

# HB 330 Dynamic Fiscal Notes Study

## Legislative Fiscal Division

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Legislation adopted in [HB 330](#) (2021 session) directed the Legislative Finance Committee (LFC) to conduct a study of dynamic fiscal notes in other states and their potential use in Montana.

## **FISCAL NOTES**

Montana statute requires that “bills reported out of a committee of the legislature having an effect on the revenues, expenditures, or fiscal liability of the state or of a county or municipality, except appropriation measures carrying specific dollar amounts, shall include a fiscal note incorporating an estimate of such effect.” 5-4-201, MCA. Further, 5-4-205, MCA requires “show in dollar amounts the estimated increase or decrease in revenue or expenditures, costs that may be absorbed without additional funds, and long-range financial implications.”

## **DYNAMIC FISCAL NOTE DEFINITION**

Fiscal notes, as mentioned above, estimate the direct impact of a bill on revenues and expenditures. Dynamic fiscal notes include potential behavioral impacts generated by the legislation and may include other economic factors like productivity or investment shifting prompted by the legislation. According to the National Conference of State Legislatures, “The core element in a dynamic fiscal note is predicting how a new policy will change the public’s behavior and how that change will affect the economy and the state’s bottom line—both in the short- and long-term.”<sup>1</sup>

“For example, a dynamic model considers that an increase in tobacco taxes affects a smoker’s choice of whether to buy a pack of cigarettes, but also how it affects the income that smokers have available to purchase other products, the revenues of the tobacco industry, the jobs provided through the industry, the purchase of products to support cigarette production, etc. These economy-wide changes associated with one policy change may affect state tax revenues.”<sup>2</sup>

## **STATE BY STATE SURVEY SUMMARY**

The use of dynamic fiscal notes in state legislatures was surveyed. While no states provide dynamic fiscal notes as part of their daily work for legislatures, a few states publish occasional, limited dynamic analysis.

The table on the following page shows the state survey results and the types of dynamic analysis provided.

<sup>1</sup> [Count the Cost: Understanding the Potential Costs and Consequences of a Bill is a Crucial Step in the Legislative Process and a Help to Avoid any Unintended Effects](#), by Todd Haggerty and Erica Michel, *State Legislatures Magazine*, July-August 2014.

<sup>2</sup> [The Center for State and Local Finance, Dynamic Revenue Analysis: Experience of the States](#), Bluestone, Peter and Bourdeaux, Carolyn, Georgia State University, Andrew Young School Fiscal Research Center, April 2019, page 1.

State Survey Results - Dynamic Fiscal Notes  
Survey conducted Fall 2021 - Winter 2022

	# of States	Examples of States	Comments
Full Dynamic Fiscal Notes using Modeling Assumptions	2	Texas & Utah	Upon request
Dynamic Effect Statements	2	Louisiana & Oregon	Louisiana, upon request Oregon, limited reporting
Dynamic Modeling, limited reporting	21	Examples: California & Oregon	California led the way in dynamic modeling, but has discontinued the practice Oregon, limited reporting
Proposed Legislation	1	Colorado	January 2020 Colorado study, no funding for dynamic modeling pilot

Upon legislative request, Utah and Texas generate full dynamic fiscal notes using the aid of regional economic modeling software. Examples from both states are provided in the appendix section of this report.

Louisiana provides scaled back versions of potential dynamic effects on legislation with dynamic effect statements. Oregon occasionally includes behavioral effects in revenue impact statements.

In 2004, 21 states reported using dynamic modeling to analyze legislation. However, by 2019 many states either discontinued the service or limited reporting on the results. This report provides a few examples of the states that used dynamic models for proposed legislation.

Colorado passed legislation to consider the feasibility of doing dynamic fiscal notes using economic modeling software, if funding became available.

## Full Dynamic Fiscal Notes

### Texas

Per Texas statute, dynamic fiscal impact statements on taxes or fees must be prepared if the proposed legislation has a +/- \$75.0 million annual impact on revenues. Dynamic scoring principles must be used, which statute defines as “a method of estimating the pace of economic growth or the change in the aggregate level of economic output and incomes, in response to a change in the rate or amount of a tax or fee. . .”<sup>3</sup>

The Texas Legislative Budget Board estimates economic and budgetary effects of proposed revenue and appropriation legislation using a Texas specific model developed by Regional Economics Models Inc. ([REMI](#)), which is updated annually for economic, revenue, and budget conditions in Texas. The Board uses a baseline forecast, like present law adjusted for inflation, then staff use REMI to apply assumptions. The analysis includes a five-year period, like a standard fiscal note. Texas staff only make assumptions that are specific to the policy initiative discussed and clearly identify assumptions for lawmakers.<sup>4</sup>

<sup>3</sup> Texas Government Code, Title 3, Subtitle B, Chapter 314, [Section 314.005](#).

<sup>4</sup> [Texas Legislative Budget Board, Dynamic Impact Analysis: Methodology and Output](#), March 28, 2016, slides 2-4.

An economist with the Texas Legislative Budget Board indicated that although statute requires the analysis, in practice they only do them if requested to do so by legislative leadership because the work is time consuming. Requests from leadership have been few during the last two regular sessions. However, if they did do an analysis for each proposed legislation that falls within the range of +/- \$75.0 million, then they would do over 100 every session and would need additional staffing, likely 2.00 - 3.00 FTE devoted to the task.<sup>5</sup>

Staff at the Texas Legislative Budget Board said the REMI model took work to initially setup and requires calibration every year, but they are satisfied with the results and ease of use. The initial cost for the REMI package was \$150,000 and it costs about \$35,000 each year to update.<sup>6</sup>

## ***Utah***

The Utah Office of the Legislative Fiscal Analyst produces standard fiscal notes that estimate three years of impact and assume no behavior change. Dynamic fiscal notes are done by legislator request only and are limited to tax and revenue legislation. Assumptions evaluated depend on the bill, but the office typically uses REMI to capture dynamic economic impacts.

Utah legislative staff then use the model outputs to prepare dynamic fiscal notes to project out three years and provide up to four hypothetical scenarios for what might happen in the economy if individuals and businesses change their behavior as the result of a bill. Dynamic analysis is not included in the financial tracking of future general fund revenue and expenditures. An example of a dynamic fiscal note from Utah is included in the appendix.

## **Dynamic Effect Statements**

### ***Louisiana***

The Louisiana Legislative Fiscal Office (LFO) does not produce fiscal notes with full dynamic analysis. However, Louisiana state legislators suggested that the LFO consider some dynamic effects of proposed legislation. When feasible and warranted, the LFO incorporates statements concerning dynamic effects, but the Louisiana Legislative Fiscal Officer indicates that they have neither the time, resources, nor legislative direction necessary to produce true dynamic analysis on fiscal notes.<sup>7</sup> An example of Louisiana's dynamic effects is in the appendix of this document.

### ***Oregon***

Oregon legislative staff provide standard revenue impact statements, which do not generally include dynamic effects. However, "occasionally statements include some behavioral responses to tax changes."<sup>8</sup> For example, "at times revenue impact statements include dynamic effects for excise/sales tax legislation like tobacco, beer, wine, [and] marijuana if they have direct information or external studies that provide insight regarding relevant elasticities."<sup>9</sup> The Legislative Revenue Officer indicated that it has been several sessions since his staff have issued any dynamic effects on revenue impact statements.

<sup>5</sup> E-mail exchange between LFD staff and Kevin Kavanaugh, Economist, Texas Legislative Board, January 14, 2022.

<sup>6</sup> Ibid.

<sup>7</sup> E-mail exchange between LFD staff and Christopher Keaton, Louisiana Legislative Fiscal Officer, and other state fiscal officers, December 9, 2020.

<sup>8</sup> E-mail exchange with LFD staff and Christopher Allanach, Legislative Revenue Officer, Oregon Legislature, October 28, 2021 and November 9, 2021.

<sup>9</sup> Ibid.

## Dynamic Scoring of Proposed Legislation, Limited Reporting

### ***Twenty-one States Reviewed***

The Center for State and Local Finance published a report in April 2019 entitled, *Dynamic Revenue Analysis: Experience of the States* which found that since 2004, 21 states have experimented with dynamic scoring of proposed tax legislation using economic models. The report indicates that not all states have continued with dynamic modeling and in some states the results are not made public, just shared with elected officials who request the analysis. The report's conclusions noted that lawmakers were disappointed by model results stating, "the dynamic effects produced by these models are either not as large as expected or may even be negative once the expenditure side effects have been taken into account".<sup>10</sup> Two states, New Mexico and California, found that the effects were not significantly different from static estimates.<sup>11</sup>

### State Specific Examples of Dynamic Modeling for Reporting

#### *California*

The California Legislature passed legislation in 1994 that required the Legislative Analyst's Office (LAO), in conjunction with the California Department of Finance, develop dynamic revenue analyses for tax bills with significant effects, include probable behavioral responses for taxpayers and businesses, define significant fiscal effects and require dynamic analysis on proposed legislation with an impact of more than \$10.0 million annually. The law sunset on January 1, 2000 and was not renewed.<sup>12</sup>

Although California legislators did not renew statute for dynamic revenue analysis of proposed tax bills, during the time that statute dictated dynamic analysis, the California Department of Finance hired economists with the University of Berkley to develop a state specific computable general equilibrium model.<sup>13</sup> The model was referred to as the Dynamic Revenue Analysis Model or DRAM. Other states, like Oregon and Nebraska, seeing what California built, modeled their own regional economic models based on California's work.<sup>14</sup>

Analysis written in 2015 by Brad Williams, the former Director of Budget Overview and Fiscal Forecasting for the California Legislative Analyst's Office, speculated on the reason for the California legislature's loss of interest in dynamic analysis. Mr. Williams cited two reasons: 1) the moderate size of the dynamic effects estimated by the model; and 2) the limitations the model had, such as the "elasticities chosen for household migration, investment flows, and other factors for which there was often little consensus in the economics literature".<sup>15</sup>

<sup>10</sup> [The Center for State and Local Finance, Dynamic Revenue Analysis: Experience of the States, Bluestone, Peter and Bourdeaux, Carolyn, Georgia State University, Andrew Young School Fiscal Research Center, April 2019, page 15.](#)

<sup>11</sup> Ibid, page 15.

<sup>12</sup> [Whatever happened to Dynamic Revenue Analysis in California?](#) Jon David Vasche, Director of Economics and Taxation, California Legislative Fiscal Analyst's Office, Portland, OR, September 17-20, 2006.

<sup>13</sup> [Dynamic Scoring Forum: California's Dynamic Revenue Estimating Experience, Brad Williams, Tax Policy Center, Urban Institute and Brookings Institution, March 2, 2015.](#)

<sup>14</sup> [The Center for State and Local Finance, Dynamic Revenue Analysis: Experience of the States, Bluestone, Peter and Bourdeaux, Carolyn, Georgia State University, Andrew Young School Fiscal Research Center, April 2019, page 14.](#)

<sup>15</sup> [Dynamic Scoring Forum: California's Dynamic Revenue Estimating Experience, Brad Williams, Tax Policy Center, Urban Institute and Brookings Institution, March 2, 2015.](#)

Currently, the California Legislative Analyst's Office no longer uses DRAM. Occasional incorporation of dynamic effects in other fiscal estimates occurs but depends on the availability of credible empirical evidence that dynamic effects would occur.<sup>16</sup>

### *Oregon*

About 20 years ago, Oregon legislative staff studied California's efforts to build DRAM and developed an Oregon Tax Incidence Model to run economic estimate outputs. According to Oregon's Legislative Revenue Officer, time and resource constraints are significant and the model is now in limited use. Occasionally, the economist that originally developed the model is hired on a contract basis when more elaborate work is needed. [Examples](#) from Oregon's 2019 analysis of corporate activity tax include dynamic revenue impacts provided to legislative committees for discussion/review. The corporate activity tax output was presented for consideration, but the estimates were not included in published revenue impact statements.<sup>17</sup>

## **Proposed Legislation**

### ***Colorado - Study***

Colorado legislation was passed to develop a pilot program for the purpose of developing or procuring a dynamic model to analyze the economic impacts of bills introduced by the Colorado General Assembly. ([Section 2-3, 304.5, Colorado Revised Statute](#))

The Colorado Legislative Council indicated the pilot was conditional on receipt of funding, which did not materialize. The Council conducted a study in January 2020 that considered a review of dynamic modeling in other states.<sup>18</sup> The review found that most states do not use dynamic modeling for fiscal note purposes due to the time demands and costs required to produce dynamic estimates and some states discontinued the use of dynamic modeling altogether.<sup>19</sup>

## **CONCLUSIONS**

Whether states conduct dynamic economic analysis and prepare dynamic fiscal note estimates with or without the aid of modeling software, depends on staff resources and available funding. This study found that on a regular basis, few states provide dynamic fiscal notes or dynamic fiscal impact statements. Utah and Texas provide dynamic fiscal notes with the aid of regional economic modeling, but the dynamic analysis is limited and performed by request only. Some states include estimated behavioral responses to proposed legislation without the aid of modeling software. Nearly every state studied, indicated limited staff and time restraints prevent wide scale publication of dynamic analysis.

The Center for State and Local Finance study found that "states using dynamic models have generally found that policy changes result in smaller dynamic fiscal impacts than expected".<sup>20</sup> The Colorado study results identified considerations for and limitations to dynamic modeling for fiscal note purposes. The main considerations found by the study included the following: 1) shortened time demands during a legislative session both in terms of staff availability and speed at which legislation is passed while dynamic fiscal impacts may take years to materialize; 2) cost

<sup>16</sup> Email exchange between LFD staff and Carolyn Chu, Chief Deputy Legislative Analyst, California Office of Legislative Analyst, January 26, 2022.

<sup>17</sup> E-mail exchange with Christopher Allanach, Legislative Revenue Officer, Oregon Legislature, October 28, 2021.

<sup>18</sup> [Colorado Legislative Council Staff Memorandum, January 15, 2020.](#)

<sup>19</sup> *Ibid.*, page 3.

<sup>20</sup> [Colorado Legislative Council Staff memorandum, January 15, 2020, page 3.](#)

and complexity of dynamic modeling systems; 3) staff lack confidence in presenting unbiased output; 4) inability to measure accuracy; and 5) other factors.<sup>21</sup>

Finally, the Center for State and Local Finance report noted that “where dynamic modeling falls short, and what is apparently often disappointing to policy makers, is that dynamic revenue analysis has not proved to be a particularly appropriate tool for budgetary decision making. . .”<sup>22</sup>

## **NEXT STEPS**

The Legislative Finance Committee may wish to discuss the outcomes of this study and provide direction to the staff for next steps. Options the committee members may wish to consider are the following:

1. The LFC is satisfied with the results of the dynamic fiscal notes study and does not wish to pursue further action at this time; or
2. The LFC requests the Legislative Fiscal Division (LFD) staff pilot dynamic fiscal analysis during the 2023 Legislative Session without the benefit of regional economic modeling software, but limit dynamic analysis and dynamic fiscal note publication to the discretion of the LFC management advisory work group and the Legislative Fiscal Analyst (LFA); or
3. The LFC requests the LFD staff pilot dynamic fiscal analysis during the 2023 Legislative Session without the benefit of regional economic modeling software, but limits staff time to dynamic fiscal note analysis of tax or revenue legislation with a +/- \$75.0 million a year general fund revenue impact; or
4. The LFC requests the LFD estimate costs and staff analysis time to purchase an economic modeling platform and develop dynamic fiscal notes. At the June 2022 LFC meeting, the LFD staff will update the committee on proposed costs;
5. The LFC requests that the LFD provide feedback at the September 2022 LFC meeting regarding the potential use of the MARA 2040 model (currently under development), instead of a regional economic modeling software, as a tool to develop limited economic impact statements within the confines of time and staff constraints, and the capabilities of the 2040 model; or
6. Other.

<sup>21</sup> Ibid.

<sup>22</sup> [The Center for State and Local Finance, Dynamic Revenue Analysis: Experience of the States, Bluestone, Peter and Bourdeaux, Carolyn, Georgia State University, Andrew Young School Fiscal Research Center, April 2019, page 27.](#)

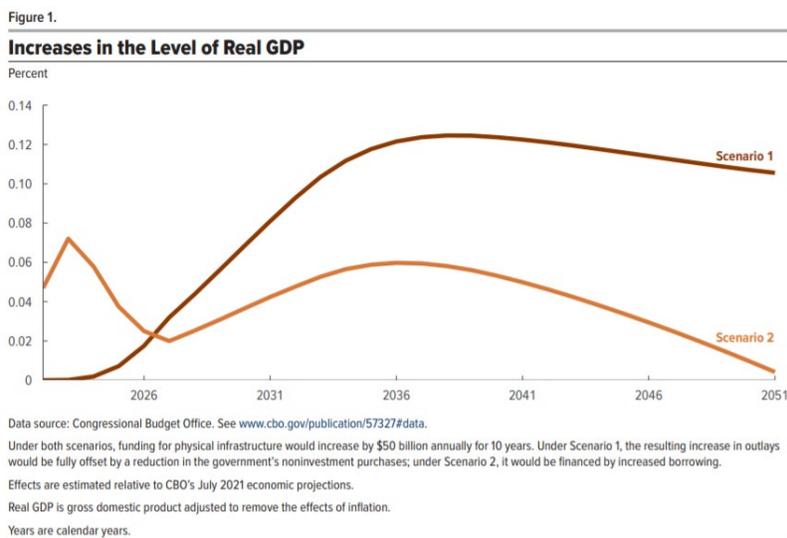
# APPENDIX

## CONGRESSIONAL BUDGET OFFICE PUBLISHES DYNAMIC NOTES

While the focus of this report has been on an analysis of the use of dynamic fiscal notes in other states, in 2016 the U.S. Congress passed a budget resolution directing the Congressional Budget Office (CBO) to incorporate budgetary effects of changes in macroeconomic variables resulting from legislation. Parameters limited the reporting of dynamic effects to legislation that had a gross budgetary effect of 25.0% of Gross Domestic Product (GDP) in any year over the next 10 years or was at the request of one of the chairs of the budget committees.<sup>23</sup>

According to the American Enterprise Institute, the CBO uses two models to estimate effects, the Solow-type growth model, described as “how labor and capital together, along with the advance of technology, contribute to changes in the standard of living, and changes in overall economic output”<sup>24</sup> and the [Life-cycle growth model](#). Differences between the two models occur, which adds to interpretation difficulty, but the CBO reports on ranges showing both the most favorable and least favorable budgetary outcomes.<sup>25</sup>

In August 2021, the CBO published a dynamic analysis on the effects of physical infrastructure spending on the economy and the budget under two scenarios.<sup>26</sup> [Scenario 1](#), showed the macroeconomic effects if increased spending for infrastructure would be fully offset by reducing the government’s noninvestment purchases. In [Scenario 2](#), infrastructure was financed by increasing federal borrowing. The report explained the effects depend on the policies involved, like “responses by state and local governments, speed of spending, timing of productivity effects, size of productivity effects, and financing.”<sup>27</sup> The example below illustrates the difference between scenario 1 and 2 on the gross domestic product.



<sup>23</sup> Congressional Budget Office, [Dynamic Scoring at CBO](#), The American Enterprise Institute, Wendy Edelberg, Associate Director for Economic Analysis at the CBO, October 21, 2015, slide 6.

<sup>24</sup> [Technology Review, The Productive Career of Robert Solow, December 27, 2019](#), Massachusetts Institute of Technology economist, James Poterba.

<sup>25</sup> Ibid, slide 21.

<sup>26</sup> [Effects of Physical Infrastructure Spending on the Economy and the Budget Under Two Illustrative Scenarios](#), Congressional Budget Office, August 6, 2021.

<sup>27</sup> Ibid., page 8.

# DYNAMIC FISCAL NOTE EXAMPLES FROM UTAH, TEXAS, & LOUISIANA

## Texas Example

### LEGISLATIVE BUDGET BOARD

#### Austin, Texas

### 84TH LEGISLATIVE REGULAR SESSION

#### April 13<sup>th</sup>, 2015

### TAX REDUCTION COMPARISON

As requested, the Legislative Budget Board has prepared the requested analysis of the effects of four alternate tax reduction proposals. This dynamic economic analysis estimates the effects of the tax reductions on employment, personal income, GSP, and various other economic variables in Texas using the REMI Tax-PI Model, a dynamic forecasting and policy analysis tool that applies a combination of econometric, input-output, general equilibrium, and economic geography methodologies to forecast the resulting changes in the Texas economy from the tax reductions. Each of the scenarios analyzed in the model are described below, followed by a results section where the scenarios are compared to each other.

#### Baseline Scenario

The baseline scenario assumes no changes in current law governing tax and revenue collections. Total net revenue collections in fiscal year 2015 through 2017 are assumed to equal amounts forecasted in the Comptroller of Public Accounts (CPA) January 2015 *Biennial Revenue Estimate* (BRE). In subsequent years revenue collections are forecasted within the REMI model by linking individual tax and non-tax revenue streams to associated economic variables in the model.

Texas state government spending is assumed to equal appropriation levels set in the Committee Substitute to House Bill 1 (CSHB 1) and House Bill 2 (CSHB 2) through the end of fiscal year 2017. Similar to revenue, in future years, government spending is predicted within the REMI model by linking demand for various government services to correlated economic variables. No spending from the Economic Stabilization Fund is assumed; however it is assumed that General Revenue Dedicated balances would be used to certify the budget in the out years. This amount is limited to \$3 billion, which is consistent with the level that has been discussed as the maximum to be used for the 2016-17 biennium.

General Revenue (GR) appropriations of \$104.6 billion in 2016-17 are \$0.8 billion less than 2016-17 recurring revenue of \$105.4 billion (2016-17 BRE revenue less amounts set-aside for transfer to the ESF and Highway Fund). In addition, the BRE estimated a \$3.1 billion GR ending balance from the 2014-15 biennium (as noted above, the General Revenue Dedicated Account balances that are not appropriated in CSHB1 are excluded from this analysis since it is assumed they remain un-appropriated). Subtracting the \$0.3 billion appropriated in CSHB 2 and combining with 2016-17 unspent revenue yields a predicted balance of \$3.6 billion in 2016-17. After fiscal year 2017 the model assumes that the budget will be balanced in every year. Beginning with fiscal year 2018, in years that predicted expenditures exceed predicted revenue plus any remaining balances, it is assumed that expenditures will be cut

proportionally across all spending categories. Conversely, expenditures will be increased proportionally across all spending categories in years that forecasted revenue and any remaining balances exceed forecasted expenditures. The dynamic economic effects described below will differ should expenditures that are changed to match available revenue not be changed proportionally. The distribution of expenditure reductions will be the decision of future Legislatures, and are thus unknown. However, because of the assumption of the continued reliance on GR-D account balances described above, it is not necessary to make any assumption on the allocation of expenditure reductions because the GR-D balances were enough to offset the revenue losses in each year, so no expenditure reductions were necessary.

### **Sales Tax Reduction Scenario**

In this scenario the state sales tax rate is reduced from a current law value of 6.25% to 5.95% beginning on January 1, 2016. The rate change results in an estimated partial year revenue loss of \$840 million in fiscal year 2016, a full year loss of \$1,470 million in fiscal year 2017, and similarly growing amounts in future fiscal years.

### **Franchise Tax Reduction Scenario**

In this scenario the franchise tax rate is reduced from current law values of 0.5% (for businesses engaged in wholesale or retail trade) and 1% (for all other businesses) to 0.375% and 0.75%, respectively, beginning with reports due in fiscal year 2016. In addition, the total revenue threshold that taxable entities are eligible to elect the EZ calculation as a method of determining tax liability is raised from \$10 million to \$20 million and the EZ tax rate is lowered from 0.575% to 0.331%. These changes result in an estimated revenue loss of \$1,268 million in fiscal year 2016, \$1,291 million in fiscal year 2017, and similarly growing amounts in future fiscal years.

### **School District Homestead Exemption Increase Scenario 1**

In this scenario the state mandated school district homestead exemption is increased from a current law value of \$15,000 to a level such that the revenue loss resulting from the increased exemption would exactly equal the revenue loss under the Sales Tax reduction scenario. It assumed that state expenditures for the Foundation School Program would increase by an amount necessary to hold the school districts harmless from the revenue loss incurred from the increased exemption.

### **School District Homestead Exemption Increase Scenario 2**

In this scenario the state mandated school district homestead exemption is increased from a current law value of \$15,000 to a level such that the revenue loss resulting from the increased exemption would exactly equal the revenue loss under the Franchise Tax reduction scenario. It assumed that state expenditures for the Foundation School Program would increase by an amount necessary to hold the school districts harmless from the revenue loss incurred from the increased exemption.

### **Results and Discussion**

Table 1 (Sales) and 3 (Franchise) show the estimated changes of several economic variables from the two tax reduction plans relative to the baseline scenario. Table 2 and 4 displays the difference in

changes of the same variables compared under the Sales Tax and Franchise Tax, relative to the corresponding Homestead Exemption scenario. In each fiscal year of the forecast period, the total tax reduction in either scenario equals 0.1 to 0.2 percent of Texas State GSP; thus the resulting estimated changes in economic statistics are relatively small.

As shown in the bottom of Table 1 and 3 the dynamic estimate of tax revenue loss is less than the static estimate in fiscal year 2017 by approximately 12.1 percent in the Sales Tax scenario and 8.2 percent in the Franchise Tax scenario. The reduction of the revenue loss estimate attributed to the dynamic economic effects is greatest for the consumer portion of the sales tax and smallest for the franchise tax and business portion of sales tax. The reduction in consumer prices from the sales tax reduction as a percentage of consumer spending on taxable goods and services is larger than the percent reduction in business production costs from the sales tax and franchise tax reduction as a percentage of business production spending; therefore the induced spending from lower prices is larger for consumers than businesses.

As shown in Table 2 and 4 estimated employment levels are higher, relative to the corresponding Homestead Exemption increase, in both the Sales Tax and Franchise Tax scenario by an average of 0.11 percent and 0.08 percent, respectively, over the five year forecast period. In addition, Texas Gross State Product and Personal Income under the Sales Tax and Franchise Tax scenarios are estimated to exceed estimates in the Homestead Exemption increase scenarios (by 0.13 and 0.12 percent respectively for GSP and 0.08 and 0.06 percent respectively for PI). Much of this difference can be attributed to higher levels of consumer and business spending in the first two scenarios (increases in personal consumption expenditures are more than double those in the Homestead Exemption scenario). In the Homestead Exemption scenario, relatively more of the consumer tax reduction is allocated towards both savings and spending on debt repayment (primarily mortgage debt), which have less of an economic stimulus effect than other consumer spending.

**Table 1 - \$2.31 billion Biennial Sales Tax Reduction  
Compared to Baseline Scenario - Differences**

<b>ECONOMIC RESULTS</b>						
Category	Units	2016	2017	2018	2019	2020
Total Employment	Thousands (Jobs)	15.03	28.07	32.94	36.70	39.53
	<i>% change</i>	<i>0.09%</i>	<i>0.17%</i>	<i>0.19%</i>	<i>0.21%</i>	<i>0.22%</i>
Private Non-Farm Employment	Thousands (Jobs)	13.99	26.07	30.53	33.98	36.58
	<i>% change</i>	<i>0.10%</i>	<i>0.18%</i>	<i>0.20%</i>	<i>0.22%</i>	<i>0.24%</i>
Total Government Employment	Thousands (Jobs)	1.04	2.01	2.42	2.72	2.95
	<i>% change</i>	<i>0.05%</i>	<i>0.10%</i>	<i>0.12%</i>	<i>0.13%</i>	<i>0.14%</i>
Gross Domestic Product	Billions of Fixed (2009) \$	1.05	2.03	2.46	2.78	3.02
	<i>% change</i>	<i>0.07%</i>	<i>0.12%</i>	<i>0.14%</i>	<i>0.15%</i>	<i>0.16%</i>
Personal Income	Billions of Current \$	0.75	1.56	2.02	2.40	2.73
	<i>% change</i>	<i>0.06%</i>	<i>0.11%</i>	<i>0.13%</i>	<i>0.15%</i>	<i>0.16%</i>
Disposable Personal Income	Billions of Current \$	0.65	1.34	1.74	2.07	2.36
	<i>% change</i>	<i>0.05%</i>	<i>0.10%</i>	<i>0.13%</i>	<i>0.14%</i>	<i>0.15%</i>
PCE-Price Index	2009=100 (Nation)	(0.07)	(0.11)	(0.10)	(0.10)	(0.10)
	<i>% change</i>	<i>-0.07%</i>	<i>-0.10%</i>	<i>-0.10%</i>	<i>-0.09%</i>	<i>-0.09%</i>
Personal Consumption Expenditures	Billions of Fixed (2009) \$	1.09	1.97	2.18	2.36	2.52
	<i>% change</i>	<i>0.12%</i>	<i>0.20%</i>	<i>0.22%</i>	<i>0.23%</i>	<i>0.24%</i>
Population	Thousands	5.9	15.2	24.2	32.8	41.0
	<i>% change</i>	<i>0.02%</i>	<i>0.05%</i>	<i>0.09%</i>	<i>0.11%</i>	<i>0.14%</i>
<b>BUDGET RESULTS</b>						
Static Sales Tax Reduction	Thousands of Current \$	(840,000)	(1,470,000)	(1,536,150)	(1,605,277)	(1,677,514)
Dynamic Sales Tax Reduction	Thousands of Current \$	(794,064)	(1,383,580)	(1,436,516)	(1,494,714)	(1,557,669)
Dynamic All Other Revenue Gain	Thousands of Current \$	44,044	92,413	122,466	150,136	175,970
<b>Net Revenue Change: Dynamic vs. Static</b>	Thousands of Current \$	89,980	178,833	222,100	260,699	295,815

<b>Table 2 - \$2.31 Billion Biennial Sales Tax Reduction</b>						
<b>Compared to \$2.31 Billion Biennial Homestead Exemption Increase - Differences</b>						
<b>ECONOMIC RESULTS</b>						
Category	Units	2016	2017	2018	2019	2020
Total Employment	Thousands (Jobs)	9.83	18.65	21.34	22.63	23.10
	<i>% change</i>	<i>0.06%</i>	<i>0.11%</i>	<i>0.12%</i>	<i>0.13%</i>	<i>0.13%</i>
Private Non-Farm Employment	Thousands (Jobs)	8.74	16.60	19.01	20.12	20.48
	<i>% change</i>	<i>0.06%</i>	<i>0.11%</i>	<i>0.13%</i>	<i>0.13%</i>	<i>0.13%</i>
Total Government Employment	Thousands (Jobs)	1.10	2.05	2.34	2.51	2.62
	<i>% change</i>	<i>0.05%</i>	<i>0.10%</i>	<i>0.11%</i>	<i>0.12%</i>	<i>0.13%</i>
Gross Domestic Product	Billions of Fixed (2009) \$	1.18	2.22	2.52	2.71	2.84
	<i>% change</i>	<i>0.07%</i>	<i>0.13%</i>	<i>0.15%</i>	<i>0.15%</i>	<i>0.15%</i>
Personal Income	Billions of Current \$	0.49	1.05	1.35	1.57	1.72
	<i>% change</i>	<i>0.04%</i>	<i>0.07%</i>	<i>0.09%</i>	<i>0.10%</i>	<i>0.10%</i>
Disposable Personal Income	Billions of Current \$	0.42	0.91	1.17	1.36	1.50
	<i>% change</i>	<i>0.03%</i>	<i>0.07%</i>	<i>0.09%</i>	<i>0.09%</i>	<i>0.10%</i>
PCE-Price Index	2009=100 (Nation)	(0.07)	(0.11)	(0.11)	(0.11)	(0.11)
	<i>% change</i>	<i>-0.07%</i>	<i>-0.11%</i>	<i>-0.10%</i>	<i>-0.10%</i>	<i>-0.10%</i>
Personal Consumption Expenditures	Billions of Fixed (2009) \$	1.15	2.06	2.23	2.35	2.45
	<i>% change</i>	<i>0.12%</i>	<i>0.21%</i>	<i>0.23%</i>	<i>0.23%</i>	<i>0.23%</i>
Population	Thousands	4.91	12.76	20.07	26.73	32.84
	<i>% change</i>	<i>0.02%</i>	<i>0.05%</i>	<i>0.07%</i>	<i>0.09%</i>	<i>0.11%</i>

**Table 3 - \$2.56 Billion Biennial Franchise Tax Reduction  
Compared to Baseline Scenario - Differences**

<b>ECONOMIC RESULTS</b>						
Category	Units	2016	2017	2018	2019	2020
Total Employment	Thousands (Jobs)	15.42	21.63	25.99	29.80	32.79
	<i>% change</i>	<i>0.09%</i>	<i>0.13%</i>	<i>0.15%</i>	<i>0.17%</i>	<i>0.18%</i>
Private Non-Farm Employment	Thousands (Jobs)	14.28	19.99	24.01	27.53	30.29
	<i>% change</i>	<i>0.10%</i>	<i>0.14%</i>	<i>0.16%</i>	<i>0.18%</i>	<i>0.20%</i>
Total Government Employment	Thousands (Jobs)	1.14	1.63	1.99	2.27	2.50
	<i>% change</i>	<i>0.06%</i>	<i>0.08%</i>	<i>0.10%</i>	<i>0.11%</i>	<i>0.12%</i>
Gross Domestic Product	Billions of Fixed (2009) \$	1.23	1.76	2.16	2.49	2.75
	<i>% change</i>	<i>0.08%</i>	<i>0.10%</i>	<i>0.12%</i>	<i>0.14%</i>	<i>0.15%</i>
Personal Income	Billions of Current \$	0.83	1.28	1.66	2.01	2.32
	<i>% change</i>	<i>0.06%</i>	<i>0.09%</i>	<i>0.11%</i>	<i>0.12%</i>	<i>0.13%</i>
Disposable Personal Income	Billions of Current \$	0.72	1.11	1.44	1.74	2.00
	<i>% change</i>	<i>0.06%</i>	<i>0.09%</i>	<i>0.10%</i>	<i>0.12%</i>	<i>0.13%</i>
PCE-Price Index	2009=100 (Nation)	(0.06)	(0.06)	(0.05)	(0.05)	(0.04)
	<i>% change</i>	<i>-0.06%</i>	<i>-0.05%</i>	<i>-0.05%</i>	<i>-0.04%</i>	<i>-0.04%</i>
Personal Consumption Expenditures	Billions of Fixed (2009) \$	1.12	1.34	1.50	1.65	1.78
	<i>% change</i>	<i>0.12%</i>	<i>0.14%</i>	<i>0.15%</i>	<i>0.16%</i>	<i>0.17%</i>
Population	Thousands	5.4	10.9	16.4	21.9	27.3
	<i>% change</i>	<i>0.02%</i>	<i>0.04%</i>	<i>0.06%</i>	<i>0.08%</i>	<i>0.09%</i>
<b>BUDGET RESULTS</b>						
Static Franchise Tax Reduction	Thousands of Current \$	(1,268,483)	(1,291,384)	(1,285,736)	(1,312,405)	(1,332,960)
Dynamic Franchise Tax Reduction	Thousands of Current \$	(1,256,842)	(1,277,241)	(1,269,807)	(1,294,690)	(1,313,735)
Dynamic All Other Revenue Gain	Thousands of Current \$	57,586	91,739	121,398	149,771	176,146
<b>Net Revenue Change: Dynamic vs. Static</b>	Thousands of Current \$	69,228	105,882	137,326	167,486	195,371

**Table 4 - \$2.56 Billion Biennial Franchise Tax Reduction  
Compared \$2.56 Billion Biennial Homestead Exemption Increase**

<b>ECONOMIC RESULTS</b>						
Category	Units	2016	2017	2018	2019	2020
Total Employment	Thousands (Jobs)	8.64	12.74	15.21	16.69	17.45
	<i>% change</i>	<i>0.05%</i>	<i>0.07%</i>	<i>0.09%</i>	<i>0.09%</i>	<i>0.10%</i>
Private Non-Farm Employment	Thousands (Jobs)	7.37	11.10	13.35	14.67	15.33
	<i>% change</i>	<i>0.05%</i>	<i>0.08%</i>	<i>0.09%</i>	<i>0.10%</i>	<i>0.10%</i>
Total Government Employment	Thousands (Jobs)	1.27	1.64	1.86	2.02	2.12
	<i>% change</i>	<i>0.06%</i>	<i>0.08%</i>	<i>0.09%</i>	<i>0.10%</i>	<i>0.10%</i>
Gross Domestic Product	Billions of Fixed (2009) \$	1.48	1.89	2.15	2.35	2.48
	<i>% change</i>	<i>0.09%</i>	<i>0.11%</i>	<i>0.12%</i>	<i>0.13%</i>	<i>0.13%</i>
Personal Income	Billions of Current \$	0.47	0.80	1.05	1.25	1.41
	<i>% change</i>	<i>0.03%</i>	<i>0.05%</i>	<i>0.07%</i>	<i>0.08%</i>	<i>0.08%</i>
Disposable Personal Income	Billions of Current \$	0.41	0.69	0.91	1.08	1.22
	<i>% change</i>	<i>0.03%</i>	<i>0.05%</i>	<i>0.07%</i>	<i>0.07%</i>	<i>0.08%</i>
PCE-Price Index	2009=100 (Nation)	(0.06)	(0.06)	(0.05)	(0.05)	(0.05)
	<i>% change</i>	<i>-0.06%</i>	<i>-0.06%</i>	<i>-0.05%</i>	<i>-0.05%</i>	<i>-0.04%</i>
Personal Consumption Expenditures	Billions of Fixed (2009) \$	1.24	1.41	1.51	1.60	1.66
	<i>% change</i>	<i>0.13%</i>	<i>0.15%</i>	<i>0.15%</i>	<i>0.16%</i>	<i>0.16%</i>
Population	Thousands	4.11	8.30	12.28	16.03	19.49
	<i>% change</i>	<i>0.01%</i>	<i>0.03%</i>	<i>0.04%</i>	<i>0.06%</i>	<i>0.07%</i>

# Utah Example



## DYNAMIC FISCAL ANALYSIS SCHOLARSHIPS FOR SPECIAL NEEDS STUDENTS



Scholarship granting organizations may collectively issue up to \$12.0 million in tax credit certificates to donors.  
The cap for the next year increases by 10% if collective donations in the current year equal or exceed 90% of the current cap.

STATIC IMPACT: ELIGIBLE STUDENTS	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	...	FY 2029
Public System	86,924	87,283	87,768	88,119	88,368		89,827
Private System	419	421	423	425	426		433
Weighted Pupil Unit Value	\$3,480	\$3,567	\$3,656	\$3,747	\$3,841		\$4,346

**SCENARIO 1: PROPOSED SCHOLARSHIP PROGRAM WITH DONATIONS UNSPENT & WITH FORGONE STATE REVENUE**  
Implement the scholarship program created by the bill and assume donations equal the maximum permissible tax credits. Decrease state revenue by the amount of scholarship donations. Assume scholarship organizations earn and the State forgoes interest at a rate of 2.48% per annum (source: 12-month average rate for Utah Public Treasurers' Investment Fund). Shown here is the flow (forgone revenue), not the accumulating balance.

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	...	FY 2029
Scholarship Donations	\$12,000,000	\$13,200,000	\$14,520,000	\$15,972,000	\$17,569,000		\$28,295,000
Donations w Interest	\$12,298,000	\$13,528,000	\$14,881,000	\$16,369,000	\$18,006,000		\$28,998,000
Forgone Revenue to Education Fund (EF)	(\$12,000,000)	(\$13,200,000)	(\$14,520,000)	(\$15,972,000)	(\$17,569,000)		(\$28,295,000)
Forgone Revenue w Interest	(\$12,298,000)	(\$13,528,000)	(\$14,881,000)	(\$16,369,000)	(\$18,006,000)		(\$28,998,000)

**SCENARIO 2: DONATIONS DISTRIBUTED TO ELIGIBLE STUDENTS IN PRIVATE SYSTEM, STATE REVENUE IMPACT, AND HOUSEHOLD IMPACT**  
Scholarship donations are distributed to students in the private system with the scholarship amount equal to the weighted pupil unit (WPU) value for students without an IEP or two times the WPU value for students with an IEP. This analysis uses a weighted average scholarship amount where 88% of scholarships are awarded at twice the WPU value and 12% are awarded at the WPU value. Jobs, wages, and GDP changes stem from the multiplier effect on forgone State revenue and increased household spending. This analysis uses a government revenue multiplier of around 2.5 -- the default assigned by the Regional Economic Models Inc. (REMI) PI+ model. This value is potentially high by research standards. Multiplier values depend upon economic conditions, interest rates, expected tax policy, geographic region, past and expected government spending policy, and various other assumptions. Current and anticipated economic conditions might suggest a multiplier between 0.8 and 1.0. Commonly estimated government spending multipliers may range from 0.7 to 1.3 (Christiano, Eichenbaum, and Rebelo, 2011).

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	...	FY 2029
Scholarship Amount	\$6,588	\$6,753	\$6,922	\$7,095	\$7,272		\$8,228
Scholarships Distributed	419	421	423	425	426		433
To Students in Private System	419	421	423	425	426		433
To Students exiting Public System	0	0	0	0	0		0
Scholarship Amount Distributed	\$2,763,000	\$2,843,000	\$2,931,000	\$3,016,000	\$3,100,000		\$3,565,000
To Students in Private System	\$2,763,000	\$2,843,000	\$2,931,000	\$3,016,000	\$3,100,000		\$3,565,000
To Students exiting Public System	\$0	\$0	\$0	\$0	\$0		\$0
Remaining Scholarship Donations	\$9,237,000	\$10,357,000	\$11,589,000	\$12,956,000	\$14,469,000		\$24,730,000
Remaining Donations w Interest	\$9,467,000	\$10,614,000	\$11,877,000	\$13,278,000	\$14,829,000		\$25,344,000
Forgone Revenue to EF w Interest	(\$12,298,000)	(\$13,528,000)	(\$14,881,000)	(\$16,369,000)	(\$18,006,000)		(\$28,998,000)
Change in Household Spending	\$2,763,000	\$2,843,000	\$2,931,000	\$3,016,000	\$3,100,000		\$3,565,000
Jobs	(336)	(372)	(403)	(429)	(453)		(589)
Wages	(\$19,644,000)	(\$24,000,000)	(\$27,984,000)	(\$31,650,000)	(\$35,263,000)		(\$56,657,000)
Gross Domestic Product (GDP)	(\$22,714,000)	(\$25,522,000)	(\$28,075,000)	(\$30,222,000)	(\$32,197,000)		(\$43,798,000)

**SCENARIO 3: DONATIONS DISTRIBUTED TO ELIGIBLE STUDENTS, STATE REVENUE & EXPENDITURE IMPACT, HOUSEHOLD IMPACT, AND PRIVATE SCHOOL IMPACT**  
This scenario adds to Scenario 2 that students exit the public system until scholarship donations are exhausted. The exit of public system students to the private system reduces State expenditures, increases household spending, and increases private school revenues and expenditures. Each cohort exiting public schools is assumed to be uniformly distributed through grades K-12 with 1/13 of a cohort graduating each year. This analysis uses REMI's assigned multiplier values for public and private revenues and expenditures.

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	...	FY 2029
Scholarships Distributed	1,821	1,955	2,098	2,251	2,416		3,439
To Students in Private System	419	1,715	1,831	1,953	2,083		2,877
To Students exiting Public System	1,402	239	267	299	333		562
Scholarship Amount Distributed	\$12,000,000	\$13,200,000	\$14,520,000	\$15,972,000	\$17,569,000		\$28,295,000
To Students in Private System	\$2,763,000	\$11,583,000	\$12,672,000	\$13,853,000	\$15,145,000		\$23,673,000
To Students exiting Public System	\$9,237,000	\$1,617,000	\$1,848,000	\$2,119,000	\$2,424,000		\$4,622,000
Remaining Scholarship Donations	\$0	\$0	\$0	\$0	\$0		\$0
EF Expenditure per Eligible Student	\$8,290	\$8,498	\$8,710	\$8,928	\$9,151		\$10,354
Net to Education Fund	(\$674,000)	(\$496,000)	(\$297,000)	(\$66,000)	\$201,000		\$2,121,000
Forgone Revenue w Interest	(\$12,298,000)	(\$13,528,000)	(\$14,881,000)	(\$16,369,000)	(\$18,006,000)		(\$28,998,000)
Expenditures Avoided	\$11,624,000	\$13,032,000	\$14,583,000	\$16,303,000	\$18,207,000		\$31,119,000
Change in Household Spending	\$2,763,000	\$2,843,000	\$2,931,000	\$3,016,000	\$3,100,000		\$3,565,000
Private School Tuition	\$7,467	\$7,654	\$7,845	\$8,041	\$8,242		\$9,325
Change in Private School Spending	\$10,469,000	\$11,738,000	\$13,135,000	\$14,684,000	\$16,399,000		\$28,028,000
Jobs	(157)	(218)	(241)	(262)	(282)		(394)
Wages (millions)	(\$11,180,000)	(\$15,244,000)	(\$18,080,000)	(\$20,838,000)	(\$23,634,000)		(\$40,606,000)
Gross Domestic Product (GDP) (millions)	(\$12,162,000)	(\$15,100,000)	(\$16,928,000)	(\$18,603,000)	(\$20,201,000)		(\$29,482,000)

# Louisiana Example

<b>Date:</b> October 1, 2020 6:10 PM	<b>Author:</b> DEVILLIER
<b>Dept./Agy.:</b> Natural Resources / Revenue	<b>Analyst:</b> Greg Albrecht
<b>Subject:</b> Severance Tax Exemption For New or Enhanced Wells	

TAX/SEVERANCE-EXEMPTION OR -\$36,000,000 GF RV See Note Page 1 of 2  
 Suspends severance taxes on production from certain oil wells (Items #26 and 61)

Proposed law provides an exemption from severance taxes on oil production occurring on or after October 1, 2020 from any newly drilled well or from a completed well undergoing enhancements that require a DNR permit, such as re-entries, workovers, or plug-backs. The exemption lasts for 24-months or until payout of well drilling costs or enhancement costs is achieved, whichever occurs first, as determined by the Dept. of Natural Resources. The availability of the exemption extends through December 31, 2025.

Effective upon governor's signature.

The fiscal note assumes that the bill does not intend to provide its tax exemption to oil condensate produced by natural gas wells.

EXPENDITURES	2020-21	2021-22	2022-23	2023-24	2024-25	5 -YEAR TOTAL
State Gen. Fd.	SEE BELOW	SEE BELOW	SEE BELOW	SEE BELOW	SEE BELOW	
Agy. Self-Gen.	\$0	\$0	\$0	\$0	\$0	\$0
Ded./Other	\$0	\$0	\$0	\$0	\$0	\$0
Federal Funds	\$0	\$0	\$0	\$0	\$0	\$0
Local Funds	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Total</b>						
REVENUES	2020-21	2021-22	2022-23	2023-24	2024-25	5 -YEAR TOTAL
State Gen. Fd.	(\$4,520,000)	(\$22,580,000)	(\$36,120,000)	(\$36,120,000)	(\$36,120,000)	(\$135,460,000)
Agy. Self-Gen.	\$25,000	\$81,000	\$129,000	\$129,000	\$129,000	\$493,000
Ded./Other	(\$740,000)	(\$3,680,000)	(\$5,880,000)	(\$5,880,000)	(\$5,880,000)	(\$22,060,000)
Federal Funds	\$0	\$0	\$0	\$0	\$0	\$0
Local Funds	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Total</b>	<b>(\$5,235,000)</b>	<b>(\$26,179,000)</b>	<b>(\$41,871,000)</b>	<b>(\$41,871,000)</b>	<b>(\$41,871,000)</b>	<b>(\$157,027,000)</b>

#### EXPENDITURE EXPLANATION

The Department of Revenue's current assessment of staff time associated with modifications to the tax processing system to incorporate a new tax return necessary to implement the payout-based exemption in this bill is \$151,000. Although necessary determinations are required of the Dept of Natural Resources, the exemption is against severance tax administered by the Dept of Revenue, and additional personnel in the Dept of Revenue may be necessary. Continued on page 2

#### REVENUE EXPLANATION

Using FY20 as an initial model for a baseline of activity affected by the bill, the Dept of Natural Resources indicates that there were some 55 new wells (735,000 barrels) and 160 recompletion wells (4.2 million barrels) brought into production. The severance tax value of this production at an FY20 oil price of \$46.42/bbl is approximately \$28 million per year. This accounts for the different tax rates applied to the wells based on their daily volumes (12.5% full-rate, 6.25% incapable, 3.125% stripper). Well costs (new and recompletion) can vary considerably across wells, but the relatively low severance tax value per well (at most \$420,000, at least \$363) suggests that nearly all affected wells are likely to receive a 24-month exemption. Thus, the FY20 proxy generates a first full year effect of the bill of some \$28 million of severance tax revenue loss. The second full year of revenue loss is double at \$56 million; the second 12-months of exemption for the first year's participating wells plus the first 12-months of exemption for the second year's participating wells. Revenue losses stabilize at that level through FY27 before falling off as the last wells entering the program in 2025 exhaust their 24-months of exemption. The period of FY21 is roughly half a one-year effect, depending on how fast program participation ramps up.

This is a simple model of the potential revenue loss from the bill. More realistic losses are likely less than this due to the major factors of a somewhat lower oil price outlook, probably fewer wells involved than in FY20, and the possibility that some wells may achieve the payout equivalent of their severance tax exemption in less than 24-months. However, if oil prices strengthen over time, these dampening factors would be less significant or even reversed. That said, an adjustment of the FY20 model results by as much as 25%, still results in first full year revenue losses of \$21 million and subsequent full years of \$42 million. Annual losses are likely to ramp up to these full year effects because the bill starts one-quarter of the way into FY21, and wells will come in production over the course of year. There is no precise way to estimate the phase-in of the exemption effect. To reflect this ramp-up, it is assumed that 1/4 of a full year effect occurs in FY21, and one-half of first and second year effects accumulate over FY22 and beyond. Allocation of revenue loss is approximately 86% to the general fund and 14% to the dedicated funds {wetlands fund (3%) and parish allocations (11%)}. Some portion of this exempted production will occur on state lands/waterbottoms, resulting in a small royalty gain offset (less than 1%) to the severance tax losses estimated above. In addition, specific estimates of revenue loss are highly uncertain at this time due to the effects of the Covid-19 virus pandemic on economic activity in general and oil prices in particular. Continued on page 2

**Continued Revenue Explanation**

While a severance tax exemption is similar to a price increase for producers, research by the LSU Center for Energy Studies finds that oil and natural gas production are relatively unresponsive to price changes, and therefore severance tax rates. Specifically, oil production from new wells (one year of age or less) is estimated to increase by 6.2 percent in response to a 10 percent increase in prices in the long run. A statistically significant response of total production to prices in Louisiana is not observed in the long run. A state unilaterally changing severance tax rates may exhibit greater production response, but research on this case still finds the response to be small. Thus, the bill is likely to result in revenue losses.

**Continued Expenditure Explanation**

The Revenue Dept Taxpayer Compliance Division and the Field Audit Division each anticipate the need for an additional position to review returns to verify proper certification, and to administer taxpayer inquiries and compliance (\$78,000 FY21, \$160,000 FY22).

Since the bill relies on existing DNR permitting, administrative costs of the Dept may not be materially effected. The Dept indicates that there will be potentially an additional 500 hours of work time associated with processing approximately 255 applications per year for the required certifications ("Application for Severance Tax Relief - Well Status Determination") each year. The application fee is \$504, generating \$129,000 per year in fee revenue to the Dept. DNR does not anticipate the need for additional personnel, but these fees would be available to cover additional administrative costs. The fee revenue would be deposited to the Oil and Gas Regulatory Fund statutory dedication, but is depicted on the table on page one as self-generated revenue to distinguish it from the revenue loss components of the bill. This fee revenue is depicted as ramping up at the same pace as the total revenue loss estimates. However, should there be an influx of applications for various types of recompletions, the Dept may require additional resources to timely process permits.