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Cover Page Footnote

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U.S. State Government Economic and Social Performance: Unified vs. Divided and Democrat vs. Republican Controlled State Governments

In the fifty political entities that are the American states, politicians from the two primary parties—the Democratic Party and the Republican Party¹—compete for the right to represent voters as either governor or legislators. In almost all states, the elections for governor are conducted every four years,² presenting voters with an opportunity to choose between alternative ideologies, familiar to many from federal-level politics. Sarah Morehouse suggests that the political party is the most important institution in state politics.³ Richard Winters agrees, noting “We define our candidates in party terms and our issues in party terms.”⁴ The party is an organization that endures and is known for its ideology. Candidates for elected government positions represent their party ideology, while sometimes adding their own flavor to it, but always while being defined as a “Democratic” or “Republican.” This research paper aims to shed light on the effect of voters’ choices on the well-being of their state. The questions explored are “if and to what extent the economic and social well-being of the states are affected by the political structure,” i.e. the different effects of a unified or divided government, and the different repercussions of having different parties in control of the state government. Philip Jones and John Hudson suggest that the economic advantage of political parties is to “...reduce the “transaction costs” of electoral participation. Political parties provide a low-cost signal of the candidates’ policies and personal characteristics and in this way, reduce voters’ information costs.”⁵

William Keech suggests that the differences between the ideologies of the parties have an effect on macroeconomic policies of state government.⁶ He agrees with Douglas Hibbs and

Edward Tufte that Democrats place higher priority on low unemployment, whereas Republicans place higher priority on lower inflation.⁷ Also, empirical studies show that Democratic state governments spend more on welfare, enact higher minimum wage, and promote less inequality.⁸ William Franko, Caroline Tolbert, and Christopher Witko report a significant difference in voters' concerns relating to the two parties' policies which influence the degree of inequality differently.⁹ It is possible for one party to win the two branches, i.e. executive and legislative, creating a unified government. Alternatively, it is also possible that each party gets the majority of the vote for only one branch. In this case the government is considered a divided government.

Political scientists disagree about the positives and negatives of a divided versus unified government. Christian John sums up the three reasons why a divided government is not good for the U.S. at the *federal* level. "Divided government leads an unjustifiable weakness in government brought about by a lack of accountability, it produces legislative 'gridlock,' and it contributes to a diminution of the expression of popular will."¹⁰ Will McLennan presents the arguments in favor of a divided government at the federal level. "On the flip side one can argue that a divided government limits the size and the scope of government and fosters healthy competition between presidents and Congress that produces quality legislation."¹¹ Nicholas McIntyre, Sarah Binder, and David Mayhew debate the success rates of unified versus divided government in their papers, based on the success rates of passing legislation at the federal government level. They come to the conclusion that the amount of passing legislations between the unified and the divided government are very similar.¹²

This paper evaluates the success of government based on their record of improving the state economy and increasing social well-being. This empirical analysis compares the degree of improvements achieved by unified and divided government, as well whether the Republicans or

Democrats control the unified government. The comparison of the degree of effectiveness of a unified versus a divided government is the subject of several studies. For example, Kevin Leyden and Stephen Borrelli assert, "...after the election a unified government is better able to enact its programs."¹³ James Alt and Robert Lowry agree, concluding that "...a divided government is less able to react to revenue shocks, which in turn leads to budget deficits particularly where different parties control each chamber of legislation and a unified party government...have a sharper reaction to negative revenue shocks."¹⁴ Hence unified party legislators can pass programs that the executive branch is capable of implementing with minimum friction and need to compromise. However, the downside of a unified government is complacency, since they have absolute power. McLennan even suggests that a divided government might be more effective due to the competition between parties and the need to compromise.¹⁵

This empirical analysis suggests that a unified government rate of growth is not significantly different from a divided government, for most of the variables used to measure economic performance. In one variable, personal income per capita (PIC), the unified government is even inferior to that of a divided government. With respect to the social variables, the results are mixed. This study suggests that a unified government under the control of the Democratic Party lowers unemployment, poverty, and crime rates as compared to unified governments headed by the Republican Party. This paper is divided into three sections. The first section shall provide definitions of the variables, the sample data, the period covered by this study, and the statistical model. The next section contains the regression results of our model as well as our analysis of the results. The last section includes the summary and the conclusions.

Empirical Analysis Data, Variables, and Models

Panel data from forty-seven of the contiguous American states of cross-sectional observations and twenty-five years of time series observations ranging from 1990 to 2014 (with the state of Nebraska¹⁶ excluded) is the source of this study's empirical data. With twenty-five years of annual observations and forty-seven cross-section observations, the model consists of a total sample size of 1,175 observations for each variable.¹⁷ The empirical analysis models have two sets of dependent variables; state economic variables and social well-being variables.

Personal Income per Capita (PIC) is used as a proxy for state economic growth and is used in a per capita term rather than an aggregate term to accommodate population size. In addition, the percentage of employed workers among state's non-institutionalized population (EMP) and the percentage of people unemployed among the labor force (UNEMP) are dependent variables since job creation and unemployment are major macroeconomic issues and are widely discussed during national and state election campaigns. It is interesting to note that Soledad Prillaman and Kenneth Meier—who study the effect of taxes and incentives on the growth of state economies—also used the following seven variables as proxy for economic growth: growth rate of real gross state product, change in employment rate, change in net job creation rate, growth rate of per capita personal income, change in poverty rate, change in the rate of entering business establishments, and change in the rate of exiting business establishments.¹⁸

Policies pertaining to education and training, housing subsidy, exemptions of necessities from being subject to sales taxes, personal exemptions from income tax, health care, and others are aimed specifically to lower poverty rate and to reduce income disparity. In addition, state governments are involved in policies to prevent crime and make the state a safer place for its residents and businesses. To evaluate the success of the state government policies in social well-

being, the empirical analyses include state poverty rates, state inequality degree as measured by Gini coefficients, and the state crime rates as dependent variables. Poverty rate (POV) is defined as the percentage of the state population with an income below the poverty line and crime rate (CR) is defined as the number of offenses per 100,000 people. The model used states Gini coefficients from U.S. State-Level income inequality data by Mark Frank, which constructed the coefficient from individual tax filing data from the Internal Revenue Service and reported the construction method in his papers.¹⁹

As explanatory variables, the model used several political variables that reflect the voters' election choices for the state government, i.e. governor and the two chambers of legislature. The candidates for elected state positions, i.e. governors, senators, and members of the House, were identified by their party affiliation. The two parties that almost all winning candidates were affiliated with are the Democratic Party and the Republican Party.²⁰ The empirical analyses use four political variables: unified government, Democratic Party control of a unified government, Republican Party control of a unified government, and political competition. Those four political variables are similar to the work of Diane Rogers and John Rogers, Sarah Morehouse, Steven Levitt and James Poterba, and Timothy Besley, Torsten Persson, and Daniel Sturm but differ by the construction of the competition and the unified government variables.²¹ The unified government, abbreviated in this paper as UNIGOVT, is defined as the condition where the state governorship and at least 50 percent of the members in each of the two Houses of Congress belong to the same political party, either Democratic or Republican. A unified government is a dummy variable with a value one for a unified government and zero for a divided government.

A unified government headed by the Democratic Party will be indicated by the abbreviation UNIDEM, while a unified government headed by the Republican Party will be indicated by UNIREP. Among 1,175 observations, 46 percent of the time the states hold a unified government status, 22 percent of that time under Democratic control, and 24 percent of that time under Republican control as shown in the Data Summary Table A-2 appendix A. Although Besley, Persson, and Sturm measured the party's competition as the share of votes for state officials excluding the governor, this empirical paper uses the seats distribution²² of the two parties as a proxy for the two political parties' competition, as suggested in the 2005 working paper by Besley, Persson, and Sturm.²³ The Political Competition, COMP, between the two parties in the two chambers will be quantified by the sum of products of the proportion of representatives from each party in the two chambers. For example, if the Senate Republican members represent 60 percent of the members and the House of Representatives members are 50 percent Republican, the degree of competition is 0.49²⁴ for that state in this election cycle. This competition variable will always fall within the range of 0.0~0.50, where 0.0 represents the lowest degree of competition, i.e. one party controls 100 percent of both chambers of congress, and 0.50 represents the highest degree of competition which happens when each party has 50 percent of the representatives in each chamber.²⁵ Additional independent variables used as control variables include the percentage of population age twenty-five and older with a baccalaureate or higher degree, abbreviated COLLEG, the real federal aid to state per capita restricted to federal government expenditures for grants to state and local governments, abbreviated FEDAIDC, and the percentage of union membership, abbreviated UNION. Prillaman and Meier also include education and union as explanatory variables in their study.²⁶

Note that all monetary data are in real terms using the Consumer Price Index (CPI) as a deflator. Detailed data description and sources are presented in Table 1 Appendix A.

All regression equations are based on robust standard error (Eicker-Huber-White) ordinary least square regressions with state and time fixed effect. Our empirical model uses the same specification as the Besley, Persson, and Sturm's 2010 empirical model, although their paper focused on the result of political competition variable while our paper focuses on the result of unified government, Democratic or Republican control variables. The full regression model is:

$$Y_{st} = \beta_0 + \beta_k X_{s(t-1)}^k + \beta_j Z_{st}^j + \alpha_s + \gamma_t + u_{st},$$

where s represents 47 states, t represents observation years, k represents the number of the politically explanatory variables, and j represents the number of control variables. The explanatory variable X represents the four political variables explained above. By lagging one year,²⁷ our political variables can measure the effect of those political variables on our dependent variables considering the time of the policies to have an effect on the economic performance or social variable performance. In this way, it is possible to appreciate the success of the policies enacted by the elected government. The lagged variables are coded with the subscript $t-1$ in the regression models. The control variable Z represents each state education level, real per capita federal aid dollars transferred from the federal government, and percentages of union membership among employed workers.

The variable α_s captures the time invariant state fixed effect. Each state has state specific economic characteristics that could affect economic performance and social well-being performance. The sources of the state characteristics are coming from natural resources, infrastructures, types of industries, capital/labor characteristics, location, and geographic

characteristics. For example, the state of Texas has large-scale oil production that most likely will affect the economic performance and the industry composition, whereas the state of Michigan has traditionally focused on the auto industry, which makes it more vulnerable to national levels of economic shocks. The state fixed-effect approach captures unobserved state characteristics that are assured to be fixed over time. In order to capture time varying state fixed effect, the model adds the year fixed effect, γ_t . State economic and social well-being performances are greatly influenced by national/federal level policy and the business cycle. This environment does not influence the states equally. During recessions, for example, Michigan state personal income and employment are typically more impacted since its industries are more concentrated in the luxury goods sectors,²⁸ such as the automotive industry. Also, the federal government's fiscal policy or the Federal Reserve Bank's monetary policy would impact states differently based on state economic and socio-demographic differences. Using the time variant year-fixed effect, these influences would be captured so that the regression results of the explanatory variables are more reliable. Since all regression models are estimated using the fixed effect model, eliminating α_s and γ_t effects by using a within estimator, β_s , the estimators of the parameters in the model are consistent estimators of the marginal effect of political variables, as explained by Adrian Cameron and Pravin Trivedi.²⁹ Moreover, the estimates compute robust Eicker-Huber-White standard errors to have consistent and asymptotically unbiased results and as a robust analysis against possible issues of heteroscedasticity and non-normality.

The tables below show the results of each group's regression. Each dependent variable has two regression results with the coefficient and the p value in parentheses. The first and the second model are full regression models with all control variables, $Y_{st} = \beta_0 + \beta_k X_{s(t-1)}^k + \beta_j Z_{st}^j + \alpha_s + \gamma_t + u_{st}$, where the first model's k contains only two political explanatory variables,

UNIGOVT and COMP, while second model's k contains the by-party political variables, UNIDEM, UNIREP, and COMP.

Analysis of the Empirical Results

Table 1 presents the results of running OLS fixed effect (state and time) regressions with economic variables as the dependent variables. The regressions reported in cols. 1, 3, and 5 help evaluate the performance of the state economy under a unified government in comparison to a divided government. Also in Table 1, the regression results reported in cols. 2, 4, and 6 help to test the hypothesis that a unified government controlled by the Democratic Party performs better (worse) than a unified government controlled by the Republican Party. The coefficient of the unified government variable (UNIGOVT) in col. 1 is negative and significant. This result suggests that a unified government's performance is inferior to a divided government and a state with a unified government would have \$137.28 lower state PIC. The coefficient of the variable Democratic control unified government (UNIDEM) is not significant and the coefficient of a Republican control unified government (UNIREP) in col. 2 is significant. While the coefficient of the UNIDEM variable is positive the coefficient of the variable UNIREP is negative. Thus, a unified government controlled by the Democratic Party is more successful in at least keeping real personal income unchanged or improving it slightly. Whereas, a unified government controlled by the Republican Party is unsuccessful in raising the PIC and its state PIC is lower by \$334.06. Note that the decline in PIC during the time when the Republicans are in control of the state government is much larger than the increase in PIC when Democrats are in control of the state government. Thus, the coefficient of the unified government variable, UNIGOVT, which is the combination of the two variables UNIDEM and UNIREP, is negative. The results for the two other economic variables, EMP and UNEMP, suggest a similar trend as observed for PIC. The

coefficient of the variable UNIGOVT is negative in the regression with EMP as a dependent variable (col. 3), and positive in the regression with UNEMP as a dependent variable, but neither one of the two coefficients is statistically significant. In relation to the influence of the individual party on these two economic variables (EMP and UNEMP), the Democratic Party is successful in significantly lowering the unemployment rate and expanding employment rate, although not significantly. Henry Chappell and William Keech cite work by Hibbs and Beck, that their findings for national economy "...indicated that Democratic administrations were associated with lower unemployment than Republican..."³⁰ They also found that "...lower unemployment rates associated with Democratic victories."³¹ An empirical study by Nathan Kelly and Christopher Witko also shows that Democratic state governments lower unemployment rate more than Republican state governments during economic growth.³² The influence of the Republican Party is in the opposite direction: it increases the unemployment rate and decreases the employment rate and both effects are statistically significant.

Table 1: OLS Fixed Effect Regression Results for the Economic Variables, 1990-2014

Variable	PIC (Col 1)	PIC (Col 2)	EMP (Col 3)	EMP (Col 4)	UNEMP (Col 5)	UNEMP (Col 6)
UNIDEM _(t-1)		11.42 (0.8086)		0.16 (0.1286)		-0.13** (0.0451)
UNIREP _(t-1)		-334.06*** (0.0000)		-0.38*** (0.0023)		0.24*** (0.0012)
UNIGOVT _(t-1)	-137.28*** (0.0011)		-0.07 (0.3815)		0.03 (0.5262)	
COMP _(t-1)	-3463.62*** (0.0000)	-3569.87*** (0.0000)	-2.28** (0.0449)	-2.44** (0.0324)	-1.66* (0.0528)	-1.55* (0.0685)
COLLEGE	43.58*** (0.0068)	34.50** (0.0331)	0.02 (0.4611)	0.01 (0.8105)	-0.01 (0.7111)	0.00 (0.8199)
FEDAIDC	0.00 (0.1029)	0.00 (0.3430)	-0.00*** (0.0017)	-0.00*** (0.0013)	0.00 (0.5804)	0.00 (0.3513)
UNION	83.85*** (0.0000)	82.26*** (0.0000)	0.09*** (0.0069)	0.09*** (0.0084)	-0.06*** (0.0054)	-0.06*** (0.0063)
_cons	12778.14 (0.0000)	13024.13 (0.0000)	61.80 (0.0000)	62.18 (0.0000)	8.32 (0.0000)	8.05 (0.0000)
N	1128	1128	1128	1128	1128	1128
r2	.946	.9468	.9315	.9323	.823	.8253

t-1: 1 year lag, P values in (), *** significant at 1%, ** 5%, * 10%

These findings are consistent with the ideology of the two parties. For example, as suggested by Hibbs, the Democrats favor a high growth rate and low unemployment and Republicans are more concerned with the risk of inflation.³³ As mentioned before, the coefficient

of the variable UNIGOVT has the same sign as the variable UNIREP in cols. 3 and 5. This occurs because the coefficients of the variable UNIREP are greater in absolute value than that of the variable UNIDEM in the respective regressions (cols. 4 and 6).³⁴ The variable competition (COMP) has a significant coefficient in all regressions. However, it has the expected negative sign only in the regressions with UNEMP as dependent variable (cols. 5 and 6), i.e., to lower the unemployment rate. Based on our results, it will be hard to conclude that political competition, between the two parties in the two Houses, have a positive effect on the economy of the state, although Rune Sørensen's findings suggest that "...lack of party competition reduces efficiency..." or alternatively "... intensive party competition improves government performance..."³⁵

The coefficient of the three non-political variables, COLLEGE, FEDAIDC, and UNION, are in most cases significant. Prillaman and Meier's findings suggest that two variables, education and union, among others, make significant contribution to state economic development.³⁶ The major exception is the FEDAIDC variable, which has an unexpected negative and significant coefficient in the regression with EMP as the dependent variable (cols. 3 and 4). One possible explanation for the negative coefficient is that the better the economy of a state, the less money coming from the federal government. The UNION variable has in all regressions significant coefficients, and the sign of the coefficients suggest an increase in PIC and EMP, and lower UNEMP the larger the proportion of union membership. In other words, union policies have a positive influence on the state economic performance. Our set of explanatory variables, political and non-political, explain a substantial proportion of variability in the economic performance as measured by our three dependent variables among the forty-seven contingent states included in our sample.

State Social Performance

A summary of the regression results with the three social variables as dependent variables are reported in Table 2. The three dependent variables are poverty rate (POV) cols. 1 and 2, distribution of income—Gini coefficient (GINI) cols 3 and 4, and crime rate (CR) cols. 5 and 6. The unified government variable, UNIGOVT, has a significant coefficient in two of the three regressions, cols. 3 and 5. In col. 1, the regression with POV as the dependent variable, the coefficient is negative but insignificant. Reviewing the results in col. 2, where one can distinguish between a unified government by the party in control, reveals that the coefficient for the UNIDEM variable is negative, lowering the poverty rate, whereas the coefficient for UNIREP is positive, increasing the poverty rate. It is consistent with Kelly and Witko's argument that when Democrats gain power, their presence becomes a power resource for the poor.³⁷ For both variables, their coefficients are weakly significant (10 percent) and almost of the same magnitude with a value -0.24 and 0.25, respectively. Thus, it seems reasonable to suggest that the coefficient of the combined variable, UNIGOVT, will be close to zero (-0.03) and insignificant as we find in Table 2, Col 1.

The effect of the variable Democratic control government, UNIDEM, on the Gini coefficient variable is positive, but the coefficient is statistically insignificant. Our variable UNIDEM can be considered as proxy to the Charles Barrilleaux and Davis variable 'Lower Class Turnout.'³⁸ When examining voting behavior during the 2008 election by income group, Kelly and Witko note "...44 percent of the high income group and 85 percent of the low income group reporting voting for Obama (Democrat)."³⁹ The effect of the variable Republican control government, UNIREP, on the Gini coefficient variable is also positive but significant. These

results suggest that the policies enacted by a unified government under the control of the Republican Party leads to an increase in inequality in the distribution of income.

Table 2: OLS Fixed Effect Regression Results for the Social Variables, 1990-2014

Variable	POV (col 1)	POV (Col 2)	GINI (Col 3)	GINI (Col 4)	CR (Col 5)	CR (Col 6)
UNIDEM _(t-1)		-0.24 * (0.0834)		0.00 (0.4962)		-123.82*** (0.0001)
UNIREP _(t-1)		0.25* (0.0904)		0.01*** (0.0002)		-43.56 (0.2773)
UNIGOVT _(t-1)	-0.03 (0.7975)		0.00** (0.0116)		-89.27*** (0.0010)	
COMP _(t-1)	-5.50*** (0.0006)	-5.35*** (0.0009)	0.05*** (0.0001)	0.06*** (0.0001)	713.76* (0.0809)	738.44* (0.0724)
COLLEGE	-0.11*** (0.0039)	-0.10** (0.0116)	-0.00*** (0.0008)	-0.00*** (0.0018)	5.04 (0.5738)	7.15 (0.4199)
FEDAIDC	0.00*** (0.0000)	0.00*** (0.0000)	-0.00*** (0.0007)	-0.00*** (0.0028)	0.01*** (0.0000)	0.01*** (0.0000)
UNION	-0.16*** (0.0002)	-0.16*** (0.0003)	-0.00** (0.0248)	-0.00** (0.0257)	-21.93* (0.0566)	-21.56* (0.0610)
_cons	20.92 (0.0000)	20.56 (0.0000)	0.58 (0.0000)	0.58 (0.0000)	5160.20 (0.0000)	5103.06 (0.0000)
N	1128	1128	1081	1081	1128	1128
r2	0.8289	0.83	0.8144	0.8152	0.8972	0.8974

t-1: 1 year lag, P values in (), *** significant at 1%, ** 5%, * 10%

The combined unified government variable, UNIGOVT, is positive and significant, which is similar to the effect of the UNIREP variable. Barrilleaux and Davis findings are similar to these findings. The coefficient of their variable ‘Lower Class Turnout’ is positive and “a 1 percent increase in lower income voter turnout produces a one tenth of 1 percent increase in the Gini measure.”⁴⁰ The coefficients of the variables UNIDEM and UNIREP in col. 6 are both negative but only the coefficient of the UNIDEM is significant. Thus, policies chosen by a unified government controlled by the Democrats are leading to a significant reduction in the crime rate. A similar result is observed at the aggregate level where the coefficient of the UNIGOVT variable (col. 5) is negative and significant. Apparently, the two parties in this case are responsible for the decline in crime rate with the Democrats being more effective. The competition variable, COMP, has a significant coefficient in four out of the six regressions and in the other two, it is weakly significant. More political competition between the two parties helps states to lower the poverty rate. However, at the same time, more competition shows an increase in the degree of inequality and shows an increase in crime rate.

The proportion of the population with a college degree variable (COLLEGE) has a negative and significant coefficient in the regressions with POV and GINI as dependent variables. These results are to be expected since more education is positively associated with higher income, which in turns helps to lower the poverty rate and makes the distribution of income more equal. Unexpectedly, the coefficients of the COLLEGE variable are positive although insignificant in the regressions with CR as the dependent variable (cols. 5 and 6). The contribution of the variable FEDAIDC is significant in all the regressions. The direction of the effect is to lower the inequality level, and to increase the poverty and crime rates. It is possible that the positive coefficient of the FEDAIDC variable suggests a reversed effect, i.e., the higher

the state rate of poverty and crime, the more federal funds are becoming available. However, the magnitude of the coefficients is almost zero, showing not much practical importance in these social variables. The variable UNION, the proportion of the labor force who are union members, also makes a significant contribution in all the regressions except the regressions with crime rate as a dependent variable (cols. 5 and 6), where it is only weakly significant. The direction of the effect is always negative, i.e., lowering the poverty rate, lower the level of inequality in distribution of income and lower the crime rate. It suggests that states with higher proportions of union membership achieve the social goal of lowering poverty rate, decreasing income inequality, and lowering the crime rate. Kelly and Witko suggest that higher union membership lower income inequality and “vehicle through which markets can be pushed in a more egalitarian direction.”⁴¹ In all regressions, our set of independent variables, political and non-political, explain over 80 percent of the variability in the dependent variables.

Conclusion

This study aims to answer the two questions: is a unified government’s performance superior to a divided government’s performance and is the performance of a unified government controlled by the Democratic Party superior (inferior) to the performance of a unified government under the control of the Republican Party. The evaluation of the performance of the government was done using two groups of variables. Group one contains three economic variables and group two contains three social variables. The empirical analysis leads us to the conclusion that in states with a unified government the performance in the economic area is inferior to the performance of states with a divided government. This conclusion is derived from the regression results shown in Table 1, which demonstrates that unified governments lowered

PIC and EMP and increased unemployment. However, a more careful review of the results raises the possibility of more complicated relationships.

Unified governments' performance under the control of the Democratic Party in the economic area is superior to the performance of a unified government under the control of the Republican Party. This is especially true regarding the variable, UNEMP, which has negative coefficients and is significant. Thus, states with Democratic unified governments are more successful in expanding their economy, i.e. lowering unemployment rate and, to a lesser degree, increasing the number of jobs. Republican controlled unified governments failed to state economic growth. In fact, real per capita personal income, as well as employment per capita both fell significantly whereas the unemployment rate rose significantly. The magnitude of the effect a unified Republican government has on growth rate of the economic variables is larger, in absolute value, than the effect of a Democratic unified controlled government. Therefore, the combined effect of a unified government, regardless of the party, has the same direction as a unified Republican party (a negative one). That unified governments do not do as well as or better than divided governments in terms of economic growth can be attributed to the Republican Party.

In the social area, findings suggest that unified governments are more successful in lowering the poverty rate⁴² and the crime rate, but also increase the inequality in the distribution of income. Again, the breakdown of the variable UNIGOVT by party control reveals some important differences in the performance of states by party control. Unified governments controlled by the Democratic Party lower the poverty rate and the crime rate and have no effect on the GINI coefficient. On the other hand, a unified government controlled by the Republican party pushes up the poverty rate and the degree of inequality in the distribution of income and of

lowering the crime rate, although not significantly. The sign of the variable political competition suggests that more competition, i.e. closer election results for the two Houses, the lower the poverty rate and increase the Gini coefficient (more inequality) and crime rate. Among non-political variables, all three of them lower the degree of inequality in the distribution of income in a statistically significant way. Also, two variables, COLLEGE and UNION, lower the poverty rate, and UNION also helps to lower the crime rate. Kelly and Witko found that Democrats in power lower poverty and the degree of inequality.⁴³ Unions have similar effect.

The empirical results presented in this paper lead to some general conclusions. The performances of unified and divided governments are different in some areas and variables, but not in all. A general evaluation of the performance of one type of government in comparison to the other is impossible. Such comparison needs to be done for every area, and with respect to the individual variables. Moreover, and not less important than the distinction between a unified and a divided government, is the identification of which party is in control of the unified government. There are important differences in performance between the two parties. These differences are not only in the magnitude of the effect, but also in the direction (qualitative and quantitative). Thus, the voters, who have their own set of goals, need to be aware of which party is serving their priorities more effectively.

Appendix A

Table 1: Data Description and Sources

Variable	Detail
Personal income per capita	Per capita personal income is total personal income divided by total midyear population from BEA
Real Personal Income per Capita (PIC)	Personal Income per capita/consumer price index(CPI). CPI from BLS
Employment rate (EMP)	Percent of people employed among non-institutionalized civilian population from BLS data base States and selected areas: Employment status of the civilian non-institutional population
Unemployment rate (UNEMP)	Percent of people employed among labor force from BLS data base States and selected areas: Employment status of the civilian non-institutional population
Poverty rate (POV)	Number of people in poverty as Percentage of population From Census Bureau, Historical Poverty Tables: People and Families - 1959 to 2014: table 21
Crime Rate (CR)	Total offenses (violent and property crime) per 100,000 1990 – 2012 U.S. Department of Justice Federal Bureau of Investigation Uniform Crime Reporting Statistics(UCR) 2013-2014 FBI: UCR Crime in the United States by State
Gini Index (GINI)	Index from U.S. State-Level Income Inequality Data - Mark W. Frank
College graduation rate (COLLEGE)	Percent of Persons 25 Years and Over Who Have Completed a Bachelor's Degree," and "Percent of Persons 25 Years and Over Who Have Completed an Advanced Degree from Census Educational Attainment by State and Educational Attainment in the United States Detailed Tables
Union rate (UNION)	Percentage of employed people who have a union membership from Union Membership and Coverage Database. The Database, constructed by Barry Hirsch (Andrew Young School of Policy Studies, Georgia State University) and David Macpherson (Department of Economics, Trinity University), was created in 2002 and is updated annually.
Federal aid per capita (FEDAIDC)	Federal Government aid to state and local governments by state from Census. 2014 data is from USA Spending.gov.
Political competition and Governor (COMP)	State Legislature Composition from The Council of the State Knowledge Center's Book of States, Chapter 3 for 2012-2014 and Table 419. Composition of State Legislatures, by Political Party Affiliation for the last of the years Governor's Party Affiliation from National Governor's Association organization.
Unified government (UNIGOVT)	The same political party has control of Governor, upper and lower houses.
Democratic Control (UNIDEM)	Democratic Party Governor, Democratic party has more than 50% seat control of upper and lower houses
Republican control (UNIREP)	Republican Party Governor, Republican party has more than 50% seat control of upper and lower houses

Table 2: Data Summary Table

Variable	Obs	Mean	Std. Dev.	Min	Max
Personal income per capita	1175	31132.45	9601.766	13288	64864
Employment rate	1175	62.80698	4.53151	48.8	73
Unemployment rate	1175	5.737362	1.861922	2.3	13.7
Poverty rate	1175	12.94672	3.637038	4.5	26.4
Crime rate	1175	4045.409	1239.796	1623.7	8810.8
Gini Index	1128	.5851267	0.0354897	0.5213105	.7114252
College graduation rate	1175	24.87557	5.291345	11.4	40
Union rate	1175	11.92077	5.552328	1.9	29.4
Federal aid per capita	1175	2653.965	4223.318	4.2	136034.2
Political competition	1175	0.4435915	0.0663096	0.165	0.5
Unified government	1175	0.46297	0.4988399	0	1
Democratic control	1175	0.2212766	0.4152831	0	1
Republican control	1175	0.2417021	0.428297	0	1

Table 3: Mean & Standard Deviation by Government Status and Party Control

Variables	Unified Gov't (Obs: 544)	Divided Gov't (Obs:631)	UNI DEM (Obs:260)	UNI REP (Obs:284)
Personal income per capita	\$16,186 (2949.04)	\$16,445 (2857.95)	\$16,309 (3629.88)	\$16,073 (2145.13)
Employment rate	62.4% (5.04)	63.2% (4.02)	60.9% (4.71)	63.79% (4.95)
Unemployment rate	5.81% (1.88)	5.68% (1.84)	6.28% (1.74)	5.38% (1.91)
Poverty rate	13.3% (3.83)	12.65% (3.43)	13.96% (4.14)	12.69% (3.43)
Crime rate (per 100,000)	3861 (1217.73)	4204.7 (1237.5)	3988.18 (1278.3)	3743.9 (1149.4)
Gini Index	0.587 (0.036)	0.583 (0.035)	0.581 (0.036)	0.593 (0.036)

Table 4: OLS Fixed Effect Regression Results for the Economic Variables, 1990-2014, Two Periods Lag

Variable	PIC	PIC	EMP	EMP	UNEMP	UNEMP
UNIDEM _(t-2)	-14.19 (0.7747)		0.10 (0.3342)		-0.09 (0.1827)	
UNIREP _(t-2)	-320.22*** (0.0000)		-0.38*** (0.0023)		0.21*** (0.0061)	
UNIGOVT _(t-2)		-146.75*** (0.0006)		-0.11 (0.2010)		0.04 (0.4706)
COMP _(t-2)	-3057.31*** (0.0000)	-2967.12*** (0.0000)	-1.77 (0.1471)	-1.63 (0.1793)	-2.02** (0.0171)	-2.10** (0.0137)
COLLEGE	42.51** (0.0143)	50.37*** (0.0033)	0.02 (0.4391)	0.03 (0.2250)	0.01 (0.6014)	0.00 (0.9382)
FEDAID	0.00*** (0.0041)	0.00*** (0.0012)	-0.00*** (0.0004)	-0.00*** (0.0007)	0.00 (0.7112)	-0.00 (0.9893)
UNION	87.30*** (0.0000)	86.85*** (0.0000)	0.11*** (0.0016)	0.11*** (0.0018)	-0.08*** (0.0007)	-0.08*** (0.0008)
_cons	12844.80 (0.0000)	12659.97 (0.0000)	61.30 (0.0000)	61.01 (0.0000)	8.73 (0.0000)	8.91 (0.0000)
N	1081	1081	1081	1081	1081	1081
r2	.9446	.9439	.9338	.9332	.8312	.8298

t-2: 2 year lag, P values in (), *** significant at 1%, ** 5%, * 10%

Table 5: OLS Fixed Effect Regression Results for the Social Variables, 1990-2014, Two Periods Lag

Variable	POV (col 1)	POV (Col 2)	GINI (Col 3)	GINI (Col 4)	CR (Col 5)	CR (Col 6)
UNIDEM _(t-2)	-0.01 (0.9325)		-86.22*** (0.0062)		0.00 (0.6075)	
UNIREP _(t-2)	0.43*** (0.0039)		-41.64 (0.3074)		0.01*** (0.0000)	
UNIGOVT _(t-2)		0.18 (0.1030)		-66.91** (0.0129)		0.00** (0.0103)
COMP _(t-2)	-6.02*** (0.0008)	-6.15*** (0.0006)	729.77* (0.0955)	716.60* (0.1004)	0.06*** (0.0001)	0.06*** (0.0001)
COLLEGE	-0.11** (0.0110)	-0.12*** (0.0040)	8.83 (0.3288)	7.69 (0.4002)	-0.00*** (0.0007)	-0.00*** (0.0002)
FEDAID	0.00*** (0.0000)	0.00*** (0.0000)	0.01*** (0.0000)	0.01*** (0.0000)	-0.00*** (0.0004)	-0.00*** (0.0001)
UNION	-0.18*** (0.0001)	-0.18*** (0.0001)	-15.10 (0.1843)	-15.03 (0.1853)	-0.00** (0.0376)	-0.00** (0.0428)
_cons	21.52*** (0.0000)	21.79*** (0.0000)	4767.53*** (0.0000)	4794.46*** (0.0000)	0.63*** (0.0000)	0.63*** (0.0000)
N	1081	1081	1081	1081	1034	1034
r2	.8303	.8294	.9004	.9003	.8145	.8133

t-2: 2 year lag, P values in (), *** significant at 1%, ** 5%, * 10%

Endnotes

¹ There are small and ad-hoc parties that frequently participate in state elections. This study does not take these small parties into consideration since they have not had much success in recent elections.

² New Hampshire and Vermont conduct their elections for the state governor every year years. Also, every two years there are elections for all members of the House of Representatives and one third of the senators.

³ Sarah M. Morehouse, *State Politics, Parties, and Policy*, (New York: New York Holt, Rinehart, and Winston, 1981).

⁴ Richard Winters, "Party Control and Policy Change," *American Journal of Political Science* 20, no.4 (1976) 629.

⁵ Philip Jones and John Hudson, "The Role of Political Parties: An Analysis Based on Transaction Costs," *Public Choice* 94, no. 1/2 (1998): 175.

⁶ William R. Keech, "Elections and Macroeconomic Policy Optimization," *American Journal of Political Science* 24, no. 2 (1980): 345-67.

⁷ Douglas A. Hibbs, Jr. 'Political Parties and Macroeconomic Policy,' *American Political Science Review* 71, (December 1977): 1467–1487; Edward R. Tufte, *Political control of the economy*, (Princeton, NJ: Princeton University Press, 1978).

⁸ Matthew C. Fellowes and Gretchen Rowe, "Politics and the New American Welfare States," *American Journal of Political Science* 48, (2006):362-73; Nathan J. Kelly and Christopher Witko, "Federalism and American Inequality," *The Journal of Politics* 74, no. 2 (2012): 414-26; Eric A. Whitaker, Mitchel N. Herian, Christopher W. Larimer, and Michael Lang, Examining Minimum Wage Increases in the American States, 1997–2006. *Policy Study Journal* 40, no. 4 (2012): 626-49.

⁹ William Franko, Caroline J. Tolbert, and Christopher Witko. "Inequality, Self-Interest, and Public Support for "Robin Hood" Tax Policies." *Political Research Quarterly* 66, no. 4 (2013): 923-37.

¹⁰ Christian John, "Divided We Fall: The Case Against Divided Government," *International Social Science Review* 86, no. 3/4 (2011): 166.

¹¹ Will McLennan, "Divided we Conquer: Why Divided Government is Preferable to Unified Control," *International Social Science Review* 86, no.3 (2011): 162-166.

¹² Nicholas J. McIntyre, "Divided Scholarship Over Divided Government: Why do the President and Congress Seem Unable to Work Together?" *Politics Summer Fellows*, 1 (2015); Sarah A. Binder, "The Dynamics of Legislative Gridlock, 1947-96," *The American Political Science Review* 93, no. 3 (1999): 519-33; David R. Mayhew, *Divided We Govern: Party Control, Lawmaking, and Investigations, 1946-2002*, Second Edition. (Yale University Press, 2005).

¹³ Kevin M. Leyden and Stephen A. Borrelli, "The Effect of State Economic Conditions on Gubernatorial Elections: Does Unified Government Make a Difference?" *Political Research Quarterly* 48, no. 2 (1995): 276.

¹⁴ James E. Alt and Robert C. Lowry, "Divided Government, Fiscal Institutions, and Budget Deficits: Evidence from the States," *The American Political Science Review* 88, no. 4 (1994): 811.

¹⁵ McLennan, "Divided we Conquer: Why Divided Government is Preferable to Unified Control," 162-66.

²⁰ Nebraska is excluded because members of the Senate and House of Representatives are not elected by party.

²¹ Except the Gini coefficient variable which contains the observation from 1990 to 2013, e.g 1128 observations.

¹⁸ Soledad Artiz Prillaman and Kenneth J. Meier, "Taxes, Incentives, and Economic Growth: Assessing the Impact of Pro-business Taxes on U.S. State Economies," *The Journal of Politics* 76, no. 2 (2014): 364-79.

¹⁹ Mark W. Frank, "Inequality and Growth in the United States: Evidence From a New State-Level Panel of Income Inequality Measures," *Economic Inquiry* 47, (2009): 55-68; Mark W. Frank, "A New State-Level Panel of Annual Inequality Measures over the Period 1916-2005." *Journal of Business Strategies* 31, no. 1 (2014): 241-63.

²⁰ Note that few candidates declare themselves as Independent. Among the states included in our sample Independents won the governorship one time in Connecticut (1991-1995), twice in Maine (1996-2003) and once in Minnesota (2000-2003).

²¹ Diane Lim Rogers and John H. Rogers, "Political Competition and State Government Size: Do Tighter Elections Produce Looser Budgets?" *Public Choice* 105, no. 1/2 (2000): 1-21; Sarah M. Morehouse, *State Politics, Parties, and Policy*, (New York: New York Holt, Rinehart, and Winston, 1981); Steven D. Levitt and James M. Poterba, "Congressional Distributive Politics and State Economic Performance," *Public Choice* 99, no. 1/2 (1999): 185-216; Timothy Besley, Torsten Persson, And Daniel M. Sturm, "Political Competition, Policy and Growth: Theory and Evidence from the US," *The Review of Economic Studies* 77, no. 4 (2010): 1329-352.

²² Not always there is a 100 percent correlation between the popular vote and the division of seats between the two parties. Since political power is with the legislature, that is how competition variable is defined in terms of seats.

²³ Timothy Besley, Torsten Persson, and Daniel M. Sturm, "Political Competition and Economic Performance: Theory and Evidence from the United States," *NBER w 11484* (2005); Timothy Besley et al., "Political Competition, Policy and Growth: Theory and Evidence from the US," 1329-352.

²⁴ Example: Competition = 0.49 = 0.24 + 0.25 = (0.60 Senate Republicans x 0.40 Senate Democrats) + (0.50 HofR Republicans x 0.50 HofR Democrats)

²⁵ The definition of the competition variable does not depend on what party is in control of what House but it depends on the size of the majority in each House. The smaller (larger) is the size of the majority, the more (less) competitive is the state political system.

²⁶ Prillaman and Meier, "Taxes, Incentives, and Economic Growth: Assessing the Impact of Pro-business Taxes on U.S. State Economies," 364-79.

²⁷ This was also tried with a lag of two years. The results (Appendix A, table 4 & 5) were similar but somewhat inferior to the lag of one year.

²⁸ Goods with high income elasticity, i.e. greater than 1.

²⁹ Adrian C. Cameron and Pravin K. Trivedi. 2010. *Microeconometrics Using Stata*, (Stata Press, 2009), 237-257.

³⁰ Henry W. Chappell and William R. Keech, "Party Differences in Macroeconomic Policies and Outcomes," *The American Economic Review* 76, no. 2 (1986): 71-74; Douglas A. Hibbs, "Political Parties and Macroeconomic Policies and Outcomes in the United States," *The American Economic Review* 76, no. 2 (1986): 66-70; Nathaniel Beck, "Parties, Administrations, and American Macroeconomic Outcomes," *The American Political Science Review* 76, no. 1 (1982): 83-93.

³¹ Ibid.

³² Nathan J. Kelly and Christopher Witko, "Government Ideology and Unemployment in the U.S. States," *State Politics & Policy Quarterly* 14, no. 4 (2014):389-413

³³ Douglas A. Hibbs, *The American Political Economy: Macroeconomics and Electoral*. (Harvard University Press, 1987)

³⁴ The findings that a unified government is doing worse than divided government is mostly the responsibility of the Republican Party as can be seen from the findings about the effect of the individual party.

³⁵ Rune J. Sørensen, "Political Competition, Party Polarization, and Government Performance," *Public Choice* 161, no. 3/4 (2014): 427-50.

³⁶ Prillaman and Meier, "Taxes, Incentives, and Economic Growth: Assessing the Impact of Pro-business Taxes on U.S. State Economies," 364-79.

³⁷ Nathan J. Kelly and Christopher Witko, "Federalism and American Inequality," *The Journal of Politics* 74, no. 2 (2012): 417.

³⁸ Charles Barrilleaux and Belinda C. Davis, "Explaining State-Level Variations in Levels and Change in the Distribution of Income in the United States, 1978-1990," *American Political Research* 31, no. 3 (2003): 280-300.

³⁹ Kelly and Witko, "Federalism and American Inequality," 417.

⁴⁰ Barrilleaux and Davis, "Explaining State-Level Variations in Levels and Change in the Distribution of Income in the United States, 1978-1990," 293.

⁴¹ Kelly and Witko, "Federalism and American Inequality," 414-26.

⁴² Note that the coefficient of UNIGOVT variable in col. 1 is negative although insignificant.

⁴³ Kelly and Witko, "Federalism and American Inequality," 414-26.