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Does Colorado Fail to Spend State Taxes on Services?

A Critical Examination of Reported State Rankings

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Executive Summary

Policy debates frequently turn on whether the government is spending at a reasonable level, and that is defined by the relative spending in other states. Relatively low rankings are presumed to indicate of under-spending by Colorado governments. The low rankings, however, are inconsistent with Colorado's overall ranking for tax burden, which is close to the national median. We examine many claims relating to Colorado government spending overall, in K-12 education, in higher education, and in healthcare, and we conclude that most are misinterpreted or overstated. Colorado collects the national average in taxes, so how could it be that support for government programs is so uniformly near the bottom?

- Claims about overall spending neglect the contributions from local governments, which make up a particularly large portion of the government spending in Colorado.
- Allegations regarding K-12 education rely on improper use of income figures, simplistic assessments of teacher salary, improper estimates of demand for education, and an unwillingness to recognize independent conclusions that run counter to the political positions of the entities making the allegations.
- Claims related to healthcare spending all rely on statistically untenable interpretations of the data or methodologically inconsistent comparisons.
- Only charges for higher education spending have enough substance to warrant further investigation.

Introduction

Debates about public policy in Colorado too often are based on figures of dubious accuracy. Groups which favor higher government spending tend to cite Colorado's "low rankings" in various categories of spending or performance as evidence that government should be expanded or the Taxpayer's Bill of Rights (TABOR) should be repealed. This Issue Paper examines some of the most common claims related to state rankings by looking at their origins, data, and relevance. By seeing the common errors that some groups make in creating their rankings and by examining the approach used to evaluate the claims, readers can make their own careful evaluations of similar claims in future policy debates.

Why suspect the claims might be faulty to begin with? Several observations seem to be inconsistent with the tax burden Coloradans face. When it comes to combined state and local tax burden, Colorado is in the middle of the pack at 26th.[1] How could it be that Colorado governments spend less than other states in nearly every category yet take nearly the median in tax revenues?

The most prevalent claims are in three areas: poor funding of education, inadequate funding of health care services, and poor economic performance. Our alternative rankings presented in this paper are often more complete than the ones being used to make the more extreme claims, but they do not represent the final word on spending. Different rankings can be obtained from the same data, depending on how it is compiled and adjusted. Unless you understand how figures may have been manipulated, remain doubtful about spending claims.

Claim:	Repeated By:
Colorado ranks 47th in total government spending.	Colorado Center on Law and Policy, Bell Policy Center, Believe in a Better Colorado
Education:	
Colorado ranks 49th in government support for K-12 education per $1000 of personal income.	Education News Colorado, Colorado School Finance Project, Maine Center for Economic Policy, Minnesota Budget Project, Center on Budget and Policy Priorities, Believe in a Better Colorado
Colorado ranks 40th in government support of K-12 education per student	Great Education Colorado, The Colorado School Funding Project, Believe in a Better Colorado
Colorado ranks 49th or 50th in teacher salaries compared with comparable professions	Education News Colorado, Great Education Colorado, The Maine Center for Economic Policy, The Minnesota Budget Project, Center on Budget and Policy Priorities

Higher Education:	
Colorado ranks 48th in government support of higher education per $1000 of personal income	EdNews Colorado, The Maine Center for Economic Policy, The Minnesota Budget Project, The Center on Budget and Policy Priorities, Believe in a Better Colorado, Great Education Colorado
Health Care:	
Colorado ranks 48th or 50th in terms of immunization coverage	The Colorado Health Insurance Insider, HealthInsurance.org, America's Health Rankings, The Minnesota Budget Project, The Center on Budget and Policy Priorities
Colorado ranks 38th or 48th in proportion of pregnant women receiving adequate prenatal care.	The Colorado Health Insurance Insider, Healthinsurance.org, America's Health Rankings, The Maine Center for Economic Policy, The Minnesota Budget Project, The Center on Budget and Policy Priorities
Colorado ranks 50th in proportion of low-income children who are uninsured	The Bell Policy Center, The Maine Center for Economic Policy, 2010 Assets and Opportunities Scorecard, Center on Budget and Policy Priorities

Most of the above claims are inaccurate or overstated. In many cases, the data needed to approximate demand for a service in any meaningful way are simply unavailable. In other cases, a more complete assessment of the data reveals that Colorado governments spend about average or above average in the sector. There are, however, a few exceptions. In particular, Colorado's government support for higher education is below the national average. In addition Colorado has lower health insurance coverage for low-income children than the average state.

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No Market Discipline

For any particular service, it is difficult for the average voter to figure out how much their government should spend or for the government itself to know how much to spend. Trying to determine adequate spending levels directly is tricky and often controversial, so researchers use comparative methods instead. For example, is Colorado spending too much or too little on roads? Researchers will look at similar figures from other states in order to come to a conclusion.

Unfortunately this comparative method has its own pitfalls. States are different in many ways. Rhode Island does not spend as much on roads as California, so how can the figures be adjusted to give a valid comparison? Per capita spending could be used; more people need more roads. Then again, maybe people in densely populated urban states don't drive as much. One could use transportation spending per car instead.

By making adjustments, researchers try to approximate the demand for and potential resources available for a particular government service. Without functioning markets, it is difficult to figure out how much of a service the people want. The government can try to approximate the correct amount of service to supply, but it can never get enough information to fully simulate a market. Consumers will punish a company that produces too much of a good by not buying the product, and the company will know to produce less in the future. Voters may punish a government that governs poorly, but the government will not know which sector it failed in. The best that government researchers can do is try to approximate demand for services using some proxy variable like population or number of school age children, and the choice of variable is never clear cut.

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Overall Spending

Several groups allege that Colorado's government does not provide adequate levels of service. Often they claim that Colorado ranks 47th in terms of overall spending. A recent version of the claim originated with the Colorado Center on Law and Policy. Their figure comes from a 2009 Colorado Fiscal Policy Institute (COFPI) report which takes its data from the 2007 US Census Bureau and the Bureau of Economic Analysis[2] (somewhat dated, but due to reporting lag, not badly so). A look at the data from 2007 leads to very different rankings.[3] Using the same source as the COFPI, we found that

Colorado comes in at 24th in terms of state and local per capita spending with capital expenditures included and 36th on the same measure without capital expenditures. An Independence Institute Issue Backgrounder used US Census Bureau data from one year after the COFPI's rankings were compiled and found that Colorado is ranked 26th.[4] So, Colorado governments seem to spend at near median levels.

Why the difference in rankings? The COFPI report rankings were computed per $1000 of personal income. Personal income figures are assembled by the Bureau of Economic Analysis. Colorado's spending rank per income is often used in this type of claim, because Colorado has a relatively high per capita income (higher relatively when the figures were compiled than it is now),[5] so using income as the denominator makes the spending seem lower than it really is. Spending per $1000 of personal income is a poor indicator of how much service the government is providing to citizens, because higher income citizens will actually use less public money (they will not be on welfare, will be less likely to use public schools, etc). Per capita spending is a more reasonable measure.

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In almost all states, there is a close relationship between per-capita spending and per-capita taxes on citizens. Only a few states, such as Wyoming and Alaska, derive large amounts of revenue from sources other than taxing citizens. In those states, energy companies provide a very large portion of the state budget through severance taxes, but this level of non-traditional revenue is unique.

The claim that Colorado is a categorically low-tax, low-spending state is false. The claims narrowly look only at taxation and spending by the state government. They ignore the fact that much of the taxing and spending in Colorado is done by local governments. Overall, when all levels of government are taken into account, Colorado is a mid-level state for spending and taxes. It is not 47th, as some groups have misleadingly asserted.[6]

K-12 Education

Numerous articles admonish Colorado for ranking 49th in K-12 funding per income, 50th in teacher salary compared to similar professions, and 48th in higher education per income.

The claim that Colorado comes in 49th in terms of its K-12 funding per $1000 of personal income is repeated by many left-wing advocacy groups. The Colorado Legislative Council claims that Colorado comes in 48th by the same measure, but it also provides additional rankings computed differently.[7] All claims are based on data from either the Census Bureau[8] or a set of rankings calculated by The Center on Budget and Policy Priorities,[9] based on data from the National Center for Education Statistics[10] and Bureau of Economic Analysis.[11] The close agreement of these sources should suggest that their findings are accurate. Although all sources get their personal income figures from the Bureau of Economic Analysis, the spending figures are taken from a number of different surveys. We already rejected ranking by level of personal income. The Colorado Legislative Council, which compiled its own rankings from the same sources as the CBPP report provides two rankings, based on data from the National Center for Education Statistics, for greater context: 48th in terms of K-12 funding per $1,000 dollars of personal income and 34th in terms of K-12 funding per pupil. A number of advocacy groups also rank Colorado at 40th in K-12 funding per pupil based on a Census Bureau report.[12]

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Colorado has a high average per capita personal income at 15th in the nation,[13] so per income measures of our government spending are always going to be distorted at least in part. Ranking in this way puts states such as Georgia and Arkansas with poor educational performance above states like Maryland and Connecticut, both of which have better performance. By comparison, Washington, D.C., which ranks second in per pupil spending, ranks dead last at 51st in education spending per

$1,000 of personal income.[14] Ranking states based on spending per $1,000 of personal income unfairly penalizes high-income states that might actually have less need for public education spends, because wealthier parents are more likely to send their children to private school. Lower-income students also tend to arrive at school with greater academic deficiencies to be overcome.

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Per pupil spending gives a better idea of how much money is really allocated in the K-12 education system. Even per pupil figures, however, do not give a good indication of how efficiently governments spend their money. School districts with a lot of money might be spending it wastefully, and less heavily funded districts might spend very well. A school can only spend so much money on educating a student before the money starts going to waste, and that quantity depends greatly on the individual district's ability to effectively spend money. A Cato Institute report, "Money and School Performance: Lessons from the Kansas City Desegregation Experiment,"[15] provides examples of how an overfunded school district can produce poor results.

We only examine education spending claims in their own comparative framework. Some argue that the level of spending itself is not important, because only what the state gets out of the spending is relevant. Data used to rank Colorado low in per income funding for K-12 include both state and local funding sources, so these claims do not fall prey to that problem like the total government spending ranking did.

One claim places Colorado at 40th for its K-12 funding per student, but even this less extreme claim is debatable. It deserves special attention, because it was also repeated on the *Denver Post* website.[16] The claim was arrived at separately by both a Census Bureau report and the Education Week 2011 Quality Counts Survey.[17] The EdWeek data also comes from the Census Bureau, so there is really only one verified original source.
The most recent data from the National Center for Education Statistics rank Colorado at 32nd in per pupil spending.[18] More recent figures from the Census narrow the gap between the sources. Colorado ranks at either 35th (U.S. Department of Education) or 36th (Census Bureau) in the most recent figures.[19] There are still differences, however, and the National Center for Education Statistics has more methodologically cohesive data, because the Census Bureau uses NCES data for enrollment number but gather expenditure data themselves. The NCES, on the other hand, gathers both expenditures from its own survey of state officials. Of all possible rankings of Colorado's per pupil education expenditures, the ranking of 32nd is the most valid, because their figures are the most methodologically cohesive and also quite recent.

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The claim that Colorado comes in at number 50 or 49 in terms of teacher salary when measured next to salaries in comparable professions is repeated by several left-leaning think tanks. The claim of 49th can be traced back to the Center for Budget and Policy Priorities using NCES teacher salary data[20] and the Quarterly Census of Employment and Wages (from the Bureau of Labor Statistics and the U.S. Department of Labor) for average salary data.[21] The claim that Colorado is 50th in teacher pay parity originates from EdWeek and data that came entirely from the US Census Bureau.[22] NCES data place Colorado at 30th in terms of nominal teacher salary,[23] while the National Education Association ranks Colorado at 28th.[24]

The figure of 49th arrived at from the combination of sources may suffer from methodological mismatch problems. In addition this figure is skewed by the high average salary in the state or the prevalence of high paying jobs. Using the most recent figures from the National Center for Education Statistics and the Quarterly Census of Employment and Wages and the method employed

by the Center on Budget and Policy Priorities, we produced a figure of 48th out of 51 for teacher salary as a percentage of average salary. Yet by this same measure Alabama, Arkansas, and Mississippi come out ahead of states like Connecticut and Massachusetts, even though the latter two states are in the top 10 in terms of actual teacher salary. Washington D.C., which ranks 7th in terms of teacher salary comes in at 51st in terms of actual teacher salary compared to average salary, just because the average general salary there is so high.[25]

Having a strong economy does not necessarily mean that teachers must be paid more in proportion to how well other jobs are doing. The EdWeek report compares teacher salary to the average salary of a set of 16 comparable professions such as accountant, registered nurse, architect, and physical therapist.[26] The EdWeek report on teacher pay parity and the comparison of teacher wage to the yearly wage of other professions in general have been addressed by several reports in some depth, so we provide only a general overview here of the major issues which dominate the teacher salary debate.[27]

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Comparing teacher salaries to those in other professions also overlooks some enormous benefits which teachers receive in a form other than salary. Teachers work for three fewer months each year than comparable professions. Because of tenure or "due process" equivalents of tenure, mediocre teachers are nearly impossible to fire once they have three years on the job. Health benefits and other fringe benefits are often extremely generous—especially in comparison to what professionals in small firms or in solo practice have.

It is true that many teachers put in plenty of work outside of school hours, in grading homework and in professional development. But many other professionals also spend lots of time on professional development, and in working evenings and weekends. Economists have not been able to agree on how to quantify how many hours that teachers work annually, or the economic value of paid summer vacations.[28] A number of reports address methods of comparing teacher salary to salaries for other professions in more reasonable ways than directly comparing annual pay.[29] One method is comparing hourly salary, and another method involves comparing salaries on a weekly or seasonal basis. Unfortunately, no one has yet ranked states based on a complete measure of comparative pay, including benefits, on an hourly basis.

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The assertions that Colorado is under-spending on K-12 schools relative to other states, particularly by underpaying teachers, seem to assume that more spending would necessarily result in better education. Previous research by the Independence Institute has cast doubt on this assumption.[30] For example:

- Two-thirds of relevant studies show no link between increasing total dollars spent and classroom success; several studies show a negative relationship
- No significant correlation can be made between states' total per-pupil funding in 2002-03 and their 2003 scores on the National Assessment of Educational Progress
- From 1992 to 2003, 27 of the 42 states with available testing data increased per-pupil spending more than Colorado. Of the 27 states, only Delaware showed greater gains than Colorado in 4th-grade reading scores.[31]

Higher Education

The claim that Colorado ranks 48th in terms of higher education funding per $1000 of personal income follows a similar pattern to the earlier K-12 funding claim. The various sources arrived at the figure based on spending data from the Grapevine Survey[32] or a State Higher Education Executive Officers[33] report, and personal income data were taken from the Bureau of Economic Analysis. Our low ranking on this measure puts us in good company. Colorado's immediate neighbors in ranking are Vermont, New Hampshire, Rhode Island,

and Massachusetts, and states like Mississippi and Alabama come in at the high end of this measure.[34]

The illogic of using the personal income measure as the denominator for state comparisons have been addressed earlier, and will not be repeated here. Simply because a state's taxpayers are economically successfully does not automatically mean that those taxpayers should put even more of their income into government programs.

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The Colorado ranking on higher education spending is also distorted by an accounting oddity. The figure for state expenditures on higher education includes only direct expenditures. Colorado, however, has a program called the College Opportunity Fund (COF), which grants institutions $62 per student credit hour up to a maximum of 145 credit hours as well as fee-for-service contracts to postsecondary institutions for achieving certain educational goals.[35] The COF program accounted for the allocation of more than $500 million in fiscal year 2009-10.[36] Colorado is set to spend almost as much on the College Opportunity fund this year.[37] Yet, the Grapevine Survey only reports Colorado as providing a little under $450 million worth of support for higher education.[38] In other words, the survey ignores over half the money that the state government spends on higher education. COFs account for more than 15 percent of Colorado State University's budget.[39] We can provide better rankings by adding every state's combined direct expenditures, financial aid, and fee-for-service contract for higher education.

Using data from the National Center for Education Statistics[40] and population figures from the Census Bureau[41] we compiled the most complete rankings possible of state and local government support for higher education. These rankings included appropriations, grants, and contracts of all kinds as well as special education taxes and fees from both state and local governments. It should be noted that in the case of college, using per student spending results a worse figure than per capita spending.[42]

We analyze here state and local government support for higher education rankings first adjusted for total state population and then adjusted for total enrollment at all colleges in the state.

The rankings are imperfect, because they must combine data from three types of institutions: public universities, private non-profit universities, and private for-profit universities. Each type uses similar but not identical reporting methods. The rankings we compiled are, however, more complete and representative than any of the other rankings cited, though they have not been subjected to critical review. Using these rankings Colorado falls lower than every other state and federal district (51st), worse than any of the claims being examined in per capita state and local support for higher education. Ranking states based on funding per currently enrolled college student put Colorado at 50th out of 51. Soon we may have a definitive answer regarding Colorado governments' higher education spending. The Grapevine Survey is constructing tables of the complete state and local government support for higher education, not just direct funding. Once complete, these tables will allow scholars to come up with complete and consistent rankings for higher education spending, but the data are not yet available.

The report found that Colorado has a relatively high percentage of 18-24 year olds attending college and a surprisingly large number of older students going back to earn their degrees. Colorado also graduates more bachelor students per dollar of funding than the national average, and this ratio also compares favorably to many states in the region.

In a report by Barry Poulson and John Merrifield, both professors of economics, Colorado performs very well in terms of efficiency.[43] The report found that Colorado has a relatively high percentage of 18-24 year olds attending college and a surprisingly large number of older students going back to earn their degrees. Colorado also graduates more bachelor students per dollar of funding than the national average, and this ratio also compares favorably to many states in the region.

Healthcare

Many proponents of increased government spending

also have made claims about Colorado's health care spending and performance. The allegation that Colorado ranks 48th or 50th in terms of immunization coverage is repeated in various forms by several groups, but these rankings are essentially meaningless.[44] The 2010 vaccination figure from America's Health Rankings, 48th out of 50, compares unfavorably the 2009 ranking of 10th, implying that our vaccine coverage became much worse, but the rankings are not actually comparable due to changes in methodology.[45] Tom Eckstein of the United Health Foundation explained that this rapid drop is actually the result of a methodological change, and several other states, such as Arkansas, saw similar dramatic shifts without any further indication of change in performance.[46] Also the change in methodology was due to a vaccine shortage rather than any change in the scientific consensus, so there is no reason to value one ranking over the other.

The rank of 50th in vaccine coverage comes originally from a Colorado Health Institute report, which uses data from the National Immunization Survey.[47] Close reading of this report reveals that the figure is being grossly misinterpreted.[48] The report states that the central problems with immunization in Colorado today have more to do with getting parents to bring their children in for immunizations in a timely manner and getting isolated populations to immunize their children than with increasing the public health budget. So how did advocates get the idea that Colorado is doing so poorly out of this report? Vaccine coverage measures the percentage of children who receive all of the vaccines in a particular set, or bundle. The Colorado Health Institute Report ranked states based on several different bundles. Colorado ranks 50th when one looks only at the very simplest bundle, but overall, Colorado performs quite well, particularly when looking at the more complete vaccine bundles. Vaccine coverage rates are very sensitive to the bundle being measured. The most recent National Immunization Survey report shows that Colorado ranks anywhere from 44th to 12th, depending on which bundle is used.[49] There are scientific reasons to look at each of the different bundles, and no one measure of vaccine coverage provides a full picture. However, more standard vaccine bundles probably tell us more than the extremely minimal ones on which Colorado is ranked poorly.

The most recent National Immunization Survey report shows that Colorado ranks anywhere from 44th to 12th, depending on which bundle is used.

The Colorado Health Institute report also addresses the claim that Colorado had to reduce its vaccination requirements due to a lack of government funding for vaccination programs. Colorado only reduced its requirements, rather than eliminating them. Many other states did the same, due to the vaccine shortage mentioned earlier. Also, the report uses of data from 2003, which is obsolete compared to the most recent National Immunization Survey report's 2009 data.[50] Colorado performs slightly better on the rankings based on simpler vaccine bundles in the more recent report.[51]

The biggest problem with the rankings is the margin of error. Unlike the previous claims which were based on data from the census or state governments, these data come from phone surveys, which only sample a small portion of the population, so the rankings that they generate are less reliable.[52] The values on which Colorado's rankings are based have large margins of error that overlap with the margins of error for many other states, rendering the rankings based on National Immunization Survey inconclusive.[53] Phone surveys also provide increasingly biased representations of the population as more households do without landline phones.[54] Ideally, immunization rates would be based off of anonymous data gleaned from a public database of all children's medical records. Unfortunately, the current methods of decentralized record keeping render such an effort impossible. We must settle many technical and privacy issues before more reliable immunization rates can be compiled.

The biggest problem with the rankings is the margin of error. Unlike the previous claims which were based on data from the census or state governments, these data come from phone surveys, which only sample a small portion of the population, so the rankings that they generate are less reliable.

Another claim one sees frequently is the claim that Colorado is either 38th or 48th in terms of pregnant women receiving adequate

prenatal care. This claim is repeated by numerous sources, but the figures both originate from the United Health Foundation, publishers of America's Health Rankings. The ranking of 38th is more recent, but the 48th ranking is still being repeated in a few places. The figure of 48th came from 2004 rankings which measured prenatal care differently. After 2004, America's Health Rankings switched to the new method of measuring prenatal care, a method widely considered superior, and Colorado's ranking improved. Pre-switch rankings are likely to be poor measures of state performance, but significant disagreement remains about how good the new measure is.[55] For example, the Kotelchuck index does not adjust based on risk conditions. Colorado is a very healthy state with a lower prevalence of risk factors. Doctors in Colorado simply might not feel the need to pressure low risk factor women into frequent prenatal care visits.

Healthcare quality is often very difficult to measure, because there are so many factors, and so many areas for disagreement. The situation is further complicated by the recent changeover to the new birth certificate. All prenatal care indices are calculated based on birth certificate data. Recently some states have been switching over to a new type of birth certificate that reports information in different ways, rendering data incomparable between states. America's Health Rankings used a clever but imperfect method of comparing states based on their distance from the mean of their group (new certificate or old certificate), but this method can only produce good rankings if the means of both sets are approximately equal.

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Matters have been further complicated by the fact that America's Health Rankings can no longer obtain the preferred measure of prenatal care performance from states using the old certificate. In light of this development, America's Health Rankings calculated its most recent prenatal care figure based solely on the proportion of women receiving some prenatal care in the first trimester, changing the name to early prenatal care. This new measure is cruder and less useful than the previous approach. Until all states adopt the new birth certificate, useful measures of the prevalence of adequate prenatal care cannot be calculated. See Appendix A for a more technical discussion. Also, whether or not a mother receives prenatal care in the first trimester has more to do with her attitude (and whether she is sure she is pregnant) than it does with the healthcare system in general. The medical community recommends starting prenatal care early, but they battle attitudes and busy mothers more than government spending in this area.

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When comparison between states becomes possible, there will still be no agreement over the proper measure to use, and trying to measure prenatal care might be a hopeless task in general. Different mothers have very different healthcare needs, and the number of visits to the doctor probably has little to do with the quality of state health policy. Instead, it is probably best to look at health outcomes. There are two good ways of measuring infant health at time of birth: infant mortality and birth weight. The Census ranks Colorado at 38th for infant mortality, lower numbers corresponding to better outcomes.[56] Ranking states based on a raw infant mortality measure can be quite deceptive, however. As a National Vital Statistics Report explains, different demographic sections of the population have different internal infant mortality rates.[57] A state with a many mothers of Central American origin would have a much lower baseline infant mortality rate that a state with many mothers of African origin.

Colorado ranks 23rd in terms of percentage of very low birth weight (which often accompanies serious health problems) and 42nd in terms of low birth weight (a milder situation that still often indicates poor health).[58] Colorado doesn't perform terribly well on these measures either, but Colorado's performance in the low birth weight ranking probably has little to do with medical care and more to do with high altitude. A large body of literature

exists relating high altitudes to low birth weights. A study focusing on Colorado in particular can be found in the endnotes.[59] Both of these rankings are out of date by several years, making assessment of the current state of prenatal care in Colorado very difficult.

A large body of literature exists relating high altitudes to low birth weights.

Another claim one sees fairly often in several different forms is the claim that Colorado ranks poorly in insurance coverage. The claim that Colorado is 50th in terms of low-income children who are uninsured originates from the 2009-2010 Assets & Opportunities Scorecard.[60] Colorado compares unfavorably in the percentage of low income people without insurance, but its scores are higher in terms of uninsured or low-income rates alone. According to the Scorecard, Colorado ranks 20th in terms of asset poverty rate and 35th in terms of Uninsured rate. Also, the Scorecard data is slightly inconsistent. It claims to obtain data on uninsured children from the Census Bureau, but Census data for this year does not match the claims.[61] The Center on Budget and Policy Priorities[62], which also gets its figures from the Census Bureau,[63] claims that Colorado ranks 47th on this measure. This figure seems valid, but the presence of illegal immigrants might bias results. They might qualify as low-income, but they would not qualify for government health insurance programs. Also, there are many ways in which one might measure insurance coverage: total coverage; number of uninsured low-income individuals or families or parents; number uninsured low-income parents per capita, etc. The percentage of low-income people who are uninsured is a fairly specific measure, and Colorado does better by most other measures.

Low insurance coverage might not have much to do with low state spending. Much of the funding that goes toward insuring low-income people comes from the federal government. Colorado receives the lowest possible federal matching rate for Medicaid spending, so it gets less federal Medicaid money than other states would if they spent as much on Medicaid.[64] The low insurance coverage rankings may be valid, but the connections between coverage and state government spending are somewhat dubious. Another possible explanation for Colorado's poor coverage is presented by the Small Business and Entrepreneurship Council. In their report, they cite numerous reasons that Colorado's regulatory climate and mandates might increase costs and prevent insurance providers from providing the service people need at the cost they are willing to pay. Colorado mandates numerous benefits in every insurance package while also mandating that insurance policies are priced within certain bands for various populations. In addition, Colorado has a guaranteed issue policy under which some groups can't be rejected due to health or risk factors.[65] Together these policies prevent insurance companies from offering well-priced, specifically-tailored packages to people who need them, reducing insurance coverage overall.

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None of the healthcare claims discussed deal with direct government spending on healthcare. Although all the claimants argue that these ranking declines are related to decreases in spending, none attempt to compare Colorado's state and local government spending to similar figures from the other 49 states. Some groups make claims about how funding for specific programs compares across states,[66] but it is impossible to know whether Colorado's low funding for one program is offset in another area. No major agency ranks states according to total public health spending, making it hard to argue that Colorado's health is in jeopardy due to lack of public support. In addition, the health care system is remarkably complex, and an almost infinite number of measures could be derived based on it. The essentially arbitrary set of figures used by America's Health Rankings does not give a coherent picture of the healthcare system in Colorado.

A Money Pit

Recall that Colorado has an average tax burden. Higher education and healthcare budgets are, however, somewhat lower than one would expect given our tax burden. Where is the additional funding going? A surprisingly large proportion of state spending goes toward government pensions.

Colorado ranks 12th in terms of its per capita pension funding at the state and local levels.[67] In Colorado, pensions make up around 8 percent of the total state and local spending.[68] For comparison, Delaware spends only 5 percent of its budget on pensions and Utah only spend 4 percent of its budget that way.[69] Even Michigan, a stronghold of organized labor, spends less of its budget on pensions than we do.[70] High pension funding might mean less compensation for public employees in other areas. It is also possible the large portion of the budget devoted to pensions is in part a consequence of how Colorado reports its government budgets. For a fuller discussion of wage/benefits packages for public employees see Poulson and Hall (2010).[71]

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Conclusion

The claims addressed here try to paint a picture of a state that under-spends in every category. Our evaluation does not support those allegations. By trying to adjust figures based on $1000 of total personal income in the state, the advocates tend to produce ranks which are far below the median. The proper rankings should approximate the demand for the public service. Personal income fails this test; higher income can actually lead to lower demand for many government programs. Without market forces, the government can never truly know if it is providing the right amount of services. Also, many of these rankings do not include local spending, which can unfairly bias results, because in Colorado a disproportionate amount of government spending is done at the local level. The low rankings are deceptive and inappropriate, and do not support drastically increased spending.

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ADDITIONAL RESOURCES can be found at: http://www.i2i.org/.

Appendix A: Prenatal Care

The figure of 48th came from 2004 rankings which used a different index of prenatal care proportions, the Kessner index. That index compares number of prenatal care visits to a set of recommended figures. After 2004, America's Health Rankings switched to the new Kotelchuck index, because it is more sophisticated and takes more factors into account. Also, the Kotelchuck index reflects a balance of prenatal care more heavily weighted toward the third trimester, a currently favored pattern.72 Pre-switch rankings are likely to be poor measures of state performance in this area.

There is still significant disagreement as to whether the Kotelchuck index is the best way to measure adequate prenatal care. The index measures the time when prenatal care is initiated and how often prenatal care services are used compared to how often one would expect a pregnant woman to use them, but it still does not measure quality of the services provided. Also, the index does not adjust for the mother's risk conditions.73 The index tends to favor shorter gestational times, because shorter gestation times mean fewer expected prenatal care visits, which makes it easier to attain an adequate ranking even though short gestation often implies worse care and health for the child.74 Even Kotelchuck was unable to conclude that his index was superior in all cases.75 The situation is further complicated by the recent changeover to the new birth certificate.

For a more complete discussion of various prenatal care indices see the Alexander and Kotelchuck article here: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1381783/

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the potential for demographic characteristics to skew the rankings (a state with fewer college bound residents might need to spend less on higher education), but these errors should be minimal. Also, cross state emigration for college could skew these figures substantially. A state might have few permanent residents compared to its steady population or vice versa.

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Terminology:
4:3:1 Series: the most basic recommended vaccine series including 4 doses of DTP vaccine, 3 doses of polio vaccine, and1 dose of MMR vaccine.
DTP: diphtheria, tetanus, and pertussis
MMR: Measels, Mumps, and Rubella
4:3:1:4:3:1:4 Series: the most comprehensive vaccine series on which statistics are collected. Includes the 4:3:1 series plus a number of other vaccines including a Hepatitis B vaccine and a HIB vaccine
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[54] This type of data collection increases the likelihood of selection bias. Many people do not own landline phones or self-select out of the survey by hanging up. For example, busy professionals may be more likely to refuse the survey but more likely to immunize their children, which would lead to an underestimation of immunization rates. It is also possible that many less wealthy families choose not to pay for land line service in addition to their cell phone, and these groups tend to immunize their children at lower rates, so phone surveys might overestimate the immunization rate as well.

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