

State Government Finance Trend and Determinants Analysis

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This study analyzes state revenues, expenditures, and their determinants from 2008 to 2019. The analysis revealed a significant increase in spending on social services and less reliance on tax revenue during this time. Corporate income tax revenue is the most vulnerable to a business cycle, followed by individual income tax revenue. Sales/gross receipt tax is least affected by business cycles. State expenditure shows a steady growth pattern and is not responsive to economic conditions and revenue. There is evidence of conflict between state legislative and executive branches as governors' and legislators' salaries increase. State legislators focus on income tax while governors focus on sales and gross receipt tax to increase state revenue. Gender does not play a role in state finance. State legislators' salary and per diem compensation significantly affects state revenue and expenditure, often in an opposite direction.

Keywords: public finance, state revenue, state expenditure

INTRODUCTION

State and local government revenues and expenditures are important concerns for tax paying citizens. Although the government accountability office issues periodic reports on these topics, an in-depth research on state and local finances is often outdated and limited.

Aside from intergovernmental revenue from the federal government and charges for service, tax is the single most important source of revenue for a state. Forty-five states and the District of Columbia impose a general sales tax on retail. Some states also impose gross receipts tax, which applies to a company's gross sales. Forty-one states and the District of Columbia impose income tax, while nine states have no income tax. Total tax accounted for 48% of the total state revenue in 2008 and 41% in 2019. The decrease of tax revenue as a component of general revenue could be due to state level fiscal limitations (Mullins, 2002).

The goal of this study was to analyze current trends in state revenues and expenditures and detect shifts in compositions. In 2017, during the period of this study, the Supreme Court overruled the physical presence rule of Quill (South Dakota vs. Wayfair Inc.). This ruling expanded the sales tax base and offered states relief from e-commerce tax erosion. The trend analysis performed in this study highlighted the significant impact this ruling had on state sales revenue. The study also provided insight into the effect legislators' and governors' have on state revenues and expenditures but did not examine the legislators' and governors' ideologies because political party affiliations do not accurately reflect a person's ideology; some may even switch parties. This study determined the role that legislators' and governors' compensation has in state finances and observed whether a governors' gender affected state finances. This study did not attempt to measure tax elasticities; however, trend analysis did indicate that tax structure affected revenue variability.

LITERATURE REVIEW

State government finance trend analysis is regularly published by the Government accountability office (GAO). Czerwinski (2011) summarized trends from 1973 to 2009 and documented a procyclical pattern of revenue with an increased reliance on individual income taxes and decreased reliance on sales tax. The GAO (2020) examined the state and local government spending and revenue from 1998 to 2018. The analysis revealed that health expenses had the largest increase, rising to 24% of all expenditure in 2018. Federal grants were the fastest growing source of revenue.

Ebel, Petersen, and Vu (2013) pointed out that unless the public sector overhauls the way it pays for its health care, health expenditure will become a significantly larger portion of both federal and state budgets, and the budget for state/local services, such as education and training, will become smaller. This is in response to the Patient Protection and Affordable Health Care Act of 2010. Mullins (2002) documented how fiscal limitations on states shifted general revenue away from taxes towards charges and miscellaneous sources. In addition, stringent local fiscal limitations caused a centralizing effect, where the state revenue component increased nearly three times the rate of the local revenue between 1965 and 1999. During the same time, state and local general revenue, relative to state personal income, increased from 15.9% to 19.1%. Doamekpor (2005) concluded that individual income tax and sales revenue did not experience a notable increase during a well performing economy. The only observed increase was that of corporate income tax revenue.

Revenue cyclicity research is related to revenue trend analysis and has produced diverse results. Bruce, Fox, and Tuttle (2006) found that state personal income tax has a long-run income elasticity double that of sales tax, which puts states at a greater risk of revenue loss during periods of contraction. However, Dye (2004) analyzed data on revenue elasticities and pointed out that state personal income taxes and sales taxes have similar short-run elasticities. McGranahan & Mattoon (2012) concluded that personal income growth, especially investment income, is more responsive to economic conditions, increasing the responsiveness of state individual income tax to economic conditions.

Governors' and legislators' salaries affect access to goods and services (Bowman & Kearney, 1988; Lammers & Klingman, 1984; Rosenthal, 1990). Bowman & Kearney (1998) identified variables that capture a states capability to respond to change, make decisions, and manage conflicts. Legislators' and governors' compensation, as a component of staffing and spending, significantly affects the capabilities of the state. Rosenthal (1990) provided descriptive case studies showing how the legislative and executive branches of a state cooperate and disagree with one another during policy making and budget setting. Merrifield (2000) found that a governors' pay plays a role in state revenue and expenditure. However, the results were not robust since the exclusion of region changed the results. The study did not find that legislators' pay has a significant role in state revenue or expenditure.

METHODOLOGY

This study includes data from the U.S. Census Bureau from 2008-2019. The District of Columbia is not included in this study. Per capita state revenue and expenditure are used to adjust for population. Legislators' and governors' salaries are scaled by median state household income. Whether legislators' receive per diem or comparable compensation for legislature sessions and other political activities, is also controlled. The model includes control variable income. Natural log of median income is used. Inflation is another control variable. The inflation index is used for two purposes: to determine how revenue and expenditure change with time and to account for the increase of revenue and expenditure due to inflation. The inflation index can interact with median household income and cause multicollinearity. The diagnostics confirms existence of multicollinearity between the inflation index and median household income, therefore, the inflation index variable was excluded. Variable selection techniques can be used to determine which variable to include. This study chose not to use variable selection techniques but to include the median household income variable. Median household income impacts state revenue as it directly affects

tax income. Median household income increases with time partially due to inflation, so it captures the effect of inflation. This study also considers whether legislators' receive per diem or comparable compensation.

RESULTS

TABLE 1
STATE REVENUE AND EXPENDITURE STATISTICS (10¹⁰)

	Expenditure vs revenue		Expenditure		Revenue	
	Mean	Median	Mean	Median	Mean	Median
2008	1.079	1.079	6.687	2.421	6.073	2.105
2009	1.588	1.431	7.048	2.604	4.359	1.770
2010	0.958	0.966	7.475	2.758	7.846	2.758
2011	0.876	0.884	7.715	2.822	8.733	3.061
2012	1.053	1.057	7.715	2.984	7.165	2.595
2013	0.900	0.905	7.838	2.956	8.550	3.082
2014	0.891	0.888	8.052	3.088	9.069	3.183
2015	1.003	1.000	8.372	3.113	8.327	2.970
2016	1.059	1.046	8.681	3.165	8.238	2.975
2017	0.919	0.920	8.909	3.313	9.733	3.457
2018	0.916	0.907	9.272	3.439	10.149	3.500
2019	0.961	0.965	9.641	3.498	9.970	3.495

The expenditure and revenue trend from 2008 to 2019 is shown in Table 1. Median state expenditure steadily increased over time from 24.21 billion in 2008 to 34.98 billion in 2019. Median revenue demonstrates the same trend but with yearly fluctuations. Median state revenue increased from 21.05 billion in 2008 to 34.95 billion in 2019. Examining expenditure as a percentage of revenue, it is apparent that the general economy does affect state finance. In general, states can cover their expenditure using revenues, however, in 2009, when expenditure far exceeded the revenue by 43%, this was not possible. The economy and the state's finances recovered quickly from the housing crisis in 2009. Prior to 2019, the National Association of State Budget Officers (NASBO) reported the general fund spending growth at 5.8%, the largest since they started collecting data in 2007. The trend shown in Table 1 indicates that the growth of government expenditure in 2019 was consistent with other years. Median state expenditure revealed a steady increase regardless of economic conditions or revenue growth.

TABLE 2
STATE REVENUE AND EXPENDITURE SUBCATEGORIES STATISTICS (10¹⁰)

	Corporate income tax revenue		Individual income tax revenue		Sales/gross receipts tax revenue		Social service expenditure		Education expenditure	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
2008	0.192	0.053	1.069	0.290	1.380	0.458	3.053	1.116	0.893	0.366
2009	0.151	0.038	0.946	0.262	1.318	0.428	3.270	1.245	0.936	0.370
2010	0.146	0.036	0.911	0.235	1.325	0.436	3.456	1.311	0.976	0.394
2011	0.159	0.035	0.999	0.255	1.421	0.460	3.738	1.356	1.009	0.398

2012	0.160	0.042	1.079	0.283	1.474	0.470	3.753	1.443	1.050	0.400
2013	0.173	0.042	1.192	0.294	1.544	0.475	3.982	1.506	1.065	0.404
2014	0.179	0.041	1.198	0.293	1.596	0.486	4.212	1.699	1.094	0.430
2015	0.187	0.047	1.294	0.325	1.657	0.501	4.730	1.765	1.115	0.444
2016	0.175	0.043	1.317	0.335	1.697	0.526	5.031	1.817	1.168	0.470
2017	0.172	0.039	1.351	0.330	1.758	0.534	5.243	1.807	1.206	0.484
2018	0.183	0.044	1.501	0.366	1.863	0.563	5.487	1.929	1.240	0.502
2019	0.221	0.052	1.577	0.397	1.935	0.580	5.798	1.963	1.283	0.510

In general, tax revenues increased (Table 2). Corporate income tax revenue accounted for 5% of total tax revenue and is considered procyclical. Individual income tax revenue, which is also procyclical, attributed almost 35% of the total tax revenue. However, during economic downturns, individual income tax revenue proved to be more stable than corporate income tax revenue. Sales/gross receipts tax accounts for about 46% of total tax revenue. Even though it is procyclical, economic cycles tend to have less of an impact on the sales/gross receipts tax revenue compared with income tax revenue. There were no detectable shifts in the composition of tax revenues. Sales/gross receipts tax increased by over 5% in 2018 after the Supreme Court *South Dakota v. Wayfair Inc.* ruling. However, during the same time, individual income tax revenue grew close to 11% and corporate income tax revenue increased close to 12%. Sales/gross receipts tax revenue showed a steady increase, except during 2009 due to the great recession of 2007-2009. Despite the seemingly impactful Supreme Court ruling that changed e-commerce, state sales tax growth had a tepid response. Both social service and education expenditure increased over time regardless of economic situation or revenue. Social service expenditure increased by 72% while education expenditure increased by 39% from 2008 to 2019. Social service expenditure was significantly higher than education expenditure.

TABLE 3
STATE REVENUE PER CAPITA STATISTICS

	Total revenue		Corporate income tax revenue		Individual income tax revenue		Sales/gross receipts tax revenue	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
2008	5,738	5,270	183	133	826	860	1,152	1,152
2009	4,280	4,204	131	106	736	787	1,103	1,099
2010	6,922	6,583	122	95	694	724	1,087	1,084
2011	7,674	7,297	139	112	756	782	1,151	1,170
2012	6,491	6,045	144	126	811	837	1,204	1,223
2013	7,539	7,070	153	132	881	893	1,237	1,261
2014	7,810	7,399	148	131	870	881	1,267	1,307
2015	7,092	6,749	151	143	932	941	1,309	1,357
2016	6,844	6,651	133	114	931	975	1,325	1,355
2017	8,011	7,892	127	121	951	993	1,363	1,442
2018	8,284	8,052	140	138	1,052	1,072	1,422	1,471
2019	8,099	7,751	173	165	1,105	1,110	1,485	1,536

The state median revenue per capita increased over time with fluctuations (Table 3) from 5,270 in 2008 to 7,751 in 2019. Individual income tax per capita decreased 16% from 826 in 2008 to 694 in 2010. Sales/gross receipts tax per capita decreased by 6% from 1,152 to 1,084 during the same time. Corporate income tax experienced the largest decrease (29%) during the same time. This is consistent with research by Bruce, Fox, & Tuttle (2006) who concluded that state personal income tax puts states at a greater risk of revenue loss during periods of economic contraction compared to sales/gross receipts tax. This is also consistent with the observation by Daomekpor (2005) who stated that only corporate income tax revenue experienced real growth during economic expansion. Corporate income tax revenue is more procyclical compared with individual income tax and sales/gross receipts tax revenue. Barring severe economic downturn, such as the great 2007-2009 recession, this study observed that individual income tax and sales/gross receipts tax had a similar steady growth pattern.

TABLE 4
STATE EXPENDITURE PER CAPITA AND ADMINISTRATION SALARY STATISTICS

	Expenditure		Social service expenditure		Education expenditure		Legislators' base salary		Governors' salary	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
2008	5,944	5,763	1,226	1,194	890	812	27,392	19,004	128,759	129,962
2009	6,253	6,222	1,314	1,274	919	841	28,502	22,114	131,093	130,000
2010	6,578	6,476	1,390	1,314	931	882	28,653	22,131	130,566	130,000
2011	6,660	6,473	1,456	1,405	956	911	28,516	22,114	131,474	130,137
2012	6,698	6,515	1,457	1,389	987	936	28,434	21,249	132,544	132,047
2013	6,734	6,498	1,514	1,492	999	930	28,928	22,438	133,322	132,047
2014	6,959	6,780	1,616	1,551	1,015	944	29,067	22,519	134,420	135,917
2015	7,122	6,801	1,756	1,692	1,028	970	30,693	24,070	135,141	136,580
2016	7,299	7,017	1,850	1,780	1,082	1,018	30,721	24,336	137,377	139,705
2017	7,391	7,253	1,921	1,862	1,094	1,044	31,317	24,608	136,765	139,517
2018	7,612	7,402	1,980	1,943	1,103	1,040	31,608	24,404	138,524	141,758
2019	7,772	7,593	2,052	2,003	1,121	1,078	32,924	24,962	143,331	146,378

Table 4 indicates state expenditure per capita. State median expenditure per capita increased steadily from 5,763 in 2008 to 7,593 in 2019. State median social service expenditure per capita increased from \$1,194 in 2008 to \$2,003 in 2019, a 68% increase. During the same time, state median education expenditure per capita went up by 33%, from \$812 to 1,078, less than half the rate of the social service expenditure increase. Table 4 illustrates governors' and state legislators' compensation. State governors are well compensated with a median salary of \$129,962 in 2008 and \$146,378 in 2019. State legislators' median salary increased from \$19,004 in 2008 to \$24,962 in 2019.

TABLE 5
STATE REVENUE AND EXPENDITURE COMPOSITION ANALYSIS

	Corporate income tax revenue vs total revenue		Individual income tax revenue vs total revenue		Sales and gross receipts tax revenue vs total revenue		Education expenditure vs total expenditure		Social service expenditure vs total expenditure	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
2008	2.92%	2.66%	15.43%	16.61%	22.20%	21.51%	15.13%	14.75%	20.96%	21.40%
2009	3.03%	2.74%	19.95%	19.27%	28.98%	27.30%	14.87%	14.46%	21.38%	21.57%
2010	1.68%	1.52%	10.27%	11.10%	16.64%	16.44%	14.33%	13.53%	21.37%	21.50%
2011	1.71%	1.57%	10.16%	10.82%	15.85%	15.72%	14.52%	13.45%	22.13%	21.98%
2012	2.14%	2.11%	13.07%	13.65%	19.96%	19.36%	14.93%	14.17%	22.05%	22.37%
2013	1.98%	1.88%	11.99%	12.96%	17.38%	17.09%	15.05%	14.31%	22.85%	23.77%
2014	1.88%	1.77%	11.35%	12.06%	17.00%	16.71%	14.85%	13.80%	23.64%	24.10%
2015	2.16%	2.20%	13.18%	13.67%	19.27%	18.79%	14.72%	13.99%	25.15%	25.64%
2016	1.97%	1.89%	13.56%	14.15%	20.15%	19.99%	15.04%	14.22%	25.72%	26.43%
2017	1.63%	1.53%	11.85%	12.57%	17.69%	17.81%	14.99%	14.19%	26.17%	26.04%
2018	1.71%	1.60%	12.60%	13.04%	17.94%	17.87%	14.76%	14.38%	26.21%	26.02%
2019	2.14%	2.09%	13.55%	13.53%	19.11%	18.65%	14.63%	13.97%	26.50%	26.61%

Czerwinski (2011) reported that states have become increasingly reliant on individual income tax which has risen from 15% in 1973 to about 20% in 2009. However, we observed that individual income tax, as a percentage of total revenue, has decreased since 2009. In 2019, it accounted for 13.53% of the total revenue (Table 5). States were also less reliant on sales and gross receipts tax revenue (Czerwinski, 2011). During the 2007 – 2009 recession, the economy experienced a severe shock and the states revenue composition changed significantly and became less reliant on tax revenue as a whole. This study does not examine other categories of revenue. The states expenditure regarding social services showed a significant increase (21.4% of total spending in 2008 and 26.61% in 2019). This increase unavoidably affects other categories of state expenditure. The observation is consistent with the GAO (2020) summary which stated that health spending had the largest increase and federal grants were the fastest growing source of revenue. The observation also confirms the prediction of Ebel, Petersen, & Vu (2013) that health spending will become a significantly larger portion of state budgets. Future studies showing how the state revenue and expenditure focus has shifted are greatly warranted.

Table 6 shows that the salary level of legislators and governors did not significantly affect state revenue. The single most important determinant for state revenue is median household income. For every 1% increase of the state median income, the state per capita revenue increased by 4.32% ($4.3226 \cdot \ln(1.01)$).

**TABLE 6
STATE REVENUE REGRESSION ANALYSIS**

Variable	Parameter estimate	Standard error	t value	Pr > t
Intercept	-39.653	7.790	-5.090	<0.000
Legislator Base Salary	0.508	0.280	1.820	0.070
Governor Salary	-0.339	0.223	-1.520	0.129
Legislator Per Diem Compensation	0.235	0.302	0.780	0.437
Governor Gender	0.181	0.286	0.630	0.526
Governor Turnover	0.128	0.253	0.500	0.614
State Median Income	4.323	0.679	6.370	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.1331$

**TABLE 7
STATE EXPENDITURE REGRESSION ANALYSIS**

Variable	Parameter estimate	Standard error	t value	Pr > t
Intercept	-32.412	6.421	-5.050	<0.000
Legislator Base Salary	0.819	0.231	3.550	0.000
Governor Salary	-0.172	0.183	-0.940	0.349
Legislator Per Diem Compensation	-0.244	0.249	-0.980	0.328
Governor Gender	0.184	0.236	0.780	0.437
Governor Turnover	0.047	0.209	0.220	0.824
State Median Income	3.632	0.559	6.490	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.1560$

Legislators' base salary does not significantly affect state revenue (Table 6), but it does significantly increase state expenditure (Table 7). State expenditure per capita increased by \$819 if the legislators' base salary was equal to the state's median salary. If legislators' base salary doubled, the state median salary and state expenditure per capita increased by \$1,637. Whether legislators receive per diem compensation or not does not significantly affect expenditure. Elected office holders' pursuit of utility through expenditure is limited by time constraints. Legislators' salary level could affect the amount of time legislators devote to state affairs, officially through legislature sessions and unofficially through private networking. State median income is the biggest factor in state expenditure. For every 1% increase of median salary, state per capita expenditure increased by 3.61% ($3.6325 * \ln(1.01)$).

**TABLE 8
STATE CORPORATE INCOME TAX REVENUE REGRESSION ANALYSIS**

Variable	Parameter estimate	Standard error	t value	Pr > t
Intercept	-1.600	0.439	-3.650	0.000
Legislator Base Salary	0.050	0.016	3.170	0.002
Governor Salary	-0.005	0.013	-0.370	0.709
Legislator Per Diem Compensation	-0.064	0.017	-3.740	0.000

Governor Gender	0.004	0.016	0.270	0.786
Governor Turnover	-0.004	0.014	-0.310	0.760
State Median Income	0.164	0.038	4.290	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.1149$

The effect of state legislators' compensation on the overall state revenue is not significant (Table 6); however, it does significantly affect the state corporate income tax revenue (Table 8). Legislators' salary has a positive effect on corporate income tax revenue. Compared with legislators that do not earn a salary, legislators that are paid the median state salary increased the corporate income tax revenue by \$49.9 per capita. Legislators who are paid per diem compensation reduced corporate income tax revenue by \$63.7 per capita compared with states offering no per diem compensation. Governors' compensation did not significantly affect corporate income tax revenue. The median income level of the state had a positive effect on corporate income tax; for every 1% that the median income increased, the state corporate income tax revenue increased by 0.16% ($0.1639 * \ln(1.01)$).

TABLE 9
STATE INDIVIDUAL INCOME TAX REVENUE REGRESSION ANALYSIS

Variable	Parameter estimate	Standard error	t value	Pr > t
Intercept	-6.261	1.697	-3.690	0.000
Legislator Base Salary	0.556	0.061	9.120	<0.000
Governor Salary	-0.160	0.049	-3.290	0.001
Legislator Per Diem Compensation	-0.202	0.066	-3.070	0.002
Governor Gender	-0.059	0.062	-0.950	0.343
Governor Turnover	0.009	0.055	0.160	0.870
State Median Income	0.682	0.148	4.610	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.2511$

The effect that state legislators' compensation has on individual income tax revenue is the same as corporate income tax revenue. Legislators' salary has a positive effect on individual income tax revenue. Compared with legislators that do not earn a salary, legislators who are paid a median state salary increased the individual income tax revenue by \$556.1 per capita. Legislators who are paid per diem reduced the individual income tax revenue by \$202 per capita compared with states offering no per diem compensation. Governors' salary significantly reduced individual income tax. Compared with governors that receive no salary, governors with median state salary decreased the individual income tax by \$159.7 per capital. Governors who receive twice as much as the median state salary decreased the individual income tax by \$319.4 per capita. This is confirmation that the legislative and executive branch of the state are in conflict with each other during the budgeting process as their salaries increase (Rosenthal, 1990). As expected, the state's median income increased the individual income tax. For every 1% increase in the state median income, individual income tax revenue increased by 0.68% ($0.6818 * \ln(1.01)$).

TABLE 10
STATE SALES AND GROSS RECEIPTS TAX REVENUE REGRESSION ANALYSIS

Variable	Parameter estimate	Standard error	<i>t</i> value	Pr > <i>t</i>
Intercept	-7.389	1.573	-4.700	<0.000
Legislator Base Salary	-0.085	0.056	-1.510	0.132
Governor Salary	0.111	0.045	2.470	0.014
Legislator Per Diem Compensation	0.108	0.061	1.770	0.077
Governor Gender	-0.041	0.058	-0.710	0.480
Governor Turnover	-0.014	0.051	-0.280	0.778
State Median Income	0.766	0.137	5.590	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.0444$

The legislators' compensation did not significantly affect the state sales and gross receipts tax revenue (Table 10). The governors' salary had a positive effect on state sales and gross receipts tax revenue. Compared with governors that do not receive compensation, governors with a median state salary increased the state sales and gross receipts tax revenue by \$111.1 per capita. Governors who are paid twice the state median salary increased the state sales and gross receipts tax revenue by \$222.2 per capita. State median income level increased state sales and gross receipts tax revenue positively, as expected. For every 1% increase in the state median income, the state sales and gross receipts tax revenue increased by 0.76% ($0.7657 * \ln(1.01)$).

TABLE 11
STATE SOCIAL SERVICE EXPENDITURE REGRESSION ANALYSIS

Variable	Parameter Estimate	Standard Error	<i>t</i> value	Pr > <i>t</i>
Intercept	-6.080	1.609	-3.780	0.000
Legislator Base Salary	0.157	0.020	7.700	<0.000
Governor Salary	-0.154	0.106	-1.450	0.147
Legislator Per Diem Compensation	-0.266	0.068	-3.940	<0.000
Governor Gender	-0.028	0.066	-0.430	0.667
Governor Turnover	0.013	0.056	0.240	0.812
State Median Income	0.752	0.118	6.370	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.1873$

State legislators who are paid the median state salary increased social service expenditure per capita by \$157.3, compared with state legislators who do not receive a salary (Table 11). State legislators that are paid per diem compensation decreased social service expenditure per capita by \$266.3. The social service expenditure was not significantly affected by the occupancy of female governors. For every 1% increase of the state median income, social service expenditure per capita increased by 0.75% ($0.7521 * \ln(1.01)$).

TABLE 12
STATE EDUCATION EXPENDITURE REGRESSION ANALYSIS

Variable	Parameter estimate	Standard error	t value	Pr > t
Intercept	-5.909	1.158	-5.100	<0.000
Legislator Base Salary	-0.075	0.042	-1.800	0.073
Governor Salary	-0.012	0.033	-0.360	0.722
Legislator Per Diem Compensation	0.146	0.045	3.260	0.001
Governor Gender	0.063	0.043	1.480	0.138
Governor Turnover	-0.013	0.038	-0.350	0.727
State Median Income	0.630	0.101	6.240	<0.000

Overall model: $p < 0.0001$; adjusted $R^2 = 0.1021$

State legislators with per diem compensation increased the education expenditure by \$146.4 per capita. For every 1% increase of the state median income, education expenditure increased by 0.63% ($0.6299 * \ln(1.01)$) (Table 12).

DISCUSSION

Trend analysis revealed that a business cycle has the largest effect on corporate income tax revenue, followed by individual income tax revenue, and the smallest effect on sales/gross receipts tax. State expenditure indicates a steady growth pattern regardless of the economic conditions and revenue.

The salary of state legislators significantly increased the states corporate and individual tax while the legislators per diem compensation significantly decreased the state corporate and individual tax. The governors' salary significantly decreased individual income tax and increased sales and gross receipt tax. There is evidence of conflict between state legislative and executive branches when salaries are increased; state legislators tend to focus on income tax while governors tend to focus on sales and gross receipt tax to increase the state revenue when they are compensated with a satisfactory salary. Regarding expenditure, state expenditure increased significantly with legislators' base salary but is not affected by legislators per diem compensation or the governors' salary. The state legislators' salary significantly increased social service expenditure while the state legislators per diem compensation significantly decreased it. State legislators per diem compensation significantly increased education expenditure. Governors' gender does not play a role in state revenue or expenditure. State legislators' salary and per diem compensation have opposite effects in many categories, revenues, and expenditures. Applying the two types of compensation can function strategically as a balancing power in the states' finance. For every 1% increase in the median income, the total tax revenue, including corporate income tax, individual income tax, and sales and gross receipts tax, increased by approximately 1.6%; this is higher than the 1% reported by Czerwinski (2011).

CONCLUSION

State revenue and expenditure composition has changed significantly since the 2007-2009 recession. This research data represents what was happening with the economy from 2008 up until and including 2019; however, since that time, the economy has gone through a coronavirus pandemic and a war in Ukraine. Therefore, future research demonstrating how state revenue and expenditure has changed since 2019 is greatly warranted. Our research observed a significant increase in social service spending and less reliance on tax revenue from 2008 to 2019. Future studies on this topic will help shed light on the reason behind these observed changes.

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