

The Impacts of Utah's Population Growth

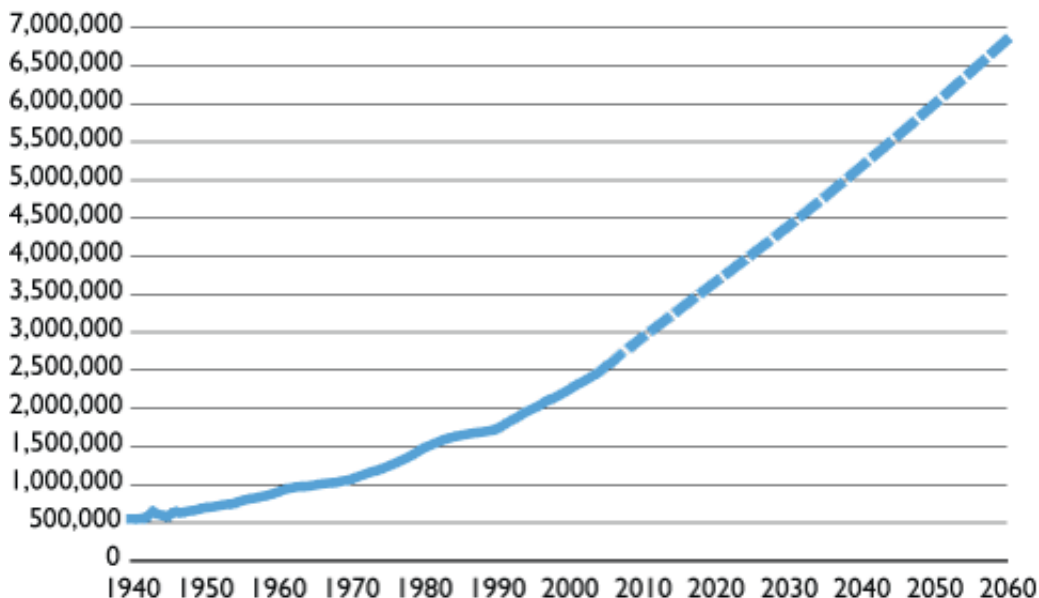
October 9, 2008

Dealing with Utah's Growth ranked tenth on Utah Foundation's 2008 Utah Priorities Project Survey. The topic of growth was the subject of several sets of questions in the survey. Seven questions dealt with specific concerns associated with growth. Statewide, four of these issues attained mean scores above 4.0, on the five-point scale, with five meaning respondents were "very concerned" about the issue. The top two issues were traffic congestion and crowding in public schools, while the other two highly rated issues were the effect of population growth on the water supply and changes in crime rates. This research brief provides information on how Utah's population growth has and will affect these four and other issues.

Utah's Population Growth

Between 2006 and 2007, Utah had the third-fastest annual population growth rate in the United States, ranking behind Nevada and Arizona.[1] This rapid growth is expected to continue; by 2060, Utah's population is projected to be over 6.84 million people (Figure 1).[2] This equates to a 146% increase in the next 52 years.[3]

Figure 1: Utah's Population, 1940-2060



Source: Utah Population Estimates Committee.

Growth in total employment is often closely correlated with population growth, although growth in certain employment sectors can vary significantly. Since 2001, total employment in Utah increased 19.1%, while growth in population was 17.1%. This implies that more participants were being drawn into the labor force during this period, lowering the unemployment rate. Most of the growth in total employment between 2001 and 2007 occurred in the mining, educational services, and health and social services sectors. The largest decreases in employment were in the manufacturing and farm sectors. In the next twelve years, by 2020, the fastest growing sectors are expected to be educational services, health and social services, and administrative and waste services.[4]

Why is Utah a Growth Magnet?

Utah's rapid growth may be partly due to how attractive the state is in terms of quality of life and the economy. In 2008, Money Magazine rated Orem 63rd and Sandy 83rd in terms of America's best small cities to live in. These rankings were based on job growth, income increases, cost of living, housing affordability, school

quality, arts and leisure options, safety, medical care availability, diversity, and ease-of-living.[5] Cities Ranked & Rated, published by Frommer's, ranked the Ogden/Clearfield area as the sixth top U.S. city to live in based on economy and jobs, cost of living, climate, educational achievement, available healthcare, crime, commute times, and opportunities for leisure.[6] St. George made Relocate-America's Top 100 Places to Live in 2008, a list which is largely determined by feedback of the people who live and work in the area.[7] Four cities in Utah made Kiplinger's 2006 50 Smart Places to Live list (St. George was 11th, Logan was 15th, Provo was 21st, and Ogden was 49th). This ranking is based on cost of living, cost of housing, availability of quality healthcare, crime rates, weather, quality of education, cultural amenities, transportation, and whether or not the city has a well-diversified economy and is a good place to start or expand businesses.[8]

The Milken Institute's 2008 Best Performing Cities Index ranked Provo as the best performing metropolitan area in the United States in terms of creating and sustaining jobs and economic growth. The components included in this index are growth in jobs, wages and salaries, and technology. Salt Lake City ranked third on this index and the Ogden/Clearfield area ranked 18th. In terms of small metro areas, St. George ranked fourth.[9] In 2007, Forbes ranked Provo as the second-best place for business and careers (Ogden ranked 11th). This ranking is based on the measure of 4-year colleges in the area, the cost of doing business (including labor, energy, taxes, and office space), cost of living, crime rate, culture and leisure (based on the number of museums, theaters, golf courses, sports teams, and other activities in the area), educational attainment, income growth, job growth, and net migration.[10] A 2007 study by Ernst & Young LLP and the Council on State Taxation (COST) also shows Utah ranked first in the nation in terms of the lowest state and local business tax-to-benefit ratio in FY 2005, meaning business in Utah receive a high proportion of benefits for the taxes they pay.[11]

Traffic Congestion

Since 1990, the total annual number of vehicle miles traveled (VMT) in Utah increased more than 83%. While the growth in VMT recently slowed due to rising gas prices, increasing population and slow expansion of the state's highway capacity over the last decade has contributed to traffic congestion on Utah's roads, especially along the Wasatch Front. The Texas Transportation Institute estimated that each motorist experienced an average annual delay of 27 hours driving in Salt Lake City in 2005, compared to 8 hours in 1990.[12] TRIP (a national transportation research group) analyzed traffic congestion in Utah and found that of the ten most congested routes in Utah, four were in Utah County and two were in Washington County.[13] These two counties ranked fourth and first, respectively, in terms of Utah's fastest average annual county population growth rates between 2000 and 2007.[14]

Traffic congestion also results from increases in the working population and the choices of many Utah residents to live outside major city centers and commute to work. According to Census estimates on city growth in Utah, from 2000 to 2007, nine of the ten fastest growing Utah cities had populations smaller than 10,000 residents in 2000 (Figure 2). Three of these cities (Cedar Hills, Nibley, and West Haven) still had populations smaller than 10,000 residents in 2007. Five of these cities are located in Utah County. Salt Lake City, West Valley City, and Provo, which are the largest cities in the state, saw little to no growth during these years (Salt Lake City's population actually declined by an average annual compound rate of -0.1% between 2000 and 2007). The Governor's Office of Planning and Budget's population projections for 2060 reveal that the towns of Vineyard, Fairfield, and Cedar Fort, all located in Utah County, are expected to have the fastest average annual growth rates in the state between 2006 and 2060.[15] To help alleviate traffic congestion that will come with this growth, the state has developed several transit and highway expansion plans. These plans include FrontRunner South and reconstruction of I-15 from American Fork Main Street interchange to Spanish Fork US-6 interchange.[16]

Figure 2: Utah's Fastest Growing Cities, 2000-2007

Rank	City	County	2007 Population	CAGR* 2000-2007
1	Saratoga Springs	Utah	11,570	37.4%
2	Herriman	Salt Lake	16,769	30.7%
3	Eagle Mountain	Utah	17,832	29.1%
4	Cedar Hills	Utah	8,957	15.2%
5	Syracuse	Davis	21,198	11.5%
6	Washington City	Washington	16,656	10.4%
7	Nibley	Cache	4,086	10.2%
8	Lehi	Utah	36,885	9.4%
9	West Haven	Weber	7,187	8.7%
10	Highland	Utah	14,591	8.5%

* CAGR = Compound Annual Growth Rate.

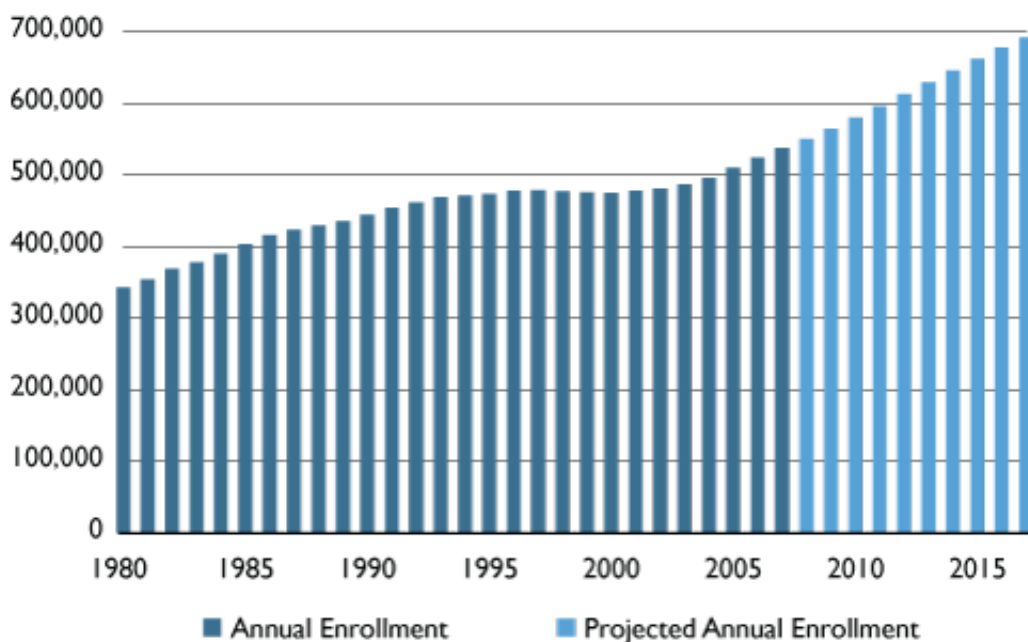
Source: U.S. Census Bureau. Calculations by Utah Foundation.

Education

According to population analysts, Utah will continue to experience significant increases in public school enrollment over the next decade and beyond (Figure 3). This increase is due to both the natural increase in the state's population and net in-migration. For instance, natural increase accounted for about 73% of the growth between 2006 and 2007, the result of the grandchildren of the Baby Boom generation beginning to reach school age. The remaining growth in enrollment between these two years is attributed to net in-migration to the state.[17] Between 2004 and 2007, the Tooele School District experienced the fastest average annual growth of all public school districts in Utah with a 5.6% average annual growth rate. Several school districts experienced negative growth rates during these four years, among which were Salt Lake, Granite, Logan, and Provo. Charter school enrollment also increased during these years, growing from 6,237 students in 2004 to 22,196 students in 2007.[18]

Higher education enrollment in Utah has more than doubled over the past 20 years. Although enrollment decreased from 2006 to 2008 (partly due to increased immigration to Utah by population groups who are labor market driven and have lower educational attainment),[19] the higher-education system is actively working to encourage greater student participation. Enrollment is projected to increase over the next ten years, increasing by more than 8% between 2008 and 2009.[20] Part of this increase may be due to the slowing economy; more people tend to enroll in higher education during economic downturns as people are laid off and competition for jobs increase. Even with this one-year increase, however, growth in fall enrollment is expected to be much slower than what was experienced during the early 1990s.

Figure 3: Utah's Public School Enrollment, Actual and Projected, 1980-2017



Source: Utah State Office of Education, School Enrollment Counts and Interagency Common Data Committee.

Water Supply

If Utah's current per capita water usage remains constant over time, growth in the state's population will result in significantly increased water demand around the state. In order to handle the projected growth, the state has focused on water conservation and water development projects such as the Bear River Project and the Lake Powell Pipeline.

Bear River Project

The Bear River Development Act (1991) authorized 220,000 acre-feet of water to be developed from the Bear River and allocated to the Bear River Conservancy District, the Weber Basin Conservancy District, the Salt Lake County Conservancy District, and Cache County.^[21] While it was originally believed the Salt Lake Water Conservancy District would need water from the Bear River by 2015, water conservation programs and expansion of the Central Utah Project alleviated this need. It is now expected that the initial phase of the Bear River Project, which includes direct diversion from the river, will begin in 2035 and construction of the dam will begin around 2050.^[22] Current cost estimations of the project are around \$700 million, but this estimate could change as plans develop over the next 30 to 40 years.

While making plans to meet the state's growing demand for water is necessary for all areas within the state, it is especially important for growing areas in Southern Utah. Water supply and water quality ranked seventh on the statewide 2008 Utah Priorities Survey, but respondents in Washington County ranked this issue fourth. In 2004, voters in Washington County ranked it as the number one issue of concern. Water supply is a continual issue of importance for Washington County because it is located in one of the driest areas in the state and has one of the fastest growing populations; between 2000 and 2007 Washington County had the fastest average annual growth rate of all Utah counties (6.4%).^[23] Over the next 50 years it is projected that the county's rapid growth rate will only be exceeded by population growth in Morgan County.^[24] Currently, a large component of the county's growth is in-migration; however, the effect of this migration is expected to lessen, meaning natural increases in the population will become the main driver of growth.

Lake Powell Pipeline

Despite current water conservation requirements and new water development projects, Southern Utah may experience severe water shortages as early as 2012 if the region does not explore new water sources.^[25] In order to meet the water demands of their growing populations, Washington, Kane, and Iron counties are pursuing the construction of a pipeline that would run from Lake Powell, near Glen Canyon Dam, through Kane County to Sand Hollow Reservoir, which is located approximately 10 miles east of St. George.^[26] The pipeline would then run parallel to I-15 into Iron County. The pipeline would be 158 miles long and bring 70,000 acre feet of water to Washington County, 10,000 acre feet to Kane County, and 20,000 acre feet to Iron County. It

would tap into Utah's unused portion of the Upper Colorado River, which was defined as belonging to Utah in the 1922 Colorado River Compact.

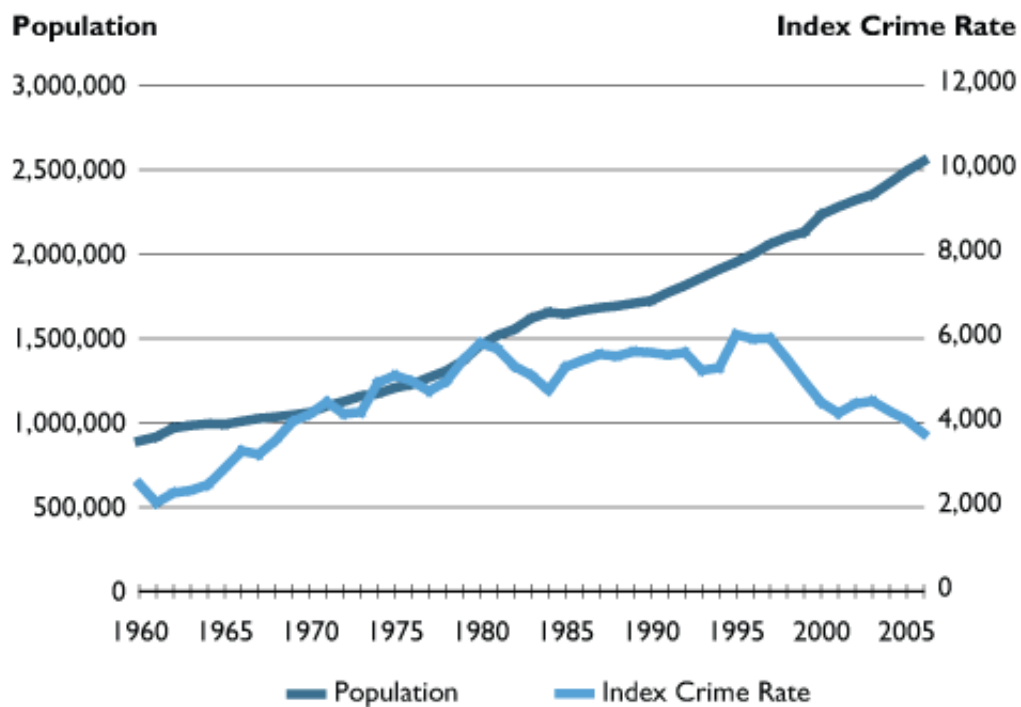
Before construction on the Lake Powell Pipeline can begin, additional engineering and financial feasibility studies must be completed and, because the project crosses through lands administered by the Bureau of Land Management (BLM) and other federal and state agencies, the appropriate rights of way, permits, and agreements must be obtained. An extensive environmental review must also be conducted before beginning construction. In March 2008, the State submitted a Preliminary Application Document (PAD) to the Federal Energy Regulatory Commission (FERC). The PAD begins the process to address environmental issues through the federal National Environmental Policy Act (NEPA) process. The FERC is the leading agency involved in the process because of the electricity that will be generated from eight water-powered turbines located along the pipeline.[27]

The NEPA process is expected to be completed in 2012, meaning construction of the pipeline may begin as soon as 2015. Actual construction of the pipeline is estimated to take only three years. HB 47, which was passed during the 2006 Legislative Session, diverted a portion of state sales and use tax revenues to the Division of Water Resources in order to pay for the preconstruction costs of the pipeline. If the project is approved, then construction will be financed through state bonds.[28] Total project costs are estimated at about \$500 million. All costs of the project will be repaid by the three counties through a balance of impact fees, property taxes, and other fees. Project costs will also be offset by selling hydroelectric energy produced by the pipeline.[29]

Changes in the Crime Rate

Between 1960 and 1980, Utah's crime rate, as measured by FBI "index crimes" followed a general upward trend, similar to the trend in population growth. After 1980, however, Utah's crime rate leveled out until 1997, and fell between 1997 and 2006 to a crime rate lower than the levels seen in the 1970s (Figure 4). In terms of the amount of crime, Utah's crime rate has fallen by 38.6% since its peak in 1995. In 2006, Utah had the 27th highest index crime rate, with a rate of 3,740 index crimes per 100,000 people, compared with the national index crime rate of 3,808.[30]

Figure 4: Utah's Population and Index Crime Rate per 100,000 Population, 1960-2006



Source: Federal Bureau of Investigation (FBI).

The data above are from a national database and are not the most current statistics from Utah. More current data from the Utah Bureau of Criminal Identification show that most major Utah cities did experience an increase in crime between 2006 and 2007. The cities with the largest increases in total crimes were St. George and West Valley City. Both of these cities saw increases in the number of crimes in every category (homicide, rape, robbery, aggravated assault, burglary, larceny, auto theft, and arson). The only city to see a decrease in

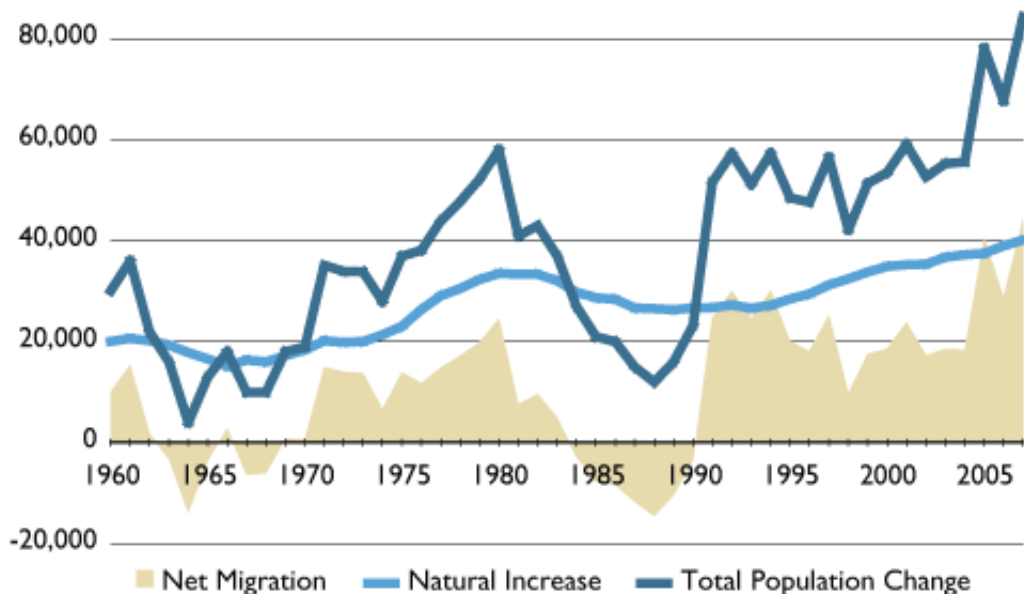
total crimes between 2006 and 2007 was Salt Lake City, which, interestingly, is the only city to have a negative average annual growth rate between 2000 and 2006. However, because city crime rates vary year to year and can be heavily influenced by one or two major crimes—like the shooting at Trolley Square in 2007—it is difficult to determine how closely yearly population growth correlates to yearly crime rate growth for each of these cities.

While increasing prison populations are also a concern for Utah, it seems as though population growth has had little effect on Utah's prison population in the last several years. Between 2000 and 2006, Utah had the 29th-fastest average annual growth rate in prison population, even though it had the third-fastest population growth rate during this period. In terms of number of prisoners, Utah ranked 44th in 2006 with a rate of 252 prisoners per 100,000 people; this is slightly down from Utah's 2000 ranking which was 43rd. At yearend 2006, Utah's prisons were operating at 76% of their highest total capacity.[31]

In-Migration

When voters were asked in the Utah Priorities Survey whether their concern about growth was from people moving into the state or from the birth rate, the results indicated that people's perceptions have changed over the last four years. Statewide concern about people moving to the state increased from 59% to 67%, but concern about the birthrate causing growth fell from 22% in 2004 to just 7% in 2008.[32] Some of this change may be due to the fact that Utah's birth rate has fallen over the last decade. Between 1990 and 2006 Utah's birth rate decreased at an average annual rate of -0.4% while the U.S. birth rate slightly increased at a rate of 0.1%.[33]

Figure 5: Components of Utah's Population Change, 1960-2007



Natural Increase = Annual births minus annual deaths.

Source: Utah Population Estimates Committee.

Data from the IRS show that, between 1995 and 2006, the state with the highest net migration to Utah is California (15,849). The state with the lowest net migration to Utah is Arkansas (-6,104). Concerns about people moving to Utah include this state-to-state migration, but they also reflect Utah residents' concerns about foreign immigration. Recent increases in the number of immigrants coming to the U.S. have caused the issue to become a top concern for Utah residents; immigration did not register as a top concern on Utah Foundation's 2004 Utah Priorities Survey, however, it ranked fifth on the 2008 survey. In 1990, Utah's foreign-born population equaled 3% of the state population, a level at which it had roughly stayed since the 1950 Census. By the 2000 Census, the figure had jumped to 7% and by 2007 this number increased to 8.2%.[34] The Department of Homeland Security (DHS) estimates that in 2005 there were 85,000 undocumented immigrants in Utah.[35]

Conclusion

More than half (52%) of Utah Foundation's 2008 Utah Priorities Survey respondents believe the state is growing too fast while slightly fewer than half (46%) feel the current growth rate is about right. Population growth affects the economy, traffic congestion, education, water supply, crime, and almost every other policy concern facing Utah. In order to meet the needs of Utah's growing population, state leaders will need to have

an understanding of these issues and how they will be affected by Utah's rapidly increasing population.

Endnotes

[1] U.S. Census Bureau.

[2] "Population Area and Component of Change," 2008 Baseline Projections, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/projections.html>.

[3] Ibid. Calculations by Utah Foundation.

[4] "Employment by Area and Industry," 2008 Baseline Projections, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/projections.html>.

[5] "Best Places to Live, Money's List of America's Best Small Cities," *Money Magazine* (2008); <http://money.cnn.com/magazines/moneymag/bplive/2008/top100/index3.html>. Only cities with populations of 50,000 to 300,000 were considered.

[6] "Cities Ranked & Rated Declares a Surprising List of Top U.S. Cities to Live In," *Frommer's Press Release* (May 7, 2007).

[7] "Relocate America's Top 100 in 2008," *Relocate-America* (2008); <http://top100.relocate-america.com/>.

[8] "50 Smart Places to Live," *Kiplinger's Personal Finance Magazine* (May 2006).

[9] Ross DeVol, Armen Bedroussian, Kevin Klowden and Soojung Kim, "Best Performing Cities, 2008," *Milken Institute* (September 10, 2008).

[10] "Best Places For Business and Careers," *Forbes Magazine* (April 2007).

[11] Robert Cline, Tom Neubig, and Andrew Phillips, Ernst & Young LLP, "Total State and Local Business Taxes: 50-State Estimates for Fiscal Year 2007" *Ernst & Young and COST* (2008).

[12] 2007 and 2002 Annual Urban Mobility Reports, *Texas Transportation Institute*.

[13] For more information see "Along for the Ride: An Examination of Utah's Transportation Situation," *Utah Foundation* (August 2008); http://www.utahfoundation.org/briefs/2008_04_transportation.html.

[14] "The State of Utah and Counties 1940-2007," Utah Population Estimates Committee; <http://governor.utah.gov/dea/popestimates.html>.

[15] "Subcounty Population Projections," Population Projections, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/popprojections.html>.

[16] For more information see "Along for the Ride: An Examination of Utah's Transportation Situation," *Utah Foundation* (August 2008); http://www.utahfoundation.org/briefs/2008_04_transportation.html.

[17] 2008 Economic Report to the Governor, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/ERG/ERG2008/2008ERG.pdf>.

[18] Ibid.

[19] Pam Perlich, "Utah's Age Waves and Their Potential Consequences: Public & Higher Education," *Utah Education Deans' Colloquium* (December 14, 2006).

[20] Utah System of Higher Education, Common Data Committee, Governor's Office of Planning and Budget, 2008 Baseline Projections.

[21] David G. Ovard, "The Bear River Project: Utah's Last Water Hole," *Center for Public Policy and Administration* (February 28, 2006); http://www.imakenews.com/cppa/e_article000537701.cfm?x=b11,0,w.

[22] Dennis J. Strong, Director of Utah's Division of Water Resources, interview by author, October 6, 2008. Salt Lake City, UT, phone interview.

[23] Utah Population Estimates Committee.

[24] "Population Area and Component of Change," 2008 Baseline Projections, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/projections.html>.

[25] Lake Powell Pipeline; <http://www.lakepowellpipeline.org/project1.html>

[26] Lake Powell Pipeline; <http://www.lakepowellpipeline.org/project1.html>.

[27] Corey Cram, "FERC Takes Lead in Project's Environmental Requirements," *The Pipeline* (Spring/Summer 2008); <http://wcwcd.state.ut.us/Projects/Lake%20Powell%20Pipeline.htm>.

[28] "Frequently Asked Questions About the Pipeline," *The Pipeline* (April 2008); <http://wcwcd.state.ut.us/Projects/Lake%20Powell%20Pipeline.htm>.

[29] "Lake Powell Pipeline," *Washington County Water Conservancy District* (August 2008); <http://wcwcd.state.ut.us/Projects/Lake%20Powell%20Pipeline.htm>.

[30] These statistics come from the Federal Bureau of Investigation's Uniform Crime Report (UCR). Crimes included in this report are called index crimes and are limited to violent crimes and property crimes, as reported by local law enforcement agencies. Violent crimes include murder and non-negligent manslaughter, forcible rape, aggravated assault, and robbery. Property crimes include burglary, larceny-theft, and motor vehicle theft. These statistics do not, therefore, give a comprehensive view of crime, due to the number of crimes excluded from the report, and are only accurate insofar as local law enforcement agencies are in reporting them.

[31] William J. Sabol, Heather Couture and Paige M. Harrison, "Prisoners in 2006" *Bureau of Justice Statistics* (December 2007); <http://www.ojp.usdoj.gov/bjs/pub/pdf/p06.pdf>.

[32] A new category, "both," was available this year if respondents volunteered it (it was not read to them). The category, with 13% of voters statewide, probably accounts for a portion of that change.

[33] 2008 Economic Report to the Governor, Governor's Office of Planning and Budget; <http://governor.utah.gov/dea/ERG/ERG2008/2008ERG.pdf>.

[34] 2007 American Community Survey.

[35] For more information see "Immigration in Utah: Background and Trends," *Utah Foundation* (August 2008); http://www.utahfoundation.org/briefs/2008_07_immigration.html.

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