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Research Report

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Reaching Toward 2050

Education in the Midst of Population Growth

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The mission of Utah Foundation is to promote a thriving economy, a well-prepared workforce, and a high quality of life for Utahns by performing thorough, well-supported research that helps policymakers, business and community leaders, and citizens better understand complex issues and providing practical, well-reasoned recommendations for policy change.

Reaching Toward 2050

Education in the Midst of Population Growth

The prospect of adding 385,000 school-aged Utahns over the next 35 years seems daunting. With this public school growth will come certain challenges, some of which the state has already been facing over the past two decades. Inadequate policy responses to these challenges may have produced a slide in national academic rankings, a decrease in education funding efforts, and an increase in tuition for college students. One way to address growth in the coming decades is through long-range planning that recognize population change and efforts which provide for a cohesive vision across the state.

FINDINGS

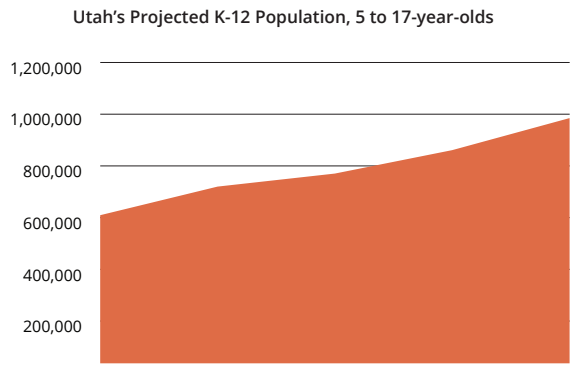
- Utah is in the middle of the pack for most K-12 test scores and for higher education completion rates. (see page 9)
- Utah once had low per-pupil funding but a high funding effort; both measures now rank low against the national average due in part to policy changes over the past two decades. Higher education is relying more on tuition than in past years. (see pages 8 and 9)
- In highly labor intensive industries – like education – costs increase faster than other industries; accordingly, the cost of education will continue to increase faster than inflation. (see "cost disease" on page 6)
- Utah potentially has a positive outlook for school finances; there will be a larger ratio of working adults to students, which may give policymakers less financial constraint in determining school funding. (see "student dependency ratio" on page 11)
- The state has numerous options for increasing funding in education, though policymakers and voters may not see the need or have the will to implement them. (see pages 12 and 13)

RECOMMENDATIONS

Utah Foundation recommends that the Utah Governor and the Utah State Legislature follow through with current efforts to develop a statewide, comprehensive 10-year education plan.

- The plan should incorporate elements from Prosperity 2020 and Education First's five-year plan, the results of the Legislature's Education Task Force, the Governor's Education Excellence Commission, and others.
- The plan should consider population growth and student demographic changes.
- The plan should consider the expected changes in dependency ratios.
- The plan should consider charter school enrollment growth and its effects on the public education system as a whole.
- The plan should include measures to increase educational success and protect funding sources.

Utah's Projected K-12 Population, 5 to 17-year-olds



This report was written by Shawn Teigen, Policy Director, and Moriah Horner, Miguel Trujillo, Morgan Dorcheus, and Marin Christensen, research interns. Special thanks to Mark Bouchard, CBRE; Ann Milner, Weber State University; and Chad J. Westover, University of Utah Health Plans.

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INTRODUCTION

The Utah Governor's Office of Management and Budget (GOMB) projects that the state's population will nearly double by 2050. This projection is the impetus for Governor Herbert's involvement in Envision Utah's Your Utah Your Future project and the biennial long-term planning requirements of the Utah State Legislature, among other things. In an effort to help inform stakeholders and the public, Utah Foundation is producing a series of reports examining projected population growth and its impacts. This is the fourth and final report of the series.

Utah has over 770,000 students enrolled in education. In 2013 there were more than 600,000 students in K-12 classrooms and over 170,000 students in public institutions of higher education.[1]

Utahns, like most Americans, believe education is important to the success of a society. Voters consistently rank K-12 education as one of the top three priorities in the Utah Priorities Survey Utah Foundation performs each gubernatorial election.[2] Further, in Utah Foundation's 2013 biennial Quality of Life Index, "the quality of the public schools" ranked second among the 20 factors that contribute to the quality of life, and "the availability of quality education beyond high school, such as good trade schools, colleges, and universities" ranked seventh.[3] The state's interest in education reaches all the way back to the original drafting of the Utah Constitution in 1895 and continues today as many leaders link the state's future economic success with its level of educational attainment.

Even so, Utah does not have a long-term, statewide, comprehensive K-12 and higher education plan with regard to population growth. In light of this, Prosperity 2020 and Education First, two affiliated nonprofit organizations formed by business leaders recently published a five-year plan to put Utah among the top ten states for K-12 and higher education. Additionally, Utah's Governor and the Utah Board of Regents – which governs higher education – have goals for increasing educational attainment levels by 2020.

This report examines expected student population and demographic changes, details cuts to education funding in previous years, touches on current success metrics, addresses the question of how Utah might address the coming population growth, and confronts the potential increase in revenue needed to educate Utah's future residents.

POPULATION GROWTH

In 2013, just over 30% of Utah's population was under 18, placing the state as the youngest in the nation.[4] Utah is also the third fastest growing state.[5] A vast majority of the state's population growth is from "natural increase," while less than a third is due to migration into Utah from other states and countries.[6] This growth translates into public school growth. Utah ranks third highest in the nation for annual enrollment change for public K-12 education (2.4%).[7] It is expected that in 2050, Utah will educate about 985,000 school-aged children, an increase of about 385,000 (or 64%) from the 600,000 today.[8] This growth is going to impact the more than 1,000 schools with 26,000 teachers educating students across 41 districts in K-12 education.

Much of Utah's population growth will occur in already population-dense urban areas. Utah County's expected share of the coming population growth is 120,000 students (see Figure 1); accordingly, one-third of the added state enrollment will be attributed to Utah County. Washington County is projected to have the largest percentage change between 2013 and 2050, increasing by nearly 150%, adding over 45,000 school-aged children in just 37 years. Only San Juan, Emery, and Piute counties are expected to lose student population by 2050.

Utah districts have accommodated these rapid increases in the past. Since 1980, Utah's student age population (5 to 17 year olds) has increased by 266,333 (a 76% change).[9]

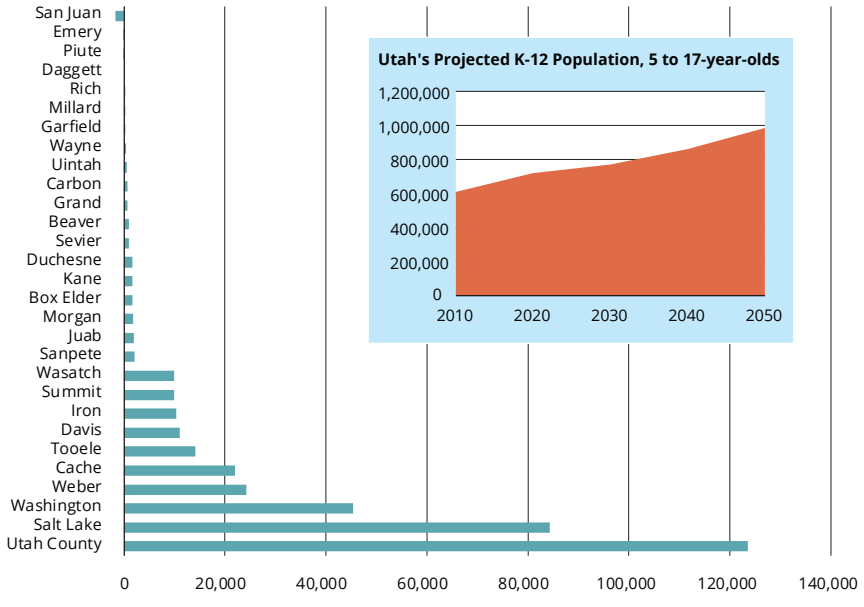
Utah's school districts will need to build additional schools. Between 2000 and 2010, Utah added about 22 district schools each year. In addition, charter schools absorbed much of the new growth, so much so that if this continues districts may not need to build as many new schools. Most charter schools are not run by districts but instead finance themselves through operating budgets.

Utah's brisk growth will likely put continued pressure on classroom sizes and teacher needs. Utah has the nation's third highest student per teacher ratio (21.6), which is a function of both classroom availability and a district's ability to afford sufficient teachers.[10] Currently, about 26,600 teachers work in Utah's public education system.[11] Districts will need to replace retiring teachers as well as accommodate growth. The Utah Department of Workforce Services predicts 1,410 yearly openings in elementary and secondary school teachers between 2012 and 2022.[12]

Public charter schools were authorized in 1999. Since then enrollment has exploded. Charter schools accommodate parents' desires for additional schooling options and have accommodated overall public school growth. Of Utah's 1069 public K-12 schools, 95 are charter schools.[13] In the fall of 2014, almost 10% of public school enrollment was in charter schools. As Utah's population continues to grow, the enrollment at local charter schools could continue to swell.

By 2020, 64% of Utah's jobs are expected to require some postsecondary education (a decrease from the previous estimate of 66% by 2018).[14] In 2011, Governor Herbert issued a call for action for all Utahns to "raise the bar" in order to meet Utah's current and future workforce demands and fully take advantage of the economic opportunities available in our state.[15] The Governor put forward a goal to increase post-secondary educational attainment of Utah's 25-64 year-old population to 66% by 2020, meaning that two-thirds of the population should have a certificate or degree. In 2013 the Legislature endorsed this goal.[16] The Board of Regents – which oversees Utah public higher education institutions – has agreed to a target of reaching 66% of 24-35 year-olds (as opposed to the whole workforce) by 2020.

Figure 1: Utah Counties' Projected K-12 Population Change between 2010 and 2050 (5 to 17 year olds)

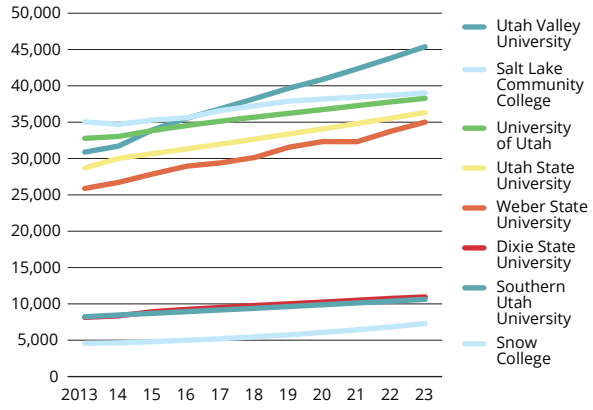


Note: The counties listed above from Emery County to Grand County are difficult to see because of their small values (between -240 and 637).
Source: U.S. Census Bureau, GOMB.

In fall of 2013, 178,169 students enrolled in public institutions of higher education (the equivalent of 106,863 full-time students).

Despite the state's growing population, enrollment in Utah's public higher education institutions has leveled in the past couple years since peak enrollment in 2011 (enrollment tends to increase during and after recessions, and 2011 was the last year of a brisk four-year increase). Nonetheless, the Utah System of Higher Education (USHE) projects enrolling an additional 50,000 college and university students by 2023, an increase of approximately 28%. Utah Valley University is expected to see the largest increase, with the other seven public higher education institutions expecting more moderate growth (see Figure 2).[17] This rapid growth rate would likely come with the pressures of additional buildings and staff. It may result in an expansion of newer ways of interfacing with students, such as extending the proportion of the day and the year when students populate the campuses (with additional evening, weekend, and summer course offerings) and expanding the provision of online courses.

Figure 2: Public Higher Education Institution Enrollment Projections through 2023



Source: USHE.

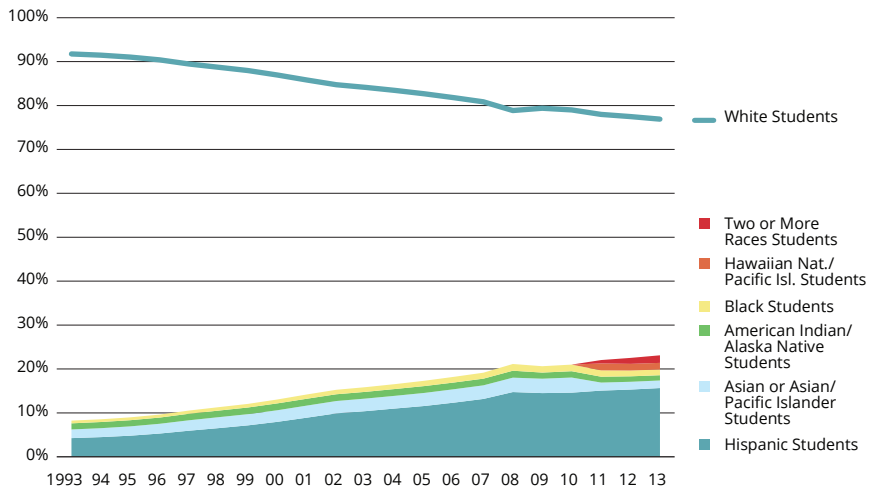
The Utah College of Applied Technology (UCAT) provides postsecondary certificate and training opportunities (as well as career and technical skills for high school students). UCAT's total headcount was 34,604 in 2014, and is seeking to increase their certificate award count from nearly 8,000 in 2014 to nearly 12,000 in 2020.

DEMOGRAPHIC CHANGES

In addition to population growth, Utah will continue to experience certain demographic changes. While Utah is still less racially diverse compared to other states, its diversity is increasing.

Why is race and ethnicity important when contemplating population growth? People of color are more likely to live in marginalized communities with marginalized schools. Accordingly, they may more often be overlooked when policymakers are considering policy change. Further, educators need to better understand children from a range of demographics to effectively teach a potentially more diverse student body.

Figure 3: Percentage of Utah K-12 Public School Students of Color (combined) and White Students



Source: NCES.

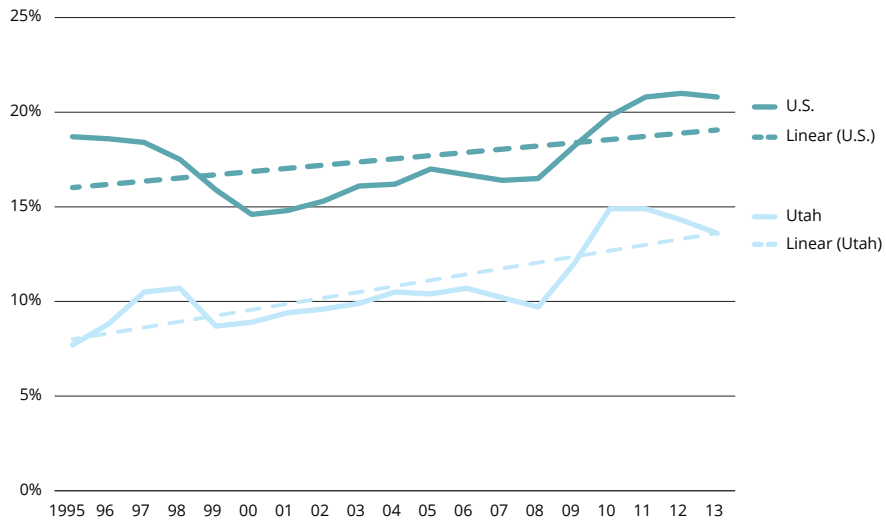
Much of Utah's school enrollment growth is due to non-white student population change. Just over 24% of students in

Utah schools were students of color, up from 8% in 1993 (see Figure 3).[18] Rural Utah areas tend to be more white and non-Hispanic/Latino. Six school districts have a third of their enrollment identified as non-white and/or Hispanic/Latino, each of which – with the exception of San Juan School District – encompasses large urban cities or suburbs.[19] In the 2013-2014 school year, students of color made up 58.8% of Salt Lake School District's enrollment. Over half (50.8%) of Ogden City School District students identify as Hispanic or Latino. A majority (53.2%) of San Juan School District's enrollment identify as American Indian.[20]

Similar to the changing demographics of K-12 enrollment, Utah's postsecondary students are becoming more and more ethnically diverse. In fact, higher-education institutions have enrolled more students of color than the K-12 population; in 2013, 29% of public college students identified as being other than white. This could be due to both the increasing diversity of Utah's population as well as the increasing number of foreign student enrollment (foreign students now account for 4.5% of 2013 USHE enrollment, compared to 2.6% in 2008).[21] Unlike K-12 schools, demographic change in higher education institutions does not pose the aforementioned challenges that it might in K-12 schools.

There are other demographic considerations as well. Utah continues to have comparatively low poverty rates. In 2013 the state's poverty rate was 8%, which is the third lowest in the country, where the national average is 10%.[22] The rate for children is much higher (14%) but still lower than the national average for children (22%). Since 1995, childhood poverty has trended upwards at a faster rate in Utah than nationally (see Figure 4). For myriad reasons, it is more expensive to educate lower-income students.

Figure 4: Children in Poverty, Ages 5-17



Source: U.S. Census Small Area Income and Poverty Estimates.

The percentage of students enrolling in English Learner programs has dropped over the past six years. It hit a high of nearly 10% in 2005 but fell to under 6% by 2013. This suggests that while more of Utah students are students of color, not as many of them are first-generation Americans. English Learners are often educated in special education classes for part or all of their school day. These classes – due in large part to small class sizes – are much more expensive per pupil than non-special education classes. Special education program participation has remained relatively stable since 2000, fluctuating between 11% and 14% of students.[23]

Future trends are of course uncertain. Policymakers and institutions of higher education should be aware of the increasing student diversity and poverty rates as they prepare future educators.

FUNDING EDUCATION IN UTAH

How is education funding related to population growth? To understand the answer to that question it is important to understand a few of the basics about funding education in Utah.

Funding for public schools comes from a combination of Utah's income taxes and property taxes, as well as federal funds. Personal and corporate income taxes are entirely earmarked for K-12 and higher education. A portion of property taxes are used for K-12 education. Of this portion, the state-mandated basic levy is used toward the Minimum School Program – or the amount each district is guaranteed by the state – provided to schools per the Weighted Pupil Unit formula. The basic levy rate is controlled by the Legislature. The state distributes income taxes to districts in ways that compensate for varying levels of property wealth and make district funding more equitable under the Minimum School Program.

Districts can also implement property tax levies approved by district voters and local school boards (capped by the Legislature at a tax rate of 0.20%). These voted and board local levies can be used for any purpose. School buildings are funded by capital local levies (typically only in smaller districts) and bonds. Most of the funding for buildings comes from bonds, which result in an increase in tax levies commensurate to the debt service needs; there is no state cap on levies for bonded debt service, although they must be approved by district voters.

Funding for higher education includes state tax funds and student tuition, and to a lesser extent federal funds, local taxes, and private contributions. The state tax funds are from the general fund (sales taxes) and from the education fund (income taxes). The Legislature appropriates these revenues to provide operational and support funds for the core mission of each institution (which is for primarily instruction except at research institutions) and some other institutional factors. Institutions have of late been receiving performance-based funding as well. Unlike public K-12 education, no formulaic method is used to fund higher education; rather higher education funding is processed more like other state agencies. Over the past few years, revenue from student tuition has caught up to the state tax portion of higher education funding. Federal funds come in the form of awards to students (PELL grants and student loans) and to institutions (research and other grants). In addition, a significant portion of community colleges and Utah College of Applied Technology institutions are funded from local property taxes.

Additional revenues typically follow population growth. While Utah will have more K-12 students and more students enrolled in higher education, the state will also have more wage earners paying income taxes, more landowners paying property taxes, and more people making purchases and paying sales tax (see the discussion of dependency ratios that follows).

While revenues are expected to increase, many argue that education systems face a "cost disease," a phenomenon described by economist William Baumol. He explained that certain sectors of the economy – like manufacturing – tend to increase productivity faster than average while increasing productivity in other sectors – like education and medical care – is much more difficult because they are based upon human interaction.[24] Since the latter sectors have an inability to increase productivity, their costs rise more quickly than the average cost of living. As a result, education spending by its nature is expected to continue rising faster than general inflation.

PAST POLICY CHANGES HAVE REDUCED EDUCATION RESOURCES

Over the past couple decades, K-12 education in Utah has seen decreases in funding capacity. In addition, the level of higher education funding set by the Legislature has shifted more of the higher education burden

on the students themselves in the form of tuition. These issues are primarily the result of three policy changes which have reduced education funding capacity since 1996.

Figure 5: Decrease in Local Education Funding Since 1980, (Basic Levy Property Tax for the Minimum School Program)

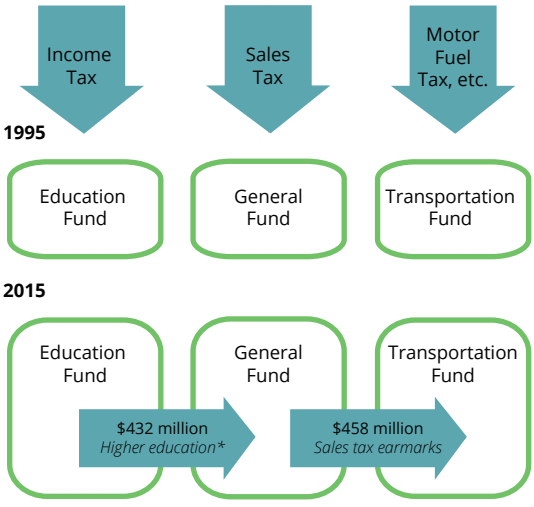
Source: Office of the Legislative Fiscal Analyst.

Property Tax Cuts

In 1995, in response to rapidly rising property values, the Legislature increased the property tax exemption for homeowners to 45% of property value. Seeking further property tax reductions after that change, legislators also reduced the maximum allowable state-mandated basic levy for schools from 0.4220% to 0.2046% over two years, resulting in a 40% cut to basic levy revenue over a two-year period. The Legislature also began to apply the "truth in taxation" law to the basic levy; this policy changes the property tax rate each year to collect the same amount of revenue as the previous year, without adjustments for inflation. By keeping nominal revenue flat, truth in taxation tends to reduce real (inflation-adjusted) revenues over time (see Figure 5) and reduces education funding efforts – which is the proportion of Utahns' incomes dedicated to funding schools (see the discussion of funding effort that follows). Together, these policy changes provided desired tax relief for homeowners.

As a portion of the total Minimum School Program – which is the primary funding source for school districts and charter schools in Utah – the basic levy has decreased from a high of 28.3% in 1980 to a low of 8.9% in 2014, which means that in 2014, 91.1% of the Minimum School Program was funded by state income taxes. However, the proportion of overall school funding from property taxes has increased since the 1996 basic levy tax cuts. Before the cuts, property taxes covered 29.0% of public education. They dipped to 24.4% in 1997, but have since trended upwards, surpassing the 30% mark since 2011.

Figure 6: Previously Separate "Buckets" of Funding



* $630 million or 18 % of the Education fund is used for higher education, though $198 is for buildings and debt service, the resultant $432 is not technically funneled to the General Fund but is included as such in this graph for illustrative purposes.
Source: Utah Foundation modification of a Utah Senate President Niederhauser graphic.

Sharing Funding

In 1996, the Legislature passed a ballot resolution allowing for a vote on an amendment to the Utah

Constitution. Voters passed the amendment to allow higher education to utilize income tax revenue from the Education Fund. For example, in 2015 over $630 million of the Education Fund will be used for higher education purposes (see the note to Figure 6).[25] This decreases available revenue for K-12 public schools, but will not necessarily result in increases for higher education because General Fund dollars (mostly sales taxes) that had previously been allocated to colleges were shifted to other programs. One such program – the Transportation Investment Fund – is paid for with sales tax dollars. The result of these changes is that funds can now pass fluidly between each of the previously separate funds (see Figure 6).

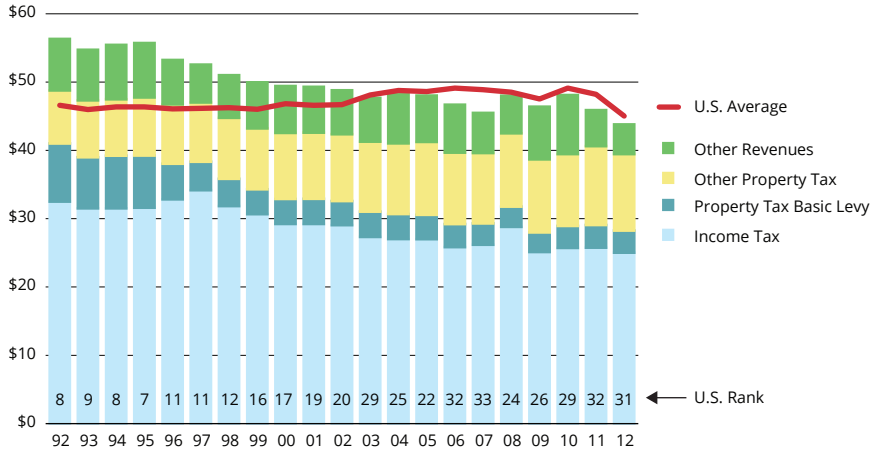
Income Tax Cuts

Historically, the sales tax has represented the largest tax burden on Utahns. However, the 2007 tax cuts passed unanimously by the Legislature and signed by Governor Huntsman reduced both sales and income taxes, making property taxes the single largest burden on Utahns since 2009.[26] The 2007 tax cuts – branded as tax relief and reform – essentially provided a tax cut for 98% of Utahns.[27] Revenues had been growing very quickly during the pre-recession economic boom, but while the tax reductions were taking effect, the Great Recession also reduced revenues, making the impact more pronounced. Eight years later, revenues are again growing at a strong pace, and per-pupil funding is beginning to recover.

Diminishing K-12 Funding Effort and Increasing Higher Education Tuition

Utah once had low per-pupil funding but a high funding effort. However, both measures now rank low against the national average. Utah has had the lowest per pupil expenditures in the nation since the late 1980s.[28] This is due in part to Utah's large family size and large proportion of children in public schools. In terms of funding effort, Utah has ranked as high as seventh nationally in 1995. Funding effort compares education revenues per $1,000 of personal income. Since 1995, Utah's effort has trended downwards and in 2012 stood at thirty-first in the nation (see Figure 7). In other words, the proportion of the state's personal income that is now invested in Utah public education has diminished significantly while that proportion in other states has diminished to a lesser extent, remained stable, or risen. Funding has grown each year, but it has grown more slowly than incomes and this results in a smaller funding effort over time.

Figure 7: K-12 Education Revenues Per $1,000 Personal Income



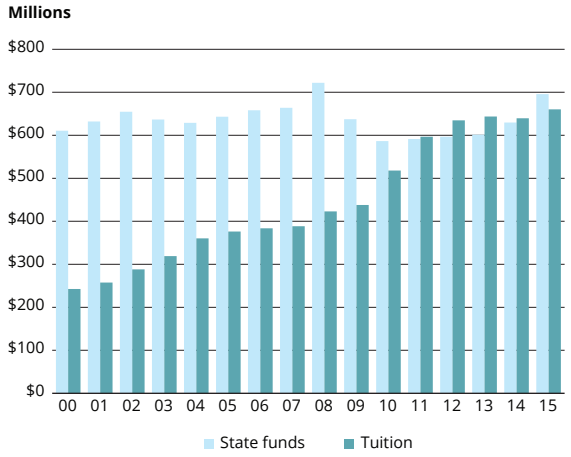
Source: GOMB, Utah Office of the Legislative Fiscal Analyst, Utah State Office of Education, and U.S. Census Bureau; Utah Foundation calculations.

The percentage of the higher education budget paid for by tuition in 2000 was 22%. This has increased to about 50% during the past five years (see Figure 8).[29] This shows that state budget appropriations have not been keeping up with increasing costs, instead allowing the burden to shift to students. When adjusting for inflation, tuition has shown a consistent increase over the past ten years at each of the USHE institutions, most often increasing between 3% and 6% per year.[30]

Dave Buhler, the Commissioner of USHE, notes that tuition increases have slowed in recent years, and on top of that Utah has the third lowest tuition for four-year schools in nation.[31] Regardless, the increasing cost of tuition works as a disincentive for young adults to participate in a postsecondary education; as the personal cost to young adults rises, the perception may be that postponing education to seek immediate employment may be more "beneficial," resulting in decreasing completion and enrollment rates. A recent Pew Charitable Trusts report shows that emphasis on higher education is worth the cost—people with college degrees have lower poverty rates, lower rates of unemployment, shorter bouts of unemployment, and higher wages.[32] In addition, with higher levels of education and higher incomes comes additional tax revenue for the state.

If and when a statewide, comprehensive, long-term education plan is developed, policymakers will need to consider the upcoming enrollment growth and demographic changes, the successes of students from preschool through graduate school, and the effects these factors will have on the use of public funds for education.

Figure 8: State and Tuition Share of Higher Education Funding (adjusted for inflation)



Note: This figure does not account for enrollment growth and thus over-represents the increasing cost of educating each full-time equivalent student.
Source: Office of the Legislative Fiscal Analyst.

STUDENT SUCCESS

The slide in funding capacity would be less of a concern if student success rates were high. Unfortunately, the past two decades have also seen a slide in K-12 success, at least in terms of test scores. In recent years Utah has struggled on the National Assessment of Education Progress (NAEP) math and reading scores. Utah ranked in the top 15 states in the 1990s but has fallen to average since the turn of the millennium.

Utah fares worse when ranking itself against similar states. In 2010, Utah Foundation compared Utah's NAEP scores with similar states (using societal factors that correlate with academic achievement–like student poverty levels, education levels of parents, and ethnic diversity) and found that Utah ranks near the bottom of the list. It is important to note that these states have higher levels of funding that would be difficult for Utah to match with its large family sizes.[33] On a brighter note, Utah improved on the eighth grade reading exam from 29th in 2007 to 20th in 2009 and most recently 13th in 2013.

An additional success measure is graduation rates, which have been on the rise. Overall, graduation rates have increased by 8% in the past five years. The biggest increase by race and ethnicity is for Hispanic/Latino students (17%), though all groups have increased. The largest increase by student subgroup is for English Learners (23%), though rates have increased for economically disadvantaged youth and students with disabilities as well. While there has been improvement, there are still 140,000 Utahns over 25 years of age who do not have a high school diploma.[34] A Columbia University report suggests that each of these Utahns will cost the state an average of $500,000 over their lifetimes (or an estimated $70 billion for the state over the lifetime of those 140,000 Utahns).[35]

Higher education completion rates are an issue across the country. In Utah, 27.8% of adults have some college but no degree, making Utah one of the highest non-completion states in the country.[36] While Utah's higher education completion rates have been relatively low, they have steadily increased over the past ten

years. Still, less than 60% of bachelor's degree seekers graduate within eight years, and less than 40% of associates degree seekers and certificate seekers complete within 200% of "normal time."[37] And Utah needs this extra time; Utah's bachelor's degree graduation rate is far below the national average until 200% of normal time – or eight years. In the 1970s Utah was fourth in the nation for people with bachelor's degrees and higher. The state has now slipped to average, due mainly to the rapidly increasing rate of postsecondary educational attainment by women in the rest of the country and a slower rise for Utah women.[38]

ADDRESSING THE FUTURE OF EDUCATION

Local leaders have expressed concern about Utah's education system and its effect on the state economy. In a recent opinion article, Scott Anderson, CEO of Zions Bank, noted the need for a unified, long-term education plan with clear goals, project plans, budgets, funding reallocation, and expected benchmark improvements, much like "Utah's Unified Transportation Plan."[39] The transportation plan provides a more unified voice and vision to convey the increased need for transportation funding through 2040. This has given transportation stakeholders a stronger voice with policymakers. In creating a unified vision for education, an education plan could help Utah focus resources on the most promising strategies for improving education, and make a stronger case for investment in the public school system.

Governor Gary Herbert agrees. In October 2014, the Governor's Office acknowledged that Utah has both a 10-year energy plan and long-term economic strategy, but still lacks an official long-term education strategy.[40] Governor Herbert has invited education leaders to work with him in creating Utah's very first "comprehensive, strategic 10-year education plan" to raise the bar for Utah education. This plan will be the first 10-year education plan in the nation, and the plan will be built with input from parents and teachers, as well as community, business, and education leaders.[41]

During 2013 and 2014 the Legislature convened an education task force to evaluate strategies to identify "long-term education policies" and "long-term priorities for public education and higher education funding and budgeting."[42]

Although no comprehensive statewide plan currently exists, there are numerous education plans across the state that focus on schools, districts, and postsecondary institutions. For instance, districts must plan for population change to consider the shifting of catchment areas for individual schools and the construction of new schools as needed. The K-12 and higher education systems also have plans that look toward increasing achievement. The Utah State Board of Education developed a strategic plan during the 2013-14 school year that looks toward 2020. The plan outlines five main K-12 goals, with performance measures to ensure success, intermediate objectives, and specific recommended actions and activities for the agency, the Legislature, and the board.[43] In July 2013, the Board of Regents passed a college completion resolution, identifying five initiatives proven to increase college success and graduation rates. The Board of Regents instructed USHE institutions to set three- and five-year goals in support of improving Utah's college completion rates with the incentive of funding rewards.

In 2014, Prosperity 2020 and Education First – two affiliated nonprofit organizations made up of business leaders – published "Prosperity through Education," a five-year plan to move Utah to the "top ten" ranked states for K-12 and higher education. Prosperity 2020 emphasized that "the most vibrant economies" put education first, and that the business economy of Utah needs a strong educational system to build on in order to support growth and success. "Prosperity through Education" looks beyond the funding needed for a growing student population with an additional $672.5 million over five years to help with K-12 and higher education success. Utah Foundation analyzed four, statewide, public education shorter-term plans (Florida, Virginia, Texas,

and Arizona). While all of the plans set medium-term goals and discussed specific programs to accomplish these goals, none listed costs or timelines for funding the projects, which sets "Prosperity through Education" apart; accordingly, this plan may serve as a backbone for the state's official long-term education strategy

In the same way "Prosperity through Education" does, a state-led, statewide, comprehensive, long-term plan would prioritize policies that have been shown to effectively educate Utah students. The plan would provide a road map for policy expansion and implementation. In addition, the plan would provide a map to the funding requirements for the policy implementation. Such a map might give policymakers pause before implementing policy changes that would negatively affect education revenue. It might also help determine how to raise funding to pay for measures prescribed in the long-term plan.

FUNDING THE FUTURE

Utah's education funding effort has certainly been on the decrease. This contradicts how important education is to Utahns, as evidenced by each of Utah Foundation's Utah Priorities Project surveys since 2004.[44]

There are glimmers of hope with regard to the future of K-12 funding, mainly in the area of student dependency ratios. While the enrollment increase is a good estimate to use when preparing for facilities projections and future spending, enrollment change alone cannot predict future funds or tax revenues. Since public schools are primarily funded by income taxes, one education revenue factor to consider is the ratio of working population to students.

Student dependency ratios are used to compare working age adults to non-working age individuals, including children and seniors. The student dependency ratio – which measures the number of school-aged children (ages 5-17) per 100 of working age adults (18-64) – is useful for looking at long term prospects for income tax sufficiency in education.

Figure 9: Utah Actual and Projected K-12 Population Dependency Ratios, 2010, 2050, and change (the ratio of 100 people of working age population to K-12 Population)

	2010	2050	Change between 2010 and 2050
Beaver County	46	39	-7
Box Elder County	44	35	-9
Cache County	35	34	-2
Carbon County	31	35	4
Daggett County	29	20	-9
Davis County	42	33	-9
Duchesne County	42	42	0
Emery County	40	35	-6
Garfield County	34	28	-6
Grand County	26	28	2
Iron County	35	31	-4
Juab County	52	35	-17
Kane County	31	33	2
Millard County	44	41	-3
Morgan County	48	37	-11
Piute County	47	32	-16
Rich County	40	36	-4
Salt Lake County	33	32	-1
San Juan County	45	21	-24
Sanpete County	38	35	-3
Sevier County	43	38	-5
Summit County	32	34	2
Tooele County	46	32	-14
Uintah County	40	33	-6
Utah County	41	35	-6
Wasatch County	42	37	-5
Washington County	40	35	-5
Wayne County	42	32	-11
Weber County	35	32	-3
State of Utah	37	33	-4
United States	28	29	1

Source: GOMB.

It is projected that the state's student dependency ratio will decrease from 38.4 in 2010 to 33.4 in 2050, a decrease of 13%. In this time frame, the national student dependency ratio is projected to increase from 27.8 to 28.6. Data show that of the 29 counties in Utah, all but four (Carbon, Grand, Kane, Summit) are expected to have a lower student dependency ratio in 2050 than they did in 2010.

This means that in 2050, Utah will have fewer students per working adult. The decreasing student dependency ratio builds a better outlook for school finances, as there will be more working adults paying for fewer students' education.

However, Utah has already experienced a drop in the student dependency ratio, but this did not result in an increase in school finances. In 1990 the ratio was 100 working age residents to 47.8 students. Over the subsequent 20 years this ratio dropped to 100 workers to 36.9 students. During this time Utah's education effort dropped considerably as a result of the policy changes detailed above. Declining student dependency ratios could potentially improve the funding picture, but only if lawmakers work to maintain current funding capacity.

By 2050 the dependency ratio for people 65 and over in Utah and the nation will increase, though this will have more of an impact on federal finances than it will on state finances, which primarily fund public schools and higher education.

If economic growth and the declining dependency ratio do not provide sufficient revenue to meet the needs of a changing population and the goals of the expected statewide plan, possible tax increases may be required. Income, sales, and property taxes – which help fund Utah's education system – together account for about 70% of the taxes and mandatory fees in Utah.[45] Each takes in a nearly equal amount of revenue each year.

There are potential drawbacks to tax increases. One is that households would ultimately end up with a smaller proportion of disposable income. Some argue that an increase in taxes creates a disincentive to work. Also, tax increases might be regressive, thereby having a greater effect on poorer households. This is particularly true of sales tax on food and other necessity items. The next section examines potential revenue sources for education.

The Big Three Taxes: Income, Sales and Property

If needed, how might the Legislature raise funding for education? Figure 10 shows possible revenue amounts from the three main state taxes: income, property, and sales.[46] The gas tax is included in the figure because of its links between transportation funding and sales tax, as shown in Figure 6.

Figure 10 shows that an increase in the income tax rate of 1% would result in an increase in Education Fund revenue of approximately $585 million.[47] Without technically raising tax rates, one way to increase tax revenue is by making changes to personal exemptions in the state tax code. If personal exemptions were limited to two per family, revenues would see an estimated $267 million increase.[48]

Another source of funding is from corporate income taxes. Relatively speaking, corporate income tax only brings in a small amount of revenue. In 2012 it was only about one tenth of the individual income tax, and less than the motor fuel tax.[49] The interstate nature of corporate operations makes this type of tax increase difficult to predict, as many companies can move operations to other locations if doing so would reduce their tax obligations.

The state sales tax rate varies depending upon the product being taxed. Some food is taxed at 1.75% by the state, electricity is taxed at 2%, and everything else is taxed at 4.7% by the state, with additional rates added at the local level. A sales tax increase of 1% in each of these areas would equate to an increase in revenue of $515 million before removing amounts that are currently earmarked in statute.

Figure 10: Potential Revenue Sources for Education (directly and indirectly)

Tax Type	Rate Increase	Revenue Increase
Income tax	1%	$585,000,000
Sales tax	1%	$515,000,000
Property tax	$100 per residence/business	$120,000,000
Gas tax	10 cents	$100,000,000

Source: Office of the Legislative Fiscal Analyst.

Due in part to Utah's truth in taxation law, the state's basic levy property tax rate has been decreasing and accordingly revenue – when adjusted for inflation – has been flat (see Figure 5). However, freezing the basic levy rate at 0.1535% would result in an increased basic levy amount of $12 million in 2015, and an estimated $20 million per year over the subsequent five years, or about $110 million, cumulative, by 2020.[50] (During the 2015 General Session the Legislature allowed for a slight increase in the basic levy rate amounting to an increase in funding of $75 million per year.) Another alternative would be for the Legislature to increase or remove the cap on the board and local levies so that districts could raise taxes to pay for their own education needs using local resources. Whether this would be an effective measure is debatable since many districts currently have room under their caps but have decided not to increase local levies.

Motor Fuel Tax

The motor fuel tax is currently used to fund road maintenance. In order to bolster transportation funding, the Legislature passed a Transportation Investment Fund that uses sales taxes to fund increasing capacity needs. However, this fund has funneled some revenue away from the General Fund and higher education. As Senate President Niederhauser has put it, the state "can make a change in any of [the funding] buckets which will increase funding in education" (see Figure 6).[51] Governor Herbert's 2015 budget recommended that $94.2 million earmarked from the General Fund to transportation be used for General Fund purposes, though this was rejected by the Legislature during the 2015 General Session.[52] However, the Legislature did pass an increase to the motor fuel tax during the 2015 General Session.

Other Options

Another option that could raise education funding would be to allow school districts to raise more revenue by increasing maximum property tax rates. Further, the Legislature could earmark growth of certain taxes. For instance, a 25% earmark on the growth of the liquor tax revenue would result in an estimated $7 million in 2015 and $14 million in 2016.

One idea proposed for K-12 education (that could hurt higher education funding) is to cap the amount of Education Fund money at the current level for higher education (limiting it to approximately $450 million), and giving all of the growth in income taxes to K-12. The $450 million could even be reduced over time. These options would further put higher education in danger of additional cuts at times when the General Fund revenues are not sufficient for other purposes.

RECOMMENDATION

The future for Utah is bright – the state has one of the lowest unemployment rates in the nation and produces markedly high job growth. However, as the leaders of Prosperity 2020 and Education First have emphasized, a solid education system is the foundation for a growing economy. As Utah prepares for its ongoing population growth, Utah Foundation proposes the following:

Utah Foundation recommends that the Utah Governor and the Utah State Legislature follow through with current efforts to develop a statewide, comprehensive, 10-year education plan.

- The plan should incorporate elements from Prosperity 2020 and Education First's five-year plan, the results of the Legislature's Education Task Force, the Governor's Education Excellence Commission, and others.[53]
- The plan should consider population growth and student demographic changes.
- The plan should consider charter school enrollment growth and its effects on the public education system as a whole.

- The plan should consider the expected changes in dependency ratios.
- The plan should include measures to increase educational success and protect funding sources.

A statewide, comprehensive plan would send additional signals to policymakers, reinforcing the importance of educational quality. It would also stress the dangers of policy changes that impact educational funding upon which any such plan relies. The state's education system is made up of large, complex organizations that require integration and that need time to change with respect to their own needs and to population growth and change. A statewide plan could help provide a framework to facilitate these changes, and as a result could provide educational benefits to students across the state. If such a plan is a living document – being updated on an annual or biennial basis as projections and needs change – it would have a better chance of not simply being placed on a shelf to collect dust. And have a better chance at resulting in sufficient investment in the future educational success of Utah children and the future economic prosperity of the state.

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