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# Wyoming Citizen Preferences for State Budgeting Outcomes When Energy Prices Crash

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*Like the energy-based economies of Alaska and North Dakota, Wyoming's economy entered a recession in 2016 due to low energy prices. This has thrust the state into a budget crisis that remains unresolved. In May 2016, researchers at the University of Wyoming deployed state-of-the-art survey methods to shed light on how Wyoming citizens feel about budget options for the state legislature in the current times of economic recession in the state. Their findings suggest that Wyomingites generally align with actions of the state legislature taken in February with the exception of the legislature's decision to not accept federal funding for expanding Medicaid to all Wyoming residents.*

## **Background**

Seventy (70) per cent of Wyoming's budget has come from payments from mineral companies – mostly coal, oil and gas companies. Changes in energy prices directly affect the amount of money available for state government operations. For example, every move of \$5 in the price of oil represents a \$35 million loss or gain to the state. Oil prices dropped from about \$100 per barrel at the beginning of 2015 to about \$40 in early April 2016 representing about a \$300 million loss to the state of Wyoming. Other states with economies heavily dependent on oil have felt the devastating effects of the current oil price crash, such as Alaska and North Dakota.

The precipitous drop of the price of oil in the last year has cast uncertainty over the future revenue streams for operating the state government in Wyoming in the coming years.

Wyoming's state government now faces some challenging choices. Although Wyoming's government works up a two-year budget every two years, the current budget is \$1.7 billion per year. The state expected a \$225 budget shortfall per year from 2016 to 2018. In this environment of uncertainty, the Wyoming State Legislature conducted its 2016 budget session this winter and concluded it February 29<sup>th</sup>, 2016. In April 2016, the state of Wyoming revised its forecast of the shortfall to \$300 million per year from 2016 to 2018.

Due to the dramatic drop in the price of oil in the last year, the state of Wyoming now faces a \$600 million budgetary shortfall in the next two years. This will require state legislators to make difficult choices to balance the state budget. Three options exist for the legislators in the form of 1) budget and service cuts, 2) revenue increases (taxes), and 3) the varying the rate of saving (or dissaving). In the last legislative session, lawmakers chose to opt for budget cuts and spending some savings. They are now only beginning to consider revenue increases.

### **Research Questions**

What is not known at this time is how Wyoming citizens regard important budget decisions made during the 2016 budget session for the 2017-2018 biennium. The purpose of this proposed study is to gauge the preference of Wyoming citizens for budget decisions taken, as well as the preference of Wyoming citizens for reasonable alternatives not taken during the 2016 budget session.

This project seeks to better understand the relative importance of seven different state budgeting issues for Wyoming. These include: 1) change in current taxes, 2) K-12 education funding, 3) UW higher education funding, 4) community college funding, 5) roads and highways in the state, 6) Medicaid expansion, and 7) use of Wyoming's Rainy Day Fund. This will allow

citizens in Wyoming – and legislators and policymakers – to better understand budgeting priorities for Wyoming in the future.

Importantly, budget decisions that were made in the 2016 legislative session in Wyoming are included in the study. This will allow policy makers an evidence-based way to work with each other on important budget decisions in the future. It will also help develop theory about how citizens regard budgeting issues across states that have suddenly been thrust into making difficult decisions in the face of crashes in energy prices.

## **Methods**

This study used an online surveying approach and put citizen-respondents in a series of trade-off situations so that each respondent would have to give up a budget outcome to gain another budget outcome as they went through the survey. The result of such a choice-based conjoint analysis approach allows researchers to gauge the relative importance of the seven focal budgeting decisions of the study.

Traditional energy policy research focuses on simply measuring support for current policies. Often, the public is greatly influenced by media sound-bites and political discourse leading to findings that can change almost weekly. Using a conjoint/trade-off approach, results are much more stable and better reflect citizens' underlying importance associated with energy initiatives that might be enacted at the state and/or federal level.

In such a dire situation, the best choices to be made by the legislature would reflect citizen preferences. In early May, a research team from the University of Wyoming's Center for Energy Economics and Public Policy fielded a state-wide survey of Wyoming citizens about the budgeting options before the state legislature. The representative sample consisted of 317

Wyoming citizens. Respondents came from each of Wyoming's 23 counties. A professional research agency skilled in conducting web-based research in Wyoming - SDR-Consulting based in Atlanta, GA - provided sampling services, as well as website hosting for the project.

Unlike more common survey methods, that elicit support for single policy choices, researchers employed a modern survey design to more accurately determine respondent preferences 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. Using such methods allows researchers to see how people view the actual tradeoffs policy-making requires between, say, raising taxes, spending savings and cutting education funding." Presented with a series of combinations of policies to simulate the multiple choices lawmakers face, respondents had to give up some policy outcomes to gain others. In this way, researchers more meaningfully gauged the relative importance of seven policy issues to Wyoming citizens.

## **Results**

The results are depicted in the figure below and suggest that Medicaid expansion and taxes are the two most important policy outcomes for Wyomingites. Specifically, respondents preferred expanding Medicaid coverage to all Wyomingites (by refusing to accept federal dollars for this expansion the state spends about \$20 million each year to pay hospitals and clinics for treating uninsured patients who cannot pay their medical bills.). Additionally, the respondents did not want any changes made to the way they are currently taxed by the state. The results have a margin of error of plus or minus 4 per cent when inferences are made to all of Wyoming.

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Insert Figure 1 here.

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The budget outcomes and the three possible levels used in composing different bundles of outcomes for respondents to choose are presented in the table below.

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Insert Table 1 here.

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As part of the survey, respondents were asked whether the bundle they chose in each of the ten choice situations would be supported, supported with concern, or not supported. Using this information, the bundle of policies that received the most support at 52.3 % included 1) expanding Medicaid coverage to all Wyomingites, 2) making no changes to taxes, K-12 education funding, UW funding, Community College funding and highway funding, and 3) drawing down the Rainy Day Fund by 5.7% along with a 1 % cut in state agencies' spending for the next two years as set by the legislature in March. With the exception of expanding Medicaid, this bundle of policy outcomes aligns with the budget the legislature passed. Factoring in the fact that the Legislature chose not to expand Medicaid, support for the bundle of policies adopted dropped to 40.7%, suggesting less than a majority of Wyomingites approved of the actual budget the Legislature passed.

Including the larger cuts imposed by the Governor more recently, along with the previous budgetary actions, specifically new cuts to reduce funding further to the University of Wyoming and community colleges, support in the state dropped to 34.3%.

Figure 2 depicts the results for a baseline situation representing the status quo in which no change to any of the eight policy outcomes would be taken. The bundle of policies that led to

no change from the budget passed by the Wyoming Legislature in March (no additional cuts in the areas indicated in the table beyond the “penny plan”, no Medicaid expansion and the Legislature’s decision to reduce the Rainy Day fund annually by 5.7% in the biennium with an additional 1% cut across state agencies – also known as the “penny plan”, state support across all respondents was 40.7%. This suggests the true support for this plan in the state would be estimated to be between 36% and 45% given the survey margin of error of approximately 4%.

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Insert Figure 2 here.

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The first column on the left shows the bundle of choices and the proposed change or level of use in the case of the Rainy Day fund. The second (middle) column indicates the survey result regarding the relative importance of each policy compared to the others. Note the total importance must sum to 100%. The third column indicates the level of support in the survey for the proposed policy defined by the set of choices in row 1 across the sample. In this case there is 40.7% support for the combination of policies shown.

Figure 3 depicts the combination of policies with the highest support in the sample. As can be seen in Figure 3, expanding Medicaid fully would have increased the level of support from the no change (from the Legislature’s decision) outcome of 40.7% previously shown to 52.3%. The increase in Medicaid expansion increased support by 11.7% above the “no change” baseline.

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Insert Figure 3 here.

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More recently, Wyoming Governor Matt Mead imposed cuts of 8% on state agencies including UW and community colleges. While the survey did not anticipate these cuts in advance, a survey choice included hypothetical cuts of 10% on UW and community colleges in addition to the penny plan. The result is shown below in Figure 4. As can be seen, support across the entire sample falls to 34.3%.

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Insert Figure 4 here.

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Figure 5 depicts the bundle of policies with the least support in the survey among all respondents was a combination of a 15% tax increase, 10% decreases in K-12 education, UW and community college funding, a 14.55 decrease in highway funding, no expansion of Medicaid and an annual decrease in the Rainy Day fund of 5.7% plus the additional 1% cut across state agencies (the “penny plan”). This bundle of policies received 15.0% support across all survey respondents.

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Insert Figure 5 here.

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## **Discussion**

## **Conclusion**

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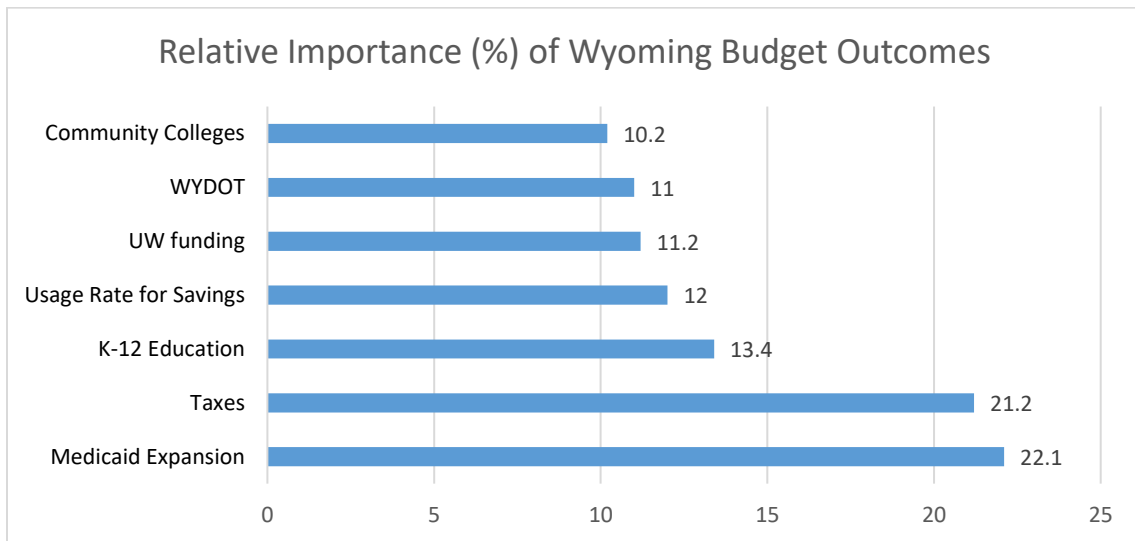
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**Table 1.** Design of the discrete-choice experiment

<b>Budget Outcome</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
<b>Change in Taxes</b>	15% Increase	No Change	15% decrease
<b>K-12 Education</b>	Increase class sizes 10%	No Change	Decrease class sizes 10%
<b>Higher education</b>	Increase 10%	No Change	Decrease 10%
<b>Community college</b>	Increase 10%	No Change	Decrease 10%
<b>State roads and highways</b>	Increase 14.5%	No Change	Decrease 14.5%
<b>Medicaid expansion</b>	Partially expand by 50%	No Change	Fully expand by 100%
<b>Agency cuts/ Use of Savings (Rainy Day Fund)</b>	Cut state budget 6.6%	Decrease RDF 5.7% + 1% cut in state	Decrease RDF by 12.5%



**Figure 1.** Results from discrete-choice analysis of Wyoming respondents in the study

**Projected Levels of Support for Budget Proposals**

Base   % of Sample: 100%

Component Description	Level	Importance	Level of Support
Impact policy has on current ways you are taxed in Wyoming	<input type="text" value="No Change"/>	21.2%	
Impact policy has on K-12 Education	<input type="text" value="No Change"/>	13.4%	
Impact policy has on higher education funding in Wyoming	<input type="text" value="No Change"/>	11.2%	
Impact policy has on the community college funding in Wyoming	<input type="text" value="No Change"/>	10.2%	
Impact policy has on state roads and highways	<input type="text" value="No Change"/>	11.0%	
Impact policy has on Medicaid expansion	<input type="text" value="No Change"/>	21.0%	
Impact policy has on new revenue for the state of Wyoming	<input type="text" value="Decrease RDF 5.7% + 1% cut in stat"/>	12.0%	
<b>No Change</b>			<b>40.7%</b>
<b>Proposed Changes</b>			<b>0.0%</b>
<b>Final Budget</b>			<b>40.7%</b>

**Figure 2.** Results for situation in which “no change” would be made to any policy dimension

Projected Levels of Support for Budget Proposals			
Base	Total	<input type="button" value="Reset Levels"/>	% of Sample: 100%
		<input type="button" value="Budget \$'s"/>	<input type="button" value="Non-DC Data"/>
Component Description	Level	Importance	Level of Support
Impact policy has on current ways you are taxed in Wyoming	No Change	21.2%	
Impact policy has on K-12 Education	No Change	13.4%	
Impact policy has on higher education funding in Wyoming	No Change	11.2%	
Impact policy has on the community college funding in Wyoming	No Change	10.2%	
Impact policy has on state roads and highways	No Change	11.0%	
Impact policy has on Medicaid expansion	Fully expand by 100%	21.0%	
Impact policy has on new revenue for the state of Wyoming	Decrease RDF 5.7% + 1% cut in stat	12.0%	
<b>No Change</b>			<b>40.7%</b>
<b>Proposed Changes</b>			<b>11.7%</b>
<b>Final Budget</b>			<b>52.3%</b>

**Figure 3.** Results for situation representing the combination of policies with the highest support.

**Projected Levels of Support for Budget Proposals**

Base   % of Sample: 100%

Component Description	Level	Importance	Level of Support
Impact policy has on current ways you are taxed in Wyoming	<input type="text" value="No Change"/>	21.2%	
Impact policy has on K-12 Education	<input type="text" value="No Change"/>	13.4%	
Impact policy has on higher education funding in Wyoming	<input type="text" value="Decrease 10%"/>	11.2%	
Impact policy has on the community college funding in Wyoming	<input type="text" value="Decrease 10%"/>	10.2%	
Impact policy has on state roads and highways	<input type="text" value="No Change"/>	11.0%	
Impact policy has on Medicaid expansion	<input type="text" value="No Change"/>	21.0%	
Impact policy has on new revenue for the state of Wyoming	<input type="text" value="Decrease RDF 5.7% + 1% cut in stat"/>	12.0%	
<b>No Change</b>			<b>40.7%</b>
<b>Proposed Changes</b>			<b>-6.3%</b>
<b>Final Budget</b>			<b>34.3%</b>

**Figure 4.** Results for situation representing a 10 per cent reduction to community colleges and higher education in Wyoming.

Projected Levels of Support for Budget Proposals			
Base	Total	<input type="button" value="Reset Levels"/>	% of Sample: 100%
		<input type="button" value="Budget \$'s"/>	<input type="button" value="Non-DC Data"/>
Component Description	Level	Importance	Level of Support
Impact policy has on current ways you are taxed in Wyoming	15% Increase	21.2%	
Impact policy has on K-12 Education	Decrease 10%	13.4%	
Impact policy has on higher education funding in Wyoming	Decrease 10%	11.2%	
Impact policy has on the community college funding in Wyoming	Decrease 10%	10.2%	
Impact policy has on state roads and highways	Decrease 14.5%	11.0%	
Impact policy has on Medicaid expansion	No Change	21.0%	
Impact policy has on new revenue for the state of Wyoming	Decrease RDF 5.7% + 1% cut in stat	12.0%	
<b>No Change</b>			<b>40.7%</b>
<b>Proposed Changes</b>			<b>-25.7%</b>
<b>Final Budget</b>			<b>15.0%</b>

**Figure 5.** Results for situation representing the combination of policies with the lowest support.