Representation at the Margins: The Case of Partisan Public Spending in Canada

Marc André Bodet*
Ph.D Candidate, McGill University

May 20, 2009

Abstract

This paper is an attempt to test the partisanship hypothesis in budgetary politics, in Canada. I make use of federal budget data to estimate the policy biases of both the Liberal Party of Canada and the different forms of conservative parties of the last 20 years. I show that, controlling for macroeconomic factors and the political business cycle, there seems to be no partisan effect in Canada, at least in the eight policy domains under study.

*This version is a preliminary draft published specifically for the 2009 Canadian Political Science Association annual meeting. Please do not cite.

1 Introduction

Modern representative democracies face serious challenges, particularly when it comes to reinvesting public money. An almost inevitable consequence is the neglect of certain economic interests while other, more widespread or better organized interests, harvest greater benefits (Madison 2005[1787]; Dahl 1956). Political tensions are both managed and fostered through an interaction between the heterogeneity of citizen's preferences and the rigidity of institutional rules. Canada is a unique combination of decentralized federalism, majoritarian system of elections, cabinet dominance and political regionalism that is not well-suited for its political realities (Cairns 1968; 1977). The formal inadequacy of its institutions does not necessarily mean that the country is not performing its democratic duties well, but some would certainly argue that our institutions are underperforming on the the representation (Simpson 2001) and the partisan involvement (Carty 2002) aspects of democratic life.

Recent research in political behaviour suggests that ideology plays a significant role in Canadian party politics (Christian & Campbell 1996; Cross & Young 2002) but there is still a lot to discover, especially in the study of the mechanism that links electoral partisanship and budgetary policy-making in Canada. The individual aspect of voting behaviour and preferences formation has been covered by various research projects that make use of Canadian Election Studies (Johnston et al. 1992; Blais et al. 2002; Dostie-Goulet 2006). However, we know almost nothing about the link between how Canadian's vote and how electoral support influences budgetary policy-making. Also, these individualistic models tend to ignore the very nature of the Single-Member Plurality (SMP) electoral system that turns general elections into hundreds of smaller local contests (Carty and Eagles 2005). In our system, political representation is local, so local interests might possibly be reflected in policy, budgetary decisions and otherwise. But is this really the case?

This article tries to fill this gap by empirically testing the partisan theory (Hibbs 1992) on spending patterns under Liberal or conservative[1] governments in Canada. I make use of federal budgetary data to estimate the

[1]Throughout this paper, I refer to the Progressive-Conservative party for data points prior to 1994 and to the new Conservative Party for data point starting in 2006.

policy biases of governing parties in eight domains since 1989 and show that, controlling for macroeconomic factors and the political business cycle, there seems to be no partisan effect in Canada. The results shows that electoral partisanship does not affect budgetary policy-making in a significant way in Canada, leaving the electoral mechanism with only peripheral tasks such as MP's advocacy functions (Docherty 1997) and minimal protection against government mismanagement of the economy (Clarke et al. 1984)

I look at at eight spending domains that relate to local preoccupation: (1) Immigration, (2) Income Maintenance, (3) Labour and Employment, (4) Housing, (5) Oil and Gas, (6) Regional Planning and Development, (7) Agriculture and (8) Railroad Transportation. As shown in another chapter of my PhD dissertation (2009)[2], the first four domains are associated with Liberal natural constituencies while the last four relate more to conservatives' strongholds. The hypothesis here would be that the governing party will show a policy bias toward spending domains they see as beneficial to their core support groups.

2 Literature Review

The first phase of research in policy-making budgetary politics has argued that budget variations were essentially - at least in the American case - the consequences of economic (Dye 1966) and demographic fluctuations (Wilenski 1975) constrained by rigid budgetary incrementalism (Davis et al. 1966). The irrelevance of political factors (and parties) was later challenged (Castles 1982). However, bringing back the importance of politics into budgetary policy-making does not necessarily mean proving the existence of a partisan bias. For example, empirical work conducted in United Kingdom has not reached definitive consensus regarding the partisanship hypothesis. Cameron (1978) concludes that left-to-the-centre parties do spend more (relative to GDP) than their Conservative counterpart while Hogwood (1992) finds that there is so much within-party inconsistency that one cannot predict which paths Labour and Conservative government will take. The United States offers more coherence, in part due to longer data series. Empirical studies conducted on data prior to 1985 show that an increase in Democratic strength

[2] "Representation at the Margins" is the second chapter of my dissertation. The first chapter offers an original method to identify party strongholds and natural constituencies.

in the House and the Senate is associated with an increase in spending (Berry and Lowery; Lewis-Beck and Rice 1985).

The comparative literature offers an interesting contribution. Swank (1988) makes use of domestic expenditure data in 18 liberal democracies over two periods of time. The author shows that in the first period under study, rightist parties were spending less than their centrist and leftist protagonists in the early 70's, while the centrist parties were more prone to higher spending between 1973 to 1980. These findings are problematic since they don't support any systematic theory of partisan budgetary policy-making. Ambiguous results are also found in Rice (1986) on a smaller sample of European countries. Using data from 15 liberal democracies over a period of 28 years, Blais, Blake and Dion (1993) conclude that parties on the left tend to spend more (as a proportion of the GDP) than rightist parties in a multi-country pooled model. Taken individually, Canada does not show a significant partisan effect, which is in accordance with the rest of the sample, except the United Kindgom (53). To increase the efficiency of the model, the authors opt for a pooled analysis and achieve statistical significance, controlling for economic and political factors. They also show that the partisan effect gets stronger as a government party spends more time in power.[3] A reappraisal published three years later with a bigger sample and a refined model supports these conclusions (Blais et al. 1996).

Most studies on partisan budgetary policy-making have used government expenditure measured as a percentage of the GDP (Keman 2002). Empirical work on pubic spending in specific sectors is rather limited. Hicks and Swank (1984) and Hicks et al. (1989) do find a strong partisan impact on welfare spending in a comparative framework while Keman finds mixed support for both EU and OECD countries using data covering 1975 to 1995. He concludes that: "parties do matter, but in a rather varied way (222)" with a strong effect on the size of state but a mitigated effect on welfare spending. Finally, Chang (2008) does not find a significant correlation between social welfare spending and government ideological position using data covering the years 1973 to 2000. The literature tends to support the idea that majoritarian systems should be more sensitive to partisan budgetary policy-making since governing parties do not have to compromise as much as they do in coalition-building democracies (Schmidt 1996). No specific study has been found on

[3]See also Rose (1984) and Rose and Davies (1994) on the role of policy inheritance

Canada though comparative work tend to include it in their analysis.

3 The Model

Using *Statistics Canada* real dollars spending data publicly available online through CANSIM, I build a matrix of eight policy domains, at the federal level, covering Liberal, Progressive-Conservative and Conservative governments during the period of 1989 to 2008. The data is then transformed to constant 1989 dollars and the dependant variable is constructed calculating the change in percentage for every domain j between year t and *t-1*.

$$(1) \quad \Delta\%Spend_{(j,t)} = \frac{Spend_{(j,t)} - Spend_{(j,t-1)}}{Spend_{(j,t-1)}} \times 100$$

Figure 1 shows the variation in change in percentage of total spending between 1990 and 2008. Full dots represent annual budgets presented by Liberal finance ministers while hollow dots represents Progressive-Conservative (pre 2004) or Conservative budgets. One can easily notice that the first few Martin budgets were extremely aggressive regarding spending cuts while recent Conservative budgets have been relatively loose. This is a first anecdotal clue that partisan effect on spending might not be important, at least in recent Canadian political history.

The model includes four independent variables. The first one is a lagged measure of absolute spending in constant dollars. There are good reasons to believe that the variation in spending percentage rate should tend to diminish (but should still remain positive) as the total amount of money spent in a given year increases. The cost of increasing the amount of money spent in a given policy domains by, say 2%, is increasingly prohibitive as the amount of money spent rises. The expectation is thus to find a negative relation between this variable and the percentage change in spending. The second variable of interest is a yearly, deseasonalised, unemployment rate. More difficult economic situations put a lot of budgetary pressure on certain policy domains that relate to individual transfer payments and reduce government revenues. Some tough decisions must then be made to redirect spending away from certain policy domains and spending cuts across the board might be inevitable. The model includes the first lag since the budgetary process occurs

to a large extent late in the previous year at a time when macroeconomics indices for the current year are still only projections. Inflation rate is also included to control for potential budgetary consequences of higher than anticipated price inflation that then plays the role of an income tax (Friedman 1971). A control for electoral budgetary cycle (Nordhaus 1975; Tufte 1978) is included using Franzese's (2002) measure. Chang (2008) argues that this measure is more precise than a simple dummy variable since it takes into account the time of year that the election is called and the possibility of having more than one election on a given year. The Franzese index is constructed in the following way:

$$(2) \quad Franzese_t = \frac{M + (d/D)}{12}$$

Where M is the number of months prior to the election day, d is the day of the incomplete month and D is the number of days in the month. Finally, the model includes a dummy variable that equals 1 for Liberal budget and 0 otherwise and an intercept.

$$(3) \quad \begin{aligned} \Delta\%Spend_{(j,t)} &= \beta_{(0,j)} + \beta_{(1,j)} \times Spend_{(j,t-1)} + \beta_{(2,j)} \times Unemp_{(t-1)} \\ &+ \beta_{(3,j)} \times Inflation_{(t-1)} + \beta_{(4,j)} \times Franzese_{(t)} + \beta_{(5,j)} \times Liberal_{(t)} \end{aligned}$$

If $Spend_{(j,t-1)}$, $Unemp_{(t-1)}$, and $Inflation_{(t-1)}$ are mean-centered relative to j and t, and $Franzese_{(t)}$ is put to zero, the intercept β_0 becomes easily interpretable. Indeed, under 'average' absolute spending, controlling for macroeconomic singularities, and at the bottom low of the electoral cycle[4], the *natural rates of spending change in %* for policy domain j in time t are:

$$(4) \quad \textit{LPC Natural Rate of Spending Change in } \%_{(j)} = \beta_{(0,j)} + \beta_{(5,j)}$$

$$(5) \quad \textit{Cons Natural Rate of Spending Change in } \%_{(j)} = \beta_{(0,j)}$$

These quantities are interpretable and intuitive in the context of budgetary policy-making. They first give a natural rate of spending change for every j policy domain ($\beta_{(0,j)}$). They also give the difference in natural rate

[4] $Spend_{(t-1)} = Unemp_{(t-1)} = Inflation_{(t-1)} = Franzese_{(t)} = 0$

of spending change between Liberal and Conservative government for every chosen policy domain ($\beta_{(5,j)}$).

As we have seen earlier, budgetary politics, especially in the mid-90's, were strongly influenced by the "fight against the deficit" under the leadership of Jean Chrétien and Paul Martin, even though fiscal restraint has been traditionally associated with Conservative governments (Savoie 1994). This makes generalization of this paper' findings difficult unless a control is applied. Even though the Liberals may be spending less than what a left-to-centre party usually would prefer, this paper assumes that they are making the same arbitrage as they would in other fiscal environments. To include that information into the model for every j policy domain, it suffices to calculate the difference in natural rate of spending change between the *jth* estimated coefficient and the 'total spending' coefficient:

$$(6) \quad \textit{LPC Policy Bias}_{(j)} = \beta_{(0,j)} - \beta_{(0,total)} + \beta_{(5,j)} - \beta_{(5,total)}$$

$$(7) \quad \textit{Cons Policy Bias}_{(j)} = \beta_{(0,j)} - \beta_{(0,total)}$$

Section 4 presents and discusses the findings, using a Bayesian statistical framework with vague priors and large simulations.

4 Statistical Analysis

Hypothesis testing is conducted using Bayesian statistics since it benefits from numerous advantages that are discussed in details in Gill (2008). Regarding the current research question, two specific factors give a comparative advantage to Bayesian estimation against its frequentist alternative. The inadequacy of frequentist inference when dealing with small, finite populations is well-documented (see Gellman et al. 2003). First, a small quantity of observations make coefficient's standard errors estimates unfairly large. Secondly, the concept of infinite random draws from a larger population is plainly inappropriate since this paper deals with the complete (at least temporally) universe of cases rather than with a representative sample. This makes interpretation of frequentist standard errors quite confusing. The second reason why Bayesian estimators are superior in this case relates to the kind of statistics at use. As shown below, the quantities of interest here are

differences between two vectors of parameters with known empirical distribution. This makes Bayesian parameters particularly appealing since, contrary to frequentist parameters which are point estimates with empirical uncertainty, Bayesian estimates have known empirical distributions and moments, making comparison simple and intuitive.

Equation 3 is at the centre of our statistical analysis. It is a parsimonious mean-centered linear model[5]. Four simulation chains are computed, with $100,000$ simulations per chain. To reduce noise, the first $30,000$ simulations per chain are considered burn-ins and are thus dropped. Table 1 shows linear estimates using yearly change in percentage in total spending as the dependent variable. The natural rate of spending change in % (i.e the intercept) is positive with a median of 2.3%. The lower percentiles cover only marginally empirical values under 0. Lagged spending level's coefficient has a negative sign at the median but its variance is quite important making it indistinguishable from 0. Lagged unemployment is negatively correlated with yearly change in spending (contrary to expectations) but, again, its variance makes the empirical distribution indistinguishable from the null effect. This might be due to the peculiar nature of budgetary politics in the mid-90's when the fight against the deficit was happening simultaneously with strong economic growth. Lagged inflation is positively correlated with yearly change in spending but close to 30% of its simulations are below zero, tempering its claim for significance. There is also no convincing budgetary electoral cycle in our estimation. Finally, the yearly change in percentage in total spending decreases to -0.6% when the Liberal Party is in power. Again, that can be explain by Chrétien and Martin commitment to eliminate the recurrent deficits in Canadian annual budgets.

Table 2 and 3 shows results for eight policy domains. I will not go through them in detail since they are just intermediary estimates used to calculate equations 6 and 7. Table 4 is more interesting since it gives us a comparable measure of policy biases for both the LPC and the different forms of conservative parties. A positive quantity means that the party invests more on the cited domain than its opposite party while a negative one means less relative investment. We observe very few policy biases distinguishable from 0. Ac-

[5]Vague normal priors centered at 0 with a precision of .001 are used for estimated $\beta's$ and a gamma distribution is assumed for the variance parameter σ.

tually, the only policy bias that clearly emerges is Housing, with a slightly larger median bias for the LPC. The seven other policy domains do not show significant partisan policy bias though there is a systematic tendency to have higher median biases for the Liberal Party of Canada. Figures 2 and 3 give a better visual representation of differences between LPC and conservative parties but also give a good approximate of estimators' variance. The results might seem disappointing from a positivist point of view but I would argue that they are rather informative. Using more precise indicators of spending than a ratio of spending on gross domestic product and despite what the comparative and Canadian literature somewhat suggest, budgetary politics in Canada does not seem to be affected by a partisan bias. I would also suggest that this might be an expression of policy responsiveness from governing parties which seem to avoid ideological decisions and prefer instead to govern for the whole citizenry. This study is not exhaustive enough to infirm the partisan budgetary politics hypothesis, but it does offer solid evidence that it does not seem to be a reality in recent political history in Canada.

5 Discussion and Conclusion

The large comparative literature on budgetary policy-making remains inconclusive about the impact of party composition on public spending. The plurality of theories, methods, and findings can be explained by the diversity of institutions in use in democratic countries. This paper focuses on the Canadian case and does not find conclusive evidence of a partisan effect, at least in the last 20 years. Why is it the case? Two tentative explanations come to mind.

First, Canadian political institutions - federalism and the SMP system - influence respectively where the governing party can spend public money and how it can maximize its electoral benefits. The Canadian constitution limits federal intervention by stating explicitly that management of hospitals and schools, for example, are under provincial jurisdiction. This is different from what we observe in unitary systems where left-to-centre governing parties tend to invest a larger bulk of money into healthcare and education policies. The federal structure of Canada thus constrains the sphere of intervention to peripheral welfare policy domains. Also, in SMP systems, electoral pressure tends to force the governing party to share public benefits not only with their

natural constituencies but also with socio-economic groups that could potentially be decisive on the day of the election. Consequently, election-seeking parties play the electoral game at the centre (Downs 1957). Moreover, our fragmented political landscape might inhibit partisan tendencies for actors in search of pluralitarian support. Consequently, the Liberals and the various forms of conservative parties cannot afford partisan budgetary politics.

The second tentative explanation is that the very nature of budgetary politics in Canada makes political control over the spending process extremely difficult. Programs are created and maintained by a fairly autonomous bureaucracy, making reallocation of funds problematic and tedious for elected officials (Savoie 2003). Government parties thus have no choice but to invest indiscriminately, hoping to reach as many potential supporters as possible.

A definitive theory on the question of partisan budgetary politics in Canada is beyond the scope of this paper, but its findings point to some interesting directions. From a methodological point of view, this original approach offers a simple and intuitive tool to compare budgetary spending across policy domains, jurisdictions, polities, and time. From an empirical point of view, the results tend to support a rather worrying conclusion on the democratic performance of our political institutions. Cabinet governments might represent the electorate in other ways, but when it comes to public spending, they do so only at the margins.

References

[1] Berry, William D. and David Lowery (1987). *Understanding United States Government Growth: An Empirical Analysis of the Postwar Era*. New york: Praeger.

[2] Blais, Andr, Elisabeth Gidengil, Richard Nadeau and Neil Nevitte (2002). *Anatomy of a Liberal Victory: Making Sense of the Vote in the 2000 Canadian Election*. Toronto: Broadview Press.

[3] Blais, André, Donald Blake and Stéphane Dion (1996). "Do Parties Make a Difference? A Reappraisal" in *American Journal of Political Science*, vol 40(2): 514-520.

[4] Blais, André, Donald Blake and Stéphane Dion (1993). "Do Parties Make a Difference? Parties and the Size of Government in Liberal Democracies" in *American Journal of Political Science*, vol 37(1): 40-62.

[5] Bodet, Marc André (2009). "Fortress, Stronghold, and Battlefields: The pluralist nature of Canadian Local Elections". Part of a Ph.D Dissertation.

[6] Cairns, Alan C. Cairns (1968). "The Electoral System and the Party System in Canada, 1921-1965" in *Canadian Journal of Political Science*, vol 1(1): 55-80.

[7] Cairns, Alan C. Cairns (1977). "The Government and Societies of Canadian Federalism" in *Canadian Journal of Political Science*, vol 10(4): 695-725.

[8] Cameron, David R. (1978). "The Expansion of the Public Economy: A Comparative Analysis" in *American Political Science Review*, vol 72: 1243-1261.

[9] Carty, Kenneth R. (2002). "The Politics of Tecumseh Corners: Canadian Political Parties as Franchise Organizations" in *Canadian Journal of Political Science*, vol 35(4): 723-745.

[10] Carty, Kenneth R. and Munroe Eagles (2005). *Politics is Local: National Politics at the Grassroots*. Oxford: Oxford University Press.

[11] Castles, Francis (1982). "The Impact of Parties on Public Expenditures" in Francis Castles, ed. *The Impact of Parties: Politics and Policies in Democratic Capitalist States*. Beverly Hill: Sage.

[12] Chang, Eric C.C. (2008). "Electoral Incentives and Budgetary Spending: Rethinking the Role of Political Institutions" in *World Politics*, 70(4): 1086-1097.

[13] Christian, William and Coln Campbell (1996). *Parties, Leaders and Ideologies in Canada*. Toronto: McGraw-Hill Ryerson.

[14] Clarke, Harold D., Jane Jenson, Lawrence LeDuc and Jon H. Pammett (1984). *The Politics of Discontent in Canada*. Toronto: Gage Publishing.

[15] Cross William and Lisa Young (2002). "Policy Attitudes of PArty Members in Canada: Evidence of Ideological Politics" in *Canadian Journal of Political Science*, vol 35(4): 859-880.

[16] Dahl, Robert A. (1965). *A Preface to Democratic Theory*. Chicago: University of Chicago Press.

[17] Davis, Otto A., M.A.H Dempster and Aaron Wildavsky (1966). "A Theory of the Budgetary" in *American Journal of Political Science*, 60(3): 529-547.

[18] Dostie-Goulet, Eugénie (2006). "Le Mariage Homosexuel et le Vote au Canada" in *Politique et Sociétés*, vol 25(1): 129-144.

[19] Downs, Anthony (1957). *An Economic Theory of Democracy*. New York: Addison-Wesley.

[20] Dye, Thomas R. (1966). *Politics, Economics, and Public Policy: Policy Outcomes in the American States*. Chicago: Rand McNally.

[21] Franzese, Robert (2002). *Macroeconomic Policies of Developed Democracies*. Cambridge University Press.

[22] Friedman, Milton (1971). "Government Revenue from Inflation" in *The Journal of Political Economy*, vol 79(4): 846-856.

[23] Gellman, Andrew, John B. Carlin, Hal S. Stern and Donald B. Rubin (2003). *Bayesian Data Analysis*. New York: Chapman & Hall/CRC. 2nd Edition.

[24] Gill, Jeff. 2008. *Bayesian Methods: A Social and Behavioral Approach*. New York: Chapman & Hall/CRC (2nd edition).

[25] Hibbs, Douglas A. Jr (1992). "Partisan Theory after Fifteen Years" in *European Journal of Political Economy*, 8:361-373.

[26] Hicks, Alexander and Duane H. Swank (1992). "Politics, Institutions, and Welfare Spending in Industrialized Democracies, 1960-82"in *American Political Science Review*, 86(3): 658-674.

[27] Hogwood, Brian W. (1992). *Trends in British Public Policy: Do Governments Make Any Difference?*. London: Open University Press.

[28] Johnston, Rochard, Andr Blais, Henry E. Brady and Jean Crte (1992). *Letting the People Decide: Dynamics of a Canadian Election*. Stanford: Stanford University Press.

[29] Keman, Hans (2002). "Policy-Making Capacities of European Party Government", KR Luther and F Mller-Rommel, eds. *Political Parties in the New Europe*. Oxford: Oxford University Press.

[30] Lewis-Beck, Michael and Tom W. Rice (1985). "Government Growth in the United States" in *Journal of Politics*, 47:2-27.

[31] Madison, James (2005 [1787]). 'Paper 10' in *The Federalists*, edited by J.R. Pole. Indianapolis: Hackett.

[32] Nordhaus, William D. (1975). "The Political Business Cycle" in *Review of Economic Studies*, vol 42:169-190.

[33] Rice, Tom W. (1984). "The Determinants of Western European Government Growth, 1950-1980" in *Comparative Political Studies*, 19: 233-259.

[34] Rose, Richard (1984). *Do Parties Make a Difference?*. London: Palgrave Macmillan.

[35] Rose, Richard and P.L. Davies (1994). *Inheritance in Public Policy: Change Without Choice in Britain*. New Haven & London: Yale University Press.

[36] Savoie, Donald (2003). *Breaking the Bargain: Public Servants, Ministers, and Parliament*. Toronto: University of Toronto Press.

[37] Savoie, Donald (1994). *Thatcher, Reagan, Mulroney: In Search of a New Bureaucracy*. Pittsburgh: University of Pittsburgh Press.

[38] Schmidt, Manfred G. (1996). "When Parties Matter: A Review of the Possibilities and Limits of Partisan Influence on Public Policy" in *European Journal of Political Research*, vol 30(2): 155-183.

[39] Simpson, Jeffrey (2001). *The Friendly Dictatorship*. Toronto: McClelland & Stewart.

[40] Swank, Duane H. (1988) "The Political Economy of Government Domestic Expenditure in the Affluent Democracies, 1960-1980" in *American Journal of Political Science*, vol 32: 1120-1150.

[41] Tufte, Edward (1978). *Political Control of the Economy*. Princeton: Princeton University Press.

[42] Wilenski, Harold L. (1975) *The Welfare State and Equality*. Berkeley: University of California Press.

Table 1: Bayesian Linear Models (Total Spending)

Domains	**Variables**	**5th**	**Median**	**95th**
Total Spending	Intercept	-.004	.023	.050
	$Spend_{(j,t-1)}$	-.003	-.001	.001
	$Unemp_{(t-1)}$	-1.327	-.446	.434
	$Inflation_{(t-1)}$	-.893	.406	1.701
	$Franzese_{(t)}$	-.027	.009	.045
	$Liberal_{(t)}$	-.065	-.029	.005
	σ	.022	.030	.043

Table 2: Bayesian Linear Models (Policy-Specific)

Domains	**Variables**	**5th**	**Median**	**95th**
Immigration	Intercept	-.077	.009	.096
	$Spend_{(j,t-1)}$	-1.247	-.754	-.261
	$Unemp_{(t-1)}$	-6.208	-2.445	1.326
	$Inflation_{(t-1)}$	-5.323	-1.563	2.208
	$Franzese_{(t)}$	-.001	.110	.222
	$Liberal_{(t)}$	-.087	.008	.103
	σ	.065	.088	.127
Income Maintenance	Intercept	-.057	.049	.155
	$Spend_{(j,t-1)}$	-.046	-.018	.009
	$Unemp_{(t-1)}$	-3.364	5.109	13.462
	$Inflation_{(t-1)}$	-.006	4.578	9.146
	$Franzese_{(t)}$	-.222	-.080	.061
	$Liberal_{(t)}$	-.207	-.081	.045
	σ	.087	.117	.169
Labour and Employment	Intercept	-.136	.092	.324
	$Spend_{(j,t-1)}$	-1.044	-.565	-.079
	$Unemp_{(t-1)}$	-2.163	8.299	18.561
	$Inflation_{(t-1)}$	-7.677	4.221	15.922
	$Franzese_{(t)}$	-.295	-.046	.198
	$Liberal_{(t)}$	-.295	-.046	.198
	σ	.191	.257	.371
Housing	Intercept	.062	.176	.289
	$Spend_{(j,t-1)}$	-.960	-.682	-.405
	$Unemp_{(t-1)}$	-2.682	.714	4.110
	$Inflation_{(t-1)}$	-10.084	-5.046	.026
	$Franzese_{(t)}$	-.187	-.027	.133
	$Liberal_{(t)}$	-.355	-.224	-.092
	σ	.096	.129	.187

Table 3: Bayesian Linear Models (Policy-Specific: Suite)

Domains	**Variables**	**5th**	**Median**	**95th**
Oil and Gas	Intercept	-.160	.474	1.101
	$Spend_{(j,t-1)}$	-1.245	-.363	.521
	$Unemp_{(t-1)}$	-25.346	-7.368	10.870
	$Inflation_{(t-1)}$	-37.846	-13.238	12.343
	$Franzese_{(t)}$	-.631	.267	1.169
	$Liberal_{(t)}$	-1.015	-.340	.347
	σ	.553	.742	1.063
Regional Planning and Development	Intercept	-.268	.022	.314
	$Spend_{(j,t-1)}$	-5.679	-2.736	.219
	$Unemp_{(t-1)}$	-10.041	-.755	8.521
	$Inflation_{(t-1)}$	-13.682	3.039	19.539
	$Franzese_{(t)}$	-.170	.187	.545
	$Liberal_{(t)}$	-.408	-.085	.237
	σ	.221	.297	.428
Agriculture	Intercept	-.137	.091	.320
	$Spend_{(j,t-1)}$	-.480	-.270	-.061
	$Unemp_{(t-1)}$	-5.246	1.801	8.859
	$Inflation_{(t-1)}$	-4.274	5.756	15.695
	$Franzese_{(t)}$	-.229	.114	.457
	$Liberal_{(t)}$	-.465	-.167	.127
	σ	.192	.259	.373
Railroad Transportation	Intercept	-.253	.050	.349
	$Spend_{(j,t-1)}$	-.958	-.400	.165
	$Unemp_{(t-1)}$	-9.369	7.535	24.161
	$Inflation_{(t-1)}$	-4.645	8.895	22.127
	$Franzese_{(t)}$	-.486	-.090	.254
	$Liberal_{(t)}$	-.431	-.090	.254
	σ	.259	.348	.500

Table 4: Policy Biases

Domains	**Party**	**5th**	**Median**	**95th**
Immigration	LPC	-.0377	.024	.086
Immigration	Cons	-.103	-.013	.077
Income Maintenance	LPC	-.081	.064	.209
Income Maintenance	Cons	-.083	.026	.135
Labour and Employment	LPC	-.141	.107	.359
Labour and Employment	Cons	-.160	.069	.303
Housing	LPC	.040	.190	.341
Housing	Cons	.036	.153	.269
Oil and Gas	LPC	-.154	.489	1.124
Oil and Gas	Cons	-.183	.451	1.079
Regional Planning and Development	LPC	-.270	.037	.345
Regional Planning and Development	Cons	-.292	-.001	.292
Agriculture	LPC	-.143	.106	.357
Agriculture	Cons	-.161	.068	.299
Railroad Transportation	LPC	-.254	.064	.380
Railroad Transportation	Cons	-.277	.026	.327

Figure 1 : Change in Total Spending in % Since 1990

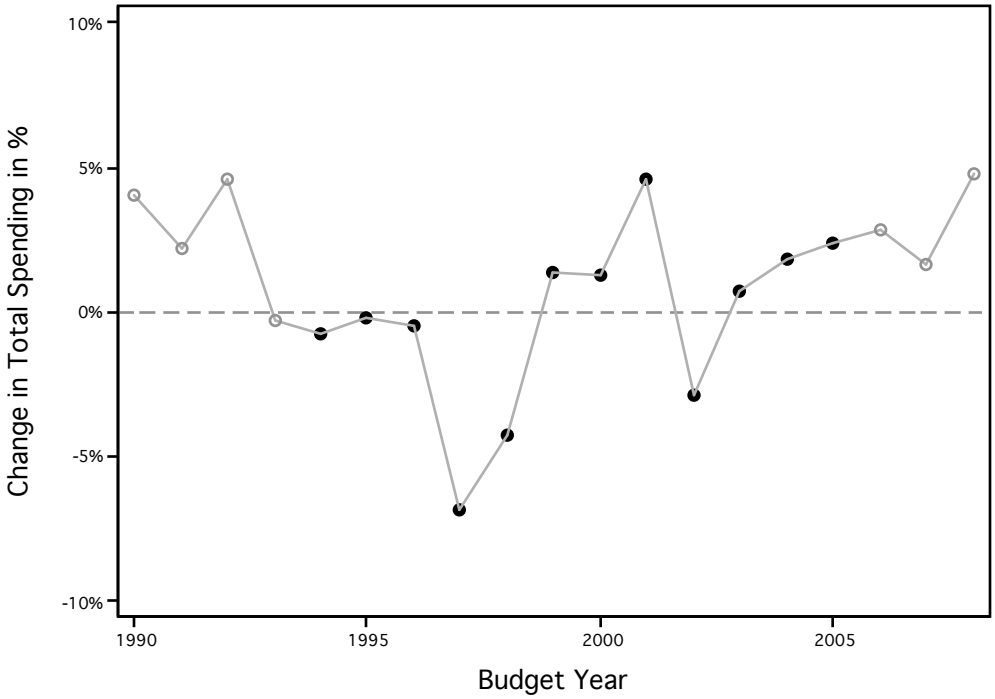

Figure 2 : Policy Bias Estimates (Policy-Specific)

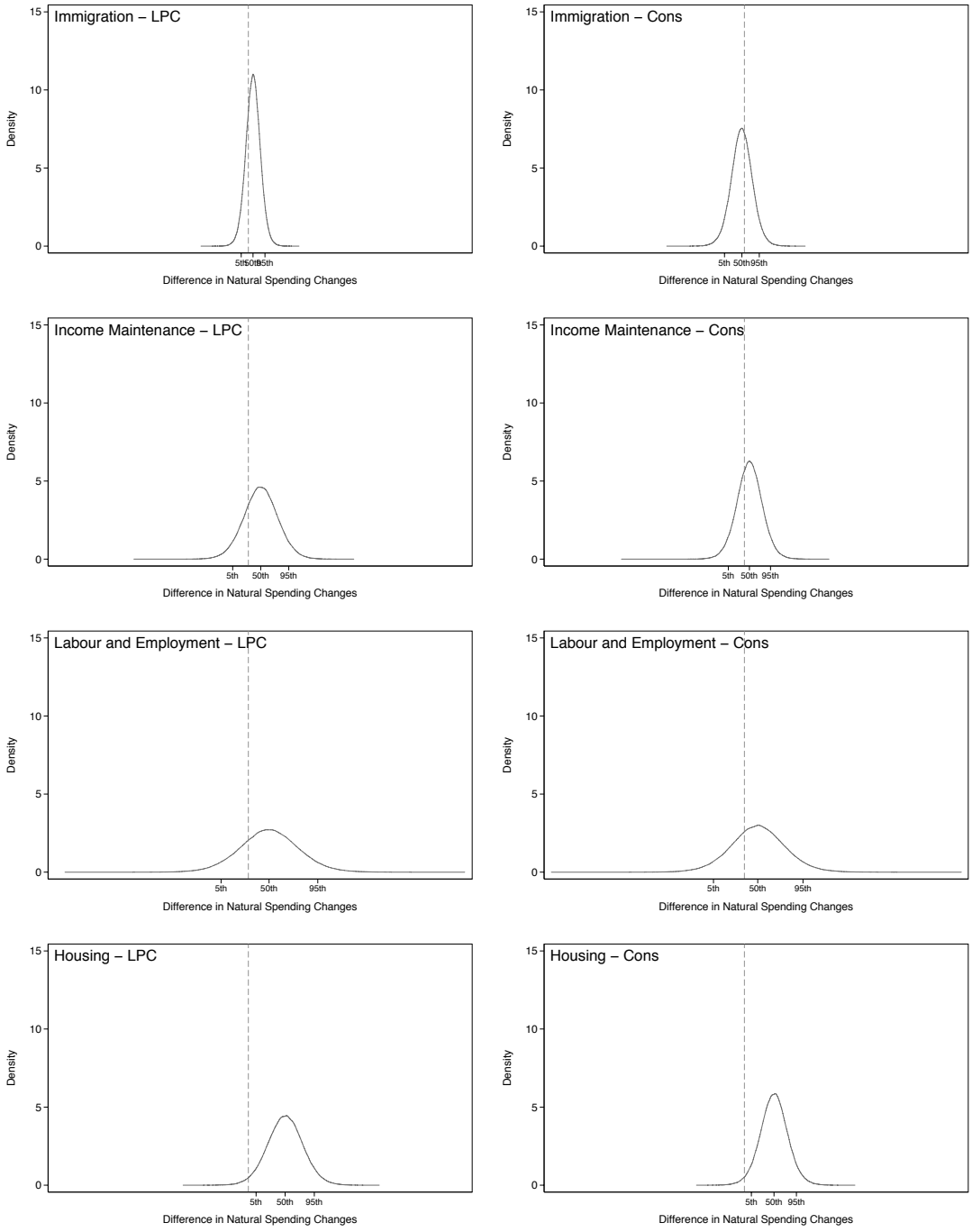

Figure 3 : Policy Bias Estimates (Policy-Specific : Suite)