school*** | 500 | 141 |
| Six-year secondary school**** | 600 | 150 |
| 7th and 8th grade middle schools 6th-8th, 7th-9th, and 10th-12th grades 5th-8th and 9th-12th 7th-12th high schools or portion of K-Source: Utah Code 53A-17a-109³⁸; USOE N | 12 school IESS WPU Regression Table | |

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³⁸ Utah Code 53A-17a-109. http://le.utah.gov/~code/TITLE53A/htm/53A17a010900.htm

NESS funding has increased most years since it began in 1974, and since the 1998 WIRE evaluation, NESS funding increased in 12 of the 15 years. While funding has increased at an average of 6.7% per year since 1998, NESS funding currently makes up a smaller percentage of the aggregate of all districts' general funds than in past years, down from above 0.7% in 2004 to below 0.6% in 2011, which is not unexpected since the state's student population growth is in non-rural, non-NESS areas. During the 2012 legislative session, NESS funding received the second largest increase since 1998, which should return funding to 0.7% in 2013.

In 2011, 25 districts received NESS funding. Nine districts received between 2-10% of their funding from NESS and seven received more than 10% (see Figure 23 on the following page). Of all the districts, Tintic district received the highest portion of its funding from NESS (21.7%). The districts received between \$162,616 (Weber district) and \$1,990,297 (San Juan district) in NESS funds. Seven of the districts receiving NESS funds were non-rural.

Districts spend their NESS funds in a variety of ways. In recent years NESS funds were used as follows:

- Hire additional teaching staff:
 - Foreign language teacher
 - 0 Qualified social studies teacher
 - o Full-time music teacher
 - Maintain math and science curriculum
 - o Art teacher
- Maintain or restore counselors
- Provide funding for educator professional development toward teaching endorsements (including tuition reimbursements)
- Purchase textbooks
- Improve distance-learning opportunities (purchase equipment and provide teacher incentives)
- Maintain programs scheduled for elimination³⁹

NESS is seen as vital to Utah's small schools. One superintendent stated that "If NESS decreases, we simply would not be able to cut from NESS school funding - we would need to cut from non-NESS schools – or we would be unable to offer diplomas in those small schools."⁴⁰ Another administrator stated that, even with the 2013 increase, NESS funding is "nowhere near the right amount" to adequately fund small schools.⁴¹

| Figure 22: Administrative Costs Schedule | | | | |
|--|--------------------|--|--|--|
| School District Student Enrollment | Additional WPUs | | | |
| I - 500 | 95 | | | |
| 501 - 1,000 | 80 | | | |
| 1,001 - 2,000 | 70 | | | |
| 2,001 - 5,000 | 60 | | | |

The Basic School Program also provides small district supplemental administrative revenue or "Administrative Costs." This benefited 22 districts in 2011 (not including an adjustment in Wasatch School District), with

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Figure 21: NESS Funding by Year, 1998-2013

| | NESS Amount | Annual Percent |
|------|-------------|----------------|
| 1998 | \$9.839.754 | increase |
| 1999 | 10.185.876 | 3.5% |
| 2000 | 10.444.094 | 2.5% |
| 2001 | 14,202,480 | 36.0% |
| 2002 | 15,522,976 | 9.3% |
| 2003 | 15,746,952 | 1.4% |
| 2004 | 16,193,800 | 2.8% |
| 2005 | 16,729,394 | 3.3% |
| 2006 | 17,779,440 | 6.3% |
| 2007 | 18,487,633 | 4.0% |
| 2008 | 19,229,586 | 4.0% |
| 2009 | 19,711,473 | 2.5% |
| 2010 | 19,711,473 | 0.0% |
| 2011 | 19,711,473 | 0.0% |
| 2012 | 21,539,584 | 9.3% |
| 2013 | 24,783,300 | 15.1% |
| | | |

Source: Utah legislative House and Senate funding bills, 1997-2012.

³⁹ URSA produced document based upon an informal survey of business administrators.

⁴⁰ Superintendent Dalton, Piute School District.

⁴¹ Pat Wilson, Sevier School District business administrator.

between 60 and 95 additional WPUs each (the funds are distributed per the schedule displayed as Figure 22.) This equated to an additional amount per district of between \$154,620 and \$244,815. Three districts received more than 5% of their general fund revenue from these administrative funds, with Daggett receiving the highest percentage, 8.7% (see Figure 23). Four non-rural districts received small district administrative funds.

| | Necessary Existent Small Schools (NESS) Funding | NESS Funding as a Percent of each District's General Fund Revenue | Small District Administrative Revenue | Admin. Costs as a Percent of each District's General Fund Revenue | Total Genera Fund Revenu |
|---------------------|--|--|---|--|-----------------------------|
| Dunal districts | | | | | |
| | \$774 092 | 21.7% | ¢744 01 E | 7 2% | ¢2 245 45 |
| | ¢/20,003 525,010 | LI.1 /0 | ¢۲ ۳ ,015 ۵// 015 | 0.7% | סטונס כ |
| Daggett | 535,010 | 10.7/0 | 244,013 | 0.1 /0 | 2,031,07 |
| Garneid | 927 434 | 17.7/0 | 200,100 | 419 | 5 055 76 |
| Diuto | 627,130 | 10.7% | 200,100 | т. 1 /о 4 Э% | 3 949 45 |
| Pluce | 937 719 | 15.0% | 210,773 | 0.2/0 | 5,777,75 |
| Kich | 1 607 950 | 13.1% | 120 390 | ⁰ , ד. ד 4 / 2 | 11 492 99 |
| Kane | 404 175 | 0.2% | 204 140 | 1.0% | 7 241 21 |
| No. Summit | | 0.3 /0 | 200,100 | 2.0% | 21 022 45 |
| San juan | 1,770,277 | 0.4% E 0% | 154,020 | 0.5% | 10 020 04 |
| Emery | 1,030,370 | J.ð% | 104,020 | 0.7% | 18,028,740 |
| Beaver | 635,/61 | 5.0% | 180,370 | 1.0% | 11,2/2,/0 |
| Sevier | 1,210,450 | 4.0% | 154,620 | 0.5% | 30,527,873 |
| Millard | 8/3,881 | 4.0% | 154,620 | U./% | 22,072,508 |
| Duchesne | 1,148,/62 | 5.7% | 154,620 | 0.5% | 27,350,10 |
| So. Sanpete | 5//,704 | 2.8% | 154,620 | U.8% | 20,576,200 |
| Grand County | 287,856 | 2.6% | 180,370 | 1.6% | 11,274,71 |
| So. Summit | 212,477 | 1.7% | 180,370 | 1.0% | 11,074,75 |
| No. Sanpete | 32,120 | 0.2% | 154,620 | 1.0% | 15,513,70. |
| Non-rural districts | | | | | |
| Carbon | 340,829 | 1.4% | 154,620 | 0.7% | 23,889,28 |
| Tooele County | 1,046,308 | 1.4% | 0 | 0.0% | 77,400,94 |
| Uintah | 334,788 | 0.8% | 0 | 0.0% | 39,672,09 |
| Box Elder | 522,121 | 0.8% | -17,022 | 0.0% | 64,119,66 |
| Iron County | 363,354 | 0.7% | 0 | 0.0% | 50,747,88 |
| Washington County | 401,752 | 0.3% | 0 | 0.0% | 159,569,14 |
| Weber | 162,616 | 0.1% | 0 | 0.0% | I 78,620,05 |
| Juab | 0 | 0.0% | 154,620 | 1.2% | 12,878,46 |
| Morgan | 0 | 0.0% | 154,620 | 1.1% | 13,506,50 |
| Park City | 0 | 0.0% | 154,620 | 0.4% | 42,012,72 |
| Wasatch | 0 | 0.0% | 5,154 | 0.0% | 34,852,14 |
| Murray | 0 | 0.0% | 0 | 0.0% | 38,184,68 |
| Logan | 0 | 0.0% | 0 | 0.0% | 39,231,61 |
| Provo | 0 | 0.0% | 0 | 0.0% | 88,218,52 |
| Ogden City | 0 | 0.0% | 0 | 0.0% | 89,554,10 |
| Cache | 0 | 0.0% | 0 | 0.0% | 91,508,54 |
| Nebo | 0 | 0.0% | 0 | 0.0% | 169,067,52 |
| Salt Lake City | 0 | 0.0% | 0 | 0.0% | 179,664,02 |
| Canyons | 0 | 0.0% | 0 | 0.0% | 207,455,08 |
| Jordan | 0 | 0.0% | 0 | 0.0% | 269,116,07 |
| Alpine | 0 | 0.0% | 0 | 0.0% | 349,656,35 |
| Davis | 0 | 0.0% | 0 | 0.0% | 374,647,72 |
| Granite | 0 | 0.0% | 0 | 0.0% | 408,354,01 |
| District Sub-Total | 18,619,376 | | 4 008,252 | | 3 251 793.06 |
| Charter Sub-Total | 0 | | 1 889,264 | | 380.774.27 |
| Cread Total | 10 4 10 274 | | 5 897 516 | | 2 432 567 34 |

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Secure Rural Schools and Community Self-Determination Act of 2000

During the early days of the U.S. Forest Service, funds were provided to states from forest revenues. Since 1908 this revenue sharing has been equal to 25% of the forest revenues. With a decline of grazing, timber management and mining since the 1980s, these revenues began dropping significantly and became a volatile political issue in Washington, Oregon and California, due to their previous reliance upon timber. Several temporary solutions were put in place by Congress to prop up this funding, and since 2000 the Secure Rural Schools Act (SRSA) has provided additional funds for National Forest restoration and enhancement projects to mitigate a loss of income to counties.

There were two one-year extensions to SRSA in 2006 and 2007. Congress reauthorized SRSA in October 2008 for an additional four years and amended the distribution formula based upon historical receipts, total National Forest land, and per capita income. This provided significant increases in revenue for Idaho, Colorado, Montana, New Mexico and Utah. In 2009, \$16 Million was distributed in Utah counties and districts, which decreased by approximately 10% per year to \$11,800,000 for 2012. SRSA was reauthorized in July 2012 for 2013 at approximately a 5% decrease from 2012. If SRSA is not reauthorized for 2014, funding will return to 2008 levels. In 2011, the Utah State Legislature easily passed H.C.R. 13, the Secure Rural Schools Concurrent Resolution (Rep. Noel, R), which expressed support for the reauthorization of SRSA.⁴²

The funds appropriated by SRSA are used for schools and roads, to create employment opportunities, to maintain current infrastructure, and to improve the health of watershed and ecosystems.⁴³ Counties electing to receive a share of the SRSA state payment and receiving over \$100,000 must allocate between 80-85% of the total funds to schools and roads. The remaining 15-20% can be used for other purposes.^{44,45}

Some of the states that receive SRSA funds direct the revenue into their states' general funds. However, New Mexico, Colorado and Utah (and to a small extent Idaho) provide a portion of their funds directly to the

counties that house the National Forests. In Utah, 50% of SRSA funds are directed toward counties based on the counties' percentage of forest land. The county amounts are subdivided to districts according to the number of school children residing in each district that are over the age of six and under the age of 18.⁴⁶



⁴² Utah House Concurrent Resolution 13. http://le.utah.gov/~2011/bills/hbillint/hcr013.htm

⁴³ USDA Forest Service Release No. 0814, October 8, 2008.

⁴⁴ USDA. http://www.fs.usda.gov/pts/

⁴⁵ U.S. Forest Service, Secure Rural Schools Program, 2008-2011. http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5102926.pdf

⁴⁶ Utah Code 51-9-603. http://le.utah.gov/~code/TITLE51/htm/51_09_060300.htm

Rural Education Achievement Program

Part B of Title VI of the Elementary and Secondary Education Act (ESEA) authorizes a couple of programs under the Rural Education Achievement Program (REAP). Utah Local Education Areas (LEAs) receive funds under one of these: the Small, Rural School Achievement (SRS) program. LEAs are the state's 41 districts and 80 charter schools. Due to the allocation formula which treats all LEAs the same, small charter schools are awarded a greater portion of REAP funding than rural districts. To be eligible, an LEA must have an ADM of less than 600 students or be located in a county with a population density of fewer than 10 persons per square mile. Also, the LEA must have a rural NCES locale code or be designated by the state, with U.S. Department of Education (DOE) approval, as rural.⁴⁷

Utah LEAs may have an advantage under the first stipulation based on the fact that such a high percentage of Utah's area is federal land, thus resulting in low-density counties. USOE included all non-Wasatch Front districts as rural in its assessment for the SRS program.⁴⁸ Of the 37 rural LEAs (16 districts and 21 charter schools), 19 LEAs have received funds under the program (7 districts and 12 charter schools). For 2011, the districts received a total of \$140,403 while the charters received \$453,844.



This program is a small one. The average award for LEA's across the nation in 2011 was \$20,742.⁴⁹ Funding is based on a formula that includes a base amount (\$20,000) and ADM, subtracted by funds received from other "Title" programs, with a cap of \$60,000.

Enrollment in the program includes the so-called REAP-Flex authority. This authorizes flexibility in spending of other "Title" funds to target funding for specific needs, from purchasing computers to hiring teachers.⁵⁰

In past years, numerous Utah LEAs have been entitled to receive funds and REAP-Flex authority but did not do so.⁵¹ This may have been oversight or, as explained by the U.S. Department of the Education, some LEAs simply chose not to participate.⁵²

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⁴⁷ DOE. http://www2.ed.gov/policy/elsec/leg/esea02/pg94.html

⁴⁸ USOE Fiscal Year 2012 Spreadsheet for Small, Rural School Achievement Program LEAs Defined as Rural.

⁴⁹ DOE. http://www2.ed.gov/programs/reapsrsa/funding.html

⁵⁰ Guidance on the Rural Education Achievement Program. www.ed.gov/policy/elsec/guid/reap03guidance.doc

| Year | Districts Receiving REAP Funding | | | | | | Number of Charters Receiving REAP Funding | | |
|------|----------------------------------|---------|----------|------|-------|------|--|-------|----|
| 2002 | Beaver | Daggett | Garfield | Kane | Piute | Rich | Tintic | Wayne | 0 |
| 2003 | | Daggett | | | Piute | Rich | Tintic | Wayne | 0 |
| 2004 | | Daggett | | | Piute | Rich | Tintic | Wayne | 2 |
| 2005 | | Daggett | | | Piute | Rich | Tintic | Wayne | 3 |
| 2006 | | Daggett | | | Piute | Rich | Tintic | Wayne | 4 |
| 2007 | | Daggett | | | Piute | Rich | Tintic | Wayne | 4 |
| 2008 | | | Garfield | | Piute | | Tintic | | 4 |
| 2009 | | Daggett | Garfield | | Piute | | Tintic | Wayne | 6 |
| 2010 | | Daggett | Garfield | | Piute | Rich | Tintic | Wayne | 9 |
| 2011 | Beaver | Daggett | Garfield | | Piute | Rich | Tintic | Wayne | 12 |

Redevelopment Agencies

Redevelopment agencies work toward revitalization and development utilizing tax increment financing (TIF). In essence, this TIF is the increase in tax created by a project in a given area. Instead of going toward taxing entities (including school districts), this TIF is provided in ways that benefit the project. These projects are approved by a committee that includes two school district representatives and one USOE representative.⁵³ After a defined number of years, the TIF disappears and the tax is collected by the respective taxing entities. Redevelopment began in the 1960s and continues today with 79 agencies around the state involved in 232 projects. The agencies collected TIF equal to \$113.7 Million. This diverts approximately \$13 Million from the Public Education Basic Tax Rate and another \$42.5 Million from 12 other school district tax rates across the state.⁵⁴ However, since the idea of redevelopment agencies is revitalization and development, some portion of this tax revenue might not exist but for the projects that it incentivized.

The effects of local school revenue from TIF on rural communities are relatively small. Of the \$1.5 billion in TIF between 1979 and 2011, just under \$12 million, or 0.8%, was from rural districts (Duchesne, Millard, Rich, Sanpete, Sevier, and North and South Summit districts).55

Expenses

Public education revenues are distributed to districts which spend the amounts in a number of different ways. A common way of studying expenses is to use "total current expenditures," which are for the day-to-day operation of schools, including expenditures for staff salaries and benefits, supplies, and purchased services, excluding expenditures associated with repaying debts and capital outlays (e.g., purchases of land, school construction and repair, and equipment).⁵⁶

⁵¹ DOE. http://www2.ed.gov/programs/reapsrsa/eligibility.html

⁵² Phone conversation with Eric Shultz, REAP Team Leader, DOE, on July 25, 2012.

⁵³ Utah Code 17C-1-402 (2)(a)(i). http://le.utah.gov/~code/TITLE17C/htm/17C01_040200.htm

⁵⁴ USOE, Redevelopment and Economic Development, April 11, 2011.

⁵⁵ USOE, History of Tax Increment Funds Taken by Redevelopment Agencies, Tax Years 1979 Through 2011.

http://www.schools.utah.gov/finance/Minimum-School-Program/Miscellaneous/Local-Expenditures/RDAINCRE-(2).aspx

⁵⁶ DOE, National Center for Education Statistics, Common Core of Data. http://nces.ed.gov/pubs2006/expenditures/b1.asp

Total current expenditures in rural districts increased by an average of 4.0% per year between 2001 and 2011, while in non-rural districts they increased by an average of 5.7%. South Summit, North Summit, Rich, Duchesne and Kane were five rural districts that increased the most over the 11 year period, and Tooele County, Park City, Wasatch, Nebo, and Washington County were the comparable five non-rural districts. Higher increases in non-rural districts are expected due to greater student population increases. South Summit and Duchesne were two of four rural districts that saw student population increases over the period, and Tooele County, Nebo, Wasatch, and Washington County were four of the five non-rural districts that saw the greatest student population increases over the period.

| District Name | 2001 | 2010 | 2011 | 2010-2011 percent change | 2001-2011 average annua percent change |
|-------------------|---------------|---------------|---------------|-----------------------------|--|
| Beaver | \$7,888,677 | \$10,969,746 | \$11,464,216 | 4.5% | 4.8% |
| Daggett | 2,213,514 | 2,661,774 | 2,738,217 | 2.9% | 3.3% |
| Duchesne | 20,944,480 | 31,448,346 | 31,335,761 | -0.4% | 5.0% |
| Emery | 14,818,543 | 20,325,281 | 20,265,053 | -0.3% | 3.5% |
| Garfield | 7,560,775 | 10,738,315 | 10,105,253 | -5.9% | 4.2% |
| Grand County | 7,667,698 | 11,801,009 | 11,519,202 | -2.4% | 4.2% |
| Kane | 8,308,739 | 11,495,265 | 12,000,860 | 4.4% | 5.0% |
| Millard | 19,016,310 | 24,464,903 | 25,199,667 | 3.0% | 3.2% |
| North Sanpete | 12,474,055 | 17,107,393 | 17,470,558 | 2.1% | 4.3% |
| North Summit | 5,309,535 | 8,534,886 | 8,344,413 | -2.2% | 5.5% |
| Piute | 3,072,171 | 4,088,401 | 4,145,762 | 1.4% | 3.3% |
| Rich | 3,385,660 | 5,608,965 | 5,542,309 | -1.2% | 5.3% |
| San Juan | 28,010,670 | 33,035,833 | 33,497,871 | 1.4% | 2.6% |
| Sevier | 22,990,071 | 30,242,725 | 32,151,654 | 6.3% | 4.2% |
| South Sanpete | 15,711,850 | 22,336,954 | 22,865,244 | 2.4% | 3.9% |
| South Summit | 7,090,731 | 11,013,683 | ,345, 5 | 3.0% | 5.6% |
| Tintic | 3,320,012 | 3,143,296 | 3,188,745 | 1.5% | 0.8% |
| Wayne | 3,991,962 | 4,914,806 | 5,349,490 | 8.8% | 3.9% |
| Rural, total | 193,775,453 | 263,931,581 | 268,529,390 | 1.7% | 4.0% |
| Alpine | 189 770 346 | 370 098 622 | 370 283 248 | 01% | 7 9% |
| Box Elder | 47 265 963 | 68 009 738 | 68 210 567 | 0.1% | 4 4% |
| Cache | 57 047 574 | 94 660 408 | 99 530 051 | 5.1% | 6.4% |
| Canyons | * | 205 930 598 | 212 527 274 | 3.1% | * |
| Carbon | 23 041 888 | 27 902 976 | 28 027 716 | 0.5% | 2.89 |
| Davis | 257 691 914 | 406.021.438 | 408 790 664 | 0.5% | 5.49 |
| Granite | 310,065,769 | 430 333 493 | 429 256 859 | -0.3% | 3.7% |
| | 32 568 330 | 54 156 413 | 54 669 551 | -0.5% | 619 |
| lordan | 310 711 068 | 288 526 188 | 278 958 507 | -3.3% | * |
| luab | 8017446 | 14 1 15 335 | 14 298 313 | 1.3% | 6.9% |
| logan | 24 681 487 | 41 607 880 | 42 632 419 | 2.5% | 6.0% |
| Morgan | 8811973 | 14 010 628 | 15 108 148 | 7.8% | 61% |
| Murray | 28 652 216 | 42 399 067 | 41 800 888 | -1.4% | 4 49 |
| Nebo | 83 517 396 | 171 809 189 | 178 130 692 | 3.7% | 9.0% |
| Orden City | 66 490 152 | 94 066 793 | 97 878 962 | 41% | 4.8% |
| Park City | 21 981 147 | 45 092 981 | 48 805 558 | 8.2% | 9.2% |
| Provo | 68,060,138 | 89 364 161 | 94 320 611 | 5.6% | 4.2% |
| Salt Lake City | 145 521 965 | 184 897 100 | 187 921 702 | 1.6% | 3.0% |
| Topele County | 37 576 367 | 82 761 099 | 85 370 930 | 3.2% | 9.6% |
| Lintah | 30 557 084 | 43 076 721 | 43 533 516 | 1.1% | 4 2% |
| Wasatch | 17.658.608 | 35,400,140 | 37,355,686 | 5 5% | 9.0% |
| Washington County | 79 477 151 | 167,429,718 | 171 398 247 | 5.5% 2.4% | 2.07 2 99 |
| Weber | 6 277 993 | 188,150,659 | 188 315 568 | 0.1% | 5.4% |
| Non-rural total | 1 965 443 975 | 3 159 821 345 | 3 197 125 677 | 0.1% | 5.4% |

The only overall decrease in total current expenditures in the 2000s was in 2010 (0.3%). In that year, the 2009 American Recovery and Reinvestment Act provided stimulus funds from the federal government in reaction to the 2007-2009 recession, but state budget cuts due to the recession were larger than the stimulus funds.



The largest annual total current expenditure increases since 2000 have been for charter school funding, which corresponds with the increase in charter school student population. Annual increases for rural schools have either been equal to or less than non-rural increases (and the one decrease has been greater than the non-rural decrease) except between 2010 and 2011, when rural district funding increased by 1.7% compared to 1.2% for non-rural districts.



As a percentage of total current expenditures, rural district expenditures declined between 2000 and 2011, from 9.0% to 7.8%. However, as noted previously, rural student population has declined slightly while

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increasing in non-rural districts; as a percentage of total student population, rural district population declined from 7.2% to 5.9% between 1998 and 2011

| Figure 30: Total Current Expenditures, 2000 and 2011 | | | | |
|--|-----------------------------|-----------------------------|--|--|
| | Percentage of Total 2000 | Percentage of Total 2011 | | |
| Rural | 9.0% | 7.8% | | |
| Non-Rural | 91.0% | 92.3% | | |

Utah has had the lowest per-pupil expenditures among the 50 states and Washington D.C. since 1988.⁵⁷ This is due at least in part to Utah's highest birthrate in the country. Though well below the national average, per-pupil expenditure in Utah's rural districts is above non-rural districts and the state average (see Figure 31). This of course is not the whole story since rural districts do not have the economies of scale that non-rural district may have, either at the school or district level.



Over the period, rural per-pupil total current expenditures increased from \$6,105 to \$8,394, or 3.2% per year, while non-rural per-pupil total current expenditures increased from \$4,413 to \$6,258, or 3.6% per year. Accordingly, while student population change accounts for some of the variance in expenditure increases between rural and non-rural districts, it does not account for all of the difference.

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⁵⁷ National Center for Education Statistics, *Digest of Education Statistics*, see Table 164 in the 1995 Digest. http://nces.ed.gov/programs/digest/d95/dtab164.asp

Figure 32: Per-Pupil Total Current Expenditures by District, 2001, 2010 and 2011 and percent change

| District Name | 2001 | 2010 | 2011 | 2010-2011 percent change | 2001-2011 average annual percent change |
|-------------------|---------|---------|---------|-----------------------------|---|
| Beaver | \$5,437 | \$7,005 | \$7,444 | 6.3% | 3.2% |
| Daggett | 15,058 | 15,844 | 16,202 | 2.3% | 0.7% |
| Duchesne | 5,166 | 7.070 | 6.851 | -3.1% | 2.9% |
| Emery | 5,909 | 8.616 | 8,761 | 1.7% | 4.0% |
| Garfield | 7,187 | 11,609 | 10,901 | -6.1% | 4.3% |
| Grand County | 5,132 | 7,815 | 7,852 | 0.5% | 4.3% |
| , Kane | 6,333 | 9,775 | 10,213 | 4.5% | 4.9% |
| Millard | 5,959 | 8,657 | 8,952 | 3.4% | 4.2% |
| North Sanpete | 5,089 | 7,072 | 7,219 | 2.1% | 3.6% |
| North Summit | 5,514 | 8,727 | 8,489 | -2.7% | 4.4% |
| Piute | 9,661 | 13,405 | 13,078 | -2.4% | 3.1% |
| Rich | 7,234 | 11,589 | 11,288 | -2.6% | 4.5% |
| San Juan | 9,220 | 11,345 | 11,464 | 1.1% | 2.2% |
| Sevier | 5,176 | 6,672 | 7,073 | 6.0% | 3.2% |
| South Sanpete | 5,768 | 7,353 | 7,319 | -0.5% | 2.4% |
| South Summit | 5,548 | 7,686 | 7,787 | 1.3% | 3.4% |
| Tintic | 10,744 | 14,288 | 15,185 | 6.3% | 3.5% |
| Wayne | 7,420 | 8,668 | 9,925 | 14.5% | 3.0% |
| Rural, total | 6,105 | 8,282 | 8,394 | 1.4% | 3.2% |
| | | | | | |
| Alpine | 3,932 | 5,604 | 5,427 | -3.2% | 3.3% |
| Box Elder | 4,356 | 6,079 | 6,051 | -0.5% | 3.3% |
| Cache | 4,325 | 6,143 | 6,378 | 3.8% | 4.0% |
| Canyons | * | 6,153 | 6,346 | 3.1% | * |
| Carbon | 5,892 | 8,069 | 8,188 | 1.5% | 3.3% |
| Davis | 4,375 | 6,150 | 6,035 | -1.9% | 3.3% |
| Granite | 4,392 | 6,276 | 6,337 | 1.0% | 3.7% |
| Iron County | 4,476 | 6,384 | 6,426 | 0.7% | 3.7% |
| Jordan | 4,229 | 5,802 | 5,515 | -4.9% | 2.7%* |
| Juab | 4,348 | 6,175 | 6,225 | 0.8% | 3.7% |
| Logan | 4,262 | 6,784 | 6,966 | 2.7% | 5.0% |
| Morgan | 4,354 | 5,749 | 6,240 | 8.5% | 3.7% |
| Murray | 4,502 | 6,523 | 6,514 | -0.1% | 3.8% |
| Nebo | 3,784 | 5,897 | 5,993 | 1.6% | 4.7% |
| Ogden City | 5,172 | 7,485 | 7,736 | 3.4% | 4.1% |
| Park City | 5,603 | 10,364 | 11,092 | 7.0% | 7.1% |
| Provo | 5,118 | 6,681 | 6,845 | 2.5% | 3.0% |
| Salt Lake City | 5,904 | 7,717 | 7,857 | 1.8% | 2.9% |
| Tooele County | 3,952 | 6,158 | 6,243 | 1.4% | 4.7% |
| Uintah | 5,146 | 6,446 | 6,225 | -3.4% | 1.9% |
| Wasatch | 4,675 | 6,956 | 7,111 | 2.2% | 4.3% |
| Washington County | 4,222 | 6,522 | 6,540 | 0.3% | 4.5% |
| Weber | 4,138 | 6,200 | 6,190 | -0.2% | 4.1% |
| Non-rural, total | 3,932 | 6,265 | 6,258 | -0.1% | 3.6% |

* Canyons formed in 2010, Jordan included Canyons' per-pupil expenditures in 2001. Source: USOE Superintendents Reports, 2005 and 2011, and student population report.

Effort

Utah's Educational Funding Effort

Utah has been last in the nation in per-pupil funding since 1988.⁵⁸ Per-pupil funding is an important measure, but because of Utah's uniquely large student population (in proportion to total population), it is instructive to also examine funding effort in other ways. One of the best methods to understand effort is to calculate public education revenues per \$1,000 of personal income.⁵⁹ This measure shows the proportion of Utah's collective income that is dedicated to funding K-12 schools, and it can be compared to other states to understand whether Utahns bear a higher burden of funding schools because of the proportionally larger student population. In fact, it was true 20 years ago that Utahns paid more than the typical American taxpayer to fund schools; Utah's K-12 education funding effort was ranked in the top ten nationally in the early 1990s but fell to below the national average by 2003 and now stands at 29th in the nation (the most recent data for ranking are from 2010).⁶⁰



The decline in funding effort resulted from three major forces: large property tax cuts in the mid-1990s, reduced reliance on the state-mandated "basic levy" property tax and shifts of income tax revenue to other budgetary needs after the constitutional earmark of income taxes for K-12 education was relaxed by voters in 1996.⁶¹ That earmarking change allowed income taxes to be shared with higher education, but as income tax revenue was added to the higher education budget, general fund monies were taken away and used for other budget priorities.

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⁵⁸ National Center for Education Statistics, *Digest of Education Statistics*, see Table 164 in the 1995 Digest. http://nces.ed.gov/programs/digest/d95/dtab164.asp

⁵⁹ Utah Foundation Research Report #680, "Utah's Education Funding Effort: Update and Historical Perspective," August 2007.

⁶⁰ Utah Foundation Priorities Brief #2: K-12 Education. October 2012. http://www.utahfoundation.org/img/pdfs/2012_priority_brief_2_k-12.pdf

⁶¹ Utah Foundation Research Report #674, "Paradox Lost: Utah's Public Education Funding Effort No Longer Surpasses the Nation," April 2006.

Property Taxes

Utah's 1985 "Truth-in-Taxation" law has been effective in lowering property taxes as a portion of total income and keeping them steady since the late 1990s.⁶² Accordingly, Utah's property tax burden is low compared with other states. A 2011 study ranks Utah (using Salt Lake City by proxy) 44th in a state-by-state comparison, with an effective tax rate of 0.833% compared to the national average of 1.461% (see Figure 34). Utah also ranks between 32nd and 46th on other property rates, ranging from moderately priced homes, to apartments to industrial and commercial property (see Figure 35).

⁶² Utah Foundation, Utah's Property Tax Burden, February 2008. http://www.utahfoundation.org/reports/?page_id=302

| Figure 34: Property Tax B | rden on a \$300,000 Valued Property, 201 |
|-----------------------------|--|
| (major city in each state*) | |

| Rank | State | City | Net Tax | Effective Tax Rate |
|---------|-------------------|---------------------------|---------|-----------------------|
| | | | | |
| 1 | Michigan | Detroit | 9,874 | 3.291% |
| 2 | Connecticut | Bridgeport | 9,397 | 3.132% |
| 3 | Illinois | Aurora | 7,980 | 2.660% |
| 4 | Wisconsin | Milwaukee | 7,408 | 2.469% |
| 5 | New York | Buffalo | 7,331 | 2.444% |
| 6 | lowa | Des Moines | 6,813 | 2.271% |
| 7 | New Jersey | Newark | 6,703 | 2.234% |
| 8 | Oregon | Portland | 6,478 | 2.159% |
| 9 | New Hampshire | Manchester | 6,390 | 2.130% |
| 10 | Nebraska | Omaha | 6,056 | 2.019% |
| 11 | Maryland | Baltimore | 6,042 | 2.014% |
| 12 | Ohio | Columbus | 5,964 | 1.988% |
| 13 | Texas | Houston | 5,848 | 1.949% |
| 14 | Tennessee | Memphis | 5,654 | 1.885% |
| 15 | Vermont | Burlington | 5,394 | 1.798% |
| 16 | Maine | Portland | 5,301 | 1.767% |
| 17 | Rhode Island | Providence | 5,023 | 1.674% |
| 18 | Indiana | Indianapolis | 4,941 | 1.647% |
| 19 | Pennsylvania | Philadelphia | 4,882 | 1.627% |
| 20 | Minnesota | Minneapolis | 4,755 | 1.585% |
| 21 | North Dakota | Fargo | 4,742 | 1.581% |
| 22 | Georgia | Atlanta | 4,568 | 1.523% |
| 23 | Florida | lacksonville | 4,480 | 1.493% |
| 24 | Mississiddi | lackson | 4,461 | 1.487% |
| Average | | , | 4.382 | 1.461% |
| 25 | Illinois | Chicago | 4.068 | 1.356% |
| 26 | Missouri | Kansas City | 4.047 | 1.349% |
| 27 | South Dakota | Sioux Falls | 4.020 | 1.340% |
| 28 | Alaska | Anchorage | 4 007 | 1 336% |
| 29 | Kansas | Wichita | 3 955 | 1318% |
| 30 | Kentucky | | 3 800 | 1.310% |
| 30 | Oklahoma | Oklahoma City | 3 784 | 1.261% |
| 32 | Idaho | Boise | 3 746 | 1.201% |
| 32 | North Carolina | Charlotte | 3 736 | 1.215% |
| 34 | Arkansas | | 3,730 | 1.245% |
| 35 | California | | 3,650 | 1.252% |
| 36 | Louisiana | New Orleans | 3,570 | 1.217% |
| 37 | Novada | | 3,370 | 1.170% |
| 30 | Delawara | | 2 271 | 1.17% |
| 30 | Now Moxico | Albuquorquo | 3,371 | 1.124% |
| 37 | Montana | Billings | 3,207 | 0.070% |
| 40 | Animona | Bhaaniy | 2,721 | 0.774% |
| 41 | Arizona | Phoenix Viusiais Basak | 2,877 | 0.959% |
| 42 | Virginia | Virginia Beach | 2,675 | 0.892% |
| 43 | vvasnington | Seattle | 2,605 | 0.868% |
| 44 | Utan Marin | Salt Lake City | 2,500 | 0.833% |
| 45 | vvest virginia | Charleston | 2,259 | 0.753% |
| 40 | Alabama | Birmingnam | 2,011 | 0.670% |
| 4/ | vvyoming | Cheyenne | 1,975 | 0.658% |
| 48 | Dist. of Columbia | VVashington | 1,920 | 0.640% |
| 49 | New York | New York City | 1,864 | 0.621% |
| 50 | Massachusetts | Boston | I,820 | 0.607% |
| 51 | South Carolina | Columbia | 1,815 | 0.605% |
| 52 | Colorado | Denver | I,595 | 0.532% |
| F 2 | | 1 Line alsolution | 744 | 0 2 4 0 9 / |

* With a second city in each of New York and Illinois. Source: <u>Minnesota Taxpayers Association</u>, 50 State Property Tax Study, 2011.

| | National Average | Salt Lake City, Utah | Salt Lake City Ranking |
|-------------------------------|---------------------|-------------------------|---------------------------|
| \$150,000 Home | 1.398% | 0.833% | 43 |
| Median-Value Home | 1.411% | 0.833% | 44 |
| \$100,000 Commercial Property | 2.000% | 1.542% | 34 |
| \$1M Commercial Property | 2.025% | 1.542% | 35 |
| \$25M Commercial Property | 2.044% | 1.542% | 36 |
| \$100,000 Industrial Property | 1.464% | 1.236% | 32 |
| \$1M Industrial Property | 1.503% | 1.236% | 35 |
| \$25M Industrial Property | 1.515% | 1.236% | 35 |
| \$600,000 Apartment Complex | 1.834% | 0.881% | 46 |

Utah's lower than average tax rates affect education funding in very tangible ways: about 22% of general education funds and the lion's share (about 90%) of local education funding is from property taxes.⁶³ While the level of much of this education related tax is mandated by the Legislature, there are portions which are controlled by the districts and electorate within such districts.

In the Annual Report of the State Superintendent of Public Instruction, the Utah State Office of Education refers to "Local Tax Effort" as measured simply by the local property tax rates. Local funds are from six revenue sources:

- Basic levy: property tax rate is established by the state (an effort between the Legislature, the State Tax Commission and the USOE); district must collect it as its contribution to the basic program.
- State supported local levy
 - 0 Up to 0.002% to supplement the district's general funds
 - Voted by majority of electorate
- State supported board levy:
 - Up to 0.0018% (or 0.0025% in certain circumstances) unrestricted to maintain a school program above the cost of the basic program
 - Voted by a district's board of education
- Judgment Recovery Levy: only when needed to refund property tax revenue unlawfully collected.
- Capital local levy: 0.003% for any capital purpose (including buses and other equipment)
- Debt service levy: used to pay the debt service and any general obligation bonds used to finance building construction⁶⁴

In terms of tax rates, non-rural districts exert more effort than rural districts: the average tax rate of rural districts was 0.0064% compared to 0.0075% in non-rural districts.⁶⁵ While tax rates are often used as a measure of local effort, this might be an over-simplification. An alternative measure of local effort is the percentage of tax collected per student. Property tax collected per student - compared to the average - was higher for rural districts than non-rural districts, equaling 115.1% of the average and 88.2% of the average, respectively.

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⁶³ USOE Fingertip Facts.

⁶⁴ USOE. http://www.schools.utah.gov/finance/Property-Tax/Tax-Rate.aspx

⁶⁵ Statistically significant at 99% (p=0.008).
| | Tax levies | Tax levies % of average | Tax rate above average | Tax collected per student % of average | % Collected above average |
|---------------------|------------|----------------------------|---------------------------|--|---------------------------------|
| Beaver | 0.0068% | 96.3% | No | 132.5% | Ye |
| Daggett | 0.0044% | 62.6% | No | 196.2% | Ye |
| Duchesne | 0.0078% | 111.6% | Yes | 95.7% | No |
| Emery | 0.0057% | 81.6% | No | 133.1% | Ye |
| Garfield | 0.0066% | 94.7% | No | 122.2% | Ye |
| Grand County | 0.0062% | 88.9% | No | 152.2% | Ye |
| Kane | 0.0050% | 71.0% | No | 144.7% | Ye |
| Millard | 0.0060% | 85.5% | No | 123.7% | Ye |
| No. Sandete | 0.0065% | 93.2% | No | 48.4% | N |
| North Summit | 0.0066% | 93.8% | No | 174.0% | Ye |
| Piute | 0.0067% | 95.3% | No | 61.9% | N |
| Rich | 0.0047% | 66.5% | No | 226.4% | Ye |
| San Juan | 0.0080% | 114.5% | Yes | 73.4% | N |
| Sevier | 0.0065% | 93.0% | No | 53.5% | N |
| So. Sanpete | 0.0090% | 128.7% | Yes | 44.4% | N |
| So. Summit | 0.0070% | 100.6% | Yes | 196.6% | Ye |
| Tintic | 0.0080% | 114.1% | Yes | 41.5% | N |
| Wayne | 0.0038% | 53.9% | No | 51.8% | N |
| ural districts | 0.0064% | 91.4% | | 115.1% | |
| | | | | | |
| Alpine | 0.0088% | 125.8% | Yes | 52.6% | N |
| Box Elder | 0.0084% | 120.5% | Yes | 73.6% | N |
| Cache | 0.0070% | 99.5% | No | 45.0% | N |
| Canvons | 0.0082% | 116.5% | Yes | 97.1% | N |
| Carbon | 0.0068% | 97.6% | No | 111.9% | Υe |
| Davis | 0.0089% | 126.5% | Yes | 57.4% | N |
| Granite | 0.0068% | 97.0% | No | 58.1% | N |
| Iron County | 0.0075% | 107.4% | Yes | 77.1% | N |
| lordan | 0.0073% | 104.5% | Yes | 60.2% | N |
| luab | 0.0080% | 114.6% | Yes | 72.9% | N |
| Logan | 0.0083% | 118.3% | Yes | 67.6% | N |
| Morgan | 0.0070% | 100.5% | Yes | 69.2% | N |
| Murray | 0.0062% | 88.5% | No | 75.4% | N |
| Nebo | 0.0094% | 133.7% | Yes | 51.3% | N |
| Ogden City | 0.0083% | 117.9% | Yes | 62.4% | N |
| Park City | 0.0044% | 62.9% | No | 317.2% | Ye |
| Provo | 0.0072% | 102.1% | Yes | 61.5% | N |
| Salt Lake City | 0.0064% | 91.5% | No | 121.4% | Ye |
| Tooele County | 0.0083% | 117.8% | Yes | 52.6% | N |
| Uintah | 0.0065% | 92.3% | No | 129.6% | Ye |
| Wasatch | 0.0073% | 104.0% | Yes | 176.9% | Ye |
| Washington | 0.0082% | 117 4% | Yes | 88.4% | N |
| Weber | 0.0002% | 97 5% | No | 48.4% | N |
| Ion-rural districts | 0.0000% | 106 7% | 110 | 88 7% | |

Utah's Tax Burden

Utah has historically had a high burden of taxes and fees, ranking as high as 12th in the nation in 2004 and always in the top 20 high-burden states from 1994 to 2008. In 2011, Utah Foundation compared tax burdens to demands for public services, and found that Utah's young population places particularly high demands on state and local government for public K-12 and higher education.⁶⁶ This helped explain the primary drivers behind Utah's high tax and fee burden. In a significant change from recent history, Utah's burden of taxes

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⁶⁶ Utah Foundation Research Report #699, "Making Sense of Utah's Tax and Fee Burdens," March 2011.

and mandatory fees now falls below the national average (again using the measure of revenues per \$1,000 of personal income).

| | U.S. | Utah | National Rank |
|------------------------|----------|----------|------------------|
| All Taxes & Fees | \$140.03 | \$142.06 | 20 |
| Taxes & Mandatory Fees | 118.71 | 110.93 | 31 |
| All Taxes | 105.87 | 95.61 | 38 |
| Individual Income Tax | 21.71 | 24.18 | 22 |
| General Sales Tax | 23.76 | 25.38 | 21 |
| Property Tax | 36.83 | 26.43 | 39 |
| Corporate Income Tax | 3.57 | 2.83 | 24 |
| Motor Fuel Tax | 3.16 | 4.04 | 17 |
| All Fees | 34.15 | 46.44 | 6 |
| Mandatory Fees | 12.84 | 15.31 | 8 |
| Tuition & College Fees | 8.84 | 15.86 | 5 |
| Other Optional Fees | 12.47 | 15.27 | 11 |

Government-imposed fees are included in Utah Foundation's measure of tax burden, because over time, many public agencies have levied fees as an alternative to taxes. In some cases, these fees are voluntary payments for a desired service, such as public college tuition or green fees at a municipal golf course. In other cases, these fees are mandatory exactions, such as sewer and water fees.

Figure 38 shows the major taxes and fees collected in Utah compared to the national average for state and local governments. Utah ranks low in property taxes, slightly above average in individual income and sales taxes, and high in both mandatory and optional government fees. The best overall measure of Utah's tax burden is the sum of taxes and mandatory fees, which places Utah at 31st in the nation. This is a surprisingly low ranking compared to the past two decades, and it is the result of tax reductions enacted in 2006 and 2007, and a decline in revenues due to the impacts of the Great Recession at the end of the decade. Accordingly, state spending has been reduced significantly, with operational spending from general and special funds declining from \$4.9 billion in 2008 to \$4.3 billion in 2010. This was an overall decline of about 14%. The spending reductions were spread across all areas of the budget. Although public education was reduced by a lower amount (9%) than most programs, K-12 experienced large increases in student loads during this period, making the funding reductions particularly difficult. After 2010, spending began to rise again as revenues began to recover.

In 2012, Utah Foundation found that voters clearly indicated spending for K-12 public education should increase. However, they also said that they would prefer that overall state spending decrease.⁶⁷

⁶⁷ Utah Foundation Research Report #706, "The 2012 Utah Priorities Survey: The Top Issues and Concerns of Utah Voters for the 2012 Election," March 2012. http://www.utahfoundation.org/reports/?p=839



Equity

Effort is an important concept in terms of getting funds into the public education system. But how those funds are distributed is equally as important.

"The concept of equity in public education is an enduring one, inherent in the original vision that led to the establishment of the American public school system."⁶⁸ There are generally three types of equity with respect to school funding: horizontal equity, vertical equity, and fiscal neutrality. The concept of horizontal equity is used to determine whether the education finance of "equal" students (students with similar characteristics in similar schools and districts) are similar. Vertical equity examines whether "unequal" students are appropriately, fairly treated. Lastly, fiscal neutrality determines whether relationships exist between per pupil expenditures and property wealth of districts.^{69,70}

The Weighted Pupil Unit (WPU) model is used to address the concepts of horizontal and vertical equity through the equalization of funding. Utah's first school equalization program was developed in 1931, and the WPU model in place today is based upon the school finance overhaul of 1974. This overhaul began in 1972, when the Legislature's Education Committee recommended that several principles guide a Utah School Finance Study, including to "recognize that in order to provide substantial financial equalization of educational opportunity necessary variations in the unit costs of education as between districts, as between programs, and as between groups of individuals must be taken into account."⁷¹ The finance study provided that:

The concept of equity in public education is an enduring one, inherent in the original vision that led to the establishment of the American public school system. Converging upon this concept are three related meanings that seem to shift emphasis in response to changing societal values and the ebb and flow of the political climate: Equal access to education, equal educational treatment, and equality of educational outcome. Each must occur in horizontal and vertical dimensions and within a system that achieves tax equity.⁷²

"To date, Utah is one of only a handful of states not to have its funding model challenged or restructured through the judicial process."⁷³ USOE takes this lack of a legal challenge as proof that the "status of equity in Utah schools is self-evident."⁷⁴

With horizontal equity, the question is whether the education of an "average kid" at Hawthorn Elementary School in Salt Lake School District is funded at the same level as average kids at Washington Elementary in Salt Lake School District, as well as other city schools around the state. Similarly, it would determine whether

⁶⁹ Peterson, Garrick, "An Analysis of the equity of Utah's public school funding system" (2010). UNLV Theses/Dissertations/ Professional Papers/Capstones. Paper 862. http://digitalscholarship.unlv.edu/thesesdissertations/862

⁶⁸ The Utah School Finance Taskforce, "A Study of the Utah Public School Finance System," November 1990, pg. 7.

⁷⁰ Ladd, Helen F., Rosemary Chalk, and Janet S. Hansen, Equity and Adequacy in Education Finance: Issues and Perspectives, The National Academies Press, 1999. www.nap.edu/openbook.php?record_id=6166

⁷¹ Report of the Utah School Finance Study to the Education Committee of the Legislative Council, December 15, 1972, pg 3.

⁷² The Utah School Finance Taskforce, "A Study of the Utah Public School Finance System," November 1990, pg. 7.

⁷³ Utah Office of the Legislative Fiscal Analyst "2011 In-Depth Budget Review: Minimum School Program & the Utah State Office of Education" December 13, 2011.

⁷⁴ USOE, LEA Financial Condition, Activities, Discussion and Analysis, for the Fiscal Year Ended June 30, 2011, dated February 2, 2011. http://www.schools.utah.gov/finance/Financial-Reports/Reports/2011_06_30-Utah-Public-Education-Statewide-Financi.aspx

rural schools in small districts are funded at equal levels. Recent work on the topic of equity in Utah reveals that there is considerable horizontal inequity in the state, with a nearly 177% funding difference between the top 5% and the bottom 5%.⁷⁵ It is trickier to determine at what level each of the groups of "similar" schools should be funded, and how much more funding might need to be provided to rural school groups than city, suburban or town school groups.

With vertical equity, the question is whether subgroups of the population that need additional funding and resources to flourish are provided such resources. This type of funding typically focuses on children with disabilities, children in low-income households, and English language learners.

According to the Education Law Center which produces an annual "report card" on school equity, Utah leads the nation with progressive school funding distribution relative to student poverty. From 2007-2009, Utah was in first place in how it funds its schools.⁷⁶ Nevada is at the bottom of the list with the most regressive funding. However, a recent study has shown that funding levels for these subgroups are not adequate.⁷⁷



As noted previously, the Minimum School Program (MSP) recognized that "all children of the state are entitled to reasonably equal educational opportunities regardless of their place of residence in the state and of the economic situation of their respective school districts or other agencies."⁷⁸ This idea of equality regardless of economic situation is directly related to fiscal neutrality. The question is whether the there is a relationship between per pupil expenditure and district wealth is one important facet of this. Or, more blatantly, is there equity in the funding of Park City School District and Daggett School District? The answer is not a simple one, because while Park City has the greatest property tax revenue per pupil (see Figure 36), Daggett has the highest per-pupil expenditures (see Figure 32). It is important to determine whether these revenues and expenditures balance out the inputs and outputs in students' education to ensure the three measures of equity.

All of these measures of equity come into play with respect to rural school funding. As noted earlier, NESS funding, small district administrative funding, and others attempt to rectify inequities. The three surveys administered for evaluation are used as an attempt to reveal any continuing inequities.

⁷⁵ Peterson, Garrick, "An Analysis of the equity of Utah's public school funding system" (2010). UNLV Theses/Dissertations/ Professional Papers/Capstones. Paper 862. http://digitalscholarship.unlv.edu/thesesdissertations/862

⁷⁶ Education Law Center, National Report Card. http://www.schoolfundingfairness.org/National_Report_Card_2012.pdf

⁷⁷ Peterson, ibid.

⁷⁸ Utah Code 53A-17a-102.

High School Senior Survey

As part of this evaluation, Utah Foundation conducted a survey of high school seniors across the state. Utah Foundation utilized the 1998 WIRE study's Intentions and Accomplishments of Utah High School Seniors survey as a template by which to construct the new survey.⁷⁹ A literature review was used to develop additional senior survey questions. Utah Foundation also visited 16 schools in nine districts, meeting with superintendents, principals, teachers and students to refine questions, including a focus group discussion with 10 students from Carbon High School. The online survey was administered in April and May of 2012.

Survey Responses

The 2012 survey utilized 1,434 responses from a total of 39,717 high school seniors for a 3.6% student participation rate.⁸⁰ More non-rural students participated than rural students (56.6% compared to 43.4%, respectively), though a higher percentage of rural seniors responded than non-rural seniors (nearly 25% compared to around two percent, respectively).

High school senior responses were from 27 of Utah's "regular" high schools and K-12 schools for a 20.9% school response rate (a table of responses from schools by district is attached as Appendix B). The responses were from 19 rural schools and eight non-rural schools. Since there were only eight non-rural schools, Utah Foundation determined that it would analyze the town, suburban and city schools not by locale code but as a non-rural group.⁸¹ Seniors responded from 21 NESS schools, 18 of which were rural and three of which were non-rural.

| Figure 40: 2012 High School Senior Survey Responses by Locale | | | |
|---|---------------------|-------------------------------|----------------------|
| | Survey Responses | Percent of Total Responses | Number of Schools |
| Rural | 623 | 43.4% | 19 |
| Non-Rural | 811 | 56.6% | 8 |
| | 1,434 | | 27 |

| Figure 41: 2012 High School Senior Survey Res | ponses by School |
|---|------------------|
| Туре | |

| | Survey Responses | Percent of Total Responses | Number of Schools ⁸² |
|----------------|---------------------|-------------------------------|------------------------------------|
| Non-NESS | 779 | 54.3% | 6 |
| | | | |
| Rural NESS | 577 | 40.2% | 18 |
| Non-Rural NESS | 79 | 5.5% | 3 |
| Total NESS | 656 | 45.7% | 21 |

⁷⁹ The WIRE 1998 survey was completed by 21,736 students, 2,890 (13.3%) of which were from rural districts and 18,846 (86.7%) were from nonrural districts.

⁸⁰ Utah Foundation received a total of 1,447 senior responses to the survey from 33 schools. For this evaluation, only responses from schools with four or more completions were used, and two obviously frivolous responses were eliminated, resulting in a total of 1,434 responses.

⁸¹ Of the eight non-rural schools that had students participate in the survey, seven were town schools and one was a city school. No suburban schools responded to the survey. The dearth of city and suburb responses can be explained by the fact that many large districts require that surveys from outside sources proceed through a lengthy approval process that was simply not possible by the time the survey was developed. Additionally, several large districts do not allow for any outside surveys.

⁸² There are 38 NESS high schools in the state (including K-12 schools), 34 of which are considered rural schools and four of which are considered town schools; 18 or 53% of the rural NESS schools responded, and three or 75% of the town or "non-rural" NESS schools responded.

| Figure 42: 2012 High School Senior Survey Responses by School Type | | |
|---|-------|-----------|
| | Rural | Non-Rural |
| NESS | 577 | 79 |
| Non-NESS | 47 | 732 |

Survey Questions

The Utah Foundation senior survey covered topics from school perceptions to what seniors intended to do after graduation, and from courses taken to hours worked. Several of the questions in Utah Foundation's senior survey were inspired by questions in the 1998 WIRE survey and accordingly provide a comparison of responses, which is included after the analysis of each related survey question. However, the questions and survey methodology are dissimilar enough as to preclude a robust longitudinal analysis of survey response changes over the past 15 years.⁸³ Furthermore, the WIRE evaluation did not compare rural schools to non-rural schools, but instead compared schools in rural district to schools in non-rural districts.

Except as otherwise indicated, any differences or similarities between rural and non-rural senior high school students' responses are nearly the same as the differences or similarities between NESS and non-NESS students' responses. Accordingly, the NESS and non-NESS students' responses are generally not duplicated herein.

"Do you plan to go to college or job training (CTE, vocational or other) next fall?"

A majority (84.6%) of respondents replied that they plan on going to college or job training. There is a slightly higher percentage of non-rural students expressing that they will attend college or job training than rural students (85.2% to 83.8%, respectively -- the difference is not statistically significant). The percentages for both rural and non-rural students who plan to attend post-secondary education are lower than in the 1998 WIRE evaluation; non-rural dropped from 86.4% in 1998 to 85.2%, and rural dropped from 86.1% in 1998 to 83.8%.

"What type of college or job training (CTE, vocational or other) do you plan to enroll in next fall?"

Of the 84.6% of students who report that they will be attending college or job training, 61% of rural students and 68% of non-rural students, intended to go to 4-year colleges (which difference is statistically significant), and 21% of rural students and 14% of non-rural students planned to attend 2-year colleges (which difference is statistically significant).⁸⁴ An additional 8% of rural students and 10% of non-rural students planned on beginning with 2-year colleges and then moving on to 4-year schools, and 7% of rural students and 5% of non-rural students intended to pursue a one-year job training following high school. A small number of students marked "other" for their type of college or job training. The "other" responses in order of frequency included military, a shorter term of job training, an LDS mission, and undecided. These data show that while rural students (75%) slightly trail non-rural students (78%) on the intention to enter college, they are 7% more likely to enter 2-year institutions, and less likely to move on to or begin in 4-year schools.

⁸³ The WIRE surveys and a detailed methodology are no longer available.

⁸⁴ Both statistically significant at 95% (Pearson chi-square, p=0.046).

In 1998, "urban" seniors were much more likely to express that they would be attending a 4-year college and rural seniors were more likely to express that they would be attending a 2-year college.



| Figure 44: 1998 WIRE Study - Plans for Enrollment in Post-Secondary Education | | | | |
|--|--------|--------|----------------------------|-----------------------|
| | 4-year | 2-year | Applied Tech. Center | Other Job Training |
| Rural | 40.0% | 43.2% | 9.3% | 7.5% |
| "Urban" | 53.9% | 33.7% | 5.4% | 6.9% |

"Why did you choose the above type of college or job training?"

In response to why students chose the type of college and job training that they did, over one-third responded that personal interest was most important (33.8%), followed by location (14.2%), financial reasons (13.6%), and course offerings (12.9%).



When looking just at the 1st reason for choosing their type of post-secondary education, school location was more important for non-rural students (13.7% to 9.94%) and was statistically significant, and financial reasons were more important for rural students (14.6% to 11.3%) and were statistically significant.⁸⁵



⁸⁵ Significant at 90%; p=0.052 and p=0.095, respectively.

"What is your college or job training time commitment?"

Slightly more non-rural seniors answered that they would likely be attending college or job training full-time than rural seniors (67.4% to 66.7%), as well as part-time (17.8% to 15.5%). Significantly more rural seniors answered that they would be beginning college or job training and then going onto an LDS mission or service opportunity (11.1% to 7.1%).⁸⁶

| Figure 47: Commitment of Seniors Reporting Attending College or Job Training | | |
|---|-------|-----------|
| | Rural | Non-Rural |
| Full-time | 66.7% | 67.4% |
| Part-time | 15.5% | 17.8% |
| College or job training and then | | |
| mission or service opportunity | 11.1% | 7.1% |
| Undecided | 6.5% | 7.7% |

"Do you plan to work next fall (including while attending college or job training)?"

When asked whether they planned on working the following fall, 84.9% rural students responded that they did, compared to 83.6% non-rural students. Accordingly, slightly more non-rural seniors stated that they would not be working (16.4% to 15.1%). The differences are not significant.

| Figure 48: Seniors Reporting a Plan to Work the Fall Following Senior Year | | |
|---|-------|-----------|
| | Rural | Non-Rural |
| Do not plan to work | 15.1% | 16.4% |
| Plan to work | 84.9% | 83.6% |

"Please describe your work:"

Over half of seniors stated that they were planning on working part-time in the fall of 2012. Just under onefifth stated that they would be working full-time. More rural seniors stated that they would be going on a mission (6.3% to 4.8%). There is no significant difference between rural and non-rural students.

| Figure 49: Work-Commitment of Seniors | | |
|---------------------------------------|-------|-----------|
| | Rural | Non-Rural |
| Not working | 15.1% | 16.4% |
| Full-time | 19.9% | 18.0% |
| Part-time | 52.3% | 51.3% |
| Mission | 6.3% | 4.8% |
| Military | 1.9% | 3.0% |
| Other | 0.6% | 1.6% |
| Undecided | 3.9% | 4.9% |

⁸⁶ Significant at 95% (p=0.015).

The WIRE Study reported that a greater number of students expected to be working full-time in 1998 than in 2012. The rural responses decreased from 24.7% to 19.9%. Non-rural responses decreased from 28.0% to 18.0%. Part-time employment decreased slightly as well. The employment decreases could be partially attributable to the recession of 2007-2009, which has made it especially difficult for young people to find jobs.⁸⁷

| Figure 50: 1998 WIRE Study - Work-Commitment of Seniors | | |
|---|-------|---------|
| | Rural | "Urban" |
| Full-time | 24.7% | 28.0% |
| Part-time | 53.2% | 53.0% |
| Military | 2.0% | 1.8% |
| Other | 3.5% | 3.1% |
| No or undecided | 16.5% | 14.1% |

In 2012, there was a big difference in seniors' time commitment depending upon whether they planned on attending college or job training. Of those students who did not plan on post-secondary education, 36.2% planned on working full-time, 10.9% part-time, and 25% did not plan on working. Of those students who planned on post-secondary education, 15.7% planned on working full-time, 59.2% part-time, and 14.0% did not plan on working. The largest differences between those who did and did not plan on post-secondary education were with full-time work (20.5%) and part-time work (48.3%). Those who did not plan on post-secondary education were more likely to go into the military (6.8% to 1.7%) or on a mission (12.7% to 4.1%).

| Figure 51: Work-Commitment of Seniors Reporting a Plan to Work by Whether or Not Planning to Attend College or Job Training | | | | |
|---|-------------------|---|--|--|
| | Plan to Attend Co | Plan to Attend College or Job Training? | | |
| | No | Yes | | |
| Not working | 25.8% | 14.0% | | |
| Full-time | 36.2% | 15.7% | | |
| Part-time | 10.9% | 59.2% | | |
| Mission | 12.7% | 4.1% | | |
| Military | 6.8% | 1.7% | | |
| Undecided | 5.0% | 4.4% | | |
| Other | 2.7% | 0.9% | | |

"Why did you choose the above work?"

When questioned about the reasons why the senior's chose the type of work they did, the most common 1st response was cost of college (25.6%), followed by job pay (24.9%) and personal interest (21.7%). These were also the most common 2nd responses, though job pay became slightly more important and cost of college became somewhat less important

⁸⁷ Utah Foundation, Recovering from the Great Recession: Are We There Yet?, May 201. http://www.utahfoundation.org/img/pdfs/rr709.pdf



Regarding the first reason (and first and second reasons) students chose the type of work they did, the difference between rural and non-rural students was generally not significantly different. However, the cost of college played a significantly much larger role in rural students' decision (30.1%) than non-rural students (22.2%).⁸⁸



⁸⁸ Significant at 99% (p=0.000).

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"High school prepared me for the workforce"

Approximately two-thirds of all rural and non-rural students agreed high school had prepared them for the workforce. The differences between the rural and non-rural students' individual answers were not significant. However when aggregating the answers, rural students were 23% more likely in general to agree that high school prepared them for the workforce.⁸⁹



The 1998 WIRE study showed slightly different results to a similar question. "Urban" students were more likely to state that high school prepared them very well or more than adequately for a job.

| Figure 55 | 5: 1998 WI | RE Study - H | ligh School | Prepared m | e for a Job |) |
|-----------|------------|-----------------------|-------------|-----------------------|-------------|---------------|
| | Very Well | More than Adequate | Adequate | Less than Adequate | Very Poor | No Opinion |
| Rural | 7.1% | 15.3% | 52.1% | 12.6% | 5.7% | 7.2% |
| "Urban" | 10.5% | 17.6% | 49.2% | 11.2% | 4.3% | 7.3% |

"Do you think that larger, urban high schools or smaller, rural high schools are better at preparing students for the workforce?"

When asked whether larger, urban high schools or smaller, rural high schools are better at preparing students for the workforce, rural students were 34% more likely to agree that rural schools were preferable.⁹⁰ This is mainly due to 40.2% of rural students responding that smaller, rural schools are better, compared to 27.2% of non-rural students responding that larger, urban schools are better.

⁸⁹ Significant at 95% (Ordinal logit model, p=0.037, Pseudo r square = 0.0012).

⁹⁰ Significant at 99% (Ordinal logit model, p=0.002, Pseudo r square = 0.0022).



"What could your school have done to have better prepared you for the workforce?"

When asked what their schools could have done to better prepare them for the workforce, 59% of students chose not to answer this open-ended question, and 2% stated that they "don't know"; this rate was the same for both rural and non-rural students. The remaining 562 responses (316 non-rural and 246 rural) were categorized into 16 broad categories.

The greatest difference between rural and non-rural responses had to do with "more advanced courses," "greater class variety," "more information/advisement," and more "schedule flexibility." In each of the first three categories there was more than twice the percentage of rural responses than non-rural ones, and in the last category - "more schedule flexibility" - there was more than twice the percentage of non-rural responses than rural ones. The second most common response for both non-rural and rural students was that there is nothing that they recommend for improvement (19.6% and 15.0%, respectively).

Of rural students, 17.1% responded that greater class variety would have better prepared them for the workforce, while only 6.6% or non-rural students responded as such. An Emery High School student from rural Emery School District wrote that the school needs more funding "so they could offer more classes," as similarly expressed by many other small schools students.

Of non-rural students, 23.1% responded that more work related/hands-on classes would have better prepared them for the workforce, with 14.6% of rural students responded as such. A student from Park City wrote that the school "could have potentially made more of their projects real life and require [them] to be presented in a professional format." Non-rural and rural students would also have liked more actual work experience and internships (6.0% and 8.5%, respectively).



"High school prepared me for college or job training"

Approximately three-quarters of all rural and non-rural students agreed high school had prepared them for the college or job training (see Figure 58). The differences between rural and non-rural are not significant.

The students answered a similar question for the 1998 survey, as detailed in Figure 59. At that time, 81.7% of rural respondents felt that their education was adequate or better in preparing them for a post-secondary education, compared to 86.8% of "urban" respondents.



| Figure 5 Seconda | 9: 1998 WIR ry Education | E Study - Hi n | igh School P | repared m | e for Post- | |
|---------------------|-----------------------------|-------------------|--------------|-----------|-------------|---------|
| | | More than | | Less than | | No |
| | Very Well | Adequate | Adequate | Adequate | Very Poor | Opinion |
| Rural | 11.7% | 16.5% | 53.5% | 9.0% | 4.0% | 5.4% |
| "Urban" | 18.1% | 23.2% | 45.5% | 5.6% | 2.6% | 4.8% |

"Do you think that larger, urban high schools or smaller, rural high schools are better at preparing students for college or job training?"

When asked whether students think larger, urban or smaller, rural schools better prepare students for college or job training, rural students are slightly skewed toward favoring smaller, rural schools⁹¹, but the opposite is not the case for non-rural students. This is mainly due to 31.6% of rural students responding that smaller, rural schools are better, compared to 29.3% of non-rural students responding that larger, urban schools are better.



"What could your school have done to have better prepared your for college or job training?"

When asked what their schools could have done to have better prepared them for college or job training, 46% of the students did not answer this open-ended question and 3% stated that the "don't know" (similar for both rural and non-rural students). The remaining 736 responses (403 non-rural and 333 rural) were categorized into 16 broad categories. The most common response for both non-rural and rural students was that there is nothing that they recommend for improvement (22.6% and 21.9%, respectively).

The greatest differences between rural and non-rural responses had to do with "more advanced courses," "greater class variety," "more advisement," and "harder coursework/stricter" and "more work related/hands-on classes." In each of the first two categories there were more than twice the percentage of rural responses than non-rural ones, and in each of the last two categories there were nearly twice the percentage of non-rural responses than rural ones.

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⁹¹ Statistically significant at 90% (p=0.053; Plum Ordinal Regression model).

As shown in Figure 61, 18.0% of rural students responded that greater class variety would have better prepared them for college or job training, while only 7.7% of non-rural students responded as such. A student from rural Duchesne High School wrote that the school should "offer more classes on different subjects. However, as we are a very small school, that's not very likely."

Similarly, 8.7% of rural students responded that more advanced courses would have better prepared them for college or job training, while 1.7% of non-rural students responded as such. A senior at Escalante High School in rural Garfield School District wrote that the school should "offer Advanced Placement classes." This is echoed by students in many small schools, and even a few of the larger ones.

Of non-rural students, 14.9% responded that more work related/hands-on classes would have better prepared them for the workforce, compared to 8.4% of rural students. A Park City High School senior wrote that "I think that offering more job related classes would be helpful... teaching us about how to succeed in the work place would be good, or how to present [ourselves] at interviews."



"Indicate the number of credits that you will have completed between grades 9-12"

When asked about number of credits students took during their last four years of secondary school, non-rural students indicated that they completed more credits on average than did rural students in foreign language, history, science, fine art and P.E./health. English and math completion was the same. The only differences greater than 0.1 credit were foreign language, fine art and P.E./health completion, all of which differences were statistically significant.⁹² Non-rural students indicated having completed 2.2 credits of foreign language while rural students indicated 1.1, for a 100% difference. In fine art, non-rural students indicated having completed 3.4 credits compared to 3.1 by rural students, and in P.E. health the difference was 3.2 to 3.0, respectively. The smaller differences in history and science were also significant.⁹³

⁹² Significant at 99% (p=0.000, 0.000 and 0.003, respectively)

⁹³ Significant at 95% (p=0.040) and 99% (p=0.009)

Foreign language and fine arts courses were the only credits that more than one percent of students reported having not taken. In foreign language, 43.7% of rural students reported having not taken credits, compared to 15.7% of non-rural students. In fine art, 2.6% of rural student reported having not taken credits, compared to 0.6% of non-rural students.

The 1998 WIRE survey asked a similar question and had similar findings, showing that "urban" students took more credits on average in all categories except for History.

| Figure 62: Average Number of Credits Completed Between Grades 9 and 12 | | | | |
|---|---------------|-------|--|--|
| | Non- Rural | Rural | | |
| English / Language Arts | 4.1 | 4.1 | | |
| Foreign Language* | 2.2 | 1.1 | | |
| History* | 3.4 | 3.3 | | |
| Math | 3.8 | 3.7 | | |
| Science** | 3.7 | 3.6 | | |
| Fine Art* | 3.4 | 3.1 | | |
| PE and Health* | 3.2 | 3.0 | | |
| * Significant at 99% ** Significant at 95% | | | | |

Figure 63: 1998 WIRE Study - Average Number of Credits Completed Between Grades 9 and 12

| | "Urban" | Rural |
|-------------------------|---------|-------|
| English / Language Arts | 3.86 | 3.76 |
| Foreign Language | 1.72 | 1.26 |
| History | 2.95 | 3.05 |
| Math | 3.16 | 3.11 |
| Science | 2.78 | 2.73 |
| Fine Art | 1.66 | 1.53 |
| Music | 1.23 | 1.13 |
| PE and Health | 2.51 | 2.44 |

"Please check the classes that you will have completed between grades 7-12."

The students were asked to indicate which math, science, foreign language and Advanced Placement classes they had taken from the following list:

| Algebra 1 | Physics |
|------------------|------------------|
| Algebra 2 | Other Science |
| Advanced Algebra | Computer Courses |
| Geometry | Spanish 1 |
| Trigonometry | Spanish 2 |
| Pre-Calculus | German 1 |
| Calculus | German 2 |
| Applied Math 1 | French 1 |
| Applied Math 2 | French 2 |
| Biology | Chinese 1 |
| Chemistry | Chinese 2 |
| | |

Other Foreign Language AP History AP English Lit. and Comp. AP English Lang. and Comp. AP Math AP Science AP Foreign Language AP Art & Music AP Computer Science

On average, non-rural students had taken 10 of the classes listed, compared to 8.6 for rural students, which is significant.⁹⁴ The primary difference in the average number of classes between rural and non-rural students lay in foreign language and AP courses, as detailed below.

| Figure 64: Average Number of Math, Science, Foreign Language and AP Classes per Student (7-12 grade) | | |
|--|------------------------------|--|
| Non-Rural | 10.0 | |
| Rural | 8.6 | |
| Difference significant at 99% | % (see footnote 94). | |

More non-rural students took Algebra I and Calculus than did rural students (95.6% to 93.6%, and 15.7% to 12.2%, respectively) (nearly significant).⁹⁵ A greater number of non-rural students took Geometry, Trigonometry, and Pre-Calculus, but the differences were not statistically significant. Rural students took a significantly greater number of Applied Math 1 and 2 classes than did non-rural students (10.3% to 5.8%, and 7.2% to 4.3%, respectively).⁹⁶ According to the 1998 WIRE study, "urban" students took more Algebra 2, Advanced Algebra, Geometry, Trigonometry, and Applied Math 2 classes, while rural students at the time took more Algebra I and Applied Math I courses (see Figure 66).

| Figure 65: Percentage of Seniors Having Taken Math Classes, Rural and Non-Rural (grades 7-12 | | | |
|---|-----------------------|-------|--|
| | Non-Rural | Rural | |
| Algebra I* | 95.6% | 93.6% | |
| Algebra II | 86.6% | 83.8% | |
| Advanced Algebra | 30.5% | 20.2% | |
| Geometry | 93.6% | 92.9% | |
| Trigonometry | 26.0% | 22.3% | |
| Pre-Calculus | 34.8% | 34.0% | |
| Calculus* | 15.7% | 12.2% | |
| Applied Math 1* | 5.8% | 10.3% | |
| Applied Math II* | 4.3% | 7.2% | |
| * Significant differences (see f | footnotes 95 and 96). | | |

| Figure 66 | 5: 1998 WI | RE Study – | Course Co | mpletion | | | |
|-----------|------------|------------|---------------------|----------|--------------|-------------------|-------------------|
| | Algebra I | Algebra 2 | Advanced Algebra | Geometry | Trigonometry | Applied Math I | Applied Math 2 |
| Rural | 87.4% | 69.6% | 32.7% | 72.5% | 32.2% | 17.6% | 8.2% |
| "Urban" | 56.9% | 75.1% | 41.5% | 79.3% | 43.1% | 13.1% | 8.4% |

Slightly more rural students indicated that they had taken Biology, about the same in Physics and other science classes, and a statistically greater number took computer courses (68.5% to 62.3%).⁹⁷ A significantly greater number of non-rural students took Chemistry (59.8% to 52.6%).⁹⁸ The 1998 WIRE study found that "urban" students took more Biology, Chemistry and Physics than rural students, but that rural students took more computer classes (see Figure 68).

⁹⁴ Significant at 99% (p=0.000).

⁹⁵ Significant at 90% (p=0.097 and p=0.062, respectively).

⁹⁶ Significant at 99% (p=0.002) and 95% (p=0.017), respectively.

⁹⁷ Significant at 95% (p=0.014).

⁹⁸ Significant at 99% (p=0.007).

| Figure 67: Percentage of Seniors Having Taken Science Classes, Rural and Non-Rural (grades 7-12) | | | | |
|---|-----------|-------|--|--|
| | Non-Rural | Rural | | |
| Biology | 91.4% | 92.3% | | |
| Chemistry* | 59.8% | 52.6% | | |
| Physics | 36.9% | 36.6% | | |
| Other science | 60.3% | 59.1% | | |
| Computer courses* | 62.3% | 68.5% | | |

| Figure 68: 1998 WIRE Study – Course Completion | | | | npletion |
|--|---------|-----------|---------|---------------------|
| | Biology | Chemistry | Physics | Computer courses |
| Rural | 86.3% | 41.9% | 25.0% | 76.3% |
| "Urban" | 89.2% | 52.7% | 33.7% | 66.0% |

Non-rural students took each of the listed foreign language courses at a higher rate than rural students. Nonetheless, almost 44% of rural students took Spanish I (compared to 57% of non-rural students), but less than 1% took Chinese I (compared to 4% of non-rural students). A rural student commented that "we only have one [foreign] language offered at our school, Spanish. It's a very helpful skill to have but I don't understand how we can only have that and the big schools have four or five languages."

| Figure 69: Percentage of Seniors Having Taken Foreign Language Classes, Rural and Non-Rura (grades 7-12) | | | |
|--|---------------------------|--------------|--|
| | Non-Rural | Rural | |
| Spanish I | 57.3% | 43.7% | |
| Spanish II | 45.7% | 22.3% | |
| German I | 6.7% | 3.5% | |
| German II | 4.6% | 1.1% | |
| French I | 16.8% | 5.8% | |
| French II | 12.2% | 2.9% | |
| Chinese I | 4.2% | 0.3% | |
| Chinese II | 3.7% | 0.3% | |
| All difference significant at 99% | (all p=0.000 except Germa | n I p=0.009) | |

More non-rural students took each of the AP courses except for computer science.⁹⁹ In the aggregate, 19% of non-rural students took one AP courses compared to 14% of rural students. The gap narrowed to a 1% difference between non-rural and rural students having taking two, three and four AP courses, but then widened again for student haven taken five courses.

The 1998 WIRE showed that a far higher percentage of rural students took AP English than non-rural students, and slightly higher percentage took AP computer classes. However, a higher percentage of non-rural students took AP history, math, science, and art & music classes than rural students (see Figure 72).

⁹⁹ All significant except AP Physics, AP English Literature and AP computer science.

| | Non-Rural | Rural |
|-----------------------------|-----------|-------|
| AP History | 24.4% | 22.0% |
| AP English Lit. and Comp | 27.2% | 26.2% |
| AP English Lang. and Comp.* | 29.6% | 9.6% |
| AP Math* | 18.4% | 11.1% |
| AP Science* | 18.1% | 13.0% |
| AP Foreign Language* | 7.0% | 0.8% |
| AP Art & Music** | 9.5% | 6.6% |
| AP Computer Science | 1.6% | 1.9% |



| Figure 72: 1998 WIRE Study – Advanced Placement (AP) Course Completion | | | | | | | |
|--|---------|---------|-------|---------|---------------------|----------------|-----------|
| | History | English | Math | Science | Foreign Language | Art & Music | Computers |
| Rural | 24.9% | 36.4% | 17.0% | 16.4% | 8.4% | 14.1% | 5.5% |
| "Urban" | 27.7% | 28.3% | 19.7% | 18.4% | 8.4% | 16.1% | 3.8% |

"Do you think that larger, urban high schools or smaller, rural high schools are better at providing students with more extra-curricular opportunities (like sports, theater, etc.)?"

When questioned whether "larger, urban high schools" or "smaller, rural high schools" are better at providing students with more extra-curricular opportunities, both non-rural and rural students were more likely to answer that "larger, urban high schools" provide students with more extra-curricular opportunities (47% to 43%, respectively), though 35% of rural students and 20% non-rural students indicated that "smaller, rural schools" do a better job.¹⁰⁰

¹⁰⁰ Statistically significant at 99% (p=0.000; PLUM Ordinal Regression model).



"Indicate the number of CTE or vocational credits that you will have completed between grades 7-12."

The students were then asked to indicate the number of CTE or vocational credits that they would have completed between grades 7 and 12. The question was separated out into the nine CTE categories. On average non-rural students took more of all of the CTE categories except Agricultural classes and Skilled and Technical Sciences classes, as shown in Figure 74. Non-rural students took more CTE courses in general than rural students (6.1 and 5.4, respectively).¹⁰¹

A constraint of the data is that students were given a choice to pick "more than 2" for the number of their CTE courses in each category. Subsequent analysis has shown that in some schools, particularly smaller schools with CTE courses concentrated into only a couple of the nine categories, students often take as many as four or five credits in one category.

The WIRE study showed that rural students in 1998 took more CTE courses on average than their "urban" counterparts.

| Figure 74: Average Number of CTE Credits Completed (grades 7-12) | | | |
|---|-----------|-------|--|
| | Non-Rural | Rural | |
| Agricultural | 0.6 | 0.6 | |
| Business | 0.8 | 0.7 | |
| Family and Consumer Sciences | 0.9 | 0.9 | |
| Health Science | 1.0 | 1.0 | |
| Information Technology | 0.7 | 0.6 | |
| Marketing | 0.4 | 0.3 | |
| Skilled and Technical Sciences | 0.6 | 0.7 | |
| Technology and Engineering | 0.6 | 0.4 | |
| Economics and | | | |
| Entrepreneurship | 0.5 | 0.3 | |
| Aggregate 6.1 5.5 | | | |
| Aggregate difference significant at 95% (p=0.011) | | | |

¹⁰¹ Significant at nearly 99%; Mann Whitney Test.

| Figure 75: 1998 WIRE Study - Average Number of Credits Completed Between (grades 7-12) | | | |
|---|---------|-------|--|
| | "Urban" | Rural | |
| Agricultural | 0.3 | 0.6 | |
| Business | 1.1 | 1.2 | |
| Home Economics | 1.0 | 1.0 | |
| Health Occupations | 1.0 | 1.0 | |
| Industrial Arts 0.8 | | | |
| Marketing 0.3 0. | | | |
| Coop Work Experience | 0.6 | 0.6 | |

"Will you have verified your skill attainment in a CTE Pathway by the end of your senior year?"

The students answered whether they would have verified a skill attainment in a CTE Pathway by the end of their senior year. A "pathway" is designed to provide a roadmap for students to allow them to acquire a depth of knowledge in one of their interests which will hopefully link with the post-secondary education of their choosing. Once a student completes the roadmap in an area of interest, they are said to have verified or completed their skill attainment. Non-rural students were more likely than rural students to have indicated that they would have verified their skill attainment by the end of their senior year (61.8% to 55.2%, respectively).¹⁰²

| Figure 76: Verification of Skill Attainment in a CTE Pathway | | | |
|---|-------|-------|--|
| | Non- | | |
| Rural Rural | | | |
| Yes | 61.8% | 55.2% | |
| No | 38.2% | 44.8% | |

"Indicate the number of online credits you will have completed between grades 7-12."

When asked how many online credits they would have completed between grades 7-12, non-rural and rural students were similar for all types of courses and the total number of courses.

| Figure 77: Average Number of Online Credits Completed Between (grades 7-12) | | |
|--|---------------|-------|
| | Non- Rural | Rural |
| Statewide Public Education | 0.2 | 0.2 |
| Utah Electronic High School | 0.4 | 0.4 |
| Other | 0.3 | 0.3 |
| Aggregate | 0.9 | 0.9 |

¹⁰² Statistically significant at 95% (Pearson chi-square test).

"Indicate the number of concurrent enrollment courses you will have completed by the end of your senior year."

On average, rural students took more concurrent enrollment (CE) courses than non-rural students.¹⁰³ This contrast was particularly stark for English 1010 and Biology 1010, of which rural students averaged twice the number of credits of their non-rural counterparts.

| Figure 78: Average Number of CE Credits Completed Between (grades 7-12) | | | |
|---|-------|-------|--|
| | Non- | | |
| | Rural | Rural | |
| English 1010 | 0.3 | 0.6 | |
| Spanish 1010 | 0.1 | 0.1 | |
| Art 1010 | 0.2 | 0.2 | |
| Math 1010 | 0.3 | 0.3 | |
| Math 1050 | 0.2 | 0.3 | |
| Math 1060 | 0.2 | 0.2 | |
| Chemistry 1110 | 0.1 | 0.1 | |
| Biology 1010 | 0.2 | 0.3 | |
| Psychology 1010 | 0.1 | 0.2 | |
| Sociology 1010 | 0.1 | 0.1 | |
| Other | 0.3 | 0.6 | |
| Aggregate 2.0 2.9 | | | |
| Aggregate difference significant at 99% (p=0.000) | | | |

"Please list any other concurrent enrollment courses you took"

Seniors indicate having taken a wide range of additional CE courses. The most common were as follows: Biology 1015, Biology 1020, Chemistry 1010, Communications 1010, Communications 1050, Education 1010, English 2010, Geology 1010, History 1010, History 1700, History 2700, Nutrition 1020, Physical Science 1000, and Physics 1010.

"Will you have completed your associate's degree by the end of your senior year?"

A small percentage of students answered that they would be completing their associate's degree by the time they graduated from high school. The difference between non-rural students (7.0%) and rural students (5.9%) was not statistically significant.

| Figure 79: Rate of Completion of Associates Degree by End of Senior Year | | | |
|---|-------|-------|--|
| Non-Rural Rural | | | |
| Yes 7.0% 5.9% | | | |
| No | 93.0% | 94.1% | |

¹⁰³ Significant at 99% (Mann Whitney Test).

"Rate the overall quality of the high school courses that you have taken."

When asked to rate the overall quality of their high school courses, rural and non-rural students answered similarly. On a scale of 0 to 4 (see Figure 80), the average of each individual response in the aggregate for non-rural and rural students is "good" (2.15 and 2.14, respectively – not a statistically significant difference).

Non-rural students rated their fine art, P.E./health, electives and CTE courses significantly higher than rural students. Rural students rated their English and CE courses significantly higher than non-rural students. The greatest difference between any classes was with CE courses, but it was still only 0.27 of a point on the 0-3 point scale; the next greatest difference "electives" with a 0.17 difference.

For all of the types of courses listed in the WIRE study, "urban" students in 1998 answered that were happier with their classes than rural students did, except "other courses" which were preferred by rural students.

| Figure 80: Coding of High School Course Quality Answers | | |
|--|-------|--|
| Rating | Score | |
| Poor | 0 | |
| Fair | | |
| Good | 2 | |
| Excellent | 3 | |

| Figure 81: Average High School Course Quality Statistics, by Type of Class | | | | | | |
|--|-----------|-------|--|---------------------------|------------|--|
| | | | | Stati | Statistics | |
| | Non-Rural | Rural | Difference (non-rural minus rural) | Significant Difference | P-value | |
| English | 2.3 | 2.4 | -0.1 | Yes | 0.009 | |
| Foreign Language | 1.9 | 1.8 | 0.1 | No | 0.216 | |
| History | 2.2 | 2.2 | 0.0 | No | 0.109 | |
| Math | 1.9 | 1.9 | 0.0 | No | 0.467 | |
| Science | 2.3 | 2.2 | 0.1 | No | 0.148 | |
| Fine Art | 2.3 | 2.1 | 0.2 | Yes | 0.002 | |
| P.E. & Health | 2.2 | 2.1 | 0.1 | Yes | 0.017 | |
| AP | 2.4 | 2.3 | 0.1 | No | 0.299 | |
| Electives | 2.5 | 2.3 | 0.2 | Yes | 0.000 | |
| CTE | 2.2 | 2.1 | 0.1 | Yes | 0.017 | |
| Online | 1.7 | 1.8 | -0.1 | No | 0.077 | |
| Concurrent Enrollment | 2.1 | 2.3 | -0.2 | Yes | 0.000 | |
| Other | 2.2 | 2.2 | 0.0 | No | 0.802 | |

| Figure 82: 1998 WIRE Study - High School Course Quality Level, by Type of Class | | |
|--|---------|-------|
| | "Urban" | Rural |
| English | 2.0 | 1.9 |
| Foreign Language | 1.5 | 1.5 |
| Math | 1.8 | 1.7 |
| Science | 1.8 | 1.8 |
| Arts | 2.0 | 1.8 |
| P.E. | 1.9 | 1.8 |
| Applied Technical | 1.8 | 1.7 |
| Sociology | 1.9 | 1.8 |
| Other Courses | 1.8 | 2.0 |

"Do you think that larger, urban high schools or smaller, rural high schools are better at providing students with higher quality courses?"

When questioned whether "larger, urban high schools" or "smaller, rural high schools" are better at providing students with higher quality courses, non-rural students were more likely to answer "same" while rural students are more likely to answer "larger, urban high schools." Only 19% of each rural and non-rural chose smaller, rural schools.



"Which of the following would best describe your high school education?"

When asked to describe their high school education, students most often responded "general" (46.4%), followed by "college preparatory" (35.9%), "personal interest" (12.5%), and "job preparatory" (5.2%). The differences between non-rural and rural in answering "general" (43.5% and 50.1%, respectively) and "personal interest" (14.7% and 9.6%, respectively) were statistically significant.¹⁰⁴

The WIRE survey had a similar question in 1998, and the responses were similar to the 2012 responses.



 $^{^{104}}$ Significant at 99% and 95% (Pearson chi-square test).

| Figure 85: 1998 WIRE Study - Description of High School Education | | | | |
|--|---------|---------|----------------------|--|
| | General | College | Applied Technical | |
| Rural | 59.4% | 31.9% | 8.6% | |
| "Urban" | 52.1% | 39.9% | 8.0% | |

"On average, how many hours have you worked per week while you have been in high school?"

Regarding how much students worked while in high school, the most common answer was 0-5 hours per week (32.4%), incrementally decreasing in number to those working over 40 hours per week (4.8%). The differences between non-rural and rural were not statistically significant.



Principal Survey

Overview

Utah Foundation's principal survey was developed based on several factors: the 1998 WIRE study's survey of rural principals, a literature review, and discussions with URSA regarding key concepts. The staff of Utah Foundation also visited 16 schools in nine districts, meeting with principals and superintendents to refine questions and develop new ones. The online survey was administered in June of 2012.

Survey Responses

Of the 116 high schools and 13 K-12 schools in Utah, 53 principals responded to the principal survey (from 30 districts), for a 38.8% response rate (the 1998 WIRE survey received responses from 34 of 46 rural high school principals surveyed, or 74%).¹⁰⁵ Due to small sample sizes in each of the locale categories, Utah Foundation made the determination to evaluate the surveys using rural and non-rural categories instead of the four locale codes. Of the responses, 35.8% were from rural schools and 64.2% were from non-rural schools. Of the total responses, 14 were from NESS schools, accounting for 41% of NESS schools in the state. There was one response from a NESS school that has a non-rural locale assignment: Grand High School in Moab. (A table of responses from schools by district is attached as Appendix C).

| Figure 87: 2012 High School Principal Survey Responses | | |
|---|-------------------------------|--------------------------------|
| | Number of School Responses | Percent of School Responses |
| City | 7 | 47% |
| Suburb | 14 | 40% |
| Town | 13 | 62% |
| Rural | 19 | 45% |
| Total | 53 | |

| Figure 88: 2012 High School Principal Survey Responses | | | | |
|--|--|-------------------------------|----------------|------------------------------|
| | Survey Responses / Number of Schools | Percent of Total Responses | NESS Responses | Percent of NESS Responses |
| Rural | 19 | 36% | 13 | 93% |
| Non-Rural | 34 | 64% | I | 7% |
| Total | 53 | | 14 | |

Figure 89: 2012 High School Principal Responses by School Type

| | Rural | Non-Rural |
|----------|-------|-----------|
| NESS | 13 | |
| Non-NESS | 6 | 33 |

¹⁰⁵ Utah Foundation received 66 responses from 60 schools. Four schools had more than one response. Utah Foundation determined that the duplication was from vice-principals taking the survey. Accordingly, for the final analysis, vice-principals' responses were eliminated. Also, there was one junior high school principal who took the survey, one principal from a new school opening in the 2012-2013 school year, and five alternative high school principals. Utah Foundation determined that these surveys should not be included.

Survey Questions

The Utah Foundation principal survey covered such topics as course offering, funding constraints, school locations and building specifics. A comparison to applicable 1998 WIRE responses is included after the description and analysis of each related survey question. However, the questions and survey methodology are dissimilar which precludes a full longitudinal analysis (the original questionnaires and a detailed methodology of the WIRE study are not available). Furthermore, the WIRE evaluation did not compare rural schools to non-rural schools, but instead sought and analyzed only rural responses, defined as those schools located in districts that are not along the Wasatch Front.

Except as otherwise indicated, any differences or similarities between rural and non-rural high school principals' responses are nearly the same as the differences or similarities between NESS and non-NESS principals' responses. Accordingly, the NESS and non-NESS principals' responses are generally not duplicated herein.

"Please indicate the distance to each of the following locations."

The Utah Foundation survey made the determination to find how far schools are from certain consumer and educational services. The options for choosing distances in miles were 0-10, 11-50, 51-100, 101-250, 251 or more, and N/A. For the statistical analysis and for graphical representation as shown in Figure 90, the categories were defined in miles as 5, 30, 75,175, and 325.

As expected, rural distances were longer than non-rural ones. The differences between the means of all of the locations are statistically significant at the 99% level except for "Nearest Medical Clinic" and "Nearest 2-Year College".



The WIRE study showed that its high schools are on average 85 miles from a "city," though did not give an indication of how large of a city.

| Figure 91: 1998 WIRE Study – Average Distance from Services | | |
|--|-------|--|
| Service | Miles | |
| City | 85 | |
| 4-Year College/University | 100 | |
| Community College | 63 | |
| Area Technology Center | 86 | |
| Regional Service Center | 85 | |
| District office | 42 | |

"When was your school built?"

When asked how long ago their schools were built, rural principals indicated that, on average, their schools were 32 years old.¹⁰⁶ This is relatively newer than non-rural schools which on average were 49 years old.¹⁰⁷ The difference between NESS and non-NESS schools is about nine years (36 and 45, respectively), but the difference is not significant.

"When were your building's most recent substantial renovation and most recent permanent building addition/expansion, if any?"

Rural principals indicated that their most recent school renovations were 7.6 year previous, compared to 7.9 years for non-rural principals. The average of rural principals' most recent permanent expansions was 10.8 years previous, compared to 8.5 years for non-rural principals.¹⁰⁸ These rural and non-rural differences were not statistically significant. The NESS and non-NESS schools are nearly the same as the rural and non-rural numbers and are also not statistically significant.



"Please describe any current major maintenance issues (including major infrastructure repairs like heating, air conditioning, roofing, etc.)."

Utah Foundation received 16 comments from principals regarding their need for major building repairs (13 from non-rural and 3 from rural). Air conditioning was the most common. Nine schools commented on the need for new air conditioning systems or an AC overhaul, eight of which were non-rural and one was rural.

Four principals commented on the need for roofing. ("When it rains or snow melts we have to get huge garbage cans out in the halls to deal with the leaks in the roof.") Three were non-rural and one was rural. However, the three non-rural responses were NCES designated "town" schools all located in rural districts, one of which is a NESS school.

¹⁰⁶ The options principals had for choosing when the school was built were 0-5, between 5-15, 15-30, between 30-50, 50-75, and greater than 75. For the statistical analysis, the categories were defined as 2.5 years, 10 years, 22.5 years, 40 years, 62.5 years, and 100 years.

 $^{^{107}}$ This difference is statistically significant at the 95% (p=0.029).

¹⁰⁸ The options principals had for choosing when the school's most recent renovation and expansion were 0-5, between 5-10, 10-15, between 15-25, 25 and greater, and not applicable. For the statistical analysis, the categories were defined as 2.5 years, 7.5 years, 12.5 years, 20 years, and 40 years.

One rural/NESS principal, after naming the myriad issues with that principal's building, stated that they "really need a new school... no joke." The other two NESS schools that commented (both of which are considered non-rural "town" schools) both had roofing and AC issues.

"Please indicate which of the following are designated rooms in your school."

The principals were also asked which designated rooms they had in their schools, specifically a wood shop, auto shop, family and consumer science room, metal working shop, agriculture room, business room, designated computer lab, portable computer lab, health and science lab, gymnasium, auditorium, and theater. All schools, rural and non-rural, had gymnasiums. Non-rural schools were more like to have all of the other designated rooms except agriculture rooms and metal working shops. The differences between rural and non-rural schools with family and consumer science rooms, portable computer labs, auditoriums, and designated computer labs are statistically significant.¹⁰⁹

All NESS and non-NESS schools had gymnasiums. Non-rural schools were more like to have all of the other designated rooms except agriculture rooms and metal working shops. The differences between NESS and non-NESS schools with designated computer labs, auditoriums, and theaters are statistically significant.¹¹⁰



¹⁰⁹ The first three significant at 90% (p=0.059, p=0.090, and p=0.059, respectively) and that last one at 99% (p=0.005).

¹¹⁰ The first two are statistically significant at 95% (p=0.024 and p=0.017, respectively), and the last one at 99% (p=0.006).



"Does your building restrict educational opportunity in some way?"

The principals were asked if their school buildings restricted educational opportunity. More rural principals (26%) responded that their buildings do restrict educational opportunity than did non-rural principals (9%). This contrast was even greater between NESS (29%) and non-NESS (10%).¹¹¹

The 1998 WIRE rural principal questionnaire posed a similar question. Of the WIRE rural respondents, 24% stated that their available facilities did restrict education opportunities, mainly in terms of adequate number of special function places (like vocational, computer and science labs), and their older electrical systems that restricted the use of computers.



"Please complete the curricular offerings information for your school."

The principals were then asked to indicate which classes their schools offered to students. The principals were given five options for each course regarding how often (and how) the classes were offered: "each semester," "each year," "every other year," "only through Ed Net," and "not offered." Ed Net is a common way of

¹¹¹ Rural/non-rural significant at 90% (p=0.091). NESS/non-NESS nearly significant at 90% (p=0.104).

describing the Utah Education Network's Interactive Video Conferencing system, where the "distance learning" courses are taught live by instructors at other locations (read more about UEN under the Distance Education subsection on page 101).

A vast majority of rural and non-rural schools offered Algebra 1, Geometry and Algebra 2 each semester or once per year. The big difference between math offerings occurs with Calculus. More non-rural schools offered Pre-Calculus and Calculus than did rural schools (100% to 84.2% and 94.3% to 68.4%, respectively).¹¹² Many rural schools were able to provide Pre-Calculus and Calculus classes by offering them every other year (5.3% for each class) or through Ed Net (10.5% for each class). Between five and ten percent of rural schools use Ed Net to offer Pre-Calculus, Calculus, and Applied Math 1 and 2.

The WIRE study posed a similar question for rural principals in 1998. At the time, rural schools offered college Algebra at a lower rate that Algebra 1 and 2 in 2012, but the rate at which they offered Calculus was about the same (65.6%). Their responses are included in Figure 97.



| Figure 97: 1998 WIRE Study – Course Offerings | | |
|---|----------------------------|--|
| Subject | Offered | |
| College Algebra | 84.4% | |
| Trigonometry | 80.0% | |
| Calculus | 65.6% | |
| *Calculation of those who answer principals did not answer. | ed yes or no, about 10% of | |

Additionally, the WIRE study queried about any problems the principals had in Physics, Chemistry, keyboarding, business classes, college Algebra, Trigonometry, Calculus, advanced English, advanced sciences, two years of Spanish, two years of German, other languages offered, AP English, AP social studies / history, AP math, and AP Science. They primarily responded that there were no teachers available, there were too few students, and the courses were offered only every other year.

¹¹² Statistically significant at 95% (p=0.014 and 0.013, respectively).

A vast majority of rural and non-rural schools offered Biology and computer courses each semester or once per year. Far more rural schools offered Earth Systems as a science credit than did non-rural schools (89.5% to 41.2%, respectively). More non-rural schools offered Chemistry and Physics than did rural schools (100% to 94.7% and 97.1% to 78.9%, respectively).¹¹³ Chemistry was offered through Ed Net or once per year by 21.1% of rural schools, and Physics by 15.8% of schools.

The WIRE study posed a similar question for rural principals in 1998. Physics was offered more often than it is now (90.6% to 78.9%), but Chemistry was offered less often than now (87.5% to 94.7%). Their responses are included in Figure 99.



| Figure 99: 1998 WIRE Study – Course Offerings | | |
|---|-------------------------|--|
| Subject | Offered | |
| Physics | 90.6% | |
| Chemistry | 87.5% | |
| Advanced Sciences | 61.3% | |
| *Calculation of those who answered y principals did not answer. | yes or no, about 10% of | |

Most schools offered Spanish I and II, though for rural schools about one fifth of their offering was by Ed Net. The differences between non-rural and rural schools for other foreign languages were much starker. German I was offered by 58.8% of non-rural schools compared to 15.8% of rural schools. The difference for German II was wider at 61.8% to 10.5%. French I was offered by 67.6% of non-rural schools and only 26.3% of rural schools, For French II this difference was 70.6% to 26.3%. Ten times more non- rural schools offered Chinese I & II than rural schools (55.9% to 5.3% and 52.9% to 5.3%, respectively). However, slightly more rural schools offer "other languages" than non-rural schools.¹¹⁴

¹¹³ Statistically significant difference for Earth Systems (99%, p=0.005) Chemistry (95% p=0.032) and Physics (95% p=0.019)

¹¹⁴ All language differences are statistically significant accept "other languages"; Span. I 95% (p=0.060); Span. II 99% (p=0.010), Ger. I&II 99% (p=0.009 and 0.001), Fren. I 95% (p=0.015), Fren. II 99% (0.008), Chin. I&II 99% (p=0.001 and 0.002).

The WIRE study posed a similar question for rural principals in 1998. Spanish was offered less often in 1998, but about 15% of the offering in 2012 was via Ed Net. There is little difference between the surveys in German offerings. Their responses are included in Figure 101.



| Figure 101: 1998 WIRE Study – Course Offerings | | |
|---|------------------------|--|
| Subject | Offered | |
| Two years of Spanish | 83.3% | |
| Two years of German | 12.5% | |
| Other languages offered | 44.8% | |
| *Calculation of those who answered yo principals did not answer. | es or no, about 10% of | |

Far more non-rural schools offer Advanced Placement classes than do rural schools. Over 90% of non-rural schools offered AP social studies, English, math and science classes, compared to 31.6%, 42.1%, 52.6%, and 36.8% for each of these AP classes in rural schools. The largest percentage difference between rural and non-rural school offering AP classes was in social studies (59.6%), art or music classes (58.3%), and science (57.3%). The smallest differences were between AP computer (41.2%) and math (41.5%).¹¹⁵

The WIRE study posed a similar question for rural principals in 1998. The rate of AP social studies offerings was about the same between the surveys, AP English is slightly lower today than it was in 1998, and AP math and science offerings are higher today. Their responses are included in Figure 103.

¹¹⁵ All AP differences are statistically significant at 99% (with p values near 0.000).



| Figure 103: 1998 WIRE Study – Course Offerings | | |
|---|---------|--|
| Subject | Offered | |
| AP English | 48.3% | |
| AP Social Studies / History | 33.3% | |
| AP Math | 25.0% | |
| AP Science | 24.1% | |
| *Calculation of those who answered yes or no, about 10% of principals did not answer. | | |

"Please complete the CTE area of study offerings information for your school."

The principals were asked to indicate which Career and Technical Education (CTE) categories of courses they offered to their students. More rural schools offered agriculture CTE classes than did non-rural schools (89.5% to 76.5%). Most schools also offered business, family and consumer studies, health, information technology, and skilled and technical classes, with the greatest rural/non-rural difference in these CTE categories of less than 20% (health science). However, far more non-rural schools offered marketing, technical engineering, and economics and entrepreneurship classes than did rural ones (49.1%, 40.3% and 53.7%, respectively).


"Please complete the concurrent enrollment offerings information for your school."

Regarding concurrent enrollment offerings, rural schools only surpassed non-rural schools in one instance from classes offered every semester (Chemistry 1110), they did better with classes offered once per year (including art 1010, math 1010 and Biology 1010), and surpassed non-rural schools in every class when taking Ed Net into consideration (including English 1010, Spanish 1010, Math 1050 and 1060, and psychology 1010).

Rural school principals indicate having utilized exclusively Ed Net far more for concurrent enrollment than for any other type of classes (read more about Ed Net/UEN under the Distance Education subsection on page 101). Non-rural principals did not indicate having used Ed Net exclusively for any of their course offerings.



In 1998, most rural schools offered concurrent enrollment courses. The WIRE study found that the "biggest problem in offering additional concurrent enrollment courses for the rural high school students is the lack of

teachers with masters' degrees to teach them."¹¹⁶ The few that did not offer CE courses indicated that they had no Ed Net facilities or the scheduling was poor and did not jibe with their schedules.

"How is concurrent enrollment delivered to your students?"

All of the principals reported that concurrent enrollment courses are delivered in at least one of the three ways presented in the survey: in-school by a teacher, in-school via interactive conferencing, and/or at local college campuses. The differences between types of concurrent enrollment in non-rural and rural was striking; 55.0% more non-rural principals indicated having offered classes in-school by a teacher and 48.9% more rural principals indicated having offered classes via interactive conferencing, both of which differences were statistically significant.¹¹⁷ The small difference of students taking CE courses at local college campuses was not statistically significant.



"Please list three courses you would offer if you were able (list your top choice first)"

In an open-ended question in which principals were asked to provide a wish-list of courses, eight non-rural schools responded, commenting mainly that they would add continuing education and AP courses, with one principal desiring "another language" and another principal wanting "more Chinese classes." Seven rural school principals commented. They were also interested in continuing education and AP courses, but two principals would like Spanish, two would like Chemistry, and there was a desire for Physics, Biology, Calculus, and "any music" classes.

¹¹⁶ WIRE study, page 23.

¹¹⁷ Significant at 99% (Pearson chi-square: p=0.000 and p=0.001, respectively).

"Does busing students to and from school affect students' extra-curricular participation?"

When asked if busing students to and from school affects extra-curricular participation, 57.9% of rural principals felt that busing students to and from school affect students' extra-curricular participation, compared to just 20.6% of non-rural principals.¹¹⁸



Two non-rural principals similarly expressed that "Some can't stay because they depend on the bus. Usually students can find a ride with other students if needed." One responded that "Students residing two or more miles from school with limited incomes often have no transportation available past 2:25 pm allowing them access to extracurricular activities." Three rural principals also reported comments that were of a similar theme: that many students live very far from the school. One principal said that "the district used to support... an activity bus after that would run Monday - Thursday at 5 pm to accommodate students to stay after school for a variety of activities and athletic practices," but that it is no longer financially feasible.

"Does your school offer early or late buses for students participating in extra-curricular activities?"

Over three times more rural principals indicated that they offered early or late buses for students participating in extra-curricular activities than non-rural principals, 36.8% and 11.8%, respectively.¹¹⁹

¹¹⁸ Statistically significant at 99% (Pearson chi-square: p=0.006).

¹¹⁹ Statistically significant at 95% (Pearson chi-square: p=0.031).



"Please estimate the average number of days per week a sophomore, junior or senior missed three or more classes because of inter-school, intramural or out-of-town school activities."

Principals were asked to indicate the average number of days per week a sophomore, junior or senior missed three or more classes because of inter-school, intramural or out-of-town school activities. "Typical" rural students missed classes on 1.0 days per week while "involved" rural students missed classes on 2.0 days. Non-rural students missed fewer classes, with "typical" kids missing 0.8 days and "involved" ones missing "1.6" days.

WIRE study average days per month rural students in 1998 missed for inter-school, intramural or out-of-town activities was 1.27. Students who were "involved" missed 2.24 days per month.

"Please indicate the number of students per computer in your school."

Rural schools had better ratios of students per computer than non-rural schools (2.8:1 and 4.0:1 respectively). NESS schools fared even better than non-NESS schools (2.5:1 and 4.2:1 respectively).¹²⁰

The WIRE study found that, taken the average number of computers per school and the average number of rural students per school, there were 5.5 students per computer.

"Your computers, update schedule, software and technical support are adequate."

For the following computer-related questions, Utah Foundation used a five-point scale (strongly agree, agree, undecided, disagree, strongly disagree).

The principals were asked if they agreed with the following statement: "You have an adequate number of computers in your school." Rural principals were the only ones that strongly agreed, but the differences between rural and non-rural were not statistically significant. In 1998, 51.1% of WIRE study principals stated that the lack of computers was of "some" concern or greater.

¹²⁰ Note: the options for choosing the number of students per computer were "less than one," "one," "two," "three to five," and "six or more." For the statistical analysis the categories were recoded as 0.5, 1, 2, 4, and 8. The NESS/non-NESS difference was significant at 95% (p=0.011).



The principals were asked if they agreed with the following statement: "The upgrade schedule of computers in your school is adequate." There is some variation between rural and non-rural, but the differences are not statistically significant. The NESS and non-NESS tables look very similar to the following and are similarly not statistically significant. One rural school principal stated that they procure their computers from Park City School District whenever Park City upgrades to new ones.



The WIRE study found that nearly half of principals had "some" concern or greater (48.2%) about the upgrade of computers. One principal commented that their computers were "Obsolete" and another that they "can't put Windows or any of the newer programs on them."

The principals were asked if they agreed with the following statement: "Your school's computer software is adequate." Again, any differences between rural and non-rural schools are not statistically significant. The NESS and non-NESS tables look very similar to the following and are similarly not statistically significant. The WIRE study found that 60.6% of principals had "some" or greater concern about the adequacy of their software.



The principals were finally asked if they agreed with the following statement: "Your computer technical support is adequate." Again, there were no statistically significant differences between rural and non-rural or NESS and non-NESS schools. 60.6% of WIRE study principals also stated that computer technical support was of "some" concern or greater.



<u>Please estimate the percentage of your teachers who have temporary authorizations to teach courses</u> (Alternative Routes to Licensure or USOE exemption):

There was some variation in the percentage of rural and non-rural teachers that have temporary authorizations to teach classes (like an Alternative Routes to Licensure or USOE exemption), but the differences were not statistically significant. However, the differences between NESS and non-NESS principals' answers were significant.¹²¹ Most strikingly, 28.6% of NESS schools have over 15% of their teachers teaching with temporary authorizations, while no non-NESS schools do.

¹²¹ Significant at 95% (Pearson chi-square p=0.028).



The 1998 WIRE study found that there was an average of 2.3 teachers per school who did not have the "proper major, minor, or endorsement" to teach one or more of their classes. Further, the study found that such teachers taught an average of 4.15 classes per day outside of their proper major, minor, or endorsement areas.

Please indicate how difficult it is for your teachers to ...

A series of five questions dealt with how difficult it is for teachers to further their education, by attending:

- necessary classes for ARL (alternative route to licensure)
- necessary classes to proceed beyond a course exemption
- professional development opportunities
- courses for extended degrees (like counseling and administration)
- courses for additional undergraduate or graduate degrees

According to the principals, it is significantly more difficult for rural and NESS teachers to attend professional development opportunities and receive the courses they need for extended degrees. It is also more difficult for NESS teachers to proceed beyond a USOE course exemption. These differences are likely due to the distance rural and NESS teachers must travel for such activities. There was no significant difference between locations for ARL courses or additional degrees, likely because both are attainable online.

| Figure 114: Difficulty for Teachers Continuing their Education, Scale | | | |
|--|-----------------------------|--|--|
| Principal's Answer | Numerical representation | | |
| Very difficult | I | | |
| Difficult | 2 | | |
| Undecided | 3 | | |
| Easy | 4 | | |
| Very easy | 5 | | |

| | Rural | Non-rural | NESS | Non-NESS |
|---------------------------|-------|-----------|------|----------|
| ARL (alternative route to | | | | |
| licensure) | 2.7 | 3.0 | 2.6 | 3.0 |
| Proceed beyond a course | | | | |
| exemption | 2.6 | 3.0 | 2.5* | 3.0* |
| Professional development | 3.0* | 3.3* | 2.7* | 3.4* |
| Extended degrees | 2.7** | 3.4** | 2.5* | 3.4* |
| Additional degrees | 2.8 | 3.2 | 2.5 | 3.3 |

How difficult is it for your teachers to find qualified substitute teachers?

It is more difficult for rural and NESS teachers to find qualified substitute teachers than non-rural schools. The difference between rural and non-rural is not statistically significant, but the difference between NESS and non-NESS is statistically significant.¹²²

| Figure 116: Difficulty in Finding a Qualified Substitute Teacher | | | | | |
|---|-----------|------|----------|--|--|
| Rural | Non-rural | NESS | Non-NESS | | |
| 2.1 | 3.0 | 2.0 | 2.9 | | |

The 1998 WIRE study found that about half of principals indicated that it was a problem to find substitute teachers they were comfortable with in the classrooms.¹²³

What is the ratio of paraprofessionals per teacher in your school?

The survey then questioned what the ratio of paraprofessionals per teacher was at the school. While there was some variation in responses (with rural and NESS both having the highest and smallest ratios), the differences between rural/non-rural and NESS/non-NESS were not statistically significant. About 70% of rural and non-rural schools have either no paraprofessionals or a ratio of less than one per ten teachers.

¹²² Significant at 90% (Pearson chi-square; p=0.068).

¹²³ WIRE Study, page 28.



"If you had a 5% increase in *ongoing* and *one-time* funding, what would you use the increases for?"

The next two questions were open-ended and hypothetical regarding increases in school funding. The first was what principals would do with ongoing funding. The second was what they would do with one-time funds. The responses were grouped into 12 and 11 broad categories, respectively.

The rural principals most often commented that they would fund technology, increase course offerings, and hire teachers with ongoing funds. The non-rural principals overwhelmingly answered that they would decrease class sizes as well as fund technology and increase teacher salaries. Both rural and non-rural overwhelmingly responded that they would use one-time funding for technology in the classroom.





"Which of the following school categories would you consider your school to be included in?"

Finally, the principals were asked to categorize their schools into the NCES locales. Rural, suburban and city principals' answers were generally similar to their respective NCES locales, with over 70% of their opinions in line with the NCES designations. The town principals were much less similar. While 46% did choose their NCES locale, 39% chose rural and 15% chose suburb. This dissimilarity is in line with Utah Foundations' analysis of NCES locales. While most NCES designations appear correct, some of the schools simply do not match up with the schools they attempt to define.



Superintendent Survey

Overview

Utah Foundation's superintendent survey was developed based on several factors: the 1998 WIRE study's survey of rural superintendents, a literature review, and discussions with URSA regarding key concepts. The staff of Utah Foundation also visited nine districts, meeting with superintendents along the way to develop and refine questions. Utah Foundation staff also attended the 2012 URSA Summer Conference in Cedar City, Utah, where they interviewed numerous superintendents and local school board members regarding the survey. The online survey was administered in August of 2012.

Survey Responses

The 2012 survey received 33 superintendents respond out of 41 total districts, for an 80.5% response rate. The WIRE superintendent survey received 22 of 26 rural superintendents, or 85% of rural districts. Of the responses, 42.4% were from rural districts and 57.6% were from non-rural districts. Of the total number of rural districts, 77.7% of superintendents responded and of the non-rural districts, 82.6% of superintendents responded.

| Figure 121: Superintendent Survey Responses | | | | |
|---|------------------|-------------------------------|-------------------------------|--|
| | Survey Responses | Percent of Total Responses | Percent of Total Districts | |
| Rural | 14 | 42.4% | 77.7% | |
| Non-Rural | 19 | 57.6% | 82.6% | |
| Total | 33 | 100.0% | 80.5% | |

| Figure 122: Superintendent Survey Responses | | | |
|---|---------------------|--|--|
| Rural Districts | Non-Rural Districts | | |
| Beaver | Alpine | | |
| Daggett | Box Elder | | |
| Duchesne | Cache | | |
| Emery | Carbon | | |
| Grand County | Davis | | |
| Kane | Iron County | | |
| Millard | Jordan | | |
| North Summit | Juab | | |
| Piute | Logan | | |
| San Juan | Morgan | | |
| Sevier | Murray | | |
| South Summit | Nebo | | |
| Tintic | Ogden City | | |
| Wayne | Park City | | |
| | Provo | | |
| | Salt Lake City | | |
| | Uintah | | |
| | Washington County | | |
| | Weber | | |

Survey Questions

The Utah Foundation superintendent survey covered topics such as housing, recruiting and funding. A comparison to applicable 1998 WIRE responses is included after the description and analysis of each related

survey question. However, the questions and survey methodology are dissimilar which precludes a full longitudinal analysis (the original questionnaires and a detailed methodology of the WIRE study are not available). Furthermore, the WIRE evaluation did not compare rural district responses to non-rural district responses, but instead sought and analyzed only rural responses, defined those districts in counties that are not located along the Wasatch Front.

<u>Please indicate your level of difficulty in replacing or hiring additional elementary school teachers in your district.</u>

No superintendents indicated that they have had major difficulties hiring elementary school teachers. In rural districts, 71.4% of superintendents indicated that it is a minor difficulty to hire elementary teachers, compared to 15.8% of superintendents in non-rural districts. It is also more difficult for rural superintendents to hire special education teachers; 64.3% of rural district superintendents find it a major difficulty compared to 31.6% of non-rural districts superintendents. All of the remaining superintendents indicated that it was a minor difficulty except one superintendent (non-rural) who found hiring special education teachers for their elementary schools not difficult.

The 1998 WIRE study reported that on average rural district superintendents have minor concern about recruiting elementary school teachers but a definite concern about hiring special education teachers (on a no/minor/some/definite/major concern scale).

<u>Please indicate your level of difficultly in replacing or hiring additional secondary school teachers in your district.</u>

It was much more difficult for rural superintendents than non-rural superintendents to hire secondary school teachers. About 29% of rural superintendents indicated it was a major difficulty, compared to about 14% of non-rural superintendents, and about 49% of rural superintendents indicated it was a minor difficultly, while 37% of non-rural superintendents did so. The difference between rural and non-rural districts for secondary school teachers is statistically significant.¹²⁴

| | Major o | lifficulty | Minor o | lifficulty | Not d | ifficult |
|-----------------------------------|---------|------------|---------|------------|-------|-----------|
| | Rural | Non-rural | Rural | Non-rural | Rural | Non-rural |
| Elementary* | n/a | n/a | 71.4% | 15.8% | 28.6% | 84.2% |
| Special Education (elementary) | 64.3% | 31.6% | 35.7% | 63.2% | n/a | 5.3% |
| Secondary | 29.2% | 14.8% | 48.7% | 36.8% | 22.1% | 48.4% |

When secondary school teachers are evaluated by subject, a greater percentage of rural superintendents indicated that it was a major difficulty to hire teachers for each subject except science. The largest difference in the major difficulty category between rural and non-rural schools was in hiring foreign language (57.1% to 10.5%) and fine art (35.7% to 5.3%) teachers. The highest percentage of rural and non-rural superintendents

¹²⁴ Significant at 99% (Pearson chi-square; p=0.001).

indicated it was a major difficulty to hire mathematics teachers (64.3% and 47.4%, respectively). The highest percentage of rural and non-rural superintendents indicated it was not difficult to hire history and PE/health teachers (both were 64.3% and 100%, respectively). There were also significant differences between rural and non-rural districts for hiring English, foreign language, history, fine art, PE and health, and AP teachers.¹²⁵ The difference is not statistically significant for mathematics, science, CTE, concurrent enrollement, or ESL-endorsed teachers.

| | Major o | ifficulty Minor difficulty | | ty Not difficult | | Not Applicable | | |
|-----------------------|---------|----------------------------|-------|------------------|-------|----------------|-------|----------|
| | Rural | Non-rural | Rural | Non-rural | Rural | Non-rural | Rural | Non-rura |
| English / Lang. Arts* | 7.1% | 5.3% | 85.7% | 26.3% | 7.1% | 68.4% | n/a | n/a |
| Foreign Lang.* | 57.1% | 10.5% | 35.7% | 63.2% | n/a | 26.3% | 7.1% | n/a |
| History** | 7.1% | n/a | 28.6% | n/a | 64.3% | 100.0% | n/a | n/a |
| Mathematics | 64.3% | 47.4% | 35.7% | 42.1% | n/a | 10.5% | n/a | n/a |
| Science | 35.7% | 42.1% | 64.3% | 52.6% | n/a | 5.3% | n/a | n/a |
| Fine Art** | 35.7% | 5.3% | 42.9% | 31.6% | 21.4% | 63.2% | n/a | n/a |
| P.E. and Health* | n/a | n/a | 35.7% | n/a | 64.3% | 100.0% | n/a | n/a |
| Career and Tech. Ed. | 21.4% | 5.3% | 50.0% | 63.2% | 28.6% | 31.6% | n/a | n/a |
| Concurrent Enrollment | 28.6% | 10.5% | 42.9% | 42.1% | 21.4% | 42.1% | 7.1% | 5.3% |
| Advanced Placement | 42.9% | 21.1% | 42.9% | 36.8% | n/a | 42.1% | 14.3% | n/a |
| ESL endorsed** | 21.4% | 15.8% | 71.4% | 47.4% | 7.1% | 36.8% | n/a | n/a |

The 1998 WIRE study reported the average rural district responses as shown on Figure 125, on a no/minor/some/definite/major concern scale. The highest level of concern for rural superintendents was in hiring computer/technology teachers, followed by science and math. Their least concern was hiring social science teachers.

| Subject | Mean (concern) | Level of concern* |
|---|----------------|-------------------|
| Social science | 1.7 | Minor |
| Laboratory science (Chem., Physics, etc.) | 3.3 | Some |
| Other science | 2.8 | Some |
| Computer/technology | 3.6 | Definite |
| Mathematics | 3.3 | Some |
| English | 2.3 | Minor |
| Foreign language | 2.4 | Minor |
| Home economics | 2.9 | Some |
| Manual arts (auto, woodshop, etc.) | 3.1 | Some |
| Business | 3.1 | Some |
| Other | 3.1 | Some |

Please insert any comments related to the replacement of teachers

Seven respondents provided additional comments about teacher replacement. Two medium-sized, non-rural districts commented about a reduction in the teaching force, one due to a new charter school in the district. Two other medium-sized, non-rural districts responded that their depth of experience was not what it had been in the past, and that math, science and CTE are tough because they are specialized, but that "hard

¹²⁵ Significant at 99% (p=0.002), 99% (p=0.007), 95% (p=0.018), 95% (p=0.024), 99% (p=0.005), 95% (p=0.019), respectively (Pearson chi-square).

science, pre-engineering and high level math classes are by far the most difficult" to fill. The largest non-rural district to respond stated that they have no issues with teacher replacement.

The two small rural districts had a different set of issues: one that they have given up trying to hire concurrent enrollment teachers, and the other response is listed in its entirety:

Most of the time I need to hire people who can teach more than one subject--teach in their major, minor and sometimes their interests/avocations, or 6 grade levels of one subject. I often build a program based on the skills teachers have rather than hiring teachers to fill the program. We offer more classes than I would like that are taught by under qualified teachers--good people doing the best they can but it is less than optimal.

Housing is readily available in the district for new teachers.

When asked if housing was readily available in their district for new teachers, rural superintendents indicated that they were undecided. Non-rural superintendents were most likely to "agree" that housing was readily available their districts.

Housing is affordable in the district for new teachers.

Rural superintendents were most likely to be "undecided" about whether housing was affordable in their district. Non-rural superintendents were most likely to "agree" that housing was affordable in their districts.

The 1998 WIRE study reported that the average rural district response was that it was more than "somewhat difficult" to find "appropriate housing," mainly due to housing rental and purchase shortage."

Does your district provide temporary housing options for new teachers, like hotel vouchers or district rented/owned apartments or houses?

Only one non-rural district and four rural districts provide temporary housing options for new teachers.¹²⁶ However, one of the rural districts that answered no to the question did comment that they "provide housing for [their] teachers who work on and near the Navajo Nation." Further, one of the non-rural districts (with the highest housing costs in the state) that answered no to providing housing, does provide all of their employees with "an annual Regional Housing and Travel Allowance of \$1,200 to compensate for either the higher cost of living in our area or the high cost of commuting."

How many of the following specialists do you have in your district?

Regarding specialists in their districts, a non-rural district reported that they have a severe lack of speech and language pathologists (SLPs). The smaller non-rural districts also contract out some of the services. Another rural district reported that they hire an SLP out of a neighboring district to visit the district once per month to review student progress, while two district aides deliver the SLP-designed program. Another small rural district reported that they utilize the services of one of their principals (who used to be the district's reading specialist) to support her and the other elementary schools' reading programs. Other comments from small

¹²⁶ Significant at 90% (Pearson chi-square, p=0.065).

rural districts report that they bring in specialists from adjacent districts or from organizations in adjacent counties, and such services are sometime performed as needed by other district personnel. A superintendent from a rural district said regarding computer technology specialists that the local regional service center "provides incredible amount of support to our one man show who is overwhelmed by the number and complexity of things to do."

Since the average number of students in the non-rural districts that responded to the survey was more than 11 times that of the rural districts (20,564 to 1,788), it was expected that all differences in numbers of specialists would be significant. They were except "audio/visual repair and equipment specialists".¹²⁷ However, the difference in average number of specialists between non-rural and rural districts was not necessarily proportional to the difference in size of the districts.

| Figure 126: Average Number of Specialists in the District | | | | | |
|---|-------|-----------|--|--|--|
| | Rural | Non-Rural | | | |
| Speech and hearing specialists (speech and | | | | | |
| language pathologists) | 1.7 | 7.3 | | | |
| Reading specialists (literacy coaches) | 2.1 | 9.2 | | | |
| Curriculum and leadership specialists | 1.1 | 4.6 | | | |
| Psychologists | 0.9 | 4.6 | | | |
| Social workers and sociologists | 0.5 | 2.0 | | | |
| Library and media specialists | 2.1 | 10.3 | | | |
| Audio/visual repair and equipment specialists | 1.2 | 3.0 | | | |
| Computer technology specialists | 2.3 | 9.4 | | | |
| School nurses | 1.2 | 5.3 | | | |
| Occupational therapists | 0.6 | 2.9 | | | |

The 1998 WIRE study reported the percentage of rural districts which had specific services/specialists and any difficulties the districts experienced in offering such services. The main challenges were related to the providers being "spread too thinly," both in terms of distances they needed to travel and time per school /student, and simply having a hard time finding people for the positions. Most districts had nurses (95%). At the opposite end of the spectrum, most districts did not have social workers, sociologists, and grant and report writers (45% each)

| Figure 127: 1998 WIRE Study – Services in Rural Districts | | | |
|--|--|--|--|
| Type of Service | Percent of Districts Offering Service | | |
| Speech and hearing specialists | 95% | | |
| Psychological services | 85% | | |
| Social workers and sociologists | 45% | | |
| Media specialists | 65% | | |
| School nurses | 90% | | |
| Occupational therapists | 55% | | |
| Physical therapists | 50% | | |
| Grant and report writing | 45% | | |

¹²⁷ All at or near 99%, except social workers and occupational therapists at 95% (p=0.012 and p=0.016, respectively) (Pearson's Chi-Square).

How many special education teachers do you have in your district?

Non-rural districts had about five times more special education teachers than rural districts. The difference was greatest with regard to instructional assistants (32.1 to 3.6). Again, the average number of students in the non-rural districts that responded to the survey was more than 11 times that of the rural districts,

| Figure 128: Number of Special Education Teachers | | | | |
|--|-------|-----------|--|--|
| | Rural | Non-Rural | | |
| Full-time teachers | 11.1 | 47.1 | | |
| Part-time teachers | 3.3 | 17.0 | | |
| Instructional assistants | 3.6 | 32.1 | | |
| Total | 18.0 | 96.1 | | |

How many instructors do you have for students who are severely disabled?

Non-rural districts had about 7.5 times more teachers for students who are severely disabled than rural districts.

| Figure 129: Number of Teacher Disabilities | rs for Students wi | th Severe |
|---|--------------------|-----------|
| | Rural | Non-Rural |
| Full-time teachers | 2.2 | 14.8 |
| Part-time teachers | 1.4 | 6.8 |
| Instructional assistants | 1.9 | 18.8 |
| Total | 5.4 | 40.3 |

The 1998 WIRE study reported that 100% of rural districts had special education services and 80% had services for severely disabled students. WIRE found the rural superintendents had a difficult time finding qualified personnel and the teachers had too large of a work load. Also, the travel time for students with severe disabilities was extreme.

My district's current services are meeting the needs of the students and schools.

When asked whether they agreed that their districts' current services were meeting the needs of the students

and schools, 28.5% of rural superintendents disagreed or strongly disagreed. Only 15.8% of their nonrural counterparts disagreed. More strikingly, only 28.6% of rural superintendents agreed as compared to 73.7% of non-rural superintendents. The remaining superintendents were undecided.¹²⁸

Ten superintendents provided additional detail to their answer. One



¹²⁸ Significant at 95% (Plum Ordinal Regression, p=0.020).

noted that they are not adequately addressing the needs of at-risk learners due to resources. Another needed additional support staff. One stated that there were a lot of problems, but that they simply needed to work harder toward their goal, and that it would sound like a list of excuses to provide any "reasons" for failing.

Three of the rural superintendents stated that they had problems finding teachers to teach a range of subjects, another stated that the sharp increase in autism has been difficult to manage.

<u>Please describe any service cuts your district continues to experience due to funding cuts following the 2007-2009 recession.</u>

The superintendents were then asked how they handled cuts to their districts following the "Great Recession." While districts generally saw an increase in funding because of the 2009 stimulus (American Recovery and Reinvestment Act of 2009), these funds were for the most part temporary. Answers were grouped into twelve



by not keeping up with growth. This was followed by a reduction in student support staff.

Level of district's board and/or local voted levies

Non-rural superintendents were slightly more likely to disagree that their levies were too high, but the difference between the non-rural and rural superintendent responses was not statistically significant.



Was the NESS formula adequate for the 2011-2012 school year (i.e. do the state's NESS schools receive enough funding)?

Of the 33 respondents, 21 (63.6%) reported that they received NESS funds. Of those 21 superintendents, 18 (85.7%) reported that the funds were not adequate.

The WIRE evaluation questioned rural principals about NESS funding. Of the 34 principals surveyed, 52% stated that they received funding. Of the six respondents that provided additional detail about NESS funding, four stated that the funding was adequate. The other two did not think it was adequate, one of which stated that "all one has to do is visit rural, necessarily existing, high schools and look at science labs, computer labs, other technology area, vocation areas... the thing that would be observed is the lack of equipment, facilities, and budget to run anything similar to that found along the Wasatch Front."

Were NESS funds distributed equitably for the 2011-2012 school year (i.e. are schools that should be receiving funds not receiving them, and vice versa)?

Only 9.5% of the districts that reported received NESS funds answered that the funds were not distributed equitably.

If you had a 5% increase in *ongoing* and *one-time* funding, what would you use it for?

Like in the principal survey, the superintendents were asked what they would do with an increase in ongoing and one-time funding. These open-ended answers were grouped into eight broad categories. The rural superintendents' most often commented that they would increase course offerings; no non-rural superintendents did. The non-rural superintendents overwhelmingly answered that they would increase salaries and decrease class sizes.



Regarding one-time funding, the open-ended answers were grouped into 12 broad categories. Both rural and non-rural superintendents most often chose technology in the classroom (over 25% and 30%, respectively). Rural superintendents were also concerned with restoration of cut programming, capital improvements, increasing support staff, and providing time and funding for professional development. Non-rural superintendents were focused on staff compensation and bonuses as well as updating textbooks.



Have you built federal budget cut scenarios into next year's district budget?

With the possibility of nearly 8% in federal cuts on the horizon due to "sequestration," superintendents were asked whether districts had built federal cut scenarios into their next budget.¹²⁹ More rural districts (64.3%) stated that they had considered federal cuts than did non-rural districts (52.6%), though the difference was not statistically significant.

¹²⁹ Alyson Klein, Advocates Raise Concerns on Looming "Sequester" Cut, Education Week. http://www.edweek.org/ew/articles/2012/08/08/37sequester_ep.h31.html?qs=sequestration

When asked to comment, one non-rural superintendent summed up most of the comments:

All of our federal revenues except for Title II are represented in personnel costs such as salary and benefits. Depending upon the percentage of reduction, we would reduce accordingly in each program. Unfortunately, there is very little option other than to initiate a reduction in force.

Which of the following school categories would you consider your district to be included in?

Like the principals survey, superintendents were asked to classify their districts by rural, town, suburb and city. The rural superintendents that answered that they were a "town" were Duchesne and Millard. The non-rural districts that answered that they were "Rural" locale were Box Elder, Carbon, Juab, Morgan and Uintah.



Educational Inputs

The surveys and previous analyses of demographic and financial metrics help put education inputs into perspective. Educational inputs are those factors which affect the education of Utah's students. This includes teaching environments, teachers, courses and extracurricular activities.

Major findings of this analysis show that rural school buildings tend to be newer, but principals more often indicate that the buildings restrict educational opportunity. Rural schools tend to have smaller classes, but fewer course options. Rural teachers tend to have more experience, but are less likely to be "highly qualified." Rural districts have lower teacher attrition, but more difficulty in replacing teachers. Lastly, rural students participate in more extracurricular activities, but are less satisfied with those activities and have more difficulty with extracurricular transportation.

The information provided in the Educational Inputs and Education Outputs sections is not simply provided as a re-organization and re-interpretation of the data from the high school senior, principal and superintendent surveys. The sections include several of the factors from the surveys, but generally focus on the analysis of secondary-source data. Accordingly, these sections should be read in conjunction with the previous sections.

Teaching Environment

According to this study's principal survey, rural schools have fewer specialty rooms and labs (except for agriculture rooms and metal working shops). This difference is even greater between NESS and non-NESS schools. However, rural schools have newer buildings than non-rural schools (average of 32 years old compared to 49 years old), as do NESS schools (36 compared to 45 years). Nonetheless, major maintenance issues are felt across the state. Perhaps the most important question is whether the school buildings restricted educational opportunity in some way. More rural principals (26%) responded that their buildings do restrict educational opportunity than did non-rural principals (9%). This contrast was even greater between NESS (29%) and non-NESS (10%).¹³⁰ (See Figure 95 in the Principal Survey section.)

Rural principals indicated that they had better ratios of students per computer than non-rural schools (2.8:1 and 4.0:1 respectively). The ratio was even better for NESS schools compared to non-NESS schools (2.5:1 and 4.2:1 respectively).¹³¹ When asked whether they agreed that their number of computers were adequate, majority of principals disagreed. While rural principals agreed somewhat more than non-rural ones, the difference was not statistically significant.¹³² Many districts and schools would like additional computers, newer computers, and related technology. When asked how they would use an increase in one-time funding, non-rural and rural superintendents' top answer was to increase technology (31% and 27%, respectively); non-rural and rural principals had a similar but stronger response (46% and 70%, respectively).

¹³⁰ Rural/non-rural significant at 90% (p=0.091). NESS/non-NESS nearly significant at 90% (p=0.104).

¹³¹ Note: the options for choosing the number of students per computer were "less than one," "one," "two," "three to five," and "six or more." For the statistical analysis the categories were recoded as 0.5, 1, 2, 4, and 8. The NESS/non-NESS difference was significant at 95% (p=0.011).

¹³² Note: the computer questions were analyzed using a Plum Ordinal Regression model.

Teacher Qualifications

The No Child Left Behind Act (NCLB) defines a teacher as "highly qualified" in one of the core academic areas if they have a bachelor's degree, full state certification or licensure, and are able to demonstrate knowledge in every subject they teach. The delineation of educator qualifications is an attempt to objectively vet the best teachers rather than making the determination subjectively. The rational for such determination is that being a good teacher "is the cornerstone to what makes students successful."¹³³

The 2001 manifestation of NCLB required all states to have all of their teachers highly qualified by 2006. In a 2004 rule, the requirement was softened for rural districts because of the difficulty in recruiting teachers:

... teachers in eligible, rural districts who are highly qualified in at least one subject will have three years to become highly qualified in the additional subjects they teach. They must also be provided professional development, intense supervision or structured mentoring to become highly qualified in those additional subjects.

Variances were also provided for science and multi-subject teachers, which was also a great benefit to rural districts.¹³⁴ While Utah received waivers regarding NCLB requirements, it is valuable to look at these "qualification" differences between rural and non-rural districts. The proportion of highly qualified teachers (as defined by NCLB) in elementary school classes across rural and non-rural districts are fairly equal (94.4% and 95.8%, respectively). However, the difference was larger in secondary rural (72.4%) and non-rural (84.7%) classes. This difference is due to various factors; the need of rural districts to have teachers cover multiple subjects likely plays the largest role.

| Figure 136: Qualified" | Percent of "H Feachers | ighly |
|------------------------------------|-----------------------------|-----------------------|
| | | "Highly Qualified" |
| | Rural | Quanned 94.4% |
| Elementary | | 7.7/0 |
| | Non-Rural | 95.8% |
| C | Rural | 72.4% |
| Secondary | Non-Rural | 84.7% |
| Source: USOE U Foundation analy | TREx/Data Clearing rsis. | house, Utah |

In 2002, a program was introduced to help increase the numbers of highly qualified teachers in rural districts, by which the USOE could "award up to \$3,000 scholarships to teachers in necessarily existent small schools or small school districts to pay for education expenses related to obtaining an endorsement or a master's degree." In 2012, House Bill 156 (chief sponsor Rep. M. Newbold, floor sponsor Sen. C. Bramble) eliminated the program. ¹³⁵ However, as noted when HB 156 was heard before committee on February 24, 2012, the law had not been funded since 2003.

¹³³ Larry Newton, former USOE finance director.

¹³⁴ US Department of Education. http://www2.ed.gov/nclb/methods/teachers/hqtflexibility.html

¹³⁵ Utah House Bill 156. http://le.utah.gov/~2012/bills/hbillenr/hb0156.htm

Some variation was found in the percentage of rural and non-rural teachers that have temporary authorizations to teach classes (such as Alternative Routes to Licensure or USOE exemptions), but the differences were not statistically significant. However, the differences between NESS and non-NESS principals' answers were significant.¹³⁶ Most strikingly, 28.6% of NESS schools report over 15% of their teachers teaching with temporary authorizations, while all non-NESS schools report 15% or fewer teachers teaching with temporary authorizations. Levels of qualification and licensure might have some impact on student success, but this has not been as well documented as teacher experience. (See Figure 113 in the Principal Survey section.)

Teacher Experience

Teacher experience has important effects on student achievement. Achievement tends to increase at an increasing rate for each year for the first 20 years of educator experience, at which point experience has diminishing returns.¹³⁷

In Utah, rural districts tend to have more experienced teachers than non-rural districts. Rural districts have a higher percentage of teachers with 16 or more years of experience, (38.7% to 32.7%, respectively).¹³⁸ Rural districts also have a higher percentage of teachers with six to 15 years of experience (33.8% to 31.8%) and a lower percentage of teachers with less than five years teaching (27.5% to 35.5%).¹³⁹

The 1998 WIRE study found that the average number of years of experience in rural districts was 11, and the average experience of the most experienced teachers was 27 years.

One explanation for the differences between rural and non-rural districts can be found in the growth of school age populations within non-rural districts.

| Figure 137 | ': Educator Ex | perience | |
|------------|---|---|--|
| | Teachers with five and fewer years of experience | Teachers with six to 15 years of experience | Teachers with 16 and more years of experience |
| Rural | 27.5% | 33.8% | 38.7% |
| Non-Rural | 35.5% | 31.8% | 32.7% |

Note: Only includes experience teaching in Utah, not out of state Source: USOE, calculations and analysis by Utah Foundation.

Since 1992, rural districts have seen their student population decrease by an aggregate of 7.7%, while their non-rural counterparts have grown by 17.7%.

Evaluating growth together with rurality in determining experience of teachers decreases the importance of the effect of rurality. Rurality and growth both work to affect the percentage of low levels of experience (0-5 years) in districts (being rural decreases the low experience rate while growth increases it).¹⁴⁰ However, only growth significantly affects the percentage of high levels of experience (high growth decreases the high experience rate).¹⁴¹ A graphical representation of the effect of rurality and growth on the percentage of low levels of experience is shown in Figure 139.

¹³⁶ Significant at 95% (Pearson chi-square p=0.028).

¹³⁷ Carroll, Thomas G., and Elizabeth Foster, Who Will Teach? Why Experience Matters, National Commission on Teaching and America's Future, January 2010.

¹³⁸ Difference significant at 99% (p=0.004).

¹³⁹ Differences significant at 90% and 99% (p=0.069 and p=0.000, respectively).

¹⁴⁰ Rurality is statistically significant at 95% (p=0.012) and growth at 99% (p=0.002).

¹⁴¹ Growth is significant at 99% (p=0.000).

| Figure 138: Effect of Rurality Experience | and Growth on Percentage | e of Educator |
|--|--------------------------|------------------------------------|
| Educator Years of Experience | Rurality: | 20% Student Growth (2000-2010): |
| 0-5 years | Decreases percentage* | Increases percentage* |
| 6-15 years | Increases percentage | Increases percentage |
| 16 + | Increases percentage | Decreases percentage* |
| * Statistically significant | | |

Source: Growth data from U.S. Census 2000, 2010; experience data from USOE.



A 2007 study determined that Utah has a high demand for teachers not only because of increased growth but also due to teacher attrition.¹⁴² Increased attrition is a problem because of its relationship with educational quality, equity and efficiency.¹⁴³ As noted above, educational quality is affected by the need to hire inexperienced teachers, while efficiency is affected simply through the need to hire, train and educate teachers. Equity is impacted through teacher turnover which is highest in low-performing, high-poverty schools, potentially resulting in even lower performance.¹⁴⁴

The average attrition rate in 2007 was 11.2%. Rural districts had fewer teachers leaving during that year than non-rural districts (8.1% and 11.4%, respectively). The range of attrition rates in rural districts was between 3.3% in Millard School District and 14.5% in San Juan School District. The range of rates in non-rural districts was between 2.9% in Murray School District and 19.5% in Provo School District.

¹⁴² David J. Sperry, "2007 Report on Teacher Education Supply and Demand Needs of K-12 Education in the State of Utah" K-16 Alliance, Utah System of Higher Education, November 2007. http://www.docstoc.com/docs/46538184/2007-Report-on-Teacher-Education-Supply-and-Demand-Needs

¹⁴³ Elizabeth Escandon, "Teacher Attrition: Why Do Teachers Stop Teaching in Utah and What Policies Will Encourage Them to Stay," Utah Foundation, July 2007.

¹⁴⁴ Gary Barnes, Edward Crowe, and Benjamin Schaefer, "The Cost of Teacher Turnover in Five School Districts; A Pilot Study" National Commission on Teaching and America's Future, 2007. http://nctaf.org/wp-content/uploads/CTTFullReportfinal.pdf

Many public school teachers are aging, with nearly half of all teachers nationally being Baby Boomers. At the same time, teachers as a whole are becoming more inexperienced, with the median years of experience dropping from 14 in 1987 to 11 in 2007, and the mode (or most common) dropping from 15 years of

| Figure 140: Average Rate of Teacher Attrition | | |
|--|-----------------------------|--|
| Rural | 8.1% | |
| Non-Rural | 11.4% | |
| All | 11.2% | |
| * Tintic data was not included. Source: K-16 Alliance 2007 report | , Utah Foundation analysis. | |

experience to one.¹⁴⁵ This apparent contradiction is likely due to growth and attrition, resulting in an instructor pool with a proportionally small number of teachers with medium levels of experience (6-15 years).

The threat to rural districts is that their population is burdened with the possibility of a wave of retirement from their high number of experienced Baby Boomers. This will rapidly decrease rural experience levels and exacerbate the difficultly of hiring teachers in rural areas. However, the recent recession and retirement trends in general have increased the postponement of retirement, which implies that these teachers may remain in their classrooms longer, allowing for recent hires to gain experience before adding additional novices.

Hiring Teachers

While superintendents indicated they had some difficulties hiring teachers, none of them indicated that they have major difficulties. In rural districts, 71.4% of superintendents indicated that it was a minor difficulty hiring elementary teachers, compared to 15.8% of superintendents in non-rural districts. However, it was also more difficult for rural superintendents to hire elementary special education teachers; 64.3% of rural district superintendents find it a major difficulty compared to 31.6% of non-rural districts superintendents. All of the remaining superintendents indicated that it was a minor difficulty except one superintendent (non-rural) who found hiring elementary special education teachers not difficult.

It was much more difficult for rural superintendents to hire secondary school teachers than for non-rural superintendents. About 29.2% of rural superintendents indicated it was a major difficulty, compared to 14.8% of non-rural superintendents, and 48.7% of rural superintendents indicated it was a minor difficultly, while 36.8% of non-rural superintendents did so.¹⁴⁶ (See Figure 123 of the Superintendent Survey section)

Both rural and non-rural superintendents indicated it was most difficult hiring math teachers and least difficult hiring history and PE/health teachers. It was significantly more difficult for rural superintendents than non-rural ones to hire English, foreign language, history, fine art, PE and health, and AP teachers.¹⁴⁷ The largest difference between rural and non-rural schools was in hiring foreign language teachers (57.1% compared to 10.5% found it a major difficulty) and fine arts teachers (35.7% compared to 5.3% found it a major difficulty). (See Figure 124 of the Superintendent Survey section.)

Housing situations can add to the difficulty of hiring teachers. The principal survey showed that the availability and affordability of housing is more pressing in rural areas than non-rural ones. One way rural districts overcome this issue is by providing temporary housing options, like hotel vouchers and district apartments/houses. Park City School District (a non-rural district) provides an annual Regional Housing and Travel Allowance to compensate for the district's higher cost of living or high commuting costs.

¹⁴⁵ National Commission on Teaching and America's Future, "Who Will Teach? Experience Matters" January 2010. http://nctaf.org/wpcontent/uploads/2012/01/NCTAF-Who-Will-Teach-Experience-Matters-2010-Report.pdf

¹⁴⁶ Statistically significant at 99% (Pearson chi-square; p=0.001).

¹⁴⁷ Significant at 99% (p=0.002), 99% (p=0.007), 95% (p=0.018), 95% (p=0.024), 99% (p=0.005), 95% (p=0.019), respectively (Pearson chi-square).

Other factors also play a role in hiring teachers, like the need for multi-subject teachers and teacher compensation. A rural district superintendent explained his difficulty in hiring teachers as follows:

"Most of the time I need to hire people who can teach more than one subject... teach in their major, minor and sometimes their interests/ avocations, or 6 grade levels of one subject. I often build a program based on the skills teachers have rather than hiring teachers to fill the program. We offer more classes than I would like that are taught by under-qualified teachers... good people doing the best they can but it is less than optimal."

Utah's median teacher salary (\$46,340) is much lower than the national median (\$54,819),¹⁴⁸ although some of the difference can be explained by Utah's younger, less-experienced teachers.¹⁴⁹ The difference between rural and non-rural median beginning salary and overall median salary is quite small and not statistically significant. Total overall median compensation favors rural districts slightly but the difference is also not significant. However, the 8% advantage that rural districts have over non-rural ones with regard to benefits is significant.¹⁵⁰ This is primarily due to the health insurance benefit (\$12,238 in rural districts versus \$10,789 in non-rural districts).

| | | Median Beginning Salary | Median Salary | Benefits | Total (Mediar Salary + Benefits |
|-----------|----------------|-------------------------------|------------------|-----------|---------------------------------------|
| Rural | Mean | \$ 32,203 | \$ 47,080 | \$ 24,634 | \$ 71,714 |
| | Std. Deviation | 4,323 | 3,930 | 3,206 | 5,994 |
| | Median | 32,813 | 47,698 | 24,325 | 73,382 |
| | Minimum | 20,352 | 40,164 | 18,752 | 59,48 |
| | Maximum | 39,176 | 53,071 | 28,760 | 79,854 |
| Non-rural | Mean | 32,432 | 47,058 | 22,671 | 69,728 |
| | Std. Deviation | 3,911 | 3,973 | 2,625 | 4,940 |
| | Median | 32,889 | 46,896 | 22,410 | 69,479 |
| | Minimum | 18,920 | 40,906 | 18,846 | 61,84 |
| | Maximum | 40,442 | 58,244 | 27,444 | 81,58 |

The 1998 WIRE study found that the average teaching contract in rural districts was \$30,023 (and at the time the average across the state according to USOE was \$31,866 and the U.S. average was \$38,509). The average high and low salaries were \$21,984 and \$39,094, respectively.

There is a greater difference in administrative compensation. The median salary for administrative personnel in districts across the state is \$78,840. The average of the median salaries in rural districts was \$68,228 while in non-rural districts it was \$78,400, a difference of 13.0%.¹⁵¹

¹⁴⁸ 2010 figures; Utah decreased to \$45,329 in 2011.

¹⁴⁹ Utah Foundation, Comparing Teacher Compensation: Looking Beyond the Averages, Research Report Number 702, August 2011. www.utahfoundation.org/img/pdfs/rr702.pdf

¹⁵⁰ Significant at 95% (p=0.037).

¹⁵¹ Significant at 99% (p=0.000).

Student-Teacher Ratios

Non-rural school officials are more concerned with high student-teacher ratios than rural schools. When nonrural superintendents were asked how they would use an increase in ongoing funding, their two primary answers were increasing salaries (32%) and decreasing class sizes (28%). For rural superintendents these answers were only 17% each. (Rural superintendents were most interested in increasing course offerings (21%), and were also concerned with professional development for teachers (17%) and increasing staff benefits (17%).) When non-rural principals were asked how they would use an increase in ongoing funding, their top answer was to decrease class sizes (32%). Only 4% of rural principals were interested in decreasing class size.

The average class size for both elementary and secondary schools is smaller in rural districts. Non-rural elementary classes are 15% larger than rural ones (24.5 students compared to 20.8) and non-rural secondary classes are nearly 25% larger than rural ones (28.5 students compared to 21.5). Further, while the largest average classes in each grade and/or course are in non-rural districts, the smallest averages of each are in rural districts. Alpine School District has the greatest number of largest average-size classes (topping out at 36 students in earth science classes). Tintic School District has the greatest number of smallest average-size classes (with the smallest being six students in 5th grade classes).

| | 1 | | | | | |
|-------------------|-------|-----------|------|----------------------|-------------|-----------------|
| | | Average | Larg | est Average in State | Smallest Av | erages in State |
| | | | | District | | District |
| | Rural | Non-Rural | Size | (all Non-Rural) | Size | (all Rural) |
| Kindergarten | 19.6 | 21.9 | 25 | Alpine | 7 | Tintic |
| Grade I | 20.9 | 22.5 | 26 | Alpine | 10 | Tintic |
| Grade 2 | 20.6 | 23.0 | 29.5 | Rich | 9 | Tintic |
| Grade 3 | 21.3 | 24.4 | 29 | Alpine/Sevier | 9.5 | Tintic |
| Grade 4 | 20.5 | 25.5 | 29 | Alpine | 12 | Tintic |
| Grade 5 | 21.1 | 26.7 | 30 | Alpine/Wasatch | 6 | Tintic |
| Grade 6 | 21.8 | 27.5 | 34 | Box Elder | 9.5 | Tintic/Piute |
| Elementary School | 20.8 | 24.5 | | | | |
| Lang. Arts 7 | 22.8 | 27.8 | 35 | Alpine | 15 | Rich |
| Lang. Arts 8 | 22.2 | 28.3 | 34 | Alpine | 14.5 | Piute |
| Lang. Arts 9 | 22.6 | 29.3 | 35 | Alpine | | Rich |
| Lang. Arts 10 | 21.9 | 29.8 | 36 | Jordan | 10 | Tintic |
| Lang. Arts 11 | 22.8 | 30.4 | 36 | Provo | 12 | Tintic |
| Math 7 | 18.6 | 23.3 | 29 | Granite | 10 | Kane |
| Pre-Algebra | 21.6 | 26.4 | 33 | Alpine | 11 | Piute |
| Algebra | 19.0 | 28.0 | 34 | Alpine | 10.5 | Tintic |
| Geometry | 20.8 | 29.8 | 35 | Cache/Provo | 10 | Piute |
| Science 7 | 23.2 | 29.0 | 35 | Alpine | 12 | Tintic |
| Science 8 | 22.6 | 29.0 | 34 | Alpine/Cache/Granite | 16.5 | Piute/Rich |
| Earth Science | 22.8 | 29.8 | 36 | Alpine | 14 | Piute |
| Biology | 23.0 | 31.2 | 35 | Jordan/Weber | 12 | Kane |
| Chemistry | 19.3 | 30.8 | 37 | Provo | 10 | Rich |
| Physics | 18.2 | 24.7 | 34.5 | Logan | 7 | Garfield |
| Secondary School | 21.5 | 28.5 | | | | |

When aggregating all regular classroom teachers, special education teachers, and school-based specialists, rural districts have about 2.7 fewer students per teacher (see Figure 143) than non-rural districts, or nearly 17% smaller classes.

North Sanpete had the highest median rural student-teacher ratio at 21.8 to 1, followed by South Sanpete (20.6:1), Beaver (20.4:1), Grand (20.2:1), and Sevier (20.1:1). Davis had the highest, non-rural ratio at 24.2 to 1, with Jordan (24.1:1). Uintah (24.0:1), Alpine (23.7:1) and Canyons (23.4:1) rounding out the top five.

Tintic had the lowest median rural ratio at 10 to 1, followed by Piute (13.9:1), Wayne (14.5:1), Rich (14.6:1) and Daggett (15:1). Park City had the lowest non-rural ratio with 16.6 to 1, and the only other non-rural districts with less than a 20 to 1 ratio were Provo (19.9:1) and Wasatch (18.7:1).

| | Median | Lowest | Highest |
|-----------------------|--------|--------|---------|
| Rural districts* | 18.1 | 10.0 | 21.8 |
| Non-rural districts** | 21.8 | 16.6 | 24.2 |

Rural schools have comparatively lower student-teacher ratios out of necessity. Many rural school populations are simply not large enough to allow for larger class sizes. Smaller class sizes are great for students and teachers in many ways, but can become problematic for schools and districts faced with limited budgets. In secondary grades, students must be separated into a greater variety of classes in order to meet graduation requirements. This required variety of classes greatly and necessarily reduces class sizes in small, rural schools, below what would be considered cost effective in larger, non-rural schools.

Course Offerings

The larger the school, the more flexibility it has in offering a wide range of courses which meet the individualized needs of its students. Alta High School and Davis High School are two of the largest schools in the state with around 2,500 students. In 2012, Alta offered 244 classes while Davis offered 198 (not including concurrent enrollment or off-campus CTE classes), which offerings are comparable to similarly-sized schools.

At the smallest schools, those with around 100 students, there are far fewer schedule choices. For example, in 2011 Manila High School (grades 9-12) offered 35 classes and Panguitch High School offered 39 courses. These small, rural/NESS schools offer about 20% of the classes the large, non-rural schools do. This is not atypical. As expected, however, the differences between rural and non-rural offerings narrow as the line between rural and town locales begins to blur.

Figure 144: Alta High School Course Listing (grades 10-12)

| Category | Number of Courses |
|---|----------------------|
| English | 20 |
| Financial Literacy | 4 |
| Fine Arts - Visual Arts | 23 |
| Fine Arts - Theatre | 5 |
| Fine Arts - Dance | 8 |
| Fine Arts - Music | 15 |
| Healthy Lifestyles | 26 |
| Mathematics | 15 |
| Science | 15 |
| Social Studies | 19 |
| World Languages | 22 |
| Career and Technical Education | 4 |
| Business | 23 |
| Family and Consumer Science | 10 |
| Health and Science Technology | 4 |
| Information Technology | 2 |
| Technology and Engineering | 6 |
| Skilled and Technical Science | 5 |
| Protective Services | I |
| Visual Arts Technology | 3 |
| Woodworking Technology | 4 |
| Specialized courses | 10 |
| Total | 244 |
| Note: table does not include Concurrent I | Incollment |

Note: table does not include Concurrent Enrollment classes; Alta offers additional CTE courses through Canyons Technical Education Center (with 20 courses) and Jordan Applied Technology Center (with 13 courses).

Source: Alta Hawks Course Catalogue 2012-2013.

Figure 146: Panguitch High School Course Listing (grades 9-12)

| | Number of |
|--|-----------------|
| Category | Courses |
| Language Arts - English | 8 |
| Language Arts - Foreign | I |
| Mathematics | 5 |
| Science | 6 |
| Social Studies | 4 |
| Physical Education | 2 |
| Fine Arts (Photography) | I |
| CTE - Agricultural | 2 |
| CTE – Business (computer) | 4 |
| CTE - Family & Consumer Studies | 4 |
| CTE - Technical/Vocational | 2 |
| Total | 39 |
| Source: Panguitch High School class schedule | e, Spring 2012. |

Figure 145: Davis High School Course Listing (grades 10-12)

| Category | Number of Courses |
|----------------------------------|----------------------|
| Language Arts - English | 13 |
| Language Arts - Foreign | 13 |
| Mathematics | 12 |
| Science | 16 |
| Social Studies | 10 |
| US Government and Citizenship | 3 |
| Student Government | |
| Health Science and Technology | 8 |
| Physical Education | 7 |
| Physical Ed. / Dance | 5 |
| Fine Arts (Visual) | 9 |
| Fine Arts (Music - Vocal) | 6 |
| Fine Arts (Music - Instrumental) | 8 |
| Fine Arts (Speech and Drama) | 12 |
| CTE - Agricultural | 4 |
| CTE - Business | 11 |
| CTE - Family & Consumer Studies | 14 |
| CTE - Marketing | 8 |
| CTE - Digital Media | 2 |
| CTE - Technical/Vocational | 12 |
| CTE - Pre-Engineering | 5 |
| CTE - Work Based Learning | 3 |
| Drivers Education | |
| ROTC | 3 |
| Miscellaneous | 12 |
| Total | 198 |

Note: Davis offers concurrent enrollment classes from various higher education institutions and additional CTE courses through Davis Applied Technology Center (29 courses).

Source: Davis High School Course Catalogue 2012-2013.

In addition to offering more classes, larger schools also offer more concurrent enrollment options. Alta High School offered 26 additional concurrent enrollment classes through Salt Lake Community College, from math to marketing, and from English to Spanish. Alta offered additional CTE courses through Canyons Technical Education Center (with 20 courses) and Jordan Applied Technology Center (with 13 courses). Davis High School offered concurrent enrollment classes from various higher education institutions and additional CTE courses through Davis Applied Technology Center (29 courses). However, these differences are not always reflected in the number of core classes that are taken. As shown in Figures 65, 67 and 69 in the High School Senior Survey section, while non-rural students are more likely to have taken most classes, the differences are not consistently statistically significant except with foreign language classes.

Career and Technical Education

Career and Technical Education (CTE) follows programs laid out by the federal government in 1984 and updated with the Carl D. Perkins Career and Technical Education Improvement Act of 2006. CTE courses are designed to prepare students - who may or may not be college bound - with academic and technical skills needed in the workforce.¹⁵²

Funding from the act is dependent upon the student success as reported by the state, as follows:

- Academic and skill achievement (academic standardized tests and CTE skills tests)
- Completion (graduation)
- Placement
- Training for nontraditional careers
- Evaluation and performance improvements that are data-driven, using targets, performance results, performance gaps, and continuous improvement plans.¹⁵³

Students need 1.5 credits of CTE courses for graduation. The categories of courses offered are as follows:

- Agricultural Education
- Business Education
- Family and Consumer Sciences Education
- Health Science Education
- Information Technology Education
- Marketing Education
- Skilled and Technical Sciences Education
- Technology and Engineering Education
- Economics and Entrepreneurship

A look at high school course schedules shows the difference in CTE course offerings between rural and nonrural schools, as illustrated in Figure 147. While Alta High School has the largest 10th-12th grade student body in the state and Tabiona is a very small NESS school, course offerings are representative of their respective school sizes. As detailed in the principal survey, a higher percentage of non-rural schools offer each of the nine CTE categories except Agriculture classes. On average, non-rural high school seniors indicated that they took more of all of the CTE categories except Agricultural classes and Skilled and Technical Sciences classes. Nonrural students took more CTE courses in general than rural students (6.1 and 5.4, respectively).¹⁵⁴

¹⁵² USOE. http://www.schools.utah.gov/cte/about.html

¹⁵³ Utah Office of the Legislative Fiscal Analyst "2011 In-Depth Budget Review: Minimum School Program & the Utah State Office of Education" December 13, 2011.

¹⁵⁴ Significant at 95% (Mann Whitney Test).

| Figure 147: CTE Offerings, Non-Rural and Rural School Examples | | |
|--|------------------------------|---------------------|
| CTE Category | Alta High School | Tabiona High School |
| Career and Technical Education | 4 | |
| Agriculture | 0 | 7 |
| Business | 23 | 2 |
| Family and Consumer Science | 10 | I |
| Health and Science Technology | 4 | 0 |
| Information Technology | 2 | 0 |
| Technology and Engineering | 6 | 0 |
| Skilled and Technical Science | 5 | 0 |
| Total (not including ATC courses) | 54 | 11 |
| Source: Alta Hawks Course Catalogue 2012 | 2-2013 and Tabiona class scl | hedule 2011-2012. |

In the high school senior survey, students also answered whether they would have verified a skill attainment in a CTE Pathway by the end of their senior year. A "pathway" is designed to provide a roadmap for students to allow them to acquire a depth of knowledge in one of their interests which will hopefully link with the post-secondary education of their choosing. Once a student completes the roadmap in an area of interest, they are said to have verified or completed their skill attainment. Non-rural students were more likely than rural students to have indicated that they would have verified their skill attainment by the end of their senior year (61.8% to 55.2%, respectively).¹⁵⁵

Advanced Classes

Utah's students have several options for taking advanced courses. The most common are Advanced Placement, Concurrent Enrollment, and International Baccalaureate classes. In 2011, 18,508 Utah students from 130 schools (including charter and private schools) took 29,851 Advanced Placement tests. Like course offerings in general, as well as CTE offerings, rural students take fewer AP courses and have far less access to AP courses. According to the high school senior survey, rural students

Figure 148: Average Number of Advanced Placement Classes, by NCES Locale

| | Number of different classes offered | Number of classes offered |
|--------|---|------------------------------|
| Rural | 1.3 | 1.3 |
| Town | 5.4 | 5.7 |
| Suburb | 16.0 | 18.1 |
| City | 13.3 | 4. |

Source: College Board, 2011 (document from USOE website).

took fewer of all AP classes except AP computer science (see Figure 70 in the high school senior survey

| Figure 149: Average Number of Advanced Placement Classes, by NESS/Non-NESS | | | | | | |
|---|---|------------------------------|--|--|--|--|
| | Number of different classes offered | Number of classes offered | | | | |
| NESS | 0.50 | 0.53 | | | | |
| Non-NESS | 12.72 | 14.07 | | | | |

Source: College Board, 2011 (document from USOE website).

section). Rural students are offered fewer AP classes (1.3 per school) than town (5.4), city (13.3) and suburban students (16.0). The difference between NESS (0.5) and non-NESS (12.7) schools are even more striking. An illustration of the difference between course offerings at Alta High School (with 18 AP courses), a large suburban school, and Emery High School (with three courses), a rural NESS school, is included in Figures 150 and 151.

¹⁵⁵ Statistically significant at 95% (Pearson chi-square test).

| Figure 150: AP Course Offerings at Alta High School, Sandy, Utah, 2011-2012 |
|--|
| Art History |
| Biology |
| Calculus AB |
| Calculus BC |
| Chemistry |
| Comparative Government and Politics |
| English Language and Composition |
| English Literature and Composition |
| European History |
| French Language and Culture * |
| Human Geography |
| Physics C: Mechanics |
| Psychology |
| Statistics |
| Studio Art: 2-D Design |
| Studio Art: 3-D Design |
| Studio Art: Drawing |
| World History |
| Source: College Board, AP Course Audit. |

Figure 151: AP Course Offering Emery High School, Castle Dale, Utah, 2011-2012 Calculus AB English Language and Composition English Literature and Composition Source: College Board, AP Course Audit.

While rural/NESS schools have a dearth of course offerings compared to their non-rural counterparts, they make up some ground with concurrent enrollment (CE) courses. For example, Tabiona High School has a limited course offering, but in 2011 it offered 16 CE courses through Utah State University. According to the high school senior survey, rural students took an average of 2.9 CE classes, compared to 2.0 classes for non-rural students, primarily due to the availability of distance learning CE offerings. Again, however, non-rural students are typically offered a greater range of courses.

| Figure 152: Tabiona H Concurrent Enrollmen | igh School It Course Offerings |
|--|---|
| Spanish 1010 | TEAL 1010 |
| Spanish 1020 | FCHD 1010 |
| English 1010 | FCHD 1500 |
| English 2020 | OSS 1060 |
| Humanities 1320 | OSS 1550 |
| Math 1050 | Psychology 1010 |
| Math 1060 | Chemistry 1010 |
| Algebra 1300 | Biology 1010 |
| OSS: Office Systems Support TEAL: Teacher Education and Le FCHD: Family, Consumer & Hur Source: Tabiona High School cla | adership man Development ss schedule 2011-2012. |

CE courses are delivered in at least one of the three ways presented in the survey: in-school by a teacher, inschool via interactive conferencing, and/or at local college campuses. (See the Distance Education subsection, below, for more information.) The differences between types of CE in non-rural and rural was striking; 55.0% more non-rural principals indicated having offered classes in-school by a teacher and 48.9% more rural principals indicated having offered classes via interactive conferencing, both of which differences were statistically significant.¹⁵⁶ There was an insignificant difference between percentages of students taking CE courses at local college campuses. (See Figure 106 in the Principal Survey section)

A review of course offerings shows that in rural areas, CE offerings are provided via distance learning by college instructors at higher education institutions. In cities, suburbs and - to a lesser extent - towns, CE classes are taught primarily by high school teachers (with master's degrees and proper endorsements) in traditional educational settings. The lack of in-class instructors could be detrimental to the overall quality of distance learning courses, but conclusive research on this subject at the high school level has yet to be performed.

Rural principals and superintendents express concern that the number of CE offerings has been decreasing in recent years. This is due primarily to the complexity of timing CE courses within the timeframe of the school day, the necessary agreements and arrangements with the higher education institutions, and the fact that any such CE offering must be economically beneficial for such institutions.

Finally, International Baccalaureate (IB) is a program to promote leadership through a rigorous college preparation education. It allows junior and seniors to take classes (sometimes alongside AP students) and tests with the chance to earn internationally recognized IB Diplomas in addition to their high school diplomas. The program is only offered along the Wasatch Front, at Ogden, Clearfield, Bountiful, Skyline, Hillcrest, Highland, West, and Provo high schools. Accordingly, rural students have little opportunity to take IB courses.

Distance Education

Most rural districts across the nation use distance education in their schools.¹⁵⁷ In a 2005 nationwide survey, districts reported that they needed to use distance education to provide advanced courses and enrichment courses. Offering distance courses is not as easy as simply setting up a computer for each student enrolling in the course. The survey showed that the greatest barriers to this learning are (1) that there is not a district priority for the courses, (2) that there are scheduling and other implementation problems, and (3) that there is a lack of trained personnel to support learning. The courses most often offered were foreign languages at nearly one third of the schools, with algebra, psychology/sociology and language/composition courses being offered at about one eighth of the schools. History, math, science and other classes were offered at smaller, varying degrees by subject.

Between 2005 and 2010, the use of distance education grew exponentially across the nation, more than quadrupling to 1,349,000 students, with over 53% of districts enrolling their students in courses.¹⁵⁸ Town

¹⁵⁶ Significant at 99% (Pearson chi-square: p=0.000 and p=0.001, respectively).

¹⁵⁷ Hannum, W. H., Irvin, M. J., Banks, J. B., & Farmer, T. W. (2009). Distance education use in rural schools. Journal of Research in Rural Education, 24(3). Retrieved June 19, 2012 from http://jrre.psu.edu/articles/24-3.pdf

¹⁵⁸ National Center of Education Statistics, The Condition of Education, 2012.

schools across the country are most likely to offer distance education (66%), followed by rural (56%), suburban (45%) and city (37%) schools.

There are typically three ways to provide distance education opportunities to students: via two-way interactive video, online with simultaneous instruction, and online without simultaneous instruction. The latter has been used by approximately 75% of city districts since 2005 as their primary mode of distance learning, and has been increasing in suburban, town and rural schools as well. In suburban districts, the use of online instruction without simultaneous instruction increased from just over 60% to just under 80%, in town districts from under 50% to over 70%, and in rural districts from under 30% to about 55%. Online with simultaneous instruction is used in under 20% of all locales. Two-way interactive video has been decreasing as a percentage at all locales. In 2005, it was used as the primary tool by over 50% of rural schools but has since decreased to fewer than 30%.

The Utah Education Network (UEN) provides districts and schools with internet access via its Wide Area Network. In conjunction with this, it provides students with additional opportunities for live, instructor-led classes via UEN's Interactive Video Conferencing system (also known as Ed Net). The interactive video system allows a higher education instructor teaching from his or her college campus to reach out to students in numerous locations at the same time. This benefits the colleges by making the courses economically feasible and provides the students opportunities that they otherwise would not have.

Interactive video is most commonly used by rural schools to expand their concurrent enrollment course offerings. It is utilized for this purpose in nearly 85% of rural schools (see Figure 106 from the principal survey). Non-rural students tend to take all of their concurrent enrollment courses in school by approved instructors or at college campuses.

The Utah Electronic High School (EHS) offers online education without simultaneous instruction for 33 courses, from English to French, from Geometry to Biology, and Art History to US History II.¹⁵⁹ Since 2006, 14.4% of students who graduated early had EHS credits. These credits are typically during their second or third quarter of their senior year. In 2011, 9,345 students earned credit through EHS, most of whom (84%) reported using it exclusively for original credits, though some students used it to make up failed classes (16%).¹⁶⁰ Rural and non-rural students utilized the EHS about equally. According to the high school senior survey, the average number of credits completed by each rural and non-rural student was 0.43 and 0.44, respectively.

In 2011, the passage of Senate Bill 65 signed into law the Statewide Online Education Program Act. This law allows for charter or district school and programs to provide online education (without simultaneous instruction), essentially opening up the "market" for online teaching.¹⁶¹ As of August 2012 there were 17 providers of online education, offered through a total of 23 institutions.¹⁶²

The addition of more online classes has slightly decreased schools' average daily membership (ADM) for WPU calculation.¹⁶³ Alpine, Canyons, Juab, Millard, Salt Lake City, Sevier, Washington County, Weber

¹⁵⁹ USOE. http://www.schools.utah.gov/ehs/classes.htm

¹⁶⁰ Electronic High School, Frequently Asked Questions. http://share.ehs.uen.org/faq

¹⁶¹ Utah Code 53A-15-1205. http://le.utah.gov/~code/TITLE53A/htm/53A15_120500.htm

¹⁶² USOE. http://www.schools.utah.gov/edonline/Students-and-Parents.aspx

¹⁶³ Utah Code 53A-15-1208 and 1209. http://le.utah.gov/~code/TITLE53A/htm/53A15_120800.htm

school districts and other districts are developing their own online courses to try to retain some revenue from their students and increase revenue from other districts' students. For example, students in Millard School District took 200 credit hours through Millard Education Online in 2012. Of these hours, 75% were accelerated students and 25% were for recovery credits. Millard is not attempting to market the program at this time, as like all districts, is not well equipped to advertise as are private entities, but simply provides this option for its students. In the end, Millard acknowledges that that the online classes "certainly do not replace a good teacher in the classroom."¹⁶⁴

Rural students utilized the Statewide Online Education Program slightly more than non-rural students, but far less than the Utah Electronic High School. (See Figure 77 from the High School Senior Survey section.) However, use is expected to increase, and the program is ramping up from two credits per student over the first two years of the program, to three credits in 2013-2014 and up to six credits in 2016-2017.

Other online offerings include companies like e2020, Inc., and K12, Inc., which offer virtual classes individually and through private and public schools. Utah's rural districts tend to utilize these services more often than non-rural districts, though Utah Foundation did not formally survey them regarding their usage.

Course Quality

Rural students have a smaller number of courses to choose from, and may also have lower course quality, though the latter metric is much more subjective. When questioned whether "larger, urban high schools" or "smaller, rural high schools" are better at providing students with higher quality courses, non-rural students were more likely to answer "same" while rural students are more likely to answer "larger, urban high schools." Only 19% of rural and non-rural students chose smaller, rural schools. (See Figure 83 of the High School Senior Survey section)

Teacher Preparations

Most teachers in non-rural and rural schools have preparation periods during the school day. Depending upon course load, some teachers may be able to prepare all of the following day's lessons within their prep period (or correct coursework, etc.). When teachers must prepare for a greater variety of classes each day, their workloads increase, making the preparation periods more valuable but decreasing the percentage of their preparatory work that can possibly be completed during that time.

At Manila Jr-Sr High School in Daggett School District, the seven full-time teachers taught 74 students in 7th-12th grades an average of 5.3 different courses each day (not including duplicate or P.E. courses). Similarly, the seven full-time teachers at Panguitch High School in Garfield School District taught 130 students an average of six difference classes per day (with full-time middle school or part-time teachers teaching all the PE courses). This high number of class preparations per day is common for smaller, rural schools, but not typically the case for larger schools, where teachers tend to have between two and four per day since such schools often offer the same classes several times per day. "Two is the ideal number of prep [courses] per day because it keeps teachers on their feet," but does not overwhelm them.¹⁶⁵

¹⁶⁴ Scott Bassett, Curriculum/HR/Pupil Services at Millard School District.

¹⁶⁵ Rural Utah principal.

| Teacher | Preparation I | Preparation 2 | Preparation 3 | Preparation 4 | Preparation 5 | Preparation 6 | Number of Preparations |
|---------|----------------|------------------|---------------|------------------|------------------|---------------|---------------------------|
| I | US History II | Gov't World Civ. | US History 7 | Yearbook | World Geo. | UT History 8 | 6 |
| 2 | Literature 7 | English 8 | English I I | English 10 | English 12 | English 7 | 6 |
| 3 | FFA Leadership | Animal Science | Ag. Systems | Plant Science | Ag. Science II | Ag. Systems | 5 |
| 4 | Biology | Earth Systems | Ag Science I | Intro. Science 8 | Intro. Science 7 | Vet. Science | 6 |
| 5 | Math 9, 9H | Algebra II | Geometry | Math 7, 7H | Math 8, 8H | Weights | 5 |
| 6 | Literature 8 | P.E. | English 8 | Math 7 | Literature 8 | P.E. | 3 |
| 7 | Adult Roles | CTE Lab 8 | Bus. Math | Business | Computer Tech. | Comp. Prog. | 6 |

Similarly, the seven full-time teachers at Panguitch High School in Garfield School District teach an average of six difference classes per day (with full-time Jr. High or part-time teachers teaching all the PE courses). Like Manila High School, their schedules also include Jr. High classes. This is common for smaller, rural school, but typically the case for larger schools, where teachers might have between two and four class preparations per day since such schools often offer the same classes several times per day. "Two is the ideal number of prep hours per day because it keeps teachers on their feet," but does not overwhelm the teachers.¹⁶⁶

SHARP – Student Health and Risk Prevention

Since 2003, Bach Harrison, LLC has produced an annual "Prevention Needs Assessment" as part of a Student Health and Risk Prevention Statewide Survey in a collaborative effort with the Utah Department of Human Services Division of Substance Abuse and Mental Health, USOE, and the Utah Department of Health. The survey asks several categories of questions. Two of which are detailed here.

"Substance abuse and antisocial behavior" questions include:

- alcohol, tobacco, and other drug life-time and 30 day use
- problem substance usage, the need for treatment, and antisocial behavior
- places of alcohol use

"Risk and protective factor profiles" questions include responses related to:

- community
- family
- school
- peer/individual

Upon request by Utah Foundation, Bach Harrison, LLC provided tailored assessments of the 2011 data based on NESS status and locale. The assessments included 49,707 respondents from 6th, 8th, 10th and 12th grades. Of the respondents, 46,047 were non-NESS students while 3,660 were NESS students.

More non-NESS 12th grade students used alcohol at some point in their lifetimes than NESS students (37.4% to 35.2%). The same was the case for the use of other drugs including marijuana (24.2% to 18.8%), hallucinogens (7.1% to 4.3%), cocaine (3.5% to 1.6%), inhalants (7.0% to 6.6%), methamphetamines (1.9% to 1.6%), prescription stimulants (7.6% to 5.8%), sedatives (8.2% to 6.5%) narcotics (8.2% to 8.0%),

¹⁶⁶ Rural principal.
and heroin (1.4% to 1.1%). NESS students used considerably more cigarettes (28.9% to 22.9%) and chewing tobacco (14.3% to 8.0%) than did non-NESS students.

Of 12th grade students, more non-NESS 12th grade students had used alcohol within the previous 30 days than NESS students (17.2% to 12.5%), and the reverse with cigarettes (7.0% and 8.6%) and chewing tobacco (2.6% and 6.5%). Marijuana usage was much higher for non-NESS students (10.0% to 6.6%), hallucinogens (2.0% to 1.3%), cocaine (0.7% to 0.3%), prescription stimulants (2.1% to 1.6%), heroin (1.4% to 1.1%), and ecstasy (2.4% to 1.1%). However, unlike the lifetime usage, inhalant usage within the previous 30 days was higher for NESS students (1.5% to 0.7%), along with methamphetamines (0.8% to 0.5%), prescription sedatives (3.2% to 2.7%), and prescription narcotics (2.6% to 2.0%), and steroids (0.9% to 0.7%).

Analysis of the 6th, 8th, and 10th grades showed that non-NESS 12th grade students tended to try alcohol, tobacco and other drugs at an earlier age (except for prescription stimulants and narcotics), but by 8th grade were surpassed by NESS students with regard to tobacco usage.

The 12th grade NESS students had lower binge drinking rates than non-NESS students (12.3% to 9.1%), but higher drinking and driving rates (4.6% to 3.9% within the previous 30 days).

Within the previous 12 months, fewer NESS 12th grade students than non-NESS students had "been drunk or high at school" (9.3% to 13%). But more NESS students had "been suspended from school" (7.3% to 6.6%) and "carried a handgun to school" (1.6% to 0.7%). Fewer NESS students had consumed alcohol at or near a school than non-NESS students (15.5% to 17.5%) within the preceding 12 months (12th grade).

Regarding "risk," NESS and non-NESS 12th grade students reported inconsistent levels of community, family, school and peer/individual risks. A few notable differences were NESS students' higher perceived availability of handguns (45.5% to 29.6%) and lower perceived availabilities of drugs (25.8% to 32.8%) in the community. NESS students reported lower levels of depressive symptoms (30.0% to 34.2%), higher levels of rebelliousness (36.8% to 32.9%) and greater intentions toward drug use (28.1% to 24.3%). With respect to school related risks, NESS students report a slightly lower risk of academic failure (35.9% to 36.2) and a lower risk of having a low commitment to school (28.0% to 35.4%).

Regarding "protection" from risk, responses to questions about community and family - which measure social involvement and attachment - were very similar between NESS and non-NESS. Larger differences emerged for school and peer/individual questions. A metric used to analyze risk protection is through pro-social behavior. This is defined as an action or actions that are used solely to benefit another person. The 12th grade NESS students reported higher school opportunities for pro-social involvement (80.5% to 74.4%) and school rewards for pro-social involvement (68.4% and 56.2%). NESS students reported lower religiosity (59.3% to 66.1%) but a higher belief in a moral order (69.5% to 58.2%) than non-NESS students. NESS students reported more interaction with pro-social peers (72.0% to 70.2%) and more pro-social peer involvement (66.1% to 64.1%) but perceive lower rewards for pro-social involvement (72.7% to 77.3%).

Regarding "safety," a lower percentage of NESS students (all grades) reported not going to school within the preceding month because of safety concerns (5.1% to 5.3%) than non-NESS students. However, a higher percentage reported having been picked on or bullied by a student on school property more than once in the preceding year (15.1% to 13.5%).

Regarding "discipline," a lower percentage of NESS students (all grades) reported that their teachers maintained good classroom discipline (88.7% to 89.9%). However, a higher percentage reported that their principals and assistant principals maintain good discipline (88.7% to 87.1%).

Rural responses mirrored NESS and overall responses (rural and non-rural combined) mirrored non-NESS fairly closely throughout the survey. One notable exception relates to "protection" from risk. When comparing rural schools to overall responses, 12th grade rural students reported only slightly higher school opportunities for pro-social involvement (75.7% to 74.4%) and only slightly higher school rewards for pro-social involvement (58.8% and 56.7%). The gap between NESS and non-NESS was much larger. For these questions, the town schools had the highest locale levels of school opportunities for pro-social involvement (78.7%) and school rewards for pro-social involvement (62.1%), though still much lower than the NESS category.

Rural schools tended to have the second lowest levels of risk of any locale and the highest levels of protection of any locale. Town schools tended to have the lowest levels of risk of any locale and the second highest levels of protection from risk of any locale. Suburban schools tended to mirror the state risk and protection averages quite closely. City schools tended to have the highest levels of risk of any locale and the lowest levels of protection of any locale. NESS schools were similar to rural schools in relation to the state average in risk and protection.

Extra-Curricular Activities

When questioned whether "larger, urban high schools" or "smaller, rural high schools" are better at providing students with more extra-curricular opportunities, both non-rural and rural students were more likely to answer that "larger, urban high schools" provide students with more extra-curricular opportunities (47% to 43%, respectively), though 35% of rural students and 20% non-rural students indicated that "smaller, rural schools" do a better job. Rural school officials believe that this difference is due to larger schools' ability to offer more extra-curricular programs. School size dictates that there tends to be more competition for a limited number places in each of the larger schools' programs, while at smaller schools "everyone who wants to be involved is involved," such that "half of the school is involved in some extra-curricular activity."¹⁶⁷

Principals were asked to indicate the average number of days per week sophomores, juniors and seniors missed three or more classes because of inter-school, intramural or out-of-town school activities. "Typical" rural students missed classes 1.0 day per week while "involved" rural students missed classes 2.0 days. Non-rural students missed fewer classes, with "typical" kids missing 0.8 days and "involved" ones missing 1.6 days.

Extra-curricular activities can be more complicated for rural schools because of transportation issues. When asked whether busing students to and from school affects extra-curricular participation, 57.9% of rural principals indicated it did, compared to just 20.6% of non-rural principals.¹⁶⁸ To deal with this problem, schools sometimes offer additional busing. Over three times more rural principals indicated that they offered early or late buses for students participating in extra-curricular activities than non-rural principals, 36.8% and 11.8%, respectively.¹⁶⁹ (See Figure 107 of the Principal Survey section.)

¹⁶⁷ Piute High School Principal Sylvester and South Sevier High School Principal Bailey, respectively.

¹⁶⁸ Statistically significant at 99% (Pearson chi-square: p=0.006).

 $^{^{169}}$ Statistically significant at 95% (Pearson chi-square: p=0.031)

Regional Service Centers

Utah Code encourages the formation of regional service centers "to collaborate and cooperate to provide educational services in a manner that will best utilize resources for the overall operation of the public education system."¹⁷⁰ Utah has four regional service centers covering all of the rural districts, a few non-rural districts, and a few charter schools:

- Central Utah Educational Services in Richfield:
 - o Tintic School District
 - o Juab School District
 - North Sanpete School District
 - o South Sanpete School District
 - o Sevier School District
 - o Piute School District
 - Wayne School District
- Southeast Educational Service Center in Price:
 - o Carbon School District
 - o Emery School District
 - o Grand School District
 - o San Juan School District
- Southwest Educational Development Center in Cedar City:
 - o Beaver County School District
 - o Garfield County School District
 - o Iron County School District
 - o Kane County School District
 - Millard County School District
 - o Washington County School District
 - o Gateway Preparatory Academy
 - o Success Academy
 - o Tuacahn High School
 - o Vista Charter School
- Northeastern Utah Educational Services in Heber:
 - Daggett School District
 - o Duchesne School District
 - o Morgan School District
 - 0 North Summit School District
 - o Park City School District
 - o Rich School District
 - o South Summit School District
 - Uintah School District
 - o Wasatch School District

Utah's service centers provide a wide range of services, including the following:

• Media libraries

¹⁷⁰ Utah Code 53A-3-429

- Grant writing
- Specialists
 - o Reading
 - o Autism
- Technology integration in classrooms
- Computer repair and networking
- Professional development
- Regional coordination
- Curriculum development
- Server hosting
- Cooperative purchasing

These service centers provide services primarily to rural districts that do not have the personnel or experience to perform certain services on their own.

Utah's four service centers form the Utah Rural Schools Association (URSA) "to improve instruction in rural elementary and secondary schools in Utah," as follows:¹⁷¹

- 1. Help rural schools and districts identify and meet their educational goals.
- 2. Improve communication among rural schools, the State Office of Education, institutions of higher learning, regional education service centers, the public, and other agencies.
- 3. Coordinate programs and activities and to provide sharing of services, resources, and information among the members of URSA.
- 4. Provide a unified voice to all citizenry, local boards, elected public officials, and legislative bodies that have impact on Utah's rural schools.
- 5. Encourage the development of stronger pre-service and in-service training of teachers and administrators in rural schools.

Rural Legislative Representation

As stated previously, the rural student population has remained somewhat steady over the past 20 years, despite an increase in the total rural population. The total rural population in Utah increased by 34.5% between 1990 and 2010 while non-rural population increased 62.1% (with rurality strictly based on the OMB CBSA classification, which identifies Juab and Summit Counties' five districts as non-rural). The population increases in rural and non-rural districts slowed in the most recent 10 year period.

¹⁷¹ Utah Rural Schools Association. http://www.ursa.k12.ut.us/about.php

| | | | | 1990-2000 | 2000-2010 |
|----------------------------|-----------|-----------|-----------|-----------|----------------|
| | 1990 | 2000 | 2010 | Change | Change |
| Beaver County | 4,765 | 6,005 | 6,629 | 26.0% | 10.4% |
| Daggett County | 690 | 921 | 1,059 | 33.5% | 15.0% |
| Duchesne County | 12,645 | 4,37 | 18,607 | 13.6% | 29.5% |
| Emery County | 10,332 | 10,860 | 10,976 | 5.1% | 1.1% |
| Garfield County | 3,980 | 4,735 | 5,172 | 19.0% | 9.2% |
| Grand County | 6,620 | 8,485 | 9,225 | 28.2% | 8.7% |
| Kane County | 5,169 | 6,046 | 7,125 | 17.0% | 17.8% |
| Millard County | 11,333 | 12,405 | 12,503 | 9.5% | 0.8% |
| Piute County | 1,277 | 1,435 | 1,556 | 12.4% | 8.4% |
| Rich County | 1,725 | 1,961 | 2,264 | 13.7% | 15.5% |
| San Juan County | 12,621 | 14,413 | 14,746 | 14.2% | 2.3% |
| Sanpete County | 16,259 | 22,763 | 27,822 | 40.0% | 22.2% |
| Sevier County | 15,431 | 18,842 | 20,802 | 22.1% | 10.4% |
| Wayne County | 2,177 | 2,509 | 2,778 | 15.3% | 10.7% |
| Total rural population | 105,024 | 125,751 | 141,264 | 19.7% | 12.3% |
| | | | | | |
| Box Elder County | 36,485 | 42,745 | 49,975 | 17.2% | 16.9% |
| Cache County | 70,183 | 91,391 | 112,656 | 30.2% | 23.3% |
| Carbon County | 20,228 | 20,422 | 21,403 | 1.0% | 4.8% |
| Davis County | 187,941 | 238,994 | 306,479 | 27.2% | 28.2% |
| Iron County | 20,789 | 33,779 | 46,163 | 62.5% | 36.7% |
| Juab County | 5,817 | 8,238 | 10,246 | 41.6% | 24.4% |
| Morgan County | 5,528 | 7,129 | 9,469 | 29.0% | 32.8% |
| Salt Lake County | 725,956 | 898,387 | 1,029,655 | 23.8% | 14.6% |
| Summit County | 15,518 | 29,736 | 36,324 | 91.6% | 22.2% |
| Tooele County | 26,601 | 40,735 | 58,218 | 53.1% | 42.9% |
| Uintah County | 22,211 | 25,224 | 32,588 | 13.6% | 29.2% |
| Utah County | 263,590 | 368,536 | 516,564 | 39.8% | 40.2% |
| Wasatch County | 10,089 | 15,215 | 23,530 | 50.8% | 54.7% |
| Washington County | 48,560 | 90,354 | 38, 5 | 86.1% | 52. 9 % |
| Weber County | 158,330 | 196,533 | 231,236 | 24.1% | 17.7% |
| Total non-rural population | 1,617,826 | 2,107,418 | 2,622,621 | 30.3% | 24.4% |
| Total state population | 1,722,850 | 2,233,169 | 2,763,885 | 29.6% | 23.8% |

According to federal law, the Utah State Legislature is required to redistrict every ten years after each U.S. Census.¹⁷² Since 1990, rural population has been increasing at a lower rate than the non-rural population. Accordingly, between 1990 and 2000, rural counties' proportion of the total population declined 7.6%, and between 2000 and 2010 they declined 9.2%. The net result is a 16.2% decline in the proportion of Utah's population that is rural, which translated into a loss of representation at the State Capitol.

| Figure 155: Share Rural and Non-Ru | of Total Po ral School I | pulatio District | n in s |
|---------------------------------------|-----------------------------|---------------------|-----------|
| | Share | e of Popula | tion |
| | 1990 | 2000 | 2010 |
| Rural districts | 6.1% | 5.6% | 5.1% |
| Non-rural districts | 93.9% | 94.4% | 94.9% |
| Source: U.S. Census. | | | |

¹⁷² Utah Constitution Article IX, Section 1. http://le.utah.gov/~code/const/htm/00I09_000100.htm

The Utah House of Representatives has 75 members while the Utah Senate has 29 members. Following the restricting in 2011, rural Utah lost three legislative representatives in the House.

Before redistricting, nine House districts included rural school districts: 4, 53, 54, 55, 67, 68, 69, 70, and 73. After 2011 redistricting, beginning with the 2012 election the House representation shrunk to six districts: 53, 58, 68, 69, 70, and 73.



Source: Utah State Legislature's district maps and Utah Lt Governor's elections maps.

In the Senate, representation remained much the same. Before redistricting, five Senate districts represented rural school districts: 19, 24, 26, 27, and 28. After redistricting, five different Senate districts represented rural school districts: 24, 25, 26, 27, and 28.



Educational Outputs

Educational inputs are designed to positively affect educational outcomes or outputs. The outputs included in this evaluation cover all stages of Utah students' education including post-secondary education. Rural students tend to have higher annual state exam scores and exam score progress, but lower ACT scores. Rural students tend to have higher graduation rates, but that difference is narrowing. Lastly, rural students tend to have lower college entrance rates, but their retention rates are similar to other types of students.

As noted in the Educational Inputs section, the information provided in this section is not a re-organization and re-interpretation of the data from the high school senior, principal and superintendent surveys. Instead, it is an analysis of non-primary-source research which includes information from the surveys when such aids in providing context. Accordingly, this section should be read in conjunction with the survey sections.

Criterion-Referenced Tests

Adequate Yearly Progress (AYP) is the federal system under NCLB that measures math and language arts proficiency and, as the name implies, progress. U-PASS was the state system (on which the AYP scores are based) which additionally includes science scores and progress. This study evaluated the U-PASS criterion-referenced test (CRT) data.

The language arts CRTs assess 3rd-11th grade language arts classes. The science CRTs assess 4th-8th grade science, Earth Systems, Biology, Chemistry, and Physics. The math CRTs assess 3rd-7th grade math, Pre-Algebra, Geometry, and Algebra I and II.

Comparing performance based upon CRT scores is difficult, even when controlling for demographics such as race/ethnicity, mobility, and income. Part of the problem is that the top performing students may not always be included in testing results. For instance, students in AP English are not tested with their cohort for the language arts CRTs. This could artificially decrease a school's scores in comparison to schools without AP courses.

One way to compensate for some of the difficulties in comparing scores between schools or within school levels is to combine elementary and secondary schools in groups, like NESS/non-NESS and the NCES locale groups. An even better way than aggregating proficiency scores may simply be to measure "progress," which is detailed below.

NESS schools had slightly higher language arts and science scores than non-NESS schools. Non-NESS schools had slightly higher proficiency scores (the percent of students achieving proficiency on the exams) in math. Non-NESS schools also had slightly higher attendance rates. However, none of the differences between these two groups were statistically significant.

Figure 158: Proficiency and Attendance

| | Proficie | ncy Percentage | 9 | Attendance |
|---------------------------|---------------|----------------|---------|------------|
| | Language Arts | Math | Science | Rate |
| Rural | 82.0 | 75.9 | 74.5 | 85.4 |
| Town | 82.0 | 70.1 | 73 | 84.4 |
| Suburb | 79.8 | 70 | 69.9 | 86. I |
| City | 75.3 | 65.8 | 62.7 | 85.2 |
| | | | | |
| Non-NESS | 79.5 | 70.5 | 69.9 | 85.8 |
| NESS | 81.8 | 70.4 | 71.5 | 83.8 |
| | | | | |
| Source: USOE, 2011 UPASS. | | | | |

For the language arts CRT, rural and town students showed the highest proficiency (82.0% each), followed by suburban schools (79.8%) and city schools (75.3%). For the math CRTs, rural schools showed the highest proficiency (75.9%), and again city schools were the lowest (65.8%). Town and suburban schools fell in the middle (70.1% and 70.0%, respectively). Rural students also performed the best on science CRTs, with a 74.5% proficiency rate. Town schools were a bit behind (73.0%) with suburban schools just below the total average (69.9%). City schools had the lowest proficiency score of 62.7%. Suburban schools had the highest attendance rates, followed closely by rural, city, and town schools. None of the differences between attendance rates of the locales were statistically significant.

| | Rural | Town | Suburb | City |
|--------|---------------|------------|---------------|---------------|
| | | | | Lang. Art |
| Rural | х | none | Math, Science | Math, Science |
| | | | | Lang. Art |
| Town | none | x | none | Science |
| | | | | Lang. Art |
| Suburb | Math, Science | none | х | Science |
| | Lang. Art, | Lang. Art, | Lang. Art, | |
| - | Math Calanaa | Salamaa | Science | |

U-PASS progress scores are used to show improvement, which is intended to help eliminate the advantage certain schools, districts and other groups may have in proficiency comparisons. U-PASS Progress measures the movement between CRT scores on a scale from 0 to 375. Progress scores are given based upon the progression between levels. In terms of progress, a school with a score between 0 and 179 is "low," between 180 and 204 is "medium," and 205 or higher is "high." Progress is determined for any student who is enrolled for a whole year (160 or more days), and broken into subgroups.

When comparing NESS and non-NESS CRT progress, the small schools scored higher in language exams. Non-NESS schools had higher progress scores in math and science as well as attendance. However, none of the differences were statistically significant.

Rural and town locales were "high" performers for language arts while suburb and city locales were "medium." Rural schools had the most progress in math with a score of 201.6, and city schools had the lowest with 189.1. All locales were "medium" performers. The average progress for rural schools for science was "high" performance. Town, suburban and city schools' average was "medium." All locales were "medium" performers for attendance.

| Figure 16 | 0: Progress | Levels | | |
|--------------|------------------|----------|---------|------------|
| | | Progress | Score | |
| | Language Arts | Math | Science | Attendance |
| Rural | 205.7 | 201.6 | 205.1 | 178.4 |
| Town | 205.6 | 193.2 | 203.8 | 176.7 |
| Suburb | 200.7 | 192.7 | 200.5 | 178.7 |
| City | 198.2 | 189.1 | 198.8 | 78. |
| Non-NESS | 201.5 | 194.5 | 202.1 | 178.6 |
| NESS | 206.9 | 188.8 | 194.4 | 175.6 |
| Source: USOE | , 2011 UPASS. | | | |

| Figure | 161: Statistically | y Significan | t Progress Dif | ferences |
|---|----------------------|-----------------|-----------------|-----------------|
| | Rural | Town | Suburb | City |
| Rural | x | none | Lang. Art, Math | Lang. Art, Math |
| Town | none | х | none | Lang. Art |
| Suburb | Lang. Art, Math | none | x | none |
| City | Lang. Art, Math | Lang. Art | none | x |
| Note: All reported differences are statistically significant at 99% except the difference between rural and suburb CRT progress for math which is significant at 95%. | | | | |
| Source: U | SOE, 2011 UPASS; Uta | ah Foundation C | alculations. | |

Utah received an AYP waiver on June 29, 2012, to be free from the No Child Left Behind measurement and program improvement sanctions.¹⁷³ In exchange for the waiver, Utah had to implement a plan to address college and career readiness for all students, school accountability, teacher evaluation, and administrative burdens on schools.¹⁷⁴ This new plan, Utah Comprehensive Accountability System (UCAS) is taking the place of both the AYP and U-PASS beginning in 2012.

College Entrance Exams

The ACT has been more widely taken in Utah as a college entrance exam than the SAT, with about 85% of Utah high school seniors taking this exam in 2012.¹⁷⁵ Utah's composite score of 20.7 was 1.9% lower than the U.S. score of 21.1.

| Figure 162: Average ACT Scores, 2012 Graduating Class | | | |
|--|------|------|--|
| | Utah | U.S. | |
| English | 20.0 | 20.5 | |
| Mathematics | 20.3 | 21.1 | |
| Reading | 21.3 | 21.3 | |
| Science | 20.8 | 20.9 | |
| Composite | 20.7 | 21.1 | |
| Source: ACT. | | | |

Average composite ACT scores in 2010 (the most recent year for which USOE had the most complete data) were higher in non-rural districts (20.6) than rural districts (19.8), a 4.0% difference.¹⁷⁶ This also held true when comparing locale-grouped scores, with suburban schools being the highest (21.2), followed by town, city and rural schools (20.2, 20.1 and 19.9 respectively).¹⁷⁷ When comparing school locales with one another, the only statistically significant difference was between rural and suburban schools,¹⁷⁸ though the difference between suburban and city or town schools' ACT scores was nearly significant.¹⁷⁹

¹⁷³ Alyson Klien, Five More States Get NCLB Waivers. http://blogs.edweek.org/edweek/campaign-k-12/2012/06/five_more_states_get_nclb_waiv.html?cmp=ENL-EU-NEWS1

¹⁷⁴ Salt Lake Tribune, Utah granted waiver to No Child Left Behind law, June 30, 2012. http://www.sltrib.com/sltrib/news/54403500-78/utahschools-waiver-education.html.csp

¹⁷⁵ Note: this is a Utah Foundation calculation based on USOE population rates and the number of ACT test scores; ACT estimates that 97% of Utah's students take test.

¹⁷⁶ Statistically significant at 99%.

¹⁷⁷ This comparison is statistically significant at 99% when testing the differences generally.

¹⁷⁸ Significant at 99% (p=0.005).

¹⁷⁹ Nearly significant at 90% (p=0.116 and p=0.133, respectively).

NESS schools had an average ACT score of 19.6, lower than non-NESS schools score of 20.7, a 5.6% difference.¹⁸⁰ When suburban schools were removed, the difference between NESS and non-NESS ACT scores was diminished, and the significance was somewhat reduced (see Figure 164).¹⁸¹ This shows that - while suburban schools did inflate non-NESS scores - the difference between NESS and non-NESS schools was not only caused by suburban schools.

| Figure 16 District, | 53: Average 2010 | e ACT Sco | res by |
|------------------------|---------------------|-----------|-----------|
| | Number of | Number of | Average |
| | Districts | Schools | ACT Score |
| Rural | 18 | 36 | 19.6 |
| Non-Rural | 23 | 86 | 20.7 |
| Source: ACT | • | | |

Figure 164: Average ACT Scores by Locale and NESS Status, 2010

| | Number | Average |
|-------------------------------------|------------|-----------|
| | of Schools | ACT Score |
| Rural | 39 | 19.9 |
| Town | 25 | 20.2 |
| Suburb | 38 | 21.2 |
| City | 20 | 20.1 |
| | | |
| NESS | 34 | 19.6 |
| Non-NESS | 88 | 20.7 |
| Non-NESS (without suburban schools) | 50 | 20.3 |
| | | |
| Source: ACT. | | |

Utah's average 2012 composite ACT score was 20.7, below the national average of 21.1.¹⁸² The lowest composites in the nation were in Mississippi (18.7) Arizona, D.C., Tennessee (all 19.7). The highest scores were in Massachusetts (24.1), New Hampshire and Connecticut (23.8), and Maine and New Jersey (23.4).

Among the 22 states with over 70% of graduates tested, Utah falls near the average ACT score. Among all states, those with the highest scores (including all those with a composite score of 23 and higher) had fewer than 50% of their students take the ACT.

This national analysis can help put the difference between rural and non-rural scores into some context. While the difference been rural and non-rural schools was only 4.0%, this could be the difference between whether or not a student would be able to compete nationally and would be accepted to college. In Utah's higher education institutions without open-enrollment policies, the average scores for rural and non-rural districts fell near the bottom 25% of enrolled students (and far below that of BYU). While the institutions do not release data on the students with the lowest entrance exam scores, the one to two point difference between rural and non-rural students could mean all the difference between acceptance and rejection.

¹⁸⁰ Significant at 99% (p=0.001).

¹⁸¹ Significant at nearly 95% (p=0.059).

¹⁸² ACT, 2012 National and State Test Scores. http://www.act.org/newsroom/data/2012/states.html

| Figure 165: ACT Scores for Applicants to Utah's Higher Educational Institutions | | | | |
|--|--|--|--------------------------------------|--|
| School | 25 th Percentile ACT Score | 75 th Percentile ACT Score | Percentage of Applicants Admitted | |
| Brigham Young University | 26 | 30 | 63% | |
| Southern Utah University | 19 | 26 | 76% | |
| University of Utah | 21 | 27 | 83% | |
| Utah State | 20 | 27 | 97% | |
| Westminster | 22 | 27 | 68% | |
| Dixie | Open-Admissions | | | |
| Salt Lake Community College | Open-Admissions | | | |
| Snow | Open-Admissions | | | |
| Utah Valley University | | Open-Admissions | | |
| Weber | | Open-Admissions | | |
| Note: 25th percentile means that 25% of the enrolled students had composite math and English ACT scores below the listed number. 75th percentile means that 75% of the enrolled students had composite ACT scores of the listed number or below, with 25% of enrolled students with a score above the listed number. Thus, 50% of the ACT scores were at or between the 25 th and 75 th percentile numbers. Source: About.com; http://collegeapps.about.com/od/state-act-scores/a/utah-act-scores.htm. | | | | |

Graduation and Dropout Rates

When they reach the age of 16, Utah's high school students have the option to graduate (if they have enough credits) or drop out of school.¹⁸³ Utah's graduation rate of 76.1% in 2011 was higher than the national average. In rural districts the graduation rate was 79.3% and in non-rural districts was 75.9%. This difference has narrowed from 6.3 percentage points in 2008 to 3.4 points in 2011. The narrowing difference between rural and non-rural districts' graduation rates likely due to the upward trend by all non-rural districts since 2008 in conjunction with a higher level of rate variability in rural areas, where six district had declining rates over the four-year period. Two rural districts had the greatest increases in graduation between 2008 and 2011, with Piute at 20.9% and Duchesne at 19.1%. Rural districts had the only decreases in graduation: North Sanpete decreased by 4.0%, followed by Rich by 3.2%.



¹⁸³ Utah Code 53A-11-102.

| Figure 167: Utah District Graduation Rates | | | |
|--|------------|-----------|--|
| | 2008- 2011 | 2008-2011 | |
| District | Change | Average | |
| Rural | | | |
| Beaver | -0.8% | 79.4% | |
| Daggett | 7.7% | 98.1% | |
| Duchesne | 19.1% | 65.1% | |
| Emery | 8.9% | 85.3% | |
| Garfield | 2.6% | 80.4% | |
| Grand County | 8.8% | 83.6% | |
| Kane | 5.5% | 74.0% | |
| Millard | -2.8% | 89.4% | |
| North Sanpete | -4.0% | 67.8% | |
| North Summit | 5.5% | 90.7% | |
| Piute | 20.9% | 83.2% | |
| Rich | -3.2% | 96.1% | |
| San Juan | 10.9% | 73.8% | |
| Sevier | -0.6% | 76.9% | |
| South Sannete | 1.8% | 79.5% | |
| South Summit | 1.3% | 84.0% | |
| Tintic | 1.5% | 93.0% | |
| Mayna | -1.0% | 03.0% | |
| Non-Rural | | | |
| Alpine | 3.6% | 74.0% | |
| Box Elder | 5.7% | 78.0% | |
| Cache | 3.2% | 86.8% | |
| Canyons* | 0.4% | 82.7% | |
| Carbon | 13.2% | 80.1% | |
| Davis | 8.6% | 78.1% | |
| Granite | 8.0% | 63.5% | |
| Iron County | 7.0% | 74.2% | |
| Jordan | 3.2% | 76.6% | |
| Juab | 9.0% | 79.3% | |
| Logan | 1.3% | 78.9% | |
| Morgan | 3.9% | 90.0% | |
| Murray | 16.6% | 75.1% | |
| Nebo | 10.9% | 81.5% | |
| Ogden City | 16.0% | 54.3% | |
| Park City | 14.1% | 83.7% | |
| Provo | 4.1% | 69.7% | |
| Salt Lake City | 13.5% | 57.6% | |
| Tooele County | 14.0% | 71.8% | |
| , Uintah | 14.5% | 62.5% | |
| Wasatch | 12.8% | 81.0% | |
| Washington County | 11.2% | 69.9% | |
| Weber | 3.8% | 76.4% | |
| Source: USOE. | | | |

When running a statistical regression for graduation rates, controlling for race/ethnicity and socioeconomic status (% free and reduced lunch in district), rurality increases a district's graduation rate by 7.7%. Conversely, each 10% increase of free and reduced lunch decreases graduation rate by 3.2%. Both of these factors are statistically significant.¹⁸⁴ Each 10% increase of racial/ethnic minorities decreases graduation rate by 0.2%, though this factor is not statistically significant.

¹⁸⁴ At 99% (p=0.006 and 0.004, respectively -- R square=36.2)

These results suggest rurality does increase the likelihood of graduating. The principal at Bryce Valley high school stated a very common explanation for this among rural administrations: "very few kids fall through the cracks... teachers know exactly what each kid needs to succeed." This is the "community" advantage that small schools may have over non-rural schools. Another possible support for rural graduation rates is that rural school officials believe that a high percentage of rural students are involved in extracurricular activities, possibly keeping the involved students from dropping out. ¹⁸⁵ Additionally, there may be fewer opportunities in some rural districts for students who have dropped out of school, making it a less attractive option than staying in school.

Post-secondary and college enrollment

A slightly higher percentage of non-rural students expressed that they would attend college or job training than rural students (85.2% to 83.8%, respectively), though the difference is not statistically significant. Of these students, 61% of rural students and 68% of non-rural students, intended to go to 4-year colleges, and 21% of rural students and 14% of non-rural students planned to attend 2-year colleges.¹⁸⁶ An additional 8% of rural students and 10% of non-rural students planned on beginning with 2-year colleges and then moving on to 4-year schools, and 7% of rural students and 5% of non-rural students intended to pursue one-year job training following high school. A small number of students marked "other" for their type of college or job training. The "other" responses in order of frequency included military, a shorter term of job training, an LDS mission, and undecided.

When looking specifically at seniors' intentions to enroll in college, the data show that rural students (75%) slightly trail non-rural students (78%). Their plans do not necessarily translate into reality. Excluding alternative high schools, the enrollment rate of 55.5% for rural students falls short of their intentions, and far short of their town (61.2%), suburb (66.5%), and city (62.7%) counterparts. This spread narrows by a couple percentage points when including alternative schools, with decreases in town, suburban and city school averages.



¹⁸⁵ Massoni, Erin (2011) "Positive Effects of Extra Curricular Activities on Students," *ESSAI*: Vol. 9, Article 27. http://dc.cod.edu/essai/vol9/iss1/27

Of those students who enroll in within 16 months of graduation from high school, just over half completed at least one year's worth of college credit within two years of enrollment. The difference in retention between the four locales is narrow, with highest retention for town students (54.9%), followed by suburban students (54.8%), rural students (53.8%) and city students (53.4%)



Conclusion

Balancing the Educational Inputs and Outputs of Rurality

A 2011 report by the Legislative Fiscal Analyst's Office stated that "Utah is one of only a handful of states not to have its funding model challenged or restructured through the judicial process."¹⁸⁷ USOE takes this lack of a legal challenge as support that the "status of equity in Utah schools is self-evident."¹⁸⁸ Nonetheless, equity is a subjective concept, whether considering general education funding or more specific rural and non-rural funding.

A dearth of course offerings and lower than average college enrollment rates pose a great challenge to rural communities. Despite these and other disadvantages faced by rural schools, Utah's rural students seem to be doing all right. For instance, they perform comparatively well on their annual state exams and graduate from high school at higher rates. Many teachers, principals and superintendents believe that the advantages of "rural schools are worth the tradeoff," even though the students might not be getting the opportunities of non-rural schools.¹⁸⁹

Nonetheless, any such rural advantage is in peril since small school and district viability is tenuously tied to budgets which are already as lean as possible in these areas. According to rural principals and superintendents, cuts at the federal or the state levels would impact rural schools the most. NESS funding is seen as rural schools' salvation, and rural schools stakeholders are looking to increase such fund by a significant amount. But with decreasing representation at the State Capitol, such increases are in question.

The USOE issued a report in 2010 in which the Strengthening Senior Year Career and College Ready Work Group developed recommendations for success with emphasis on the following categories of their work:

- 1. Effective guidance and planning
- 2. Rigorous and relevant coursework
- 3. Multiple pathways, options, and supports for students¹⁹⁰

Each of these is a special challenge for rural schools. Without professional counseling, without challenging classes, and without the options that fit the dreams and aspirations of the students, rural kids will not achieve the career and college readiness that is at the heart of the Utah Governor's Education Excellence Commission. Governor Herbert has set a goal of raising the education level so that 66% people between the ages of 20 and 64 have a postsecondary degree or certificate.¹⁹¹ While the rural community feels that "people just don't think about rural schools when they are making the rules,"¹⁹² attention to rural issues and NESS funding are vital to equitably reaching the Governor's goal.

¹⁸⁷ Utah Office of the Legislative Fiscal Analyst "2011 In-Depth Budget Review: Minimum School Program & the Utah State Office of Education" December 13, 2011.

¹⁸⁸ USOE, LEA Financial Condition, Activities, Discussion and Analysis, for the Fiscal Year Ended June 30, 2011, dated February 2, 2011. http://www.schools.utah.gov/finance/Financial-Reports/Reports/2011_06_30-Utah-Public-Education-Statewide-Financi.aspx

¹⁸⁹ Superintendent Johnson, Iron County School District.

¹⁹⁰ USOE, Strengthening the Senior Year, 2010.

¹⁹¹ Governor's Education Excellence Commission, Vision 2020: 8 Proposals for 2011. http://vision2020research.com/files/42283268.pdf

¹⁹² Rural high school principal.

Glossary

| ADM | average daily membership |
|------|--|
| АҮР | Adequate Yearly Progress |
| ARL | alternative route to (teaching) licensure |
| CBSA | OMB's Core-Based Statistical Area |
| CE | concurrent enrollment |
| CTE | Career and Technical Education |
| DOE | U.S. Department of Education |
| EHS | Utah Electronic High School |
| ELL | English language learner |
| ESEA | Elementary and Secondary Education Act |
| IB | International Baccalaureate |
| LEA | Utah Local Education Areas (districts and charter schools) |
| MSP | Minimum School Program |
| NCES | National Center for Education Statistics |
| NCLB | No Child Left Behind |
| NESS | Necessarily Existent Small School |
| OMB | U.S. Office of Management and Budget |
| REAP | Rural Education Achievement Program |
| SLP | speech and language pathologist |
| SRS | Small, Rural School Achievement program |
| SRSA | Secure Rural Schools Act |
| TIF | tax increment financing |
| UEN | Utah Education Network |
| URSA | Utah Rural Schools Association |
| USOE | Utah State Office of Education |
| WIRE | Western Institute for Research and Evaluation |
| WPU | Weighted Pupil Unit |
| | |

Appendices

Appendix ASide-By-Side Comparison of 1998 and 2012 Evaluation Rural/Non-Rural ClassificationAppendix B2012 High School Senior Survey Responses, by DistrictAppendix C2012 High School Principal Survey Responses, by District

Appendix A

| Side-By-Side Comparison of 1998 and 2012 Evaluation | | | |
|---|---------------------|-------------|--|
| Rural/Non-Rural Classification | on | | |
| | | | |
| | 1998 WIRE | 2012 Utah | |
| District Name | Study | Foundation | |
| | | | |
| Beaver | Rural | Rural | |
| Daggett | Rural | Rural | |
| Duchesne | Rural | Rural | |
| Emery | Rural | Rural | |
| Garfield | Rural | Rural | |
| Grand County | Rural | Rural | |
| Kane | Rural | Rural | |
| Millard | Rural | Rural | |
| North Sanpete | Rural | Rural | |
| North Summit | Rural | Rural | |
| Piute | Rural | Rural | |
| Rich | Rural | Rural | |
| San Juan | Rural | Rural | |
| Sevier | Rural | Rural | |
| South Sanpete | Rural | Rural | |
| South Summit | Rural | Rural | |
| Tintic | Rural | Rural | |
| Wayne | Rural | Rural | |
| | | | |
| | . . | | |
| Carbon | Rural | Non-Rural | |
| Iron County | Rural | Non-Rural | |
| Juab | Rural | Non-Rural | |
| Morgan | Rural | Non-Rural | |
| Park City | Rural | Non-Rural | |
| Uintah | Rural | Non-Rural | |
| Wasatch | Rural | Non-Rural | |
| Washington County | Rural | Non-Rural | |
| | | | |
| Alpine | Urban/Suburban | Non-Rural | |
| Box Elder | Urban/Suburban | Non-Rural | |
| Cache | Urban/Suburban | Non-Rural | |
| Canyons | N/A | Non-Rural | |
| Davis | Urban/Suburban | Non-Rural | |
| Granite | Urban/Suburban | Non-Rural | |
| lordan | Urban/Suburban | Non-Rural | |
| Logan | Urban/Suburban | Non-Rural | |
| Murray | Urban/Suburban | Non-Rural | |
| Nebo | Urban/Suburban | Non-Rural | |
| Orden City | Urban/Suburban | Non-Rural | |
| Provo | Urban/Suburban | Non-Rural | |
| Salt Lake City | Urban/Suburban | Non-Rural | |
| Tooele County | Urban/Suburban | Non-Rural | |
| Weber | Urban/Suburban | Non-Rural | |
| | e i ouni ououi ouri | i von nundi | |

Appendix B

| 2012 High School Senior Survey Responses, by District | | | |
|---|-----------------------------|--------------------------|-------------------------------|
| District | High School(s) | Number of Respondents | Percent of all Respondents |
| Beaver | Beaver | - 25 | I.7% |
| Carbon | Carbon | 140 | 9.8% |
| Duchesne | Duchesne | 20 | 1.4% |
| Emery | Emery, Green River | 107 | 7.5% |
| Garfield | Escalante, Panguitch | 36 | 2.5% |
| Grand County | Grand County | 43 | 3.0% |
| Iron County | Parowan, Cedar City | 178 | 12.4% |
| Kane | Valley, Kanab | 37 | 2.6% |
| Millard | Delta | 47 | 3.3% |
| North Summit | North Summit | 72 | 5.0% |
| Park City | Park City | 241 | 16.8% |
| Piute | Piute | 21 | 1.5% |
| Rich | Rich | 13 | 0.9% |
| San Juan | Navaho Mountain, Whitehorse | 18 | 1.3% |
| Sevier | North Sevier, South Sevier | 80 | 5.6% |
| South Sanpete | Gunnison Valley | 16 | 1.1% |
| South Summit | South Summit | 73 | 5.1% |
| Wasatch | Wasatch | 103 | 7.2% |
| Washington County | Dixie, Enterprise | 164 | 11.4% |
| Total | | I,434 | 100.0% |

Appendix C

| 2012 High School Principal Survey Responses, by District | | |
|--|---|--|
| | | |
| District | High School(s) | |
| Alpine | American Fork, Lehi, Lone Peak, Mountain View, Orem, Pleasant Grove, Westlake | |
| Beaver | Milford | |
| Duchesne | Duchesne | |
| Box Elder | Bear River, Box Elder | |
| Cache | Mountain Crest | |
| Canyons | Hillcrest, Jordan | |
| Carbon | Carbon | |
| Daggett | Manila | |
| Davis | Clearfield, Davis, Layton Woods Cross | |
| Duchesne | Tabiona | |
| Emery | Emery, Green River | |
| Grand | Grand County | |
| Granite | Granger, Kearns, Skyline | |
| Iron County | Canyon View | |
| Juab | Juab | |
| Kane | Valley | |
| Morgan | Morgan | |
| Nebo | Maple Mountain, Payson, Salem Hills, Spanish Fork, Springville | |
| North Sanpete | North Sanpete | |
| North Summit | North Summit | |
| Ogden City | Ogden | |
| Provo | Provo, Timpview | |
| Salt Lake City | West | |
| San Juan | Monticello, Monument Valley, San Juan | |
| Sevier | Richfield, South Sevier | |
| South Sanpete | Manti | |
| Tooele County | Stansbury, Tooele | |
| , Uintah | Uintah | |
| Washington County | Desert Hills, Enterprise | |
| Wayne | Wayne | |

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