

WYOMING RESIDENTS' PREFERENCES AMONG STATE BUDGET CHOICES



This study provides an examination of citizens' preference on policy decisions in Wyoming, featuring a useful tool to measure the level of support from respondents on a variety of issues.

Authors:

Dr. Rob Godby, Associate Professor of Economics | UW College of Business

Dr. Mark Peterson, Professor of Marketing | UW College of Business



February 2021

UW Researchers Work to Identify Wyoming Residents' Preferences over State Budget Choices

February 12, 2021 – Researchers at the University of Wyoming have deployed state-of-the-art survey methods to shed light on how Wyoming citizens feel about budget options facing the state legislature. Their findings suggest that Wyomingites generally align with actions of the state taken to date, specifically that in order to address the current budget deficit, Wyomingites prefer to start with state agency cuts over other options such as cuts to K-12 education or increases in personal sales and property taxes. Their preference ordering would then prefer cuts occur to local governments, then increases in taxes and lastly, that K-12 funding be reduced. Overall, there is less than majority support for any major budget actions affecting K-12 education funding or increases in taxes at this time. Results also indicate that existing agency cuts of approximately 15 percent enacted by Governor Gordon since the summer, combined with cuts to local governments, with the use of savings to address the remaining budget shortfall are the most preferred policy combination among the options presented to survey respondents.

The study asked respondents to consider a hypothetical \$480 million budgetary shortfall in the next two years. This is relatively close to the current shortfall estimated in the state. This will need to be addressed through additional government action and will require state legislators to make difficult choices to balance the state budget in the upcoming legislative session. Three broad policy options exist for the legislators: 1) public agency budget and service cuts, including cuts to K-12 education and/or cuts to funding support for counties, cities, and towns, 2) revenue increases (additional taxes), and 3) using the state's savings – often referred to as the state's "rainy-day" account. Survey participants were told this balance is currently almost \$1.2 billion.

All three broad choices impose costs on state citizens. Cuts to public agencies including K-12 education or reducing support to counties, cities and towns would impose costs on residents through reduced services, reduced education services in the K-12 system through fewer teachers or increased class sizes, and reduced funding for services local governments provide. Increased taxes require residents to pay more for the services they receive. Using the rainy-day account will leave less savings in the future to deal with future deficits, and eventually could exhaust the state's savings, creating little ability to deal with unanticipated needs in the future.

The researchers argue that in such a dire situation and given the potential impacts of such actions, optimally choices made by the legislature would reflect citizen preferences. In late November and early December 2020, a research team from the University of Wyoming conducted a survey on behalf of Governor Gordon's Power Wyoming effort, an effort meant to educate the public on the budget choices the state faces. The survey asked residents of Wyoming to identify their preferred policies regarding alternative choices of taxes, cuts and use of savings to address a \$480 million deficit.

Funding for the survey was provided by the University of Wyoming's Center for Energy Regulation and Policy Analysis (CERPA) at the School of Energy Resources. Respondents consisted of a representative sample of 435 Wyoming residents from all 23 state counties. From these responses, the researchers were able to use modern marketing survey techniques to identify resident preferences over the budget choices they were presented with.

Unlike more common survey methods that elicit support for single policy choices, researchers employed a modern survey design to determine respondent preferences more accurately over the tradeoffs current budgetary choices pose. Mark Peterson, one of the researchers said “Using such methods allows respondents to more realistically consider the multiple choices facing state officials, and allows researchers to see how people view the actual tradeoffs policy-making requires between, say, raising taxes, spending savings and cutting education funding to balance the budget.”

Respondents were asked to consider expenditure reductions of zero, five or ten percent relative to budget levels after Governor Gordon imposed a 10 percent cut to state agencies in the summer of 2020. For example, respondents were asked to consider cuts to K-12 education funding; local county, city and town funding; and Wyoming government agency funding as three separate possible choices. Each could occur at the zero, five or ten percent levels, and for each option respondents were told how much each action would reduce the budget deficit. Because expenditures in these categories do not account for equal shares of the state budget, respondents were also shown that a 5 percent cut to K-12 education reduced a \$480 million deficit by \$75 million, while a five percent cut to government agencies would reduce the deficit by \$130 million, and a five percent cut to local governments would only reduce the deficit by \$15 million. Respondents were also shown that ten percent cuts to these areas would double the impacts identified for a five percent cut.

Respondents were also asked to consider increases to personal state sales or property taxes. No specific details regarding how such increases would be implemented were included, instead respondents were asked to consider the taxes they currently pay increasing by a hypothetical zero, five or ten percent. These choices would reduce the deficit by an estimated zero, \$70 million or \$140 million regardless of other policies enacted. The policy choices respondents were asked to consider regarding all expenditure reduction and tax revenue increases are summarized in Table 1, along with the impact each would have on the state budget deficit.

Table 1: Policy Choices Considered in the survey:

Policy Choice	Level 1	Level 2	Level 3
Personal Property and Sales Taxes	No Change	5% Increase \$70 million	10% Increase \$140 million
K-12 Education Expenditure	No Change	5% Decrease \$75 million	10% Decrease \$150 million
All State Agency Expenditure (In addition to the 10% cuts made in Summer 2020)	No Change (original 10% cut continues)	Additional 5% Decrease \$130 million	Additional 10% Decrease \$260 million
Transfers to Counties, Cities and Towns	No Change	5% Decrease \$15 million	10% Decrease \$30 million

The methodology used in the survey is called a discrete-choice conjoint analysis. There are several benefits of using such a survey design over traditional elicitation methods. As noted, respondents were asked to identify preferred choices and the choices they must

select from involve tradeoffs. Typically, an increase in one area requires a decrease in another. Additionally, the methodology allows researchers to determine the most important concerns a respondent has – whether they are generally more concerned with one type of action over another, and the relative importance each area has with respect to the others – for example are they twice as concerned about one area as another? Finally, the methodology allows an estimation of how overall support for a set of policy actions would change if levels of cuts or tax increases were changed. All of these additional insights are not possible with more traditional surveys.

To complete the survey, respondents were presented with three policy combinations drawn from each category in Table 1. For each combination of policy actions respondents were asked to consider, each respondent was also shown how much additional funds would be required to balance the budget using the state’s “Rainy-Day” savings account. If the policy combinations resulted in a budget surplus, this would be presented as an increase in the Rainy-Day account. Respondents were shown not only the amount the Rainy-Day account would increase or decrease, but also the percentage change in the savings account so that they could understand how this might impact funds available for future budget deficits. Therefore, respondents were not only identifying their preference over specific combinations of expenditure cuts and revenue increases, but also over the use of the state’s savings.

An example of one choice set a respondent might see from the survey is shown in Figure 1.

Figure 1: Sample Policy Choice Screen

Please consider the three alternative budgets shown below and select the one you prefer.

Policy Outcome	Alternative 1	Alternative 2	Alternative 3
Property & Sales Taxes	5% Increase in taxes \$70M increase in revenue	No change in taxes \$0 change in budget	10% Increase in taxes \$140M increase in revenue
K-12 Education	No change in K-12 Ed \$0 change in budget	10% Decrease in K-12 \$150M decrease in expenses	5% Decrease in K-12 \$75M decrease in expenses
State Agency Budgets (Such as Health, Corrections, Social Services, the University of Wy and Community Colleges) - in addition to the 10% cuts made in Summer 2020	10% Decrease agency budget \$260M decrease in expenses	5% Decrease agency budget \$130M decrease in expenses	No change in agencies funding \$0 change in budget
Transfers to Cities and Towns	5% Decrease in transfers \$15M decrease in expenses	No change in transfers \$0 change in budget	10% Decrease in transfers \$30M decrease in expenses
Use of Savings (Rainy-Day Fund)	Draw down 11% -\$135M	Draw down 17% -\$200M	Draw down 20% -\$235M

Which alternative do you like best?

☐ Alternative 1

☐ Alternative 2

☐ Alternative 3

Would you support the alternative budget you like best?

☐ Support

☐ Support with concerns

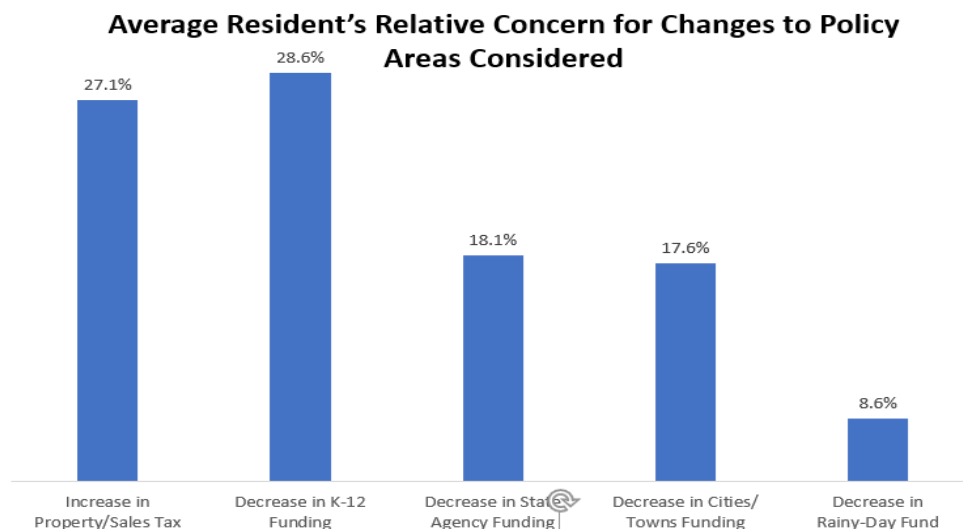
☐ Do not support

Respondents were asked to perform such a choice ten times, each time seeing three different sets of policy choices and implied changes to the Rainy-Day fund. While no single respondent saw the entire set of possible policy combinations, across all respondents surveyed, all possible combinations of budget choices were presented.

As shown, each respondent would also be asked whether they would support, support with concerns or whether they would not support the combination they preferred. A survey participant could choose a preferred policy among the three combinations shown, but also indicate they would not support such a policy as every set of choices would imply potential costs on state residents, either through cuts to public services and/or increases in taxes and possibly a reduction of the state’s rainy-day fund. As researcher Robert Godby noted “These are not pleasant choices residents are being asked to consider given the state faces a large budget deficit. While a resident may prefer one set of choices to another, they may not necessarily be expected to support them. They may only be identifying what they consider the best of a bad set of choices.”

In addition to the ten choice questions respondents worked through, they were also asked to complete some background questions regarding the degree to which they follow state budget issues and legislative sessions, whether they have strong opinions on budget matters, whether they expected to be directly affected by state budget choices in the face of the current deficit, and whether they felt their elected representatives make choices in their best interest. They were also asked a series of demographic questions to allow analysis not only to verify the survey sample was representative of the Wyoming population, but also to allow the determination of sub-group population preferences in addition to the determination of overall support for policy choices in the state. These demographic questions included gender, education, age, household income, political affiliation and recent election participation.

Figure 2

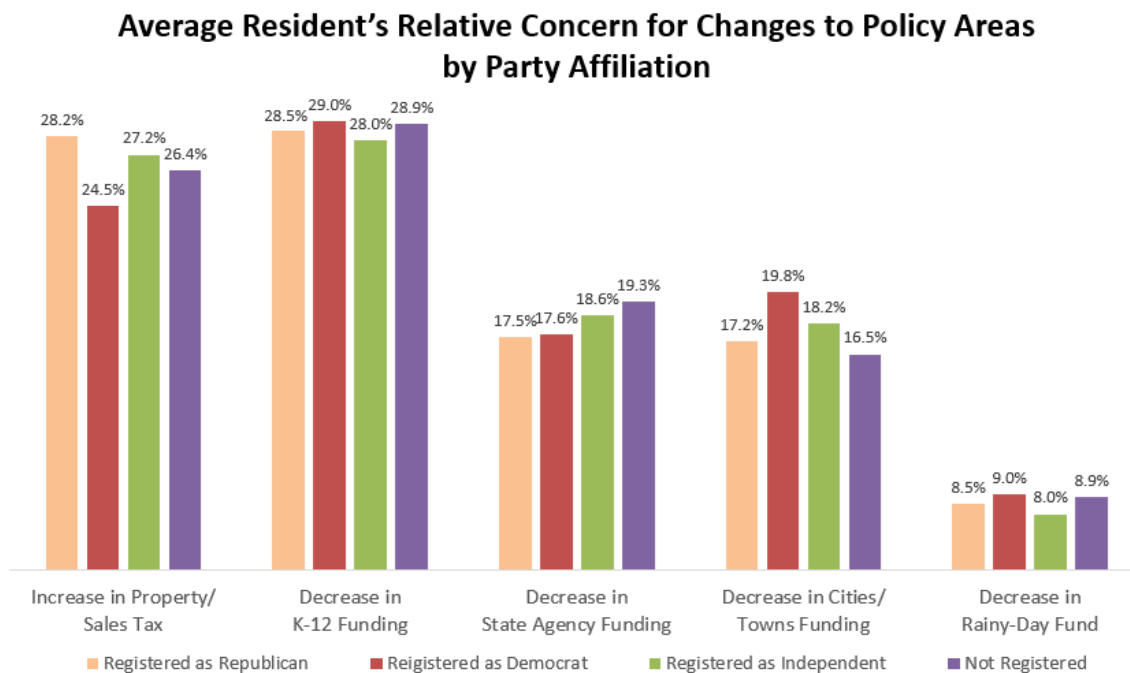


Results of the study include several findings. Across the state population, people are concerned about changes in all policy areas – but are most concerned about cuts to K-12 education funding. Across the population, however, people indicated they were nearly as concerned about increases in their personal taxes as K-12 funding. Concerns for both areas were about 50 percent higher than concerns regarding cuts to state agencies and funding to local county, city and town governments. Furthermore, residents were least concerned about the use of the rainy-day fund. These results are presented in Figure 2 above.

This order of preferences, as well as the relative importance of each area was also found to be broadly similar across political affiliations, though registered Democrats were

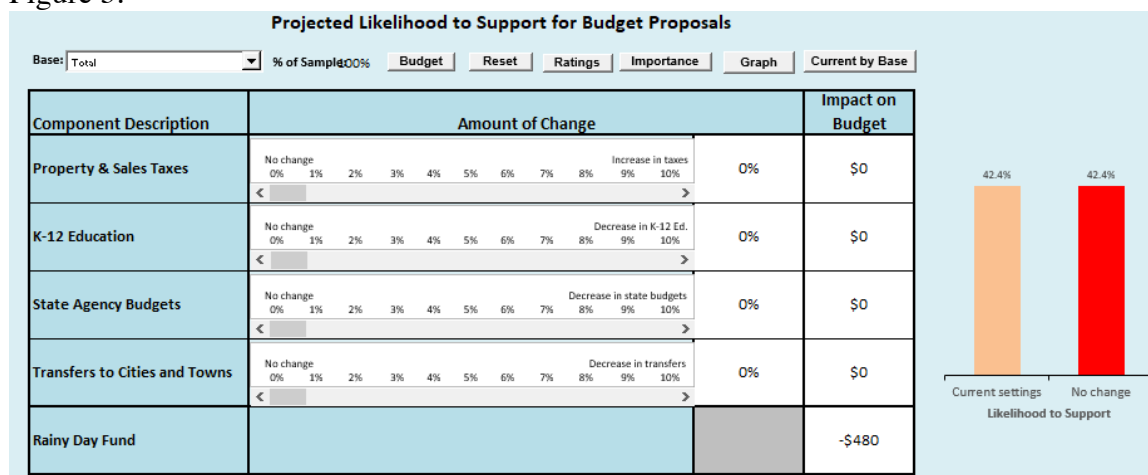
relatively more concerned about cuts to K-12 than increases in taxes compared to any other group. Preferences by political affiliation are shown in Figure 3.

Figure 3:



Researchers have also developed a tool to allow lawmakers and others to compare how the estimated level of support for various combinations of expenditure changes or revenue increases. They find that if no action were taken beyond the ten percent reduction to all agency budgets made by Governor Gordon in July 2020, which would result in an estimated \$480 million or approximately a 40 percent reduction in the Rainy-Day account balance, this would be supported by 42.4 percent of Wyoming residents.

Figure 3:



From this baseline level of support, results of the survey suggest support increased by 6.7 percent among state residents when the Governor announced in November an additional five percent cut across most agencies to address the deficit still faced by the state after cuts he imposed in summer. Results also suggest that residents have reached a limit

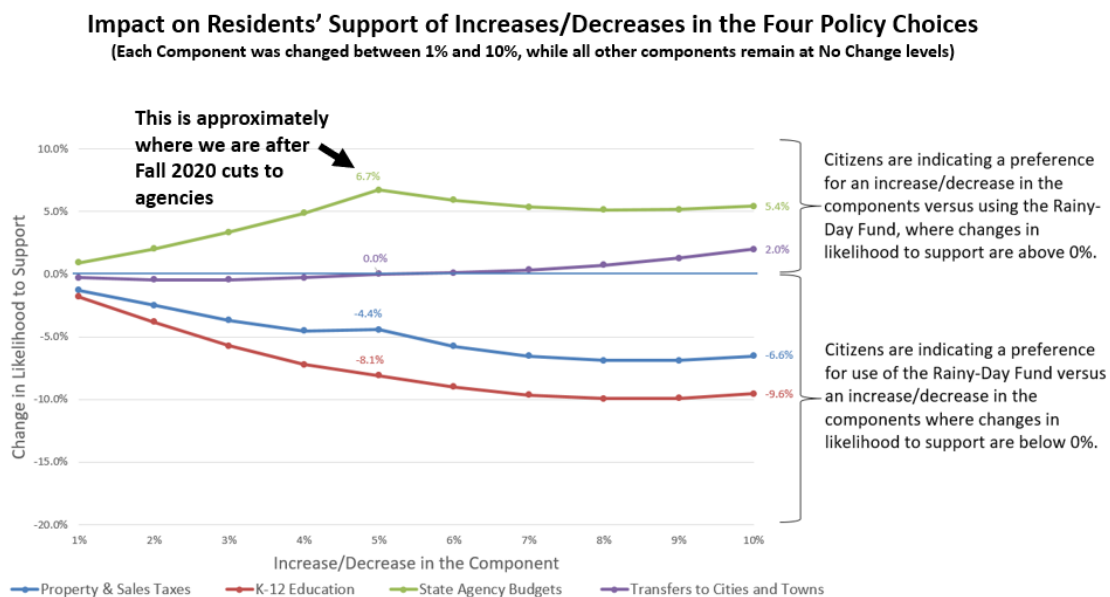
regarding their tolerance for further actions cuts to state agencies and support for such would decline if additional agency cuts were imposed, presumably due to the impact residents expect this would have on state services.

Survey support would decline more significantly if K-12 funding were cut or personal taxes increased according to the study. From the 42.4 percent support baseline, support would drop by an additional 4.4 percent if taxes were increased five percent, and 6.6 percent if they increased by ten percent from current levels and no other changes were made from funding levels present in summer of 2020. Declines in support are even larger for K-12 funding decreases. A five percent cut in K-12 funding would reduce support by 8.1 percent, and a cut of ten percent would decrease support by 9.6 percent relative to what researchers called “no change levels” – the levels present in summer 2020.

The survey results also indicate that residents’ support for budgetary actions would largely be unaffected by changes to funding levels to local governments. Support for policies cutting these expenditures only increases for cuts greater than five percent and decreases slightly if some cuts are not made in this area. Overall, the sensitivity of support to changes in this area appears to be slight and researchers hypothesize this is because cuts to such expenditures have little effect on the overall budget situation. They also find that a cut of ten percent to local governments would raise support for budget actions by slightly more than two percent versus no change in funding.

These impacts on resident support are shown in Figure 4.

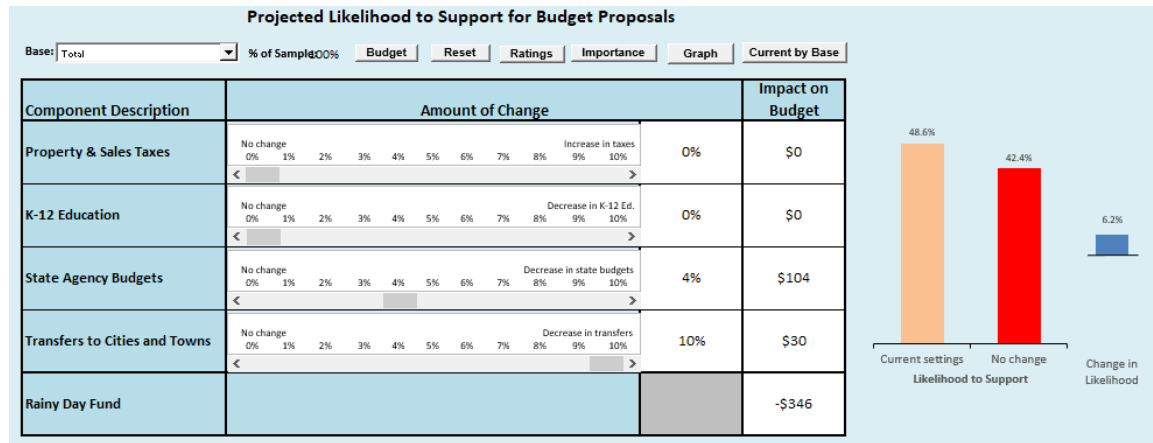
Figure 4: Impact on Resident’s Support as Cuts or Taxes are Increased to Balance the Budget (vs. Using the Rainy-Day Fund)



Researchers were also able to identify the optimal policy as defined by resident’s preferences based on the results of the survey. They suggest that a policy that did not change K-12 funding or personal taxes, combined with the level of cuts Governor Gordon proposed in November (a five percent increase over levels in the summer), and a 10% decrease in local government funding would be supported by 50.3% of Wyoming residents. Such a policy would also result in the use of \$320 million from the state’s Rainy-Day fund, reducing the balance by 27 percent. This was the only policy

combination researchers identified that created majority support among the population. This outcome is shown using the tool researchers developed for the state in Figure 5.

Figure 5:



Overall, Mark Peterson and Robert Godby, the UW researchers who designed the survey, suggest that results indicate Wyoming residents are currently not willing to make large cuts to government spending and would not support increases to personal taxes, both of which are likely necessary to balance the budget in the long term according to government officials. Instead, they would prefer to spend down savings combined with more modest cuts to agencies and local government support, at least those were resident preferences when the survey was conducted in late 2020.

“While some may consider this a myopic or unsustainable reaction to policy choices, it may also reflect that residents need more specific information about what policies might be taken to address the budget and state revenues before they will support them” Godby said. Given that budget outlooks suggest that the structural budget deficit facing the state will not recede, and likely will worsen with continuing declines in fossil fuel production, he suggests that the survey technique used here could be combined with a public education campaign to better educate state residents on the budget situation and on policy alternatives to determine if such efforts resulted in a change in resident’s policy preferences.

Mark Peterson suggests that the tool could also be modified and used to identify preferences over specific types of actions. For example, it is likely the case that revenues will have to increase. “The survey techniques used here could be applied to determining the types of tax increases that are most favorable to residents – increases in sales tax rates versus expanding items that sales taxes are applied to like food, versus property tax increases versus perhaps new wealth taxes or even income taxes.” Again, both researchers feel that the importance of understanding resident preferences is essential in tackling the budget situation facing the state.

“We face tough choices that may be painful” said Godby. “In this budgetary situation it is more important than ever to know people’s preferences over actions that may need to be taken.”

This research was presented to the Wyoming Legislature’s Joint Education Committee on February 6, 2021. A recording of that presentation can be found [here](#):

<https://www.youtube.com/watch?v=7GO38IOEG8k>. Dr. Robert Godby (economics), and Dr. Mark Peterson (marketing) comprised the research team at the university of Wyoming. They worked with colleagues at SDR Consulting in Atlanta, Georgia. Researchers can be reached through Rob Godby's office at 307-766-3843, or by email at rgodby@uwyo.edu.

Additional materials:

Researchers developed a simple Excel spreadsheet tool that allows an estimation of how support for various combinations of policies would change as policy choices changed. This tool allows the user to move a slider to choose a specific level of expenditure cut or tax increase. The tool then displays the level of support such a policy would be estimated to have in Wyoming based on the survey sample. Users can choose the entire sample, or many subsets of the sample based on the demographic information survey respondents provided about themselves, including party affiliation, recent voting behavior, age, sex, household income and education levels, along with several other characteristics. Figures 3 and 5 show two outcomes using this tool, and the tool can also be used to identify how support would change from an initial policy combination shown by selecting the Graph button. Other buttons included describe the budget assumptions used in the study, and the responses to the elicitation questions also asked in the survey, along with resident preferences based on the survey sample the user selects. The tool also shows how demographic variables changed in any given group chosen by the user relative to those in the overall sample.