

## WYOMING

### INTRODUCTION

In this report, we have modeled the economic effects of multiple scenarios on Wyoming's future. Using REMI (Regional Economic Modeling, Inc.), we have calculated the effects of five Education funding scenarios, ranging from no changes to Education funding to a \$200 Million cut to Education funding.

In the summary below, we have focused on the projected effects on Employment, Population, Personal Income, and GDP, which can be taken as indicators of the state's general economic health. Further data and analysis for each scenario is available in the attached spreadsheet.

### WHAT IS THE REMI ANALYSIS?

REMI (Regional Economic Modeling, Inc.) is an advanced model generator that simulates the effects of economic policy changes on the economy. In the following report, REMI uses state-specific and national data to deliver a nuanced prediction of the varied, branching, and sometimes unexpected effects of economic policies.

In order to create comprehensive economic models, REMI incorporates data from the Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, and U.S. Department of Energy dating back to 1969, as well as data supplied by clients. By considering a large range of factors, REMI can predict changes in employment, population, income, and other pertinent data sets.

The following report offers insight into the effects of proposed policy changes on the economy at the state level. Since 1980, REMI's econometric models have provided impartial, objective data that can help leaders make informed decisions, push for policy change, and plan for the future.

REMI clients include AARP, DC Office of the Chief Financial Officer, Massachusetts Department of Revenue, City of San Francisco, National Wildlife Research Center, Nevada Department of Taxation, Policy Analytics LLC, Washington State Department of Transportation, and many others, including federal and state agencies, universities, and national consulting firms.

### PROPOSED BUDGET CHANGES

Wyoming has asked us to model the economic effects of the following five Education funding scenarios:

- A baseline budget of no cuts or increases to the Education budget
- \$200 Million cut to Education budget in 2021
- \$100 Million cut to Education budget in 2021
- \$66 Million cut to Education over three years
- \$25 Million cut to Education over three years

## SUMMARY

Our models show that the most positive economic growth scenario is the “No Cuts” scenario, in which there are no cuts to the Education budget. The No Cuts scenario had the best economic outcomes each individual year and for the 2021-2030 forecast.

Compared to the No Cuts budget scenario, the four scenarios in which the Education budget was cut showed more losses or less growth in Total Employment, Population, Personal Income, and GDP for each year modelled and for the 2021-2030 forecast.

When reviewing this report, it is important to keep in mind that the COVID-19 pandemic and ensuing recession has affected all states, including Wyoming. While the No Cuts scenario shows losses in some sectors during some years, these losses are not as significant as the losses in the Budget Cut scenarios.

A few noteworthy comparisons:

- The scenario with the most negative economic impact is the \$200 Million Cut to Education, followed by the \$100 Million Cut, the \$66 Million Cut, and the \$25 Million Cut.
- The No Cuts and the \$25 Million Cut scenarios are the only budgets that showed positive Employment growth in the 2021-2030 forecast. The \$200, \$100, and \$66 Million Cuts showed Employment losses in the 2021-2030 forecast.
- All scenarios showed Population loss, with the \$200 Million Cut showing the highest Population loss outcome and the No Cuts budget showing the lowest Population loss outcome.

## ANALYSIS

The following analysis details the economic outcomes of the proposed policy initiatives as indicated by effects on Total Employment, Population, Personal Income, and GDP.

The No Cuts scenario is the baseline, and the four Budget Cut scenarios show the results *in addition to* this baseline. For example, the No Cuts budget scenario shows 7,960 jobs lost in 2021, while the \$200 Million budget cut model projects that an additional 3,750 jobs would be lost. Therefore, the total job loss in the \$200 Million budget cut scenario is 11,710 jobs lost in 2021.

To review each scenarios’ individual outcomes, refer to the attached “Adjusted” spreadsheet.

### No Cuts to Education Funding

We modelled the effects of not increasing or decreasing the funding level for Education with the following results. This is the baseline for the next four Budget Cut scenarios.

#### Total Employment

- 7,960 jobs lost in 2021
- 3,180 jobs gained in 2022
- 2,100 jobs gained total 2021-2030

#### Population

- 4,300 population lost in 2021
- 3,600 population lost in 2022
- 8,150 population lost 2021-2030

#### Personal Income

- \$886 Million lost in 2021
- \$1.2 Billion gained in 2022
- \$13.9 Billion gained 2021-2030

#### GDP

- \$356 Million gained in 2021
- \$512 Million gained in 2022
- \$6.5 Billion gained 2021-2030

#### \$200 Million Cut to Education in 2021

We modelled the effects of a \$200 Million cut to Education funding starting in 2021 with the following results. These numbers are in addition to the baseline “No Cuts” scenario.

#### Total Employment

- 3,760 jobs lost in 2021
- 325 jobs lost in 2022
- 4,800 jobs lost total 2021-2030

#### Population

- 2,100 population lost in 2021
- 1,660 population lost in 2022
- 10,350 population lost 2021-2030

#### Personal Income

- \$240 Million lost in 2021
- \$50 Million lost in 2022
- \$476 Million lost 2021-2030

#### GDP

- \$272 Million lost in 2021
- \$22 Million lost in 2022
- \$336 Million lost 2021-2030

#### \$100 Million Cut to Education in 2021

We modelled the effects of a \$100 Million cut to Education funding starting in 2021 with the following results. These numbers are in addition to the baseline “No Cuts” scenario.

#### Total Employment

- 1,880 jobs lost in 2021
- 160 jobs lost in 2022
- 2,400 jobs lost 2021-2030

#### Population

- 1,060 population lost in 2021
- 830 population lost in 2022
- 5,160 population lost 2021-2030

#### Personal Income

- \$120 Million lost in 2021
- \$25 Million lost in 2022
- \$235 Million lost 2021-2030

#### GDP

- \$136 Million lost in 2021
- \$11 Million lost in 2022
- \$169 Million lost 2021-2030

### \$66 Million Cut to Education over Three Years

We modelled the effects of reducing Education funding by \$66 Million over three years with the following results. These numbers are in addition to the baseline “No Cuts” scenario.

#### Total Employment

- 620 jobs lost in 2021
- 660 jobs lost in 2022
- 2,300 jobs lost 2021-2030

#### Population

- 350 population lost in 2021
- 600 population lost in 2022
- 4,600 population lost 2021-2030

#### Personal Income

- \$40 Million lost in 2021
- \$48 Million lost in 2022
- \$225 Million lost 2021-2030

#### GDP

- \$45 Million lost in 2021
- \$48 Million lost in 2022
- \$161 Million lost 2021-2030

### \$25 Million Cut to Education over Three Years

We modelled the effects of reducing Education funding by \$25 Million over three years with the following results. These numbers are in addition to the baseline “No Cuts” scenario.

#### Total Employment

- 160 jobs lost in 2021
- 170 jobs lost in 2022
- 580 jobs lost 2021-2030

#### Population

- 90 population lost in 2021
- 150 population lost in 2022
- 1,170 population lost 2021-2030

#### Personal Income

- \$10 Million lost in 2021
- \$12 Million lost in 2022
- \$57 Million lost 2021-2030

#### GDP

- \$11 Million lost in 2021
- \$12 Million lost in 2022
- \$39 Million lost 2021-2030

### **MESSAGING**

As this analysis shows, the best Education Budget scenario for Wyoming is a No Cuts scenario. By protecting our Education Budget from cuts, we will see more growth in Employment, Personal Income, and GDP than if any cuts are enacted, and we will hold on to more of our Population. If Education funding cuts are enacted, Wyoming will gain fewer jobs, lose Personal Income and GDP, and lose more people than if no cuts are enacted.

- The Not Cuts scenario has the most positive effect on Wyoming’s economy.

- The \$200 Million Cut to the Education budget has the most negative effect on Wyoming's economy.
- Of the Education Budget Cut scenarios, the \$25 Million Cut has the least negative effect on Wyoming's economy.
- The No Cuts and the \$25 Million Cut scenarios are the only budgets that showed positive Employment growth in the 2021-2030 forecast.
- The \$200, \$100, and \$66 Million Cuts showed Employment losses in the 2021-2030 forecast.
- All scenarios showed Population loss, with the \$200 Million Cut showing the highest Population loss outcome and the No Cuts budget showing the lowest Population loss outcome.

Let's look at a comprehensive 2021-2030 forecast to illustrate how each budget scenario would affect our state's economy using the "No Cuts" scenario as the baseline.

## **2010-2030 Projections**

### Total Employment

2,100 jobs gained if no Education Cuts

- 4,800 jobs lost if \$200 Million Cut
- 2,400 jobs lost if \$100 Million Cut
- 2,300 jobs lost if \$66 Million Cut
- 580 jobs lost if \$25 Million Cut

### Population

8,150 population lost if no Education Cuts

- 10,350 additional lost if \$200 Million Cut
- 5,160 additional lost if \$100 Million Cut
- 4,600 additional lost if \$66 Million Cut
- 1,170 additional lost if \$25 Million Cut

### Personal Income

\$13.9 Billion gained if no Education Cuts

- \$476 Million lost if \$200 Million Cut
- \$235 Million lost if \$100 Million Cut
- \$225 Million lost if \$66 Million Cut
- \$57 Million lost if \$25 Million Cut

### GDP

\$6.5 Billion gained if no Education Cuts

- \$336 Million lost if \$200 Million Cut
- \$169 Million lost if \$100 Million Cut
- \$161 Million lost if \$66 Million Cut
- \$39 Million lost if \$25 Million Cut

## **Let's consider a few points about Education in Wyoming.**

- Wyoming is facing a budget deficit. But drastically reducing the Education budget will not solve Wyoming's underlying funding issues; it is a temporary solution at the expense of our students' futures and educators' jobs.
  - Wyoming must find solutions that go beyond cutting funding to Education, which will be detrimental to our economy in the long run.
  - Reducing the "basket of goods" for Education in Wyoming in order to justify spending less on Education is not the solution. It will merely degrade the quality of Education in Wyoming.

- Threats to Education funding are a threat to our students' success, manageable course loads for teachers, optimal class sizes, elective programs, scholarship funds, education professionals' jobs, and most importantly, Wyoming's future.
- Wyoming's constitutional obligation to provide equal Education to all students means that extensive cuts to Education will undoubtedly lead to a costly, time-consuming lawsuit.
- Budget cuts that slash vital services such as Education are not the solution to our current fiscal crisis. It will hurt Wyoming residents and our communities, destroy jobs, endanger our children's prospects, and create more problems for the future.

## CONCLUSION

2020 was a difficult year from all standpoints, and Wyoming's economy has been severely impacted. However, as this simulation illustrates, judicious, considered application of Education funding can help Wyoming and our economy recover.

The results shown in this model are impressive, yet predictable when viewed in the context of leading economic research. Research has repeatedly shown that higher rates of government spending result in a more robust economy with higher growth potential. In the face of a recession, fiscal stimulus from the government is more effective than austerity. Turning to austerity measures and cutting budgets while in a recession depresses economic recovery and prolongs economic recessions.<sup>1</sup>

A recent example of the positive effect of government spending is the revival of the economy post-Great Recession thanks to government stimulus. Government spending pulled the United States out of the Great Recession. After the crash of the Great Recession, the economy began rising again in mid-2009 thanks to the enactment of the financial stabilization bill (TARP) and the American Recovery and Reinvestment Act.<sup>2 3 4</sup>

If we consider the varied responses of individual states to the Great Recession, we see further evidence that austerity measures cripple economic recovery. States that cut their budgets during the Great Recession saw higher increases in unemployment and private sector job loss than states that increased their spending.<sup>5</sup> Cutting public spending at the state and local level in response to recession does not help the economy; it hinders its growth.

States that increased their budgets in reaction to the Great Recession fared better than those that cut government spending. By 2011, these states were seeing positive economic growth, while states that cut budgets languished economically.<sup>6</sup> Moreover, states that took steps to keep public-

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<sup>1</sup> Madowitz, Michael. 2014, May 30. "What Have We Learned About Austerity Since the Great Recession?" The Center for American Progress. <https://www.americanprogress.org/issues/economy/reports/2014/05/30/90621/what-have-we-learned-about-austerity-since-the-great-recession/>

<sup>2</sup> Center on Budget and Policy Priorities. 2020, April 12. "Chart Book: Tracking the Post-Great Recession Economy." <https://www.cbpp.org/research/economy/chart-book-tracking-the-post-great-recession-economy>

<sup>3</sup> Bivens, J. 2018, October 26. "Increased government spending boosts growth, rising trade deficit and weak investment muffles it." Economic Policy Institute. <https://www.epi.org/press/increased-government-spending-boosts-growth-rising-trade-deficit-and-weak-investment-muffles-it/>

<sup>4</sup> Faucher, A. 2009, December 4. "How We Know the Stimulus Is Working." Moody's Analytics. <https://www.economy.com/economicview/analysis/119925/How-We-Know-the-Stimulus-Is-Working>

<sup>5</sup> Hawai'i Budget & Policy Center. 2021 Jan. "Healing Hawai'i's Economy." Hawai'i Appleseed Center for Law & Economic Justice.

<sup>6</sup> Hawai'i Budget & Policy Center. 2021 Jan. "Healing Hawai'i's Economy." Hawai'i Appleseed Center for Law & Economic Justice.

sector workers such as teachers and nurses employed maintained their private-sector employment levels saw fewer job losses overall, and less growth in unemployment. Post-recession, they saw faster job growth and recovered more than a year and a half faster than states that cut budgets and funding.<sup>7</sup>

If we narrow our focus to consider government funding of Education, we see that increased government spending on Education has a positive effect on the economy. Research has consistently shown that spending more on Education results in better outcomes for students: higher graduation rates, better test scores, and higher wages after graduation.<sup>8</sup> More completed Education also means less likelihood of adult poverty. According to a study by the National Bureau of Economic Research, Education contributed to economic growth at 8.7% of total growth from 1959 to 1998.<sup>9</sup> Cuts to Education funding are shown to result in a decrease in personal income and a decline of home values.<sup>10</sup> The opposite is true when Education funding is increased: home values and personal income go up.<sup>11</sup>

Increased funding for Education means increased graduation rates, higher wages, and reduced likelihood of poverty, and all of this is good for the health of the overall economy. Better Education produces more educated graduates, meaning they are more adaptable, valuable assets for the workforce who can contribute to the economy in meaningful ways. By investing in Education and improving outcomes, former students can secure higher-paying jobs, which means they will contribute more to state taxes during their lifetimes, and they are less likely to rely on welfare.<sup>12</sup> Money invested in Public Education generally stays within the community, keeping more money in our state.<sup>13</sup>

Research also shows that higher parent Education means that their children enjoy better health, cognitive abilities, and academic achievement.<sup>14 15 16</sup> Children of parents with higher-paying jobs

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<sup>7</sup> Cooper, David. 2020, May 27. "Without federal aid, many state and local governments could make the same budget cuts that hampered the last economic recovery." Economic Policy Institute. <https://www.epi.org/blog/without-federal-aid-many-state-and-local-governments-could-make-the-same-budget-cuts-that-hampered-the-last-economic-recovery/>

<sup>8</sup> Barnum, M. 2019, August 13. "4 new studies bolster the case: More money for schools helps low-income students." Chalkbeat. <https://www.chalkbeat.org/2019/8/13/21055545/4-new-studies-bolster-the-case-more-money-for-schools-helps-low-income-students>

<sup>9</sup> C. Kirabo Jackson & Rucker C. Johnson & Claudia Persico, 2016. "The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms," *The Quarterly Journal of Economics*, vol 131(1), pages 157-218.

<sup>10</sup> Hungerfore, T. and R. Wassmer. 2004. "K-12 Education in the U.S. Economy: Its Impact on Economic Development, Earnings, and Housing Values." National Education Association Research Department.

<sup>11</sup> Sims, R. 2004. "School Funding, Taxes, and Economic Growth: An analysis of the 50 States." National Education Association.

<sup>12</sup> Berger, N., & Fisher, P. 2013, August 22. "A Well-Educated Workforce Is Key to State Prosperity. Economic Policy Institute." <https://www.epi.org/publication/states-education-productivity-growth-foundations/>

<sup>13</sup> Sims, R. 2004. "School Funding, Taxes, and Economic Growth: An analysis of the 50 States." National Education Association.

<sup>14</sup> Wolfe, Barbara, and Samuel Zuvekas. 1995. "Nonmarket Outcomes of Schooling." University of Wisconsin, Institute for Research on Poverty, discussion paper no. 1065-95.

<sup>15</sup> Haveman, Robert, and Barbara Wolfe. 1995. "The Determinants of Children's Attainments: A Review of Methods and Findings." *Journal of Economic Literature*, vol. 33, no. 4, 1829-1878.

<sup>16</sup> Smith, Judith R., Jeanne Brooks-Gunn, and Pamela K. Klebanov. 1997. "Consequences of Living in Poverty for Young Children's Cognitive and Verbal Ability and Early School Achievement." Pages 132-189 in *Consequences of Growing up Poor*, eds. G.J. Duncan and J. Brooks-Dunn. New York: Russell Sage Foundation.

are also less likely to rely on food stamps or welfare.<sup>17 18</sup> This is the sort of beneficial cycle of Education that can change lives for the better and boost the economy at the same time.

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<sup>17</sup> French, Lily, and Peter S. Fisher. 2009. "Education Pays in Iowa: The State's Return on Investment in Workforce Education." The Iowa Policy Project.

<sup>18</sup> Duncan, Greg J., Ariel Kalil, and Kathleen Ziol-Guest. 2008. "Economic Costs of Early Childhood Poverty." Washington, D.C.: Partnership for America's Economic Success.