EDUCATOR SUPPLY AND DEMAND IN UTAH

Final report to the Utah State Board of Education

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Executive Summary

This summary outlines the major findings of a study conducted by the Bureau of Research Services at Utah State University for the Utah State Office of Education. Information for this study was obtained from the deans of Utah's colleges of education, the Utah State Office of Education teacher licensure database (CACTUS), enrollment projections from the Utah State Office of Education, school-age population projections from the Governor's Office of Planning and Budget, and two surveys. Data were collected between October 2000 and April 2001.

This summary first discusses demand factors, then discusses teacher supply, and concludes by summarizing survey results and recommendations for ongoing data collection. In contrast, the main report is organized by project objectives.

- As of October 2000, total Utah fall enrollment was 475,269. Total enrollment is expected to climb to 499,066 by 2005, a net increase from 2000 of 23,797 students, or an overall growth rate of 5%. The rate of growth will be moderate in elementary and special education enrollments, but secondary enrollments are expected to remain fairly stable or decline. Between 2005 and 2010, the Governor's Office of Planning and Budget expects the school age population in Utah to increase by 14.4%. (See Section 1)
- The median amount of inservice experience among all Utah teachers is estimated at 13.8 years. Given age and experience of current Utah teachers, we expect that between 4% and 5% of the current teaching pool will be eligible for early retirement in any given year. (See Section 2)
- Retirement will probably have the largest effect on supply and demand, causing annual reductions in the teaching pool of as much as 5%. Enrollment growth could require annual increases in the statewide teaching pool of about 1%, but enrollment-based need is expected to vary considerably by district. Attrition among new teachers has historically reduced the total teaching pool by about 1.2% annually. The career choices of new graduates and the ability of districts to recruit and hire new teachers also influence teacher supply and demand. (See Section 7)
- To compensate for enrollment growth, an additional 1,652 full-time equivalent teachers will be needed statewide by Fall 2005 to staff school assignments in patterns like those present during the 1999-00 school year. Given projected rates of enrollment growth, the demand for Elementary and Special Education teacher will be much greater than the demand for teachers in Secondary assignments. (See Section 4)
- Between 2001 and 2005, geographic areas with higher expected rates of enrollment growth (such as the Wasatch Front and the North East) will experience teacher need at all levels, while some rural areas could see small surpluses due to declines in enrollments. Most areas may experience some demand for elementary teachers, but may have an adequate supply or a surplus of secondary teachers. (See Section 6)
- Using data obtained from Utah's colleges of education and from the state teacher licensure database, we estimate that roughly 50% of newly prepared teachers take jobs in Utah public schools within the first two to three years following graduation. (See Section 9)
- Under this assumption that 50% of Utah graduates take jobs in Utah, we estimate that approximately 660 new teachers must graduate each year to compensate for approximately 330 new teachers needed annually due to enrollment growth. To compensate for teacher pool reduction due to early retirements, an additional 1,400 new graduates may be needed each year to compensate for the roughly 700 teachers who could retire each year. This means that given the effects of enrollment growth and retirement, Utah may need over 2,000 newly prepared teachers each year, with about 1,200 prepared in elementary education (See Section 8)

- Between 1995 and 2000, Utah's eight colleges of education reported a total of 20,745 graduates. Utah schools graduated 5,592 in Elementary Education, 1,080 in Early Childhood Education, 678 in Dual Early Childhood/Elementary Programs, 9,726 in Secondary Education, 1,244 in Special Education, and 277 in Administrative/Supervisory programs. Utah's colleges expect to produce in total about 3,400 graduates each year over the next three to four years, about 1,000 of which will be elementary teachers. (See Section 3)
- Using a survey of Utah teacher preparation program graduates who did not take jobs in Utah, we found that 40% of respondents did not seek any teaching jobs, 24% sought jobs only in other states, and 36% sought jobs in Utah but did not teach. The most common reason for not seeking a teaching job was marriage or children. The most common reason for job seeking only in other states was because a spouse obtained employment out of state. Most respondents felt that increasing Utah teacher salaries would be the most effective way to recruit more new teachers. Over three-quarters of respondents said they would consider seeking a teaching job in Utah in the future. (See Section 10)
- Based on data from a sample of 4,755 teachers taking first assignments between 1990 and 1999, we estimate that about 40% of new teachers quit within five years. The early attrition rate is slightly lower than average for elementary teachers, and higher than average for secondary and special education teachers. Most teachers who leave do so after their second or third year of teaching. Of teachers who leave, we estimate that only 12% take a second teaching job within five years of leaving. (See Section 11)
- We estimate that the median length of a first teaching assignment for women is seven consecutive school years, and for men is greater than ten years. (See Section 11)
- Using a survey of Utah teachers who quit within five years of beginning teaching, we found that 63% said they left because of child rearing or because of a personal move. Less than 5% of former teachers listed dissatisfaction as their primary reason for leaving, but most of those who did listed poor salary as their main reason for dissatisfaction. Most respondents felt that increasing teacher salaries would be the most effective way to increase teacher retention. Nearly two-thirds of survey respondents said they would consider seeking another teaching job in Utah in the future, but few said they would consider returning within five years. (See Section 11)
- The report concludes with a set of recommendations for assessing teacher supply and demand in Utah on an ongoing basis. Much of the data required to assess supply and demand is already collected each year for other purposes. A basic system for annually assessing supply and demand would collect estimates of teacher retirement, estimates of the yearly change in enrollments, and estimates of the number of Utah teacher preparation program graduates who will be available to take jobs in Utah. Other important elements may include rates of non-licensed teachers in assignments, rates of teacher attrition for other reasons, and sources of new hires. Since most new Utah teachers receive their teaching degree in Utah, colleges of education must consistently collect and report graduation and placement data needed to estimate teacher supply. (See Section 12)

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Introduction

This report is the final product of a contract between the Utah State Office of Education and the Bureau of Research Services at Utah State University. The time period for this project was October 1, 2000 to June 30, 2001.

Project objectives

This report is organized by project objectives. The objectives for this project were as follows:

"Phase 1: Analysis of existing data to include the following:

- current student enrollments K-12
- Current age/experience distribution of practicing educators
- Number of educators prepared by licensure area for the years 1995–2000 reported in total and by Utah educator preparation institution

Phase 2: Estimate the demand for educators based on projected student enrollments and reference educator preparation adequacy as determined by survey of representative sample of educators prepared by Utah higher education institutions.

- Based on current pupil-teacher ratios and school staffing patterns, estimate the total number of educators needed in each area of state licensure based on total student population (actual and projected) for each year, 2000–2005, and project the same for 2010.
- Based on current pupil–teacher ratios and school staffing patterns, estimate licensure areas of over supply, adequate supply, and short supply.
- Determine educator estimated supply and demand categories by geographic areas of the state of Utah.
- Identify possible causes of educator supply and demand needs based on such factors as public school student enrollment growth, educators eligible for retirement, educators leaving the profession and for what purposes.

- Estimate the annual number of potential educators that need to be trained in each state licensure area to meet the estimated need for educators based on current staffing patterns and pupil-teacher ratios.
- Identify the number of preservice educators prepared by educator preparations in Utah who accept employment in Utah public schools in the first three years after successfully completing a preparation program.
- Utilizing a representative sample of the educator prepared population who did not accept or gain employment in Utah's public schools within the first three years of completion of their preparation program, determine the principle reasons these educators did not enter the profession.
- Using a representative sample of the population of educators who enter the profession upon completion of their educator preparation programs, determine how many left the profession and for what reasons after one year, three years, and five years.
- Consult with Utah State Office of Education staff regarding effective models of continued data collection regarding ongoing information related to the supply and demand for educators in Utah public schools."

Attaining these objectives will provide information that can be used for resource planning by both the State Office of Education and Utah's colleges of education.

Sources of information

Information for this study was obtained from deans of Utah's colleges of education, the Utah State Office of Education teacher licensure database (CACTUS), enrollment projections from the Utah State Office of Education, school-age population projections from the Governor's Office of Planning and Budget, and two surveys. Each of these sources is described below.

Utah's colleges of education

There are currently eight approved teacher preparation programs in Utah: Brigham Young University, Southern Utah University, University of Utah, University of Phoenix, Utah State University, Utah Valley State College, Weber State University, and Westminster College. For this study, the deans of each college provided data on historical and projected graduation rates in each major area, and in many cases provided estimates of one-year placement rates among graduates of their programs.

Utah's teacher licensure database, CACTUS

CACTUS stands for "Computer Accessed Credentials of Teachers in Utah Schools," and is a database housed at the Utah State Office of Education that contains teacher licensure information. CACTUS proved to be of considerable value to this project, and CACTUS data was used to assess teacher experience, early attrition, early retirement eligibility, full-time equivalent assignments, and non-licensed teaching, and also acted as the sampling frame for both surveys.

Jan Brittain, an information systems specialist at the State Office of Education, provided invaluable assistance to this project.

Enrollment projections

Patty Bowles-Johansen at the State Office of Education provided base-year enrollment data, five-year enrollment projections, and other helpful information. This data was used to establish base-year school staffing patterns and to project future enrollment-based teacher need.

2005–2010 school-age population projections were obtained from the Demographic and Economic Analysis Section of the Governor's Office of Planning and Budget.

Surveys of former teachers and Utah teacher preparation program graduates

In order to obtain information about the early career decisions of new Utah teachers who stop teaching and new graduates who chose not to teach in Utah, we sent out surveys to representative samples of both of these populations. The sampling frames for both surveys were obtained from the CACTUS system.

Geographic areas

In order to provide more detailed summary information about supply and demand, we make reference in several sections of this report to geographic areas of Utah. The areas used in this study were constructed in an attempt to group districts into relatively homogenous clusters based on factors such as location, enrollment, and geographic locale. Because of the similarities between some districts, the assignment of a particular district to one cluster or another was sometimes arbitrary. The clusters are composed as follows:

- Wasatch Central: Granite, Jordan, Murray, and Salt Lake districts.
- Wasatch North: Davis, Ogden, and Weber districts.
- Wasatch South: Alpine, Nebo, and Provo districts.
- North West Utah: Box Elder, Cache, Logan, and Tooele districts.
- South West Utah: Beaver, Garfield, Iron, Kane, Millard, and Washington districts.
- North East Utah: Daggett, Duchesne, Morgan, North Summit, Park City, Rich, South Summit, Uintah, and Wasatch districts.
- South East Utah: Carbon, Emery, Grand, and San Juan districts.
- Central Utah: Juab, North Sanpete, Piute. Sevier, South Sanpete, Tintic, and Wayne districts.

1. 2000–2001 K–12 enrollments and 2001–2005 enrollment projections

Methodology

Current enrollments and projected enrollments 2001–2005 for each district were obtained from the Utah State Office of Education and aggregated to geographic areas and grade levels. 2010 school age population projections were obtained from the Governor's Office of Planning and Budget.

Tables Referenced

- Tables A-1 through A-5 display actual and projected enrollments by geographic area.

Base year enrollments

At the beginning of the 2000 school year, state enrollments totaled 475,269 — 250,535 in elementary grades, 213,820 in secondary grades, and 10,914 in special education. As would be expected, the major part of state enrollment is centered along the Wasatch front and in larger Utah cities.

Enrollment growth 2001–2005

Tables A-1 through A-4 display actual and projected yearly enrollments for each geographic area from October 1, 2000 to October 1, 2005. Statewide, enrollment from 2000 to 2005 is expected to increase at an annual rate of 1%. Total state K-12 enrollment is expected to grow from 475,269 in 2000 to 499,066 in 2005, a net increase of 23,797 students, or an overall growth rate of 5%. Growth will be centered along the extended Wasatch Front and in larger cities in the north and south-west. Rural areas, especially in the South-east region, may see enrollment declines.

Enrollment growth is expected to be largest in the elementary grades, which will see an 8.0% growth rate. Elementary growth will be greatest in the North West area of the state at 26% (primarily centered in Tooele County). Growth will be 15% in the South West (primarily centered in Washington County), and 13% in the southern Wasatch Front (Utah County, particularly in the Alpine school district). Enrollments are expected to decrease by 10% in the South East area of the state.

Secondary enrollments are expected to remain fairly stable. With the notable exception of the Wasatch-south region, most areas in the state will see secondary enrollments flatten out or decline.

Special Education enrollment is expected to increase at a rate similar to elementary growth, with largest growth in the North West (18%), South West (8%), and Wasatch South (12%).

Enrollment growth 2005–2010

Between 2005 and 2010, the overall school age population is expected to increase by about 14.4%, with large increases expected in all geographic areas except the South East. Given these projections, the need for teachers at all levels and in most districts may increase dramatically during the second half of the decade.

2. Age and experience of currently practicing educators.

Methodology

The source data for this section were extracted from the CACTUS database.

Tables Referenced

- Tables B-1 through B-9 display experience distributions by geographic areas.
- Tables C-1 through C-9 display early retirement eligibility estimates by geographic areas.

Experience distribution

Table B-1 displays statewide teaching experience categories of Utah educators holding teaching assignments at the beginning of the 2000 school year, in total and broken out by licensure areas. Experience categories represent the total amount of inservice experience, rather than elapsed time since a first teaching assignment. For example, a teacher who initially taught for three years, left for two years, then returned for an additional two years, would have five years of inservice experience.

At the beginning of the 2000 school year, the median amount of inservice experience among Utah educators was 13.8 years. Thirty-six percent of educators had less than 10 years of inservice experience, and about the same percentage had between 10 and 20 years of inservice experience. With some exceptions, namely for teachers holding administrative or library licenses, experience distributions are quite similar for teachers across all licensure areas and areas of the state. These data are relatively unremarkable, displaying a trend that would be consistent with a steady but gradual movement of teachers into and out of the field over time. Experience information by geographic area will be found in Tables B-1 through B-9.

Estimated retirement

Because retirement can be one of the largest sources of teacher pool reduction, estimating the short-term effects of retirements is an important element of any supply and demand assessment. There is no

historical data on yearly teaching pool reduction due to retirements. However, using the age and experience of current educators, we can estimate the proportion who could be eligible for early retirement in each of the next five years. Early retirement eligibility was estimated using criteria in the state retirement system, by which an employee is eligible for early retirement when any of the following criteria are met:

- age 65 or older *and* have at least 4 years of experience
- or age 62 or older *and* have at least 10 years of experience
- or age 60 or older *and* have at least 20 years of experience
- or any age with at least 30 years of experience

Because districts can modify state retirement system policy, using these criteria will produce an inexact estimate of early retirement eligibility, but one that will be consistent and adequate for these purposes.

Results suggest that approximately 20% of Utah teachers who had assignments during the 1999–00 school year would be eligible for early retirement by 2005. This percentage is fairly stable across geographic areas, and is slightly higher for educators with secondary licenses and slightly lower for educators with special education licenses. For obvious reasons, the percentage of teachers with administrative licenses close to retirement is also higher than average.

From this we can estimate that around 700 teachers, or roughly 4% of the total teaching pool, may be eligible for early retirement each year. Actual early retirement rates can be expected to vary with factors such as location, economic conditions, and individual preferences.

3. Number of educators prepared in Utah teacher preparation institutions, 1995–2000

Methodology

Source data were obtained from the dean's office of each teacher preparation college between November and December 2000.

Tables Referenced

- Tables D-1 through D-9 display detailed teacher preparation counts for each teacher preparation program.

Historical graduation rates

According to data provided by Utah's teacher preparation programs, 20,745 educators were prepared between 1995 and 2000. Of these, 1,080 graduated in Early Childhood Education, 5,440 in Elementary Education, 578 in Dual Early Childhood/Elementary Programs, 9,837 in Secondary Education, 1,244 in Special Education, and 284 in Administrative/Supervisory programs. About six percent of graduates were experienced teachers completing a new kind of certification.

Totals for each college are as follows:

- Brigham Young University, 10,124
- Utah State University, 3,832
- Southern Utah University, 3,179
- University of Utah, 1,880
- Weber State University, 1,407
- Westminster College, 229
- Utah Valley State College, 94

As of the time this data was collected, the Utah campus of the University of Phoenix did not have any graduates from its post-baccalaureate teacher preparation program, but beginning Fall 2001 the program expects around 30 graduates annually.

As reported by the colleges, the number of math and science teachers prepared during this time was, respectively, 669 and 655. However, these counts may underestimate the actual number of graduates

in these areas, since some colleges of education do not currently track preservice teachers completing teacher preparation programs in other departments.

Projected graduation rates

Although there was some variation by school and major, total graduation rates tended to increase slightly each year from 1995 to 2000, with an overall growth rate during this period of 5.9%. The deans of each college of education were asked to estimate the number of graduates they expected to have over the next three to four years. All reported that they anticipated graduation rates to remain fairly close to 1999–00 totals. If this is the case, in the next three to for years we can expect between 3,200 and 3,600 total graduates each year, one-third of whom will be qualified to teach in elementary assignments.

4. Total number of educators needed in each major licensure area due to enrollment growth

Methodology

1999–00 school year district-level fall enrollments at each grade level were obtained from the Utah State Office of Education. Fall FTE-in-assignment counts for each district were then obtained from the CACTUS database. These data were used to compute base year teacher-pupil ratios for each assignment area within each district. FTE projections were then made using fall enrollment projections for each year, 2001 through 2005, which were obtained from the Utah State Office of Education. 2010 school-age population were obtained from data published by the Governors Office of Planning and Budget

Tables Referenced

- Table E-1 details projected statewide teacher need due to enrollment growth.

Enrollment-based teacher need

Table E-1 provides the projected number of full-time equivalents for each year from 2001 to 2005 that will be required to meet current staffing patterns and pupil-teacher ratios in major licensure areas. We estimate that a total of 1,652 full-time equivalent teachers will be needed statewide by Fall 2005. These estimates reflect projected enrollment growth and 1999–00 pupil-teacher ratios, and are not adjusted for projected attrition or retirement.

Given the projected enrollment growth discussed in Section 1, we can expect that the highest demand for teachers in elementary grades. The need for special education teachers will also increase, but at a slower rate. Because secondary enrollment growth is projected to level off during the next five years in most areas of the state, most areas will see low demand for secondary teachers. The net need for secondary teachers will increase only slightly in comparison to elementary and secondary enrollments, and some areas may actually experience small surpluses of secondary teachers.

Table A-5 displays projected 2010 school-age population as predicted by the Governor's Office of Planning and Budget. Total school age population in Utah could increase by 14.4% between 2005 and

2010, which is quite dramatic in comparison to the projected 5% growth between 2001 and 2005. Large increases are expected in all geographic areas except the South East. If school age population grows as projected, the demand for new teachers between 2005 and 2010 will be considerably larger than demand over the next five years, and it is improbable that the supply of new teachers at current graduation rates would be able to keep up. Table E-1 also provides estimated 2010 FTE need in major licensure areas given 2010 projections and 1990–00 staffing patterns.

5. Probable licensure areas of over, adequate, and under supply

Methodology

See methodology for Section 4.

Tables Referenced

- Table E-1 details projected statewide teacher need due to enrollment.
- Table C-1 details projected statewide teacher need due to retirement.

Elementary and Special Education teachers

Because of expected statewide increases in elementary enrollments, it is unlikely that there will be an oversupply of elementary teachers in any geographic area during the next five years. In many areas, the need for new elementary teachers will be considerable. With the possible exception of rural areas with projected K-6 enrollment declines, few geographic areas will see surpluses of elementary teachers. If historical new teacher placement rates remain stable over the next five years, the number of new teachers may be numerically sufficient to meet statewide demand from enrollment growth. However, some geographic areas, especially those with high projected enrollment growth, may experience difficulty staffing new elementary positions. When the potential effects of retirement are factored in, areas of even moderate growth may have difficulty staffing new positions.

Special education enrollments are expected to increase at about the same rate as elementary enrollments, and demand for special education teachers will probably approximate those in elementary areas.

Secondary teachers

The need for teachers will be far less critical in the secondary grades, since secondary enrollments are expected to level off in most areas of the state. Small surpluses of secondary teachers are possible in

some rural areas where secondary enrollments are expected to decline. Even the effects of retirement and other attrition may not eliminate these potential surpluses.

In general, most areas can probably expect a relatively adequate supply of secondary teachers during the next five years.

2005 – 2010

As noted in the previous section, if school-age population increases at projected rates between 2005 and 2010, there could be considerable statewide demand for new teachers in all licensure during the second half of the decade.

6. Supply and demand by geographic area

Methodology

See methodology for Section 4.

Tables Referenced

- Tables E-2 through E-9 display estimates of teacher full-time equivalent need by geographic area.

Demand by geographic area

Because projected enrollment growth varies considerably across geographic areas of the state, the demand for new teachers also varies by district and area. The areas expected to experience the largest growth, namely the North West and Wasatch South areas, will do so mainly because of exceptionally large projected enrollment increases in, respectively, Tooele and Alpine districts. These areas will see the largest demand for new teachers, particularly at the elementary level, but will also see increasing demand for virtually all other licensure areas. Accordingly, these areas are likely to experience the most difficulty staffing elementary assignments.

Enrollment growth will be moderate in other Wasatch Front areas and in regions with larger towns in the North and South West. Enrollment-based demand will be larger overall for teachers in elementary assignments than for teachers in other areas: enrollment-based demand for teachers other licensure areas will increase slightly or remain stable.

Due to projected enrollment declines at all levels, the South East area of the state may experience teacher surpluses in most licensure areas, particularly for teachers in secondary assignments.

While the effects of enrollment growth will be dramatic in some areas, in general the effects of retirement on teacher pools may be greater. Statewide, enrollment increases will require approximately 1% annual increases in teaching pools, but this will be larger in high-growth areas. In comparison, most areas can expect to lose about 4% of their teaching pool each year to retirement.

7. Causes of supply and demand.

Tables Referenced

- Tables C-1 through C-9 display estimates of early retirement eligibility by geographic area.
- Tables A-1 through A-5 display projected enrollment growth by geographic area.
- Tables J-1 through J-9 display estimated attrition rates among new teachers by geographic area.
- Table H displays the estimated percentage of program graduates obtaining employment in Utah schools.

Retirement

For most licensure and geographic areas, retirement may have the largest impact on teacher demand. Given the age and experience of the current pool, we estimate that 4% to 5% of the teaching pool in any given year may be lost due to retirement. As discussed in Section 2, this estimate holds fairly constant across license areas and geographic areas.

Enrollment Growth

In many areas, enrollment growth will also affect teacher demand. Teacher demand due to enrollment growth is a far more localized problem than retirement. Statewide, enrollment growth will require annual teacher pool increases of about 1% to maintain base year staffing patterns. However, because projected enrollment growth varies considerably by district, this rate will be higher in some areas and lower in others. Some rural areas may see enrollment declines, while other areas (such as Tooele and Alpine) may need to increase the size of their teaching pool by 5% or more each year to keep up with enrollment growth. As indicated in Table A-1, enrollment growth will be considerably larger in elementary grades than in secondary, and accordingly teacher demand due to enrollment growth will be greater in the elementary grades.

Early Attrition

Attrition among new teachers, as described in Section 9, has historically affected the total teacher pool at a relatively small rate in comparison to retirement. We estimate that roughly 1.2% of the total teaching pool is lost each year due to attrition among teachers with five years experience or less. Although early attrition varies somewhat by location and licensure area, this is roughly equivalent to 8% annual reductions in the size of the new teacher pool (i.e., among teachers with less than 5 years of experience). As with enrollment growth, there is some evidence to suggest that early attrition is a larger problem in some districts than in other. For example, suburban districts appear have higher rates of early attrition. This issue is discussed more in Section 11.

New Teacher Recruitment

Demand is also affected by the career choices of new graduates. It is also affected by districts' abilities to recruit and hire adequate numbers of qualified teachers, and we expect that this ability varies by district. As discussed in Section 9, we estimate that only about 50% of Utah teacher preparation program graduates take teaching jobs in Utah. If Utah schools were able to recruit a greater proportion of new Utah graduates, the need for qualified teachers in some areas could be considerably reduced.

8. Estimated total number of potential educators that need to be trained in each licensure area to meet enrollment-based need

Table Referenced

- Table G displays the projected number of new teachers that will need to be prepared in Utah to compensate for projected enrollment growth.

Enrollment growth, 2001–2005

Given projected enrollments and current pupil-teacher ratios, Utah will need 1,652 additional full-time equivalents over the next five years to compensate for the effects of enrollment growth. We estimate that about 330 new teachers would be needed each year to compensate for projected enrollment growth. Most of the projected enrollment growth will be in the elementary grades, and roughly 200 new elementary FTEs will be required annually maintain current staffing patterns in elementary schools.[1]

Assuming that 50% of new graduates continue to seek teaching jobs in Utah, and that historical graduation rates remain constant, the supply of graduates from Utah's colleges of education may be numerically adequate to meet statewide enrollment-based demand.

Enrollment growth, 2005–2010

Dramatic enrollment growth is projected at all levels between 2005 and 2010. If these population projections held true, and even if graduation rates were to continue to increase at the 1995–1999 growth rate of 1.4% annually, it is very unlikely that the supply of new teachers from Utah's colleges would be sufficient to maintain current staffing patterns during the second half of the decade.

[1] The projections in Table G are based only on teacher need due to enrollment growth. New teachers will also be required to compensate for loss due to retirement and early attrition, which may decrease the teaching pool by, respectively, roughly 4% and 1.2% annually. At the 50% placement rate, the total number of graduates required to compensate for enrollment growth would need to be increased by at least 1,400 per year in order to also compensate for estimated retirement, so that about 2,000 new graduates would be needed each year, 1,200 in elementary education. Table C details projected retirement early retirement eligibility rates.

We did not estimate retirement eligibility rates for the years 2005–2010. However, given the relatively uniform distribution of current educators across experience levels, we would expect retirement eligibility rates to remain fairly constant over the next several years.

9. Number of preservice educators prepared by educator preparation institutions who accept employment in Utah public schools in the first three years after program completion.

Table Referenced

- Table H displays the estimated percentage of teacher program graduates who accept employment in Utah, based on college of education reports.

Methodology

Source data were obtained from the dean's office of each teacher preparation college and from the CACTUS database.

Placement estimates from Utah colleges of education

When we began this project, we anticipated that much of the data needed to answer this question would come from college of education follow-up activities. We soon discovered that the degree and quality of graduate placement tracking in Utah varied considerably by school. Even so, many colleges were nevertheless able to estimate initial (usually one-year) placement data on at least a subset of preservice teachers graduating between 1995 and 1999. These estimates ranged anywhere from 23% to 91%, but the majority fell between 40% and 60%. Therefore, given the best available placement data from Utah's colleges, a moderate estimate is that 50% of graduates obtain teaching positions in Utah within at least several months following program completion. These results are detailed in Table H.

Estimating placement from CACTUS records

Another source of data that can help answer this question comes from the state licensure database, CACTUS. Because Utah's teacher licensure operates on an approved program system, obtaining a Utah teaching licenses requires little additional effort beyond completing program requirements. Therefore it is not unreasonable to assume that the majority of program graduates, whether or not they take assignments in Utah, obtain teaching licenses.

Utah colleges of education reported 14,426 graduates between 1995 and 1998. The CACTUS database lists 14,077 individuals receiving Utah teaching licenses for the first time during approximately this same period. It is reasonable to assume that the majority of these were Utah graduates, since it seems unlikely that a teacher from out-of-state would obtain a Utah teaching license without the intention of teaching in Utah.

Of those who received Utah licenses during this period, about 54% took assignments in Utah within three years of receiving their license. If we assume that most of those receiving licenses were Utah graduates, and that most of those receiving licenses did so soon after program completion, then this percentage provides a slightly liberal estimate of the proportion of graduates teaching in Utah within three years of graduation.

Therefore, using information from these two sources, 50% seems to be a reasonable estimate of the percentage of Utah teacher preparation program graduates who take teaching positions in Utah within two to three years of program completion.

10. Reasons why educators do not enter the profession

Tables Referenced

- Detailed survey results are presented in Tables I-1 through I-11.

Methodology

Data for this section were obtained through a sample survey of individuals who received Utah teaching licenses between 1995 and 1998 but who had not had a first teaching assignment in Utah within three years of licensure. The CACTUS database contained records for 6,526 persons meeting these criteria, and a random sample of 300 persons was selected from the database. The sample size was selected in accordance with standard statistical practices.

We developed and field-tested questionnaire booklets with the assistance of public school teachers, administrators, and others with expertise in teacher training. Survey packets were mailed out during the last week of March 2001. Packets contained a cover letter on Utah State University letterhead explaining the rationale for the survey, a survey booklet, and a preaddressed, postage paid return envelope. We mailed a reminder postcard one week later.

When we met with Agency Computer Services staff to discuss using CACTUS as the source for the survey mailing list, we were told that efforts had been taken to eliminate bad addresses from the database and that we should plan for about 10% of the records in our sample to have bad addresses. Accordingly, in anticipation of 10% nonresponse due to bad addresses and 20-30% non-response for other reasons, we oversampled by about 40% beyond a minimum sample size that would be required for reasonable estimation.

Unfortunately, the CACTUS mailing list contained a much greater proportion of errors than anticipated, and this reduced the expected response rate by a significant amount. Of the original mailing, 25% were returned by the post office with bad addresses. In addition, although the mailing list included only licensed individuals with no CACTUS employment record, seven respondents (or more than 8% of

respondents) indicated that they had in fact taught in Utah schools. It is possible that there were others who received the survey packet but had taught in Utah, and so did not respond to the survey because it did not apply to them. The final sample size was 84, or about 37% of presumably delivered survey packets (28% of the original sample of 300). The overall estimate margin of error was ± 9% (90% confidence and for p=.50).

Job search activities of program graduates

Of the persons responding to the survey, 36% sought teaching jobs in Utah, 24% sought jobs only in other states, and 40% did not seek any teaching jobs after graduation.

Although only about a third of survey respondents originally sought jobs in Utah, it is of particular interest that 76% indicated that they would consider seeking a teaching job in Utah in the future. (At the beginning of the 2000 school year, 8,269 individuals held current teaching licenses but were not currently teaching in Utah — see Table M.)

Graduates who did not accept jobs in Utah

Of graduates who sought teaching jobs in Utah, 43% reported that they had been offered jobs in Utah but chose not to accept, while 57% sought jobs in Utah but did not receive an offer for employment. For those who did not accept Utah job offers, most said they had received better offers out of state.

Graduates who sought jobs only in other states

Of graduates who sought teaching jobs only in other states, the most common reason was a spouse obtaining employment in another state (35%). Smaller numbers said they believed teacher pay in Utah is too low, or that they sought jobs in other states in order to be closer to family members.

Graduates who did not seek a teaching job

Of those who did not seek teaching jobs, 63% cited marriage or children as the primary reason. 12% said that they decided not to teach because they felt pay was higher in other occupations. About 7%

reported that being discouraged by student teaching was a secondary reason for not seeking a teaching job.

Most effective steps to recruit more graduates

As noted previously, more than three-fourths of respondents said they would consider seeking a Utah teaching job in the future. Respondents were also asked to identify the most effective steps that Utah schools might take to encourage more new educators to seek jobs in Utah. Unsurprisingly, 78% thought the most effective step would be to increase teacher pay. Other common responses were to decrease class size, give teachers more authority in their classrooms, and provide better resources.

11. Attrition rates among new teachers and reasons for attrition

Tables Referenced

- Tables J-1 through J-10 display estimates of early attrition, calculated using survival analytic techniques.
- Table K displays estimated percentages of reentry among former teachers, calculated using survival analytic techniques.
- Tables L-1 through L-11 display the results of the survey of former teachers.

Attrition of new teachers

Methodology

Attrition rates were calculated using teacher job history information for teachers with first assignments between 1990 and 1999. A random sample of 25% of new teachers with first assignment records between 1990 and 1999 (n=4,755) was extracted from the CACTUS database. Data for each teacher in the sample included first district, dates of assignments and terminations, and initial licenses held.

Attrition rates at each year were computed for each subgroup using the SURVIVAL procedure in SPSS. The SURVIVAL procedure employs actuarial method to estimate attrition rates. Survival analytic procedures are commonly used with longitudinal data because they are able to compensate for (and maximize the information obtained from) so-called *censored* data, which occur, in this case, with teachers who had not terminated by the end of the observation period.

Estimation of attrition rates

Tables J-1 through J-9 provide detailed attrition estimates by geographic and licensure area. Results indicate that, statewide and across all licensure areas, 59.7% of new teachers are still teaching at the end of five years. In other words, 40.3% of new teachers leave within five years. Of new teachers statewide licensed to teach in elementary assignments, 63% are still teaching after five years, while 37% have left.

Of new teachers statewide licensed to teach in secondary assignments, 58.5% are still teaching after five years, while 41.5% have left. And of new teachers statewide licensed to teach in special education assignments (both classroom and support), 54.7% are still teaching after five years, while 45.3% have left.

In most areas, teachers who leave early in their careers tend to do so around the second or third year of employment. This risk of termination is highest during the third year of employment, but declines sharply during the fourth and fifth years of employment.

Female teachers, who enter teaching in far greater numbers than men (3.4 new female teachers for each new male teacher), also tend to terminate sooner and in greater proportion than men. This trend is consistent across all licensure areas, but is particularly marked for secondary and special education teachers — female teachers in these areas are 14% less likely than men to remain after five years.

Average length of first assignments

From this sample we also estimated the median length of a first teaching spell for female and male teachers statewide. The median first teaching spell for female teachers in this sample was approximately seven school years. In other words, 50% of new female teachers quit by the end of their seventh consecutive year of teaching. The median first spell for male teachers is greater than 10 years, but could not be estimated exactly because it exceeded the length of the observation period.

Reentry of former teachers

We also estimated the proportion of teachers leaving within five years who later return to teaching (see Table K). Statewide, nearly 12% of former teachers take a second teaching assignment within five years of leaving their first assignment. The rate of reentry is greatest between two and three years following termination of the first assignment.

The proportion of men who return within five years is about 6% greater than the proportion of women who return. Teachers in special education, who leave in greater numbers than teachers in other licensure areas, are also more likely than teachers in other licensure areas to return within five years.

Survey of former teachers

Through a probability survey of former teachers, we sought to determine the main reasons why teachers leave the profession.

Methodology

Opinion data were obtained through a sample survey of individuals who had first teaching assignments between 1995 and 2000 and terminated within five years. The CACTUS database contained records for 9,482 persons who had first assignments in Utah between 1995 and 1999, 2,870 of whom terminated within 5 years. A random sample of 350 persons was selected from the database. The sample size was selected in accordance with standard statistical practices. As with the survey of graduates described Section 10, we oversampled by about 40% in an attempt to compensate for projected bad addresses and other nonresponse.

We developed and field-tested questionnaire booklets with the assistance of public school teachers, administrators, and others with expertise in teacher training. Survey packets were mailed out during the last week of March 2001. Packets contained a cover letter on Utah State University letterhead explaining the rationale for the survey, a survey booklet, and a preaddressed, postage paid return envelope. We mailed a reminder postcard one week later.

As with the survey of program graduates described in the previous section, the proportion of bad addresses was considerably larger than expected, and 25% of the survey packets were returned by the post office as undeliverable. The final sample size was 104, with an effective response rate of 40% (30% of the original sample of 350). The overall margin of error was ± 8% (90% confidence and for p=.50).

Main reasons for leaving teaching

The most common reasons for leaving did not involve dissatisfaction with teaching. Fourth-seven percent cited pregnancy or child rearing as the main reason for leaving, while 16% said they quit because of a family or personal move. Other common reasons included school staffing actions (10%), wanting to pursue another career (6%), or wanting better pay or benefits (6%).

Dissatisfaction did not appear to be a major reason for leaving. In fact, many respondents hand wrote notes on their survey booklets emphasizing that they did not harbor negative feelings towards teaching or towards their former schools or districts, and that in fact they had positive memories of their teaching experience.

Main reasons for dissatisfaction with teaching as a career

Although dissatisfaction was not a common primary reason for leaving, 24% identified dissatisfaction with teaching as an additional reason for leaving teaching. Of those who left because of dissatisfaction, almost half gave their reason as poor salary. Some respondents also identified large class sizes as a reason for dissatisfaction.

Most effective steps to retain more new teachers

Respondents were also asked to identify the most effective steps schools could take to encourage new teachers to remain in teaching. Unsurprisingly, 60% said they felt that increasing teacher salaries would increase retention, while 13% said decreasing class size would increase retention.

Although many respondents expressed the belief that increasing pay would effectively reduce early attrition, in fact only 6% of former teachers participating in this survey listed low pay as a primary reason for leaving teaching. If most teachers leave because of child rearing or because of personal moves, increasing pay may not have a large impact on reducing early attrition. However, it is possible that increasing pay could increase the number of former teachers who reenter the field at a later date.

Opinions towards returning to teaching

14% of former teachers said that they had returned to teaching since leaving. Most of these returned within about 12 months of leaving.

Of those who had not returned, a full 65% said they would consider returning to teaching in the future — this included half of those who left because they were dissatisfied with teaching!

However, few respondents indicated that they would consider returning to teaching in fewer than five years, and most were undecided. This is not surprising, since most respondents said they left because

of child rearing or personal moves. A few respondents added in handwritten notes on their survey booklets that they felt their desires to return to teaching were discouraged by what they perceived as difficult state license renewal policies or because of difficulty in transferring work experience credits to new districts for retirement purposes.

12. Recommendations for ongoing data collection

Towards a simple data collection system for assessing supply and demand

As the results of this research indicate, teacher supply and demand in Utah is a multi-faceted problem. In this study we used the best available information to assess the current status of supply and demand. Future data collection efforts must involve focused and consistent and analysis if they are to adequately facilitate decision making. Such an effort need not be complicated or expensive.

Developing an adequate data collection system is an iterative process. In this section we propose a basic and initial data collection model that is based on the results of our research. The adequacy of such an indicator model should be assessed by the ability of stakeholders to use it to make accurate and useful assessments. We hope that this model will prove useful in that respect.

An adequate supply and demand information system would have the following characteristics:

Focus on relevant indicators

An adequate system would annually track basic supply and demand indicators in the most cost-effective manner possible. Some past efforts have been inadequate because they have failed to focus on relevant indicators of teacher demand.

Provide timely information

One presumed goal of an analysis of supply and demand is to anticipate potential shortages in time to enable corrective actions. Therefore, indicator data should be collected and analyzed in a timely manner, on at least an annual basis.

Maximize the information benefit from existing resources

When information about indicators already exists, is generally more cost-effective to use extant data than to collect new data. Fortunately, some of the data needed to assess supply and demand is collected annually for other purposes. The CACTUS database, for example, was an invaluable source of

information during this project, although it is our impression that this resource has been underutilized for the purpose of assessing supply and demand.

Components of Utah supply and demand

Information on key factors influencing supply and demand must be collected annually in order to adequately assess the problem. Supply and demand are independent constructs, each influenced by a unique set of indicators. The chart below lists indicators of supply and demand and their effect on their respective constructs.

Construct	Indicators	Effect of indicator
Demand for new teachers	• Expected retirement • Expected non-retirement attrition	Reduction in size of teaching pool, thereby increasing demand
	• Changes in enrollment • Changes in staffing patterns • Proportion of unqualified teachers in assignments	Increase or decrease need for teachers
Supply of new teachers	• Number of Utah graduates expected to seek jobs in Utah • Number of former Utah teachers expected to seek reentry into the teaching pool • Number of out of state teachers expected to seek employment in Utah	Provide supply of teachers to meet demand

While each of these indicators has an effect on supply and demand, the information benefit of each may not be large enough to warrant the cost of collecting the data. For example, the number of out of state teachers seeking jobs in Utah is probably quite small when compared to the number of new graduates seeking Utah employment (see Table O). By reducing this set of indicators to only those expected to have moderate to large effects on supply and demand, we end up with the following key set, displayed on the next page with their respective sources.

Construct	Key indicators	Source of Data
Demand for new teachers	• Expected retirement	Historical retirement rates -or- age/experience of current pool
	• Changes in enrollment	USOE projections
Supply of new teachers	• Number of Utah graduates expected to seek jobs in Utah	Historical/projected graduation rates from colleges (for totals) Historical placement rates provided by Colleges (for number expected to seek jobs in Utah)

Each demand indicator can be assumed to function independently of the other, so numbers of new required teachers due to each can be estimated independently (and summed together if desired). Indicators and their sources are described in greater detail below.

Indicator 1: Expected number of teachers retiring

In general, we can expect the biggest losses to the teaching pool to come from retirements. Because retirement rates can be expected to vary with location, economic conditions, and individual preferences, the best method for estimating expected retirement counts is probably by using historical retirement rates in conjunction with age/experience distributions of current teaching pool. There is a one-to-one relationship between retirement and retirement-based demand; to maintain constant staffing patterns, each teacher lost to retirement will need to be replaced by another new teacher of comparable qualifications.

In the past, no information on retirement rates was routinely collected at the state level, so historical data are not available. Fortunately, beginning this past fall, districts have been asked to include a reason for quitting when recording termination information into CACTUS. Recording reasons for terminations will provide invaluable policy information, not only for estimating retirement rates, but also for assessing termination rates for other reasons among teachers at all experience levels. This will render unnecessary the more costly or less effective data collection methods that have been used to assess the problem in this project and elsewhere.

Indicator 2: Expected changes in enrollments

In most areas, enrollment growth can be expected to have a significant impact on teacher need. The Finance and Statistics division of USOE already produces quite accurate enrollment projections. In this study we estimated teacher need by dividing projected enrollments by empirically derived pupil-teacher ratios. However, if we assume constant pupil-teacher ratios (as we did in this study), we can approximate the number of necessary additional teachers simply by calculating the percent increase in enrollments at each level. For example, if elementary enrollments are projected to increase by 5% from one year to the next, then to keep pupil-teacher ratios constant we will need to likewise increase our current elementary teaching pool by 5%.

Indicator 3: Number of Utah teacher program graduated expected to seek jobs in Utah schools

The supply of new teachers comes primarily from graduates of Utah's teacher preparation programs, and we have estimated that about half of new graduates take jobs in Utah in the first two or three years following graduation. Since most new teachers are recent instate graduates, it is very important to consistently track both the number of new teachers graduating from Utah's colleges and the number expected to seek jobs in Utah.

Graduation counts should be obtained annually from Utah's colleges of education. Placement estimates should also be obtained annually. The best source of placement data are probably historical rates obtained through the follow-up efforts that most college of education do with their graduates one to two years following graduation. During this project, we found that the degree and quality of follow-up data varied considerably by school. Although consistent follow-up efforts (such as those encouraged by NCATE accreditation standards) may be time consuming, the information they provide would be of great worth to both the State Office of Education and to Utah's colleges of education.

Another simple approach to estimating the career plans of new graduates would be to include this topic in the exit surveys that many teacher preparation programs already do. For example, upon

completing program requirements (but before leaving), graduates could be asked a simple set of questions such as these:

- Do you plan to take a Utah teaching license?
- Do you currently have a teaching job in Utah lined up?
- If not, do you plan to seek teaching jobs in Utah?
- If you don't plan to seek a teaching job in Utah, why not?

The advantage of having teacher education programs get this information from their graduates *before* they leave their colleges or universities is obvious. Because of the fundamental usefulness of this information to teacher preparation programs, we expect that some programs will already be collecting this information, and we would encourage those programs that are not to consider cost-effective approaches for doing so. Most of Utah's colleges already have the information technology infrastructure required to make this task simple. For example, a wholly adequate solution could have graduates complete a web-based questionnaire with multiple-choice responses. When the individual completes the form, the information would be automatically transmitted into a database. College personnel could then summarize the data (or, with little extra effort, set up the database to do it automatically), and then forward the results to the State Office with their college's graduation counts.

Additional indicators

Although we expect the three indicators above to be sufficient for basic supply and demand assessment, we identify these three additional indicators because they address issues of potential interest. Further, they require data that is (or easily could be) collected as part of existing efforts, and so would incur practically no additional expense.

Rates of non-licensed teaching. The only rational reason to put an educator in an assignment for which he or she is not qualified is because a licensed educator is not available. Therefore, one indicator of how well districts are able to recruit and retain qualified teachers is the percentage of teachers in assignments who do not hold qualifying licenses. In 1999, for example, 4.8% of FTEs in assignments statewide were not licensed to teach in those assignments (see Table F). Rates were higher in rural

districts, suggesting that in 1999 rural districts had more difficulty recruiting qualified teachers. This information is available in CACTUS, and is reported by districts each fall.

Rates of attrition for reasons other than retirement. Although retirement may be the most common reason for attrition, it would be of value to know the number of teachers who leave each year for other reasons, particularly in the case of new teachers. As discussed above, districts should already be entering this information into CACTUS, so this data should already be available.

Sources of new hires. Although it is probable that most newly hired teachers are new Utah college graduates, it would be very useful to assess the effect of other sources of supply. Each fall districts are asked to enter information into CACTUS about newly hired teachers. If the source of hire were to be included in that information, it would allow help assess the relative contributions of various teacher supply sources. For example, districts could specify whether the new teacher is

- a new graduate from a Utah school
- an experienced Utah teacher returning to teaching following an absence
- an experienced teacher moving from another district
- a new or experienced teacher from another state

This information would produce a much better picture of teacher supply, which would be useful in making policy decisions at the local and state levels. This information would be gathered as part of existing data collection activities, and so would incur practically no additional expense.

Summary

In summary, we suggest that a basic but adequate data collection system would involve three key indicators: projected retirement rates, projected enrollment changes, and projected number of new Utah educators seeking jobs in Utah. Although existing research suggests that these three factors will have the largest influence on supply and demand, we hope that continued data collection and assessment efforts will result in a refined model. We also suggest methods for collecting data on three additional indicators that will probably be of interest.

The data elements that we propose be collected by the state would require little, if any, additional cost, and would require only small modifications to existing data collection procedures. Data that would be collected by colleges may require some additional costs (costs which would minimized through the use of information technology), but would provide information of considerable value to the colleges themselves.

Tables

Table A: Projected Enrollment 2001–2005

Table A-1: Projected Enrollment 2001–2005, Total

Geographic Area	2000 (actual)	Projected Fall Enrollments					Net Increase 2000–05	% Change 2000–05
		2001	2002	2003	2004	2005		
State	**475,269**	**476,382**	**480,593**	**485,948**	**491,869**	**499,066**	**23,797**	**5.00%**
Wasatch Central	175,283	175,225	175,150	175,333	175,486	176,166	883	.50%
Wasatch North	99,626	99,842	100,636	101,787	102,995	104,332	4,706	5.00%
Wasatch South	81,424	82,584	84,553	86,727	89,145	91,550	10,126	12.40%
North West	39,052	39,435	40,406	41,692	43,420	45,622	6,570	16.80%
South West	33,234	33,453	34,121	34,716	35,274	35,948	2,714	8.20%
North East	22,682	22,639	22,702	22,812	22,886	23,044	362	1.60%
South East	11,260	10,694	10,482	10,321	10,078	9,806	-1,454	-12.90%
Central	12,708	12,510	12,543	12,560	12,585	12,598	-110	-0.90%

Source data obtained from USOE

Table A-2: Projected Enrollment 2001–2005, K–6

Geographic Area	2000 (actual)	Projected Fall Enrollments					Net Increase 2000–05	% Change 2000–05
		2001	2002	2003	2004	2005		
State	**250,535**	**252,969**	**256,865**	**261,022**	**266,047**	**271,546**	**21,011**	**8.40%**
Wasatch Central	92,269	93,148	93,569	93,927	94,464	95,269	3,000	3.30%
Wasatch North	51,977	52,309	53,089	54,045	55,199	56,193	4,216	8.10%
Wasatch South	44,460	44,999	46,306	47,536	48,846	50,118	5,658	12.70%
North West	20,935	21,353	22,156	23,149	24,619	26,389	5,454	26.10%
South West	17,380	17,772	18,322	18,824	19,402	20,016	2,636	15.20%
North East	11,443	11,553	11,556	11,646	11,684	11,804	361	3.20%
South East	5,568	5,344	5,297	5,243	5,125	5,034	-534	-9.60%
Central	6,503	6,490	6,570	6,652	6,710	6,724	221	3.40%

Source data obtained from USOE

Table A-3: Projected Enrollment 2001–2005, 7-12

Geographic Area	2000 (actual)	Projected Fall Enrollments					Net Increase 2000–05	% Change 2000–05
		2001	2002	2003	2004	2005		
State	**213,820**	**212,479**	**212,714**	**213,810**	**214,592**	**216,152**	**2,332**	**1.10%**
Wasatch Central	78,395	77,456	76,960	76,778	76,390	76,247	-2,148	-2.70%
Wasatch North	45,504	45,383	45,381	45,553	45,583	45,898	394	.90%
Wasatch South	35,101	35,695	36,315	37,212	38,269	39,352	4,251	12.10%
North West	17,541	17,499	17,652	17,927	18,157	18,555	1,014	5.80%
South West	15,294	15,118	15,225	15,309	15,279	15,328	34	.20%
North East	10,533	10,386	10,449	10,469	10,505	10,541	8	.10%
South East	5,485	5,154	4,993	4,888	4,768	4,592	-893	-16.30%
Central	5,967	5,787	5,740	5,673	5,640	5,639	-328	-5.50%

Source data obtained from USOE

Table A-4: Projected Enrollment 2001–2005, Special Education

Geographic Area	2000 (actual)	Projected Fall Enrollments					Net Increase 2000–05	% Change 2000–05
		2001	2002	2003	2004	2005		
State	**10,914**	**10,934**	**11,014**	**11,116**	**11,230**	**11,368**	**454**	**4.20%**
Wasatch Central	4,619	4,620	4,621	4,627	4,632	4,650	31	.70%
Wasatch North	2,145	2,149	2,166	2,189	2,214	2,241	96	4%
Wasatch South	1,863	1,890	1,932	1,978	2,030	2,080	217	11.60%
North West	576	583	597	617	644	677	101	17.50%
South West	560	563	574	584	593	604	44	7.90%
North East	706	700	698	697	697	699	-7	-1.00%
South East	207	196	192	189	185	180	-27	-13.00%
Central	238	233	234	234	235	236	-2	-0.80%

Source data obtained from USOE

Table A-5: Projected 2010 Enrollment, Total

Geographic Area	Projected 2010 School Age Population (ages 5-17)	Percent change from 2005 GOPB Projections
State	**598,775**	**14.4%**
Wasatch Central	224,237	11.7%
Wasatch North	114,251	14.2%
Wasatch South	121,477	19.9%
North West	49,255	15.7%
South West	43,696	21.2%
North East	17,264	11.9%
South East	11,401	- 2.0%
Central	17,194	11.0%

Aggregated from data obtained from Governor's Office of Planning and Budget, Demographic and Economic Analysis Section, UPED Model System, May 2001. Source data was not broken out by age or grade level.

Table B: Experience Distribution of current educators by license areas, Fall 2000.

Table B-1: State Total, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	3,427	19%	16%	37%	26%	3%	14.2
Elementary Education	13,344	18%	16%	37%	25%	4%	14.2
Middle Education	977	0%	1%	36%	53%	10%	23.6
Secondary Education	10,451	18%	18%	34%	23%	6%	13.9
Fine Art	1,794	17%	17%	35%	26%	5%	14.6
Foreign Language	1,505	18%	17%	33%	25%	6%	14.5
Health, Movement, and Fitness	2,518	14%	15%	37%	29%	5%	15.6
Information Technology	308	15%	23%	42%	16%	5%	12.9
Language Arts	3,192	15%	16%	36%	27%	6%	15.2
Social Studies	3,590	16%	17%	32%	27%	8%	15.2
Math	1,740	16%	20%	37%	20%	6%	13.6
Science	1,800	19%	18%	34%	22%	7%	13.8
Special Education	3,865	17%	19%	37%	24%	3%	18.9
Administrative	1,614	2%	7%	32%	45%	13%	13.7
Library	459	6%	12%	36%	36%	10%	22.5
Applied Technology (all)	952	16%	17%	35%	26%	6%	14.7
Total	**25,988**	**18%**	**18%**	**35%**	**22%**	**6%**	**13.8**

Source data extracted from CACTUS for 2000-01 school year.

Table B-2: Wasatch Central, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	1,291	17%	12%	37%	30%	3%	15.4
Elementary Education	4,698	17%	13%	37%	29%	5%	15.5
Middle Education	244	0%	0%	27%	62%	10%	28.2
Secondary Education	3,651	18%	17%	33%	26%	6%	14.6
Fine Art	654	19%	14%	34%	27%	6%	15.0
Foreign Language	530	19%	16%	35%	23%	6%	14.2
Health, Movement, and Fitness	789	14%	13%	36%	32%	5%	16.5
Information Technology	94	13%	19%	41%	16%	11%	14.4
Language Arts	1,168	16%	14%	35%	29%	6%	15.7
Social Studies	1,283	15%	17%	32%	30%	7%	15.7
Math	578	14%	19%	38%	21%	8%	14.3
Science	598	21%	15%	32%	24%	7%	14.2
Special Education	172	4%	6%	37%	41%	12%	20.8
Administrative	1,350	15%	18%	36%	29%	2%	14.8
Library	528	3%	9%	27%	49%	12%	24.2
Applied Technology (all)	327	18%	15%	35%	25%	6%	14.9
Total	**9,446**	**17%**	**16%**	**35%**	**26%**	**7%**	**14.9**

Source data extracted from CACTUS for 2000-01 school year.

Table B-3: Wasatch North, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	674	16%	20%	34%	25%	5%	14.1
Elementary Education	2,753	17%	18%	37%	24%	4%	14.1
Middle Education	116	1%	2%	42%	43%	12%	21.2
Secondary Education	2,237	18%	19%	34%	22%	7%	13.8
Fine Art	373	16%	23%	31%	27%	3%	13.6
Foreign Language	320	17%	18%	35%	22%	8%	14.2
Health, Movement, and Fitness	514	14%	15%	36%	28%	6%	15.7
Information Technology	64	19%	25%	41%	14%	2%	11.5
Language Arts	696	15%	18%	36%	24%	6%	14.6
Social Studies	797	18%	18%	32%	22%	10%	14.6
Math	361	18%	24%	34%	19%	6%	12.5
Science	379	18%	18%	35%	19%	9%	13.8
Special Education	83	5%	14%	35%	37%	8%	18.8
Administrative	878	16%	19%	36%	27%	2%	14.2
Library	335	1%	3%	34%	46%	16%	23.4
Applied Technology (all)	216	17%	19%	33%	24%	7%	14.2
Total	**5,525**	**18%**	**20%**	**34%**	**21%**	**6%**	**13.5**

Source data extracted from CACTUS for 2000-01 school year.

Table B-4: Wasatch South, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	503	26%	14%	33%	24%	3%	13.0
Elementary Education	2,190	26%	15%	35%	22%	3%	12.7
Middle Education	103	0%	1%	48%	45%	7%	20.3
Secondary Education	1,572	21%	17%	35%	22%	5%	13.4
Fine Art	268	20%	13%	40%	23%	4%	14.3
Foreign Language	229	18%	15%	35%	23%	8%	14.8
Health, Movement, and Fitness	378	15%	13%	43%	25%	4%	15.2
Information Technology	42	14%	14%	45%	21%	5%	14.7
Language Arts	438	19%	16%	36%	22%	6%	14.0
Social Studies	499	16%	16%	33%	27%	7%	15.4
Math	278	20%	15%	43%	18%	5%	13.6
Science	243	19%	17%	38%	21%	5%	13.7
Special Education	55	4%	22%	35%	29%	11%	17.1
Administrative	597	19%	20%	36%	22%	3%	13.0
Library	237	1%	6%	39%	41%	13%	20.9
Applied Technology (all)	170	14%	16%	41%	25%	4%	14.9
Total	**4,126**	**24%**	**18%**	**33%**	**20%**	**5%**	**12.5**

Source data extracted from CACTUS for 2000-01 school year.

Table B-5: North West, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	279	22%	14%	41%	22%	2%	13.5
Elementary Education	1,045	19%	17%	39%	22%	3%	13.6
Middle Education	192	0%	1%	41%	52%	7%	22.0
Secondary Education	865	21%	17%	34%	21%	7%	13.5
Fine Art	149	21%	15%	38%	22%	3%	13.6
Foreign Language	126	21%	13%	31%	33%	2%	15.1
Health, Movement, and Fitness	215	16%	14%	34%	25%	10%	15.6
Information Technology	30	13%	27%	53%	3%	3%	11.9
Language Arts	282	17%	12%	40%	25%	6%	15.3
Social Studies	301	19%	14%	32%	28%	8%	15.4
Math	138	15%	19%	36%	21%	9%	14.4
Science	155	19%	23%	28%	23%	6%	12.7
Special Education	49	10%	8%	47%	27%	8%	16.7
Administrative	296	28%	16%	36%	18%	2%	11.8
Library	132	1%	7%	44%	36%	13%	19.7
Applied Technology (all)	54	17%	11%	37%	28%	7%	16.0
Total	**2,110**	**21%**	**18%**	**36%**	**20%**	**6%**	**13.1**

Source data extracted from CACTUS for 2000-01 school year.

Table B-6: South West, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	288	22%	25%	36%	17%	0%	11.1
Elementary Education	1,043	17%	23%	41%	17%	3%	12.5
Middle Education	144	0%	1%	40%	51%	8%	22.5
Secondary Education	823	16%	24%	35%	20%	4%	12.6
Fine Art	151	15%	19%	42%	21%	4%	14.0
Foreign Language	135	13%	27%	27%	31%	2%	13.8
Health, Movement, and Fitness	244	14%	22%	35%	27%	2%	14.0
Information Technology	25	8%	40%	48%	4%	0%	10.4
Language Arts	247	11%	20%	39%	25%	5%	14.8
Social Studies	288	15%	21%	32%	27%	5%	14.3
Math	147	10%	27%	43%	18%	2%	12.9
Science	180	14%	26%	31%	24%	6%	13.5
Special Education	42	17%	17%	29%	29%	10%	15.8
Administrative	286	20%	26%	39%	10%	4%	10.9
Library	151	3%	7%	38%	44%	9%	20.6
Applied Technology (all)	76	16%	22%	32%	26%	4%	13.8
Total	**1,847**	**17%**	**26%**	**36%**	**17%**	**4%**	**12.1**

Source data extracted from CACTUS for 2000-01 school year.

Table B-7: North East, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	211	16%	18%	43%	21%	3%	13.9
Elementary Education	747	16%	18%	40%	21%	5%	13.9
Middle Education	85	0%	1%	27%	59%	13%	28.0
Secondary Education	627	19%	20%	32%	22%	7%	13.4
Fine Art	101	16%	19%	29%	31%	6%	15.3
Foreign Language	85	18%	21%	28%	27%	6%	14.0
Health, Movement, and Fitness	177	12%	16%	36%	28%	8%	16.0
Information Technology	21	10%	24%	43%	24%	0%	13.9
Language Arts	167	14%	19%	28%	30%	10%	16.4
Social Studies	203	14%	22%	32%	21%	11%	14.4
Math	109	17%	24%	31%	23%	6%	13.1
Science	117	21%	19%	32%	19%	9%	13.3
Special Education	28	7%	11%	36%	32%	14%	19.0
Administrative	207	15%	20%	40%	20%	5%	13.6
Library	98	7%	10%	24%	38%	20%	23.3
Applied Technology (all)	54	7%	20%	37%	33%	2%	16.0
Total	**1,417**	**18%**	**20%**	**37%**	**20%**	**6%**	**13.3**

Source data extracted from CACTUS for 2000-01 school year.

Table B-8: South East, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	98	10%	11%	46%	31%	2%	16.2
Elementary Education	444	13%	18%	38%	27%	4%	15.1
Middle Education	26	0%	4%	38%	50%	8%	22.0
Secondary Education	347	13%	15%	35%	32%	5%	16.3
Fine Art	46	7%	11%	39%	37%	7%	18.3
Foreign Language	35	17%	6%	31%	40%	6%	18.6
Health, Movement, and Fitness	105	13%	16%	39%	26%	6%	15.2
Information Technology	14	29%	14%	29%	29%	0%	12.5
Language Arts	93	10%	13%	34%	34%	9%	18.0
Social Studies	113	12%	18%	34%	28%	8%	15.9
Math	55	16%	15%	36%	27%	5%	15.3
Science	51	18%	12%	45%	25%	0%	14.6
Special Education	21	5%	24%	24%	38%	10%	19.0
Administrative	124	11%	24%	42%	19%	3%	13.5
Library	78	4%	9%	26%	53%	9%	24.5
Applied Technology (all)	35	20%	14%	23%	34%	9%	16.9
Total	**807**	**12%**	**18%**	**36%**	**28%**	**6%**	**15.5**

Source data extracted from CACTUS for 2000-01 school year.

Table B-9: Central, Experience distribution of current educators by license areas, Fall 2000.

	Total	Years of Experience					Median
		0-4	5-9	10-19	20-29	30+	
Early Childhood	83	11%	18%	46%	23%	2%	14.6
Elementary Education	424	13%	20%	40%	23%	4%	14.2
Middle Education	67	0%	0%	30%	57%	13%	26.8
Secondary Education	329	14%	22%	37%	22%	5%	13.6
Fine Art	52	8%	19%	33%	33%	8%	17.1
Foreign Language	45	11%	18%	31%	38%	2%	16.8
Health, Movement, and Fitness	96	14%	24%	30%	28%	4%	14.1
Information Technology	18	22%	33%	17%	28%	0%	6.7
Language Arts	101	10%	12%	49%	25%	5%	15.8
Social Studies	106	11%	18%	31%	29%	10%	16.7
Math	74	22%	24%	31%	18%	5%	11.3
Science	77	18%	21%	39%	16%	6%	12.8
Special Education	9	11%	22%	22%	44%	0%	17.5
Administrative	127	12%	19%	45%	19%	6%	14.3
Library	55	0%	4%	31%	51%	15%	25.0
Applied Technology (all)	20	30%	25%	30%	15%	0%	8.3
Total	**737**	**13%**	**23%**	**37%**	**21%**	**6%**	**13.9**

Source data extracted from CACTUS for 2000-01 school year.

Table C: Early Retirement Eligibility Estimates by License Area, 2000–2005

Table C-1: State Totals, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement [a.]						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	3,498	315	107	115	107	141	785	22%
Elementary	12,579	1,067	327	405	373	450	2,622	21%
Middle School	1,047	195	50	74	78	59	456	44%
Secondary	10,973	1,143	294	385	336	361	2,519	23%
Fine Art	1,902	190	40	92	52	80	454	24%
Foreign Language	1,614	185	55	59	55	80	434	27%
Health, Movement, and Fitness	2,685	258	63	104	86	85	596	22%
Information Technology	334	24	6	10	7	7	54	16%
Language Arts	3,516	433	115	143	130	152	973	28%
Social Studies	3,919	551	138	154	166	163	1,172	29%
Math	1,921	192	33	56	59	57	397	21%
Science	1,982	234	51	64	66	61	476	24%
Special Education	4,132	266	88	109	100	138	701	17%
Applied Technology	1,014	105	30	32	30	35	232	23%
Administrative	1,751	323	74	97	70	83	647	37%
Total (unduplicated count)	**25,379**	**2,153**	**620**	**780**	**711**	**829**	**5,093**	**20%**

a. Eligibility counts represent the number of teachers in each area meeting minimum age/experience criteria as set forth in state retirement system policy. All early retirement eligibility estimates were calculated using age and experience of 1999–00 in-assignment educators extracted from CACTUS data. Individual school districts may modify state retirement system policies.

Table C-2: Wasatch Central Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	1,308	121	38	60	43	56	318	24%
Elementary	4,342	430	138	161	153	172	1,054	24%
Middle School	272	62	10	20	25	16	133	49%
Secondary	3,727	416	101	167	120	145	949	25%
Fine Art	685	65	17	37	25	25	169	25%
Foreign Language	564	72	14	33	14	33	166	29%
Health, Movement, and Fitness	855	88	19	38	24	35	204	24%
Information Technology	101	14	2	3	1	3	23	23%
Language Arts	1,269	165	38	59	52	65	379	30%
Social Studies	1,398	197	47	72	65	64	445	32%
Math	650	87	8	21	20	25	161	25%
Science	663	88	18	29	23	29	187	28%
Special Education	1,422	90	28	47	35	54	254	18%
Applied Technology	318	41	13	15	8	14	91	29%
Administrative	561	107	25	42	20	33	227	40%
Total (unduplicated count)	**8,938**	**826**	**239**	**327**	**275**	**332**	**1,999**	**22%**

Table C-3: Wasatch North Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	695	88	22	18	24	24	176	25%
Elementary	2,615	239	67	81	72	96	555	21%
Middle School	120	24	5	9	4	7	49	41%
Secondary	2,357	274	76	74	65	70	559	24%
Fine Art	390	42	11	19	7	24	103	26%
Foreign Language	344	50	11	7	7	11	86	25%
Health, Movement, and Fitness	537	62	15	17	20	9	123	23%
Information Technology	66	4	1	2	1	0	8	12%
Language Arts	779	98	35	21	17	31	202	26%
Social Studies	855	136	35	24	26	23	244	29%
Math	395	41	11	7	8	9	76	19%
Science	435	71	14	10	10	7	112	26%
Special Education	956	61	22	31	28	36	178	19%
Applied Technology	231	29	7	9	8	8	61	26%
Administrative	369	77	17	18	19	16	147	40%
Total (unduplicated count)	**5,381**	**505**	**143**	**153**	**138**	**167**	**1,106**	**21%**

Table C-4: Wasatch South Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	496	40	20	11	16	26	113	23%
Elementary	2,066	140	49	50	57	75	371	18%
Middle School	109	17	7	14	6	5	49	45%
Secondary	1,678	149	41	57	42	44	333	20%
Fine Art	284	27	2	17	7	11	64	23%
Foreign Language	250	26	11	5	8	8	58	23%
Health, Movement, and Fitness	406	31	10	20	8	12	81	20%
Information Technology	44	4	3	2	0	1	10	23%
Language Arts	493	50	10	26	14	21	121	25%
Social Studies	549	73	19	19	23	19	153	28%
Math	313	24	9	10	4	9	56	18%
Science	267	20	7	10	7	11	55	21%
Special Education	642	41	19	8	16	22	106	17%
Applied Technology	192	13	4	4	2	3	26	14%
Administrative	263	43	7	11	11	13	85	32%
Total (unduplicated count)	**4,034**	**288**	**94**	**106**	**102**	**124**	**714**	**18%**

Table C-5: North West Utah Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	275	20	11	9	5	12	57	21%
Elementary	1,000	65	26	42	20	28	181	18%
Middle School	207	31	11	19	15	10	86	42%
Secondary	910	100	19	38	35	25	217	24%
Fine Art	159	11	1	6	6	3	27	17%
Foreign Language	130	12	5	7	9	10	43	33%
Health, Movement, and Fitness	224	28	3	14	9	5	59	26%
Information Technology	34	2	0	2	0	0	4	12%
Language Arts	292	37	8	18	21	7	91	31%
Social Studies	321	43	13	18	16	14	104	32%
Math	151	15	3	8	8	2	36	24%
Science	165	14	5	9	8	2	38	23%
Special Education	325	13	5	10	4	5	37	11%
Applied Technology	65	6	1	2	3	3	15	23%
Administrative	145	25	6	10	7	5	53	37%
Total (unduplicated count)	**2,062**	**153**	**45**	**78**	**54**	**51**	**381**	**18%**

Table C-6: South West Utah Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	296	12	3	6	4	7	32	11%
Elementary	958	58	9	24	14	28	133	14%
Middle School	150	22	5	7	11	10	55	37%
Secondary	853	62	18	21	27	26	154	18%
Fine Art	154	12	1	7	3	4	27	18%
Foreign Language	137	7	5	5	10	4	31	23%
Health, Movement, and Fitness	255	17	5	5	11	9	47	18%
Information Technology	25	0	0	0	1	0	1	4%
Language Arts	256	26	9	8	6	7	56	22%
Social Studies	306	32	10	11	15	15	83	27%
Math	156	8	0	3	10	5	26	17%
Science	185	14	2	4	6	8	34	18%
Special Education	283	22	3	1	6	6	38	13%
Applied Technology	83	5	2	0	5	1	13	16%
Administrative	145	18	7	7	6	9	47	32%
Total (unduplicated count)	**1,815**	**113**	**27**	**41**	**40**	**54**	**275**	**15%**

Table C-7: North East Utah Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	211	12	6	8	4	7	37	18%
Elementary	676	54	18	16	25	18	131	19%
Middle School	93	17	7	4	10	5	43	46%
Secondary	647	69	11	15	19	19	133	21%
Fine Art	105	16	3	4	4	4	31	30%
Foreign Language	85	11	3	1	5	4	24	28%
Health, Movement, and Fitness	188	19	3	6	6	6	40	21%
Information Technology	24	0	0	0	2	1	3	13%
Language Arts	172	25	4	6	7	10	52	30%
Social Studies	220	34	3	3	6	11	57	26%
Math	113	8	1	3	3	3	18	16%
Science	118	13	1	1	4	1	20	17%
Special Education	216	18	2	6	1	6	33	15%
Applied Technology	61	3	2	1	2	3	11	18%
Administrative	104	25	4	5	2	3	39	38%
Total (unduplicated count)	**1,380**	**117**	**26**	**32**	**42**	**40**	**257**	**19%**

Table C-8: South East Utah Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	100	7	6	2	1	4	20	20%
Elementary	407	30	14	15	13	19	91	22%
Middle School	27	4	2	1	3	2	12	44%
Secondary	364	37	14	4	16	18	89	24%
Fine Art	50	6	0	2	0	4	12	24%
Foreign Language	38	4	4	0	2	1	11	29%
Health, Movement, and Fitness	110	8	4	3	3	7	25	23%
Information Technology	14	0	0	0	2	1	3	21%
Language Arts	100	16	4	1	5	6	32	32%
Social Studies	121	16	4	2	7	7	36	30%
Math	50	2	0	2	3	2	9	18%
Science	57	4	2	0	4	1	11	19%
Special Education	127	11	6	2	2	1	22	17%
Applied Technology	35	6	2	1	1	2	12	34%
Administrative	82	13	7	3	2	3	28	34%
Total (unduplicated count)	**789**	**66**	**27**	**19**	**28**	**33**	**173**	**22%**

Table C-9: Central Utah Area, Early Retirement Eligibility Estimates by License Area, 2000–2005

	Total Licensed, 1990–00	Number eligible for early retirement						
		2001	2002	2003	2004	2005	Cum.	Pct. of Total
Early Childhood	88	10	2	0	7	1	20	23%
Elementary	384	37	8	13	15	7	80	21%
Middle School	75	18	3	1	3	5	30	40%
Secondary	337	26	13	8	11	14	72	21%
Fine Art	56	8	4	2	0	5	19	34%
Foreign Language	50	1	2	1	0	9	13	26%
Health, Movement, and Fitness	96	7	4	2	3	2	18	19%
Information Technology	17	0	0	1	0	0	1	6%
Language Arts	106	11	6	4	3	6	30	28%
Social Studies	113	14	7	5	5	7	38	34%
Math	71	6	1	1	2	2	12	17%
Science	76	6	2	1	3	1	13	17%
Special Education	131	13	3	5	4	6	31	24%
Applied Technology	18	0	0	0	1	1	2	11%
Administrative	62	14	1	1	2	1	19	31%
Total (unduplicated count)	**722**	**61**	**20**	**20**	**24**	**21**	**146**	**20%**

Table D: Teacher Education Program Graduates by Major Field and Year, 1995–2000

Table D-1: State Total, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	138	186	213	188	191	164	1,080
Elementary	786	855	938	1,009	968	884	5,440
Dual Early Ch./Elementary	202	150	156	11	34	34	587
Secondary	1,409	1,654	1,857	1,768	1,647	1,502	9,837
Music	49	50	52	45	76	43	315
Art	31	40	39	34	51	37	232
Other Fine Arts	13	23	34	23	23	34	150
Foreign Language	58	79	77	91	82	60	447
Health, Movement, Fitness	89	115	108	131	130	137	710
Computer Science		3				1	4
English	156	141	145	163	173	170	948
Reading		1	1		1	5	8
ESL		4	4	11	9	12	40
Other Language Arts	12	11	18	18	34	6	99
History	75	84	107	104	89	99	558
Social Sciences	31	34	50	33	17	26	191
Other Social Studies	113	94	103	105	87	71	573
Math	108	124	123	106	105	103	669
Science Total	103	94	107	137	101	135	677
Biological Science	47	47	62	66	80	88	390
Chemistry	4	6	7	10	5	8	40
Earth Science	13	5	5	9	5	3	40
Physics	2	8	7	13	6	10	46
Physical Science	15	11	10	14	5	10	65
Other Science	1						1
Gifted/Talented	16	16	4	6	1	1	44
Other Secondary	31	17	35	33	40	28	184
Special Education	242	228	182	197	209	186	1,244
Hearing Impairments	2	1	5	6	3	4	21
Mild/Moderate	79	48	81	105	105	85	503
Severe	12	12	23	20	14	23	104
Visual Impairments	1	1	1	4	4	3	14
Pre-K	4	9	6	6	4	6	35
Communicative Disorders	18	28	30	29	33	51	189
Audiology						2	2
Speech-language Pathology	5	7	7	9	18	21	67
Applied Technology - Total	82	61	71	77	67	59	417
Administrative/Supervisory	16	58	36	61	49	67	287
School Counselor	14	33	23	14	28	42	154
School Psychologist	12	10	10	4	6	9	51
School Social Worker	11	4	9	12	19	6	61
Library Media	5	11		12	2	10	40
Total	**3,050**	**3,409**	**3,658**	**3,721**	**3,583**	**3,230**	**20,745**

Aggregated from data collected from each teacher preparation program. Details may not sum to totals due to missing data.

Table D-2: Brigham Young University, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	73	104	134	95	98	76	580
Elementary	390	422	517	460	435	365	2,589
Secondary	882	1,033	1,200	1,129	1,080	997	6,321
Music	18	30	16	22	30	26	142
Art	13	14	16	14	28	15	100
Other Fine Arts	4	13	21	13	13	17	81
Foreign Language	38	53	50	63	62	41	307
Health, Movement, Fitness	46	55	56	77	59	60	353
Computer Science		3				1	4
English	73	71	76	78	89	93	480
ESL		4	2	1	2	7	16
Other Language Arts	5	2	4	1		1	13
History	61	65	85	70	64	78	423
Other Social Studies	60	56	60	64	47	39	326
Math	57	78	78	72	63	75	423
Science Total	44	42	59	71	69	84	369
Biological Science	29	27	42	39	55	60	252
Chemistry	2	3	3	5	3	3	19
Earth Science	4		2	6	2	3	17
Physics	2	6	6	10	6	8	38
Physical Science	7	6	6	11	3	10	43
Gifted/Talented				5	1		6
Other Secondary	19	10	19	18	21	13	100
Special Education	71	113	63	54	25	21	347
Mild/Moderate			45	40	21	14	120
Severe			18	14	4	7	43
Communicative Disorders	2	8	3	2	9	9	33
Audiology						2	2
Speech-language Pathology						7	7
Applied Technology - Total	11	18	11	14	10	6	70
Administrative/Supervisory		34	10	37	30	32	143
School Counselor		15	1	5	1	11	33
School Psychologist		4	3				7
School Social Worker						2	2
Total	**1,429**	**1,751**	**1,941**	**1,796**	**1,688**	**1,519**	**10,124**

Table D-3: Southern Utah University, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	49	45	36	33	51	51	265
Elementary	156	150	180	202	207	183	1,078
Secondary	168	203	170	243	210	210	1,204
Music	6	2	9	2	11	4	34
Art	3	5	4	1	7	4	24
Other Fine Arts	1	2	8	5	1		17
Foreign Language	11	15	15	14	11	4	70
Health, Movement, Fitness	21	28	27	22	25	31	154
English	14	14	12	11	11	20	82
Other Language Arts	1	2	3	7	5	1	19
History	3	8	10	7	9	11	48
Other Social Studies	27	18	20	20	24	21	130
Math	11	10	9	6	12	4	52
Science	12	19	8	15	14	10	78
Biological Science	8	12	7	12	10	9	58
Chemistry	1	2	1	1	1	1	7
Earth Science		1			3		4
Physical Science	3	4		2			9
Special Education	38	22	13	37	57	39	206
Mild/Moderate	38	22	13	37	57	39	206
Applied Technology - Total	30	19	21	28	29	16	143
Library Media	4						4
Total	**445**	**439**	**420**	**653**	**684**	**444**	**3,179**

Table D-4: University of Utah, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	1		2	7	18	11	39
Elementary	47	54	61	62	54	56	334
Secondary	62	157	60	73	87	82	521
Music	8	8	11	7	20		54
Art	2	8	3	5	8	6	32
Other Fine Arts	2	5	2		2	9	20
Foreign Language	4	6	4	6	4	5	29
Health, Movement, Fitness	2	5	1	6	6	7	27
English	16	16	10	23	16	21	102
Other Language Arts			1	2			3
History	4	4	5	6	6	1	26
Other Social Studies	7	8	9	6	8	5	43
Math	4	10	9	4	10	11	48
Science	3	4	6	10	7	17	47
Biological Science	1	2	2	5	6	13	29
Chemistry	1	1	2	1	1	4	10
Earth Science			1	2			3
Physics		1	1	2			4
Physical Science	1						1
Gifted/Talented	10	9					19
Special Education	45	34	31	35	35	43	223
Hearing Impairments	2	1	5	6	3	4	21
Mild/Moderate	26	11	14	13	14	14	92
Severe	12	12	5	6	10	16	61
Visual Impairments	1	1	1	4	4	3	14
Pre-K	4	9	6	6	4	6	35
Communicative Disorders	5	7	7	9	18	14	60
Speech-language Pathology	5	7	7	9	18	14	60
Administrative/Supervisory	16	24	26	24	19	35	144
School Counselor	5	10					15
School Psychologist	10	6	1	1	4	5	27
School Social Worker	11	4	9	12	19	4	59
Library Media				8			8
Total	**264**	**379**	**258**	**306**	**341**	**332**	**1,880**

Table D-5: Utah State University, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	13	31	33	31	9	8	125
Elementary	178	218	156	173	177	170	1,072
Dual Early Ch./Elementary	39	22	18	11	34	34	158
Secondary	191	161	300	213	169	117	1,151
Music	13	7	11	11	12	9	63
Art	9	10	12	9	7	6	53
Health, Movement, Fitness	19	22	22	22	35	30	150
English	29	19	25	32	40	20	165
Other Language Arts	6	7	10	8	29	4	64
Social Sciences	31	34	50	33	17	26	191
Math	22	18	22	15	14	8	99
Science	21	17	16	25	22	16	117
Other Secondary	12	7	16	15	10	11	71
Special Education	73	44	66	56	79	65	383
Communicative Disorders	11	13	20	18	6	28	96
Applied Technology - Total	29	18	32	32	22	27	160
School Counselor	9	8	22	9	27	31	106
School Psychology	2		6	3	2	4	17
Library Media	1	11		4	2	10	28
Total	**599**	**574**	**726**	**675**	**608**	**650**	**3,832**

Table D-6: Utah Valley State College, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Elementary	~	~	~	29	32	33	94
Total	**~**	**~**	**~**	**29**	**32**	**33**	**94**

Table D-8: Weber State University, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood				12	9	12	33
Elementary				104	74	89	267
Early Child./Elementary	163	128	138				429
Secondary	92	68	114	103	76	96	549
Music	4	3	5	3	3	4	22
Art	4	3	4	5	1	6	23
Other Fine Arts	6	3	3	5	7	8	32
Foreign Language	5	5	8	8	5	10	41
Health, Movement, Fitness	1	5	2	4	5	9	26
English	24	21	22	19	17	16	119
Reading		1	1		1	5	8
ESL			2	10	7	5	24
History	7	7	7	21	10	9	61
Other Social Studies	19	12	14	15	8	6	74
Math	14	8	5	9	6	5	47
Science	23	12	18	16	11	8	88
Biological Science	9	6	11	10	9	6	51
Chemistry			1	3			4
Earth Science	9	4	2	1			16
Physics		1		1		2	4
Physical Science	4	1	4	1	2		12
Other Science	1						1
Gifted/Talented	6	7	4	1		1	19
Other Secondary					9	4	13
Special Education	15	15	9	15	13	18	85
Mild/Moderate	15	15	9	15	13	18	85
Applied Technology - Total	12	6	7	3	6	10	44
Total	**282**	**217**	**268**	**237**	**178**	**225**	**1,407**

Table D-9: Westminster College, Teacher Education Program Graduates by Major Field and Year

Major	1994–95	1995–96	1996–97	1997–98	1998–99	1999–00	Total 1994–2000
Early Childhood	2	6	8	10	6	6	38
Elementary	15	11	24	8	21	21	100
Secondary	14	32	13	7	25	~	91
Total	**31**	**49**	**45**	**25**	**52**	**27**	**229**

Table E: Full-time Equivalent Teacher Need Projections by Assignment Area 2000–2005, 2010

Table E-1: State Total, Full-time Equivalent Teacher Need Projections by Assignment Area 2000–2005, 2010

Assignment area	1999–00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001–02 [b.]	2002–03	2003–04	2004–05	2005–06		
Elementary	9,779.1	9,930.1	10,083.0	10,246.2	10,443.4	10,659.3	942.6	14,302.6
Secondary Total	8,916.5	8,766.6	8,776.3	8,821.5	8,853.7	8,918.1	293.5	10,607.4
Fine Arts	945.4	929.5	930.5	935.3	938.7	945.5	31.9	
Foreign Language	444.5	437.0	437.5	439.7	441.4	444.6	13.9	
Health, Movement, Fitness	790.4	777.1	778.0	782.0	784.8	790.5	27.0	
Information Technology	30.3	29.8	29.9	30.0	30.1	30.4	1.5	
Language Arts	1,491.5	1,466.5	1,468.1	1,475.6	1,481.0	1,491.8	44.8	
Social Studies	1,037.6	1,020.2	1,021.3	1,026.6	1,030.3	1,037.8	33.2	
Math	1,109.2	1,090.5	1,091.7	1,097.4	1,101.4	1,109.4	36.9	
Science	941.5	925.7	926.7	931.5	934.9	941.7	29.3	
Support	2,126.1	2,090.3	2,092.6	2,103.4	2,111.1	2,126.5	74.9	
Special Education, Classroom	2,037.4	2,074.8	2,089.9	2,109.3	2,130.9	2,157.2	264.8	
Special Education, Pre-K	120.4	122.6	123.5	124.7	125.9	127.5	19.3	
Special Education, Support	387.9	395.0	397.9	401.6	405.7	410.7	40.8	
Applied Technology Education	2,567.5	2,524.3	2,527.1	2,540.1	2,549.4	2,567.9	55.7	
Library	308.7	308.9	311.7	315.1	319.0	323.6	12.4	
Administration	1,393.6	1,394.8	1,407.1	1,422.8	1,440.2	1,461.2	80.7	
Principal	954.2	955.1	963.5	974.2	986.1	1,000.5	57.1	
Total	**24,701.2**	**24,722.3**	**24,940.9**	**25,218.8**	**25,526.0**	**25,899.6**	**1,652.1**	**31,074.0**

a. 1999–2000 FTE counts extracted from USOE Cactus database. Does not include interns.

b. Calculated using 1999–00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999–00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.

c. Because of bias introduced by aggregation of district-level data to geographic areas, "Total New FTE Needed" is not necessarily equal to the difference between "Projected 2005–06 FTE" and "1999–00 FTE". The rate of enrollment growth is sometimes markedly different between districts in the same area, and growth rates of opposite direction may partially cancel each other out when aggregated together. So while the FTE need projections appropriately represent the total number of FTE within the area, they are not good indicators of net teacher deficit, since the need for new teachers may be differential across districts with different growth rates. Thus the "New FTE" column shows the *net* number of *additional* teachers that will be needed from each district over time to maintain district-level base year staffing patterns.

d. Calculated using 1999–00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-2: Wasatch Central Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000–2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	3,618.6	3,641.3	3,657.9	3,672.1	3,693.6	3,725.9	111.6	5,262.5
Secondary Total	3,297.0	3,225.4	3,202.5	3,193.5	3,175.2	3,167.2	.5	4,097.7
Fine Arts	336.2	328.8	326.4	325.5	323.6	322.7	.1	
Foreign Language	167.1	163.3	162.1	161.6	160.7	160.3	.0	
Health, Movement, Fitness	280.3	274.0	272.1	271.3	269.7	269.1	.0	
Information Technology	11.5	11.2	11.2	11.2	11.1	11.1	.0	
Language Arts	526.7	515.6	512.5	511.4	509.0	508.2	.1	
Social Studies	369.6	361.5	359.0	358.1	356.2	355.4	.0	
Math	383.2	374.8	372.4	371.5	369.5	368.8	.0	
Science	346.9	339.1	336.8	335.9	334.0	333.3	.0	
Support	875.5	857.0	850.1	847.2	841.4	838.4	.2	
Special Education, Classroom	742.2	779.5	778.7	779.2	779.6	782.4	43.1	
Special Education, Pre-K	38.7	40.6	40.6	40.6	40.6	40.8	2.2	
Special Education, Support	161.8	169.3	169.2	169.3	169.4	170.0	8.9	
Applied Technology Education	566.0	554.0	550.7	549.5	546.8	545.9	.1	
Library	129.2	128.3	128.1	128.1	128.1	128.6	.7	
Administration	471.5	469.0	468.8	469.4	469.9	471.8	4.1	
Principal	319.5	317.7	317.5	317.9	318.2	319.4	2.6	
Total	**9,057.7**	**9,004.6**	**8,999.1**	**9,007.5**	**9,014.8**	**9,049.9**	**161.1**	**11,527.1**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table E-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-3: Wasatch North Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	1,992.2	2,018.4	2,048.5	2,085.2	2,129.4	2,167.7	176.2	2,710.5
Secondary Total	1,930.4	1,912.5	1,912.2	1,919.5	1,921.9	1,934.0	18.4	1,913.3
Fine Arts	197.0	195.1	195.1	195.8	196.0	197.3	1.9	
Foreign Language	101.7	100.7	100.7	101.1	101.1	101.8	.9	
Health, Movement, Fitness	137.1	135.8	135.8	136.3	136.5	137.4	1.3	
Information Technology	2.1	2.1	2.1	2.1	2.1	2.1	.0	
Language Arts	341.5	338.3	338.3	339.6	339.9	342.1	3.2	
Social Studies	222.8	220.7	220.7	221.5	221.7	223.2	2.1	
Math	236.2	233.9	233.9	234.8	235.0	236.6	2.2	
Science	198.7	196.8	196.8	197.6	197.7	199.0	1.9	
Support	493.3	489.0	488.8	490.7	491.9	494.5	4.9	
Special Education, Classroom	445.1	397.6	400.7	405.2	409.9	415.0	9.9	
Special Education, Pre-K	19.9	17.4	17.5	17.7	17.9	18.1	.4	
Special Education, Support	85.4	76.8	77.4	78.3	79.2	80.2	2.0	
Applied Technology Education	327.7	324.5	324.4	325.6	325.9	328.2	3.1	
Library	51.1	51.0	51.4	51.8	52.4	52.9	1.9	
Administration	297.5	297.3	299.6	303.0	306.6	310.5	13.5	
Principal	190.1	190.0	191.5	193.7	195.9	198.4	8.5	
Total	**5,156.3**	**5,153.7**	**5,194.4**	**5,253.1**	**5,314.7**	**5,382.7**	**223.6**	**5,886.9**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.

b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.

c. See Note c for Table E-1.

d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-4: Wasatch South Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	1,589.1	1,659.0	1,706.0	1,750.4	1,797.3	1,842.9	266.8	2,762.0
Secondary Total	1,343.7	1,370.9	1,394.6	1,429.3	1,469.6	1,510.9	169.7	2,118.1
Fine Arts	148.5	151.5	154.1	157.9	162.3	166.9	18.6	
Foreign Language	69.5	70.8	72.0	73.6	75.7	77.7	8.4	
Health, Movement, Fitness	118.4	120.8	122.9	125.9	129.4	132.9	14.7	
Information Technology	4.7	4.8	4.9	5.0	5.2	5.4	.7	
Language Arts	210.6	214.8	218.5	223.8	230.2	236.6	26.4	
Social Studies	145.5	148.5	151.0	154.7	159.0	163.3	18.1	
Math	169.0	172.4	175.3	179.4	184.4	189.3	20.7	
Science	130.2	132.8	135.0	138.2	142.1	145.9	16.0	
Support	347.2	354.5	360.8	370.6	381.5	392.9	46.2	
Special Education, Classroom	337.2	364.7	372.5	380.6	390.0	399.0	64.8	
Special Education, Pre-K	7.5	8.0	8.2	8.4	8.7	9.0	1.5	
Special Education, Support	58.5	63.1	64.5	66.1	67.8	69.5	11.5	
Applied Technology Education	281.7	287.3	292.2	298.9	307.1	315.3	34.2	
Library	42.2	43.1	43.9	44.8	45.7	46.5	4.7	
Administration	196.4	202.8	207.4	212.5	218.2	223.7	28.0	
Principal	143.3	148.0	151.5	155.2	159.4	163.5	20.7	
Total	**3,867.1**	**3,996.5**	**4,089.1**	**4,190.4**	**4,303.7**	**4,415.3**	**568.8**	**5,886.9**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table E-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-5: North West Utah Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	813.7	845.9	876.2	913.2	968.2	1,034.8	227.1	1,198.4
Secondary Total	727.4	719.3	725.8	737.6	748.1	765.3	53.4	875.4
Fine Arts	81.6	80.6	81.2	82.4	83.5	85.2	5.5	
Foreign Language	42.2	41.6	41.7	42.2	42.5	43.0	1.8	
Health, Movement, Fitness	71.0	70.1	70.6	71.7	72.6	74.1	4.6	
Information Technology	2.8	2.8	3.0	3.1	3.3	3.5	.8	
Language Arts	124.2	122.7	123.4	125.3	126.7	129.2	7.6	
Social Studies	85.9	84.9	85.8	87.2	88.5	90.7	6.6	
Math	98.1	97.1	98.0	99.7	101.1	103.6	7.5	
Science	80.9	80.0	80.6	81.9	82.9	84.7	5.6	
Support	140.9	139.5	141.6	144.2	147.1	151.4	13.3	
Special Education, Classroom	133.4	132.9	135.6	139.3	144.2	150.5	20.2	
Special Education, Pre-K	12.9	12.8	13.2	13.7	14.4	15.3	2.6	
Special Education, Support	43.5	43.3	43.9	44.8	45.8	47.2	4.6	
Applied Technology Education	135.9	134.0	135.1	137.1	138.8	141.7	8.8	
Library	30.9	30.9	31.2	31.8	32.3	33.1	2.4	
Administration	112.2	113.7	116.2	119.5	124.1	129.8	18.8	
Principal	82.8	83.9	85.8	88.3	91.7	96.0	14.0	
Total	**2,012.9**	**2,043.4**	**2,091.5**	**2,155.6**	**2,241.8**	**2,352.0**	330.7	**2,554.5**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table E-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-6: South West Utah Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	690.5	711.0	732.9	752.6	775.7	800.6	120.9	1,087.8
Secondary Total	624.3	603.5	608.2	611.9	610.9	611.6	14.4	750.8
Fine Arts	71.2	68.9	69.4	69.8	69.7	69.8	1.8	
Foreign Language	27.2	26.4	26.6	26.8	26.7	26.8	.6	
Health, Movement, Fitness	63.5	61.5	62.0	62.3	62.2	62.3	1.8	
Information Technology	1.1	1.0	1.0	1.0	1.0	1.0	.0	
Language Arts	106.8	102.9	103.7	104.3	104.0	104.0	1.9	
Social Studies	83.8	81.0	81.6	82.1	82.0	82.1	1.9	
Math	84.8	81.8	82.3	82.8	82.5	82.5	1.7	
Science	75.5	73.0	73.5	73.9	73.8	73.9	1.8	
Support	110.4	107.1	108.0	108.9	108.9	109.2	2.8	
Special Education, Classroom	139.4	217.9	222.5	226.5	230.3	234.8	97.4	
Special Education, Pre-K	15.7	23.3	23.6	23.9	24.1	24.5	9.4	
Special Education, Support	16.3	24.7	25.3	25.7	26.2	26.8	10.7	
Applied Technology Education	138.5	133.7	134.6	135.2	134.8	134.8	3.3	
Library	21.3	21.0	21.2	21.4	21.6	21.8	1.7	
Administration	113.2	113.7	116.0	117.9	119.7	121.8	11.1	
Principal	80.8	81.1	82.6	84.0	85.3	86.8	7.8	
Total	**1,757.1**	**1,764.4**	**1,799.5**	**1,830.4**	**1,859.5**	**1,893.4**	248.8	**2,334.1**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table B-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-7: North East Utah Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	522.9	523.4	522.9	526.7	528.5	533.7	28.2	589.0
Early Childhood	1.3	1.3	1.3	1.3	1.4	1.4	.1	
Secondary Total	491.6	480.8	484.7	486.4	489.1	491.7	32.6	411.9
Fine Arts	54.4	53.1	53.4	53.4	53.6	53.8	3.3	
Foreign Language	21.1	21.0	21.3	21.6	21.9	22.2	2.1	
Health, Movement, Fitness	58.1	57.0	57.6	57.9	58.3	58.6	4.0	
Information Technology	1.8	1.7	1.7	1.6	1.6	1.6	.0	
Language Arts	84.6	82.3	82.8	82.9	83.2	83.5	.0	
Social Studies	61.3	59.9	60.4	60.6	60.9	61.3	3.9	
Math	68.0	66.2	66.7	66.9	67.2	67.4	4.2	
Science	57.7	56.3	56.7	56.9	57.2	57.4	3.7	
Support	84.6	83.2	84.0	84.5	85.2	85.9	6.7	
Special Education, Classroom	109.7	118.4	118.2	118.5	118.6	119.1	14.4	
Special Education, Pre-K	9.0	10.1	10.1	10.1	10.1	10.2	1.5	
Special Education, Support	9.7	10.0	10.1	10.1	10.2	10.3	1.0	
Applied Technology Education	109.6	105.9	106.3	106.2	106.4	106.5	5.3	
Library	17.7	17.7	17.8	17.9	18.0	18.1	1.0	
Administration	84.1	83.2	83.3	83.6	83.9	84.4	4.0	
Principal	59.5	58.7	58.8	58.9	59.0	59.3	2.6	
Total	1,355.6	1,344.2	1,347.7	1,353.7	1,358.1	1,367.2	85.6	1,269.7

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table B-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-8: South East Utah Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	284.8	251.3	248.9	246.1	239.9	234.5	.0	302.5
Secondary Total	269.2	238.6	230.9	226.2	220.5	213.7	.0	223.5
Fine Arts	32.7	28.9	27.9	27.3	26.6	25.8	.0	
Foreign Language	10.2	9.1	8.8	8.7	8.4	8.2	.0	
Health, Movement, Fitness	27.9	24.7	23.9	23.4	22.8	22.2	.0	
Information Technology	3.3	2.9	2.8	2.8	2.7	2.6	.0	
Language Arts	48.3	42.7	41.3	40.4	39.3	38.1	.0	
Social Studies	31.8	28.1	27.2	26.7	26.0	25.2	.0	
Math	33.0	29.1	28.1	27.5	26.8	25.9	.0	
Science	29.4	26.0	25.1	24.6	24.0	23.2	.0	
Support	52.6	47.0	45.7	44.9	43.9	42.5	.0	
Special Education, Classroom	68.8	66.9	65.7	64.7	63.5	61.9	6.9	
Special Education, Pre-K	6.4	6.3	6.2	6.1	5.9	5.6	.7	
Special Education, Support	8.0	8.3	8.2	8.1	8.1	8.0	1.3	
Applied Technology Education	67.0	59.3	57.3	56.1	54.6	52.7	.0	
Library	15.2	13.5	13.2	12.9	12.5	12.0	.0	
Administration	64.5	57.0	55.7	54.8	53.2	51.6	.0	
Principal	40.4	35.6	34.8	34.2	33.3	32.4	.0	
Total	**783.9**	**693.1**	**677.9**	**666.5**	**649.0**	**630.6**	**6.9**	**711.7**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table B-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table E-9: Central Utah Area, Full-time Equivalent Teacher Need Projections by Assignment Area 2000-2005, 2010

Assignment area	1999-00 [a.] Actual	Projected enrollment-based FTE need					Total additional FTE [c.]	Projected 2010 FTE Need [d.]
		2001-02 [b.]	2002-03	2003-04	2004-05	2005-06		
Elementary	271.7	268.1	271.2	274.2	276.2	276.5	11.8	331.6
Secondary Total	253.9	237.8	236.2	233.4	232.2	232.5	4.4	221.4
Fine Arts	28.7	27.0	26.9	26.6	26.5	26.6	.6	
Foreign Language	8.2	7.6	7.6	7.5	7.4	7.4	.0	
Health, Movement, Fitness	33.0	30.9	30.7	30.3	30.0	30.0	.5	
Information Technology	2.9	2.7	2.7	2.7	2.7	2.7	.0	
Language Arts	48.6	45.4	45.0	44.4	44.1	44.1	.8	
Social Studies	37.0	34.6	34.3	33.9	33.7	33.7	.6	
Math	37.5	35.1	34.9	34.4	34.3	34.3	.7	
Science	31.3	29.3	29.0	28.7	28.5	28.5	.4	
Support	26.7	25.3	25.2	24.9	24.9	25.1	.7	
Special Education, Classroom	62.6	60.6	60.7	60.9	61.0	61.0	8.1	
Special Education, Pre-K	11.3	9.4	9.4	9.4	9.4	9.3	1.0	
Special Education, Support	5.5	5.9	6.0	6.0	6.0	6.0	.8	
Applied Technology Education	59.9	56.0	55.4	54.8	54.3	54.3	.9	
Library	1.2	1.2	1.2	1.2	1.2	1.2	.0	
Administration	52.8	50.9	51.1	51.0	51.0	51.1	1.3	
Principal	37.2	35.8	35.8	35.8	35.8	35.8	.8	
Total	**719.5**	**675.1**	**676.3**	**676.0**	**676.4**	**677.2**	**26.5**	**724.1**

a. 1999-2000 FTE counts extracted from USOE Cactus database. Does not include interns.
b. Calculated using 1999-00 pupil-teacher ratios and USOE enrollment projections. Pupil-teacher ratios calculated by dividing 1999 Fall enrollments by 1999-00 FTE counts. Does not include interns. These projections are not adjusted for potential effects of attrition or retirement.
c. See Note c for Table B-1.
d. Calculated using 1999-00 pupil-teacher ratios and 2010 school-age population projections produced by the Governors Office of Planning and Budget.

Table F: 1999 Non-licensed FTE in Assignment, by Geographic Area and Assignment Area

	State	Wasatch Central	Wasatch North	Wasatch South	North West	South West	North East	South East	Central
Elementary	1.0%	.5%	1.1%	.8%	1.8%	.9%	2.5%	1.5%	2.8%
Secondary Total	6.5%	8.2%	8.6%	3.1%	6.0%	9.3%	12.6%	7.7%	9.3%
Fine Arts	5.2%	4.5%	5.7%	2.3%	4.0%	7.5%	9.5%	7.5%	9.8%
Foreign Language	4.5%	3.8%	4.9%	.5%	11.5%	2.9%	10.6%	1.7%	8.0%
Health, Movement, Fitness	6.6%	43.1%	6.5%	4.7%	4.4%	12.3%	12.6%	10.0%	11.3%
Information Technology	18.0%	17.4%	31.8%	3.6%	5.1%	32.7%	62.0%	30.8%	.0%
Language Arts	5.6%	5.2%	5.6%	3.0%	4.9%	6.2%	13.9%	3.4%	5.9%
Social Studies	6.5%	6.1%	6.5%	4.0%	6.5%	6.4%	11.2%	6.3%	12.5%
Math	5.6%	4.3%	7.2%	4.5%	2.8%	8.9%	12.1%	7.1%	4.0%
Science	9.3%	6.8%	7.0%	4.3%	15.6%	16.2%	17.8%	13.3%	19.1%
Support	7.1%	4.3%	15.2%	2.0%	3.5%	10.8%	10.5%	8.1%	5.6%
Special Education, Classroom	8.8%	7.1%	14.2%	3.7%	6.7%	5.4%	16.8%	10.2%	13.1%
Special Education, Pre-K	24.4%	10.8%	4.5%	20.0%	28.7%	31.9%	38.9%	100.0%	27.8%
Special Education, Support	7.9%	2.1%	8.5%	11.3%	14.0%	12.3%	28.8%	37.5%	9.1%
Applied Technology Education	11.7%	12.9%	9.4%	10.6%	15.1%	12.7%	12.6%	15.1%	13.0%
Library	6.3%	2.9%	8.0%	2.4%	13.2%	9.4%	8.9%	19.8%	.0%
Administration	1.9%	.6%	.1%	1.6%	.9%	1.8%	9.2%	9.1%	2.6%
Principal	2.2%	.9%	.0%	2.1%	1.2%	.7%	10.8%	9.0%	3.7%
Total	**4.8%**	**3.6%**	**5.7%**	**2.8%**	**5.2%**	**5.5%**	**9.0%**	**7.8%**	**7.2%**

Calculated from data extracted from CACTUS for 1999-00 school year, prior to implementation of Alternative Preparation for Teaching Program. Percentages represent educators who were teaching in assignments without the appropriate license required by USOE, with or without a letter of authorization.

Table G Estimated number of educators that must be trained annually to compensate for projected enrollment growth

Licensure Area	Projected annual number of new teachers prepared in Utah [a.]	Estimated annual required number of graduates [b.]				
		2001	2002	2003	2004	2005
Elementary/Early Childhood	1,200	445	322	337	427	454
Secondary License	1,600	43	44	55	67	86
Fine Arts	150	10	10	12	15	19
Foreign Language	70	5	4	5	6	9
Health, Movement, Fitness	130	9	9	11	13	16
Information Technology	5	0	0	1	1	1
Language Arts	200	13	14	18	21	28
Social Studies	200	10	10	13	16	21
Math	110	11	12	14	17	23
Science	125	9	9	11	14	18
Special Education (all)	200	377	33	42	48	56
Applied Technology (all)	70	17	17	22	26	34
Administration	60	27	29	34	37	43
Total	**3,100**	**960**	**497**	**556**	**683**	**773**

a. Estimates are rounded. Based on average number of total graduates in each major area during 1997-2000.

b. Assumes estimated historical Utah placement rate of 50% and 1999-00 headcount to FTE ratio of 1.05. Estimated using enrollment-based need only. These estimates do not factor in projected 4% annual reduction from retirement or 1.2% annual reduction from attrition among newly hired teachers. To compensate for projected retirement, around 1,400 more graduates would be needed each year.

Table H: Percentage of graduates obtaining employment in Utah schools within one year of graduation

Major field of study	Percentage employed in Utah within 1 year [a.]					Total
	1994-95	1995-96	1996-97	1997-98	1998-99	
Elementary Education						
Southern Utah University	43%	55%	45%	45%	43%	46%
University of Utah	56%	59%	76%	50%	23%	53%
Weber State University	~	~	~	30%	~	~
Westminster College	~	~	~	~	90%	~
Secondary Education						
Southern Utah University	51%	20%	29%	23%	~	~
University of Utah	28%	38%	63%	41%	40%	41%
Weber State University	46%	57%	32%	29%	~	~
Westminster College	~	~	~	~	60%	~
Elementary/Secondary [b.]						
Brigham Young University	69%	65%	66%	65%	65%	66%
Special Education						
Southern Utah University	58%	~	~	~	~	~
University of Utah	24%	61%	39%	37%	52%	40%

a. Data obtained from Utah teacher preparation programs. "~" indicates missing or incomplete data. Most programs obtained placement data from their institution's Career Placement office. Programs that are not listed either did not submit placement data or submitted aggregated placement data that included students graduating from programs other than teacher preparation.

b. Brigham Young University submitted combined placement data for elementary and secondary program graduates only.

Table I: Survey of Utah teacher preparation program graduates who do not teach in Utah

Table I-1: Post-graduation job search activities of survey respondents

Job search activities	Percent
Sought teaching jobs in Utah	35.7%
Sought teaching jobs only in other states	23.8%
Did not seek a teaching job	40.5%

Overall margin of error ±9.1% with 90% confidence.

Table I-2: Main reason for not seeking a teaching job in Utah or elsewhere

Reason	Percent
Decided not to work because of marriage, children, or other family reason	61.8%
Decided that pay in teaching was too low	14.7%
Decided to continue formal education	6.1%
Discouraged by student teaching	6.1%
Lost interest in teaching	3.0%
Other	9.1%

Overall margin of error 9.1% with 90% confidence.

Table I-3: Additional reason for not seeking a teaching job

Reason	Percent
Discouraged by student teaching	17.7%
Decided that pay in teaching was too low	11.7%
Other	11.7%
No additional reason	58.9%

Overall margin of error 9.1% with 90% confidence.

Table I-4: Percentage of teachers who sought and were offered Utah jobs

Received job offer in Utah?	Percent
Yes	42.9%
No	57.1%

Overall margin of error 9.1% with 90% confidence.

Table I-5: Main reason for not accepting Utah job offer

Reason	Percent
Received a better job offer for a teaching job outside of Utah	66.7%
Other (<3% each)	33.3%

Overall margin of error 9.1% with 90% confidence.

Table I-6: Main reason for not seeking a teaching job in Utah

Reason	Percent
Spouse obtained employment in another state	35.0%
Teacher pay in Utah is too low	25.0%
Sought job near hometown, family, etc.	25.0%
Other (<3% each)	15.0%

Overall margin of error 9.1% with 90% confidence.

Table I-7: Most effective step Utah schools might take to encourage new graduates to teach in Utah

Response	Percent
Providing higher salaries and/or better fringe benefits	77.1%
Decreasing class size	7.2%
Giving teachers more authority in the school and in their own classrooms	4.8%
Providing tuition reimbursement for coursework required for certification or career advancement	4.8%
Other (<3% each)	6.1%

Overall margin of error 9.1% with 90% confidence.

Table I-8: Percent who would consider seeking a teaching job in Utah in the future

Response	Percent
Yes	69.0%
No	22.6%
No response	8.3%

90% confidence, n=84

Table I-9: Sex of survey respondents

Sex	Percent
Female	77.4%
Male	22.6%

Overall margin of error 9.1% with 90% confidence.

Table I-10: Source of teaching degree of survey respondents

Source of degree	Percent
Brigham Young University	54.8%
Utah State University	19.0%
Southern Utah University	14.3%
Weber State University	3.6%
University of Utah	1.2%
Utah Valley State College	1.2%
Westminster College	0%
From a college outside of Utah	6.0%

Overall margin of error 9.1% with 90% confidence.

Table J: Attrition percentages among new teachers, by major assignment area

Table J-1: State Total, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment [a.]	Percent terminating during year [b.]	Cumulative retention rate at end of year [c.]	S.E. [d.]
All license areas	1	12.7 %	87.3 %	.005
	2	11.2 %	77.5 %	.006
	3	10.3 %	69.6 %	.007
	4	8.5 %	63.7 %	.008
	5	6.3 %	**59.7** %	.008
Elementary / Early Childhood	1	10.2 %	89.8 %	.007
	2	11.3 %	79.7 %	.009
	3	8.5 %	72.9 %	.011
	4	7.9 %	67.1 %	.012
	5	6.1 %	**63.0** %	.012
Secondary	1	14.8 %	85.2 %	.008
	2	9.9 %	76.8 %	.010
	3	11.9 %	67.7 %	.011
	4	8.8 %	61.7 %	.012
	5	5.2 %	**58.5** %	.013
Special Education	1	12.7 %	87.3 %	.013
	2	14.4 %	74.8 %	.018
	3	12.5 %	65.5 %	.020
	4	10.1 %	58.9 %	.022
	5	7.0 %	**54.7** %	.023

a. Statistics for this entire section were computed using teacher job history information from a sample of 4,755 Utah teachers taking first assignments between 1990 and 1999. Source data extracted from CACTUS database. Statistics were computed using the SURVIVAL procedure in SPSS.

b. Percentage of remaining teachers who terminated during each year of employment, e.g., for Elementary teachers who taught *at least* 4 full years, 6.1 % had terminated by the end of their 5th year.

c. Estimated percentage of original teaching pool who were still teaching at the end of the year indicated, e.g., for all Elementary teachers, it is estimated that 63 % were still teaching by the beginning of their 5th year. Estimation compensates for a common problem in event history data called *censoring* – because the observation period ended before some teachers terminated, complete data during each interval was available on only a subset of teachers.

d. The standard error estimates the amount of sampling error in the cumulative retention rates.

Table J-2: Wasatch Central, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	11.2 %	87.3 %	.008
	2	11.6 %	78.5 %	.011
	3	11.0 %	69.9 %	.012
	4	8.6 %	63.9 %	.013
	5	6.8 %	**59.6** %	.014
Elementary / Early Childhood	1	8.3 %	91.7 %	.011
	2	13.5 %	79.3 %	.016
	3	10.3 %	71.1 %	.019
	4	8.7 %	64.9 %	.020
	5	5.9 %	**61.1** %	.021
Secondary	1	13.7 %	86.3 %	.014
	2	10.1 %	77.7 %	.017
	3	11.6 %	68.6 %	.019
	4	8.0 %	63.1 %	.021
	5	6.2 %	**59.2** %	.021
Special Education	1	12.0 %	88.0 %	.023
	2	10.7 %	78.6 %	.030
	3	12.7 %	68.7 %	.035
	4	10.6 %	61.4 %	.038
	5	9.5 %	**55.5** %	.040

Table J-3: Wasatch North, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	9.5 %	87.3 %	.010
	2	10.6 %	80.9 %	.014
	3	6.0 %	76.0 %	.016
	4	8.9 %	69.2 %	.018
	5	4.9 %	**65.9** %	.019
Elementary / Early Childhood	1	9.3 %	90.7 %	.014
	2	7.8 %	83.6 %	.021
	3	7.4 %	77.4 %	.022
	4	6.5 %	72.4 %	.026
	5	13.0 %	**63.0** %	.027
Secondary	1	12.0 %	88.0 %	.018
	2	9.9 %	79.3 %	.023
	3	8.5 %	72.6 %	.026
	4	10.6 %	64.9 %	.030
	5	5.7 %	**61.2** %	.031
Special Education	1	8.7 %	91.3 %	.024
	2	11.7 %	80.6 %	.035
	3	8.1 %	74.1 %	.040
	4	8.9 %	67.5 %	.045
	5	8.1 %	**62.0** %	.049

Table J-4: Wasatch South, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	16.6 %	87.3 %	.013
	2	13.7 %	71.9 %	.016
	3	14.6 %	61.5 %	.018
	4	12.5 %	53.8 %	.019
	5	7.3 %	**49.9** %	.020
Elementary / Early Childhood	1	12.5 %	87.5 %	.018
	2	9.2 %	79.4 %	.023
	3	7.7 %	73.3 %	.026
	4	14.3 %	62.8 %	.028
	5	.0 %	**62.8** %	.029
Secondary	1	16.2 %	83.8 %	.021
	2	12.4 %	73.4 %	.026
	3	14.4 %	62.8 %	.030
	4	10.3 %	56.3 %	.031
	5	2.0 %	**55.2** %	.032
Special Education	1	17.4 %	82.6 %	.038
	2	17.7 %	68.0 %	.049
	3	17.4 %	56.1 %	.053
	4	11.4 %	49.8 %	.054
	5	8.8 %	**45.4** %	.055

Table J-5: North-west Utah, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	16.6 %	87.3 %	.018
	2	13.4 %	72.3 %	.023
	3	12.3 %	63.4 %	.025
	4	8.5 %	58.0 %	.027
	5	7.6 %	**53.6** %	.028
Elementary / Early Childhood	1	12.8 %	87.2 %	.027
	2	9.8 %	78.6 %	.034
	3	9.2 %	71.4 %	.038
	4	9.2 %	64.8 %	.042
	5	12.3 %	**56.9** %	.046
Secondary	1	19.3 %	80.7 %	.030
	2	11.1 %	71.8 %	.035
	3	11.9 %	63.2 %	.038
	4	7.9 %	58.2 %	.040
	5	3.5 %	**56.2** %	.041
Special Education	1	18.0 %	82.0 %	.042
	2	26.5 %	60.3 %	.056
	3	30.8 %	41.8 %	.059
	4	18.2 %	34.2 %	.059
	5	6.7 %	**31.9** %	.060

Table J-6: South-west Utah, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	9.7 %	87.3 %	.016
	2	8.5 %	82.7 %	.021
	3	6.5 %	77.3 %	.024
	4	4.3 %	74.0 %	.025
	5	4.8 %	**70.4** %	.028
Elementary / Early Childhood	1	5.0 %	95.0 %	.017
	2	6.5 %	88.9 %	.026
	3	6.8 %	82.8 %	.032
	4	3.1 %	80.3 %	.034
	5	5.2 %	**76.2** %	.038
Secondary	1	14.0 %	86.0 %	.028
	2	9.6 %	77.8 %	.034
	3	7.9 %	71.6 %	.037
	4	4.9 %	68.1 %	.040
	5	4.9 %	**64.8** %	.042
Special Education	1	10.7 %	89.3 %	.050
	2	9.8 %	80.6 %	.066
	3	4.4 %	77.0 %	.072
	4	5.7 %	72.6 %	.080
	5	.0 %	**72.6** %	.080

Table J-7: North-east Utah Central, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	13.8 %	87.3 %	.021
	2	9.6 %	77.9 %	.026
	3	11.7 %	68.9 %	.030
	4	8.0 %	63.4 %	.032
	5	6.9 %	**59.0** %	.034
Elementary / Early Childhood	1	7.2 %	92.8 %	.026
	2	6.2 %	87.1 %	.035
	3	6.1 %	81.8 %	.042
	4	1.8 %	80.3 %	.043
	5	6.3 %	**75.2** %	.050
Secondary	1	16.3 %	83.7 %	.031
	2	8.6 %	76.5 %	.037
	3	17.7 %	63.0 %	.044
	4	12.6 %	55.1 %	.046
	5	6.2 %	**51.6** %	.047
Special Education	1	14.1 %	85.9 %	.058
	2	27.6 %	62.2 %	.083
	3	.0 %	62.2 %	.083
	4	12.9 %	54.2 %	.090
	5	.0 %	**54.2** %	.090

Table J-8: South-east Utah, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	18.5 %	87.3 %	.033
	2	6.8 %	76.0 %	.037
	3	7.8 %	70.0 %	.040
	4	2.8 %	68.1 %	.042
	5	8.5 %	**62.3** %	.045
Elementary / Early Childhood	1	16.4 %	83.6 %	.047
	2	8.6 %	76.4 %	.055
	3	2.5 %	74.5 %	.057
	4	.0 %	74.5 %	.057
	5	7.1 %	**69.2** %	.064
Secondary	1	21.7 %	78.3 %	.051
	2	6.2 %	73.5 %	.055
	3	14.0 %	63.2 %	.061
	4	6.4 %	59.2 %	.064
	5	12.5 %	**51.8** %	.069
Special Education *	1	8.0 %	92.0 %	.077
	2	-	-	-
	3	-	-	-
	4	-	-	-
	5	-	-	-

* Sample data contained no terminations for years 2-4.

Table J-9: Central Utah, Early Attrition Summary by Licensure Area

Licensure Area	Year of employment	Percent terminating during year	Cumulative retention rate at end of year	S.E.
All License areas	1	12.9 %	87.3 %	.031
	2	4.3 %	83.4 %	.035
	3	8.3 %	76.5 %	.041
	4	4.2 %	73.2 %	.043
	5	1.7 %	**72.0** %	.044
Elementary / Early Childhood	1	8.7 %	91.3 %	.042
	2	7.9 %	84.1 %	.055
	3	.0 %	84.1 %	.055
	4	.0 %	84.1 %	.055
	5	.0 %	**84.1** %	.055
Secondary	1	12.6 %	87.4 %	.042
	2	1.9 %	85.7 %	.044
	3	14.3 %	73.5 %	.057
	4	7.9 %	67.7 %	.062
	5	3.2 %	**65.5** %	.063
Special Education *	1	-	-	-
	2	-	-	-
	3	-	-	-
	4	-	-	-
	5	-	-	-

* Sample data contained no terminations during time period.

Table J-10: State Total, Early Attrition Detail by Sex and Licensure Area

Licensure Area	Year of employment	Female Teachers		Male Teachers	
		Percent terminating during year	Cumulative retention rate at end of year	Percent terminating during year	Cumulative retention rate at end of year
All License areas	1	13.0%	87.0%	11.7%	88.3%
	2	12.2%	76.4%	8.0%	81.3%
	3	11.5%	67.6%	6.3%	76.1%
	4	9.3%	61.3%	6.1%	71.5%
	5	6.9%	**57.0%**	4.5%	**68.3%**
Elementary / Early Childhood	1	10.4%	89.6%	7.6%	92.4%
	2	11.7%	79.2%	7.4%	85.6%
	3	9.0%	72.0%	2.9%	83.0%
	4	8.3%	66.0%	3.4%	80.3%
	5	6.2%	**61.9%**	5.5%	**75.8%**
Secondary	1	15.9%	84.1%	12.8%	87.2%
	2	11.6%	74.3%	7.2%	80.9%
	3	14.7%	63.4%	7.7%	74.7%
	4	10.7%	56.6%	6.3%	70.0%
	5	6.2%	**53.1%**	3.9%	**67.3%**
Special Education	1	13.3%	86.7%	7.4%	92.6%
	2	14.7%	74.0%	12.3%	81.2%
	3	13.2%	64.2%	6.8%	75.7%
	4	9.9%	57.8%	11.0%	67.4%
	5	8.2%	**53.1%**	0.0%	**67.4%**

Table K: State Total, Reentry percentages among former teachers, by sex and major licensure area

Licensure Area	Years since termination [a.]	Cumulative percent of former teachers returning each year [b.]		
		Total	Female	Male
All license areas	1	.6 %	.6 %	.7 %
	2	6.8 %	6.0 %	10.1 %
	3	9.3 %	8.1 %	13.6 %
	4	10.8 %	9.8 %	14.7 %
	5	**11.9 %**	**10.6 %**	**16.8 %**
	More than 5	14.3 %	12.8 %	19.8 %
Elementary/Early Childhood	1	.5 %	.5 %	1.1 %
	2	6.0 %	5.9 %	8.6 %
	3	9.6 %	8.8 %	23.4 %
	4	10.2 %	9.5 %	23.4 %
	5	**10.2 %**	**9.5 %**	**23.4 %**
	More than 5	14.3 %	13.8 %	23.4 %
Secondary	1	.7 %	.7 %	.8 %
	2	7.7 %	6.0 %	11.0 %
	3	9.3 %	6.6 %	14.4 %
	4	11.2 %	8.9 %	15.8 %
	5	**12.7 %**	**10.3 %**	**17.5 %**
	More than 5	14.7 %	11.3 %	21.2 %
Special Education [c.]	1	.9 %	-	-
	2	6.7 %	-	-
	3	12.1 %	-	-
	4	14.3 %	-	-
	5	**16.3 %**	-	-
	More than 5	16.3 %	-	-

a. Statistics were computed using teacher job history information from a 25 % sample of all Utah teachers terminating within five years of first assignments between 1990 and 1999. Source data extracted from CACTUS database. Statistics were computed using the SURVIVAL procedure in SPSS.

b. Estimated percentage of new teachers who quit between 1990 and 1999 who had a second assignment during each year following termination, e.g., 10.2 % of former elementary teachers returned to teaching within five years following termination of their first assignment.

c. Data file contained too few male special education teachers to allow estimation by sex.

Table L: Survey of former teachers

Table L-1: Main reason for leaving first teaching job

Response	Percent
Family or personal move	47.1%
Pregnancy / child rearing	16.3%
School staffing action	9.6%
To take courses to improve career opportunities in the field of education	6.8%
For better salary or benefits	5.8%
To pursue another career	5.8%
Dissatisfied with teaching as a career	4.8%
Other family or personal reason	4.8%
Other	2.0%

Overall margin of error ±8.0 with 90% confidence

Table L-2: Second reason for leaving first teaching job

Response	Percent
Dissatisfied with teaching as a career	13.5%
Pregnancy / child rearing	8.7%
For better salary or benefits	7.7%
Family or personal move	5.8%
School staffing action	5.8%
To pursue another career	4.8%
Other reasons (<3% each)	5.8%
No second reason	48.1%

Overall margin of error ±8.0 with 90% confidence

Table L-3: Third reason for leaving first teaching job

Response	Percent
Dissatisfied with teaching as a career	10.6%
To pursue another career	3.8%
For better salary or benefits	2.9%
Other family or personal reason	2.9%
Other reason	4.9%
No third reason	75.0%

Overall margin of error ±8.0 with 90% confidence

Table L-4: Main reason for dissatisfaction with teaching as a career

Response	Percent
Poor salary	16.3%
Inadequate support from administration	4.8%
Other responses (<3% each)	17.4%
No reason for dissatisfaction	61.5%

Overall margin of error ±8.0 with 90% confidence

Table L-7: Most effective step Utah schools might take to encourage new teachers to remain in teaching

Response	Percent
Providing higher salaries and/or better fringe benefits	58.7%
Decreasing class size	12.5%
Providing more support for new teachers (e.g., mentor teacher programs)	7.7%
Dealing more effectively with student discipline and making schools safer	5.8%
Other responses (<3% each)	12.6%
No response	2.9%

Overall margin of error ±8.0 with 90% confidence

Table L-8: Second most effective step Utah schools might take to encourage new teachers to remain in teaching

Response	Percent
Decreasing class size	26.0%
Providing better resources and materials for classroom use	16.3%
Providing higher salaries and/or better fringe benefits	9.6%
Increasing standards for students' academic performance	6.7%
Reducing teaching workload	6.7%
Reducing the paperwork burden on teachers	5.8%
Giving teachers more authority in the school and in their own classrooms	4.8%
Providing tuition reimbursement for coursework required for certification or career advancement	4.8%
Dealing more effectively with student discipline and making schools safer	3.8%
Improving opportunities for professional advancement	3.8%
Other responses (<3% each)	7.7%
No response	3.8%

Overall margin of error ±8.0 with 90% confidence

Table L-9: Percentage who would consider seeking a teaching job in Utah in the future

Response	Percent
Yes	16.3%
Undecided	43.3%
No	31.7%
No response	8.7%

Overall margin of error ±8.0 with 90% confidence

Table L-10: Sex of survey respondents

Sex	Percent
Female	91.3%
Male	8.7%

Overall margin of error ±8.0 with 90% confidence

Table L-11: Source of teaching degree of survey respondents

Source of degree	Percent
Brigham Young University	39.4%
Utah State University	26.9%
Weber State University	11.5%
University of Utah	4.8%
Southern Utah University	3.8%
Westminster College	1.0%
Utah Valley State College	0%
From a college outside of Utah	9.6%
No response	2.9%

Overall margin of error ±8.0 with 90% confidence

Table M: Number of licensed educators without current assignment

License Area	Number without current assignment [a.]
Early Childhood	1,076
Elementary	4,220
Middle School	609
Secondary (total, unduplicated)	7,647
Fine Art	651
Foreign Language	536
Health, Movement, and Fitness	932
Information Technology	120
Language Arts	1,353
Social Studies	1,597
Math	700
Science	1,092
Special Education	2,330
Administration	511
Applied Technology (total, unduplicated)	521
Total (unduplicated)	**8,269**

a. These counts represent the number of educators with current Utah licenses or endorsements who, for any reason, did not have assignments at the beginning of the 2000-01 school year. Source data extracted from CACTUS.

Table N: State Total, Estimated number of new teachers hired by license area and year of hire, 1990 – 2000

License Area	Year of Hire											Total
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Elementary	652	712	512	624	620	648	1,100	788	820	888	904	8,268
Secondary	728	748	696	716	724	704	720	836	716	704	784	8,076
Fine Arts	112	116	68	84	84	104	92	144	116	104	40	1,064
Foreign Lang.	80	104	104	92	108	88	72	100	88	72	48	956
Health, Mvmt., Fit.	156	112	104	88	120	76	88	156	76	96	24	1,096
Info. Tech.	20	12	24	16	24	16	24	40	8	8	0	192
Language Arts	148	168	176	188	152	136	176	184	148	168	76	1,720
Math	84	96	96	84	108	116	136	132	104	80	36	1,072
Science	92	84	116	104	136	144	100	84	144	100	56	1,160
Social Science	132	160	188	184	220	196	160	204	168	144	92	1,848
Special Ed (all)	168	208	212	284	200	268	260	232	280	212	248	2,572
Appl. Tech. (all)	128	108	124	116	84	112	96	140	116	96	64	1,184
Total	**1,528**	**1,612**	**1,396**	**1,620**	**1,548**	**1,592**	**2,032**	**1,848**	**1,840**	**1,860**	**2,052**	**18,928**

New hire counts estimated using 25% sample of 1990-1999 new teacher data extracted from CACTUS database.

Table O: Percentage of degrees held by current educators from each Utah Institution of Higher Education

	BYU	SUU	Univ. of Phoenix	Univ. of Utah	USU	UVSC	WSU	Westminster	Utah Total	All Other
State	**27.9%**	**7.9%**	**.8%**	**17.2%**	**20.5%**	**.1%**	**10.2%**	**1.9%**	**86.5%**	**13.5%**
Wasatch Central	24.8%	3.2%	.9%	33.9%	13.8%	.0%	3.0%	4.4%	83.9%	16.1%
Wasatch North	15.5%	2.0%	1.0%	11.0%	21.5%	.1%	36.0%	.6%	87.7%	12.3%
Wasatch South	71.3%	4.0%	1.0%	3.7%	8.2%	.4%	2.2%	.2%	90.9%	9.1%
North West	10.5%	3.7%	.3%	4.3%	64.9%	.0%	4.5%	.4%	88.5%	11.5%
South West	14.7%	53.0%	.2%	3.9%	16.4%	.0%	1.9%	.2%	90.3%	9.7%
North East	21.8%	4.2%	.6%	10.8%	30.0%	.2%	7.7%	1.6%	76.8%	23.2%
South East	24.6%	10.7%	.7%	7.0%	32.2%	.0%	6.9%	.1%	82.2%	17.8%
Central	22.0%	35.1%	.7%	7.2%	26.3%	.1%	3.8%	.5%	95.7%	4.3%

Source data extracted from CACTUS for 2000-01 school year.